RECLAMATION WATER QUALITY

PERMANENTE QUARRY
SANTA CLARA COUNTY, CALIFORNIA

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EXECUTIVE SUMMARY

Strategic Engineering & Science, Inc. (SES) has performed water quality evaluations for the Permanente Quarry (Quarry), as requested by Lehigh Southwest Cement Company (Lehigh). Lehigh seeks to amend its current reclamation plan to accommodate site-wide reclamation, including the backfilling of the North Quarry with material from the West Materials Storage Area, and the reclamation of these and other areas (Project). This report describes the Project's anticipated effects on water quality, and provides recommendations for managing water quality as part of the reclamation process and during interim operational periods.

This report concludes that implementation of the Project will result in reclaimed water quality conditions that meet the stated water quality use objectives established by USEPA and CalEPA. The table below shows the projected long term effect on groundwater quality for selected constituents[1] in the North Quarry that are anticipated to migrate via groundwater pathways into Permanente Creek.

Constituent	North Quarry After Reclamation
Antimony (µg/L)	2 - 3
Arsenic (µg/L)	2.0 - 3.0
Cadmium (µg/L)	0.15 - 0.20
Copper (µg/L)	1.5 - 1.6
Manganese (µg/L)	15 - 20
Nickel (µg/L)	30 - 40
Selenium (µg/L)	3 – 5[2]
TDS (mg/L)	600 - 650
Sulfate (mg/L)	120 - 140

[1] Mercury was also evaluated as part of this study but, because concentrations in rocks and water at the site are low, it was not necessary to perform predictive modeling for this constituent.
[2] These values include the effects of mitigation measures discussed in Section 7 that reduce the projected concentration results by a factor of three.

Projections of water quality for surface runoff from the reclaimed North Quarry Area were also performed. The results are as follows:

Constituent	Runoff (after reclamation)
Antimony (µg/L)	4 - 5
Arsenic (µg/L)	3 - 4
Cadmium (µg/L)	0.05 – 0.10
Copper (µg/L)	0.60 – 0.80
Manganese (µg/L)	4 - 5
Nickel (µg/L)	2 - 3
Selenium (µg/L)	2 - 4
TDS (mg/L)	140 - 180
Sulfate (mg/L)	30 - 60

Finally, this report concludes that the runoff water quality for the West and East Materials Storage Areas will be similar to or better than what is projected above for the reclaimed North Quarry.

1.0 INTRODUCTION

This report describes the results of the expected post-mining water quality evaluations performed for the amendment to the reclamation plan for the Permanente Quarry (Project) in Santa Clara County, California (see Figure 1). This report provides future water quality projections for surface and groundwater in reclaimed areas.

More specifically, this report addresses:

- Projections of mine water quality during mine backfilling and reclamation
- Projections of surface runoff water quality and groundwater quality after reclamation
- Recommendations for further water quality management

2.0 BACKGROUND

2.1 Existing Operations

The Permanente Quarry (Quarry) is a limestone and aggregate mining operation in the unincorporated foothills of western Santa Clara County, approximately two miles west of the City of Cupertino. The Quarry occupies a portion of a 3,510-acre property owned by Hanson Permanente Cement, Inc., and is operated by Lehigh Southwest Cement Company (collectively, Lehigh).

The Quarry comprises approximately 614 acres (Figure 2) of existing and planned operational areas, which consist of surface mining excavations, overburden stockpiling, crushing and processing facilities, exploration areas, access roads, administrative offices, and equipment storage. The Quarry also includes other predominantly undisturbed areas, either held in reserve for future mining or which buffer operations from adjacent land uses. The main operational areas of the Quarry are currently as follows:

- North Quarry: The North Quarry is where mineral extraction currently occurs and has historically taken place. The North Quarry features a large extraction area with elevations that currently range from approximately 750 feet to 1,750 feet above mean sea level (amsl). Limestone and other rock types mined from the North Quarry are crushed and either used for cement manufacture at Lehigh's adjacent cement plant or processed into aggregate products at Lehigh's on-site Rock Plant. Historically, the North Quarry has filled with a mixture of surface water and groundwater to an approximate elevation of 775 feet amsl except when it is dewatered for mining.

- East Materials Storage Area (EMSA): The EMSA is located to the east of the North Quarry and is currently the primary storage site for overburden. Reclamation of this area is planned to be initiated within the next two to five years. Elevations at the EMSA range from 550 to 920 feet amsl.

- West Materials Storage Area (WMSA): The WMSA is a second overburden storage site, located to the west of the North Quarry. Elevations in the WMSA range from 1,500 to 1,975 feet amsl.

- Rock Plant: The Rock Plant is located in the southeast portion of the Quarry, and processes mined material into aggregate products. The Rock Plant occupies gentle slopes ranging from 580 to 770 feet amsl.

Mining operations are subject to California's Surface Mining and Reclamation Act (SMARA). SMARA mandates that surface mining operations have an approved reclamation plan that describes how mined lands will be prepared for alternative post-mining uses, and how residual hazards will be addressed. Santa Clara County acts as lead agency under SMARA. The County approved the Quarry's current reclamation plan in March 1985, covering 330 acres.

Lehigh excavates limestone from the Quarry for the production of cement and aggregate. Limestone that is of suitable grade is used for cement production; lower grade limestone and other rock formations are used for aggregate. Unsuitable rock materials (overburden) excavated from the Quarry are currently stockpiled in the WMSA or EMSA. Overburden materials are comprised of non-limestone rock materials (i.e., greenstones, metabasalts, and graywacke) and some minor amounts of low-grade limestone not suitable for use as aggregate.

A cement manufacturing plant lies adjacent to the Quarry in the east. The cement plant also is owned and operated by Lehigh. The cement plant is separately permitted for industrial use, is not considered part of the Quarry and therefore, is not subject to SMARA requirements.

2.2 Proposed Project

The proposed Project is the approval of an amendment to the Quarry's reclamation plan. The proposed amendment would broaden the reclamation plan and associated reclamation requirements to include all areas that are currently disturbed by mining activities, including lands scheduled to be disturbed by mining over approximately the next 10-15 years. The amendment would provide for the reclamation of existing and planned mining disturbance within Lehigh's 3,510-acre ownership once mining concludes. Under the amendment, areas disturbed by mining would be reclaimed for open space uses.

The Project would result in the following conditions and changes at the Quarry:

- North Quarry: Reclamation will backfill the North Quarry floor to a minimum elevation of 990 feet amsl. The primary source of the backfill will be the material stored in the WMSA. The final phases of reclamation will create new, flatter slopes along the south, west, and northwest sides of the North Quarry (Figure 3). Reclamation would establish final graded slope contours and vegetation consistent with the surrounding topography. The backfill will be covered with non-limestone material and growth media. Some of the existing quarry walls on the east side will remain. These consist partially of limestone and partially of non-limestone rock (See Appendix B for details).

- EMSA: The Project would amend the current reclamation plan for the EMSA to describe final reclamation (Figure 2). Overburden storage in the EMSA is expected to cease and reclamation to commence within two to five years following Project approval. Overburden storage would subsequently shift to the west wall of the North Quarry. The reclamation cover system of the EMSA will follow the same recommendations described in this report for the WMSA (i.e., a layer of non-limestone material covered by growth media and revegetation).

- WMSA: The Project would amend the current reclamation plan for the WMSA to reflect the transition of the adjacent North Quarry reclaimed fill slopes and tie in these slopes to the WMSA's east side. The Project also would update the current WMSA cover to include non-limestone material as well as growth media, and re-vegetation design. (Figure 3)

- Rock Plant: The Project would amend the reclamation plan to provide a reclamation design for the Rock Plant.

- Exploration Area: Located to the south of Permanente Creek, this area consists of roads and drill pads constructed for geologic investigation. Approximately 19.5 acres of roads and drill pads will be revegetated and reclaimed. Some road segments will remain after reclamation to allow for general access to the property by the owner.

- PCRA Treatment Areas: There are approximately 23 acres of predominantly historic fill on the slopes adjacent to Permanente Creek, south of the WMSA and North Quarry. These areas will be reclaimed by revegetation and various drainage and erosion control improvements.

2.3 Hydrology

Golder Associates performed a hydrologic investigation as part of the Permanente Quarry Reclamation Plan Update Project (Golder, 2010b). The hydrologic investigation included characterization of the geologic setting, collection and evaluation of hydrologic and water quality data, and groundwater data for the North Quarry and exploration areas to the south within the same rock formation and geologic structure. The present analysis of water quality

utilizes the information developed in that study. Additionally, the chemical tests and characterization of the rock material collected by Golder has been utilized for this report. Key characterization results and conclusions from the Golder study are provided in the subsections below.

2.3.1 Surface Water Hydrology

The Project Area and surrounding area is drained by Permanente Creek which flows into San Francisco Bay. Water quality sampling has taken place at two gauges on Permanente Creek: SW-1, located upstream of most of the currently active mining operations[3] and SW-2, located downstream from the operations (Figure 4). Sampling has been conducted at one gauge on Monte Bello Creek at SW-3, which is in a separate drainage to the south.

The respective catchment areas draining to the above three sampling stations are (Golder, 2010b):

SW-1: 662 acres

SW-2: 1,707 acres

SW-3: 419 acres

Streamflow is generally intermittent and increases rapidly during rainfall events.

2.3.2 Groundwater Hydrology

Groundwater in the area typically occurs in fractured bedrock of relatively low permeability. In 2007, the water level in the North Quarry was at an elevation of approximately 754 feet amsl, which correlates well with the static groundwater level of approximately 775 feet amsl based on groundwater occurrence in exploratory borings, the location of groundwater seepage within the quarry walls, and the location of the adjacent Permanente Creek (Golder, 2010a).

Groundwater seepage was observed during May and June 2007 on a wide bench at an approximate elevation of 1,050 feet amsl in the southwest corner of the North Quarry. These observations support the concept of localized groundwater occurrence in the greenstone above the regional static groundwater level due to its low permeability.

Groundwater modeling was used by Golder to develop projections of groundwater inflow to the backfilled North Quarry during the period when the backfill is flooded with ground and surface water and at the final equilibrium condition. The groundwater inflow to the North Quarry ranged from 371 gpm at the end of mining when backfilling is initiated to 80 gpm at its final equilibrium level.

[3] There are approximately 2,800 feet of stream upgradient from SW-1 that may receive runoff from older, pre-SMARA portions of the WMSA.

3.0 SURFACE WATER QUALITY

This section describes the water quality in the drainage basins in the Project Area and compares data against Benchmarks for surface water as established by the Regional Water Quality Control Board (RWQCB) in the current Basin Plan. This section also discusses background water quality (i.e. surface water quality unaffected by Quarry operations). The Benchmarks and background conditions can be used to evaluate reclamation.

3.1 Water Quality Benchmarks

This report provides an analysis of projected water quality against certain regulatory standards. Potentially applicable standards are defined by the San Francisco Bay RWQCB. The RWQCB regulates water quality based on the intended uses of water. These uses, known as beneficial uses, guide what water quality standards apply to a given water body.

The designated beneficial uses of surface water for Permanente Creek include cold freshwater habitat (COLD), fishing spawning (SPAWN), wildlife (WILD), water contact recreation (REC 1) and non-contact water recreation (REC 2) (San Francisco Area Basin Plan, RWQCB, 2007). Specific numeric Benchmarks have been established for certain metals including arsenic, cadmium, chromium, copper, lead, mercury, selenium, silver, and zinc. These are listed on Table 1, although they have not yet been adjusted to reflect the hardness of the water as called for in the Basin Plan. Generally, these Benchmarks have been derived for the protection of aquatic life.

For some water bodies, the RWQCB also applies human drinking water quality standards. The US Environmental Protection Agency (EPA) has established Maximum Contaminant Levels (MCLs) for drinking water, defined as the maximum permissible level of a contaminant in water delivered to a user of a public water system. The RWQCB incorporates these standards where water is designated for municipal use and is meant for human consumption.

In Permanente Creek, surface waters are designated for the protection of aquatic life and are not designated for human consumption. Nonetheless, federal drinking water MCLs have been presented in this report as Benchmarks for comparison purposes.

3.2 Background Water Quality

Background water quality is indicated by sampling results at SW-3 (in Monte Bello Creek), shown on Table 1. Water quality at SW-1 (the upstream location in Permanente Creek) is comparable for most constituents to Monte Bello Creek in the adjacent basin to the south. The differences between water quality at SW-3 and SW-1 may be due to runoff or seepage from naturally-occurring mineralized rock outcrops in the Permanente Creek Watershed that are absent in Monte Bello Creek. The differences may also be due to runoff from the older, pre-SMARA portions of the WMSA that reports to the creek upstream of SW-1.

Existing water quality in Permanente Creek appears to be compatible with aquatic organisms and habitat. Waste screen bio-analyses were conducted on water collected at SW-2 in February and April 2009 using fathead minnows (*Pimephales Promelas*). These tests demonstrated that there was no effect on fish mortality. All tests had a 100% survival rate. Furthermore, biologists familiar with this area of Permanente Creek have concluded that fish and benthic diversity and abundance in the downstream reaches of the creek are similar to the upper reaches above SW-1 (WRA, 2010).

3.3 Down-stream Water Quality

Table 2 presents surface water quality at SW-2 (the downstream location in Permanente Creek). These data are presented for comparison with the information of Table 1 to help identify key constituents to be evaluated.

The effect of the quarry dewatering on existing Permanente creek water quality is indicated by the samples collected at SW-2 and in comparison to background sampling results. Existing surface water quality at SW-2 generally meets the Benchmarks, with the exception of TDS, nickel and selenium. At SW-2, dissolved selenium concentrations ranged from 13 to 81 μg/L. A North Quarry water sample in January 2010 had a dissolved selenium concentration of 82 μg/L (Golder, 2010b). Nickel concentrations may not exceed the Benchmarks depending on the hardness of the water. Mercury, which occurs naturally in the various rock types and in groundwater, meets the Benchmarks apart from one isolated exception at 0.07 μg/L, which is not significantly above the 0.025 μg/L 4-day average goal and is below the 2.4 μg/L one-hour goal.

4.0 GROUNDWATER QUALITY

In addition to characterizing the background water quality, this section briefly describes the applicable Benchmarks used for evaluating groundwater quality. The Benchmarks and background conditions serve as a basis of comparison that can be used to evaluate the effect of future reclamation activities.

4.1 Water Quality Benchmarks

The beneficial uses of groundwater in the Quarry area include drinking (potable) water (MUN) and agricultural usage (AGR) (RWQCB, 2007). Specific numeric Benchmarks have also been established by the US EPA and the California EPA. Applicable Benchmarks are listed on Table 3.

4.2 Water Quality

Groundwater sampling was conducted in February, April, and October 2009, and January 2010 at five monitoring wells (HG-4, -6, -7, -9, and -10 on Figure 4) (Golder, 2010b). These wells are located south of the North Quarry in an area of essentially the same geologic and hydrologic conditions, and are representative of natural background conditions. Ground water quality in this area is considered representative of natural pre-mine conditions. The results for dissolved metals are provided in Table 3.

Groundwater quality generally meets the Benchmarks with the exception of TDS, sulfate, iron, manganese, and molybdenum (Table 3). These five constituents are naturally elevated in groundwater due to the mineralized nature of the bedrock.

5.0 OVERBURDEN CHARACTERIZATION

This section discusses the amount and geologic types of overburden that is generated during mining and summarizes the testing conducted on mined material and overburden. These tests were conducted to characterize the potential water quality impacts associated with the overburden and various mined materials. These results are used in Section 6.0 to project future water quality in the quarry.

5.1 Overburden and Backfill Production

Table 4 provides details on the Quarry backfill volumes and rock types. The phasing of backfill and reclamation is discussed in Section 6.

5.2 Mined Material and Overburden Geochemistry

Several different types of tests were conducted on the mined material present in the quarry and on the overburden removed as part of the existing and ongoing mining activity. These tests included determining the total metals content and the leachability of general minerals and metals from these materials. Leachability was determined using the Modified California Assessment Manual Waste Extraction Test (CAM WET) and wall washing tests. In addition, North Quarry water runoff from the west wall was analyzed for general minerals and metals. Finally, acid-base accounting testing was done to confirm that the materials do not have any acid generating potential. Details are contained in the Hydrologic Investigation Report (Golder, 2010b).

This information, together with the data provided in Section 4.2, is used in Section 6.0 to determine water quality during future mining activities.

5.2.1 Total Metals

Table 5 provides the total concentrations determined from rock boring samples collected in the North Quarry and exploration areas to the immediate south.

The samples in Table 2 are either composited or individual samples. Rock types are indicated in the Table and include the various overburden rock types and limestone which is a mined material (product).

The sampling results indicate that the limestone occurrences at the Quarry are heterogeneous, and that single rock samples of North Quarry limestone (B1-1 and B1-2 in Table 5) have significantly different concentrations of several trace constituents. This is due to different grades of limestone. Because of such differences and because for the purposes of this report, the composite samples, which are more representative of the overall bulk rock composition, are better indicators of average bulk conditions.

5.2.2 Modified CAM WET Results

CAM WET tests were conducted using de-ionized water on the composite boring samples described above from the formerly proposed South Quarry. These tests indicate that the mined material (limestone) contains low levels of leachable molybdenum and selenium. The overburden materials such as graywacke, fault breccia, greenstone, metabasalt and chert have lower leachability for molybdenum and very limited selenium leachability. The results are provided in Table 6.

The data indicates that the leachable fraction of the total concentrations is small. For example, total concentrations of selenium range from 2.4 to 15 mg/kg, and the leachate results are significantly lower at <0.38 to 6 µg/l. Taking into account test procedure, this translates to less than one percent leachability. This characteristic will be further confirmed by sampling and testing during the backfilling and reclamation period as described in Section 7.0.

5.2.3 Wall Washing

Wall washing tests were performed on exposed faces within the North Quarry in 2009 (Golder, 2010b). These tests involved washing an approximately one-meter square area of rock face with a known volume of water. The resultant wash water was analyzed for dissolved and total metal concentrations and general minerals. The results are provided in Table 7.

These wall washing samples provide an indication as to the amount of total recoverable and dissolved constituents that could be leached out during a rainstorm for the various rock types. The amount of wash water added was approximately equivalent to a 0.25 inch rainstorm event. The total recoverable concentrations include the metals contained in solid particles

washed off the walls as well as dissolved in the wash water, and are therefore higher than the dissolved values which reflect the concentrations in the wash water only.

Similar to the CAM WET results above, the dissolved constituent concentrations from the wall wash tests are very low compared to the bulk rock concentrations in Table 5. The dissolved concentration also is typically less than the total recoverable concentration in the wall wash samples, whereas in the North Quarry water sample (also shown in Table 7) the dissolved and total recoverable concentrations are typically similar. This is attributed to the effectiveness of settling of the sediments out in the water treatment BMPs (settling ponds) prior to entering and within the North Quarry.

5.2.4 Acid Generating Potential

The major rock types found in the quarry were tested for acid-generating potential. These included graywacke, limestone, chert, fault breccia, greenstone, and metabasalt. All were found to have no potential for acid generation (Golder, 2010b). The ratio of neutralization potential to acid generation potential ranged from four for fault breccia, to the hundreds and thousands for greenstone and metabasalt. Typically, a ratio of greater than three (Hutchison et. al., 1992) indicates there is no acid generating potential.

Net neutralization capacity, i.e. the difference between the rock's neutralization capacity and its acid generating capacity, range from 58 kg (calcium carbonate equivalent – $CaCO_3$) per ton (/t) for graywacke to 867 kg (calcium carbonate equivalent - $CaCO_3$)/t for metabasalt. Typically, values above 20 kg ($CaCO_3$)/t are considered non-acid generating (Hutchison et. al., 1992).

6.0 WATER QUALITY DURING PROJECT IMPLEMENTATION

This section focuses on the reclamation plan for the North Quarry and the rate at which backfilling of the quarry will occur (Section 6.1). Further, it discusses the water balance during the reclamation period (Section 6.2), describes the expected rates the backfilled quarry will fill with water, and provides projected future quarry water quality during the post-reclamation period (Section 6.3). These projections indicate how Permanente Creek water quality will compare to regulatory standards when water from quarry operation discharges to Permanente Creek after reclamation. However, as with all such projections, there is some uncertainty; as such, additional monitoring during reclamation is recommended along with other measures in Section 7.

6.1 Quarry Reclamation Plan

After mining ceases, the North Quarry will be reclaimed by backfilling the mining excavations to a specified level. Backfilled areas will be allowed to fill with surface water runoff and infiltrating groundwater. The backfill plan has been designed to ensure that the surface of the backfill will remain at or above the maximum elevation of the water, thereby

avoiding surface impoundments. A surface drainage system will be established with a positive sloping gradient in order to efficiently convey runoff from the backfilled surface to Permanente Creek.

Mining and reclamation are planned under three phases. The first phase is the completion of mining in the North Quarry. During this phase, the EMSA will be reclaimed and overburden will be used to backfill and buttress the west wall of the North Quarry. The second phase is the excavation of the WMSA, and backfilling and recontouring of the North Quarry to an elevation of 990 ft amsl, and fill the slopes of the south, southwest and west sides of the quarry using material from the WMSA. The third and final phase occurs after backfilling and contouring of the slopes have been completed, and consists generally of revegetation maintenance and monitoring in the former mining and overburden storage areas, together with the closure of ancillary mining facilities.

Additional details of these plans and the various drainage areas discussed below are contained in Appendices A and B. Section 7.0 describes a proposed monitoring and verification program to be implemented within the next 3 years that will provide the necessary data to determine whether refinements to the drainage and backfill plans are appropriate.

6.1.1 Inflow to North Quarry

This section describes the areas that will drain into the North Quarry both during mining and after backfill and reclamation. These are used, as described in Sections 6.2 and 6.3, to perform quarry water balance and water quality evaluations. During mining water flowing into the quarry will be pumped out. Once mining ceases and backfilling starts, water entering the North Quarry will eventually no longer be discharged and will gradually fill the voids in the backfilled material. During the initial years of backfilling, it may be necessary to continue to pump out some of the water that accumulates in the quarry in order to maintain a dry backfill working surface. For purposes of the water balance and quality evaluations discussed in Sections 6.2 and 6.3 it has been assumed that quarry dewatering ceases approximately six months after backfilling.

(a) Phase 1 – Mining Years 1 to 10

The following surfaces will drain into the North Quarry (including all WMSA haul roads) until the end of mining:

Un-reclaimed WMSA:	90 acres (58.6 + 31.5, Figure B.1)
Quarry Walls: greenstone and graywacke	116 acres (115.9, Figure B.1)
Quarry Walls: limestone	161 acres (70.0 + 45.0 + 4.0 + 36.1 + 5.4, Figure B.1)
Total:	**367 acres**

The North Quarry will be mined to an elevation of approximately 440 feet amsl over a period of 10 years (Appendix A). During this period, limestone product will be recovered and

overburden rock comprised of greenstone, graywacke, and chert will be placed on the west wall of the North Quarry.

At this stage, it is assumed that the majority of the WMSA has not yet been reclaimed, and that the majority of surface water runoff from the WMSA will be captured by the North Quarry excavation and this water would be managed as it is presently. A small amount of runoff that cannot be captured, i.e. from the Permanente Creek Reclamation Area (PCRA) in Figure 2, and flows through natural drainages directly to Permanente Creek. The EMSA reclamation is completed in this period.

(b) Phase 2 – Backfilling Years 11 to 16

During Phase 2, the North Quarry backfilling will occur. The North Quarry will be backfilled to a minimum elevation of approximately 990 feet amsl. The western slopes will also be backfilled to achieve a final stable configuration. Backfill will be taken from the WMSA (the EMSA will have already been reclaimed). As the final configuration of the WMSA is achieved, areas will be reclaimed through fine grading, construction of drainage systems, cover with non-limestone materials and/or growth media, and revegetation.

At the end of Phase 2 but before the placement of non-limestone cover materials, the following areas will drain into the backfilled North Quarry (Figure B.2).

Fill Area (slopes): assumed to be limestone	187 acres (145.1 + 42.1)
Fill Area (flat): assumed to be limestone	45 acres
Quarry Walls: greenstone and graywacke	0 acres
Quarry Walls: limestone	22 acres
Total:	**254 acres**[4]

(C) Phase 3 – Reclamation Years 16 to 20

After placement of backfill, rainfall water will generally runoff the reclaimed surfaces except on the relatively flat backfill over the deepest portion of the pit, where continued rainfall infiltration will occur.

Fill Area (flat): non-limestone	45 acres
Total:	**45 acres**

Water will progressively accumulate in the North Quarry backfill during Phase 2 via groundwater inflow and surface water infiltration, and during Phase 3 and beyond by groundwater flow and surface infiltration through the flatter portions of the backfill surface. Infiltration of runoff from sloping surfaces is accounted for in the groundwater inflow to the quarry.

[4] This differs slightly from the 259.69 acres shown on Figure 2 as this figure incorporates the Reclamation Plan Amendment boundary, while the above values are based on drainage divides (in general, the acreages used for purposes of analysis in this report may differ from the plan view acreages for different areas listed in the proposed reclamation plan amendment).

6.1.2 Runoff from North Quarry

This section describes the surface areas during and after backfilling that will drain into Permanente Creek. Runoff will occur from these surfaces after the North Quarry backfill is completed.

Also during Phase 2, the WMSA reclamation will result in gradual application of stormwater best management practices (BMPs) located within the WMSA, so less of the runoff will need to be diverted into the North Quarry area.

The backfilling will occur over an approximately five year period, followed by cover and revegetation activities. For purposes of determining the amount and quality of the surface water runoff from the North Quarry to Permanente Creek after the backfill is completed and reclaimed, the following drainage areas are the same as above for after the placement of final cover material:

Quarry Walls (acres)		Total (acres)
Covered	Exposed	
Breccia & Greenstone	Limestone	
232[5]	11 to 22[6]	243 to 254

Because of the elimination of bare limestone surface in the waste storage areas, runoff water quality from the reclaimed WMSA and EMSA is expected to be comparable to or marginally better than runoff in the reclaimed North Quarry area.

6.2 Quarry Water Balances

Water balance computations have been completed for the North Quarry for the period of reclamation and post-reclamation, typically for periods over 20 years, which includes the period before North Quarry backfilling begins and over 10 years beyond after backfilling has been completed.

Separate water balance and water quality models were established using Excel spreadsheets for both groundwater in the quarry and for runoff from the backfilled quarry surface. The conceptual model for North Quarry filling and runoff projections is shown in Figure 5. A detailed description of the model, calibration, sensitivity evaluations, and the model outputs are presented in Appendix C.

[5] Based on 145.1 + 42.1 + 44.5 acres from Figure B.2.
[6] Based on 50% x 21.9 acres to 21.9 acres on Figure B.2.

The drainage areas described in Section 6.1, coupled with average monthly precipitation values, were used to determine the volumes of water over time for each of the models. The following runoff and infiltration coefficients were used to calculate volumes of water flowing into the North Quarry, plus the direct runoff to Permanente Creek from the surface of the backfilled North Quarry:

North Quarry Parameters and Coefficients

Mean annual rainfall (Golder, 2010b):	22.2 inches
Runoff from WMSA as a percentage of rainfall (typical surface runoff in area):	30%
Runoff from quarry walls (typical):	50%
Infiltration through surface of backfilled quarry before it can be drained:	50%
Infiltration through surface of backfilled quarry after it is drained (reclamation period):	15%

Groundwater inflow is also included in the water balance. Based on groundwater modeling (Golder, 2010b), the following average annual rates of groundwater inflow to the quarry were established and used in the water balance calculations:

Full Mining Depth (440 feet amsl)	371 gpm inflow
Approximate final groundwater level in quarry (990 feet amsl)	80 gpm inflow

The above information was utilized in calculations to assess the rate of backfilling with overburden and the average rate of water accumulation in the quarry, as well as to determine the average annual outflow from the North Quarry after the equilibrium water elevation is reached. The Project provides for sufficient backfill being placed to cover the water accumulation, particularly during the post-reclamation period

The result of the water balance calculations indicates that the average annual outflows from North Quarry will be 90 to 95 gpm.

The spreadsheet model was used to determine monthly inflows to the North Quarry and runoff from the quarry areas for the 20-year modeling period. Once backfill starts in the North Quarry, the model calculates the rate of filling and determines the long-term net outflow. These monthly water balance computations were customized for this Project.

The water balance model was calibrated on pumping rate data for the current quarry dewatering and the current quarry water quality. This means the model was set up for the current pit conditions and input parameters were adjusted within the feasible ranges of the

parameters to achieve a good fit between the modeled and measured flow rates and selenium concentrations.

The above approach is based on measured climatic conditions, factors based on measurements, professional judgment, and modeling. As such, there are uncertainties in the groundwater filling rate, the projected equilibrium levels, and the outflows. The sensitivity runs that were conducted demonstrate the model is robust and the projected concentrations are reliable. In addition, verification monitoring, water management measures, and contingencies are recommended for the mine operating period. These are discussed in Section 7.0 below.

The projected North Quarry backfill and water filling rates are provided in Figure 6. It is estimated to take approximately 16 years for the groundwater in the North Quarry to reach its equilibrium level once backfilling begins.

6.3 Water Quality Projections

6.3.1 North Quarry

This section describes the water quality projections for the North Quarry. These projections are based on the water balance spreadsheet models described in Section 6.2, coupled with the water quality testing and sampling data for the mined and overburden materials presented in Section 5.2. The water quality parameters have been specifically selected from the testing results and water quality monitoring to reflect the changing conditions during mining, backfilling, and reclamation. The model assumes that the constituents behave conservatively and there are no geochemical interactions with the adjacent rock materials. For all constituents except manganese, these are considered reasonable assumptions for projecting future conditions.

The quarry water quality projections were performed for the following list of dissolved metal constituents:

- Antimony
- Arsenic
- Cadmium
- Copper
- Manganese
- Nickel
- Selenium
- TDS
- Sulfate (SO_4)

Mercury was also evaluated; however because concentrations in rocks and water at the site are low, it was not necessary to perform predictive modeling for this constituent. A review

of the mercury data collected at the site has been presented in a separate document (SES, 2011).

The projections for the North Quarry account for conditions resulting from excavation and the availability of metals in rock surfaces. Metal concentrations in these surfaces are indicated by the information contained in Tables 6 and 7.

The key water mass balance components and the water quality described for each component are provided in Table 8.

Groundwater enters the North Quarry as seeps through fractured and weathered rock. By the time the backfill reaches 990 ft amsl, it is expected that the groundwater quality flowing into the quarry will return to that typically measured in the groundwater wells (Table 3).

Water quality projections for subsurface flow out of the North Quarry are as follows:

Constituent		North Quarry Water (after reclamation)	Basin Plan Benchmarks (Table 1)	Drinking Water Benchmarks (for comparison)
Antimony	(µg/L)	2 - 3	--	6
Arsenic	(µg/L)	2.0 – 3.0	150 (4d), 340 (1h)	10
Cadmium	(µg/L)	0.15 - 0.20	1.1 (4d), 3.9 (1h)	5
Copper	(µg/L)	1.5 - 1.6	9 (4d), 13 (1h)	1,300
Manganese[1]	(µg/L)	15 - 20	--	50
Nickel	(µg/L)	30 - 40	52 (4d), 470 (1h)	100
Selenium	(µg/L)	10 – 15[(2)]	5 (4d), 20 (1h)	50
TDS	(mg/L)	600 - 650	450	500
Sulfate	(mg/L)	120 - 140	--	250

(1) Concentration projections for manganese are higher than what will be observed because manganese will not behave conservatively as assumed in the projection models. See text in section 6.3.

(2) Mitigation measures described in Section 7 are anticipated to decrease this conservative projection by a factor of 3 (i.e., to a range of 3 to 5 µg/L).

The final concentrations after reclamation will occur gradually. However, as discussed above with regard to the water balance modeling, the water level in the North Quarry backfill

is not predicted to reach a level where discharge would occur for 14 years (i.e., there is no outflow and the groundwater is contained in the backfill). This allows sufficient time for the chemistry of the groundwater to equilibrate also.

The projected manganese concentrations are likely over-estimates as manganese is expected to precipitate. Manganese concentrations in the North Quarry are believed to be due to a dynamic condition. Dissolved manganese derived from groundwater and weathering becomes oxidized, and as oxidized manganese is not soluble, it precipitates in oxygenated surface waters. Therefore, manganese concentrations are expected to decrease significantly as quarry water flows into Permanente Creek. As shown in Table 2, manganese concentrations at the downstream monitoring location are quite low, which supports the conclusion that manganese precipitates.

The only Benchmarks that are exceeded in the projections are for TDS and selenium. The TDS Benchmark is based on agricultural use, which is not an existing beneficial use of Permanente Creek. There are no water quality objectives established for TDS to protect aquatic life, and TDS at the projected levels is not generally considered harmful to aquatic life.

The projected selenium concentration, without further management, is above the lower chronic level of 5 µg/L but not the acute level of 20 µg/L. It is important to note that the predictions are based on available data; recommended monitoring and mitigation described in Section 7 are not accounted for in the table above. Further, the projected selenium concentrations are not significantly in excess of the Benchmark . In addition, the Benchmark is applicable in the creek, and the groundwater migrating from the North Quarry into the creek will blend with other water in the creek resulting in a lower overall concentration. In other words, prediction of selenium in the groundwater does not mean an exceedance of applicable water quality standards in the surface water. However, consideration should be given to monitoring and management of selenium concentrations in the groundwater. Section 7 includes recommendations for measures that have resulted in reducing selenium concentrations up to 95% in other cases and that would be reasonable to expect to reduce selenium in the quarry water by at least a factor of 3 in the present case (i.e., to a range of 3 to 5 µg/L, which is below the Benchmark level).

Sensitivity analyses were performed using the model to determine the influence of the various water quality input parameters and climatic changes. The sensitivity analyses were performed on selenium as this is the key constituent of concern. The sensitivity analyses included the following:

- Increasing input concentrations from each source of inflow individually by 15%, 25%, 50%, 75%, and 100%
- Using the maximum groundwater concentration as the final long-term groundwater inflow concentration (rather than the average used in the base case)
- Reducing the monthly rainfall by 30% for a period of 8 years to simulate the influence of an extended drought.

The results of the sensitivity analyses are presented in Appendix C. The results of the sensitivity analyses indicate that the runoff from the limestone walls of the quarry has the greatest influence on the final concentration, but the difference in the final result versus what is presented above is insignificant (i.e., increasing the limestone quarry wall concentration by 100% changed the range of output concentrations from 9 – 12 µg/L to 10 – 14 µg /L; a range of 10 – 15 µg /L is presented as the final result in the table above). Similarly, using the maximum ground water concentration as the long term groundwater inflow concentration does not change the results presented above.

Reducing the monthly rainfall for an extended period of time has the effect of increasing the amount of time it takes for the pit to fill to its equilibrium level and the length of time for the final long term concentration to be reached. The reduction of 30% for 8 years while the pit is filling extends the filling period by one year (i.e., from 14 years to 15), and has no effect on the range of final concentration of selenium.

Selenium has the greatest range of variation among the different sources of inflow. As shown in Table 8, selenium inflow concentrations range from 0.7 to 82 µg/L, whereas TDS inflow concentrations range from 108 to 900 mg/L. Variations in TDS, for example, in response to changes in the modeling inputs, are expected to be less than selenium and very minor in scale. This indicates that other constituents will be less sensitive to the perturbations imposed that are described above. In other words, the sensitivity analyses for selenium are worst case among the parameters analyzed.

Projections of future water quality in the runoff from the reclaimed North Quarry area are as follows:

Constituent	Runoff (after reclamation)	Basin Plan Benchmarks (Table 1)	Drinking Water Benchmarks (for comparison)
Antimony (µg/L)	4 -5	--	6
Arsenic (µg/L)	3 -4	150 (4d), 340 (1h)	10
Cadmium (µg/L)	0.05 – 0.10	1.1 (4d), 3.9 (1h)	5
Copper (µg/L)	0.60 – 0.80	9 (4d), 13 (1h)	1,300
Manganese[1] (µg/L)	4 - 5	--	50
Nickel (µg/L)	2 - 3	52 (4d), 470 (1h)	100
Selenium (µg/L)	2 - 4	5 (4d), 20 (1h)	50

Constituent	Runoff (after reclamation)	Basin Plan Benchmarks (Table 1)	Drinking Water Benchmarks (for comparison)
TDS (mg/L)	140 - 180	450	500
Sulfate (mg/L)	30 - 60	--	250

(1) Concentration projections for manganese are higher than what will be observed because manganese will not behave conservatively as assumed in the projection models. See text in Section 6.3.

After reclamation, the runoff water quality in the North Quarry is expected to meet the applicable Benchmarks. The Drinking Water Benchmarks, although not applicable to Permanente Creek surface water, are included to demonstrate that the water quality will not pose a risk to human health if it were to be used for consumption.

6.3.2 West and East Materials Storage Areas

Both the WMSA and EMSA will be reclaimed by covering with non-limestone material and growth media. The expected runoff water quality from these two facilities is expected to be the same or better than the above (Section 6.3.1) projections for the North Quarry. The reason is that the North Quarry surface will still contain small areas of steep rock slope that contain limestone. As described in Section 6.1.2, the amount of exposed limestone on the reclaimed surface of North Quarry is expected to range from 5% to 10% based on 11 to 22 acres of exposed limestone. This is because it will be technically difficult to provide for a non-limestone cover over these steep mined slopes. Covering the WMSA and EMSA with non-limestone material is more easily accomplished and it is expected that after reclamation there will be no exposed limestone. As a result the projected runoff water quality for the WMSA and EMSA is expected to be similar to the “greenstone and greywacke” results in the second row of Table 8, which are below the benchmarks.

7.0 RECOMMENDATIONS

In recognition of the uncertainties associated with the predictions of future water quality described in Section 6.0 above, it is recommended that a monitoring and verification program be implemented to compare the predictions with actual field data as mining concludes and reclamation commences. Because selenium has been identified as a concern, specific recommendations for selenium have been included to be incorporated into the reclamation plan and implemented if warranted by ongoing monitoring. This and other recommendations below are subject to any monitoring requirements and any alternative requirements that may be imposed by the Regional Water Quality Control Board. The final Section discusses how these programs and plans can be implemented.

7.1 Monitoring and Verification Programs

It is recommended that the following program be implemented within three years following project approval and continued during the backfilling and reclamation phases. It is anticipated that water monitoring described will be conducted as part of monitoring required by the Regional Water Quality Control Board.

- Collect annual quarry water samples and analyze for general water chemistry and dissolved metals.
- Perform quarterly electrical conductivity and pH measurements of the quarry water.
- Measure and record daily volumes of any quarry water that is pumped from the pit area.
- Conduct annual seep surveys in March or April of each year within the quarry. Any seeps identified should be sampled for general water chemistry and minerals and dissolved metals, and the seep flow rate should be estimated.
- Perform routine testing of each of the various rock types that comprise the overburden to further characterize bulk and leachable concentrations of key metal constituents (selenium in particular). Such testing should be performed until the average concentrations and the variability within a rock type is no longer changing significantly as new data are gathered.
- Sample and test runoff from the EMSA and WMSA during and after reclamation to confirm the concepts and closure plans presented herein (i.e., that cover with non-limestone material and revegetation will result in improved runoff water quality that meets Benchmarks).

The above data should be used to re-evaluate the water balance components such as runoff and groundwater inflow and the water quality associated with these within the last five years of active mining.

Based on the results of any refined water balance and water quality projections, the water management procedures described below should also be reviewed and refined.

7.2 Recommendations for Selenium

Specific recommendations are included to reduce the potential for selenium in Permanente Creek at the point that backfilling begins. These measures would be refined, designed, and implemented based on results of the monitoring described above (subject to the imposition of different measures by the Regional Water Quality Control Board). There are two elements: measures to protect surface runoff quality in the North Quarry, WMSA and EMSA; and

measures to minimize the release of selenium with groundwater seepage from the backfilled North Quarry.

7.2.1 Protection of Surface Runoff Quality

The measures to protect surface water quality during reclamation activities consist of isolating the runoff from limestone materials in the North Quarry backfill, WMSA, and EMSA. This would be accomplished during reclamation construction by covering reclaimed areas, and by construction of an effective surface drainage system. The recommended cover system includes placing a 1-foot thick layer of run-of-mine non-limestone rock (i.e., greywacke, chert, and greenstone) over areas where limestone materials are used as general fill for reclamation. The performance of the cover system will be enhanced by the current revegetation strategy, which will add a minimum of six inches of topsoil blended material to serve as growth medium.

For EMSA cover purposes, the run-of-mine non-limestone rock would be identified and delivered during the remainder of mining in the North Quarry. For the WMSA and North Quarry, a review of borehole logs in the WMSA material indicates that there also are substantial deposits of non-limestone material in the WMSA that could be scavenged while the WMSA is being regraded as part of reclamation and also excavated to backfill the North Quarry. Preliminary analysis indicates that the WMSA has approximately 10 million tonnes of non-limestone material, well in excess of the 720,000 tonnes calculated to be necessary for cover purposes.

The surface drainage system would include construction of drainage improvements and sedimentation ponds with non-limestone materials, assuring that all slopes are steep enough to promote runoff but not so steep as to promote erosion, ditch grades in the range of 2-3 percent to assure effective movement of the collected water, and use of culverts and/or armoring to reduce maintenance (i.e., across roads and down steep slopes), the potential for erosion, and the potential for infiltration into the fill.

The primary objective of the cover and drainage systems is to isolate the runoff from the material most likely to release selenium. A secondary objective is to reduce the infiltration into the fill materials. Reducing the infiltration to the fill materials is less important, but it would reduce the risk of poor quality interflow being collected in the drainage system and would also reduce the flux of groundwater through the backfill material.

Isolation to protect runoff quality using cover and drainage systems is a fairly common approach in mine closure. It has been demonstrated effective especially for selenium in, for example, the Phosphoria phosphate mining district in Idaho. The various mines in this area are required to segregate their overburden into seleniferous and non-seleniferous stockpiles, and the seleniferous overburden is ultimately encapsulated with the non-seleniferous overburden as part of reclamation to protect runoff water quality. This has resulted in essentially no impacts to surface water in areas where it is implemented correctly.

7.2.2 Minimization of Release of Selenium via Groundwater Seepage

The recommended measure for minimizing of the release of selenium with seepage of groundwater consists of an in situ method to assure conditions in the saturated backfill of the North Quarry are conducive to selenium control and removal.

Selenium is analogous to sulfur (they are in the same group on the periodic table). Dissolved selenium is typically an oxidized form (selenate or selenite; analogous to sulfate and sulfite). If the oxidized forms are in a sufficiently reducing (anoxic or anaerobic) environment, they will be transformed to the reduced form (selenide or free selenium). Free selenium is a solid, and selenide forms insoluble compounds with iron, calcium, and other common mineral cations. Selenide can also form hydrogen selenide or methylated selenium which are harmless volatile compounds that de-gas to the atmosphere.

Reducing conditions can occur in the saturated backfill without any supplemental treatment. In fact, the chemistry of the water at the monitoring well locations is generally indicative of reducing conditions (meaning that reducing conditions occur naturally at the site), and selenium is not surprisingly absent from that groundwater (indicating that reducing conditions will indeed remove selenium from the groundwater). However, depending on the results of monitoring described in the previous section, it is recommended that the backfill is amended with organic matter while it is being placed in the North Quarry. Decomposition of the organic matter assures that reducing conditions are established.

The organic matter can be placed in the North Quarry during backfilling by placing the organic matter on the backfill and using a dozer to spread it with the backfill. It is likely that the organic amendment would only be needed in the upper layer of the backfill that would be saturated (i.e., in a 25 or 50 foot layer).

There are many sources of organic matter that should be considered and would be effective, including raw or ground municipal green waste and compost. Green waste is the preferred material; biosolids will not be used. However, different materials and blends should be tested as part of design before backfilling begins. Based on data available for treatment of mines using this technology (the Sweetwater Pit in Wyoming and the Anchor Hill Pit in South Dakota) suggests that an addition on the order of 0.5% to 1% by weight would be needed to permanently establish the reducing conditions to remove selenium.

The organic material could be obtained by hauling green waste from composting centers; such centers are available within approximately 45 miles of the quarry. Based on the 1% by weight, it is estimated that approximately 63,000 tons (approximately 170,000 cubic yards) of green waste would be required. The green waste would be mixed into the backfill material during filling of the upper zones of the quarry within the pit; i.e., starting at elevation 935 to 960 ft amsl and up to approximately 985 ft amsl (see Figure 5). Groundwater in the quarry is expected to stabilize at an elevation of between 985 and 990 ft amsl.

The addition of the organic material would take approximately three years during the placement of the 25 to 50 feet of fill in the quarry area near the end of Phase 2.

7.3 Water Management Measures

The following water management measures are recommended for the North Quarry during interim operational periods, and following the completion of mining and during reclamation activities. These measures are in addition to the usual measures undertaken to eliminate suspended sediments from any water that is to be removed from a quarry, i.e. internal sediment basins, sump intake filters, etc.

- To the degree possible, limestone materials should be segregated from the non-limestone materials (breccia, greywacke, chert and greenstone). Further, in order to minimize the uptake of dissolved metals from the limestone, quarry drainage controls should be implemented to segregate runoff from areas where the limestone materials are stockpiled or contacted (i.e., keep it separate from other runoff). Runoff from limestone material stockpiles should be diverted to the North Quarry to the extent possible. Also to the extent possible, drainage of the non-limestone materials should be diverted directly to sediment control facilities and natural surface drainages.

- Drainage controls should be constructed of breccia, greywacke, chert and greenstone rock materials.

- Wherever possible, surface drainage diversions should be placed around newly disturbed limestone areas and limestone stockpiles in the quarry areas. This will avoid excessive water contact by run-on from upgradient areas.

- Where limestone materials are disturbed or stockpiled, minimize ponding of water which would increase contact and contact time between rainfall and limestone materials. Grade out hollows and compact surfaces with equipment (such as dozers), as feasible based on engineering and safety factors.

Reclamation design also should incorporate a subsurface outflow drain system, in order to control the maximum level of groundwater in the quarry and to promote diffusion and infiltration of excess groundwater into the Permanente Creek catchment area.

8.0 REFERENCES

California Regional Water Quality Control Board, 2007. *San Francisco Bay Basin (Region 2) - Water Quality Control Plan (Basin Plan)*. January 18.

Chang Consultants, 2010. *Drainage Report for the Permanente Quarry*. May 23.

Golder Associates, 2010a. *Geotechnical Evaluation and Design Recommendations – Permanente Quarry Reclamation Plan Update, Santa Clara County, California*. April.

Golder Associates, 2010b. *Hydrogeologic Investigation – Permanente Quarry Reclamation Plan Update, Santa Clara County, California*. May.

Hutchison, Ian P.G. and Ellison, Richard D., 1992. *Mine Waste Management*, Lewis Publishers.

SES, 2011. *Letter to Harry Ohlendorf, CH2MHill – Clarification Questions on Attachment G, Water Quality*. Prepared by Strategic Engineering and Science, Inc. October 17.

WRA, 2010. *Biological Resource Assessment*. May.

Tables

TABLE 1
BACKGROUND SURFACE WATER QUALITY

Dissolved Constituent	SW-1 (µg/L)				SW-1 average (µg/L)	SW-3 (µg/L)				SW-3 average (µg/L)	Basin Plan Benchmarks (µg/L)
	2/4/09	4/2/09	4/22/09	1/10/10		2/4/09	4/1/09	9/22/09	1/14/09		
Aluminum	ND (<38)	ND (<38)	ND (<76)	ND (<38)	ND (<38)	ND (<38)	ND (<38)	ND (<38)	ND (<38)	ND (<38)	--
Antimony	ND (<0.23)	ND (<0.23)	ND (<0.17)	0.26	0.1438	ND (<0.23)	ND (<0.23)	ND (<0.17)	ND (<0.17)	ND (<0.17)	--
Arsenic	0.79	ND (<0.67)	ND (<0.52)	0.74	0.5313	ND (<0.67)	ND (<0.67)	ND (<0.52)	ND (<0.52)	ND (<0.52)	150 (4d), 340 (1h)
Hexavalent Chromium	0.98	ND (<0.7)	ND (<0.7)	1.2	0.72	1.4	ND (<0.7)	ND (<0.7)	1.3	0.85	11 (4d), 16 (1h)
Barium	34	91	63	58	61.5	96	100	170	110	119	--
Beryllium	ND (<0.046)	ND (<0.046)	ND (<0.18)	ND (<0.18)	ND (<0.046)	ND (<0.046)	ND (<0.046)	ND (<0.18)	ND (<0.18)	ND (<0.046)	--
Boron	55	200	51	--	102	39	67	40	--	48.67	--
Cadmium	ND (<0.013)	0.022	ND (<0.13)	ND (<0.13)	0.0396	0.017	ND (<0.013)	ND (<0.13)	ND (<0.13)	0.0384	1.1 (4d), 3.9 (1h)
Chromium (total)	ND (<0.64)	1.5	ND (<0.55)	ND (<0.55)	0.5925	ND (<0.64)	0.81	ND (<0.55)	0.63	0.5088	11 (4d), 16 (1h)
Copper	1.2	1.6	4.2	3.1	2.525	0.7	0.55	2.2	1.4	1.2125	9 (4d), 13 (1h)
Iron	8.1	ND (<7.2)	ND (<19)	9.7	6.5625	ND (<7.2)	ND (<7.2)	ND (<9.3)	ND (<9.3)	ND (<7.2)	--
Lead	ND (<0.019)	0.029	ND (<0.054)	ND (<0.054)	0.0231	ND (<0.019)	0.026	ND (<0.054)	ND (<0.054)	0.0224	2.5 (4d), 65 (1h)
Manganese	0.33	0.58	0.79	1.9	0.9	0.11	0.31	0.73	1.4	0.6375	--
Mercury	0.00078	0.00101	0.00178	0.0547	0.0146	0.00072	ND (<0.00020)	0.00069	0.00089	0.0006	0.025 (4d), 2.4 (1h)
Molybdenum	5.7	3.9	3.8	1.8	3.8	24	0.91	10	3.6	9.6275	--
Nickel	3.3	2.2	4.7	2.3	3.1	1.4	1.0	1.3	0.87	1.1425	52 (4d), 470 (1h)
Selenium	8.9	7.1	11	1.7	7.18	ND (<0.23)	0.71	ND (<0.38)	0.45	0.36625	5 (4d), 20 (1h)
Silver	ND (<0.028)	0.063	ND (<0.065)	ND (<0.065)	0.0355	ND (<0.028)	ND (<0.028)	ND (<0.065)	ND (<0.065)	ND (<0.028)	3.4 (1h)
Thallium	ND (<0.054)	ND (<0.054)	ND (<0.11)	0.17	0.0698	ND (<0.054)	0.13	ND (<0.11)	ND (<0.11)	0.06675	--
Vanadium	ND (<1.2)	1.8	--	--	1.2	ND (<1.2)	1.9	--	--	1.25	--
Zinc	7.2	58	3.4	2.2	17.7	4.7	67	ND (<1.9)	ND (<1.9)	18.4	120 (4d), 120 (1h)
TDS	1,400,000	890,000	1,800,000	350,000	1,110,000	340,000	360,000	350,000	360,000	352,500	450,000
Sulfate	650,000	450,000	1,100,000	110,000	577,500	28,000	18,000	22,000	23,000	22,750	--
Chloride	23,000	15,000	28,000	9,400	18,850	28,000	16,000	23,000	20,000	21,750	106,000
Hardness (as CaCO3)	900,000	650,000	1,300,000	270,000	780,000	290,000	290,000	310,000	300,000	297,500	--

Notes:
ND = Not detected at the specified detection limit.
When an ND was included in the calculation of an average value, it was assumed to be one half the detection limit.
If all samples were ND, then the lowest detection limit was retained.
4d = 4-day average.
1h = 1-hour average.

TABLE 2
DOWNSTREAM SURFACE WATER QUALITY

Dissolved Constituent	SW-2 (µg/L)				SW-2 average (µg/L)
	2/4/09	4/2/09	9/22/09	1/20/09	
Aluminum	ND (<38)	ND (<38)	ND (<38)	ND (<38)	ND (<38)
Antimony	6.3	3.8	2.4	0.98	3.37
Arsenic	4.5	2.8	1.5	1.5	2.575
Hexavalent Chromium	0.95	0.83	ND (<0.7)	1.2	0.8325
Barium	37	63	60	43	50.75
Beryllium	ND (<0.18)	0.059	ND (<0.18)	ND (<0.18)	0.08225
Boron	89	100	36	--	75
Cadmium	0.98	0.055	ND (<0.13)	ND (<0.13)	0.29125
Chromium (total)	0.58	ND (<0.55)	ND (<0.55)	ND (<0.55)	0.35125
Copper	1.3	1.3	3.3	1.8	1.925
Iron	ND (<9.3)	18	ND (<9.3)	ND (<9.3)	7.9875
Lead	0.22	ND (<0.054)	ND (<0.054)	ND (<0.054)	0.07525
Manganese	2.2	3	2.1	3.9	2.8
Mercury	0.00173	0.00133	0.00182	0.07	0.01872
Molybdenum	750	460	470	83	440.75
Nickel	70	110	44	27	62.75
Selenium	80	74	81	13	62
Silver	ND (<0.065)	ND (<0.065)	ND (<0.065)	ND (<0.065)	ND (<0.065)
Thallium	0.16	ND (<0.11)	ND (<0.11)	ND (<0.11)	0.08125
Vanadium	110	66	--	--	88
Zinc	12	61	3.1	4.1	20.05
TDS	1,100,000	1,100,000	1,000,000	--	1,066,667
Sulfate	560,000	600,000	550,000	--	570,000
Chloride	14,000	12,000	18,000	--	14,667
Hardness (as CaCO3)	650,000	740,000	710,000	320,000	605,000

Notes:

ND = Not detected at the specified detection limit.

When an ND was included in the calculation of an average value, it was assumed to be one half the detection limit.

If all samples were ND, then the lowest detection limit was retained.

4d = 4-day average.

1h = 1-hour average.

TABLE 3
GROUNDWATER QUALITY

Constituent	HG-4 (µg/L)				HG-4 average (µg/L)	HG-6 (µg/L)				HG-6 average (µg/L)	HG-7 (µg/L)				HG-7 average (µg/L)	HG-9 (µg/L)				HG-9 average (µg/L)	HG-10 (µg/L)		HG-10 average (µg/L)	Average Groundwater Quality (µg/L)	Drinking Water Benchmarks[1] (µg/L)	Agricultural Benchmarks (µg/L)
Sample Date	**9-Feb-09**	**14-Apr-09**	**26-Oct-09**	**4-Jan-10**	**N/A**	**9-Feb-09**	**14-Apr-09**	**29-Oct-09**	**4-Jan-10**	**N/A**	**15-Apr-09**	**27-Oct-09**	**27-Oct-09**	**29-Dec-09**	**N/A**	**9-Feb-09**	**15-Apr-09**	**27-Oct-09**	**29-Oct-09**	**N/A**	**28-Sep-09**	**4-Jan-09**	**N/A**	**N/A**	**N/A**	**N/A**
Aluminum	ND (<38)	ND (<38)	ND (<38)	ND (<38)	ND (<38)	ND (<38)	ND (<38)	ND (<38)	ND (<38)	ND (<38)	ND (<38)	ND (<38)	ND (<38)	ND (<38)	ND (<38)	ND (<38)	ND (<38)	ND (<38)	ND (<38)	ND (<38)	ND (<38)	ND (<38)	ND (<38)	ND (<38)	1000 MCL; 50-200 SMCL	5,000
Antimony	0.43	ND (<0.23)	0.17	ND (<0.17)	0.2	ND (<0.23)	ND (<0.23)	ND (<0.17)	ND (<0.17)	ND (<0.17)	0.62	ND (<0.17)	ND (<0.17)	0.27	0.265	0.47	0.67	ND (<0.17)	ND (<0.17)	0.3275	ND (<0.17)	0.48	0.2825	0.232	6 MCL	--
Arsenic	2.8	3.5	9.4	8.7	6.1	2.6	2	0.62	0.62	1.46	4.2	2.2	2.4	2	2.7	1.1	1.5	1.2	1	1.2	ND (<0.52)	ND (<0.52)	ND (<0.52)	2.344	10 MCL	100
Barium	39	21	14	7.4	20.35	120	130	240	250	185	120	120	120	110	117.5	30	22	19	20	22.75	150	24	87	86.52	1000 MCL	--
Beryllium	0.064	0.061	ND (<0.18)	ND (<0.18)	0.076	0.052	ND (<0.046)	ND (<0.18)	ND (<0.18)	0.064	ND (<0.046)	ND (<0.18)	ND (<0.18)	ND (<0.18)	ND (<0.046)	0.064	ND (<0.18)	ND (<0.18)	ND (<0.18)	0.084	ND (<0.18)	ND (<0.18)	ND (<0.18)	0.067	4 MCL	100
Boron	--	250	270	260	260	--	60	46	64	56.667	27	ND (<9.7)	ND (<9.7)	21	14.425	--	21	10	33	21.33333333	33	15	24	75.285	--	700
Cadmium	0.2	0.052	ND (<0.13)	ND (<0.13)	0.085	0.014	0.017	ND (<0.13)	ND (<0.13)	0.040	0.013	ND (<0.13)	ND (<0.13)	ND (<0.13)	0.052	0.053	0.04	ND (<0.13)	ND (<0.13)	0.05575	ND (<0.13)	ND (<0.13)	ND (<0.13)	0.060	5 MCL	10
Chloride	51,000	41,000	28,000	25,000	36,250	24,000	25,000	25,000	25,000	24,750	47,000	46,000	46,000	45,000	46,000	46,000	32,000	26,000	27,000	32,750	14,000	14,000	14,000	30,750	250,000 SMCL	106,000
Chromium (total)	ND (<0.64)	4	20	ND (<0.55)	6.149	ND (<0.64)	3.2	ND (<0.55)	ND (<0.55)	1.018	0.94	2.1	1.4	ND (<0.55)	1.179	0.68	1.9	1.5	ND (<0.55)	1.08875	ND (<0.55)	15	7.638	3.414	50 MCL	--
Copper	3.6	3.1	7.7	0.8	3.8	0.58	0.93	ND (<0.68)	ND (<0.68)	0.548	0.43	ND (<0.68)	ND (<0.68)	ND (<0.68)	0.363	4	0.67	0.86	ND (<0.68)	1.468	1.9	2.3	2.1	1.656	1300 MCL	200
Hexavalent Chromium	ND (<0.7)	ND (<0.7)	ND (<0.7)	ND (<0.7)	ND (<0.7)	ND (<0.7)	ND (<0.7)	ND (<0.7)	ND (<0.7)	ND (<0.7)	ND (<0.7)	ND (<0.7)	ND (<0.7)	ND (<0.7)	ND (<0.7)	1.4	ND (<0.7)	ND (<0.7)	ND (<0.7)	0.613	ND (<0.01)	1.9	0.953	0.523	--	100
Iron	ND (<7.2)	33	13	16	16.4	ND (<7.2)	21	46	34	26.15	330	310	310	290	310	ND (<9.3)	ND (<9.3)	ND (<9.3)	ND (<9.3)	ND (<9.3)	ND (<9.3)	ND (<9.3)	ND (<9.3)	72.37	300 SMCL	5,000
Lead	0.28	0.26	0.76	ND (<0.054)	0.332	ND (<0.019)	0.12	ND (<0.054)	ND (<0.054)	0.046	0.038	ND (<0.054)	ND (<0.054)	ND (<0.054)	0.030	ND (<0.054)	0.038	ND (<0.054)	ND (<0.054)	0.030	0.13	ND (<0.054)	0.092	0.106	15 MCL	5,000
Manganese	120	90	110	19	84.75	46	58	33	41	44.5	320	330	320	330	325	17	6.7	2.5	0.19	6.598	85	0.16	42.58	100.686	50 SMCL	200
Mercury	0.013	0.023	0.014	0.011	0.015	0.006	0.002	0.001	0.001	0.002	0.068	0.024	0.022	0.014	0.032	0.024	0.004	0.001	0.001	0.008	--	0.063	0.063	0.024	2 MCL	--
Molybdenum	31	43	45	33	38	3.6	2.5	1.3	2.5	2.475	0.74	0.62	0.54	0.81	0.678	3.7	3.2	0.93	2.2	2.508	5	16	10.5	10.832	--	10
Nickel	3.8	7.7	24	1.3	9.2	0.86	2.1	0.54	0.47	0.993	3.1	1.7	1.7	2.6	2.275	2.9	2.6	1.6	2.2	2.325	10	1.7	5.85	4.129	100 MCL	200
Selenium	0.27	0.32	1.1	3.9	1.398	ND (<0.23)	ND (<0.23)	ND (<0.38)	ND (<0.38)	ND (<0.23)	ND (<0.23)	ND (<0.38)	ND (<0.38)	ND (<0.38)	ND (<0.23)	0.9	0.73	ND (<0.38)	ND (<0.38)	0.503	ND (<0.38)	2.8	1.495	0.725	50 MCL	20
Silver	ND (<0.028)	ND (<0.028)	ND (<0.065)	ND (<0.065)	ND (<0.028)	ND (<0.028)	ND (<0.028)	ND (<0.065)	ND (<0.065)	ND (<0.028)	ND (<0.028)	0.81	0.42	ND (<0.065)	0.319	ND (<0.028)	ND (<0.028)	0.34	ND (<0.065)	0.100	ND (<0.065)	ND (<0.065)	ND (<0.065)	0.096	100 MCL	--
Sulfate	770,000	770,000	500,000	380,000	605,000	11,000	15,000	8,600	16,000	12,650	31,000	31,000	30,000	29,000	30,250	48,000	38,000	31,000	26,000	35,750	30,000	29,000	29,500	142,630	250,000 SMCL	--
TDS	1,500,000	1,500,000	1,000,000	880,000	1,220,000	490,000	470,000	460,000	460,000	470,000	550,000	530,000	580,000	530,000	547,500	480,000	490,000	450,000	460,000	470,000	400,000	340,000	370,000	615,500	500,000 SMCL	450,000
Thallium	0.088	0.2	0.23	ND (<0.11)	0.143	0.1	ND (<0.054)	ND (<0.11)	ND (<0.11)	0.059	0.17	ND (<0.11)	ND (<0.11)	ND (<0.11)	0.084	ND (<0.11)	0.19	ND (<0.11)	ND (<0.11)	0.089	ND (<0.11)	ND (<0.11)	ND (<0.11)	0.086	2 MCL	--
Vanadium	--	--	11	ND (<1.2)	5.8	--	--	ND (<1.2)	ND (<1.2)	ND (<1.2)	--	ND (<1.2)	ND (<1.2)	ND (<1.2)	ND (<1.2)	--	--	ND (<1.2)	ND (<1.2)	ND (<1.2)	ND (<1.2)	1.7	1.15	1.75	--	100
Zinc	19	4.8	32	ND (<1.9)	14.188	3.2	5.2	2.4	ND (<1.9)	2.938	1.3	ND (<1.9)	3	1.9	1.788	19	8.7	3.2	2.1	8.25	35	ND (<1.9)	17.975	9.028	5000 SMCL	2,000

Notes:
[1] MCL ("maximum contaminant level") is the primary drinking water standard;
SMCL ("secondary maximum contaminant level") is the secondary drinking water standard based on aesthetics and odors.
ND = Not detected at the specified detection limit.
When an ND was included in the calculation of an average value, it was assumed to be one half the detection limit.
If all samples were ND, then the lowest detection limit was retained.

TABLE 4
OVERBURDEN AND BACKFILL PRODUCTION SCHEDULE

Quantity	
Project Phase	Backfill Quantity (short tons)
1	12,000,000
2	48,000,000
Total	**60,000,000**
Rock Type	
Rock Type	North Quarry
Greenstone	31%
Graywacke	17%
Fault Breccia	37%
Soils	15%
Total	**100%**

TABLE 5
MINED MATERIAL AND OVERBURDEN CONSTITUENT CONCENTRATIONS

Constituent	Units	C-1	C-2	C-3	C-4	C-5	GT1-2-08-213	Average of Detections for SQ	B1-1	B1-2	B1-3	B1-4	B2-1	Average of Detections for NQ	B2-2
		SQ Boring Composite	SQ Boring Composite	SQ Boring Composite	SQ Boring Composite	SQ Boring Composite	SQ Boring Composite		NQ Single Sample	NQ Single Sample	NQ Single Sample	NQ Single Sample	NQ Composite		EMSA OB Composite
		Graywacke	Limestone	Flt. Breccia	Greenstone	Metabasalt	Chert		Limestone	Limestone	Metavolcan.	Graywacke			
		(7/1/09)	(7/1/09)	(7/1/09)	(7/1/09)	(7/1/09)	(7/1/09)	mg/kg	(1/22/10)	(1/22/10)	(1/22/10)	(1/22/10)	(2/10/10)	mg/kg	(2/10/10)
Antimony	mg/kg	ND (<1.7)	6.5	4.2	ND (<1.7)	ND (<1.7)	5.3	3.09	ND (<1.7)	ND (<1.7)	ND (<1.7)	ND (<1.7)	ND (<1.7)	ND (<1.7)	ND (<1.7)
Arsenic	mg/kg	5.1	8.4	2.4	ND (<0.71)	4.8	5.7	4.46	ND (<0.71)	2.7	ND (<0.71)	7.5	2.7	2.7	2.6
Asbestos	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Barium	mg/kg	60	800	180	46	110	560	292.7	940	290	590	49	ND (<0.13)	373.8	750
Beryllium	mg/kg	0.17	0.3	ND (<0.026)	ND (<0.026)	0.032	0.11	0.106	ND (<0.026)	ND (<0.026)	ND (<0.026)	ND (<0.026)	ND (<0.026)	ND (<0.026)	ND (<0.026)
Cadmium	mg/kg	0.071	0.068	ND (<0.033)	ND (<0.033)	ND (<0.033)	0.15	0.056	ND (<0.033)	6.5	ND (<0.033)	ND (<0.033)	ND (<0.033)	1.3	ND (<0.033)
Chromium IV	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium Compounds	mg/kg	95	29	260	400	110	6.6	150.1	ND (<0.045)	30	200	35	130	79.0	110
Cobalt	mg/kg	20	21	34	93	26	8.4	33.7	ND (<0.18)	ND (<0.18)	37	10	27	14.8	23
Copper	mg/kg	50	56	56	45	62	27	49.3	ND (<0.13)	48	47	37	44	35	44
Fluoride Salts	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	mg/kg	9.7	6.8	8.3	ND (<0.59)	11	2	6.3	ND (<0.59)	ND (<0.59)	ND (<0.59)	ND (<0.59)	ND (<0.59)	ND (<0.59)	ND (<0.59)
Mercury	mg/kg	0.033	0.15	0.053	ND (<0.014)	ND (<0.014)	ND (<0.014)	0.043	ND (<0.014)	0.77	0.16	ND (<0.014)	0.12	0.21	0.11
Molybdenum	mg/kg	0.22	2.3	ND (<0.18)	ND (<0.18)	1	0.74	0.74	ND (<0.18)	20	ND (<0.18)	ND (<0.18)	ND (<0.18)	4	ND (<0.18)
Nickel	mg/kg	120	120	250	1,200	100	220	335	ND (<0.12)	59	230	71	180	108	150
Selenium	mg/kg	10	8.5	15	15	13	2.4	10.7	ND (<0.76)	6.6	ND (<0.76)	ND (<0.76)	ND (<0.76)	1.6	ND (<0.76)
Silver	mg/kg	ND (<0.086)	0.63	0.13	ND (<0.086)	0.16	ND (<0.086)	0.17	ND (<0.086)	ND (<0.086)	ND (<0.086)	0.86	ND (<0.086)	0.21	ND (<0.086)
Thallium	mg/kg	ND (<0.94)	ND (<0.94)	0.97	ND (<0.94)	ND (<0.94)	ND (<0.94)	0.55	ND (<0.94)	1.2	ND (<0.94)	ND (<0.94)	ND (<0.94)	0.6	ND (<0.94)
Vanadium	mg/kg	64	15	75	53	70	5.9	47.2	ND (<0.062)	560	80	27	67	146.8	56
Zinc	mg/kg	250	67	75	64	71	150	112.8	14	180	73	51	72	78	75

Notes:
ND = Not detected at the specified detection limit.
When an ND was included in the calculation of an average value, it was assumed to be one half the detection limit.
If all samples were ND, then the lowest detection limit was retained.

TABLE 6
OVERBURDEN LEACHABILITY BY MODIFIED CAM WET

Constituent (Dissolved)	Units	C-1	C-2	C-3	C-4	C-5	GT1-2-08-213	Average of Detections for SQ
		SQ Boring Composite	SQ Boring Composite	SQ Boring Composite	SQ Boring Composite	SQ Boring Composite	SQ Boring Composite	
		Graywacke	Limestone	Flt. Breccia	Greenstone	Metabasalt	Chert	
		(7/1/09)	(7/1/09)	(7/1/09)	(7/1/09)	(7/1/09)	(7/1/09)	(µg/L)
Antimony	µg/L	7.2	1.5	5.8	0.98	8.5	3.2	4.53
Arsenic	µg/L	3	1.3	6.2	2.7	7.3	1.2	3.6
Asbestos	µg/L	--	--	--	--	--	--	--
Barium	µg/L	59	220	120	37	120	170	121
Beryllium	µg/L	ND (<0.18)	ND (<0.18)	ND (<0.18)	ND (<0.18)	ND (<0.18)	ND (<0.18)	ND (<0.18)
Cadmium	µg/L	ND (<0.13)	ND (<0.13)	ND (<0.13)	ND (<0.13)	ND (<0.13)	ND (<0.13)	ND (<0.13)
Chromium (total)	µg/L	ND (<0.55)	ND (<0.55)	ND (<0.55)	1.9	ND (<0.55)	ND (<0.55)	0.55
Cobalt	µg/L	0.29	0.15	0.13	0.34	0.1	0.25	0.21
Copper	µg/L	1.3	ND (<0.68)	ND (<0.68)	ND (<0.68)	ND (<0.68)	1.2	0.64
Fluoride Salts	µg/L	--	--	--	---	---	--	--
Lead	µg/L	1.2	0.11	ND (<0.054)	ND (<0.054)	0.09	0.12	0.262
Mercury	µg/L	ND (<0.016)	0.21	ND (<0.016)	ND (<0.016)	ND (<0.016)	ND (<0.016)	0.042
Molybdenum	µg/L	11	27	7.3	2.3	28	12	14.6
Nickel	µg/L	1.7	1.7	2	8.1	0.89	3.2	2.93
Selenium	µg/L	ND (<0.38)	6	ND (<0.38)	ND (<0.38)	0.58	ND (<0.38)	1.22
Silver	µg/L	ND (<0.065)	ND (<0.065)	ND (<0.065)	ND (<0.065)	ND (<0.065)	ND (<0.065)	ND (<0.065)
Thallium	µg/L	ND (<0.11)	ND (<0.11)	ND (<0.11)	ND (<0.11)	ND (<0.11)	ND (<0.11)	ND (<0.11)
Vanadium	µg/L	1.5	ND (<1.2)	12	18	4.9	ND (<1.2)	6.27
Zinc	µg/L	22	8.1	11	11	10	37	16.5
Manganese	µg/L	5.2	2.5	7.5	3	3.1	1.2	3.8
Calcium	mg/L	18	16	13	17	11	14	14.8
Magnesium	mg/L	4.3	4.2	6.8	8.3	5.4	14	7.2
Sodium	mg/L	8.8	4.0	7.9	5.9	6.6	2.7	6.0
Potassium	mg/L	3.7	2.8	3.9	0.96	4.1	2.0	2.9
Total Alkalinity	mg/L	37	42	56	76	46	49	51
Chloride	mg/L	1.6	1.1	1.3	2.0	1.3	1.4	1.45
Sulfate	mg/L	22	12	16	3	8.8	29	15.1
pH	number	8.11	8.16	8.24	8.29	8.36	8.27	8.2
EC	µmhos/cm	160	130	160	160	130	190	155

Notes:
ND = Not detected at the specified detection limit.
When an ND was included in the calculation of an average value, it was assumed to be one half the detection limit.
If all samples were ND, then the lowest detection limit was retained.

TABLE 7

MINED MATERIALS AND OVERBURDEN LEACHABILITY

		Wall Washing Results						North Quarry (Water Sample)	Wall Runoff (WMSA Runoff Sample)
		Graywacke	Limestone - High Grade	Limestone - Medium to High	Limestone - high and med/low	Chert	Greenstone		
	Sample	GW-01	HG-01	MG-01	HMG-01	CT-01	GS-01		
	Date	11/24/09	11/24/09	11/24/09	11/24/09	11/24/09	11/24/09	01/13/10	01/13/10
	Age	> 5 years	> 5 years	2 months	1 year	< 1 month	< 1 month	NA	NA
Field Parameters									
pH	s.u.	6.94	7.87	7.53	7.32	7.53	8.95	7.94	7.9
Specific Conductance	µS/cm	283	137	42	46	78	94	NA	NA
Temperature	°C	18.6	16.43	13.78	11.91	17.35	18.36	NA	NA
Dissolved Oxygen	mg/L	6.57	7.42	7.95	16.5	8.03	7.4	NA	NA
ORP	mV	70	-32.7	11.4	25.1	92.8	73.7	NA	NA
Lab Parameters - Dissolved									
Aluminum	µg/L	1,800	220	59	220	1400	650	<38	<38
Antimony	µg/L	0.43	0.56	<0.17	0.18	<0.17	<0.17	8.2	0.86
Arsenic	µg/L	33	20	21	22	16	12	4.5	1.3
Barium	µg/L	150	79	83	180	520	660	41	24
Beryllium	µg/L	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18
Boron	µg/L	28	19	14	24	52	52	69	31
Cadmium	µg/L	<0.13	0.2	<0.13	<0.13	<0.13	<0.13	0.53	<0.13
Chromium	µg/L	<0.55	0.81	<0.55	<0.55	3.6	2.6	<0.55	<0.55
Copper	µg/L	2.1	2.1	<0.68	0.86	<0.68	1.1	1.5	1.2
Iron	µg/L	720	130	11	160	1400	970	<9.3	<9.3
Lead	µg/L	0.29	0.063	<0.054	0.065	<0.054	<0.054	<0.054	<0.054
Manganese	µg/L	8.6	19	2.6	1.2	7.9	11	21	14
Mercury	µg/L	NA	NA	NA	NA	NA	NA	0.0107	NA
Molybdenum	µg/L	2.6	98	6.7	14	1.4	0.37	540	120
Nickel	µg/L	1.7	9.9	0.91	4.9	5.9	3.5	160	3.4
Selenium	µg/L	<0.38	49	14	0.7	<0.38	<0.38	82	29
Silver	µg/L	<0.065	<0.065	<0.065	<0.065	<0.065	<0.065	<0.065	<0.065
Thallium	µg/L	0.22	<0.11	<0.11	<0.11	<0.11	<0.11	0.39	<0.11
Vanadium	µg/L	2.9	44	<1.2	6.3	7.3	39	400	2.6
Zinc	µg/L	7.5	23	3.6	16	6.6	5.8	120	28
Calcium	mg/L	7.8	46	31	34	17	21	210	160
Magnesium	mg/L	6.1	1.7	2.2	2.6	6.6	3.1	36	42
Sodium	mg/L	4.2	1.6	1.2	2.3	6.1	7.3	22	24
Potassium	mg/L	1.2	0.43	0.21	0.85	1.8	0.86	0.85	2
Lab Parameters - Total Recoverable									
Aluminum	µg/L	77,000	40,000	28,000	1,800,000	960,000	990,000	720	87,000
Antimony	µg/L	<4.0	7.7	6.8	<20	<4.0	<4.0	7.9	1.6
Arsenic	µg/L	80	88	81	290	<22	<22	3.7	21
Barium	µg/L	2,800	7,900	13,000	140,000	12,000	23,000	59	4,200
Beryllium	µg/L	6.7	<4.0	<4.0	92	36	30	<0.20	1.1
Boron	µg/L	33	36	86	650	160	230	70	52
Cadmium	µg/L	14	45	6.6	680	5.7	5.1	1.3	5.8
Chromium	µg/L	120	490	63	4,500	7,000	7,100	6	370
Copper	µg/L	160	420	370	17,000	2,000	3,100	3.3	170
Iron	µg/L	100,000	83,000	69,000	2,400,000	1,100,000	940,000	1,200	160,000
Lead	µg/L	130	25	43	1,300	27	15	0.5	17
Manganese	µg/L	3,000	2,000	7,200	56,000	22,000	44,000	38	3,000
Mercury	µg/L	0.032	<0.016	<0.016	0.032	<0.016	<0.016	<0.016	1.5
Molybdenum	µg/L	16	320	23	<23	<4.6	<4.6	630	140
Nickel	µg/L	210	1,300	1,100	150,000	9,300	5,800	180	460
Selenium	µg/L	<11	230	60	160	<11	<11	73	33
Silver	µg/L	2	5.4	3.4	<8.8	<1.8	<1.8	<0.088	0.89
Thallium	µg/L	<2.2	4.3	<2.2	57	<2.2	<2.2	0.24	0.79
Vanadium	µg/L	230	960	220	2100	<100	<52	430	350
Zinc	µg/L	460	3,300	700	390,000	2,800	2,100	140	600

TABLE 7

MINED MATERIALS AND OVERBURDEN LEACHABILITY

		Wall Washing Results						North Quarry (Water Sample)	Wall Runoff (WMSA Runoff Sample)
		Graywacke	Limestone - High Grade	Limestone - Medium to High	Limestone - high and med/low	Chert	Greenstone		
Calcium	mq/L	180	1,000	3,100	33,000	2,300	1,500	230	1,000
Magnesium	mq/L	44	67	68	1,700	1,600	1,700	40	160
Sodium	mq/L	4.2	3.6	3.9	8.5	5.4	5.6	23	25
Potassium	mg/L	13	4.1	4	64	14	4.2	1.0	8.2
General Chemistry									
Ammonia as N	mg/L	0.22	0.038	0.025	0.16	0.84	4.9	<0.025	0.095
Bicarbonate	mg/L	50	25	24	41	68	57	200	71
Carbonate	mg/L	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<5.0
Chloride	mg/L	1.3	0.95	0.97	1.4	1.3	0.44	13	25
Electrical Conductivity	µmhos/cm	101	259	199	222	135	160	1,130	1,090
Fluoride	mg/L	1.3	0.34	0.46	0.86	2.4	1.2	0.14	0.22
Hardness (as $CaCO_3$)	mg/L	45	120	86	96	69	64	673	580
Nitrate as N	mg/L-N	0.31	0.28	1.4	12	0.49	6.7	0.73	7.6
Nitrite as N	mg/L-N	0.015	0.012	<0.0081	<0.0081	0.049	0.12	<0.0081	<0.0081
pH	s.u.	7.89	8.06	7.95	8.09	8.16	8.24	7.94	7.90
Sulfate	mg/L	4.9	100	61	15	2.6	3.3	550	550
Total Alkalinity (as $CaCO_3$)	mg/L	41	20	20	33	56	47	170	58
Total Dissolved Solids	mg/L	61	110	65	91	67	100	790	900
Total Phosphorus	mg/L	2.2	4.1	3.7	140	91	100	<0.016	1.8
Total Suspended Solids	mg/L	3,400	540	4,800	68,000	35,000	50,000	18	3,600
Turbidity	NT Units	1,600	850	2,500	44,000	28,000	23,000	NA	NA

TABLE 8
NORTH QUARRY WATER QUALITY PARAMETERS

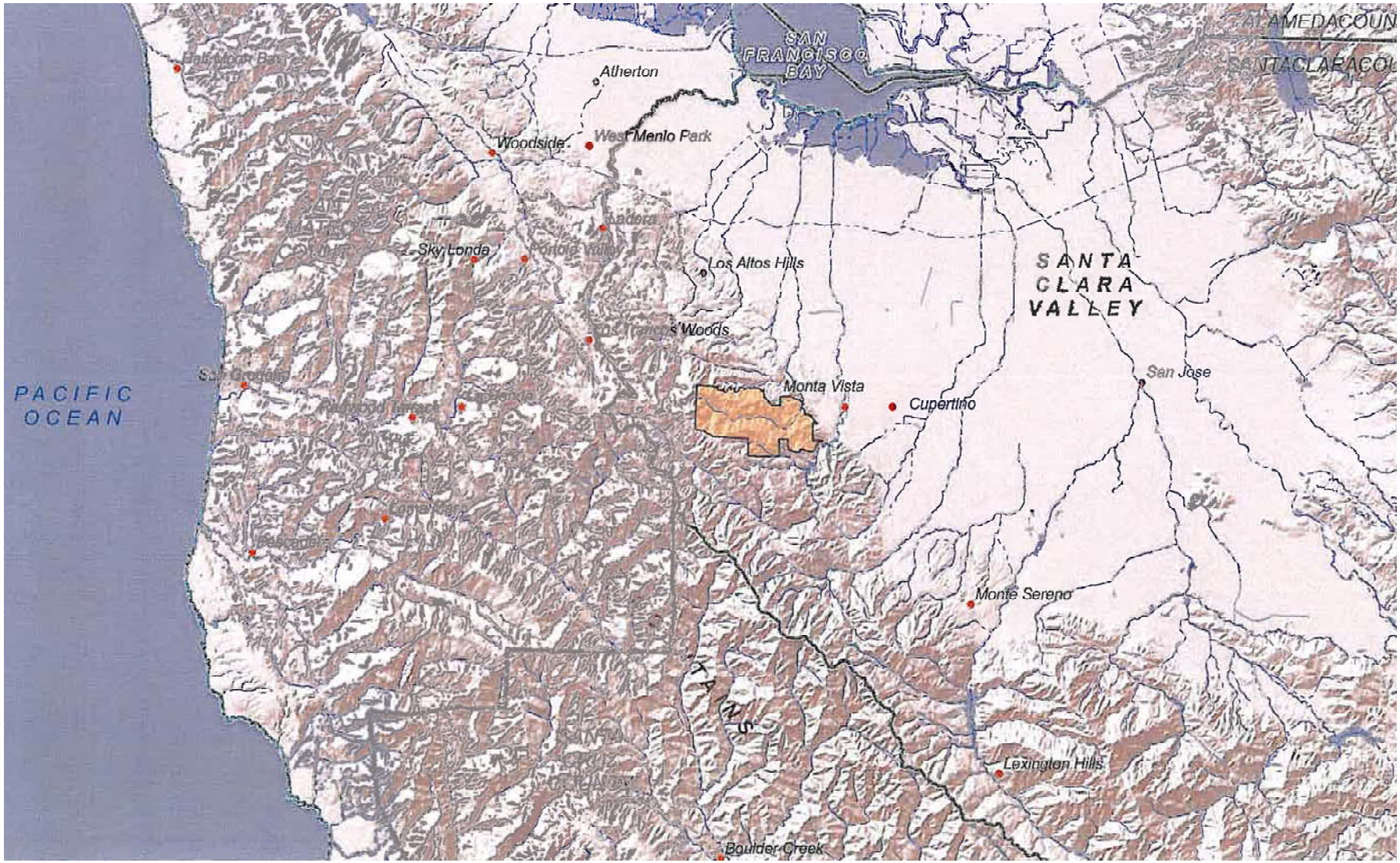
Water Balance Component	Rock type	Water Quality									Rationale
		Antimony (µg/L)	Arsenic (µg/L)	Cadmium (µg/L)	Copper (µg/L)	Manganese (µg/L)	Nickel (µg/L)	Selenium (µg/L)	TDS (mg/L)	SO_4 (mg/L)	
WMSA Runoff	**Various**	0.86	1.3	0.06	1.2	14	3.4	29	900	550	WMSA runoff sampled in January 2010 –Table 7[2]
Quarry Walls	**Greenstone & graywacke**	4.53	3.6	0.06	0.64	3.8	2.9	1.2	108	15	CAM WET tests[3] (average for all tests) – Table 6
Quarry Walls	**Limestone**	0.86	1.3	0.06	1.2	14	3.4	29	900	550	Dissolved wall runoff quality as characterized by WMSA runoff sampled in January 2010 –Table 7[2]
Quarry Backfill	**Greenstone and graywacke**	4.53	3.6	0.06	.64	3.8	2.9	1.2	108	15	CAM WET tests (average for all tests)
Groundwater Inflow	**Various, mainly limestone During Phase 1 prior to backfilling**	8.2	4.5	0.53	1.5	21	160	82	790	550	North Quarry Water – Table 7
	Gradual improvement during backfilling	Linear interpolation									N/A
	At the end of the backfill during Phase 3	0.23	2.34	0.06	1.66	21[1]	4.1	0.7	616	143	Average groundwater quality from Table 3

[1] *Manganese value based on North Quarry water.*

[2] *Dissolved fraction is used as, under backfilling conditions, wall runoff will be filtered as it migrates through the backfill into the groundwater contained in the quarry backfill.*

[3] *South Quarry (SQ) results reflect data for the same geology and rock formations in the North Quarry. The data were collected during mine exploration in areas south of Permanente Creek.*

Figures

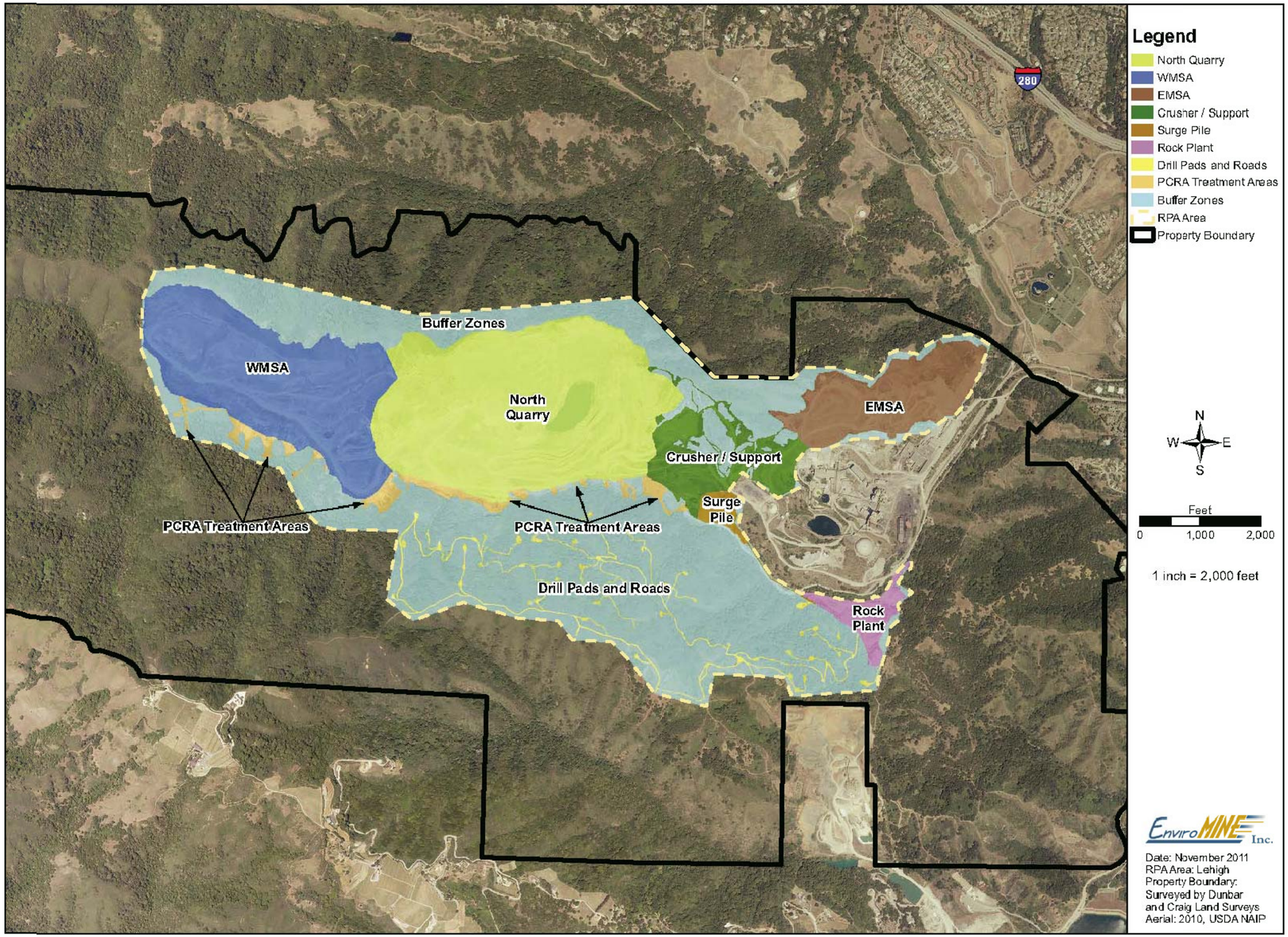


Imagery obtained from Golder Associates, Geotechnical Evaluations And Design Recommendations – Permanente Quarry Reclamation Plan Update, April, 2010

Site Location

LEHIGH SOUTHWEST CEMENT COMPANY

Figure 1	July 2011	SES STRATEGIC ENGINEERING & SCIENCE

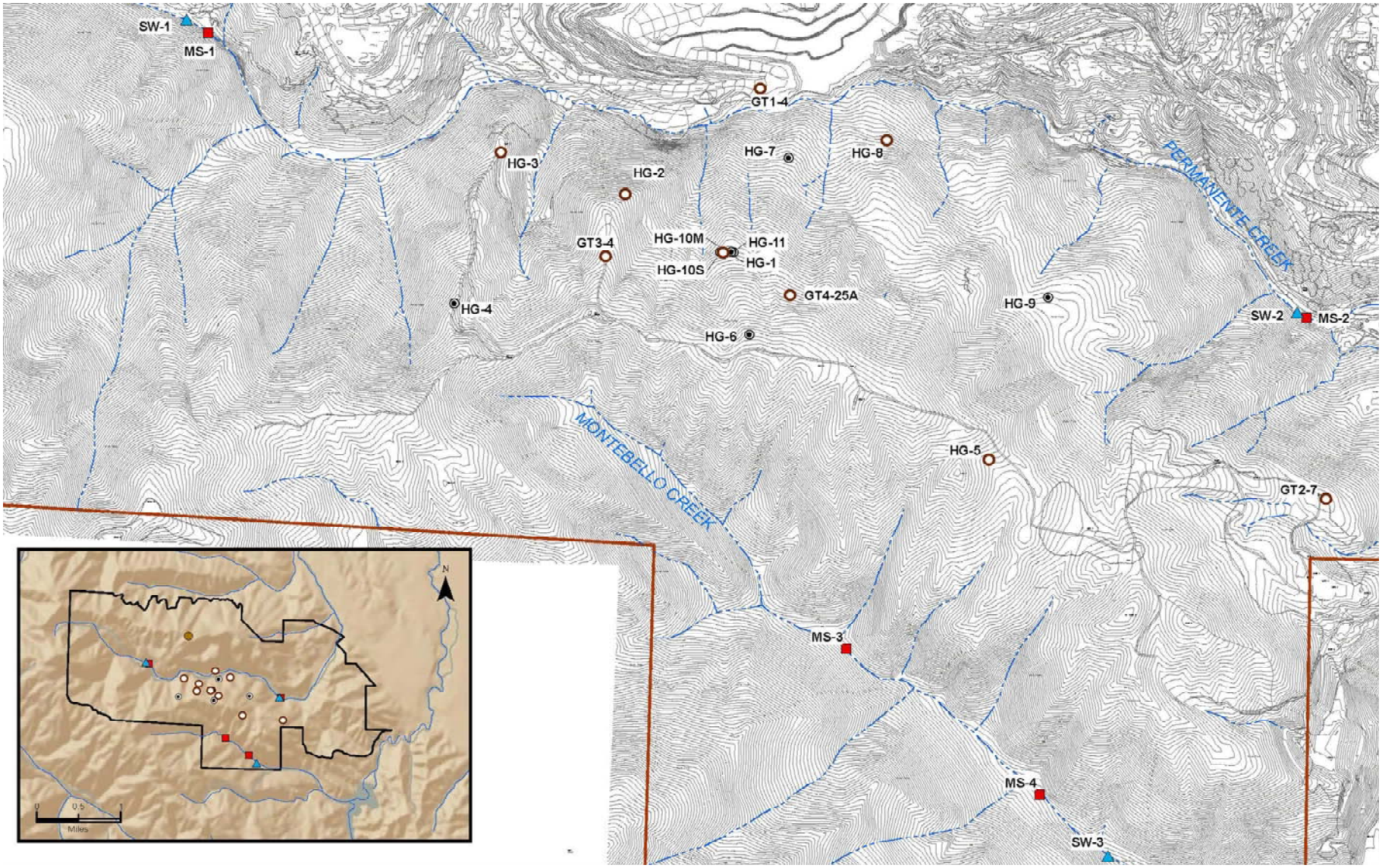


Legend	Area (Ac)
North Quarry	265.4
WMSA	172.6
EMSA	75.2
Crusher / Support	53.4
Surge Pile	8.8
Rock Plant	19.1
Drill Pads and Roads	19.5
Footprint Subtotal	**614.0**
PCRA Treatment Areas	23.1
Buffer Zones	601.5
Total Area	**1238.6**

Mine Plan

Permanente Quarry
Lehigh Southwest Cement Company
Santa Clara County, California

Figure 2 | November 2011 | SES STRATEGIC ENGINEERING & SCIENCE



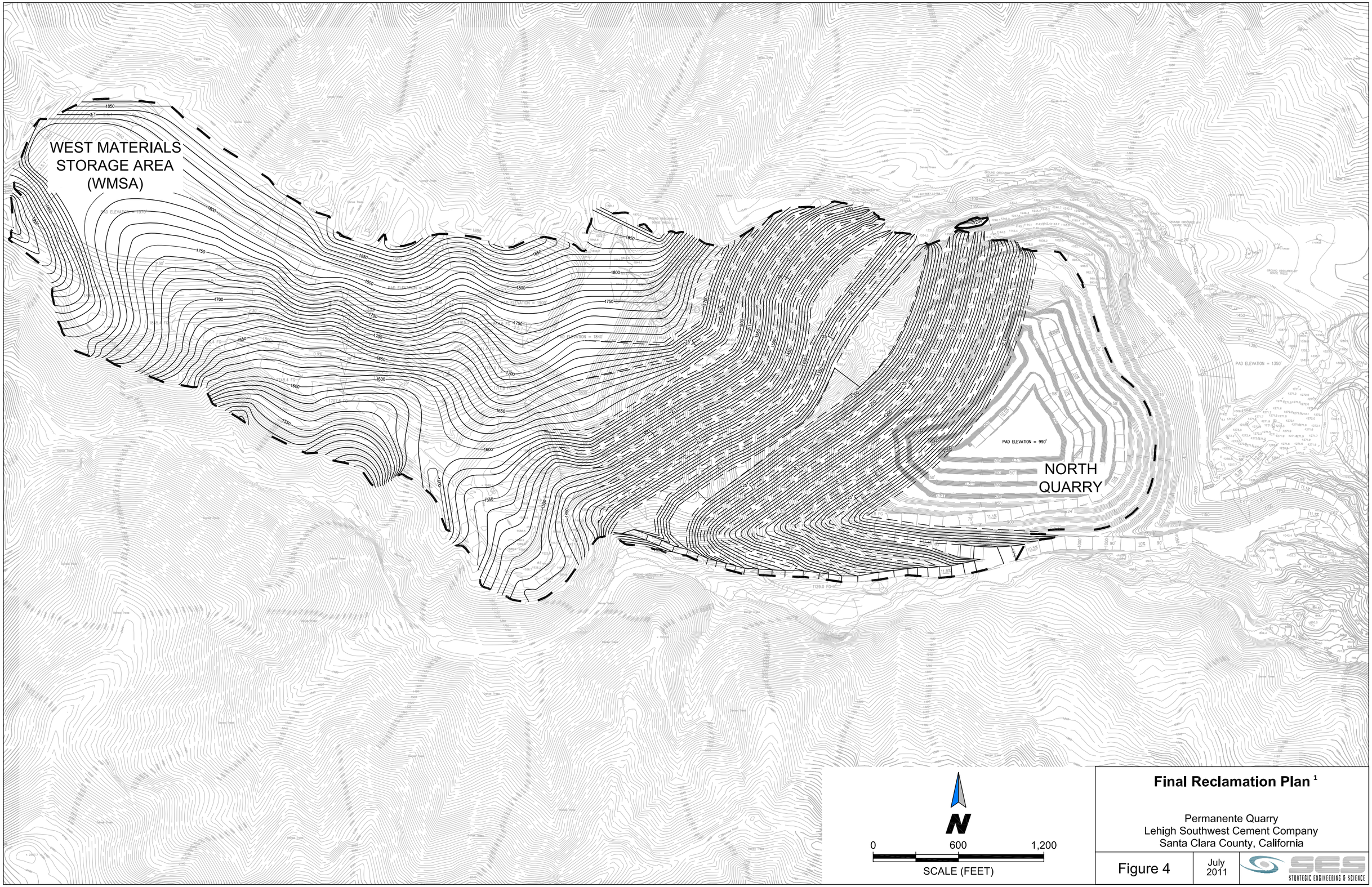
Imagery obtained from Golder Associates, Hydrologic Investigation – Permanente Quarry Reclamation Plan Update, April, 2010

LEGEND

- Groundwater monitor well
- Hydrogeology borehole
- Borehole with transducer
- Surface water sample location
- Surface water station
- Facility boundary

Surface Water & Groundwater Monitoring Locations
LEHIGH SOUTHWEST CEMENT COMPANY

Figure 3	July 2011	SES STRATEGIC ENGINEERING & SCIENCE

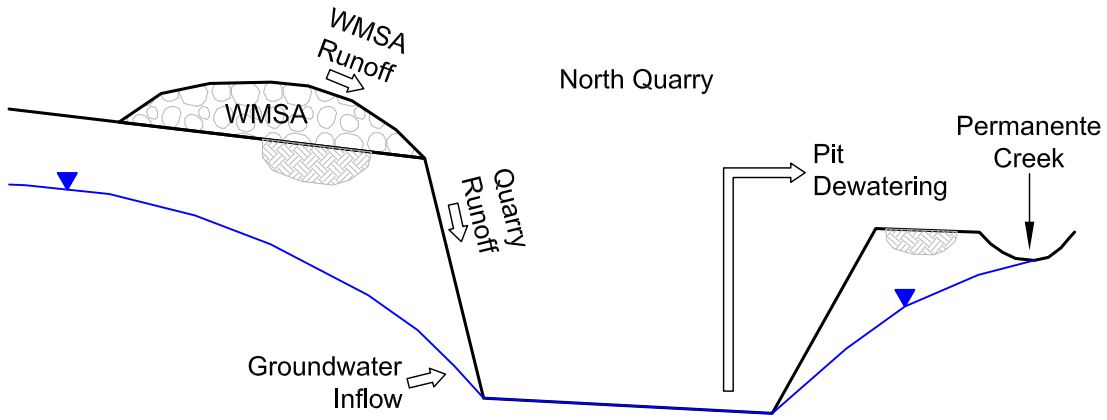


Final Reclamation Plan [1]

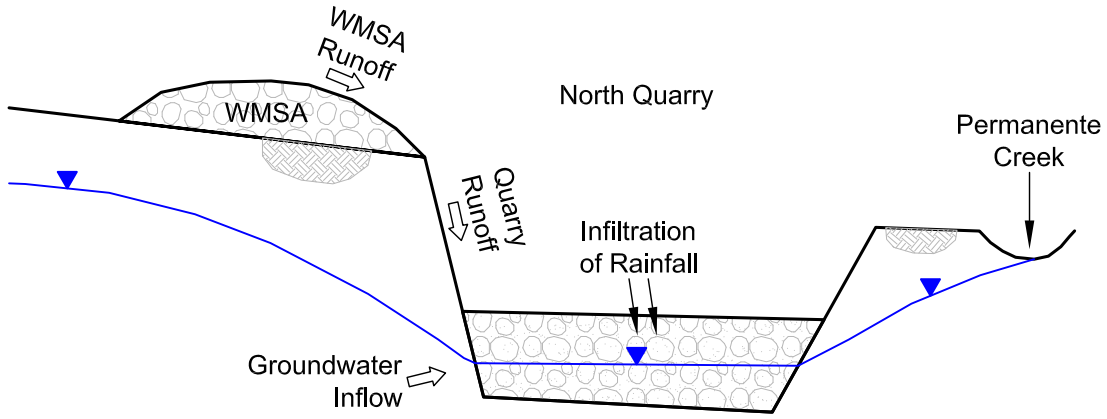
Permanente Quarry
Lehigh Southwest Cement Company
Santa Clara County, California

Figure 4 | July 2011 | SES STRATEGIC ENGINEERING & SCIENCE

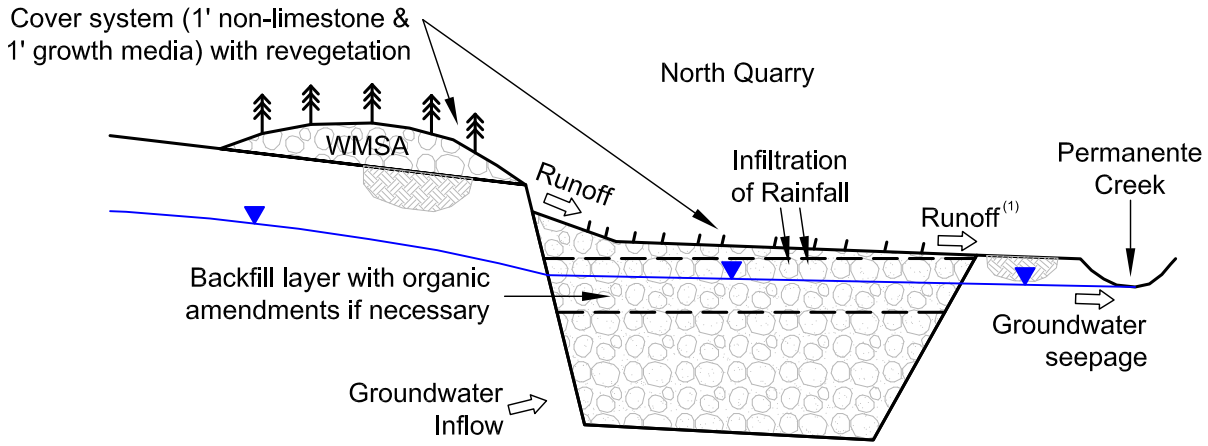
[1] *For the WMSA and North Quarry*



Phase 1 - Completion of Mining



Phase 2 - Backfill



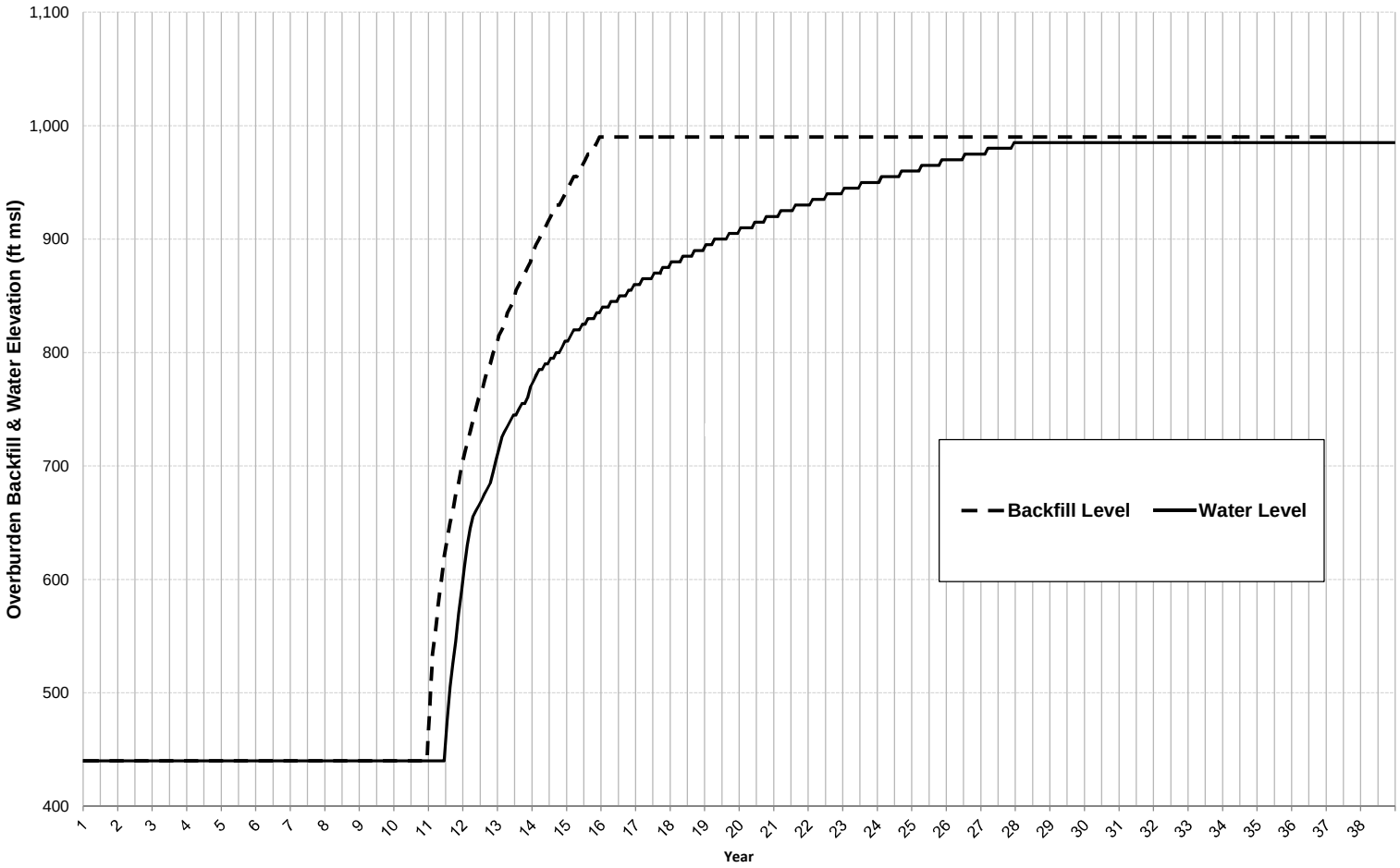
Phase 3 - Reclamation

(1) Discharge of runoff occurs predominantly from areas of non-limestone materials

Conceptual Model Water Balance
North Quarry Phases

Permanente Quarry
Lehigh Southwest Cement Company
Santa Clara County, California

Figure 5 | November 2011 | SES STRATEGIC ENGINEERING & SCIENCE



North Quarry Backfill

Permanente Quarry
Lehigh Southwest Cement Company
Santa Clara County, California

Figure 6	November 2011	SES

Appendix A

Mining and Overburden Schedule

Appendix A
Mining and Overburden Schedule

Peak Quarry Production by Phase (units: short tons, or tons).

Phase	Peak Year	LS - Cement	LS - Aggregate	Waste Rock (Truck)	Waste Rock (Conveyor)	Aggregate Fines	Topsoil Movements: North Quarry Stockpiled	North Quarry Used	WMSA Stockpiled	WMSA Used	EMSA Stockpiled	EMSA Used	EMSA Concurrent	Total Movements	Total Production[4]
1	2012	2,425,098	2,755,793	4,850,195	--	551,159	--	--	--	--	--	--	--	--	10,582,244
2	2021	--	--	2,480,213	7,440,640	--	--	118,800	--	--	--	11,023	39,683	169,507	9,920,854

Quarry Production by Phase and by Year (units: metric tons, or tonnes).

Phase	Year	LS - Cement	LS - Aggregate	Waste Rock (Truck)	Waste Rock (Conveyor)	Aggregate Fines	Excavation Source	Waste Destination	Topsoil Movements: North Quarry[4] Stockpiled	North Quarry Used	WMSA Stockpiled	WMSA Used	EMSA Stockpiled	EMSA Used	EMSA Concurrent	Total Topsoil Movements	Total Production[5]
Baseline	2000-2010	1,504,970	1,092,290	2,213,420	--	196,612	--	--	--	--	40,000	--	--	--	--	40,000	5,007,292
1	2012	2,200,000	2,500,000	4,400,000	--	500,000	Quarry	Quarry Infill	--	--	--	--	--	--	--	--	9,600,000
1	2013	2,200,000	2,500,000	4,125,000	--	500,000	Quarry	Quarry Infill	--	--	--	--	--	--	--	--	9,325,000
1	2014	2,200,000	2,500,000	4,125,000	--	500,000	Quarry	Quarry Infill	--	--	--	--	--	--	--	--	9,325,000
1	2015	2,200,000	2,500,000	2,750,000	--	500,000	Quarry	Quarry Infill	--	--	--	--	40,000	10,000	--	50,000	7,950,000
1	2016	2,200,000	2,500,000	2,750,000	--	500,000	Quarry	WMSA/EMSA	--	--	--	--	--	--	--	--	7,950,000
1	2017	2,200,000	2,500,000	1,000,000	--	500,000	Quarry	WMSA/EMSA	--	--	--	--	--	--	18,000	18,000	6,200,000
1	2018	2,200,000	2,500,000	1,000,000	--	500,000	Quarry	WMSA/EMSA	--	--	--	--	--	--	--	--	6,200,000
1	2019	2,200,000	2,500,000	1,000,000	--	500,000	Quarry	WMSA/EMSA	--	--	--	--	--	10,000	--	10,000	6,200,000
1	2020	2,200,000	2,500,000	--	--	500,000	Quarry	WMSA/EMSA	--	--	--	--	--	--	--	--	5,200,000
2	2021	--	--	2,250,000	6,750,000	--	WMSA	Quarry Infill	--	107,773	--	--	--	10,000	36,000	153,773	9,000,000
2	2022	--	--	2,250,000	6,750,000	--	WMSA	Quarry Infill	--	88,178	--	--	--	--	17,000	105,178	9,000,000
2	2023	--	--	2,250,000	6,750,000	--	WMSA	Quarry Infill	--	88,178	--	10,000	--	10,000	16,000	124,178	9,000,000
2	2024	--	--	2,250,000	6,750,000	--	WMSA	Quarry Infill	--	88,178	--	15,000	--	--	--	103,178	9,000,000
2	2025	--	--	2,250,000	6,750,000	--	WMSA	Quarry Infill	--	88,178	--	15,000	--	--	--	103,178	9,000,000
TOTALS:		19,800,000	22,500,000	32,400,000	33,750,000	4,500,000			--	460,485	40,000	40,000	40,000	40,000	87,000	707,485	112,950,000

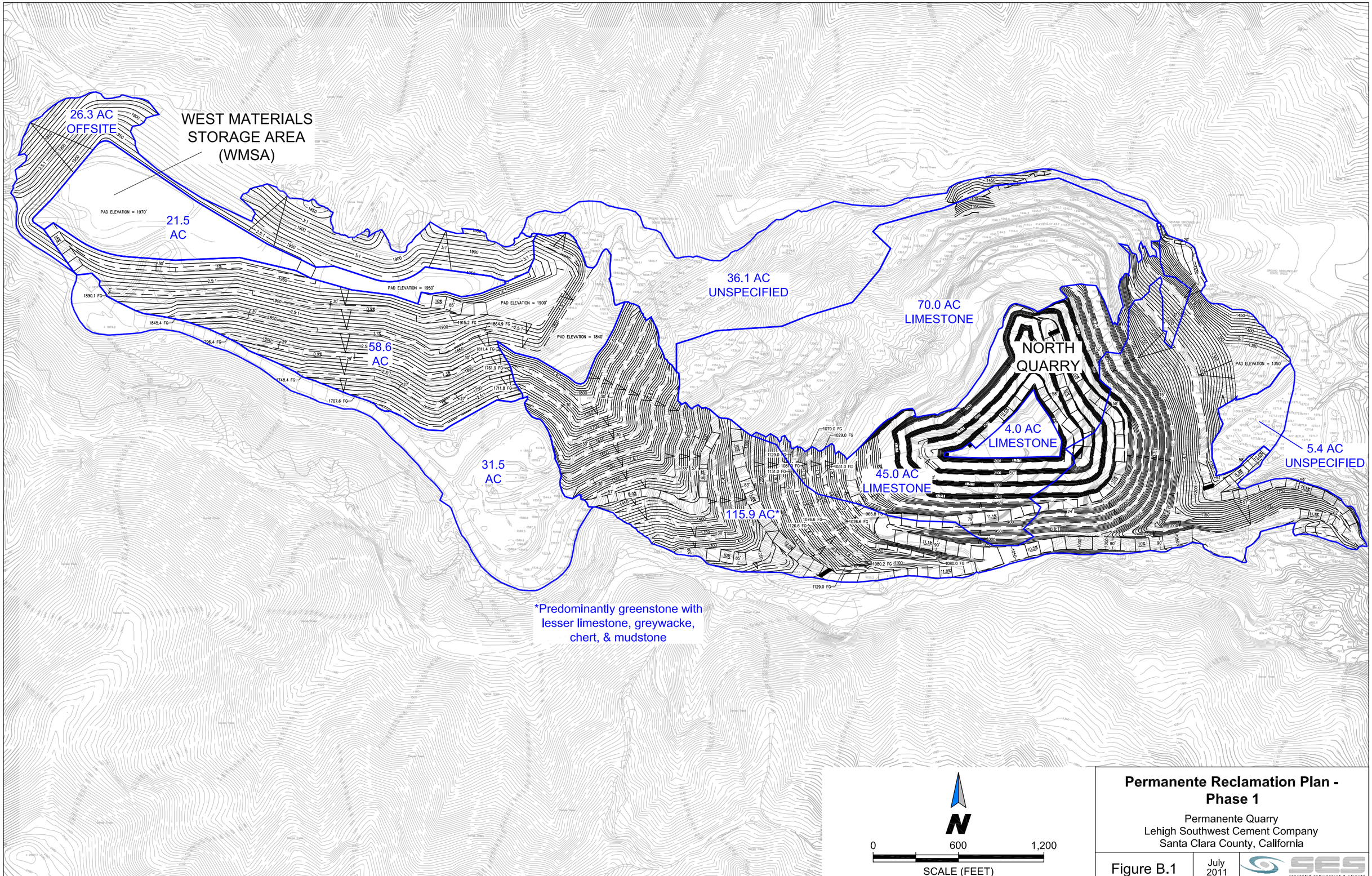
Notes:
1. Quarry production data based on maximum quarry production data provided by Lehigh Southwest Cement Company, July 2011.
2. Peak quarry production by phase is based on the year in which the maximum quarry production in conjunction with total topsoil movement occurs.
3. Conversion factors:
   1.10232 short ton/metric ton.
4. North Quarry topsoil movements include topsoil and green waste transported from off-site, and documented elsewhere.
5. Total production reflects the sum of LS-Cement, LS-Aggregate, Waste Rock, and Aggregate Fines.

Assumed Operating Schedule.

Schedule	Phase 1	Phase 2
Hours/Day	24	24
Days/Week	6	6
Weeks/Year	50	50

Appendix B

North Quarry and WMSA Mining and Reclamation



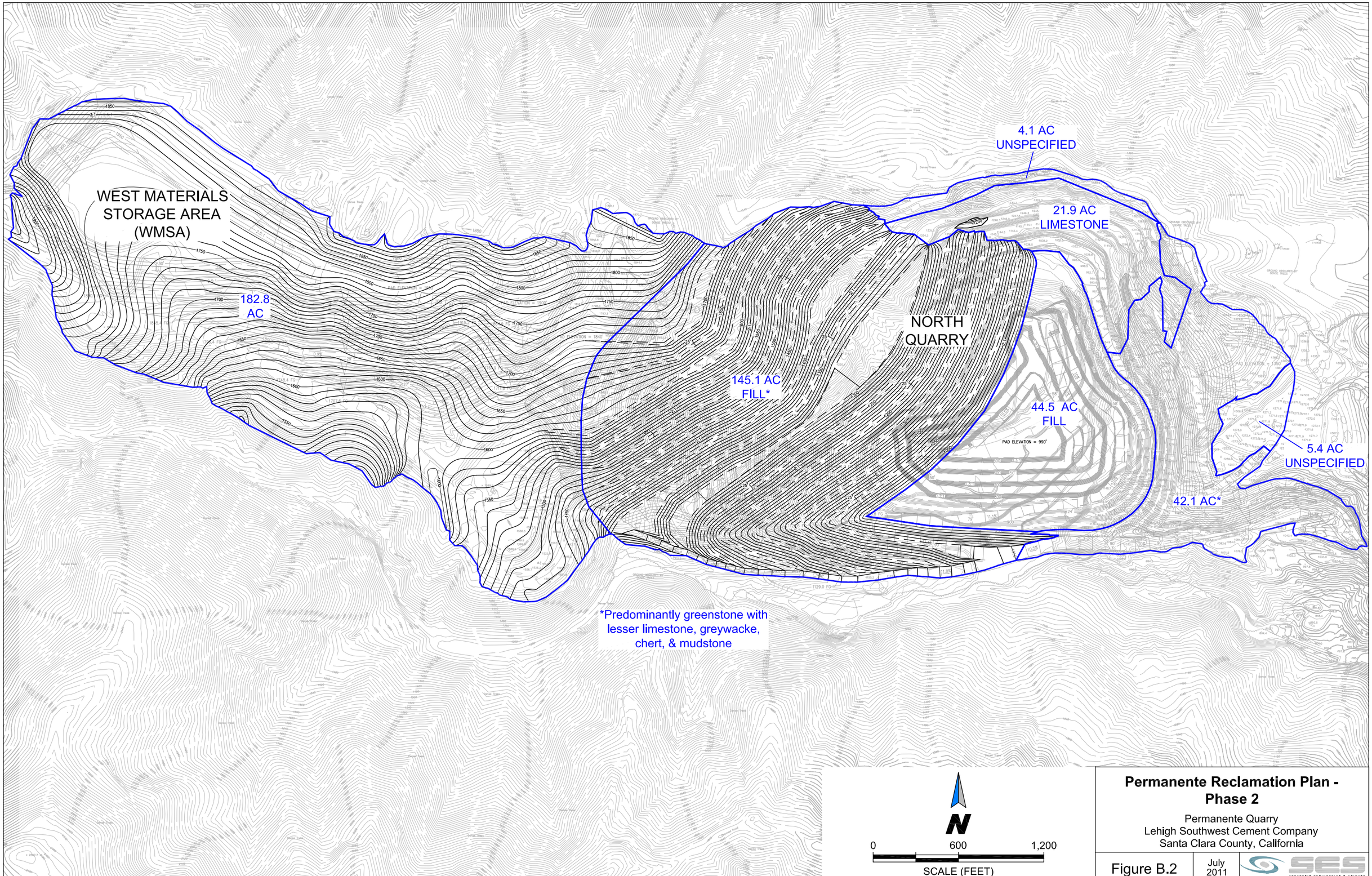
Permanente Reclamation Plan - Phase 1

Permanente Quarry
Lehigh Southwest Cement Company
Santa Clara County, California

Figure B.1

July 2011

SES STRATEGIC ENGINEERING & SCIENCE



Permanente Reclamation Plan - Phase 2

Permanente Quarry
Lehigh Southwest Cement Company
Santa Clara County, California

Figure B.2 | July 2011 | SES STRATEGIC ENGINEERING & SCIENCE

Appendix C

Water Balance and Water Quality Calculations

APPENDIX C
WATER BALANCE MODEL ANALYSES

C.1.1 INTRODUCTION

- This Appendix describes the Water Balance Model and its use to evaluate:
- The filling rate of the North Quarry pit
- The evolution of water quality for key parameters anticipated in the North Quarry pit water.
- The long-term flow rate of seepage from the North Quarry pit area;
- The water quality of seepage from the North Quarry Pit area

C.1.2 DESCRIPTION

The Water Balance Model uses site-specific information to calculate the water level and volume in the North Quarry in response to:

Inflows including groundwater, direct rainfall, and runoff from the pit walls and WMSA.

Outflows including discharge and evaporation.

The monthly change in storage volume in the pit lake is determined as the difference between inflows and outflows. The monthly change in volume is added to the previous month's volume to calculate the total volume in the pit each month. Once volumes are calculated, water level in the pit is calculated using a stage-volume relationship. The model is calibrated against pumping data for pit discharge. The two key calibration factors are groundwater flows and infiltration coefficient; other inputs and outputs are well characterized and measured.

C.1.3 QUARRY RECLAMATION PLAN

The water balance model has been constructed to reflect the timing and phases of the quarry reclamation plan. After mining ceases, the North Quarry will be reclaimed by backfilling the mining excavations to a specified level. Backfilled areas will be allowed to fill with surface water runoff and infiltrating groundwater. The backfill plan has been designed to ensure that the surface of the backfill will remain at or above the maximum elevation of the water, thereby avoiding surface impoundments. A surface drainage system will be established with a positive sloping gradient in order to efficiently convey runoff from the backfilled surface to Permanente Creek.

Mining and reclamation are planned under three phases. The first phase is the completion of mining in the North Quarry. During this phase, the EMSA will be reclaimed and overburden will be used to backfill and buttress the west wall of the North Quarry. The second phase is the excavation of the WMSA; backfilling and recontouring of the North Quarry to an elevation of 990 ft amsl; and fill of the slopes of the south, southeast, and east sides of the Quarry using material from the WMSA. The third and final phase occurs after backfilling and contouring of the slopes

have been completed, and consists generally of revegetation maintenance and monitoring in the former mining and overburden storage areas, together with the closure of ancillary mining facilities.

Additional details of these plans and the various drainage areas discussed below are contained in Appendices A and B.

C.1.4 INFLOW TO NORTH QUARRY

This section describes the areas that will drain into the North Quarry both during mining and after backfill and reclamation. These are used to perform quarry water balance and water quality evaluations. During mining water flowing into the quarry will be pumped out. Once mining ceases and backfilling starts, water entering the North Quarry will (eventually) no longer be discharged and will gradually fill the voids in the backfilled material. During the initial years of backfilling, it may be necessary to continue to pump out some of the water that accumulates in the quarry in order to maintain a dry backfill working surface. For purposes of the water balance and quality evaluations, it has been assumed that quarry dewatering ceases approximately six months after backfilling.

(a) Phase 1 – Mining Years 1 to 10

The following surfaces will drain into the North Quarry (including all WMSA haul roads) until the end of mining:

Un-reclaimed WMSA:	90 acres (58.6 + 31.5, Figure B.1)
Quarry Walls: greenstone and greywacke	116 acres (115.9, Figure B.1)
Quarry Walls: limestone	161 acres (70.0 + 45.0 + 4.0 + 36.1 + 5.4, Figure B.1)
Total:	367 acres

The North Quarry will be mined to an elevation of approximately 440 feet amsl over a period of 10 years (Appendix A). During this period, limestone product will be recovered and overburden rock comprised of greenstone, greywacke, and chert will be placed on the west wall of the North Quarry.

At this stage, it is assumed that the majority of the WMSA has not yet been reclaimed, and that the majority of surface water runoff from the WMSA will be captured by the North Quarry excavation and the North Quarry water would be managed as it is presently. A small amount of runoff that cannot be captured (i.e., from the PCRA treatment areas in Figure 2) flows through natural drainages directly to Permanente Creek. The EMSA reclamation is completed in this period.

(b) Phase 2 – Backfilling Years 11 to 16

During Phase 2, the North Quarry backfilling will occur. The North Quarry will be backfilled to a minimum elevation of approximately 990 feet amsl. The western slopes will also be backfilled to achieve a final stable configuration. Backfill will be taken from the WMSA (the EMSA will have already been reclaimed). As the final configuration of the WMSA is achieved, areas will be reclaimed through fine grading, construction of drainage systems, cover with non-limestone materials and/or growth media, and revegetation.

At the end of Phase 2 but before the placement of non-limestone cover materials, the following areas will drain into the backfilled North Quarry (Figure B.2).

Fill Area (slopes): assumed to be limestone	187 acres (145.1 + 42.1)
Fill Area (flat): assumed to be limestone	45 acres
Quarry Walls: greenstone and greywacke	0 acres
Quarry Walls: limestone	22 acres
Total:	254 acres[1]

(C) Phase 3 – Reclamation Years 16 to 20

After placement of backfill, rainfall water will generally runoff the reclaimed surfaces except on the relatively flat backfill over the deepest portion of the pit, where continued rainfall infiltration will occur.

Fill Area (flat): non-limestone	45 acres
Total:	45 acres

Water will progressively accumulate in the North Quarry backfill during Phase 2 via groundwater inflow and surface water infiltration, and during Phase 3 and beyond by groundwater flow and surface infiltration through the flatter portions of the backfill surface. Infiltration of runoff from sloping surfaces is accounted for in the groundwater inflow to the quarry.

C.1.5 RUNOFF FROM NORTH QUARRY

This section describes the surface areas during and after backfilling that will drain into Permanente Creek. Runoff will occur from these surfaces after the North Quarry backfill is completed.

Also during Phase 2, the WMSA reclamation will result in gradual application of stormwater best management practices (BMPs) located within the WMSA, so less of the runoff will need to be diverted into the North Quarry area.

The backfilling will occur over an approximately five year period, followed by cover and revegetation activities. For purposes of determining the amount and quality of the surface water runoff from the North Quarry to Permanente Creek after the backfill is completed and reclaimed, the following drainage areas were (and are) the same as above after the placement of final cover material:

[1] This differs slightly from the 259.69 acres shown on Figure 2 as this figure incorporates the Reclamation Plan Amendment boundary, while the above values are based on drainage divides (in general, the acreages used for purposes of analysis in this report may differ from the plan view acreages for different areas listed in the proposed reclamation plan amendment).

Quarry Walls (acres)		Total(acres)
Covered	Exposed	
Breccia & Greenstone	Limestone	
232[2]	11 to 22[3]	243 to 254

Because of the elimination of bare limestone surface in the waste storage areas, runoff water quality from the reclaimed WMSA and EMSA is expected to be comparable to or marginally better than runoff in the reclaimed North Quarry area.

C.1.6 QUARRY WATER BALANCES

Water balance computations have been completed for the North Quarry for the period of reclamation and post-reclamation, typically for periods over 20 years, which includes the period before North Quarry backfilling begins and over 10 years beyond after backfilling has been completed.

Separate water balance and water quality models were established using Excel spreadsheets for both groundwater in the quarry and for runoff from the backfilled quarry surface.

The drainage areas described above, coupled with average monthly precipitation values, were used to determine the volumes of water over time for each of the models. The following runoff and infiltration coefficients were used to calculate volumes of water flowing into the North Quarry, plus the direct runoff to Permanente Creek from the surface of the backfilled North Quarry:

Mean annual rainfall (Golder, 2010b):	22.2 inches
Runoff from WMSA as a percentage of rainfall (typical surface runoff in area):	30%
Runoff from quarry walls (typical):	50%
Infiltration through surface of backfilled quarry before it can be drained:	50%
Infiltration through surface of backfilled quarry after it is drained (reclamation period):	15%

[2] Based on 145.1 + 42.1 + 44.5 acres from Figure B.2.
[3] Based on 50% x 21.9 acres to 21.9 acres on Figure B.2.

Groundwater inflow is also included in the water balance. Based on groundwater modeling (Golder, 2010b), the following average annual rates of groundwater inflow to the quarry were established and used in the water balance calculations:

Full Mining Depth	371 gpm inflow
(440 feet amsl)	
Approximate final groundwater level in quarry	80 gpm inflow
(990 feet amsl)	

The printouts for the water balance evaluations are presented at the end of this appendix. The remainder of this section explains the calculations and provides more details regarding the model.

The upper left portion of the spreadsheet shown in the printout lists overall constants and parameters that are used throughout the model. This includes the annual precipitation, the areas of the different rock types within the quarry and of the WMSA at the three points in time that are of interest (i.e., the beginning of Phase 1 and the transitions from Phase 1 to Phase 2 and Phase 2 to Phase 3). These areas were provided by Chang Consultants using the drawings in Appendix B of this report.

The upper left section also provides the spill elevation of the pit and the bottom elevation, as well as the groundwater inflow rates when the pit is at each of these two levels (from the groundwater modeling performed by Golder). The date that the pit is allowed to begin filling with water is also provided.

Finally in the upper left is a list of overall assumptions for the water balance.

The first four columns of the spreadsheet indicate the Phase, the plan year, the month of the plan year, and the total months. These parameters are used with lookup tables to relate rainfall and evaporation to the time of year. In addition, these parameters are used to vary the areas of the quarry limestone and other rock exposed as well as the area of the WMSA. The fifth column indicates the actual year and month according to the current mine schedule.

The sixth column is the area of the quarry in square feet that has exposed greenstone and greywacke. This area is varied by linear interpolation from the initial area at the beginning of the phase to the final area at the end of the phase. The area is used to calculate an inflow to the pit which is presented in the seventh column. Inflow to the pit from this rock type is the monthly rainfall multiplied by the infiltration factors (described above) and then by the area; the flow is presented in cubic feet.

The eighth through eleventh columns are the same calculations as the sixth and seventh, but for the area of exposed limestone within the quarry and the WMSA, respectively.

The next (twelfth) column presents the groundwater inflow. The groundwater inflow is linearly varied from the highest flow at the deepest excavation of the pit (440 ft amsl, 371 gpm) to the lowest flow at the highest water elevation that could be reached (990 ft amsl, 80 gpm). The inflow

is varied in proportion to the water level calculated for the previous month (in the 23rd column with the header "Pit water level at the end of year").

The next two columns (Undrained backfill [no surface outlet]) are not used. They were created for some special evaluations regarding alternative backfilling and management plans.

The next two columns (Drained Backfill [with surface outlet]) present the area of pit backfill whose infiltration reports to the pit. During Phase 1, this parameter is zero. There is a positive value only in Phase 2 when backfilling of the pit begins. Backfill of the west wall during Phase 1 is addressed with the quarry areas and the WMSA area. As with the other areas, the drained backfill inflow to the pit area is calculated using an infiltration factor (described above) along with the monthly rainfall and the area.

The next column to the right, Pit Lake Precipitation, is not used. This parameter was used for evaluating alternatives that included an open pit lake.

The next column, Water Entering Pit Lake, is the sum of the inflows of the Quarry Area (Greenstone and Greywacke), Quarry Area (Limestone), WMSA, Groundwater Inflow, and Drained Backfill (with surface outlet). This represents the total inflow in cubic feet for the month.

The next column to the right, Pit Lake Outflow, is the value in the column with the header "First Cut Water Accumulation in Pit Lake" minus the value in the column with the header "Available Water Storage in Pit" if this difference is positive; otherwise the value is zero.

The values in the next column with the header "Cumulative Water in Pit" is the sum of the storage in the previous month and the value in the column "Water Entering Pit Lake" minus the value in the "Pit Lake Outflow" column.

The next column, Cumulative Volume Occupied by Water in Backfill" is not used.

The next column, Cumulative Backfill Volume, is the total volume of backfill in the quarry that has been placed during that period (not including the backfill on the west wall placed during Phase 1).

The next column, Pit Water Level at End of Year, is the value from a lookup table that uses a stage volume curve as well as the void volume of the backfill and the cumulative water in the pit lake area to determine the water level within the quarry.

The next two columns, Pit Water Open Area at End of Year and Area for Surface Water Runoff for Next Year, are not used.

The next column, First Cut Water Accumulation in Pit Lake, is the sum of the inflows (in "Water Entering Pit Lake" column) and the volume of water in the pit lake ("Cumulative Water In Pit").

The last column of the water balance portion of the spreadsheet, Available Water Storage in Pit, is calculated from the volume of the pit minus the non-void volume of the backfill.

C.1.7 WATER QUALITY PROJECTIONS

The water balance portions of the model are used with water quality information to develop water quality projections for the North Quarry. The water balance portion is the same for all constituents that were analyzed; only the water quality portions were varied for this part of the analysis. The

water quality projections are basically mass balance calculations, where the inflow of source (i.e., the Quarry Area [limestone] was multiplied by the concentration representative of that source (described below), then all the sources are summed, any sinks (i.e., pit dewatering) are accounted for, and the resultant mass of constituent is divided by the total volume of water in the pit.

The quarry water quality projections were performed for the following list of dissolved metal constituents:

- Antimony
- Arsenic
- Cadmium
- Copper
- Manganese
- Nickel
- Selenium
- TDS
- Sulfate (SO_4)

Mercury was also evaluated; however because concentrations in rocks and water at the site are low, it was not necessary to perform predictive modeling for this constituent.

The water quality parameters have been specifically selected from the testing results and water quality monitoring to reflect the changing conditions during mining, backfilling, and reclamation. The model assumes that the constituents behave conservatively and there are no geochemical interactions with the adjacent rock materials. For all constituents except manganese, these are considered reasonable assumptions for projecting future conditions. The key water mass balance components and the water quality described for each component are provided in Table 8 of the main report.

The water quality input parameters for each source are constant throughout the modeling period except for groundwater inflow. Groundwater enters the North Quarry as seeps through fractured and weathered rock. By the time the backfill reaches 990 ft amsl, it is expected that the groundwater quality flowing into the quarry will return to that typically measured in the groundwater wells (Table 3 of the main report). Therefore, the concentrations in the groundwater inflow are linearly varied with water level from an initial condition where the concentration is the same as current North Quarry water to a final condition where the concentration is the same as the average concentration at the wells listed in Table 3 of the main report.

In the spreadsheet printouts, the water quality projections are to the right of the water balance results. At the top of the columns, the concentration for each source component is listed along with the source of that data. Below the column headers (i.e., below the columns that start with “Quarry Area [Greenstone/Greywacke]), the mass load for that source for each month is calculated in

pounds per month. Then the cumulative mass in the pit is calculated as the sum of each component plus what was in the pit in the previous month. Then the cumulative mass is divided by the total volume of water in the pit area to calculate the concentration in the pit, which is equal to the concentration that seeps toward Permanente Creek.

C.1.8 CALIBRATION AND SENSITIVITY ANALYSES

The water balance model was calibrated on the water flows pumped from the current pit (i.e., the pit water balance model was set up for the current configuration of the North Quarry and the parameters adjusted until the flows were reasonably well matched). The water balance model was also calibrated on current North Quarry water quality. The parameters selected, including the inflow and outflow parameters represent the best match of both the water flows with the pit dewatering rate and the projected concentrations with concentrations of North Quarry water quality. The key calibration factors are groundwater inflow and the infiltration rate. The chemistry of the source water was also used in calibration, however the values for all constituents had to be selected consistently (e.g., the maximum value for one constituent from a source was not used if the average value for all the other constituents provided the best fit).

Sensitivity analyses were also performed to determine the robustness of the results. Because several of the water quality inputs are based on single data points, the sensitivity was evaluated by increasing the individual values for a particular constituent of concern by 15%, 25%, 50%, 75% and 100%. In addition, the final condition for groundwater inflow, which is based on several data points from monitoring wells, was varied by using the maximum value for a constituent.

The results of the sensitivity analyses are presented in Table C.1 for selenium. The results indicate that the infiltration from the quarry walls has the greatest impact on the final concentration, and the effect is very minor for all cases.

Another sensitivity case was run by decreasing the rainfall amount by 30% for a period of time (8 years) during pit filling to evaluate the effects of extended drought. The result is that more time is required for the pit to reach its final equilibrium level (from 16 years to 17), and more time is required for the pit to reach the final concentration of constituent. However, the results of the concentration projections are not such that there are any differences in the final concentrations projected for the Phase 3 period (i.e., those presented in the body of this report).

C.1.9 RESULTS

The result of the water balance calculations indicates that the average annual outflows from North Quarry will be 90 to 95 gpm.

The spreadsheet model was used to determine monthly inflows to the North Quarry and runoff from the quarry areas for the 20-year modeling period. Once backfill starts in the North Quarry, the models calculated the rate of filling and determined the long-term net outflow. It is estimated to take approximately 16 years for the groundwater in the North Quarry to reach its equilibrium level once backfilling begins.

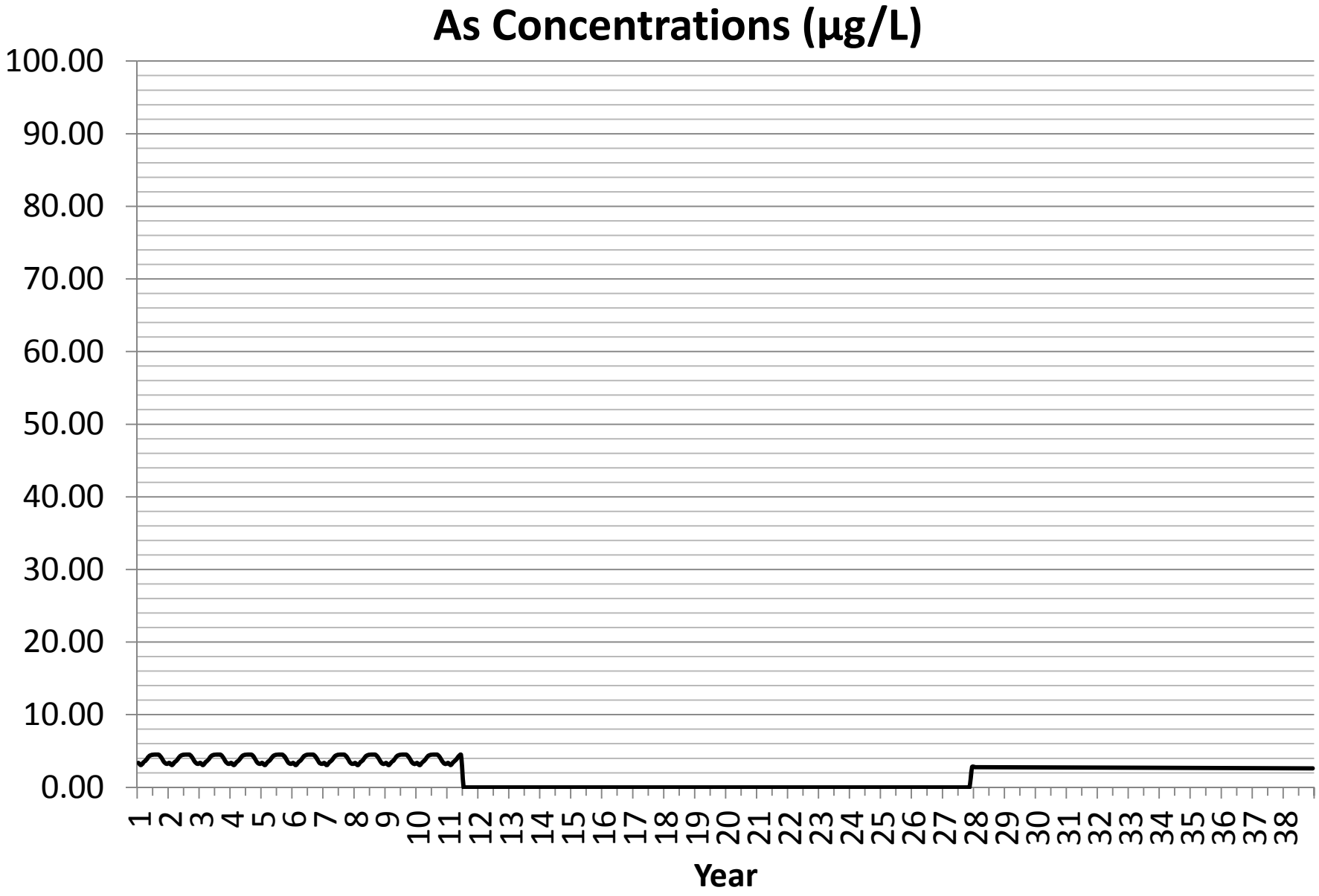
The water quality of the outflows of the pit is shown in charts provided later in this appendix. The charts show zero concentration during the period after pit dewatering stops until the pit reaches its equilibrium level. This is because there is no outflow during this period.

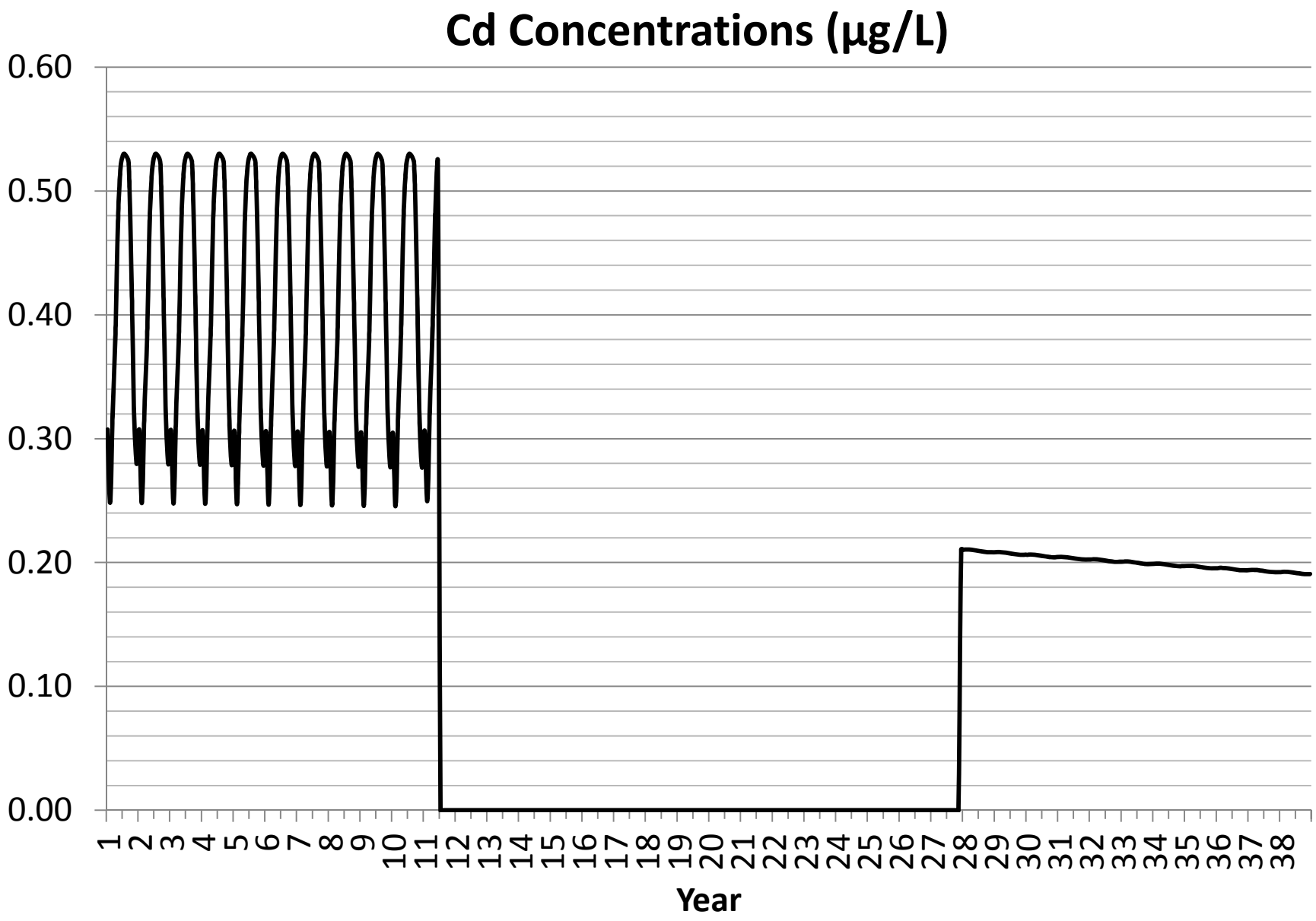
Table C.1
Results of Water Balance Model Sensitivity Analyses for Selenium

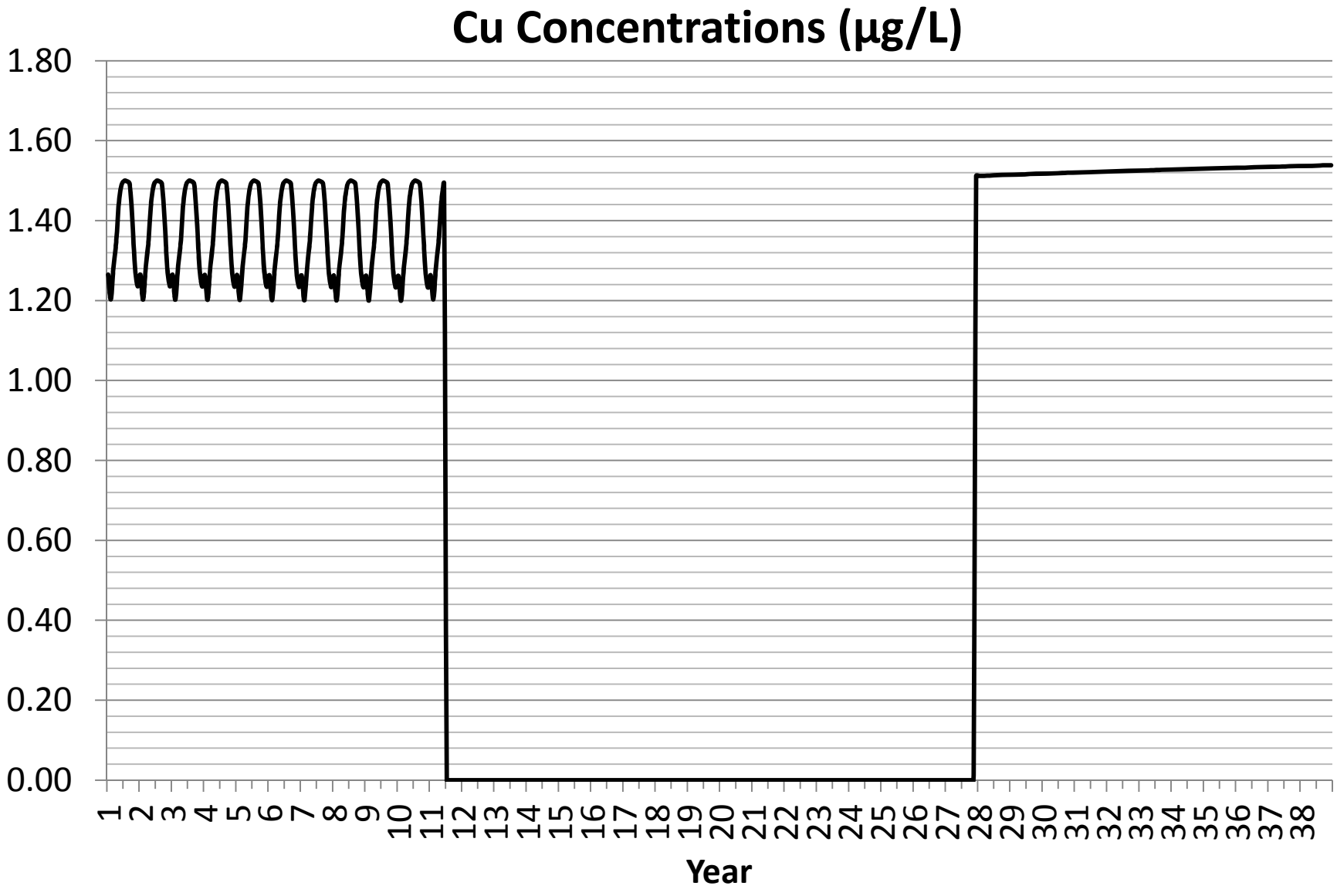
Water Balance Model Component	**Rock type**	**Current Water Quality Inputs - Selenium (µg/L)**	**Rationale**	Groundwater Result with 15% Increase in Conc. (µg/L)	Groundwater Result with 25% Increase in Conc. (µg/L)	Groundwater Result with 50% Increase in Conc. (µg/L)	Groundwater Result with 75% Increase in Conc. (µg/L)	Groundwater Result with 100% Increase in Conc. (µg/L)	Groundwater Results of Phase 3 Linear Interpolation to Groundwater Maximum (µg/L)	
WMSA Runoff	**Various**	29	Dissolved wall runoff quality as characterized by WMSA runoff sampled in January 2010 –Table 7	within same range (9.01 - 12.3)	within same range (9.05 - 12.39)	within same range (9.23 - 12.61)	within same range (9.31 - 12.76)	within same range (9.4 - 12.84)	N/A	Current Final Se Range in Groundwater = 9.01 12.21 ug/L
Quarry Walls	**Greenstone & graywacke**	1.2	CAM WET tests (average for all tests) – Table 6	within same range (9.02 - 12.28)	within same range (9.02 - 12.25)	within same range (9.01 - 12.30)	within same range (9.06 - 12.28)	within same range (9.09 - 12.23)	N/A	
Quarry Walls	**Limestone**	29	Dissolved wall runoff quality as characterized by WMSA runoff sampled in January 2010 –Table 7	within same range (9.16 - 12.57)	within same range (9.26 - 12.68)	within same range (9.67 - 13.2)	slight increase above range (9.97 - 13.65)	slight increase above range (10.26 - 14.02)	N/A	
Infiltration through quarry backfill	**Greenstone and graywacke**	1.2	CAM WET tests (average for all tests)	within same range (9.03 - 12.32)	within same range (9.02 - 12.29)	within same range (9.01 - 12.34)	within same range (9.09 - 12.28)	within same range (9.09 - 12.28)	N/A	
Groundwater Inflow	**Various, mainly limestone During**	82	North Quarry Water – Table 7	within same range (9.13 - 12.21)	within same range (9.01 - 12.24)	within same range (9.01 - 12.21)	within same range (9.05 - 12.24)	within same range (9.09 - 12.31)	N/A	
	Gradual improvement during backfilling	Linear interpolation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	At the end of the backfill to the 990 level during Phase 3	0.7	Average groundwater quality from Table	no change (9.01 - 12.21)	no change (9.03 - 12.24)	within same range (9.03 - 12.31)	within same range (9.01 - 12.27)	within same range (9.01 - 12.31)	no change (9.01 - 12.24)	

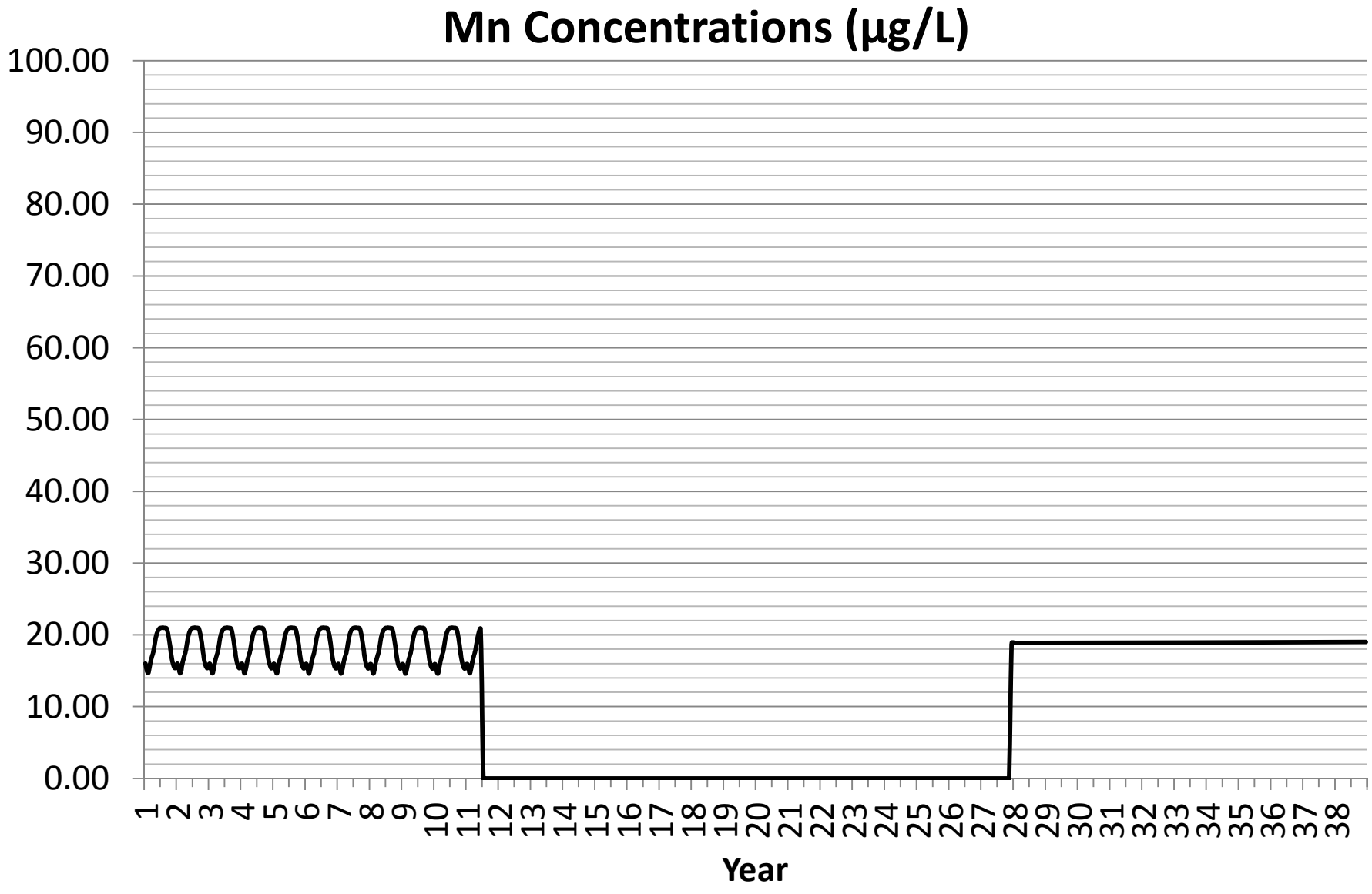
Appendix C.1

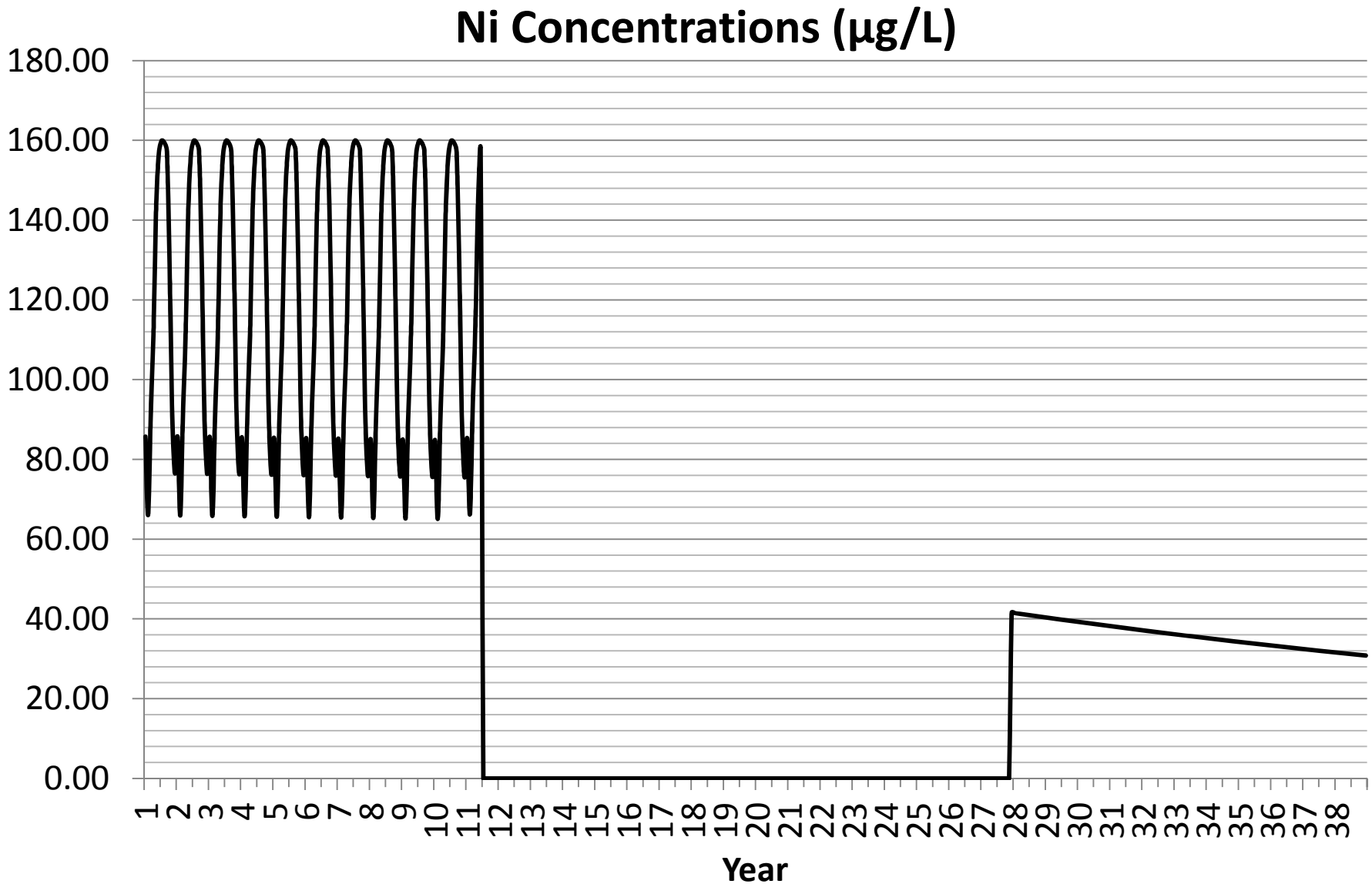
North Quarry Reclamation Water Quality Projections

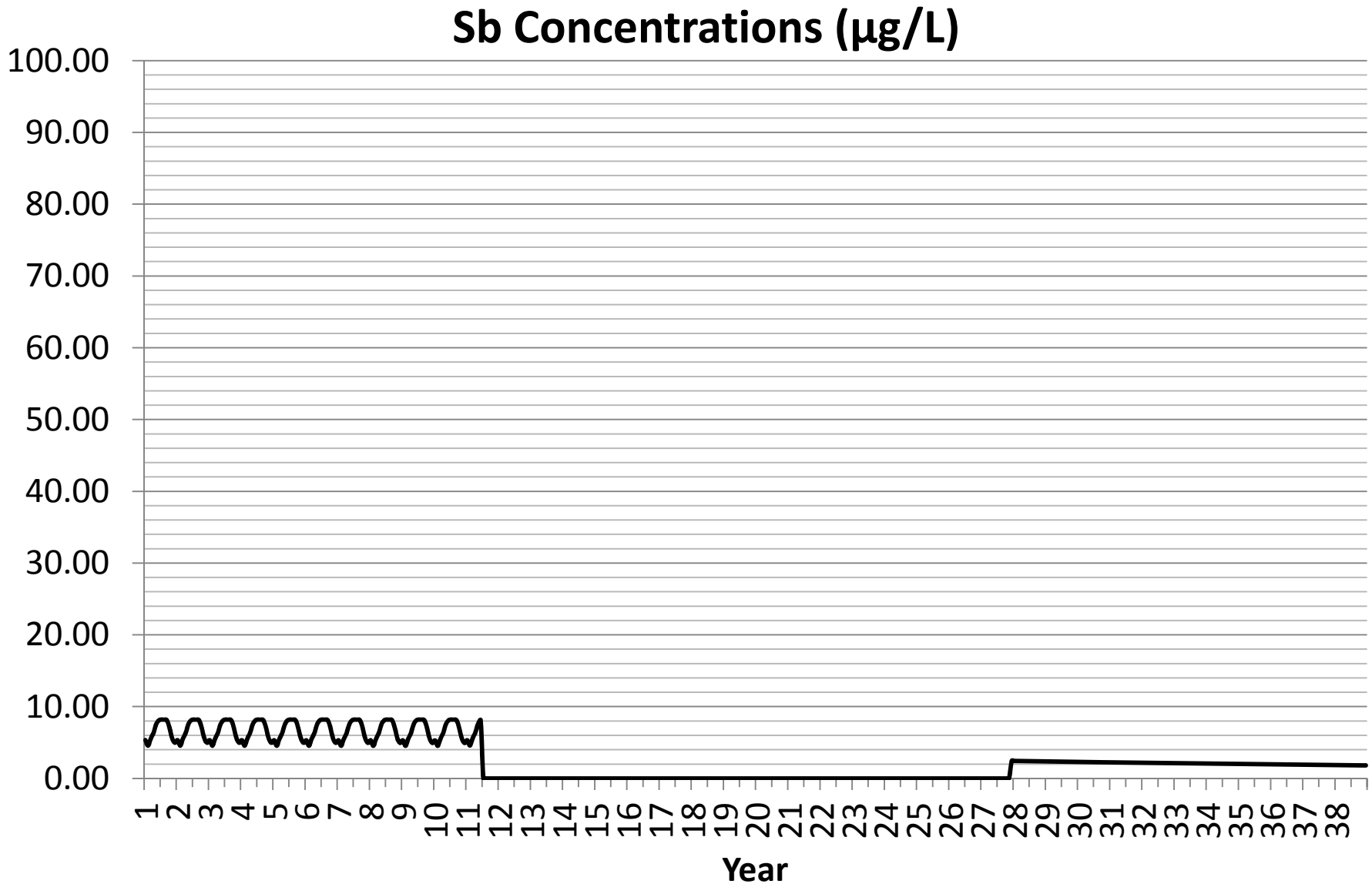

As Concentrations (µg/L)
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38
Year

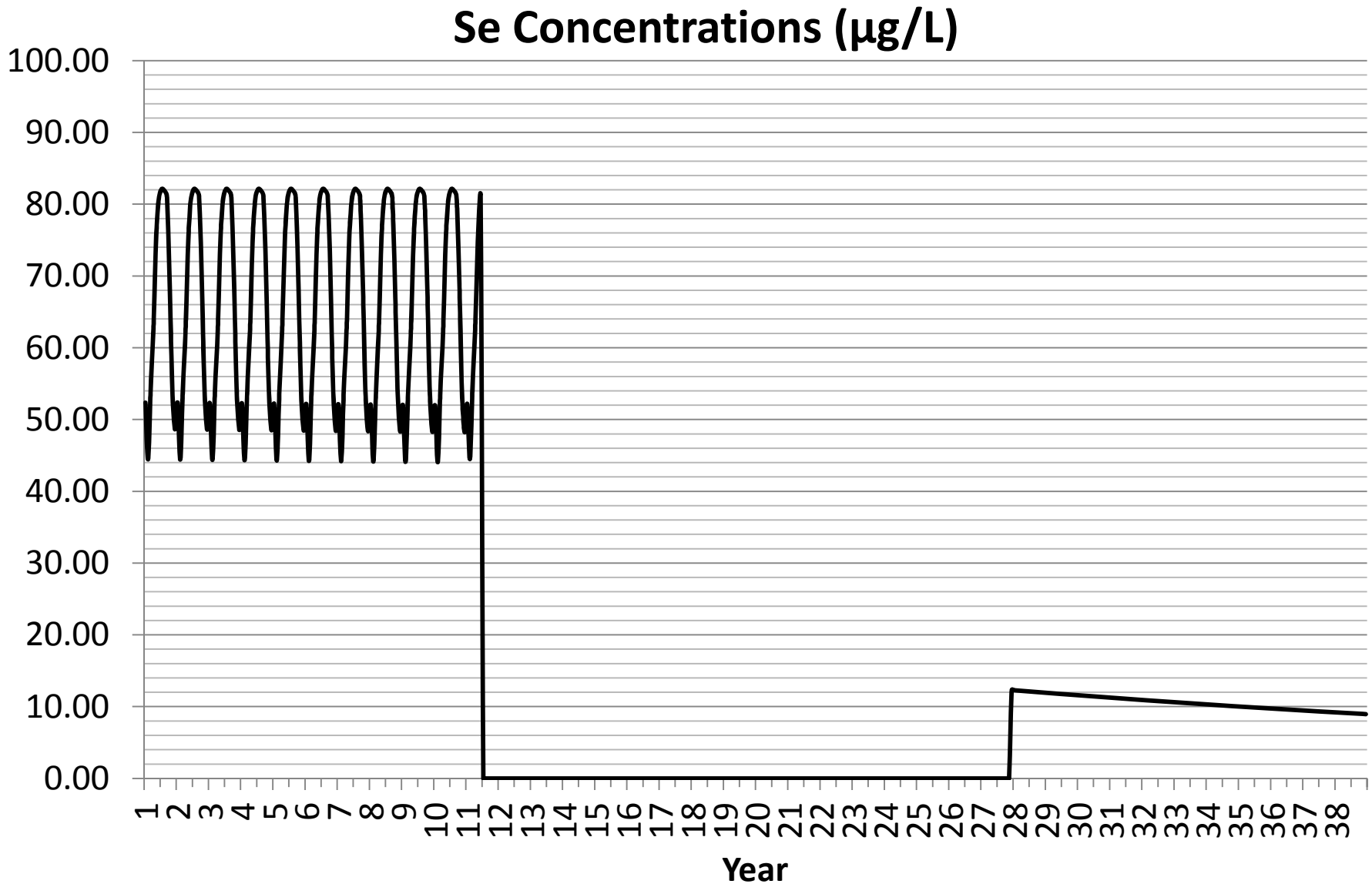

Cd Concentrations (µg/L)
0.60
0.50
0.40
0.30
0.20
0.10
0.00
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38
Year

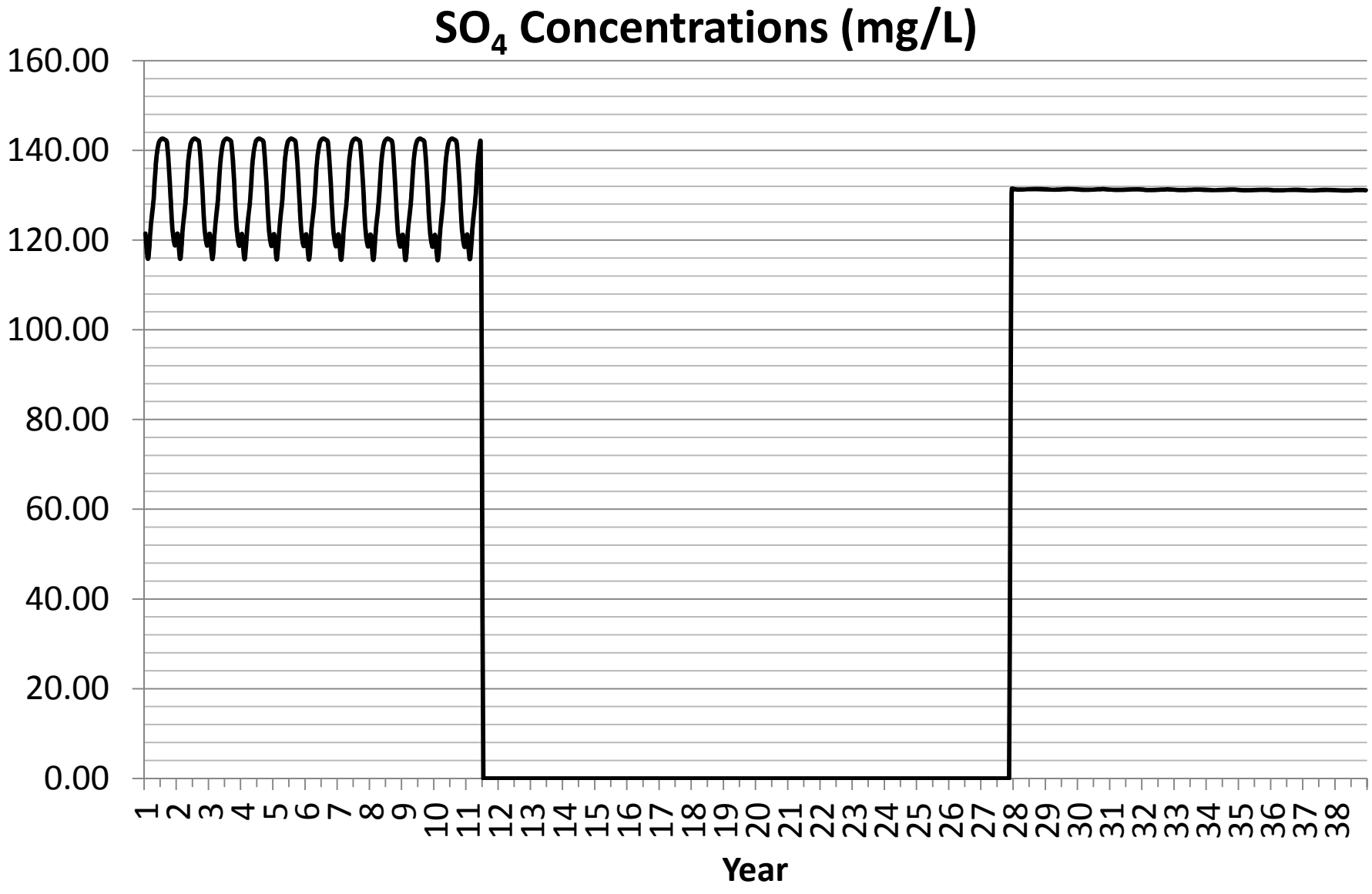

Cu Concentrations (µg/L)
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38
Year

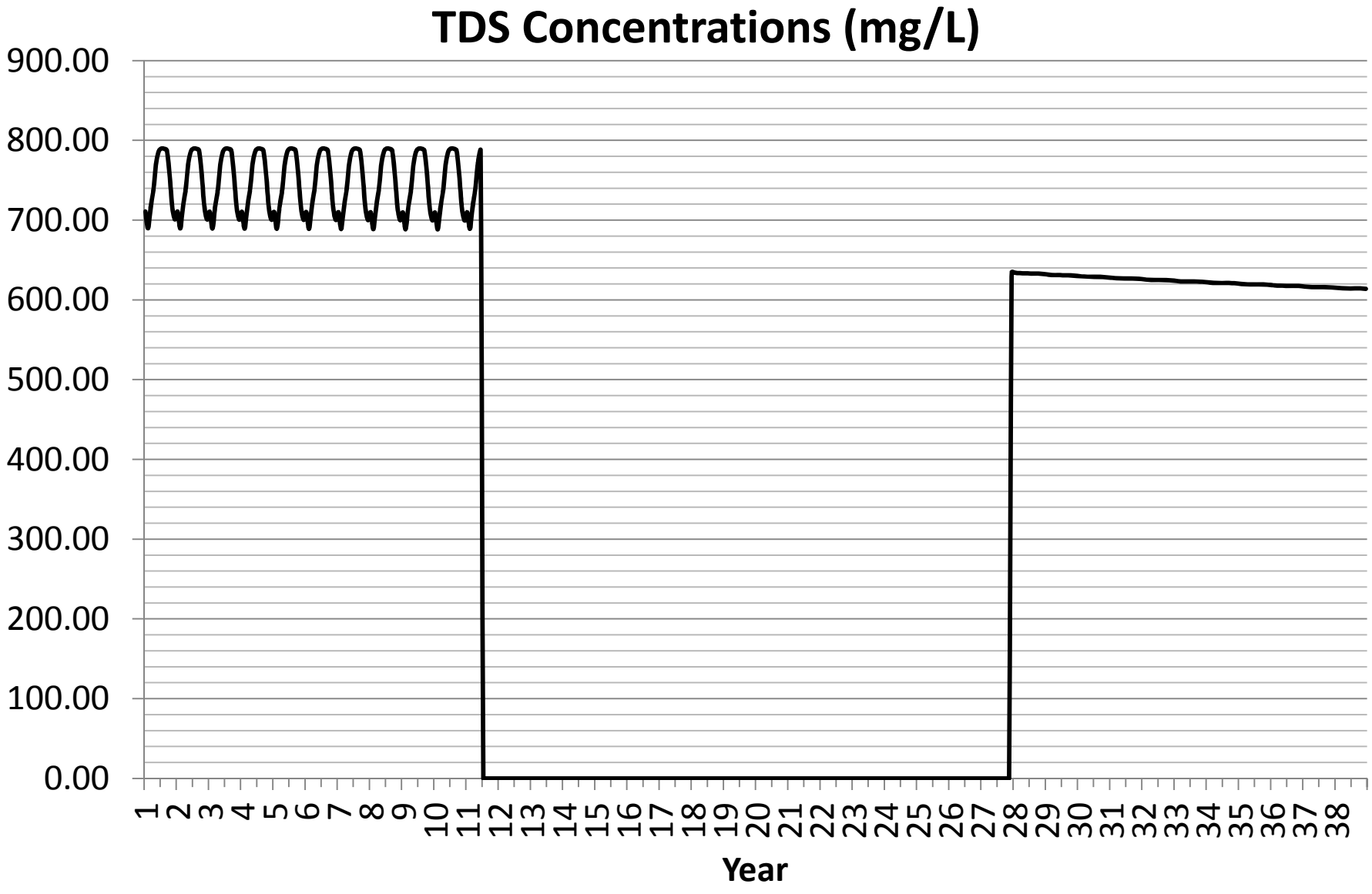

Mn Concentrations (µg/L)
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38
Year


Ni Concentrations (µg/L)
180.00
160.00
140.00
120.00
100.00
80.00
60.00
40.00
20.00
0.00
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38
Year


Sb Concentrations (µg/L)
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38
Year


Se Concentrations (µg/L)
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38
Year


SO4 Concentrations (mg/L)
160.00
140.00
120.00
100.00
80.00
60.00
40.00
20.00
0.00
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38
Year


TDS Concentrations (mg/L)
900.00
800.00
700.00
600.00
500.00
400.00
300.00
200.00
100.00
0.00
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38
Year

Inflows and Outflows	Parameters	Units	Value	Units	Description and Rationale					
Precipitation	Precipitation		1.85	ft/yr	Los Altos climate station, direct precip on westerock backfill area is based on monthly precip data					
			Phases	0 - 10	11-16	16-20				
			Initial	Mining	Backfilling	Revegetation				
Quarry Backfilling Areas	**Surface Water Drainage to Pit**									
	Quarry Area (Greenstone/Greywacke)	sq feet	4,900,000	5,052,960	-	-				Based on drawing from Chang Consultants
		acres	112	116	-	-	-	-	-	Figures B.1 through B.3
	Quarry Area (Limestone)	sq feet	7,000,000	7,000,000	-	-				
		acres	161	161	-	-	-	-	-	
	WMSA	sq feet	3,500,000	3,920,400	-	-				
		acres	80	90	-	-	-	-	-	
	Surface Infiltration to Pit (Through backfill)									
	Undrained Backfill (No Surface Outlet)	sq feet	-	-						
		acres	-	-	-	-	-	-	-	
	Drained Backfill (With Surface Outlet)	sq feet			1,960,200	1,960,200				
		acres	-	-	45	45	-	-	-	
	Total Drainage Area	acres	354	367	45	45	-	-	-	
	Spill Elevation		990.00	ft amsl	Based on Mine Plan (Chang Drawings)					
	Bottom of Pit		440.00	ft amsl	Based on end of Phase 1 for South Quarry Mine Plan (Chang Drawings)					
Groundwater Capture	Initial		371	gpm	MODFLOW model results for Phase 1, maximum excavation condition (Golder's Report)					
			2,181,181	cu ft/mo						
	At Spill Elevation		80	gpm	MODFLOW model results for ultimate condition (Golder's Report)					
			470,336	cu ft/mo						
Date Quarry Filling Starts			**6/1/2028**							
			In situ Pit Water Treatment Removal Rate							
Assumptions	The pit is backfilled incrementally over a 10-year period, from 440 ft amsl to the spill-over elevation of 990 ft amsl									
	Backfill material has a porosity of 30-percent.									
	Surface runoff is only within the capture area of the pit and is based on water year 2009 data									
	Groundwater inflow into the pit varies by month and diminishes as the backfill increases									
	Precipitation directly infiltrates to the water table within the area of the backfill.									
	Evaporation of the pit lake is only applied when the cumulative volume of water in the pit is greater than the cumulative volume of void spaces within the backfill (based on 30-percent porosity)									
	The water level in the pit is dependent on the total cumulative volume of the backfill up to the spill-over elevation.									

| | | | | | | | | |

2	12	8	140	8/1/2029	3,368,640	1,716	4,666,667	2,377	2,613,600	799	1,465,737	0	0	653,400	100	1,470,727	0	34,744,268	364,691,672	675	34,744,268	524,244,279	0.00	0.00	0.00	3.58	0.33	0.00	0.00	0.00	0.00	7.28	3.35	0%	0.00
2	12	9	141	9/1/2029	3,284,424	8,211	4,550,000	2,275	2,548,260	3,822	1,450,184	0	0	686,020	515	1,474,107	0	36,218,375	376,088,287	680	36,218,375	516,348,167	0.00	0.00	0.00	3.56	0.32	0.00	0.00	0.00	0.00	7.61	3.36	0%	0.00
2	12	10	142	10/1/2029	3,200,208	118,526	4,433,333	164,198	2,482,920	55,176	1,434,630	0	0	718,740	7,986	1,790,516	0	37,998,891	387,484,902	685	37,998,891	508,289,018	0.03	0.01	0.00	3.54	0.32	0.00	0.00	0.00	0.00	7.97	3.36	0%	0.00
2	12	11	143	11/1/2029	3,115,992	378,535	4,316,667	524,395	2,417,580	176,215	1,419,077	0	0	751,430	27,385	2,525,607	0	40,524,498	398,881,517	690	40,524,498	500,311,388	0.09	0.04	0.01	3.50	0.31	0.00	0.00	0.00	0.00	8.42	3.33	0%	0.00
2	12	12	144	12/1/2029	3,031,776	636,456	4,200,000	749,167	2,352,240	249,729	1,387,971	0	0	784,080	41,622	2,958,945	0	43,483,443	415,278,131	695	43,483,443	492,393,758	0.12	0.06	0.02	3.46	0.30	0.00	0.00	0.00	0.00	8.93	3.29	0%	0.00
2	13	1	145	1/1/2030	2,947,560	413,477	4,083,333	572,801	2,286,900	192,481	1,356,865	0	0	816,750	34,372	2,569,995	0	46,053,438	421,674,746	715	46,053,438	484,356,127	0.09	0.05	0.02	3.42	0.29	0.00	0.00	0.00	0.00	9.38	3.26	0%	0.00
2	13	2	146	2/1/2030	2,853,344	665,390	3,966,667	923,168	2,221,560	310,216	1,325,758	0	0	849,420	55,306	3,284,839	0	49,338,277	433,071,361	725	49,338,277	476,378,497	0.15	0.08	0.03	3.38	0.28	0.00	0.00	0.00	0.00	9.91	3.21	0%	0.00
2	13	3	147	3/1/2030	2,779,128	335,683	3,850,000	465,030	2,156,220	156,266	1,294,652	0	0	882,090	31,964	2,283,594	0	51,621,871	444,467,976	730	51,621,871	468,400,867	0.08	0.04	0.01	3.36	0.27	0.00	0.00	0.00	0.00	10.31	3.20	0%	0.00
2	13	4	148	4/1/2030	2,694,912	188,394	3,733,333	260,988	2,090,880	87,701	1,279,099	0	0	914,760	19,185	1,835,366	0	53,457,238	455,864,590	735	53,457,238	460,423,236	0.04	0.02	0.01	3.34	0.27	0.00	0.00	0.00	0.00	10.65	3.19	0%	0.00
2	13	5	149	5/1/2030	2,610,696	50,401	3,616,667	69,822	2,025,540	23,463	1,263,546	0	0	947,430	5,487	1,412,718	0	54,869,956	467,261,205	740	54,869,956	452,445,606	0.01	0.01	0.00	3.32	0.26	0.00	0.00	0.00	0.00	10.93	3.19	0%	0.00
2	13	6	150	6/1/2030	2,526,480	8,188	3,500,000	11,343	1,960,200	3,811	1,247,993	0	0	980,100	933	1,272,287	0	56,142,243	478,657,820	745	56,142,243	444,407,976	0.00	0.00	0.00	3.30	0.26	0.00	0.00	0.00	0.00	11.19	3.19	0%	0.00
2	13	7	151	7/1/2030	2,442,264	339	3,383,333	470	1,894,860	158	1,232,440	0	0	1,012,770	42	1,233,449	0	57,375,692	490,054,435	745	57,375,692	438,490,345	0.00	0.00	0.00	3.30	0.25	0.00	0.00	0.00	0.00	11.45	3.19	0%	0.00
2	13	8	152	8/1/2030	2,358,048	1,201	3,266,667	1,664	1,829,520	559	1,232,440	0	0	1,045,440	160	1,236,023	0	58,611,715	501,451,049	750	58,611,715	432,512,716	0.00	0.00	0.00	3.28	0.25	0.00	0.00	0.00	0.00	11.70	3.19	0%	0.00
2	13	9	153	9/1/2030	2,273,832	5,685	3,150,000	7,875	1,764,180	2,646	1,216,886	0	0	1,078,110	809	1,233,901	0	59,845,615	512,847,664	755	59,845,615	420,535,065	0.00	0.00	0.00	3.26	0.25	0.00	0.00	0.00	0.00	11.95	3.19	0%	0.00
2	13	10	154	10/1/2030	2,189,616	81,097	3,033,333	112,346	1,698,840	37,752	1,201,333	0	0	1,110,390	12,342	1,444,870	0	61,290,485	524,244,257	760	61,290,485	407,847,840	0.01	0.01	0.00	3.24	0.24	0.00	0.00	0.00	0.00	12.23	3.19	0%	0.00
2	13	11	155	11/1/2030	2,105,400	255,767	2,916,667	354,321	1,633,500	119,064	1,201,333	0	0	1,143,450	41,672	1,972,158	0	63,262,643	535,640,894	760	63,262,643	404,579,824	0.06	0.03	0.01	3.24	0.24	0.00	0.00	0.00	0.00	12.57	3.18	0%	0.00
2	13	12	156	12/1/2030	2,021,184	357,637	2,800,000	495,444	1,568,160	166,486	1,185,780	0	0	1,176,120	62,432	2,267,781	0	65,530,424	547,037,509	770	65,530,424	398,602,184	0.08	0.04	0.01	3.20	0.24	0.00	0.00	0.00	0.00	12.94	3.16	0%	0.00
2	14	1	157	1/1/2031	1,936,968	271,714	2,683,333	376,412	1,502,820	126,487	1,154,674	0	0	1,208,790	47,147	1,980,157	0	67,510,580	284,915,369	775	67,510,580	388,642,343	0.06	0.03	0.01	3.18	0.23	0.00	0.00	0.00	0.00	13.29	3.15	0%	0.00
2	14	2	158	2/1/2031	1,852,752	431,194	2,566,667	597,344	1,437,480	200,728	1,139,121	0	0	1,241,460	86,678	2,455,065	0	69,965,645	296,311,984	780	69,965,645	380,646,933	0.10	0.05	0.02	3.16	0.23	0.00	0.00	0.00	0.00	13.67	3.13	0%	0.00
2	14	3	159	3/1/2031	1,768,536	211,618	2,450,000	295,928	1,372,140	99,442	1,123,568	0	0	1,274,130	46,170	1,778,724	0	71,744,368	307,916,599	785	71,744,368	372,669,303	0.05	0.02	0.01	3.15	0.22	0.00	0.00	0.00	0.00	13.97	3.12	0%	0.00
2	14	4	160	4/1/2031	1,684,320	117,746	2,333,333	163,117	1,306,800	54,813	1,108,014	0	0	1,306,800	27,407	1,471,098	0	73,215,466	319,105,213	785	73,215,466	364,691,672	0.03	0.01	0.00	3.15	0.22	0.00	0.00	0.00	0.00	14.24	3.11	0%	0.00
2	14	5	161	5/1/2031	1,600,104	30,891	2,216,667	42,794	1,241,460	14,380	1,108,014	0	0	1,339,470	7,258	1,239,470	0	74,419,303	330,501,828	790	74,419,303	354,514,062	0.01	0.00	0.00	3.13	0.22	0.00	0.00	0.00	0.00	14.47	3.11	0%	0.00
2	14	6	162	6/1/2031	1,515,888	4,913	2,100,000	6,806	1,176,120	2,287	1,092,461	0	0	1,372,140	1,334	1,107,800	0	75,527,104	341,898,443	790	75,527,104	348,736,412	0.00	0.00	0.00	3.13	0.21	0.00	0.00	0.00	0.00	14.68	3.11	0%	0.00
2	14	7	163	7/1/2031	1,431,672	199	1,983,333	275	1,110,780	93	1,092,461	0	0	1,404,510	59	1,093,087	0	76,620,190	353,295,058	795	76,620,190	340,758,791	0.00	0.00	0.00	3.11	0.21	0.00	0.00	0.00	0.00	14.89	3.11	0%	0.00
2	14	8	164	8/1/2031	1,347,456	686	1,866,667	951	1,045,440	319	1,076,908	0	0	1,437,480	220	1,079,084	0	77,699,274	364,691,672	795	77,699,274	332,781,151	0.00	0.00	0.00	3.11	0.21	0.00	0.00	0.00	0.00	15.10	3.11	0%	0.00
2	14	9	165	9/1/2031	1,263,240	3,158	1,750,000	4,375	980,100	1,470	1,076,908	0	0	1,470,510	1,103	1,087,014	0	78,786,288	376,008,287	800	78,786,288	324,881,521	0.00	0.00	0.00	3.09	0.21	0.00	0.00	0.00	0.00	15.31	3.11	0%	0.00
2	14	10	166	10/1/2031	1,179,024	43,668	1,633,333	60,494	914,760	20,328	1,061,355	0	0	1,503,540	16,698	1,202,542	0	79,988,831	387,484,902	800	79,988,831	316,825,890	0.01	0.00	0.00	3.09	0.20	0.00	0.00	0.00	0.00	15.53	3.11	0%	0.00
2	14	11	167	11/1/2031	1,094,808	132,998	1,516,667	184,247	849,420	61,913	1,061,355	0	0	1,536,600	55,980	1,496,474	0	81,485,305	398,981,517	805	81,485,305	308,948,260	0.03	0.01	0.01	3.07	0.20	0.00	0.00	0.00	0.00	15.79	3.10	0%	0.00
2	14	12	168	12/1/2031	1,010,592	178,819	1,400,000	247,722	784,080	83,243	1,045,802	0	0	1,568,160	83,243	1,638,829	0	83,124,134	410,278,131	810	83,124,134	300,870,636	0.04	0.02	0.01	3.05	0.20	0.00	0.00	0.00	0.00	16.06	3.09	0%	0.00
2	15	1	169	1/1/2032	926,376	129,950	1,283,333	180,023	718,740	60,494	1,030,249	0	0	1,600,830	67,368	1,468,084	0	84,592,218	421,674,746	810	84,592,218	292,892,999	0.03	0.01	0.00	3.05	0.20	0.00	0.00	0.00	0.00	16.31	3.09	0%	0.00
2	15	2	170	2/1/2032	842,160	195,997	1,166,667	271,520	653,400	91,240	1,030,249	0	0	1,633,500	101,650	1,701,056	0	86,295,274	284,915,369	815	86,295,274	284,915,369	0.04	0.02	0.01	3.03	0.19	0.00	0.00	0.00	0.00	16.59	3.08	0%	0.00
2	15	3	171	3/1/2032	757,944	91,550	1,050,000	126,826	588,060	42,618	1,014,696	0	0	1,666,170	60,376	1,336,065	0	87,631,339	444,467,976	820	87,631,339	276,937,729	0.02	0.01	0.00	3.01	0.19	0.00	0.00	0.00	0.00	16.82	3.07	0%	0.00
2	15	4	172	4/1/2032	673,728	47,099	933,333	65,247	522,720	21,925	999,142	0	0	1,698,840	35,628	1,149,042	0	88,800,381	455,864,590	820	88,800,381	268,960,318	0.01	0.00	0.00	3.01	0.19	0.00	0.00	0.00	0.00	17.02	3.07	0%	0.00
2	15	5	173	5/1/2032	589,512	11,381	816,667	15,766	457,380	5,298	999,142	0	0	1,731,510	10,028	1,041,616	0	89,841,996	467,261,205	820	89,841,996	260,982,478	0.00	0.00	0.00	3.01	0.19	0.00	0.00	0.00	0.00	17.22	3.07	0%	0.00
2	15	6	174	6/1/2032	505,296	1,638	700,000	2,269	392,040	762	999,142	0	0	1,764,180	1,715	1,065,526	0	90,847,522	253,264,000	825	90,847,522	253,264,000	0.00	0.00	0.00	2.99	0.19	0.00	0.00	0.00	0.00	17.40	3.07	0%	0.00
2	15	7	175	7/1/2032	421,080	58	583,333	81	326,700	27	983,589	0	0	1,796,850	75	983,831	0	91,831,353	490,054,435	825	91,831,353	245,027,217	0.00	0.00	0.00	2.99	0.18	0.00	0.00	0.00	0.00	17.59	3.06	0%	0.00
2	15	8	176	8/1/2032	336,864	15	466,667	238	261,360	8	983,589	0	0	1,829,520	21	984,358	0	92,815,711	467,261,205	830	92,815,711	237,040,000	0.00	0.00	0.00	2.97	0.18	0.00	0.00	0.00	0.00	17.77	3.06	0%	0.00
2	15	9	177	9/1/2032	252,648	632	350,000	875	196,020	294	968,036	0	0	1,862,190	1,397	971,233	0	93,786,945	512,847,664	830	93,786,945	229,071,957	0.00	0.00	0.00	2.97	0.18	0.00	0.00	0.00	0.00	17.96	3.06	0%	0.00
2	15	10	178	10/1/2032	168,432	6,238	233,333	8,642	130,680	2,904	968,036	0	0	1,894,860	21,054	1,006,874	0	94,793,819	524,244,257	830	94,793,819	221,200,000	0.00	0.00	0.00	2.96	0.18	0.00	0.00	0.00	0.00	18.13	3.06	0%	0.00
2	15	11	179	11/1/2032	84,216	10,231	116,667	14,173	65,340	4,763	968,036	0	0	1,927,530	70,248	1,067,450	0	95,861,269	535,640,894	835	95,861,269	211,725,504	0.00	0.00	0.00	2.95	0.18	0.00	0.00	0.00	0.00	18.32	3.06	0%	0.00
2	**15**	**12**	**180**	**12/1/2032**	**0**	**0**	**0**	**0**	**0**	**0**	**952,483**	**0**	**0**	**1,960,200**	**104,054**	**1,056,537**	**0**	**96,917,806**	**547,037,509**	**835**	**96,917,806**	**200,328,889**	**0.00**	**0.00**	**0.00**	**2.95**	**0.18**	**0.00**	**0.00**	**0.00**	**0.00**	**18.50**	**3.05**	**0%**	**0.00**
3	16	1	181	1/1/2033	0	0	0	0	0	0	1,030,249	0	0	1,960,200	82,492	1,112,740	0	98,030,546	558,434,123	840	98,030,546	200,328,889	0.00	0.00	0.00	2.94	0.19	0.00	0.01	0.00	0.00	18.70	3.05	0%	0.00
3	16	2	182	2/1/2033	0	0	0	0	0	0	936,930	0	0	1,960,200	138,860	1,073,790	0	99,104,336	569,830,738	840	99,104,336	200,328,889	0.00	0.00	0.00	2.93	0.17	0.00	0.01	0.00	0.00	18.88	3.05	0%	0.00
3	16	3	183	3/1/2033	0	0	0	0	0	0	936,930	0	0	1,960,200	71,030	1,007,960	0	100,112,296	581,227,353	840	100,112,296	200,328,889	0.00	0.00	0.00	2.93	0.17	0.00	0.01	0.00	0.00	18.93	3.04	0%	0.00
3	16	4	184	4/1/2033	0	0	0	0	0	0	936,930	0	0	1,960,200	41,110	978,040	0	101,090,336	592,623,968	845	101,090,336	200,328,889	0.00	0.00	0.00	2.91	0.17	0.00	0.00	0.00	0.00	19.23	3.04	0%	0.00
3	16	5	185	5/1/2033	0	0	0	0	0	0	921,377	0	0	1,960,200	11,353	932,730	0	102,023,065	604,020,582	845	102,023,065	200,328,889	0.00	0.00	0.00	2.91	0.17	0.00	0.00	0.00	0.00	19.39	3.04	0%	0.00
3	16	6	186	6/1/2033	0	0	0	0	0	0	921,377	0	0	1,960,200	1,906	923,282	0	102,946,347	615,417,197	845	102,946,347	200,328,889	0.00	0.00	0.00	2.91	0.17	0.00	0.00	0.00	0.00	19.56	3.04	0%	0.00
3	16	7	187	7/1/2033	0	0	0	0	0	0	921,377	0	0	1,960,200	82	921,458	0	103,867,805	626,813,197	850	103,867,805	200,328,889	0.00	0.00	0.00	2.89	0.17	0.00	0.00	0.00	0.00	19.73	3.04	0%	0.00
3	16	8	188	8/1/2033	0	0	0	0	0	0	905,824	0	0	1,960,200	299	906,123	0	104,773,929	638,210,427	850	104,773,929	200,328,889	0.00	0.00	0.00	2.89	0.16	0.00	0.00	0.00	0.00	19.89	3.04	0%	0.00
3	16	9	189	9/1/2033	0	0	0	0	0	0	905,824	0	0	1,960,200	1,470	907,294	0	105,681,223	649,607,264	850	105,681,223	200,328,889	0.00	0.00	0.00	2.89	0.16	0.00	0.00	0.00	0.00	20.05	3.04	0%	0.00
3	16	10	190	10/1/2033	0	0	0	0	0	0	905,824	0	0	1,960,200	21,780	927,604	0	106,608,826	661,003,656	855	106,608,826	200,328,889	0.00	0.00	0.00	2.87	0.16	0.00	0.00	0.00	0.00	20.22	3.03	0%	0.00
3	16	11	191	11/1/2033	0	0	0	0	0	0	890,270	0	0	1,960,200	71,438	961,709	0	107,570,535	672,400,271	855	107,570,535	200,328,889	0.00	0.00	0.00	2.87	0.16	0.00	0.00	0.00	0.00	20.38	3.03	0%	0.00
3	16	12	192	12/1/2033	0	0	0	0	0	0	890,270	0	0	1,960,200	104,054	994,324	0	108,564,859	683,796,886	860	108,564,859	200,328,889	0.00	0.00	0.00	2.85	0.16	0.00	0.01	0.00	0.00	20.55	3.03	0%	0.00
3	17	1	193	1/1/2034	0	0	0	0	0	0	874,717	0	0	1,960,200	82,492	957,209	0	109,522,068	683,796,886	860	109,522,068	200,328,889	0.00	0.00	0.00	2.85	0.16	0.00	0.01	0.00	0.00	20.71	3.03	0%	0.00
3	17	2	194	2/1/2034	0	0	0	0	0	0	874,717	0	0	1,960,200	138,860	1,013,577	0	110,535,646	683,796,886	860	110,535,646	200,328,889	0.00	0.00	0.00	2.85	0.16	0.00	0.01	0.00	0.00	20.87	3.02	0%	0.00
3	17	3	195	3/1/2034	0	0	0	0	0	0	874,717	0	0	1,960,200	71,030	945,747	0	111,479,393	683,796,886	865	111,479,393	200,328,889	0.00	0.00	0.00	2.83	0.15	0.00	0.00	0.00	0.00	21.03	3.02	0%	0.00
3	17	4	196	4/1/2034	0	0	0	0	0	0	859,164	0	0	1,960,200	41,110	900,274	0	112,379,667	683,796,886	865	112,379,667	200,328,889	0.00	0.00	0.00	2.83	0.15	0.00	0.00	0.00	0.00	21.19	3.02	0%	0.00
3	17	5	197	5/1/2034	0	0	0	0	0	0	859,164	0	0	1,960,200	11,353	870,517	0	113,250,184	683,796,886	865	113,250,184	200,328,889	0.00	0.00	0.00	2.83	0.15	0.00	0.00	0.00	0.00	21.34	3.01	0%	0.00
3	17	6	198	6/1/2034	0	0	0	0	0	0	859,164	0	0	1,960,200	1,906	861,070	0	114,111,254	683,796,886	865	114,111,254	200,328,889	0.00	0.00	0.00	2.83	0.15	0.00	0.00	0.00	0.00	21.49	3.01	0%	0.00
3	17	7	199	7/1/2034	0	0	0	0	0	0	859,164	0	0	1,960,200	82	859,246	0	114,970,499	683,796,886	870	114,970,499	200,328,889	0.00	0.00	0.00	2.81	0.15	0.00	0.00	0.00	0.00	21.64	3.01	0%	0.00
3	17	8	200	8/1/2034	0	0	0	0	0	0	843,611	0	0	1,960,200	299	843,910	0	115,814,410	683,796,886	870	115,814,410	200,328,889	0.00	0.00	0.00	2.81	0.15	0.00	0.00	0.00	0.00	21.79	3.01	0%	0.00
3	17	9	201	9/1/2034	0	0	0	0	0	0	843,611	0	0	1,960,200	1,470	845,081	0	116,659,491	683,796,886	870	116,659,491	200,328,889	0.00	0.00	0.00	2.81	0.15	0.00	0.00	0.00	0.00	21.94	3.01	0%	0.00
3	17	10	202	10/1/2034	0	0	0	0	0	0	843,611	0	0	1,960,200	21,780	865,391	0	117,524,882	683,796,886	875	117,524,882	200,328,889	0.00	0.00	0.00	2.79	0.15	0.00	0.00	0.00	0.00	22.09	3.01	0%	0.00
3	17	11	203	11/1/2034	0	0	0	0	0	0	828,058	0	0	1,960,200	71,438	899,496	0	118,424,378	683,796,886	875	118,424,378	200,328,889	0.00	0.00	0.00	2.79	0.14	0.00	0.00	0.00	0.00	22.24	3.00	0%	0.00
3	17	12	204	12/1/2034	0	0	0	0	0	0	828,058	0	0	1,960,200	104,054	932,112	0	119,356,490	683,796,886	875	119,356,490	200,328,889	0.00	0.00	0.00	2.79	0.14	0.00	0.01	0.00	0.00	22.39	3.00	0%	0.00
3	18	1	205	1/1/2035	0	0	0	0	0	0	828,058	0	0	1,960,200	82,492	910,550	0	120,267,040	683,796,886	880	120,267,040	200,328,889	0.00	0.00	0.00	2.77	0.14	0.00	0.01	0.00	0.00	22.54	3.00	0%	0.00
3	18	2	206	2/1/2035	0	0	0	0	0	0	812,505	0	0	1,960,200	138,860	949,365	0	121,216,404	683,796,886	880	121,216,404	200,328,889	0.00	0.00	0.00	2.77	0.14	0.00	0.01	0.00	0.00	22.69	2.99	0%	0.00
3	18	3	207	3/1/2035	0	0	0	0	0	0	812,505	0	0	1,960,200	71,030	883,535	0	122,099,939	683,796,886	880	122,099,939	200,328,889	0.00	0.00	0.00	2.77	0.14	0.00	0.00	0.00	0.00	22.83	2.99	0%	0.00
3	18	4	208	4/1/2035	0	0	0	0	0	0	812,505	0	0	1,960,200	41,110	853,614	0	122,953,554	683,796,886	880	122,953,554	200,328,889	0.00	0.00	0.00	2.77	0.14	0.00	0.00	0.00	0.00	22.97	2.99	0%	0.00
3	18	5	209	5/1/2035	0	0	0	0	0	0	812,505	0	0	1,960,200	11,353	823,858	0	123,777,411	683,796,886	885	123,777,411	200,328,889	0.00	0.00	0.00	2.75	0.14	0.00	0.00	0.00	0.00	23.12	2.99	0%	0.00
3	18	6	210	6/1/2035	0	0	0	0	0	0	796,952	0	0	1,960,200	1,906	798,857	0	124,576,268	683,796,886	885	124,576,268	200,328,889	0.00	0.00	0.00	2.75	0.14	0.00	0.00	0.00	0.00	23.25	2.99	0%	0.00
3	18	7	211	7/1/2035	0	0	0	0	0	0	796,952	0	0	1,960,200	82	797,033	0	125,373,302	683,796,886	885	125,373,302	200,328,889	0.00	0.00	0.00	2.75	0.14	0.00	0.00	0.00	0.00	23.39	2.98	0%	0.00
3	18	8	212	8/1/2035	0	0	0	0	0	0	796,952	0	0	1,960,200	299	797,251	0	126,170,553	683,796,886	885	126,170,553	200,328,889	0.00	0.00	0.00	2.75	0.14	0.00	0.00	0.00	0.00	23.53	2.98	0%	0.00
3	18	9	213	9/1/2035	0	0	0	0	0	0	796,952	0	0	1,960,200	1,470	798,422	0	126,968,974	683,796,886	890	126,968,974	200,328,889	0.00	0.00	0.00	2.73	0.14	0.00	0.00	0.00	0.00	23.66	2.98	0%	0.00
3	18	10	214	10/1/2035	0	0	0	0	0	0	781,398	0	0	1,960,200	21,780	803,178	0	127,772,153	683,796,886	890	127,772,153	200,328,889	0.00	0.00	0.00	2.73	0.13	0.00	0.00	0.00	0.00	23.80	2.98	0%	0.00
3	18	11	215	11/1/2035	0	0

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Inflows and Outflows	Parameters	Units	Value	Units	Description and Rationale					
Precipitation	Precipitation		1.85	ft/yr	Los Altos climate station, direct precip on westerock backfill area is based on monthly precip data					
			Phases	0 - 10	11-16	16-20				
			Initial	Mining	Backfilling	Revegetation				
Quarry Backfilling Areas	**Surface Water Drainage to Pit**									
	Quarry Area (Greenstone/Greywacke)	sq feet	4,900,000	5,052,960	-	-				Based on drawing from Chang Consultants
		acres	112	116	-	-	-	-	-	Figures B.1 through B.3
	Quarry Area (Limestone)	sq feet	7,000,000	7,000,000	-	-				
		acres	161	161	-	-	-	-	-	
	WMSA	sq feet	3,500,000	3,920,400	-	-				
		acres	80	90	-	-	-	-	-	
	Surface Infiltration to Pit (Through backfill)									
	Undrained Backfill (No Surface Outlet)	sq feet	-	-						
		acres	-	-	-	-				
	Drained Backfill (With Surface Outlet)	sq feet			1,960,200	1,960,200				
		acres	-	-	45	45	-	-	-	
	Total Drainage Area	acres	354	367	45	45	-	-	-	
	Spill Elevation		990.00	ft amsl	Based on Mine Plan (Chang Drawings)					
	Bottom of Pit		440.00	ft amsl	Based on end of Phase 1 for South Quarry Mine Plan (Chang Drawings)					
Groundwater Capture	Initial		371	gpm	MODFLOW model results for Phase 1, maximum excavation condition (Golder's Report)					
			2,181,181	cu ft/mo						
	At Spill Elevation		80	gpm	MODFLOW model results for ultimate condition (Golder's Report)					
			470,336	cu ft/mo						
Date Quarry Filling Starts			**6/1/2028**							
			In situ Pit Water Treatment Removal Rate							
Assumptions	The pit is backfilled incrementally over a 10-year period, from 440 ft amsl to the spill-over elevation of 990 ft amsl									
	Backfill material has a porosity of 30 percent.									
	Surface runoff is only within the capture area of the pit and is based on water year 2009 data									
	Groundwater inflow into the pit varies by month and diminishes as the backfill increases									
	Precipitation directly infiltrates to the water table within the area of the backfill.									
	Evaporation of the pit lake is only applied when the cumulative volume of water in the pit is greater than the cumulative volume of void spaces within the backfill (based on 30-percent porosity)									
	The water level in the pit is dependent on the total cumulative volume of the backfill up to the spill-over elevation.									

2	12	8	140	8/1/2029	3,368,640	1,716	4,666,667	2,377	2,613,600	799	1,465,737	0	653,400	100	1,470,727	0	34,744,268	364,691,672	675	34,744,268	524,244,279	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	12	9	141	9/1/2029	3,284,424	8,211	4,550,000	11,375	2,548,260	3,822	1,450,184	0	686,020	515	1,474,107	0	36,218,375	376,088,287	680	36,218,375	516,348,104	0.00	0.00	0.00	0.00	0.32	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.68	0.00	0.65	0.30	0.0%	0.00	0.00	0.00	0.00
2	12	10	142	10/1/2029	3,200,208	118,526	4,433,333	164,198	2,482,920	55,176	1,434,630	0	718,740	7,986	1,790,516	0	37,998,891	387,484,902	685	37,998,891	508,289,018	0.00	0.00	0.00	0.00	0.32	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.71	0.00	0.74	0.29	0.0%	0.00	0.00	0.00	0.00
2	12	11	143	11/1/2029	3,115,968	378,535	4,316,667	524,395	2,417,580	176,215	1,419,077	0	751,430	27,385	2,525,607	0	40,524,498	398,881,517	695	40,524,498	500,311,388	0.00	0.00	0.00	0.00	0.31	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.74	0.00	0.79	0.29	0.0%	0.00	0.00	0.00	0.00
2	12	12	144	12/1/2029	3,031,776	536,456	4,200,000	743,167	2,352,240	249,729	1,387,971	0	784,080	41,622	2,958,945	0	43,483,443	415,278,131	705	43,483,443	492,393,758	0.00	0.00	0.00	0.00	0.30	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.78	0.00	0.85	0.29	0.0%	0.00	0.00	0.00	0.00
2	13	1	145	1/1/2030	2,947,560	413,477	4,083,333	572,801	2,286,900	192,481	1,356,865	0	816,750	34,372	2,569,995	0	46,053,438	421,674,746	715	46,053,438	484,356,127	0.00	0.00	0.00	0.00	0.30	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.81	0.00	0.81	0.28	0.0%	0.00	0.00	0.00	0.00
2	13	2	146	2/1/2030	2,853,344	665,390	3,966,667	923,168	2,221,560	310,216	1,325,758	0	849,420	55,306	3,284,839	0	49,338,277	433,071,381	725	49,338,277	476,378,497	0.00	0.00	0.00	0.00	0.29	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.85	0.00	0.87	0.27	0.0%	0.00	0.00	0.00	0.00
2	13	3	147	3/1/2030	2,779,128	335,683	3,850,000	465,030	2,156,220	156,266	1,294,652	0	882,090	31,964	2,283,594	0	51,621,871	444,467,976	730	51,621,871	468,400,867	0.00	0.00	0.00	0.00	0.28	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.87	0.00	0.87	0.27	0.0%	0.00	0.00	0.00	0.00
2	13	4	148	4/1/2030	2,694,912	188,394	3,733,333	260,988	2,090,880	87,701	1,279,099	0	914,760	19,185	1,835,366	0	53,457,238	455,864,590	735	53,457,238	460,423,276	0.00	0.00	0.00	0.00	0.28	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.00	0.87	0.27	0.0%	0.00	0.00	0.00	0.00
2	13	5	149	5/1/2030	2,610,696	50,401	3,616,667	69,822	2,025,540	23,463	1,263,546	0	947,430	5,487	1,412,718	0	54,869,956	467,261,205	740	54,869,956	452,445,606	0.00	0.00	0.00	0.00	0.27	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92	0.00	0.87	0.27	0.0%	0.00	0.00	0.00	0.00
2	13	6	150	6/1/2030	2,526,480	8,188	3,500,000	11,343	1,960,200	3,811	1,247,993	0	980,100	953	1,272,287	0	56,142,243	490,657,820	745	56,142,243	444,407,075	0.00	0.00	0.00	0.00	0.27	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.94	0.00	0.96	0.27	0.0%	0.00	0.00	0.00	0.00
2	13	7	151	7/1/2030	2,442,264	339	3,383,333	470	1,894,860	158	1,232,440	0	1,012,770	42	1,233,449	0	57,375,692	490,054,435	745	57,375,692	438,490,345	0.00	0.00	0.00	0.00	0.27	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.98	0.00	1.03	0.27	0.0%	0.00	0.00	0.00	0.00
2	13	8	152	8/1/2030	2,358,048	1,201	3,266,667	1,664	1,829,520	559	1,232,440	0	1,045,410	160	1,236,023	0	58,611,715	490,054,435	750	58,611,715	438,312,716	0.00	0.00	0.00	0.00	0.27	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.03	0.27	0.0%	0.00	0.00	0.00	0.00
2	13	9	153	9/1/2030	2,273,832	5,685	3,150,000	7,875	1,764,180	2,646	1,216,886	0	1,078,110	809	1,233,901	0	59,845,615	512,847,664	755	59,845,615	420,535,065	0.00	0.00	0.00	0.00	0.26	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.03	0.00	1.07	0.26	0.0%	0.00	0.00	0.00	0.00
2	13	10	154	10/1/2030	2,189,616	81,097	3,033,333	112,346	1,698,840	37,757	1,110,932	0	1,111,110	12,342	1,444,870	0	61,290,485	504,244,207	760	61,290,485	407,497,840	0.00	0.00	0.00	0.00	0.26	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.07	0.00	1.11	0.26	0.0%	0.00	0.00	0.00	0.00
2	13	11	155	11/1/2030	2,105,400	255,767	2,916,667	354,321	1,633,500	119,064	1,201,333	0	1,143,450	41,672	1,972,158	0	63,262,643	535,640,894	760	63,262,643	404,579,824	0.00	0.00	0.00	0.00	0.26	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.05	0.00	1.07	0.26	0.0%	0.00	0.00	0.00	0.00
2	13	12	156	12/1/2030	2,021,184	357,637	2,800,000	495,444	1,568,160	166,486	1,185,780	0	1,178,130	62,432	2,267,781	0	65,530,424	547,037,509	770	65,530,424	398,602,184	0.00	0.00	0.00	0.00	0.25	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.08	0.00	1.26	0.25	0.0%	0.00	0.00	0.00	0.00
2	14	1	157	1/1/2031	1,936,968	271,714	2,683,333	376,412	1,502,820	126,487	1,154,674	0	1,208,790	47,147	1,980,157	0	67,510,580	564,315,369	775	67,510,580	394,543,363	0.00	0.00	0.00	0.00	0.25	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.10	0.00	1.26	0.26	0.0%	0.00	0.00	0.00	0.00
2	14	2	158	2/1/2031	1,852,752	431,194	2,566,667	597,344	1,437,480	200,728	1,139,121	0	1,241,460	86,678	2,455,065	0	69,965,645	296,311,984	780	69,965,645	380,646,933	0.00	0.00	0.00	0.00	0.24	0.02	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.13	0.00	1.26	0.26	0.0%	0.00	0.00	0.00	0.00
2	14	3	159	3/1/2031	1,768,536	211,618	2,450,000	295,928	1,372,140	99,442	1,123,568	0	1,274,130	46,170	1,778,724	0	71,744,368	307,705,599	785	71,744,368	372,669,303	0.00	0.00	0.00	0.00	0.24	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.15	0.00	1.26	0.26	0.0%	0.00	0.00	0.00	0.00
2	14	4	160	4/1/2031	1,684,320	117,746	2,333,333	163,117	1,306,800	54,813	1,108,014	0	1,306,800	27,407	1,471,098	0	73,215,466	319,105,213	785	73,215,466	364,691,672	0.00	0.00	0.00	0.00	0.24	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.17	0.00	1.26	0.26	0.0%	0.00	0.00	0.00	0.00
2	14	5	161	5/1/2031	1,600,104	30,891	2,216,667	42,794	1,241,460	14,880	1,108,014	0	1,339,470	7,758	1,203,837	0	74,419,303	330,501,828	790	74,419,303	354,714,042	0.00	0.00	0.00	0.00	0.23	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.18	0.00	1.25	0.25	0.0%	0.00	0.00	0.00	0.00
2	14	6	162	6/1/2031	1,515,888	4,913	2,100,000	6,806	1,176,120	2,287	1,092,461	0	1,372,140	1,334	1,107,800	0	75,527,104	341,898,443	790	75,527,104	348,736,412	0.00	0.00	0.00	0.00	0.23	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.20	0.00	1.25	0.25	0.0%	0.00	0.00	0.00	0.00
2	14	7	163	7/1/2031	1,431,672	199	1,983,333	275	1,110,780	93	1,092,461	0	1,404,210	59	1,093,087	0	76,620,190	353,295,058	795	76,620,190	340,758,791	0.00	0.00	0.00	0.00	0.23	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.22	0.00	1.25	0.25	0.0%	0.00	0.00	0.00	0.00
2	14	8	164	8/1/2031	1,347,456	686	1,866,667	951	1,045,440	319	1,076,908	0	1,437,480	220	1,079,084	0	77,699,274	364,691,672	795	77,699,274	332,781,151	0.00	0.00	0.00	0.00	0.23	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.23	0.00	1.25	0.25	0.0%	0.00	0.00	0.00	0.00
2	14	9	165	9/1/2031	1,263,240	3,158	1,750,000	4,375	980,100	1,470	1,076,908	0	1,470,150	1,103	1,087,014	0	78,786,288	376,008,287	800	78,786,288	324,803,521	0.00	0.00	0.00	0.00	0.22	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.25	0.00	1.25	0.25	0.0%	0.00	0.00	0.00	0.00
2	14	10	166	10/1/2031	1,179,024	43,668	1,633,333	60,494	914,760	20,328	1,061,355	0	1,502,820	16,698	1,202,542	0	79,988,831	387,484,902	800	79,988,831	316,825,890	0.00	0.00	0.00	0.00	0.22	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.26	0.00	1.26	0.25	0.0%	0.00	0.00	0.00	0.00
2	14	11	167	11/1/2031	1,094,808	132,998	1,516,667	184,247	849,420	61,913	1,061,355	0	1,535,490	55,960	1,496,474	0	81,485,305	398,881,517	805	81,485,305	308,848,260	0.00	0.00	0.00	0.00	0.22	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.28	0.00	1.26	0.25	0.0%	0.00	0.00	0.00	0.00
2	14	12	168	12/1/2031	1,010,592	178,819	1,400,000	247,722	784,080	83,243	1,045,802	0	1,568,160	83,243	1,638,829	0	83,124,134	410,278,131	810	83,124,134	300,870,630	0.00	0.00	0.00	0.00	0.21	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.30	0.00	1.26	0.25	0.0%	0.00	0.00	0.00	0.00
2	15	1	169	1/1/2032	926,376	129,950	1,283,333	180,023	718,740	60,494	1,030,249	0	1,600,830	67,368	1,468,084	0	84,592,218	421,674,746	810	84,592,218	292,892,999	0.00	0.00	0.00	0.00	0.21	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.32	0.00	1.25	0.25	0.0%	0.00	0.00	0.00	0.00
2	15	2	170	2/1/2032	842,160	195,997	1,166,667	271,520	653,400	91,240	1,030,249	0	1,633,500	114,050	1,701,056	0	86,295,274	433,071,381	815	86,295,274	284,915,300	0.00	0.00	0.00	0.00	0.21	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.35	0.00	1.25	0.25	0.0%	0.00	0.00	0.00	0.00
2	15	3	171	3/1/2032	757,944	91,550	1,050,000	126,826	588,060	42,618	1,014,696	0	1,666,170	60,376	1,336,065	0	87,631,339	444,467,976	820	87,631,339	276,937,729	0.00	0.00	0.00	0.00	0.21	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.36	0.00	1.25	0.25	0.0%	0.00	0.00	0.00	0.00
2	15	4	172	4/1/2032	673,728	47,099	933,333	65,247	522,720	21,925	999,142	0	1,698,840	35,628	1,149,042	0	88,800,381	455,864,590	820	88,800,381	268,960,118	0.00	0.00	0.00	0.00	0.21	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.38	0.00	1.25	0.25	0.0%	0.00	0.00	0.00	0.00
2	15	5	173	5/1/2032	589,512	11,381	816,667	15,766	457,380	5,298	999,142	0	1,731,510	10,028	1,041,616	0	89,841,996	467,261,205	820	89,841,996	260,982,478	0.00	0.00	0.00	0.00	0.21	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.39	0.00	1.25	0.25	0.0%	0.00	0.00	0.00	0.00
2	15	6	174	6/1/2032	505,296	1,638	700,000	2,269	392,040	762	999,142	0	1,764,510	1,715	1,065,526	0	90,847,522	479,657,820	825	90,847,522	253,248,000	0.00	0.00	0.00	0.00	0.20	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.40	0.00	1.25	0.25	0.0%	0.00	0.00	0.00	0.00
2	15	7	175	7/1/2032	421,080	58	583,333	81	326,700	27	983,589	0	1,796,850	75	983,831	0	91,831,353	490,054,435	825	91,831,353	245,027,217	0.00	0.00	0.00	0.00	0.20	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.42	0.00	1.25	0.25	0.0%	0.00	0.00	0.00	0.00
2	15	8	176	8/1/2032	336,864	172	466,667	238	261,360	8	983,589	0	1,829,190	22	984,358	0	92,815,711	501,451,249	830	92,815,711	237,040,000	0.00	0.00	0.00	0.00	0.20	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.44	0.00	1.25	0.25	0.0%	0.00	0.00	0.00	0.00
2	15	9	177	9/1/2032	252,648	632	350,000	875	196,020	294	968,036	0	1,862,190	1,397	971,233	0	93,786,945	512,847,664	830	93,786,945	229,071,957	0.00	0.00	0.00	0.00	0.19	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.45	0.00	1.25	0.25	0.0%	0.00	0.00	0.00	0.00
2	15	10	178	10/1/2032	168,432	6,238	233,333	8,642	130,680	2,904	968,036	0	1,894,860	21,054	1,006,874	0	94,793,819	524,244,207	835	94,793,819	221,034,000	0.00	0.00	0.00	0.00	0.19	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.47	0.00	1.25	0.25	0.0%	0.00	0.00	0.00	0.00
2	15	11	179	11/1/2032	84,216	10,231	116,667	14,173	65,340	4,763	968,036	0	1,927,530	70,248	1,067,450	0	95,861,269	535,640,894	835	95,861,269	211,725,504	0.00	0.00	0.00	0.00	0.19	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.49	0.00	1.25	0.25	0.0%	0.00	0.00	0.00	0.00
2	**15**	**12**	**180**	**12/1/2032**	**0**	**0**	**0**	**0**	**0**	**0**	**952,483**	**0**	**0**	**0**	**1,960,200**	**104,054**	**1,056,537**	**0**	**96,917,806**	**547,037,509**	**0.15**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.50**	**0.00**	**1.25**	**0.25**	**0.0%**	**0.00**	**0.00**	**0.00**	**0.00**
3	16	1	181	1/1/2033	0	0	0	0	0	0	1,030,249	0	0	0	1,960,200	82,492	1,112,740	0	98,030,546	558,434,123	0.19	0.00	0.00	0.00	0.19	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50	0.00	1.25	0.25	0.0%	0.00	0.00	0.00	0.00
3	16	2	182	2/1/2033	0	0	0	0	0	0	936,930	0	0	0	1,960,200	138,860	1,073,790	0	99,104,336	569,830,738	0.19	0.00	0.00	0.00	0.19	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.53	0.00	1.25	0.25	0.0%	0.00	0.00	0.00	0.00
3	16	3	183	3/1/2033	0	0	0	0	0	0	936,930	0	0	0	1,960,200	71,030	1,007,960	0	100,112,296	581,227,353	0.19	0.00	0.00	0.00	0.19	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.54	0.00	1.25	0.25	0.0%	0.00	0.00	0.00	0.00
3	16	4	184	4/1/2033	0	0	0	0	0	0	936,930	0	0	0	1,960,200	41,110	978,040	0	101,090,336	592,623,968	0.19	0.00	0.00	0.00	0.18	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.55	0.00	1.25	0.25	0.0%	0.00	0.00	0.00	0.00
3	16	5	185	5/1/2033	0	0	0	0	0	0	921,377	0	0	0	1,960,200	11,353	932,730	0	102,023,065	604,020,582	0.18	0.00	0.00	0.00	0.18	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.57	0.00	1.25	0.25	0.0%	0.00	0.00	0.00	0.00
3	16	6	186	6/1/2033	0	0	0	0	0	0	921,377	0	0	0	1,960,200	1,906	923,282	0	102,946,347	615,417,197	0.18	0.00	0.00	0.00	0.18	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.58	0.00	1.25	0.25	0.0%	0.00	0.00	0.00	0.00
3	16	7	187	7/1/2033	0	0	0	0	0	0	921,377	0	0	0	1,960,200	82	921,458	0	103,867,806	626,813,197	0.18	0.00	0.00	0.00	0.18	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.59	0.00	1.25	0.25	0.0%	0.00	0.00	0.00	0.00
3	16	8	188	8/1/2033	0	0	0	0	0	0	905,824	0	0	0	1,960,200	299	906,123	0	104,773,929	638,210,427	0.18	0.00	0.00	0.00	0.18	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.60	0.00	1.24	0.24	0.0%	0.00	0.00	0.00	0.00
3	16	9	189	9/1/2033	0	0	0	0	0	0	905,824	0	0	0	1,960,200	1,470	907,294	0	105,681,223	649,607,294	0.18	0.00	0.00	0.00	0.18	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.61	0.00	1.24	0.24	0.0%	0.00	0.00	0.00	0.00
3	16	10	190	10/1/2033	0	0	0	0	0	0	905,824	0	0	0	1,960,200	21,780	927,604	0	106,608,826	661,003,656	0.18	0.00	0.00	0.00	0.18	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.62	0.00	1.24	0.24	0.0%	0.00	0.00	0.00	0.00
3	16	11	191	11/1/2033	0	0	0	0	0	0	890,270	0	0	0	1,960,200	71,438	961,708	0	107,570,535	672,400,271	0.18	0.00	0.00	0.00	0.18	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.63	0.00	1.24	0.24	0.0%	0.00	0.00	0.00	0.00
3	16	12	192	12/1/2033	0	0	0	0	0	0	890,270	0	0	0	1,960,200	104,054	994,324	0	108,564,859	683,796,886	0.18	0.00	0.00	0.00	0.18	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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NA	44	4	520	4/1/2061	0	0	0	0	0	0	485,889	0	0	1,960,200	41,110	526,998	526,998	200,328,889	683,796,886	985	200,855,888	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.30	0.18	0.0%	0.18
NA	44	5	521	5/1/2061	0	0	0	0	0	0	485,889	0	0	1,960,200	11,353	497,242	497,242	200,328,889	683,796,886	985	200,826,131	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.30	0.18	0.0%	0.18
NA	44	6	522	6/1/2061	0	0	0	0	0	0	485,889	0	0	1,960,200	1,906	487,794	487,794	200,328,889	683,796,886	985	200,816,684	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.30	0.18	0.0%	0.18
NA	44	7	523	7/1/2061	0	0	0	0	0	0	485,889	0	0	1,960,200	82	485,970	485,970	200,328,889	683,796,886	985	200,814,860	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.29	0.18	0.0%	0.18
NA	44	8	524	8/1/2061	0	0	0	0	0	0	485,889	0	0	1,960,200	299	486,188	486,188	200,328,889	683,796,886	985	200,815,077	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.29	0.18	0.0%	0.18
NA	44	9	525	9/1/2061	0	0	0	0	0	0	485,889	0	0	1,960,200	1,470	487,359	487,359	200,328,889	683,796,886	985	200,816,248	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.29	0.18	0.0%	0.18
NA	44	10	526	10/1/2061	0	0	0	0	0	0	485,889	0	0	1,960,200	21,780	507,669	507,669	200,328,889	683,796,886	985	200,836,558	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.28	0.18	0.0%	0.18
NA	44	11	527	11/1/2061	0	0	0	0	0	0	485,889	0	0	1,960,200	71,438	557,327	557,327	200,328,889	683,796,886	985	200,886,216	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.28	0.18	0.0%	0.18
NA	44	12	528	12/1/2061	0	0	0	0	0	0	485,889	0	0	1,960,200	104,054	589,943	589,943	200,328,889	683,796,886	985	200,918,832	200,328,889	0.00	0.00	0.00	0.06	0.00	0.01	0.00	0.00	0.01	2.29	0.18	0.0%	0.18
NA	45	1	529	1/1/2062	0	0	0	0	0	0	485,889	0	0	1,960,200	82,492	568,380	568,380	200,328,889	683,796,886	985	200,897,270	200,328,889	0.00	0.00	0.00	0.06	0.00	0.01	0.00	0.00	0.01	2.29	0.18	0.0%	0.18
NA	45	2	530	2/1/2062	0	0	0	0	0	0	485,889	0	0	1,960,200	136,860	622,749	622,749	200,328,889	683,796,886	985	200,951,638	200,328,889	0.00	0.00	0.00	0.06	0.00	0.01	0.00	0.00	0.01	2.29	0.18	0.0%	0.18
NA	45	3	531	3/1/2062	0	0	0	0	0	0	485,889	0	0	1,960,200	71,030	556,919	556,919	200,328,889	683,796,886	985	200,805,808	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.29	0.18	0.0%	0.18
NA	45	4	532	4/1/2062	0	0	0	0	0	0	485,889	0	0	1,960,200	41,110	526,998	526,998	200,328,889	683,796,886	985	200,855,888	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.29	0.18	0.0%	0.18
NA	45	5	533	5/1/2062	0	0	0	0	0	0	485,889	0	0	1,960,200	11,353	497,242	497,242	200,328,889	683,796,886	985	200,826,131	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.29	0.18	0.0%	0.18
NA	45	6	534	6/1/2062	0	0	0	0	0	0	485,889	0	0	1,960,200	1,906	487,794	487,794	200,328,889	683,796,886	985	200,816,684	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.28	0.18	0.0%	0.18
NA	45	7	535	7/1/2062	0	0	0	0	0	0	485,889	0	0	1,960,200	82	485,970	485,970	200,328,889	683,796,886	985	200,814,860	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.28	0.18	0.0%	0.18
NA	45	8	536	8/1/2062	0	0	0	0	0	0	485,889	0	0	1,960,200	299	486,188	486,188	200,328,889	683,796,886	985	200,815,077	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.28	0.18	0.0%	0.18
NA	45	9	537	9/1/2062	0	0	0	0	0	0	485,889	0	0	1,960,200	1,470	487,359	487,359	200,328,889	683,796,886	985	200,816,248	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.27	0.18	0.0%	0.18
NA	45	10	538	10/1/2062	0	0	0	0	0	0	485,889	0	0	1,960,200	21,780	507,669	507,669	200,328,889	683,796,886	985	200,836,558	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.27	0.18	0.0%	0.18
NA	45	11	539	11/1/2062	0	0	0	0	0	0	485,889	0	0	1,960,200	71,438	557,327	557,327	200,328,889	683,796,886	985	200,886,216	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.27	0.18	0.0%	0.18
NA	45	12	540	12/1/2062	0	0	0	0	0	0	485,889	0	0	1,960,200	104,054	589,943	589,943	200,328,889	683,796,886	985	200,918,832	200,328,889	0.00	0.00	0.00	0.06	0.00	0.01	0.00	0.00	0.01	2.27	0.18	0.0%	0.18
NA	46	1	541	1/1/2063	0	0	0	0	0	0	485,889	0	0	1,960,200	82,492	568,380	568,380	200,328,889	683,796,886	985	200,897,270	200,328,889	0.00	0.00	0.00	0.06	0.00	0.01	0.00	0.00	0.01	2.27	0.18	0.0%	0.18
NA	46	2	542	2/1/2063	0	0	0	0	0	0	485,889	0	0	1,960,200	136,860	622,749	622,749	200,328,889	683,796,886	985	200,951,638	200,328,889	0.00	0.00	0.00	0.06	0.00	0.01	0.00	0.00	0.01	2.28	0.18	0.0%	0.18
NA	46	3	543	3/1/2063	0	0	0	0	0	0	485,889	0	0	1,960,200	71,030	556,919	556,919	200,328,889	683,796,886	985	200,805,808	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.28	0.18	0.0%	0.18
NA	46	4	544	4/1/2063	0	0	0	0	0	0	485,889	0	0	1,960,200	41,110	526,998	526,998	200,328,889	683,796,886	985	200,855,888	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.27	0.18	0.0%	0.18
NA	46	5	545	5/1/2063	0	0	0	0	0	0	485,889	0	0	1,960,200	11,353	497,242	497,242	200,328,889	683,796,886	985	200,826,131	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.27	0.18	0.0%	0.18
NA	46	6	546	6/1/2063	0	0	0	0	0	0	485,889	0	0	1,960,200	1,906	487,794	487,794	200,328,889	683,796,886	985	200,816,684	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.27	0.18	0.0%	0.18
NA	46	7	547	7/1/2063	0	0	0	0	0	0	485,889	0	0	1,960,200	82	485,970	485,970	200,328,889	683,796,886	985	200,814,860	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.26	0.18	0.0%	0.18
NA	46	8	548	8/1/2063	0	0	0	0	0	0	485,889	0	0	1,960,200	299	486,188	486,188	200,328,889	683,796,886	985	200,815,077	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.26	0.18	0.0%	0.18
NA	46	9	549	9/1/2063	0	0	0	0	0	0	485,889	0	0	1,960,200	1,470	487,359	487,359	200,328,889	683,796,886	985	200,816,248	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.26	0.18	0.0%	0.18
NA	46	10	550	10/1/2063	0	0	0	0	0	0	485,889	0	0	1,960,200	21,780	507,669	507,669	200,328,889	683,796,886	985	200,836,558	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.25	0.18	0.0%	0.18
NA	46	11	551	11/1/2063	0	0	0	0	0	0	485,889	0	0	1,960,200	71,438	557,327	557,327	200,328,889	683,796,886	985	200,886,216	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.25	0.18	0.0%	0.18
NA	46	12	552	12/1/2063	0	0	0	0	0	0	485,889	0	0	1,960,200	104,054	589,943	589,943	200,328,889	683,796,886	985	200,918,832	200,328,889	0.00	0.00	0.00	0.06	0.00	0.01	0.00	0.00	0.01	2.26	0.18	0.0%	0.18
NA	47	1	553	1/1/2064	0	0	0	0	0	0	485,889	0	0	1,960,200	82,492	568,380	568,380	200,328,889	683,796,886	985	200,897,270	200,328,889	0.00	0.00	0.00	0.06	0.00	0.01	0.00	0.00	0.01	2.26	0.18	0.0%	0.18
NA	47	2	554	2/1/2064	0	0	0	0	0	0	485,889	0	0	1,960,200	136,860	622,749	622,749	200,328,889	683,796,886	985	200,951,638	200,328,889	0.00	0.00	0.00	0.06	0.00	0.01	0.00	0.00	0.01	2.26	0.18	0.0%	0.18
NA	47	3	555	3/1/2064	0	0	0	0	0	0	485,889	0	0	1,960,200	71,030	556,919	556,919	200,328,889	683,796,886	985	200,805,808	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.26	0.18	0.0%	0.18
NA	47	4	556	4/1/2064	0	0	0	0	0	0	485,889	0	0	1,960,200	41,110	526,998	526,998	200,328,889	683,796,886	985	200,855,888	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.26	0.18	0.0%	0.18
NA	47	5	557	5/1/2064	0	0	0	0	0	0	485,889	0	0	1,960,200	11,353	497,242	497,242	200,328,889	683,796,886	985	200,826,131	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.26	0.18	0.0%	0.18
NA	47	6	558	6/1/2064	0	0	0	0	0	0	485,889	0	0	1,960,200	1,906	487,794	487,794	200,328,889	683,796,886	985	200,816,684	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.25	0.18	0.0%	0.18
NA	47	7	559	7/1/2064	0	0	0	0	0	0	485,889	0	0	1,960,200	82	485,970	485,970	200,328,889	683,796,886	985	200,814,860	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.25	0.18	0.0%	0.18
NA	47	8	560	8/1/2064	0	0	0	0	0	0	485,889	0	0	1,960,200	299	486,188	486,188	200,328,889	683,796,886	985	200,815,077	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.25	0.18	0.0%	0.18
NA	47	9	561	9/1/2064	0	0	0	0	0	0	485,889	0	0	1,960,200	1,470	487,359	487,359	200,328,889	683,796,886	985	200,816,248	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.24	0.18	0.0%	0.18
NA	47	10	562	10/1/2064	0	0	0	0	0	0	485,889	0	0	1,960,200	21,780	507,669	507,669	200,328,889	683,796,886	985	200,836,558	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.24	0.18	0.0%	0.18
NA	47	11	563	11/1/2064	0	0	0	0	0	0	485,889	0	0	1,960,200	71,438	557,327	557,327	200,328,889	683,796,886	985	200,886,216	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.24	0.18	0.0%	0.18
NA	47	12	564	12/1/2064	0	0	0	0	0	0	485,889	0	0	1,960,200	104,054	589,943	589,943	200,328,889	683,796,886	985	200,918,832	200,328,889	0.00	0.00	0.00	0.06	0.00	0.01	0.00	0.00	0.01	2.24	0.18	0.0%	0.18
NA	48	1	565	1/1/2065	0	0	0	0	0	0	485,889	0	0	1,960,200	82,492	568,380	568,380	200,328,889	683,796,886	985	200,897,270	200,328,889	0.00	0.00	0.00	0.06	0.00	0.01	0.00	0.00	0.01	2.24	0.18	0.0%	0.18
NA	48	2	566	2/1/2065	0	0	0	0	0	0	485,889	0	0	1,960,200	136,860	622,749	622,749	200,328,889	683,796,886	985	200,951,638	200,328,889	0.00	0.00	0.00	0.06	0.00	0.01	0.00	0.00	0.01	2.25	0.18	0.0%	0.18
NA	48	3	567	3/1/2065	0	0	0	0	0	0	485,889	0	0	1,960,200	71,030	556,919	556,919	200,328,889	683,796,886	985	200,805,808	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.25	0.18	0.0%	0.18
NA	48	4	568	4/1/2065	0	0	0	0	0	0	485,889	0	0	1,960,200	41,110	526,998	526,998	200,328,889	683,796,886	985	200,855,888	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.25	0.18	0.0%	0.18
NA	48	5	569	5/1/2065	0	0	0	0	0	0	485,889	0	0	1,960,200	11,353	497,242	497,242	200,328,889	683,796,886	985	200,826,131	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.24	0.18	0.0%	0.18
NA	48	6	570	6/1/2065	0	0	0	0	0	0	485,889	0	0	1,960,200	1,906	487,794	487,794	200,328,889	683,796,886	985	200,816,684	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.24	0.18	0.0%	0.18
NA	48	7	571	7/1/2065	0	0	0	0	0	0	485,889	0	0	1,960,200	82	485,970	485,970	200,328,889	683,796,886	985	200,814,860	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.24	0.18	0.0%	0.18
NA	48	8	572	8/1/2065	0	0	0	0	0	0	485,889	0	0	1,960,200	299	486,188	486,188	200,328,889	683,796,886	985	200,815,077	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.23	0.18	0.0%	0.18
NA	48	9	573	9/1/2065	0	0	0	0	0	0	485,889	0	0	1,960,200	1,470	487,359	487,359	200,328,889	683,796,886	985	200,816,248	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.23	0.18	0.0%	0.18
NA	48	10	574	10/1/2065	0	0	0	0	0	0	485,889	0	0	1,960,200	21,780	507,669	507,669	200,328,889	683,796,886	985	200,836,558	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.23	0.18	0.0%	0.18
NA	48	11	575	11/1/2065	0	0	0	0	0	0	485,889	0	0	1,960,200	71,438	557,327	557,327	200,328,889	683,796,886	985	200,886,216	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.23	0.18	0.0%	0.18
NA	48	12	576	12/1/2065	0	0	0	0	0	0	485,889	0	0	1,960,200	104,054	589,943	589,943	200,328,889	683,796,886	985	200,918,832	200,328,889	0.00	0.00	0.00	0.06	0.00	0.01	0.00	0.00	0.01	2.23	0.18	0.0%	0.18
NA	49	1	577	1/1/2066	0	0	0	0	0	0	485,889	0	0	1,960,200	82,492	568,380	568,380	200,328,889	683,796,886	985	200,897,270	200,328,889	0.00	0.00	0.00	0.06	0.00	0.01	0.00	0.00	0.01	2.23	0.18	0.0%	0.18
NA	49	2	578	2/1/2066	0	0	0	0	0	0	485,889	0	0	1,960,200	136,860	622,749	622,749	200,328,889	683,796,886	985	200,951,638	200,328,889	0.00	0.00	0.00	0.06	0.00	0.01	0.00	0.00	0.01	2.23	0.18	0.0%	0.18
NA	49	3	579	3/1/2066	0	0	0	0	0	0	485,889	0	0	1,960,200	71,030	556,919	556,919	200,328,889	683,796,886	985	200,805,808	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.23	0.18	0.0%	0.18
NA	49	4	580	4/1/2066	0	0	0	0	0	0	485,889	0	0	1,960,200	41,110	526,998	526,998	200,328,889	683,796,886	985	200,855,888	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.23	0.18	0.0%	0.18
NA	49	5	581	5/1/2066	0	0	0	0	0	0	485,889	0	0	1,960,200	11,353	497,242	497,242	200,328,889	683,796,886	985	200,826,131	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.23	0.18	0.0%	0.18
NA	49	6	582	6/1/2066	0	0	0	0	0	0	485,889	0	0	1,960,200	1,906	487,794	487,794	200,328,889	683,796,886	985	200,816,684	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.22	0.18	0.0%	0.18
NA	49	7	583	7/1/2066	0	0	0	0	0	0	485,889	0	0	1,960,200	82	485,970	485,970	200,328,889	683,796,886	985	200,814,860	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.22	0.18	0.0%	0.18
NA	49	8	584	8/1/2066	0	0	0	0	0	0	485,889	0	0	1,960,200	299	486,188	486,188	200,328,889	683,796,886	985	200,815,077	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.22	0.18	0.0%	0.18
NA	49	9	585	9/1/2066	0	0	0	0	0	0	485,889	0	0	1,960,200	1,470	487,359	487,359	200,328,889	683,796,886	985	200,816,248	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.22	0.18	0.0%	0.18
NA	49	10	586	10/1/2066	0	0	0	0	0	0	485,889	0	0	1,960,200	21,780	507,669	507,669	200,328,889	683,796,886	985	200,836,558	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.21	0.18	0.0%	0.18
NA	49	11	587	11/1/2066	0	0	0	0	0	0	485,889	0	0	1,960,200	71,438	557,327	557,327	200,328,889	683,796,886	985	200,886,216	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.21	0.18	0.0%	0.18
NA	49	12	588	12/1/2066	0	0	0	0	0	0	485,889	0	0	1,960,200	104,054	589,943	589,943	200,328,889	683,796,886	985	200,918,832	200,328,889	0.00	0.00	0.00	0.06	0.00	0.01	0.00	0.00	0.01	2.22	0.18	0.0%	0.18
NA	50	1	589	1/1/2067	0	0	0	0	0	0	485,889	0	0	1,960,200	82,492	568,380	568,380	200,328,889	683,796,886	985	200,897,270	200,328,889	0.00	0.00	0.00	0.06	0.00	0.01	0.00	0.00	0.01	2.22	0.18	0.0%	0.18
NA	50	2	590	2/1/2067	0	0	0	0	0	0	485,889	0	0	1,960,200	136,860	622,749	622,749	200,328,889	683,796,886	985	200,951,638	200,328,889	0.00	0.00	0.00	0.06	0.00	0.01	0.00	0.00	0.01	2.22	0.18	0.0%	0.18
NA	50	3	591	3/1/2067	0	0	0	0	0	0	485,889	0	0	1,960,200	71,030	556,919	556,919	200,328,889	683,796,886	985	200,805,808	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.22	0.18	0.0%	0.18
NA	50	4	592	4/1/2067	0	0	0	0	0	0	485,889	0	0	1,960,200	41,110	526,998	526,998	200,328,889	683,796,886	985	200,855,888	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.22	0.18	0.0%	0.18
NA	50	5	593	5/1/2067	0	0	0	0	0	0	485,889	0	0	1,960,200	11,353	497,242	497,242	200,328,889	683,796,886	985	200,826,131	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.22	0.18	0.0%	0.18
NA	50	6	594	6/1/2067	0	0	0	0	0	0	485,889	0	0	1,960,200	1,906	487,794	487,794	200,328,889	683,796,886	985	200,816,684	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.21	0.18	0.0%	0.18
NA	50	7	595	7/1/2067	0	0	0	0	0	0	485,889	0	0	1,960,200	82	485,970	485,970	200,328,889	683,796,886	985	200,814,860	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.21	0.18	0.0%	0.18
NA	50	8	596	8/1/2067	0	0	0	0	0	0	485,889	0	0	1,960,200	299	486,188	486,188	200,328,889	683,796,886	985	200,815,077	200,328,889	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01	2.21	0.18	0.0%	0.18
NA	50	9	597	9/1/2067	0	0	0	0	0	0	485,889	0	0	1,960,200	1,470	487,359	487,359	200,328,889	683,796,886	985	200,816,248	200,328,889	0.00	0

Inflows and Outflows	Parameters	Units	Value	Units	Description and Rationale					
Precipitation	Precipitation		1.85	ft/yr	Los Altos climate station, direct precip on westerock backfill area is based on monthly precip data					
			Phases	9 - 10	11-16	16-20				
			Initial	Mining	Backfilling	Revegetation				
Quarry Backfilling Areas	**Surface Water Drainage to Pit**									
	Quarry Area (Greenstone/Greywacke)	sq feet	4,900,000	5,052,960	-	-				Based on drawing from Chang Consultants
		acres	112	116	-	-	-	-	-	Figures B.1 through B.3
	Quarry Area (Limestone)	sq feet	7,000,000	7,000,000	-	-				
		acres	161	161	-	-	-	-	-	
	WMSA	sq feet	3,500,000	3,920,400	-	-				
		acres	80	90	-	-	-	-	-	
	Surface Infiltration to Pit (Through backfill)									
	Undrained Backfill (No Surface Outlet)	sq feet	-	-						
		acres	-	-	-	-	-	-	-	
	Drained Backfill (With Surface Outlet)	sq feet			1,960,200	1,960,200				
		acres	-	-	45	45	-	-	-	
	Total Drainage Area	acres	354	367	45	45	-	-	-	
	Spill Elevation		990.00	ft amsl	Based on Mine Plan (Chang Drawings)					
	Bottom of Pit		440.00	ft amsl	Based on end of Phase 1 for South Quarry Mine Plan (Chang Drawings)					
Groundwater Capture	Initial		371	gpm	MODFLOW model results for Phase 1, maximum excavation condition (Golder's Report)					
			2,181,181	cu ft/mo						
	At Spill Elevation		80	gpm	MODFLOW model results for ultimate condition (Golder's Report)					
			470,336	cu ft/mo						
Date Quarry Filling Starts			**6/1/2028**							
			In situ Pit Water Treatment Removal Rate							
Assumptions	The pit is backfilled incrementally over a 10-year period, from 440 ft amsl to the spill-over elevation of 990 ft amsl									
	Backfill material has a porosity of 30-percent.									
	Surface runoff is only within the capture area of the pit and is based on water year 2009 data									
	Groundwater inflow into the pit varies by month and diminishes as the backfill increases									
	Precipitation directly infiltrates to the water table within the area of the backfill.									
	Evaporation of the pit lake is only applied when the cumulative volume of water in the pit is greater than the cumulative volume of void spaces within the backfill (based on 30-percent porosity)									
	The water level in the pit is dependent on the total cumulative volume of the backfill up to the spill-over elevation.									

Cumulative Volume Occupied by Water in Backfill	Cumulative Backfill Volume	Pit Water Level at End of Year	Pit Water Open Area at End of Year	Area for Surface Water Runoff for Next Year	First Cut Water Accumulation in Pit Lake	Available Water Storage in Pit	Quarry Area (Greenstone/Greywacke)	Quarry Area (Limestone)	WMSA	Groundwater Inflow	Pit Lake Precip	Pit Lake Outflow	Cumulative Constituent in Pit	Pit Water Concentration	Insitue Treatment	First Year Load	Last Year Load	Pit Water Outflow Concentration
							2.31	6.08	1.96			57.16	0.00	1.31				
							2.0	82.0	29	82	2	1	1	0 Se				
							1	30	1	1	1	1	1	- Se				
							33	5	1	2	2	3	3	- As				
									Concentrations	ug/L								
							1.2	82.0	29	82	0.73	1	1					
								Surface Runoff		Groundwater Inflow		Infiltration		Precipitation				
							Nominal	N Quarry Water	WMSA Runoff	N Quarry Water	Maximum Groundwater Well Water	Nominal	Nominal					
							0.64	1.2	1.2	1.5	1.66	1	1	0 Cu				

Phase	Year	Month	Total Months	Date	Quarry Area (Greenstone/Greywacke)	Quarry Area (Greenstone/Greywacke)	Quarry Area (Limestone)	Quarry Area (Limestone)	WMSA	WMSA	Groundwater Inflow	Undrained Backfill (No Surface Outlet)	Undrained Backfill (No Surface Outlet)	Drained Backfill (With Surface Outlet)	Drained Backfill (With Surface Outlet)	Pit Lake Precip	Water Entering Pit Lake	Pit Lake Outflow	Cumulative Water in Pit	Cumulative Volume Occupied by Water in Backfill	Cumulative Backfill Volume	Pit Water Level at End of Year	Pit Water Open Area at End of Year	Area for Surface Water Runoff for Next Year	First Cut Water Accumulation in Pit Lake	Available Water Storage in Pit	Quarry Area (Greenstone/Greywacke)	Quarry Area (Limestone)	WMSA	Groundwater Inflow	Pit Lake Precip	Pit Lake Outflow	Cumulative Constituent in Pit	Pit Water Concentration	Insitue Treatment	First Year Load	Last Year Load	Pit Water Outflow Concentration
					sq ft	cu ft	sq ft	cu ft	sq ft	cu ft	cu ft	sq ft	cu ft	sq ft	cu ft	cu ft	cu ft	cu ft	cu ft	cu ft	cu ft	ft	sq ft	sq ft	sq ft	cu ft	lb/month		lb/month	ug/L	lb/month	lb/month	lb/month	lb	ug/L		lb/yr	lb/yr	ug/L
1	**1**	**1**	**1**	**1/1/2018**	**4,900,000**	687,361	**7,000,000**	981,944	**3,500,000**	294,583	**2,181,181**	**0**	**0**	**0**	**0**		4,145,070	4,145,070	**0**		**0**	**440**	**NA**	**NA**	**4,145,070**	**0**	0.03	0.07	0.02	1.50	0.20	0.00	0.00	0.00	0.00	0.00	19.75	0.62	**1.27**
1	1	2	2	2/1/2018	4,901,285	1,140,683	7,000,000	1,629,120	3,503,533	489,229	2,181,181	0	0	0	0		5,440,214	5,440,214	0	NA	0	440			5,440,214	0	0.05	0.12	0.04	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.43	0.00	1.20
1	1	3	3	3/1/2018	4,902,571	592,167	7,000,000	845,509	3,507,056	254,165	2,181,181	0	0	0	0		3,873,022	3,873,022	0		0	440			3,873,022	0	0.02	0.06	0.02	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.32	0.00	1.28
1	1	4	4	4/1/2018	4,903,856	342,816	7,000,000	489,352	3,510,598	147,250	2,181,181	0	0	0	0		3,160,599	3,160,599	0		0	440			3,160,599	0	0.01	0.04	0.01	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.25	0.00	1.35
1	1	5	5	5/1/2018	4,905,142	94,696	7,000,000	135,139	3,514,131	40,705	2,181,181	0	0	0	0		2,451,722	2,451,722	0		0	440			2,451,722	0	0.00	0.01	0.00	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.21	0.00	1.45
1	1	6	6	6/1/2018	4,906,427	15,900	7,000,000	22,685	3,517,664	6,840	2,181,181	0	0	0	0		2,226,607	2,226,607	0		0	440			2,226,607	0	0.00	0.00	0.00	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.20	0.00	1.49
1	1	7	7	7/1/2018	4,907,712	682	7,000,000	972	3,521,197	293	2,181,181	0	0	0	0		2,183,128	2,183,128	0		0	440			2,183,128	0	0.00	0.00	0.00	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.20	0.00	1.50
1	1	8	8	8/1/2018	4,908,998	2,500	7,000,000	3,565	3,524,729	1,077	2,181,181	0	0	0	0		2,188,323	2,188,323	0		0	440			2,188,323	0	0.00	0.00	0.00	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.21	0.00	1.50
1	1	9	9	9/1/2018	4,910,283	12,276	7,000,000	17,500	3,528,262	5,292	2,181,181	0	0	0	0		2,216,249	2,216,249	0		0	440			2,216,249	0	0.00	0.00	0.00	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.21	0.00	1.49
1	1	10	10	10/1/2018	4,911,568	181,910	7,000,000	259,259	3,531,795	78,484	2,181,181	0	0	0	0		2,700,835	2,700,835	0		0	440			2,700,835	0	0.01	0.02	0.01	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.25	0.00	1.40
1	1	11	11	11/1/2018	4,912,854	596,821	7,000,000	850,370	3,535,328	257,686	2,181,181	0	0	0	0		3,886,058	3,886,058	0		0	440			3,886,058	0	0.02	0.06	0.02	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.34	0.00	1.28
1	1	12	12	12/1/2018	4,914,139	869,530	7,000,000	1,238,611	3,538,861	375,709	2,181,181	0	0	0	0		4,665,031	4,665,031	0		0	440			4,665,031	0	0.03	0.09	0.03	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.37	0.00	1.24
1	2	1	13	1/1/2019	4,915,425	689,525	7,000,000	981,944	3,542,393	298,151	2,181,181	0	0	0	0		4,150,802	4,150,802	0		0	440			4,150,802	0	0.03	0.07	0.02	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.32	0.00	1.26
1	2	2	14	2/1/2019	4,916,710	1,144,273	7,000,000	1,629,120	3,545,926	495,149	2,181,181	0	0	0	0		5,449,724	5,449,724	0		0	440			5,449,724	0	0.05	0.12	0.04	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.43	0.00	1.20
1	2	3	15	3/1/2019	4,917,995	594,030	7,000,000	845,509	3,549,459	257,237	2,181,181	0	0	0	0		3,877,958	3,877,958	0		0	440			3,877,958	0	0.02	0.06	0.02	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.29	0.00	1.28
1	2	4	16	4/1/2019	4,919,281	343,894	7,000,000	489,352	3,552,992	149,028	2,181,181	0	0	0	0		3,163,455	3,163,455	0		0	440			3,163,455	0	0.01	0.04	0.01	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.25	0.00	1.35
1	2	5	17	5/1/2019	4,920,566	94,994	7,000,000	135,139	3,556,524	41,196	2,181,181	0	0	0	0		2,452,511	2,452,511	0		0	440			2,452,511	0	0.00	0.01	0.00	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.21	0.00	1.45
1	2	6	18	6/1/2019	4,921,851	15,902	7,000,000	22,685	3,560,057	6,922	2,181,181	0	0	0	0		2,226,739	2,226,739	0		0	440			2,226,739	0	0.00	0.00	0.00	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.20	0.00	1.49
1	2	7	19	7/1/2019	4,923,137	684	7,000,000	972	3,563,590	297	2,181,181	0	0	0	0		2,183,134	2,183,134	0		0	440			2,183,134	0	0.00	0.00	0.00	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.20	0.00	1.50
1	2	8	20	8/1/2019	4,924,422	2,508	7,000,000	3,565	3,567,123	1,090	2,181,181	0	0	0	0		2,188,344	2,188,344	0		0	440			2,188,344	0	0.00	0.00	0.00	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.21	0.00	1.50
1	2	9	21	9/1/2019	4,925,708	12,314	7,000,000	17,500	3,570,655	5,356	2,181,181	0	0	0	0		2,216,351	2,216,351	0		0	440			2,216,351	0	0.00	0.00	0.00	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.21	0.00	1.49
1	2	10	22	10/1/2019	4,926,993	182,481	7,000,000	259,259	3,574,188	79,426	2,181,181	0	0	0	0		2,702,348	2,702,348	0		0	440			2,702,348	0	0.01	0.02	0.01	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.25	0.00	1.40
1	2	11	23	11/1/2019	4,928,278	598,695	7,000,000	850,370	3,577,721	260,776	2,181,181	0	0	0	0		3,891,022	3,891,022	0		0	440			3,891,022	0	0.02	0.06	0.02	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.34	0.00	1.28
1	2	12	24	12/1/2019	4,929,564	872,259	7,000,000	1,238,611	3,581,254	380,210	2,181,181	0	0	0	0		4,672,261	4,672,261	0		0	440			4,672,261	0	0.03	0.09	0.03	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.37	0.00	1.24
1	3	1	25	1/1/2020	4,930,849	691,689	7,000,000	981,944	3,584,787	301,720	2,181,181	0	0	0	0		4,156,534	4,156,534	0		0	440			4,156,534	0	0.03	0.07	0.02	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.32	0.00	1.26
1	3	2	26	2/1/2020	4,932,134	1,147,863	7,000,000	1,629,120	3,588,319	501,069	2,181,181	0	0	0	0		5,459,233	5,459,233	0		0	440			5,459,233	0	0.05	0.12	0.04	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.43	0.00	1.20
1	3	3	27	3/1/2020	4,933,420	595,893	7,000,000	845,509	3,591,852	260,310	2,181,181	0	0	0	0		3,882,893	3,882,893	0		0	440			3,882,893	0	0.02	0.06	0.02	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.29	0.00	1.28
1	3	4	28	4/1/2020	4,934,705	344,972	7,000,000	489,352	3,595,385	150,806	2,181,181	0	0	0	0		3,166,312	3,166,312	0		0	440			3,166,312	0	0.01	0.04	0.01	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.25	0.00	1.35
1	3	5	29	5/1/2020	4,935,991	95,292	7,000,000	135,139	3,598,918	41,687	2,181,181	0	0	0	0		2,453,300	2,453,300	0		0	440			2,453,300	0	0.00	0.01	0.00	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.21	0.00	1.44
1	3	6	30	6/1/2020	4,937,276	16,000	7,000,000	22,685	3,602,450	7,005	2,181,181	0	0	0	0		2,226,872	2,226,872	0		0	440			2,226,872	0	0.00	0.00	0.00	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.20	0.00	1.49
1	3	7	31	7/1/2020	4,938,561	686	7,000,000	972	3,605,983	300	2,181,181	0	0	0	0		2,183,140	2,183,140	0		0	440			2,183,140	0	0.00	0.00	0.00	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.20	0.00	1.50
1	3	8	32	8/1/2020	4,939,847	2,516	7,000,000	3,565	3,609,516	1,103	2,181,181	0	0	0	0		2,188,365	2,188,365	0		0	440			2,188,365	0	0.00	0.00	0.00	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.21	0.00	1.50
1	3	9	33	9/1/2020	4,941,132	12,353	7,000,000	17,500	3,613,049	5,420	2,181,181	0	0	0	0		2,216,454	2,216,454	0		0	440			2,216,454	0	0.00	0.00	0.00	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.21	0.00	1.49
1	3	10	34	10/1/2020	4,942,417	183,052	7,000,000	259,259	3,616,582	80,368	2,181,181	0	0	0	0		2,703,861	2,703,861	0		0	440			2,703,861	0	0.01	0.02	0.01	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.25	0.00	1.40
1	3	11	35	11/1/2020	4,943,703	600,568	7,000,000	850,370	3,620,114	263,866	2,181,181	0	0	0	0		3,895,986	3,895,986	0		0	440			3,895,986	0	0.02	0.06	0.02	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.34	0.00	1.28
1	3	12	36	12/1/2020	4,944,988	874,988	7,000,000	1,238,611	3,623,647	384,711	2,181,181	0	0	0	0		4,679,491	4,679,491	0		0	440			4,679,491	0	0.03	0.09	0.03	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.37	0.00	1.24
1	4	1	37	1/1/2021	4,946,274	693,852	7,000,000	981,944	3,627,180	305,288	2,181,181	0	0	0	0		4,162,266	4,162,266	0		0	440			4,162,266	0	0.03	0.07	0.02	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.32	0.00	1.26
1	4	2	38	2/1/2021	4,947,559	1,151,453	7,000,000	1,629,120	3,630,713	506,989	2,181,181	0	0	0	0		5,468,743	5,468,743	0		0	440			5,468,743	0	0.05	0.12	0.04	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.43	0.00	1.20
1	4	3	39	3/1/2021	4,948,844	597,756	7,000,000	845,509	3,634,245	263,382	2,181,181	0	0	0	0		3,887,829	3,887,829	0		0	440			3,887,829	0	0.02	0.06	0.02	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.29	0.00	1.28
1	4	4	40	4/1/2021	4,950,130	346,051	7,000,000	489,352	3,637,778	152,585	2,181,181	0	0	0	0		3,169,168	3,169,168	0		0	440			3,169,168	0	0.01	0.04	0.01	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.25	0.00	1.35
1	4	5	41	5/1/2021	4,951,415	95,590	7,000,000	135,139	3,641,311	42,179	2,181,181	0	0	0	0		2,454,088	2,454,088	0		0	440			2,454,088	0	0.00	0.01	0.00	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.21	0.00	1.44
1	4	6	42	6/1/2021	4,952,701	16,050	7,000,000	22,685	3,644,844	7,087	2,181,181	0	0	0	0		2,227,004	2,227,004	0		0	440			2,227,004	0	0.00	0.00	0.00	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.20	0.00	1.49
1	4	7	43	7/1/2021	4,953,988	688	7,000,000	972	3,648,376	304	2,181,181	0	0	0	0		2,183,146	2,183,146	0		0	440			2,183,146	0	0.00	0.00	0.00	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.20	0.00	1.50
1	4	8	44	8/1/2021	4,955,271	2,524	7,000,000	3,565	3,651,909	1,116	2,181,181	0	0	0	0		2,188,385	2,188,385	0		0	440			2,188,385	0	0.00	0.00	0.00	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.21	0.00	1.50
1	4	9	45	9/1/2021	4,956,557	12,391	7,000,000	17,500	3,655,442	5,483	2,181,181	0	0	0	0		2,216,556	2,216,556	0		0	440			2,216,556	0	0.00	0.00	0.00	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.21	0.00	1.49
1	4	10	46	10/1/2021	4,957,842	183,624	7,000,000	259,259	3,658,975	81,311	2,181,181	0	0	0	0		2,705,375	2,705,375	0		0	440			2,705,375	0	0.01	0.02	0.01	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.25	0.00	1.40
1	4	11	47	11/1/2021	4,959,127	602,442	7,000,000	850,370	3,662,508	266,958	2,181,181	0	0	0	0		3,900,950	3,900,950	0		0	440			3,900,950	0	0.02	0.06	0.02	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.34	0.00	1.28
1	4	12	48	12/1/2021	4,960,413	872,727	7,000,000	1,238,611	3,666,040	389,211	2,181,181	0	0	0	0		4,685,721	4,685,721	0		0	440			4,685,721	0	0.04	0.09	0.03	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.38	0.00	1.23
1	5	1	49	1/1/2022	4,961,698	696,016	7,000,000	981,944	3,669,573	308,856	2,181,181	0	0	0	0		4,167,997	4,167,997	0		0	440			4,167,997	0	0.03	0.07	0.02	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.32	0.00	1.26
1	5	2	50	2/1/2022	4,962,984	1,155,047	7,000,000	1,629,120	3,673,106	512,908	2,181,181	0	0	0	0		5,478,253	5,478,253	0		0	440			5,478,253	0	0.05	0.12	0.04	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.43	0.00	1.20
1	5	3	51	3/1/2022	4,964,269	599,619	7,000,000	845,509	3,676,639	266,454	2,181,181	0	0	0	0		3,892,764	3,892,764	0		0	440			3,892,764	0	0.02	0.06	0.02	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.29	0.00	1.28
1	5	4	52	4/1/2022	4,965,554	347,128	7,000,000	489,352	3,680,171	154,363	2,181,181	0	0	0	0		3,172,025	3,172,025	0		0	440			3,172,025	0	0.01	0.04	0.01	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.25	0.00	1.35
1	5	5	53	5/1/2022	4,966,840	95,888	7,000,000	135,139	3,683,704	42,670	2,181,181	0	0	0	0		2,454,877	2,454,877	0		0	440			2,454,877	0	0.00	0.01	0.00	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.21	0.00	1.44
1	5	6	54	6/1/2022	4,968,125	16,100	7,000,000	22,685	3,687,237	7,170	2,181,181	0	0	0	0		2,227,136	2,227,136	0		0	440			2,227,136	0	0.00	0.00	0.00	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.20	0.00	1.49
1	5	7	55	7/1/2022	4,969,410	690	7,000,000	972	3,690,770	308	2,181,181	0	0	0	0		2,183,151	2,183,151	0		0	440			2,183,151	0	0.00	0.00	0.00	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.20	0.00	1.50
1	5	8	56	8/1/2022	4,970,696	2,531	7,000,000	3,565	3,694,303	1,129	2,181,181	0	0	0	0		2,188,406	2,188,406	0		0	440			2,188,406	0	0.00	0.00	0.00	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.21	0.00	1.49
1	5	9	57	9/1/2022	4,971,981	12,430	7,000,000	17,500	3,697,835	5,547	2,181,181	0	0	0	0		2,216,658	2,216,658	0		0	440			2,216,658	0	0.00	0.00	0.00	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.21	0.00	1.49
1	5	10	58	10/1/2022	4,973,267	184,195	7,000,000	259,259	3,701,368	82,253	2,181,181	0	0	0	0		2,706,888	2,706,888	0		0	440			2,706,888	0	0.01	0.02	0.01	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.25	0.00	1.40
1	5	11	59	11/1/2022	4,974,552	604,316	7,000,000	850,370	3,704,901	270,046	2,181,181	0	0	0	0		3,905,914	3,905,914	0		0	440			3,905,914	0	0.02	0.06	0.02	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.34	0.00	1.28
1	5	12	60	12/1/2022	4,975,837	880,447	7,000,000	1,238,611	3,708,434	393,712	2,181,181	0	0	0	0		4,693,951	4,693,951	0		0	440			4,693,951	0	0.04	0.09	0.03	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.38	0.00	1.23
1	6	1	61	1/1/2023	4,977,123	698,189	7,000,000	981,944	3,711,966	312,424	2,181,181	0	0	0	0		4,173,729	4,173,729	0		0	440			4,173,729	0	0.03	0.07	0.02	1.50	0.20	0.00	0.00	0.00	0.00	0.00	0.32	0.00	1.26
1	6	2	62	2/1/2023	4,978,408

2	12	8	140	8/1/2029	3,368,640	1,716	4,666,667	2,377	2,613,600	799	1,465,737	0	0	653,400	100	1,470,727	0	34,744,268	364,691,672	675	34,744,268	524,244,279	0.00	0.00	0.00	1.57	0.14	0.00	0.00	0.00	0.00	0.00	3.00	1.38	0.0%	0.00
2	12	9	141	9/1/2029	3,284,424	6,211	4,550,000	11,375	2,548,260	3,822	1,450,184	0	0	686,020	515	1,474,107	0	36,218,375	376,088,287	680	36,218,375	516,348,216	0.00	0.00	0.00	1.57	0.14	0.00	0.00	0.00	0.00	0.00	3.14	1.39	0.0%	0.00
2	12	10	142	10/1/2029	3,200,208	118,526	4,433,333	164,198	2,482,920	55,176	1,434,630	0	0	718,740	7,986	1,790,516	0	37,998,891	387,484,902	685	37,998,891	508,289,018	0.00	0.01	0.00	1.57	0.14	0.00	0.00	0.00	0.00	0.00	3.31	1.39	0.0%	0.00
2	12	11	143	11/1/2029	3,115,992	378,535	4,316,667	524,395	2,417,580	176,215	1,419,077	0	0	751,430	27,385	2,525,607	0	40,524,498	398,881,517	695	40,524,498	500,311,388	0.02	0.04	0.01	1.57	0.14	0.00	0.00	0.00	0.00	0.00	3.51	1.39	0.0%	0.00
2	12	12	144	12/1/2029	3,031,776	636,404	4,200,000	748,167	2,352,240	249,729	1,387,971	0	0	784,080	41,622	2,966,945	0	43,483,443	410,278,131	705	43,483,443	492,393,758	0.02	0.06	0.02	1.58	0.14	0.00	0.00	0.00	0.00	0.00	3.75	1.38	0.0%	0.00
2	13	1	145	1/1/2030	2,947,560	413,477	4,083,333	572,801	2,286,900	192,481	1,356,865	0	0	816,750	34,372	2,569,995	0	46,053,438	421,674,746	715	46,053,438	484,356,127	0.02	0.04	0.01	1.58	0.13	0.00	0.00	0.00	0.00	0.00	3.96	1.38	0.0%	0.00
2	13	2	146	2/1/2030	2,853,344	665,390	3,966,667	923,168	2,221,560	310,216	1,325,758	0	0	849,420	55,306	3,284,839	0	49,338,277	433,071,381	725	49,338,277	476,378,491	0.03	0.07	0.02	1.58	0.13	0.00	0.00	0.00	0.00	0.00	4.21	1.37	0.0%	0.00
2	13	3	147	3/1/2030	2,779,128	335,683	3,850,000	465,030	2,156,220	156,266	1,294,652	0	0	882,090	31,964	2,283,594	0	51,621,871	444,467,976	735	51,621,871	468,400,867	0.01	0.03	0.01	1.58	0.13	0.00	0.00	0.00	0.00	0.00	4.40	1.36	0.0%	0.00
2	13	4	148	4/1/2030	2,694,912	188,394	3,733,333	260,988	2,090,880	87,701	1,279,099	0	0	914,760	19,185	1,835,366	0	53,457,238	455,864,590	745	53,457,238	460,423,216	0.01	0.02	0.01	1.59	0.13	0.00	0.00	0.00	0.00	0.00	4.57	1.37	0.0%	0.00
2	13	5	149	5/1/2030	2,610,696	50,401	3,616,667	69,822	2,025,540	23,463	1,263,546	0	0	947,430	5,487	1,412,718	0	54,869,956	467,261,205	755	54,869,956	452,445,606	0.00	0.01	0.00	1.59	0.13	0.00	0.00	0.00	0.00	0.00	4.70	1.37	0.0%	0.00
2	13	6	150	6/1/2030	2,526,480	8,188	3,500,000	11,343	1,960,200	3,811	1,247,993	0	0	980,100	953	1,272,287	0	56,142,243	478,657,820	765	56,142,243	444,407,976	0.00	0.00	0.00	1.59	0.12	0.00	0.00	0.00	0.00	0.00	4.83	1.38	0.0%	0.00
2	13	7	151	7/1/2030	2,442,264	339	3,383,333	470	1,894,860	158	1,232,440	0	0	1,012,770	42	1,233,449	0	57,375,692	490,054,435	745	57,375,692	438,490,345	0.00	0.00	0.00	1.59	0.12	0.00	0.00	0.00	0.00	0.00	4.95	1.38	0.0%	0.00
2	13	8	152	8/1/2030	2,358,048	1,201	3,266,667	1,664	1,829,520	559	1,232,440	0	0	1,045,440	150	1,236,023	0	58,611,715	501,451,049	750	58,611,715	432,312,716	0.00	0.00	0.00	1.59	0.12	0.00	0.00	0.00	0.00	0.00	5.07	1.38	0.0%	0.00
2	13	9	153	9/1/2030	2,273,832	5,685	3,150,000	7,875	1,764,180	2,646	1,216,886	0	0	1,078,110	809	1,233,901	0	59,845,615	512,847,664	755	59,845,615	420,535,065	0.00	0.00	0.00	1.59	0.12	0.00	0.00	0.00	0.00	0.00	5.19	1.39	0.0%	0.00
2	13	10	154	10/1/2030	2,189,616	81,097	3,033,333	112,346	1,698,840	37,752	1,201,333	0	0	1,110,930	12,342	1,444,870	0	61,290,485	524,244,255	765	61,290,485	407,847,840	0.01	0.01	0.00	1.59	0.12	0.00	0.00	0.00	0.00	0.00	5.33	1.39	0.0%	0.00
2	13	11	155	11/1/2030	2,105,400	255,767	2,916,667	354,321	1,633,500	119,064	1,201,333	0	0	1,143,450	41,672	1,972,158	0	63,262,643	535,640,894	760	63,262,643	404,579,824	0.01	0.03	0.01	1.59	0.12	0.00	0.00	0.00	0.00	0.00	5.50	1.39	0.0%	0.00
2	13	12	156	12/1/2030	2,021,184	357,637	2,800,000	495,444	1,568,160	166,486	1,185,780	0	0	1,176,120	62,432	2,267,781	0	65,530,424	547,037,509	770	65,530,424	398,602,184	0.01	0.04	0.01	1.60	0.12	0.00	0.00	0.00	0.00	0.00	5.68	1.39	0.0%	0.00
2	14	1	157	1/1/2031	1,936,968	271,714	2,683,333	376,412	1,502,820	126,487	1,154,674	0	0	1,208,790	47,147	1,980,157	0	67,510,580	284,915,369	775	67,510,580	388,624,343	0.01	0.02	0.01	1.60	0.12	0.00	0.00	0.00	0.00	0.00	5.85	1.39	0.0%	0.00
2	14	2	158	2/1/2031	1,852,752	431,194	2,566,667	597,344	1,437,480	200,728	1,139,121	0	0	1,241,460	86,678	2,455,065	0	69,965,645	296,311,984	780	69,965,645	380,646,933	0.02	0.04	0.02	1.60	0.11	0.00	0.01	0.00	0.00	0.00	6.05	1.38	0.0%	0.00
2	14	3	159	3/1/2031	1,768,536	211,618	2,450,000	295,928	1,372,140	99,442	1,123,568	0	0	1,274,130	46,170	1,778,724	0	71,744,368	307,916,599	785	71,744,368	372,669,303	0.01	0.02	0.01	1.60	0.11	0.00	0.00	0.00	0.00	0.00	6.20	1.38	0.0%	0.00
2	14	4	160	4/1/2031	1,684,320	117,746	2,333,333	163,117	1,306,800	54,813	1,108,014	0	0	1,306,800	27,407	1,471,098	0	73,215,466	319,105,213	785	73,215,466	364,691,672	0.00	0.01	0.00	1.60	0.11	0.00	0.00	0.00	0.00	0.00	6.33	1.38	0.0%	0.00
2	14	5	161	5/1/2031	1,600,104	30,891	2,216,667	42,794	1,241,460	14,380	1,108,014	0	0	1,339,470	7,258	1,203,837	0	74,419,303	330,501,828	790	74,419,303	354,514,062	0.00	0.00	0.00	1.60	0.11	0.00	0.00	0.00	0.00	0.00	6.45	1.39	0.0%	0.00
2	14	6	162	6/1/2031	1,515,888	4,913	2,100,000	6,806	1,176,120	2,287	1,092,461	0	0	1,372,140	1,334	1,107,800	0	75,527,104	341,898,443	790	75,527,104	348,736,412	0.00	0.00	0.00	1.60	0.11	0.00	0.00	0.00	0.00	0.00	6.56	1.39	0.0%	0.00
2	14	7	163	7/1/2031	1,431,672	199	1,983,333	275	1,110,780	93	1,092,461	0	0	1,404,810	59	1,093,087	0	76,620,190	353,295,058	795	76,620,190	340,758,711	0.00	0.00	0.00	1.60	0.11	0.00	0.00	0.00	0.00	0.00	6.67	1.39	0.0%	0.00
2	14	8	164	8/1/2031	1,347,456	686	1,866,667	951	1,045,440	319	1,076,908	0	0	1,437,480	220	1,079,084	0	77,699,274	364,691,672	795	77,699,274	332,781,151	0.00	0.00	0.00	1.60	0.11	0.00	0.00	0.00	0.00	0.00	6.78	1.40	0.0%	0.00
2	14	9	165	9/1/2031	1,263,240	3,158	1,750,000	4,375	980,100	1,470	1,076,908	0	0	1,470,510	1,103	1,087,014	0	78,786,288	391,008,287	800	78,786,288	324,881,521	0.00	0.00	0.00	1.60	0.11	0.00	0.00	0.00	0.00	0.00	6.89	1.40	0.0%	0.00
2	14	10	166	10/1/2031	1,179,024	43,668	1,633,333	60,494	914,760	20,328	1,061,355	0	0	1,502,820	16,698	1,202,542	0	79,988,831	387,484,902	800	79,988,831	316,825,890	0.00	0.00	0.00	1.60	0.11	0.00	0.00	0.00	0.00	0.00	7.00	1.40	0.0%	0.00
2	14	11	167	11/1/2031	1,094,808	132,998	1,516,667	184,247	849,420	61,913	1,061,355	0	0	1,535,460	55,960	1,496,474	0	81,485,305	398,981,517	805	81,485,305	308,948,260	0.01	0.01	0.00	1.61	0.11	0.00	0.00	0.00	0.00	0.00	7.13	1.40	0.0%	0.00
2	14	12	168	12/1/2031	1,010,592	178,819	1,400,000	247,722	784,080	83,243	1,045,802	0	0	1,568,160	83,243	1,638,829	0	83,124,134	410,278,131	810	83,124,134	300,870,630	0.01	0.02	0.01	1.61	0.11	0.00	0.01	0.00	0.00	0.00	7.28	1.40	0.0%	0.00
2	15	1	169	1/1/2032	926,376	129,950	1,283,333	180,023	718,740	60,494	1,030,249	0	0	1,600,830	67,368	1,468,084	0	84,592,218	421,674,746	810	84,592,218	292,892,999	0.01	0.01	0.00	1.61	0.10	0.00	0.00	0.00	0.00	0.00	7.41	1.40	0.0%	0.00
2	15	2	170	2/1/2032	842,160	195,997	1,166,667	271,520	653,400	91,240	1,030,249	0	0	1,633,500	101,650	1,701,056	0	86,295,274	284,915,369	815	86,295,274	284,915,369	0.02	0.02	0.01	1.62	0.10	0.00	0.01	0.00	0.00	0.00	7.55	1.40	0.0%	0.00
2	15	3	171	3/1/2032	757,944	91,550	1,050,000	126,826	588,060	42,618	1,014,696	0	0	1,666,170	60,376	1,336,065	0	87,631,339	444,467,976	820	87,631,339	276,937,729	0.00	0.01	0.00	1.61	0.10	0.00	0.00	0.00	0.00	0.00	7.68	1.40	0.0%	0.00
2	15	4	172	4/1/2032	673,728	47,099	933,333	65,247	522,720	21,925	999,142	0	0	1,698,840	35,628	1,149,042	0	88,800,381	455,864,590	820	88,800,381	268,960,118	0.00	0.00	0.00	1.61	0.10	0.00	0.00	0.00	0.00	0.00	7.79	1.40	0.0%	0.00
2	15	5	173	5/1/2032	589,512	11,381	816,667	15,766	457,380	5,298	999,142	0	0	1,731,510	10,028	1,041,616	0	89,841,996	467,261,205	820	89,841,996	260,982,478	0.00	0.00	0.00	1.61	0.10	0.00	0.00	0.00	0.00	0.00	7.89	1.41	0.0%	0.00
2	15	6	174	6/1/2032	505,296	1,638	700,000	2,269	392,040	762	999,142	0	0	1,764,180	1,719	1,065,526	0	90,847,522	453,264,590	825	90,847,522	253,264,590	0.00	0.00	0.00	1.61	0.10	0.00	0.00	0.00	0.00	0.00	7.99	1.41	0.0%	0.00
2	15	7	175	7/1/2032	421,080	58	583,333	81	326,700	27	983,589	0	0	1,796,850	75	983,831	0	91,831,353	490,054,435	825	91,831,353	245,027,217	0.00	0.00	0.00	1.61	0.10	0.00	0.00	0.00	0.00	0.00	8.09	1.41	0.0%	0.00
2	15	8	176	8/1/2032	336,864	172	466,667	238	261,360	8	983,589	0	0	1,829,220	22	984,358	0	92,815,711	501,451,049	830	92,815,711	237,040,000	0.00	0.00	0.00	1.61	0.10	0.00	0.00	0.00	0.00	0.00	8.19	1.41	0.0%	0.00
2	15	9	177	9/1/2032	252,648	632	350,000	875	196,020	294	968,036	0	0	1,862,190	1,397	971,233	0	93,786,945	512,847,664	830	93,786,945	229,071,957	0.00	0.00	0.00	1.61	0.10	0.00	0.00	0.00	0.00	0.00	8.29	1.41	0.0%	0.00
2	15	10	178	10/1/2032	168,432	6,238	233,333	8,642	130,680	2,904	968,036	0	0	1,894,860	21,054	1,006,874	0	94,793,819	524,244,255	830	94,793,819	221,200,000	0.00	0.00	0.00	1.61	0.10	0.00	0.00	0.00	0.00	0.00	8.39	1.42	0.0%	0.00
2	15	11	179	11/1/2032	84,216	10,231	116,667	14,173	65,340	4,763	968,036	0	0	1,927,530	70,248	1,067,450	0	95,861,269	535,640,894	835	95,861,269	211,725,504	0.00	0.00	0.00	1.61	0.10	0.00	0.00	0.00	0.00	0.00	8.49	1.42	0.0%	0.00
2	**15**	**12**	**180**	**12/1/2032**	**0**	**0**	**0**	**0**	**0**	**0**	**952,483**	**0**	**0**	**1,960,200**	**104,054**	**1,056,537**	**0**	**96,917,806**	**547,037,509**	**835**	**96,917,806**	**200,328,889**	**0.00**	**0.00**	**0.00**	**1.61**	**0.10**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**8.59**	**1.42**	**0.0%**	**0.00**
3	16	1	181	1/1/2033	0	0	0	0	0	0	1,030,249	0	0	1,960,200	82,492	1,112,740	0	98,030,546	558,434,123	840	98,030,546	200,328,889	0.00	0.00	0.00	1.62	0.10	0.00	0.00	0.00	0.00	0.00	8.70	1.42	0.0%	0.00
3	16	2	182	2/1/2033	0	0	0	0	0	0	936,930	0	0	1,960,200	138,860	1,073,790	0	99,104,336	569,830,738	840	99,104,336	200,328,889	0.00	0.00	0.00	1.62	0.09	0.00	0.00	0.00	0.00	0.00	8.81	1.42	0.0%	0.00
3	16	3	183	3/1/2033	0	0	0	0	0	0	936,930	0	0	1,960,200	71,030	1,007,960	0	100,112,296	581,227,353	840	100,112,296	200,328,889	0.00	0.00	0.00	1.62	0.09	0.00	0.00	0.00	0.00	0.00	8.91	1.42	0.0%	0.00
3	16	4	184	4/1/2033	0	0	0	0	0	0	936,930	0	0	1,960,200	41,110	978,040	0	101,090,336	592,623,968	845	101,090,336	200,328,889	0.00	0.00	0.00	1.62	0.09	0.00	0.00	0.00	0.00	0.00	9.00	1.42	0.0%	0.00
3	16	5	185	5/1/2033	0	0	0	0	0	0	921,377	0	0	1,960,200	11,353	932,730	0	102,023,065	604,020,582	845	102,023,065	200,328,889	0.00	0.00	0.00	1.62	0.09	0.00	0.00	0.00	0.00	0.00	9.10	1.43	0.0%	0.00
3	16	6	186	6/1/2033	0	0	0	0	0	0	921,377	0	0	1,960,200	1,906	923,282	0	102,946,347	615,417,197	845	102,946,347	200,328,889	0.00	0.00	0.00	1.62	0.09	0.00	0.00	0.00	0.00	0.00	9.19	1.43	0.0%	0.00
3	16	7	187	7/1/2033	0	0	0	0	0	0	921,377	0	0	1,960,200	82	921,458	0	103,867,805	626,813,197	850	103,867,805	200,328,889	0.00	0.00	0.00	1.62	0.09	0.00	0.00	0.00	0.00	0.00	9.28	1.43	0.0%	0.00
3	16	8	188	8/1/2033	0	0	0	0	0	0	905,824	0	0	1,960,200	299	906,123	0	104,773,929	638,210,427	850	104,773,929	200,328,889	0.00	0.00	0.00	1.62	0.09	0.00	0.00	0.00	0.00	0.00	9.38	1.43	0.0%	0.00
3	16	9	189	9/1/2033	0	0	0	0	0	0	905,824	0	0	1,960,200	1,470	907,294	0	105,681,223	649,607,864	850	105,681,223	200,328,889	0.00	0.00	0.00	1.62	0.09	0.00	0.00	0.00	0.00	0.00	9.47	1.43	0.0%	0.00
3	16	10	190	10/1/2033	0	0	0	0	0	0	905,824	0	0	1,960,200	21,780	927,604	0	106,608,826	661,003,656	855	106,608,826	200,328,889	0.00	0.00	0.00	1.62	0.09	0.00	0.00	0.00	0.00	0.00	9.56	1.43	0.0%	0.00
3	16	11	191	11/1/2033	0	0	0	0	0	0	890,270	0	0	1,960,200	71,438	961,708	0	107,570,535	672,400,271	855	107,570,535	200,328,889	0.00	0.00	0.00	1.62	0.09	0.00	0.00	0.00	0.00	0.00	9.65	1.44	0.0%	0.00
3	16	12	192	12/1/2033	0	0	0	0	0	0	890,270	0	0	1,960,200	104,054	994,324	0	108,564,859	683,796,886	860	108,564,859	200,328,889	0.00	0.00	0.00	1.62	0.09	0.00	0.00	0.00	0.00	0.00	9.75	1.44	0.0%	0.00
3	17	1	193	1/1/2034	0	0	0	0	0	0	874,717	0	0	1,960,200	82,492	957,209	0	109,522,068	683,796,886	860	109,522,068	200,328,889	0.00	0.00	0.00	1.62	0.09	0.00	0.00	0.00	0.00	0.00	9.85	1.44	0.0%	0.00
3	17	2	194	2/1/2034	0	0	0	0	0	0	874,717	0	0	1,960,200	138,860	1,013,577	0	110,535,646	683,796,886	860	110,535,646	200,328,889	0.00	0.00	0.00	1.62	0.09	0.00	0.00	0.00	0.00	0.00	9.94	1.44	0.0%	0.00
3	17	3	195	3/1/2034	0	0	0	0	0	0	874,717	0	0	1,960,200	71,030	945,747	0	111,479,393	683,796,886	865	111,479,393	200,328,889	0.00	0.00	0.00	1.62	0.09	0.00	0.00	0.00	0.00	0.00	10.04	1.44	0.0%	0.00
3	17	4	196	4/1/2034	0	0	0	0	0	0	859,164	0	0	1,960,200	41,110	900,274	0	112,379,667	683,796,886	865	112,379,667	200,328,889	0.00	0.00	0.00	1.62	0.09	0.00	0.00	0.00	0.00	0.00	10.13	1.44	0.0%	0.00
3	17	5	197	5/1/2034	0	0	0	0	0	0	859,164	0	0	1,960,200	11,353	870,517	0	113,250,184	683,796,886	865	113,250,184	200,328,889	0.00	0.00	0.00	1.62	0.09	0.00	0.00	0.00	0.00	0.00	10.21	1.44	0.0%	0.00
3	17	6	198	6/1/2034	0	0	0	0	0	0	859,164	0	0	1,960,200	1,906	861,070	0	114,111,254	683,796,886	865	114,111,254	200,328,889	0.00	0.00	0.00	1.62	0.09	0.00	0.00	0.00	0.00	0.00	10.30	1.44	0.0%	0.00
3	17	7	199	7/1/2034	0	0	0	0	0	0	859,164	0	0	1,960,200	82	859,246	0	114,970,499	683,796,886	870	114,970,499	200,328,889	0.00	0.00	0.00	1.63	0.09	0.00	0.00	0.00	0.00	0.00	10.39	1.45	0.0%	0.00
3	17	8	200	8/1/2034	0	0	0	0	0	0	843,611	0	0	1,960,200	299	843,910	0	115,814,410	683,796,886	870	115,814,410	200,328,889	0.00	0.00	0.00	1.63	0.09	0.00	0.00	0.00	0.00	0.00	10.47	1.45	0.0%	0.00
3	17	9	201	9/1/2034	0	0	0	0	0	0	843,611	0	0	1,960,200	1,470	845,081	0	116,659,491	683,796,886	870	116,659,491	200,328,889	0.00	0.00	0.00	1.63	0.09	0.00	0.00	0.00	0.00	0.00	10.56	1.45	0.0%	0.00
3	17	10	202	10/1/2034	0	0	0	0	0	0	843,611	0	0	1,960,200	21,780	865,391	0	117,524,882	683,796,886	875	117,524,882	200,328,889	0.00	0.00	0.00	1.63	0.09	0.00	0.00	0.00	0.00	0.00	10.65	1.45	0.0%	0.00
3	17	11	203	11/1/2034	0	0	0	0	0	0	828,058	0	0	1,960,200	71,438	899,496	0	118,424,378	683,796,886	875	118,424,378	200,328,889	0.00	0.00	0.00	1.63	0.08	0.00	0.00	0.00	0.00	0.00	10.74	1.45	0.0%	0.00
3	17	12	204	12/1/2034	0	0	0	0	0	0	828,058	0	0	1,960,200	104,054	932,112	0	119,356,490	683,796,886	875	119,356,490	200,328,889	0.00	0.00	0.00	1.63	0.08	0.00	0.00	0.00	0.00	0.00	10.83	1.45	0.0%	0.00
3	18	1	205	1/1/2035	0	0	0	0	0	0	828,058	0	0	1,960,200	82,492	910,550	0	120,267,040	683,796,886	880	120,267,040	200,328,889	0.00	0.00	0.00	1.63	0.08	0.00	0.00	0.00	0.00	0.00	10.92	1.45	0.0%	0.00
3	18	2	206	2/1/2035	0	0	0	0	0	0	812,505	0	0	1,960,200	138,860	949,365	0	121,216,404	683,796,886	880	121,216,404	200,328,889	0.00	0.00	0.00	1.63	0.08	0.00	0.00	0.00	0.00	0.00	11.01	1.45	0.0%	0.00
3	18	3	207	3/1/2035	0	0	0	0	0	0	812,505	0	0	1,960,200	71,030	883,535	0	122,099,939	683,796,886	880	122,099,939	200,328,889	0.00	0.00	0.00	1.63	0.08	0.00	0.00	0.00	0.00	0.00	11.09	1.45	0.0%	0.00
3	18	4	208	4/1/2035	0	0	0	0	0	0	812,505	0	0	1,960,200	41,110	853,614	0	122,953,554	683,796,886	880	122,953,554	200,328,889	0.00	0.00	0.00	1.63	0.08	0.00	0.00	0.00	0.00	0.00	11.18	1.45	0.0%	0.00
3	18	5	209	5/1/2035	0	0	0	0	0	0	812,505	0	0	1,960,200	11,353	823,858	0	123,777,411	683,796,886	885	123,777,411	200,328,889	0.00	0.00	0.00	1.63	0.08	0.00	0.00	0.00	0.00	0.00	11.26	1.46	0.0%	0.00
3	18	6	210	6/1/2035	0	0	0	0	0	0	796,952	0	0	1,960,200	1,906	798,857	0	124,576,268	683,796,886	885	124,576,268	200,328,889	0.00	0.00	0.00	1.63	0.08	0.00	0.00	0.00	0.00	0.00	11.34	1.46	0.0%	0.00
3	18	7	211	7/1/2035	0	0	0	0	0	0	796,952	0	0	1,960,200	82	797,033	0	125,373,302	683,796,886	885	125,373,302	200,328,889	0.00	0.00	0.00	1.63	0.08	0.00	0.00	0.00	0.00	0.00	11.42	1.46	0.0%	0.00
3	18	8	212	8/1/2035	0	0	0	0	0	0	796,952	0	0

NA	28	6	330	6/1/2045	0	0	0	0	0	0	485,889	0	0	1,960,200	1,906	487,794	487,794	200,328,889	683,796,886	985	200,816,684	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	18.95	1.51	0.0%	1.51
NA	28	7	331	7/1/2045	0	0	0	0	0	0	485,889	0	0	1,960,200	82	485,970	485,970	200,328,889	683,796,886	985	200,814,860	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	18.95	1.51	0.0%	1.51
NA	28	8	332	8/1/2045	0	0	0	0	0	0	485,889	0	0	1,960,200	299	486,188	486,188	200,328,889	683,796,886	985	200,815,077	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	18.95	1.51	0.0%	1.51
NA	28	9	333	9/1/2045	0	0	0	0	0	0	485,889	0	0	1,960,200	1,470	487,359	487,359	200,328,889	683,796,886	985	200,816,248	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	18.96	1.51	0.0%	1.51
NA	28	10	334	10/1/2045	0	0	0	0	0	0	485,889	0	0	1,960,200	21,780	507,669	507,669	200,328,889	683,796,886	985	200,836,558	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	18.96	1.51	0.0%	1.51
NA	28	11	335	11/1/2045	0	0	0	0	0	0	485,889	0	0	1,960,200	71,438	557,327	557,327	200,328,889	683,796,886	985	200,886,216	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	18.96	1.51	0.0%	1.51
NA	28	12	336	12/1/2045	0	0	0	0	0	0	485,889	0	0	1,960,200	104,054	589,943	589,943	200,328,889	683,796,886	985	200,918,832	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.01	0.00	0.06	18.97	1.51	0.0%	1.51
NA	29	1	337	1/1/2046	0	0	0	0	0	0	485,889	0	0	1,960,200	82,492	568,380	568,380	200,328,889	683,796,886	985	200,897,270	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.01	0.00	0.05	18.97	1.51	0.0%	1.51
NA	29	2	338	2/1/2046	0	0	0	0	0	0	485,889	0	0	1,960,200	136,860	622,749	622,749	200,328,889	683,796,886	985	200,951,638	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.01	0.00	0.06	18.97	1.51	0.0%	1.51
NA	29	3	339	3/1/2046	0	0	0	0	0	0	485,889	0	0	1,960,200	71,030	556,919	556,919	200,328,889	683,796,886	985	200,885,808	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	18.97	1.52	0.0%	1.52
NA	29	4	340	4/1/2046	0	0	0	0	0	0	485,889	0	0	1,960,200	41,110	526,998	526,998	200,328,889	683,796,886	985	200,855,888	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	18.97	1.52	0.0%	1.52
NA	29	5	341	5/1/2046	0	0	0	0	0	0	485,889	0	0	1,960,200	11,353	497,242	497,242	200,328,889	683,796,886	985	200,826,131	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	18.98	1.52	0.0%	1.52
NA	29	6	342	6/1/2046	0	0	0	0	0	0	485,889	0	0	1,960,200	1,906	487,794	487,794	200,328,889	683,796,886	985	200,816,684	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	18.98	1.52	0.0%	1.52
NA	29	7	343	7/1/2046	0	0	0	0	0	0	485,889	0	0	1,960,200	82	485,970	485,970	200,328,889	683,796,886	985	200,814,860	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	18.98	1.52	0.0%	1.52
NA	29	8	344	8/1/2046	0	0	0	0	0	0	485,889	0	0	1,960,200	299	486,188	486,188	200,328,889	683,796,886	985	200,815,077	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	18.99	1.52	0.0%	1.52
NA	29	9	345	9/1/2046	0	0	0	0	0	0	485,889	0	0	1,960,200	1,470	487,359	487,359	200,328,889	683,796,886	985	200,816,248	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	18.99	1.52	0.0%	1.52
NA	29	10	346	10/1/2046	0	0	0	0	0	0	485,889	0	0	1,960,200	21,780	507,669	507,669	200,328,889	683,796,886	985	200,836,558	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.00	1.52	0.0%	1.52
NA	29	11	347	11/1/2046	0	0	0	0	0	0	485,889	0	0	1,960,200	71,438	557,327	557,327	200,328,889	683,796,886	985	200,886,216	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.00	1.52	0.0%	1.52
NA	29	12	348	12/1/2046	0	0	0	0	0	0	485,889	0	0	1,960,200	104,054	589,943	589,943	200,328,889	683,796,886	985	200,918,832	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.01	0.00	0.06	19.00	1.52	0.0%	1.52
NA	30	1	349	1/1/2047	0	0	0	0	0	0	485,889	0	0	1,960,200	82,492	568,380	568,380	200,328,889	683,796,886	985	200,897,270	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.01	0.00	0.05	19.00	1.52	0.0%	1.52
NA	30	2	350	2/1/2047	0	0	0	0	0	0	485,889	0	0	1,960,200	136,860	622,749	622,749	200,328,889	683,796,886	985	200,951,638	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.01	0.00	0.06	19.00	1.52	0.0%	1.52
NA	30	3	351	3/1/2047	0	0	0	0	0	0	485,889	0	0	1,960,200	71,030	556,919	556,919	200,328,889	683,796,886	985	200,885,808	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.00	1.52	0.0%	1.52
NA	30	4	352	4/1/2047	0	0	0	0	0	0	485,889	0	0	1,960,200	41,110	526,998	526,998	200,328,889	683,796,886	985	200,855,888	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.01	1.52	0.0%	1.52
NA	30	5	353	5/1/2047	0	0	0	0	0	0	485,889	0	0	1,960,200	11,353	497,242	497,242	200,328,889	683,796,886	985	200,826,131	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.01	1.52	0.0%	1.52
NA	30	6	354	6/1/2047	0	0	0	0	0	0	485,889	0	0	1,960,200	1,906	487,794	487,794	200,328,889	683,796,886	985	200,816,684	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.01	1.52	0.0%	1.52
NA	30	7	355	7/1/2047	0	0	0	0	0	0	485,889	0	0	1,960,200	82	485,970	485,970	200,328,889	683,796,886	985	200,814,860	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.02	1.52	0.0%	1.52
NA	30	8	356	8/1/2047	0	0	0	0	0	0	485,889	0	0	1,960,200	299	486,188	486,188	200,328,889	683,796,886	985	200,815,077	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.02	1.52	0.0%	1.52
NA	30	9	357	9/1/2047	0	0	0	0	0	0	485,889	0	0	1,960,200	1,470	487,359	487,359	200,328,889	683,796,886	985	200,816,248	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.03	1.52	0.0%	1.52
NA	30	10	358	10/1/2047	0	0	0	0	0	0	485,889	0	0	1,960,200	21,780	507,669	507,669	200,328,889	683,796,886	985	200,836,558	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.03	1.52	0.0%	1.52
NA	30	11	359	11/1/2047	0	0	0	0	0	0	485,889	0	0	1,960,200	71,438	557,327	557,327	200,328,889	683,796,886	985	200,886,216	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.03	1.52	0.0%	1.52
NA	30	12	360	12/1/2047	0	0	0	0	0	0	485,889	0	0	1,960,200	104,054	589,943	589,943	200,328,889	683,796,886	985	200,918,832	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.01	0.00	0.06	19.03	1.52	0.0%	1.52
NA	31	1	361	1/1/2048	0	0	0	0	0	0	485,889	0	0	1,960,200	82,492	568,380	568,380	200,328,889	683,796,886	985	200,897,270	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.01	0.00	0.05	19.03	1.52	0.0%	1.52
NA	31	2	362	2/1/2048	0	0	0	0	0	0	485,889	0	0	1,960,200	136,860	622,749	622,749	200,328,889	683,796,886	985	200,951,638	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.01	0.00	0.06	19.03	1.52	0.0%	1.52
NA	31	3	363	3/1/2048	0	0	0	0	0	0	485,889	0	0	1,960,200	71,030	556,919	556,919	200,328,889	683,796,886	985	200,885,808	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.04	1.52	0.0%	1.52
NA	31	4	364	4/1/2048	0	0	0	0	0	0	485,889	0	0	1,960,200	41,110	526,998	526,998	200,328,889	683,796,886	985	200,855,888	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.04	1.52	0.0%	1.52
NA	31	5	365	5/1/2048	0	0	0	0	0	0	485,889	0	0	1,960,200	11,353	497,242	497,242	200,328,889	683,796,886	985	200,826,131	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.04	1.52	0.0%	1.52
NA	31	6	366	6/1/2048	0	0	0	0	0	0	485,889	0	0	1,960,200	1,906	487,794	487,794	200,328,889	683,796,886	985	200,816,684	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.05	1.52	0.0%	1.52
NA	31	7	367	7/1/2048	0	0	0	0	0	0	485,889	0	0	1,960,200	82	485,970	485,970	200,328,889	683,796,886	985	200,814,860	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.05	1.52	0.0%	1.52
NA	31	8	368	8/1/2048	0	0	0	0	0	0	485,889	0	0	1,960,200	299	486,188	486,188	200,328,889	683,796,886	985	200,815,077	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.06	1.52	0.0%	1.52
NA	31	9	369	9/1/2048	0	0	0	0	0	0	485,889	0	0	1,960,200	1,470	487,359	487,359	200,328,889	683,796,886	985	200,816,248	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.06	1.52	0.0%	1.52
NA	31	10	370	10/1/2048	0	0	0	0	0	0	485,889	0	0	1,960,200	21,780	507,669	507,669	200,328,889	683,796,886	985	200,836,558	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.06	1.52	0.0%	1.52
NA	31	11	371	11/1/2048	0	0	0	0	0	0	485,889	0	0	1,960,200	71,438	557,327	557,327	200,328,889	683,796,886	985	200,886,216	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.06	1.52	0.0%	1.52
NA	31	12	372	12/1/2048	0	0	0	0	0	0	485,889	0	0	1,960,200	104,054	589,943	589,943	200,328,889	683,796,886	985	200,918,832	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.01	0.00	0.06	19.07	1.52	0.0%	1.52
NA	32	1	373	1/1/2049	0	0	0	0	0	0	485,889	0	0	1,960,200	82,492	568,380	568,380	200,328,889	683,796,886	985	200,897,270	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.01	0.00	0.05	19.07	1.52	0.0%	1.52
NA	32	2	374	2/1/2049	0	0	0	0	0	0	485,889	0	0	1,960,200	136,860	622,749	622,749	200,328,889	683,796,886	985	200,951,638	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.01	0.00	0.06	19.07	1.52	0.0%	1.52
NA	32	3	375	3/1/2049	0	0	0	0	0	0	485,889	0	0	1,960,200	71,030	556,919	556,919	200,328,889	683,796,886	985	200,885,808	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.07	1.52	0.0%	1.52
NA	32	4	376	4/1/2049	0	0	0	0	0	0	485,889	0	0	1,960,200	41,110	526,998	526,998	200,328,889	683,796,886	985	200,855,888	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.07	1.52	0.0%	1.52
NA	32	5	377	5/1/2049	0	0	0	0	0	0	485,889	0	0	1,960,200	11,353	497,242	497,242	200,328,889	683,796,886	985	200,826,131	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.07	1.52	0.0%	1.52
NA	32	6	378	6/1/2049	0	0	0	0	0	0	485,889	0	0	1,960,200	1,906	487,794	487,794	200,328,889	683,796,886	985	200,816,684	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.08	1.52	0.0%	1.52
NA	32	7	379	7/1/2049	0	0	0	0	0	0	485,889	0	0	1,960,200	82	485,970	485,970	200,328,889	683,796,886	985	200,814,860	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.08	1.52	0.0%	1.52
NA	32	8	380	8/1/2049	0	0	0	0	0	0	485,889	0	0	1,960,200	299	486,188	486,188	200,328,889	683,796,886	985	200,815,077	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.09	1.52	0.0%	1.52
NA	32	9	381	9/1/2049	0	0	0	0	0	0	485,889	0	0	1,960,200	1,470	487,359	487,359	200,328,889	683,796,886	985	200,816,248	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.09	1.52	0.0%	1.52
NA	32	10	382	10/1/2049	0	0	0	0	0	0	485,889	0	0	1,960,200	21,780	507,669	507,669	200,328,889	683,796,886	985	200,836,558	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.09	1.52	0.0%	1.52
NA	32	11	383	11/1/2049	0	0	0	0	0	0	485,889	0	0	1,960,200	71,438	557,327	557,327	200,328,889	683,796,886	985	200,886,216	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.10	1.53	0.0%	1.53
NA	32	12	384	12/1/2049	0	0	0	0	0	0	485,889	0	0	1,960,200	104,054	589,943	589,943	200,328,889	683,796,886	985	200,918,832	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.01	0.00	0.06	19.10	1.53	0.0%	1.53
NA	33	1	385	1/1/2050	0	0	0	0	0	0	485,889	0	0	1,960,200	82,492	568,380	568,380	200,328,889	683,796,886	985	200,897,270	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.01	0.00	0.05	19.10	1.53	0.0%	1.53
NA	33	2	386	2/1/2050	0	0	0	0	0	0	485,889	0	0	1,960,200	136,860	622,749	622,749	200,328,889	683,796,886	985	200,951,638	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.01	0.00	0.06	19.10	1.53	0.0%	1.53
NA	33	3	387	3/1/2050	0	0	0	0	0	0	485,889	0	0	1,960,200	71,030	556,919	556,919	200,328,889	683,796,886	985	200,885,808	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.10	1.53	0.0%	1.53
NA	33	4	388	4/1/2050	0	0	0	0	0	0	485,889	0	0	1,960,200	41,110	526,998	526,998	200,328,889	683,796,886	985	200,855,888	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.10	1.53	0.0%	1.53
NA	33	5	389	5/1/2050	0	0	0	0	0	0	485,889	0	0	1,960,200	11,353	497,242	497,242	200,328,889	683,796,886	985	200,826,131	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.11	1.53	0.0%	1.53
NA	33	6	390	6/1/2050	0	0	0	0	0	0	485,889	0	0	1,960,200	1,906	487,794	487,794	200,328,889	683,796,886	985	200,816,684	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.11	1.53	0.0%	1.53
NA	33	7	391	7/1/2050	0	0	0	0	0	0	485,889	0	0	1,960,200	82	485,970	485,970	200,328,889	683,796,886	985	200,814,860	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.11	1.53	0.0%	1.53
NA	33	8	392	8/1/2050	0	0	0	0	0	0	485,889	0	0	1,960,200	299	486,188	486,188	200,328,889	683,796,886	985	200,815,077	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.12	1.53	0.0%	1.53
NA	33	9	393	9/1/2050	0	0	0	0	0	0	485,889	0	0	1,960,200	1,470	487,359	487,359	200,328,889	683,796,886	985	200,816,248	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.12	1.53	0.0%	1.53
NA	33	10	394	10/1/2050	0	0	0	0	0	0	485,889	0	0	1,960,200	21,780	507,669	507,669	200,328,889	683,796,886	985	200,836,558	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.12	1.53	0.0%	1.53
NA	33	11	395	11/1/2050	0	0	0	0	0	0	485,889	0	0	1,960,200	71,438	557,327	557,327	200,328,889	683,796,886	985	200,886,216	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.13	1.53	0.0%	1.53
NA	33	12	396	12/1/2050	0	0	0	0	0	0	485,889	0	0	1,960,200	104,054	589,943	589,943	200,328,889	683,796,886	985	200,918,832	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.01	0.00	0.06	19.13	1.53	0.0%	1.53
NA	34	1	397	1/1/2051	0	0	0	0	0	0	485,889	0	0	1,960,200	82,492	568,380	568,380	200,328,889	683,796,886	985	200,897,270	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.01	0.00	0.05	19.13	1.53	0.0%	1.53
NA	34	2	398	2/1/2051	0	0	0	0	0	0	485,889	0	0	1,960,200	136,860	622,749	622,749	200,328,889	683,796,886	985	200,951,638	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.01	0.00	0.06	19.13	1.53	0.0%	1.53
NA	34	3	399	3/1/2051	0	0	0	0	0	0	485,889	0	0	1,960,200	71,030	556,919	556,919	200,328,889	683,796,886	985	200,885,808	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.13	1.53	0.0%	1.53
NA	34	4	400	4/1/2051	0	0	0	0	0	0	485,889	0	0	1,960,200	41,110	526,998	526,998	200,328,889	683,796,886	985	200,855,888	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.13	1.53	0.0%	1.53
NA	34	5	401	5/1/2051	0	0	0	0	0	0	485,889	0	0	1,960,200	11,353	497,242	497,242	200,328,889	683,796,886	985	200,826,131	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.14	1.53	0.0%	1.53
NA	34	6	402	6/1/2051	0	0	0	0	0	0	485,889	0	0	1,960,200	1,906	487,794	487,794	200,328,889	683,796,886	985	200,816,684	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.14	1.53	0.0%	1.53
NA	34	7	403	7/1/2051	0	0	0	0	0	0	485,889	0	0	1,960,200	82	485,970	485,970	200,328,889	683,796,886	985	200,814,860	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.14	1.53	0.0%	1.53
NA	34	8	404	8/1/2051	0	0	0	0	0	0	485,889	0	0	1,960,200	299	486,188	486,188	200,328,889	683,796,886	985	200,815,077	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.15	1.53	0.0%	1.53
NA	34	9	405	9/1/2051	0	0	0	0	0	0	485,889	0	0	1,960,200	1,470	487,359	487,359	200,328,889	683,796,886	985	200,816,248	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.15	1.53	0.0%	1.53
NA	34	10	406	10/1/2051	0	0	0	0	0	0	485,889	0	0	1,960,200	21,780	507,669	507,669	200,328,889	683,796,886	985	200,836,558	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.15	1.53	0.0%	1.53
NA	34	11	407	11/1/2051	0	0	0	0	0	0	485,889	0	0	1,960,200	71,438	557,327	557,327	200,328,889	683,796,886	985	200,886,216	200,328,889	0.00	0

NA	44	4	520	4/1/2061	0	0	0	0	0	0	485,889	0	0	1,960,200	41,110	526,998	526,998	200,328,889	683,796,886	985	200,855,888	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.38	1.55	0.0%	1.55
NA	44	5	521	5/1/2061	0	0	0	0	0	0	485,889	0	0	1,960,200	11,353	497,242	497,242	200,328,889	683,796,886	985	200,826,131	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.39	1.55	0.0%	1.55
NA	44	6	522	6/1/2061	0	0	0	0	0	0	485,889	0	0	1,960,200	1,906	487,794	487,794	200,328,889	683,796,886	985	200,816,684	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.39	1.55	0.0%	1.55
NA	44	7	523	7/1/2061	0	0	0	0	0	0	485,889	0	0	1,960,200	82	485,970	485,970	200,328,889	683,796,886	985	200,814,860	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.39	1.55	0.0%	1.55
NA	44	8	524	8/1/2061	0	0	0	0	0	0	485,889	0	0	1,960,200	299	486,188	486,188	200,328,889	683,796,886	985	200,815,077	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.40	1.55	0.0%	1.55
NA	44	9	525	9/1/2061	0	0	0	0	0	0	485,889	0	0	1,960,200	1,470	487,359	487,359	200,328,889	683,796,886	985	200,816,248	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.40	1.55	0.0%	1.55
NA	44	10	526	10/1/2061	0	0	0	0	0	0	485,889	0	0	1,960,200	21,780	507,669	507,669	200,328,889	683,796,886	985	200,836,558	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.40	1.55	0.0%	1.55
NA	44	11	527	11/1/2061	0	0	0	0	0	0	485,889	0	0	1,960,200	71,438	557,327	557,327	200,328,889	683,796,886	985	200,886,216	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.40	1.55	0.0%	1.55
NA	44	12	528	12/1/2061	0	0	0	0	0	0	485,889	0	0	1,960,200	104,054	589,943	589,943	200,328,889	683,796,886	985	200,918,832	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.01	0.00	0.06	19.40	1.55	0.0%	1.55
NA	45	1	529	1/1/2062	0	0	0	0	0	0	485,889	0	0	1,960,200	82,492	568,380	568,380	200,328,889	683,796,886	985	200,897,270	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.01	0.00	0.06	19.40	1.55	0.0%	1.55
NA	45	2	530	2/1/2062	0	0	0	0	0	0	485,889	0	0	1,960,200	136,860	622,749	622,749	200,328,889	683,796,886	985	200,951,638	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.01	0.00	0.06	19.40	1.55	0.0%	1.55
NA	45	3	531	3/1/2062	0	0	0	0	0	0	485,889	0	0	1,960,200	71,030	556,919	556,919	200,328,889	683,796,886	985	200,885,808	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.40	1.55	0.0%	1.55
NA	45	4	532	4/1/2062	0	0	0	0	0	0	485,889	0	0	1,960,200	41,110	526,998	526,998	200,328,889	683,796,886	985	200,855,888	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.41	1.55	0.0%	1.55
NA	45	5	533	5/1/2062	0	0	0	0	0	0	485,889	0	0	1,960,200	11,353	497,242	497,242	200,328,889	683,796,886	985	200,826,131	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.41	1.55	0.0%	1.55
NA	45	6	534	6/1/2062	0	0	0	0	0	0	485,889	0	0	1,960,200	1,906	487,794	487,794	200,328,889	683,796,886	985	200,816,684	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.41	1.55	0.0%	1.55
NA	45	7	535	7/1/2062	0	0	0	0	0	0	485,889	0	0	1,960,200	82	485,970	485,970	200,328,889	683,796,886	985	200,814,860	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.42	1.55	0.0%	1.55
NA	45	8	536	8/1/2062	0	0	0	0	0	0	485,889	0	0	1,960,200	299	486,188	486,188	200,328,889	683,796,886	985	200,815,077	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.42	1.55	0.0%	1.55
NA	45	9	537	9/1/2062	0	0	0	0	0	0	485,889	0	0	1,960,200	1,470	487,359	487,359	200,328,889	683,796,886	985	200,816,248	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.42	1.55	0.0%	1.55
NA	45	10	538	10/1/2062	0	0	0	0	0	0	485,889	0	0	1,960,200	21,780	507,669	507,669	200,328,889	683,796,886	985	200,836,558	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.42	1.55	0.0%	1.55
NA	45	11	539	11/1/2062	0	0	0	0	0	0	485,889	0	0	1,960,200	71,438	557,327	557,327	200,328,889	683,796,886	985	200,886,216	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.43	1.55	0.0%	1.55
NA	45	12	540	12/1/2062	0	0	0	0	0	0	485,889	0	0	1,960,200	104,054	589,943	589,943	200,328,889	683,796,886	985	200,918,832	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.01	0.00	0.06	19.42	1.55	0.0%	1.55
NA	46	1	541	1/1/2063	0	0	0	0	0	0	485,889	0	0	1,960,200	82,492	568,380	568,380	200,328,889	683,796,886	985	200,897,270	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.01	0.00	0.06	19.43	1.55	0.0%	1.55
NA	46	2	542	2/1/2063	0	0	0	0	0	0	485,889	0	0	1,960,200	136,860	622,749	622,749	200,328,889	683,796,886	985	200,951,638	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.01	0.00	0.06	19.42	1.55	0.0%	1.55
NA	46	3	543	3/1/2063	0	0	0	0	0	0	485,889	0	0	1,960,200	71,030	556,919	556,919	200,328,889	683,796,886	985	200,885,808	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.42	1.55	0.0%	1.55
NA	46	4	544	4/1/2063	0	0	0	0	0	0	485,889	0	0	1,960,200	41,110	526,998	526,998	200,328,889	683,796,886	985	200,855,888	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.43	1.55	0.0%	1.55
NA	46	5	545	5/1/2063	0	0	0	0	0	0	485,889	0	0	1,960,200	11,353	497,242	497,242	200,328,889	683,796,886	985	200,826,131	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.43	1.55	0.0%	1.55
NA	46	6	546	6/1/2063	0	0	0	0	0	0	485,889	0	0	1,960,200	1,906	487,794	487,794	200,328,889	683,796,886	985	200,816,684	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.43	1.55	0.0%	1.55
NA	46	7	547	7/1/2063	0	0	0	0	0	0	485,889	0	0	1,960,200	82	485,970	485,970	200,328,889	683,796,886	985	200,814,860	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.44	1.55	0.0%	1.55
NA	46	8	548	8/1/2063	0	0	0	0	0	0	485,889	0	0	1,960,200	299	486,188	486,188	200,328,889	683,796,886	985	200,815,077	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.44	1.55	0.0%	1.55
NA	46	9	549	9/1/2063	0	0	0	0	0	0	485,889	0	0	1,960,200	1,470	487,359	487,359	200,328,889	683,796,886	985	200,816,248	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.44	1.55	0.0%	1.55
NA	46	10	550	10/1/2063	0	0	0	0	0	0	485,889	0	0	1,960,200	21,780	507,669	507,669	200,328,889	683,796,886	985	200,836,558	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.44	1.55	0.0%	1.55
NA	46	11	551	11/1/2063	0	0	0	0	0	0	485,889	0	0	1,960,200	71,438	557,327	557,327	200,328,889	683,796,886	985	200,886,216	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.45	1.55	0.0%	1.55
NA	46	12	552	12/1/2063	0	0	0	0	0	0	485,889	0	0	1,960,200	104,054	589,943	589,943	200,328,889	683,796,886	985	200,918,832	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.01	0.00	0.06	19.44	1.55	0.0%	1.55
NA	47	1	553	1/1/2064	0	0	0	0	0	0	485,889	0	0	1,960,200	82,492	568,380	568,380	200,328,889	683,796,886	985	200,897,270	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.01	0.00	0.06	19.45	1.55	0.0%	1.55
NA	47	2	554	2/1/2064	0	0	0	0	0	0	485,889	0	0	1,960,200	136,860	622,749	622,749	200,328,889	683,796,886	985	200,951,638	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.01	0.00	0.06	19.44	1.55	0.0%	1.55
NA	47	3	555	3/1/2064	0	0	0	0	0	0	485,889	0	0	1,960,200	71,030	556,919	556,919	200,328,889	683,796,886	985	200,885,808	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.44	1.55	0.0%	1.55
NA	47	4	556	4/1/2064	0	0	0	0	0	0	485,889	0	0	1,960,200	41,110	526,998	526,998	200,328,889	683,796,886	985	200,855,888	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.45	1.55	0.0%	1.55
NA	47	5	557	5/1/2064	0	0	0	0	0	0	485,889	0	0	1,960,200	11,353	497,242	497,242	200,328,889	683,796,886	985	200,826,131	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.45	1.55	0.0%	1.55
NA	47	6	558	6/1/2064	0	0	0	0	0	0	485,889	0	0	1,960,200	1,906	487,794	487,794	200,328,889	683,796,886	985	200,816,684	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.45	1.55	0.0%	1.55
NA	47	7	559	7/1/2064	0	0	0	0	0	0	485,889	0	0	1,960,200	82	485,970	485,970	200,328,889	683,796,886	985	200,814,860	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.46	1.55	0.0%	1.55
NA	47	8	560	8/1/2064	0	0	0	0	0	0	485,889	0	0	1,960,200	299	486,188	486,188	200,328,889	683,796,886	985	200,815,077	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.46	1.55	0.0%	1.55
NA	47	9	561	9/1/2064	0	0	0	0	0	0	485,889	0	0	1,960,200	1,470	487,359	487,359	200,328,889	683,796,886	985	200,816,248	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.46	1.55	0.0%	1.55
NA	47	10	562	10/1/2064	0	0	0	0	0	0	485,889	0	0	1,960,200	21,780	507,669	507,669	200,328,889	683,796,886	985	200,836,558	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.46	1.55	0.0%	1.55
NA	47	11	563	11/1/2064	0	0	0	0	0	0	485,889	0	0	1,960,200	71,438	557,327	557,327	200,328,889	683,796,886	985	200,886,216	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.46	1.55	0.0%	1.55
NA	47	12	564	12/1/2064	0	0	0	0	0	0	485,889	0	0	1,960,200	104,054	589,943	589,943	200,328,889	683,796,886	985	200,918,832	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.01	0.00	0.06	19.46	1.55	0.0%	1.55
NA	48	1	565	1/1/2065	0	0	0	0	0	0	485,889	0	0	1,960,200	82,492	568,380	568,380	200,328,889	683,796,886	985	200,897,270	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.01	0.00	0.06	19.46	1.55	0.0%	1.55
NA	48	2	566	2/1/2065	0	0	0	0	0	0	485,889	0	0	1,960,200	136,860	622,749	622,749	200,328,889	683,796,886	985	200,951,638	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.01	0.00	0.06	19.46	1.55	0.0%	1.55
NA	48	3	567	3/1/2065	0	0	0	0	0	0	485,889	0	0	1,960,200	71,030	556,919	556,919	200,328,889	683,796,886	985	200,885,808	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.46	1.55	0.0%	1.55
NA	48	4	568	4/1/2065	0	0	0	0	0	0	485,889	0	0	1,960,200	41,110	526,998	526,998	200,328,889	683,796,886	985	200,855,888	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.47	1.55	0.0%	1.55
NA	48	5	569	5/1/2065	0	0	0	0	0	0	485,889	0	0	1,960,200	11,353	497,242	497,242	200,328,889	683,796,886	985	200,826,131	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.47	1.55	0.0%	1.55
NA	48	6	570	6/1/2065	0	0	0	0	0	0	485,889	0	0	1,960,200	1,906	487,794	487,794	200,328,889	683,796,886	985	200,816,684	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.47	1.56	0.0%	1.56
NA	48	7	571	7/1/2065	0	0	0	0	0	0	485,889	0	0	1,960,200	82	485,970	485,970	200,328,889	683,796,886	985	200,814,860	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.47	1.56	0.0%	1.56
NA	48	8	572	8/1/2065	0	0	0	0	0	0	485,889	0	0	1,960,200	299	486,188	486,188	200,328,889	683,796,886	985	200,815,077	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.48	1.56	0.0%	1.56
NA	48	9	573	9/1/2065	0	0	0	0	0	0	485,889	0	0	1,960,200	1,470	487,359	487,359	200,328,889	683,796,886	985	200,816,248	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.48	1.56	0.0%	1.56
NA	48	10	574	10/1/2065	0	0	0	0	0	0	485,889	0	0	1,960,200	21,780	507,669	507,669	200,328,889	683,796,886	985	200,836,558	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.48	1.56	0.0%	1.56
NA	48	11	575	11/1/2065	0	0	0	0	0	0	485,889	0	0	1,960,200	71,438	557,327	557,327	200,328,889	683,796,886	985	200,886,216	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.48	1.56	0.0%	1.56
NA	48	12	576	12/1/2065	0	0	0	0	0	0	485,889	0	0	1,960,200	104,054	589,943	589,943	200,328,889	683,796,886	985	200,918,832	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.01	0.00	0.06	19.48	1.56	0.0%	1.56
NA	49	1	577	1/1/2066	0	0	0	0	0	0	485,889	0	0	1,960,200	82,492	568,380	568,380	200,328,889	683,796,886	985	200,897,270	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.01	0.00	0.06	19.48	1.56	0.0%	1.56
NA	49	2	578	2/1/2066	0	0	0	0	0	0	485,889	0	0	1,960,200	136,860	622,749	622,749	200,328,889	683,796,886	985	200,951,638	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.01	0.00	0.06	19.48	1.56	0.0%	1.56
NA	49	3	579	3/1/2066	0	0	0	0	0	0	485,889	0	0	1,960,200	71,030	556,919	556,919	200,328,889	683,796,886	985	200,885,808	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.48	1.56	0.0%	1.56
NA	49	4	580	4/1/2066	0	0	0	0	0	0	485,889	0	0	1,960,200	41,110	526,998	526,998	200,328,889	683,796,886	985	200,855,888	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.48	1.56	0.0%	1.56
NA	49	5	581	5/1/2066	0	0	0	0	0	0	485,889	0	0	1,960,200	11,353	497,242	497,242	200,328,889	683,796,886	985	200,826,131	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.49	1.56	0.0%	1.56
NA	49	6	582	6/1/2066	0	0	0	0	0	0	485,889	0	0	1,960,200	1,906	487,794	487,794	200,328,889	683,796,886	985	200,816,684	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.49	1.56	0.0%	1.56
NA	49	7	583	7/1/2066	0	0	0	0	0	0	485,889	0	0	1,960,200	82	485,970	485,970	200,328,889	683,796,886	985	200,814,860	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.49	1.56	0.0%	1.56
NA	49	8	584	8/1/2066	0	0	0	0	0	0	485,889	0	0	1,960,200	299	486,188	486,188	200,328,889	683,796,886	985	200,815,077	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.50	1.56	0.0%	1.56
NA	49	9	585	9/1/2066	0	0	0	0	0	0	485,889	0	0	1,960,200	1,470	487,359	487,359	200,328,889	683,796,886	985	200,816,248	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.50	1.56	0.0%	1.56
NA	49	10	586	10/1/2066	0	0	0	0	0	0	485,889	0	0	1,960,200	21,780	507,669	507,669	200,328,889	683,796,886	985	200,836,558	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.50	1.56	0.0%	1.56
NA	49	11	587	11/1/2066	0	0	0	0	0	0	485,889	0	0	1,960,200	71,438	557,327	557,327	200,328,889	683,796,886	985	200,886,216	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.50	1.56	0.0%	1.56
NA	49	12	588	12/1/2066	0	0	0	0	0	0	485,889	0	0	1,960,200	104,054	589,943	589,943	200,328,889	683,796,886	985	200,918,832	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.01	0.00	0.06	19.50	1.56	0.0%	1.56
NA	50	1	589	1/1/2067	0	0	0	0	0	0	485,889	0	0	1,960,200	82,492	568,380	568,380	200,328,889	683,796,886	985	200,897,270	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.01	0.00	0.06	19.50	1.56	0.0%	1.56
NA	50	2	590	2/1/2067	0	0	0	0	0	0	485,889	0	0	1,960,200	136,860	622,749	622,749	200,328,889	683,796,886	985	200,951,638	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.01	0.00	0.06	19.50	1.56	0.0%	1.56
NA	50	3	591	3/1/2067	0	0	0	0	0	0	485,889	0	0	1,960,200	71,030	556,919	556,919	200,328,889	683,796,886	985	200,885,808	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.50	1.56	0.0%	1.56
NA	50	4	592	4/1/2067	0	0	0	0	0	0	485,889	0	0	1,960,200	41,110	526,998	526,998	200,328,889	683,796,886	985	200,855,888	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.50	1.56	0.0%	1.56
NA	50	5	593	5/1/2067	0	0	0	0	0	0	485,889	0	0	1,960,200	11,353	497,242	497,242	200,328,889	683,796,886	985	200,826,131	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.50	1.56	0.0%	1.56
NA	50	6	594	6/1/2067	0	0	0	0	0	0	485,889	0	0	1,960,200	1,906	487,794	487,794	200,328,889	683,796,886	985	200,816,684	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.51	1.56	0.0%	1.56
NA	50	7	595	7/1/2067	0	0	0	0	0	0	485,889	0	0	1,960,200	82	485,970	485,970	200,328,889	683,796,886	985	200,814,860	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.51	1.56	0.0%	1.56
NA	50	8	596	8/1/2067	0	0	0	0	0	0	485,889	0	0	1,960,200	299	486,188	486,188	200,328,889	683,796,886	985	200,815,077	200,328,889	0.00	0.00	0.00	1.66	0.05	0.00	0.00	0.00	0.05	19.51	1.56	0.0%	1.56
NA	50	9	597	9/1/2067	0	0	0	0	0	0	485,889	0	0	1,960,200	1,470	487,359	487,359	200,328,889	683,796,886	985	200,816,248	200,328,889	0.00	0

Inflows and Outflows	Parameters	Units	Value	Units	Description and Rationale					
Precipitation	Precipitation		1.85	ft/yr	Los Altos climate station, direct precip on westerock backfill area is based on monthly precip data					
			Phases	0 - 10	11-16	16-20				
			Initial	Mining	Backfilling	Revegetation				
Quarry Backfilling Areas	**Surface Water Drainage to Pit**									
	Quarry Area (Greenstone/Greywacke)	sq feet	4,900,000	5,052,960	-	-				Based on drawing from Chang Consultants
		acres	112	116	-	-	-	-	-	Figures B.1 through B.3
	Quarry Area (Limestone)	sq feet	7,000,000	7,000,000	-	-				
		acres	161	161	-	-	-	-	-	
	WMSA	sq feet	3,500,000	3,920,400	-	-				
		acres	80	90	-	-	-	-	-	
	Surface Infiltration to Pit (Through backfill)									
	Undrained Backfill (No Surface Outlet)	sq feet	-	-						
		acres	-	-	-	-	-	-	-	
	Drained Backfill (With Surface Outlet)	sq feet			1,960,200	1,960,200				
		acres	-	-	45	45	-	-	-	
	Total Drainage Area	acres	354	367	45	45	-	-	-	
	Spill Elevation		990.00	ft amsl	Based on Mine Plan (Chang Drawings)					
	Bottom of Pit		440.00	ft amsl	Based on end of Phase 1 for South Quarry Mine Plan (Chang Drawings)					
Groundwater Capture	Initial		371	gpm	MODFLOW model results for Phase 1, maximum excavation condition (Golder's Report)					
			2,181,181	cu ft/mo						
	At Spill Elevation		80	gpm	MODFLOW model results for ultimate condition (Golder's Report)					
			470,336	cu ft/mo						
Date Quarry Filling Starts			**6/1/2028**							
			In situ Pit Water Treatment Removal Rate							
Assumptions	The pit is backfilled incrementally over a 10-year period, from 440 ft amsl to the spill-over elevation of 990 ft amsl									
	Backfill material has a porosity of 30-percent.									
	Surface runoff is only within the capture area of the pit and is based on water year 2009 data									
	Groundwater inflow into the pit varies by month and diminishes as the backfill increases									
	Precipitation directly infiltrates to the water table within the area of the backfill.									
	Evaporation of the pit lake is only applied when the cumulative volume of water in the pit is greater than the cumulative volume of void spaces within the backfill (based on 30-percent porosity)									
	The water level in the pit is dependent on the total cumulative volume of the backfill up to the spill-over elevation.									

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2	12	8	140	8/1/2029	3,368,640	1,716	4,666,667	2,377	2,613,600	799	1,465,737	0	0	653,400	100	1,470,727	0	34,744,268	364,691,672	675	34,744,268	524,244,279	0.00	0.00	0.00	21.00	1.92	0.00	0.00	0.00	0.00	38.58	18.77	0.0%	0.00
2	12	9	141	9/1/2029	3,284,424	8,211	4,550,000	11,375	2,548,260	3,822	1,450,184	0	0	686,020	515	1,474,107	0	36,218,375	376,088,287	680	36,218,375	516,348,216	0.00	0.01	0.00	21.00	1.90	0.00	0.00	0.00	0.00	40.50	17.89	0.0%	0.00
2	12	10	142	10/1/2029	3,200,208	118,526	4,433,333	164,198	2,482,920	55,176	1,434,630	0	0	718,740	7,986	1,790,516	0	37,998,891	387,484,902	685	37,998,891	508,289,018	0.03	0.14	0.05	21.00	1.88	0.00	0.00	0.00	0.00	42.61	17.94	0.0%	0.00
2	12	11	143	11/1/2029	3,115,992	378,535	4,316,667	524,399	2,417,580	176,215	1,419,077	0	0	751,430	27,385	2,525,607	0	40,524,498	398,881,517	695	40,524,498	500,311,388	0.09	0.46	0.15	21.00	1.86	0.00	0.00	0.00	0.00	45.17	17.84	0.0%	0.00
2	12	12	144	12/1/2029	3,031,776	536,456	4,200,000	749,167	2,352,240	249,729	1,387,971	0	0	784,080	41,622	2,968,945	0	43,493,443	415,278,131	705	43,493,443	492,393,758	0.13	0.65	0.22	21.00	1.84	0.00	0.00	0.00	0.00	47.99	17.66	0.0%	0.00
2	13	1	145	1/1/2030	2,947,560	413,477	4,083,333	572,801	2,286,900	192,481	1,356,865	0	0	816,750	34,372	2,569,995	0	46,053,438	421,674,746	715	46,053,438	484,356,127	0.10	0.50	0.17	21.00	1.78	0.00	0.00	0.00	0.00	50.55	17.56	0.0%	0.00
2	13	2	146	2/1/2030	2,853,344	665,390	3,966,667	923,168	2,221,560	310,216	1,325,758	0	0	849,420	55,306	3,284,839	0	49,338,277	433,071,381	725	49,338,277	476,378,497	0.16	0.81	0.27	21.00	1.74	0.00	0.00	0.00	0.00	53.53	17.36	0.0%	0.00
2	13	3	147	3/1/2030	2,779,128	335,683	3,850,000	465,030	2,156,220	156,266	1,294,652	0	0	882,090	31,964	2,283,594	0	51,621,871	444,467,976	735	51,621,871	468,400,867	0.08	0.41	0.14	21.00	1.70	0.00	0.00	0.00	0.00	55.85	17.31	0.0%	0.00
2	13	4	148	4/1/2030	2,694,912	188,394	3,733,333	260,988	2,090,880	87,701	1,279,099	0	0	914,760	19,185	1,835,366	0	53,457,238	455,864,590	745	53,457,238	460,423,236	0.04	0.23	0.08	21.00	1.68	0.00	0.00	0.00	0.00	57.88	17.32	0.0%	0.00
2	13	5	149	5/1/2030	2,610,696	50,401	3,616,667	69,822	2,025,540	23,463	1,263,546	0	0	947,430	5,487	1,412,718	0	54,869,956	467,261,205	749	54,869,956	452,445,606	0.01	0.06	0.02	21.00	1.66	0.00	0.00	0.00	0.00	59.63	17.39	0.0%	0.00
2	13	6	150	6/1/2030	2,526,480	8,188	3,500,000	11,343	1,960,200	3,811	1,247,993	0	0	980,100	993	1,272,287	0	56,142,243	469,667,820	745	56,142,243	444,407,075	0.00	0.01	0.00	21.00	1.64	0.00	0.00	0.00	0.00	61.29	17.47	0.0%	0.00
2	13	7	151	7/1/2030	2,442,264	339	3,383,333	470	1,894,860	158	1,232,440	0	0	1,012,770	42	1,233,449	0	57,375,692	490,054,435	745	57,375,692	438,490,345	0.00	0.00	0.00	21.00	1.62	0.00	0.00	0.00	0.00	62.91	17.54	0.0%	0.00
2	13	8	152	8/1/2030	2,358,048	1,251	3,266,667	1,664	1,829,520	559	1,232,440	0	0	1,045,040	160	1,236,023	0	58,611,715	510,451,049	750	58,611,715	438,512,724	0.00	0.01	0.00	21.00	1.62	0.00	0.00	0.00	0.00	64.52	17.61	0.0%	0.00
2	13	9	153	9/1/2030	2,273,832	5,685	3,150,000	7,875	1,764,180	2,646	1,216,886	0	0	1,078,110	809	1,233,901	0	59,845,615	512,847,664	755	59,845,615	420,535,065	0.00	0.01	0.00	21.00	1.60	0.00	0.00	0.00	0.00	66.13	17.68	0.0%	0.00
2	13	10	154	10/1/2030	2,189,616	81,097	3,033,333	112,346	1,698,840	37,752	1,201,333	0	0	1,110,330	12,342	1,444,870	0	61,290,485	534,244,255	755	61,290,485	407,404,007	0.10	0.50	0.17	21.00	1.58	0.00	0.00	0.00	0.00	67.86	17.72	0.0%	0.00
2	13	11	155	11/1/2030	2,105,400	255,767	2,916,667	354,321	1,633,500	119,064	1,201,333	0	0	1,143,450	41,672	1,972,158	0	63,262,643	535,640,894	760	63,262,643	404,579,824	0.06	0.31	0.10	21.00	1.58	0.00	0.00	0.00	0.00	69.92	17.68	0.0%	0.00
2	13	12	156	12/1/2030	2,021,184	357,637	2,800,000	495,444	1,568,160	166,486	1,185,780	0	0	1,176,120	62,432	2,267,781	0	65,530,424	547,037,509	770	65,530,424	398,602,194	0.08	0.43	0.15	21.00	1.56	0.00	0.00	0.00	0.00	72.14	17.61	0.0%	0.00
2	14	1	157	1/1/2031	1,936,968	271,714	2,683,333	376,412	1,502,820	126,487	1,154,674	0	0	1,208,790	47,147	1,980,157	0	67,510,580	558,437,543	775	67,510,580	388,624,363	0.06	0.33	0.11	21.00	1.52	0.00	0.00	0.00	0.00	74.35	17.58	0.0%	0.00
2	14	2	158	2/1/2031	1,852,752	431,194	2,566,667	597,344	1,437,480	200,728	1,139,121	0	0	1,241,460	86,678	2,455,065	0	69,965,645	296,311,984	780	69,965,645	380,646,933	0.10	0.52	0.18	21.00	1.50	0.00	0.01	0.00	0.00	76.46	17.49	0.0%	0.00
2	14	3	159	3/1/2031	1,768,536	213,618	2,450,000	295,928	1,372,140	99,442	1,123,568	0	0	1,274,130	46,170	1,778,274	0	71,744,368	307,916,599	785	71,744,368	372,689,303	0.05	0.26	0.09	21.00	1.47	0.00	0.00	0.00	0.00	78.34	17.47	0.0%	0.00
2	14	4	160	4/1/2031	1,684,320	117,746	2,333,333	163,117	1,306,800	54,813	1,108,014	0	0	1,306,800	27,407	1,471,098	0	73,215,466	319,105,213	785	73,215,466	364,691,672	0.03	0.14	0.05	21.00	1.45	0.00	0.00	0.00	0.00	80.01	17.49	0.0%	0.00
2	14	5	161	5/1/2031	1,600,104	30,891	2,216,667	42,794	1,241,460	14,380	1,108,014	0	0	1,339,470	7,258	1,203,837	0	74,419,303	330,501,828	790	74,419,303	354,514,062	0.01	0.04	0.01	21.00	1.45	0.00	0.00	0.00	0.00	81.52	17.53	0.0%	0.00
2	14	6	162	6/1/2031	1,515,888	4,913	2,100,000	6,806	1,176,120	2,287	1,092,461	0	0	1,372,140	1,334	1,107,800	0	75,527,104	341,898,443	790	75,527,104	348,736,412	0.00	0.01	0.00	21.00	1.43	0.00	0.00	0.00	0.00	82.97	17.58	0.0%	0.00
2	14	7	163	7/1/2031	1,431,672	199	1,983,333	275	1,110,780	93	1,092,461	0	0	1,404,810	58	1,093,087	0	76,620,190	353,295,058	795	76,620,190	340,758,791	0.00	0.00	0.00	21.00	1.43	0.00	0.00	0.00	0.00	84.40	17.63	0.0%	0.00
2	14	8	164	8/1/2031	1,347,456	686	1,866,667	951	1,045,440	319	1,076,908	0	0	1,437,480	220	1,079,084	0	77,699,274	364,691,672	795	77,699,274	332,781,151	0.00	0.00	0.00	21.00	1.41	0.00	0.00	0.00	0.00	85.82	17.67	0.0%	0.00
2	14	9	165	9/1/2031	1,263,240	3,158	1,750,000	4,375	980,100	1,470	1,076,908	0	0	1,470,150	1,103	1,087,014	0	78,786,288	376,008,287	800	78,786,288	324,883,524	0.00	0.01	0.00	21.00	1.41	0.00	0.00	0.00	0.00	87.24	17.72	0.0%	0.00
2	14	10	166	10/1/2031	1,179,024	43,668	1,633,333	60,494	914,760	20,328	1,061,355	0	0	1,502,820	16,698	1,202,542	0	79,988,831	387,484,902	800	79,988,831	316,825,890	0.01	0.05	0.02	21.00	1.39	0.00	0.00	0.00	0.00	88.71	17.74	0.0%	0.00
2	14	11	167	11/1/2031	1,094,808	132,998	1,516,667	184,247	849,420	61,913	1,061,355	0	0	1,535,490	55,980	1,496,474	0	81,485,305	398,981,517	805	81,485,305	308,948,260	0.03	0.16	0.05	21.00	1.39	0.00	0.00	0.00	0.00	90.36	17.74	0.0%	0.00
2	14	12	168	12/1/2031	1,010,592	178,819	1,400,000	247,722	784,080	83,243	1,045,802	0	0	1,568,160	83,243	1,638,829	0	83,124,134	410,278,131	810	83,124,134	300,870,636	0.04	0.22	0.07	21.00	1.37	0.00	0.01	0.00	0.00	92.06	17.72	0.0%	0.00
2	15	1	169	1/1/2032	926,376	129,950	1,283,333	180,023	718,740	60,494	1,030,249	0	0	1,600,830	67,368	1,468,084	0	84,592,218	421,674,746	810	84,592,218	292,892,999	0.03	0.16	0.05	21.00	1.35	0.00	0.00	0.00	0.00	93.66	17.72	0.0%	0.00
2	15	2	170	2/1/2032	842,160	195,997	1,166,667	271,520	653,400	91,240	1,030,249	0	0	1,633,500	101,650	1,701,056	0	86,295,274	433,071,381	815	86,295,274	284,915,307	0.05	0.24	0.08	21.00	1.35	0.00	0.01	0.00	0.00	95.39	17.69	0.0%	0.00
2	15	3	171	3/1/2032	757,944	91,550	1,050,000	126,826	588,060	42,618	1,014,696	0	0	1,666,170	60,376	1,336,065	0	87,631,339	444,467,976	820	87,631,339	276,937,729	0.02	0.11	0.04	21.00	1.33	0.00	0.00	0.00	0.00	96.89	17.69	0.0%	0.00
2	15	4	172	4/1/2032	673,728	47,099	933,333	65,247	522,720	21,925	999,142	0	0	1,698,840	35,628	1,149,042	0	88,800,381	455,864,590	820	88,800,381	268,980,318	0.01	0.06	0.02	21.00	1.31	0.00	0.00	0.00	0.00	98.29	17.71	0.0%	0.00
2	15	5	173	5/1/2032	589,512	11,381	816,667	15,766	457,380	5,298	999,142	0	0	1,731,510	10,028	1,041,616	0	89,841,996	467,261,205	820	89,841,996	260,982,478	0.00	0.01	0.00	21.00	1.31	0.00	0.00	0.00	0.00	99.63	17.74	0.0%	0.00
2	15	6	174	6/1/2032	505,296	1,638	700,000	2,269	392,040	762	999,142	0	0	1,764,180	1,715	1,065,526	0	90,847,522	253,043,848	825	90,847,522	253,043,848	0.00	0.00	0.00	21.00	1.31	0.00	0.00	0.00	0.00	100.54	17.78	0.0%	0.00
2	15	7	175	7/1/2032	421,080	58	583,333	81	326,700	27	983,589	0	0	1,796,850	75	983,831	0	91,831,353	490,054,435	825	91,831,353	245,027,217	0.00	0.00	0.00	21.00	1.29	0.00	0.00	0.00	0.00	102.23	17.81	0.0%	0.00
2	15	8	176	8/1/2032	336,864	172	466,667	238	261,360	8	983,589	0	0	1,829,190	3	921,177	0	92,815,711	467,261,205	830	92,815,711	237,040,000	0.00	0.00	0.00	21.00	1.29	0.00	0.00	0.00	0.00	103.52	17.85	0.0%	0.00
2	15	9	177	9/1/2032	252,648	632	350,000	875	196,020	294	968,036	0	0	1,862,190	1,397	971,233	0	93,786,945	512,847,664	830	93,786,945	229,071,957	0.00	0.01	0.00	21.00	1.27	0.00	0.00	0.00	0.00	104.79	17.88	0.0%	0.00
2	15	10	178	10/1/2032	168,432	6,238	233,333	8,642	130,680	2,904	968,036	0	0	1,894,860	21,054	1,006,874	0	94,793,819	534,244,279	830	94,793,819	221,000,000	0.00	0.01	0.00	21.00	1.27	0.00	0.00	0.00	0.00	106.08	17.90	0.0%	0.00
2	15	11	179	11/1/2032	84,216	10,231	116,667	14,173	65,340	4,763	968,036	0	0	1,927,530	70,248	1,067,450	0	95,861,269	535,640,894	835	95,861,269	211,725,504	0.00	0.01	0.00	21.00	1.27	0.00	0.00	0.00	0.00	107.37	17.92	0.0%	0.00
2	**15**	**12**	**180**	**12/1/2032**	**0**	**0**	**0**	**0**	**0**	**0**	**952,483**	**0**	**0**	**1,960,200**	**104,054**	**1,056,537**	**0**	**96,917,806**	**547,037,509**	**835**	**96,917,806**	**200,328,889**	**0.00**	**0.00**	**0.00**	**21.00**	**1.25**	**0.00**	**0.01**	**0.00**	**0.00**	**108.63**	**17.93**	**0.0%**	**0.00**
3	16	1	181	1/1/2033	0	0	0	0	0	0	1,030,249	0	0	1,960,200	82,492	1,112,740	0	98,030,546	558,434,123	840	98,030,546	200,328,889	0.00	0.00	0.00	21.00	1.25	0.00	0.01	0.00	0.00	109.99	17.95	0.0%	0.00
3	16	2	182	2/1/2033	0	0	0	0	0	0	936,930	0	0	1,960,200	138,860	1,073,790	0	99,104,336	569,830,738	840	99,104,336	200,328,889	0.00	0.00	0.00	21.00	1.23	0.00	0.01	0.00	0.00	111.22	17.96	0.0%	0.00
3	16	3	183	3/1/2033	0	0	0	0	0	0	936,930	0	0	1,960,200	71,030	1,007,960	0	100,112,296	581,227,353	840	100,112,296	200,328,889	0.00	0.00	0.00	21.00	1.23	0.00	0.01	0.00	0.00	112.46	17.97	0.0%	0.00
3	16	4	184	4/1/2033	0	0	0	0	0	0	936,930	0	0	1,960,200	41,110	978,040	0	101,090,336	592,623,968	845	101,090,336	200,328,889	0.00	0.00	0.00	21.00	1.23	0.00	0.01	0.00	0.00	113.69	17.99	0.0%	0.00
3	16	5	185	5/1/2033	0	0	0	0	0	0	921,377	0	0	1,960,200	11,353	932,730	0	102,023,066	604,020,582	845	102,023,066	200,328,889	0.00	0.00	0.00	21.00	1.21	0.00	0.01	0.00	0.00	114.90	18.02	0.0%	0.00
3	16	6	186	6/1/2033	0	0	0	0	0	0	921,377	0	0	1,960,200	1,906	923,282	0	102,946,347	615,417,197	845	102,946,347	200,328,889	0.00	0.00	0.00	21.00	1.21	0.00	0.01	0.00	0.00	116.11	18.05	0.0%	0.00
3	16	7	187	7/1/2033	0	0	0	0	0	0	921,377	0	0	1,960,200	82	921,458	0	103,867,805	626,813,197	850	103,867,805	200,328,889	0.00	0.00	0.00	21.00	1.21	0.00	0.01	0.00	0.00	117.32	18.07	0.0%	0.00
3	16	8	188	8/1/2033	0	0	0	0	0	0	905,824	0	0	1,960,200	299	906,123	0	104,773,929	638,210,427	850	104,773,929	200,328,889	0.00	0.00	0.00	21.00	1.19	0.00	0.01	0.00	0.00	118.51	18.10	0.0%	0.00
3	16	9	189	9/1/2033	0	0	0	0	0	0	905,824	0	0	1,960,200	1,470	907,294	0	105,681,223	649,607,841	850	105,681,223	200,328,889	0.00	0.00	0.00	21.00	1.19	0.00	0.01	0.00	0.00	119.70	18.12	0.0%	0.00
3	16	10	190	10/1/2033	0	0	0	0	0	0	905,824	0	0	1,960,200	21,780	927,604	0	106,608,826	661,003,656	855	106,608,826	200,328,889	0.00	0.00	0.00	21.00	1.19	0.00	0.01	0.00	0.00	120.89	18.14	0.0%	0.00
3	16	11	191	11/1/2033	0	0	0	0	0	0	890,270	0	0	1,960,200	71,438	961,708	0	107,570,535	672,402,271	855	107,570,535	200,328,889	0.00	0.00	0.00	21.00	1.17	0.00	0.01	0.00	0.00	122.06	18.16	0.0%	0.00
3	16	12	192	12/1/2033	0	0	0	0	0	0	890,270	0	0	1,960,200	104,054	994,324	0	108,564,859	683,796,886	860	108,564,859	200,328,889	0.00	0.00	0.00	21.00	1.17	0.00	0.01	0.00	0.00	123.24	18.16	0.0%	0.00
3	17	1	193	1/1/2034	0	0	0	0	0	0	874,717	0	0	1,960,200	82,492	957,209	0	109,522,068	683,796,886	860	109,522,068	200,328,889	0.00	0.00	0.00	21.00	1.15	0.00	0.01	0.00	0.00	124.39	18.17	0.0%	0.00
3	17	2	194	2/1/2034	0	0	0	0	0	0	874,717	0	0	1,960,200	138,860	1,013,577	0	110,535,646	683,796,886	860	110,535,646	200,328,889	0.00	0.00	0.00	21.00	1.15	0.00	0.01	0.00	0.00	125.55	18.17	0.0%	0.00
3	17	3	195	3/1/2034	0	0	0	0	0	0	874,717	0	0	1,960,200	71,030	945,747	0	111,479,393	683,796,886	865	111,479,393	200,328,889	0.00	0.00	0.00	21.00	1.15	0.00	0.01	0.00	0.00	126.70	18.18	0.0%	0.00
3	17	4	196	4/1/2034	0	0	0	0	0	0	859,164	0	0	1,960,200	41,110	900,274	0	112,379,667	683,796,886	865	112,379,667	200,328,889	0.00	0.00	0.00	21.00	1.13	0.00	0.01	0.00	0.00	127.83	18.20	0.0%	0.00
3	17	5	197	5/1/2034	0	0	0	0	0	0	859,164	0	0	1,960,200	11,353	870,517	0	113,250,184	683,796,886	865	113,250,184	200,328,889	0.00	0.00	0.00	21.00	1.13	0.00	0.01	0.00	0.00	128.96	18.22	0.0%	0.00
3	17	6	198	6/1/2034	0	0	0	0	0	0	859,164	0	0	1,960,200	1,906	861,070	0	114,111,254	683,796,886	865	114,111,254	200,328,889	0.00	0.00	0.00	21.00	1.13	0.00	0.01	0.00	0.00	130.08	18.24	0.0%	0.00
3	17	7	199	7/1/2034	0	0	0	0	0	0	859,164	0	0	1,960,200	82	859,246	0	114,970,499	683,796,886	870	114,970,499	200,328,889	0.00	0.00	0.00	21.00	1.13	0.00	0.01	0.00	0.00	131.21	18.26	0.0%	0.00
3	17	8	200	8/1/2034	0	0	0	0	0	0	843,611	0	0	1,960,200	299	843,910	0	115,814,410	683,796,886	870	115,814,410	200,328,889	0.00	0.00	0.00	21.00	1.11	0.00	0.01	0.00	0.00	132.32	18.28	0.0%	0.00
3	17	9	201	9/1/2034	0	0	0	0	0	0	843,611	0	0	1,960,200	1,470	845,081	0	116,659,491	683,796,886	870	116,659,491	200,328,889	0.00	0.00	0.00	21.00	1.11	0.00	0.01	0.00	0.00	133.43	18.30	0.0%	0.00
3	17	10	202	10/1/2034	0	0	0	0	0	0	843,611	0	0	1,960,200	21,780	865,391	0	117,524,882	683,796,886	875	117,524,882	200,328,889	0.00	0.00	0.00	21.00	1.11	0.00	0.01	0.00	0.00	134.53	18.32	0.0%	0.00
3	17	11	203	11/1/2034	0	0	0	0	0	0	828,058	0	0	1,960,200	71,438	899,496	0	118,424,378	683,796,886	875	118,424,378	200,328,889	0.00	0.00	0.00	21.00	1.09	0.00	0.01	0.00	0.00	135.63	18.32	0.0%	0.00
3	17	12	204	12/1/2034	0	0	0	0	0	0	828,058	0	0	1,960,200	104,054	932,112	0	119,356,490	683,796,886	875	119,356,490	200,328,889	0.00	0.00	0.00	21.00	1.09	0.00	0.01	0.00	0.00	136.72	18.33	0.0%	0.00
3	18	1	205	1/1/2035	0	0	0	0	0	0	828,058	0	0	1,960,200	82,492	910,550	0	120,267,040	683,796,886	880	120,267,040	200,328,889	0.00	0.00	0.00	21.00	1.09	0.00	0.01	0.00	0.00	137.81	18.33	0.0%	0.00
3	18	2	206	2/1/2035	0	0	0	0	0	0	812,505	0	0	1,960,200	138,860	949,365	0	121,216,404	683,796,886	880	121,216,404	200,328,889	0.00	0.00	0.00	21.00	1.07	0.00	0.01	0.00	0.00	138.89	18.33	0.0%	0.00
3	18	3	207	3/1/2035	0	0	0	0	0	0	812,505	0	0	1,960,200	71,030	883,535	0	122,099,939	683,796,886	880	122,099,939	200,328,889	0.00	0.00	0.00	21.00	1.07	0.00	0.00	0.00	0.00	139.96	18.34	0.0%	0.00
3	18	4	208	4/1/2035	0	0	0	0	0	0	812,505	0	0	1,960,200	41,110	853,614	0	122,953,554	683,796,886	880	122,953,554	200,328,889	0.00	0.00	0.00	21.00	1.07	0.00	0.00	0.00	0.00	141.03	18.35	0.0%	0.00
3	18	5	209	5/1/2035	0	0	0	0	0	0	812,505	0	0	1,960,200	11,353	823,858	0	123,777,411	683,796,886	885	123,777,411	200,328,889	0.00	0.00	0.00	21.00	1.07	0.00	0.00	0.00	0.00	142.09	18.37	0.0%	0.00
3	18	6	210	6/1/2035	0	0	0	0	0	0	796,952	0	0	1,960,200	1,906	798,857	0	124,576,268	683,796,886	885	124,576,268	200,328,889	0.00	0.00	0.00	21.00	1.05	0.00	0.00	0.00	0.00	143.14	18.38	0.0%	0.00
3	18	7	211	7/1/2035	0	0	0	0	0	0	796,952	0	0	1,960,200	82	797,033	0	125,373,302	683,796,886	885	125,373,302	200,328,889	0.00	0.00	0.00	21.00	1.05	0.00	0.00	0.00	0.00	144.19	18.40	0.0%	0.00
3	18	8	212	8/1/2035	0	0	0	0	0	0	796,952	0	0	1,960,200	299	797,251	0	126,170,553	683,796,886	885	126,170,553	200,328,889	0.00	0.00	0.00	21.00	1.05	0.00	0.00	0.00	0.00	145.23	18.42	0.0%	0.00
3	18	9	213	9/1/2035	0	0	0	0	0	0	798,952	0	0	1,960,200	1,470	798,422	0	126,968,974	683,796,886	890	126,968,974	200,328,889	0.00	0.00	0.00	21.00	1.05	0.00	0.00	0.00	0.00	146.28	18.43	0.0%	0.00
3	18	10	214	10/1/2035	0	0	0	0	0	0	781,398	0	0	1,960,200	21,780	803,178

NA	28	6	330	6/1/2045	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	236.27	18.87	0.0%	18.87
NA	28	7	331	7/1/2045	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.57	236.34	18.88	0.0%	18.88
NA	28	8	332	8/1/2045	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.57	236.40	18.88	0.0%	18.88
NA	28	9	333	9/1/2045	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	236.46	18.89	0.0%	18.89
NA	28	10	334	10/1/2045	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.60	236.50	18.89	0.0%	18.89
NA	28	11	335	11/1/2045	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.66	236.49	18.89	0.0%	18.89
NA	28	12	336	12/1/2045	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.70	236.44	18.88	0.0%	18.88
NA	29	1	337	1/1/2046	0	0	0	0	0	485.889	0	0	1.960.200	82.492	568.380	568.380	200.328.889	683.796.886	985	200.897.270	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.67	236.41	18.88	0.0%	18.88
NA	29	2	338	2/1/2046	0	0	0	0	0	485.889	0	0	1.960.200	136.860	622.749	622.749	200.328.889	683.796.886	985	200.951.638	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.73	236.32	18.87	0.0%	18.87
NA	29	3	339	3/1/2046	0	0	0	0	0	485.889	0	0	1.960.200	71.030	556.919	556.919	200.328.889	683.796.886	985	200.885.808	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.66	236.30	18.87	0.0%	18.87
NA	29	4	340	4/1/2046	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.62	236.32	18.87	0.0%	18.87
NA	29	5	341	5/1/2046	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.59	236.37	18.88	0.0%	18.88
NA	29	6	342	6/1/2046	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	236.44	18.88	0.0%	18.88
NA	29	7	343	7/1/2046	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.57	236.50	18.89	0.0%	18.89
NA	29	8	344	8/1/2046	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.57	236.57	18.89	0.0%	18.89
NA	29	9	345	9/1/2046	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	236.63	18.90	0.0%	18.90
NA	29	10	346	10/1/2046	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.60	236.67	18.90	0.0%	18.90
NA	29	11	347	11/1/2046	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.66	236.65	18.90	0.0%	18.90
NA	29	12	348	12/1/2046	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.70	236.60	18.90	0.0%	18.90
NA	30	1	349	1/1/2047	0	0	0	0	0	485.889	0	0	1.960.200	82.492	568.380	568.380	200.328.889	683.796.886	985	200.897.270	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.67	236.57	18.89	0.0%	18.89
NA	30	2	350	2/1/2047	0	0	0	0	0	485.889	0	0	1.960.200	136.860	622.749	622.749	200.328.889	683.796.886	985	200.951.638	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.74	236.48	18.89	0.0%	18.89
NA	30	3	351	3/1/2047	0	0	0	0	0	485.889	0	0	1.960.200	71.030	556.919	556.919	200.328.889	683.796.886	985	200.885.808	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.66	236.47	18.89	0.0%	18.89
NA	30	4	352	4/1/2047	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.62	236.48	18.89	0.0%	18.89
NA	30	5	353	5/1/2047	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.59	236.53	18.89	0.0%	18.89
NA	30	6	354	6/1/2047	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	236.60	18.90	0.0%	18.90
NA	30	7	355	7/1/2047	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.57	236.66	18.90	0.0%	18.90
NA	30	8	356	8/1/2047	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.57	236.72	18.91	0.0%	18.91
NA	30	9	357	9/1/2047	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	236.79	18.91	0.0%	18.91
NA	30	10	358	10/1/2047	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.60	236.82	18.91	0.0%	18.91
NA	30	11	359	11/1/2047	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.66	236.81	18.91	0.0%	18.91
NA	30	12	360	12/1/2047	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.70	236.76	18.91	0.0%	18.91
NA	31	1	361	1/1/2048	0	0	0	0	0	485.889	0	0	1.960.200	82.492	568.380	568.380	200.328.889	683.796.886	985	200.897.270	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.67	236.73	18.91	0.0%	18.91
NA	31	2	362	2/1/2048	0	0	0	0	0	485.889	0	0	1.960.200	136.860	622.749	622.749	200.328.889	683.796.886	985	200.951.638	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.74	236.64	18.90	0.0%	18.90
NA	31	3	363	3/1/2048	0	0	0	0	0	485.889	0	0	1.960.200	71.030	556.919	556.919	200.328.889	683.796.886	985	200.885.808	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.66	236.62	18.90	0.0%	18.90
NA	31	4	364	4/1/2048	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.62	236.64	18.90	0.0%	18.90
NA	31	5	365	5/1/2048	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.59	236.69	18.90	0.0%	18.90
NA	31	6	366	6/1/2048	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	236.75	18.91	0.0%	18.91
NA	31	7	367	7/1/2048	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.57	236.81	18.91	0.0%	18.91
NA	31	8	368	8/1/2048	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.57	236.88	18.92	0.0%	18.92
NA	31	9	369	9/1/2048	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	236.94	18.92	0.0%	18.92
NA	31	10	370	10/1/2048	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.60	236.98	18.93	0.0%	18.93
NA	31	11	371	11/1/2048	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.66	236.96	18.93	0.0%	18.93
NA	31	12	372	12/1/2048	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.70	236.91	18.92	0.0%	18.92
NA	32	1	373	1/1/2049	0	0	0	0	0	485.889	0	0	1.960.200	82.492	568.380	568.380	200.328.889	683.796.886	985	200.897.270	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.67	236.88	18.92	0.0%	18.92
NA	32	2	374	2/1/2049	0	0	0	0	0	485.889	0	0	1.960.200	136.860	622.749	622.749	200.328.889	683.796.886	985	200.951.638	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.74	236.79	18.91	0.0%	18.91
NA	32	3	375	3/1/2049	0	0	0	0	0	485.889	0	0	1.960.200	71.030	556.919	556.919	200.328.889	683.796.886	985	200.885.808	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.66	236.77	18.91	0.0%	18.91
NA	32	4	376	4/1/2049	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.62	236.79	18.91	0.0%	18.91
NA	32	5	377	5/1/2049	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.59	236.84	18.92	0.0%	18.92
NA	32	6	378	6/1/2049	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	236.90	18.92	0.0%	18.92
NA	32	7	379	7/1/2049	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.57	236.96	18.93	0.0%	18.93
NA	32	8	380	8/1/2049	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	237.03	18.93	0.0%	18.93
NA	32	9	381	9/1/2049	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	237.09	18.94	0.0%	18.94
NA	32	10	382	10/1/2049	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.60	237.13	18.94	0.0%	18.94
NA	32	11	383	11/1/2049	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.66	237.11	18.94	0.0%	18.94
NA	32	12	384	12/1/2049	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.70	237.06	18.93	0.0%	18.93
NA	33	1	385	1/1/2050	0	0	0	0	0	485.889	0	0	1.960.200	82.492	568.380	568.380	200.328.889	683.796.886	985	200.897.270	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.67	237.03	18.93	0.0%	18.93
NA	33	2	386	2/1/2050	0	0	0	0	0	485.889	0	0	1.960.200	136.860	622.749	622.749	200.328.889	683.796.886	985	200.951.638	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.74	236.93	18.92	0.0%	18.92
NA	33	3	387	3/1/2050	0	0	0	0	0	485.889	0	0	1.960.200	71.030	556.919	556.919	200.328.889	683.796.886	985	200.885.808	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.66	236.92	18.92	0.0%	18.92
NA	33	4	388	4/1/2050	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.62	236.94	18.92	0.0%	18.92
NA	33	5	389	5/1/2050	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.59	236.99	18.93	0.0%	18.93
NA	33	6	390	6/1/2050	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	237.05	18.93	0.0%	18.93
NA	33	7	391	7/1/2050	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.57	237.11	18.94	0.0%	18.94
NA	33	8	392	8/1/2050	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	237.17	18.94	0.0%	18.94
NA	33	9	393	9/1/2050	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	237.23	18.95	0.0%	18.95
NA	33	10	394	10/1/2050	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.60	237.27	18.95	0.0%	18.95
NA	33	11	395	11/1/2050	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.66	237.25	18.95	0.0%	18.95
NA	33	12	396	12/1/2050	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.70	237.20	18.94	0.0%	18.94
NA	34	1	397	1/1/2051	0	0	0	0	0	485.889	0	0	1.960.200	82.492	568.380	568.380	200.328.889	683.796.886	985	200.897.270	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.67	237.17	18.94	0.0%	18.94
NA	34	2	398	2/1/2051	0	0	0	0	0	485.889	0	0	1.960.200	136.860	622.749	622.749	200.328.889	683.796.886	985	200.951.638	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.74	237.08	18.93	0.0%	18.93
NA	34	3	399	3/1/2051	0	0	0	0	0	485.889	0	0	1.960.200	71.030	556.919	556.919	200.328.889	683.796.886	985	200.885.808	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.66	237.06	18.93	0.0%	18.93
NA	34	4	400	4/1/2051	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.62	237.08	18.93	0.0%	18.93
NA	34	5	401	5/1/2051	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.59	237.13	18.94	0.0%	18.94
NA	34	6	402	6/1/2051	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	237.19	18.94	0.0%	18.94
NA	34	7	403	7/1/2051	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	237.25	18.95	0.0%	18.95
NA	34	8	404	8/1/2051	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	237.31	18.95	0.0%	18.95
NA	34	9	405	9/1/2051	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	237.37	18.96	0.0%	18.96
NA	34	10	406	10/1/2051	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.60	237.41	18.96	0.0%	18.96
NA	34	11	407	11/1/2051	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.66	237.39	18.96	0.0%	18.96
NA	34	12	408	12/1/2051	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.70	237.34	18.96	0.0%	18.96
NA	35	1	409	1/1/2052	0	0	0

NA	44	4	520	4/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.63	238.27	19.03	0.0%	19.03
NA	44	5	521	5/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.59	238.31	19.03	0.0%	19.03
NA	44	6	522	6/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	238.37	19.04	0.0%	19.04
NA	44	7	523	7/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	238.43	19.04	0.0%	19.04
NA	44	8	524	8/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	238.49	19.05	0.0%	19.05
NA	44	9	525	9/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	238.55	19.05	0.0%	19.05
NA	44	10	526	10/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.60	238.58	19.06	0.0%	19.06
NA	44	11	527	11/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.66	238.56	19.05	0.0%	19.05
NA	44	12	528	12/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.70	238.50	19.05	0.0%	19.05
NA	45	1	529	1/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	82.492	568.380	568.380	200.328.889	683.796.886	985	200.897.270	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.68	238.47	19.05	0.0%	19.05
NA	45	2	530	2/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	136.860	622.749	622.749	200.328.889	683.796.886	985	200.951.638	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.74	238.37	19.04	0.0%	19.04
NA	45	3	531	3/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	71.030	556.919	556.919	200.328.889	683.796.886	985	200.885.808	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.66	238.35	19.04	0.0%	19.04
NA	45	4	532	4/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.63	238.37	19.04	0.0%	19.04
NA	45	5	533	5/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.59	238.41	19.04	0.0%	19.04
NA	45	6	534	6/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	238.47	19.05	0.0%	19.05
NA	45	7	535	7/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	238.53	19.05	0.0%	19.05
NA	45	8	536	8/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	238.59	19.06	0.0%	19.06
NA	45	9	537	9/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	238.65	19.06	0.0%	19.06
NA	45	10	538	10/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.60	238.68	19.06	0.0%	19.06
NA	45	11	539	11/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.66	238.66	19.06	0.0%	19.06
NA	45	12	540	12/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.70	238.60	19.06	0.0%	19.06
NA	46	1	541	1/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	82.492	568.380	568.380	200.328.889	683.796.886	985	200.897.270	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.68	238.56	19.05	0.0%	19.05
NA	46	2	542	2/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	136.860	622.749	622.749	200.328.889	683.796.886	985	200.951.638	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.74	238.47	19.05	0.0%	19.05
NA	46	3	543	3/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	71.030	556.919	556.919	200.328.889	683.796.886	985	200.885.808	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.66	238.45	19.04	0.0%	19.04
NA	46	4	544	4/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.63	238.46	19.05	0.0%	19.05
NA	46	5	545	5/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.59	238.51	19.05	0.0%	19.05
NA	46	6	546	6/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	238.57	19.05	0.0%	19.05
NA	46	7	547	7/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	238.62	19.06	0.0%	19.06
NA	46	8	548	8/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	238.68	19.06	0.0%	19.06
NA	46	9	549	9/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	238.74	19.07	0.0%	19.07
NA	46	10	550	10/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.61	238.77	19.07	0.0%	19.07
NA	46	11	551	11/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.66	238.75	19.07	0.0%	19.07
NA	46	12	552	12/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.70	238.69	19.06	0.0%	19.06
NA	47	1	553	1/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	82.492	568.380	568.380	200.328.889	683.796.886	985	200.897.270	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.68	238.66	19.06	0.0%	19.06
NA	47	2	554	2/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	136.860	622.749	622.749	200.328.889	683.796.886	985	200.951.638	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.74	238.56	19.05	0.0%	19.05
NA	47	3	555	3/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	71.030	556.919	556.919	200.328.889	683.796.886	985	200.885.808	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.66	238.54	19.05	0.0%	19.05
NA	47	4	556	4/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.63	238.56	19.05	0.0%	19.05
NA	47	5	557	5/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.59	238.60	19.06	0.0%	19.06
NA	47	6	558	6/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	238.66	19.06	0.0%	19.06
NA	47	7	559	7/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	238.72	19.07	0.0%	19.07
NA	47	8	560	8/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	238.78	19.07	0.0%	19.07
NA	47	9	561	9/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	238.83	19.08	0.0%	19.08
NA	47	10	562	10/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.61	238.87	19.08	0.0%	19.08
NA	47	11	563	11/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.66	238.84	19.08	0.0%	19.08
NA	47	12	564	12/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.70	238.78	19.07	0.0%	19.07
NA	48	1	565	1/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	82.492	568.380	568.380	200.328.889	683.796.886	985	200.897.270	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.68	238.75	19.07	0.0%	19.07
NA	48	2	566	2/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	136.860	622.749	622.749	200.328.889	683.796.886	985	200.951.638	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.74	238.65	19.06	0.0%	19.06
NA	48	3	567	3/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	71.030	556.919	556.919	200.328.889	683.796.886	985	200.885.808	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.66	238.63	19.06	0.0%	19.06
NA	48	4	568	4/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.63	238.65	19.06	0.0%	19.06
NA	48	5	569	5/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.59	238.69	19.06	0.0%	19.06
NA	48	6	570	6/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	238.75	19.07	0.0%	19.07
NA	48	7	571	7/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	238.81	19.07	0.0%	19.07
NA	48	8	572	8/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	238.87	19.08	0.0%	19.08
NA	48	9	573	9/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	238.92	19.08	0.0%	19.08
NA	48	10	574	10/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.61	238.96	19.08	0.0%	19.08
NA	48	11	575	11/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.66	238.93	19.08	0.0%	19.08
NA	48	12	576	12/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.70	238.87	19.08	0.0%	19.08
NA	49	1	577	1/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	82.492	568.380	568.380	200.328.889	683.796.886	985	200.897.270	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.68	238.84	19.08	0.0%	19.08
NA	49	2	578	2/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	136.860	622.749	622.749	200.328.889	683.796.886	985	200.951.638	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.74	238.74	19.07	0.0%	19.07
NA	49	3	579	3/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	71.030	556.919	556.919	200.328.889	683.796.886	985	200.885.808	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.66	238.72	19.07	0.0%	19.07
NA	49	4	580	4/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.63	238.73	19.07	0.0%	19.07
NA	49	5	581	5/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.59	238.78	19.07	0.0%	19.07
NA	49	6	582	6/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	238.84	19.08	0.0%	19.08
NA	49	7	583	7/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	238.89	19.08	0.0%	19.08
NA	49	8	584	8/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	238.95	19.08	0.0%	19.08
NA	49	9	585	9/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	239.01	19.09	0.0%	19.09
NA	49	10	586	10/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.61	239.04	19.09	0.0%	19.09
NA	49	11	587	11/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.67	239.02	19.09	0.0%	19.09
NA	49	12	588	12/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.70	238.96	19.09	0.0%	19.09
NA	50	1	589	1/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	82.492	568.380	568.380	200.328.889	683.796.886	985	200.897.270	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.68	238.92	19.08	0.0%	19.08
NA	50	2	590	2/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	136.860	622.749	622.749	200.328.889	683.796.886	985	200.951.638	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.01	0.00	0.74	238.83	19.07	0.0%	19.07
NA	50	3	591	3/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	71.030	556.919	556.919	200.328.889	683.796.886	985	200.885.808	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.66	238.81	19.07	0.0%	19.07
NA	50	4	592	4/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.63	238.82	19.07	0.0%	19.07
NA	50	5	593	5/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.59	238.86	19.08	0.0%	19.08
NA	50	6	594	6/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	238.92	19.08	0.0%	19.08
NA	50	7	595	7/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	238.98	19.09	0.0%	19.09
NA	50	8	596	8/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	21.00	0.64	0.00	0.00	0.00	0.58	239.04	19.09	0.0%	19.09
NA	50	9	597	9/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0

Inflows and Outflows	Parameters	Units	Value	Units	Description and Rationale					
Precipitation	Precipitation		1.85	ft/yr	Los Altos climate station, direct precip on westerock backfill area is based on monthly precip data					
			Phases	0 - 10	11-16	16-20				
			Initial	Mining	Backfilling	Revegetation				
Quarry Backfilling Areas	**Surface Water Drainage to Pit**									
	Quarry Area (Greenstone/Greywacke)	sq feet	4,900,000	5,052,980	-	-				Based on drawing from Chang Consultants
		acres	112	116	-	-	-	-	-	Figures B.1 through B.3
	Quarry Area (Limestone)	sq feet	7,000,000	7,000,000	-	-				
		acres	161	161	-	-	-	-	-	
	WMSA	sq feet	3,500,000	3,920,400	-	-				
		acres	80	90	-	-	-	-	-	
	Surface Infiltration to Pit (Through backfill)									
	Undrained Backfill (No Surface Outlet)	sq feet	-	-						
		acres	-	-	-	-	-	-	-	
	Drained Backfill (With Surface Outlet)	sq feet			1,960,200	1,960,200				
		acres	-	-	45	45	-	-	-	
	Total Drainage Area	acres	354	367	45	45	-	-	-	
	Spill Elevation		990.00	ft amsl	Based on Mine Plan (Chang Drawings)					
	Bottom of Pit		440.00	ft amsl	Based on end of Phase 1 for South Quarry Mine Plan (Chang Drawings)					
Groundwater Capture	Initial		371	gpm	MODFLOW model results for Phase 1, maximum excavation condition (Golder's Report)					
			2,181,181	cu ft/mo						
	At Spill Elevation		80	gpm	MODFLOW model results for ultimate condition (Golder's Report)					
			470,336	cu ft/mo						
Date Quarry Filling Starts			**6/1/2028**							
Assumptions	**In situ Pit Water Treatment Removal Rate**									
	The pit is backfilled incrementally over a 10-year period, from 440 ft amsl to the spill-over elevation of 990 ft amsl									
	Backfill material has a porosity of 30-percent.									
	Surface runoff is only within the capture area of the pit and is based on water year 2009 data									
	Groundwater inflow into the pit varies by month and diminishes as the backfill increases									
	Precipitation directly infiltrates to the water table within the area of the backfill.									
	Evaporation of the pit lake is only applied when the cumulative volume of water in the pit is greater than the cumulative volume of void spaces within the backfill (based on 30-percent porosity)									
	The water level in the pit is dependent on the total cumulative volume of the backfill up to the spill-over elevation.									

Phase	Year	Month	Total Months	Date	Quarry Area (Greenstone/Greywacke)	Quarry Area (Greenstone/Greywacke)	Quarry Area (Limestone)	Quarry Area (Limestone)	WMSA	WMSA	Groundwater Inflow	Undrained Backfill (No Surface Outlet)	Undrained Backfill (No Surface Outlet)	Drained Backfill (With Surface Outlet)	Drained Backfill (With Surface Outlet)	Pit Lake Precip	Water Entering Pit Lake	Pit Lake Outflow	Cumulative Water in Pit	Cumulative Volume Occupied by Water in Backfill	Cumulative Backfill Volume	Pit Water Level at End of Year	Pit Water Open Area at End of Year	Area for Surface Water Runoff for Next Year	First Cut Water Accumulation in Pit Lake	Available Water Storage in Pit
					sq ft	cu ft	sq ft	cu ft	sq ft	cu ft	cu ft	sq ft	cu ft	sq ft	cu ft	cu ft	cu ft	cu ft	cu ft	cu ft	cu ft	ft	sq ft	sq ft	cu ft	cu ft
1	1	1	1	1/1/2018	**4,900,000**	687,351	**7,000,000**	981,944	**3,500,000**	294,583	**2,181,181**	**0**	**0**	**0**	**0**		4,145,070	4,145,070	**0**		**0**	**440**	**NA**	**NA**	**4,145,070**	**0**
1	1	2	2	2/1/2018	4,901,285	1,140,683	7,000,000	1,629,120	3,503,533	489,229	2,181,181	0	0	0	0	0	5,440,214	5,440,214	0	NA	0	440			5,440,214	0
1	1	3	3	3/1/2018	4,902,571	592,167	7,000,000	845,509	3,507,056	254,165	2,181,181	0	0	0	0	0	3,873,022	3,873,022	0		0	440			3,873,022	0
1	1	4	4	4/1/2018	4,903,856	342,816	7,000,000	489,352	3,510,598	147,250	2,181,181	0	0	0	0	0	3,160,599	3,160,599	0		0	440			3,160,599	0
1	1	5	5	5/1/2018	4,905,142	94,696	7,000,000	135,139	3,514,131	40,705	2,181,181	0	0	0	0	0	2,451,722	2,451,722	0		0	440			2,451,722	0
1	1	6	6	6/1/2018	4,906,427	15,900	7,000,000	22,685	3,517,664	6,840	2,181,181	0	0	0	0	0	2,226,607	2,226,607	0		0	440			2,226,607	0
1	1	7	7	7/1/2018	4,907,712	682	7,000,000	972	3,521,197	298	2,181,181	0	0	0	0	0	2,183,128	2,183,128	0		0	440			2,183,128	0
1	1	8	8	8/1/2018	4,908,998	2,500	7,000,000	3,565	3,524,729	1,077	2,181,181	0	0	0	0	0	2,188,323	2,188,323	0		0	440			2,188,323	0
1	1	9	9	9/1/2018	4,910,283	12,276	7,000,000	17,500	3,528,262	5,292	2,181,181	0	0	0	0	0	2,216,249	2,216,249	0		0	440			2,216,249	0
1	1	10	10	10/1/2018	4,911,568	181,910	7,000,000	259,259	3,531,795	78,484	2,181,181	0	0	0	0	0	2,700,835	2,700,835	0		0	440			2,700,835	0
1	1	11	11	11/1/2018	4,912,854	596,821	7,000,000	850,370	3,535,328	257,686	2,181,181	0	0	0	0	0	3,886,058	3,886,058	0		0	440			3,886,058	0
1	1	12	12	12/1/2018	4,914,139	869,530	7,000,000	1,238,611	3,538,861	375,709	2,181,181	0	0	0	0	0	4,665,031	4,665,031	0		0	440			4,665,031	0
1	2	1	13	1/1/2019	4,915,425	689,525	7,000,000	981,944	3,542,393	298,151	2,181,181	0	0	0	0	0	4,150,802	4,150,802	0		0	440			4,150,802	0
1	2	2	14	2/1/2019	4,916,710	1,144,273	7,000,000	1,629,120	3,545,926	495,149	2,181,181	0	0	0	0	0	5,449,724	5,449,724	0		0	440			5,449,724	0
1	2	3	15	3/1/2019	4,917,995	594,030	7,000,000	845,509	3,549,459	257,237	2,181,181	0	0	0	0	0	3,877,958	3,877,958	0		0	440			3,877,958	0
1	2	4	16	4/1/2019	4,919,281	343,894	7,000,000	489,352	3,552,992	149,028	2,181,181	0	0	0	0	0	3,163,455	3,163,455	0		0	440			3,163,455	0
1	2	5	17	5/1/2019	4,920,566	94,994	7,000,000	135,139	3,556,524	41,196	2,181,181	0	0	0	0	0	2,452,511	2,452,511	0		0	440			2,452,511	0
1	2	6	18	6/1/2019	4,921,851	15,902	7,000,000	22,685	3,560,057	6,922	2,181,181	0	0	0	0	0	2,226,739	2,226,739	0		0	440			2,226,739	0
1	2	7	19	7/1/2019	4,923,137	684	7,000,000	972	3,563,590	297	2,181,181	0	0	0	0	0	2,183,134	2,183,134	0		0	440			2,183,134	0
1	2	8	20	8/1/2019	4,924,422	2,508	7,000,000	3,565	3,567,123	1,090	2,181,181	0	0	0	0	0	2,188,344	2,188,344	0		0	440			2,188,344	0
1	2	9	21	9/1/2019	4,925,708	12,314	7,000,000	17,500	3,570,655	5,356	2,181,181	0	0	0	0	0	2,216,351	2,216,351	0		0	440			2,216,351	0
1	2	10	22	10/1/2019	4,926,993	182,481	7,000,000	259,259	3,574,188	79,426	2,181,181	0	0	0	0	0	2,702,348	2,702,348	0		0	440			2,702,348	0
1	2	11	23	11/1/2019	4,928,278	598,696	7,000,000	850,370	3,577,721	260,776	2,181,181	0	0	0	0	0	3,891,022	3,891,022	0		0	440			3,891,022	0
1	2	12	24	12/1/2019	4,929,564	872,259	7,000,000	1,238,611	3,581,254	380,210	2,181,181	0	0	0	0	0	4,672,261	4,672,261	0		0	440			4,672,261	0
1	3	1	25	1/1/2020	4,930,849	691,689	7,000,000	981,944	3,584,787	301,720	2,181,181	0	0	0	0	0	4,156,534	4,156,534	0		0	440			4,156,534	0
1	3	2	26	2/1/2020	4,932,134	1,147,863	7,000,000	1,629,120	3,588,319	501,069	2,181,181	0	0	0	0	0	5,459,233	5,459,233	0		0	440			5,459,233	0
1	3	3	27	3/1/2020	4,933,420	595,893	7,000,000	845,509	3,591,852	260,310	2,181,181	0	0	0	0	0	3,882,893	3,882,893	0		0	440			3,882,893	0
1	3	4	28	4/1/2020	4,934,705	344,972	7,000,000	489,352	3,595,385	150,806	2,181,181	0	0	0	0	0	3,166,312	3,166,312	0		0	440			3,166,312	0
1	3	5	29	5/1/2020	4,935,991	95,292	7,000,000	135,139	3,598,918	41,687	2,181,181	0	0	0	0	0	2,453,300	2,453,300	0		0	440			2,453,300	0
1	3	6	30	6/1/2020	4,937,276	16,000	7,000,000	22,685	3,602,450	7,005	2,181,181	0	0	0	0	0	2,226,872	2,226,872	0		0	440			2,226,872	0
1	3	7	31	7/1/2020	4,938,561	686	7,000,000	972	3,605,983	300	2,181,181	0	0	0	0	0	2,183,140	2,183,140	0		0	440			2,183,140	0
1	3	8	32	8/1/2020	4,939,847	2,516	7,000,000	3,565	3,609,516	1,103	2,181,181	0	0	0	0	0	2,188,365	2,188,365	0		0	440			2,188,365	0
1	3	9	33	9/1/2020	4,941,132	12,353	7,000,000	17,500	3,613,049	5,420	2,181,181	0	0	0	0	0	2,216,454	2,216,454	0		0	440			2,216,454	0
1	3	10	34	10/1/2020	4,942,417	183,052	7,000,000	259,259	3,616,582	80,368	2,181,181	0	0	0	0	0	2,703,861	2,703,861	0		0	440			2,703,861	0
1	3	11	35	11/1/2020	4,943,703	600,568	7,000,000	850,370	3,620,114	263,866	2,181,181	0	0	0	0	0	3,895,986	3,895,986	0		0	440			3,895,986	0
1	3	12	36	12/1/2020	4,944,988	874,988	7,000,000	1,238,611	3,623,647	384,711	2,181,181	0	0	0	0	0	4,679,491	4,679,491	0		0	440			4,679,491	0
1	4	1	37	1/1/2021	4,946,274	693,852	7,000,000	981,944	3,627,180	305,288	2,181,181	0	0	0	0	0	4,162,266	4,162,266	0		0	440			4,162,266	0
1	4	2	38	2/1/2021	4,947,559	1,151,453	7,000,000	1,629,120	3,630,713	506,989	2,181,181	0	0	0	0	0	5,468,743	5,468,743	0		0	440			5,468,743	0
1	4	3	39	3/1/2021	4,948,844	597,756	7,000,000	845,509	3,634,245	263,382	2,181,181	0	0	0	0	0	3,887,829	3,887,829	0		0	440			3,887,829	0
1	4	4	40	4/1/2021	4,950,130	346,051	7,000,000	489,352	3,637,778	152,585	2,181,181	0	0	0	0	0	3,169,168	3,169,168	0		0	440			3,169,168	0
1	4	5	41	5/1/2021	4,951,415	95,592	7,000,000	135,139	3,641,311	42,179	2,181,181	0	0	0	0	0	2,454,088	2,454,088	0		0	440			2,454,088	0
1	4	6	42	6/1/2021	4,952,701	16,050	7,000,000	22,685	3,644,844	7,087	2,181,181	0	0	0	0	0	2,227,004	2,227,004	0		0	440			2,227,004	0
1	4	7	43	7/1/2021	4,953,986	687	7,000,000	972	3,648,376	304	2,181,181	0	0	0	0	0	2,183,146	2,183,146	0		0	440			2,183,146	0
1	4	8	44	8/1/2021	4,955,271	2,524	7,000,000	3,565	3,651,909	1,116	2,181,181	0	0	0	0	0	2,188,385	2,188,385	0		0	440			2,188,385	0
1	4	9	45	9/1/2021	4,956,557	12,391	7,000,000	17,500	3,655,442	5,483	2,181,181	0	0	0	0	0	2,216,556	2,216,556	0		0	440			2,216,556	0
1	4	10	46	10/1/2021	4,957,842	183,624	7,000,000	259,259	3,658,975	81,311	2,181,181	0	0	0	0	0	2,705,375	2,705,375	0		0	440			2,705,375	0
1	4	11	47	11/1/2021	4,959,127	602,442	7,000,000	850,370	3,662,508	266,956	2,181,181	0	0	0	0	0	3,900,950	3,900,950	0		0	440			3,900,950	0
1	4	12	48	12/1/2021	4,960,413	877,717	7,000,000	1,238,611	3,666,040	389,211	2,181,181	0	0	0	0	0	4,685,721	4,685,721	0		0	440			4,685,721	0
1	5	1	49	1/1/2022	4,961,698	696,016	7,000,000	981,944	3,669,573	308,856	2,181,181	0	0	0	0	0	4,167,997	4,167,997	0		0	440			4,167,997	0
1	5	2	50	2/1/2022	4,962,984	1,155,040	7,000,000	1,629,120	3,673,106	512,908	2,181,181	0	0	0	0	0	5,478,253	5,478,253	0		0	440			5,478,253	0
1	5	3	51	3/1/2022	4,964,269	599,619	7,000,000	845,509	3,676,639	266,454	2,181,181	0	0	0	0	0	3,892,764	3,892,764	0		0	440			3,892,764	0
1	5	4	52	4/1/2022	4,965,554	347,228	7,000,000	489,352	3,680,171	154,369	2,181,181	0	0	0	0	0	3,172,025	3,172,025	0		0	440			3,172,025	0
1	5	5	53	5/1/2022	4,966,840	95,888	7,000,000	135,139	3,683,704	42,670	2,181,181	0	0	0	0	0	2,454,877	2,454,877	0		0	440			2,454,877	0
1	5	6	54	6/1/2022	4,968,125	16,100	7,000,000	22,685	3,687,237	7,170	2,181,181	0	0	0	0	0	2,227,136	2,227,136	0		0	440			2,227,136	0
1	5	7	55	7/1/2022	4,969,410	690	7,000,000	972	3,690,770	308	2,181,181	0	0	0	0	0	2,183,151	2,183,151	0		0	440			2,183,151	0
1	5	8	56	8/1/2022	4,970,696	2,531	7,000,000	3,565	3,694,303	1,129	2,181,181	0	0	0	0	0	2,188,406	2,188,406	0		0	440			2,188,406	0
1	5	9	57	9/1/2022	4,971,981	12,430	7,000,000	17,500	3,697,835	5,547	2,181,181	0	0	0	0	0	2,216,658	2,216,658	0		0	440			2,216,658	0
1	5	10	58	10/1/2022	4,973,267	184,195	7,000,000	259,259	3,701,368	82,253	2,181,181	0	0	0	0	0	2,706,888	2,706,888	0		0	440			2,706,888	0
1	5	11	59	11/1/2022	4,974,552	604,316	7,000,000	850,370	3,704,901	270,046	2,181,181	0	0	0	0	0	3,905,914	3,905,914	0		0	440			3,905,914	0
1	5	12	60	12/1/2022	4,975,837	880,447	7,000,000	1,238,611	3,708,434	393,712	2,181,181	0	0	0	0	0	4,693,951	4,693,951	0		0	440			4,693,951	0
1	6	1	61	1/1/2023	4,977,123	698,180	7,000,000	981,944	3,711,966	312,424	2,181,181	0	0	0	0	0	4,173,729	4,173,729	0		0	440			4,173,729	0
1	6	2	62	2/1/2023	4,978,408	1,158,632	7,000,000	1,629,120	3,715,499	518,828	2,181,181	0	0	0	0	0	5,487,762	5,487,762	0		0	440			5,487,762	0
1	6	3	63	3/1/2023	4,979,693	691,497	7,000,000	845,509	3,719,032	269,527	2,181,181	0	0	0	0	0	3,897,699	3,897,699	0		0	440			3,897,699	0
1	6	4	64	4/1/2023	4,980,979	348,207	7,000,000	489,352	3,722,565	156,141	2,181,181	0	0	0	0	0	3,174,881	3,174,881	0		0	440			3,174,881	0
1	6	5	65	5/1/2023	4,982,264	96,185	7,000,000	135,139	3,726,097	43,161	2,181,181	0	0	0	0	0	2,455,666	2,455,666	0		0	440			2,455,666	0
1	6	6	66	6/1/2023	4,983,550	16,150	7,000,000	22,685	3,729,630	7,252	2,181,181	0	0	0	0	0	2,227,269	2,227,269	0		0	440			2,227,269	0
1	6	7	67	7/1/2023	4,984,835	692	7,000,000	972	3,733,163	311	2,181,181	0	0	0	0	0	2,183,157	2,183,157	0		0	440			2,183,157	0
1	6	8	68	8/1/2023	4,986,120	2,539	7,000,000	3,565	3,736,695	1,142	2,181,181	0	0	0	0	0	2,188,427	2,188,427	0		0	440			2,188,427	0
1	6	9	69	9/1/2023	4,987,406	12,469	7,000,000	17,500	3,740,229	5,610	2,181,181	0	0	0	0	0	2,216,760	2,216,760	0		0	440			2,216,760	0
1	6	10	70	10/1/2023	4,988,691	184,766	7,000,000	259,259	3,743,761	83,195	2,181,181	0	0	0	0	0	2,708,402	2,708,402	0		0	440			2,708,402	0
1	6	11	71	11/1/2023	4,989,976	606,190	7,000,000	850,370	3,747,294	273,136	2,181,181	0	0	0	0	0	3,910,877	3,910,877	0		0	440			3,910,877	0
1	6	12	72	12/1/2023	4,991,262	881,151	7,000,000	1,238,611	3,750,827	398,213	2,181,181	0	0	0	0	0	4,701,181	4,701,181	0		0	440			4,701,181	0
1	7	1	73	1/1/2024	4,992,547	700,343	7,000,000	981,944	3,754,360	315,992	2,181,181	0	0	0	0	0	4,179,461	4,179,461	0		0	440			4,179,461	0
1	7	2	74	2/1/2024	4,993,833	1,162,222	7,000,000	1,629,120	3,757,892	524,748	2,181,181	0	0	0	0	0	5,497,272	5,497,272	0		0	440			5,497,272	0
1	7	3	75	3/1/2024	4,995,118	603,346	7,000,000	845,509	3,761,425	272,599	2,181,181	0	0	0	0	0	3,902,635	3,902,635	0		0	440			3,902,635	0
1	7	4	76	4/1/2024	4,996,403	349,298	7,000,000	489,352	3,764,958	157,919	2,181,181	0	0	0	0	0	3,177,738	3,177,738	0		0	440			3,177,738	0
1	7	5	77	5/1/2024	4,997,689	96,483	7,000,000	135,139	3,768,491	43,652	2,181,181	0	0	0	0	0	2,456,455	2,456,455	0		0	440			2,456,455	0
1	7	6	78	6/1/2024	4,998,974	16,250	7,000,000	22,685	3,772,024	7,334	2,181,181	0	0	0	0	0	2,227,401	2,227,401	0		0	440			2,227,401	0
1	7	7	79	7/1/2024	5,000,259	694	7,000,000	972	3,775,556	315	2,181,181	0	0	0	0	0	2,183,163	2,183,163	0		0	440			2,183,163	0
1	7	8	80	8/1/2024	5,001,545	2,547	7,000,000	3,565	3,779,089	1,155	2,181,181	0	0	0	0	0	2,188,448	2,188,448	0		0	440			2,188,448	0
1	7	9	81	9/1/2024	5,002,830	12,507	7,000,000	17,500	3,782,622	5,674	2,181,181	0	0	0	0	0	2,216,862	2,216,862	0		0	440			2,216,862	0
1	7	10	82	10/1/2024	5,004,116	185,338	7,000,000	259,259	3,786,155	84,137	2,181,181	0	0	0	0	0	2,709,915	2,709,915	0		0	440			2,709,915	0
1	7	11	83	11/1/2024	5,005,401	608,095	7,000,000	850,370	3,789,687	276,226	2,181,181	0	0	0	0	0	3,915,841	3,915,841	0		0	440			3,915,841	0
1	7	12	84	12/1/2024	5,006,686	885,905	7,000,000	1,238,611	3,793,220	402,714	2,181,181	0	0	0	0	0	4,708,411	4,708,411	0		0	440			4,708,411	0
1	8	1	85	1/1/2025	5,007,972	702,507	7,000,000	981,944	3,796,753	319,560	2,181,181	0	0	0	0	0	4,185,193	4,185,193	0		0	440			4,185,193	0
1	8	2	86	2/1/2025	5,009,257	1,165,812	7,000,000	1,629,120	3,800,286	530,668	2,181,181	0	0	0	0	0	5,506,781	5,506,781	0		0	440			5,506,781	0
1	8	3	87	3/1/2025	5,010,543	605,205	7,000,000	845,509	3,803,818	275,671	2,181,181	0	0	0	0	0	3,907,570	3,907,570	0		0	440			3,907,570	0
1	8	4	88	4/1/2025	5,011,828	350,364	7,000,000	489,352	3,807,351	159,697	2,181,181	0	0	0	0	0	3,180,594	3,180,594	0		0	440			3,180,594	0
1	8	5	89	5/1/2025	5,013,113	96,751	7,000,000	135,139	3,810,884	44,143	2,181,181	0	0	0	0	0	2,457,244	2,457,244	0		0	440			2,457,244	0
1	8	6	90	6/1/2025	5,014,399	16,250	7,000,000	22,685	3,814,417	7,417	2,181,181	0	0	0	0	0	2,227,534	2,227,534	0		0	440			2,227,534	0
1	8	7	91	7/1/2025	5,015,684	697	7,000,000	972	3,817,950	318	2,181,181	0	0	0	0	0	2,183,168	2,183,168	0		0	440			2,183,168	0
1	8	8	92	8/1/2025	5,016,969	2,555	7,000,000	3,565	3,821,482	1,168	2,181,181	0	0	0	0	0	2,188,469	2,188,469	0		0	440			2,188,469	0
1	8	9	93	9/1/2025	5,018,255	12,546	7,000,000	17,500	3,825,015	5,738	2,181,181	0	0	0	0	0	2,216,964	2,216,964	0		0	440			2,216,964	0
1	8	10	94	10/1/2025	5,019,540	185,909	7,000,000	259,259	3,828,548	85,079	2,181,181	0	0	0	0	0	2,711,428	2,711,428	0		0	440			2,711,428	0
1	8	11	95	11/1/2025	5,020,826	609,937	7,000,000	850,370	3,832,081	279,316	2,181,181	0	0	0	0	0	3,920,805	3,920,805	0		0	440			3,920,805	0
1	8	12	96	12/1/2025	5,022,111	888,635	7,000,000	1,238,611	3,835,613	407,214	2,181,181	0	0	0	0	0	4,715,641	4,715,641	0		0	440			4,715,641	0
1	9	1	97	1/1/2026	5,023,396	704,671	7,000,000	981,944	3,839,146	323,128	2,181,181	0	0	0	0	0	4,190,925	4,190,925	0		0	440			4,190,925	0
1	9	2	98	2/1/2026	5,024,682	1,169,402	7,000,000	1,629,120	3,842,679	536,587	2,181,181	0	0	0	0	0	5,516,291	5,516,291	0		0	440			5,516,291	0
1	9	3	99	3/1/2026	5,025,967	607,072	7,000,000	845,509	3,846,212	278,744	2,181,181	0	0	0	0	0	3,912,506	3,912,506	0		0	440			3,912,506	0
1	9	4	100	4/1/2026	5,027,252	351,442	7,000,000	489,352	3,849,745	161,475	2,181,181	0	0	0	0	0	3,183,451	3,183,451	0		0	440			3,183,451	0
1	9	5	101	5/1/2026	5,028,538	97,079	7,000,000	135,139	3,853,277	44,634	2,181,181	0	0	0

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NA	44	4	520	4/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.88	335.32	26.78	0.0%	26.78
NA	44	5	521	5/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.83	334.66	26.73	0.0%	26.73
NA	44	6	522	6/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.81	334.01	26.68	0.0%	26.68
NA	44	7	523	7/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.81	333.37	26.63	0.0%	26.63
NA	44	8	524	8/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.81	332.73	26.57	0.0%	26.57
NA	44	9	525	9/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.81	332.09	26.52	0.0%	26.52
NA	44	10	526	10/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.84	331.42	26.47	0.0%	26.47
NA	44	11	527	11/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.92	330.67	26.41	0.0%	26.41
NA	44	12	528	12/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.01	0.00	0.97	329.87	26.35	0.0%	26.35
NA	45	1	529	1/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	82.492	568.380	568.380	200.328.889	683.796.886	985	200.897.270	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.01	0.00	0.94	329.11	26.29	0.0%	26.29
NA	45	2	530	2/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	136.860	622.749	622.749	200.328.889	683.796.886	985	200.951.638	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.01	0.00	1.02	328.35	26.22	0.0%	26.22
NA	45	3	531	3/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	71.030	556.919	556.919	200.328.889	683.796.886	985	200.805.808	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.91	327.52	26.16	0.0%	26.16
NA	45	4	532	4/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.86	326.83	26.10	0.0%	26.10
NA	45	5	533	5/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.81	326.19	26.05	0.0%	26.05
NA	45	6	534	6/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.79	325.56	26.00	0.0%	26.00
NA	45	7	535	7/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.79	324.94	25.95	0.0%	25.95
NA	45	8	536	8/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.79	324.32	25.90	0.0%	25.90
NA	45	9	537	9/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.79	323.70	25.85	0.0%	25.85
NA	45	10	538	10/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.82	323.05	25.80	0.0%	25.80
NA	45	11	539	11/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.90	322.33	25.74	0.0%	25.74
NA	45	12	540	12/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.01	0.00	0.95	321.55	25.68	0.0%	25.68
NA	46	1	541	1/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	82.492	568.380	568.380	200.328.889	683.796.886	985	200.897.270	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.01	0.00	0.91	320.81	25.62	0.0%	25.62
NA	46	2	542	2/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	136.860	622.749	622.749	200.328.889	683.796.886	985	200.951.638	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.01	0.00	1.00	319.99	25.56	0.0%	25.56
NA	46	3	543	3/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	71.030	556.919	556.919	200.328.889	683.796.886	985	200.805.808	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.89	319.28	25.50	0.0%	25.50
NA	46	4	544	4/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.84	318.61	25.45	0.0%	25.45
NA	46	5	545	5/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.79	317.99	25.40	0.0%	25.40
NA	46	6	546	6/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.77	317.38	25.35	0.0%	25.35
NA	46	7	547	7/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.77	316.78	25.30	0.0%	25.30
NA	46	8	548	8/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.77	316.18	25.25	0.0%	25.25
NA	46	9	549	9/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.77	315.58	25.20	0.0%	25.20
NA	46	10	550	10/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.80	314.95	25.15	0.0%	25.15
NA	46	11	551	11/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.88	314.24	25.10	0.0%	25.10
NA	46	12	552	12/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.01	0.00	0.93	313.49	25.04	0.0%	25.04
NA	47	1	553	1/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	82.492	568.380	568.380	200.328.889	683.796.886	985	200.897.270	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.01	0.00	0.89	312.78	24.98	0.0%	24.98
NA	47	2	554	2/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	136.860	622.749	622.749	200.328.889	683.796.886	985	200.951.638	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.01	0.00	0.97	311.98	24.92	0.0%	24.92
NA	47	3	555	3/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	71.030	556.919	556.919	200.328.889	683.796.886	985	200.805.808	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.87	311.29	24.86	0.0%	24.86
NA	47	4	556	4/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.82	310.64	24.81	0.0%	24.81
NA	47	5	557	5/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.77	310.04	24.76	0.0%	24.76
NA	47	6	558	6/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.75	309.45	24.72	0.0%	24.72
NA	47	7	559	7/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.75	308.87	24.67	0.0%	24.67
NA	47	8	560	8/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.75	308.29	24.62	0.0%	24.62
NA	47	9	561	9/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.75	307.71	24.58	0.0%	24.58
NA	47	10	562	10/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.78	307.10	24.53	0.0%	24.53
NA	47	11	563	11/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.85	306.42	24.47	0.0%	24.47
NA	47	12	564	12/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.01	0.00	0.90	305.69	24.41	0.0%	24.41
NA	48	1	565	1/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	82.492	568.380	568.380	200.328.889	683.796.886	985	200.897.270	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.01	0.00	0.87	304.99	24.36	0.0%	24.36
NA	48	2	566	2/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	136.860	622.749	622.749	200.328.889	683.796.886	985	200.951.638	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.01	0.00	0.95	304.22	24.30	0.0%	24.30
NA	48	3	567	3/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	71.030	556.919	556.919	200.328.889	683.796.886	985	200.805.808	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.85	303.55	24.24	0.0%	24.24
NA	48	4	568	4/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.80	302.92	24.19	0.0%	24.19
NA	48	5	569	5/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.75	302.34	24.15	0.0%	24.15
NA	48	6	570	6/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.74	301.77	24.10	0.0%	24.10
NA	48	7	571	7/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.73	301.21	24.06	0.0%	24.06
NA	48	8	572	8/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.73	300.65	24.01	0.0%	24.01
NA	48	9	573	9/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.73	300.08	23.97	0.0%	23.97
NA	48	10	574	10/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.76	299.49	23.92	0.0%	23.92
NA	48	11	575	11/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.83	298.83	23.87	0.0%	23.87
NA	48	12	576	12/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.01	0.00	0.88	298.13	23.81	0.0%	23.81
NA	49	1	577	1/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	82.492	568.380	568.380	200.328.889	683.796.886	985	200.897.270	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.01	0.00	0.85	297.46	23.76	0.0%	23.76
NA	49	2	578	2/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	136.860	622.749	622.749	200.328.889	683.796.886	985	200.951.638	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.01	0.00	0.92	296.71	23.70	0.0%	23.70
NA	49	3	579	3/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	71.030	556.919	556.919	200.328.889	683.796.886	985	200.805.808	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.82	296.06	23.65	0.0%	23.65
NA	49	4	580	4/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.78	295.45	23.60	0.0%	23.60
NA	49	5	581	5/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.73	294.88	23.55	0.0%	23.55
NA	49	6	582	6/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.72	294.33	23.51	0.0%	23.51
NA	49	7	583	7/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.71	293.79	23.46	0.0%	23.46
NA	49	8	584	8/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.71	293.24	23.42	0.0%	23.42
NA	49	9	585	9/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.71	292.70	23.38	0.0%	23.38
NA	49	10	586	10/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.74	292.13	23.33	0.0%	23.33
NA	49	11	587	11/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.81	291.49	23.28	0.0%	23.28
NA	49	12	588	12/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.01	0.00	0.86	290.80	23.23	0.0%	23.23
NA	50	1	589	1/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	82.492	568.380	568.380	200.328.889	683.796.886	985	200.897.270	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.01	0.00	0.83	290.15	23.17	0.0%	23.17
NA	50	2	590	2/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	136.860	622.749	622.749	200.328.889	683.796.886	985	200.951.638	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.01	0.00	0.90	289.43	23.12	0.0%	23.12
NA	50	3	591	3/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	71.030	556.919	556.919	200.328.889	683.796.886	985	200.805.808	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.80	288.80	23.07	0.0%	23.07
NA	50	4	592	4/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.76	288.21	23.02	0.0%	23.02
NA	50	5	593	5/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.72	287.66	22.98	0.0%	22.98
NA	50	6	594	6/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.70	287.13	22.93	0.0%	22.93
NA	50	7	595	7/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.70	286.60	22.89	0.0%	22.89
NA	50	8	596	8/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	0.55	0.17	0.00	0.00	0.00	0.70	286.07	22.85	0.0%	22.85
NA	50	9	597	9/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0

Inflows and Outflows	Parameters	Units	Value	Units	Description and Rationale					
Precipitation	Precipitation		1.85	ft/yr	Los Altos climate station, direct precip on westerock backfill area is based on monthly precip data					
			Phases	0 - 10	11-16	16-20				
			Initial	Mining	Backfilling	Revegetation				
Quarry Backfilling Areas	**Surface Water Drainage to Pit**									
	Quarry Area (Greenstone/Greywacke)	sq feet	4,900,000	5,052,960	-	-				Based on drawing from Chang Consultants
		acres	112	116	-	-	-	-	-	Figures B.1 through B.3
	Quarry Area (Limestone)	sq feet	7,000,000	7,000,000	-	-				
		acres	161	161	-	-	-	-	-	
	WMSA	sq feet	3,500,000	3,920,400	-	-				
		acres	80	90	-	-	-	-	-	
	Surface Infiltration to Pit (Through backfill)									
	Undrained Backfill (No Surface Outlet)	sq feet	-	-						
		acres	-	-	-	-	-	-	-	
	Drained Backfill (With Surface Outlet)	sq feet			1,960,200	1,960,200				
		acres	-	-	45	45	-	-	-	
	Total Drainage Area	acres	354	367	45	45	-	-	-	
	Spill Elevation		990.00	ft amsl	Based on Mine Plan (Chang Drawings)					
	Bottom of Pit		440.00	ft amsl	Based on end of Phase 1 for South Quarry Mine Plan (Chang Drawings)					
Groundwater Capture	Initial		371	gpm	MODFLOW model results for Phase 1, maximum excavation condition (Golder's Report)					
			2,181,181	cu ft/mo						
	At Spill Elevation		80	gpm	MODFLOW model results for ultimate condition (Golder's Report)					
			470,336	cu ft/mo						
Date Quarry Filling Starts			**6/1/2028**							
			In situ Pit Water Treatment Removal Rate							
Assumptions	The pit is backfilled incrementally over a 10-year period, from 440 ft amsl to the spill-over elevation of 990 ft amsl									
	Backfill material has a porosity of 30-percent.									
	Surface runoff is only within the capture area of the pit and is based on water year 2009 data									
	Groundwater inflow into the pit varies by month and diminishes as the backfill increases									
	Precipitation directly infiltrates to the water table within the area of the backfill.									
	Evaporation of the pit lake is only applied when the cumulative volume of water in the pit is greater than the cumulative volume of void spaces within the backfill (based on 30-percent porosity)									
	The water level in the pit is dependent on the total cumulative volume of the backfill up to the spill-over elevation.									

Phase	Year	Month	Total Months	Date	Quarry Area (Greenstone/Greywacke)	Quarry Area (Greenstone/Greywacke)	Quarry Area (Limestone)	Quarry Area (Limestone)	WMSA	WMSA	Groundwater Inflow	Undrained Backfill (No Surface Outlet)	Undrained Backfill (No Surface Outlet)	Drained Backfill (With Surface Outlet)	Drained Backfill (With Surface Outlet)	Pit Lake Precip	Water Entering Pit Lake	Pit Lake Outflow	Cumulative Water in Pit	Cumulative Volume Occupied by Water in Backfill	Cumulative Backfill Volume	Pit Water Level at End of Year	Pit Water Open Area at End of Year	Area for Surface Water Runoff for Next Year	First Cut Water Accumulation in Pit Lake	Available Water Storage in Pit
					sq ft	cu ft	sq ft	cu ft	sq ft	cu ft	cu ft	sq ft	cu ft	sq ft	cu ft	cu ft	cu ft	cu ft	cu ft	cu ft	cu ft	ft	sq ft	sq ft	cu ft	cu ft
1	**1**	**1**	**1**	**1/1/2018**	**4,900,000**	687,361	**7,000,000**	981,944	**3,500,000**	294,583	**2,181,181**	**0**	0	**0**	0		4,145,070	4,145,070	**0**		**0**	**440**	**NA**	**NA**	**4,145,070**	**0**
1	1	2	2	2/1/2018	4,901,285	1,140,683	7,000,000	1,629,120	3,503,533	489,229	2,181,181	0	0	0	0		5,440,214	5,440,214	0	NA	0	440			5,440,214	0
1	1	3	3	3/1/2018	4,902,571	692,187	7,000,000	845,509	3,507,056	254,165	2,181,181	0	0	0	0		3,873,022	3,873,022	0		0	440			3,873,022	0
1	1	4	4	4/1/2018	4,903,856	342,816	7,000,000	489,352	3,510,598	147,250	2,181,181	0	0	0	0		3,160,599	3,160,599	0		0	440			3,160,599	0
1	1	5	5	5/1/2018	4,905,142	94,691	7,000,000	135,139	3,514,131	40,705	2,181,181	0	0	0	0		2,451,722	2,451,722	0		0	440			2,451,722	0
1	1	6	6	6/1/2018	4,906,427	15,900	7,000,000	22,685	3,517,664	6,840	2,181,181	0	0	0	0		2,226,607	2,226,607	0		0	440			2,226,607	0
1	1	7	7	7/1/2018	4,907,712	682	7,000,000	972	3,521,197	293	2,181,181	0	0	0	0		2,183,128	2,183,128	0		0	440			2,183,128	0
1	1	8	8	8/1/2018	4,908,998	2,500	7,000,000	3,565	3,524,729	1,077	2,181,181	0	0	0	0		2,188,323	2,188,323	0		0	440			2,188,323	0
1	1	9	9	9/1/2018	4,910,283	12,276	7,000,000	17,500	3,528,262	5,292	2,181,181	0	0	0	0		2,216,249	2,216,249	0		0	440			2,216,249	0
1	1	10	10	10/1/2018	4,911,568	181,910	7,000,000	259,259	3,531,795	78,484	2,181,181	0	0	0	0		2,700,835	2,700,835	0		0	440			2,700,835	0
1	1	11	11	11/1/2018	4,912,854	596,821	7,000,000	850,370	3,535,328	257,686	2,181,181	0	0	0	0		3,886,058	3,886,058	0		0	440			3,886,058	0
1	1	12	12	12/1/2018	4,914,139	869,530	7,000,000	1,238,611	3,538,861	375,709	2,181,181	0	0	0	0		4,665,031	4,665,031	0		0	440			4,665,031	0
1	2	1	13	1/1/2019	4,915,425	689,525	7,000,000	981,944	3,542,393	298,151	2,181,181	0	0	0	0		4,150,802	4,150,802	0		0	440			4,150,802	0
1	2	2	14	2/1/2019	4,916,710	1,144,273	7,000,000	1,629,120	3,545,926	495,149	2,181,181	0	0	0	0		5,449,724	5,449,724	0		0	440			5,449,724	0
1	2	3	15	3/1/2019	4,917,995	594,030	7,000,000	845,509	3,549,459	257,237	2,181,181	0	0	0	0		3,877,958	3,877,958	0		0	440			3,877,958	0
1	2	4	16	4/1/2019	4,919,281	343,894	7,000,000	489,352	3,552,992	149,028	2,181,181	0	0	0	0		3,163,455	3,163,455	0		0	440			3,163,455	0
1	2	5	17	5/1/2019	4,920,566	94,994	7,000,000	135,139	3,556,524	41,196	2,181,181	0	0	0	0		2,452,511	2,452,511	0		0	440			2,452,511	0
1	2	6	18	6/1/2019	4,921,851	15,902	7,000,000	22,685	3,560,057	6,922	2,181,181	0	0	0	0		2,226,739	2,226,739	0		0	440			2,226,739	0
1	2	7	19	7/1/2019	4,923,137	684	7,000,000	972	3,563,590	297	2,181,181	0	0	0	0		2,183,134	2,183,134	0		0	440			2,183,134	0
1	2	8	20	8/1/2019	4,924,422	2,508	7,000,000	3,565	3,567,123	1,090	2,181,181	0	0	0	0		2,188,344	2,188,344	0		0	440			2,188,344	0
1	2	9	21	9/1/2019	4,925,708	12,314	7,000,000	17,500	3,570,655	5,356	2,181,181	0	0	0	0		2,216,351	2,216,351	0		0	440			2,216,351	0
1	2	10	22	10/1/2019	4,926,993	182,481	7,000,000	259,259	3,574,188	79,426	2,181,181	0	0	0	0		2,702,348	2,702,348	0		0	440			2,702,348	0
1	2	11	23	11/1/2019	4,928,278	598,695	7,000,000	850,370	3,577,721	260,776	2,181,181	0	0	0	0		3,891,022	3,891,022	0		0	440			3,891,022	0
1	2	12	24	12/1/2019	4,929,564	872,259	7,000,000	1,238,611	3,581,254	380,210	2,181,181	0	0	0	0		4,672,261	4,672,261	0		0	440			4,672,261	0
1	3	1	25	1/1/2020	4,930,849	691,689	7,000,000	981,944	3,584,787	301,720	2,181,181	0	0	0	0		4,156,534	4,156,534	0		0	440			4,156,534	0
1	3	2	26	2/1/2020	4,932,134	1,147,863	7,000,000	1,629,120	3,588,319	501,069	2,181,181	0	0	0	0		5,459,233	5,459,233	0		0	440			5,459,233	0
1	3	3	27	3/1/2020	4,933,420	595,893	7,000,000	845,509	3,591,852	260,310	2,181,181	0	0	0	0		3,882,893	3,882,893	0		0	440			3,882,893	0
1	3	4	28	4/1/2020	4,934,705	344,972	7,000,000	489,352	3,595,385	150,806	2,181,181	0	0	0	0		3,166,312	3,166,312	0		0	440			3,166,312	0
1	3	5	29	5/1/2020	4,935,991	95,292	7,000,000	135,139	3,598,918	41,687	2,181,181	0	0	0	0		2,453,300	2,453,300	0		0	440			2,453,300	0
1	3	6	30	6/1/2020	4,937,276	16,000	7,000,000	22,685	3,602,450	7,005	2,181,181	0	0	0	0		2,226,872	2,226,872	0		0	440			2,226,872	0
1	3	7	31	7/1/2020	4,938,561	686	7,000,000	972	3,605,983	300	2,181,181	0	0	0	0		2,183,140	2,183,140	0		0	440			2,183,140	0
1	3	8	32	8/1/2020	4,939,847	2,516	7,000,000	3,565	3,609,516	1,103	2,181,181	0	0	0	0		2,188,365	2,188,365	0		0	440			2,188,365	0
1	3	9	33	9/1/2020	4,941,132	12,353	7,000,000	17,500	3,613,049	5,420	2,181,181	0	0	0	0		2,216,454	2,216,454	0		0	440			2,216,454	0
1	3	10	34	10/1/2020	4,942,417	183,052	7,000,000	259,259	3,616,582	80,368	2,181,181	0	0	0	0		2,703,861	2,703,861	0		0	440			2,703,861	0
1	3	11	35	11/1/2020	4,943,703	600,568	7,000,000	850,370	3,620,114	263,866	2,181,181	0	0	0	0		3,895,986	3,895,986	0		0	440			3,895,986	0
1	3	12	36	12/1/2020	4,944,988	874,988	7,000,000	1,238,611	3,623,647	384,711	2,181,181	0	0	0	0		4,679,491	4,679,491	0		0	440			4,679,491	0
1	4	1	37	1/1/2021	4,946,274	693,852	7,000,000	981,944	3,627,180	305,288	2,181,181	0	0	0	0		4,162,266	4,162,266	0		0	440			4,162,266	0
1	4	2	38	2/1/2021	4,947,559	1,151,453	7,000,000	1,629,120	3,630,713	506,989	2,181,181	0	0	0	0		5,468,743	5,468,743	0		0	440			5,468,743	0
1	4	3	39	3/1/2021	4,948,844	597,756	7,000,000	845,509	3,634,245	263,382	2,181,181	0	0	0	0		3,887,829	3,887,829	0		0	440			3,887,829	0
1	4	4	40	4/1/2021	4,950,130	346,051	7,000,000	489,352	3,637,778	152,585	2,181,181	0	0	0	0		3,169,168	3,169,168	0		0	440			3,169,168	0
1	4	5	41	5/1/2021	4,951,415	95,592	7,000,000	135,139	3,641,311	42,179	2,181,181	0	0	0	0		2,454,088	2,454,088	0		0	440			2,454,088	0
1	4	6	42	6/1/2021	4,952,701	16,050	7,000,000	22,685	3,644,844	7,087	2,181,181	0	0	0	0		2,227,004	2,227,004	0		0	440			2,227,004	0
1	4	7	43	7/1/2021	4,953,986	687	7,000,000	972	3,648,376	304	2,181,181	0	0	0	0		2,183,146	2,183,146	0		0	440			2,183,146	0
1	4	8	44	8/1/2021	4,955,271	2,524	7,000,000	3,565	3,651,909	1,116	2,181,181	0	0	0	0		2,188,385	2,188,385	0		0	440			2,188,385	0
1	4	9	45	9/1/2021	4,956,557	12,391	7,000,000	17,500	3,655,442	5,483	2,181,181	0	0	0	0		2,216,556	2,216,556	0		0	440			2,216,556	0
1	4	10	46	10/1/2021	4,957,842	183,624	7,000,000	259,259	3,658,975	81,311	2,181,181	0	0	0	0		2,705,275	2,705,275	0		0	440			2,705,275	0
1	4	11	47	11/1/2021	4,959,127	602,442	7,000,000	850,370	3,662,508	266,956	2,181,181	0	0	0	0		3,900,950	3,900,950	0		0	440			3,900,950	0
1	4	12	48	12/1/2021	4,960,413	877,717	7,000,000	1,238,611	3,666,040	389,215	2,181,181	0	0	0	0		4,686,721	4,686,721	0		0	440			4,686,721	0
1	5	1	49	1/1/2022	4,961,698	696,016	7,000,000	981,944	3,669,573	308,856	2,181,181	0	0	0	0		4,167,997	4,167,997	0		0	440			4,167,997	0
1	5	2	50	2/1/2022	4,962,984	1,155,042	7,000,000	1,629,120	3,673,106	512,908	2,181,181	0	0	0	0		5,478,253	5,478,253	0		0	440			5,478,253	0
1	5	3	51	3/1/2022	4,964,269	599,619	7,000,000	845,509	3,676,639	266,454	2,181,181	0	0	0	0		3,892,764	3,892,764	0		0	440			3,892,764	0
1	5	4	52	4/1/2022	4,965,554	347,328	7,000,000	489,352	3,680,171	154,369	2,181,181	0	0	0	0		3,172,025	3,172,025	0		0	440			3,172,025	0
1	5	5	53	5/1/2022	4,966,840	95,888	7,000,000	135,139	3,683,704	42,670	2,181,181	0	0	0	0		2,454,877	2,454,877	0		0	440			2,454,877	0
1	5	6	54	6/1/2022	4,968,125	16,100	7,000,000	22,685	3,687,237	7,170	2,181,181	0	0	0	0		2,227,136	2,227,136	0		0	440			2,227,136	0
1	5	7	55	7/1/2022	4,969,410	690	7,000,000	972	3,690,770	308	2,181,181	0	0	0	0		2,183,151	2,183,151	0		0	440			2,183,151	0
1	5	8	56	8/1/2022	4,970,696	2,532	7,000,000	3,565	3,694,303	1,129	2,181,181	0	0	0	0		2,188,406	2,188,406	0		0	440			2,188,406	0
1	5	9	57	9/1/2022	4,971,981	12,430	7,000,000	17,500	3,697,835	5,547	2,181,181	0	0	0	0		2,216,658	2,216,658	0		0	440			2,216,658	0
1	5	10	58	10/1/2022	4,973,267	184,195	7,000,000	259,259	3,701,368	82,253	2,181,181	0	0	0	0		2,706,888	2,706,888	0		0	440			2,706,888	0
1	5	11	59	11/1/2022	4,974,552	604,316	7,000,000	850,370	3,704,901	270,046	2,181,181	0	0	0	0		3,905,914	3,905,914	0		0	440			3,905,914	0
1	5	12	60	12/1/2022	4,975,837	880,447	7,000,000	1,238,611	3,708,434	393,712	2,181,181	0	0	0	0		4,693,951	4,693,951	0		0	440			4,693,951	0
1	6	1	61	1/1/2023	4,977,123	698,180	7,000,000	981,944	3,711,966	312,424	2,181,181	0	0	0	0		4,173,729	4,173,729	0		0	440			4,173,729	0
1	6	2	62	2/1/2023	4,978,408	1,158,632	7,000,000	1,629,120	3,715,499	518,828	2,181,181	0	0	0	0		5,487,762	5,487,762	0		0	440			5,487,762	0
1	6	3	63	3/1/2023	4,979,693	691,487	7,000,000	845,509	3,719,032	269,527	2,181,181	0	0	0	0		3,897,699	3,897,699	0		0	440			3,897,699	0
1	6	4	64	4/1/2023	4,980,979	348,207	7,000,000	489,352	3,722,565	156,141	2,181,181	0	0	0	0		3,174,881	3,174,881	0		0	440			3,174,881	0
1	6	5	65	5/1/2023	4,982,264	96,180	7,000,000	135,139	3,726,097	43,161	2,181,181	0	0	0	0		2,455,666	2,455,666	0		0	440			2,455,666	0
1	6	6	66	6/1/2023	4,983,550	16,150	7,000,000	22,685	3,729,630	7,252	2,181,181	0	0	0	0		2,227,269	2,227,269	0		0	440			2,227,269	0
1	6	7	67	7/1/2023	4,984,835	692	7,000,000	972	3,733,163	311	2,181,181	0	0	0	0		2,183,157	2,183,157	0		0	440			2,183,157	0
1	6	8	68	8/1/2023	4,986,120	2,539	7,000,000	3,565	3,736,695	1,142	2,181,181	0	0	0	0		2,188,427	2,188,427	0		0	440			2,188,427	0
1	6	9	69	9/1/2023	4,987,406	12,469	7,000,000	17,500	3,740,229	5,610	2,181,181	0	0	0	0		2,216,760	2,216,760	0		0	440			2,216,760	0
1	6	10	70	10/1/2023	4,988,691	184,766	7,000,000	259,259	3,743,761	83,195	2,181,181	0	0	0	0		2,708,402	2,708,402	0		0	440			2,708,402	0
1	6	11	71	11/1/2023	4,989,976	606,190	7,000,000	850,370	3,747,294	273,136	2,181,181	0	0	0	0		3,910,877	3,910,877	0		0	440			3,910,877	0
1	6	12	72	12/1/2023	4,991,262	891,181	7,000,000	1,238,611	3,750,827	398,213	2,181,181	0	0	0	0		4,701,181	4,701,181	0		0	440			4,701,181	0
1	7	1	73	1/1/2024	4,992,547	700,343	7,000,000	981,944	3,754,360	315,992	2,181,181	0	0	0	0		4,179,461	4,179,461	0		0	440			4,179,461	0
1	7	2	74	2/1/2024	4,993,833	1,162,222	7,000,000	1,629,120	3,757,892	524,748	2,181,181	0	0	0	0		5,497,272	5,497,272	0		0	440			5,497,272	0
1	7	3	75	3/1/2024	4,995,118	603,346	7,000,000	845,509	3,761,425	272,599	2,181,181	0	0	0	0		3,902,635	3,902,635	0		0	440			3,902,635	0
1	7	4	76	4/1/2024	4,996,403	349,298	7,000,000	489,352	3,764,958	157,919	2,181,181	0	0	0	0		3,177,738	3,177,738	0		0	440			3,177,738	0
1	7	5	77	5/1/2024	4,997,689	96,483	7,000,000	135,139	3,768,491	43,652	2,181,181	0	0	0	0		2,456,455	2,456,455	0		0	440			2,456,455	0
1	7	6	78	6/1/2024	4,998,974	16,200	7,000,000	22,685	3,772,024	7,334	2,181,181	0	0	0	0		2,227,401	2,227,401	0		0	440			2,227,401	0
1	7	7	79	7/1/2024	5,000,259	694	7,000,000	972	3,775,556	315	2,181,181	0	0	0	0		2,183,163	2,183,163	0		0	440			2,183,163	0
1	7	8	80	8/1/2024	5,001,545	2,547	7,000,000	3,565	3,779,089	1,155	2,181,181	0	0	0	0		2,188,448	2,188,448	0		0	440			2,188,448	0
1	7	9	81	9/1/2024	5,002,830	12,507	7,000,000	17,500	3,782,622	5,674	2,181,181	0	0	0	0		2,216,862	2,216,862	0		0	440			2,216,862	0
1	7	10	82	10/1/2024	5,004,116	185,338	7,000,000	259,259	3,786,155	84,137	2,181,181	0	0	0	0		2,709,915	2,709,915	0		0	440			2,709,915	0
1	7	11	83	11/1/2024	5,005,401	608,504	7,000,000	850,370	3,789,687	276,226	2,181,181	0	0	0	0		3,915,841	3,915,841	0		0	440			3,915,841	0
1	7	12	84	12/1/2024	5,006,686	885,905	7,000,000	1,238,611	3,793,220	402,714	2,181,181	0	0	0	0		4,708,411	4,708,411	0		0	440			4,708,411	0
1	8	1	85	1/1/2025	5,007,972	702,507	7,000,000	981,944	3,796,753	319,560	2,181,181	0	0	0	0		4,185,193	4,185,193	0		0	440			4,185,193	0
1	8	2	86	2/1/2025	5,009,257	1,165,812	7,000,000	1,629,120	3,800,286	530,668	2,181,181	0	0	0	0		5,506,781	5,506,781	0		0	440			5,506,781	0
1	8	3	87	3/1/2025	5,010,543	605,205	7,000,000	845,509	3,803,818	275,671	2,181,181	0	0	0	0		3,907,570	3,907,570	0		0	440			3,907,570	0
1	8	4	88	4/1/2025	5,011,828	350,364	7,000,000	489,352	3,807,351	159,697	2,181,181	0	0	0	0		3,180,594	3,180,594	0		0	440			3,180,594	0
1	8	5	89	5/1/2025	5,013,113	96,791	7,000,000	135,139	3,810,884	44,143	2,181,181	0	0	0	0		2,457,244	2,457,244	0		0	440			2,457,244	0
1	8	6	90	6/1/2025	5,014,399	16,250	7,000,000	22,685	3,814,417	7,417	2,181,181	0	0	0	0		2,227,534	2,227,534	0		0	440			2,227,534	0
1	8	7	91	7/1/2025	5,015,684	697	7,000,000	972	3,817,950	318	2,181,181	0	0	0	0		2,183,168	2,183,168	0		0	440			2,183,168	0
1	8	8	92	8/1/2025	5,016,969	2,555	7,000,000	3,565	3,821,482	1,168	2,181,181	0	0	0	0		2,188,469	2,188,469	0		0	440			2,188,469	0
1	8	9	93	9/1/2025	5,018,255	12,546	7,000,000	17,500	3,825,015	5,738	2,181,181	0	0	0	0		2,216,964	2,216,964	0		0	440			2,216,964	0
1	8	10	94	10/1/2025	5,019,540	185,909	7,000,000	259,259	3,828,548	85,079	2,181,181	0	0	0	0		2,711,428	2,711,428	0		0	440			2,711,428	0
1	8	11	95	11/1/2025	5,020,826	609,937	7,000,000	850,370	3,832,081	279,316	2,181,181	0	0	0	0		3,920,805	3,920,805	0		0	440			3,920,805	0
1	8	12	96	12/1/2025	5,022,111	888,635	7,000,000	1,238,611	3,835,613	407,214	2,181,181	0	0	0	0		4,715,641	4,715,641	0		0	440			4,715,641	0
1	9	1	97	1/1/2026	5,023,396	704,671	7,000,000	981,944	3,839,146	323,128	2,181,181	0	0	0	0		4,190,925	4,190,925	0		0	440			4,190,925	0
1	9	2	98	2/1/2026	5,024,682	1,169,402	7,000,000	1,629,120	3,842,679	536,587	2,181,181	0	0	0	0		5,516,291	5,516,291	0		0	440			5,516,291	0
1	9	3	99	3/1/2026	5,025,967	607,072	7,000,000	845,509	3,846,212	278,744	2,181,181	0	0	0	0		3,912,506	3,912,506	0		0	440			3,912,506	0
1	9	4	100	4/1/2026	5,027,252	351,442	7,000,000	489,352	3,849,745	161,475	2,181,181	0	0	0	0		3,183,451	3,183,451	0		0	440			3,183,451	0
1	9	5	101	5/1/2026	5,028,538	97,079	7,000,000	135,139	3,853,277	44,634	2,181,181	0	0	0	0		2,458,033	2,458,033	0		0	440			2,458,033	0
1	9	6	102	6/1/2026	5,029,823	16,300	7,000,000	22,685	3,856,810	7,499	2,181,181	0	0	0	0		2,227,668	2,227,668	0		0	440			2,227,668	0
1	9	7	103	7/1/2026	5,031,109	699	7,000,000	972	3,860,343	322	2,181,181	0	0	0	0		2,183,174	2,183,174	0		0

2	12	8	140	8/1/2029	3,368,640	1,716	4,666,667	2,377	2,613,600	799	1,465,737	0	653,400	100	1,470,727	0	34,744,268	364,691,672	675	34,744,268	524,244,279	0.00	0.00	0.00	0.00	4.79	0.44	0.00	0.00	0.00	0.00	10.47	4.82	0.0%	0.00
2	12	9	141	9/1/2029	3,284,424	6,211	4,550,000	11,375	2,548,260	3,822	1,450,184	0	686,020	515	1,474,107	0	36,218,375	376,088,287	680	36,218,375	516,348,166	0.00	0.00	0.00	0.00	4.72	0.43	0.00	0.00	0.00	0.00	10.50	4.81	0.0%	0.00
2	12	10	142	10/1/2029	3,200,208	118,526	4,433,333	164,198	2,482,920	55,176	1,434,630	0	718,740	7,986	1,790,516	0	37,998,891	387,484,902	685	37,998,891	508,289,018	0.03	0.01	0.00	0.00	4.65	0.42	0.00	0.00	0.00	0.00	11.36	4.78	0.0%	0.00
2	12	11	143	11/1/2029	3,115,992	378,535	4,316,667	524,395	2,417,580	176,215	1,419,077	0	751,430	27,385	2,525,607	0	40,524,498	398,881,517	695	40,524,498	500,311,388	0.11	0.03	0.01	0.00	4.51	0.40	0.00	0.00	0.00	0.00	11.91	4.70	0.0%	0.00
2	12	12	144	12/1/2029	3,031,776	536,456	4,200,000	743,167	2,352,240	249,729	1,387,971	0	784,080	41,622	2,958,945	0	43,483,443	410,278,131	705	43,483,443	492,393,758	0.15	0.04	0.01	0.00	4.36	0.38	0.00	0.00	0.00	0.00	12.49	4.60	0.0%	0.00
2	13	1	145	1/1/2030	2,947,560	413,477	4,083,333	572,801	2,286,900	192,481	1,356,865	0	816,750	34,372	2,569,995	0	46,053,438	421,674,746	715	46,053,438	484,356,127	0.12	0.03	0.01	0.00	4.22	0.36	0.00	0.00	0.00	0.00	13.01	4.52	0.0%	0.00
2	13	2	146	2/1/2030	2,863,344	665,390	3,966,667	923,168	2,221,560	310,216	1,325,758	0	849,420	55,326	3,284,839	0	49,338,277	433,071,361	725	49,338,277	476,378,497	0.19	0.05	0.02	0.00	4.07	0.34	0.00	0.00	0.00	0.00	13.61	4.41	0.0%	0.00
2	13	3	147	3/1/2030	2,779,128	335,683	3,850,000	465,030	2,156,220	156,266	1,294,652	0	882,090	31,964	2,283,594	0	51,621,871	444,467,976	730	51,621,871	468,400,867	0.10	0.02	0.01	0.00	4.00	0.32	0.00	0.00	0.00	0.00	14.06	4.36	0.0%	0.00
2	13	4	148	4/1/2030	2,694,912	188,394	3,733,333	260,988	2,090,880	87,701	1,279,099	0	914,760	19,185	1,835,366	0	53,457,238	455,864,590	735	53,457,238	460,423,236	0.05	0.01	0.00	0.00	3.93	0.31	0.00	0.00	0.00	0.00	14.45	4.32	0.0%	0.00
2	13	5	149	5/1/2030	2,610,696	50,401	3,616,667	69,822	2,025,540	23,463	1,263,546	0	947,430	5,487	1,412,718	0	54,869,956	467,261,205	740	54,869,956	452,445,606	0.01	0.00	0.00	0.00	3.85	0.30	0.00	0.00	0.00	0.00	14.77	4.31	0.0%	0.00
2	13	6	150	6/1/2030	2,526,480	8,188	3,500,000	11,343	1,960,200	3,811	1,247,993	0	980,100	953	1,272,287	0	56,142,243	478,657,820	745	56,142,243	444,407,975	0.00	0.00	0.00	0.00	3.78	0.29	0.00	0.00	0.00	0.00	15.07	4.29	0.0%	0.00
2	13	7	151	7/1/2030	2,442,264	339	3,383,333	470	1,894,860	158	1,232,440	0	1,012,770	42	1,233,449	0	57,375,692	490,054,435	745	57,375,692	438,490,345	0.00	0.00	0.00	0.00	3.78	0.29	0.00	0.00	0.00	0.00	15.36	4.28	0.0%	0.00
2	13	8	152	8/1/2030	2,358,048	1,201	3,266,667	1,664	1,829,520	559	1,232,440	0	1,045,440	160	1,236,023	0	58,611,715	501,451,049	750	58,611,715	432,312,716	0.00	0.00	0.00	0.00	3.71	0.29	0.00	0.00	0.00	0.00	15.65	4.27	0.0%	0.00
2	13	9	153	9/1/2030	2,273,832	5,685	3,150,000	7,875	1,764,180	2,646	1,216,886	0	1,078,110	809	1,233,901	0	59,845,615	512,847,664	755	59,845,615	420,535,065	0.00	0.00	0.00	0.00	3.64	0.28	0.00	0.00	0.00	0.00	15.93	4.26	0.0%	0.00
2	13	10	154	10/1/2030	2,189,616	81,097	3,033,333	112,346	1,698,840	37,757	1,110,332	0	1,143,870	12,342	1,444,870	0	61,290,485	524,244,257	765	61,290,485	407,912,840	0.01	0.00	0.00	0.00	3.56	0.27	0.00	0.00	0.00	0.00	16.23	4.24	0.0%	0.00
2	13	11	155	11/1/2030	2,105,400	255,767	2,916,667	354,321	1,633,500	119,064	1,201,333	0	1,143,450	41,672	1,972,158	0	63,262,643	535,640,894	760	63,262,643	404,579,824	0.07	0.02	0.01	0.00	3.56	0.27	0.00	0.00	0.00	0.00	16.60	4.20	0.0%	0.00
2	13	12	156	12/1/2030	2,021,184	357,637	2,800,000	495,444	1,568,160	166,486	1,185,780	0	1,178,130	62,432	2,267,781	0	65,530,424	547,037,509	770	65,530,424	398,602,184	0.10	0.03	0.01	0.00	3.42	0.25	0.00	0.00	0.00	0.00	16.99	4.15	0.0%	0.00
2	14	1	157	1/1/2031	1,936,968	271,714	2,683,333	376,412	1,502,820	126,487	1,154,674	0	1,208,790	47,157	1,980,157	0	67,510,580	284,915,369	775	67,510,580	388,624,343	0.08	0.02	0.01	0.00	3.35	0.24	0.00	0.00	0.00	0.00	17.34	4.11	0.0%	0.00
2	14	2	158	2/1/2031	1,852,752	431,194	2,566,667	597,344	1,437,480	200,728	1,139,121	0	1,241,460	86,678	2,455,065	0	69,965,645	296,311,984	780	69,965,645	380,646,933	0.12	0.03	0.01	0.00	3.27	0.23	0.00	0.00	0.00	0.00	17.74	4.06	0.0%	0.00
2	14	3	159	3/1/2031	1,768,536	213,618	2,450,000	295,928	1,372,140	99,442	1,123,568	0	1,274,130	46,170	1,778,724	0	71,744,368	307,905,599	785	71,744,368	372,669,303	0.06	0.02	0.01	0.00	3.20	0.22	0.00	0.00	0.00	0.00	18.05	4.03	0.0%	0.00
2	14	4	160	4/1/2031	1,684,320	117,746	2,333,333	163,117	1,306,800	54,813	1,108,014	0	1,306,800	27,407	1,471,098	0	73,215,466	319,105,213	790	73,215,466	364,691,672	0.03	0.01	0.00	0.00	3.20	0.22	0.00	0.00	0.00	0.00	18.32	4.00	0.0%	0.00
2	14	5	161	5/1/2031	1,600,104	30,891	2,216,667	42,794	1,241,460	14,380	1,108,014	0	1,339,470	7,258	1,039,470	0	74,419,303	330,501,828	795	74,419,303	354,014,002	0.01	0.00	0.00	0.00	3.13	0.22	0.00	0.00	0.00	0.00	18.55	3.99	0.0%	0.00
2	14	6	162	6/1/2031	1,515,888	4,913	2,100,000	6,806	1,176,120	2,287	1,092,461	0	1,372,140	1,334	1,107,800	0	75,527,104	341,898,443	790	75,527,104	348,736,412	0.00	0.00	0.00	0.00	3.13	0.21	0.00	0.00	0.00	0.00	18.77	3.98	0.0%	0.00
2	14	7	163	7/1/2031	1,431,672	199	1,983,333	275	1,110,780	93	1,092,461	0	1,404,510	58	1,093,087	0	76,620,190	353,295,058	790	76,620,190	340,758,791	0.00	0.00	0.00	0.00	3.06	0.21	0.00	0.00	0.00	0.00	18.98	3.96	0.0%	0.00
2	14	8	164	8/1/2031	1,347,456	686	1,866,667	951	1,045,440	319	1,076,908	0	1,437,480	220	1,079,084	0	77,699,274	364,691,672	795	77,699,274	332,781,151	0.00	0.00	0.00	0.00	3.06	0.21	0.00	0.00	0.00	0.00	19.18	3.95	0.0%	0.00
2	14	9	165	9/1/2031	1,263,240	3,158	1,750,000	4,375	980,100	1,470	1,076,908	0	1,470,510	1,103	1,087,014	0	78,786,288	375,010,087	800	78,786,288	324,891,521	0.00	0.00	0.00	0.00	2.98	0.20	0.00	0.00	0.00	0.00	19.38	3.94	0.0%	0.00
2	14	10	166	10/1/2031	1,179,024	43,668	1,633,333	60,494	914,760	20,328	1,061,355	0	1,502,820	16,698	1,202,542	0	79,988,831	387,484,902	800	79,988,831	316,825,890	0.01	0.00	0.00	0.00	2.98	0.20	0.00	0.00	0.00	0.00	19.60	3.92	0.0%	0.00
2	14	11	167	11/1/2031	1,094,808	132,998	1,516,667	184,247	849,420	61,913	1,061,355	0	1,535,400	55,980	1,496,474	0	81,485,305	398,981,517	805	81,485,305	308,948,260	0.04	0.01	0.00	0.00	2.91	0.19	0.00	0.00	0.00	0.00	19.85	3.90	0.0%	0.00
2	14	12	168	12/1/2031	1,010,592	178,819	1,400,000	247,722	784,080	83,243	1,045,802	0	1,568,160	83,243	1,638,829	0	83,124,134	410,278,131	810	83,124,134	300,870,630	0.05	0.01	0.00	0.00	2.84	0.19	0.00	0.01	0.00	0.00	20.11	3.87	0.0%	0.00
2	15	1	169	1/1/2032	926,376	129,950	1,283,333	180,023	718,740	60,494	1,030,249	0	1,600,830	67,368	1,468,084	0	84,592,218	421,674,746	810	84,592,218	292,892,999	0.04	0.01	0.00	0.00	2.84	0.18	0.00	0.00	0.00	0.00	20.34	3.85	0.0%	0.00
2	15	2	170	2/1/2032	842,160	195,997	1,166,667	271,520	653,400	91,240	1,030,249	0	1,633,500	102,450	1,701,056	0	86,295,274	433,071,361	815	86,295,274	284,915,369	0.06	0.01	0.00	0.00	2.77	0.18	0.00	0.01	0.00	0.00	20.60	3.82	0.0%	0.00
2	15	3	171	3/1/2032	757,944	91,550	1,050,000	126,826	588,060	42,618	1,014,696	0	1,666,170	60,376	1,336,065	0	87,631,339	444,467,976	820	87,631,339	276,937,729	0.03	0.01	0.00	0.00	2.69	0.17	0.00	0.00	0.00	0.00	20.81	3.80	0.0%	0.00
2	15	4	172	4/1/2032	673,728	47,099	933,333	65,247	522,720	21,925	999,142	0	1,698,840	35,628	1,149,042	0	88,800,381	455,864,590	820	88,800,381	268,960,318	0.01	0.00	0.00	0.00	2.69	0.17	0.00	0.00	0.00	0.00	21.00	3.78	0.0%	0.00
2	15	5	173	5/1/2032	589,512	11,381	816,667	15,766	457,380	5,298	999,142	0	1,731,510	10,028	1,041,616	0	89,841,996	467,261,205	820	89,841,996	260,982,478	0.00	0.00	0.00	0.00	2.69	0.17	0.00	0.00	0.00	0.00	21.17	3.77	0.0%	0.00
2	15	6	174	6/1/2032	505,296	1,638	700,000	2,269	392,040	762	999,142	0	1,764,510	1,719	1,065,526	0	90,847,522	453,264,005	825	90,847,522	253,264,005	0.00	0.00	0.00	0.00	2.62	0.16	0.00	0.00	0.00	0.00	21.34	3.76	0.0%	0.00
2	15	7	175	7/1/2032	421,080	58	583,333	81	326,700	27	983,589	0	1,796,850	75	983,831	0	91,831,353	490,054,435	825	91,831,353	245,027,217	0.00	0.00	0.00	0.00	2.62	0.16	0.00	0.00	0.00	0.00	21.50	3.75	0.0%	0.00
2	15	8	176	8/1/2032	336,864	172	466,667	238	261,360	88	983,589	0	1,829,220	221	924,358	0	92,815,711	467,261,205	830	92,815,711	237,040,000	0.00	0.00	0.00	0.00	2.55	0.16	0.00	0.00	0.00	0.00	21.66	3.73	0.0%	0.00
2	15	9	177	9/1/2032	252,648	632	350,000	875	196,020	294	968,036	0	1,861,590	1,397	971,233	0	93,786,945	512,847,664	830	93,786,945	229,071,957	0.00	0.00	0.00	0.00	2.55	0.15	0.00	0.00	0.00	0.00	21.81	3.72	0.0%	0.00
2	15	10	178	10/1/2032	168,432	6,238	233,333	8,642	130,680	2,904	968,036	0	1,894,860	21,054	1,006,874	0	94,793,819	524,244,257	830	94,793,819	221,290,000	0.00	0.00	0.00	0.00	2.48	0.15	0.00	0.00	0.00	0.00	21.97	3.71	0.0%	0.00
2	15	11	179	11/1/2032	84,216	10,231	116,667	14,173	65,340	4,763	968,036	0	1,927,530	70,248	1,067,450	0	95,861,269	535,640,894	835	95,861,269	211,725,504	0.00	0.00	0.00	0.00	2.48	0.15	0.00	0.00	0.00	0.00	22.13	3.69	0.0%	0.00
2	**15**	**12**	**180**	**12/1/2032**	**0**	**0**	**0**	**0**	**0**	**0**	**952,483**	**0**	**1,960,200**	**104,054**	**1,056,537**	**0**	**96,917,806**	**547,037,509**	**835**	**96,917,806**	**200,329,889**	**0.00**	**0.00**	**0.00**	**0.00**	**2.48**	**0.15**	**0.00**	**0.01**	**0.00**	**0.00**	**22.28**	**3.68**	**0.0%**	**0.00**
3	16	1	181	1/1/2033	0	0	0	0	0	0	1,030,249	0	1,960,200	82,492	1,112,740	0	98,030,546	558,434,123	840	98,030,546	200,329,889	0.00	0.00	0.00	0.00	2.40	0.15	0.00	0.01	0.00	0.00	22.44	3.66	0.0%	0.00
3	16	2	182	2/1/2033	0	0	0	0	0	0	936,930	0	1,960,200	136,860	1,073,790	0	99,104,336	569,830,738	840	99,104,336	200,329,889	0.00	0.00	0.00	0.00	2.40	0.14	0.00	0.01	0.00	0.00	22.59	3.65	0.0%	0.00
3	16	3	183	3/1/2033	0	0	0	0	0	0	936,930	0	1,960,200	71,030	1,007,960	0	100,112,296	581,227,353	840	100,112,296	200,329,889	0.00	0.00	0.00	0.00	2.40	0.14	0.00	0.01	0.00	0.00	22.73	3.63	0.0%	0.00
3	16	4	184	4/1/2033	0	0	0	0	0	0	936,930	0	1,960,200	41,110	978,040	0	101,090,336	592,623,968	845	101,090,336	200,329,889	0.00	0.00	0.00	0.00	2.33	0.14	0.00	0.00	0.00	0.00	22.87	3.62	0.0%	0.00
3	16	5	185	5/1/2033	0	0	0	0	0	0	921,377	0	1,960,200	11,353	932,730	0	102,023,065	604,020,582	845	102,023,065	200,329,889	0.00	0.00	0.00	0.00	2.33	0.13	0.00	0.00	0.00	0.00	23.01	3.61	0.0%	0.00
3	16	6	186	6/1/2033	0	0	0	0	0	0	921,377	0	1,960,200	1,906	923,282	0	102,946,347	615,417,197	845	102,946,347	200,329,889	0.00	0.00	0.00	0.00	2.33	0.13	0.00	0.00	0.00	0.00	23.14	3.60	0.0%	0.00
3	16	7	187	7/1/2033	0	0	0	0	0	0	921,377	0	1,960,200	82	921,458	0	103,867,806	626,813,197	850	103,867,806	200,329,889	0.00	0.00	0.00	0.00	2.26	0.13	0.00	0.00	0.00	0.00	23.27	3.59	0.0%	0.00
3	16	8	188	8/1/2033	0	0	0	0	0	0	905,824	0	1,960,200	299	906,123	0	104,773,929	638,210,427	850	104,773,929	200,329,889	0.00	0.00	0.00	0.00	2.26	0.13	0.00	0.00	0.00	0.00	23.40	3.57	0.0%	0.00
3	16	9	189	9/1/2033	0	0	0	0	0	0	905,824	0	1,960,200	1,470	907,294	0	105,681,223	649,607,294	850	105,681,223	200,329,889	0.00	0.00	0.00	0.00	2.26	0.13	0.00	0.00	0.00	0.00	23.53	3.56	0.0%	0.00
3	16	10	190	10/1/2033	0	0	0	0	0	0	905,824	0	1,960,200	21,780	927,604	0	106,608,826	661,003,656	855	106,608,826	200,329,889	0.00	0.00	0.00	0.00	2.19	0.12	0.00	0.00	0.00	0.00	23.65	3.55	0.0%	0.00
3	16	11	191	11/1/2033	0	0	0	0	0	0	890,270	0	1,960,200	71,438	961,708	0	107,570,535	672,402,271	855	107,570,535	200,329,889	0.00	0.00	0.00	0.00	2.19	0.12	0.00	0.00	0.00	0.00	23.78	3.54	0.0%	0.00
3	16	12	192	12/1/2033	0	0	0	0	0	0	890,270	0	1,960,200	104,054	994,324	0	108,564,859	683,796,886	860	108,564,859	200,329,889	0.00	0.00	0.00	0.00	2.11	0.12	0.00	0.01	0.00	0.00	23.90	3.52	0.0%	0.00
3	17	1	193	1/1/2034	0	0	0	0	0	0	874,717	0	1,960,200	82,492	957,209	0	109,522,068	683,796,886	860	109,522,068	200,329,889	0.00	0.00	0.00	0.00	2.11	0.12	0.00	0.01	0.00	0.00	24.03	3.51	0.0%	0.00
3	17	2	194	2/1/2034	0	0	0	0	0	0	874,717	0	1,960,200	136,860	1,011,577	0	110,533,646	683,796,886	860	110,533,646	200,329,889	0.00	0.00	0.00	0.00	2.11	0.12	0.00	0.01	0.00	0.00	24.15	3.50	0.0%	0.00
3	17	3	195	3/1/2034	0	0	0	0	0	0	874,717	0	1,960,200	71,030	945,747	0	111,479,393	683,796,886	865	111,479,393	200,329,889	0.00	0.00	0.00	0.00	2.04	0.11	0.00	0.00	0.00	0.00	24.27	3.48	0.0%	0.00
3	17	4	196	4/1/2034	0	0	0	0	0	0	859,164	0	1,960,200	41,110	900,274	0	112,379,667	683,796,886	865	112,379,667	200,329,889	0.00	0.00	0.00	0.00	2.04	0.11	0.00	0.00	0.00	0.00	24.38	3.47	0.0%	0.00
3	17	5	197	5/1/2034	0	0	0	0	0	0	859,164	0	1,960,200	11,353	870,517	0	113,250,184	683,796,886	865	113,250,184	200,329,889	0.00	0.00	0.00	0.00	2.04	0.11	0.00	0.00	0.00	0.00	24.49	3.46	0.0%	0.00
3	17	6	198	6/1/2034	0	0	0	0	0	0	859,164	0	1,960,200	1,906	861,070	0	114,111,254	683,796,886	865	114,111,254	200,329,889	0.00	0.00	0.00	0.00	2.04	0.11	0.00	0.00	0.00	0.00	24.60	3.45	0.0%	0.00
3	17	7	199	7/1/2034	0	0	0	0	0	0	859,164	0	1,960,200	82	859,246	0	114,970,499	683,796,886	870	114,970,499	200,329,889	0.00	0.00	0.00	0.00	1.97	0.11	0.00	0.00	0.00	0.00	24.70	3.44	0.0%	0.00
3	17	8	200	8/1/2034	0	0	0	0	0	0	843,611	0	1,960,200	299	843,910	0	115,814,410	683,796,886	870	115,814,410	200,329,889	0.00	0.00	0.00	0.00	1.97	0.10	0.00	0.00	0.00	0.00	24.81	3.43	0.0%	0.00
3	17	9	201	9/1/2034	0	0	0	0	0	0	843,611	0	1,960,200	1,470	845,081	0	116,659,491	683,796,886	870	116,659,491	200,329,889	0.00	0.00	0.00	0.00	1.97	0.10	0.00	0.00	0.00	0.00	24.91	3.42	0.0%	0.00
3	17	10	202	10/1/2034	0	0	0	0	0	0	843,611	0	1,960,200	21,780	865,391	0	117,524,882	683,796,886	870	117,524,882	200,329,889	0.00	0.00	0.00	0.00	1.90	0.10	0.00	0.00	0.00	0.00	25.01	3.41	0.0%	0.00
3	17	11	203	11/1/2034	0	0	0	0	0	0	828,058	0	1,960,200	71,438	899,496	0	118,424,378	683,796,886	875	118,424,378	200,329,889	0.00	0.00	0.00	0.00	1.90	0.10	0.00	0.00	0.00	0.00	25.12	3.39	0.0%	0.00
3	17	12	204	12/1/2034	0	0	0	0	0	0	828,058	0	1,960,200	104,054	932,112	0	119,356,490	683,796,886	875	119,356,490	200,329,889	0.00	0.00	0.00	0.00	1.90	0.10	0.00	0.01	0.00	0.00	25.22	3.38	0.0%	0.00
3	18	1	205	1/1/2035	0	0	0	0	0	0	828,058	0	1,960,200	82,492	910,550	0	120,267,040	683,796,886	880	120,267,040	200,329,889	0.00	0.00	0.00	0.00	1.82	0.09	0.00	0.01	0.00	0.00	25.32	3.37	0.0%	0.00
3	18	2	206	2/1/2035	0	0	0	0	0	0	812,505	0	1,960,200	136,860	949,365	0	121,216,404	683,796,886	880	121,216,404	200,329,889	0.00	0.00	0.00	0.00	1.82	0.09	0.00	0.01	0.00	0.00	25.42	3.36	0.0%	0.00
3	18	3	207	3/1/2035	0	0	0	0	0	0	812,505	0	1,960,200	71,030	883,535	0	122,099,939	683,796,886	880	122,099,939	200,329,889	0.00	0.00	0.00	0.00	1.82	0.09	0.00	0.00	0.00	0.00	25.52	3.34	0.0%	0.00
3	18	4	208	4/1/2035	0	0	0	0	0	0	812,505	0	1,960,200	41,110	853,614	0	122,953,554	683,796,886	880	122,953,554	200,329,889	0.00	0.00	0.00	0.00	1.82	0.09	0.00	0.00	0.00	0.00	25.61	3.33	0.0%	0.00
3	18	5	209	5/1/2035	0	0	0	0	0	0	812,505	0	1,960,200	11,353	823,858	0	123,777,411	683,796,886	885	123,777,411	200,329,889	0.00	0.00	0.00	0.00	1.75	0.09	0.00	0.00	0.00	0.00	25.70	3.32	0.0%	0.00
3	18	6	210	6/1/2035	0	0	0	0	0	0	796,952	0	1,960,200	1,906	798,857	0	124,576,268	683,796,886	885	124,576,268	200,329,889	0.00	0.00	0.00	0.00	1.75	0.09	0.00	0.00	0.00	0.00	25.79	3.31	0.0%	0.00
3	18	7	211	7/1/2035	0	0	0	0	0	0	796,952	0	1,960,200	82	797,033	0	125,373,302	683,796,886	885	125,373,302	200,329,889	0.00	0.00	0.00	0.00	1.75	0.09	0.00	0.00	0.00	0.00	25.88	3.30	0.0%	0.00
3	18	8	212	8/1/2035	0	0	0	0	0	0	796,952	0	1,960,200	299	797,251	0	126,170,553	683,796,886	885	126,170,553	200,329,889	0.00	0.00	0.00	0.00	1.75	0.09	0.00	0.00	0.00	0.00	25.96	3.29	0.0%	0.00
3	18	9	213	9/1/2035	0	0	0	0	0	0	796,952	0	1,960,200	1,470	798,422	0	126,968,974	683,796,886	890	126,968,974	200,329,889	0.00	0.00	0.00	0.00	1.

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NA	44	4	520	4/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	19.92	1.59	0.0%	1.59
NA	44	5	521	5/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	19.88	1.59	0.0%	1.59
NA	44	6	522	6/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	19.84	1.58	0.0%	1.58
NA	44	7	523	7/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	19.80	1.58	0.0%	1.58
NA	44	8	524	8/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	19.77	1.58	0.0%	1.58
NA	44	9	525	9/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	19.73	1.58	0.0%	1.58
NA	44	10	526	10/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	19.69	1.57	0.0%	1.57
NA	44	11	527	11/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	19.65	1.57	0.0%	1.57
NA	44	12	528	12/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.06	19.60	1.57	0.0%	1.57
NA	45	1	529	1/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	82.492	568.380	568.380	200.328.889	683.796.886	985	200.897.270	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.06	19.56	1.56	0.0%	1.56
NA	45	2	530	2/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	136.860	622.749	622.749	200.328.889	683.796.886	985	200.951.638	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.06	19.52	1.56	0.0%	1.56
NA	45	3	531	3/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	71.030	556.919	556.919	200.328.889	683.796.886	985	200.885.808	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	19.48	1.56	0.0%	1.56
NA	45	4	532	4/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	19.44	1.55	0.0%	1.55
NA	45	5	533	5/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	19.40	1.55	0.0%	1.55
NA	45	6	534	6/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	19.36	1.55	0.0%	1.55
NA	45	7	535	7/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	19.33	1.54	0.0%	1.54
NA	45	8	536	8/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	19.29	1.54	0.0%	1.54
NA	45	9	537	9/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	19.25	1.54	0.0%	1.54
NA	45	10	538	10/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	19.21	1.53	0.0%	1.53
NA	45	11	539	11/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	19.17	1.53	0.0%	1.53
NA	45	12	540	12/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.06	19.13	1.53	0.0%	1.53
NA	46	1	541	1/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	82.492	568.380	568.380	200.328.889	683.796.886	985	200.897.270	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	19.09	1.52	0.0%	1.52
NA	46	2	542	2/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	136.860	622.749	622.749	200.328.889	683.796.886	985	200.951.638	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.06	19.05	1.52	0.0%	1.52
NA	46	3	543	3/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	71.030	556.919	556.919	200.328.889	683.796.886	985	200.885.808	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	19.01	1.52	0.0%	1.52
NA	46	4	544	4/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	18.97	1.52	0.0%	1.52
NA	46	5	545	5/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	18.94	1.51	0.0%	1.51
NA	46	6	546	6/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	18.90	1.51	0.0%	1.51
NA	46	7	547	7/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	18.86	1.51	0.0%	1.51
NA	46	8	548	8/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	18.83	1.50	0.0%	1.50
NA	46	9	549	9/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	18.79	1.50	0.0%	1.50
NA	46	10	550	10/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	18.75	1.50	0.0%	1.50
NA	46	11	551	11/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	18.71	1.49	0.0%	1.49
NA	46	12	552	12/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.06	18.67	1.49	0.0%	1.49
NA	47	1	553	1/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	82.492	568.380	568.380	200.328.889	683.796.886	985	200.897.270	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	18.63	1.49	0.0%	1.49
NA	47	2	554	2/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	136.860	622.749	622.749	200.328.889	683.796.886	985	200.951.638	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.06	18.59	1.49	0.0%	1.49
NA	47	3	555	3/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	71.030	556.919	556.919	200.328.889	683.796.886	985	200.885.808	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	18.56	1.48	0.0%	1.48
NA	47	4	556	4/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	18.52	1.48	0.0%	1.48
NA	47	5	557	5/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	18.48	1.48	0.0%	1.48
NA	47	6	558	6/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	18.45	1.47	0.0%	1.47
NA	47	7	559	7/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	18.41	1.47	0.0%	1.47
NA	47	8	560	8/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	18.38	1.47	0.0%	1.47
NA	47	9	561	9/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.04	18.34	1.46	0.0%	1.46
NA	47	10	562	10/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	18.31	1.46	0.0%	1.46
NA	47	11	563	11/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	18.27	1.46	0.0%	1.46
NA	47	12	564	12/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	18.23	1.46	0.0%	1.46
NA	48	1	565	1/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	82.492	568.380	568.380	200.328.889	683.796.886	985	200.897.270	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	18.19	1.45	0.0%	1.45
NA	48	2	566	2/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	136.860	622.749	622.749	200.328.889	683.796.886	985	200.951.638	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.06	18.15	1.45	0.0%	1.45
NA	48	3	567	3/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	71.030	556.919	556.919	200.328.889	683.796.886	985	200.885.808	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	18.12	1.45	0.0%	1.45
NA	48	4	568	4/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	18.08	1.44	0.0%	1.44
NA	48	5	569	5/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.04	18.05	1.44	0.0%	1.44
NA	48	6	570	6/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.04	18.01	1.44	0.0%	1.44
NA	48	7	571	7/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.04	17.98	1.44	0.0%	1.44
NA	48	8	572	8/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.04	17.94	1.43	0.0%	1.43
NA	48	9	573	9/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.04	17.91	1.43	0.0%	1.43
NA	48	10	574	10/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	17.87	1.43	0.0%	1.43
NA	48	11	575	11/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	17.84	1.42	0.0%	1.42
NA	48	12	576	12/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	17.80	1.42	0.0%	1.42
NA	49	1	577	1/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	82.492	568.380	568.380	200.328.889	683.796.886	985	200.897.270	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	17.76	1.42	0.0%	1.42
NA	49	2	578	2/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	136.860	622.749	622.749	200.328.889	683.796.886	985	200.951.638	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.06	17.73	1.42	0.0%	1.42
NA	49	3	579	3/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	71.030	556.919	556.919	200.328.889	683.796.886	985	200.885.808	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	17.69	1.41	0.0%	1.41
NA	49	4	580	4/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	17.66	1.41	0.0%	1.41
NA	49	5	581	5/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.04	17.62	1.41	0.0%	1.41
NA	49	6	582	6/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.04	17.59	1.40	0.0%	1.40
NA	49	7	583	7/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.04	17.56	1.40	0.0%	1.40
NA	49	8	584	8/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.04	17.52	1.40	0.0%	1.40
NA	49	9	585	9/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.04	17.49	1.40	0.0%	1.40
NA	49	10	586	10/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.04	17.45	1.39	0.0%	1.39
NA	49	11	587	11/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	17.42	1.39	0.0%	1.39
NA	49	12	588	12/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	17.38	1.39	0.0%	1.39
NA	50	1	589	1/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	82.492	568.380	568.380	200.328.889	683.796.886	985	200.897.270	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	17.35	1.39	0.0%	1.39
NA	50	2	590	2/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	136.860	622.749	622.749	200.328.889	683.796.886	985	200.951.638	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	17.31	1.38	0.0%	1.38
NA	50	3	591	3/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	71.030	556.919	556.919	200.328.889	683.796.886	985	200.885.808	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	17.28	1.38	0.0%	1.38
NA	50	4	592	4/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.05	17.24	1.38	0.0%	1.38
NA	50	5	593	5/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.04	17.21	1.37	0.0%	1.37
NA	50	6	594	6/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.04	17.18	1.37	0.0%	1.37
NA	50	7	595	7/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.04	17.15	1.37	0.0%	1.37
NA	50	8	596	8/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	0.30	0.01	0.00	0.00	0.00	0.04	17.11	1.37	0.0%	1.37
NA	50	9	597	9/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0

Inflows and Outflows	Parameters	Units	Value	Units	Description and Rationale				
Precipitation	Precipitation		1.85	ft/yr	Los Altos climate station, direct precip on westerock backfill area is based on monthly precip data				
			Phases	9 - 10	11-16	16-20			
			Initial	Mining	Backfilling	Revegetation			
Quarry Backfilling Areas	**Surface Water Drainage to Pit**								
	Quarry Area (Greenstone/Greywacke)	sq feet	4,900,000	5,052,960	-	-			Based on drawing from Chang Consultants
		acres	112	116	-	-	-	-	Figures B.1 through B.3
	Quarry Area (Limestone)	sq feet	7,000,000	7,000,000	-	-			-
		acres	161	161	-	-	-	-	-
	WMSA	sq feet	3,500,000	3,920,400	-	-			-
		acres	80	90	-	-	-		-
	Surface Infiltration to Pit (Through backfill)								
	Undrained Backfill (No Surface Outlet)	sq feet	-	-					
		acres	-	-	-	-	-	-	-
	Drained Backfill (With Surface Outlet)	sq feet			1,960,200	1,960,200			
		acres	-	-	45	45	-	-	-
	Total Drainage Area	acres	354	367	45	45	-	-	-
	Spill Elevation		990.00	ft amsl	Based on Mine Plan (Chang Drawings)				
	Bottom of Pit		440.00	ft amsl	Based on end of Phase 1 for South Quarry Mine Plan (Chang Drawings)				
Groundwater Capture	Initial		371	gpm	MODFLOW model results for Phase 1, maximum excavation condition (Golder's Report)				
			2,181,181	cu ft/mo					
	At Spill Elevation		80	gpm	MODFLOW model results for ultimate condition (Golder's Report)				
			470,336	cu ft/mo					
Date Quarry Filling Starts			**6/1/2028**						
Assumptions	**In situ Pit Water Treatment Removal Rate**								
	The pit is backfilled incrementally over a 10-year period, from 440 ft amsl to the spill-over elevation of 990 ft amsl								
	Backfill material has a porosity of 30-percent.								
	Surface runoff is only within the capture area of the pit and is based on water year 2009 data								
	Groundwater inflow into the pit varies by month and diminishes as the backfill increases								
	Precipitation directly infiltrates to the water table within the area of the backfill.								
	Evaporation of the pit lake is only applied when the cumulative volume of water in the pit is greater than the cumulative volume of void spaces within the backfill (based on 30-percent porosity)								
	The water level in the pit is dependent on the total cumulative volume of the backfill up to the spill-over elevation.								

4.34	147.02	47.26		1,542.23	0.00	1.31			
2.0	82.0	29	82	2	1	1	0 Se		Based on Measured Pit Water Quality
1	30	1	1	1	1	1	- Se		Based on test data only
33	5	1	2	2	3	3	- As		Based on Measured Pit Water Quality
		Concentrations	ug/L						

1.2	82.0	29	82	0.73	1	1		
	Surface Runoff		Groundwater Inflow		Infiltration		Precipitation	
Nominal	N Quarry Water	WMSA Runoff	N Quarry Water	Maximum Groundwater Well Water	Nominal	Nominal		
1.2	29.0	29	82	0.73	1	1	0 Se	

Phase	Year	Month	Total Months	Date	Quarry Area (Greenstone/Greywacke)	Quarry Area (Greenstone/Greywacke)	Quarry Area (Limestone)	Quarry Area (Limestone)	WMSA	WMSA	Groundwater Inflow	Undrained Backfill (No Surface Outlet)	Undrained Backfill (No Surface Outlet)	Drained Backfill (With Surface Outlet)	Drained Backfill (With Surface Outlet)	Pit Lake Precip	Water Entering Pit Lake	Pit Lake Outflow	Cumulative Volume in Pit	Cumulative Volume Occupied by Water in Backfill	Cumulative Backfill Volume	Pit Water Level at End of Year	Pit Water Open Area at End of Year	Area for Surface Water Runoff for Next Year	First Cut Water Accumulation in Pit Lake	Available Water Storage in Pit	Quarry Area (Greenstone/Greywacke)	Quarry Area (Limestone)	WMSA	Groundwater Inflow	Undrained Backfill (No Surface Outlet)	Drained Backfill (With Surface Outlet)	Pit Lake Precip	Pit Lake Outflow	Cumulative Constituent in Pit	Pit Water Concentration	Insitue Treatment	First Year Load	Last Year Load	Pit Water Outflow Concentration
					sq ft	cu ft	sq ft	cu ft	sq ft	cu ft	cu ft	sq ft	cu ft	sq ft	cu ft	cu ft	cu ft	cu ft	cu ft	cu ft	cu ft	ft	sq ft	sq ft	sq ft	cu ft	lb/month		lb/month	ug/L	lb/month	lb/month	lb/month	lb/month	lb	ug/L		lb/yr	lb/yr	ug/L
1	1	1	1	1/1/2018	**4,900,000**	687,361	**7,000,000**	981,944	**3,500,000**	294,583	**2,181,181**	**0**	**0**	**0**	**0**		4,145,070	4,145,070	**0**		**0**	**440**	**NA**	**NA**	**4,145,070**	**0**	0.05	1.78	0.53	82.13	11.20	0.00	0.00	0.00	0.00	52.35	0.0%			52.35
1	1	2	2	2/1/2018	4,901,285	1,140,683	7,000,000	1,629,120	3,503,533	489,229	2,181,181	0	0	0	0		5,440,214	5,440,214	0	NA	0	440			5,440,214	0	0.09	2.95	0.89	82.13	11.20	0.00	0.00	0.00	17.80	0.00	44.47	0.0%	914.41	2.52	44.47
1	1	3	3	3/1/2018	4,902,571	592,187	7,000,000	845,509	3,507,066	254,165	2,181,181	0	0	0	0		3,873,022	3,873,022	0		0	440			3,873,022	0	0.04	1.53	0.46	82.13	11.20	0.00	0.00	0.00	10.77	0.00	54.67	0.0%	Percent Reduction		54.67
1	1	4	4	4/1/2018	4,903,856	342,816	7,000,000	489,352	3,510,598	147,250	2,181,181	0	0	0	0		3,160,599	3,160,599	0		0	440			3,160,599	0	0.03	0.89	0.27	82.13	11.20	0.00	0.00	0.00	10.80	0.00	62.65	0.0%	100%		62.65
1	1	5	5	5/1/2018	4,905,142	94,696	7,000,000	135,139	3,514,131	40,705	2,181,181	0	0	0	0		2,451,722	2,451,722	0		0	440			2,451,722	0	0.01	0.24	0.07	82.13	11.20	0.00	0.00	0.00	9.60	0.00	75.20	0.0%	First Year of		75.20
1	1	6	6	6/1/2018	4,906,427	15,900	7,000,000	22,685	3,517,664	6,840	2,181,181	0	0	0	0		2,226,607	2,226,607	0		0	440			2,226,607	0	0.00	0.04	0.01	82.13	11.20	0.00	0.00	0.00	10.46	0.00	80.85	0.0%	Overflow		80.85
1	1	7	7	7/1/2018	4,907,712	682	7,000,000	972	3,521,197	293	2,181,181	0	0	0	0		2,183,128	2,183,128	0		0	440			2,183,128	0	0.00	0.00	0.00	82.13	11.20	0.00	0.00	0.00	11.03	0.00	82.08	0.0%	Load		82.08
1	1	8	8	8/1/2018	4,908,998	2,500	7,000,000	3,565	3,524,729	1,077	2,181,181	0	0	0	0		2,188,323	2,188,323	0		0	440			2,188,323	0	0.00	0.01	0.00	82.13	11.20	0.00	0.00	0.00	11.23	0.00	81.93	0.0%	0.85		81.93
1	1	9	9	9/1/2018	4,910,283	12,276	7,000,000	17,500	3,528,262	5,292	2,181,181	0	0	0	0		2,216,249	2,216,249	0		0	440			2,216,249	0	0.03	0.03	0.01	82.13	11.20	0.00	0.00	0.00	11.35	0.00	81.14	0.0%	Percent Reduction		81.14
1	1	10	10	10/1/2018	4,911,568	181,910	7,000,000	259,259	3,531,795	78,484	2,181,181	0	0	0	0		2,700,835	2,700,835	0		0	440			2,700,835	0	0.01	0.47	0.14	82.13	11.20	0.00	0.00	0.00	13.70	0.00	70.04	0.0%	100%		70.04
1	1	11	11	11/1/2018	4,912,854	596,821	7,000,000	850,370	3,535,328	257,686	2,181,181	0	0	0	0		3,886,058	3,886,058	0		0	440			3,886,058	0	0.04	1.54	0.47	82.13	11.20	0.00	0.00	0.00	17.01	0.00	54.55	0.0%			54.55
1	1	12	12	12/1/2018	4,914,139	869,530	7,000,000	1,238,611	3,538,861	375,709	2,181,181	0	0	0	0		4,665,031	4,665,031	0		0	440			4,665,031	0	0.07	2.24	0.68	82.13	11.20	0.00	0.00	0.00	15.91	0.00	48.66	0.0%			48.66
1	2	1	13	1/1/2019	4,915,425	689,525	7,000,000	861,944	3,542,393	298,151	2,181,181	0	0	0	0		4,150,802	4,150,802	0		0	440			4,150,802	0	0.05	1.78	0.54	82.13	11.20	0.00	0.00	0.00	12.62	0.00	52.30	0.0%			52.30
1	2	2	14	2/1/2019	4,916,710	1,144,273	7,000,000	1,629,120	3,545,926	495,149	2,181,181	0	0	0	0		5,449,724	5,449,724	0		0	440			5,449,724	0	0.09	2.95	0.90	82.13	11.20	0.00	0.00	0.00	17.81	0.00	44.43	0.0%			44.43
1	2	3	15	3/1/2019	4,917,995	594,030	7,000,000	845,509	3,549,459	257,237	2,181,181	0	0	0	0		3,877,958	3,877,958	0		0	440			3,877,958	0	0.04	1.53	0.47	82.13	11.20	0.00	0.00	0.00	10.77	0.00	54.63	0.0%			54.63
1	2	4	16	4/1/2019	4,919,281	343,894	7,000,000	489,352	3,552,992	149,028	2,181,181	0	0	0	0		3,183,455	3,183,455	0		0	440			3,183,455	0	0.03	0.89	0.27	82.13	11.20	0.00	0.00	0.00	10.80	0.00	62.61	0.0%			62.61
1	2	5	17	5/1/2019	4,920,566	94,994	7,000,000	135,139	3,556,524	41,196	2,181,181	0	0	0	0		2,452,511	2,452,511	0		0	440			2,452,511	0	0.01	0.24	0.07	82.13	11.20	0.00	0.00	0.00	9.60	0.00	75.18	0.0%			75.18
1	2	6	18	6/1/2019	4,921,851	15,902	7,000,000	22,685	3,560,057	6,922	2,181,181	0	0	0	0		2,226,739	2,226,739	0		0	440			2,226,739	0	0.00	0.04	0.01	82.13	11.20	0.00	0.00	0.00	10.46	0.00	80.85	0.0%			80.85
1	2	7	19	7/1/2019	4,923,137	684	7,000,000	972	3,563,590	297	2,181,181	0	0	0	0		2,183,134	2,183,134	0		0	440			2,183,134	0	0.00	0.00	0.00	82.13	11.20	0.00	0.00	0.00	11.03	0.00	82.08	0.0%			82.08
1	2	8	20	8/1/2019	4,924,422	2,508	7,000,000	3,565	3,567,123	1,090	2,181,181	0	0	0	0		2,188,344	2,188,344	0		0	440			2,188,344	0	0.00	0.01	0.00	82.13	11.20	0.00	0.00	0.00	11.23	0.00	81.93	0.0%			81.93
1	2	9	21	9/1/2019	4,925,708	12,314	7,000,000	17,500	3,570,655	5,356	2,181,181	0	0	0	0		2,216,351	2,216,351	0		0	440			2,216,351	0	0.00	0.03	0.01	82.13	11.20	0.00	0.00	0.00	11.35	0.00	81.14	0.0%			81.14
1	2	10	22	10/1/2019	4,926,993	182,481	7,000,000	259,259	3,574,188	79,426	2,181,181	0	0	0	0		2,702,348	2,702,348	0		0	440			2,702,348	0	0.01	0.47	0.14	82.13	11.20	0.00	0.00	0.00	13.70	0.00	70.01	0.0%			70.01
1	2	11	23	11/1/2019	4,928,278	598,696	7,000,000	850,370	3,577,721	260,776	2,181,181	0	0	0	0		3,891,022	3,891,022	0		0	440			3,891,022	0	0.04	1.54	0.47	82.13	11.20	0.00	0.00	0.00	17.03	0.00	54.51	0.0%			54.51
1	2	12	24	12/1/2019	4,929,564	872,259	7,000,000	1,238,611	3,581,254	380,210	2,181,181	0	0	0	0		4,672,261	4,672,261	0		0	440			4,672,261	0	0.07	2.24	0.69	82.13	11.20	0.00	0.00	0.00	15.92	0.00	48.61	0.0%			48.61
1	3	1	25	1/1/2020	4,930,849	691,689	7,000,000	861,944	3,584,787	301,720	2,181,181	0	0	0	0		4,156,534	4,156,534	0		0	440			4,156,534	0	0.05	1.78	0.55	82.13	11.20	0.00	0.00	0.00	12.63	0.00	52.26	0.0%			52.26
1	3	2	26	2/1/2020	4,932,134	1,147,863	7,000,000	1,629,120	3,588,319	501,069	2,181,181	0	0	0	0		5,459,233	5,459,233	0		0	440			5,459,233	0	0.09	2.95	0.91	82.13	11.20	0.00	0.00	0.00	17.83	0.00	44.38	0.0%			44.38
1	3	3	27	3/1/2020	4,933,420	595,893	7,000,000	845,509	3,591,852	260,310	2,181,181	0	0	0	0		3,882,893	3,882,893	0		0	440			3,882,893	0	0.04	1.53	0.47	82.13	11.20	0.00	0.00	0.00	10.77	0.00	54.58	0.0%			54.58
1	3	4	28	4/1/2020	4,934,705	344,972	7,000,000	489,352	3,595,385	150,806	2,181,181	0	0	0	0		3,166,312	3,166,312	0		0	440			3,166,312	0	0.03	0.89	0.27	82.13	11.20	0.00	0.00	0.00	10.80	0.00	62.57	0.0%			62.57
1	3	5	29	5/1/2020	4,935,991	95,292	7,000,000	135,139	3,598,918	41,687	2,181,181	0	0	0	0		2,453,300	2,453,300	0		0	440			2,453,300	0	0.01	0.24	0.08	82.13	11.20	0.00	0.00	0.00	9.59	0.00	75.16	0.0%			75.16
1	3	6	30	6/1/2020	4,937,276	16,000	7,000,000	22,685	3,602,450	7,005	2,181,181	0	0	0	0		2,226,872	2,226,872	0		0	440			2,226,872	0	0.00	0.04	0.01	82.13	11.20	0.00	0.00	0.00	10.46	0.00	80.84	0.0%			80.84
1	3	7	31	7/1/2020	4,938,561	686	7,000,000	972	3,605,983	300	2,181,181	0	0	0	0		2,183,140	2,183,140	0		0	440			2,183,140	0	0.00	0.00	0.00	82.13	11.20	0.00	0.00	0.00	11.03	0.00	82.08	0.0%			82.08
1	3	8	32	8/1/2020	4,939,847	2,516	7,000,000	3,565	3,609,516	1,103	2,181,181	0	0	0	0		2,188,365	2,188,365	0		0	440			2,188,365	0	0.00	0.01	0.00	82.13	11.20	0.00	0.00	0.00	11.23	0.00	81.93	0.0%			81.93
1	3	9	33	9/1/2020	4,941,132	12,353	7,000,000	17,500	3,613,049	5,420	2,181,181	0	0	0	0		2,216,454	2,216,454	0		0	440			2,216,454	0	0.00	0.03	0.01	82.13	11.20	0.00	0.00	0.00	11.35	0.00	81.13	0.0%			81.13
1	3	10	34	10/1/2020	4,942,417	183,052	7,000,000	259,259	3,616,582	80,368	2,181,181	0	0	0	0		2,703,861	2,703,861	0		0	440			2,703,861	0	0.01	0.47	0.15	82.13	11.20	0.00	0.00	0.00	13.71	0.00	69.98	0.0%			69.98
1	3	11	35	11/1/2020	4,943,703	600,568	7,000,000	850,370	3,620,114	263,866	2,181,181	0	0	0	0		3,895,986	3,895,986	0		0	440			3,895,986	0	0.05	1.54	0.48	82.13	11.20	0.00	0.00	0.00	17.04	0.00	54.46	0.0%			54.46
1	3	12	36	12/1/2020	4,944,988	874,988	7,000,000	1,238,611	3,623,647	384,711	2,181,181	0	0	0	0		4,679,491	4,679,491	0		0	440			4,679,491	0	0.07	2.24	0.70	82.13	11.20	0.00	0.00	0.00	15.93	0.00	48.57	0.0%			48.57
1	4	1	37	1/1/2021	4,946,274	693,852	7,000,000	861,944	3,627,180	305,288	2,181,181	0	0	0	0		4,162,266	4,162,266	0		0	440			4,162,266	0	0.05	1.78	0.55	82.13	11.20	0.00	0.00	0.00	12.63	0.00	52.21	0.0%			52.21
1	4	2	38	2/1/2021	4,947,559	1,151,453	7,000,000	1,629,120	3,630,713	506,989	2,181,181	0	0	0	0		5,468,743	5,468,743	0		0	440			5,468,743	0	0.09	2.95	0.92	82.13	11.20	0.00	0.00	0.00	17.84	0.00	44.34	0.0%			44.34
1	4	3	39	3/1/2021	4,948,844	597,756	7,000,000	845,509	3,634,245	263,382	2,181,181	0	0	0	0		3,887,829	3,887,829	0		0	440			3,887,829	0	0.04	1.53	0.48	82.13	11.20	0.00	0.00	0.00	10.77	0.00	54.53	0.0%			54.53
1	4	4	40	4/1/2021	4,950,130	346,051	7,000,000	489,352	3,637,778	152,585	2,181,181	0	0	0	0		3,169,168	3,169,168	0		0	440			3,169,168	0	0.03	0.89	0.28	82.13	11.20	0.00	0.00	0.00	10.80	0.00	62.53	0.0%			62.53
1	4	5	41	5/1/2021	4,951,415	95,592	7,000,000	135,139	3,641,311	42,179	2,181,181	0	0	0	0		2,454,088	2,454,088	0		0	440			2,454,088	0	0.01	0.24	0.08	82.13	11.20	0.00	0.00	0.00	9.59	0.00	75.14	0.0%			75.14
1	4	6	42	6/1/2021	4,952,701	16,050	7,000,000	22,685	3,644,844	7,087	2,181,181	0	0	0	0		2,227,004	2,227,004	0		0	440			2,227,004	0	0.00	0.04	0.01	82.13	11.20	0.00	0.00	0.00	10.46	0.00	80.84	0.0%			80.84
1	4	7	43	7/1/2021	4,953,986	688	7,000,000	972	3,648,376	304	2,181,181	0	0	0	0		2,183,146	2,183,146	0		0	440			2,183,146	0	0.00	0.00	0.00	82.13	11.20	0.00	0.00	0.00	11.03	0.00	82.08	0.0%			82.08
1	4	8	44	8/1/2021	4,955,271	2,524	7,000,000	3,565	3,651,909	1,116	2,181,181	0	0	0	0		2,188,385	2,188,385	0		0	440			2,188,385	0	0.00	0.01	0.00	82.13	11.20	0.00	0.00	0.00	11.23	0.00	81.93	0.0%			81.93
1	4	9	45	9/1/2021	4,956,557	12,391	7,000,000	17,500	3,655,442	5,483	2,181,181	0	0	0	0		2,216,556	2,216,556	0		0	440			2,216,556	0	0.00	0.03	0.01	82.13	11.20	0.00	0.00	0.00	11.35	0.00	81.13	0.0%			81.13
1	4	10	46	10/1/2021	4,957,842	183,624	7,000,000	259,259	3,658,975	81,311	2,181,181	0	0	0	0		2,705,375	2,705,375	0		0	440			2,705,375	0	0.01	0.47	0.15	82.13	11.20	0.00	0.00	0.00	13.72	0.00	69.95	0.0%			69.95
1	4	11	47	11/1/2021	4,959,127	602,442	7,000,000	850,370	3,662,508	266,956	2,181,181	0	0	0	0		3,900,950	3,900,950	0		0	440			3,900,950	0	0.05	1.54	0.48	82.13	11.20	0.00	0.00	0.00	17.05	0.00	54.42	0.0%			54.42
1	4	12	48	12/1/2021	4,960,413	877,717	7,000,000	1,238,611	3,666,042	389,211	2,181,181	0	0	0	0		4,686,721	4,686,721	0		0	440			4,686,721	0	0.07	2.24	0.71	82.13	11.20	0.00	0.00	0.00	15.94	0.00	48.52	0.0%			48.52
1	5	1	49	1/1/2022	4,961,698	696,016	7,000,000	861,944	3,669,573	308,856	2,181,181	0	0	0	0		4,167,997	4,167,997	0		0	440			4,167,997	0	0.05	1.78	0.56	82.13	11.20	0.00	0.00	0.00	12.64	0.00	52.16	0.0%			52.16
1	5	2	50	2/1/2022	4,962,984	1,155,043	7,000,000	1,629,120	3,673,106	512,908	2,181,181	0	0	0	0		5,478,253	5,478,253	0		0	440			5,478,253	0	0.09	2.95	0.93	82.13	11.20	0.00	0.00	0.00	17.86	0.00	44.29	0.0%			44.29
1	5	3	51	3/1/2022	4,964,269	599,619	7,000,000	845,509	3,676,639	266,454	2,181,181	0	0	0	0		3,892,764	3,892,764	0		0	440			3,892,764	0	0.04	1.53	0.48	82.13	11.20	0.00	0.00	0.00	10.78	0.00	54.49	0.0%			54.49
1	5	4	52	4/1/2022	4,965,554	347,228	7,000,000	489,352	3,680,171	154,363	2,181,181	0	0	0	0		3,172,025	3,172,025	0		0	440			3,172,025	0	0.03	0.89	0.28	82.13	11.20	0.00	0.00	0.00	10.80	0.00	62.49	0.0%			62.49
1	5	5	53	5/1/2022	4,966,840	95,888	7,000,000	135,139	3,683,704	42,670	2,181,181	0	0	0	0		2,454,877	2,454,877	0		0	440			2,454,877	0	0.01	0.24	0.08	82.13	11.20	0.00	0.00	0.00	9.59	0.00	75.12	0.0%			75.12
1	5	6	54	6/1/2022	4,968,125	16,104	7,000,000	22,685	3,687,237	7,170	2,181,181	0	0	0	0		2,227,138	2,227,138	0		0	440			2,227,138	0	0.00	0.04	0.01	82.13	11.20	0.00	0.00	0.00	10.46	0.00	80.84	0.0%			80.84
1	5	7	55	7/1/2022	4,969,410	690	7,000,000	972	3,690,770	308	2,181,181	0	0	0	0		2,183,151	2,183,151	0		0	440			2,183,151	0	0.00	0.00	0.00	82.13	11.20	0.00	0.00	0.00	11.03	0.00	82.08	0.0%			82.08
1	5	8	56	8/1/2022	4,970,696	2,532	7,000,000	3,565	3,694,303	1,129	2,181,181	0	0	0	0		2,188,406	2,188,406	0		0	440			2,188,406	0	0.00	0.01	0.00	82.13	11.20	0.00	0.00	0.00	11.23	0.00	81.93	0.0%			81.93
1	5	9	57	9/1/2022	4,971,981	12,430	7,000,000	17,500	3,697,835	5,547	2,181,181	0	0	0	0		2,216,658	2,216,658	0		0	440			2,216,658	0	0.00	0.03	0.01	82.13	11.20	0.00	0.00	0.00	11.35	0.00	81.13	0.0%			81.13
1	5	10	58	10/1/2022	4,973,267	184,195	7,000,000	259,259	3,701,368	82,253	2,181,181	0	0	0	0		2,706,888	2,706,888	0		0	440			2,706,888	0	0.01	0.47	0.15	82.13	11.20	0.00	0.00	0.00	13.73	0.00	69.92	0.0%			69.92
1	5	11	59	11/1/2022	4,974,552	604,316	7,000,000	850,370	3,704,901	270,046	2,181,181	0	0	0	0		3,905,914	3,905,914	0		0	440			3,905,914	0	0.05	1.54	0.49	82.13	11.20	0.00	0.00	0.00	17.07	0.00	54.37	0.0%			54.37
1	5	12	60	12/1/2022	4,975,837	880,447	7,000,000	1,238,611	3,708,434	393,712	2,181,181	0	0	0	0		4,693,951	4,693,951	0		0	440			4,693,951	0	0.07	2.24	0.71	82.13	11.20	0.00	0.00	0.00	15.95	0.00	48.48	0.0%			48.48
1	6	1	61	1/1/2023	4,977,123	698,483	7,000,000	861,944	3,711,966	312,424	2,181,181	0	0	0	0		4,173,729	4,173,729	0		0	440			4,173,729	0	0.05	1.78	0.57	82.13	11.20	0.00	0.00	0.00	12.65	0.00	52.12	0.0%			52.12
1	6	2	62	2/1/2023	4,978,408	1,158,632	7,000,000	1,629,120	3,715,499	518,828	2,181,181	0	0	0	0		5,487,762	5,487,762	0		0	440			5,487,762	0	0.09

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NA	28	6	330	6/1/2045	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906		487.794	487.794		200.328.889	683.796.886	985		200.816.684	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.37	151.78	12.12	0.0%	12.12
NA	28	7	331	7/1/2045	0	0	0	0	0	0	485.889	0	0	1.960.200	82		485.970	485.970		200.328.889	683.796.886	985		200.814.860	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.37	151.44	12.10	0.0%	12.10
NA	28	8	332	8/1/2045	0	0	0	0	0	0	485.889	0	0	1.960.200	299		486.188	486.188		200.328.889	683.796.886	985		200.815.077	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.37	151.10	12.07	0.0%	12.07
NA	28	9	333	9/1/2045	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470		487.359	487.359		200.328.889	683.796.886	985		200.816.248	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.37	150.76	12.04	0.0%	12.04
NA	28	10	334	10/1/2045	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780		507.669	507.669		200.328.889	683.796.886	985		200.836.558	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.38	150.41	12.01	0.0%	12.01
NA	28	11	335	11/1/2045	0	0	0	0	0	0	485.889	0	0	1.960.200	71.438		557.327	557.327		200.328.889	683.796.886	985		200.886.216	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.42	150.02	11.98	0.0%	11.98
NA	28	12	336	12/1/2045	0	0	0	0	0	0	485.889	0	0	1.960.200	104.054		589.943	589.943		200.328.889	683.796.886	985		200.918.832	200.328.889	0.00	0.00	0.00	0.94	0.03	0.01	0.00	0.00	0.44	149.61	11.95	0.0%	11.95
NA	29	1	337	1/1/2046	0	0	0	0	0	0	485.889	0	0	1.960.200	82.492		568.380	568.380		200.328.889	683.796.886	985		200.897.270	200.328.889	0.00	0.00	0.00	0.94	0.03	0.01	0.00	0.00	0.42	149.22	11.92	0.0%	11.92
NA	29	2	338	2/1/2046	0	0	0	0	0	0	485.889	0	0	1.960.200	136.860		622.749	622.749		200.328.889	683.796.886	985		200.951.638	200.328.889	0.00	0.00	0.00	0.94	0.03	0.01	0.00	0.00	0.46	148.80	11.88	0.0%	11.88
NA	29	3	339	3/1/2046	0	0	0	0	0	0	485.889	0	0	1.960.200	71.030		556.919	556.919		200.328.889	683.796.886	985		200.885.808	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.41	148.42	11.85	0.0%	11.85
NA	29	4	340	4/1/2046	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110		526.998	526.998		200.328.889	683.796.886	985		200.855.888	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.39	148.06	11.83	0.0%	11.83
NA	29	5	341	5/1/2046	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353		497.242	497.242		200.328.889	683.796.886	985		200.826.131	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.37	147.72	11.80	0.0%	11.80
NA	29	6	342	6/1/2046	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906		487.794	487.794		200.328.889	683.796.886	985		200.816.684	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.36	147.39	11.77	0.0%	11.77
NA	29	7	343	7/1/2046	0	0	0	0	0	0	485.889	0	0	1.960.200	82		485.970	485.970		200.328.889	683.796.886	985		200.814.860	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.36	147.06	11.75	0.0%	11.75
NA	29	8	344	8/1/2046	0	0	0	0	0	0	485.889	0	0	1.960.200	299		486.188	486.188		200.328.889	683.796.886	985		200.815.077	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.36	146.73	11.72	0.0%	11.72
NA	29	9	345	9/1/2046	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470		487.359	487.359		200.328.889	683.796.886	985		200.816.248	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.36	146.40	11.69	0.0%	11.69
NA	29	10	346	10/1/2046	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780		507.669	507.669		200.328.889	683.796.886	985		200.836.558	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.37	146.06	11.67	0.0%	11.67
NA	29	11	347	11/1/2046	0	0	0	0	0	0	485.889	0	0	1.960.200	71.438		557.327	557.327		200.328.889	683.796.886	985		200.886.216	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.41	145.69	11.64	0.0%	11.64
NA	29	12	348	12/1/2046	0	0	0	0	0	0	485.889	0	0	1.960.200	104.054		589.943	589.943		200.328.889	683.796.886	985		200.918.832	200.328.889	0.00	0.00	0.00	0.94	0.03	0.01	0.00	0.00	0.43	145.29	11.60	0.0%	11.60
NA	30	1	349	1/1/2047	0	0	0	0	0	0	485.889	0	0	1.960.200	82.492		568.380	568.380		200.328.889	683.796.886	985		200.897.270	200.328.889	0.00	0.00	0.00	0.94	0.03	0.01	0.00	0.00	0.41	144.92	11.57	0.0%	11.57
NA	30	2	350	2/1/2047	0	0	0	0	0	0	485.889	0	0	1.960.200	136.860		622.749	622.749		200.328.889	683.796.886	985		200.951.638	200.328.889	0.00	0.00	0.00	0.94	0.03	0.01	0.00	0.00	0.45	144.50	11.54	0.0%	11.54
NA	30	3	351	3/1/2047	0	0	0	0	0	0	485.889	0	0	1.960.200	71.030		556.919	556.919		200.328.889	683.796.886	985		200.885.808	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.40	144.13	11.51	0.0%	11.51
NA	30	4	352	4/1/2047	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110		526.998	526.998		200.328.889	683.796.886	985		200.855.888	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.38	143.79	11.48	0.0%	11.48
NA	30	5	353	5/1/2047	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353		497.242	497.242		200.328.889	683.796.886	985		200.826.131	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.36	143.46	11.46	0.0%	11.46
NA	30	6	354	6/1/2047	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906		487.794	487.794		200.328.889	683.796.886	985		200.816.684	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.35	143.14	11.43	0.0%	11.43
NA	30	7	355	7/1/2047	0	0	0	0	0	0	485.889	0	0	1.960.200	82		485.970	485.970		200.328.889	683.796.886	985		200.814.860	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.35	142.82	11.41	0.0%	11.41
NA	30	8	356	8/1/2047	0	0	0	0	0	0	485.889	0	0	1.960.200	299		486.188	486.188		200.328.889	683.796.886	985		200.815.077	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.35	142.50	11.38	0.0%	11.38
NA	30	9	357	9/1/2047	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470		487.359	487.359		200.328.889	683.796.886	985		200.816.248	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.35	142.18	11.36	0.0%	11.36
NA	30	10	358	10/1/2047	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780		507.669	507.669		200.328.889	683.796.886	985		200.836.558	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.36	141.85	11.33	0.0%	11.33
NA	30	11	359	11/1/2047	0	0	0	0	0	0	485.889	0	0	1.960.200	71.438		557.327	557.327		200.328.889	683.796.886	985		200.886.216	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.39	141.49	11.30	0.0%	11.30
NA	30	12	360	12/1/2047	0	0	0	0	0	0	485.889	0	0	1.960.200	104.054		589.943	589.943		200.328.889	683.796.886	985		200.918.832	200.328.889	0.00	0.00	0.00	0.94	0.03	0.01	0.00	0.00	0.42	141.11	11.27	0.0%	11.27
NA	31	1	361	1/1/2048	0	0	0	0	0	0	485.889	0	0	1.960.200	82.492		568.380	568.380		200.328.889	683.796.886	985		200.897.270	200.328.889	0.00	0.00	0.00	0.94	0.03	0.01	0.00	0.00	0.40	140.74	11.24	0.0%	11.24
NA	31	2	362	2/1/2048	0	0	0	0	0	0	485.889	0	0	1.960.200	136.860		622.749	622.749		200.328.889	683.796.886	985		200.951.638	200.328.889	0.00	0.00	0.00	0.94	0.03	0.01	0.00	0.00	0.44	140.34	11.21	0.0%	11.21
NA	31	3	363	3/1/2048	0	0	0	0	0	0	485.889	0	0	1.960.200	71.030		556.919	556.919		200.328.889	683.796.886	985		200.885.808	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.39	139.99	11.18	0.0%	11.18
NA	31	4	364	4/1/2048	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110		526.998	526.998		200.328.889	683.796.886	985		200.855.888	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.37	139.65	11.15	0.0%	11.15
NA	31	5	365	5/1/2048	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353		497.242	497.242		200.328.889	683.796.886	985		200.826.131	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.35	139.33	11.13	0.0%	11.13
NA	31	6	366	6/1/2048	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906		487.794	487.794		200.328.889	683.796.886	985		200.816.684	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.34	138.02	11.10	0.0%	11.10
NA	31	7	367	7/1/2048	0	0	0	0	0	0	485.889	0	0	1.960.200	82		485.970	485.970		200.328.889	683.796.886	985		200.814.860	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.34	138.71	11.08	0.0%	11.08
NA	31	8	368	8/1/2048	0	0	0	0	0	0	485.889	0	0	1.960.200	299		486.188	486.188		200.328.889	683.796.886	985		200.815.077	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.34	138.40	11.05	0.0%	11.05
NA	31	9	369	9/1/2048	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470		487.359	487.359		200.328.889	683.796.886	985		200.816.248	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.34	138.10	11.03	0.0%	11.03
NA	31	10	370	10/1/2048	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780		507.669	507.669		200.328.889	683.796.886	985		200.836.558	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.35	137.78	11.00	0.0%	11.00
NA	31	11	371	11/1/2048	0	0	0	0	0	0	485.889	0	0	1.960.200	71.438		557.327	557.327		200.328.889	683.796.886	985		200.886.216	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.38	137.43	10.98	0.0%	10.98
NA	31	12	372	12/1/2048	0	0	0	0	0	0	485.889	0	0	1.960.200	104.054		589.943	589.943		200.328.889	683.796.886	985		200.918.832	200.328.889	0.00	0.00	0.00	0.94	0.03	0.01	0.00	0.00	0.40	137.06	10.95	0.0%	10.95
NA	32	1	373	1/1/2049	0	0	0	0	0	0	485.889	0	0	1.960.200	82.492		568.380	568.380		200.328.889	683.796.886	985		200.897.270	200.328.889	0.00	0.00	0.00	0.94	0.03	0.01	0.00	0.00	0.39	136.70	10.92	0.0%	10.92
NA	32	2	374	2/1/2049	0	0	0	0	0	0	485.889	0	0	1.960.200	136.860		622.749	622.749		200.328.889	683.796.886	985		200.951.638	200.328.889	0.00	0.00	0.00	0.94	0.03	0.01	0.00	0.00	0.42	136.31	10.89	0.0%	10.89
NA	32	3	375	3/1/2049	0	0	0	0	0	0	485.889	0	0	1.960.200	71.030		556.919	556.919		200.328.889	683.796.886	985		200.885.808	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.38	135.97	10.86	0.0%	10.86
NA	32	4	376	4/1/2049	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110		526.998	526.998		200.328.889	683.796.886	985		200.855.888	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.36	135.64	10.83	0.0%	10.83
NA	32	5	377	5/1/2049	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353		497.242	497.242		200.328.889	683.796.886	985		200.826.131	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.34	135.33	10.81	0.0%	10.81
NA	32	6	378	6/1/2049	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906		487.794	487.794		200.328.889	683.796.886	985		200.816.684	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.33	135.03	10.78	0.0%	10.78
NA	32	7	379	7/1/2049	0	0	0	0	0	0	485.889	0	0	1.960.200	82		485.970	485.970		200.328.889	683.796.886	985		200.814.860	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.33	134.73	10.76	0.0%	10.76
NA	32	8	380	8/1/2049	0	0	0	0	0	0	485.889	0	0	1.960.200	299		486.188	486.188		200.328.889	683.796.886	985		200.815.077	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.33	134.43	10.74	0.0%	10.74
NA	32	9	381	9/1/2049	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470		487.359	487.359		200.328.889	683.796.886	985		200.816.248	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.33	134.14	10.71	0.0%	10.71
NA	32	10	382	10/1/2049	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780		507.669	507.669		200.328.889	683.796.886	985		200.836.558	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.34	133.83	10.69	0.0%	10.69
NA	32	11	383	11/1/2049	0	0	0	0	0	0	485.889	0	0	1.960.200	71.438		557.327	557.327		200.328.889	683.796.886	985		200.886.216	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.37	133.49	10.66	0.0%	10.66
NA	32	12	384	12/1/2049	0	0	0	0	0	0	485.889	0	0	1.960.200	104.054		589.943	589.943		200.328.889	683.796.886	985		200.918.832	200.328.889	0.00	0.00	0.00	0.94	0.03	0.01	0.00	0.00	0.39	133.13	10.63	0.0%	10.63
NA	33	1	385	1/1/2050	0	0	0	0	0	0	485.889	0	0	1.960.200	82.492		568.380	568.380		200.328.889	683.796.886	985		200.897.270	200.328.889	0.00	0.00	0.00	0.94	0.03	0.01	0.00	0.00	0.38	132.79	10.61	0.0%	10.61
NA	33	2	386	2/1/2050	0	0	0	0	0	0	485.889	0	0	1.960.200	136.860		622.749	622.749		200.328.889	683.796.886	985		200.951.638	200.328.889	0.00	0.00	0.00	0.94	0.03	0.01	0.00	0.00	0.41	132.41	10.58	0.0%	10.58
NA	33	3	387	3/1/2050	0	0	0	0	0	0	485.889	0	0	1.960.200	71.030		556.919	556.919		200.328.889	683.796.886	985		200.885.808	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.37	132.07	10.55	0.0%	10.55
NA	33	4	388	4/1/2050	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110		526.998	526.998		200.328.889	683.796.886	985		200.855.888	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.35	131.76	10.52	0.0%	10.52
NA	33	5	389	5/1/2050	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353		497.242	497.242		200.328.889	683.796.886	985		200.826.131	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.33	131.46	10.50	0.0%	10.50
NA	33	6	390	6/1/2050	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906		487.794	487.794		200.328.889	683.796.886	985		200.816.684	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.32	131.17	10.48	0.0%	10.48
NA	33	7	391	7/1/2050	0	0	0	0	0	0	485.889	0	0	1.960.200	82		485.970	485.970		200.328.889	683.796.886	985		200.814.860	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.32	130.88	10.45	0.0%	10.45
NA	33	8	392	8/1/2050	0	0	0	0	0	0	485.889	0	0	1.960.200	299		486.188	486.188		200.328.889	683.796.886	985		200.815.077	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.32	130.59	10.43	0.0%	10.43
NA	33	9	393	9/1/2050	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470		487.359	487.359		200.328.889	683.796.886	985		200.816.248	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.32	130.30	10.41	0.0%	10.41
NA	33	10	394	10/1/2050	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780		507.669	507.669		200.328.889	683.796.886	985		200.836.558	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.32	130.00	10.38	0.0%	10.38
NA	33	11	395	11/1/2050	0	0	0	0	0	0	485.889	0	0	1.960.200	71.438		557.327	557.327		200.328.889	683.796.886	985		200.886.216	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.36	129.67	10.36	0.0%	10.36
NA	33	12	396	12/1/2050	0	0	0	0	0	0	485.889	0	0	1.960.200	104.054		589.943	589.943		200.328.889	683.796.886	985		200.918.832	200.328.889	0.00	0.00	0.00	0.94	0.03	0.01	0.00	0.00	0.38	129.33	10.33	0.0%	10.33
NA	34	1	397	1/1/2051	0	0	0	0	0	0	485.889	0	0	1.960.200	82.492		568.380	568.380		200.328.889	683.796.886	985		200.897.270	200.328.889	0.00	0.00	0.00	0.94	0.03	0.01	0.00	0.00	0.37	128.99	10.30	0.0%	10.30
NA	34	2	398	2/1/2051	0	0	0	0	0	0	485.889	0	0	1.960.200	136.860		622.749	622.749		200.328.889	683.796.886	985		200.951.638	200.328.889	0.00	0.00	0.00	0.94	0.03	0.01	0.00	0.00	0.40	128.63	10.27	0.0%	10.27
NA	34	3	399	3/1/2051	0	0	0	0	0	0	485.889	0	0	1.960.200	71.030		556.919	556.919		200.328.889	683.796.886	985		200.885.808	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.36	128.34	10.25	0.0%	10.25
NA	34	4	400	4/1/2051	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110		526.998	526.998		200.328.889	683.796.886	985		200.855.888	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.34	128.00	10.22	0.0%	10.22
NA	34	5	401	5/1/2051	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353		497.242	497.242		200.328.889	683.796.886	985		200.826.131	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.32	127.71	10.20	0.0%	10.20
NA	34	6	402	6/1/2051	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906		487.794	487.794		200.328.889	683.796.886	985		200.816.684	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.31	127.43	10.18	0.0%	10.18
NA	34	7	403	7/1/2051	0	0	0	0	0	0	485.889	0	0	1.960.200	82		485.970	485.970		200.328.889	683.796.886	985		200.814.860	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.31	127.15	10.16	0.0%	10.16
NA	34	8	404	8/1/2051	0	0	0	0	0	0	485.889	0	0	1.960.200	299		486.188	486.188		200.328.889	683.796.886	985		200.815.077	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.31	126.87	10.13	0.0%	10.13
NA	34	9	405	9/1/2051	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470		487.359	487.359		200.328.889	683.796.886	985		200.816.248	200.328.889	0.00	0.00	0.00	0.94	0.03	0.00	0.00	0.00	0.31	126.59	10.11	0.0%	10.11
NA	34	10	406	10/1/2051	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780		507.669	507.669		200.328.889	683.796.886	985

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Inflows and Outflows	Parameters	Units	Value	Units	Description and Rationale					
Precipitation	Precipitation		1.85	ft/yr	Los Altos climate station, direct precip on westerock backfill area is based on monthly precip data					
			Phases	9 - 10	11-16	16-20				
			Initial	Mining	Backfilling	Revegetation				
Quarry Backfilling Areas	**Surface Water Drainage to Pit**									
	Quarry Area (Greenstone/Greywacke)	sq feet	4,900,000	5,052,960	-	-				Based on drawing from Chang Consultants
		acres	112	116	-	-	-	-	-	Figures B.1 through B.3
	Quarry Area (Limestone)	sq feet	7,000,000	7,000,000	-	-				
		acres	161	161	-	-	-	-	-	
	WMSA	sq feet	3,500,000	3,920,400	-	-				
		acres	80	90	-	-	-	-	-	
	Surface Infiltration to Pit (Through backfill)									
	Undrained Backfill (No Surface Outlet)	sq feet	-	-						
		acres	-	-	-	-	-	-	-	
	Drained Backfill (With Surface Outlet)	sq feet			1,960,200	1,960,200				
		acres	-	-	45	45	-	-	-	
	Total Drainage Area	acres	354	367	45	45	-	-	-	
	Spill Elevation		990.00	ft amsl	Based on Mine Plan (Chang Drawings)					
	Bottom of Pit		440.00	ft amsl	Based on end of Phase 1 for South Quarry Mine Plan (Chang Drawings)					
Groundwater Capture	Initial		371	gpm	MODFLOW model results for Phase 1, maximum excavation condition (Golder's Report)					
			2,181,181	cu ft/mo						
	At Spill Elevation		80	gpm	MODFLOW model results for ultimate condition (Golder's Report)					
			470,336	cu ft/mo						
Date Quarry Filling Starts			**6/1/2028**							
			In situ Pit Water Treatment Removal Rate							
Assumptions	The pit is backfilled incrementally over a 10-year period, from 440 ft amsl to the spill-over elevation of 990 ft amsl									
	Backfill material has a porosity of 30-percent.									
	Surface runoff is only within the capture area of the pit and is based on water year 2009 data									
	Groundwater inflow into the pit varies by month and diminishes as the backfill increases									
	Precipitation directly infiltrates to the water table within the area of the backfill.									
	Evaporation of the pit lake is only applied when the cumulative volume of water in the pit is greater than the cumulative volume of void spaces within the backfill (based on 30-percent porosity)									
	The water level in the pit is dependent on the total cumulative volume of the backfill up to the spill-over elevation.									

54.22	722.95	232.39		5,188.76	0.00	1.31				
2.0	82.0	29	82	2	1	1	0	Se		Based on Measured Pit Water Quality
1	30	1	1	1	1	1	-	Se		Based on test data only
33	5	1	2	2	3	3	-	As		Based on Measured Pit Water Quality
		Concentrations	ug/L							

1.2	82.0	29	82	0.73	1	1		
	Surface Runoff		Groundwater Inflow		Infiltration		Precipitation	
Nominal	N Quarry Water	WMSA Runoff	N Quarry Water	Maximum Groundwater Well Water	Nominal	Nominal		
15.0	142.6	142.6	142.6	142.6	1	1	0	SO4

Phase	Year	Month	Total Months	Date	Quarry Area (Greenstone/Greywacke)	Quarry Area (Greenstone/Greywacke)	Quarry Area (Limestone)	Quarry Area (Limestone)	WMSA	WMSA	Groundwater Inflow	Undrained Backfill (No Surface Outlet)	Undrained Backfill (No Surface Outlet)	Drained Backfill (With Surface Outlet)	Drained Backfill (With Surface Outlet)	Pit Lake Precip	Water Entering Pit Lake	Pit Lake Outflow	Cumulative Volume Occupied by Water in Backfill	Cumulative Backfill Volume	Pit Water Level at End of Year	Pit Water Open Area at End of Year	Area for Surface Water Runoff for Next Year	First Cut Water Accumulation in Pit Lake	Available Water Storage in Pit	Quarry Area (Greenstone/Greywacke)	Quarry Area (Limestone)	WMSA	Groundwater Inflow	Undrained Backfill (No Surface Outlet)	Drained Backfill (With Surface Outlet)	Pit Lake Precip	Pit Lake Outflow	Cumulative Constituent in Pit	Pit Water Concentration	Insitue Treatment	First Year Load	Last Year Load	Pit Water Outflow Concentration
					sq ft	cu ft	sq ft	cu ft	sq ft	cu ft	cu ft	sq ft	cu ft	sq ft	cu ft	cu ft	cu ft	cu ft	cu ft	cu ft	ft	sq ft	sq ft	sq ft	cu ft	lb/month		lb/month	ug/L	lb/month	lb/month	lb/month	lb/month	lb	ug/L		lb/yr	lb/yr	ug/L
1	1	1	1	**1/1/2018**	**4,900,000**	687,361	**7,000,000**	981,944	**3,500,000**	294,583	**2,181,181**	**0**	0	**0**	0		4,145,070	4,145,070	**0**	**0**	**440**	**NA**	**NA**	**4,145,070**	**0**	0.64	8.75	2.63	142.60	19.44	0.00	0.00	0.00	0.00	121.44	0.0%			121.44
1	1	2	2	2/1/2018	4,901,285	1,140,683	7,000,000	1,629,120	3,503,533	489,229	2,181,181	0	0	0	0		5,440,214	5,440,214	0	NA	0	**440**		5,440,214	0	1.07	14.52	4.36	142.60	19.44	0.00	0.00	0.00	41.29	0.00	115.85	0.0%	1,889.16	52.15	115.85
1	1	3	3	3/1/2018	4,902,571	592,167	7,000,000	845,509	3,507,056	254,165	2,181,181	0	0	0	0		3,873,022	3,873,022	0		0	**440**		3,873,022	0	0.56	7.54	2.27	142.60	19.44	0.00	0.00	0.00	28.04	0.00	123.09	0.0%	Percent Reduction		123.09
1	1	4	4	4/1/2018	4,903,856	342,816	7,000,000	489,352	3,510,598	147,250	2,181,181	0	0	0	0		3,160,599	3,160,599	0		0	**440**		3,160,599	0	0.32	4.36	1.31	142.60	19.44	0.00	0.00	0.00	24.31	0.00	128.76	0.0%		97%	128.76
1	1	5	5	5/1/2018	4,905,142	94,696	7,000,000	135,139	3,514,131	40,705	2,181,181	0	0	0	0		2,451,722	2,451,722	0		0	**440**		2,451,722	0	0.09	1.20	0.36	142.60	19.44	0.00	0.00	0.00	19.73	0.00	137.67	0.0%		First Year of	137.67
1	1	6	6	6/1/2018	4,906,427	15,900	7,000,000	22,685	3,517,664	6,840	2,181,181	0	0	0	0		2,226,607	2,226,607	0		0	**440**		2,226,607	0	0.01	0.20	0.06	142.60	19.44	0.00	0.00	0.00	19.16	0.00	141.69	0.0%		Overflow	141.69
1	1	7	7	7/1/2018	4,907,712	682	7,000,000	972	3,521,197	293	2,181,181	0	0	0	0		2,183,128	2,183,128	0		0	**440**		2,183,128	0	0.00	0.01	0.00	142.60	19.44	0.00	0.00	0.00	19.33	0.00	142.56	0.0%		Load	142.56
1	1	8	8	8/1/2018	4,908,998	2,500	7,000,000	3,565	3,524,729	1,077	2,181,181	0	0	0	0		2,188,323	2,188,323	0		0	**440**		2,188,323	0	0.00	0.03	0.01	142.60	19.44	0.00	0.00	0.00	19.50	0.00	142.45	0.0%		9.06	142.45
1	1	9	9	9/1/2018	4,910,283	12,276	7,000,000	17,500	3,528,262	5,292	2,181,181	0	0	0	0		2,216,249	2,216,249	0		0	**440**		2,216,249	0	0.01	0.16	0.05	142.60	19.44	0.00	0.00	0.00	19.73	0.00	141.89	0.0%	Percent Reduction		141.89
1	1	10	10	10/1/2018	4,911,568	181,910	7,000,000	259,259	3,531,795	78,484	2,181,181	0	0	0	0		2,700,835	2,700,835	0		0	**440**		2,700,835	0	0.17	2.31	0.70	142.60	19.44	0.00	0.00	0.00	23.95	0.00	134.01	0.0%		100%	134.01
1	1	11	11	11/1/2018	4,912,854	596,821	7,000,000	850,370	3,535,328	257,686	2,181,181	0	0	0	0		3,886,058	3,886,058	0		0	**440**		3,886,058	0	0.56	7.58	2.30	142.60	19.44	0.00	0.00	0.00	32.55	0.00	123.00	0.0%			123.00
1	1	12	12	12/1/2018	4,914,139	869,530	7,000,000	1,238,611	3,538,861	375,709	2,181,181	0	0	0	0		4,665,031	4,665,031	0		0	**440**		4,665,031	0	0.82	11.04	3.35	142.60	19.44	0.00	0.00	0.00	36.86	0.00	118.82	0.0%			118.82
1	2	1	13	1/1/2019	4,915,425	689,525	7,000,000	981,944	3,542,393	298,151	2,181,181	0	0	0	0		4,150,802	4,150,802	0		0	**440**		4,150,802	0	0.65	8.75	2.66	142.60	19.44	0.00	0.00	0.00	30.82	0.00	121.40	0.0%			121.40
1	2	2	14	2/1/2019	4,916,710	1,144,273	7,000,000	1,629,120	3,545,926	495,149	2,181,181	0	0	0	0		5,449,724	5,449,724	0		0	**440**		5,449,724	0	1.07	14.52	4.41	142.60	19.44	0.00	0.00	0.00	41.35	0.00	115.81	0.0%			115.81
1	2	3	15	3/1/2019	4,917,995	594,030	7,000,000	845,509	3,549,459	257,237	2,181,181	0	0	0	0		3,877,958	3,877,958	0		0	**440**		3,877,958	0	0.56	7.54	2.29	142.60	19.44	0.00	0.00	0.00	28.07	0.00	123.05	0.0%			123.05
1	2	4	16	4/1/2019	4,919,281	343,894	7,000,000	489,352	3,552,992	149,028	2,181,181	0	0	0	0		3,163,455	3,163,455	0		0	**440**		3,163,455	0	0.32	4.36	1.33	142.60	19.44	0.00	0.00	0.00	24.33	0.00	128.73	0.0%			128.73
1	2	5	17	5/1/2019	4,920,566	94,994	7,000,000	135,139	3,556,524	41,196	2,181,181	0	0	0	0		2,452,511	2,452,511	0		0	**440**		2,452,511	0	0.09	1.20	0.37	142.60	19.44	0.00	0.00	0.00	19.73	0.00	137.66	0.0%			137.66
1	2	6	18	6/1/2019	4,921,851	15,900	7,000,000	22,685	3,560,057	6,922	2,181,181	0	0	0	0		2,226,739	2,226,739	0		0	**440**		2,226,739	0	0.01	0.20	0.06	142.60	19.44	0.00	0.00	0.00	19.16	0.00	141.69	0.0%			141.69
1	2	7	19	7/1/2019	4,923,137	684	7,000,000	972	3,563,590	297	2,181,181	0	0	0	0		2,183,134	2,183,134	0		0	**440**		2,183,134	0	0.00	0.01	0.00	142.60	19.44	0.00	0.00	0.00	19.33	0.00	142.56	0.0%			142.56
1	2	8	20	8/1/2019	4,924,422	2,508	7,000,000	3,565	3,567,123	1,090	2,181,181	0	0	0	0		2,188,344	2,188,344	0		0	**440**		2,188,344	0	0.00	0.03	0.01	142.60	19.44	0.00	0.00	0.00	19.50	0.00	142.45	0.0%			142.45
1	2	9	21	9/1/2019	4,925,708	12,314	7,000,000	17,500	3,570,655	5,356	2,181,181	0	0	0	0		2,216,351	2,216,351	0		0	**440**		2,216,351	0	0.01	0.16	0.05	142.60	19.44	0.00	0.00	0.00	19.73	0.00	141.89	0.0%			141.89
1	2	10	22	10/1/2019	4,926,993	182,481	7,000,000	259,259	3,574,188	79,426	2,181,181	0	0	0	0		2,702,348	2,702,348	0		0	**440**		2,702,348	0	0.17	2.31	0.71	142.60	19.44	0.00	0.00	0.00	23.96	0.00	133.98	0.0%			133.98
1	2	11	23	11/1/2019	4,928,278	598,696	7,000,000	850,370	3,577,721	260,776	2,181,181	0	0	0	0		3,891,022	3,891,022	0		0	**440**		3,891,022	0	0.56	7.58	2.32	142.60	19.44	0.00	0.00	0.00	32.58	0.00	122.97	0.0%			122.97
1	2	12	24	12/1/2019	4,929,564	872,259	7,000,000	1,238,611	3,581,254	380,210	2,181,181	0	0	0	0		4,672,261	4,672,261	0		0	**440**		4,672,261	0	0.82	11.04	3.39	142.60	19.44	0.00	0.00	0.00	35.91	0.00	118.78	0.0%			118.78
1	3	1	25	1/1/2020	4,930,849	691,689	7,000,000	981,944	3,584,787	301,720	2,181,181	0	0	0	0		4,156,534	4,156,534	0		0	**440**		4,156,534	0	0.65	8.75	2.69	142.60	19.44	0.00	0.00	0.00	30.86	0.00	121.37	0.0%			121.37
1	3	2	26	2/1/2020	4,932,134	1,147,863	7,000,000	1,629,120	3,588,319	501,069	2,181,181	0	0	0	0		5,459,233	5,459,233	0		0	**440**		5,459,233	0	1.08	14.52	4.47	142.60	19.44	0.00	0.00	0.00	41.41	0.00	115.77	0.0%			115.77
1	3	3	27	3/1/2020	4,933,420	595,893	7,000,000	845,509	3,591,852	260,310	2,181,181	0	0	0	0		3,882,893	3,882,893	0		0	**440**		3,882,893	0	0.56	7.54	2.32	142.60	19.44	0.00	0.00	0.00	28.10	0.00	123.02	0.0%			123.02
1	3	4	28	4/1/2020	4,934,705	344,972	7,000,000	489,352	3,595,385	150,806	2,181,181	0	0	0	0		3,166,312	3,166,312	0		0	**440**		3,166,312	0	0.32	4.36	1.34	142.60	19.44	0.00	0.00	0.00	24.34	0.00	128.70	0.0%			128.70
1	3	5	29	5/1/2020	4,935,991	95,292	7,000,000	135,139	3,598,918	41,687	2,181,181	0	0	0	0		2,453,300	2,453,300	0		0	**440**		2,453,300	0	0.09	1.20	0.37	142.60	19.44	0.00	0.00	0.00	19.73	0.00	137.64	0.0%			137.64
1	3	6	30	6/1/2020	4,937,276	16,000	7,000,000	22,685	3,602,450	7,005	2,181,181	0	0	0	0		2,226,872	2,226,872	0		0	**440**		2,226,872	0	0.02	0.20	0.06	142.60	19.44	0.00	0.00	0.00	19.16	0.00	141.68	0.0%			141.68
1	3	7	31	7/1/2020	4,938,561	686	7,000,000	972	3,605,983	300	2,181,181	0	0	0	0		2,183,140	2,183,140	0		0	**440**		2,183,140	0	0.00	0.01	0.00	142.60	19.44	0.00	0.00	0.00	19.33	0.00	142.56	0.0%			142.56
1	3	8	32	8/1/2020	4,939,847	2,516	7,000,000	3,565	3,609,516	1,103	2,181,181	0	0	0	0		2,188,365	2,188,365	0		0	**440**		2,188,365	0	0.00	0.03	0.01	142.60	19.44	0.00	0.00	0.00	19.50	0.00	142.45	0.0%			142.45
1	3	9	33	9/1/2020	4,941,132	12,353	7,000,000	17,500	3,613,049	5,420	2,181,181	0	0	0	0		2,216,454	2,216,454	0		0	**440**		2,216,454	0	0.01	0.16	0.05	142.60	19.44	0.00	0.00	0.00	19.73	0.00	141.89	0.0%			141.89
1	3	10	34	10/1/2020	4,942,417	183,052	7,000,000	259,259	3,616,582	80,368	2,181,181	0	0	0	0		2,703,861	2,703,861	0		0	**440**		2,703,861	0	0.17	2.31	0.72	142.60	19.44	0.00	0.00	0.00	23.98	0.00	133.96	0.0%			133.96
1	3	11	35	11/1/2020	4,943,703	600,568	7,000,000	850,370	3,620,114	263,866	2,181,181	0	0	0	0		3,895,986	3,895,986	0		0	**440**		3,895,986	0	0.56	7.58	2.35	142.60	19.44	0.00	0.00	0.00	32.62	0.00	122.93	0.0%			122.93
1	3	12	36	12/1/2020	4,944,988	874,988	7,000,000	1,238,611	3,623,647	384,711	2,181,181	0	0	0	0		4,679,491	4,679,491	0		0	**440**		4,679,491	0	0.82	11.04	3.43	142.60	19.44	0.00	0.00	0.00	35.95	0.00	118.74	0.0%			118.74
1	4	1	37	1/1/2021	4,946,274	693,852	7,000,000	981,944	3,627,180	305,288	2,181,181	0	0	0	0		4,162,266	4,162,266	0		0	**440**		4,162,266	0	0.65	8.75	2.72	142.60	19.44	0.00	0.00	0.00	30.89	0.00	121.33	0.0%			121.33
1	4	2	38	2/1/2021	4,947,559	1,151,453	7,000,000	1,629,120	3,630,713	506,989	2,181,181	0	0	0	0		5,468,743	5,468,743	0		0	**440**		5,468,743	0	1.08	14.52	4.52	142.60	19.44	0.00	0.00	0.00	41.47	0.00	115.73	0.0%			115.73
1	4	3	39	3/1/2021	4,948,844	597,756	7,000,000	845,509	3,634,245	263,382	2,181,181	0	0	0	0		3,887,829	3,887,829	0		0	**440**		3,887,829	0	0.56	7.54	2.35	142.60	19.44	0.00	0.00	0.00	28.12	0.00	122.98	0.0%			122.98
1	4	4	40	4/1/2021	4,950,130	346,051	7,000,000	489,352	3,637,778	152,585	2,181,181	0	0	0	0		3,169,168	3,169,168	0		0	**440**		3,169,168	0	0.32	4.36	1.36	142.60	19.44	0.00	0.00	0.00	24.36	0.00	128.67	0.0%			128.67
1	4	5	41	5/1/2021	4,951,415	95,292	7,000,000	135,139	3,641,311	42,179	2,181,181	0	0	0	0		2,454,088	2,454,088	0		0	**440**		2,454,088	0	0.09	1.20	0.38	142.60	19.44	0.00	0.00	0.00	19.74	0.00	137.63	0.0%			137.63
1	4	6	42	6/1/2021	4,952,701	16,050	7,000,000	22,685	3,644,844	7,087	2,181,181	0	0	0	0		2,227,004	2,227,004	0		0	**440**		2,227,004	0	0.02	0.20	0.06	142.60	19.44	0.00	0.00	0.00	19.16	0.00	141.68	0.0%			141.68
1	4	7	43	7/1/2021	4,953,986	688	7,000,000	972	3,648,376	304	2,181,181	0	0	0	0		2,183,146	2,183,146	0		0	**440**		2,183,146	0	0.00	0.01	0.00	142.60	19.44	0.00	0.00	0.00	19.33	0.00	142.56	0.0%			142.56
1	4	8	44	8/1/2021	4,955,271	2,524	7,000,000	3,565	3,651,909	1,116	2,181,181	0	0	0	0		2,188,385	2,188,385	0		0	**440**		2,188,385	0	0.00	0.03	0.01	142.60	19.44	0.00	0.00	0.00	19.50	0.00	142.45	0.0%			142.45
1	4	9	45	9/1/2021	4,956,557	12,391	7,000,000	17,500	3,655,442	5,483	2,181,181	0	0	0	0		2,216,556	2,216,556	0		0	**440**		2,216,556	0	0.01	0.16	0.05	142.60	19.44	0.00	0.00	0.00	19.73	0.00	141.89	0.0%			141.89
1	4	10	46	10/1/2021	4,957,842	183,624	7,000,000	259,259	3,658,975	81,311	2,181,181	0	0	0	0		2,705,375	2,705,375	0		0	**440**		2,705,375	0	0.17	2.31	0.72	142.60	19.44	0.00	0.00	0.00	23.99	0.00	133.94	0.0%			133.94
1	4	11	47	11/1/2021	4,959,127	602,442	7,000,000	850,370	3,662,508	266,956	2,181,181	0	0	0	0		3,900,950	3,900,950	0		0	**440**		3,900,950	0	0.56	7.58	2.38	142.60	19.44	0.00	0.00	0.00	32.66	0.00	122.89	0.0%			122.89
1	4	12	48	12/1/2021	4,960,413	877,717	7,000,000	1,238,611	3,666,040	389,211	2,181,181	0	0	0	0		4,686,721	4,686,721	0		0	**440**		4,686,721	0	0.82	11.04	3.47	142.60	19.44	0.00	0.00	0.00	36.00	0.00	118.70	0.0%			118.70
1	5	1	49	1/1/2022	4,961,698	696,016	7,000,000	981,944	3,669,573	308,856	2,181,181	0	0	0	0		4,167,997	4,167,997	0		0	**440**		4,167,997	0	0.65	8.75	2.75	142.60	19.44	0.00	0.00	0.00	30.92	0.00	121.29	0.0%			121.29
1	5	2	50	2/1/2022	4,962,984	1,155,042	7,000,000	1,629,120	3,673,106	512,908	2,181,181	0	0	0	0		5,478,253	5,478,253	0		0	**440**		5,478,253	0	1.08	14.52	4.57	142.60	19.44	0.00	0.00	0.00	41.53	0.00	115.70	0.0%			115.70
1	5	3	51	3/1/2022	4,964,269	599,619	7,000,000	845,509	3,676,639	266,454	2,181,181	0	0	0	0		3,892,764	3,892,764	0		0	**440**		3,892,764	0	0.56	7.54	2.37	142.60	19.44	0.00	0.00	0.00	28.15	0.00	122.95	0.0%			122.95
1	5	4	52	4/1/2022	4,965,554	347,228	7,000,000	489,352	3,680,171	154,363	2,181,181	0	0	0	0		3,172,025	3,172,025	0		0	**440**		3,172,025	0	0.33	4.36	1.38	142.60	19.44	0.00	0.00	0.00	24.37	0.00	128.64	0.0%			128.64
1	5	5	53	5/1/2022	4,966,840	95,888	7,000,000	135,139	3,683,704	42,670	2,181,181	0	0	0	0		2,454,877	2,454,877	0		0	**440**		2,454,877	0	0.09	1.20	0.38	142.60	19.44	0.00	0.00	0.00	19.74	0.00	137.62	0.0%			137.62
1	5	6	54	6/1/2022	4,968,125	16,100	7,000,000	22,685	3,687,237	7,170	2,181,181	0	0	0	0		2,227,136	2,227,136	0		0	**440**		2,227,136	0	0.02	0.20	0.06	142.60	19.44	0.00	0.00	0.00	19.16	0.00	141.68	0.0%			141.68
1	5	7	55	7/1/2022	4,969,410	690	7,000,000	972	3,690,770	308	2,181,181	0	0	0	0		2,183,151	2,183,151	0		0	**440**		2,183,151	0	0.00	0.01	0.00	142.60	19.44	0.00	0.00	0.00	19.33	0.00	142.56	0.0%			142.56
1	5	8	56	8/1/2022	4,970,696	2,532	7,000,000	3,565	3,694,303	1,129	2,181,181	0	0	0	0		2,188,406	2,188,406	0		0	**440**		2,188,406	0	0.00	0.03	0.01	142.60	19.44	0.00	0.00	0.00	19.50	0.00	142.45	0.0%			142.45
1	5	9	57	9/1/2022	4,971,981	12,430	7,000,000	17,500	3,697,835	5,547	2,181,181	0	0	0	0		2,216,658	2,216,658	0		0	**440**		2,216,658	0	0.01	0.16	0.05	142.60	19.44	0.00	0.00	0.00	19.74	0.00	141.88	0.0%			141.88
1	5	10	58	10/1/2022	4,973,267	184,195	7,000,000	259,259	3,701,368	82,253	2,181,181	0	0	0	0		2,706,888	2,706,888	0		0	**440**		2,706,888	0	0.17	2.31	0.73	142.60	19.44	0.00	0.00	0.00	24.00	0.00	133.92	0.0%			133.92
1	5	11	59	11/1/2022	4,974,552	604,316	7,000,000	850,370	3,704,901	268,145	2,181,181	0	0	0	0		3,905,914	3,905,914	0		0	**440**		3,905,914	0	0.56	7.58	2.41	142.60	19.44	0.00	0.00	0.00	32.69	0.00	122.86	0.0%			122.86
1	5	12	60	12/1/2022	4,975,837	880,447	7,000,000	1,238,611	3,708,434	393,712	2,181,181	0	0	0	0		4,693,951	4,693,951	0		0	**440**		4,693,951	0	0.83	11.04	3.51	142.60	19.44	0.00	0.00	0.00	36.04	0.00	118.67	0.0%			118.67
1	6	1	61	1/1/2023	4,977,123	698,180	7,000,000	981,944	3,711,966	312,424	2,181,181	0	0	0	0		4,173,729	4,173,729	0		0	**440**		4,173,729	0	0.65	8.75	2.78	142.60	19.44	0.00	0.00	0.00	30.95	0.00	121.26	0.0%			121.26
1	6	2	62	2/1/2023	4,978,408	1,158,632	7,000,000	1,629,120	3,715,499	518,828	2,181,181	0	0	0	0		5,487,762	5,487,762	0		0	**440**		5,487,762	0	1.09	14.52	4.62	142.60	19.44

2	12	8	140	8/1/2029	3,368,640	1,716	4,666,667	2,377	2,613,600	799	1,465,737	0	0	653,400	100	1,470,727	0	34,744,268	364,691,672	675	34,744,268	524,244,279	0.00	0.02	0.01	142.60	13.06	0.00	0.00	0.00	0.00	279.54	128.73	0.0%	0.00
2	12	9	141	9/1/2029	3,284,424	8,211	4,550,000	11,375	2,548,260	3,822	1,450,184	0	0	686,020	515	1,474,107	0	36,218,375	376,088,287	680	36,218,375	516,348,151	0.01	0.10	0.03	142.60	12.92	0.00	0.00	0.00	0.00	292.61	129.35	0.0%	0.00
2	12	10	142	10/1/2029	3,200,208	118,526	4,433,333	164,198	2,482,920	55,176	1,434,630	0	0	718,740	7,986	1,790,516	0	37,998,891	387,484,902	685	37,998,891	508,289,018	0.11	1.46	0.49	142.60	12.79	0.00	0.00	0.00	0.00	307.46	129.46	0.0%	0.00
2	12	11	143	11/1/2029	3,115,992	378,535	4,316,667	524,395	2,417,580	176,215	1,419,077	0	0	751,430	27,385	2,525,607	0	40,524,498	398,881,517	695	40,524,498	500,311,388	0.35	4.67	1.57	142.60	12.65	0.00	0.00	0.00	0.00	326.71	128.99	0.0%	0.00
2	12	12	144	12/1/2029	3,031,776	536,456	4,200,000	743,167	2,352,240	249,729	1,387,971	0	0	784,080	41,622	2,966,945	0	43,483,443	415,278,131	705	43,483,443	492,393,758	0.50	6.62	2.23	142.60	12.52	0.00	0.00	0.00	0.00	348.43	128.21	0.0%	0.00
2	13	1	145	1/1/2030	2,947,560	413,477	4,083,333	572,801	2,286,900	192,481	1,356,865	0	0	816,750	34,372	2,569,995	0	46,053,438	421,674,746	715	46,053,438	484,356,127	0.39	5.11	1.72	142.60	12.09	0.00	0.00	0.00	0.00	367.74	127.76	0.0%	0.00
2	13	2	146	2/1/2030	2,863,344	665,390	3,966,667	923,168	2,221,560	310,216	1,325,758	0	0	849,420	55,306	3,284,839	0	49,338,277	433,071,361	725	49,338,277	476,378,497	0.62	8.23	2.76	142.60	11.82	0.00	0.00	0.00	0.00	391.17	126.85	0.0%	0.00
2	13	3	147	3/1/2030	2,779,128	335,683	3,850,000	465,030	2,156,220	156,266	1,294,652	0	0	882,090	31,964	2,283,594	0	51,621,871	444,467,976	730	51,621,871	468,400,867	0.31	4.14	1.39	142.60	11.54	0.00	0.00	0.00	0.00	408.57	126.63	0.0%	0.00
2	13	4	148	4/1/2030	2,694,912	188,394	3,733,333	260,988	2,090,880	87,701	1,279,099	0	0	914,760	19,185	1,835,366	0	53,457,238	455,864,590	735	53,457,238	460,423,236	0.18	2.33	0.78	142.60	11.40	0.00	0.00	0.00	0.00	423.25	126.68	0.0%	0.00
2	13	5	149	5/1/2030	2,610,696	50,401	3,616,667	69,822	2,025,540	23,463	1,263,546	0	0	947,430	5,487	1,412,718	0	54,869,956	467,261,205	740	54,869,956	452,445,606	0.05	0.62	0.21	142.60	11.26	0.00	0.00	0.00	0.00	435.39	126.96	0.0%	0.00
2	13	6	150	6/1/2030	2,526,480	8,188	3,500,000	11,343	1,960,200	3,811	1,247,993	0	0	980,100	963	1,272,287	0	56,142,243	478,657,820	745	56,142,243	444,487,075	0.01	0.10	0.03	142.60	11.12	0.00	0.00	0.00	0.00	446.66	127.29	0.0%	0.00
2	13	7	151	7/1/2030	2,442,264	339	3,383,333	470	1,894,860	158	1,232,440	0	0	1,012,770	42	1,233,449	0	57,375,692	490,054,435	745	57,375,692	438,490,345	0.00	0.00	0.00	142.60	10.98	0.00	0.00	0.00	0.00	457.65	127.62	0.0%	0.00
2	13	8	152	8/1/2030	2,358,048	1,664	3,266,667	2,309	1,829,520	559	1,222,440	0	0	1,045,440	160	1,236,023	0	58,611,715	501,453,849	750	58,611,715	432,312,716	0.00	0.01	0.00	142.60	10.98	0.00	0.00	0.00	0.00	468.65	127.93	0.0%	0.00
2	13	9	153	9/1/2030	2,273,832	5,685	3,150,000	7,875	1,764,180	2,646	1,216,886	0	0	1,078,110	809	1,233,901	0	59,845,615	512,847,664	755	59,845,615	420,535,065	0.01	0.07	0.02	142.60	10.85	0.00	0.00	0.00	0.00	479.60	128.22	0.0%	0.00
2	13	10	154	10/1/2030	2,189,616	81,097	3,033,333	112,346	1,698,840	37,752	1,211,332	0	0	1,110,930	12,342	1,246,274	0	61,290,485	524,242,255	765	61,290,485	408,407,840	0.08	1.00	0.34	142.60	10.71	0.00	0.00	0.00	0.00	491.72	128.36	0.0%	0.00
2	13	11	155	11/1/2030	2,105,400	255,767	2,916,667	354,321	1,633,500	119,064	1,201,333	0	0	1,143,450	41,672	1,972,158	0	63,262,643	535,640,894	760	63,262,643	404,579,824	0.24	3.16	1.06	142.60	10.71	0.00	0.00	0.00	0.00	506.89	128.20	0.0%	0.00
2	13	12	156	12/1/2030	2,021,184	357,637	2,800,000	495,444	1,568,160	166,486	1,185,780	0	0	1,176,120	62,432	2,267,781	0	65,530,424	547,037,509	770	65,530,424	398,602,184	0.34	4.42	1.48	142.60	10.57	0.00	0.00	0.00	0.00	523.69	127.87	0.0%	0.00
3	14	1	157	1/1/2031	1,936,968	271,714	2,683,333	376,412	1,502,820	126,487	1,154,674	0	0	1,208,790	47,147	1,980,157	0	67,510,580	558,217,666	775	67,510,580	388,642,343	0.25	3.35	1.13	142.60	10.29	0.00	0.00	0.00	0.00	538.77	127.68	0.0%	0.00
2	14	2	158	2/1/2031	1,852,752	431,194	2,566,667	597,344	1,437,480	200,728	1,139,121	0	0	1,241,460	86,678	2,455,065	0	69,965,645	296,311,984	780	69,965,645	380,646,933	0.40	5.32	1.79	142.60	10.15	0.00	0.01	0.00	0.00	556.40	127.24	0.0%	0.00
2	14	3	159	3/1/2031	1,768,536	213,618	2,450,000	295,928	1,372,140	99,442	1,123,568	0	0	1,274,130	46,170	1,778,724	0	71,744,368	307,908,599	785	71,744,368	372,669,303	0.20	2.64	0.89	142.60	10.01	0.00	0.00	0.00	0.00	570.14	127.15	0.0%	0.00
2	14	4	160	4/1/2031	1,684,320	117,746	2,333,333	163,117	1,306,800	54,813	1,108,014	0	0	1,306,800	27,407	1,471,098	0	73,215,466	319,105,213	790	73,215,466	364,691,672	0.11	1.45	0.49	142.60	9.88	0.00	0.00	0.00	0.00	582.07	127.20	0.0%	0.00
2	14	5	161	5/1/2031	1,600,104	30,891	2,216,667	42,794	1,241,460	14,380	1,108,014	0	0	1,339,470	7,218	1,204,170	0	74,419,303	330,514,828	795	74,419,303	354,045,042	0.03	0.38	0.13	142.60	9.88	0.00	0.00	0.00	0.00	592.48	127.28	0.0%	0.00
2	14	6	162	6/1/2031	1,515,888	4,913	2,100,000	6,806	1,176,120	2,287	1,092,461	0	0	1,372,140	1,334	1,107,800	0	75,527,104	341,898,443	790	75,527,104	348,736,412	0.00	0.06	0.02	142.60	9.74	0.00	0.00	0.00	0.00	602.31	127.60	0.0%	0.00
2	14	7	163	7/1/2031	1,431,672	199	1,983,333	275	1,110,780	93	1,092,461	0	0	1,404,510	59	1,093,087	0	76,620,190	353,295,058	795	76,620,190	340,758,791	0.00	0.00	0.00	142.60	9.74	0.00	0.00	0.00	0.00	612.05	127.81	0.0%	0.00
2	14	8	164	8/1/2031	1,347,456	686	1,866,667	951	1,045,440	319	1,076,908	0	0	1,437,480	220	1,079,084	0	77,699,274	364,691,672	795	77,699,274	332,781,151	0.00	0.02	0.01	142.60	9.60	0.00	0.00	0.00	0.00	621.66	128.01	0.0%	0.00
2	14	9	165	9/1/2031	1,263,240	3,158	1,750,000	4,375	980,100	1,470	1,076,908	0	0	1,470,510	1,103	1,087,014	0	78,786,288	376,008,287	800	78,786,288	324,863,521	0.00	0.04	0.01	142.60	9.60	0.00	0.00	0.00	0.00	631.31	128.21	0.0%	0.00
2	14	10	166	10/1/2031	1,179,024	43,668	1,633,333	60,494	914,760	20,328	1,061,355	0	0	1,502,820	16,698	1,202,542	0	79,988,831	387,484,902	800	79,988,831	316,825,890	0.04	0.54	0.18	142.60	9.46	0.00	0.00	0.00	0.00	641.53	128.32	0.0%	0.00
2	14	11	167	11/1/2031	1,094,808	132,998	1,516,667	184,247	849,420	61,913	1,061,355	0	0	1,535,400	55,980	1,496,474	0	81,485,305	398,881,517	805	81,485,305	308,948,260	0.12	1.64	0.55	142.60	9.46	0.00	0.00	0.00	0.00	653.31	128.29	0.0%	0.00
2	14	12	168	12/1/2031	1,010,592	178,819	1,400,000	247,722	784,080	83,243	1,045,802	0	0	1,568,160	83,243	1,638,829	0	83,124,134	410,278,131	810	83,124,134	300,870,636	0.17	2.21	0.74	142.60	9.32	0.00	0.01	0.00	0.00	665.76	128.15	0.0%	0.00
2	15	1	169	1/1/2032	926,376	129,950	1,283,333	180,023	718,740	60,494	1,030,249	0	0	1,600,830	67,368	1,468,084	0	84,592,218	292,892,999	812	84,592,218	292,892,999	0.12	1.60	0.54	142.60	9.18	0.00	0.00	0.00	0.00	677.21	128.09	0.0%	0.00
2	15	2	170	2/1/2032	842,160	195,997	1,166,667	271,520	653,400	91,240	1,030,249	0	0	1,633,500	101,650	1,701,056	0	86,295,274	284,915,300	814	86,295,274	284,915,300	0.18	2.42	0.81	142.60	9.18	0.00	0.01	0.00	0.00	689.81	127.90	0.0%	0.00
2	15	3	171	3/1/2032	757,944	91,550	1,050,000	126,826	588,060	42,618	1,014,696	0	0	1,666,170	60,376	1,336,065	0	87,631,339	276,937,729	819	87,631,339	276,937,729	0.09	1.13	0.38	142.60	9.04	0.00	0.00	0.00	0.00	700.46	127.89	0.0%	0.00
2	15	4	172	4/1/2032	673,728	47,099	933,333	65,247	522,720	21,925	999,142	0	0	1,698,840	35,628	1,149,042	0	88,800,381	268,980,318	820	88,800,381	268,980,318	0.04	0.58	0.20	142.60	8.90	0.00	0.00	0.00	0.00	710.18	127.96	0.0%	0.00
2	15	5	173	5/1/2032	589,512	11,381	816,667	15,766	457,380	5,298	999,142	0	0	1,731,510	10,028	1,041,616	0	89,841,996	260,982,478	821	89,841,996	260,982,478	0.01	0.14	0.05	142.60	8.90	0.00	0.00	0.00	0.00	719.29	128.10	0.0%	0.00
2	15	6	174	6/1/2032	505,296	1,638	700,000	2,269	392,040	762	999,142	0	0	1,764,180	1,715	1,065,526	0	90,847,522	253,244,548	822	90,847,522	253,244,548	0.00	0.02	0.01	142.60	8.90	0.00	0.00	0.00	0.00	728.22	128.25	0.0%	0.00
2	15	7	175	7/1/2032	421,080	58	583,333	81	326,700	27	983,589	0	0	1,796,850	75	983,831	0	91,831,353	490,054,435	825	91,831,353	245,027,217	0.00	0.00	0.00	142.60	8.77	0.00	0.00	0.00	0.00	736.99	128.41	0.0%	0.00
2	15	8	176	8/1/2032	336,864	172	466,667	238	261,360	8	983,589	0	0	1,829,220	2	984,358	0	92,815,711	467,261,205	830	92,815,711	237,240,219	0.00	0.00	0.00	142.60	8.77	0.00	0.00	0.00	0.00	745.76	128.56	0.0%	0.00
2	15	9	177	9/1/2032	252,648	632	350,000	875	196,020	294	968,036	0	0	1,862,190	1,397	971,233	0	93,786,945	229,071,957	830	93,786,945	229,071,957	0.00	0.01	0.00	142.60	8.63	0.00	0.00	0.00	0.00	754.19	128.70	0.0%	0.00
2	15	10	178	10/1/2032	168,432	6,238	233,333	8,642	130,680	2,904	968,036	0	0	1,894,860	21,054	1,000,874	0	94,793,819	221,260,000	830	94,793,819	221,260,000	0.01	0.08	0.03	142.60	8.63	0.00	0.00	0.00	0.00	762.61	128.81	0.0%	0.00
2	15	11	179	11/1/2032	84,216	10,231	116,667	14,173	65,340	4,763	968,036	0	0	1,927,530	70,248	1,067,450	0	95,861,269	535,640,894	835	95,861,269	211,725,504	0.01	0.13	0.04	142.60	8.63	0.00	0.00	0.00	0.00	771.95	128.84	0.0%	0.00
2	**15**	**12**	**180**	**12/1/2032**	**0**	**0**	**0**	**0**	**0**	**0**	**952,483**	**0**	**0**	**1,960,200**	**104,054**	**1,056,537**	**0**	**96,917,806**	**547,037,509**	**835**	**96,917,806**	**200,328,889**	**0.00**	**0.00**	**0.00**	**142.60**	**8.49**	**0.00**	**0.01**	**0.00**	**0.00**	**780.44**	**128.84**	**0.0%**	**0.00**
3	16	1	181	1/1/2033	0	0	0	0	0	0	1,030,249	0	0	1,960,200	82,492	1,112,740	0	98,030,546	558,434,123	840	98,030,546	200,328,889	0.00	0.00	0.00	142.60	9.18	0.00	0.01	0.00	0.00	789.63	128.88	0.0%	0.00
3	16	2	182	2/1/2033	0	0	0	0	0	0	936,930	0	0	1,960,200	138,860	1,073,790	0	99,104,336	569,830,738	840	99,104,336	200,328,889	0.00	0.00	0.00	142.60	8.35	0.00	0.01	0.00	0.00	797.99	128.83	0.0%	0.00
3	16	3	183	3/1/2033	0	0	0	0	0	0	936,930	0	0	1,960,200	71,030	1,007,960	0	100,112,296	581,227,353	840	100,112,296	200,328,889	0.00	0.00	0.00	142.60	8.35	0.00	0.01	0.00	0.00	806.34	128.87	0.0%	0.00
3	16	4	184	4/1/2033	0	0	0	0	0	0	936,930	0	0	1,960,200	41,110	978,040	0	101,090,336	592,623,968	845	101,090,336	200,328,889	0.00	0.00	0.00	142.60	8.35	0.00	0.01	0.00	0.00	814.69	128.95	0.0%	0.00
3	16	5	185	5/1/2033	0	0	0	0	0	0	921,377	0	0	1,960,200	11,353	932,730	0	102,023,065	604,020,582	845	102,023,065	200,328,889	0.00	0.00	0.00	142.60	8.21	0.00	0.01	0.00	0.00	820.51	129.05	0.0%	0.00
3	16	6	186	6/1/2033	0	0	0	0	0	0	921,377	0	0	1,960,200	1,906	923,282	0	102,946,347	615,417,197	845	102,946,347	200,328,889	0.00	0.00	0.00	142.60	8.21	0.00	0.01	0.00	0.00	831.12	129.17	0.0%	0.00
3	16	7	187	7/1/2033	0	0	0	0	0	0	921,377	0	0	1,960,200	82	921,458	0	103,867,805	626,813,197	850	103,867,805	200,328,889	0.00	0.00	0.00	142.60	8.21	0.00	0.01	0.00	0.00	839.33	129.29	0.0%	0.00
3	16	8	188	8/1/2033	0	0	0	0	0	0	905,824	0	0	1,960,200	299	906,123	0	104,773,929	638,210,427	850	104,773,929	200,328,889	0.00	0.00	0.00	142.60	8.07	0.00	0.01	0.00	0.00	847.40	129.41	0.0%	0.00
3	16	9	189	9/1/2033	0	0	0	0	0	0	905,824	0	0	1,960,200	1,470	907,294	0	105,681,223	649,607,841	850	105,681,223	200,328,889	0.00	0.00	0.00	142.60	8.07	0.00	0.01	0.00	0.00	855.48	129.52	0.0%	0.00
3	16	10	190	10/1/2033	0	0	0	0	0	0	905,824	0	0	1,960,200	21,780	927,604	0	106,608,826	661,003,656	855	106,608,826	200,328,889	0.00	0.00	0.00	142.60	8.07	0.00	0.01	0.00	0.00	863.55	129.60	0.0%	0.00
3	16	11	191	11/1/2033	0	0	0	0	0	0	890,270	0	0	1,960,200	71,438	961,708	0	107,570,535	672,402,271	855	107,570,535	200,328,889	0.00	0.00	0.00	142.60	7.93	0.00	0.01	0.00	0.00	871.49	129.63	0.0%	0.00
3	16	12	192	12/1/2033	0	0	0	0	0	0	890,270	0	0	1,960,200	104,054	994,324	0	108,564,859	683,796,886	860	108,564,859	200,328,889	0.00	0.00	0.00	142.60	7.80	0.00	0.01	0.00	0.00	879.43	129.61	0.0%	0.00
3	17	1	193	1/1/2034	0	0	0	0	0	0	874,717	0	0	1,960,200	82,492	957,209	0	109,522,068	683,796,886	860	109,522,068	200,328,889	0.00	0.00	0.00	142.60	7.80	0.00	0.01	0.00	0.00	887.23	129.62	0.0%	0.00
3	17	2	194	2/1/2034	0	0	0	0	0	0	874,717	0	0	1,960,200	138,860	1,013,377	0	110,535,446	683,796,886	860	110,535,446	200,328,889	0.00	0.00	0.00	142.60	7.80	0.00	0.01	0.00	0.00	895.04	129.56	0.0%	0.00
3	17	3	195	3/1/2034	0	0	0	0	0	0	874,717	0	0	1,960,200	71,030	945,747	0	111,479,393	683,796,886	865	111,479,393	200,328,889	0.00	0.00	0.00	142.60	7.80	0.00	0.01	0.00	0.00	902.84	129.58	0.0%	0.00
3	17	4	196	4/1/2034	0	0	0	0	0	0	859,164	0	0	1,960,200	41,110	900,274	0	112,379,667	683,796,886	865	112,379,667	200,328,889	0.00	0.00	0.00	142.60	7.66	0.00	0.01	0.00	0.00	910.50	129.63	0.0%	0.00
3	17	5	197	5/1/2034	0	0	0	0	0	0	859,164	0	0	1,960,200	11,353	870,517	0	113,250,184	683,796,886	865	113,250,184	200,328,889	0.00	0.00	0.00	142.60	7.66	0.00	0.01	0.00	0.00	918.16	129.72	0.0%	0.00
3	17	6	198	6/1/2034	0	0	0	0	0	0	859,164	0	0	1,960,200	1,906	861,070	0	114,111,254	683,796,886	865	114,111,254	200,328,889	0.00	0.00	0.00	142.60	7.66	0.00	0.01	0.00	0.00	925.81	129.81	0.0%	0.00
3	17	7	199	7/1/2034	0	0	0	0	0	0	859,164	0	0	1,960,200	82	859,246	0	114,970,499	683,796,886	870	114,970,499	200,328,889	0.00	0.00	0.00	142.60	7.66	0.00	0.01	0.00	0.00	933.47	129.91	0.0%	0.00
3	17	8	200	8/1/2034	0	0	0	0	0	0	843,611	0	0	1,960,200	299	843,910	0	115,814,410	683,796,886	870	115,814,410	200,328,889	0.00	0.00	0.00	142.60	7.52	0.00	0.01	0.00	0.00	940.99	130.00	0.0%	0.00
3	17	9	201	9/1/2034	0	0	0	0	0	0	843,611	0	0	1,960,200	1,470	845,081	0	116,659,491	683,796,886	870	116,659,491	200,328,889	0.00	0.00	0.00	142.60	7.52	0.00	0.01	0.00	0.00	948.51	130.09	0.0%	0.00
3	17	10	202	10/1/2034	0	0	0	0	0	0	843,611	0	0	1,960,200	21,780	865,391	0	117,524,882	683,796,886	875	117,524,882	200,328,889	0.00	0.00	0.00	142.60	7.52	0.00	0.01	0.00	0.00	956.03	130.15	0.0%	0.00
3	17	11	203	11/1/2034	0	0	0	0	0	0	828,058	0	0	1,960,200	71,438	899,496	0	118,424,378	683,796,886	875	118,424,378	200,328,889	0.00	0.00	0.00	142.60	7.38	0.00	0.01	0.00	0.00	963.41	130.16	0.0%	0.00
3	17	12	204	12/1/2034	0	0	0	0	0	0	828,058	0	0	1,960,200	104,054	932,112	0	119,356,490	683,796,886	875	119,356,490	200,328,889	0.00	0.00	0.00	142.60	7.38	0.00	0.01	0.00	0.00	970.80	130.14	0.0%	0.00
3	18	1	205	1/1/2035	0	0	0	0	0	0	828,058	0	0	1,960,200	82,492	910,550	0	120,267,040	683,796,886	880	120,267,040	200,328,889	0.00	0.00	0.00	142.60	7.38	0.00	0.01	0.00	0.00	978.18	130.13	0.0%	0.00
3	18	2	206	2/1/2035	0	0	0	0	0	0	812,505	0	0	1,960,200	138,860	949,365	0	121,216,404	683,796,886	880	121,216,404	200,328,889	0.00	0.00	0.00	142.60	7.24	0.00	0.01	0.00	0.00	985.43	130.07	0.0%	0.00
3	18	3	207	3/1/2035	0	0	0	0	0	0	812,505	0	0	1,960,200	71,030	883,535	0	122,099,939	683,796,886	880	122,099,939	200,328,889	0.00	0.00	0.00	142.60	7.24	0.00	0.01	0.00	0.00	992.68	130.08	0.0%	0.00
3	18	4	208	4/1/2035	0	0	0	0	0	0	812,505	0	0	1,960,200	41,110	853,614	0	122,953,554	683,796,886	880	122,953,554	200,328,889	0.00	0.00	0.00	142.60	7.24	0.00	0.01	0.00	0.00	999.92	130.12	0.0%	0.00
3	18	5	209	5/1/2035	0	0	0	0	0	0	812,505	0	0	1,960,200	11,353	823,858	0	123,777,411	683,796,886	885	123,777,411	200,328,889	0.00	0.00	0.00	142.60	7.24	0.00	0.01	0.00	0.00	1,007.17	130.19	0.0%	0.00
3	18	6	210	6/1/2035	0	0	0	0	0	0	796,952	0	0	1,960,200	1,906	798,857	0	124,576,268	683,796,886	885	124,576,268	200,328,889	0.00	0.00	0.00	142.60	7.10	0.00	0.01	0.00	0.00	1,014.27	130.27	0.0%	0.00
3	18	7	211	7/1/2035	0	0	0	0	0	0	796,952	0	0	1,960,200	82	797,033	0	125,373,302	683,796,886	885	125,373,302	200,328,889	0.00	0.00	0.00	142.60	7.10	0.00	0.01	0.00	0.00	1,021.37	130.35	0.0%	0.00
3	18	8	212	8/1/2035	0	0	0	0	0	0	796,952	0	0	1,960,200	299	797,251	0	126,170,553	683,796,886	885	126,170,553	200,328,889	0.00	0.00	0.00	142.60	7.10	0.00	0.01	0.00	0.00	1,028.47	130.42	0.0%	0.00
3	18	9	213	9/1/2035	0	0	0	0	0	0	781,398	0	0	1,960,200	1,470	798,422	0	126,968,974	683,796,886	890	126,968,974	200,328,889	0.00	0.00	0.00	142.60	7.10	0.00	0.01	0.00	0.00	1,035.58	130.50	0.0%	0.00
3	18	10	214	10/1/2035	0	0	0	0	0	0	781,398	0	0	1,960,200	21,780	803

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NA	44	4	520	4/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	4.31	1.639.33	130.93	0.0%	130.93
NA	44	5	521	5/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	4.07	1.639.60	130.95	0.0%	130.95
NA	44	6	522	6/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	3.99	1.639.93	130.98	0.0%	130.98
NA	44	7	523	7/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	3.98	1.640.29	131.01	0.0%	131.01
NA	44	8	524	8/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	3.98	1.640.64	131.04	0.0%	131.04
NA	44	9	525	9/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	3.99	1.640.97	131.06	0.0%	131.06
NA	44	10	526	10/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	4.16	1.641.15	131.08	0.0%	131.08
NA	44	11	527	11/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	4.57	1.640.92	131.06	0.0%	131.06
NA	44	12	528	12/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.01	0.00	4.83	1.640.42	131.02	0.0%	131.02
NA	45	1	529	1/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	82.492	568.380	568.380	200.328.889	683.796.886	985	200.897.270	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.01	0.00	4.65	1.640.10	130.99	0.0%	130.99
NA	45	2	530	2/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	136.860	622.749	622.749	200.328.889	683.796.886	985	200.951.638	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.01	0.00	5.10	1.639.34	130.93	0.0%	130.93
NA	45	3	531	3/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	71.030	556.919	556.919	200.328.889	683.796.886	985	200.885.808	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	4.56	1.639.12	130.91	0.0%	130.91
NA	45	4	532	4/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	4.31	1.639.34	130.92	0.0%	130.92
NA	45	5	533	5/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	4.07	1.639.41	130.94	0.0%	130.94
NA	45	6	534	6/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	3.99	1.639.74	130.96	0.0%	130.96
NA	45	7	535	7/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	3.98	1.640.10	130.99	0.0%	130.99
NA	45	8	536	8/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	3.98	1.640.45	131.02	0.0%	131.02
NA	45	9	537	9/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	3.99	1.640.79	131.05	0.0%	131.05
NA	45	10	538	10/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	4.16	1.640.96	131.06	0.0%	131.06
NA	45	11	539	11/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	4.57	1.640.73	131.04	0.0%	131.04
NA	45	12	540	12/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.01	0.00	4.83	1.640.24	131.00	0.0%	131.00
NA	46	1	541	1/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	82.492	568.380	568.380	200.328.889	683.796.886	985	200.897.270	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.01	0.00	4.65	1.639.92	130.98	0.0%	130.98
NA	46	2	542	2/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	136.860	622.749	622.749	200.328.889	683.796.886	985	200.951.638	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.01	0.00	5.10	1.639.16	130.92	0.0%	130.92
NA	46	3	543	3/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	71.030	556.919	556.919	200.328.889	683.796.886	985	200.885.808	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	4.56	1.638.94	130.90	0.0%	130.90
NA	46	4	544	4/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	4.31	1.638.96	130.90	0.0%	130.90
NA	46	5	545	5/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	4.07	1.639.22	130.92	0.0%	130.92
NA	46	6	546	6/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	3.99	1.639.56	130.95	0.0%	130.95
NA	46	7	547	7/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	3.98	1.639.91	130.98	0.0%	130.98
NA	46	8	548	8/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	3.98	1.640.26	131.01	0.0%	131.01
NA	46	9	549	9/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	3.99	1.640.60	131.03	0.0%	131.03
NA	46	10	550	10/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	4.16	1.640.78	131.05	0.0%	131.05
NA	46	11	551	11/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	4.56	1.640.55	131.03	0.0%	131.03
NA	46	12	552	12/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.01	0.00	4.83	1.640.05	130.99	0.0%	130.99
NA	47	1	553	1/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	82.492	568.380	568.380	200.328.889	683.796.886	985	200.897.270	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.01	0.00	4.65	1.639.74	130.96	0.0%	130.96
NA	47	2	554	2/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	136.860	622.749	622.749	200.328.889	683.796.886	985	200.951.638	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.01	0.00	5.10	1.638.98	130.90	0.0%	130.90
NA	47	3	555	3/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	71.030	556.919	556.919	200.328.889	683.796.886	985	200.885.808	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	4.56	1.638.76	130.89	0.0%	130.89
NA	47	4	556	4/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	4.31	1.638.78	130.89	0.0%	130.89
NA	47	5	557	5/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	4.07	1.639.04	130.91	0.0%	130.91
NA	47	6	558	6/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	3.99	1.639.38	130.94	0.0%	130.94
NA	47	7	559	7/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	3.98	1.639.74	130.96	0.0%	130.96
NA	47	8	560	8/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	3.98	1.640.09	130.99	0.0%	130.99
NA	47	9	561	9/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	3.99	1.640.43	131.02	0.0%	131.02
NA	47	10	562	10/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	4.16	1.640.60	131.03	0.0%	131.03
NA	47	11	563	11/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	4.56	1.640.37	131.01	0.0%	131.01
NA	47	12	564	12/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.01	0.00	4.83	1.639.88	130.97	0.0%	130.97
NA	48	1	565	1/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	82.492	568.380	568.380	200.328.889	683.796.886	985	200.897.270	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.01	0.00	4.65	1.639.56	130.95	0.0%	130.95
NA	48	2	566	2/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	136.860	622.749	622.749	200.328.889	683.796.886	985	200.951.638	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.01	0.00	5.10	1.638.80	130.89	0.0%	130.89
NA	48	3	567	3/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	71.030	556.919	556.919	200.328.889	683.796.886	985	200.885.808	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	4.56	1.638.58	130.87	0.0%	130.87
NA	48	4	568	4/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	4.31	1.638.61	130.87	0.0%	130.87
NA	48	5	569	5/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	4.07	1.638.87	130.89	0.0%	130.89
NA	48	6	570	6/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	3.99	1.639.21	130.92	0.0%	130.92
NA	48	7	571	7/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	3.98	1.639.56	130.95	0.0%	130.95
NA	48	8	572	8/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	3.98	1.639.91	130.98	0.0%	130.98
NA	48	9	573	9/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	3.99	1.640.26	131.01	0.0%	131.01
NA	48	10	574	10/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	4.16	1.640.43	131.02	0.0%	131.02
NA	48	11	575	11/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	4.56	1.640.20	131.00	0.0%	131.00
NA	48	12	576	12/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.01	0.00	4.83	1.639.71	130.96	0.0%	130.96
NA	49	1	577	1/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	82.492	568.380	568.380	200.328.889	683.796.886	985	200.897.270	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.01	0.00	4.65	1.639.39	130.94	0.0%	130.94
NA	49	2	578	2/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	136.860	622.749	622.749	200.328.889	683.796.886	985	200.951.638	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.01	0.00	5.10	1.638.63	130.88	0.0%	130.88
NA	49	3	579	3/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	71.030	556.919	556.919	200.328.889	683.796.886	985	200.885.808	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	4.56	1.638.41	130.86	0.0%	130.86
NA	49	4	580	4/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	4.31	1.638.44	130.86	0.0%	130.86
NA	49	5	581	5/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	4.07	1.638.70	130.88	0.0%	130.88
NA	49	6	582	6/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	3.99	1.639.04	130.91	0.0%	130.91
NA	49	7	583	7/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	3.98	1.639.40	130.94	0.0%	130.94
NA	49	8	584	8/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	3.98	1.639.75	130.96	0.0%	130.96
NA	49	9	585	9/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	3.99	1.640.09	130.99	0.0%	130.99
NA	49	10	586	10/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	4.16	1.640.27	131.01	0.0%	131.01
NA	49	11	587	11/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	4.56	1.640.04	130.99	0.0%	130.99
NA	49	12	588	12/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.01	0.00	4.83	1.639.54	130.95	0.0%	130.95
NA	50	1	589	1/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	82.492	568.380	568.380	200.328.889	683.796.886	985	200.897.270	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.01	0.00	4.65	1.639.23	130.92	0.0%	130.92
NA	50	2	590	2/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	136.860	622.749	622.749	200.328.889	683.796.886	985	200.951.638	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.01	0.00	5.10	1.638.47	130.86	0.0%	130.86
NA	50	3	591	3/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	71.030	556.919	556.919	200.328.889	683.796.886	985	200.885.808	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	4.56	1.638.25	130.84	0.0%	130.84
NA	50	4	592	4/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	4.31	1.638.27	130.85	0.0%	130.85
NA	50	5	593	5/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	4.07	1.638.54	130.87	0.0%	130.87
NA	50	6	594	6/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	3.99	1.638.88	130.90	0.0%	130.90
NA	50	7	595	7/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	3.98	1.639.24	130.92	0.0%	130.92
NA	50	8	596	8/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	142.60	4.33	0.00	0.00	0.00	3.98	1.639.59

Inflows and Outflows	Parameters	Units	Value	Units	Description and Rationale					
Precipitation	Precipitation		1.85	ft/yr	Los Altos climate station, direct precip on westerock backfill area is based on monthly precip data					
			Phases	0 - 10	11-16	16-20	20+			
			Initial	Mining	Backfilling	Revegetation	Long Term			
Quarry Backfilling Areas	**Surface Water Drainage to Pit**									
	Quarry Area (Greenstone/Greywacke)	sq feet	4,900,000	5,052,960	-	-	-	-	-	Based on drawing from Chang Consultants
		acres	112	116	-	-	-	-	-	Figures B.1 through B.3
	Quarry Area (Limestone)	sq feet	7,000,000	7,000,000	-	-	-	-	-	
		acres	161	161	-	-	-	-	-	
	WMSA	sq feet	3,500,000	3,920,400	-	-	-	-	-	
		acres	80	90	-	-	-	-	-	
	Surface Infiltration to Pit (Through backfill)									
	Undrained Backfill (No Surface Outlet)	sq feet	-	-	-	-	-	-	-	
		acres	-	-	-	-	-	-	-	
	Drained Backfill (With Surface Outlet)	sq feet	-	1,960,200	1,960,200	-	-	-	-	
		acres	-	-	45	45	-	-	-	
	Total Drainage Area	acres	354	367	45	45	-	-	-	
	Spill Elevation		990.00	ft amsl	Based on Mine Plan (Chang Drawings)					
	Bottom of Pit		440.00	ft amsl	Based on end of Phase 1 for South Quarry Mine Plan (Chang Drawings)					
Groundwater Capture	Initial		371	gpm	MODFLOW model results for Phase 1, maximum excavation condition (Golder's Report)					
			2,181,181	cu ft/mo						
	At Spill Elevation		80	gpm	MODFLOW model results for ultimate condition (Golder's Report)					
			470,336	cu ft/mo						
Date Quarry Filling Starts			**6/1/2028**							
			In situ Pit Water Treatment Removal Rate							
Assumptions	The pit is backfilled incrementally over a 10-year period, from 440 ft amsl to the spill-over elevation of 990 ft amsl									
	Backfill material has a porosity of 30-percent.									
	Surface runoff is only within the capture area of the pit and is based on water year 2009 data									
	Groundwater inflow into the pit varies by month and diminishes as the backfill increases									
	Precipitation directly infiltrates to the water table within the area of the backfill.									
	Evaporation of the pit lake is only applied when the cumulative volume of water in the pit is greater than the cumulative volume of void spaces within the backfill (based on 30-percent porosity)									
	The water level in the pit is dependent on the total cumulative volume of the backfill up to the spill-over elevation.									

Phase	Year	Month	Total Months	Date	Quarry Area (Greenstone/Greywacke)	Quarry Area (Greenstone/Greywacke)	Quarry Area (Limestone)	Quarry Area (Limestone)	WMSA	WMSA	Groundwater Inflow	Undrained Backfill (No Surface Outlet)	Undrained Backfill (No Surface Outlet)	Drained Backfill (With Surface Outlet)	Drained Backfill (With Surface Outlet)	Pit Lake Precip	Water Entering Pit Lake	Pit Lake Outflow
					sq ft	cu ft	sq ft	cu ft	sq ft	cu ft	cu ft	sq ft	cu ft	sq ft	cu ft	cu ft	cu ft	cu ft
1	1	1	1	1/1/2018	**4,900,000**	687,361	**7,000,000**	981,944	**3,500,000**	294,583	**2,181,181**	**0**	0	**0**	0		4,145,070	4,145,070
1	1	2	2	2/1/2018	4,901,285	1,140,683	7,000,000	1,629,120	3,503,533	489,229	2,181,181	0	0	0	0		5,440,214	5,440,214
1	1	3	3	3/1/2018	4,902,571	592,187	7,000,000	845,509	3,507,066	254,165	2,181,181	0	0	0	0		3,873,022	3,873,022
1	1	4	4	4/1/2018	4,903,856	342,816	7,000,000	489,352	3,510,598	147,250	2,181,181	0	0	0	0		3,160,599	3,160,599
1	1	5	5	5/1/2018	4,905,142	94,696	7,000,000	135,139	3,514,131	40,705	2,181,181	0	0	0	0		2,451,722	2,451,722
1	1	6	6	6/1/2018	4,906,427	15,900	7,000,000	22,685	3,517,664	6,840	2,181,181	0	0	0	0		2,226,607	2,226,607
1	1	7	7	7/1/2018	4,907,712	682	7,000,000	972	3,521,197	293	2,181,181	0	0	0	0		2,183,128	2,183,128
1	1	8	8	8/1/2018	4,908,998	2,500	7,000,000	3,565	3,524,729	1,077	2,181,181	0	0	0	0		2,188,323	2,188,323
1	1	9	9	9/1/2018	4,910,283	12,276	7,000,000	17,500	3,528,262	5,292	2,181,181	0	0	0	0		2,216,249	2,216,249
1	1	10	10	10/1/2018	4,911,568	181,910	7,000,000	259,259	3,531,795	78,484	2,181,181	0	0	0	0		2,700,835	2,700,835
1	1	11	11	11/1/2018	4,912,854	596,821	7,000,000	850,370	3,535,328	257,686	2,181,181	0	0	0	0		3,886,058	3,886,058
1	1	12	12	12/1/2018	4,914,139	869,530	7,000,000	1,238,611	3,538,861	375,709	2,181,181	0	0	0	0		4,665,031	4,665,031
1	2	1	13	1/1/2019	4,915,425	689,525	7,000,000	981,944	3,542,393	298,151	2,181,181	0	0	0	0		4,150,802	4,150,802
1	2	2	14	2/1/2019	4,916,710	1,144,273	7,000,000	1,629,120	3,545,926	495,149	2,181,181	0	0	0	0		5,449,724	5,449,724
1	2	3	15	3/1/2019	4,917,995	594,030	7,000,000	845,509	3,549,459	257,237	2,181,181	0	0	0	0		3,877,958	3,877,958
1	2	4	16	4/1/2019	4,919,281	343,894	7,000,000	489,352	3,552,992	149,028	2,181,181	0	0	0	0		3,163,455	3,163,455
1	2	5	17	5/1/2019	4,920,566	94,994	7,000,000	135,139	3,556,524	41,196	2,181,181	0	0	0	0		2,452,511	2,452,511
1	2	6	18	6/1/2019	4,921,851	15,950	7,000,000	22,685	3,560,057	6,922	2,181,181	0	0	0	0		2,226,739	2,226,739
1	2	7	19	7/1/2019	4,923,137	684	7,000,000	972	3,563,590	297	2,181,181	0	0	0	0		2,183,134	2,183,134
1	2	8	20	8/1/2019	4,924,422	2,508	7,000,000	3,565	3,567,123	1,090	2,181,181	0	0	0	0		2,188,344	2,188,344
1	2	9	21	9/1/2019	4,925,708	12,314	7,000,000	17,500	3,570,655	5,356	2,181,181	0	0	0	0		2,216,351	2,216,351
1	2	10	22	10/1/2019	4,926,993	182,481	7,000,000	259,259	3,574,188	79,426	2,181,181	0	0	0	0		2,702,348	2,702,348
1	2	11	23	11/1/2019	4,928,278	598,696	7,000,000	850,370	3,577,721	260,776	2,181,181	0	0	0	0		3,891,022	3,891,022
1	2	12	24	12/1/2019	4,929,564	872,259	7,000,000	1,238,611	3,581,254	380,210	2,181,181	0	0	0	0		4,672,261	4,672,261
1	3	1	25	1/1/2020	4,930,849	691,689	7,000,000	981,944	3,584,787	301,720	2,181,181	0	0	0	0		4,156,534	4,156,534
1	3	2	26	2/1/2020	4,932,134	1,147,863	7,000,000	1,629,120	3,588,319	501,069	2,181,181	0	0	0	0		5,459,233	5,459,233
1	3	3	27	3/1/2020	4,933,420	595,893	7,000,000	845,509	3,591,852	260,310	2,181,181	0	0	0	0		3,882,893	3,882,893
1	3	4	28	4/1/2020	4,934,705	344,972	7,000,000	489,352	3,595,385	150,806	2,181,181	0	0	0	0		3,166,312	3,166,312
1	3	5	29	5/1/2020	4,935,991	95,292	7,000,000	135,139	3,598,918	41,687	2,181,181	0	0	0	0		2,453,300	2,453,300
1	3	6	30	6/1/2020	4,937,276	16,000	7,000,000	22,685	3,602,450	7,005	2,181,181	0	0	0	0		2,226,872	2,226,872
1	3	7	31	7/1/2020	4,938,561	686	7,000,000	972	3,605,983	300	2,181,181	0	0	0	0		2,183,140	2,183,140
1	3	8	32	8/1/2020	4,939,847	2,516	7,000,000	3,565	3,609,516	1,103	2,181,181	0	0	0	0		2,188,365	2,188,365
1	3	9	33	9/1/2020	4,941,132	12,353	7,000,000	17,500	3,613,049	5,420	2,181,181	0	0	0	0		2,216,454	2,216,454
1	3	10	34	10/1/2020	4,942,417	183,052	7,000,000	259,259	3,616,582	80,368	2,181,181	0	0	0	0		2,703,861	2,703,861
1	3	11	35	11/1/2020	4,943,703	600,568	7,000,000	850,370	3,620,114	263,866	2,181,181	0	0	0	0		3,895,986	3,895,986
1	3	12	36	12/1/2020	4,944,988	874,988	7,000,000	1,238,611	3,623,647	384,711	2,181,181	0	0	0	0		4,679,491	4,679,491
1	4	1	37	1/1/2021	4,946,274	693,852	7,000,000	981,944	3,627,180	305,288	2,181,181	0	0	0	0		4,162,266	4,162,266
1	4	2	38	2/1/2021	4,947,559	1,151,453	7,000,000	1,629,120	3,630,713	506,989	2,181,181	0	0	0	0		5,468,743	5,468,743
1	4	3	39	3/1/2021	4,948,844	597,756	7,000,000	845,509	3,634,245	263,382	2,181,181	0	0	0	0		3,887,829	3,887,829
1	4	4	40	4/1/2021	4,950,130	346,051	7,000,000	489,352	3,637,778	152,585	2,181,181	0	0	0	0		3,169,168	3,169,168
1	4	5	41	5/1/2021	4,951,415	95,590	7,000,000	135,139	3,641,311	42,179	2,181,181	0	0	0	0		2,454,088	2,454,088
1	4	6	42	6/1/2021	4,952,701	16,050	7,000,000	22,685	3,644,844	7,087	2,181,181	0	0	0	0		2,227,004	2,227,004
1	4	7	43	7/1/2021	4,953,986	688	7,000,000	972	3,648,376	304	2,181,181	0	0	0	0		2,183,146	2,183,146
1	4	8	44	8/1/2021	4,955,271	2,524	7,000,000	3,565	3,651,909	1,116	2,181,181	0	0	0	0		2,188,385	2,188,385
1	4	9	45	9/1/2021	4,956,557	12,391	7,000,000	17,500	3,655,442	5,483	2,181,181	0	0	0	0		2,216,556	2,216,556
1	4	10	46	10/1/2021	4,957,842	183,624	7,000,000	259,259	3,658,975	81,311	2,181,181	0	0	0	0		2,705,375	2,705,375
1	4	11	47	11/1/2021	4,959,127	602,442	7,000,000	850,370	3,662,508	266,958	2,181,181	0	0	0	0		3,900,950	3,900,950
1	4	12	48	12/1/2021	4,960,413	877,172	7,000,000	1,238,611	3,666,040	389,211	2,181,181	0	0	0	0		4,685,721	4,685,721
1	5	1	49	1/1/2022	4,961,698	696,016	7,000,000	981,944	3,669,573	308,856	2,181,181	0	0	0	0		4,167,997	4,167,997
1	5	2	50	2/1/2022	4,962,984	1,155,047	7,000,000	1,629,120	3,673,106	512,908	2,181,181	0	0	0	0		5,478,253	5,478,253
1	5	3	51	3/1/2022	4,964,269	599,619	7,000,000	845,509	3,676,639	266,454	2,181,181	0	0	0	0		3,892,764	3,892,764
1	5	4	52	4/1/2022	4,965,554	347,109	7,000,000	489,352	3,680,171	154,363	2,181,181	0	0	0	0		3,172,025	3,172,025
1	5	5	53	5/1/2022	4,966,840	95,888	7,000,000	135,139	3,683,704	42,670	2,181,181	0	0	0	0		2,454,877	2,454,877
1	5	6	54	6/1/2022	4,968,125	16,100	7,000,000	22,685	3,687,237	7,170	2,181,181	0	0	0	0		2,227,136	2,227,136
1	5	7	55	7/1/2022	4,969,410	690	7,000,000	972	3,690,770	308	2,181,181	0	0	0	0		2,183,151	2,183,151
1	5	8	56	8/1/2022	4,970,696	2,531	7,000,000	3,565	3,694,303	1,129	2,181,181	0	0	0	0		2,188,406	2,188,406
1	5	9	57	9/1/2022	4,971,981	12,430	7,000,000	17,500	3,697,835	5,547	2,181,181	0	0	0	0		2,216,658	2,216,658
1	5	10	58	10/1/2022	4,973,267	184,199	7,000,000	259,259	3,701,368	82,253	2,181,181	0	0	0	0		2,706,888	2,706,888
1	5	11	59	11/1/2022	4,974,552	604,316	7,000,000	850,370	3,704,901	270,046	2,181,181	0	0	0	0		3,905,914	3,905,914
1	5	12	60	12/1/2022	4,975,837	880,447	7,000,000	1,238,611	3,708,434	393,712	2,181,181	0	0	0	0		4,693,951	4,693,951
1	6	1	61	1/1/2023	4,977,123	698,189	7,000,000	981,944	3,711,966	312,424	2,181,181	0	0	0	0		4,173,729	4,173,729
1	6	2	62	2/1/2023	4,978,408	1,158,632	7,000,000	1,629,120	3,715,499	518,828	2,181,181	0	0	0	0		5,487,762	5,487,762
1	6	3	63	3/1/2023	4,979,693	601,482	7,000,000	845,509	3,719,032	269,527	2,181,181	0	0	0	0		3,897,699	3,897,699
1	6	4	64	4/1/2023	4,980,979	348,207	7,000,000	489,352	3,722,565	156,141	2,181,181	0	0	0	0		3,174,881	3,174,881
1	6	5	65	5/1/2023	4,982,264	96,186	7,000,000	135,139	3,726,097	43,161	2,181,181	0	0	0	0		2,455,666	2,455,666
1	6	6	66	6/1/2023	4,983,550	16,150	7,000,000	22,685	3,729,630	7,252	2,181,181	0	0	0	0		2,227,269	2,227,269
1	6	7	67	7/1/2023	4,984,835	692	7,000,000	972	3,733,163	311	2,181,181	0	0	0	0		2,183,157	2,183,157
1	6	8	68	8/1/2023	4,986,120	2,539	7,000,000	3,565	3,736,696	1,142	2,181,181	0	0	0	0		2,188,427	2,188,427
1	6	9	69	9/1/2023	4,987,406	12,468	7,000,000	17,500	3,740,228	5,610	2,181,181	0	0	0	0		2,216,760	2,216,760
1	6	10	70	10/1/2023	4,988,691	184,766	7,000,000	259,259	3,743,761	83,195	2,181,181	0	0	0	0		2,708,402	2,708,402
1	6	11	71	11/1/2023	4,989,976	606,190	7,000,000	850,370	3,747,294	273,136	2,181,181	0	0	0	0		3,910,877	3,910,877
1	6	12	72	12/1/2023	4,991,262	883,175	7,000,000	1,238,611	3,750,827	398,213	2,181,181	0	0	0	0		4,701,181	4,701,181
1	7	1	73	1/1/2024	4,992,547	700,343	7,000,000	981,944	3,754,360	315,992	2,181,181	0	0	0	0		4,179,461	4,179,461
1	7	2	74	2/1/2024	4,993,833	1,162,222	7,000,000	1,629,120	3,757,892	524,748	2,181,181	0	0	0	0		5,497,272	5,497,272
1	7	3	75	3/1/2024	4,995,118	603,346	7,000,000	845,509	3,761,425	272,599	2,181,181	0	0	0	0		3,902,635	3,902,635
1	7	4	76	4/1/2024	4,996,403	349,286	7,000,000	489,352	3,764,958	157,919	2,181,181	0	0	0	0		3,177,738	3,177,738
1	7	5	77	5/1/2024	4,997,689	96,483	7,000,000	135,139	3,768,491	43,652	2,181,181	0	0	0	0		2,456,455	2,456,455
1	7	6	78	6/1/2024	4,998,974	16,200	7,000,000	22,685	3,772,024	7,334	2,181,181	0	0	0	0		2,227,401	2,227,401
1	7	7	79	7/1/2024	5,000,259	694	7,000,000	972	3,775,556	315	2,181,181	0	0	0	0		2,183,163	2,183,163
1	7	8	80	8/1/2024	5,001,545	2,547	7,000,000	3,565	3,779,089	1,155	2,181,181	0	0	0	0		2,188,448	2,188,448
1	7	9	81	9/1/2024	5,002,830	12,507	7,000,000	17,500	3,782,622	5,674	2,181,181	0	0	0	0		2,216,862	2,216,862
1	7	10	82	10/1/2024	5,004,116	185,338	7,000,000	259,259	3,786,155	84,137	2,181,181	0	0	0	0		2,709,915	2,709,915
1	7	11	83	11/1/2024	5,005,401	608,064	7,000,000	850,370	3,789,687	276,226	2,181,181	0	0	0	0		3,915,841	3,915,841
1	7	12	84	12/1/2024	5,006,686	885,905	7,000,000	1,238,611	3,793,220	402,714	2,181,181	0	0	0	0		4,708,411	4,708,411
1	8	1	85	1/1/2025	5,007,972	702,507	7,000,000	981,944	3,796,753	319,560	2,181,181	0	0	0	0		4,185,193	4,185,193
1	8	2	86	2/1/2025	5,009,257	1,165,812	7,000,000	1,629,120	3,800,286	530,668	2,181,181	0	0	0	0		5,506,781	5,506,781
1	8	3	87	3/1/2025	5,010,543	605,709	7,000,000	845,509	3,803,818	275,671	2,181,181	0	0	0	0		3,907,570	3,907,570
1	8	4	88	4/1/2025	5,011,828	350,364	7,000,000	489,352	3,807,351	159,697	2,181,181	0	0	0	0		3,180,594	3,180,594
1	8	5	89	5/1/2025	5,013,113	96,781	7,000,000	135,139	3,810,884	44,143	2,181,181	0	0	0	0		2,457,244	2,457,244
1	8	6	90	6/1/2025	5,014,399	16,250	7,000,000	22,685	3,814,417	7,417	2,181,181	0	0	0	0		2,227,534	2,227,534
1	8	7	91	7/1/2025	5,015,684	697	7,000,000	972	3,817,950	318	2,181,181	0	0	0	0		2,183,168	2,183,168
1	8	8	92	8/1/2025	5,016,969	2,555	7,000,000	3,565	3,821,482	1,168	2,181,181	0	0	0	0		2,188,469	2,188,469
1	8	9	93	9/1/2025	5,018,255	12,546	7,000,000	17,500	3,825,015	5,738	2,181,181	0	0	0	0		2,216,964	2,216,964
1	8	10	94	10/1/2025	5,019,540	185,909	7,000,000	259,259	3,828,548	85,079	2,181,181	0	0	0	0		2,711,428	2,711,428
1	8	11	95	11/1/2025	5,020,826	609,937	7,000,000	850,370	3,832,081	279,318	2,181,181	0	0	0	0		3,920,805	3,920,805
1	8	12	96	12/1/2025	5,022,111	888,635	7,000,000	1,238,611	3,835,613	407,214	2,181,181	0	0	0	0		4,715,641	4,715,641
1	9	1	97	1/1/2026	5,023,396	704,671	7,000,000	981,944	3,839,146	323,128	2,181,181	0	0	0	0		4,190,925	4,190,925
1	9	2	98	2/1/2026	5,024,682	1,169,402	7,000,000	1,629,120	3,842,679	536,587	2,181,181	0	0	0	0		5,516,291	5,516,291
1	9	3	99	3/1/2026	5,025,967	607,072	7,000,000	845,509	3,846,212	278,744	2,181,181	0	0	0	0		3,912,506	3,912,506
1	9	4	100	4/1/2026	5,027,252	351,440	7,000,000	489,352	3,849,745	161,475	2,181,181	0	0	0	0		3,183,451	3,183,451
1	9	5	101	5/1/2026	5,028,538	97,079	7,000,000	135,139	3,853,277	44,634	2,181,181	0	0	0	0		2,458,033	2,458,033
1	9	6	102	6/1/2026	5,029,823	16,300	7,000,000	22,685	3,856,810	7,499	2,181,181	0	0	0	0		2,227,666	2,227,666
1	9	7	103	7/1/2026	5,031,109	699	7,000,000	972	3,860,343	322	2,181,181	0	0	0	0		2,183,174	2,183,174
1	9	8	104	8/1/2026	5,032,394	2,563	7,000,000	3,565	3,863,876	1,181	2,181,181	0	0	0	0		2,188,489	2,188,489
1	9	9	105	9/1/2026	5,033,679	12,584	7,000,000	17,500	3,867,408	5,801	2,181,181	0	0	0	0		2,217,067	2,217,067
1	9	10	106	10/1/2026	5,034,965	186,480	7,000,000	259,259	3,870,941	86,021	2,181,181	0	0	0	0		2,712,942	2,712,942
1	9	11	107	11/1/2026	5,036,250	611,811	7,000,000	850,370	3,874,474	282,408	2,181,181	0	0	0	0		3,925,769	3,925,769
1	9	12	108	12/1/2026	5,037,535	891,364	7,000,000	1,238,611	3,878,007	411,715	2,181,181	0	0	0	0		4,722,871	4,722,871
1	10	1	109	1/1/2027	5,038,821	706,835	7,000,000	981,944	3,881,539	326,696	2,181,181	0	0	0	0		4,196,656	4,196,656
1	10	2	110	2/1/2027	5,040,106	1,172,991	7,000,000	1,629,120	3,885,072	542,507	2,181,181	0	0	0	0		5,525,800	5,525,800
1	10	3	111	3/1/2027	5,041,392	609,245	7,000,000	845,509	3,888,605	281,816	2,181,181	0	0	0	0		3,917,441	3,917,441
1	10	4	112	4/1/2027	5,042,677	352,520	7,000,000	489,352	3,892,138	163,254	2,181,181	0	0	0	0		3,186,307	3,186,307
1	10	5	113	5/1/2027	5,043,962	97,376	7,000,000	135,139	3,895,671	45,125	2,181,181	0	0	0	0		2,458,821	2,458,821
1	10	6	114	6/1/2027	5,045,248	16,350	7,000,000	22,685	3,899,203	7,582	2,181,181	0	0	0	0		2,227,799	2,227,799
1	10	7	115	7/1/2027	5,046,533	701	7,000,000	972	3,902,736	325	2,181,181	0	0	0	0		2,183,180	2,183,180
1	10	8	116	8/1/2027	5,047,818	2,571	7,000,000	3,565	3,906,269	1,194	2,181,181	0	0	0	0		2,188,510	2,188,510
1	10	9	117	9/1/2027	5,049,104	12,623	7,000,000	17,500	3,909,802	5,865	2,181,181	0	0	0	0		2,217,169	2,217,169
1	10	10	118	10/1/2027	5,050,389	187,051	7,000,000	259,259	3,913,334	86,963	2,181,181	0	0	0	0		2,714,455	2,714,455
1	10	11	119	11/1/2027	5,051,675	613,685	7,000,000	850,370	3,916,867	285,496	2,181,181	0	0	0	0		3,930,733	3,930,733
1	**10**	**12**	**120**	**12/1/2027**	**5,052,960**	**894,093**	**7,000,000**	**1,238,611**	**3,920,400**	**416,216**	**2,181,181**	**0**	**0**	**0**	**0**		**4,730,101**	**4,730,101**
2	**11**	**1**	**121**	1/1/2028	4,958,744	**697,094**	6,883,333	**965,579**	3,850,060	**324,468**	**2,181,181**	0	0	32,670	1,375		4,169,607	4,169,607
2	**11**	**2**	**122**	2/1/2028	4,884,528	1,126,167	6,766,667	1,574,816	3,789,720	492,192	2,181,181	0	0	65,340	4,562		5,426,535	5,426,535
2	**11**	**3**	**123**	3/1/2028	4,800,312	579,815	6,650,000	803,234	3,724,380	269,914	2,181,181	0	0	98,010	3,552		3,837,696	3,837,696
2	**11**	**4**	**124**	4/1/2028	4,716,096	329,696	6,533,333	456,728	3,659,040	149,476	2,181,181	0	0	130,680	2,741		3,123,817	3,123,817
2	**11**	**5**	**125**	5/1/2028	4,631,880	89,421	6,416,667	123,877	3,593,700	41,627	2,181,181	0	0	163,350	946		2,437,053	2,437,053
2	**11**	**6**	**126**	6/1/2028	4,547,664	14,730	6,300,000	20,417	3,528,360	6,861	2,181,181	0	0	196,020	191		2,223,387	2,223,387
2	**11**	**7**	**127**	7/1/2028	4,463,448	620	6,183,333	859	3,463,020	289	2,181,181	0	0	228,690	10		2,182,958	2,182,958
2	**11**	**8**	**128**	8/1/2028	4,379,232	2,230	6,066,667	3,090	3,397,680	1,038	2,181,181	0	0	261,360	40		2,188,267	2,188,267
2	**11**	**9**	**129**	9/1/2028	4,295,016	10,738	5,950,000	14,875	3,332,340	4,999	1,978,990	0	0	294,030	221		2,009,822	2,009,822
2	**11**	**10**	**130**	10/1/2028	4

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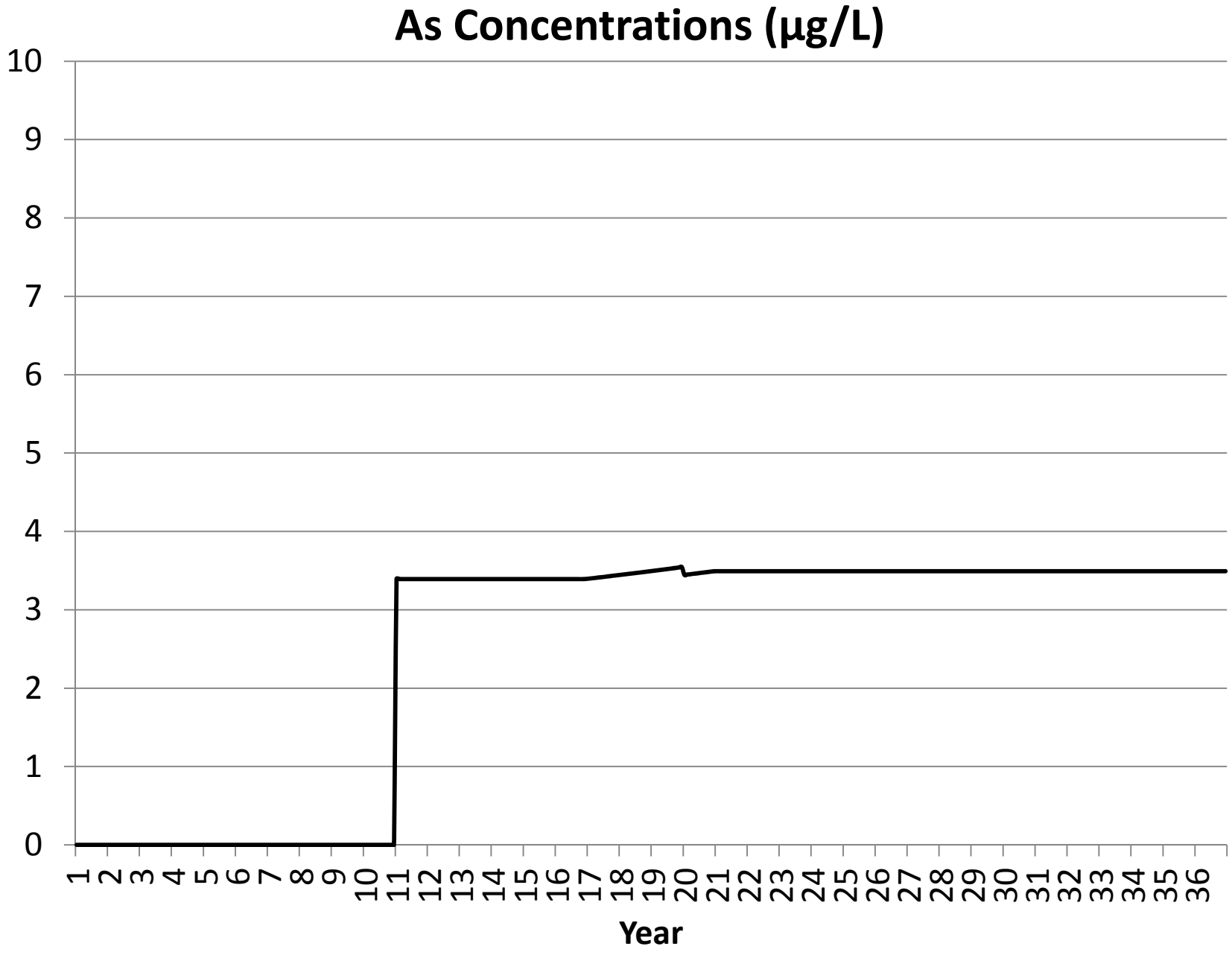
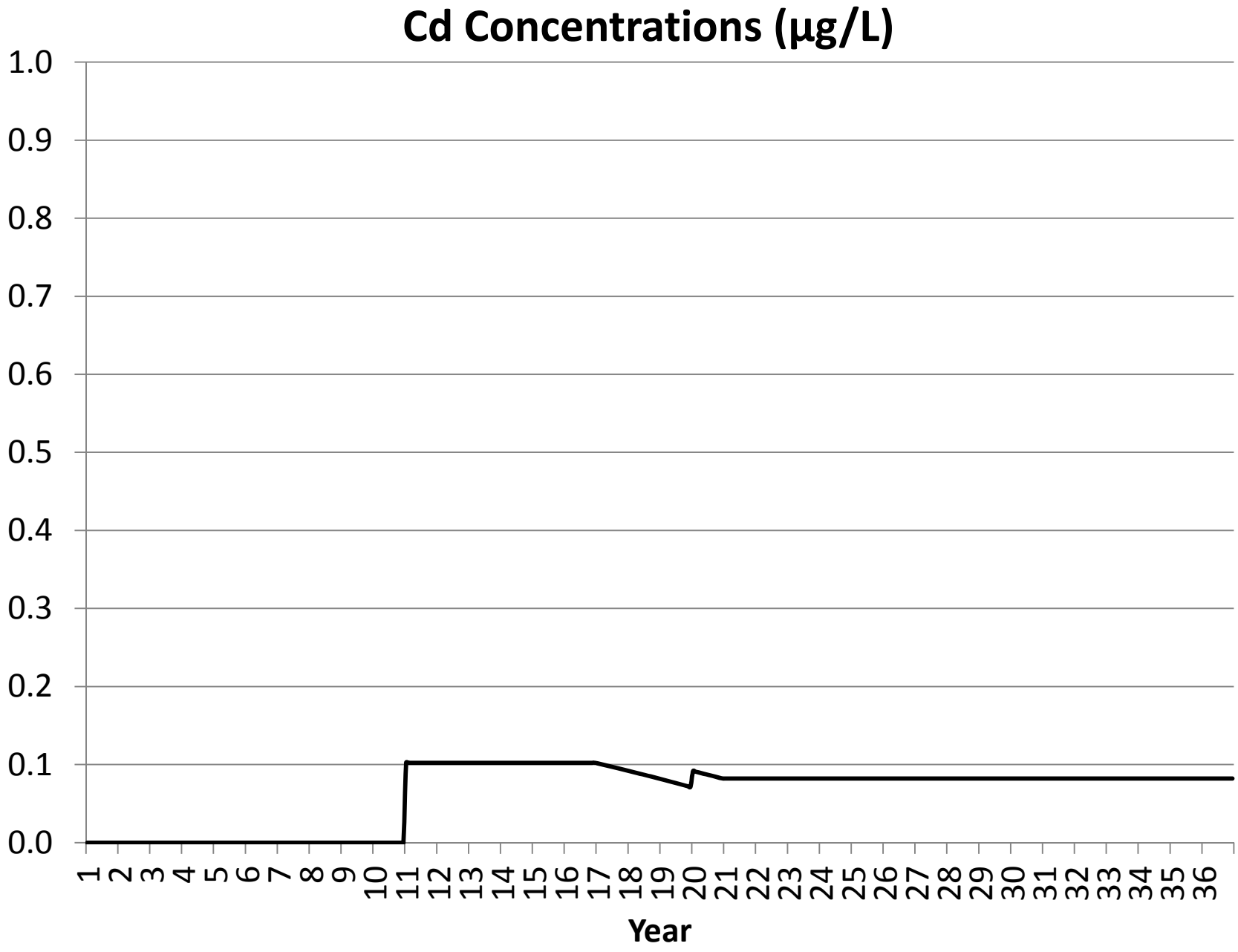
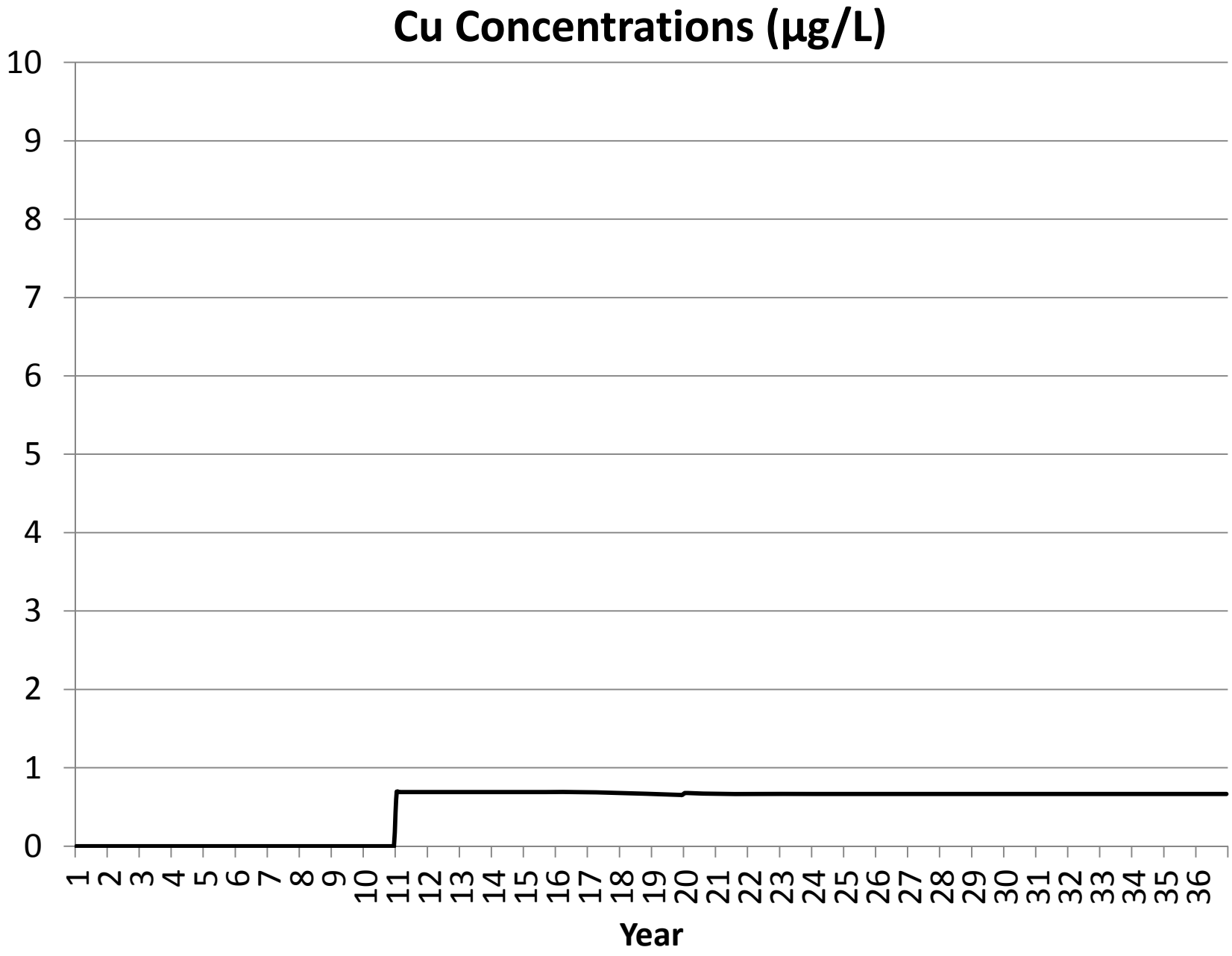
NA	44	4	520	4/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	19.95	7.583.69	605.70	0.0%	605.70
NA	44	5	521	5/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	18.82	7.583.60	605.69	0.0%	605.69
NA	44	6	522	6/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	18.47	7.583.88	605.71	0.0%	605.71
NA	44	7	523	7/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	18.40	7.584.22	605.74	0.0%	605.74
NA	44	8	524	8/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	18.41	7.584.55	605.77	0.0%	605.77
NA	44	9	525	9/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	18.45	7.584.84	605.79	0.0%	605.79
NA	44	10	526	10/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	19.22	7.584.38	605.75	0.0%	605.75
NA	44	11	527	11/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	21.10	7.582.00	605.56	0.0%	605.56
NA	44	12	528	12/1/2061	0	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.01	0.00	22.33	7.578.42	605.28	0.0%	605.28
NA	45	1	529	1/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	82.492	568.380	568.380	200.328.889	683.796.886	985	200.897.270	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.01	0.00	21.50	7.575.67	605.06	0.0%	605.06
NA	45	2	530	2/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	136.860	622.749	622.749	200.328.889	683.796.886	985	200.951.638	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.01	0.00	23.55	7.570.86	604.67	0.0%	604.67
NA	45	3	531	3/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	71.030	556.919	556.919	200.328.889	683.796.886	985	200.885.808	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	21.05	7.568.56	604.49	0.0%	604.49
NA	45	4	532	4/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	19.91	7.567.39	604.40	0.0%	604.40
NA	45	5	533	5/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	18.78	7.567.35	604.39	0.0%	604.39
NA	45	6	534	6/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	18.43	7.567.66	604.42	0.0%	604.42
NA	45	7	535	7/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	18.36	7.568.05	604.45	0.0%	604.45
NA	45	8	536	8/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	18.37	7.568.42	604.48	0.0%	604.48
NA	45	9	537	9/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	18.41	7.568.75	604.51	0.0%	604.51
NA	45	10	538	10/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	19.18	7.568.31	604.47	0.0%	604.47
NA	45	11	539	11/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	21.06	7.565.99	604.29	0.0%	604.29
NA	45	12	540	12/1/2062	0	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.01	0.00	22.28	7.562.46	604.00	0.0%	604.00
NA	46	1	541	1/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	82.492	568.380	568.380	200.328.889	683.796.886	985	200.897.270	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.01	0.00	21.46	7.559.75	603.79	0.0%	603.79
NA	46	2	542	2/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	136.860	622.749	622.749	200.328.889	683.796.886	985	200.951.638	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.01	0.00	23.50	7.555.00	603.41	0.0%	603.41
NA	46	3	543	3/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	71.030	556.919	556.919	200.328.889	683.796.886	985	200.885.808	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	21.00	7.552.74	603.23	0.0%	603.23
NA	46	4	544	4/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	19.87	7.551.61	603.14	0.0%	603.14
NA	46	5	545	5/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	18.74	7.551.61	603.14	0.0%	603.14
NA	46	6	546	6/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	18.39	7.551.96	603.16	0.0%	603.16
NA	46	7	547	7/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	18.32	7.552.38	603.20	0.0%	603.20
NA	46	8	548	8/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	18.33	7.552.79	603.23	0.0%	603.23
NA	46	9	549	9/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	18.37	7.553.15	603.26	0.0%	603.26
NA	46	10	550	10/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	19.14	7.552.75	603.23	0.0%	603.23
NA	46	11	551	11/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	21.01	7.550.49	603.05	0.0%	603.05
NA	46	12	552	12/1/2063	0	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.01	0.00	22.24	7.547.00	602.77	0.0%	602.77
NA	47	1	553	1/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	82.492	568.380	568.380	200.328.889	683.796.886	985	200.897.270	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.01	0.00	21.41	7.544.33	602.56	0.0%	602.56
NA	47	2	554	2/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	136.860	622.749	622.749	200.328.889	683.796.886	985	200.951.638	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.01	0.00	23.45	7.539.63	602.18	0.0%	602.18
NA	47	3	555	3/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	71.030	556.919	556.919	200.328.889	683.796.886	985	200.885.808	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	20.96	7.537.41	602.00	0.0%	602.00
NA	47	4	556	4/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	19.83	7.536.32	601.92	0.0%	601.92
NA	47	5	557	5/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	18.71	7.536.36	601.92	0.0%	601.92
NA	47	6	558	6/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	18.35	7.536.75	601.95	0.0%	601.95
NA	47	7	559	7/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	18.28	7.537.20	601.99	0.0%	601.99
NA	47	8	560	8/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	18.29	7.537.65	602.02	0.0%	602.02
NA	47	9	561	9/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	18.34	7.538.05	602.05	0.0%	602.05
NA	47	10	562	10/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	19.10	7.537.69	602.03	0.0%	602.03
NA	47	11	563	11/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	20.97	7.536.47	601.85	0.0%	601.85
NA	47	12	564	12/1/2064	0	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.01	0.00	22.19	7.533.02	601.57	0.0%	601.57
NA	48	1	565	1/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	82.492	568.380	568.380	200.328.889	683.796.886	985	200.897.270	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.01	0.00	21.37	7.529.40	601.36	0.0%	601.36
NA	48	2	566	2/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	136.860	622.749	622.749	200.328.889	683.796.886	985	200.951.638	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.01	0.00	23.41	7.524.74	600.99	0.0%	600.99
NA	48	3	567	3/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	71.030	556.919	556.919	200.328.889	683.796.886	985	200.885.808	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	20.92	7.522.56	600.82	0.0%	600.82
NA	48	4	568	4/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	19.79	7.521.52	600.73	0.0%	600.73
NA	48	5	569	5/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	18.67	7.521.59	600.74	0.0%	600.74
NA	48	6	570	6/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	18.31	7.522.01	600.77	0.0%	600.77
NA	48	7	571	7/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	18.25	7.522.50	600.81	0.0%	600.81
NA	48	8	572	8/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	18.26	7.522.99	600.85	0.0%	600.85
NA	48	9	573	9/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	18.30	7.523.42	600.89	0.0%	600.89
NA	48	10	574	10/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	19.07	7.523.10	600.86	0.0%	600.86
NA	48	11	575	11/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	20.93	7.520.91	600.69	0.0%	600.69
NA	48	12	576	12/1/2065	0	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.01	0.00	22.15	7.517.51	600.41	0.0%	600.41
NA	49	1	577	1/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	82.492	568.380	568.380	200.328.889	683.796.886	985	200.897.270	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.01	0.00	21.33	7.514.93	600.21	0.0%	600.21
NA	49	2	578	2/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	136.860	622.749	622.749	200.328.889	683.796.886	985	200.951.638	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.01	0.00	23.36	7.510.32	599.84	0.0%	599.84
NA	49	3	579	3/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	71.030	556.919	556.919	200.328.889	683.796.886	985	200.885.808	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	20.88	7.508.18	599.67	0.0%	599.67
NA	49	4	580	4/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	19.75	7.507.17	599.59	0.0%	599.59
NA	49	5	581	5/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	18.63	7.507.28	599.60	0.0%	599.60
NA	49	6	582	6/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	18.28	507.74	599.63	0.0%	599.63
NA	49	7	583	7/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	18.21	7.508.27	599.68	0.0%	599.68
NA	49	8	584	8/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	18.22	7.508.78	599.72	0.0%	599.72
NA	49	9	585	9/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	1.470	487.359	487.359	200.328.889	683.796.886	985	200.816.248	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	18.27	7.509.26	599.75	0.0%	599.75
NA	49	10	586	10/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	21.780	507.669	507.669	200.328.889	683.796.886	985	200.836.558	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	19.03	7.508.97	599.73	0.0%	599.73
NA	49	11	587	11/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	71.438	557.327	557.327	200.328.889	683.796.886	985	200.886.216	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	20.89	7.506.82	599.56	0.0%	599.56
NA	49	12	588	12/1/2066	0	0	0	0	0	0	485.889	0	0	1.960.200	104.054	589.943	589.943	200.328.889	683.796.886	985	200.918.832	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.01	0.00	22.11	7.503.46	599.29	0.0%	599.29
NA	50	1	589	1/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	82.492	568.380	568.380	200.328.889	683.796.886	985	200.897.270	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.01	0.00	21.29	7.500.52	599.09	0.0%	599.09
NA	50	2	590	2/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	136.860	622.749	622.749	200.328.889	683.796.886	985	200.951.638	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.01	0.00	23.32	7.496.35	598.72	0.0%	598.72
NA	50	3	591	3/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	71.030	556.919	556.919	200.328.889	683.796.886	985	200.885.808	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	20.84	7.494.25	598.56	0.0%	598.56
NA	50	4	592	4/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	41.110	526.998	526.998	200.328.889	683.796.886	985	200.855.888	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	19.71	7.493.28	598.48	0.0%	598.48
NA	50	5	593	5/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	11.353	497.242	497.242	200.328.889	683.796.886	985	200.826.131	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	18.60	7.493.42	598.49	0.0%	598.49
NA	50	6	594	6/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	1.906	487.794	487.794	200.328.889	683.796.886	985	200.816.684	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	18.25	7.493.91	598.53	0.0%	598.53
NA	50	7	595	7/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	82	485.970	485.970	200.328.889	683.796.886	985	200.814.860	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	18.18	7.494.47	598.57	0.0%	598.57
NA	50	8	596	8/1/2067	0	0	0	0	0	0	485.889	0	0	1.960.200	299	486.188	486.188	200.328.889	683.796.886	985	200.815.077	200.328.889	0.00	0.00	0.00	617.09	18.74	0.00	0.00	0.00	18.19	7.495.02	598.62

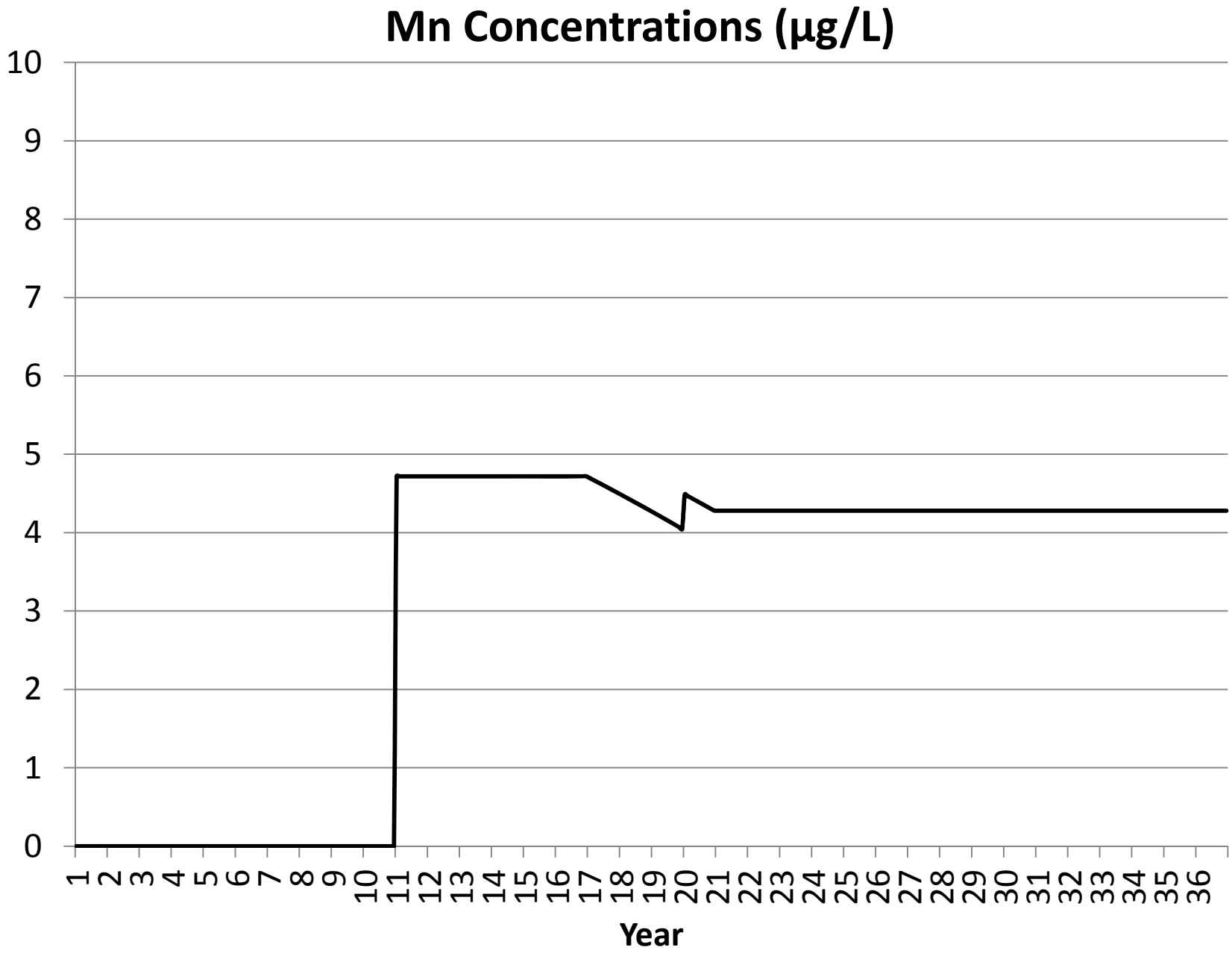
Appendix C.2

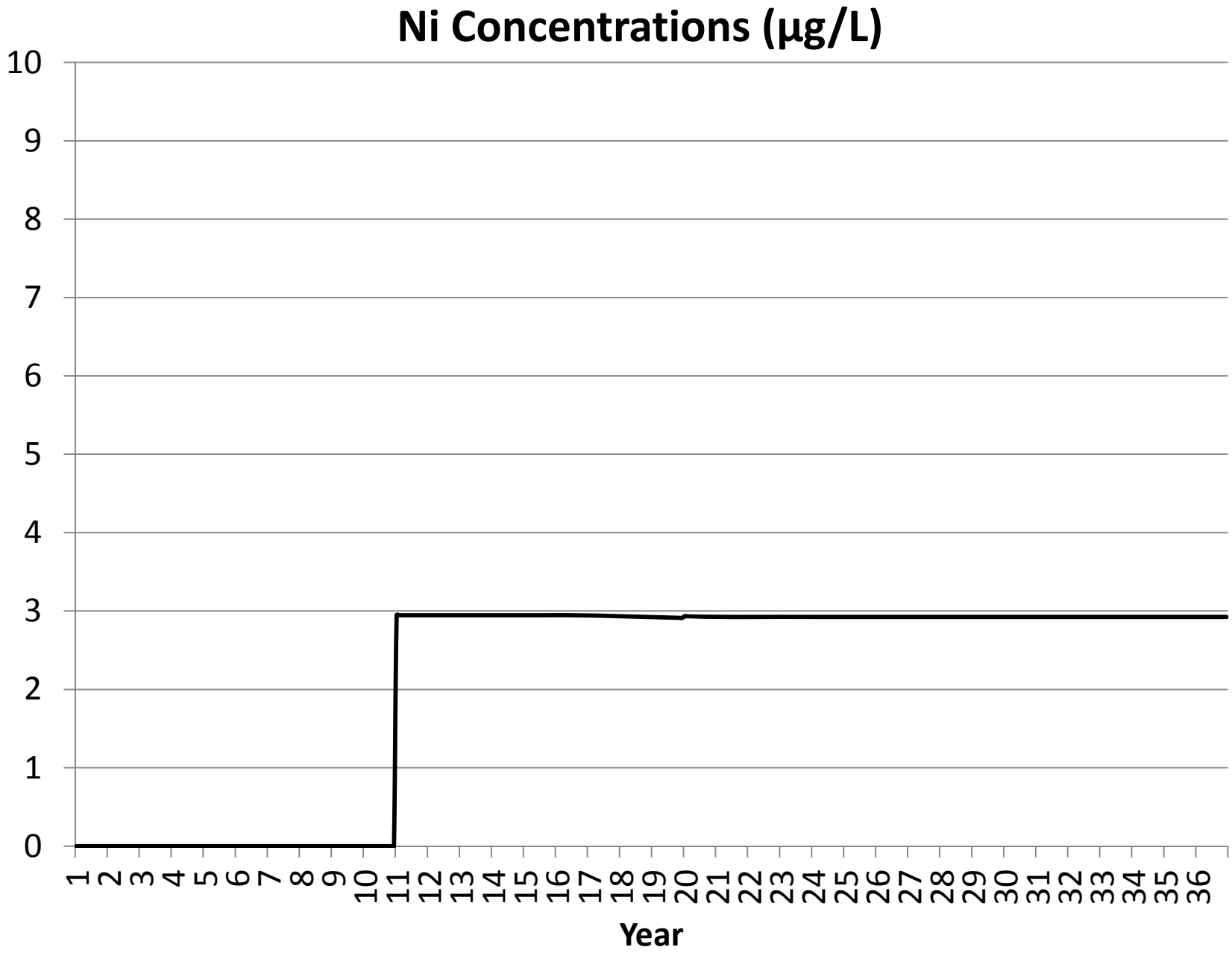
North Quarry Runoff Water Quality Projections

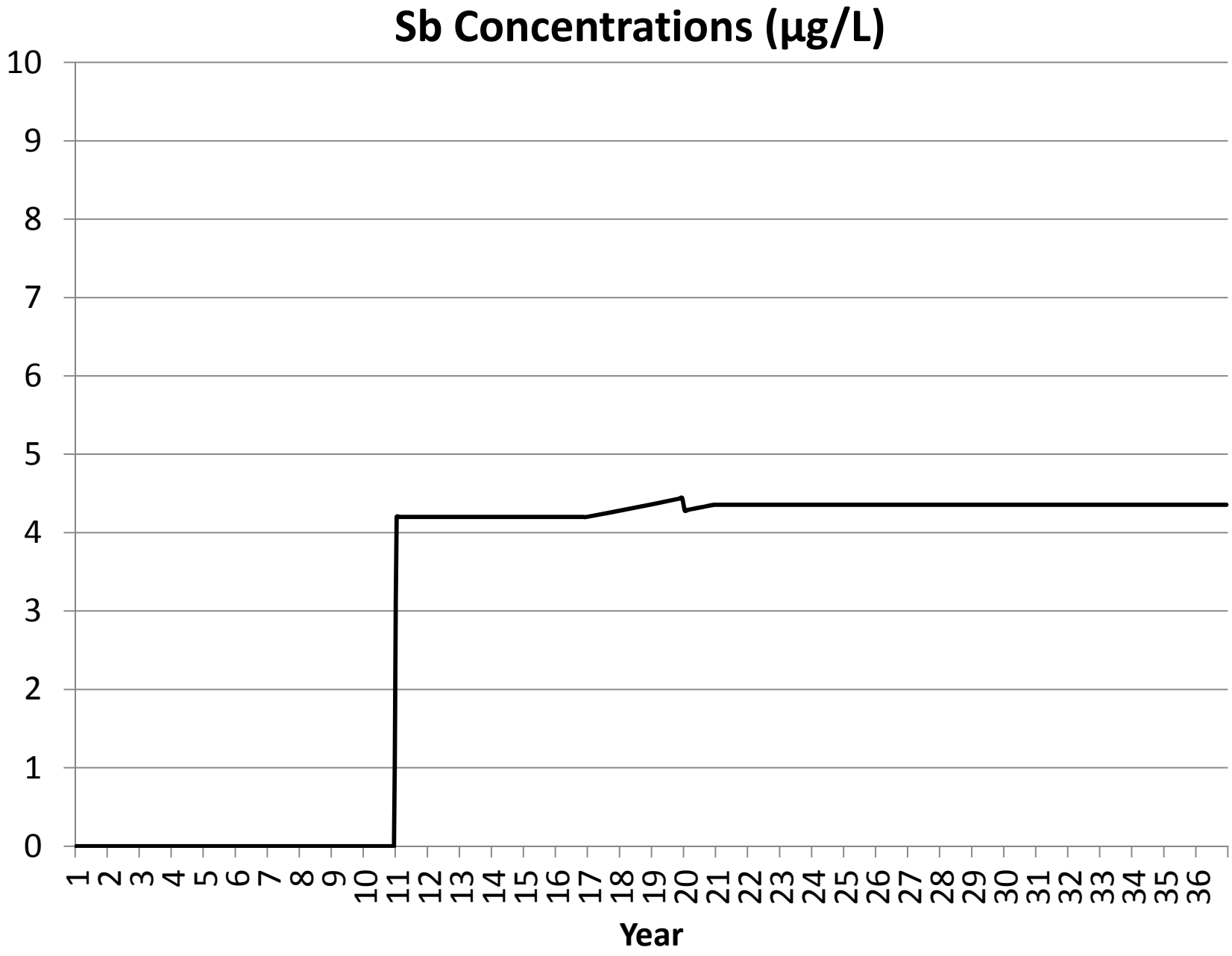

As Concentrations (µg/L)
10
9
8
7
6
5
4
3
2
1
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36
Year

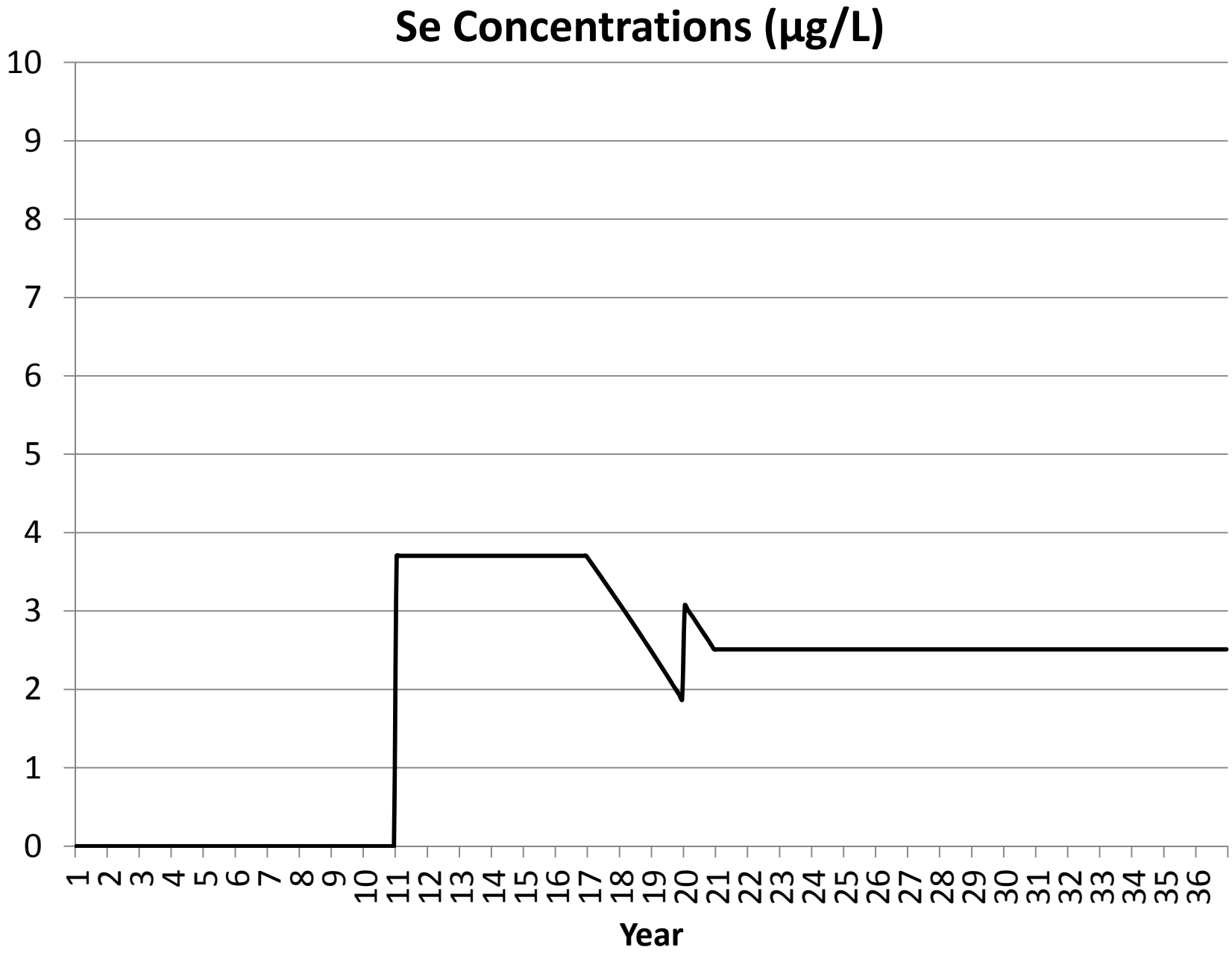

Cd Concentrations (µg/L)
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36
Year

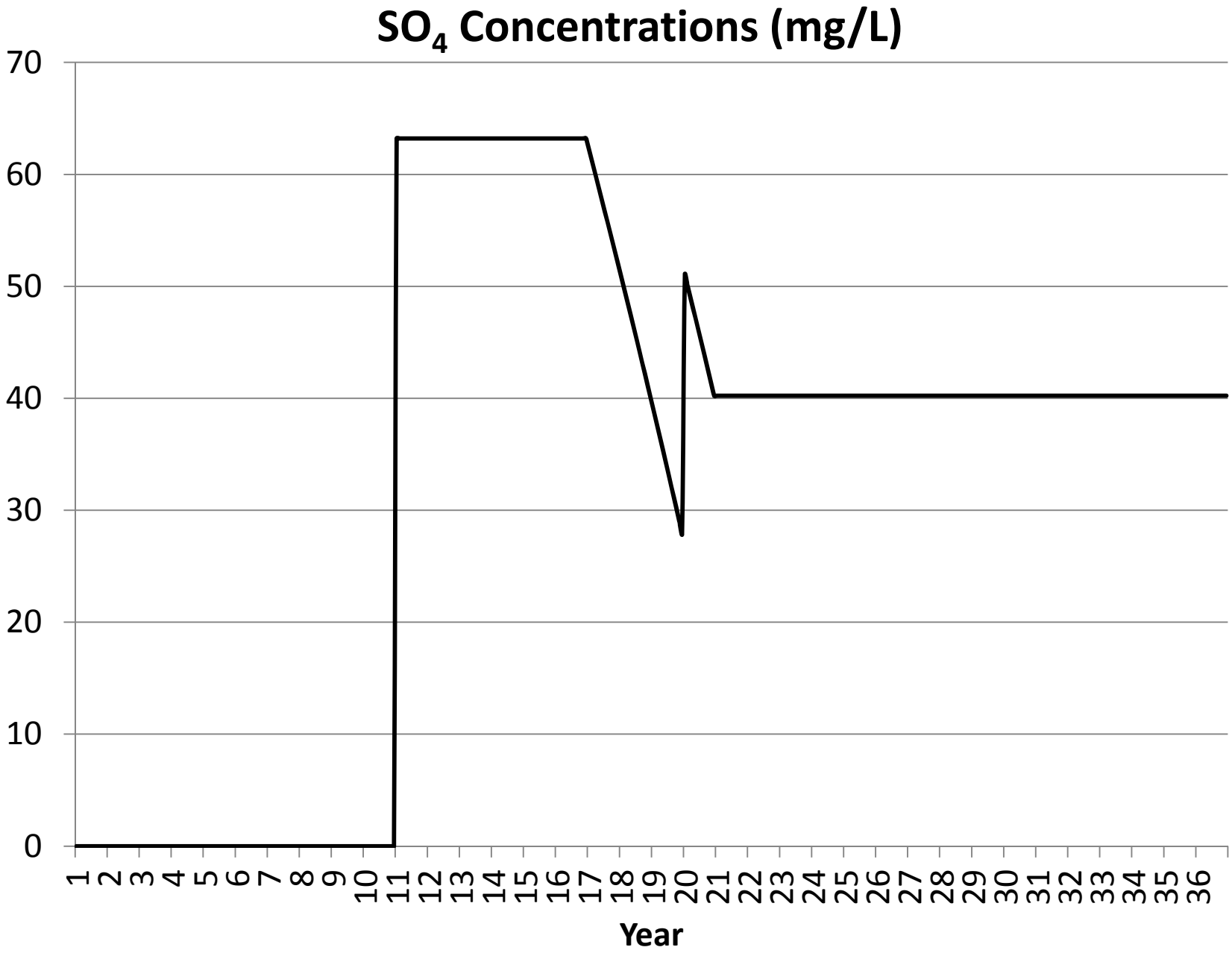

Cu Concentrations (µg/L)
10
9
8
7
6
5
4
3
2
1
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36
Year

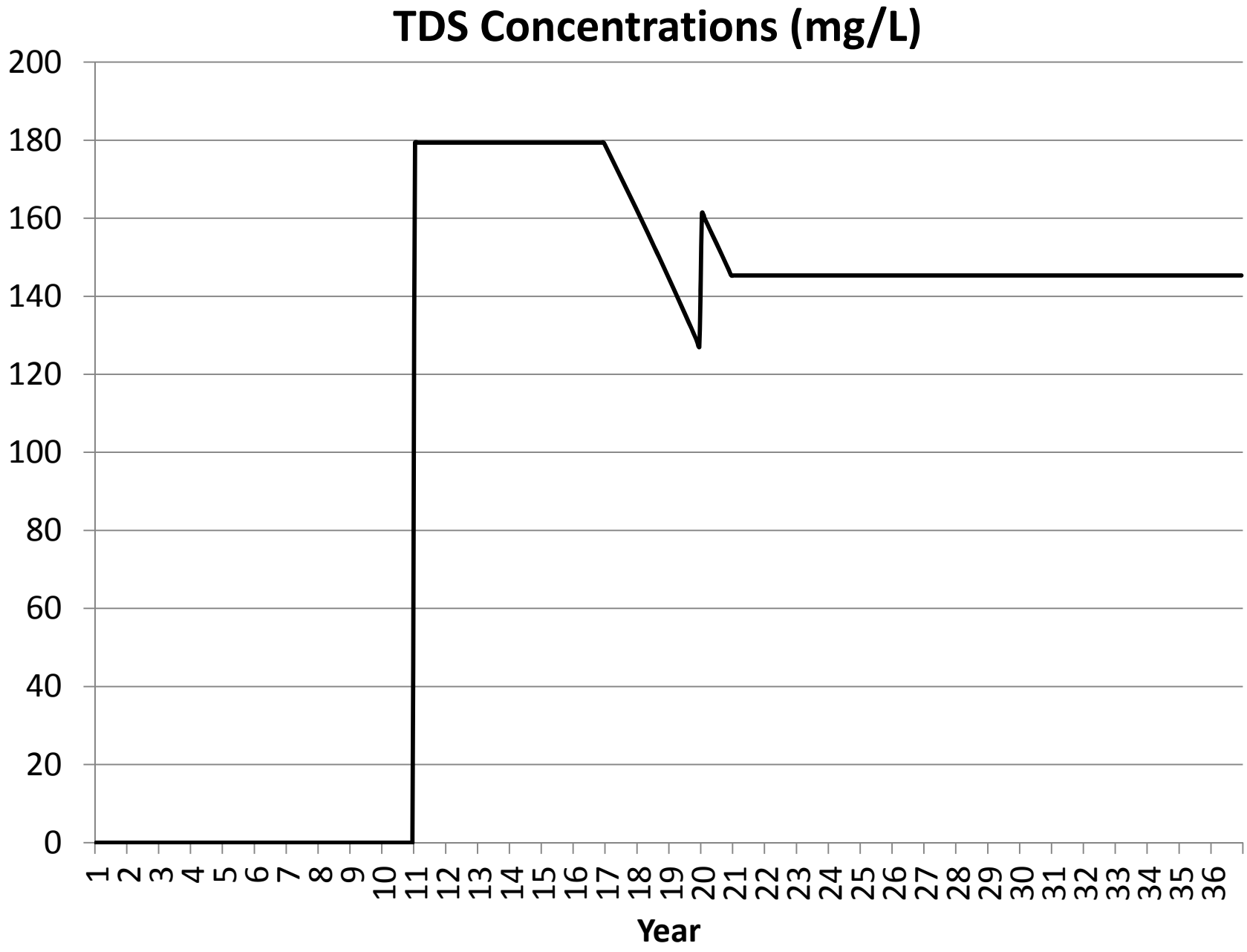

Mn Concentrations (µg/L)
10
9
8
7
6
5
4
3
2
1
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36
Year


Ni Concentrations (µg/L)
10
9
8
7
6
5
4
3
2
1
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36
Year


Sb Concentrations (µg/L)
10
9
8
7
6
5
4
3
2
1
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36
Year


Se Concentrations (µg/L)
10
9
8
7
6
5
4
3
2
1
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36
Year


SO4 Concentrations (mg/L)
70
60
50
40
30
20
10
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36
Year


TDS Concentrations (mg/L)
200
180
160
140
120
100
80
60
40
20
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36
Year

Inflows and Outflows	Parameters	Units	Value	Units	Description and Rationale				
Precipitation	Precipitation		1.85	ft/yr	Los Altos climate station, direct precip on waste rock backfill area is based on monthly precip data				
			Phases		0 - 10	11-16	16-20	20+	
			Initial		Mining	Backfilling	Revegetation	Long Term	
Quarry Backfilling Areas	**Surface Water Drainage to Pit**								
	Quarry Area (Greenstone/Greywacke)	sq feet				10,100,000	10,100,000	10,100,000	Based on drawing from Chang Consultants
		acres				232	232	232	Figure B.2
	Quarry Area (Limestone)	sq feet				1,000,000	500,000	500,000	
		acres				22	11	11	
	WMSA	sq feet							
		acres							
	Surface Infiltration to Pit (Through backfill)								
	Undrained Backfill (No Surface Outlet)	sq feet							
		acres							
	Drained Backfill (With Surface Outlet)	sq feet							
		acres							
	Total Drainage Area	acres			-	**254**	**243**	**243**	
	Spill Elevation		990.00	ft amsl	Based on mine plan				
	Bottom of Pit		440.00	ft amsl	Based on end of Phase 1 for South Quarry mine plan				
Groundwater Capture	Initial		371	gpm	MODFLOW model results for Phase 1, maximum excavation condition				
			2,181-181	cu ft/mo					
	At Spill Elevation		80	gpm	MODFLOW model results for ultimate condition				
			470,336	cu ft/mo					
Date Quarry Filling Starts		**1/1/2023**							
Assumptions	The pit is backfilled incrementally over a 10-year period, from 440 ft amsl to the spill-over elevation of 990 ft amsl								
	Backfill material has a porosity of 30-percent.								
	Surface runoff is only within the capture area of the pit and is based on water year 2009 data								
	Groundwater inflow into the pit varies by month and diminishes as the backfill increases.								
	Precipitation directly infiltrates to the water table within the area of the backfill.								
	Evaporation of the pit lake is only applied when the cumulative volume of water in the pit is greater than the cumulative volume of void spaces within the backfill (based on 30-percent porosity)								
	The water level in the pit is dependent on the total cumulative volume of the backfill up to the spill-over elevation.								

24.56679096 0.000199456

| | | | | | | | |

2	12	3	135	3/1/2027	2,133,893	257,736	211,268	25,518	0	0	0	0	0	0	0	283,254	283,254	0	683,796,886	440		283,254	0	0.06	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.06	0.00	3.39	0%	3.39
2	12	4	136	4/1/2027	2,276,056	159,113	225,352	15,754	0	0	0	0	0	0	0	174,867	174,867	0	683,796,886	440		174,867	0	0.04	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.04	0.00	3.39	0%	3.39
2	12	5	137	5/1/2027	2,418,310	46,687	239,437	4,622	0	0	0	0	0	0	0	51,309	51,309	0	683,796,886	440		51,309	0	0.01	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.01	0.00	3.39	0%	3.39
2	12	6	138	6/1/2027	2,560,563	8,298	253,521	822	0	0	0	0	0	0	0	9,120	9,120	0	683,796,886	440		9,120	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.39	0%	3.39
2	12	7	139	7/1/2027	2,702,817	375	267,606	37	0	0	0	0	0	0	0	413	413	0	683,796,886	440		413	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.39	0%	3.39
2	12	8	140	8/1/2027	2,845,070	1,449	281,690	143	0	0	0	0	0	0	0	1,592	1,592	0	683,796,886	440		1,592	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.39	0%	3.39
2	12	9	141	9/1/2027	2,987,324	7,469	295,775	739	0	0	0	0	0	0	0	8,208	8,208	0	683,796,886	440		8,208	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.39	0%	3.39
2	12	10	142	10/1/2027	3,129,577	115,910	309,859	11,476	0	0	0	0	0	0	0	127,387	127,387	0	683,796,886	440		127,387	0	0.03	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.03	0.00	3.39	0%	3.39
2	12	11	143	11/1/2027	3,271,831	397,467	323,944	39,353	0	0	0	0	0	0	0	436,820	436,820	0	683,796,886	440		436,820	0	0.09	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.09	0.00	3.39	0%	3.39
2	12	12	144	12/1/2027	3,414,085	604,103	338,028	59,812	0	0	0	0	0	0	0	663,915	663,915	0	683,796,886	440		663,915	0	0.14	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.14	0.00	3.39	0%	3.39
2	13	1	145	1/1/2028	3,556,338	498,875	352,113	49,394	0	0	0	0	0	0	0	548,269	548,269	0	683,796,886	440		548,269	0	0.11	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.12	0.00	3.39	0%	3.39
2	13	2	146	2/1/2028	3,698,592	860,779	366,197	85,226	0	0	0	0	0	0	0	946,004	946,004	0	683,796,886	440		946,004	0	0.19	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.20	0.00	3.39	0%	3.39
2	13	3	147	3/1/2028	3,840,845	463,924	380,282	45,933	0	0	0	0	0	0	0	509,857	509,857	0	683,796,886	440		509,857	0	0.10	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.11	0.00	3.39	0%	3.39
2	13	4	148	4/1/2028	3,983,099	278,448	394,366	27,569	0	0	0	0	0	0	0	306,017	306,017	0	683,796,886	440		306,017	0	0.06	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.06	0.00	3.39	0%	3.39
2	13	5	149	5/1/2028	4,125,352	79,642	408,451	7,885	0	0	0	0	0	0	0	87,528	87,528	0	683,796,886	440		87,528	0	0.02	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.02	0.00	3.39	0%	3.39
2	13	6	150	6/1/2028	4,267,606	13,839	422,535	1,369	0	0	0	0	0	0	0	15,200	15,200	0	683,796,886	440		15,200	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.39	0%	3.39
2	13	7	151	7/1/2028	4,409,859	612	436,620	61	0	0	0	0	0	0	0	673	673	0	683,796,886	440		673	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.39	0%	3.39
2	13	8	152	8/1/2028	4,552,113	2,318	450,704	230	0	0	0	0	0	0	0	2,548	2,548	0	683,796,886	440		2,548	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.39	0%	3.39
2	13	9	153	9/1/2028	4,694,366	11,736	464,789	1,162	0	0	0	0	0	0	0	12,898	12,898	0	683,796,886	440		12,898	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.39	0%	3.39
2	13	10	154	10/1/2028	4,836,620	179,134	478,873	17,736	0	0	0	0	0	0	0	196,870	196,870	0	683,796,886	440		196,870	0	0.04	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.04	0.00	3.39	0%	3.39
2	13	11	155	11/1/2028	4,978,873	604,841	492,958	59,885	0	0	0	0	0	0	0	664,726	664,726	0	683,796,886	440		664,726	0	0.14	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.14	0.00	3.39	0%	3.39
2	13	12	156	12/1/2028	5,121,127	906,155	507,042	89,718	0	0	0	0	0	0	0	995,873	995,873	0	683,796,886	440		995,873	0	0.20	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.21	0.00	3.39	0%	3.39
2	14	1	157	1/1/2029	5,263,380	738,335	521,127	73,103	0	0	0	0	0	0	0	811,438	811,438	0	683,796,886	440		811,438	0	0.17	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.17	0.00	3.39	0%	3.39
2	14	2	158	2/1/2029	5,405,634	1,258,061	535,211	124,561	0	0	0	0	0	0	0	1,382,622	1,382,622	0	683,796,886	440		1,382,622	0	0.28	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.29	0.00	3.39	0%	3.39
2	14	3	159	3/1/2029	5,547,887	670,113	549,296	66,348	0	0	0	0	0	0	0	736,461	736,461	0	683,796,886	440		736,461	0	0.15	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.16	0.00	3.39	0%	3.39
2	14	4	160	4/1/2029	5,690,141	397,783	563,380	39,384	0	0	0	0	0	0	0	437,167	437,167	0	683,796,886	440		437,167	0	0.09	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.09	0.00	3.39	0%	3.39
2	14	5	161	5/1/2029	5,832,394	112,598	577,465	11,148	0	0	0	0	0	0	0	123,746	123,746	0	683,796,886	440		123,746	0	0.03	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.03	0.00	3.39	0%	3.39
2	14	6	162	6/1/2029	5,974,648	19,362	591,549	1,917	0	0	0	0	0	0	0	21,279	21,279	0	683,796,886	440		21,279	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.39	0%	3.39
2	14	7	163	7/1/2029	6,116,901	850	605,634	84	0	0	0	0	0	0	0	934	934	0	683,796,886	440		934	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.39	0%	3.39
2	14	8	164	8/1/2029	6,259,155	3,188	619,718	316	0	0	0	0	0	0	0	3,503	3,503	0	683,796,886	440		3,503	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.39	0%	3.39
2	14	9	165	9/1/2029	6,401,408	16,004	633,803	1,585	0	0	0	0	0	0	0	17,588	17,588	0	683,796,886	440		17,588	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.39	0%	3.39
2	14	10	166	10/1/2029	6,543,662	242,358	647,887	23,996	0	0	0	0	0	0	0	266,354	266,354	0	683,796,886	440		266,354	0	0.05	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.06	0.00	3.39	0%	3.39
2	14	11	167	11/1/2029	6,685,915	812,215	661,972	80,417	0	0	0	0	0	0	0	892,632	892,632	0	683,796,886	440		892,632	0	0.18	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.19	0.00	3.39	0%	3.39
2	14	12	168	12/1/2029	6,828,169	1,208,207	676,056	119,624	0	0	0	0	0	0	0	1,327,831	1,327,831	0	683,796,886	440		1,327,831	0	0.27	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.28	0.00	3.39	0%	3.39
2	15	1	169	1/1/2030	6,970,423	977,795	690,141	96,811	0	0	0	0	0	0	0	1,074,607	1,074,607	0	683,796,886	440		1,074,607	0	0.22	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.23	0.00	3.39	0%	3.39
2	15	2	170	2/1/2030	7,112,676	1,655,344	704,225	163,895	0	0	0	0	0	0	0	1,819,239	1,819,239	0	683,796,886	440		1,819,239	0	0.37	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.39	0.00	3.39	0%	3.39
2	15	3	171	3/1/2030	7,112,676	859,119	704,225	85,061	0	0	0	0	0	0	0	944,180	944,180	0	683,796,886	440		944,180	0	0.19	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.20	0.00	3.39	0%	3.39
2	15	4	171	4/1/2028	7,254,930	507,173	718,310	50,215	0	0	0	0	0	0	0	557,388	557,388	0	683,796,886	440		557,388	0	0.11	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.12	0.00	3.39	0%	3.39
2	15	5	172	5/1/2028	7,397,183	142,807	732,394	14,139	0	0	0	0	0	0	0	156,946	156,946	0	683,796,886	440		156,946	0	0.03	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.03	0.00	3.39	0%	3.39
2	15	6	173	6/1/2028	7,539,437	24,433	746,479	2,419	0	0	0	0	0	0	0	26,853	26,853	0	683,796,886	440		26,853	0	0.01	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.01	0.00	3.39	0%	3.39
2	15	7	174	7/1/2028	7,681,690	1,067	760,563	106	0	0	0	0	0	0	0	1,173	1,173	0	683,796,886	440		1,173	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.39	0%	3.39
2	15	8	175	8/1/2028	7,823,944	3,984	774,648	394	0	0	0	0	0	0	0	4,379	4,379	0	683,796,886	440		4,379	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.39	0%	3.39
2	15	9	176	9/1/2028	7,966,197	19,915	788,732	1,972	0	0	0	0	0	0	0	21,887	21,887	0	683,796,886	440		21,887	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.39	0%	3.39
2	15	10	177	10/1/2028	8,108,451	300,213	802,817	29,734	0	0	0	0	0	0	0	330,047	330,047	0	683,796,886	440		330,047	0	0.07	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.07	0.00	3.39	0%	3.39
2	15	11	178	11/1/2028	8,250,704	1,002,308	816,901	99,238	0	0	0	0	0	0	0	1,101,546	1,101,546	0	683,796,886	440		1,101,546	0	0.23	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.23	0.00	3.39	0%	3.39
2	15	12	179	12/1/2028	8,392,958	1,485,087	830,986	147,038	0	0	0	0	0	0	0	1,632,126	1,632,126	0	683,796,886	440		1,632,126	0	0.33	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.35	0.00	3.39	0%	3.39
2	16	1	180	1/1/2029	8,535,211	1,197,300	845,070	118,545	0	0	0	0	0	0	0	1,315,845	1,315,845	0	683,796,886	440		1,315,845	0	0.27	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.28	0.00	3.39	0%	3.39
2	16	2	181	2/1/2029	8,677,465	2,019,519	859,155	199,952	0	0	0	0	0	0	0	2,219,472	2,219,472	0	683,796,886	440		2,219,472	0	0.45	0.02	0.00	4.50	0.00	0.00	0.00	0.00	0.47	0.00	3.39	0%	3.39
2	16	3	182	3/1/2029	8,819,718	1,065,308	873,239	105,476	0	0	0	0	0	0	0	1,170,784	1,170,784	0	683,796,886	440		1,170,784	0	0.24	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.25	0.00	3.39	0%	3.39
2	16	4	183	4/1/2029	8,961,972	626,508	887,324	62,031	0	0	0	0	0	0	0	688,539	688,539	0	683,796,886	440		688,539	0	0.14	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.15	0.00	3.39	0%	3.39
2	16	5	184	5/1/2029	9,104,225	175,762	901,408	17,402	0	0	0	0	0	0	0	193,164	193,164	0	683,796,886	440		193,164	0	0.04	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.04	0.00	3.39	0%	3.39
2	16	6	185	6/1/2029	9,246,479	29,965	915,493	2,967	0	0	0	0	0	0	0	32,932	32,932	0	683,796,886	440		32,932	0	0.01	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.01	0.00	3.39	0%	3.39
2	16	7	186	7/1/2029	9,388,732	1,304	929,577	129	0	0	0	0	0	0	0	1,433	1,433	0	683,796,886	440		1,433	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.39	0%	3.39
2	16	8	187	8/1/2029	9,530,986	4,854	943,662	481	0	0	0	0	0	0	0	5,334	5,334	0	683,796,886	440		5,334	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.39	0%	3.39
2	16	9	188	9/1/2029	9,673,239	24,183	957,746	2,394	0	0	0	0	0	0	0	26,577	26,577	0	683,796,886	440		26,577	0	0.01	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.01	0.00	3.39	0%	3.39
2	16	10	189	10/1/2029	9,815,493	363,537	971,831	35,994	0	0	0	0	0	0	0	399,531	399,531	0	683,796,886	440		399,531	0	0.08	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.08	0.00	3.39	0%	3.39
2	16	11	190	11/1/2029	9,957,746	1,209,682	985,915	119,770	0	0	0	0	0	0	0	1,329,452	1,329,452	0	683,796,886	440		1,329,452	0	0.27	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.28	0.00	3.39	0%	3.39
2	**16**	**12**	191	**12/1/2029**	**10,100,000**	1,787,139	**1,000,000**	176,944	**0**	0	0	0	0	0	0	1,964,083	1,964,083	0	683,796,886	440		1,964,083	0	0.40	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.42	0.00	3.39	0%	3.39
3	16	**1**	192	1/1/2030	10,100,000	1,416,806	979,167	137,355	0	0	0	0	0	0	0	1,554,161	1,554,161	0	683,796,886	440		1,554,161	0	0.32	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.33	0.00	3.40	0%	3.40
3	17	2	193	2/1/2030	10,100,000	2,350,588	958,333	223,034	0	0	0	0	0	0	0	2,573,622	2,573,622	0	683,796,886	440		2,573,622	0	0.53	0.02	0.00	4.50	0.00	0.00	0.00	0.00	0.55	0.00	3.40	0%	3.40
3	17	3	194	3/1/2030	10,100,000	1,219,949	937,500	113,238	0	0	0	0	0	0	0	1,333,187	1,333,187	0	683,796,886	440		1,333,187	0	0.27	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.28	0.00	3.40	0%	3.40
3	17	4	195	4/1/2030	10,100,000	706,065	916,667	64,082	0	0	0	0	0	0	0	770,147	770,147	0	683,796,886	440		770,147	0	0.16	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.16	0.00	3.41	0%	3.41
3	17	5	196	5/1/2030	10,100,000	194,986	895,833	17,295	0	0	0	0	0	0	0	212,281	212,281	0	683,796,886	440		212,281	0	0.04	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.05	0.00	3.41	0%	3.41
3	17	6	197	6/1/2030	10,100,000	32,731	875,000	2,836	0	0	0	0	0	0	0	35,567	35,567	0	683,796,886	440		35,567	0	0.01	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.01	0.00	3.42	0%	3.42
3	17	7	198	7/1/2030	10,100,000	1,403	854,167	119	0	0	0	0	0	0	0	1,521	1,521	0	683,796,886	440		1,521	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.42	0%	3.42
3	17	8	199	8/1/2030	10,100,000	5,144	833,333	424	0	0	0	0	0	0	0	5,568	5,568	0	683,796,886	440		5,568	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.42	0%	3.42
3	17	9	200	9/1/2030	10,100,000	25,250	812,500	2,031	0	0	0	0	0	0	0	27,281	27,281	0	683,796,886	440		27,281	0	0.01	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.01	0.00	3.43	0%	3.43
3	17	10	201	10/1/2030	10,100,000	374,074	791,667	29,329	0	0	0	0	0	0	0	403,395	403,395	0	683,796,886	440		403,395	0	0.08	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.09	0.00	3.43	0%	3.43
3	17	11	202	11/1/2030	10,100,000	1,226,963	770,833	93,642	0	0	0	0	0	0	0	1,320,605	1,320,605	0	683,796,886	440		1,320,605	0	0.28	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.28	0.00	3.44	0%	3.44
3	17	12	203	12/1/2030	10,100,000	1,787,139	750,000	132,708	0	0	0	0	0	0	0	1,919,847	1,919,847	0	683,796,886	440		1,919,847	0	0.40	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.41	0.00	3.44	0%	3.44
3	18	1	204	1/1/2031	10,100,000	1,416,806	729,167	102,286	0	0	0	0	0	0	0	1,519,091	1,519,091	0	683,796,886	440		1,519,091	0	0.32	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.33	0.00	3.45	0%	3.45
3	18	2	205	2/1/2031	10,100,000	2,350,588	708,333	164,851	0	0	0	0	0	0	0	2,515,439	2,515,439	0	683,796,886	440		2,515,439	0	0.53	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.54	0.00	3.45	0%	3.45
3	18	3	206	3/1/2031	10,100,000	1,219,949	687,500	83,041	0	0	0	0	0	0	0	1,302,990	1,302,990	0	683,796,886	440		1,302,990	0	0.27	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.28	0.00	3.45	0%	3.45
3	18	4	207	4/1/2031	10,100,000	706,065	666,667	46,605	0	0	0	0	0	0	0	752,670	752,670	0	683,796,886	440		752,670	0	0.16	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.16	0.00	3.46	0%	3.46
3	18	5	208	5/1/2031	10,100,000	194,986	645,833	12,468	0	0	0	0	0	0	0	207,454	207,454	0	683,796,886	440		207,454	0	0.04	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.04	0.00	3.46	0%	3.46
3	18	6	209	6/1/2031	10,100,000	32,731	625,000	2,025	0	0	0	0	0	0	0	34,757	34,757	0	683,796,886	440		34,757	0	0.01	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.01	0.00	3.47	0%	3.47
3	18	7	210	7/1/2031	10,100,000	1,403	604,167	84	0	0	0	0	0	0	0	1,487	1,487	0	683,796,886	440		1,487	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.47	0%	3.47
3	18	8	211	8/1/2031	10,100,000	5,144	583,333	297	0	0	0	0	0	0	0	5,441	5,441	0	683,796,886	440		5,441	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.47	0%	3.47
3	18	9	212	9/1/2031	10,100,000	25,250	562,500	1,406	0	0	0	0	0	0	0	26,656	26,656	0	683,796,886	440		26,656	0	0.01	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.01	0.00	3.48	0%	3.48
3	18	10	213	10/1/2031	10,100,000	374,074	541,667	20,062	0	0	0	0	0	0	0	394,136	394,136	0	683,796,886	440		394,136	0	0.08	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.09	0.00	3.48	0%	3.48
3	18	11	214	11/1/2031	10,100,000	1,226,963	520,

NA	27	6	293	6/1/2038	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.01	0.00	3.49	0%	3.49
NA	27	7	294	7/1/2038	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.49	0%	3.49
NA	27	8	295	8/1/2038	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.49	0%	3.49
NA	27	9	296	9/1/2038	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.01	0.00	3.49	0%	3.49
NA	27	10	297	10/1/2038	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.08	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.09	0.00	3.49	0%	3.49
NA	27	11	298	11/1/2038	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.28	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.28	0.00	3.49	0%	3.49
NA	27	12	299	12/1/2038	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.40	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.41	0.00	3.49	0%	3.49
NA	28	1	300	1/1/2039	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.32	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.32	0.00	3.49	0%	3.49
NA	28	2	301	2/1/2039	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.53	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.54	0.00	3.49	0%	3.49
NA	28	3	302	3/1/2039	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.27	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.28	0.00	3.49	0%	3.49
NA	28	4	303	4/1/2039	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.16	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.16	0.00	3.49	0%	3.49
NA	28	5	304	5/1/2039	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.04	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.04	0.00	3.49	0%	3.49
NA	28	6	305	6/1/2039	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.01	0.00	3.49	0%	3.49
NA	28	7	306	7/1/2039	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.49	0%	3.49
NA	28	8	307	8/1/2039	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.49	0%	3.49
NA	28	9	308	9/1/2039	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.01	0.00	3.49	0%	3.49
NA	28	10	309	10/1/2039	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.08	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.09	0.00	3.49	0%	3.49
NA	28	11	310	11/1/2039	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.28	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.28	0.00	3.49	0%	3.49
NA	28	12	311	12/1/2039	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.40	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.41	0.00	3.49	0%	3.49
NA	29	1	312	1/1/2040	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.32	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.32	0.00	3.49	0%	3.49
NA	29	2	313	2/1/2040	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.53	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.54	0.00	3.49	0%	3.49
NA	29	3	314	3/1/2040	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.27	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.28	0.00	3.49	0%	3.49
NA	29	4	315	4/1/2040	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.16	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.16	0.00	3.49	0%	3.49
NA	29	5	316	5/1/2040	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.04	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.04	0.00	3.49	0%	3.49
NA	29	6	317	6/1/2040	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.01	0.00	3.49	0%	3.49
NA	29	7	318	7/1/2040	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.49	0%	3.49
NA	29	8	319	8/1/2040	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.49	0%	3.49
NA	29	9	320	9/1/2040	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.01	0.00	3.49	0%	3.49
NA	29	10	321	10/1/2040	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.08	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.09	0.00	3.49	0%	3.49
NA	29	11	322	11/1/2040	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.28	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.28	0.00	3.49	0%	3.49
NA	29	12	323	12/1/2040	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.40	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.41	0.00	3.49	0%	3.49
NA	30	1	324	1/1/2041	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.32	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.32	0.00	3.49	0%	3.49
NA	30	2	325	2/1/2041	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.53	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.54	0.00	3.49	0%	3.49
NA	30	3	326	3/1/2041	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.27	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.28	0.00	3.49	0%	3.49
NA	30	4	327	4/1/2041	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.16	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.16	0.00	3.49	0%	3.49
NA	30	5	328	5/1/2041	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.04	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.04	0.00	3.49	0%	3.49
NA	30	6	329	6/1/2041	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.01	0.00	3.49	0%	3.49
NA	30	7	330	7/1/2041	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.49	0%	3.49
NA	30	8	331	8/1/2041	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.49	0%	3.49
NA	30	9	332	9/1/2041	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.01	0.00	3.49	0%	3.49
NA	30	10	333	10/1/2041	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.08	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.09	0.00	3.49	0%	3.49
NA	30	11	334	11/1/2041	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.28	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.28	0.00	3.49	0%	3.49
NA	30	12	335	12/1/2041	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.40	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.41	0.00	3.49	0%	3.49
NA	31	1	336	1/1/2042	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.32	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.32	0.00	3.49	0%	3.49
NA	31	2	337	2/1/2042	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.53	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.54	0.00	3.49	0%	3.49
NA	31	3	338	3/1/2042	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.27	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.28	0.00	3.49	0%	3.49
NA	31	4	339	4/1/2042	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.16	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.16	0.00	3.49	0%	3.49
NA	31	5	340	5/1/2042	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.04	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.04	0.00	3.49	0%	3.49
NA	31	6	341	6/1/2042	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.01	0.00	3.49	0%	3.49
NA	31	7	342	7/1/2042	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.49	0%	3.49
NA	31	8	343	8/1/2042	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.49	0%	3.49
NA	31	9	344	9/1/2042	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.01	0.00	3.49	0%	3.49
NA	31	10	345	10/1/2042	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.08	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.09	0.00	3.49	0%	3.49
NA	31	11	346	11/1/2042	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.28	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.28	0.00	3.49	0%	3.49
NA	31	12	347	12/1/2042	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.40	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.41	0.00	3.49	0%	3.49
NA	32	1	348	1/1/2043	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.32	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.32	0.00	3.49	0%	3.49
NA	32	2	349	2/1/2043	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.53	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.54	0.00	3.49	0%	3.49
NA	32	3	350	3/1/2043	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.27	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.28	0.00	3.49	0%	3.49
NA	32	4	351	4/1/2043	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.16	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.16	0.00	3.49	0%	3.49
NA	32	5	352	5/1/2043	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.04	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.04	0.00	3.49	0%	3.49
NA	32	6	353	6/1/2043	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.01	0.00	3.49	0%	3.49
NA	32	7	354	7/1/2043	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.49	0%	3.49
NA	32	8	355	8/1/2043	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.49	0%	3.49
NA	32	9	356	9/1/2043	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.01	0.00	3.49	0%	3.49
NA	32	10	357	10/1/2043	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.08	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.09	0.00	3.49	0%	3.49
NA	32	11	358	11/1/2043	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.28	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.28	0.00	3.49	0%	3.49
NA	32	12	359	12/1/2043	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.40	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.41	0.00	3.49	0%	3.49
NA	33	1	360	1/1/2044	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.32	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.32	0.00	3.49	0%	3.49
NA	33	2	361	2/1/2044	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.53	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.54	0.00	3.49	0%	3.49
NA	33	3	362	3/1/2044	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.27	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.28	0.00	3.49	0%	3.49
NA	33	4	363	4/1/2044	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.16	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.16	0.00	3.49	0%	3.49
NA	33	5	364	5/1/2044	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.04	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.04	0.00	3.49	0%	3.49
NA	33	6	365	6/1/2044	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.01	0.00	3.49	0%	3.49
NA	33	7	366	7/1/2044	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.49	0%	3.49
NA	33	8	367	8/1/2044	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.49	0%	3.49
NA	33	9	368	9/1/2044	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.01	0.00	3.49	0%	3.49
NA	33	10	369	10/1/2044	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.08	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.09	0.00	3.49	0%	3.49
NA	33	11	370	11/1/2044	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.28	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.28	0.00	3.49	0%	3.49
NA	33	12	371	12/1/2044	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.40	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.41	0.00	3.49	0%	3.49
NA	34	1	372	1/1/2045	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.32	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.32	0.00	3.49	0%	3.49
NA	34	2	373	2/1/2045	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.53	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.54	0.00	3.49	0%	3.49
NA	34	3	374	3/1/2045	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343

NA	42	9	476	9/1/2053	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.01	0.00	3.49	0%	3.49
NA	42	10	477	10/1/2053	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.08	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.09	0.00	3.49	0%	3.49
NA	42	11	478	11/1/2053	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.28	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.28	0.00	3.49	0%	3.49
NA	42	12	479	12/1/2053	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.40	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.41	0.00	3.49	0%	3.49
NA	43	1	480	1/1/2054	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.32	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.32	0.00	3.49	0%	3.49
NA	43	2	481	2/1/2054	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.53	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.54	0.00	3.49	0%	3.49
NA	43	3	482	3/1/2054	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.27	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.28	0.00	3.49	0%	3.49
NA	43	4	483	4/1/2054	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.16	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.16	0.00	3.49	0%	3.49
NA	43	5	484	5/1/2054	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.04	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.04	0.00	3.49	0%	3.49
NA	43	6	485	6/1/2054	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.01	0.00	3.49	0%	3.49
NA	43	7	486	7/1/2054	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.49	0%	3.49
NA	43	8	487	8/1/2054	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.49	0%	3.49
NA	43	9	488	9/1/2054	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.01	0.00	3.49	0%	3.49
NA	43	10	489	10/1/2054	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.08	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.09	0.00	3.49	0%	3.49
NA	43	11	490	11/1/2054	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.28	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.28	0.00	3.49	0%	3.49
NA	43	12	491	12/1/2054	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.40	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.41	0.00	3.49	0%	3.49
NA	44	1	492	1/1/2055	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.32	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.32	0.00	3.49	0%	3.49
NA	44	2	493	2/1/2055	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.53	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.54	0.00	3.49	0%	3.49
NA	44	3	494	3/1/2055	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.27	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.28	0.00	3.49	0%	3.49
NA	44	4	495	4/1/2055	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.16	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.16	0.00	3.49	0%	3.49
NA	44	5	496	5/1/2055	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.04	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.04	0.00	3.49	0%	3.49
NA	44	6	497	6/1/2055	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.01	0.00	3.49	0%	3.49
NA	44	7	498	7/1/2055	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.49	0%	3.49
NA	44	8	499	8/1/2055	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.49	0%	3.49
NA	44	9	500	9/1/2055	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.01	0.00	3.49	0%	3.49
NA	44	10	501	10/1/2055	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.08	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.09	0.00	3.49	0%	3.49
NA	44	11	502	11/1/2055	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.28	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.28	0.00	3.49	0%	3.49
NA	44	12	503	12/1/2055	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.40	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.41	0.00	3.49	0%	3.49
NA	45	1	504	1/1/2056	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.32	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.32	0.00	3.49	0%	3.49
NA	45	2	505	2/1/2056	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.53	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.54	0.00	3.49	0%	3.49
NA	45	3	506	3/1/2056	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.27	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.28	0.00	3.49	0%	3.49
NA	45	4	507	4/1/2056	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.16	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.16	0.00	3.49	0%	3.49
NA	45	5	508	5/1/2056	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.04	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.04	0.00	3.49	0%	3.49
NA	45	6	509	6/1/2056	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.01	0.00	3.49	0%	3.49
NA	45	7	510	7/1/2056	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.49	0%	3.49
NA	45	8	511	8/1/2056	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.49	0%	3.49
NA	45	9	512	9/1/2056	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.01	0.00	3.49	0%	3.49
NA	45	10	513	10/1/2056	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.08	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.09	0.00	3.49	0%	3.49
NA	45	11	514	11/1/2056	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.28	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.28	0.00	3.49	0%	3.49
NA	45	12	515	12/1/2056	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.40	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.41	0.00	3.49	0%	3.49
NA	46	1	516	1/1/2057	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.32	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.32	0.00	3.49	0%	3.49
NA	46	2	517	2/1/2057	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.53	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.54	0.00	3.49	0%	3.49
NA	46	3	518	3/1/2057	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.27	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.28	0.00	3.49	0%	3.49
NA	46	4	519	4/1/2057	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.16	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.16	0.00	3.49	0%	3.49
NA	46	5	520	5/1/2057	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.04	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.04	0.00	3.49	0%	3.49
NA	46	6	521	6/1/2057	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.01	0.00	3.49	0%	3.49
NA	46	7	522	7/1/2057	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.49	0%	3.49
NA	46	8	523	8/1/2057	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.49	0%	3.49
NA	46	9	524	9/1/2057	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.01	0.00	3.49	0%	3.49
NA	46	10	525	10/1/2057	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.08	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.09	0.00	3.49	0%	3.49
NA	46	11	526	11/1/2057	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.28	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.28	0.00	3.49	0%	3.49
NA	46	12	527	12/1/2057	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.40	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.41	0.00	3.49	0%	3.49
NA	47	1	528	1/1/2058	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.32	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.32	0.00	3.49	0%	3.49
NA	47	2	529	2/1/2058	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.53	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.54	0.00	3.49	0%	3.49
NA	47	3	530	3/1/2058	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.27	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.28	0.00	3.49	0%	3.49
NA	47	4	531	4/1/2058	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.16	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.16	0.00	3.49	0%	3.49
NA	47	5	532	5/1/2058	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.04	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.04	0.00	3.49	0%	3.49
NA	47	6	533	6/1/2058	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.01	0.00	3.49	0%	3.49
NA	47	7	534	7/1/2058	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.49	0%	3.49
NA	47	8	535	8/1/2058	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.49	0%	3.49
NA	47	9	536	9/1/2058	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.01	0.00	3.49	0%	3.49
NA	47	10	537	10/1/2058	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.08	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.09	0.00	3.49	0%	3.49
NA	47	11	538	11/1/2058	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.28	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.28	0.00	3.49	0%	3.49
NA	47	12	539	12/1/2058	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.40	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.41	0.00	3.49	0%	3.49
NA	48	1	540	1/1/2059	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.32	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.32	0.00	3.49	0%	3.49
NA	48	2	541	2/1/2059	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.53	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.54	0.00	3.49	0%	3.49
NA	48	3	542	3/1/2059	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.27	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.28	0.00	3.49	0%	3.49
NA	48	4	543	4/1/2059	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.16	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.16	0.00	3.49	0%	3.49
NA	48	5	544	5/1/2059	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.04	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.04	0.00	3.49	0%	3.49
NA	48	6	545	6/1/2059	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.01	0.00	3.49	0%	3.49
NA	48	7	546	7/1/2059	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.49	0%	3.49
NA	48	8	547	8/1/2059	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	3.49	0%	3.49
NA	48	9	548	9/1/2059	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.01	0.00	3.49	0%	3.49
NA	48	10	549	10/1/2059	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.08	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.09	0.00	3.49	0%	3.49
NA	48	11	550	11/1/2059	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.28	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.28	0.00	3.49	0%	3.49
NA	48	12	551	12/1/2059	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.40	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.41	0.00	3.49	0%	3.49
NA	49	1	552	1/1/2060	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.32	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.32	0.00	3.49	0%	3.49
NA	49	2	553	2/1/2060	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.53	0.01	0.00	4.50	0.00	0.00	0.00	0.00	0.54	0.00	3.49	0%	3.49
NA	49	3	554	3/1/2060	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.27	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.28	0.00	3.49	0%	3.49
NA	49	4	555	4/1/2060	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.16	0.00	0.00	4.50	0.00	0.00

Inflows and Outflows	Parameters	Units	Value	Units	Description and Rationale				
Precipitation	Precipitation		1.85	ft/yr	Los Altos climate station, direct precip on waste rock backfill area is based on monthly precip data				
			Phases		0 - 10	11-16	16-20	20+	
			Initial		Mining	Backfilling	Revegetation	Long Term	
Quarry Backfilling Areas	**Surface Water Drainage to Pit**								
	Quarry Area (Greenstone/Greywacke)	sq feet				10,100,000	10,100,000	10,100,000	Based on drawing from Chang Consultants
		acres				232	232	232	Figure B.2
	Quarry Area (Limestone)	sq feet				1,000,000	500,000	500,000	
		acres				22	11	11	
	WMSA	sq feet							
		acres							
	Surface Infiltration to Pit (Through backfill)								
	Undrained Backfill (No Surface Outlet)	sq feet							
		acres							
	Drained Backfill (With Surface Outlet)	sq feet							
		acres							
	Total Drainage Area	acres			-	**254**	**243**	**243**	
	Spill Elevation		990.00	ft amsl	Based on mine plan				
	Bottom of Pit		440.00	ft amsl	Based on end of Phase 1 for South Quarry mine plan				
Groundwater Capture	Initial		371	gpm	MODFLOW model results for Phase 1, maximum excavation condition				
			2,181-181	cu ft/mo					
	At Spill Elevation		80	gpm	MODFLOW model results for ultimate condition				
			470,336	cu ft/mo					
Date Quarry Filling Starts		**1/1/2023**							
Assumptions	The pit is backfilled incrementally over a 10-year period, from 440 ft amsl to the spill-over elevation of 990 ft amsl								
	Backfill material has a porosity of 30-percent.								
	Surface runoff is only within the capture area of the pit and is based on water year 2009 data								
	Groundwater inflow into the pit varies by month and diminishes as the backfill increases.								
	Precipitation directly infiltrates to the water table within the area of the backfill.								
	Evaporation of the pit lake is only applied when the cumulative volume of water in the pit is greater than the cumulative volume of void spaces within the backfill (based on 30-percent porosity)								
	The water level in the pit is dependent on the total cumulative volume of the backfill up to the spill-over elevation.								

2.0	29.0	29	82	2	1	1	0	Se	Based Measured Pit Water Quality
1	30	1	1	1	1	1	-	Se	Based on test data only
33	5	1	2	2	3	3	-	As	Based Measured Pit Water Quality
		Concentrations	ug/L						

24.56679096 0.000199456

Phase	Year	Month	Total Months	Date	Quarry Area (Greenstone/Greywacke)	Quarry Area (Greenstone/Greywacke)	Quarry Area (Limestone)	Quarry Area (Limestone)	WMSA	WMSA	Groundwater Inflow (Zeroed out, included in pit water budget)	Undrained Backfill (No Surface Outlet)	Undrained Backfill (No Surface Outlet)	Drained Backfill (With Surface Outlet)	Drained Backfill (With Surface Outlet)	Pit Lake Precip	Water Entering Pit Lake	Runoff from Quarry Area	Cumulative Water in Pit	Cumulative Volume Occupied by Water in Backfill	Cumulative Backfill Volume	Pit Water Level at End of Year	Pit Water Open Area at End of Year	Area for Surface Water Runoff for Next Year	First Cut Water Accumulation in Pit Lake	Available Water Storage in Pit (Zeroed out)
					sq ft	cu ft	sq ft	cu ft	sq ft	cu ft	cu ft	sq ft	cu ft	sq ft	cu ft	cu ft	cu ft	cu ft	cu ft	cu ft	cu ft	ft	sq ft	sq ft	cu ft	cu ft
1	1	1	1	1/1/2018	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440	NA	NA	0	0
1	1	2	2	2/1/2018	0	0	0	0	0	0	0	0	0	0	0		0	0	0	NA	0	440			0	0
1	1	3	3	3/1/2018	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	1	4	4	4/1/2018	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	1	5	5	5/1/2018	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	1	6	6	6/1/2018	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	1	7	7	7/1/2018	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	1	8	8	8/1/2018	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	1	9	9	9/1/2018	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	1	10	10	10/1/2018	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	1	11	11	11/1/2018	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	1	12	12	12/1/2018	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	2	1	13	1/1/2019	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	2	2	14	2/1/2019	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	2	3	15	3/1/2019	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	2	4	16	4/1/2019	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	2	5	17	5/1/2019	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	2	6	18	6/1/2019	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	2	7	19	7/1/2019	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	2	8	20	8/1/2019	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	2	9	21	9/1/2019	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	2	10	22	10/1/2019	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	2	11	23	11/1/2019	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	2	12	24	12/1/2019	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	3	1	25	1/1/2020	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	3	2	26	2/1/2020	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	3	3	27	3/1/2020	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	3	4	28	4/1/2020	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	3	5	29	5/1/2020	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	3	6	30	6/1/2020	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	3	7	31	7/1/2020	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	3	8	32	8/1/2020	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	3	9	33	9/1/2020	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	3	10	34	10/1/2020	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	3	11	35	11/1/2020	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	3	12	36	12/1/2020	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	4	1	37	1/1/2021	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	4	2	38	2/1/2021	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	4	3	39	3/1/2021	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	4	4	40	4/1/2021	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	4	5	41	5/1/2021	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	4	6	42	6/1/2021	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	4	7	43	7/1/2021	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	4	8	44	8/1/2021	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	4	9	45	9/1/2021	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	4	10	46	10/1/2021	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	4	11	47	11/1/2021	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	4	12	48	12/1/2021	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	5	1	49	1/1/2022	0	0	0	0	0	0	0	0	0	0	0		0	0	11,396,615		0	440			0	0
1	5	2	50	2/1/2022	0	0	0	0	0	0	0	0	0	0	0		0	0	22,793,230		0	440			0	0
1	5	3	51	3/1/2022	0	0	0	0	0	0	0	0	0	0	0		0	0	34,189,844		0	440			0	0
1	5	4	52	4/1/2022	0	0	0	0	0	0	0	0	0	0	0		0	0	45,586,459		0	440			0	0
1	5	5	53	5/1/2022	0	0	0	0	0	0	0	0	0	0	0		0	0	56,983,074		0	440			0	0
1	5	6	54	6/1/2022	0	0	0	0	0	0	0	0	0	0	0		0	0	68,379,689		0	440			0	0
1	5	7	55	7/1/2022	0	0	0	0	0	0	0	0	0	0	0		0	0	79,776,303		0	440			0	0
1	5	8	56	8/1/2022	0	0	0	0	0	0	0	0	0	0	0		0	0	91,172,918		0	440			0	0
1	5	9	57	9/1/2022	0	0	0	0	0	0	0	0	0	0	0		0	0	102,569,533		0	440			0	0
1	5	10	58	10/1/2022	0	0	0	0	0	0	0	0	0	0	0		0	0	113,966,148		0	440			0	0
1	5	11	59	11/1/2022	0	0	0	0	0	0	0	0	0	0	0		0	0	125,362,762		0	440			0	0
1	5	12	60	12/1/2022	0	0	0	0	0	0	0	0	0	0	0		0	0	136,759,377		0	440			0	0
1	6	1	61	1/1/2023	0	0	0	0	0	0	0	0	0	0	0		0	0	148,155,992		0	440			0	0
1	6	2	62	2/1/2023	0	0	0	0	0	0	0	0	0	0	0		0	0	159,552,607		0	440			0	0
1	6	3	63	3/1/2023	0	0	0	0	0	0	0	0	0	0	0		0	0	170,949,221		0	440			0	0
1	6	4	64	4/1/2023	0	0	0	0	0	0	0	0	0	0	0		0	0	182,345,836		0	440			0	0
1	6	5	65	5/1/2023	0	0	0	0	0	0	0	0	0	0	0		0	0	193,742,451		0	440			0	0
1	6	6	66	6/1/2023	0	0	0	0	0	0	0	0	0	0	0		0	0	205,139,066		0	440			0	0
1	6	7	67	7/1/2023	0	0	0	0	0	0	0	0	0	0	0		0	0	216,535,680		0	440			0	0
1	6	8	68	8/1/2023	0	0	0	0	0	0	0	0	0	0	0		0	0	227,932,295		0	440			0	0
1	6	9	69	9/1/2023	0	0	0	0	0	0	0	0	0	0	0		0	0	239,328,910		0	440			0	0
1	6	10	70	10/1/2023	0	0	0	0	0	0	0	0	0	0	0		0	0	250,725,525		0	440			0	0
1	6	11	71	11/1/2023	0	0	0	0	0	0	0	0	0	0	0		0	0	262,122,140		0	440			0	0
1	6	12	72	12/1/2023	0	0	0	0	0	0	0	0	0	0	0		0	0	273,518,754		0	440			0	0
1	7	1	73	1/1/2024	0	0	0	0	0	0	0	0	0	0	0		0	0	284,915,369		0	440			0	0
1	7	2	74	2/1/2024	0	0	0	0	0	0	0	0	0	0	0		0	0	296,311,984		0	440			0	0
1	7	3	75	3/1/2024	0	0	0	0	0	0	0	0	0	0	0		0	0	307,708,599		0	440			0	0
1	7	4	76	4/1/2024	0	0	0	0	0	0	0	0	0	0	0		0	0	319,105,213		0	440			0	0
1	7	5	77	5/1/2024	0	0	0	0	0	0	0	0	0	0	0		0	0	330,501,828		0	440			0	0
1	7	6	78	6/1/2024	0	0	0	0	0	0	0	0	0	0	0		0	0	341,898,443		0	440			0	0
1	7	7	79	7/1/2024	0	0	0	0	0	0	0	0	0	0	0		0	0	353,295,058		0	440			0	0
1	7	8	80	8/1/2024	0	0	0	0	0	0	0	0	0	0	0		0	0	364,691,672		0	440			0	0
1	7	9	81	9/1/2024	0	0	0	0	0	0	0	0	0	0	0		0	0	376,088,287		0	440			0	0
1	7	10	82	10/1/2024	0	0	0	0	0	0	0	0	0	0	0		0	0	387,484,902		0	440			0	0
1	7	11	83	11/1/2024	0	0	0	0	0	0	0	0	0	0	0		0	0	398,881,517		0	440			0	0
1	7	12	84	12/1/2024	0	0	0	0	0	0	0	0	0	0	0		0	0	410,278,131		0	440			0	0
1	8	1	85	1/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	421,674,746		0	440			0	0
1	8	2	86	2/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	433,071,361		0	440			0	0
1	8	3	87	3/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	444,467,976		0	440			0	0
1	8	4	88	4/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	455,864,590		0	440			0	0
1	8	5	89	5/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	467,261,205		0	440			0	0
1	8	6	90	6/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	478,657,820		0	440			0	0
1	8	7	91	7/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	490,054,435		0	440			0	0
1	8	8	92	8/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	501,451,049		0	440			0	0
1	8	9	93	9/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	512,847,664		0	440			0	0
1	8	10	94	10/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	524,244,279		0	440			0	0
1	8	11	95	11/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	535,640,894		0	440			0	0
1	8	12	96	12/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	547,037,509		0	440			0	0
1	9	1	97	1/1/2026	0	0	0	0	0	0	0	0	0	0	0		0	0	558,434,123		0	440			0	0
1	9	2	98	2/1/2026	0	0	0	0	0	0	0	0	0	0	0		0	0	296,311,984		0	440			0	0
1	9	3	99	3/1/2026	0	0	0	0	0	0	0	0	0	0	0		0	0	307,708,599		0	440			0	0
1	9	4	100	4/1/2026	0	0	0	0	0	0	0	0	0	0	0		0	0	319,105,213		0	440			0	0
1	9	5	101	5/1/2026	0	0	0	0	0	0	0	0	0	0	0		0	0	330,501,828		0	440			0	0
1	9	6	102	6/1/2026	0	0	0	0	0	0	0	0	0	0	0		0	0	341,898,443		0	440			0	0
1	9	7	103	7/1/2026	0	0	0	0	0	0	0	0	0	0	0		0	0	353,295,058		0	440			0	0
1	9	8	104	8/1/2026	0	0	0	0	0	0	0	0	0	0	0		0	0	364,691,672		0	440			0	0
1	9	9	105	9/1/2026	0	0	0	0	0	0	0	0	0	0	0		0	0	376,088,287		0	440			0	0
1	9	10	106	10/1/2026	0	0	0	0	0	0	0	0	0	0	0		0	0	387,484,902		0	440			0	0
1	9	11	107	11/1/2026	0	0	0	0	0	0	0	0	0	0	0		0	0	398,881,517		0	440			0	0
1	9	12	108	12/1/2026	0	0	0	0	0	0	0	0	0	0	0		0	0	410,278,131		0	440			0	0
1	10	1	109	1/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	421,674,746		0	440			0	0
1	10	2	110	2/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	433,071,361		0	440			0	0
1	10	3	111	3/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	444,467,976		0	440			0	0
1	10	4	112	4/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	455,864,590		0	440			0	0
1	10	5	113	5/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	467,261,205		0	440			0	0
1	10	6	114	6/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	478,657,820		0	440			0	0
1	10	7	115	7/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	490,054,435		0	440			0	0
1	10	8	116	8/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	501,451,049		0	440			0	0
1	10	9	117	9/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	512,847,664		0	440			0	0
1	10	10	118	10/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	524,244,279		0	440			0	0
1	10	11	119	11/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	535,640,894		0	440			0	0
1	10	12	120	12/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	547,037,509		0	440			0	0
2	11	1	121	1/1/2026	142,254	19,955	14,085	1,976	0	0	0	0	0	0	0		21,931	21,931	558,434,123		0	440			21,931	0
2	11	2	122	2/1/2026	284,507	66,214	28,169	6,556	0	0	0	0	0	0	0		72,770	72,770	569,830,738		0	440			72,770	0
2	11	3	123	3/1/2026	426,761	51,547	42,254	5,104	0	0	0	0	0	0	0		56,651	56,651	581,227,353		0	440			56,651	0
2	11	4	124	4/1/2026	569,014	39,778	56,338	3,938	0	0	0	0	0	0	0		43,717	43,717	592,623,968		0	440			43,717	0
2	11	5	125	5/1/2026	711,268	13,731	70,423	1,360	0	0	0	0	0	0	0		15,091	15,091	604,020,582		0	440			15,091	0
2	11	6	126	6/1/2026	853,521	2,766	84,507	274	0	0	0	0	0	0	0		3,040	3,040	615,417,197		0	440			3,040	0
2	11	7	127	7/1/2026	995,775	138	98,592	14	0	0	0	0	0	0	0		152	152	626,813,812		0	440			152	0
2	11	8	128	8/1/2026	1,138,028	580	112,676	57	0	0	0	0	0	0	0		637	637	638,210,427		0	440			637	0
2	11	9	129	9/1/2026	1,280,282	3,201	126,761	317	0	0	0	0	0	0	0		3,518	3,518	649,607,041		0	440			3,518	0
2	11	10	130	10/1/2026	1,422,535	52,686	140,845	5,216	0	0	0	0	0	0	0		57,903	57,903	661,003,656		0	440			57,903	0
2	11	11	131	11/1/2026	1,564,789	190,093	154,930	18,821	0	0	0	0	0	0	0		208,914	208,914	672,400,271		0	440			208,914	0
2	11	12	132	12/1/2026	1,707,042	302,052	169,014	29,

2	12	3	135	3/1/2027	2,133,893	257,736	211,268	25,518	0	0	0	0	0	0	0	283,254	211,268	283,254	0	683,796,886	440		283,254	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	12	4	136	4/1/2027	2,276,056	159,113	225,352	15,754	0	0	0	0	0	0	0	174,867	174,867	174,867	0	683,796,886	440		174,867	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	12	5	137	5/1/2027	2,418,310	46,687	239,437	4,622	0	0	0	0	0	0	0	51,309	51,309	51,309	0	683,796,886	440		51,309	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	12	6	138	6/1/2027	2,560,563	8,298	253,521	822	0	0	0	0	0	0	0	9,120	9,120	9,120	0	683,796,886	440		9,120	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	12	7	139	7/1/2027	2,702,817	375	267,606	37	0	0	0	0	0	0	0	413	413	413	0	683,796,886	440		413	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	12	8	140	8/1/2027	2,845,070	1,449	281,690	143	0	0	0	0	0	0	0	1,592	1,592	1,592	0	683,796,886	440		1,592	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	12	9	141	9/1/2027	2,987,324	7,468	295,775	739	0	0	0	0	0	0	0	8,208	8,208	8,208	0	683,796,886	440		8,208	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	12	10	142	10/1/2027	3,129,577	115,910	309,859	11,476	0	0	0	0	0	0	0	127,387	127,387	127,387	0	683,796,886	440		127,387	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	12	11	143	11/1/2027	3,271,831	397,467	323,944	39,353	0	0	0	0	0	0	0	436,820	436,820	436,820	0	683,796,886	440		436,820	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	12	12	144	12/1/2027	3,414,085	604,103	338,028	59,812	0	0	0	0	0	0	0	663,915	663,915	663,915	0	683,796,886	440		663,915	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	13	1	145	1/1/2028	3,556,338	498,875	352,113	49,394	0	0	0	0	0	0	0	548,269	548,269	548,269	0	683,796,886	440		548,269	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	13	2	146	2/1/2028	3,698,592	860,779	366,197	85,226	0	0	0	0	0	0	0	946,004	946,004	946,004	0	683,796,886	440		946,004	0	0.00	0.00	0.00	0.53	0.00	0.00	0.01	0.00	0.00	0.00	0.10	0%	0.10
2	13	3	147	3/1/2028	3,840,845	463,924	380,282	45,933	0	0	0	0	0	0	0	509,857	509,857	509,857	0	683,796,886	440		509,857	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	13	4	148	4/1/2028	3,983,099	278,448	394,366	27,569	0	0	0	0	0	0	0	306,017	306,017	306,017	0	683,796,886	440		306,017	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	13	5	149	5/1/2028	4,125,352	79,642	408,451	7,885	0	0	0	0	0	0	0	87,528	87,528	87,528	0	683,796,886	440		87,528	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	13	6	150	6/1/2028	4,267,606	13,839	422,535	1,369	0	0	0	0	0	0	0	15,200	15,200	15,200	0	683,796,886	440		15,200	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	13	7	151	7/1/2028	4,409,859	612	436,620	61	0	0	0	0	0	0	0	673	673	673	0	683,796,886	440		673	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	13	8	152	8/1/2028	4,552,113	2,318	450,704	230	0	0	0	0	0	0	0	2,548	2,548	2,548	0	683,796,886	440		2,548	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	13	9	153	9/1/2028	4,694,366	11,736	464,789	1,162	0	0	0	0	0	0	0	12,898	12,898	12,898	0	683,796,886	440		12,898	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	13	10	154	10/1/2028	4,836,620	179,134	478,873	17,736	0	0	0	0	0	0	0	196,870	196,870	196,870	0	683,796,886	440		196,870	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	13	11	155	11/1/2028	4,978,873	604,841	492,958	59,885	0	0	0	0	0	0	0	664,726	664,726	664,726	0	683,796,886	440		664,726	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	13	12	156	12/1/2028	5,121,127	906,155	507,042	89,718	0	0	0	0	0	0	0	995,873	995,873	995,873	0	683,796,886	440		995,873	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	14	1	157	1/1/2029	5,263,380	738,935	521,127	73,103	0	0	0	0	0	0	0	811,438	811,438	811,438	0	683,796,886	440		811,438	0	0.00	0.00	0.00	0.53	0.00	0.00	0.01	0.00	0.00	0.00	0.10	0%	0.10
2	14	2	158	2/1/2029	5,405,634	1,258,061	535,211	124,561	0	0	0	0	0	0	0	1,382,622	1,382,622	1,382,622	0	683,796,886	440		1,382,622	0	0.00	0.00	0.00	0.53	0.00	0.00	0.01	0.00	0.00	0.00	0.10	0%	0.10
2	14	3	159	3/1/2029	5,547,887	670,113	549,296	66,348	0	0	0	0	0	0	0	736,461	736,461	736,461	0	683,796,886	440		736,461	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	14	4	160	4/1/2029	5,690,141	397,783	563,380	39,384	0	0	0	0	0	0	0	437,167	437,167	437,167	0	683,796,886	440		437,167	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	14	5	161	5/1/2029	5,832,394	112,598	577,465	11,148	0	0	0	0	0	0	0	123,746	123,746	123,746	0	683,796,886	440		123,746	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	14	6	162	6/1/2029	5,974,648	19,362	591,549	1,917	0	0	0	0	0	0	0	21,279	21,279	21,279	0	683,796,886	440		21,279	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	14	7	163	7/1/2029	6,116,901	850	605,634	84	0	0	0	0	0	0	0	934	934	934	0	683,796,886	440		934	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	14	8	164	8/1/2029	6,259,155	3,188	619,718	316	0	0	0	0	0	0	0	3,503	3,503	3,503	0	683,796,886	440		3,503	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	14	9	165	9/1/2029	6,401,408	16,004	633,803	1,585	0	0	0	0	0	0	0	17,588	17,588	17,588	0	683,796,886	440		17,588	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	14	10	166	10/1/2029	6,543,662	242,358	647,887	23,996	0	0	0	0	0	0	0	266,354	266,354	266,354	0	683,796,886	440		266,354	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	14	11	167	11/1/2029	6,685,915	812,215	661,972	80,417	0	0	0	0	0	0	0	892,632	892,632	892,632	0	683,796,886	440		892,632	0	0.00	0.00	0.00	0.53	0.00	0.00	0.01	0.00	0.00	0.00	0.10	0%	0.10
2	14	12	168	12/1/2029	6,828,169	1,208,207	676,056	119,624	0	0	0	0	0	0	0	1,327,831	1,327,831	1,327,831	0	683,796,886	440		1,327,831	0	0.00	0.00	0.00	0.53	0.00	0.00	0.01	0.00	0.00	0.00	0.10	0%	0.10
2	15	1	169	1/1/2030	6,970,423	977,795	690,141	96,811	0	0	0	0	0	0	0	1,074,607	1,074,607	1,074,607	0	683,796,886	440		1,074,607	0	0.00	0.00	0.00	0.53	0.00	0.00	0.01	0.00	0.00	0.00	0.10	0%	0.10
2	15	2	170	2/1/2030	7,112,676	1,655,344	704,225	163,895	0	0	0	0	0	0	0	1,819,239	1,819,239	1,819,239	0	683,796,886	440		1,819,239	0	0.01	0.01	0.00	0.53	0.00	0.00	0.01	0.00	0.00	0.00	0.10	0%	0.10
2	15	3	171	3/1/2030	7,254,930	859,119	704,225	85,061	0	0	0	0	0	0	0	944,180	944,180	944,180	0	683,796,886	440		944,180	0	0.00	0.00	0.00	0.53	0.00	0.00	0.01	0.00	0.00	0.00	0.10	0%	0.10
2	15	4	171	4/1/2028	7,254,930	507,173	718,310	50,215	0	0	0	0	0	0	0	557,388	557,388	557,388	0	683,796,886	440		557,388	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	15	5	172	5/1/2028	7,397,183	142,807	732,394	14,139	0	0	0	0	0	0	0	156,946	156,946	156,946	0	683,796,886	440		156,946	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	15	6	173	6/1/2028	7,539,437	24,433	746,479	2,419	0	0	0	0	0	0	0	26,853	26,853	26,853	0	683,796,886	440		26,853	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	15	7	174	7/1/2028	7,681,690	1,067	760,563	106	0	0	0	0	0	0	0	1,173	1,173	1,173	0	683,796,886	440		1,173	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	15	8	175	8/1/2028	7,823,944	3,984	774,648	394	0	0	0	0	0	0	0	4,379	4,379	4,379	0	683,796,886	440		4,379	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	15	9	176	9/1/2028	7,966,197	19,915	788,732	1,972	0	0	0	0	0	0	0	21,887	21,887	21,887	0	683,796,886	440		21,887	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	15	10	177	10/1/2028	8,108,451	300,213	802,817	29,734	0	0	0	0	0	0	0	330,047	330,047	330,047	0	683,796,886	440		330,047	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	15	11	178	11/1/2028	8,250,704	1,002,308	816,901	99,238	0	0	0	0	0	0	0	1,101,546	1,101,546	1,101,546	0	683,796,886	440		1,101,546	0	0.00	0.00	0.00	0.53	0.00	0.00	0.01	0.00	0.00	0.00	0.10	0%	0.10
2	15	12	179	12/1/2028	8,392,958	1,485,087	830,986	147,038	0	0	0	0	0	0	0	1,632,126	1,632,126	1,632,126	0	683,796,886	440		1,632,126	0	0.01	0.00	0.00	0.53	0.00	0.00	0.01	0.00	0.00	0.00	0.10	0%	0.10
2	16	1	180	1/1/2029	8,535,211	1,197,300	845,070	118,545	0	0	0	0	0	0	0	1,315,845	1,315,845	1,315,845	0	683,796,886	440		1,315,845	0	0.00	0.00	0.00	0.53	0.00	0.00	0.01	0.00	0.00	0.00	0.10	0%	0.10
2	16	2	181	2/1/2029	8,677,465	2,019,519	859,155	199,952	0	0	0	0	0	0	0	2,219,472	2,219,472	2,219,472	0	683,796,886	440		2,219,472	0	0.01	0.01	0.00	0.53	0.00	0.00	0.01	0.00	0.00	0.00	0.10	0%	0.10
2	16	3	182	3/1/2029	8,819,718	1,065,308	873,239	105,476	0	0	0	0	0	0	0	1,170,784	1,170,784	1,170,784	0	683,796,886	440		1,170,784	0	0.00	0.00	0.00	0.53	0.00	0.00	0.01	0.00	0.00	0.00	0.10	0%	0.10
2	16	4	183	4/1/2029	8,961,972	626,508	887,324	62,031	0	0	0	0	0	0	0	688,539	688,539	688,539	0	683,796,886	440		688,539	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	16	5	184	5/1/2029	9,104,225	175,762	901,408	17,402	0	0	0	0	0	0	0	193,164	193,164	193,164	0	683,796,886	440		193,164	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	16	6	185	6/1/2029	9,246,479	29,965	915,493	2,967	0	0	0	0	0	0	0	32,932	32,932	32,932	0	683,796,886	440		32,932	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	16	7	186	7/1/2029	9,388,732	1,304	929,577	129	0	0	0	0	0	0	0	1,433	1,433	1,433	0	683,796,886	440		1,433	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	16	8	187	8/1/2029	9,530,986	4,854	943,662	481	0	0	0	0	0	0	0	5,334	5,334	5,334	0	683,796,886	440		5,334	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	16	9	188	9/1/2029	9,673,239	24,183	957,746	2,394	0	0	0	0	0	0	0	26,577	26,577	26,577	0	683,796,886	440		26,577	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	16	10	189	10/1/2029	9,815,493	363,537	971,831	35,994	0	0	0	0	0	0	0	399,531	399,531	399,531	0	683,796,886	440		399,531	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
2	16	11	190	11/1/2029	9,957,746	1,209,682	985,915	119,770	0	0	0	0	0	0	0	1,329,452	1,329,452	1,329,452	0	683,796,886	440		1,329,452	0	0.00	0.00	0.00	0.53	0.00	0.00	0.01	0.00	0.00	0.00	0.10	0%	0.10
2	**16**	**12**	191	**12/1/2029**	**10,100,000**	1,787,139	**1,000,000**	176,944	**0**	0	0	0	0	0	0	1,964,083	1,964,083	1,964,083	0	683,796,886	440		1,964,083	0	0.01	0.01	0.00	0.53	0.00	0.00	0.01	0.00	0.00	0.00	0.10	0%	0.10
3	16	**1**	192	1/1/2030	10,100,000	1,416,806	979,167	137,355	0	0	0	0	0	0	0	1,554,161	1,554,161	1,554,161	0	683,796,886	440		1,554,161	0	0.01	0.00	0.00	0.53	0.00	0.00	0.01	0.00	0.00	0.00	0.10	0%	0.10
3	17	2	193	2/1/2030	10,100,000	2,350,588	958,333	223,034	0	0	0	0	0	0	0	2,573,622	2,573,622	2,573,622	0	683,796,886	440		2,573,622	0	0.01	0.01	0.00	0.53	0.00	0.00	0.02	0.00	0.00	0.00	0.10	0%	0.10
3	17	3	194	3/1/2030	10,100,000	1,219,949	937,500	113,238	0	0	0	0	0	0	0	1,333,187	1,333,187	1,333,187	0	683,796,886	440		1,333,187	0	0.00	0.00	0.00	0.53	0.00	0.00	0.01	0.00	0.00	0.00	0.10	0%	0.10
3	17	4	195	4/1/2030	10,100,000	706,065	916,667	64,082	0	0	0	0	0	0	0	770,147	770,147	770,147	0	683,796,886	440		770,147	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
3	17	5	196	5/1/2030	10,100,000	194,986	895,833	17,295	0	0	0	0	0	0	0	212,281	212,281	212,281	0	683,796,886	440		212,281	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
3	17	6	197	6/1/2030	10,100,000	32,731	875,000	2,836	0	0	0	0	0	0	0	35,567	35,567	35,567	0	683,796,886	440		35,567	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
3	17	7	198	7/1/2030	10,100,000	1,403	854,167	119	0	0	0	0	0	0	0	1,521	1,521	1,521	0	683,796,886	440		1,521	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
3	17	8	199	8/1/2030	10,100,000	5,144	833,333	424	0	0	0	0	0	0	0	5,568	5,568	5,568	0	683,796,886	440		5,568	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0%	0.10
3	17	9	200	9/1/2030	10,100,000	25,250	812,500	2,031	0	0	0	0	0	0	0	27,281	27,281	27,281	0	683,796,886	440		27,281	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0%	0.09
3	17	10	201	10/1/2030	10,100,000	374,074	791,667	29,329	0	0	0	0	0	0	0	403,395	403,395	403,395	0	683,796,886	440		403,395	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0%	0.09
3	17	11	202	11/1/2030	10,100,000	1,226,963	770,833	93,642	0	0	0	0	0	0	0	1,320,605	1,320,605	1,320,605	0	683,796,886	440		1,320,605	0	0.00	0.00	0.00	0.53	0.00	0.00	0.01	0.00	0.00	0.00	0.09	0%	0.09
3	17	12	203	12/1/2030	10,100,000	1,787,139	750,000	132,708	0	0	0	0	0	0	0	1,919,847	1,919,847	1,919,847	0	683,796,886	440		1,919,847	0	0.01	0.00	0.00	0.53	0.00	0.00	0.01	0.00	0.00	0.00	0.09	0%	0.09
3	18	1	204	1/1/2031	10,100,000	1,416,806	729,167	102,286	0	0	0	0	0	0	0	1,519,091	1,519,091	1,519,091	0	683,796,886	440		1,519,091	0	0.01	0.00	0.00	0.53	0.00	0.00	0.01	0.00	0.00	0.00	0.09	0%	0.09
3	18	2	205	2/1/2031	10,100,000	2,350,588	708,333	164,851	0	0	0	0	0	0	0	2,515,439	2,515,439	2,515,439	0	683,796,886	440		2,515,439	0	0.01	0.01	0.00	0.53	0.00	0.00	0.01	0.00	0.00	0.00	0.09	0%	0.09
3	18	3	206	3/1/2031	10,100,000	1,219,949	687,500	83,041	0	0	0	0	0	0	0	1,302,990	1,302,990	1,302,990	0	683,796,886	440		1,302,990	0	0.00	0.00	0.00	0.53	0.00	0.00	0.01	0.00	0.00	0.00	0.09	0%	0.09
3	18	4	207	4/1/2031	10,100,000	706,065	666,667	46,605	0	0	0	0	0	0	0	752,670	752,670	752,670	0	683,796,886	440		752,670	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0%	0.09
3	18	5	208	5/1/2031	10,100,000	194,986	645,833	12,468	0	0	0	0	0	0	0	207,454	207,454	207,454	0	683,796,886	440		207,454	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0%	0.09
3	18	6	209	6/1/2031	10,100,000	32,731	625,000	2,025	0	0	0	0	0	0	0	34,757	34,757	34,757	0	683,796,886	440		34,757	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0%	0.09
3	18	7	210	7/1/2031	10,100,000	1,403	604,167	84	0	0	0	0	0	0	0	1,487	1,487	1,487	0	683,796,886	440		1,487	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0%	0.09
3	18	8	211	8/1/2031	10,100,000	5,144	583,333	297	0	0	0	0	0	0	0	5,441	5,441	5,441	0	683,796,886	440		5,441	0	0.00	0.00

NA	27	6	293	6/1/2038	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	27	7	294	7/1/2038	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	27	8	295	8/1/2038	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	27	9	296	9/1/2038	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	27	10	297	10/1/2038	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	27	11	298	11/1/2038	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0%	0.08
NA	27	12	299	12/1/2038	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0%	0.08
NA	28	1	300	1/1/2039	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0%	0.08
NA	28	2	301	2/1/2039	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0%	0.08
NA	28	3	302	3/1/2039	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0%	0.08
NA	28	4	303	4/1/2039	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	28	5	304	5/1/2039	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	28	6	305	6/1/2039	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	28	7	306	7/1/2039	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	28	8	307	8/1/2039	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	28	9	308	9/1/2039	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	28	10	309	10/1/2039	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	28	11	310	11/1/2039	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0%	0.08
NA	28	12	311	12/1/2039	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0%	0.08
NA	29	1	312	1/1/2040	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0%	0.08
NA	29	2	313	2/1/2040	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0%	0.08
NA	29	3	314	3/1/2040	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0%	0.08
NA	29	4	315	4/1/2040	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	29	5	316	5/1/2040	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	29	6	317	6/1/2040	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	29	7	318	7/1/2040	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	29	8	319	8/1/2040	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	29	9	320	9/1/2040	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	29	10	321	10/1/2040	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	29	11	322	11/1/2040	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0%	0.08
NA	29	12	323	12/1/2040	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0%	0.08
NA	30	1	324	1/1/2041	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0%	0.08
NA	30	2	325	2/1/2041	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0%	0.08
NA	30	3	326	3/1/2041	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0%	0.08
NA	30	4	327	4/1/2041	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	30	5	328	5/1/2041	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	30	6	329	6/1/2041	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	30	7	330	7/1/2041	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	30	8	331	8/1/2041	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	30	9	332	9/1/2041	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	30	10	333	10/1/2041	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	30	11	334	11/1/2041	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0%	0.08
NA	30	12	335	12/1/2041	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0%	0.08
NA	31	1	336	1/1/2042	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0%	0.08
NA	31	2	337	2/1/2042	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0%	0.08
NA	31	3	338	3/1/2042	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0%	0.08
NA	31	4	339	4/1/2042	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	31	5	340	5/1/2042	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	31	6	341	6/1/2042	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	31	7	342	7/1/2042	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	31	8	343	8/1/2042	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	31	9	344	9/1/2042	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	31	10	345	10/1/2042	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	31	11	346	11/1/2042	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0%	0.08
NA	31	12	347	12/1/2042	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0%	0.08
NA	32	1	348	1/1/2043	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0%	0.08
NA	32	2	349	2/1/2043	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0%	0.08
NA	32	3	350	3/1/2043	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0%	0.08
NA	32	4	351	4/1/2043	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	32	5	352	5/1/2043	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	32	6	353	6/1/2043	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	32	7	354	7/1/2043	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	32	8	355	8/1/2043	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	32	9	356	9/1/2043	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	32	10	357	10/1/2043	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	32	11	358	11/1/2043	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0%	0.08
NA	32	12	359	12/1/2043	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0%	0.08
NA	33	1	360	1/1/2044	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0%	0.08
NA	33	2	361	2/1/2044	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0%	0.08
NA	33	3	362	3/1/2044	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0%	0.08
NA	33	4	363	4/1/2044	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	33	5	364	5/1/2044	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	33	6	365	6/1/2044	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	33	7	366	7/1/2044	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	33	8	367	8/1/2044	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	33	9	368	9/1/2044	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	33	10	369	10/1/2044	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	33	11	370	11/1/2044	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0%	0.08
NA	33	12	371	12/1/2044	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0%	0.08
NA	34	1	372	1/1/2045	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0%	0.08
NA	34	2	373	2/1/2045	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0%	0.08
NA	34	3	374	3/1/2045	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343

NA	42	9	476	9/1/2053	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	42	10	477	10/1/2053	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	42	11	478	11/1/2053	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.08	0%	0.08
NA	42	12	479	12/1/2053	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.08	0%	0.08
NA	43	1	480	1/1/2054	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.08	0%	0.08
NA	43	2	481	2/1/2054	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.08	0%	0.08
NA	43	3	482	3/1/2054	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.08	0%	0.08
NA	43	4	483	4/1/2054	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	43	5	484	5/1/2054	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	43	6	485	6/1/2054	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	43	7	486	7/1/2054	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	43	8	487	8/1/2054	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	43	9	488	9/1/2054	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	43	10	489	10/1/2054	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	43	11	490	11/1/2054	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.08	0%	0.08
NA	43	12	491	12/1/2054	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.08	0%	0.08
NA	44	1	492	1/1/2055	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.08	0%	0.08
NA	44	2	493	2/1/2055	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.08	0%	0.08
NA	44	3	494	3/1/2055	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.08	0%	0.08
NA	44	4	495	4/1/2055	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	44	5	496	5/1/2055	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	44	6	497	6/1/2055	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	44	7	498	7/1/2055	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	44	8	499	8/1/2055	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	44	9	500	9/1/2055	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	44	10	501	10/1/2055	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	44	11	502	11/1/2055	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.08	0%	0.08
NA	44	12	503	12/1/2055	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.08	0%	0.08
NA	45	1	504	1/1/2056	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.08	0%	0.08
NA	45	2	505	2/1/2056	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.08	0%	0.08
NA	45	3	506	3/1/2056	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.08	0%	0.08
NA	45	4	507	4/1/2056	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	45	5	508	5/1/2056	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	45	6	509	6/1/2056	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	45	7	510	7/1/2056	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	45	8	511	8/1/2056	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	45	9	512	9/1/2056	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	45	10	513	10/1/2056	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	45	11	514	11/1/2056	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.08	0%	0.08
NA	45	12	515	12/1/2056	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.08	0%	0.08
NA	46	1	516	1/1/2057	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.08	0%	0.08
NA	46	2	517	2/1/2057	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.08	0%	0.08
NA	46	3	518	3/1/2057	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.08	0%	0.08
NA	46	4	519	4/1/2057	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	46	5	520	5/1/2057	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	46	6	521	6/1/2057	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	46	7	522	7/1/2057	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	46	8	523	8/1/2057	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	46	9	524	9/1/2057	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	46	10	525	10/1/2057	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	46	11	526	11/1/2057	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.08	0%	0.08
NA	46	12	527	12/1/2057	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.08	0%	0.08
NA	47	1	528	1/1/2058	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.08	0%	0.08
NA	47	2	529	2/1/2058	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.08	0%	0.08
NA	47	3	530	3/1/2058	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.08	0%	0.08
NA	47	4	531	4/1/2058	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	47	5	532	5/1/2058	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	47	6	533	6/1/2058	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	47	7	534	7/1/2058	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	47	8	535	8/1/2058	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	47	9	536	9/1/2058	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	47	10	537	10/1/2058	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	47	11	538	11/1/2058	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.08	0%	0.08
NA	47	12	539	12/1/2058	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.08	0%	0.08
NA	48	1	540	1/1/2059	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.08	0%	0.08
NA	48	2	541	2/1/2059	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.08	0%	0.08
NA	48	3	542	3/1/2059	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.08	0%	0.08
NA	48	4	543	4/1/2059	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	48	5	544	5/1/2059	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	48	6	545	6/1/2059	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	48	7	546	7/1/2059	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	48	8	547	8/1/2059	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	48	9	548	9/1/2059	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	48	10	549	10/1/2059	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0%	0.08
NA	48	11	550	11/1/2059	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.08	0%	0.08
NA	48	12	551	12/1/2059	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.08	0%	0.08
NA	49	1	552	1/1/2060	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.01	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.08	0%	0.08
NA	49	2	553	2/1/2060	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0

Inflows and Outflows	Parameters	Units	Value	Units	Description and Rationale				
Precipitation	Precipitation		1.85	ft/yr	Los Altos climate station, direct precip on waste rock backfill area is based on monthly precip data				
			Phases		0 - 10	11-16	16-20	20+	
			Initial		Mining	Backfilling	Revegetation	Long Term	
Quarry Backfilling Areas	**Surface Water Drainage to Pit**								
	Quarry Area (Greenstone/Greywacke)	sq feet				10,100,000	10,100,000	10,100,000	Based on drawing from Chang Consultants
		acres				232	232	232	Figure B.2
	Quarry Area (Limestone)	sq feet				1,000,000	500,000	500,000	
		acres				22	11	11	
	WMSA	sq feet							
		acres							
	Surface Infiltration to Pit (Through backfill)								
	Undrained Backfill (No Surface Outlet)	sq feet							
		acres							
	Drained Backfill (With Surface Outlet)	sq feet							
		acres							
	Total Drainage Area	acres			-	**254**	**243**	**243**	
	Spill Elevation		990.00	ft amsl	Based on mine plan				
	Bottom of Pit		440.00	ft amsl	Based on end of Phase 1 for South Quarry mine plan				
Groundwater Capture	Initial		371	gpm	MODFLOW model results for Phase 1, maximum excavation condition				
			2,181-181	cu ft/mo					
	At Spill Elevation		80	gpm	MODFLOW model results for ultimate condition				
			470,336	cu ft/mo					
Date Quarry Filling Starts		**1/1/2023**							
Assumptions	The pit is backfilled incrementally over a 10-year period, from 440 ft amsl to the spill-over elevation of 990 ft amsl								
	Backfill material has a porosity of 30-percent.								
	Surface runoff is only within the capture area of the pit and is based on water year 2009 data								
	Groundwater inflow into the pit varies by month and diminishes as the backfill increases.								
	Precipitation directly infiltrates to the water table within the area of the backfill.								
	Evaporation of the pit lake is only applied when the cumulative volume of water in the pit is greater than the cumulative volume of void spaces within the backfill (based on 30-percent porosity)								
	The water level in the pit is dependent on the total cumulative volume of the backfill up to the spill-over elevation.								

2.0	29.0	29	82	2	1	1	0 Se	Based Measured Pit Water Quality
1	30	1	1	1	1	1	- Se	Based on test data only
33	5	1	2	2	3	3	- As	Based Measured Pit Water Quality
		Concentrations	ug/L					

24.56679096 0.000199456

Source of Data	Surface Runoff			Groundwater Inflow		Infiltration		Precipitation							
	Nominal	N Quarry Water	WMSA Runoff	N Quarry Water	Maximum Groundwater Well Water	Nominal	Nominal								
	0.64	1.2	1.2	1.5	1.66	1	1	0 Cu							
Phase	Quarry Area (Greenstone/Greywacke)	Quarry Area (Greenstone/Greywacke)	Quarry Area (Greenstone/Greywacke)	Quarry Area (Limestone)	Quarry Area (Limestone)	WMSA	WMSA	Groundwater Inflow (Zerod out, included in pit water budget)	Undrained Backfill (No Surface Outlet)	Undrained Backfill (No Surface Outlet)	Drained Backfill (With Surface Outlet)	Drained Backfill (With Surface Outlet)	Pit Lake Precip	Water Entering Pit Lake	Runoff from Quarry Area
	sq ft	cu ft	sq ft	cu ft	sq ft	cu ft	cu ft	sq ft	cu ft	sq ft	cu ft	cu ft	cu ft	cu ft	cu ft
1	**1**	**1**	**1**	**1/1/2018**	0	0	0	0	0	0	0	0	0	0	0
1	1	2	2	2/1/2018	0	0	0	0	0	0	0	0	0	0	0
1	1	3	3	3/1/2018	0	0	0	0	0	0	0	0	0	0	0
1	1	4	4	4/1/2018	0	0	0	0	0	0	0	0	0	0	0
1	1	5	5	5/1/2018	0	0	0	0	0	0	0	0	0	0	0
1	1	6	6	6/1/2018	0	0	0	0	0	0	0	0	0	0	0
1	1	7	7	7/1/2018	0	0	0	0	0	0	0	0	0	0	0
1	1	8	8	8/1/2018	0	0	0	0	0	0	0	0	0	0	0
1	1	9	9	9/1/2018	0	0	0	0	0	0	0	0	0	0	0
1	1	10	10	10/1/2018	0	0	0	0	0	0	0	0	0	0	0
1	1	11	11	11/1/2018	0	0	0	0	0	0	0	0	0	0	0
1	1	12	12	12/1/2018	0	0	0	0	0	0	0	0	0	0	0
1	2	1	13	1/1/2019	0	0	0	0	0	0	0	0	0	0	0
1	2	2	14	2/1/2019	0	0	0	0	0	0	0	0	0	0	0
1	2	3	15	3/1/2019	0	0	0	0	0	0	0	0	0	0	0
1	2	4	16	4/1/2019	0	0	0	0	0	0	0	0	0	0	0
1	2	5	17	5/1/2019	0	0	0	0	0	0	0	0	0	0	0
1	2	6	18	6/1/2019	0	0	0	0	0	0	0	0	0	0	0
1	2	7	19	7/1/2019	0	0	0	0	0	0	0	0	0	0	0
1	2	8	20	8/1/2019	0	0	0	0	0	0	0	0	0	0	0
1	2	9	21	9/1/2019	0	0	0	0	0	0	0	0	0	0	0
1	2	10	22	10/1/2019	0	0	0	0	0	0	0	0	0	0	0
1	2	11	23	11/1/2019	0	0	0	0	0	0	0	0	0	0	0
1	2	12	24	12/1/2019	0	0	0	0	0	0	0	0	0	0	0
1	3	1	25	1/1/2020	0	0	0	0	0	0	0	0	0	0	0
1	3	2	26	2/1/2020	0	0	0	0	0	0	0	0	0	0	0
1	3	3	27	3/1/2020	0	0	0	0	0	0	0	0	0	0	0
1	3	4	28	4/1/2020	0	0	0	0	0	0	0	0	0	0	0
1	3	5	29	5/1/2020	0	0	0	0	0	0	0	0	0	0	0
1	3	6	30	6/1/2020	0	0	0	0	0	0	0	0	0	0	0
1	3	7	31	7/1/2020	0	0	0	0	0	0	0	0	0	0	0
1	3	8	32	8/1/2020	0	0	0	0	0	0	0	0	0	0	0
1	3	9	33	9/1/2020	0	0	0	0	0	0	0	0	0	0	0
1	3	10	34	10/1/2020	0	0	0	0	0	0	0	0	0	0	0
1	3	11	35	11/1/2020	0	0	0	0	0	0	0	0	0	0	0
1	3	12	36	12/1/2020	0	0	0	0	0	0	0	0	0	0	0
1	4	1	37	1/1/2021	0	0	0	0	0	0	0	0	0	0	0
1	4	2	38	2/1/2021	0	0	0	0	0	0	0	0	0	0	0
1	4	3	39	3/1/2021	0	0	0	0	0	0	0	0	0	0	0
1	4	4	40	4/1/2021	0	0	0	0	0	0	0	0	0	0	0
1	4	5	41	5/1/2021	0	0	0	0	0	0	0	0	0	0	0
1	4	6	42	6/1/2021	0	0	0	0	0	0	0	0	0	0	0
1	4	7	43	7/1/2021	0	0	0	0	0	0	0	0	0	0	0
1	4	8	44	8/1/2021	0	0	0	0	0	0	0	0	0	0	0
1	4	9	45	9/1/2021	0	0	0	0	0	0	0	0	0	0	0
1	4	10	46	10/1/2021	0	0	0	0	0	0	0	0	0	0	0
1	4	11	47	11/1/2021	0	0	0	0	0	0	0	0	0	0	0
1	4	12	48	12/1/2021	0	0	0	0	0	0	0	0	0	0	0
1	5	1	49	1/1/2022	0	0	0	0	0	0	0	0	0	0	0
1	5	2	50	2/1/2022	0	0	0	0	0	0	0	0	0	0	0
1	5	3	51	3/1/2022	0	0	0	0	0	0	0	0	0	0	0
1	5	4	52	4/1/2022	0	0	0	0	0	0	0	0	0	0	0
1	5	5	53	5/1/2022	0	0	0	0	0	0	0	0	0	0	0
1	5	6	54	6/1/2022	0	0	0	0	0	0	0	0	0	0	0
1	5	7	55	7/1/2022	0	0	0	0	0	0	0	0	0	0	0
1	5	8	56	8/1/2022	0	0	0	0	0	0	0	0	0	0	0
1	5	9	57	9/1/2022	0	0	0	0	0	0	0	0	0	0	0
1	5	10	58	10/1/2022	0	0	0	0	0	0	0	0	0	0	0
1	5	11	59	11/1/2022	0	0	0	0	0	0	0	0	0	0	0
1	**5**	**12**	60	12/1/2022	0	**0**	0	0	0	0	0	0	0	0	0
1	**6**	**1**	61	1/1/2023	0	**0**	0	0	0	0	0	0	0	0	0
1	6	2	62	2/1/2023	0	0	0	0	0	0	0	0	0	0	0
1	6	3	63	3/1/2023	0	0	0	0	0	0	0	0	0	0	0
1	6	4	64	4/1/2023	0	0	0	0	0	0	0	0	0	0	0
1	6	5	65	5/1/2023	0	0	0	0	0	0	0	0	0	0	0
1	6	6	66	6/1/2023	0	0	0	0	0	0	0	0	0	0	0
1	6	7	67	7/1/2023	0	0	0	0	0	0	0	0	0	0	0
1	6	8	68	8/1/2023	0	0	0	0	0	0	0	0	0	0	0
1	6	9	69	9/1/2023	0	0	0	0	0	0	0	0	0	0	0
1	6	10	70	10/1/2023	0	0	0	0	0	0	0	0	0	0	0
1	6	11	71	11/1/2023	0	0	0	0	0	0	0	0	0	0	0
1	6	12	72	12/1/2023	0	0	0	0	0	0	0	0	0	0	0
1	7	1	73	1/1/2024	0	0	0	0	0	0	0	0	0	0	0
1	7	2	74	2/1/2024	0	0	0	0	0	0	0	0	0	0	0
1	7	3	75	3/1/2024	0	0	0	0	0	0	0	0	0	0	0
1	7	4	76	4/1/2024	0	0	0	0	0	0	0	0	0	0	0
1	7	5	77	5/1/2024	0	0	0	0	0	0	0	0	0	0	0
1	7	6	78	6/1/2024	0	0	0	0	0	0	0	0	0	0	0
1	7	7	79	7/1/2024	0	0	0	0	0	0	0	0	0	0	0
1	7	8	80	8/1/2024	0	0	0	0	0	0	0	0	0	0	0
1	7	9	81	9/1/2024	0	0	0	0	0	0	0	0	0	0	0
1	7	10	82	10/1/2024	0	0	0	0	0	0	0	0	0	0	0
1	7	11	83	11/1/2024	0	0	0	0	0	0	0	0	0	0	0
1	7	12	84	12/1/2024	0	0	0	0	0	0	0	0	0	0	0
1	8	1	85	1/1/2025	0	0	0	0	0	0	0	0	0	0	0
1	8	2	86	2/1/2025	0	0	0	0	0	0	0	0	0	0	0
1	8	3	87	3/1/2025	0	0	0	0	0	0	0	0	0	0	0
1	8	4	88	4/1/2025	0	0	0	0	0	0	0	0	0	0	0
1	8	5	89	5/1/2025	0	0	0	0	0	0	0	0	0	0	0
1	8	6	90	6/1/2025	0	0	0	0	0	0	0	0	0	0	0
1	8	7	91	7/1/2025	0	0	0	0	0	0	0	0	0	0	0
1	8	8	92	8/1/2025	0	0	0	0	0	0	0	0	0	0	0
1	8	9	93	9/1/2025	0	0	0	0	0	0	0	0	0	0	0
1	8	10	94	10/1/2025	0	0	0	0	0	0	0	0	0	0	0
1	8	11	95	11/1/2025	0	0	0	0	0	0	0	0	0	0	0
1	8	12	96	12/1/2025	0	0	0	0	0	0	0	0	0	0	0
1	9	1	97	1/1/2026	0	0	0	0	0	0	0	0	0	0	0
1	9	2	98	2/1/2026	0	0	0	0	0	0	0	0	0	0	0
1	9	3	99	3/1/2026	0	0	0	0	0	0	0	0	0	0	0
1	9	4	100	4/1/2026	0	0	0	0	0	0	0	0	0	0	0
1	9	5	101	5/1/2026	0	0	0	0	0	0	0	0	0	0	0
1	9	6	102	6/1/2026	0	0	0	0	0	0	0	0	0	0	0
1	9	7	103	7/1/2026	0	0	0	0	0	0	0	0	0	0	0
1	9	8	104	8/1/2026	0	0	0	0	0	0	0	0	0	0	0
1	9	9	105	9/1/2026	0	0	0	0	0	0	0	0	0	0	0
1	9	10	106	10/1/2026	0	0	0	0	0	0	0	0	0	0	0
1	9	11	107	11/1/2026	0	0	0	0	0	0	0	0	0	0	0
1	9	12	108	12/1/2026	0	0	0	0	0	0	0	0	0	0	0
1	10	1	109	1/1/2025	0	0	0	0	0	0	0	0	0	0	0
1	10	2	110	2/1/2025	0	0	0	0	0	0	0	0	0	0	0
1	10	3	111	3/1/2025	0	0	0	0	0	0	0	0	0	0	0
1	10	4	112	4/1/2025	0	0	0	0	0	0	0	0	0	0	0
1	10	5	113	5/1/2025	0	0	0	0	0	0	0	0	0	0	0
1	10	6	114	6/1/2025	0	0	0	0	0	0	0	0	0	0	0
1	10	7	115	7/1/2025	0	0	0	0	0	0	0	0	0	0	0
1	10	8	116	8/1/2025	0	0	0	0	0	0	0	0	0	0	0
1	10	9	117	9/1/2025	0	0	0	0	0	0	0	0	0	0	0
1	10	10	118	10/1/2025	0	0	0	0	0	0	0	0	0	0	0
1	10	11	119	11/1/2025	0	0	0	0	0	0	0	0	0	0	0
1	**10**	**12**	120	**12/1/2025**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
2	**11**	**1**	121	1/1/2026	142,254	19,955	14,085	1,976	0	0	0	0	0	0	0
2	11	2	122	2/1/2026	284,507	66,214	28,169	6,556	0	0	0	0	0	0	0
2	11	3	123	3/1/2026	426,761	51,547	42,254	5,104	0	0	0	0	0	0	0
2	11	4	124	4/1/2026	569,014	39,778	56,338	3,938	0	0	0	0	0	0	0
2	11	5	125	5/1/2026	711,268	13,731	70,423	1,360	0	0	0	0	0	0	0
2	11	6	126	6/1/2026	853,521	2,766	84,507	274	0	0	0	0	0	0	0
2	11	7	127	7/1/2026	995,775	138	98,592	14	0	0	0	0	0	0	0
2	11	8	128	8/1/2026	1,138,028	580	112,676	57	0	0	0	0	0	0	0
2	11	9	129	9/1/2026	1,280,282	3,201	126,761	317	0	0	0	0	0	0	0
2	11	10	130	10/1/2026	1,422,535	52,686	140,845	5,216	0	0	0	0	0	0	0
2	11	11	131	11/1/2026	1,564,789	190,093	154,930	18,821	0	0	0	0	0	0	0
2	11	12	132	12/1/2026	1,707,042	302,052	169,014	29,906	0	0	0	0	0	0	0
2	12	1	133	1/1/2027	1,849,296	269,415	183,099	26,685	0	0	0	0	0	0	0
2	12	2	134	2/1/2027	1,991,549	463,496	197,183	45,891	0	0	0	0	0	0	0

Phase	Year	Month	Total Months	Date	Cumulative Water in Pit	Cumulative Volume Occupied by Water in Backfill	Cumulative Backfill Volume	Pit Water Level at End of Year	Pit Water Open Area at End of Year	Area for Surface Water Runoff for Next Year	First Cut Water Accumulation in Pit Lake	Available Water Storage in Pit (Zerod out)	Quarry Area (Greenstone/Greywacke)	Quarry Area (Limestone)	WMSA	Groundwater Inflow (Zerod out, included in pit water budget)	Groundwater Inflow	Undrained Backfill (No Surface Outlet)	Drained Backfill (With Surface Outlet)	Pit Lake Precip	Runoff from Quarry Area	Cumulative Constituent in Pit	Runoff Water Concentration	Insitue Treatment	First Year Load	Last Year Load	Pit Water Outflow Concentration
					cu ft	cu ft	cu ft	ft	sq ft	sq ft	cu ft	cu ft	lb/month	lb/month	lb/month	ug/L	lb/month	lb/month	lb/month	lb/month	lb/month	lb	ug/L		lb/yr	lb/yr	ug/L
1	**1**	**1**	**1**	**1/1/2018**	0	0	0	**440**	NA	NA	0	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0%**	0.00	0.41	0.00
1	1	2	2	2/1/2018	0	NA	0	**440**			0	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	Percent Reduction		0.00
1	1	3	3	3/1/2018	0		0	**440**			0	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	#DIV/0!		0.00
1	1	4	4	4/1/2018	0		0	**440**			0	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	First Year of		0.00
1	1	5	5	5/1/2018	0		0	**440**			0	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	Overflow		0.00
1	1	6	6	6/1/2018	0		0	**440**			0	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	Load		0.00
1	1	7	7	7/1/2018	0		0	**440**			0	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%		0.41	0.00
1	1	8	8	8/1/2018	0		0	**440**			0	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	Percent Reduction		0.00
1	1	9	9	9/1/2018	0		0	**440**			0	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	#DIV/0!		0.00
1	1	10	10	10/1/2018	0		0	**440**			0	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%			0.00
1	1	11	11	11/1/2018	0		0	**440**			0	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%			0.00
1	1	12	12	12/1/2018	0		0	**440**			0	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%			0.00
1	2	1	13	1/1/2019	0		0	**440**			0	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%			0.00
1	2	2	14	2/1/2019	0		0	**440**			0	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%			0.00
1	2	3	15	3/1/2019	0		0	**440**			0	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%			0.00
1	2	4	16	4/1/2019	0		0	**440**			0	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%			0.00
1	2	5	17	5/1/2019	0		0	**440**			0	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%			0.00
1	2	6	18	6/1/2019	0		0	**440**			0	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%			0.00
1	2	7	19	7/1/2019	0		0	**440**			0	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%			0.00
1	2	8	20	8/1/2019	0		0	**440**			0	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%			0.00
1	2	9	21	9/1/2019	0		0	**440**			0	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%			0.00
1	2	10	22	10/1/2019	0		0	**440**			0	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%			0.00
1	2	11	23	11/1/2019	0		0	**440**			0	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%			0.00
1	2	12	24	12/1/2019	0		0	**440**			0	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%			0.00
1	3	1	25	1/1/2020	0		0	**440**			0	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%			0.00
1	3	2	26	2/1/2020	0		0	**440**			0	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%			0.00
1	3	3	27	3/1/2020	0		0	**440**			0	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%			0.00
1	3	4	28	4/1/2020	0		0	**440**			0	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%			0.00
1	3	5	29	5/1/2020	0		0	**440**			0	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%			0.00
1	3	6	30	6/1/2020	0		0	**440**			0	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%			0.00

2	12	3	135	3/1/2027	2,133,893	257,736	211,268	25,518	0	0	0	0	0	0	0	283,254	283,254	0	683,796,886	440		283,254	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.01	0.00	0.69	0%	0.69
2	12	4	136	4/1/2027	2,276,056	159,113	225,352	15,754	0	0	0	0	0	0	0	174,867	174,867	0	683,796,886	440		174,867	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.01	0.00	0.69	0%	0.69
2	12	5	137	5/1/2027	2,418,310	46,687	239,437	4,622	0	0	0	0	0	0	0	51,309	51,309	0	683,796,886	440		51,309	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.69	0%	0.69
2	12	6	138	6/1/2027	2,560,563	8,298	253,521	822	0	0	0	0	0	0	0	9,120	9,120	0	683,796,886	440		9,120	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.69	0%	0.69
2	12	7	139	7/1/2027	2,702,817	375	267,606	37	0	0	0	0	0	0	0	413	413	0	683,796,886	440		413	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.69	0%	0.69
2	12	8	140	8/1/2027	2,845,070	1,449	281,690	143	0	0	0	0	0	0	0	1,592	1,592	0	683,796,886	440		1,592	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.69	0%	0.69
2	12	9	141	9/1/2027	2,987,324	7,468	295,775	739	0	0	0	0	0	0	0	8,208	8,208	0	683,796,886	440		8,208	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.69	0%	0.69
2	12	10	142	10/1/2027	3,129,577	115,910	309,859	11,476	0	0	0	0	0	0	0	127,387	127,387	0	683,796,886	440		127,387	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.01	0.00	0.69	0%	0.69
2	12	11	143	11/1/2027	3,271,831	397,467	323,944	39,353	0	0	0	0	0	0	0	436,820	436,820	0	683,796,886	440		436,820	0	0.02	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.02	0.00	0.69	0%	0.69
2	12	12	144	12/1/2027	3,414,085	604,103	338,028	59,812	0	0	0	0	0	0	0	663,915	663,915	0	683,796,886	440		663,915	0	0.02	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.03	0.00	0.69	0%	0.69
2	13	1	145	1/1/2028	3,556,338	498,875	352,113	49,394	0	0	0	0	0	0	0	548,269	548,269	0	683,796,886	440		548,269	0	0.02	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.02	0.00	0.69	0%	0.69
2	13	2	146	2/1/2028	3,698,592	860,779	366,197	85,226	0	0	0	0	0	0	0	946,004	946,004	0	683,796,886	440		946,004	0	0.03	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.04	0.00	0.69	0%	0.69
2	13	3	147	3/1/2028	3,840,845	463,924	380,282	45,933	0	0	0	0	0	0	0	509,857	509,857	0	683,796,886	440		509,857	0	0.02	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.02	0.00	0.69	0%	0.69
2	13	4	148	4/1/2028	3,983,099	278,448	394,366	27,569	0	0	0	0	0	0	0	306,017	306,017	0	683,796,886	440		306,017	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.01	0.00	0.69	0%	0.69
2	13	5	149	5/1/2028	4,125,352	79,642	408,451	7,885	0	0	0	0	0	0	0	87,528	87,528	0	683,796,886	440		87,528	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.69	0%	0.69
2	13	6	150	6/1/2028	4,267,606	13,839	422,535	1,369	0	0	0	0	0	0	0	15,200	15,200	0	683,796,886	440		15,200	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.69	0%	0.69
2	13	7	151	7/1/2028	4,409,859	612	436,620	61	0	0	0	0	0	0	0	673	673	0	683,796,886	440		673	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.69	0%	0.69
2	13	8	152	8/1/2028	4,552,113	2,318	450,704	230	0	0	0	0	0	0	0	2,548	2,548	0	683,796,886	440		2,548	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.69	0%	0.69
2	13	9	153	9/1/2028	4,694,366	11,736	464,789	1,162	0	0	0	0	0	0	0	12,898	12,898	0	683,796,886	440		12,898	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.69	0%	0.69
2	13	10	154	10/1/2028	4,836,620	179,134	478,873	17,736	0	0	0	0	0	0	0	196,870	196,870	0	683,796,886	440		196,870	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.01	0.00	0.69	0%	0.69
2	13	11	155	11/1/2028	4,978,873	604,841	492,958	59,885	0	0	0	0	0	0	0	664,726	664,726	0	683,796,886	440		664,726	0	0.02	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.03	0.00	0.69	0%	0.69
2	13	12	156	12/1/2028	5,121,127	906,155	507,042	89,718	0	0	0	0	0	0	0	995,873	995,873	0	683,796,886	440		995,873	0	0.04	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.04	0.00	0.69	0%	0.69
2	14	1	157	1/1/2029	5,263,380	738,935	521,127	73,103	0	0	0	0	0	0	0	811,438	811,438	0	683,796,886	440		811,438	0	0.03	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.04	0.00	0.69	0%	0.69
2	14	2	158	2/1/2029	5,405,634	1,258,061	535,211	124,561	0	0	0	0	0	0	0	1,382,622	1,382,622	0	683,796,886	440		1,382,622	0	0.05	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.06	0.00	0.69	0%	0.69
2	14	3	159	3/1/2029	5,547,887	670,113	549,296	66,348	0	0	0	0	0	0	0	736,461	736,461	0	683,796,886	440		736,461	0	0.03	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.03	0.00	0.69	0%	0.69
2	14	4	160	4/1/2029	5,690,141	397,783	563,380	39,384	0	0	0	0	0	0	0	437,167	437,167	0	683,796,886	440		437,167	0	0.02	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.02	0.00	0.69	0%	0.69
2	14	5	161	5/1/2029	5,832,394	112,598	577,465	11,148	0	0	0	0	0	0	0	123,746	123,746	0	683,796,886	440		123,746	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.01	0.00	0.69	0%	0.69
2	14	6	162	6/1/2029	5,974,648	19,362	591,549	1,917	0	0	0	0	0	0	0	21,279	21,279	0	683,796,886	440		21,279	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.69	0%	0.69
2	14	7	163	7/1/2029	6,116,901	850	605,634	84	0	0	0	0	0	0	0	934	934	0	683,796,886	440		934	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.69	0%	0.69
2	14	8	164	8/1/2029	6,259,155	3,188	619,718	316	0	0	0	0	0	0	0	3,503	3,503	0	683,796,886	440		3,503	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.69	0%	0.69
2	14	9	165	9/1/2029	6,401,408	16,004	633,803	1,585	0	0	0	0	0	0	0	17,588	17,588	0	683,796,886	440		17,588	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.69	0%	0.69
2	14	10	166	10/1/2029	6,543,662	242,358	647,887	23,996	0	0	0	0	0	0	0	266,354	266,354	0	683,796,886	440		266,354	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.01	0.00	0.69	0%	0.69
2	14	11	167	11/1/2029	6,685,915	812,215	661,972	80,417	0	0	0	0	0	0	0	892,632	892,632	0	683,796,886	440		892,632	0	0.03	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.04	0.00	0.69	0%	0.69
2	14	12	168	12/1/2029	6,828,169	1,208,207	676,056	119,624	0	0	0	0	0	0	0	1,327,831	1,327,831	0	683,796,886	440		1,327,831	0	0.05	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.06	0.00	0.69	0%	0.69
2	15	1	169	1/1/2030	6,970,423	977,795	690,141	96,811	0	0	0	0	0	0	0	1,074,607	1,074,607	0	683,796,886	440		1,074,607	0	0.04	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.05	0.00	0.69	0%	0.69
2	15	2	170	2/1/2030	7,112,676	1,655,344	704,225	163,895	0	0	0	0	0	0	0	1,819,239	1,819,239	0	683,796,886	440		1,819,239	0	0.07	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.08	0.00	0.69	0%	0.69
2	15	3	171	3/1/2030	7,112,676	859,119	704,225	85,061	0	0	0	0	0	0	0	944,180	944,180	0	683,796,886	440		944,180	0	0.03	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.04	0.00	0.69	0%	0.69
2	15	4	171	4/1/2028	7,254,930	507,173	718,310	50,215	0	0	0	0	0	0	0	557,388	557,388	0	683,796,886	440		557,388	0	0.02	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.02	0.00	0.69	0%	0.69
2	15	5	172	5/1/2028	7,397,183	142,807	732,394	14,139	0	0	0	0	0	0	0	156,946	156,946	0	683,796,886	440		156,946	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.01	0.00	0.69	0%	0.69
2	15	6	173	6/1/2028	7,539,437	24,433	746,479	2,419	0	0	0	0	0	0	0	26,853	26,853	0	683,796,886	440		26,853	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.69	0%	0.69
2	15	7	174	7/1/2028	7,681,690	1,067	760,563	106	0	0	0	0	0	0	0	1,173	1,173	0	683,796,886	440		1,173	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.69	0%	0.69
2	15	8	175	8/1/2028	7,823,944	3,984	774,648	394	0	0	0	0	0	0	0	4,379	4,379	0	683,796,886	440		4,379	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.69	0%	0.69
2	15	9	176	9/1/2028	7,966,197	19,915	788,732	1,972	0	0	0	0	0	0	0	21,887	21,887	0	683,796,886	440		21,887	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.69	0%	0.69
2	15	10	177	10/1/2028	8,108,451	300,213	802,817	29,734	0	0	0	0	0	0	0	330,047	330,047	0	683,796,886	440		330,047	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.01	0.00	0.69	0%	0.69
2	15	11	178	11/1/2028	8,250,704	1,002,308	816,901	99,238	0	0	0	0	0	0	0	1,101,546	1,101,546	0	683,796,886	440		1,101,546	0	0.04	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.05	0.00	0.69	0%	0.69
2	15	12	179	12/1/2028	8,392,958	1,485,087	830,986	147,038	0	0	0	0	0	0	0	1,632,126	1,632,126	0	683,796,886	440		1,632,126	0	0.06	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.07	0.00	0.69	0%	0.69
2	16	1	180	1/1/2029	8,535,211	1,197,300	845,070	118,545	0	0	0	0	0	0	0	1,315,845	1,315,845	0	683,796,886	440		1,315,845	0	0.05	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.06	0.00	0.69	0%	0.69
2	16	2	181	2/1/2029	8,677,465	2,019,519	859,155	199,952	0	0	0	0	0	0	0	2,219,472	2,219,472	0	683,796,886	440		2,219,472	0	0.08	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.10	0.00	0.69	0%	0.69
2	16	3	182	3/1/2029	8,819,718	1,065,308	873,239	105,476	0	0	0	0	0	0	0	1,170,784	1,170,784	0	683,796,886	440		1,170,784	0	0.04	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.05	0.00	0.69	0%	0.69
2	16	4	183	4/1/2029	8,961,972	626,508	887,324	62,031	0	0	0	0	0	0	0	688,539	688,539	0	683,796,886	440		688,539	0	0.03	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.03	0.00	0.69	0%	0.69
2	16	5	184	5/1/2029	9,104,225	175,762	901,408	17,402	0	0	0	0	0	0	0	193,164	193,164	0	683,796,886	440		193,164	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.01	0.00	0.69	0%	0.69
2	16	6	185	6/1/2029	9,246,479	29,965	915,493	2,967	0	0	0	0	0	0	0	32,932	32,932	0	683,796,886	440		32,932	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.69	0%	0.69
2	16	7	186	7/1/2029	9,388,732	1,304	929,577	129	0	0	0	0	0	0	0	1,433	1,433	0	683,796,886	440		1,433	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.69	0%	0.69
2	16	8	187	8/1/2029	9,530,986	4,854	943,662	481	0	0	0	0	0	0	0	5,334	5,334	0	683,796,886	440		5,334	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.69	0%	0.69
2	16	9	188	9/1/2029	9,673,239	24,183	957,746	2,394	0	0	0	0	0	0	0	26,577	26,577	0	683,796,886	440		26,577	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.69	0%	0.69
2	16	10	189	10/1/2029	9,815,493	363,537	971,831	35,994	0	0	0	0	0	0	0	399,531	399,531	0	683,796,886	440		399,531	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.02	0.00	0.69	0%	0.69
2	16	11	190	11/1/2029	9,957,746	1,209,682	985,915	119,770	0	0	0	0	0	0	0	1,329,452	1,329,452	0	683,796,886	440		1,329,452	0	0.05	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.06	0.00	0.69	0%	0.69
2	**16**	**12**	191	**12/1/2029**	**10,100,000**	1,787,139	**1,000,000**	176,944	**0**	0	0	0	0	0	0	1,964,083	1,964,083	0	683,796,886	440		1,964,083	0	0.07	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.08	0.00	0.69	0%	0.69
3	17	1	192	1/1/2030	10,100,000	1,416,806	979,167	137,355	0	0	0	0	0	0	0	1,554,161	1,554,161	0	683,796,886	440		1,554,161	0	0.06	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.07	0.00	0.69	0%	0.69
3	17	2	193	2/1/2030	10,100,000	2,350,588	958,333	223,034	0	0	0	0	0	0	0	2,573,622	2,573,622	0	683,796,886	440		2,573,622	0	0.09	0.02	0.00	1.50	0.00	0.00	0.00	0.00	0.11	0.00	0.69	0%	0.69
3	17	3	194	3/1/2030	10,100,000	1,219,949	937,500	113,238	0	0	0	0	0	0	0	1,333,187	1,333,187	0	683,796,886	440		1,333,187	0	0.05	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.06	0.00	0.69	0%	0.69
3	17	4	195	4/1/2030	10,100,000	706,065	916,667	64,082	0	0	0	0	0	0	0	770,147	770,147	0	683,796,886	440		770,147	0	0.03	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.03	0.00	0.69	0%	0.69
3	17	5	196	5/1/2030	10,100,000	194,986	895,833	17,295	0	0	0	0	0	0	0	212,281	212,281	0	683,796,886	440		212,281	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.01	0.00	0.69	0%	0.69
3	17	6	197	6/1/2030	10,100,000	32,731	875,000	2,836	0	0	0	0	0	0	0	35,567	35,567	0	683,796,886	440		35,567	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.69	0%	0.69
3	17	7	198	7/1/2030	10,100,000	1,403	854,167	119	0	0	0	0	0	0	0	1,521	1,521	0	683,796,886	440		1,521	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.68	0%	0.68
3	17	8	199	8/1/2030	10,100,000	5,144	833,333	424	0	0	0	0	0	0	0	5,568	5,568	0	683,796,886	440		5,568	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.68	0%	0.68
3	17	9	200	9/1/2030	10,100,000	25,250	812,500	2,031	0	0	0	0	0	0	0	27,281	27,281	0	683,796,886	440		27,281	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.68	0%	0.68
3	17	10	201	10/1/2030	10,100,000	374,074	791,667	29,329	0	0	0	0	0	0	0	403,395	403,395	0	683,796,886	440		403,395	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.68	0%	0.68
3	17	11	202	11/1/2030	10,100,000	1,226,963	770,833	93,642	0	0	0	0	0	0	0	1,320,605	1,320,605	0	683,796,886	440		1,320,605	0	0.05	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.06	0.00	0.68	0%	0.68
3	17	12	203	12/1/2030	10,100,000	1,787,139	750,000	132,708	0	0	0	0	0	0	0	1,919,847	1,919,847	0	683,796,886	440		1,919,847	0	0.07	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.08	0.00	0.68	0%	0.68
3	18	1	204	1/1/2031	10,100,000	1,416,806	729,167	102,286	0	0	0	0	0	0	0	1,519,091	1,519,091	0	683,796,886	440		1,519,091	0	0.06	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.06	0.00	0.68	0%	0.68
3	18	2	205	2/1/2031	10,100,000	2,350,588	708,333	164,851	0	0	0	0	0	0	0	2,515,439	2,515,439	0	683,796,886	440		2,515,439	0	0.09	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.11	0.00	0.68	0%	0.68
3	18	3	206	3/1/2031	10,100,000	1,219,949	687,500	83,041	0	0	0	0	0	0	0	1,302,990	1,302,990	0	683,796,886	440		1,302,990	0	0.05	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.06	0.00	0.68	0%	0.68
3	18	4	207	4/1/2031	10,100,000	706,065	666,667	46,605	0	0	0	0	0	0	0	752,670	752,670	0	683,796,886	440		752,670	0	0.03	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.03	0.00	0.67	0%	0.67
3	18	5	208	5/1/2031	10,100,000	194,986	645,833	12,468	0	0	0	0	0	0	0	207,454	207,454	0	683,796,886	440		207,454	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.01	0.00	0.67	0%	0.67
3	18	6	209	6/1/2031	10,100,000	32,731	625,000	2,025	0	0	0	0	0	0	0	34,757	34,757	0	683,796,886	440		34,757	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
3	18	7	210	7/1/2031	10,100,000	1,403	604,167	84	0	0	0	0	0	0	0	1,487	1,487	0	683,796,886	440		1,487	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
3	18	8	211	8/1/2031	10,100,000	5,144	583,333	297	0	0	0	0	0	0	0	5,441	5,441	0	683,796,886	440		5,441	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
3	18	9	212	9/1/2031	10,100,000	25,250	562,500	1,406	0	0	0	0	0	0	0	26,656	26,656	0	683,796,886	440		26,656	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
3	18	10	213	10/1/2031	10,100,000	374,074	541,667	20,062	0	0	0	0	0	0	0	394,136	394,136	0	683,796,886	440		394,136	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.02	0.00	0.67	0%	0.67
3	18	11	214	11/1/2031	10,100,000	1,226,963

NA	27	6	293	6/1/2038	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	27	7	294	7/1/2038	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	27	8	295	8/1/2038	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	27	9	296	9/1/2038	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	27	10	297	10/1/2038	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.02	0.00	0.00	0.67	0%	0.67
NA	27	11	298	11/1/2038	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.05	0.00	0.00	1.50	0.00	0.00	0.00	0.05	0.00	0.00	0.67	0%	0.67
NA	27	12	299	12/1/2038	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.07	0.01	0.00	1.50	0.00	0.00	0.00	0.08	0.00	0.00	0.67	0%	0.67
NA	28	1	300	1/1/2039	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.06	0.01	0.00	1.50	0.00	0.00	0.00	0.06	0.00	0.00	0.67	0%	0.67
NA	28	2	301	2/1/2039	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.09	0.01	0.00	1.50	0.00	0.00	0.00	0.10	0.00	0.00	0.67	0%	0.67
NA	28	3	302	3/1/2039	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.05	0.00	0.00	1.50	0.00	0.00	0.00	0.05	0.00	0.00	0.67	0%	0.67
NA	28	4	303	4/1/2039	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.03	0.00	0.00	1.50	0.00	0.00	0.00	0.03	0.00	0.00	0.67	0%	0.67
NA	28	5	304	5/1/2039	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.01	0.00	0.00	0.67	0%	0.67
NA	28	6	305	6/1/2039	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	28	7	306	7/1/2039	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	28	8	307	8/1/2039	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	28	9	308	9/1/2039	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	28	10	309	10/1/2039	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.02	0.00	0.00	0.67	0%	0.67
NA	28	11	310	11/1/2039	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.05	0.00	0.00	1.50	0.00	0.00	0.00	0.05	0.00	0.00	0.67	0%	0.67
NA	28	12	311	12/1/2039	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.07	0.01	0.00	1.50	0.00	0.00	0.00	0.08	0.00	0.00	0.67	0%	0.67
NA	29	1	312	1/1/2040	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.06	0.01	0.00	1.50	0.00	0.00	0.00	0.06	0.00	0.00	0.67	0%	0.67
NA	29	2	313	2/1/2040	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.09	0.01	0.00	1.50	0.00	0.00	0.00	0.10	0.00	0.00	0.67	0%	0.67
NA	29	3	314	3/1/2040	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.05	0.00	0.00	1.50	0.00	0.00	0.00	0.05	0.00	0.00	0.67	0%	0.67
NA	29	4	315	4/1/2040	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.03	0.00	0.00	1.50	0.00	0.00	0.00	0.03	0.00	0.00	0.67	0%	0.67
NA	29	5	316	5/1/2040	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.01	0.00	0.00	0.67	0%	0.67
NA	29	6	317	6/1/2040	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	29	7	318	7/1/2040	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	29	8	319	8/1/2040	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	29	9	320	9/1/2040	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	29	10	321	10/1/2040	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.02	0.00	0.00	0.67	0%	0.67
NA	29	11	322	11/1/2040	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.05	0.00	0.00	1.50	0.00	0.00	0.00	0.05	0.00	0.00	0.67	0%	0.67
NA	29	12	323	12/1/2040	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.07	0.01	0.00	1.50	0.00	0.00	0.00	0.08	0.00	0.00	0.67	0%	0.67
NA	30	1	324	1/1/2041	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.06	0.01	0.00	1.50	0.00	0.00	0.00	0.06	0.00	0.00	0.67	0%	0.67
NA	30	2	325	2/1/2041	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.09	0.01	0.00	1.50	0.00	0.00	0.00	0.10	0.00	0.00	0.67	0%	0.67
NA	30	3	326	3/1/2041	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.05	0.00	0.00	1.50	0.00	0.00	0.00	0.05	0.00	0.00	0.67	0%	0.67
NA	30	4	327	4/1/2041	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.03	0.00	0.00	1.50	0.00	0.00	0.00	0.03	0.00	0.00	0.67	0%	0.67
NA	30	5	328	5/1/2041	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.01	0.00	0.00	0.67	0%	0.67
NA	30	6	329	6/1/2041	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	30	7	330	7/1/2041	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	30	8	331	8/1/2041	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	30	9	332	9/1/2041	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	30	10	333	10/1/2041	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.02	0.00	0.00	0.67	0%	0.67
NA	30	11	334	11/1/2041	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.05	0.00	0.00	1.50	0.00	0.00	0.00	0.05	0.00	0.00	0.67	0%	0.67
NA	30	12	335	12/1/2041	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.07	0.01	0.00	1.50	0.00	0.00	0.00	0.08	0.00	0.00	0.67	0%	0.67
NA	31	1	336	1/1/2042	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.06	0.01	0.00	1.50	0.00	0.00	0.00	0.06	0.00	0.00	0.67	0%	0.67
NA	31	2	337	2/1/2042	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.09	0.01	0.00	1.50	0.00	0.00	0.00	0.10	0.00	0.00	0.67	0%	0.67
NA	31	3	338	3/1/2042	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.05	0.00	0.00	1.50	0.00	0.00	0.00	0.05	0.00	0.00	0.67	0%	0.67
NA	31	4	339	4/1/2042	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.03	0.00	0.00	1.50	0.00	0.00	0.00	0.03	0.00	0.00	0.67	0%	0.67
NA	31	5	340	5/1/2042	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.01	0.00	0.00	0.67	0%	0.67
NA	31	6	341	6/1/2042	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	31	7	342	7/1/2042	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	31	8	343	8/1/2042	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	31	9	344	9/1/2042	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	31	10	345	10/1/2042	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.02	0.00	0.00	0.67	0%	0.67
NA	31	11	346	11/1/2042	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.05	0.00	0.00	1.50	0.00	0.00	0.00	0.05	0.00	0.00	0.67	0%	0.67
NA	31	12	347	12/1/2042	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.07	0.01	0.00	1.50	0.00	0.00	0.00	0.08	0.00	0.00	0.67	0%	0.67
NA	32	1	348	1/1/2043	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.06	0.01	0.00	1.50	0.00	0.00	0.00	0.06	0.00	0.00	0.67	0%	0.67
NA	32	2	349	2/1/2043	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.09	0.01	0.00	1.50	0.00	0.00	0.00	0.10	0.00	0.00	0.67	0%	0.67
NA	32	3	350	3/1/2043	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.05	0.00	0.00	1.50	0.00	0.00	0.00	0.05	0.00	0.00	0.67	0%	0.67
NA	32	4	351	4/1/2043	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.03	0.00	0.00	1.50	0.00	0.00	0.00	0.03	0.00	0.00	0.67	0%	0.67
NA	32	5	352	5/1/2043	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.01	0.00	0.00	0.67	0%	0.67
NA	32	6	353	6/1/2043	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	32	7	354	7/1/2043	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	32	8	355	8/1/2043	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	32	9	356	9/1/2043	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	32	10	357	10/1/2043	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.02	0.00	0.00	0.67	0%	0.67
NA	32	11	358	11/1/2043	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.05	0.00	0.00	1.50	0.00	0.00	0.00	0.05	0.00	0.00	0.67	0%	0.67
NA	32	12	359	12/1/2043	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.07	0.01	0.00	1.50	0.00	0.00	0.00	0.08	0.00	0.00	0.67	0%	0.67
NA	33	1	360	1/1/2044	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.06	0.01	0.00	1.50	0.00	0.00	0.00	0.06	0.00	0.00	0.67	0%	0.67
NA	33	2	361	2/1/2044	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.09	0.01	0.00	1.50	0.00	0.00	0.00	0.10	0.00	0.00	0.67	0%	0.67
NA	33	3	362	3/1/2044	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.05	0.00	0.00	1.50	0.00	0.00	0.00	0.05	0.00	0.00	0.67	0%	0.67
NA	33	4	363	4/1/2044	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.03	0.00	0.00	1.50	0.00	0.00	0.00	0.03	0.00	0.00	0.67	0%	0.67
NA	33	5	364	5/1/2044	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.01	0.00	0.00	0.67	0%	0.67
NA	33	6	365	6/1/2044	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	33	7	366	7/1/2044	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	33	8	367	8/1/2044	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	33	9	368	9/1/2044	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	33	10	369	10/1/2044	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.02	0.00	0.00	0.67	0%	0.67
NA	33	11	370	11/1/2044	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.05	0.00	0.00	1.50	0.00	0.00	0.00	0.05	0.00	0.00	0.67	0%	0.67
NA	33	12	371	12/1/2044	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.07	0.01	0.00	1.50	0.00	0.00	0.00	0.08	0.00	0.00	0.67	0%	0.67
NA	34	1	372	1/1/2045	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.06	0.01	0.00	1.50	0.00	0.00	0.00	0.06	0.00	0.00	0.67	0%	0.67
NA	34	2	373	2/1/2045	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.09	0.01	0.00	1.50	0.00	0.00	0.00	0.10	0.00	0.00	0.67	0%	0.67
NA	34	3	374	3/1/2045	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343

NA	42	9	476	9/1/2053	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	42	10	477	10/1/2053	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.02	0.00	0.67	0%	0.67
NA	42	11	478	11/1/2053	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.05	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.05	0.00	0.67	0%	0.67
NA	42	12	479	12/1/2053	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.07	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.08	0.00	0.67	0%	0.67
NA	43	1	480	1/1/2054	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.06	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.06	0.00	0.67	0%	0.67
NA	43	2	481	2/1/2054	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.09	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.10	0.00	0.67	0%	0.67
NA	43	3	482	3/1/2054	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.05	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.05	0.00	0.67	0%	0.67
NA	43	4	483	4/1/2054	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.03	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.03	0.00	0.67	0%	0.67
NA	43	5	484	5/1/2054	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.01	0.00	0.67	0%	0.67
NA	43	6	485	6/1/2054	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	43	7	486	7/1/2054	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	43	8	487	8/1/2054	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	43	9	488	9/1/2054	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	43	10	489	10/1/2054	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.02	0.00	0.67	0%	0.67
NA	43	11	490	11/1/2054	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.05	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.05	0.00	0.67	0%	0.67
NA	43	12	491	12/1/2054	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.07	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.08	0.00	0.67	0%	0.67
NA	44	1	492	1/1/2055	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.06	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.06	0.00	0.67	0%	0.67
NA	44	2	493	2/1/2055	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.09	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.10	0.00	0.67	0%	0.67
NA	44	3	494	3/1/2055	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.05	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.05	0.00	0.67	0%	0.67
NA	44	4	495	4/1/2055	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.03	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.03	0.00	0.67	0%	0.67
NA	44	5	496	5/1/2055	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.01	0.00	0.67	0%	0.67
NA	44	6	497	6/1/2055	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	44	7	498	7/1/2055	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	44	8	499	8/1/2055	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	44	9	500	9/1/2055	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	44	10	501	10/1/2055	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.02	0.00	0.67	0%	0.67
NA	44	11	502	11/1/2055	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.05	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.05	0.00	0.67	0%	0.67
NA	44	12	503	12/1/2055	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.07	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.08	0.00	0.67	0%	0.67
NA	45	1	504	1/1/2056	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.06	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.06	0.00	0.67	0%	0.67
NA	45	2	505	2/1/2056	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.09	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.10	0.00	0.67	0%	0.67
NA	45	3	506	3/1/2056	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.05	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.05	0.00	0.67	0%	0.67
NA	45	4	507	4/1/2056	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.03	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.03	0.00	0.67	0%	0.67
NA	45	5	508	5/1/2056	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.01	0.00	0.67	0%	0.67
NA	45	6	509	6/1/2056	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	45	7	510	7/1/2056	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	45	8	511	8/1/2056	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	45	9	512	9/1/2056	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	45	10	513	10/1/2056	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.02	0.00	0.67	0%	0.67
NA	45	11	514	11/1/2056	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.05	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.05	0.00	0.67	0%	0.67
NA	45	12	515	12/1/2056	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.07	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.08	0.00	0.67	0%	0.67
NA	46	1	516	1/1/2057	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.06	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.06	0.00	0.67	0%	0.67
NA	46	2	517	2/1/2057	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.09	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.10	0.00	0.67	0%	0.67
NA	46	3	518	3/1/2057	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.05	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.05	0.00	0.67	0%	0.67
NA	46	4	519	4/1/2057	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.03	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.03	0.00	0.67	0%	0.67
NA	46	5	520	5/1/2057	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.01	0.00	0.67	0%	0.67
NA	46	6	521	6/1/2057	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	46	7	522	7/1/2057	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	46	8	523	8/1/2057	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	46	9	524	9/1/2057	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	46	10	525	10/1/2057	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.02	0.00	0.67	0%	0.67
NA	46	11	526	11/1/2057	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.05	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.05	0.00	0.67	0%	0.67
NA	46	12	527	12/1/2057	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.07	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.08	0.00	0.67	0%	0.67
NA	47	1	528	1/1/2058	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.06	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.06	0.00	0.67	0%	0.67
NA	47	2	529	2/1/2058	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.09	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.10	0.00	0.67	0%	0.67
NA	47	3	530	3/1/2058	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.05	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.05	0.00	0.67	0%	0.67
NA	47	4	531	4/1/2058	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.03	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.03	0.00	0.67	0%	0.67
NA	47	5	532	5/1/2058	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.01	0.00	0.67	0%	0.67
NA	47	6	533	6/1/2058	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	47	7	534	7/1/2058	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	47	8	535	8/1/2058	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	47	9	536	9/1/2058	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	47	10	537	10/1/2058	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.02	0.00	0.67	0%	0.67
NA	47	11	538	11/1/2058	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.05	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.05	0.00	0.67	0%	0.67
NA	47	12	539	12/1/2058	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.07	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.08	0.00	0.67	0%	0.67
NA	48	1	540	1/1/2059	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.06	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.06	0.00	0.67	0%	0.67
NA	48	2	541	2/1/2059	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.09	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.10	0.00	0.67	0%	0.67
NA	48	3	542	3/1/2059	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.05	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.05	0.00	0.67	0%	0.67
NA	48	4	543	4/1/2059	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.03	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.03	0.00	0.67	0%	0.67
NA	48	5	544	5/1/2059	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.01	0.00	0.67	0%	0.67
NA	48	6	545	6/1/2059	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	48	7	546	7/1/2059	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	48	8	547	8/1/2059	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	48	9	548	9/1/2059	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0%	0.67
NA	48	10	549	10/1/2059	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.01	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.02	0.00	0.67	0%	0.67
NA	48	11	550	11/1/2059	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.05	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.05	0.00	0.67	0%	0.67
NA	48	12	551	12/1/2059	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.07	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.08	0.00	0.67	0%	0.67
NA	49	1	552	1/1/2060	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.06	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.06	0.00	0.67	0%	0.67
NA	49	2	553	2/1/2060	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.09	0.01	0.00	1.50	0.00	0.00	0.00	0.00	0.10	0.00	0.67	0%	0.67
NA	49	3	554	3/1/2060	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.05	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.05	0.00	0.67	0%	0.67
NA	49	4	555	4/1/2060	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.03	0.00	0.00	1.50	0.00	0.00

Inflows and Outflows	Parameters	Units	Value	Units	Description and Rationale				
Precipitation	Precipitation		1.85	ft/yr	Los Altos climate station, direct precip on wasterock backfill area is based on monthly precip data				
			Phases		0 - 10	11-16	16-20	20+	
			Initial		Mining	Backfilling	Revegetation	Long Term	
Quarry Backfilling Areas	**Surface Water Drainage to Pit**								
	Quarry Area (Greenstone/Greywacke)	sq feet				10,100,000	10,100,000	10,100,000	Based on drawing from Chang Consultants
		acres				232	232	232	Figure B.2
	Quarry Area (Limestone)	sq feet				1,000,000	500,000	500,000	
		acres				22	11	11	
	WMSA	sq feet							
		acres							
	Surface Infiltration to Pit (Through backfill)								
	Undrained Backfill (No Surface Outlet)	sq feet							
		acres							
	Drained Backfill (With Surface Outlet)	sq feet							
		acres							
	Total Drainage Area	acres			-	**254**	**243**	**243**	
	Spill Elevation		990.00	ft amsl	Based on mine plan				
	Bottom of Pit		440.00	ft amsl	Based on end of Phase 1 for South Quarry mine plan				
Groundwater Capture	Initial		371	gpm	MODFLOW model results for Phase 1, maximum excavation condition				
			2,181-181	cu ft/mo					
	At Spill Elevation		80	gpm	MODFLOW model results for ultimate condition				
			470,336	cu ft/mo					
Date Quarry Filling Starts		**1/1/2023**							
Assumptions	The pit is backfilled incrementally over a 10-year period, from 440 ft amsl to the spill-over elevation of 990 ft amsl								
	Backfill material has a porosity of 30-percent.								
	Surface runoff is only within the capture area of the pit and is based on water year 2009 data								
	Groundwater inflow into the pit varies by month and diminishes as the backfill increases.								
	Precipitation directly infiltrates to the water table within the area of the backfill.								
	Evaporation of the pit lake is only applied when the cumulative volume of water in the pit is greater than the cumulative volume of void spaces within the backfill (based on 30-percent porosity)								
	The water level in the pit is dependent on the total cumulative volume of the backfill up to the spill-over elevation.								

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2	12	3	135	3/1/2027	2,133,893	257,736	211,268	25,518	0	0	0	0	0	0	0	283,254	283,254	0	683,796,886	440		283,254	0	0.06	0.02	0.00	21.00	0.00	0.00	0.00	0.00	0.08	0.00	4.72	0%	4.72
2	12	4	136	4/1/2027	2,276,056	159,113	225,352	15,754	0	0	0	0	0	0	0	174,867	174,867	0	683,796,886	440		174,867	0	0.04	0.01	0.00	21.00	0.00	0.00	0.00	0.00	0.05	0.00	4.72	0%	4.72
2	12	5	137	5/1/2027	2,418,310	46,687	239,437	4,622	0	0	0	0	0	0	0	51,309	51,309	0	683,796,886	440		51,309	0	0.01	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.02	0.00	4.72	0%	4.72
2	12	6	138	6/1/2027	2,560,563	8,298	253,521	822	0	0	0	0	0	0	0	9,120	9,120	0	683,796,886	440		9,120	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.72	0%	4.72
2	12	7	139	7/1/2027	2,702,817	375	267,606	37	0	0	0	0	0	0	0	413	413	0	683,796,886	440		413	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.72	0%	4.72
2	12	8	140	8/1/2027	2,845,070	1,449	281,690	143	0	0	0	0	0	0	0	1,592	1,592	0	683,796,886	440		1,592	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.72	0%	4.72
2	12	9	141	9/1/2027	2,987,324	7,468	295,775	739	0	0	0	0	0	0	0	8,208	8,208	0	683,796,886	440		8,208	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.72	0%	4.72
2	12	10	142	10/1/2027	3,129,577	115,910	309,859	11,476	0	0	0	0	0	0	0	127,387	127,387	0	683,796,886	440		127,387	0	0.03	0.01	0.00	21.00	0.00	0.00	0.00	0.00	0.04	0.00	4.72	0%	4.72
2	12	11	143	11/1/2027	3,271,831	397,467	323,944	39,353	0	0	0	0	0	0	0	436,820	436,820	0	683,796,886	440		436,820	0	0.09	0.03	0.00	21.00	0.00	0.00	0.00	0.00	0.13	0.00	4.72	0%	4.72
2	12	12	144	12/1/2027	3,414,085	604,103	338,028	59,812	0	0	0	0	0	0	0	663,915	663,915	0	683,796,886	440		663,915	0	0.14	0.05	0.00	21.00	0.00	0.00	0.00	0.00	0.20	0.00	4.72	0%	4.72
2	13	1	145	1/1/2028	3,556,338	498,875	352,113	49,394	0	0	0	0	0	0	0	548,269	548,269	0	683,796,886	440		548,269	0	0.12	0.04	0.00	21.00	0.00	0.00	0.00	0.00	0.16	0.00	4.72	0%	4.72
2	13	2	146	2/1/2028	3,698,592	860,779	366,197	85,226	0	0	0	0	0	0	0	946,004	946,004	0	683,796,886	440		946,004	0	0.20	0.07	0.00	21.00	0.00	0.00	0.00	0.00	0.28	0.00	4.72	0%	4.72
2	13	3	147	3/1/2028	3,840,845	463,924	380,282	45,933	0	0	0	0	0	0	0	509,857	509,857	0	683,796,886	440		509,857	0	0.11	0.04	0.00	21.00	0.00	0.00	0.00	0.00	0.15	0.00	4.72	0%	4.72
2	13	4	148	4/1/2028	3,983,099	278,448	394,366	27,569	0	0	0	0	0	0	0	306,017	306,017	0	683,796,886	440		306,017	0	0.07	0.02	0.00	21.00	0.00	0.00	0.00	0.00	0.09	0.00	4.72	0%	4.72
2	13	5	149	5/1/2028	4,125,352	79,642	408,451	7,885	0	0	0	0	0	0	0	87,528	87,528	0	683,796,886	440		87,528	0	0.02	0.01	0.00	21.00	0.00	0.00	0.00	0.00	0.03	0.00	4.72	0%	4.72
2	13	6	150	6/1/2028	4,267,606	13,839	422,535	1,369	0	0	0	0	0	0	0	15,200	15,200	0	683,796,886	440		15,200	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.72	0%	4.72
2	13	7	151	7/1/2028	4,409,859	612	436,620	61	0	0	0	0	0	0	0	673	673	0	683,796,886	440		673	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.72	0%	4.72
2	13	8	152	8/1/2028	4,552,113	2,318	450,704	230	0	0	0	0	0	0	0	2,548	2,548	0	683,796,886	440		2,548	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.72	0%	4.72
2	13	9	153	9/1/2028	4,694,366	11,736	464,789	1,162	0	0	0	0	0	0	0	12,898	12,898	0	683,796,886	440		12,898	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.72	0%	4.72
2	13	10	154	10/1/2028	4,836,620	179,134	478,873	17,736	0	0	0	0	0	0	0	196,870	196,870	0	683,796,886	440		196,870	0	0.04	0.02	0.00	21.00	0.00	0.00	0.00	0.00	0.06	0.00	4.72	0%	4.72
2	13	11	155	11/1/2028	4,978,873	604,841	492,958	59,885	0	0	0	0	0	0	0	664,726	664,726	0	683,796,886	440		664,726	0	0.14	0.05	0.00	21.00	0.00	0.00	0.00	0.00	0.20	0.00	4.72	0%	4.72
2	13	12	156	12/1/2028	5,121,127	906,155	507,042	89,718	0	0	0	0	0	0	0	995,873	995,873	0	683,796,886	440		995,873	0	0.22	0.08	0.00	21.00	0.00	0.00	0.00	0.00	0.29	0.00	4.72	0%	4.72
2	14	1	157	1/1/2029	5,263,380	738,935	521,127	73,103	0	0	0	0	0	0	0	811,438	811,438	0	683,796,886	440		811,438	0	0.18	0.06	0.00	21.00	0.00	0.00	0.00	0.00	0.24	0.00	4.72	0%	4.72
2	14	2	158	2/1/2029	5,405,634	1,258,061	535,211	124,561	0	0	0	0	0	0	0	1,382,622	1,382,622	0	683,796,886	440		1,382,622	0	0.30	0.11	0.00	21.00	0.00	0.00	0.00	0.00	0.41	0.00	4.72	0%	4.72
2	14	3	159	3/1/2029	5,547,887	670,113	549,296	66,348	0	0	0	0	0	0	0	736,461	736,461	0	683,796,886	440		736,461	0	0.16	0.06	0.00	21.00	0.00	0.00	0.00	0.00	0.22	0.00	4.72	0%	4.72
2	14	4	160	4/1/2029	5,690,141	397,783	563,380	39,384	0	0	0	0	0	0	0	437,167	437,167	0	683,796,886	440		437,167	0	0.09	0.03	0.00	21.00	0.00	0.00	0.00	0.00	0.13	0.00	4.72	0%	4.72
2	14	5	161	5/1/2029	5,832,394	112,598	577,465	11,148	0	0	0	0	0	0	0	123,746	123,746	0	683,796,886	440		123,746	0	0.03	0.01	0.00	21.00	0.00	0.00	0.00	0.00	0.04	0.00	4.72	0%	4.72
2	14	6	162	6/1/2029	5,974,648	19,362	591,549	1,917	0	0	0	0	0	0	0	21,279	21,279	0	683,796,886	440		21,279	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.72	0%	4.72
2	14	7	163	7/1/2029	6,116,901	850	605,634	84	0	0	0	0	0	0	0	934	934	0	683,796,886	440		934	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.72	0%	4.72
2	14	8	164	8/1/2029	6,259,155	3,188	619,718	316	0	0	0	0	0	0	0	3,503	3,503	0	683,796,886	440		3,503	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.72	0%	4.72
2	14	9	165	9/1/2029	6,401,408	16,004	633,803	1,585	0	0	0	0	0	0	0	17,588	17,588	0	683,796,886	440		17,588	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.72	0%	4.72
2	14	10	166	10/1/2029	6,543,662	242,358	647,887	23,996	0	0	0	0	0	0	0	266,354	266,354	0	683,796,886	440		266,354	0	0.06	0.02	0.00	21.00	0.00	0.00	0.00	0.00	0.08	0.00	4.72	0%	4.72
2	14	11	167	11/1/2029	6,685,915	812,215	661,972	80,417	0	0	0	0	0	0	0	892,632	892,632	0	683,796,886	440		892,632	0	0.19	0.07	0.00	21.00	0.00	0.00	0.00	0.00	0.26	0.00	4.72	0%	4.72
2	14	12	168	12/1/2029	6,828,169	1,208,207	676,056	119,624	0	0	0	0	0	0	0	1,327,831	1,327,831	0	683,796,886	440		1,327,831	0	0.29	0.10	0.00	21.00	0.00	0.00	0.00	0.00	0.39	0.00	4.72	0%	4.72
2	15	1	169	1/1/2030	6,970,423	977,795	690,141	96,811	0	0	0	0	0	0	0	1,074,607	1,074,607	0	683,796,886	440		1,074,607	0	0.23	0.08	0.00	21.00	0.00	0.00	0.00	0.00	0.32	0.00	4.72	0%	4.72
2	15	2	170	2/1/2030	7,112,676	1,655,344	704,225	163,895	0	0	0	0	0	0	0	1,819,239	1,819,239	0	683,796,886	440		1,819,239	0	0.39	0.14	0.00	21.00	0.00	0.00	0.00	0.00	0.54	0.00	4.72	0%	4.72
2	15	3	171	3/1/2030	7,112,676	859,119	704,225	85,061	0	0	0	0	0	0	0	944,180	944,180	0	683,796,886	440		944,180	0	0.20	0.07	0.00	21.00	0.00	0.00	0.00	0.00	0.28	0.00	4.72	0%	4.72
2	15	4	171	4/1/2028	7,254,930	507,173	718,310	50,215	0	0	0	0	0	0	0	557,388	557,388	0	683,796,886	440		557,388	0	0.12	0.04	0.00	21.00	0.00	0.00	0.00	0.00	0.16	0.00	4.72	0%	4.72
2	15	5	172	5/1/2028	7,397,183	142,807	732,394	14,139	0	0	0	0	0	0	0	156,946	156,946	0	683,796,886	440		156,946	0	0.03	0.01	0.00	21.00	0.00	0.00	0.00	0.00	0.05	0.00	4.72	0%	4.72
2	15	6	173	6/1/2028	7,539,437	24,433	746,479	2,419	0	0	0	0	0	0	0	26,853	26,853	0	683,796,886	440		26,853	0	0.01	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.72	0%	4.72
2	15	7	174	7/1/2028	7,681,690	1,067	760,563	106	0	0	0	0	0	0	0	1,173	1,173	0	683,796,886	440		1,173	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.72	0%	4.72
2	15	8	175	8/1/2028	7,823,944	3,984	774,648	394	0	0	0	0	0	0	0	4,379	4,379	0	683,796,886	440		4,379	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.72	0%	4.72
2	15	9	176	9/1/2028	7,966,197	19,915	788,732	1,972	0	0	0	0	0	0	0	21,887	21,887	0	683,796,886	440		21,887	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.72	0%	4.72
2	15	10	177	10/1/2028	8,108,451	300,213	802,817	29,734	0	0	0	0	0	0	0	330,047	330,047	0	683,796,886	440		330,047	0	0.07	0.03	0.00	21.00	0.00	0.00	0.00	0.00	0.10	0.00	4.72	0%	4.72
2	15	11	178	11/1/2028	8,250,704	1,002,308	816,901	99,238	0	0	0	0	0	0	0	1,101,546	1,101,546	0	683,796,886	440		1,101,546	0	0.24	0.09	0.00	21.00	0.00	0.00	0.00	0.00	0.32	0.00	4.72	0%	4.72
2	15	12	179	12/1/2028	8,392,958	1,485,087	830,986	147,038	0	0	0	0	0	0	0	1,632,126	1,632,126	0	683,796,886	440		1,632,126	0	0.35	0.13	0.00	21.00	0.00	0.00	0.00	0.00	0.48	0.00	4.72	0%	4.72
2	16	1	180	1/1/2029	8,535,211	1,197,300	845,070	118,545	0	0	0	0	0	0	0	1,315,845	1,315,845	0	683,796,886	440		1,315,845	0	0.28	0.10	0.00	21.00	0.00	0.00	0.00	0.00	0.39	0.00	4.72	0%	4.72
2	16	2	181	2/1/2029	8,677,465	2,019,519	859,155	199,952	0	0	0	0	0	0	0	2,219,472	2,219,472	0	683,796,886	440		2,219,472	0	0.48	0.17	0.00	21.00	0.00	0.00	0.00	0.00	0.65	0.00	4.72	0%	4.72
2	16	3	182	3/1/2029	8,819,718	1,065,308	873,239	105,476	0	0	0	0	0	0	0	1,170,784	1,170,784	0	683,796,886	440		1,170,784	0	0.25	0.09	0.00	21.00	0.00	0.00	0.00	0.00	0.35	0.00	4.72	0%	4.72
2	16	4	183	4/1/2029	8,961,972	626,508	887,324	62,031	0	0	0	0	0	0	0	688,539	688,539	0	683,796,886	440		688,539	0	0.15	0.05	0.00	21.00	0.00	0.00	0.00	0.00	0.20	0.00	4.72	0%	4.72
2	16	5	184	5/1/2029	9,104,225	175,762	901,408	17,402	0	0	0	0	0	0	0	193,164	193,164	0	683,796,886	440		193,164	0	0.04	0.02	0.00	21.00	0.00	0.00	0.00	0.00	0.06	0.00	4.72	0%	4.72
2	16	6	185	6/1/2029	9,246,479	29,965	915,493	2,967	0	0	0	0	0	0	0	32,932	32,932	0	683,796,886	440		32,932	0	0.01	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.72	0%	4.72
2	16	7	186	7/1/2029	9,388,732	1,304	929,577	129	0	0	0	0	0	0	0	1,433	1,433	0	683,796,886	440		1,433	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.72	0%	4.72
2	16	8	187	8/1/2029	9,530,986	4,854	943,662	481	0	0	0	0	0	0	0	5,334	5,334	0	683,796,886	440		5,334	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.72	0%	4.72
2	16	9	188	9/1/2029	9,673,239	24,183	957,746	2,394	0	0	0	0	0	0	0	26,577	26,577	0	683,796,886	440		26,577	0	0.01	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.72	0%	4.72
2	16	10	189	10/1/2029	9,815,493	363,537	971,831	35,994	0	0	0	0	0	0	0	399,531	399,531	0	683,796,886	440		399,531	0	0.09	0.03	0.00	21.00	0.00	0.00	0.00	0.00	0.12	0.00	4.72	0%	4.72
2	16	11	190	11/1/2029	9,957,746	1,209,682	985,915	119,770	0	0	0	0	0	0	0	1,329,452	1,329,452	0	683,796,886	440		1,329,452	0	0.29	0.10	0.00	21.00	0.00	0.00	0.00	0.00	0.39	0.00	4.72	0%	4.72
2	**16**	**12**	191	**12/1/2029**	**10,100,000**	1,787,139	**1,000,000**	176,944	**0**	0	0	0	0	0	0	1,964,083	1,964,083	0	683,796,886	440		1,964,083	0	0.42	0.15	0.00	21.00	0.00	0.00	0.00	0.00	0.58	0.00	4.72	0%	4.72
3	16	**1**	192	1/1/2030	10,100,000	1,416,806	979,167	137,355	0	0	0	0	0	0	0	1,554,161	1,554,161	0	683,796,886	440		1,554,161	0	0.34	0.12	0.00	21.00	0.00	0.00	0.00	0.00	0.46	0.00	4.78	0%	4.78
3	17	2	193	2/1/2030	10,100,000	2,350,588	958,333	223,034	0	0	0	0	0	0	0	2,573,622	2,573,622	0	683,796,886	440		2,573,622	0	0.56	0.20	0.00	21.00	0.00	0.00	0.00	0.00	0.76	0.00	4.68	0%	4.68
3	17	3	194	3/1/2030	10,100,000	1,219,949	937,500	113,238	0	0	0	0	0	0	0	1,333,187	1,333,187	0	683,796,886	440		1,333,187	0	0.29	0.10	0.00	21.00	0.00	0.00	0.00	0.00	0.39	0.00	4.67	0%	4.67
3	17	4	195	4/1/2030	10,100,000	706,065	916,667	64,082	0	0	0	0	0	0	0	770,147	770,147	0	683,796,886	440		770,147	0	0.17	0.06	0.00	21.00	0.00	0.00	0.00	0.00	0.22	0.00	4.65	0%	4.65
3	17	5	196	5/1/2030	10,100,000	194,986	895,833	17,295	0	0	0	0	0	0	0	212,281	212,281	0	683,796,886	440		212,281	0	0.05	0.02	0.00	21.00	0.00	0.00	0.00	0.00	0.06	0.00	4.63	0%	4.63
3	17	6	197	6/1/2030	10,100,000	32,731	875,000	2,836	0	0	0	0	0	0	0	35,567	35,567	0	683,796,886	440		35,567	0	0.01	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.61	0%	4.61
3	17	7	198	7/1/2030	10,100,000	1,403	854,167	119	0	0	0	0	0	0	0	1,521	1,521	0	683,796,886	440		1,521	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.60	0%	4.60
3	17	8	199	8/1/2030	10,100,000	5,144	833,333	424	0	0	0	0	0	0	0	5,568	5,568	0	683,796,886	440		5,568	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.58	0%	4.58
3	17	9	200	9/1/2030	10,100,000	25,250	812,500	2,031	0	0	0	0	0	0	0	27,281	27,281	0	683,796,886	440		27,281	0	0.01	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.56	0%	4.56
3	17	10	201	10/1/2030	10,100,000	374,074	791,667	29,329	0	0	0	0	0	0	0	403,395	403,395	0	683,796,886	440		403,395	0	0.09	0.03	0.00	21.00	0.00	0.00	0.00	0.00	0.11	0.00	4.54	0%	4.54
3	17	11	202	11/1/2030	10,100,000	1,226,963	770,833	93,642	0	0	0	0	0	0	0	1,320,605	1,320,605	0	683,796,886	440		1,320,605	0	0.29	0.08	0.00	21.00	0.00	0.00	0.00	0.00	0.37	0.00	4.52	0%	4.52
3	17	12	203	12/1/2030	10,100,000	1,787,139	750,000	132,708	0	0	0	0	0	0	0	1,919,847	1,919,847	0	683,796,886	440		1,919,847	0	0.42	0.12	0.00	21.00	0.00	0.00	0.00	0.00	0.54	0.00	4.51	0%	4.51
3	18	1	204	1/1/2031	10,100,000	1,416,806	729,167	102,286	0	0	0	0	0	0	0	1,519,091	1,519,091	0	683,796,886	440		1,519,091	0	0.34	0.09	0.00	21.00	0.00	0.00	0.00	0.00	0.43	0.00	4.49	0%	4.49
3	18	2	205	2/1/2031	10,100,000	2,350,588	708,333	164,851	0	0	0	0	0	0	0	2,515,439	2,515,439	0	683,796,886	440		2,515,439	0	0.56	0.14	0.00	21.00	0.00	0.00	0.00	0.00	0.71	0.00	4.47	0%	4.47
3	18	3	206	3/1/2031	10,100,000	1,219,949	687,500	83,041	0	0	0	0	0	0	0	1,302,990	1,302,990	0	683,796,886	440		1,302,990	0	0.29	0.07	0.00	21.00	0.00	0.00	0.00	0.00	0.36	0.00	4.46	0%	4.46
3	18	4	207	4/1/2031	10,100,000	706,065	666,667	46,605	0	0	0	0	0	0	0	752,670	752,670	0	683,796,886	440		752,670	0	0.17	0.04	0.00	21.00	0.00	0.00	0.00	0.00	0.21	0.00	4.43	0%	4.43
3	18	5	208	5/1/2031	10,100,000	194,986	645,833	12,468	0	0	0	0	0	0	0	207,454	207,454	0	683,796,886	440		207,454	0	0.05	0.01	0.00	21.00	0.00	0.00	0.00	0.00	0.06	0.00	4.41	0%	4.41
3	18	6	209	6/1/2031	10,100,000	32,731	625,000	2,025	0	0	0	0	0	0	0	34,757	34,757	0	683,796,886	440		34,757	0	0.01	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.39	0%	4.39
3	18	7	210	7/1/2031	10,100,000	1,403	604,167	84	0	0	0	0	0	0	0	1,487	1,487	0	683,796,886	440		1,487	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.38	0%	4.38
3	18	8	211	8/1/2031	10,100,000	5,144	583,333	297	0	0	0	0	0	0	0	5,441	5,441	0	683,796,886	440		5,441	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.36	0%	4.36
3	18	9	212	9/1/2031	10,100,000	25,250	562,500	1,406	0	0	0	0	0	0	0	26,656	26,656	0	683,796,886	440		26,656	0	0.01	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.34	0%	4.34
3	18	10	213	10/1/2031	10,100,000	374,074	541,667	20,062	0	0	0	0	0	0	0	394,136	394,136	0	683,796,886	440		394,136	0	0.09	0.02	0.00	21.00	0.00	0.00	0.00	0.00	0.11	0.00	4.32	0%	4.32
3	18	11	214	11/1/2031	10,100,000	1,

NA	27	6	293	6/1/2038	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.28	0%	4.28
NA	27	7	294	7/1/2038	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.28	0%	4.28
NA	27	8	295	8/1/2038	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.28	0%	4.28
NA	27	9	296	9/1/2038	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.28	0%	4.28
NA	27	10	297	10/1/2038	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.09	0.02	0.00	21.00	0.00	0.00	0.00	0.00	0.11	0.00	4.28	0%	4.28
NA	27	11	298	11/1/2038	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.29	0.05	0.00	21.00	0.00	0.00	0.00	0.00	0.34	0.00	4.28	0%	4.28
NA	27	12	299	12/1/2038	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.42	0.08	0.00	21.00	0.00	0.00	0.00	0.00	0.50	0.00	4.28	0%	4.28
NA	28	1	300	1/1/2039	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.34	0.06	0.00	21.00	0.00	0.00	0.00	0.00	0.40	0.00	4.28	0%	4.28
NA	28	2	301	2/1/2039	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.56	0.10	0.00	21.00	0.00	0.00	0.00	0.00	0.66	0.00	4.28	0%	4.28
NA	28	3	302	3/1/2039	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.29	0.05	0.00	21.00	0.00	0.00	0.00	0.00	0.34	0.00	4.28	0%	4.28
NA	28	4	303	4/1/2039	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.17	0.03	0.00	21.00	0.00	0.00	0.00	0.00	0.20	0.00	4.28	0%	4.28
NA	28	5	304	5/1/2039	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.05	0.01	0.00	21.00	0.00	0.00	0.00	0.00	0.05	0.00	4.28	0%	4.28
NA	28	6	305	6/1/2039	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.28	0%	4.28
NA	28	7	306	7/1/2039	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.28	0%	4.28
NA	28	8	307	8/1/2039	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.28	0%	4.28
NA	28	9	308	9/1/2039	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.28	0%	4.28
NA	28	10	309	10/1/2039	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.09	0.02	0.00	21.00	0.00	0.00	0.00	0.00	0.11	0.00	4.28	0%	4.28
NA	28	11	310	11/1/2039	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.29	0.05	0.00	21.00	0.00	0.00	0.00	0.00	0.34	0.00	4.28	0%	4.28
NA	28	12	311	12/1/2039	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.42	0.08	0.00	21.00	0.00	0.00	0.00	0.00	0.50	0.00	4.28	0%	4.28
NA	29	1	312	1/1/2040	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.34	0.06	0.00	21.00	0.00	0.00	0.00	0.00	0.40	0.00	4.28	0%	4.28
NA	29	2	313	2/1/2040	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.56	0.10	0.00	21.00	0.00	0.00	0.00	0.00	0.66	0.00	4.28	0%	4.28
NA	29	3	314	3/1/2040	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.29	0.05	0.00	21.00	0.00	0.00	0.00	0.00	0.34	0.00	4.28	0%	4.28
NA	29	4	315	4/1/2040	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.17	0.03	0.00	21.00	0.00	0.00	0.00	0.00	0.20	0.00	4.28	0%	4.28
NA	29	5	316	5/1/2040	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.05	0.01	0.00	21.00	0.00	0.00	0.00	0.00	0.05	0.00	4.28	0%	4.28
NA	29	6	317	6/1/2040	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.28	0%	4.28
NA	29	7	318	7/1/2040	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.28	0%	4.28
NA	29	8	319	8/1/2040	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.28	0%	4.28
NA	29	9	320	9/1/2040	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.28	0%	4.28
NA	29	10	321	10/1/2040	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.09	0.02	0.00	21.00	0.00	0.00	0.00	0.00	0.11	0.00	4.28	0%	4.28
NA	29	11	322	11/1/2040	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.29	0.05	0.00	21.00	0.00	0.00	0.00	0.00	0.34	0.00	4.28	0%	4.28
NA	29	12	323	12/1/2040	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.42	0.08	0.00	21.00	0.00	0.00	0.00	0.00	0.50	0.00	4.28	0%	4.28
NA	30	1	324	1/1/2041	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.34	0.06	0.00	21.00	0.00	0.00	0.00	0.00	0.40	0.00	4.28	0%	4.28
NA	30	2	325	2/1/2041	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.56	0.10	0.00	21.00	0.00	0.00	0.00	0.00	0.66	0.00	4.28	0%	4.28
NA	30	3	326	3/1/2041	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.29	0.05	0.00	21.00	0.00	0.00	0.00	0.00	0.34	0.00	4.28	0%	4.28
NA	30	4	327	4/1/2041	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.17	0.03	0.00	21.00	0.00	0.00	0.00	0.00	0.20	0.00	4.28	0%	4.28
NA	30	5	328	5/1/2041	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.05	0.01	0.00	21.00	0.00	0.00	0.00	0.00	0.05	0.00	4.28	0%	4.28
NA	30	6	329	6/1/2041	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.28	0%	4.28
NA	30	7	330	7/1/2041	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.28	0%	4.28
NA	30	8	331	8/1/2041	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.28	0%	4.28
NA	30	9	332	9/1/2041	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.28	0%	4.28
NA	30	10	333	10/1/2041	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.09	0.02	0.00	21.00	0.00	0.00	0.00	0.00	0.11	0.00	4.28	0%	4.28
NA	30	11	334	11/1/2041	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.29	0.05	0.00	21.00	0.00	0.00	0.00	0.00	0.34	0.00	4.28	0%	4.28
NA	30	12	335	12/1/2041	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.42	0.08	0.00	21.00	0.00	0.00	0.00	0.00	0.50	0.00	4.28	0%	4.28
NA	31	1	336	1/1/2042	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.34	0.06	0.00	21.00	0.00	0.00	0.00	0.00	0.40	0.00	4.28	0%	4.28
NA	31	2	337	2/1/2042	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.56	0.10	0.00	21.00	0.00	0.00	0.00	0.00	0.66	0.00	4.28	0%	4.28
NA	31	3	338	3/1/2042	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.29	0.05	0.00	21.00	0.00	0.00	0.00	0.00	0.34	0.00	4.28	0%	4.28
NA	31	4	339	4/1/2042	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.17	0.03	0.00	21.00	0.00	0.00	0.00	0.00	0.20	0.00	4.28	0%	4.28
NA	31	5	340	5/1/2042	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.05	0.01	0.00	21.00	0.00	0.00	0.00	0.00	0.05	0.00	4.28	0%	4.28
NA	31	6	341	6/1/2042	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.28	0%	4.28
NA	31	7	342	7/1/2042	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.28	0%	4.28
NA	31	8	343	8/1/2042	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.28	0%	4.28
NA	31	9	344	9/1/2042	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.28	0%	4.28
NA	31	10	345	10/1/2042	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.09	0.02	0.00	21.00	0.00	0.00	0.00	0.00	0.11	0.00	4.28	0%	4.28
NA	31	11	346	11/1/2042	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.29	0.05	0.00	21.00	0.00	0.00	0.00	0.00	0.34	0.00	4.28	0%	4.28
NA	31	12	347	12/1/2042	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.42	0.08	0.00	21.00	0.00	0.00	0.00	0.00	0.50	0.00	4.28	0%	4.28
NA	32	1	348	1/1/2043	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.34	0.06	0.00	21.00	0.00	0.00	0.00	0.00	0.40	0.00	4.28	0%	4.28
NA	32	2	349	2/1/2043	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.56	0.10	0.00	21.00	0.00	0.00	0.00	0.00	0.66	0.00	4.28	0%	4.28
NA	32	3	350	3/1/2043	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.29	0.05	0.00	21.00	0.00	0.00	0.00	0.00	0.34	0.00	4.28	0%	4.28
NA	32	4	351	4/1/2043	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.17	0.03	0.00	21.00	0.00	0.00	0.00	0.00	0.20	0.00	4.28	0%	4.28
NA	32	5	352	5/1/2043	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.05	0.01	0.00	21.00	0.00	0.00	0.00	0.00	0.05	0.00	4.28	0%	4.28
NA	32	6	353	6/1/2043	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.28	0%	4.28
NA	32	7	354	7/1/2043	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.28	0%	4.28
NA	32	8	355	8/1/2043	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.28	0%	4.28
NA	32	9	356	9/1/2043	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.28	0%	4.28
NA	32	10	357	10/1/2043	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.09	0.02	0.00	21.00	0.00	0.00	0.00	0.00	0.11	0.00	4.28	0%	4.28
NA	32	11	358	11/1/2043	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.29	0.05	0.00	21.00	0.00	0.00	0.00	0.00	0.34	0.00	4.28	0%	4.28
NA	32	12	359	12/1/2043	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.42	0.08	0.00	21.00	0.00	0.00	0.00	0.00	0.50	0.00	4.28	0%	4.28
NA	33	1	360	1/1/2044	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.34	0.06	0.00	21.00	0.00	0.00	0.00	0.00	0.40	0.00	4.28	0%	4.28
NA	33	2	361	2/1/2044	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.56	0.10	0.00	21.00	0.00	0.00	0.00	0.00	0.66	0.00	4.28	0%	4.28
NA	33	3	362	3/1/2044	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.29	0.05	0.00	21.00	0.00	0.00	0.00	0.00	0.34	0.00	4.28	0%	4.28
NA	33	4	363	4/1/2044	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.17	0.03	0.00	21.00	0.00	0.00	0.00	0.00	0.20	0.00	4.28	0%	4.28
NA	33	5	364	5/1/2044	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.05	0.01	0.00	21.00	0.00	0.00	0.00	0.00	0.05	0.00	4.28	0%	4.28
NA	33	6	365	6/1/2044	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.28	0%	4.28
NA	33	7	366	7/1/2044	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.28	0%	4.28
NA	33	8	367	8/1/2044	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.28	0%	4.28
NA	33	9	368	9/1/2044	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.28	0%	4.28
NA	33	10	369	10/1/2044	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.09	0.02	0.00	21.00	0.00	0.00	0.00	0.00	0.11	0.00	4.28	0%	4.28
NA	33	11	370	11/1/2044	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.29	0.05	0.00	21.00	0.00	0.00	0.00	0.00	0.34	0.00	4.28	0%	4.28
NA	33	12	371	12/1/2044	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.42	0.08	0.00	21.00	0.00	0.00	0.00	0.00	0.50	0.00	4.28	0%	4.28
NA	34	1	372	1/1/2045	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.34	0.06	0.00	21.00	0.00	0.00	0.00	0.00	0.40	0.00	4.28	0%	4.28
NA	34	2	373	2/1/2045	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.56	0.10	0.00	21.00	0.00	0.00	0.00	0.00	0.66	0.00	4.28	0%	4.28
NA	34	3	374	3/1/2045	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343

NA	42	9	476	9/1/2053	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.28	0%	4.28
NA	42	10	477	10/1/2053	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.09	0.02	0.00	21.00	0.00	0.00	0.00	0.00	0.11	0.00	4.28	0%	4.28
NA	42	11	478	11/1/2053	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.29	0.05	0.00	21.00	0.00	0.00	0.00	0.00	0.34	0.00	4.28	0%	4.28
NA	42	12	479	12/1/2053	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.42	0.08	0.00	21.00	0.00	0.00	0.00	0.00	0.50	0.00	4.28	0%	4.28
NA	43	1	480	1/1/2054	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.34	0.06	0.00	21.00	0.00	0.00	0.00	0.00	0.40	0.00	4.28	0%	4.28
NA	43	2	481	2/1/2054	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.56	0.10	0.00	21.00	0.00	0.00	0.00	0.00	0.66	0.00	4.28	0%	4.28
NA	43	3	482	3/1/2054	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.29	0.05	0.00	21.00	0.00	0.00	0.00	0.00	0.34	0.00	4.28	0%	4.28
NA	43	4	483	4/1/2054	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.17	0.03	0.00	21.00	0.00	0.00	0.00	0.00	0.20	0.00	4.28	0%	4.28
NA	43	5	484	5/1/2054	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.05	0.01	0.00	21.00	0.00	0.00	0.00	0.00	0.05	0.00	4.28	0%	4.28
NA	43	6	485	6/1/2054	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.28	0%	4.28
NA	43	7	486	7/1/2054	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.28	0%	4.28
NA	43	8	487	8/1/2054	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.28	0%	4.28
NA	43	9	488	9/1/2054	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.28	0%	4.28
NA	43	10	489	10/1/2054	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.09	0.02	0.00	21.00	0.00	0.00	0.00	0.00	0.11	0.00	4.28	0%	4.28
NA	43	11	490	11/1/2054	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.29	0.05	0.00	21.00	0.00	0.00	0.00	0.00	0.34	0.00	4.28	0%	4.28
NA	43	12	491	12/1/2054	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.42	0.08	0.00	21.00	0.00	0.00	0.00	0.00	0.50	0.00	4.28	0%	4.28
NA	44	1	492	1/1/2055	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.34	0.06	0.00	21.00	0.00	0.00	0.00	0.00	0.40	0.00	4.28	0%	4.28
NA	44	2	493	2/1/2055	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.56	0.10	0.00	21.00	0.00	0.00	0.00	0.00	0.66	0.00	4.28	0%	4.28
NA	44	3	494	3/1/2055	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.29	0.05	0.00	21.00	0.00	0.00	0.00	0.00	0.34	0.00	4.28	0%	4.28
NA	44	4	495	4/1/2055	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.17	0.03	0.00	21.00	0.00	0.00	0.00	0.00	0.20	0.00	4.28	0%	4.28
NA	44	5	496	5/1/2055	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.05	0.01	0.00	21.00	0.00	0.00	0.00	0.00	0.05	0.00	4.28	0%	4.28
NA	44	6	497	6/1/2055	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.28	0%	4.28
NA	44	7	498	7/1/2055	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.28	0%	4.28
NA	44	8	499	8/1/2055	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.28	0%	4.28
NA	44	9	500	9/1/2055	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.28	0%	4.28
NA	44	10	501	10/1/2055	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.09	0.02	0.00	21.00	0.00	0.00	0.00	0.00	0.11	0.00	4.28	0%	4.28
NA	44	11	502	11/1/2055	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.29	0.05	0.00	21.00	0.00	0.00	0.00	0.00	0.34	0.00	4.28	0%	4.28
NA	44	12	503	12/1/2055	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.42	0.08	0.00	21.00	0.00	0.00	0.00	0.00	0.50	0.00	4.28	0%	4.28
NA	45	1	504	1/1/2056	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.34	0.06	0.00	21.00	0.00	0.00	0.00	0.00	0.40	0.00	4.28	0%	4.28
NA	45	2	505	2/1/2056	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.56	0.10	0.00	21.00	0.00	0.00	0.00	0.00	0.66	0.00	4.28	0%	4.28
NA	45	3	506	3/1/2056	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.29	0.05	0.00	21.00	0.00	0.00	0.00	0.00	0.34	0.00	4.28	0%	4.28
NA	45	4	507	4/1/2056	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.17	0.03	0.00	21.00	0.00	0.00	0.00	0.00	0.20	0.00	4.28	0%	4.28
NA	45	5	508	5/1/2056	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.05	0.01	0.00	21.00	0.00	0.00	0.00	0.00	0.05	0.00	4.28	0%	4.28
NA	45	6	509	6/1/2056	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.28	0%	4.28
NA	45	7	510	7/1/2056	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.28	0%	4.28
NA	45	8	511	8/1/2056	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.28	0%	4.28
NA	45	9	512	9/1/2056	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.28	0%	4.28
NA	45	10	513	10/1/2056	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.09	0.02	0.00	21.00	0.00	0.00	0.00	0.00	0.11	0.00	4.28	0%	4.28
NA	45	11	514	11/1/2056	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.29	0.05	0.00	21.00	0.00	0.00	0.00	0.00	0.34	0.00	4.28	0%	4.28
NA	45	12	515	12/1/2056	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.42	0.08	0.00	21.00	0.00	0.00	0.00	0.00	0.50	0.00	4.28	0%	4.28
NA	46	1	516	1/1/2057	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.34	0.06	0.00	21.00	0.00	0.00	0.00	0.00	0.40	0.00	4.28	0%	4.28
NA	46	2	517	2/1/2057	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.56	0.10	0.00	21.00	0.00	0.00	0.00	0.00	0.66	0.00	4.28	0%	4.28
NA	46	3	518	3/1/2057	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.29	0.05	0.00	21.00	0.00	0.00	0.00	0.00	0.34	0.00	4.28	0%	4.28
NA	46	4	519	4/1/2057	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.17	0.03	0.00	21.00	0.00	0.00	0.00	0.00	0.20	0.00	4.28	0%	4.28
NA	46	5	520	5/1/2057	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.05	0.01	0.00	21.00	0.00	0.00	0.00	0.00	0.05	0.00	4.28	0%	4.28
NA	46	6	521	6/1/2057	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.28	0%	4.28
NA	46	7	522	7/1/2057	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.28	0%	4.28
NA	46	8	523	8/1/2057	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.28	0%	4.28
NA	46	9	524	9/1/2057	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.28	0%	4.28
NA	46	10	525	10/1/2057	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.09	0.02	0.00	21.00	0.00	0.00	0.00	0.00	0.11	0.00	4.28	0%	4.28
NA	46	11	526	11/1/2057	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.29	0.05	0.00	21.00	0.00	0.00	0.00	0.00	0.34	0.00	4.28	0%	4.28
NA	46	12	527	12/1/2057	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.42	0.08	0.00	21.00	0.00	0.00	0.00	0.00	0.50	0.00	4.28	0%	4.28
NA	47	1	528	1/1/2058	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.34	0.06	0.00	21.00	0.00	0.00	0.00	0.00	0.40	0.00	4.28	0%	4.28
NA	47	2	529	2/1/2058	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.56	0.10	0.00	21.00	0.00	0.00	0.00	0.00	0.66	0.00	4.28	0%	4.28
NA	47	3	530	3/1/2058	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.29	0.05	0.00	21.00	0.00	0.00	0.00	0.00	0.34	0.00	4.28	0%	4.28
NA	47	4	531	4/1/2058	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.17	0.03	0.00	21.00	0.00	0.00	0.00	0.00	0.20	0.00	4.28	0%	4.28
NA	47	5	532	5/1/2058	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.05	0.01	0.00	21.00	0.00	0.00	0.00	0.00	0.05	0.00	4.28	0%	4.28
NA	47	6	533	6/1/2058	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.28	0%	4.28
NA	47	7	534	7/1/2058	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.28	0%	4.28
NA	47	8	535	8/1/2058	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.28	0%	4.28
NA	47	9	536	9/1/2058	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.28	0%	4.28
NA	47	10	537	10/1/2058	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.09	0.02	0.00	21.00	0.00	0.00	0.00	0.00	0.11	0.00	4.28	0%	4.28
NA	47	11	538	11/1/2058	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.29	0.05	0.00	21.00	0.00	0.00	0.00	0.00	0.34	0.00	4.28	0%	4.28
NA	47	12	539	12/1/2058	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.42	0.08	0.00	21.00	0.00	0.00	0.00	0.00	0.50	0.00	4.28	0%	4.28
NA	48	1	540	1/1/2059	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.34	0.06	0.00	21.00	0.00	0.00	0.00	0.00	0.40	0.00	4.28	0%	4.28
NA	48	2	541	2/1/2059	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.56	0.10	0.00	21.00	0.00	0.00	0.00	0.00	0.66	0.00	4.28	0%	4.28
NA	48	3	542	3/1/2059	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.29	0.05	0.00	21.00	0.00	0.00	0.00	0.00	0.34	0.00	4.28	0%	4.28
NA	48	4	543	4/1/2059	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.17	0.03	0.00	21.00	0.00	0.00	0.00	0.00	0.20	0.00	4.28	0%	4.28
NA	48	5	544	5/1/2059	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.05	0.01	0.00	21.00	0.00	0.00	0.00	0.00	0.05	0.00	4.28	0%	4.28
NA	48	6	545	6/1/2059	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.28	0%	4.28
NA	48	7	546	7/1/2059	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.28	0%	4.28
NA	48	8	547	8/1/2059	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	4.28	0%	4.28
NA	48	9	548	9/1/2059	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.01	0.00	4.28	0%	4.28
NA	48	10	549	10/1/2059	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.09	0.02	0.00	21.00	0.00	0.00	0.00	0.00	0.11	0.00	4.28	0%	4.28
NA	48	11	550	11/1/2059	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.29	0.05	0.00	21.00	0.00	0.00	0.00	0.00	0.34	0.00	4.28	0%	4.28
NA	48	12	551	12/1/2059	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.42	0.08	0.00	21.00	0.00	0.00	0.00	0.00	0.50	0.00	4.28	0%	4.28
NA	49	1	552	1/1/2060	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.34	0.06	0.00	21.00	0.00	0.00	0.00	0.00	0.40	0.00	4.28	0%	4.28
NA	49	2	553	2/1/2060	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.56	0.10	0.00	21.00	0.00	0.00	0.00	0.00	0.66	0.00	4.28	0%	4.28
NA	49	3	554	3/1/2060	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.29	0.05	0.00	21.00	0.00	0.00	0.00	0.00	0.34	0.00	4.28	0%	4.28
NA	49	4	555	4/1/2060	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.17	0.03	0.00	21.00	0.00	0.00	0.00

Inflows and Outflows	Parameters	Units	Value	Units	Description and Rationale				
Precipitation	Precipitation		1.85	ft/yr	Los Altos climate station, direct precip on wasterock backfill area is based on monthly precip data				
			Phases		0 - 10	11-16	16-20	20+	
			Initial		Mining	Backfilling	Revegetation	Long Term	
Quarry Backfilling Areas	**Surface Water Drainage to Pit**								
	Quarry Area (Greenstone/Greywacke)	sq feet				10,100,000	10,100,000	10,100,000	Based on drawing from Chang Consultants
		acres				232	232	232	Figure B.2
	Quarry Area (Limestone)	sq feet				1,000,000	500,000	500,000	
		acres				22	11	11	
	WMSA	sq feet							
		acres							
	Surface Infiltration to Pit (Through backfill)								
	Undrained Backfill (No Surface Outlet)	sq feet							
		acres							
	Drained Backfill (With Surface Outlet)	sq feet							
		acres							
	Total Drainage Area	acres			-	**254**	**243**	**243**	
	Spill Elevation		990.00	ft amsl	Based on mine plan				
	Bottom of Pit		440.00	ft amsl	Based on end of Phase 1 for South Quarry mine plan				
Groundwater Capture	Initial		371	gpm	MODFLOW model results for Phase 1, maximum excavation condition				
			2,181-181	cu ft/mo					
	At Spill Elevation		80	gpm	MODFLOW model results for ultimate condition				
			470,336	cu ft/mo					
Date Quarry Filling Starts		**1/1/2023**							
Assumptions	The pit is backfilled incrementally over a 10-year period, from 440 ft amsl to the spill-over elevation of 990 ft amsl								
	Backfill material has a porosity of 30-percent.								
	Surface runoff is only within the capture area of the pit and is based on water year 2009 data								
	Groundwater inflow into the pit varies by month and diminishes as the backfill increases.								
	Precipitation directly infiltrates to the water table within the area of the backfill.								
	Evaporation of the pit lake is only applied when the cumulative volume of water in the pit is greater than the cumulative volume of void spaces within the backfill (based on 30-percent porosity)								
	The water level in the pit is dependent on the total cumulative volume of the backfill up to the spill-over elevation.								

24.56679096 0.000199456

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2	12	3	135	3/1/2027	2,133,893	257,736	211,268	25,518	0	0	0	0	0	0	0	283,254	283,254	283,254	0	683,796,886	440		283,254	0	0.05	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.05	0.00	2.95	0%	2.95
2	12	4	136	4/1/2027	2,276,056	159,113	225,352	15,754	0	0	0	0	0	0	0	174,867	174,867	174,867	0	683,796,886	440		174,867	0	0.03	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.03	0.00	2.95	0%	2.95
2	12	5	137	5/1/2027	2,418,310	46,687	239,437	4,622	0	0	0	0	0	0	0	51,309	51,309	51,309	0	683,796,886	440		51,309	0	0.01	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.01	0.00	2.95	0%	2.95
2	12	6	138	6/1/2027	2,560,563	8,298	253,521	822	0	0	0	0	0	0	0	9,120	9,120	9,120	0	683,796,886	440		9,120	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.95	0%	2.95
2	12	7	139	7/1/2027	2,702,817	375	267,606	37	0	0	0	0	0	0	0	413	413	413	0	683,796,886	440		413	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.95	0%	2.95
2	12	8	140	8/1/2027	2,845,070	1,449	281,690	143	0	0	0	0	0	0	0	1,592	1,592	1,592	0	683,796,886	440		1,592	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.95	0%	2.95
2	12	9	141	9/1/2027	2,987,324	7,468	295,775	739	0	0	0	0	0	0	0	8,208	8,208	8,208	0	683,796,886	440		8,208	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.95	0%	2.95
2	12	10	142	10/1/2027	3,129,577	115,910	309,859	11,476	0	0	0	0	0	0	0	127,387	127,387	127,387	0	683,796,886	440		127,387	0	0.02	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.02	0.00	2.95	0%	2.95
2	12	11	143	11/1/2027	3,271,831	397,457	323,944	39,353	0	0	0	0	0	0	0	436,820	436,820	436,820	0	683,796,886	440		436,820	0	0.07	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.08	0.00	2.95	0%	2.95
2	12	12	144	12/1/2027	3,414,085	604,103	338,028	59,812	0	0	0	0	0	0	0	663,915	663,915	663,915	0	683,796,886	440		663,915	0	0.11	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.12	0.00	2.95	0%	2.95
2	13	1	145	1/1/2028	3,556,338	498,875	352,113	49,394	0	0	0	0	0	0	0	548,269	548,269	548,269	0	683,796,886	440		548,269	0	0.09	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.10	0.00	2.95	0%	2.95
2	13	2	146	2/1/2028	3,698,592	860,779	366,197	85,226	0	0	0	0	0	0	0	946,004	946,004	946,004	0	683,796,886	440		946,004	0	0.16	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.17	0.00	2.95	0%	2.95
2	13	3	147	3/1/2028	3,840,845	463,924	380,282	45,933	0	0	0	0	0	0	0	509,857	509,857	509,857	0	683,796,886	440		509,857	0	0.08	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.09	0.00	2.95	0%	2.95
2	13	4	148	4/1/2028	3,983,099	278,448	394,366	27,569	0	0	0	0	0	0	0	306,017	306,017	306,017	0	683,796,886	440		306,017	0	0.05	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.06	0.00	2.95	0%	2.95
2	13	5	149	5/1/2028	4,125,352	79,642	408,451	7,885	0	0	0	0	0	0	0	87,528	87,528	87,528	0	683,796,886	440		87,528	0	0.01	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.02	0.00	2.95	0%	2.95
2	13	6	150	6/1/2028	4,267,606	13,839	422,535	1,369	0	0	0	0	0	0	0	15,200	15,200	15,200	0	683,796,886	440		15,200	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.95	0%	2.95
2	13	7	151	7/1/2028	4,409,859	612	436,620	61	0	0	0	0	0	0	0	673	673	673	0	683,796,886	440		673	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.95	0%	2.95
2	13	8	152	8/1/2028	4,552,113	2,318	450,704	230	0	0	0	0	0	0	0	2,548	2,548	2,548	0	683,796,886	440		2,548	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.95	0%	2.95
2	13	9	153	9/1/2028	4,694,366	11,736	464,789	1,162	0	0	0	0	0	0	0	12,898	12,898	12,898	0	683,796,886	440		12,898	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.95	0%	2.95
2	13	10	154	10/1/2028	4,836,620	179,134	478,873	17,736	0	0	0	0	0	0	0	196,870	196,870	196,870	0	683,796,886	440		196,870	0	0.03	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.04	0.00	2.95	0%	2.95
2	13	11	155	11/1/2028	4,978,873	604,841	492,958	59,885	0	0	0	0	0	0	0	664,726	664,726	664,726	0	683,796,886	440		664,726	0	0.11	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.12	0.00	2.95	0%	2.95
2	13	12	156	12/1/2028	5,121,127	906,155	507,042	89,718	0	0	0	0	0	0	0	995,873	995,873	995,873	0	683,796,886	440		995,873	0	0.16	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.18	0.00	2.95	0%	2.95
2	14	1	157	1/1/2029	5,263,380	738,335	521,127	73,103	0	0	0	0	0	0	0	811,438	811,438	811,438	0	683,796,886	440		811,438	0	0.13	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.15	0.00	2.95	0%	2.95
2	14	2	158	2/1/2029	5,405,634	1,258,061	535,211	124,561	0	0	0	0	0	0	0	1,382,622	1,382,622	1,382,622	0	683,796,886	440		1,382,622	0	0.23	0.03	0.00	160.00	0.00	0.00	0.00	0.00	0.25	0.00	2.95	0%	2.95
2	14	3	159	3/1/2029	5,547,887	670,113	549,296	66,348	0	0	0	0	0	0	0	736,461	736,461	736,461	0	683,796,886	440		736,461	0	0.12	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.14	0.00	2.95	0%	2.95
2	14	4	160	4/1/2029	5,690,141	397,783	563,380	39,384	0	0	0	0	0	0	0	437,167	437,167	437,167	0	683,796,886	440		437,167	0	0.07	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.08	0.00	2.95	0%	2.95
2	14	5	161	5/1/2029	5,832,394	112,598	577,465	11,148	0	0	0	0	0	0	0	123,746	123,746	123,746	0	683,796,886	440		123,746	0	0.02	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.02	0.00	2.95	0%	2.95
2	14	6	162	6/1/2029	5,974,648	19,362	591,549	1,917	0	0	0	0	0	0	0	21,279	21,279	21,279	0	683,796,886	440		21,279	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.95	0%	2.95
2	14	7	163	7/1/2029	6,116,901	850	605,634	84	0	0	0	0	0	0	0	934	934	934	0	683,796,886	440		934	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.95	0%	2.95
2	14	8	164	8/1/2029	6,259,155	3,188	619,718	316	0	0	0	0	0	0	0	3,503	3,503	3,503	0	683,796,886	440		3,503	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.95	0%	2.95
2	14	9	165	9/1/2029	6,401,408	16,004	633,803	1,585	0	0	0	0	0	0	0	17,588	17,588	17,588	0	683,796,886	440		17,588	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.95	0%	2.95
2	14	10	166	10/1/2029	6,543,662	242,358	647,887	23,996	0	0	0	0	0	0	0	266,354	266,354	266,354	0	683,796,886	440		266,354	0	0.04	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.05	0.00	2.95	0%	2.95
2	14	11	167	11/1/2029	6,685,915	812,215	661,972	80,417	0	0	0	0	0	0	0	892,632	892,632	892,632	0	683,796,886	440		892,632	0	0.15	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.16	0.00	2.95	0%	2.95
2	14	12	168	12/1/2029	6,828,169	1,208,207	676,056	119,624	0	0	0	0	0	0	0	1,327,831	1,327,831	1,327,831	0	683,796,886	440		1,327,831	0	0.22	0.03	0.00	160.00	0.00	0.00	0.00	0.00	0.24	0.00	2.95	0%	2.95
2	15	1	169	1/1/2030	6,970,423	977,795	690,141	96,811	0	0	0	0	0	0	0	1,074,607	1,074,607	1,074,607	0	683,796,886	440		1,074,607	0	0.18	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.20	0.00	2.95	0%	2.95
2	15	2	170	2/1/2030	7,112,676	1,655,344	704,225	163,895	0	0	0	0	0	0	0	1,819,239	1,819,239	1,819,239	0	683,796,886	440		1,819,239	0	0.30	0.03	0.00	160.00	0.00	0.00	0.00	0.00	0.33	0.00	2.95	0%	2.95
2	15	3	171	3/1/2030	7,254,930	859,119	704,225	85,061	0	0	0	0	0	0	0	944,180	944,180	944,180	0	683,796,886	440		944,180	0	0.16	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.17	0.00	2.95	0%	2.95
2	15	4	171	4/1/2028	7,254,930	507,173	718,310	50,215	0	0	0	0	0	0	0	557,388	557,388	557,388	0	683,796,886	440		557,388	0	0.09	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.10	0.00	2.95	0%	2.95
2	15	5	172	5/1/2028	7,397,183	142,807	732,394	14,139	0	0	0	0	0	0	0	156,946	156,946	156,946	0	683,796,886	440		156,946	0	0.03	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.03	0.00	2.95	0%	2.95
2	15	6	173	6/1/2028	7,539,437	24,433	746,479	2,419	0	0	0	0	0	0	0	26,853	26,853	26,853	0	683,796,886	440		26,853	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.95	0%	2.95
2	15	7	174	7/1/2028	7,681,690	1,067	760,563	106	0	0	0	0	0	0	0	1,173	1,173	1,173	0	683,796,886	440		1,173	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.95	0%	2.95
2	15	8	175	8/1/2028	7,823,944	3,984	774,648	394	0	0	0	0	0	0	0	4,379	4,379	4,379	0	683,796,886	440		4,379	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.95	0%	2.95
2	15	9	176	9/1/2028	7,966,197	19,915	788,732	1,972	0	0	0	0	0	0	0	21,887	21,887	21,887	0	683,796,886	440		21,887	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.95	0%	2.95
2	15	10	177	10/1/2028	8,108,451	300,313	802,817	29,734	0	0	0	0	0	0	0	330,047	330,047	330,047	0	683,796,886	440		330,047	0	0.05	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.06	0.00	2.95	0%	2.95
2	15	11	178	11/1/2028	8,250,704	1,002,308	816,901	99,238	0	0	0	0	0	0	0	1,101,546	1,101,546	1,101,546	0	683,796,886	440		1,101,546	0	0.18	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.20	0.00	2.95	0%	2.95
2	15	12	179	12/1/2028	8,392,958	1,485,087	830,986	147,038	0	0	0	0	0	0	0	1,632,126	1,632,126	1,632,126	0	683,796,886	440		1,632,126	0	0.27	0.03	0.00	160.00	0.00	0.00	0.00	0.00	0.30	0.00	2.95	0%	2.95
2	16	1	180	1/1/2029	8,535,211	1,197,300	845,070	118,545	0	0	0	0	0	0	0	1,315,845	1,315,845	1,315,845	0	683,796,886	440		1,315,845	0	0.22	0.03	0.00	160.00	0.00	0.00	0.00	0.00	0.24	0.00	2.95	0%	2.95
2	16	2	181	2/1/2029	8,677,465	2,019,519	859,155	199,952	0	0	0	0	0	0	0	2,219,472	2,219,472	2,219,472	0	683,796,886	440		2,219,472	0	0.37	0.04	0.00	160.00	0.00	0.00	0.00	0.00	0.41	0.00	2.95	0%	2.95
2	16	3	182	3/1/2029	8,819,718	1,065,308	873,239	105,476	0	0	0	0	0	0	0	1,170,784	1,170,784	1,170,784	0	683,796,886	440		1,170,784	0	0.19	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.22	0.00	2.95	0%	2.95
2	16	4	183	4/1/2029	8,961,972	626,508	887,324	62,031	0	0	0	0	0	0	0	688,539	688,539	688,539	0	683,796,886	440		688,539	0	0.11	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.13	0.00	2.95	0%	2.95
2	16	5	184	5/1/2029	9,104,225	175,762	901,408	17,402	0	0	0	0	0	0	0	193,164	193,164	193,164	0	683,796,886	440		193,164	0	0.03	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.04	0.00	2.95	0%	2.95
2	16	6	185	6/1/2029	9,246,479	29,965	915,493	2,967	0	0	0	0	0	0	0	32,932	32,932	32,932	0	683,796,886	440		32,932	0	0.01	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.01	0.00	2.95	0%	2.95
2	16	7	186	7/1/2029	9,388,732	1,304	929,577	129	0	0	0	0	0	0	0	1,433	1,433	1,433	0	683,796,886	440		1,433	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.95	0%	2.95
2	16	8	187	8/1/2029	9,530,986	4,854	943,662	481	0	0	0	0	0	0	0	5,334	5,334	5,334	0	683,796,886	440		5,334	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.95	0%	2.95
2	16	9	188	9/1/2029	9,673,239	24,183	957,746	2,394	0	0	0	0	0	0	0	26,577	26,577	26,577	0	683,796,886	440		26,577	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.95	0%	2.95
2	16	10	189	10/1/2029	9,815,493	363,537	971,831	35,994	0	0	0	0	0	0	0	399,531	399,531	399,531	0	683,796,886	440		399,531	0	0.07	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.07	0.00	2.95	0%	2.95
2	16	11	190	11/1/2029	9,957,746	1,209,682	985,915	119,770	0	0	0	0	0	0	0	1,329,452	1,329,452	1,329,452	0	683,796,886	440		1,329,452	0	0.22	0.03	0.00	160.00	0.00	0.00	0.00	0.00	0.24	0.00	2.95	0%	2.95
2	**16**	**12**	**191**	**12/1/2029**	**10,100,000**	**1,787,139**	**1,000,000**	**176,944**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,964,083**	**1,964,083**	**1,964,083**	**0**	**683,796,886**	**440**		**1,964,083**	**0**	**0.32**	**0.04**	**0.00**	**160.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.36**	**0.00**	**2.95**	**0%**	**2.95**
3	17	1	192	1/1/2030	10,100,000	1,416,806	979,167	137,355	0	0	0	0	0	0	0	1,554,161	1,554,161	1,554,161	0	683,796,886	440		1,554,161	0	0.26	0.03	0.00	160.00	0.00	0.00	0.00	0.00	0.29	0.00	2.94	0%	2.94
3	17	2	193	2/1/2030	10,100,000	2,350,588	958,333	223,034	0	0	0	0	0	0	0	2,573,622	2,573,622	2,573,622	0	683,796,886	440		2,573,622	0	0.43	0.05	0.00	160.00	0.00	0.00	0.00	0.00	0.47	0.00	2.94	0%	2.94
3	17	3	194	3/1/2030	10,100,000	1,219,949	937,500	113,238	0	0	0	0	0	0	0	1,333,187	1,333,187	1,333,187	0	683,796,886	440		1,333,187	0	0.22	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.25	0.00	2.94	0%	2.94
3	17	4	195	4/1/2030	10,100,000	706,065	916,667	64,082	0	0	0	0	0	0	0	770,147	770,147	770,147	0	683,796,886	440		770,147	0	0.13	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.14	0.00	2.94	0%	2.94
3	17	5	196	5/1/2030	10,100,000	194,986	895,833	17,295	0	0	0	0	0	0	0	212,281	212,281	212,281	0	683,796,886	440		212,281	0	0.04	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.04	0.00	2.94	0%	2.94
3	17	6	197	6/1/2030	10,100,000	32,731	875,000	2,836	0	0	0	0	0	0	0	35,567	35,567	35,567	0	683,796,886	440		35,567	0	0.01	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.01	0.00	2.94	0%	2.94
3	17	7	198	7/1/2030	10,100,000	1,403	854,167	119	0	0	0	0	0	0	0	1,521	1,521	1,521	0	683,796,886	440		1,521	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.94	0%	2.94
3	17	8	199	8/1/2030	10,100,000	5,144	833,333	424	0	0	0	0	0	0	0	5,568	5,568	5,568	0	683,796,886	440		5,568	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.94	0%	2.94
3	17	9	200	9/1/2030	10,100,000	25,250	812,500	2,031	0	0	0	0	0	0	0	27,281	27,281	27,281	0	683,796,886	440		27,281	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.01	0.00	2.94	0%	2.94
3	17	10	201	10/1/2030	10,100,000	374,074	791,667	29,329	0	0	0	0	0	0	0	403,395	403,395	403,395	0	683,796,886	440		403,395	0	0.07	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.07	0.00	2.94	0%	2.94
3	17	11	202	11/1/2030	10,100,000	1,226,963	770,833	93,642	0	0	0	0	0	0	0	1,320,605	1,320,605	1,320,605	0	683,796,886	440		1,320,605	0	0.22	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.24	0.00	2.94	0%	2.94
3	17	12	203	12/1/2030	10,100,000	1,787,139	750,000	132,708	0	0	0	0	0	0	0	1,919,847	1,919,847	1,919,847	0	683,796,886	440		1,919,847	0	0.32	0.03	0.00	160.00	0.00	0.00	0.00	0.00	0.35	0.00	2.93	0%	2.93
3	18	1	204	1/1/2031	10,100,000	1,416,806	729,167	102,286	0	0	0	0	0	0	0	1,519,091	1,519,091	1,519,091	0	683,796,886	440		1,519,091	0	0.26	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.28	0.00	2.93	0%	2.93
3	18	2	205	2/1/2031	10,100,000	2,350,588	708,333	164,851	0	0	0	0	0	0	0	2,515,439	2,515,439	2,515,439	0	683,796,886	440		2,515,439	0	0.43	0.04	0.00	160.00	0.00	0.00	0.00	0.00	0.46	0.00	2.93	0%	2.93
3	18	3	206	3/1/2031	10,100,000	1,219,949	687,500	83,041	0	0	0	0	0	0	0	1,302,990	1,302,990	1,302,990	0	683,796,886	440		1,302,990	0	0.22	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.24	0.00	2.93	0%	2.93
3	18	4	207	4/1/2031	10,100,000	706,065	666,667	46,605	0	0	0	0	0	0	0	752,670	752,670	752,670	0	683,796,886	440		752,670	0	0.13	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.14	0.00	2.93	0%	2.93
3	18	5	208	5/1/2031	10,100,000	194,986	645,833	12,468	0	0	0	0	0	0	0	207,454	207,454	207,454	0	683,796,886	440		207,454	0	0.04	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.04	0.00	2.93	0%	2.93
3	18	6	209	6/1/2031	10,100,000	32,731	625,000	2,025	0	0	0	0	0	0	0	34,757	34,757	34,757	0	683,796,886	440		34,757	0	0.01	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.01	0.00	2.93	0%	2.93
3	18	7	210	7/1/2031	10,100,000	1,403	604,167	84	0	0	0	0	0	0	0	1,487	1,487	1,487	0	683,796,886	440		1,487	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.93	0%	2.93
3	18	8	211	8/1/2031	10,100,000	5,144	583,333	297	0	0	0	0	0	0	0	5,441	5,441	5,441	0	683,796,886	440		5,441	0	0.00

NA	27	6	293	6/1/2038	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.01	0.00	2.92	0%	2.92
NA	27	7	294	7/1/2038	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	27	8	295	8/1/2038	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	27	9	296	9/1/2038	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	27	10	297	10/1/2038	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.07	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.07	0.00	2.92	0%	2.92
NA	27	11	298	11/1/2038	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.22	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.24	0.00	2.92	0%	2.92
NA	27	12	299	12/1/2038	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.32	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.34	0.00	2.92	0%	2.92
NA	28	1	300	1/1/2039	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.26	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.27	0.00	2.92	0%	2.92
NA	28	2	301	2/1/2039	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.43	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.45	0.00	2.92	0%	2.92
NA	28	3	302	3/1/2039	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.22	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.23	0.00	2.92	0%	2.92
NA	28	4	303	4/1/2039	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.13	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.14	0.00	2.92	0%	2.92
NA	28	5	304	5/1/2039	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.04	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.04	0.00	2.92	0%	2.92
NA	28	6	305	6/1/2039	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.01	0.00	2.92	0%	2.92
NA	28	7	306	7/1/2039	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	28	8	307	8/1/2039	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	28	9	308	9/1/2039	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	28	10	309	10/1/2039	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.07	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.07	0.00	2.92	0%	2.92
NA	28	11	310	11/1/2039	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.22	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.24	0.00	2.92	0%	2.92
NA	28	12	311	12/1/2039	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.32	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.34	0.00	2.92	0%	2.92
NA	29	1	312	1/1/2040	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.26	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.27	0.00	2.92	0%	2.92
NA	29	2	313	2/1/2040	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.43	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.45	0.00	2.92	0%	2.92
NA	29	3	314	3/1/2040	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.22	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.23	0.00	2.92	0%	2.92
NA	29	4	315	4/1/2040	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.13	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.14	0.00	2.92	0%	2.92
NA	29	5	316	5/1/2040	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.04	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.04	0.00	2.92	0%	2.92
NA	29	6	317	6/1/2040	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.01	0.00	2.92	0%	2.92
NA	29	7	318	7/1/2040	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	29	8	319	8/1/2040	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	29	9	320	9/1/2040	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	29	10	321	10/1/2040	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.07	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.07	0.00	2.92	0%	2.92
NA	29	11	322	11/1/2040	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.22	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.24	0.00	2.92	0%	2.92
NA	29	12	323	12/1/2040	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.32	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.34	0.00	2.92	0%	2.92
NA	30	1	324	1/1/2041	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.26	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.27	0.00	2.92	0%	2.92
NA	30	2	325	2/1/2041	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.43	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.45	0.00	2.92	0%	2.92
NA	30	3	326	3/1/2041	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.22	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.23	0.00	2.92	0%	2.92
NA	30	4	327	4/1/2041	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.13	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.14	0.00	2.92	0%	2.92
NA	30	5	328	5/1/2041	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.04	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.04	0.00	2.92	0%	2.92
NA	30	6	329	6/1/2041	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.01	0.00	2.92	0%	2.92
NA	30	7	330	7/1/2041	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	30	8	331	8/1/2041	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	30	9	332	9/1/2041	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	30	10	333	10/1/2041	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.07	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.07	0.00	2.92	0%	2.92
NA	30	11	334	11/1/2041	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.22	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.24	0.00	2.92	0%	2.92
NA	30	12	335	12/1/2041	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.32	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.34	0.00	2.92	0%	2.92
NA	31	1	336	1/1/2042	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.26	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.27	0.00	2.92	0%	2.92
NA	31	2	337	2/1/2042	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.43	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.45	0.00	2.92	0%	2.92
NA	31	3	338	3/1/2042	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.22	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.23	0.00	2.92	0%	2.92
NA	31	4	339	4/1/2042	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.13	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.14	0.00	2.92	0%	2.92
NA	31	5	340	5/1/2042	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.04	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.04	0.00	2.92	0%	2.92
NA	31	6	341	6/1/2042	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.01	0.00	2.92	0%	2.92
NA	31	7	342	7/1/2042	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	31	8	343	8/1/2042	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	31	9	344	9/1/2042	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	31	10	345	10/1/2042	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.07	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.07	0.00	2.92	0%	2.92
NA	31	11	346	11/1/2042	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.22	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.24	0.00	2.92	0%	2.92
NA	31	12	347	12/1/2042	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.32	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.34	0.00	2.92	0%	2.92
NA	32	1	348	1/1/2043	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.26	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.27	0.00	2.92	0%	2.92
NA	32	2	349	2/1/2043	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.43	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.45	0.00	2.92	0%	2.92
NA	32	3	350	3/1/2043	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.22	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.23	0.00	2.92	0%	2.92
NA	32	4	351	4/1/2043	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.13	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.14	0.00	2.92	0%	2.92
NA	32	5	352	5/1/2043	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.04	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.04	0.00	2.92	0%	2.92
NA	32	6	353	6/1/2043	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.01	0.00	2.92	0%	2.92
NA	32	7	354	7/1/2043	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	32	8	355	8/1/2043	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	32	9	356	9/1/2043	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	32	10	357	10/1/2043	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.07	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.07	0.00	2.92	0%	2.92
NA	32	11	358	11/1/2043	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.22	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.24	0.00	2.92	0%	2.92
NA	32	12	359	12/1/2043	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.32	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.34	0.00	2.92	0%	2.92
NA	33	1	360	1/1/2044	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.26	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.27	0.00	2.92	0%	2.92
NA	33	2	361	2/1/2044	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.43	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.45	0.00	2.92	0%	2.92
NA	33	3	362	3/1/2044	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.22	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.23	0.00	2.92	0%	2.92
NA	33	4	363	4/1/2044	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.13	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.14	0.00	2.92	0%	2.92
NA	33	5	364	5/1/2044	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.04	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.04	0.00	2.92	0%	2.92
NA	33	6	365	6/1/2044	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.01	0.00	2.92	0%	2.92
NA	33	7	366	7/1/2044	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	33	8	367	8/1/2044	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	33	9	368	9/1/2044	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	33	10	369	10/1/2044	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.07	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.07	0.00	2.92	0%	2.92
NA	33	11	370	11/1/2044	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.22	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.24	0.00	2.92	0%	2.92
NA	33	12	371	12/1/2044	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.32	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.34	0.00	2.92	0%	2.92
NA	34	1	372	1/1/2045	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.26	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.27	0.00	2.92	0%	2.92
NA	34	2	373	2/1/2045	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.43	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.45	0.00	2.92	0%	2.92
NA	34	3	374	3/1/2045	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343

NA	42	9	476	9/1/2053	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	0	0	0	0	683,796,886	26,500	0	683,796,886	440	26,500	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	42	10	477	10/1/2053	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	0	0	0	0	683,796,886	392,593	0	683,796,886	440	392,593	0	0.07	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.07	0.00	2.92	0%	2.92
NA	42	11	478	11/1/2053	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	0	0	0	0	683,796,886	1,287,704	0	683,796,886	440	1,287,704	0	0.22	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.24	0.00	2.92	0%	2.92
NA	42	12	479	12/1/2053	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	0	0	0	0	683,796,886	1,875,611	0	683,796,886	440	1,875,611	0	0.32	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.34	0.00	2.92	0%	2.92
NA	43	1	480	1/1/2054	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	0	0	0	0	683,796,886	1,486,944	0	683,796,886	440	1,486,944	0	0.26	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.27	0.00	2.92	0%	2.92
NA	43	2	481	2/1/2054	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	0	0	0	0	683,796,886	2,466,954	0	683,796,886	440	2,466,954	0	0.43	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.45	0.00	2.92	0%	2.92
NA	43	3	482	3/1/2054	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	0	0	0	0	683,796,886	1,280,343	0	683,796,886	440	1,280,343	0	0.22	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.23	0.00	2.92	0%	2.92
NA	43	4	483	4/1/2054	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	0	0	0	0	683,796,886	741,019	0	683,796,886	440	741,019	0	0.13	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.14	0.00	2.92	0%	2.92
NA	43	5	484	5/1/2054	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	0	0	0	0	683,796,886	204,639	0	683,796,886	440	204,639	0	0.04	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.04	0.00	2.92	0%	2.92
NA	43	6	485	6/1/2054	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	0	0	0	0	683,796,886	34,352	0	683,796,886	440	34,352	0	0.01	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.01	0.00	2.92	0%	2.92
NA	43	7	486	7/1/2054	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	0	0	0	0	683,796,886	1,472	0	683,796,886	440	1,472	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	43	8	487	8/1/2054	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	0	0	0	0	683,796,886	5,398	0	683,796,886	440	5,398	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	43	9	488	9/1/2054	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	0	0	0	0	683,796,886	26,500	0	683,796,886	440	26,500	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	43	10	489	10/1/2054	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	0	0	0	0	683,796,886	392,593	0	683,796,886	440	392,593	0	0.07	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.07	0.00	2.92	0%	2.92
NA	43	11	490	11/1/2054	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	0	0	0	0	683,796,886	1,287,704	0	683,796,886	440	1,287,704	0	0.22	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.24	0.00	2.92	0%	2.92
NA	43	12	491	12/1/2054	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	0	0	0	0	683,796,886	1,875,611	0	683,796,886	440	1,875,611	0	0.32	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.34	0.00	2.92	0%	2.92
NA	44	1	492	1/1/2055	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	0	0	0	0	683,796,886	1,486,944	0	683,796,886	440	1,486,944	0	0.26	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.27	0.00	2.92	0%	2.92
NA	44	2	493	2/1/2055	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	0	0	0	0	683,796,886	2,466,954	0	683,796,886	440	2,466,954	0	0.43	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.45	0.00	2.92	0%	2.92
NA	44	3	494	3/1/2055	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	0	0	0	0	683,796,886	1,280,343	0	683,796,886	440	1,280,343	0	0.22	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.23	0.00	2.92	0%	2.92
NA	44	4	495	4/1/2055	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	0	0	0	0	683,796,886	741,019	0	683,796,886	440	741,019	0	0.13	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.14	0.00	2.92	0%	2.92
NA	44	5	496	5/1/2055	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	0	0	0	0	683,796,886	204,639	0	683,796,886	440	204,639	0	0.04	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.04	0.00	2.92	0%	2.92
NA	44	6	497	6/1/2055	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	0	0	0	0	683,796,886	34,352	0	683,796,886	440	34,352	0	0.01	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.01	0.00	2.92	0%	2.92
NA	44	7	498	7/1/2055	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	0	0	0	0	683,796,886	1,472	0	683,796,886	440	1,472	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	44	8	499	8/1/2055	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	0	0	0	0	683,796,886	5,398	0	683,796,886	440	5,398	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	44	9	500	9/1/2055	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	0	0	0	0	683,796,886	26,500	0	683,796,886	440	26,500	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	44	10	501	10/1/2055	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	0	0	0	0	683,796,886	392,593	0	683,796,886	440	392,593	0	0.07	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.07	0.00	2.92	0%	2.92
NA	44	11	502	11/1/2055	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	0	0	0	0	683,796,886	1,287,704	0	683,796,886	440	1,287,704	0	0.22	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.24	0.00	2.92	0%	2.92
NA	44	12	503	12/1/2055	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	0	0	0	0	683,796,886	1,875,611	0	683,796,886	440	1,875,611	0	0.32	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.34	0.00	2.92	0%	2.92
NA	45	1	504	1/1/2056	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	0	0	0	0	683,796,886	1,486,944	0	683,796,886	440	1,486,944	0	0.26	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.27	0.00	2.92	0%	2.92
NA	45	2	505	2/1/2056	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	0	0	0	0	683,796,886	2,466,954	0	683,796,886	440	2,466,954	0	0.43	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.45	0.00	2.92	0%	2.92
NA	45	3	506	3/1/2056	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	0	0	0	0	683,796,886	1,280,343	0	683,796,886	440	1,280,343	0	0.22	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.23	0.00	2.92	0%	2.92
NA	45	4	507	4/1/2056	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	0	0	0	0	683,796,886	741,019	0	683,796,886	440	741,019	0	0.13	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.14	0.00	2.92	0%	2.92
NA	45	5	508	5/1/2056	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	0	0	0	0	683,796,886	204,639	0	683,796,886	440	204,639	0	0.04	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.04	0.00	2.92	0%	2.92
NA	45	6	509	6/1/2056	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	0	0	0	0	683,796,886	34,352	0	683,796,886	440	34,352	0	0.01	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.01	0.00	2.92	0%	2.92
NA	45	7	510	7/1/2056	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	0	0	0	0	683,796,886	1,472	0	683,796,886	440	1,472	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	45	8	511	8/1/2056	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	0	0	0	0	683,796,886	5,398	0	683,796,886	440	5,398	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	45	9	512	9/1/2056	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	0	0	0	0	683,796,886	26,500	0	683,796,886	440	26,500	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	45	10	513	10/1/2056	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	0	0	0	0	683,796,886	392,593	0	683,796,886	440	392,593	0	0.07	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.07	0.00	2.92	0%	2.92
NA	45	11	514	11/1/2056	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	0	0	0	0	683,796,886	1,287,704	0	683,796,886	440	1,287,704	0	0.22	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.24	0.00	2.92	0%	2.92
NA	45	12	515	12/1/2056	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	0	0	0	0	683,796,886	1,875,611	0	683,796,886	440	1,875,611	0	0.32	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.34	0.00	2.92	0%	2.92
NA	46	1	516	1/1/2057	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	0	0	0	0	683,796,886	1,486,944	0	683,796,886	440	1,486,944	0	0.26	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.27	0.00	2.92	0%	2.92
NA	46	2	517	2/1/2057	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	0	0	0	0	683,796,886	2,466,954	0	683,796,886	440	2,466,954	0	0.43	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.45	0.00	2.92	0%	2.92
NA	46	3	518	3/1/2057	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	0	0	0	0	683,796,886	1,280,343	0	683,796,886	440	1,280,343	0	0.22	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.23	0.00	2.92	0%	2.92
NA	46	4	519	4/1/2057	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	0	0	0	0	683,796,886	741,019	0	683,796,886	440	741,019	0	0.13	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.14	0.00	2.92	0%	2.92
NA	46	5	520	5/1/2057	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	0	0	0	0	683,796,886	204,639	0	683,796,886	440	204,639	0	0.04	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.04	0.00	2.92	0%	2.92
NA	46	6	521	6/1/2057	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	0	0	0	0	683,796,886	34,352	0	683,796,886	440	34,352	0	0.01	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.01	0.00	2.92	0%	2.92
NA	46	7	522	7/1/2057	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	0	0	0	0	683,796,886	1,472	0	683,796,886	440	1,472	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	46	8	523	8/1/2057	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	0	0	0	0	683,796,886	5,398	0	683,796,886	440	5,398	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	46	9	524	9/1/2057	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	0	0	0	0	683,796,886	26,500	0	683,796,886	440	26,500	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	46	10	525	10/1/2057	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	0	0	0	0	683,796,886	392,593	0	683,796,886	440	392,593	0	0.07	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.07	0.00	2.92	0%	2.92
NA	46	11	526	11/1/2057	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	0	0	0	0	683,796,886	1,287,704	0	683,796,886	440	1,287,704	0	0.22	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.24	0.00	2.92	0%	2.92
NA	46	12	527	12/1/2057	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	0	0	0	0	683,796,886	1,875,611	0	683,796,886	440	1,875,611	0	0.32	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.34	0.00	2.92	0%	2.92
NA	47	1	528	1/1/2058	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	0	0	0	0	683,796,886	1,486,944	0	683,796,886	440	1,486,944	0	0.26	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.27	0.00	2.92	0%	2.92
NA	47	2	529	2/1/2058	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	0	0	0	0	683,796,886	2,466,954	0	683,796,886	440	2,466,954	0	0.43	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.45	0.00	2.92	0%	2.92
NA	47	3	530	3/1/2058	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	0	0	0	0	683,796,886	1,280,343	0	683,796,886	440	1,280,343	0	0.22	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.23	0.00	2.92	0%	2.92
NA	47	4	531	4/1/2058	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	0	0	0	0	683,796,886	741,019	0	683,796,886	440	741,019	0	0.13	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.14	0.00	2.92	0%	2.92
NA	47	5	532	5/1/2058	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	0	0	0	0	683,796,886	204,639	0	683,796,886	440	204,639	0	0.04	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.04	0.00	2.92	0%	2.92
NA	47	6	533	6/1/2058	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	0	0	0	0	683,796,886	34,352	0	683,796,886	440	34,352	0	0.01	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.01	0.00	2.92	0%	2.92
NA	47	7	534	7/1/2058	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	0	0	0	0	683,796,886	1,472	0	683,796,886	440	1,472	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	47	8	535	8/1/2058	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	0	0	0	0	683,796,886	5,398	0	683,796,886	440	5,398	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	47	9	536	9/1/2058	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	0	0	0	0	683,796,886	26,500	0	683,796,886	440	26,500	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	47	10	537	10/1/2058	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	0	0	0	0	683,796,886	392,593	0	683,796,886	440	392,593	0	0.07	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.07	0.00	2.92	0%	2.92
NA	47	11	538	11/1/2058	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	0	0	0	0	683,796,886	1,287,704	0	683,796,886	440	1,287,704	0	0.22	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.24	0.00	2.92	0%	2.92
NA	47	12	539	12/1/2058	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	0	0	0	0	683,796,886	1,875,611	0	683,796,886	440	1,875,611	0	0.32	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.34	0.00	2.92	0%	2.92
NA	48	1	540	1/1/2059	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	0	0	0	0	683,796,886	1,486,944	0	683,796,886	440	1,486,944	0	0.26	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.27	0.00	2.92	0%	2.92
NA	48	2	541	2/1/2059	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	0	0	0	0	683,796,886	2,466,954	0	683,796,886	440	2,466,954	0	0.43	0.02	0.00	160.00	0.00	0.00	0.00	0.00	0.45	0.00	2.92	0%	2.92
NA	48	3	542	3/1/2059	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	0	0	0	0	683,796,886	1,280,343	0	683,796,886	440	1,280,343	0	0.22	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.23	0.00	2.92	0%	2.92
NA	48	4	543	4/1/2059	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	0	0	0	0	683,796,886	741,019	0	683,796,886	440	741,019	0	0.13	0.01	0.00	160.00	0.00	0.00	0.00	0.00	0.14	0.00	2.92	0%	2.92
NA	48	5	544	5/1/2059	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	0	0	0	0	683,796,886	204,639	0	683,796,886	440	204,639	0	0.04	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.04	0.00	2.92	0%	2.92
NA	48	6	545	6/1/2059	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	0	0	0	0	683,796,886	34,352	0	683,796,886	440	34,352	0	0.01	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.01	0.00	2.92	0%	2.92
NA	48	7	546	7/1/2059	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	0	0	0	0	683,796,886	1,472	0	683,796,886	440	1,472	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	48	8	547	8/1/2059	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	0	0	0	0	683,796,886	5,398	0	683,796,886	440	5,398	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	48	9	548	9/1/2059	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	0	0	0	0	683,796,886	26,500	0	683,796,886	440	26,500	0	0.00	0.00	0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	0%	2.92
NA	48	10	549	10/1/2059	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	0	0	0	0	683,796,886	392,593	0	683,796,886	440	392,593	0	0.07	0.00	0.00	160.00	0.00	0.00	0.00	0.00

Inflows and Outflows	Parameters	Units	Value	Units	Description and Rationale				
Precipitation	Precipitation		1.85	ft/yr	Los Altos climate station, direct precip on waste rock backfill area is based on monthly precip data				
			Phases		0 - 10	11-16	16-20	20+	
			Initial		Mining	Backfilling	Revegetation	Long Term	
Quarry Backfilling Areas	**Surface Water Drainage to Pit**								
	Quarry Area (Greenstone/Greywacke)	sq feet				10,100,000	10,100,000	10,100,000	Based on drawing from Chang Consultants
		acres				232	232	232	Figure B.2
	Quarry Area (Limestone)	sq feet				1,000,000	500,000	500,000	
		acres				22	11	11	
	WMSA	sq feet							
		acres							
	Surface Infiltration to Pit (Through backfill)								
	Undrained Backfill (No Surface Outlet)	sq feet							
		acres							
	Drained Backfill (With Surface Outlet)	sq feet							
		acres							
	Total Drainage Area	acres			-	**254**	**243**	**243**	
	Spill Elevation		990.00	ft amsl	Based on mine plan				
	Bottom of Pit		440.00	ft amsl	Based on end of Phase 1 for South Quarry mine plan				
Groundwater Capture	Initial		371	gpm	MODFLOW model results for Phase 1, maximum excavation condition				
			2,181-181	cu ft/mo					
	At Spill Elevation		80	gpm	MODFLOW model results for ultimate condition				
			470,336	cu ft/mo					
Date Quarry Filling Starts		**1/1/2023**							
Assumptions	The pit is backfilled incrementally over a 10-year period, from 440 ft amsl to the spill-over elevation of 990 ft amsl								
	Backfill material has a porosity of 30-percent.								
	Surface runoff is only within the capture area of the pit and is based on water year 2009 data								
	Groundwater inflow into the pit varies by month and diminishes as the backfill increases.								
	Precipitation directly infiltrates to the water table within the area of the backfill.								
	Evaporation of the pit lake is only applied when the cumulative volume of water in the pit is greater than the cumulative volume of void spaces within the backfill (based on 30-percent porosity)								
	The water level in the pit is dependent on the total cumulative volume of the backfill up to the spill-over elevation.								

24.56679096 0.000199456

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2	12	3	135	3/1/2027	2,133,893	257,736	211,268	25,518	0	0	0	0	0	0	0	283,254	283,254	0	683,796,886	440		283,254	0	0.07	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.07	0.00	4.20	0%	4.20
2	12	4	136	4/1/2027	2,276,056	159,113	225,352	15,754	0	0	0	0	0	0	0	174,867	174,867	0	683,796,886	440		174,867	0	0.05	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.05	0.00	4.20	0%	4.20
2	12	5	137	5/1/2027	2,418,310	46,687	239,437	4,622	0	0	0	0	0	0	0	51,309	51,309	0	683,796,886	440		51,309	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.20	0%	4.20
2	12	6	138	6/1/2027	2,560,563	8,298	253,521	822	0	0	0	0	0	0	0	9,120	9,120	0	683,796,886	440		9,120	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.20	0%	4.20
2	12	7	139	7/1/2027	2,702,817	375	267,606	37	0	0	0	0	0	0	0	413	413	0	683,796,886	440		413	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.20	0%	4.20
2	12	8	140	8/1/2027	2,845,070	1,449	281,690	143	0	0	0	0	0	0	0	1,592	1,592	0	683,796,886	440		1,592	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.20	0%	4.20
2	12	9	141	9/1/2027	2,987,324	7,468	295,775	739	0	0	0	0	0	0	0	8,208	8,208	0	683,796,886	440		8,208	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.20	0%	4.20
2	12	10	142	10/1/2027	3,129,577	115,910	309,859	11,476	0	0	0	0	0	0	0	127,387	127,387	0	683,796,886	440		127,387	0	0.03	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.03	0.00	4.20	0%	4.20
2	12	11	143	11/1/2027	3,271,831	397,467	323,944	39,353	0	0	0	0	0	0	0	436,820	436,820	0	683,796,886	440		436,820	0	0.11	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.11	0.00	4.20	0%	4.20
2	12	12	144	12/1/2027	3,414,085	604,103	338,028	59,812	0	0	0	0	0	0	0	663,915	663,915	0	683,796,886	440		663,915	0	0.17	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.17	0.00	4.20	0%	4.20
2	13	1	145	1/1/2028	3,556,338	498,875	352,113	49,394	0	0	0	0	0	0	0	548,269	548,269	0	683,796,886	440		548,269	0	0.14	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.14	0.00	4.20	0%	4.20
2	13	2	146	2/1/2028	3,698,592	860,779	366,197	85,226	0	0	0	0	0	0	0	946,004	946,004	0	683,796,886	440		946,004	0	0.24	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.25	0.00	4.20	0%	4.20
2	13	3	147	3/1/2028	3,840,845	463,924	380,282	45,933	0	0	0	0	0	0	0	509,857	509,857	0	683,796,886	440		509,857	0	0.13	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.13	0.00	4.20	0%	4.20
2	13	4	148	4/1/2028	3,983,099	278,448	394,366	27,569	0	0	0	0	0	0	0	306,017	306,017	0	683,796,886	440		306,017	0	0.08	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.08	0.00	4.20	0%	4.20
2	13	5	149	5/1/2028	4,125,352	79,642	408,451	7,885	0	0	0	0	0	0	0	87,528	87,528	0	683,796,886	440		87,528	0	0.02	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.02	0.00	4.20	0%	4.20
2	13	6	150	6/1/2028	4,267,606	13,839	422,535	1,369	0	0	0	0	0	0	0	15,200	15,200	0	683,796,886	440		15,200	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.20	0%	4.20
2	13	7	151	7/1/2028	4,409,859	612	436,620	61	0	0	0	0	0	0	0	673	673	0	683,796,886	440		673	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.20	0%	4.20
2	13	8	152	8/1/2028	4,552,113	2,318	450,704	230	0	0	0	0	0	0	0	2,548	2,548	0	683,796,886	440		2,548	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.20	0%	4.20
2	13	9	153	9/1/2028	4,694,366	11,736	464,789	1,162	0	0	0	0	0	0	0	12,898	12,898	0	683,796,886	440		12,898	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.20	0%	4.20
2	13	10	154	10/1/2028	4,836,620	179,134	478,873	17,736	0	0	0	0	0	0	0	196,870	196,870	0	683,796,886	440		196,870	0	0.05	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.05	0.00	4.20	0%	4.20
2	13	11	155	11/1/2028	4,978,873	604,841	492,958	59,885	0	0	0	0	0	0	0	664,726	664,726	0	683,796,886	440		664,726	0	0.17	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.17	0.00	4.20	0%	4.20
2	13	12	156	12/1/2028	5,121,127	906,155	507,042	89,718	0	0	0	0	0	0	0	995,873	995,873	0	683,796,886	440		995,873	0	0.26	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.26	0.00	4.20	0%	4.20
2	14	1	157	1/1/2029	5,263,380	738,935	521,127	73,103	0	0	0	0	0	0	0	811,438	811,438	0	683,796,886	440		811,438	0	0.21	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.21	0.00	4.20	0%	4.20
2	14	2	158	2/1/2029	5,405,634	1,258,061	535,211	124,561	0	0	0	0	0	0	0	1,382,622	1,382,622	0	683,796,886	440		1,382,622	0	0.36	0.01	0.00	8.20	0.00	0.00	0.00	0.00	0.36	0.00	4.20	0%	4.20
2	14	3	159	3/1/2029	5,547,887	670,113	549,296	66,348	0	0	0	0	0	0	0	736,461	736,461	0	683,796,886	440		736,461	0	0.19	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.19	0.00	4.20	0%	4.20
2	14	4	160	4/1/2029	5,690,141	397,783	563,380	39,384	0	0	0	0	0	0	0	437,167	437,167	0	683,796,886	440		437,167	0	0.11	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.11	0.00	4.20	0%	4.20
2	14	5	161	5/1/2029	5,832,394	112,598	577,465	11,148	0	0	0	0	0	0	0	123,746	123,746	0	683,796,886	440		123,746	0	0.03	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.03	0.00	4.20	0%	4.20
2	14	6	162	6/1/2029	5,974,648	19,362	591,549	1,917	0	0	0	0	0	0	0	21,279	21,279	0	683,796,886	440		21,279	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.20	0%	4.20
2	14	7	163	7/1/2029	6,116,901	850	605,634	84	0	0	0	0	0	0	0	934	934	0	683,796,886	440		934	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.20	0%	4.20
2	14	8	164	8/1/2029	6,259,155	3,188	619,718	316	0	0	0	0	0	0	0	3,503	3,503	0	683,796,886	440		3,503	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.20	0%	4.20
2	14	9	165	9/1/2029	6,401,408	16,004	633,803	1,585	0	0	0	0	0	0	0	17,588	17,588	0	683,796,886	440		17,588	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.20	0%	4.20
2	14	10	166	10/1/2029	6,543,662	242,358	647,887	23,996	0	0	0	0	0	0	0	266,354	266,354	0	683,796,886	440		266,354	0	0.07	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.07	0.00	4.20	0%	4.20
2	14	11	167	11/1/2029	6,685,915	812,215	661,972	80,417	0	0	0	0	0	0	0	892,632	892,632	0	683,796,886	440		892,632	0	0.23	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.23	0.00	4.20	0%	4.20
2	14	12	168	12/1/2029	6,828,169	1,208,207	676,056	119,624	0	0	0	0	0	0	0	1,327,831	1,327,831	0	683,796,886	440		1,327,831	0	0.34	0.01	0.00	8.20	0.00	0.00	0.00	0.00	0.35	0.00	4.20	0%	4.20
2	15	1	169	1/1/2030	6,970,423	977,795	690,141	96,811	0	0	0	0	0	0	0	1,074,607	1,074,607	0	683,796,886	440		1,074,607	0	0.28	0.01	0.00	8.20	0.00	0.00	0.00	0.00	0.28	0.00	4.20	0%	4.20
2	15	2	170	2/1/2030	7,112,676	1,655,344	704,225	163,895	0	0	0	0	0	0	0	1,819,239	1,819,239	0	683,796,886	440		1,819,239	0	0.47	0.01	0.00	8.20	0.00	0.00	0.00	0.00	0.48	0.00	4.20	0%	4.20
2	15	3	171	3/1/2030	7,112,676	859,119	704,225	85,061	0	0	0	0	0	0	0	944,180	944,180	0	683,796,886	440		944,180	0	0.24	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.25	0.00	4.20	0%	4.20
2	15	4	171	4/1/2028	7,254,930	507,173	718,310	50,215	0	0	0	0	0	0	0	557,388	557,388	0	683,796,886	440		557,388	0	0.14	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.15	0.00	4.20	0%	4.20
2	15	5	172	5/1/2028	7,397,183	142,807	732,394	14,139	0	0	0	0	0	0	0	156,946	156,946	0	683,796,886	440		156,946	0	0.04	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.04	0.00	4.20	0%	4.20
2	15	6	173	6/1/2028	7,539,437	24,433	746,479	2,419	0	0	0	0	0	0	0	26,853	26,853	0	683,796,886	440		26,853	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.20	0%	4.20
2	15	7	174	7/1/2028	7,681,690	1,067	760,563	106	0	0	0	0	0	0	0	1,173	1,173	0	683,796,886	440		1,173	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.20	0%	4.20
2	15	8	175	8/1/2028	7,823,944	3,984	774,648	394	0	0	0	0	0	0	0	4,379	4,379	0	683,796,886	440		4,379	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.20	0%	4.20
2	15	9	176	9/1/2028	7,966,197	19,915	788,732	1,972	0	0	0	0	0	0	0	21,887	21,887	0	683,796,886	440		21,887	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.20	0%	4.20
2	15	10	177	10/1/2028	8,108,451	300,313	802,817	29,734	0	0	0	0	0	0	0	330,047	330,047	0	683,796,886	440		330,047	0	0.09	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.09	0.00	4.20	0%	4.20
2	15	11	178	11/1/2028	8,250,704	1,002,308	816,901	99,238	0	0	0	0	0	0	0	1,101,546	1,101,546	0	683,796,886	440		1,101,546	0	0.29	0.01	0.00	8.20	0.00	0.00	0.00	0.00	0.29	0.00	4.20	0%	4.20
2	15	12	179	12/1/2028	8,392,958	1,485,087	830,986	147,038	0	0	0	0	0	0	0	1,632,126	1,632,126	0	683,796,886	440		1,632,126	0	0.42	0.01	0.00	8.20	0.00	0.00	0.00	0.00	0.43	0.00	4.20	0%	4.20
2	16	1	180	1/1/2029	8,535,211	1,197,300	845,070	118,545	0	0	0	0	0	0	0	1,315,845	1,315,845	0	683,796,886	440		1,315,845	0	0.34	0.01	0.00	8.20	0.00	0.00	0.00	0.00	0.35	0.00	4.20	0%	4.20
2	16	2	181	2/1/2029	8,677,465	2,019,519	859,155	199,952	0	0	0	0	0	0	0	2,219,472	2,219,472	0	683,796,886	440		2,219,472	0	0.57	0.01	0.00	8.20	0.00	0.00	0.00	0.00	0.58	0.00	4.20	0%	4.20
2	16	3	182	3/1/2029	8,819,718	1,065,308	873,239	105,476	0	0	0	0	0	0	0	1,170,784	1,170,784	0	683,796,886	440		1,170,784	0	0.30	0.01	0.00	8.20	0.00	0.00	0.00	0.00	0.31	0.00	4.20	0%	4.20
2	16	4	183	4/1/2029	8,961,972	626,508	887,324	62,031	0	0	0	0	0	0	0	688,539	688,539	0	683,796,886	440		688,539	0	0.18	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.18	0.00	4.20	0%	4.20
2	16	5	184	5/1/2029	9,104,225	175,762	901,408	17,402	0	0	0	0	0	0	0	193,164	193,164	0	683,796,886	440		193,164	0	0.05	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.05	0.00	4.20	0%	4.20
2	16	6	185	6/1/2029	9,246,479	29,965	915,493	2,967	0	0	0	0	0	0	0	32,932	32,932	0	683,796,886	440		32,932	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.20	0%	4.20
2	16	7	186	7/1/2029	9,388,732	1,304	929,577	129	0	0	0	0	0	0	0	1,433	1,433	0	683,796,886	440		1,433	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.20	0%	4.20
2	16	8	187	8/1/2029	9,530,986	4,854	943,662	481	0	0	0	0	0	0	0	5,334	5,334	0	683,796,886	440		5,334	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.20	0%	4.20
2	16	9	188	9/1/2029	9,673,239	24,183	957,746	2,394	0	0	0	0	0	0	0	26,577	26,577	0	683,796,886	440		26,577	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.20	0%	4.20
2	16	10	189	10/1/2029	9,815,493	363,537	971,831	35,994	0	0	0	0	0	0	0	399,531	399,531	0	683,796,886	440		399,531	0	0.10	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.10	0.00	4.20	0%	4.20
2	16	11	190	11/1/2029	9,957,746	1,209,682	985,915	119,770	0	0	0	0	0	0	0	1,329,452	1,329,452	0	683,796,886	440		1,329,452	0	0.34	0.01	0.00	8.20	0.00	0.00	0.00	0.00	0.35	0.00	4.20	0%	4.20
2	**16**	**12**	191	**12/1/2029**	**10,100,000**	1,787,139	**1,000,000**	176,944	**0**	0	0	0	0	0	0	1,964,083	1,964,083	0	683,796,886	440		1,964,083	0	0.51	0.01	0.00	8.20	0.00	0.00	0.00	0.00	0.52	0.00	4.20	0%	4.20
3	17	1	192	1/1/2030	10,100,000	1,416,806	979,167	137,355	0	0	0	0	0	0	0	1,554,161	1,554,161	0	683,796,886	440		1,554,161	0	0.40	0.01	0.00	8.20	0.00	0.00	0.00	0.00	0.41	0.00	4.21	0%	4.21
3	17	2	193	2/1/2030	10,100,000	2,350,588	958,333	223,034	0	0	0	0	0	0	0	2,573,622	2,573,622	0	683,796,886	440		2,573,622	0	0.67	0.01	0.00	8.20	0.00	0.00	0.00	0.00	0.68	0.00	4.21	0%	4.21
3	17	3	194	3/1/2030	10,100,000	1,219,949	937,500	113,238	0	0	0	0	0	0	0	1,333,187	1,333,187	0	683,796,886	440		1,333,187	0	0.35	0.01	0.00	8.20	0.00	0.00	0.00	0.00	0.35	0.00	4.22	0%	4.22
3	17	4	195	4/1/2030	10,100,000	706,065	916,667	64,082	0	0	0	0	0	0	0	770,147	770,147	0	683,796,886	440		770,147	0	0.20	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.20	0.00	4.22	0%	4.22
3	17	5	196	5/1/2030	10,100,000	194,986	895,833	17,295	0	0	0	0	0	0	0	212,281	212,281	0	683,796,886	440		212,281	0	0.06	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.06	0.00	4.23	0%	4.23
3	17	6	197	6/1/2030	10,100,000	32,731	875,000	2,836	0	0	0	0	0	0	0	35,567	35,567	0	683,796,886	440		35,567	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.24	0%	4.24
3	17	7	198	7/1/2030	10,100,000	1,403	854,167	119	0	0	0	0	0	0	0	1,521	1,521	0	683,796,886	440		1,521	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.24	0%	4.24
3	17	8	199	8/1/2030	10,100,000	5,144	833,333	424	0	0	0	0	0	0	0	5,568	5,568	0	683,796,886	440		5,568	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.25	0%	4.25
3	17	9	200	9/1/2030	10,100,000	25,250	812,500	2,031	0	0	0	0	0	0	0	27,281	27,281	0	683,796,886	440		27,281	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.26	0%	4.26
3	17	10	201	10/1/2030	10,100,000	374,074	791,667	29,329	0	0	0	0	0	0	0	403,395	403,395	0	683,796,886	440		403,395	0	0.11	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.11	0.00	4.26	0%	4.26
3	17	11	202	11/1/2030	10,100,000	1,226,963	770,833	93,642	0	0	0	0	0	0	0	1,320,605	1,320,605	0	683,796,886	440		1,320,605	0	0.35	0.01	0.00	8.20	0.00	0.00	0.00	0.00	0.35	0.00	4.27	0%	4.27
3	17	12	203	12/1/2030	10,100,000	1,787,139	750,000	132,708	0	0	0	0	0	0	0	1,919,847	1,919,847	0	683,796,886	440		1,919,847	0	0.51	0.01	0.00	8.20	0.00	0.00	0.00	0.00	0.51	0.00	4.28	0%	4.28
3	18	1	204	1/1/2031	10,100,000	1,416,806	729,167	102,286	0	0	0	0	0	0	0	1,519,091	1,519,091	0	683,796,886	440		1,519,091	0	0.40	0.01	0.00	8.20	0.00	0.00	0.00	0.00	0.41	0.00	4.28	0%	4.28
3	18	2	205	2/1/2031	10,100,000	2,350,588	708,333	164,851	0	0	0	0	0	0	0	2,515,439	2,515,439	0	683,796,886	440		2,515,439	0	0.67	0.01	0.00	8.20	0.00	0.00	0.00	0.00	0.67	0.00	4.29	0%	4.29
3	18	3	206	3/1/2031	10,100,000	1,219,949	687,500	83,041	0	0	0	0	0	0	0	1,302,990	1,302,990	0	683,796,886	440		1,302,990	0	0.35	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.35	0.00	4.30	0%	4.30
3	18	4	207	4/1/2031	10,100,000	706,065	666,667	46,605	0	0	0	0	0	0	0	752,670	752,670	0	683,796,886	440		752,670	0	0.20	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.20	0.00	4.30	0%	4.30
3	18	5	208	5/1/2031	10,100,000	194,986	645,833	12,468	0	0	0	0	0	0	0	207,454	207,454	0	683,796,886	440		207,454	0	0.06	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.06	0.00	4.31	0%	4.31
3	18	6	209	6/1/2031	10,100,000	32,731	625,000	2,025	0	0	0	0	0	0	0	34,757	34,757	0	683,796,886	440		34,757	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.32	0%	4.32
3	18	7	210	7/1/2031	10,100,000	1,403	604,167	84	0	0	0	0	0	0	0	1,487	1,487	0	683,796,886	440		1,487	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.32	0%	4.32
3	18	8	211	8/1/2031	10,100,000	5,144	583,333	297	0	0	0	0	0	0	0	5,441	5,441	0	683,796,886	440		5,441	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.33	0%	4.33
3	18	9	212	9/1/2031	10,100,000	25,250	562,500	1,406	0	0	0	0	0	0	0	26,656	26,656	0	683,796,886	440		26,656	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.34	0%	4.34
3	18	10	213	10/1/2031	10,100,000	374,074	541,667	20,062	0	0	0	0	0	0	0	394,136	394,136	0	683,796,886	440		394,136	0	0.11	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.11	0.00	4.34	0%	4.34
3	18	11	214	11/1/2031	10,100,000	1,

NA	27	6	293	6/1/2038	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.36	0%	4.36
NA	27	7	294	7/1/2038	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.36	0%	4.36
NA	27	8	295	8/1/2038	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.36	0%	4.36
NA	27	9	296	9/1/2038	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.36	0%	4.36
NA	27	10	297	10/1/2038	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.11	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.11	0.00	4.36	0%	4.36
NA	27	11	298	11/1/2038	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.35	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.35	0.00	4.36	0%	4.36
NA	27	12	299	12/1/2038	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.51	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.51	0.00	4.36	0%	4.36
NA	28	1	300	1/1/2039	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.40	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.40	0.00	4.36	0%	4.36
NA	28	2	301	2/1/2039	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.67	0.01	0.00	8.20	0.00	0.00	0.00	0.00	0.67	0.00	4.36	0%	4.36
NA	28	3	302	3/1/2039	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.35	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.35	0.00	4.36	0%	4.36
NA	28	4	303	4/1/2039	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.20	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.20	0.00	4.36	0%	4.36
NA	28	5	304	5/1/2039	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.06	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.06	0.00	4.36	0%	4.36
NA	28	6	305	6/1/2039	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.36	0%	4.36
NA	28	7	306	7/1/2039	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.36	0%	4.36
NA	28	8	307	8/1/2039	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.36	0%	4.36
NA	28	9	308	9/1/2039	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.36	0%	4.36
NA	28	10	309	10/1/2039	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.11	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.11	0.00	4.36	0%	4.36
NA	28	11	310	11/1/2039	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.35	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.35	0.00	4.36	0%	4.36
NA	28	12	311	12/1/2039	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.51	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.51	0.00	4.36	0%	4.36
NA	29	1	312	1/1/2040	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.40	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.40	0.00	4.36	0%	4.36
NA	29	2	313	2/1/2040	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.67	0.01	0.00	8.20	0.00	0.00	0.00	0.00	0.67	0.00	4.36	0%	4.36
NA	29	3	314	3/1/2040	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.35	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.35	0.00	4.36	0%	4.36
NA	29	4	315	4/1/2040	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.20	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.20	0.00	4.36	0%	4.36
NA	29	5	316	5/1/2040	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.06	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.06	0.00	4.36	0%	4.36
NA	29	6	317	6/1/2040	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.36	0%	4.36
NA	29	7	318	7/1/2040	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.36	0%	4.36
NA	29	8	319	8/1/2040	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.36	0%	4.36
NA	29	9	320	9/1/2040	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.36	0%	4.36
NA	29	10	321	10/1/2040	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.11	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.11	0.00	4.36	0%	4.36
NA	29	11	322	11/1/2040	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.35	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.35	0.00	4.36	0%	4.36
NA	29	12	323	12/1/2040	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.51	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.51	0.00	4.36	0%	4.36
NA	30	1	324	1/1/2041	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.40	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.40	0.00	4.36	0%	4.36
NA	30	2	325	2/1/2041	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.67	0.01	0.00	8.20	0.00	0.00	0.00	0.00	0.67	0.00	4.36	0%	4.36
NA	30	3	326	3/1/2041	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.35	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.35	0.00	4.36	0%	4.36
NA	30	4	327	4/1/2041	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.20	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.20	0.00	4.36	0%	4.36
NA	30	5	328	5/1/2041	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.06	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.06	0.00	4.36	0%	4.36
NA	30	6	329	6/1/2041	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.36	0%	4.36
NA	30	7	330	7/1/2041	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.36	0%	4.36
NA	30	8	331	8/1/2041	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.36	0%	4.36
NA	30	9	332	9/1/2041	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.36	0%	4.36
NA	30	10	333	10/1/2041	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.11	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.11	0.00	4.36	0%	4.36
NA	30	11	334	11/1/2041	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.35	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.35	0.00	4.36	0%	4.36
NA	30	12	335	12/1/2041	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.51	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.51	0.00	4.36	0%	4.36
NA	31	1	336	1/1/2042	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.40	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.40	0.00	4.36	0%	4.36
NA	31	2	337	2/1/2042	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.67	0.01	0.00	8.20	0.00	0.00	0.00	0.00	0.67	0.00	4.36	0%	4.36
NA	31	3	338	3/1/2042	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.35	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.35	0.00	4.36	0%	4.36
NA	31	4	339	4/1/2042	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.20	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.20	0.00	4.36	0%	4.36
NA	31	5	340	5/1/2042	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.06	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.06	0.00	4.36	0%	4.36
NA	31	6	341	6/1/2042	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.36	0%	4.36
NA	31	7	342	7/1/2042	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.36	0%	4.36
NA	31	8	343	8/1/2042	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.36	0%	4.36
NA	31	9	344	9/1/2042	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.36	0%	4.36
NA	31	10	345	10/1/2042	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.11	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.11	0.00	4.36	0%	4.36
NA	31	11	346	11/1/2042	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.35	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.35	0.00	4.36	0%	4.36
NA	31	12	347	12/1/2042	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.51	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.51	0.00	4.36	0%	4.36
NA	32	1	348	1/1/2043	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.40	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.40	0.00	4.36	0%	4.36
NA	32	2	349	2/1/2043	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.67	0.01	0.00	8.20	0.00	0.00	0.00	0.00	0.67	0.00	4.36	0%	4.36
NA	32	3	350	3/1/2043	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.35	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.35	0.00	4.36	0%	4.36
NA	32	4	351	4/1/2043	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.20	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.20	0.00	4.36	0%	4.36
NA	32	5	352	5/1/2043	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.06	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.06	0.00	4.36	0%	4.36
NA	32	6	353	6/1/2043	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.36	0%	4.36
NA	32	7	354	7/1/2043	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.36	0%	4.36
NA	32	8	355	8/1/2043	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.36	0%	4.36
NA	32	9	356	9/1/2043	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.36	0%	4.36
NA	32	10	357	10/1/2043	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.11	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.11	0.00	4.36	0%	4.36
NA	32	11	358	11/1/2043	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.35	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.35	0.00	4.36	0%	4.36
NA	32	12	359	12/1/2043	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.51	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.51	0.00	4.36	0%	4.36
NA	33	1	360	1/1/2044	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.40	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.40	0.00	4.36	0%	4.36
NA	33	2	361	2/1/2044	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.67	0.01	0.00	8.20	0.00	0.00	0.00	0.00	0.67	0.00	4.36	0%	4.36
NA	33	3	362	3/1/2044	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.35	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.35	0.00	4.36	0%	4.36
NA	33	4	363	4/1/2044	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.20	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.20	0.00	4.36	0%	4.36
NA	33	5	364	5/1/2044	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.06	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.06	0.00	4.36	0%	4.36
NA	33	6	365	6/1/2044	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.36	0%	4.36
NA	33	7	366	7/1/2044	10,100,000	1,403	500,000	69	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.36	0%	4.36
NA	33	8	367	8/1/2044	10,100,000	5,144	500,000	255	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.36	0%	4.36
NA	33	9	368	9/1/2044	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.36	0%	4.36
NA	33	10	369	10/1/2044	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.11	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.11	0.00	4.36	0%	4.36
NA	33	11	370	11/1/2044	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.35	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.35	0.00	4.36	0%	4.36
NA	33	12	371	12/1/2044	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.51	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.51	0.00	4.36	0%	4.36
NA	34	1	372	1/1/2045	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.40	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.40	0.00	4.36	0%	4.36
NA	34	2	373	2/1/2045	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.67	0.01	0.00	8.20	0.00	0.00	0.00	0.00	0.67	0.00	4.36	0%	4.36
NA	34	3	374	3/1/2045	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343

NA	42	9	476	9/1/2053	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.36	0%	4.36
NA	42	10	477	10/1/2053	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.11	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.11	0.00	4.36	0%	4.36
NA	42	11	478	11/1/2053	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.35	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.35	0.00	4.36	0%	4.36
NA	42	12	479	12/1/2053	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.51	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.51	0.00	4.36	0%	4.36
NA	43	1	480	1/1/2054	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.40	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.40	0.00	4.36	0%	4.36
NA	43	2	481	2/1/2054	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.67	0.01	0.00	8.20	0.00	0.00	0.00	0.00	0.67	0.00	4.36	0%	4.36
NA	43	3	482	3/1/2054	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.35	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.35	0.00	4.36	0%	4.36
NA	43	4	483	4/1/2054	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.20	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.20	0.00	4.36	0%	4.36
NA	43	5	484	5/1/2054	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.06	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.06	0.00	4.36	0%	4.36
NA	43	6	485	6/1/2054	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.36	0%	4.36
NA	43	7	486	7/1/2054	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.36	0%	4.36
NA	43	8	487	8/1/2054	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.36	0%	4.36
NA	43	9	488	9/1/2054	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.36	0%	4.36
NA	43	10	489	10/1/2054	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.11	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.11	0.00	4.36	0%	4.36
NA	43	11	490	11/1/2054	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.35	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.35	0.00	4.36	0%	4.36
NA	43	12	491	12/1/2054	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.51	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.51	0.00	4.36	0%	4.36
NA	44	1	492	1/1/2055	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.40	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.40	0.00	4.36	0%	4.36
NA	44	2	493	2/1/2055	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.67	0.01	0.00	8.20	0.00	0.00	0.00	0.00	0.67	0.00	4.36	0%	4.36
NA	44	3	494	3/1/2055	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.35	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.35	0.00	4.36	0%	4.36
NA	44	4	495	4/1/2055	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.20	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.20	0.00	4.36	0%	4.36
NA	44	5	496	5/1/2055	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.06	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.06	0.00	4.36	0%	4.36
NA	44	6	497	6/1/2055	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.36	0%	4.36
NA	44	7	498	7/1/2055	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.36	0%	4.36
NA	44	8	499	8/1/2055	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.36	0%	4.36
NA	44	9	500	9/1/2055	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.36	0%	4.36
NA	44	10	501	10/1/2055	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.11	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.11	0.00	4.36	0%	4.36
NA	44	11	502	11/1/2055	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.35	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.35	0.00	4.36	0%	4.36
NA	44	12	503	12/1/2055	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.51	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.51	0.00	4.36	0%	4.36
NA	45	1	504	1/1/2056	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.40	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.40	0.00	4.36	0%	4.36
NA	45	2	505	2/1/2056	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.67	0.01	0.00	8.20	0.00	0.00	0.00	0.00	0.67	0.00	4.36	0%	4.36
NA	45	3	506	3/1/2056	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.35	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.35	0.00	4.36	0%	4.36
NA	45	4	507	4/1/2056	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.20	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.20	0.00	4.36	0%	4.36
NA	45	5	508	5/1/2056	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.06	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.06	0.00	4.36	0%	4.36
NA	45	6	509	6/1/2056	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.36	0%	4.36
NA	45	7	510	7/1/2056	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.36	0%	4.36
NA	45	8	511	8/1/2056	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.36	0%	4.36
NA	45	9	512	9/1/2056	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.36	0%	4.36
NA	45	10	513	10/1/2056	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.11	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.11	0.00	4.36	0%	4.36
NA	45	11	514	11/1/2056	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.35	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.35	0.00	4.36	0%	4.36
NA	45	12	515	12/1/2056	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.51	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.51	0.00	4.36	0%	4.36
NA	46	1	516	1/1/2057	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.40	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.40	0.00	4.36	0%	4.36
NA	46	2	517	2/1/2057	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.67	0.01	0.00	8.20	0.00	0.00	0.00	0.00	0.67	0.00	4.36	0%	4.36
NA	46	3	518	3/1/2057	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.35	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.35	0.00	4.36	0%	4.36
NA	46	4	519	4/1/2057	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.20	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.20	0.00	4.36	0%	4.36
NA	46	5	520	5/1/2057	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.06	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.06	0.00	4.36	0%	4.36
NA	46	6	521	6/1/2057	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.36	0%	4.36
NA	46	7	522	7/1/2057	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.36	0%	4.36
NA	46	8	523	8/1/2057	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.36	0%	4.36
NA	46	9	524	9/1/2057	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.36	0%	4.36
NA	46	10	525	10/1/2057	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.11	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.11	0.00	4.36	0%	4.36
NA	46	11	526	11/1/2057	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.35	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.35	0.00	4.36	0%	4.36
NA	46	12	527	12/1/2057	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.51	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.51	0.00	4.36	0%	4.36
NA	47	1	528	1/1/2058	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.40	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.40	0.00	4.36	0%	4.36
NA	47	2	529	2/1/2058	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.67	0.01	0.00	8.20	0.00	0.00	0.00	0.00	0.67	0.00	4.36	0%	4.36
NA	47	3	530	3/1/2058	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.35	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.35	0.00	4.36	0%	4.36
NA	47	4	531	4/1/2058	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.20	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.20	0.00	4.36	0%	4.36
NA	47	5	532	5/1/2058	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.06	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.06	0.00	4.36	0%	4.36
NA	47	6	533	6/1/2058	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.36	0%	4.36
NA	47	7	534	7/1/2058	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.36	0%	4.36
NA	47	8	535	8/1/2058	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.36	0%	4.36
NA	47	9	536	9/1/2058	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.36	0%	4.36
NA	47	10	537	10/1/2058	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.11	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.11	0.00	4.36	0%	4.36
NA	47	11	538	11/1/2058	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.35	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.35	0.00	4.36	0%	4.36
NA	47	12	539	12/1/2058	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.51	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.51	0.00	4.36	0%	4.36
NA	48	1	540	1/1/2059	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.40	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.40	0.00	4.36	0%	4.36
NA	48	2	541	2/1/2059	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.67	0.01	0.00	8.20	0.00	0.00	0.00	0.00	0.67	0.00	4.36	0%	4.36
NA	48	3	542	3/1/2059	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.35	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.35	0.00	4.36	0%	4.36
NA	48	4	543	4/1/2059	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.20	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.20	0.00	4.36	0%	4.36
NA	48	5	544	5/1/2059	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.06	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.06	0.00	4.36	0%	4.36
NA	48	6	545	6/1/2059	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.36	0%	4.36
NA	48	7	546	7/1/2059	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.36	0%	4.36
NA	48	8	547	8/1/2059	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	4.36	0%	4.36
NA	48	9	548	9/1/2059	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.01	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.01	0.00	4.36	0%	4.36
NA	48	10	549	10/1/2059	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.11	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.11	0.00	4.36	0%	4.36
NA	48	11	550	11/1/2059	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.35	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.35	0.00	4.36	0%	4.36
NA	48	12	551	12/1/2059	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.51	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.51	0.00	4.36	0%	4.36
NA	49	1	552	1/1/2060	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.40	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.40	0.00	4.36	0%	4.36
NA	49	2	553	2/1/2060	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.67	0.01	0.00	8.20	0.00	0.00	0.00	0.00	0.67	0.00	4.36	0%	4.36
NA	49	3	554	3/1/2060	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.35	0.00	0.00	8.20	0.00	0.00	0.00	0.00	0.35	0.00	4.36	0%	4.36
NA	49	4	555	4/1/2060	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.20	0.00	0.00	8.20	0.00	0.00

Inflows and Outflows	Parameters	Units	Value	Units	Description and Rationale				
Precipitation	Precipitation		1.85	ft/yr	Los Altos climate station, direct precip on wasterock backfill area is based on monthly precip data				
			Phases		0 - 10	11-16	16-20	20+	
			Initial		Mining	Backfilling	Revegetation	Long Term	
Quarry Backfilling Areas	**Surface Water Drainage to Pit**								
	Quarry Area (Greenstone/Greywacke)	sq feet				10,100,000	10,100,000	10,100,000	Based on drawing from Chang Consultants
		acres				232	232	232	Figure B.2
	Quarry Area (Limestone)	sq feet				1,000,000	500,000	500,000	
		acres				22	11	11	
	WMSA	sq feet							
		acres							
	Surface Infiltration to Pit (Through backfill)								
	Undrained Backfill (No Surface Outlet)	sq feet							
		acres							
	Drained Backfill (With Surface Outlet)	sq feet							
		acres							
	Total Drainage Area	acres			-	**254**	**243**	**243**	
	Spill Elevation		990.00	ft amsl	Based on mine plan				
	Bottom of Pit		440.00	ft amsl	Based on end of Phase 1 for South Quarry mine plan				
Groundwater Capture	Initial		371	gpm	MODFLOW model results for Phase 1, maximum excavation condition				
			2,181-181	cu ft/mo					
	At Spill Elevation		80	gpm	MODFLOW model results for ultimate condition				
			470,336	cu ft/mo					
Date Quarry Filling Starts		**1/1/2023**							
Assumptions	The pit is backfilled incrementally over a 10-year period, from 440 ft amsl to the spill-over elevation of 990 ft amsl								
	Backfill material has a porosity of 30-percent.								
	Surface runoff is only within the capture area of the pit and is based on water year 2009 data								
	Groundwater inflow into the pit varies by month and diminishes as the backfill increases.								
	Precipitation directly infiltrates to the water table within the area of the backfill.								
	Evaporation of the pit lake is only applied when the cumulative volume of water in the pit is greater than the cumulative volume of void spaces within the backfill (based on 30-percent porosity)								
	The water level in the pit is dependent on the total cumulative volume of the backfill up to the spill-over elevation.								

24.56679096 0.000199456

Source of Data	Surface Runoff			Groundwater Inflow		Infiltration		Precipitation				
	Nominal	N Quarry Water	WMSA Runoff	N Quarry Water	Maximum Groundwater Well Water	Nominal	Nominal					
	1.2	29.0	29	82	0.73	1	1	0 Se				
	Quarry Area Greenstone/Greywacke)	Quarry Area (Limestone)	WMSA	Groundwater Inflow (Zerod out, included in pit water budget)		Undrained Backfill (No Surface Outlet)	Drained Backfill (With Surface Outlet)	Pit Lake Precip	Runoff from Quarry Area	Cumulative Constituent in Pit	Runoff Water Concentration	Insitue Treatment
	lb/month	lb/month	lb/month	ug/L	lb/month	lb/month	lb/month	lb/month	lb/month	lb	ug/L	
	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%

2	12	3	135	3/1/2027	2,133,893	257,736	211,268	25,518	0	0	0	0	0	0	0	283,254	283,254	0	683,796,886	440		283,254	0	0.02	0.05	0.00	82.13	0.00	0.00	0.00	0.00	0.07	0.00	3.70	0%	3.70
2	12	4	136	4/1/2027	2,276,056	159,113	225,352	15,754	0	0	0	0	0	0	0	174,867	174,867	0	683,796,886	440		174,867	0	0.01	0.03	0.00	82.13	0.00	0.00	0.00	0.00	0.04	0.00	3.70	0%	3.70
2	12	5	137	5/1/2027	2,418,310	46,687	239,437	4,622	0	0	0	0	0	0	0	51,309	51,309	0	683,796,886	440		51,309	0	0.00	0.01	0.00	82.13	0.00	0.00	0.00	0.00	0.01	0.00	3.70	0%	3.70
2	12	6	138	6/1/2027	2,560,563	8,298	253,521	822	0	0	0	0	0	0	0	9,120	9,120	0	683,796,886	440		9,120	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	3.70	0%	3.70
2	12	7	139	7/1/2027	2,702,817	375	267,606	37	0	0	0	0	0	0	0	413	413	0	683,796,886	440		413	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	3.70	0%	3.70
2	12	8	140	8/1/2027	2,845,070	1,449	281,690	143	0	0	0	0	0	0	0	1,592	1,592	0	683,796,886	440		1,592	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	3.70	0%	3.70
2	12	9	141	9/1/2027	2,987,324	7,468	295,775	739	0	0	0	0	0	0	0	8,208	8,208	0	683,796,886	440		8,208	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	3.70	0%	3.70
2	12	10	142	10/1/2027	3,129,577	115,910	309,859	11,476	0	0	0	0	0	0	0	127,387	127,387	0	683,796,886	440		127,387	0	0.01	0.02	0.00	82.13	0.00	0.00	0.00	0.00	0.03	0.00	3.70	0%	3.70
2	12	11	143	11/1/2027	3,271,831	397,467	323,944	39,353	0	0	0	0	0	0	0	436,820	436,820	0	683,796,886	440		436,820	0	0.03	0.07	0.00	82.13	0.00	0.00	0.00	0.00	0.10	0.00	3.70	0%	3.70
2	12	12	144	12/1/2027	3,414,085	604,103	338,028	59,812	0	0	0	0	0	0	0	663,915	663,915	0	683,796,886	440		663,915	0	0.05	0.11	0.00	82.13	0.00	0.00	0.00	0.00	0.15	0.00	3.70	0%	3.70
2	13	1	145	1/1/2028	3,556,338	498,875	352,113	49,394	0	0	0	0	0	0	0	548,269	548,269	0	683,796,886	440		548,269	0	0.04	0.09	0.00	82.13	0.00	0.00	0.00	0.00	0.13	0.00	3.70	0%	3.70
2	13	2	146	2/1/2028	3,698,592	860,779	366,197	85,226	0	0	0	0	0	0	0	946,004	946,004	0	683,796,886	440		946,004	0	0.06	0.15	0.00	82.13	0.00	0.00	0.00	0.00	0.22	0.00	3.70	0%	3.70
2	13	3	147	3/1/2028	3,840,845	463,924	380,282	45,933	0	0	0	0	0	0	0	509,857	509,857	0	683,796,886	440		509,857	0	0.03	0.08	0.00	82.13	0.00	0.00	0.00	0.00	0.12	0.00	3.70	0%	3.70
2	13	4	148	4/1/2028	3,983,099	278,448	394,366	27,569	0	0	0	0	0	0	0	306,017	306,017	0	683,796,886	440		306,017	0	0.02	0.05	0.00	82.13	0.00	0.00	0.00	0.00	0.07	0.00	3.70	0%	3.70
2	13	5	149	5/1/2028	4,125,352	79,642	408,451	7,885	0	0	0	0	0	0	0	87,528	87,528	0	683,796,886	440		87,528	0	0.01	0.01	0.00	82.13	0.00	0.00	0.00	0.00	0.02	0.00	3.70	0%	3.70
2	13	6	150	6/1/2028	4,267,606	13,839	422,535	1,369	0	0	0	0	0	0	0	15,200	15,200	0	683,796,886	440		15,200	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	3.70	0%	3.70
2	13	7	151	7/1/2028	4,409,859	612	436,620	61	0	0	0	0	0	0	0	673	673	0	683,796,886	440		673	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	3.70	0%	3.70
2	13	8	152	8/1/2028	4,552,113	2,318	450,704	230	0	0	0	0	0	0	0	2,548	2,548	0	683,796,886	440		2,548	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	3.70	0%	3.70
2	13	9	153	9/1/2028	4,694,366	11,736	464,789	1,162	0	0	0	0	0	0	0	12,898	12,898	0	683,796,886	440		12,898	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	3.70	0%	3.70
2	13	10	154	10/1/2028	4,836,620	179,134	478,873	17,736	0	0	0	0	0	0	0	196,870	196,870	0	683,796,886	440		196,870	0	0.01	0.03	0.00	82.13	0.00	0.00	0.00	0.00	0.05	0.00	3.70	0%	3.70
2	13	11	155	11/1/2028	4,978,873	604,841	492,958	59,885	0	0	0	0	0	0	0	664,726	664,726	0	683,796,886	440		664,726	0	0.05	0.11	0.00	82.13	0.00	0.00	0.00	0.00	0.15	0.00	3.70	0%	3.70
2	13	12	156	12/1/2028	5,121,127	906,155	507,042	89,718	0	0	0	0	0	0	0	995,873	995,873	0	683,796,886	440		995,873	0	0.07	0.16	0.00	82.13	0.00	0.00	0.00	0.00	0.23	0.00	3.70	0%	3.70
2	14	1	157	1/1/2029	5,263,380	738,335	521,127	73,103	0	0	0	0	0	0	0	811,438	811,438	0	683,796,886	440		811,438	0	0.06	0.13	0.00	82.13	0.00	0.00	0.00	0.00	0.19	0.00	3.70	0%	3.70
2	14	2	158	2/1/2029	5,405,634	1,258,061	535,211	124,561	0	0	0	0	0	0	0	1,382,622	1,382,622	0	683,796,886	440		1,382,622	0	0.09	0.23	0.00	82.13	0.00	0.00	0.00	0.00	0.32	0.00	3.70	0%	3.70
2	14	3	159	3/1/2029	5,547,887	670,113	549,296	66,348	0	0	0	0	0	0	0	736,461	736,461	0	683,796,886	440		736,461	0	0.05	0.12	0.00	82.13	0.00	0.00	0.00	0.00	0.17	0.00	3.70	0%	3.70
2	14	4	160	4/1/2029	5,690,141	397,783	563,380	39,384	0	0	0	0	0	0	0	437,167	437,167	0	683,796,886	440		437,167	0	0.03	0.07	0.00	82.13	0.00	0.00	0.00	0.00	0.10	0.00	3.70	0%	3.70
2	14	5	161	5/1/2029	5,832,394	112,598	577,465	11,148	0	0	0	0	0	0	0	123,746	123,746	0	683,796,886	440		123,746	0	0.01	0.02	0.00	82.13	0.00	0.00	0.00	0.00	0.03	0.00	3.70	0%	3.70
2	14	6	162	6/1/2029	5,974,648	19,362	591,549	1,917	0	0	0	0	0	0	0	21,279	21,279	0	683,796,886	440		21,279	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	3.70	0%	3.70
2	14	7	163	7/1/2029	6,116,901	850	605,634	84	0	0	0	0	0	0	0	934	934	0	683,796,886	440		934	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	3.70	0%	3.70
2	14	8	164	8/1/2029	6,259,155	3,188	619,718	316	0	0	0	0	0	0	0	3,503	3,503	0	683,796,886	440		3,503	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	3.70	0%	3.70
2	14	9	165	9/1/2029	6,401,408	16,004	633,803	1,585	0	0	0	0	0	0	0	17,588	17,588	0	683,796,886	440		17,588	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	3.70	0%	3.70
2	14	10	166	10/1/2029	6,543,662	242,358	647,887	23,996	0	0	0	0	0	0	0	266,354	266,354	0	683,796,886	440		266,354	0	0.02	0.04	0.00	82.13	0.00	0.00	0.00	0.00	0.06	0.00	3.70	0%	3.70
2	14	11	167	11/1/2029	6,685,915	812,215	661,972	80,417	0	0	0	0	0	0	0	892,632	892,632	0	683,796,886	440		892,632	0	0.06	0.15	0.00	82.13	0.00	0.00	0.00	0.00	0.21	0.00	3.70	0%	3.70
2	14	12	168	12/1/2029	6,828,169	1,208,207	676,056	119,624	0	0	0	0	0	0	0	1,327,831	1,327,831	0	683,796,886	440		1,327,831	0	0.09	0.22	0.00	82.13	0.00	0.00	0.00	0.00	0.31	0.00	3.70	0%	3.70
2	15	1	169	1/1/2030	6,970,423	977,795	690,141	96,811	0	0	0	0	0	0	0	1,074,607	1,074,607	0	683,796,886	440		1,074,607	0	0.07	0.18	0.00	82.13	0.00	0.00	0.00	0.00	0.25	0.00	3.70	0%	3.70
2	15	2	170	2/1/2030	7,112,676	1,655,344	704,225	163,895	0	0	0	0	0	0	0	1,819,239	1,819,239	0	683,796,886	440		1,819,239	0	0.12	0.30	0.00	82.13	0.00	0.00	0.00	0.00	0.42	0.00	3.70	0%	3.70
2	15	3	171	3/1/2030	7,112,676	859,119	704,225	85,061	0	0	0	0	0	0	0	944,180	944,180	0	683,796,886	440		944,180	0	0.06	0.15	0.00	82.13	0.00	0.00	0.00	0.00	0.22	0.00	3.70	0%	3.70
2	15	4	171	4/1/2028	7,254,930	507,173	718,310	50,215	0	0	0	0	0	0	0	557,388	557,388	0	683,796,886	440		557,388	0	0.04	0.09	0.00	82.13	0.00	0.00	0.00	0.00	0.13	0.00	3.70	0%	3.70
2	15	5	172	5/1/2028	7,397,183	142,807	732,394	14,139	0	0	0	0	0	0	0	156,946	156,946	0	683,796,886	440		156,946	0	0.01	0.03	0.00	82.13	0.00	0.00	0.00	0.00	0.04	0.00	3.70	0%	3.70
2	15	6	173	6/1/2028	7,539,437	24,433	746,479	2,419	0	0	0	0	0	0	0	26,853	26,853	0	683,796,886	440		26,853	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.01	0.00	3.70	0%	3.70
2	15	7	174	7/1/2028	7,681,690	1,067	760,563	106	0	0	0	0	0	0	0	1,173	1,173	0	683,796,886	440		1,173	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	3.70	0%	3.70
2	15	8	175	8/1/2028	7,823,944	3,984	774,648	394	0	0	0	0	0	0	0	4,379	4,379	0	683,796,886	440		4,379	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	3.70	0%	3.70
2	15	9	176	9/1/2028	7,966,197	19,915	788,732	1,972	0	0	0	0	0	0	0	21,887	21,887	0	683,796,886	440		21,887	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.01	0.00	3.70	0%	3.70
2	15	10	177	10/1/2028	8,108,451	300,313	802,817	29,734	0	0	0	0	0	0	0	330,047	330,047	0	683,796,886	440		330,047	0	0.02	0.05	0.00	82.13	0.00	0.00	0.00	0.00	0.08	0.00	3.70	0%	3.70
2	15	11	178	11/1/2028	8,250,704	1,002,308	816,901	99,238	0	0	0	0	0	0	0	1,101,546	1,101,546	0	683,796,886	440		1,101,546	0	0.08	0.18	0.00	82.13	0.00	0.00	0.00	0.00	0.26	0.00	3.70	0%	3.70
2	15	12	179	12/1/2028	8,392,958	1,485,087	830,986	147,038	0	0	0	0	0	0	0	1,632,126	1,632,126	0	683,796,886	440		1,632,126	0	0.11	0.27	0.00	82.13	0.00	0.00	0.00	0.00	0.38	0.00	3.70	0%	3.70
2	16	1	180	1/1/2029	8,535,211	1,197,300	845,070	118,545	0	0	0	0	0	0	0	1,315,845	1,315,845	0	683,796,886	440		1,315,845	0	0.09	0.21	0.00	82.13	0.00	0.00	0.00	0.00	0.30	0.00	3.70	0%	3.70
2	16	2	181	2/1/2029	8,677,465	2,019,519	859,155	199,952	0	0	0	0	0	0	0	2,219,472	2,219,472	0	683,796,886	440		2,219,472	0	0.15	0.36	0.00	82.13	0.00	0.00	0.00	0.00	0.51	0.00	3.70	0%	3.70
2	16	3	182	3/1/2029	8,819,718	1,065,308	873,239	105,476	0	0	0	0	0	0	0	1,170,784	1,170,784	0	683,796,886	440		1,170,784	0	0.08	0.19	0.00	82.13	0.00	0.00	0.00	0.00	0.27	0.00	3.70	0%	3.70
2	16	4	183	4/1/2029	8,961,972	626,508	887,324	62,031	0	0	0	0	0	0	0	688,539	688,539	0	683,796,886	440		688,539	0	0.05	0.11	0.00	82.13	0.00	0.00	0.00	0.00	0.16	0.00	3.70	0%	3.70
2	16	5	184	5/1/2029	9,104,225	175,762	901,408	17,402	0	0	0	0	0	0	0	193,164	193,164	0	683,796,886	440		193,164	0	0.01	0.03	0.00	82.13	0.00	0.00	0.00	0.00	0.04	0.00	3.70	0%	3.70
2	16	6	185	6/1/2029	9,246,479	29,965	915,493	2,967	0	0	0	0	0	0	0	32,932	32,932	0	683,796,886	440		32,932	0	0.00	0.01	0.00	82.13	0.00	0.00	0.00	0.00	0.01	0.00	3.70	0%	3.70
2	16	7	186	7/1/2029	9,388,732	1,304	929,577	129	0	0	0	0	0	0	0	1,433	1,433	0	683,796,886	440		1,433	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	3.70	0%	3.70
2	16	8	187	8/1/2029	9,530,986	4,854	943,662	481	0	0	0	0	0	0	0	5,334	5,334	0	683,796,886	440		5,334	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	3.70	0%	3.70
2	16	9	188	9/1/2029	9,673,239	24,183	957,746	2,394	0	0	0	0	0	0	0	26,577	26,577	0	683,796,886	440		26,577	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.01	0.00	3.70	0%	3.70
2	16	10	189	10/1/2029	9,815,493	363,537	971,831	35,994	0	0	0	0	0	0	0	399,531	399,531	0	683,796,886	440		399,531	0	0.03	0.07	0.00	82.13	0.00	0.00	0.00	0.00	0.09	0.00	3.70	0%	3.70
2	16	11	190	11/1/2029	9,957,746	1,209,682	985,915	119,770	0	0	0	0	0	0	0	1,329,452	1,329,452	0	683,796,886	440		1,329,452	0	0.09	0.22	0.00	82.13	0.00	0.00	0.00	0.00	0.31	0.00	3.70	0%	3.70
2	**16**	**12**	191	**12/1/2029**	**10,100,000**	1,787,139	**1,000,000**	176,944	**0**	0	0	**0**	0	0	0	1,964,083	1,964,083	0	683,796,886	440		1,964,083	0	0.13	0.32	0.00	82.13	0.00	0.00	0.00	0.00	0.45	0.00	3.70	0%	3.70
3	**17**	**1**	192	1/1/2030	10,100,000	1,416,806	979,127	137,355	0	0	0	0	0	0	0	1,554,161	1,554,161	0	683,796,886	440		1,554,161	0	0.11	0.25	0.00	82.13	0.00	0.00	0.00	0.00	0.36	0.00	3.66	0%	3.66
3	17	2	193	2/1/2030	10,100,000	2,350,588	958,333	223,034	0	0	0	0	0	0	0	2,573,622	2,573,622	0	683,796,886	440		2,573,622	0	0.18	0.40	0.00	82.13	0.00	0.00	0.00	0.00	0.59	0.00	3.61	0%	3.61
3	17	3	194	3/1/2030	10,100,000	1,219,949	937,500	113,238	0	0	0	0	0	0	0	1,333,187	1,333,187	0	683,796,886	440		1,333,187	0	0.09	0.21	0.00	82.13	0.00	0.00	0.00	0.00	0.30	0.00	3.56	0%	3.56
3	17	4	195	4/1/2030	10,100,000	706,065	916,667	64,082	0	0	0	0	0	0	0	770,147	770,147	0	683,796,886	440		770,147	0	0.05	0.12	0.00	82.13	0.00	0.00	0.00	0.00	0.17	0.00	3.51	0%	3.51
3	17	5	196	5/1/2030	10,100,000	194,986	895,833	17,295	0	0	0	0	0	0	0	212,281	212,281	0	683,796,886	440		212,281	0	0.01	0.03	0.00	82.13	0.00	0.00	0.00	0.00	0.05	0.00	3.46	0%	3.46
3	17	6	197	6/1/2030	10,100,000	32,731	875,000	2,836	0	0	0	0	0	0	0	35,567	35,567	0	683,796,886	440		35,567	0	0.00	0.01	0.00	82.13	0.00	0.00	0.00	0.00	0.01	0.00	3.42	0%	3.42
3	17	7	198	7/1/2030	10,100,000	1,403	854,167	119	0	0	0	0	0	0	0	1,521	1,521	0	683,796,886	440		1,521	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	3.37	0%	3.37
3	17	8	199	8/1/2030	10,100,000	5,144	833,333	424	0	0	0	0	0	0	0	5,568	5,568	0	683,796,886	440		5,568	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	3.32	0%	3.32
3	17	9	200	9/1/2030	10,100,000	25,250	812,500	2,031	0	0	0	0	0	0	0	27,281	27,281	0	683,796,886	440		27,281	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.01	0.00	3.27	0%	3.27
3	17	10	201	10/1/2030	10,100,000	374,074	791,667	29,329	0	0	0	0	0	0	0	403,395	403,395	0	683,796,886	440		403,395	0	0.03	0.05	0.00	82.13	0.00	0.00	0.00	0.00	0.08	0.00	3.22	0%	3.22
3	17	11	202	11/1/2030	10,100,000	1,226,963	770,833	93,642	0	0	0	0	0	0	0	1,320,605	1,320,605	0	683,796,886	440		1,320,605	0	0.09	0.17	0.00	82.13	0.00	0.00	0.00	0.00	0.27	0.00	3.17	0%	3.17
3	17	12	203	12/1/2030	10,100,000	1,787,139	750,000	132,708	0	0	0	0	0	0	0	1,919,847	1,919,847	0	683,796,886	440		1,919,847	0	0.13	0.24	0.00	82.13	0.00	0.00	0.00	0.00	0.38	0.00	3.12	0%	3.12
3	18	1	204	1/1/2031	10,100,000	1,416,806	729,167	102,286	0	0	0	0	0	0	0	1,519,091	1,519,091	0	683,796,886	440		1,519,091	0	0.11	0.19	0.00	82.13	0.00	0.00	0.00	0.00	0.30	0.00	3.07	0%	3.07
3	18	2	205	2/1/2031	10,100,000	2,350,588	708,333	164,851	0	0	0	0	0	0	0	2,515,439	2,515,439	0	683,796,886	440		2,515,439	0	0.18	0.30	0.00	82.13	0.00	0.00	0.00	0.00	0.48	0.00	3.02	0%	3.02
3	18	3	206	3/1/2031	10,100,000	1,219,949	687,500	83,041	0	0	0	0	0	0	0	1,302,990	1,302,990	0	683,796,886	440		1,302,990	0	0.09	0.15	0.00	82.13	0.00	0.00	0.00	0.00	0.25	0.00	2.97	0%	2.97
3	18	4	207	4/1/2031	10,100,000	706,065	666,667	46,605	0	0	0	0	0	0	0	752,670	752,670	0	683,796,886	440		752,670	0	0.05	0.08	0.00	82.13	0.00	0.00	0.00	0.00	0.14	0.00	2.92	0%	2.92
3	18	5	208	5/1/2031	10,100,000	194,986	645,833	12,468	0	0	0	0	0	0	0	207,454	207,454	0	683,796,886	440		207,454	0	0.01	0.02	0.00	82.13	0.00	0.00	0.00	0.00	0.04	0.00	2.87	0%	2.87
3	18	6	209	6/1/2031	10,100,000	32,731	625,000	2,025	0	0	0	0	0	0	0	34,757	34,757	0	683,796,886	440		34,757	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.01	0.00	2.82	0%	2.82
3	18	7	210	7/1/2031	10,100,000	1,403	604,167	84	0	0	0	0	0	0	0	1,487	1,487	0	683,796,886	440		1,487	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.77	0%	2.77
3	18	8	211	8/1/2031	10,100,000	5,144	583,333	297	0	0	0	0	0	0	0	5,441	5,441	0	683,796,886	440		5,441	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.72	0%	2.72
3	18	9	212	9/1/2031	10,100,000	25,250	562,500	1,406	0	0	0	0	0	0	0	26,656	26,656	0	683,796,886	440		26,656	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.67	0%	2.67
3	18	10	213	10/1/2031	10,100,000	374,074	541,667	20,062	0	0	0	0	0	0	0	394,136	394,136	0	683,796,886	440		394,136	0	0.03	0.04	0.00	82.13	0.00	0.00	0.00	0.00	0.07	0.00	2.62	0%	2.62
3	18	11	214	11/1/2031	10,100,000	1,226,963	520

NA	27	6	293	6/1/2038	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.01	0.00	2.51	0%	2.51
NA	27	7	294	7/1/2038	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	27	8	295	8/1/2038	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	27	9	296	9/1/2038	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	27	10	297	10/1/2038	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.03	0.03	0.00	82.13	0.00	0.00	0.00	0.00	0.06	0.00	2.51	0%	2.51
NA	27	11	298	11/1/2038	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.09	0.11	0.00	82.13	0.00	0.00	0.00	0.00	0.20	0.00	2.51	0%	2.51
NA	27	12	299	12/1/2038	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.13	0.16	0.00	82.13	0.00	0.00	0.00	0.00	0.29	0.00	2.51	0%	2.51
NA	28	1	300	1/1/2039	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.11	0.13	0.00	82.13	0.00	0.00	0.00	0.00	0.23	0.00	2.51	0%	2.51
NA	28	2	301	2/1/2039	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.18	0.21	0.00	82.13	0.00	0.00	0.00	0.00	0.39	0.00	2.51	0%	2.51
NA	28	3	302	3/1/2039	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.09	0.11	0.00	82.13	0.00	0.00	0.00	0.00	0.20	0.00	2.51	0%	2.51
NA	28	4	303	4/1/2039	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.05	0.06	0.00	82.13	0.00	0.00	0.00	0.00	0.12	0.00	2.51	0%	2.51
NA	28	5	304	5/1/2039	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.01	0.02	0.00	82.13	0.00	0.00	0.00	0.00	0.03	0.00	2.51	0%	2.51
NA	28	6	305	6/1/2039	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.01	0.00	2.51	0%	2.51
NA	28	7	306	7/1/2039	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	28	8	307	8/1/2039	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	28	9	308	9/1/2039	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	28	10	309	10/1/2039	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.03	0.03	0.00	82.13	0.00	0.00	0.00	0.00	0.06	0.00	2.51	0%	2.51
NA	28	11	310	11/1/2039	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.09	0.11	0.00	82.13	0.00	0.00	0.00	0.00	0.20	0.00	2.51	0%	2.51
NA	28	12	311	12/1/2039	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.13	0.16	0.00	82.13	0.00	0.00	0.00	0.00	0.29	0.00	2.51	0%	2.51
NA	29	1	312	1/1/2040	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.11	0.13	0.00	82.13	0.00	0.00	0.00	0.00	0.23	0.00	2.51	0%	2.51
NA	29	2	313	2/1/2040	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.18	0.21	0.00	82.13	0.00	0.00	0.00	0.00	0.39	0.00	2.51	0%	2.51
NA	29	3	314	3/1/2040	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.09	0.11	0.00	82.13	0.00	0.00	0.00	0.00	0.20	0.00	2.51	0%	2.51
NA	29	4	315	4/1/2040	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.05	0.06	0.00	82.13	0.00	0.00	0.00	0.00	0.12	0.00	2.51	0%	2.51
NA	29	5	316	5/1/2040	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.01	0.02	0.00	82.13	0.00	0.00	0.00	0.00	0.03	0.00	2.51	0%	2.51
NA	29	6	317	6/1/2040	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.01	0.00	2.51	0%	2.51
NA	29	7	318	7/1/2040	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	29	8	319	8/1/2040	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	29	9	320	9/1/2040	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	29	10	321	10/1/2040	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.03	0.03	0.00	82.13	0.00	0.00	0.00	0.00	0.06	0.00	2.51	0%	2.51
NA	29	11	322	11/1/2040	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.09	0.11	0.00	82.13	0.00	0.00	0.00	0.00	0.20	0.00	2.51	0%	2.51
NA	29	12	323	12/1/2040	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.13	0.16	0.00	82.13	0.00	0.00	0.00	0.00	0.29	0.00	2.51	0%	2.51
NA	30	1	324	1/1/2041	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.11	0.13	0.00	82.13	0.00	0.00	0.00	0.00	0.23	0.00	2.51	0%	2.51
NA	30	2	325	2/1/2041	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.18	0.21	0.00	82.13	0.00	0.00	0.00	0.00	0.39	0.00	2.51	0%	2.51
NA	30	3	326	3/1/2041	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.09	0.11	0.00	82.13	0.00	0.00	0.00	0.00	0.20	0.00	2.51	0%	2.51
NA	30	4	327	4/1/2041	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.05	0.06	0.00	82.13	0.00	0.00	0.00	0.00	0.12	0.00	2.51	0%	2.51
NA	30	5	328	5/1/2041	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.01	0.02	0.00	82.13	0.00	0.00	0.00	0.00	0.03	0.00	2.51	0%	2.51
NA	30	6	329	6/1/2041	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.01	0.00	2.51	0%	2.51
NA	30	7	330	7/1/2041	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	30	8	331	8/1/2041	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	30	9	332	9/1/2041	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	30	10	333	10/1/2041	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.03	0.03	0.00	82.13	0.00	0.00	0.00	0.00	0.06	0.00	2.51	0%	2.51
NA	30	11	334	11/1/2041	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.09	0.11	0.00	82.13	0.00	0.00	0.00	0.00	0.20	0.00	2.51	0%	2.51
NA	30	12	335	12/1/2041	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.13	0.16	0.00	82.13	0.00	0.00	0.00	0.00	0.29	0.00	2.51	0%	2.51
NA	31	1	336	1/1/2042	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.11	0.13	0.00	82.13	0.00	0.00	0.00	0.00	0.23	0.00	2.51	0%	2.51
NA	31	2	337	2/1/2042	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.18	0.21	0.00	82.13	0.00	0.00	0.00	0.00	0.39	0.00	2.51	0%	2.51
NA	31	3	338	3/1/2042	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.09	0.11	0.00	82.13	0.00	0.00	0.00	0.00	0.20	0.00	2.51	0%	2.51
NA	31	4	339	4/1/2042	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.05	0.06	0.00	82.13	0.00	0.00	0.00	0.00	0.12	0.00	2.51	0%	2.51
NA	31	5	340	5/1/2042	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.01	0.02	0.00	82.13	0.00	0.00	0.00	0.00	0.03	0.00	2.51	0%	2.51
NA	31	6	341	6/1/2042	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.01	0.00	2.51	0%	2.51
NA	31	7	342	7/1/2042	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	31	8	343	8/1/2042	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	31	9	344	9/1/2042	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	31	10	345	10/1/2042	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.03	0.03	0.00	82.13	0.00	0.00	0.00	0.00	0.06	0.00	2.51	0%	2.51
NA	31	11	346	11/1/2042	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.09	0.11	0.00	82.13	0.00	0.00	0.00	0.00	0.20	0.00	2.51	0%	2.51
NA	31	12	347	12/1/2042	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.13	0.16	0.00	82.13	0.00	0.00	0.00	0.00	0.29	0.00	2.51	0%	2.51
NA	32	1	348	1/1/2043	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.11	0.13	0.00	82.13	0.00	0.00	0.00	0.00	0.23	0.00	2.51	0%	2.51
NA	32	2	349	2/1/2043	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.18	0.21	0.00	82.13	0.00	0.00	0.00	0.00	0.39	0.00	2.51	0%	2.51
NA	32	3	350	3/1/2043	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.09	0.11	0.00	82.13	0.00	0.00	0.00	0.00	0.20	0.00	2.51	0%	2.51
NA	32	4	351	4/1/2043	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.05	0.06	0.00	82.13	0.00	0.00	0.00	0.00	0.12	0.00	2.51	0%	2.51
NA	32	5	352	5/1/2043	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.01	0.02	0.00	82.13	0.00	0.00	0.00	0.00	0.03	0.00	2.51	0%	2.51
NA	32	6	353	6/1/2043	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.01	0.00	2.51	0%	2.51
NA	32	7	354	7/1/2043	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	32	8	355	8/1/2043	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	32	9	356	9/1/2043	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	32	10	357	10/1/2043	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.03	0.03	0.00	82.13	0.00	0.00	0.00	0.00	0.06	0.00	2.51	0%	2.51
NA	32	11	358	11/1/2043	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.09	0.11	0.00	82.13	0.00	0.00	0.00	0.00	0.20	0.00	2.51	0%	2.51
NA	32	12	359	12/1/2043	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.13	0.16	0.00	82.13	0.00	0.00	0.00	0.00	0.29	0.00	2.51	0%	2.51
NA	33	1	360	1/1/2044	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.11	0.13	0.00	82.13	0.00	0.00	0.00	0.00	0.23	0.00	2.51	0%	2.51
NA	33	2	361	2/1/2044	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	0.18	0.21	0.00	82.13	0.00	0.00	0.00	0.00	0.39	0.00	2.51	0%	2.51
NA	33	3	362	3/1/2044	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	0.09	0.11	0.00	82.13	0.00	0.00	0.00	0.00	0.20	0.00	2.51	0%	2.51
NA	33	4	363	4/1/2044	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.05	0.06	0.00	82.13	0.00	0.00	0.00	0.00	0.12	0.00	2.51	0%	2.51
NA	33	5	364	5/1/2044	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.01	0.02	0.00	82.13	0.00	0.00	0.00	0.00	0.03	0.00	2.51	0%	2.51
NA	33	6	365	6/1/2044	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.01	0.00	2.51	0%	2.51
NA	33	7	366	7/1/2044	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	33	8	367	8/1/2044	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	33	9	368	9/1/2044	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	33	10	369	10/1/2044	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.03	0.03	0.00	82.13	0.00	0.00	0.00	0.00	0.06	0.00	2.51	0%	2.51
NA	33	11	370	11/1/2044	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	0.09	0.11	0.00	82.13	0.00	0.00	0.00	0.00	0.20	0.00	2.51	0%	2.51
NA	33	12	371	12/1/2044	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	0.13	0.16	0.00	82.13	0.00	0.00	0.00	0.00	0.29	0.00	2.51	0%	2.51
NA	34	1	372	1/1/2045	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	0.11	0.13	0.00	82.13	0.00	0.00	0.00	0.00	0.23	0.00	2.51	0%	2.51

NA	42	9	476	9/1/2053	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440	26,500	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	42	10	477	10/1/2053	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440	392,593	0	0.03	0.03	0.00	82.13	0.00	0.00	0.00	0.00	0.06	0.00	2.51	0%	2.51
NA	42	11	478	11/1/2053	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440	1,287,704	0	0.09	0.11	0.00	82.13	0.00	0.00	0.00	0.00	0.20	0.00	2.51	0%	2.51
NA	42	12	479	12/1/2053	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440	1,875,611	0	0.13	0.16	0.00	82.13	0.00	0.00	0.00	0.00	0.29	0.00	2.51	0%	2.51
NA	43	1	480	1/1/2054	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440	1,486,944	0	0.11	0.13	0.00	82.13	0.00	0.00	0.00	0.00	0.23	0.00	2.51	0%	2.51
NA	43	2	481	2/1/2054	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440	2,466,954	0	0.18	0.21	0.00	82.13	0.00	0.00	0.00	0.00	0.39	0.00	2.51	0%	2.51
NA	43	3	482	3/1/2054	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440	1,280,343	0	0.09	0.11	0.00	82.13	0.00	0.00	0.00	0.00	0.20	0.00	2.51	0%	2.51
NA	43	4	483	4/1/2054	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440	741,019	0	0.05	0.06	0.00	82.13	0.00	0.00	0.00	0.00	0.12	0.00	2.51	0%	2.51
NA	43	5	484	5/1/2054	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440	204,639	0	0.01	0.02	0.00	82.13	0.00	0.00	0.00	0.00	0.03	0.00	2.51	0%	2.51
NA	43	6	485	6/1/2054	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440	34,352	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.01	0.00	2.51	0%	2.51
NA	43	7	486	7/1/2054	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440	1,472	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	43	8	487	8/1/2054	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440	5,398	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	43	9	488	9/1/2054	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440	26,500	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	43	10	489	10/1/2054	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440	392,593	0	0.03	0.03	0.00	82.13	0.00	0.00	0.00	0.00	0.06	0.00	2.51	0%	2.51
NA	43	11	490	11/1/2054	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440	1,287,704	0	0.09	0.11	0.00	82.13	0.00	0.00	0.00	0.00	0.20	0.00	2.51	0%	2.51
NA	43	12	491	12/1/2054	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440	1,875,611	0	0.13	0.16	0.00	82.13	0.00	0.00	0.00	0.00	0.29	0.00	2.51	0%	2.51
NA	44	1	492	1/1/2055	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440	1,486,944	0	0.11	0.13	0.00	82.13	0.00	0.00	0.00	0.00	0.23	0.00	2.51	0%	2.51
NA	44	2	493	2/1/2055	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440	2,466,954	0	0.18	0.21	0.00	82.13	0.00	0.00	0.00	0.00	0.39	0.00	2.51	0%	2.51
NA	44	3	494	3/1/2055	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440	1,280,343	0	0.09	0.11	0.00	82.13	0.00	0.00	0.00	0.00	0.20	0.00	2.51	0%	2.51
NA	44	4	495	4/1/2055	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440	741,019	0	0.05	0.06	0.00	82.13	0.00	0.00	0.00	0.00	0.12	0.00	2.51	0%	2.51
NA	44	5	496	5/1/2055	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440	204,639	0	0.01	0.02	0.00	82.13	0.00	0.00	0.00	0.00	0.03	0.00	2.51	0%	2.51
NA	44	6	497	6/1/2055	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440	34,352	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.01	0.00	2.51	0%	2.51
NA	44	7	498	7/1/2055	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440	1,472	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	44	8	499	8/1/2055	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440	5,398	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	44	9	500	9/1/2055	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440	26,500	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	44	10	501	10/1/2055	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440	392,593	0	0.03	0.03	0.00	82.13	0.00	0.00	0.00	0.00	0.06	0.00	2.51	0%	2.51
NA	44	11	502	11/1/2055	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440	1,287,704	0	0.09	0.11	0.00	82.13	0.00	0.00	0.00	0.00	0.20	0.00	2.51	0%	2.51
NA	44	12	503	12/1/2055	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440	1,875,611	0	0.13	0.16	0.00	82.13	0.00	0.00	0.00	0.00	0.29	0.00	2.51	0%	2.51
NA	45	1	504	1/1/2056	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440	1,486,944	0	0.11	0.13	0.00	82.13	0.00	0.00	0.00	0.00	0.23	0.00	2.51	0%	2.51
NA	45	2	505	2/1/2056	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440	2,466,954	0	0.18	0.21	0.00	82.13	0.00	0.00	0.00	0.00	0.39	0.00	2.51	0%	2.51
NA	45	3	506	3/1/2056	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440	1,280,343	0	0.09	0.11	0.00	82.13	0.00	0.00	0.00	0.00	0.20	0.00	2.51	0%	2.51
NA	45	4	507	4/1/2056	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440	741,019	0	0.05	0.06	0.00	82.13	0.00	0.00	0.00	0.00	0.12	0.00	2.51	0%	2.51
NA	45	5	508	5/1/2056	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440	204,639	0	0.01	0.02	0.00	82.13	0.00	0.00	0.00	0.00	0.03	0.00	2.51	0%	2.51
NA	45	6	509	6/1/2056	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440	34,352	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.01	0.00	2.51	0%	2.51
NA	45	7	510	7/1/2056	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440	1,472	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	45	8	511	8/1/2056	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440	5,398	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	45	9	512	9/1/2056	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440	26,500	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	45	10	513	10/1/2056	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440	392,593	0	0.03	0.03	0.00	82.13	0.00	0.00	0.00	0.00	0.06	0.00	2.51	0%	2.51
NA	45	11	514	11/1/2056	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440	1,287,704	0	0.09	0.11	0.00	82.13	0.00	0.00	0.00	0.00	0.20	0.00	2.51	0%	2.51
NA	45	12	515	12/1/2056	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440	1,875,611	0	0.13	0.16	0.00	82.13	0.00	0.00	0.00	0.00	0.29	0.00	2.51	0%	2.51
NA	46	1	516	1/1/2057	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440	1,486,944	0	0.11	0.13	0.00	82.13	0.00	0.00	0.00	0.00	0.23	0.00	2.51	0%	2.51
NA	46	2	517	2/1/2057	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440	2,466,954	0	0.18	0.21	0.00	82.13	0.00	0.00	0.00	0.00	0.39	0.00	2.51	0%	2.51
NA	46	3	518	3/1/2057	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440	1,280,343	0	0.09	0.11	0.00	82.13	0.00	0.00	0.00	0.00	0.20	0.00	2.51	0%	2.51
NA	46	4	519	4/1/2057	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440	741,019	0	0.05	0.06	0.00	82.13	0.00	0.00	0.00	0.00	0.12	0.00	2.51	0%	2.51
NA	46	5	520	5/1/2057	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440	204,639	0	0.01	0.02	0.00	82.13	0.00	0.00	0.00	0.00	0.03	0.00	2.51	0%	2.51
NA	46	6	521	6/1/2057	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440	34,352	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.01	0.00	2.51	0%	2.51
NA	46	7	522	7/1/2057	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440	1,472	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	46	8	523	8/1/2057	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440	5,398	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	46	9	524	9/1/2057	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440	26,500	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	46	10	525	10/1/2057	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440	392,593	0	0.03	0.03	0.00	82.13	0.00	0.00	0.00	0.00	0.06	0.00	2.51	0%	2.51
NA	46	11	526	11/1/2057	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440	1,287,704	0	0.09	0.11	0.00	82.13	0.00	0.00	0.00	0.00	0.20	0.00	2.51	0%	2.51
NA	46	12	527	12/1/2057	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440	1,875,611	0	0.13	0.16	0.00	82.13	0.00	0.00	0.00	0.00	0.29	0.00	2.51	0%	2.51
NA	47	1	528	1/1/2058	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440	1,486,944	0	0.11	0.13	0.00	82.13	0.00	0.00	0.00	0.00	0.23	0.00	2.51	0%	2.51
NA	47	2	529	2/1/2058	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440	2,466,954	0	0.18	0.21	0.00	82.13	0.00	0.00	0.00	0.00	0.39	0.00	2.51	0%	2.51
NA	47	3	530	3/1/2058	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440	1,280,343	0	0.09	0.11	0.00	82.13	0.00	0.00	0.00	0.00	0.20	0.00	2.51	0%	2.51
NA	47	4	531	4/1/2058	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440	741,019	0	0.05	0.06	0.00	82.13	0.00	0.00	0.00	0.00	0.12	0.00	2.51	0%	2.51
NA	47	5	532	5/1/2058	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440	204,639	0	0.01	0.02	0.00	82.13	0.00	0.00	0.00	0.00	0.03	0.00	2.51	0%	2.51
NA	47	6	533	6/1/2058	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440	34,352	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.01	0.00	2.51	0%	2.51
NA	47	7	534	7/1/2058	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440	1,472	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	47	8	535	8/1/2058	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440	5,398	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	47	9	536	9/1/2058	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440	26,500	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	47	10	537	10/1/2058	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440	392,593	0	0.03	0.03	0.00	82.13	0.00	0.00	0.00	0.00	0.06	0.00	2.51	0%	2.51
NA	47	11	538	11/1/2058	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440	1,287,704	0	0.09	0.11	0.00	82.13	0.00	0.00	0.00	0.00	0.20	0.00	2.51	0%	2.51
NA	47	12	539	12/1/2058	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440	1,875,611	0	0.13	0.16	0.00	82.13	0.00	0.00	0.00	0.00	0.29	0.00	2.51	0%	2.51
NA	48	1	540	1/1/2059	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440	1,486,944	0	0.11	0.13	0.00	82.13	0.00	0.00	0.00	0.00	0.23	0.00	2.51	0%	2.51
NA	48	2	541	2/1/2059	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440	2,466,954	0	0.18	0.21	0.00	82.13	0.00	0.00	0.00	0.00	0.39	0.00	2.51	0%	2.51
NA	48	3	542	3/1/2059	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440	1,280,343	0	0.09	0.11	0.00	82.13	0.00	0.00	0.00	0.00	0.20	0.00	2.51	0%	2.51
NA	48	4	543	4/1/2059	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440	741,019	0	0.05	0.06	0.00	82.13	0.00	0.00	0.00	0.00	0.12	0.00	2.51	0%	2.51
NA	48	5	544	5/1/2059	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440	204,639	0	0.01	0.02	0.00	82.13	0.00	0.00	0.00	0.00	0.03	0.00	2.51	0%	2.51
NA	48	6	545	6/1/2059	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440	34,352	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.01	0.00	2.51	0%	2.51
NA	48	7	546	7/1/2059	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440	1,472	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	48	8	547	8/1/2059	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440	5,398	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	48	9	548	9/1/2059	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440	26,500	0	0.00	0.00	0.00	82.13	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0%	2.51
NA	48	10	549	10/1/2059	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440	392,593	0	0.03	0.03	0.00	82.13	0.00	0.00	0.00	0.00	0.06	0.00	2.51	0%	2.51
NA	48	11	550	11/1/2059	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440	1,287,704	0	0.09	0.11	0.00	82.13	0.00	0.00	0.00	0.00	0.20	0.00	2.51	0%	2.51
NA	48	12	551	12/1/2059	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440	1,875,611	0	0.13	0.16	0.00	82.13	0.00	0.00	0.00	0.00	0.29	0.00	2.51	0%	2.51
NA	49	1	552	1/1/2060	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440	1,486,944	0	0.11	0.13	0.00	82.13	0.00	0.00	0.00	0.00	0.23	0.00	2.51	0%	2.51
NA	49	2	553	2/1/2060	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440	2,466,954	0	0.18	0.21	0.00	82.13	0.00	0.00	0.00	0.00	0.39	0.00	2.51	0%	2.51
NA	49	3	554	3/1/2060	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440	1,280,343	0	0.09	0.11	0.00	82.13	0.00	0.00	0.00	0.00	0.20	0.00	2.51	0%	2.51
NA	49	4	555	4/1/2060	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440	741,019	0	0.05	0.06	0.00	82.13	0.00	0.00	0.00	0.00	0.12	0.00	2.51	0%	2.51
NA	49	5	556	5/1/2060	10,100,000	194,986	500,000	9,653	0

Inflows and Outflows	Parameters	Units	Value	Units	Description and Rationale				
Precipitation	Precipitation		1.85	ft/yr	Los Altos climate station, direct precip on wasterock backfill area is based on monthly precip data				
			Phases		0 - 10	11-16	16-20	20+	
			Initial		Mining	Backfilling	Revegetation	Long Term	
Quarry Backfilling Areas	**Surface Water Drainage to Pit**								
	Quarry Area (Greenstone/Greywacke)	sq feet				10,100,000	10,100,000	10,100,000	Based on drawing from Chang Consultants
		acres				232	232	232	Figure B.2
	Quarry Area (Limestone)	sq feet				1,000,000	500,000	500,000	
		acres				22	11	11	
	WMSA	sq feet							
		acres							
	Surface Infiltration to Pit (Through backfill)								
	Undrained Backfill (No Surface Outlet)	sq feet							
		acres							
	Drained Backfill (With Surface Outlet)	sq feet							
		acres							
	Total Drainage Area	acres			-	**254**	**243**	**243**	
	Spill Elevation		990.00	ft amsl	Based on mine plan				
	Bottom of Pit		440.00	ft amsl	Based on end of Phase 1 for South Quarry mine plan				
Groundwater Capture	Initial		371	gpm	MODFLOW model results for Phase 1, maximum excavation condition				
			2,181-181	cu ft/mo					
	At Spill Elevation		80	gpm	MODFLOW model results for ultimate condition				
			470,336	cu ft/mo					
Date Quarry Filling Starts		**1/1/2023**							
Assumptions	The pit is backfilled incrementally over a 10-year period, from 440 ft amsl to the spill-over elevation of 990 ft amsl								
	Backfill material has a porosity of 30-percent.								
	Surface runoff is only within the capture area of the pit and is based on water year 2009 data								
	Groundwater inflow into the pit varies by month and diminishes as the backfill increases								
	Precipitation directly infiltrates to the water table within the area of the backfill.								
	Evaporation of the pit lake is only applied when the cumulative volume of water in the pit is greater than the cumulative volume of void spaces within the backfill (based on 30-percent porosity)								
	The water level in the pit is dependent on the total cumulative volume of the backfill up to the spill-over elevation.								

2.0	29.0	29	82	2	1	1	0	Se	Based Measured Pit Water Quality
1	30	1	1	1	1	1	-	Se	Based on test data only
33	5	1	2	2	3	3	-	As	Based Measured Pit Water Quality
		Concentrations	ug/L						

24.56679096 0.000199456

Phase	Year	Month	Total Months	Date	Quarry Area (Greenstone/Greywacke)	Quarry Area (Greenstone/Greywacke)	Quarry Area (Limestone)	Quarry Area (Limestone)	WMSA	WMSA	Groundwater Inflow (Zerod out, included in pit water budget)	Undrained Backfill (No Surface Outlet)	Undrained Backfill (No Surface Outlet)	Drained Backfill (With Surface Outlet)	Drained Backfill (With Surface Outlet)	Pit Lake Precip	Water Entering Pit Lake	Runoff from Quarry Area	Cumulative Water in Pit	Cumulative Volume Occupied by Water in Backfill	Cumulative Backfill Volume	Pit Water Level at End of Year	Pit Water Open Area at End of Year	Area for Surface Water Runoff for Next Year	First Cut Water Accumulation in Pit Lake	Available Water Storage in Pit (Zerod out)
					sq ft	cu ft	sq ft	cu ft	sq ft	cu ft	cu ft	sq ft	cu ft	sq ft	cu ft	cu ft	cu ft	cu ft	cu ft	cu ft	cu ft	ft	sq ft	sq ft	cu ft	cu ft
1	1	1	1	1/1/2018	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	440	NA	NA	0	0
1	1	2	2	2/1/2018	0	0	0	0	0	0	0	0	0	0	0		0	0	0	NA	0	440			0	0
1	1	3	3	3/1/2018	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	1	4	4	4/1/2018	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	1	5	5	5/1/2018	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	1	6	6	6/1/2018	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	1	7	7	7/1/2018	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	1	8	8	8/1/2018	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	1	9	9	9/1/2018	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	1	10	10	10/1/2018	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	1	11	11	11/1/2018	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	1	12	12	12/1/2018	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	2	1	13	1/1/2019	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	2	2	14	2/1/2019	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	2	3	15	3/1/2019	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	2	4	16	4/1/2019	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	2	5	17	5/1/2019	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	2	6	18	6/1/2019	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	2	7	19	7/1/2019	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	2	8	20	8/1/2019	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	2	9	21	9/1/2019	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	2	10	22	10/1/2019	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	2	11	23	11/1/2019	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	2	12	24	12/1/2019	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	3	1	25	1/1/2020	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	3	2	26	2/1/2020	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	3	3	27	3/1/2020	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	3	4	28	4/1/2020	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	3	5	29	5/1/2020	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	3	6	30	6/1/2020	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	3	7	31	7/1/2020	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	3	8	32	8/1/2020	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	3	9	33	9/1/2020	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	3	10	34	10/1/2020	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	3	11	35	11/1/2020	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	3	12	36	12/1/2020	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	4	1	37	1/1/2021	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	4	2	38	2/1/2021	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	4	3	39	3/1/2021	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	4	4	40	4/1/2021	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	4	5	41	5/1/2021	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	4	6	42	6/1/2021	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	4	7	43	7/1/2021	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	4	8	44	8/1/2021	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	4	9	45	9/1/2021	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	4	10	46	10/1/2021	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	4	11	47	11/1/2021	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	4	12	48	12/1/2021	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	440			0	0
1	5	1	49	1/1/2022	0	0	0	0	0	0	0	0	0	0	0		0	0	11,396,615		0	440			0	0
1	5	2	50	2/1/2022	0	0	0	0	0	0	0	0	0	0	0		0	0	22,793,230		0	440			0	0
1	5	3	51	3/1/2022	0	0	0	0	0	0	0	0	0	0	0		0	0	34,189,844		0	440			0	0
1	5	4	52	4/1/2022	0	0	0	0	0	0	0	0	0	0	0		0	0	45,586,459		0	440			0	0
1	5	5	53	5/1/2022	0	0	0	0	0	0	0	0	0	0	0		0	0	56,983,074		0	440			0	0
1	5	6	54	6/1/2022	0	0	0	0	0	0	0	0	0	0	0		0	0	68,379,689		0	440			0	0
1	5	7	55	7/1/2022	0	0	0	0	0	0	0	0	0	0	0		0	0	79,776,303		0	440			0	0
1	5	8	56	8/1/2022	0	0	0	0	0	0	0	0	0	0	0		0	0	91,172,918		0	440			0	0
1	5	9	57	9/1/2022	0	0	0	0	0	0	0	0	0	0	0		0	0	102,569,533		0	440			0	0
1	5	10	58	10/1/2022	0	0	0	0	0	0	0	0	0	0	0		0	0	113,966,148		0	440			0	0
1	5	11	59	11/1/2022	0	0	0	0	0	0	0	0	0	0	0		0	0	125,362,762		0	440			0	0
1	5	12	60	12/1/2022	0	0	0	0	0	0	0	0	0	0	0		0	0	136,759,377		0	440			0	0
1	6	1	61	1/1/2023	0	0	0	0	0	0	0	0	0	0	0		0	0	148,155,992		0	440			0	0
1	6	2	62	2/1/2023	0	0	0	0	0	0	0	0	0	0	0		0	0	159,552,607		0	440			0	0
1	6	3	63	3/1/2023	0	0	0	0	0	0	0	0	0	0	0		0	0	170,949,221		0	440			0	0
1	6	4	64	4/1/2023	0	0	0	0	0	0	0	0	0	0	0		0	0	182,345,836		0	440			0	0
1	6	5	65	5/1/2023	0	0	0	0	0	0	0	0	0	0	0		0	0	193,742,451		0	440			0	0
1	6	6	66	6/1/2023	0	0	0	0	0	0	0	0	0	0	0		0	0	205,139,066		0	440			0	0
1	6	7	67	7/1/2023	0	0	0	0	0	0	0	0	0	0	0		0	0	216,535,680		0	440			0	0
1	6	8	68	8/1/2023	0	0	0	0	0	0	0	0	0	0	0		0	0	227,932,295		0	440			0	0
1	6	9	69	9/1/2023	0	0	0	0	0	0	0	0	0	0	0		0	0	239,328,910		0	440			0	0
1	6	10	70	10/1/2023	0	0	0	0	0	0	0	0	0	0	0		0	0	250,725,525		0	440			0	0
1	6	11	71	11/1/2023	0	0	0	0	0	0	0	0	0	0	0		0	0	262,122,140		0	440			0	0
1	6	12	72	12/1/2023	0	0	0	0	0	0	0	0	0	0	0		0	0	273,518,754		0	440			0	0
1	7	1	73	1/1/2024	0	0	0	0	0	0	0	0	0	0	0		0	0	284,915,369		0	440			0	0
1	7	2	74	2/1/2024	0	0	0	0	0	0	0	0	0	0	0		0	0	296,311,984		0	440			0	0
1	7	3	75	3/1/2024	0	0	0	0	0	0	0	0	0	0	0		0	0	307,708,599		0	440			0	0
1	7	4	76	4/1/2024	0	0	0	0	0	0	0	0	0	0	0		0	0	319,105,213		0	440			0	0
1	7	5	77	5/1/2024	0	0	0	0	0	0	0	0	0	0	0		0	0	330,501,828		0	440			0	0
1	7	6	78	6/1/2024	0	0	0	0	0	0	0	0	0	0	0		0	0	341,898,443		0	440			0	0
1	7	7	79	7/1/2024	0	0	0	0	0	0	0	0	0	0	0		0	0	353,295,058		0	440			0	0
1	7	8	80	8/1/2024	0	0	0	0	0	0	0	0	0	0	0		0	0	364,691,672		0	440			0	0
1	7	9	81	9/1/2024	0	0	0	0	0	0	0	0	0	0	0		0	0	376,088,287		0	440			0	0
1	7	10	82	10/1/2024	0	0	0	0	0	0	0	0	0	0	0		0	0	387,484,902		0	440			0	0
1	7	11	83	11/1/2024	0	0	0	0	0	0	0	0	0	0	0		0	0	398,881,517		0	440			0	0
1	7	12	84	12/1/2024	0	0	0	0	0	0	0	0	0	0	0		0	0	410,278,131		0	440			0	0
1	8	1	85	1/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	421,674,746		0	440			0	0
1	8	2	86	2/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	433,071,361		0	440			0	0
1	8	3	87	3/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	444,467,976		0	440			0	0
1	8	4	88	4/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	455,864,590		0	440			0	0
1	8	5	89	5/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	467,261,205		0	440			0	0
1	8	6	90	6/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	478,657,820		0	440			0	0
1	8	7	91	7/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	490,054,435		0	440			0	0
1	8	8	92	8/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	501,451,049		0	440			0	0
1	8	9	93	9/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	512,847,664		0	440			0	0
1	8	10	94	10/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	524,244,279		0	440			0	0
1	8	11	95	11/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	535,640,894		0	440			0	0
1	8	12	96	12/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	547,037,509		0	440			0	0
1	9	1	97	1/1/2026	0	0	0	0	0	0	0	0	0	0	0		0	0	558,434,123		0	440			0	0
1	9	2	98	2/1/2026	0	0	0	0	0	0	0	0	0	0	0		0	0	296,311,984		0	440			0	0
1	9	3	99	3/1/2026	0	0	0	0	0	0	0	0	0	0	0		0	0	307,708,599		0	440			0	0
1	9	4	100	4/1/2026	0	0	0	0	0	0	0	0	0	0	0		0	0	319,105,213		0	440			0	0
1	9	5	101	5/1/2026	0	0	0	0	0	0	0	0	0	0	0		0	0	330,501,828		0	440			0	0
1	9	6	102	6/1/2026	0	0	0	0	0	0	0	0	0	0	0		0	0	341,898,443		0	440			0	0
1	9	7	103	7/1/2026	0	0	0	0	0	0	0	0	0	0	0		0	0	353,295,058		0	440			0	0
1	9	8	104	8/1/2026	0	0	0	0	0	0	0	0	0	0	0		0	0	364,691,672		0	440			0	0
1	9	9	105	9/1/2026	0	0	0	0	0	0	0	0	0	0	0		0	0	376,088,287		0	440			0	0
1	9	10	106	10/1/2026	0	0	0	0	0	0	0	0	0	0	0		0	0	387,484,902		0	440			0	0
1	9	11	107	11/1/2026	0	0	0	0	0	0	0	0	0	0	0		0	0	398,881,517		0	440			0	0
1	9	12	108	12/1/2026	0	0	0	0	0	0	0	0	0	0	0		0	0	410,278,131		0	440			0	0
1	10	1	109	1/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	421,674,746		0	440			0	0
1	10	2	110	2/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	433,071,361		0	440			0	0
1	10	3	111	3/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	444,467,976		0	440			0	0
1	10	4	112	4/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	455,864,590		0	440			0	0
1	10	5	113	5/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	467,261,205		0	440			0	0
1	10	6	114	6/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	478,657,820		0	440			0	0
1	10	7	115	7/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	490,054,435		0	440			0	0
1	10	8	116	8/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	501,451,049		0	440			0	0
1	10	9	117	9/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	512,847,664		0	440			0	0
1	10	10	118	10/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	524,244,279		0	440			0	0
1	10	11	119	11/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	535,640,894		0	440			0	0
1	10	12	120	12/1/2025	0	0	0	0	0	0	0	0	0	0	0		0	0	547,037,509		0	440			0	0
2	11	1	121	1/1/2026	142,254	19,955	14,085	1,976	0	0	0	0	0	0	0		21,931	21,931	558,434,123		0	440			21,931	0
2	11	2	122	2/1/2026	284,507	66,214	28,169	6,556	0	0	0	0	0	0	0		72,770	72,770	569,830,738		0	440			72,770	0
2	11	3	123	3/1/2026	426,761	51,547	42,254	5,104	0	0	0	0	0	0	0		56,651	56,651	581,227,353		0	440			56,651	0
2	11	4	124	4/1/2026	569,014	39,778	56,338	3,938	0	0	0	0	0	0	0		43,717	43,717	592,623,968		0	440			43,717	0
2	11	5	125	5/1/2026	711,268	13,731	70,423	1,360	0	0	0	0	0	0	0		15,091	15,091	604,020,582		0	440			15,091	0
2	11	6	126	6/1/2026	853,521	2,766	84,507	274	0	0	0	0	0	0	0		3,040	3,040	615,417,197		0	440			3,040	0
2	11	7	127	7/1/2026	995,775	138	98,592	14	0	0	0	0	0	0	0		152	152	626,813,812		0	440			152	0
2	11	8	128	8/1/2026	1,138,028	580	112,676	57	0	0	0	0	0	0	0		637	637	638,210,427		0	440			637	0
2	11	9	129	9/1/2026	1,280,282	3,201	126,761	317	0	0	0	0	0	0	0		3,518	3,518	649,607,041		0	440			3,518	0
2	11	10	130	10/1/2026	1,422,535	52,686	140,845	5,216	0	0	0	0	0	0	0		57,903	57,903	661,003,656		0	440			57,903	0
2	11	11	131	11/1/2026	1,564,789	190,093	154,930	18,821	0	0	0	0	0	0	0		208,914	208,914	672,400,271		0	440			208,914	0
2	11	12	132	12/1/2026	1,707,042	302,052	169,014	29,

2	12	3	135	3/1/2027	2,133,893	257,736	211,268	25,518	0	0	0	0	0	0	0	283,254	283,254	0	683,796,886	440		283,254	0	0.24	0.88	0.00	550.00	0.00	0.00	0.00	0.00	1.12	0.00	63.20	0%	63.20
2	12	4	136	4/1/2027	2,276,056	159,113	225,352	15,754	0	0	0	0	0	0	0	174,867	174,867	0	683,796,886	440		174,867	0	0.15	0.54	0.00	550.00	0.00	0.00	0.00	0.00	0.69	0.00	63.20	0%	63.20
2	12	5	137	5/1/2027	2,418,310	46,687	239,437	4,622	0	0	0	0	0	0	0	51,309	51,309	0	683,796,886	440		51,309	0	0.04	0.16	0.00	550.00	0.00	0.00	0.00	0.00	0.20	0.00	63.20	0%	63.20
2	12	6	138	6/1/2027	2,560,563	8,298	253,521	822	0	0	0	0	0	0	0	9,120	9,120	0	683,796,886	440		9,120	0	0.01	0.03	0.00	550.00	0.00	0.00	0.00	0.00	0.04	0.00	63.20	0%	63.20
2	12	7	139	7/1/2027	2,702,817	375	267,606	37	0	0	0	0	0	0	0	413	413	0	683,796,886	440		413	0	0.00	0.00	0.00	550.00	0.00	0.00	0.00	0.00	0.00	0.00	63.20	0%	63.20
2	12	8	140	8/1/2027	2,845,070	1,449	281,690	143	0	0	0	0	0	0	0	1,592	1,592	0	683,796,886	440		1,592	0	0.00	0.00	0.00	550.00	0.00	0.00	0.00	0.00	0.01	0.00	63.20	0%	63.20
2	12	9	141	9/1/2027	2,987,324	7,468	295,775	739	0	0	0	0	0	0	0	8,208	8,208	0	683,796,886	440		8,208	0	0.01	0.03	0.00	550.00	0.00	0.00	0.00	0.00	0.03	0.00	63.20	0%	63.20
2	12	10	142	10/1/2027	3,129,577	115,910	309,859	11,476	0	0	0	0	0	0	0	127,387	127,387	0	683,796,886	440		127,387	0	0.11	0.39	0.00	550.00	0.00	0.00	0.00	0.00	0.50	0.00	63.20	0%	63.20
2	12	11	143	11/1/2027	3,271,831	397,467	323,944	39,353	0	0	0	0	0	0	0	436,820	436,820	0	683,796,886	440		436,820	0	0.37	1.35	0.00	550.00	0.00	0.00	0.00	0.00	1.73	0.00	63.20	0%	63.20
2	12	12	144	12/1/2027	3,414,085	604,103	338,028	59,812	0	0	0	0	0	0	0	663,915	663,915	0	683,796,886	440		663,915	0	0.57	2.06	0.00	550.00	0.00	0.00	0.00	0.00	2.62	0.00	63.20	0%	63.20
2	13	1	145	1/1/2028	3,556,338	498,875	352,113	49,394	0	0	0	0	0	0	0	548,269	548,269	0	683,796,886	440		548,269	0	0.47	1.70	0.00	550.00	0.00	0.00	0.00	0.00	2.17	0.00	63.20	0%	63.20
2	13	2	146	2/1/2028	3,698,592	860,779	366,197	85,226	0	0	0	0	0	0	0	946,004	946,004	0	683,796,886	440		946,004	0	0.81	2.93	0.00	550.00	0.00	0.00	0.00	0.00	3.74	0.00	63.20	0%	63.20
2	13	3	147	3/1/2028	3,840,845	463,924	380,282	45,933	0	0	0	0	0	0	0	509,857	509,857	0	683,796,886	440		509,857	0	0.43	1.58	0.00	550.00	0.00	0.00	0.00	0.00	2.01	0.00	63.20	0%	63.20
2	13	4	148	4/1/2028	3,983,099	278,448	394,366	27,569	0	0	0	0	0	0	0	306,017	306,017	0	683,796,886	440		306,017	0	0.26	0.95	0.00	550.00	0.00	0.00	0.00	0.00	1.21	0.00	63.20	0%	63.20
2	13	5	149	5/1/2028	4,125,352	79,642	408,451	7,885	0	0	0	0	0	0	0	87,528	87,528	0	683,796,886	440		87,528	0	0.07	0.27	0.00	550.00	0.00	0.00	0.00	0.00	0.35	0.00	63.20	0%	63.20
2	13	6	150	6/1/2028	4,267,606	12,839	422,535	1,369	0	0	0	0	0	0	0	15,200	15,200	0	683,796,886	440		15,200	0	0.01	0.05	0.00	550.00	0.00	0.00	0.00	0.00	0.06	0.00	63.20	0%	63.20
2	13	7	151	7/1/2028	4,409,859	612	436,620	61	0	0	0	0	0	0	0	673	673	0	683,796,886	440		673	0	0.00	0.00	0.00	550.00	0.00	0.00	0.00	0.00	0.00	0.00	63.20	0%	63.20
2	13	8	152	8/1/2028	4,552,113	2,318	450,704	230	0	0	0	0	0	0	0	2,548	2,548	0	683,796,886	440		2,548	0	0.00	0.01	0.00	550.00	0.00	0.00	0.00	0.00	0.01	0.00	63.20	0%	63.20
2	13	9	153	9/1/2028	4,694,366	11,736	464,789	1,162	0	0	0	0	0	0	0	12,898	12,898	0	683,796,886	440		12,898	0	0.01	0.04	0.00	550.00	0.00	0.00	0.00	0.00	0.05	0.00	63.20	0%	63.20
2	13	10	154	10/1/2028	4,836,620	179,134	478,873	17,736	0	0	0	0	0	0	0	196,870	196,870	0	683,796,886	440		196,870	0	0.17	0.61	0.00	550.00	0.00	0.00	0.00	0.00	0.78	0.00	63.20	0%	63.20
2	13	11	155	11/1/2028	4,978,873	604,841	492,958	59,885	0	0	0	0	0	0	0	664,726	664,726	0	683,796,886	440		664,726	0	0.57	2.06	0.00	550.00	0.00	0.00	0.00	0.00	2.63	0.00	63.20	0%	63.20
2	13	12	156	12/1/2028	5,121,127	906,155	507,042	89,718	0	0	0	0	0	0	0	995,873	995,873	0	683,796,886	440		995,873	0	0.85	3.08	0.00	550.00	0.00	0.00	0.00	0.00	3.93	0.00	63.20	0%	63.20
2	14	1	157	1/1/2029	5,263,380	738,335	521,127	73,103	0	0	0	0	0	0	0	811,438	811,438	0	683,796,886	440		811,438	0	0.69	2.51	0.00	550.00	0.00	0.00	0.00	0.00	3.21	0.00	63.20	0%	63.20
2	14	2	158	2/1/2029	5,405,634	1,258,061	535,211	124,561	0	0	0	0	0	0	0	1,382,622	1,382,622	0	683,796,886	440		1,382,622	0	1.18	4.28	0.00	550.00	0.00	0.00	0.00	0.00	5.46	0.00	63.20	0%	63.20
2	14	3	159	3/1/2029	5,547,887	670,113	549,296	66,348	0	0	0	0	0	0	0	736,461	736,461	0	683,796,886	440		736,461	0	0.63	2.28	0.00	550.00	0.00	0.00	0.00	0.00	2.91	0.00	63.20	0%	63.20
2	14	4	160	4/1/2029	5,690,141	397,783	563,380	39,384	0	0	0	0	0	0	0	437,167	437,167	0	683,796,886	440		437,167	0	0.37	1.35	0.00	550.00	0.00	0.00	0.00	0.00	1.73	0.00	63.20	0%	63.20
2	14	5	161	5/1/2029	5,832,394	112,598	577,465	11,148	0	0	0	0	0	0	0	123,746	123,746	0	683,796,886	440		123,746	0	0.11	0.38	0.00	550.00	0.00	0.00	0.00	0.00	0.49	0.00	63.20	0%	63.20
2	14	6	162	6/1/2029	5,974,648	19,362	591,549	1,917	0	0	0	0	0	0	0	21,279	21,279	0	683,796,886	440		21,279	0	0.02	0.07	0.00	550.00	0.00	0.00	0.00	0.00	0.08	0.00	63.20	0%	63.20
2	14	7	163	7/1/2029	6,116,901	850	605,634	84	0	0	0	0	0	0	0	934	934	0	683,796,886	440		934	0	0.00	0.00	0.00	550.00	0.00	0.00	0.00	0.00	0.00	0.00	63.20	0%	63.20
2	14	8	164	8/1/2029	6,259,155	3,188	619,718	316	0	0	0	0	0	0	0	3,503	3,503	0	683,796,886	440		3,503	0	0.00	0.01	0.00	550.00	0.00	0.00	0.00	0.00	0.01	0.00	63.20	0%	63.20
2	14	9	165	9/1/2029	6,401,408	16,004	633,803	1,585	0	0	0	0	0	0	0	17,588	17,588	0	683,796,886	440		17,588	0	0.02	0.05	0.00	550.00	0.00	0.00	0.00	0.00	0.07	0.00	63.20	0%	63.20
2	14	10	166	10/1/2029	6,543,662	242,358	647,887	23,996	0	0	0	0	0	0	0	266,354	266,354	0	683,796,886	440		266,354	0	0.23	0.82	0.00	550.00	0.00	0.00	0.00	0.00	1.05	0.00	63.20	0%	63.20
2	14	11	167	11/1/2029	6,685,915	812,215	661,972	80,417	0	0	0	0	0	0	0	892,632	892,632	0	683,796,886	440		892,632	0	0.76	2.76	0.00	550.00	0.00	0.00	0.00	0.00	3.53	0.00	63.20	0%	63.20
2	14	12	168	12/1/2029	6,828,169	1,208,207	676,056	119,624	0	0	0	0	0	0	0	1,327,831	1,327,831	0	683,796,886	440		1,327,831	0	1.13	4.11	0.00	550.00	0.00	0.00	0.00	0.00	5.24	0.00	63.20	0%	63.20
2	15	1	169	1/1/2030	6,970,423	977,795	690,141	96,811	0	0	0	0	0	0	0	1,074,607	1,074,607	0	683,796,886	440		1,074,607	0	0.92	3.33	0.00	550.00	0.00	0.00	0.00	0.00	4.24	0.00	63.20	0%	63.20
2	15	2	170	2/1/2030	7,112,676	1,655,344	704,225	163,895	0	0	0	0	0	0	0	1,819,239	1,819,239	0	683,796,886	440		1,819,239	0	1.55	5.63	0.00	550.00	0.00	0.00	0.00	0.00	7.19	0.00	63.20	0%	63.20
2	15	3	171	3/1/2030	7,254,930	859,119	704,225	85,061	0	0	0	0	0	0	0	944,180	944,180	0	683,796,886	440		944,180	0	0.81	2.92	0.00	550.00	0.00	0.00	0.00	0.00	3.73	0.00	63.20	0%	63.20
2	15	4	171	4/1/2030	7,254,930	507,173	718,310	50,215	0	0	0	0	0	0	0	557,388	557,388	0	683,796,886	440		557,388	0	0.48	1.73	0.00	550.00	0.00	0.00	0.00	0.00	2.20	0.00	63.20	0%	63.20
2	15	5	172	5/1/2030	7,397,183	142,807	732,394	14,139	0	0	0	0	0	0	0	156,946	156,946	0	683,796,886	440		156,946	0	0.13	0.49	0.00	550.00	0.00	0.00	0.00	0.00	0.62	0.00	63.20	0%	63.20
2	15	6	173	6/1/2028	7,539,437	24,433	746,479	2,419	0	0	0	0	0	0	0	26,853	26,853	0	683,796,886	440		26,853	0	0.02	0.08	0.00	550.00	0.00	0.00	0.00	0.00	0.11	0.00	63.20	0%	63.20
2	15	7	174	7/1/2028	7,681,690	1,067	760,563	106	0	0	0	0	0	0	0	1,173	1,173	0	683,796,886	440		1,173	0	0.00	0.00	0.00	550.00	0.00	0.00	0.00	0.00	0.00	0.00	63.20	0%	63.20
2	15	8	175	8/1/2028	7,823,944	3,984	774,648	394	0	0	0	0	0	0	0	4,379	4,379	0	683,796,886	440		4,379	0	0.00	0.01	0.00	550.00	0.00	0.00	0.00	0.00	0.02	0.00	63.20	0%	63.20
2	15	9	176	9/1/2028	7,966,197	19,915	788,732	1,972	0	0	0	0	0	0	0	21,887	21,887	0	683,796,886	440		21,887	0	0.02	0.07	0.00	550.00	0.00	0.00	0.00	0.00	0.09	0.00	63.20	0%	63.20
2	15	10	177	10/1/2028	8,108,451	300,313	802,817	29,734	0	0	0	0	0	0	0	330,047	330,047	0	683,796,886	440		330,047	0	0.28	1.02	0.00	550.00	0.00	0.00	0.00	0.00	1.30	0.00	63.20	0%	63.20
2	15	11	178	11/1/2028	8,250,704	1,002,308	816,901	99,238	0	0	0	0	0	0	0	1,101,546	1,101,546	0	683,796,886	440		1,101,546	0	0.94	3.41	0.00	550.00	0.00	0.00	0.00	0.00	4.35	0.00	63.20	0%	63.20
2	15	12	179	12/1/2028	8,392,958	1,485,087	830,986	147,038	0	0	0	0	0	0	0	1,632,126	1,632,126	0	683,796,886	440		1,632,126	0	1.39	5.05	0.00	550.00	0.00	0.00	0.00	0.00	6.45	0.00	63.20	0%	63.20
2	16	1	180	1/1/2029	8,535,211	1,197,300	845,070	118,545	0	0	0	0	0	0	0	1,315,845	1,315,845	0	683,796,886	440		1,315,845	0	1.12	4.07	0.00	550.00	0.00	0.00	0.00	0.00	5.20	0.00	63.20	0%	63.20
2	16	2	181	2/1/2029	8,677,465	2,019,519	859,155	199,952	0	0	0	0	0	0	0	2,219,472	2,219,472	0	683,796,886	440		2,219,472	0	1.89	6.87	0.00	550.00	0.00	0.00	0.00	0.00	8.77	0.00	63.20	0%	63.20
2	16	3	182	3/1/2029	8,819,718	1,065,308	873,239	105,476	0	0	0	0	0	0	0	1,170,784	1,170,784	0	683,796,886	440		1,170,784	0	1.00	3.63	0.00	550.00	0.00	0.00	0.00	0.00	4.62	0.00	63.20	0%	63.20
2	16	4	183	4/1/2029	8,961,972	626,508	887,324	62,031	0	0	0	0	0	0	0	688,539	688,539	0	683,796,886	440		688,539	0	0.59	2.13	0.00	550.00	0.00	0.00	0.00	0.00	2.72	0.00	63.20	0%	63.20
2	16	5	184	5/1/2029	9,104,225	175,762	901,408	17,402	0	0	0	0	0	0	0	193,164	193,164	0	683,796,886	440		193,164	0	0.16	0.60	0.00	550.00	0.00	0.00	0.00	0.00	0.76	0.00	63.20	0%	63.20
2	16	6	185	6/1/2029	9,246,479	29,965	915,493	2,967	0	0	0	0	0	0	0	32,932	32,932	0	683,796,886	440		32,932	0	0.03	0.10	0.00	550.00	0.00	0.00	0.00	0.00	0.13	0.00	63.20	0%	63.20
2	16	7	186	7/1/2029	9,388,732	1,304	929,577	129	0	0	0	0	0	0	0	1,433	1,433	0	683,796,886	440		1,433	0	0.00	0.00	0.00	550.00	0.00	0.00	0.00	0.00	0.01	0.00	63.20	0%	63.20
2	16	8	187	8/1/2029	9,530,986	4,854	943,662	481	0	0	0	0	0	0	0	5,334	5,334	0	683,796,886	440		5,334	0	0.00	0.02	0.00	550.00	0.00	0.00	0.00	0.00	0.02	0.00	63.20	0%	63.20
2	16	9	188	9/1/2029	9,673,239	24,183	957,746	2,394	0	0	0	0	0	0	0	26,577	26,577	0	683,796,886	440		26,577	0	0.02	0.08	0.00	550.00	0.00	0.00	0.00	0.00	0.10	0.00	63.20	0%	63.20
2	16	10	189	10/1/2029	9,815,493	363,537	971,831	35,994	0	0	0	0	0	0	0	399,531	399,531	0	683,796,886	440		399,531	0	0.34	1.24	0.00	550.00	0.00	0.00	0.00	0.00	1.58	0.00	63.20	0%	63.20
2	16	11	190	11/1/2029	9,957,746	1,209,682	985,915	119,770	0	0	0	0	0	0	0	1,329,452	1,329,452	0	683,796,886	440		1,329,452	0	1.13	4.12	0.00	550.00	0.00	0.00	0.00	0.00	5.25	0.00	63.20	0%	63.20
2	**16**	**12**	191	**12/1/2029**	**10,100,000**	1,787,139	**1,000,000**	176,944	**0**	0	0	**0**	0	0	0	1,964,083	1,964,083	0	683,796,886	440		1,964,083	0	1.68	6.08	0.00	550.00	0.00	0.00	0.00	0.00	7.76	0.00	63.20	0%	63.20
3	**17**	**1**	192	1/1/2030	10,100,000	1,416,806	979,167	137,355	**0**	0	0	**0**	0	0	0	1,554,161	1,554,161	0	683,796,886	440		1,554,161	0	1.33	4.72	0.00	550.00	0.00	0.00	0.00	0.00	6.14	0.00	62.28	0%	62.28
3	17	2	193	2/1/2030	10,100,000	2,350,588	958,333	223,034	0	0	0	0	0	0	0	2,573,622	2,573,622	0	683,796,886	440		2,573,622	0	2.20	7.67	0.00	550.00	0.00	0.00	0.00	0.00	10.02	0.00	61.36	0%	61.36
3	17	3	194	3/1/2030	10,100,000	1,219,949	937,500	113,238	0	0	0	0	0	0	0	1,333,187	1,333,187	0	683,796,886	440		1,333,187	0	1.14	3.89	0.00	550.00	0.00	0.00	0.00	0.00	5.11	0.00	60.44	0%	60.44
3	17	4	195	4/1/2030	10,100,000	706,065	916,667	64,082	0	0	0	0	0	0	0	770,147	770,147	0	683,796,886	440		770,147	0	0.66	2.20	0.00	550.00	0.00	0.00	0.00	0.00	2.91	0.00	59.52	0%	59.52
3	17	5	196	5/1/2030	10,100,000	194,986	895,833	17,295	0	0	0	0	0	0	0	212,281	212,281	0	683,796,886	440		212,281	0	0.18	0.59	0.00	550.00	0.00	0.00	0.00	0.00	0.79	0.00	58.59	0%	58.59
3	17	6	197	6/1/2030	10,100,000	32,731	875,000	2,836	0	0	0	0	0	0	0	35,567	35,567	0	683,796,886	440		35,567	0	0.03	0.10	0.00	550.00	0.00	0.00	0.00	0.00	0.13	0.00	57.65	0%	57.65
3	17	7	198	7/1/2030	10,100,000	1,403	854,167	119	0	0	0	0	0	0	0	1,521	1,521	0	683,796,886	440		1,521	0	0.00	0.00	0.00	550.00	0.00	0.00	0.00	0.00	0.01	0.00	56.72	0%	56.72
3	17	8	199	8/1/2030	10,100,000	5,144	833,333	424	0	0	0	0	0	0	0	5,568	5,568	0	683,796,886	440		5,568	0	0.00	0.01	0.00	550.00	0.00	0.00	0.00	0.00	0.02	0.00	55.78	0%	55.78
3	17	9	200	9/1/2030	10,100,000	25,250	812,500	2,031	0	0	0	0	0	0	0	27,281	27,281	0	683,796,886	440		27,281	0	0.02	0.07	0.00	550.00	0.00	0.00	0.00	0.00	0.10	0.00	54.83	0%	54.83
3	17	10	201	10/1/2030	10,100,000	374,074	791,667	29,329	0	0	0	0	0	0	0	403,395	403,395	0	683,796,886	440		403,395	0	0.35	1.01	0.00	550.00	0.00	0.00	0.00	0.00	1.38	0.00	53.89	0%	53.89
3	17	11	202	11/1/2030	10,100,000	1,226,963	770,833	93,642	0	0	0	0	0	0	0	1,320,605	1,320,605	0	683,796,886	440		1,320,605	0	1.15	3.22	0.00	550.00	0.00	0.00	0.00	0.00	4.45	0.00	52.94	0%	52.94
3	17	12	203	12/1/2030	10,100,000	1,787,139	750,000	132,708	0	0	0	0	0	0	0	1,919,847	1,919,847	0	683,796,886	440		1,919,847	0	1.68	4.56	0.00	550.00	0.00	0.00	0.00	0.00	6.35	0.00	51.98	0%	51.98
3	18	1	204	1/1/2031	10,100,000	1,416,806	729,167	102,286	0	0	0	0	0	0	0	1,519,091	1,519,091	0	683,796,886	440		1,519,091	0	1.33	3.52	0.00	550.00	0.00	0.00	0.00	0.00	4.94	0.00	51.02	0%	51.02
3	18	2	205	2/1/2031	10,100,000	2,350,588	708,333	164,851	0	0	0	0	0	0	0	2,515,439	2,515,439	0	683,796,886	440		2,515,439	0	2.20	5.67	0.00	550.00	0.00	0.00	0.00	0.00	8.02	0.00	50.06	0%	50.06
3	18	3	206	3/1/2031	10,100,000	1,219,949	687,500	83,041	0	0	0	0	0	0	0	1,302,990	1,302,990	0	683,796,886	440		1,302,990	0	1.14	2.85	0.00	550.00	0.00	0.00	0.00	0.00	4.08	0.00	49.10	0%	49.10
3	18	4	207	4/1/2031	10,100,000	706,065	666,667	46,605	0	0	0	0	0	0	0	752,670	752,670	0	683,796,886	440		752,670	0	0.66	1.60	0.00	550.00	0.00	0.00	0.00	0.00	2.31	0.00	48.13	0%	48.13
3	18	5	208	5/1/2031	10,100,000	194,986	645,833	12,468	0	0	0	0	0	0	0	207,454	207,454	0	683,796,886	440		207,454	0	0.18	0.43	0.00	550.00	0.00	0.00	0.00	0.00	0.62	0.00	47.15	0%	47.15
3	18	6	209	6/1/2031	10,100,000	32,731	625,000	2,025	0	0	0	0	0	0	0	34,757	34,757	0	683,796,886	440		34,757	0	0.03	0.07	0.00	550.00	0.00	0.00	0.00	0.00	0.10	0.00	46.18	0%	46.18
3	18	7	210	7/1/2031	10,100,000	1,403	604,167	84	0	0	0	0	0	0	0	1,487	1,487	0	683,796,886	440		1,487	0	0.00	0.00	0.00	550.00	0.00	0.00	0.00	0.00	0.00	0.00	45.26	0%	45.26
3	18	8	211	8/1/2031	10,100,000	5,144	583,333	297	0	0	0	0	0	0	0	5,441	5,441	0	683,796,886	440		5,441	0	0.00	0.01	0.00	550.00	0.00	0.00	0.00	0.00	0.02	0.00	44.21	0%	44.21
3	18	9	212	9/1/2031	10,100,000	25,250	562,500	1,406	0	0	0	0	0	0	0	26,656	26,656	0	683,796,886	440		26,656	0	0.02	0.05	0.00	550.00	0.00	0.00	0.00	0.00	0.07	0.00	43.22	0%	43.22
3	18	10	213	10/1/2031	10,100,000	374,074	541,667	20,062	0	0	0	0	0	0	0	394,136	394,136	0	683,796,886	440		394,136	0	0.35	0.69	0.00	550.00	0.00	0.00	0.00	0.00	1.06	0.00	42.23	0%	42.23
3	18	11	214	11/1/2031	10,100,000	1,226,963

NA	27	6	293	6/1/2038	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.03	0.06	0.00	550.00	0.00	0.00	0.00	0.00	0.09	0.00	40.24	0%	40.24
NA	27	7	294	7/1/2038	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	550.00	0.00	0.00	0.00	0.00	0.00	0.00	40.24	0%	40.24
NA	27	8	295	8/1/2038	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.01	0.00	550.00	0.00	0.00	0.00	0.00	0.01	0.00	40.24	0%	40.24
NA	27	9	296	9/1/2038	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.02	0.04	0.00	550.00	0.00	0.00	0.00	0.00	0.07	0.00	40.24	0%	40.24
NA	27	10	297	10/1/2038	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.35	0.64	0.00	550.00	0.00	0.00	0.00	0.00	0.99	0.00	40.24	0%	40.24
NA	27	11	298	11/1/2038	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	1.15	2.09	0.00	550.00	0.00	0.00	0.00	0.00	3.24	0.00	40.24	0%	40.24
NA	27	12	299	12/1/2038	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	1.68	3.04	0.00	550.00	0.00	0.00	0.00	0.00	4.72	0.00	40.24	0%	40.24
NA	28	1	300	1/1/2039	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	1.33	2.41	0.00	550.00	0.00	0.00	0.00	0.00	3.74	0.00	40.24	0%	40.24
NA	28	2	301	2/1/2039	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	2.20	4.00	0.00	550.00	0.00	0.00	0.00	0.00	6.20	0.00	40.24	0%	40.24
NA	28	3	302	3/1/2039	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	1.14	2.08	0.00	550.00	0.00	0.00	0.00	0.00	3.22	0.00	40.24	0%	40.24
NA	28	4	303	4/1/2039	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.66	1.20	0.00	550.00	0.00	0.00	0.00	0.00	1.86	0.00	40.24	0%	40.24
NA	28	5	304	5/1/2039	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.18	0.33	0.00	550.00	0.00	0.00	0.00	0.00	0.51	0.00	40.24	0%	40.24
NA	28	6	305	6/1/2039	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.03	0.06	0.00	550.00	0.00	0.00	0.00	0.00	0.09	0.00	40.24	0%	40.24
NA	28	7	306	7/1/2039	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	550.00	0.00	0.00	0.00	0.00	0.00	0.00	40.24	0%	40.24
NA	28	8	307	8/1/2039	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.01	0.00	550.00	0.00	0.00	0.00	0.00	0.01	0.00	40.24	0%	40.24
NA	28	9	308	9/1/2039	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.02	0.04	0.00	550.00	0.00	0.00	0.00	0.00	0.07	0.00	40.24	0%	40.24
NA	28	10	309	10/1/2039	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.35	0.64	0.00	550.00	0.00	0.00	0.00	0.00	0.99	0.00	40.24	0%	40.24
NA	28	11	310	11/1/2039	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	1.15	2.09	0.00	550.00	0.00	0.00	0.00	0.00	3.24	0.00	40.24	0%	40.24
NA	28	12	311	12/1/2039	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	1.68	3.04	0.00	550.00	0.00	0.00	0.00	0.00	4.72	0.00	40.24	0%	40.24
NA	29	1	312	1/1/2040	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	1.33	2.41	0.00	550.00	0.00	0.00	0.00	0.00	3.74	0.00	40.24	0%	40.24
NA	29	2	313	2/1/2040	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	2.20	4.00	0.00	550.00	0.00	0.00	0.00	0.00	6.20	0.00	40.24	0%	40.24
NA	29	3	314	3/1/2040	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	1.14	2.08	0.00	550.00	0.00	0.00	0.00	0.00	3.22	0.00	40.24	0%	40.24
NA	29	4	315	4/1/2040	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.66	1.20	0.00	550.00	0.00	0.00	0.00	0.00	1.86	0.00	40.24	0%	40.24
NA	29	5	316	5/1/2040	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.18	0.33	0.00	550.00	0.00	0.00	0.00	0.00	0.51	0.00	40.24	0%	40.24
NA	29	6	317	6/1/2040	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.03	0.06	0.00	550.00	0.00	0.00	0.00	0.00	0.09	0.00	40.24	0%	40.24
NA	29	7	318	7/1/2040	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	550.00	0.00	0.00	0.00	0.00	0.00	0.00	40.24	0%	40.24
NA	29	8	319	8/1/2040	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.01	0.00	550.00	0.00	0.00	0.00	0.00	0.01	0.00	40.24	0%	40.24
NA	29	9	320	9/1/2040	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.02	0.04	0.00	550.00	0.00	0.00	0.00	0.00	0.07	0.00	40.24	0%	40.24
NA	29	10	321	10/1/2040	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.35	0.64	0.00	550.00	0.00	0.00	0.00	0.00	0.99	0.00	40.24	0%	40.24
NA	29	11	322	11/1/2040	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	1.15	2.09	0.00	550.00	0.00	0.00	0.00	0.00	3.24	0.00	40.24	0%	40.24
NA	29	12	323	12/1/2040	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	1.68	3.04	0.00	550.00	0.00	0.00	0.00	0.00	4.72	0.00	40.24	0%	40.24
NA	30	1	324	1/1/2041	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	1.33	2.41	0.00	550.00	0.00	0.00	0.00	0.00	3.74	0.00	40.24	0%	40.24
NA	30	2	325	2/1/2041	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	2.20	4.00	0.00	550.00	0.00	0.00	0.00	0.00	6.20	0.00	40.24	0%	40.24
NA	30	3	326	3/1/2041	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	1.14	2.08	0.00	550.00	0.00	0.00	0.00	0.00	3.22	0.00	40.24	0%	40.24
NA	30	4	327	4/1/2041	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.66	1.20	0.00	550.00	0.00	0.00	0.00	0.00	1.86	0.00	40.24	0%	40.24
NA	30	5	328	5/1/2041	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.18	0.33	0.00	550.00	0.00	0.00	0.00	0.00	0.51	0.00	40.24	0%	40.24
NA	30	6	329	6/1/2041	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.03	0.06	0.00	550.00	0.00	0.00	0.00	0.00	0.09	0.00	40.24	0%	40.24
NA	30	7	330	7/1/2041	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	550.00	0.00	0.00	0.00	0.00	0.00	0.00	40.24	0%	40.24
NA	30	8	331	8/1/2041	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.01	0.00	550.00	0.00	0.00	0.00	0.00	0.01	0.00	40.24	0%	40.24
NA	30	9	332	9/1/2041	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.02	0.04	0.00	550.00	0.00	0.00	0.00	0.00	0.07	0.00	40.24	0%	40.24
NA	30	10	333	10/1/2041	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.35	0.64	0.00	550.00	0.00	0.00	0.00	0.00	0.99	0.00	40.24	0%	40.24
NA	30	11	334	11/1/2041	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	1.15	2.09	0.00	550.00	0.00	0.00	0.00	0.00	3.24	0.00	40.24	0%	40.24
NA	30	12	335	12/1/2041	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	1.68	3.04	0.00	550.00	0.00	0.00	0.00	0.00	4.72	0.00	40.24	0%	40.24
NA	31	1	336	1/1/2042	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	1.33	2.41	0.00	550.00	0.00	0.00	0.00	0.00	3.74	0.00	40.24	0%	40.24
NA	31	2	337	2/1/2042	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	2.20	4.00	0.00	550.00	0.00	0.00	0.00	0.00	6.20	0.00	40.24	0%	40.24
NA	31	3	338	3/1/2042	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	1.14	2.08	0.00	550.00	0.00	0.00	0.00	0.00	3.22	0.00	40.24	0%	40.24
NA	31	4	339	4/1/2042	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.66	1.20	0.00	550.00	0.00	0.00	0.00	0.00	1.86	0.00	40.24	0%	40.24
NA	31	5	340	5/1/2042	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.18	0.33	0.00	550.00	0.00	0.00	0.00	0.00	0.51	0.00	40.24	0%	40.24
NA	31	6	341	6/1/2042	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.03	0.06	0.00	550.00	0.00	0.00	0.00	0.00	0.09	0.00	40.24	0%	40.24
NA	31	7	342	7/1/2042	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	550.00	0.00	0.00	0.00	0.00	0.00	0.00	40.24	0%	40.24
NA	31	8	343	8/1/2042	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.01	0.00	550.00	0.00	0.00	0.00	0.00	0.01	0.00	40.24	0%	40.24
NA	31	9	344	9/1/2042	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.02	0.04	0.00	550.00	0.00	0.00	0.00	0.00	0.07	0.00	40.24	0%	40.24
NA	31	10	345	10/1/2042	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.35	0.64	0.00	550.00	0.00	0.00	0.00	0.00	0.99	0.00	40.24	0%	40.24
NA	31	11	346	11/1/2042	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	1.15	2.09	0.00	550.00	0.00	0.00	0.00	0.00	3.24	0.00	40.24	0%	40.24
NA	31	12	347	12/1/2042	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	1.68	3.04	0.00	550.00	0.00	0.00	0.00	0.00	4.72	0.00	40.24	0%	40.24
NA	32	1	348	1/1/2043	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	1.33	2.41	0.00	550.00	0.00	0.00	0.00	0.00	3.74	0.00	40.24	0%	40.24
NA	32	2	349	2/1/2043	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	2.20	4.00	0.00	550.00	0.00	0.00	0.00	0.00	6.20	0.00	40.24	0%	40.24
NA	32	3	350	3/1/2043	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	1.14	2.08	0.00	550.00	0.00	0.00	0.00	0.00	3.22	0.00	40.24	0%	40.24
NA	32	4	351	4/1/2043	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.66	1.20	0.00	550.00	0.00	0.00	0.00	0.00	1.86	0.00	40.24	0%	40.24
NA	32	5	352	5/1/2043	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.18	0.33	0.00	550.00	0.00	0.00	0.00	0.00	0.51	0.00	40.24	0%	40.24
NA	32	6	353	6/1/2043	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.03	0.06	0.00	550.00	0.00	0.00	0.00	0.00	0.09	0.00	40.24	0%	40.24
NA	32	7	354	7/1/2043	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	550.00	0.00	0.00	0.00	0.00	0.00	0.00	40.24	0%	40.24
NA	32	8	355	8/1/2043	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.01	0.00	550.00	0.00	0.00	0.00	0.00	0.01	0.00	40.24	0%	40.24
NA	32	9	356	9/1/2043	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.02	0.04	0.00	550.00	0.00	0.00	0.00	0.00	0.07	0.00	40.24	0%	40.24
NA	32	10	357	10/1/2043	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.35	0.64	0.00	550.00	0.00	0.00	0.00	0.00	0.99	0.00	40.24	0%	40.24
NA	32	11	358	11/1/2043	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	1.15	2.09	0.00	550.00	0.00	0.00	0.00	0.00	3.24	0.00	40.24	0%	40.24
NA	32	12	359	12/1/2043	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	1.68	3.04	0.00	550.00	0.00	0.00	0.00	0.00	4.72	0.00	40.24	0%	40.24
NA	33	1	360	1/1/2044	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	1.33	2.41	0.00	550.00	0.00	0.00	0.00	0.00	3.74	0.00	40.24	0%	40.24
NA	33	2	361	2/1/2044	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	2.20	4.00	0.00	550.00	0.00	0.00	0.00	0.00	6.20	0.00	40.24	0%	40.24
NA	33	3	362	3/1/2044	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	1.14	2.08	0.00	550.00	0.00	0.00	0.00	0.00	3.22	0.00	40.24	0%	40.24
NA	33	4	363	4/1/2044	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	0.66	1.20	0.00	550.00	0.00	0.00	0.00	0.00	1.86	0.00	40.24	0%	40.24
NA	33	5	364	5/1/2044	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	0.18	0.33	0.00	550.00	0.00	0.00	0.00	0.00	0.51	0.00	40.24	0%	40.24
NA	33	6	365	6/1/2044	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.03	0.06	0.00	550.00	0.00	0.00	0.00	0.00	0.09	0.00	40.24	0%	40.24
NA	33	7	366	7/1/2044	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.00	0.00	0.00	550.00	0.00	0.00	0.00	0.00	0.00	0.00	40.24	0%	40.24
NA	33	8	367	8/1/2044	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.00	0.01	0.00	550.00	0.00	0.00	0.00	0.00	0.01	0.00	40.24	0%	40.24
NA	33	9	368	9/1/2044	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.02	0.04	0.00	550.00	0.00	0.00	0.00	0.00	0.07	0.00	40.24	0%	40.24
NA	33	10	369	10/1/2044	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	0.35	0.64	0.00	550.00	0.00	0.00	0.00	0.00	0.99	0.00	40.24	0%	40.24
NA	33	11	370	11/1/2044	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	1.15	2.09	0.00	550.00	0.00	0.00	0.00	0.00	3.24	0.00	40.24	0%	40.24
NA	33	12	371	12/1/2044	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	1.68	3.04	0.00	550.00	0.00	0.00	0.00	0.00	4.72	0.00	40.24	0%	40.24
NA	34	1	372	1/1/2045	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	1.33	2.41	0.00	550.00	0.00	0.00	0.00	0.00	3.74	0.00	40.24

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Inflows and Outflows	Parameters	Units	Value	Units	Description and Rationale				
Precipitation	Precipitation		1.85	ft/yr	Los Altos climate station, direct precip on wasterock backfill area is based on monthly precip data				
			Phases		0 - 10	11-16	16-20	20+	
			Initial		Mining	Backfilling	Revegetation	Long Term	
Quarry Backfilling Areas	**Surface Water Drainage to Pit**								
	Quarry Area (Greenstone/Greywacke)	sq feet				10,100,000	10,100,000	10,100,000	Based on drawing from Chang Consultants Figure B.2
		acres				232	232	232	
	Quarry Area (Limestone)	sq feet				1,000,000	500,000	500,000	
		acres				22	11	11	
	WMSA	sq feet							
		acres							
	Surface Infiltration to Pit (Through backfill)								
	Undrained Backfill (No Surface Outlet)	sq feet							
		acres							
	Drained Backfill (With Surface Outlet)	sq feet							
		acres							
	Total Drainage Area	acres			-	**254**	**243**	**243**	
	Spill Elevation		990.00	ft amsl	Based on mine plan				
	Bottom of Pit		440.00	ft amsl	Based on end of Phase 1 for South Quarry mine plan				
Groundwater Capture	Initial		371	gpm	MODFLOW model results for Phase 1, maximum excavation condition				
			2,181-181	cu ft/mo					
	At Spill Elevation		80	gpm	MODFLOW model results for ultimate condition				
			470,336	cu ft/mo					
Date Quarry Filling Starts		**1/1/2023**							
Assumptions	The pit is backfilled incrementally over a 10-year period, from 440 ft amsl to the spill-over elevation of 990 ft amsl								
	Backfill material has a porosity of 30-percent.								
	Surface runoff is only within the capture area of the pit and is based on water year 2009 data								
	Groundwater inflow into the pit varies by month and diminishes as the backfill increases.								
	Precipitation directly infiltrates to the water table within the area of the backfill.								
	Evaporation of the pit lake is only applied when the cumulative volume of water in the pit is greater than the cumulative volume of void spaces within the backfill (based on 30-percent porosity)								
	The water level in the pit is dependent on the total cumulative volume of the backfill up to the spill-over elevation.								

24.56679096 0.000199456

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2	12	3	135	3/1/2027	2,133,893	257,736	211,268	25,518	0	0	0	0	0	0	0	283,254	283,254	0	683,796,886	440		283,254	0	1.74	1.44	0.00	790.00	0.00	0.00	0.00	0.00	3.18	3.18	179.35	0%	179.35
2	12	4	136	4/1/2027	2,276,056	159,113	225,352	15,751	0	0	0	0	0	0	0	174,867	174,867	0	683,796,886	440		174,867	0	1.07	0.89	0.00	790.00	0.00	0.00	0.00	0.00	1.96	5.14	179.35	0%	179.35
2	12	5	137	5/1/2027	2,418,310	46,687	239,437	4,622	0	0	0	0	0	0	0	51,309	51,309	0	683,796,886	440		51,309	0	0.32	0.26	0.00	790.00	0.00	0.00	0.00	0.00	0.58	5.72	179.35	0%	179.35
2	12	6	138	6/1/2027	2,560,563	8,298	253,521	822	0	0	0	0	0	0	0	9,120	9,120	0	683,796,886	440		9,120	0	0.06	0.05	0.00	790.00	0.00	0.00	0.00	0.00	0.10	5.82	179.35	0%	179.35
2	12	7	139	7/1/2027	2,702,817	375	267,606	37	0	0	0	0	0	0	0	413	413	0	683,796,886	440		413	0	0.00	0.00	0.00	790.00	0.00	0.00	0.00	0.00	0.00	5.82	179.35	0%	179.35
2	12	8	140	8/1/2027	2,845,070	1,449	281,690	143	0	0	0	0	0	0	0	1,592	1,592	0	683,796,886	440		1,592	0	0.01	0.01	0.00	790.00	0.00	0.00	0.00	0.00	0.02	5.84	179.35	0%	179.35
2	12	9	141	9/1/2027	2,987,324	7,468	295,775	739	0	0	0	0	0	0	0	8,208	8,208	0	683,796,886	440		8,208	0	0.05	0.04	0.00	790.00	0.00	0.00	0.00	0.00	0.09	5.93	179.35	0%	179.35
2	12	10	142	10/1/2027	3,129,577	115,910	309,859	11,476	0	0	0	0	0	0	0	127,387	127,387	0	683,796,886	440		127,387	0	0.78	0.65	0.00	790.00	0.00	0.00	0.00	0.00	1.43	7.36	179.35	0%	179.35
2	12	11	143	11/1/2027	3,271,831	397,467	323,944	39,353	0	0	0	0	0	0	0	436,820	436,820	0	683,796,886	440		436,820	0	2.68	2.21	0.00	790.00	0.00	0.00	0.00	0.00	4.90	12.26	179.35	0%	179.35
2	12	12	144	12/1/2027	3,414,085	604,103	338,028	59,812	0	0	0	0	0	0	0	663,915	663,915	0	683,796,886	440		663,915	0	4.08	3.36	0.00	790.00	0.00	0.00	0.00	0.00	7.44	19.70	179.35	0%	179.35
2	13	1	145	1/1/2028	3,556,338	498,875	352,113	49,394	0	0	0	0	0	0	0	548,269	548,269	0	683,796,886	440		548,269	0	3.37	2.78	0.00	790.00	0.00	0.00	0.00	0.00	6.15	25.85	179.35	0%	179.35
2	13	2	146	2/1/2028	3,698,592	860,779	366,197	85,226	0	0	0	0	0	0	0	946,004	946,004	0	683,796,886	440		946,004	0	5.81	4.79	0.00	790.00	0.00	0.00	0.00	0.00	10.60	36.45	179.35	0%	179.35
2	13	3	147	3/1/2028	3,840,845	463,924	380,282	45,933	0	0	0	0	0	0	0	509,857	509,857	0	683,796,886	440		509,857	0	3.13	2.58	0.00	790.00	0.00	0.00	0.00	0.00	5.72	42.17	179.35	0%	179.35
2	13	4	148	4/1/2028	3,983,099	278,448	394,366	27,569	0	0	0	0	0	0	0	306,017	306,017	0	683,796,886	440		306,017	0	1.88	1.55	0.00	790.00	0.00	0.00	0.00	0.00	3.43	45.60	179.35	0%	179.35
2	13	5	149	5/1/2028	4,125,352	79,642	408,451	7,885	0	0	0	0	0	0	0	87,528	87,528	0	683,796,886	440		87,528	0	0.54	0.44	0.00	790.00	0.00	0.00	0.00	0.00	0.98	46.58	179.35	0%	179.35
2	13	6	150	6/1/2028	4,267,606	13,839	422,535	1,369	0	0	0	0	0	0	0	15,200	15,200	0	683,796,886	440		15,200	0	0.09	0.08	0.00	790.00	0.00	0.00	0.00	0.00	0.17	46.75	179.35	0%	179.35
2	13	7	151	7/1/2028	4,409,859	612	436,620	61	0	0	0	0	0	0	0	673	673	0	683,796,886	440		673	0	0.00	0.00	0.00	790.00	0.00	0.00	0.00	0.00	0.01	46.76	179.35	0%	179.35
2	13	8	152	8/1/2028	4,552,113	2,318	450,704	230	0	0	0	0	0	0	0	2,548	2,548	0	683,796,886	440		2,548	0	0.02	0.01	0.00	790.00	0.00	0.00	0.00	0.00	0.03	46.79	179.35	0%	179.35
2	13	9	153	9/1/2028	4,694,366	11,736	464,789	1,162	0	0	0	0	0	0	0	12,898	12,898	0	683,796,886	440		12,898	0	0.08	0.07	0.00	790.00	0.00	0.00	0.00	0.00	0.14	46.93	179.35	0%	179.35
2	13	10	154	10/1/2028	4,836,620	179,134	478,873	17,736	0	0	0	0	0	0	0	196,870	196,870	0	683,796,886	440		196,870	0	1.21	1.00	0.00	790.00	0.00	0.00	0.00	0.00	2.21	49.14	179.35	0%	179.35
2	13	11	155	11/1/2028	4,978,873	604,841	492,958	59,885	0	0	0	0	0	0	0	664,726	664,726	0	683,796,886	440		664,726	0	4.08	3.37	0.00	790.00	0.00	0.00	0.00	0.00	7.45	56.59	179.35	0%	179.35
2	13	12	156	12/1/2028	5,121,127	906,155	507,042	89,718	0	0	0	0	0	0	0	995,873	995,873	0	683,796,886	440		995,873	0	6.12	5.05	0.00	790.00	0.00	0.00	0.00	0.00	11.16	67.75	179.35	0%	179.35
2	14	1	157	1/1/2029	5,263,380	738,335	521,127	73,103	0	0	0	0	0	0	0	811,438	811,438	0	683,796,886	440		811,438	0	4.98	4.11	0.00	790.00	0.00	0.00	0.00	0.00	9.10	76.85	179.35	0%	179.35
2	14	2	158	2/1/2029	5,405,634	1,258,061	535,211	124,561	0	0	0	0	0	0	0	1,382,622	1,382,622	0	683,796,886	440		1,382,622	0	8.49	7.01	0.00	790.00	0.00	0.00	0.00	0.00	15.50	92.35	179.35	0%	179.35
2	14	3	159	3/1/2029	5,547,887	670,113	549,296	66,348	0	0	0	0	0	0	0	736,461	736,461	0	683,796,886	440		736,461	0	4.52	3.73	0.00	790.00	0.00	0.00	0.00	0.00	8.26	100.61	179.35	0%	179.35
2	14	4	160	4/1/2029	5,690,141	397,783	563,380	39,384	0	0	0	0	0	0	0	437,167	437,167	0	683,796,886	440		437,167	0	2.69	2.22	0.00	790.00	0.00	0.00	0.00	0.00	4.90	105.51	179.35	0%	179.35
2	14	5	161	5/1/2029	5,832,394	112,598	577,465	11,148	0	0	0	0	0	0	0	123,746	123,746	0	683,796,886	440		123,746	0	0.76	0.63	0.00	790.00	0.00	0.00	0.00	0.00	1.39	106.90	179.35	0%	179.35
2	14	6	162	6/1/2029	5,974,648	19,362	591,549	1,917	0	0	0	0	0	0	0	21,279	21,279	0	683,796,886	440		21,279	0	0.13	0.11	0.00	790.00	0.00	0.00	0.00	0.00	0.24	107.14	179.35	0%	179.35
2	14	7	163	7/1/2029	6,116,901	850	605,634	84	0	0	0	0	0	0	0	934	934	0	683,796,886	440		934	0	0.01	0.00	0.00	790.00	0.00	0.00	0.00	0.00	0.01	107.15	179.35	0%	179.35
2	14	8	164	8/1/2029	6,259,155	3,188	619,718	316	0	0	0	0	0	0	0	3,503	3,503	0	683,796,886	440		3,503	0	0.02	0.02	0.00	790.00	0.00	0.00	0.00	0.00	0.04	107.19	179.35	0%	179.35
2	14	9	165	9/1/2029	6,401,408	16,004	633,803	1,585	0	0	0	0	0	0	0	17,588	17,588	0	683,796,886	440		17,588	0	0.11	0.09	0.00	790.00	0.00	0.00	0.00	0.00	0.20	107.39	179.35	0%	179.35
2	14	10	166	10/1/2029	6,543,662	242,358	647,887	23,996	0	0	0	0	0	0	0	266,354	266,354	0	683,796,886	440		266,354	0	1.64	1.35	0.00	790.00	0.00	0.00	0.00	0.00	2.99	110.38	179.35	0%	179.35
2	14	11	167	11/1/2029	6,685,915	812,215	661,972	80,417	0	0	0	0	0	0	0	892,632	892,632	0	683,796,886	440		892,632	0	5.48	4.52	0.00	790.00	0.00	0.00	0.00	0.00	10.01	120.39	179.35	0%	179.35
2	14	12	168	12/1/2029	6,828,169	1,208,207	676,056	119,624	0	0	0	0	0	0	0	1,327,831	1,327,831	0	683,796,886	440		1,327,831	0	8.16	6.73	0.00	790.00	0.00	0.00	0.00	0.00	14.88	135.27	179.35	0%	179.35
2	15	1	169	1/1/2030	6,970,423	977,795	690,141	96,811	0	0	0	0	0	0	0	1,074,607	1,074,607	0	683,796,886	440		1,074,607	0	6.60	5.45	0.00	790.00	0.00	0.00	0.00	0.00	12.05	147.32	179.35	0%	179.35
2	15	2	170	2/1/2030	7,112,676	1,655,344	704,225	163,895	0	0	0	0	0	0	0	1,819,239	1,819,239	0	683,796,886	440		1,819,239	0	11.17	9.22	0.00	790.00	0.00	0.00	0.00	0.00	20.39	167.71	179.35	0%	179.35
2	15	3	171	3/1/2030	7,254,930	859,119	704,225	85,061	0	0	0	0	0	0	0	944,180	944,180	0	683,796,886	440		944,180	0	5.80	4.78	0.00	790.00	0.00	0.00	0.00	0.00	10.58	178.29	179.35	0%	179.35
2	15	4	171	4/1/2030	7,254,930	507,173	718,310	50,215	0	0	0	0	0	0	0	557,388	557,388	0	683,796,886	440		557,388	0	3.42	2.82	0.00	790.00	0.00	0.00	0.00	0.00	6.25	184.54	179.35	0%	179.35
2	15	5	172	5/1/2030	7,397,183	142,807	732,394	14,139	0	0	0	0	0	0	0	156,946	156,946	0	683,796,886	440		156,946	0	0.96	0.80	0.00	790.00	0.00	0.00	0.00	0.00	1.76	186.30	179.35	0%	179.35
2	15	6	173	6/1/2030	7,539,437	24,433	746,479	2,419	0	0	0	0	0	0	0	26,853	26,853	0	683,796,886	440		26,853	0	0.16	0.14	0.00	790.00	0.00	0.00	0.00	0.00	0.30	186.60	179.35	0%	179.35
2	15	7	174	7/1/2030	7,681,690	1,067	760,563	106	0	0	0	0	0	0	0	1,173	1,173	0	683,796,886	440		1,173	0	0.01	0.01	0.00	790.00	0.00	0.00	0.00	0.00	0.01	186.61	179.35	0%	179.35
2	15	8	175	8/1/2030	7,823,944	3,984	774,648	394	0	0	0	0	0	0	0	4,379	4,379	0	683,796,886	440		4,379	0	0.03	0.02	0.00	790.00	0.00	0.00	0.00	0.00	0.05	186.66	179.35	0%	179.35
2	15	9	176	9/1/2030	7,966,197	19,915	788,732	1,972	0	0	0	0	0	0	0	21,887	21,887	0	683,796,886	440		21,887	0	0.13	0.11	0.00	790.00	0.00	0.00	0.00	0.00	0.25	186.91	179.35	0%	179.35
2	15	10	177	10/1/2030	8,108,451	300,313	802,817	29,734	0	0	0	0	0	0	0	330,047	330,047	0	683,796,886	440		330,047	0	2.03	1.67	0.00	790.00	0.00	0.00	0.00	0.00	3.70	190.61	179.35	0%	179.35
2	15	11	178	11/1/2030	8,250,704	1,002,308	816,901	99,238	0	0	0	0	0	0	0	1,101,546	1,101,546	0	683,796,886	440		1,101,546	0	6.77	5.58	0.00	790.00	0.00	0.00	0.00	0.00	12.35	202.96	179.35	0%	179.35
2	15	12	179	12/1/2030	8,392,958	1,485,087	830,986	147,038	0	0	0	0	0	0	0	1,632,126	1,632,126	0	683,796,886	440		1,632,126	0	10.02	8.27	0.00	790.00	0.00	0.00	0.00	0.00	18.30	221.26	179.35	0%	179.35
2	16	1	180	1/1/2029	8,535,211	1,197,300	845,070	118,545	0	0	0	0	0	0	0	1,315,845	1,315,845	0	683,796,886	440		1,315,845	0	8.08	6.67	0.00	790.00	0.00	0.00	0.00	0.00	14.75	236.01	179.35	0%	179.35
2	16	2	181	2/1/2029	8,677,465	2,019,519	859,155	199,952	0	0	0	0	0	0	0	2,219,472	2,219,472	0	683,796,886	440		2,219,472	0	13.63	11.25	0.00	790.00	0.00	0.00	0.00	0.00	24.88	260.89	179.35	0%	179.35
2	16	3	182	3/1/2029	8,819,718	1,065,308	873,239	105,476	0	0	0	0	0	0	0	1,170,784	1,170,784	0	683,796,886	440		1,170,784	0	7.19	5.93	0.00	790.00	0.00	0.00	0.00	0.00	13.12	274.01	179.35	0%	179.35
2	16	4	183	4/1/2029	8,961,972	626,508	887,324	62,031	0	0	0	0	0	0	0	688,539	688,539	0	683,796,886	440		688,539	0	4.23	3.49	0.00	790.00	0.00	0.00	0.00	0.00	7.72	281.72	179.35	0%	179.35
2	16	5	184	5/1/2029	9,104,225	175,762	901,408	17,402	0	0	0	0	0	0	0	193,164	193,164	0	683,796,886	440		193,164	0	1.19	0.98	0.00	790.00	0.00	0.00	0.00	0.00	2.17	283.89	179.35	0%	179.35
2	16	6	185	6/1/2029	9,246,479	29,965	915,493	2,967	0	0	0	0	0	0	0	32,932	32,932	0	683,796,886	440		32,932	0	0.20	0.17	0.00	790.00	0.00	0.00	0.00	0.00	0.37	284.26	179.35	0%	179.35
2	16	7	186	7/1/2029	9,388,732	1,304	929,577	129	0	0	0	0	0	0	0	1,433	1,433	0	683,796,886	440		1,433	0	0.01	0.01	0.00	790.00	0.00	0.00	0.00	0.00	0.02	284.28	179.35	0%	179.35
2	16	8	187	8/1/2029	9,530,986	4,854	943,662	481	0	0	0	0	0	0	0	5,334	5,334	0	683,796,886	440		5,334	0	0.03	0.03	0.00	790.00	0.00	0.00	0.00	0.00	0.06	284.34	179.35	0%	179.35
2	16	9	188	9/1/2029	9,673,239	24,183	957,746	2,394	0	0	0	0	0	0	0	26,577	26,577	0	683,796,886	440		26,577	0	0.16	0.13	0.00	790.00	0.00	0.00	0.00	0.00	0.30	284.64	179.35	0%	179.35
2	16	10	189	10/1/2029	9,815,493	363,537	971,831	35,994	0	0	0	0	0	0	0	399,531	399,531	0	683,796,886	440		399,531	0	2.45	2.02	0.00	790.00	0.00	0.00	0.00	0.00	4.48	289.12	179.35	0%	179.35
2	16	11	190	11/1/2029	9,957,746	1,209,682	985,915	119,770	0	0	0	0	0	0	0	1,329,452	1,329,452	0	683,796,886	440		1,329,452	0	8.17	6.74	0.00	790.00	0.00	0.00	0.00	0.00	14.90	304.02	179.35	0%	179.35
2	**16**	**12**	191	**12/1/2029**	**10,100,000**	1,787,139	**1,000,000**	176,944	**0**	0	**0**	0	0	0	0	1,964,083	1,964,083	0	683,796,886	440		1,964,083	0	12.06	9.95	0.00	790.00	0.00	0.00	0.00	0.00	22.02	326.04	179.35	0%	179.35
3	**1**	**1**	192	**1/1/2030**	10,100,000	1,416,806	979,167	137,355	0	0	0	0	0	0	0	1,554,161	1,554,161	0	683,796,886	440		1,554,161	0	9.56	7.73	0.00	790.00	0.00	0.00	0.00	0.00	17.42	343.46	178.69	0%	178.69
3	17	2	193	2/1/2030	10,100,000	2,350,588	958,333	223,034	0	0	0	0	0	0	0	2,573,622	2,573,622	0	683,796,886	440		2,573,622	0	15.87	12.55	0.00	790.00	0.00	0.00	0.00	0.00	28.63	372.09	176.64	0%	176.64
3	17	3	194	3/1/2030	10,100,000	1,219,949	937,500	113,238	0	0	0	0	0	0	0	1,333,187	1,333,187	0	683,796,886	440		1,333,187	0	8.23	6.37	0.00	790.00	0.00	0.00	0.00	0.00	14.72	386.81	175.27	0%	175.27
3	17	4	195	4/1/2030	10,100,000	706,065	916,667	64,082	0	0	0	0	0	0	0	770,147	770,147	0	683,796,886	440		770,147	0	4.77	3.60	0.00	790.00	0.00	0.00	0.00	0.00	8.44	395.25	173.56	0%	173.56
3	17	5	196	5/1/2030	10,100,000	194,986	895,833	17,295	0	0	0	0	0	0	0	212,281	212,281	0	683,796,886	440		212,281	0	1.32	0.97	0.00	790.00	0.00	0.00	0.00	0.00	2.31	397.56	172.52	0%	172.52
3	17	6	197	6/1/2030	10,100,000	32,731	875,000	2,836	0	0	0	0	0	0	0	35,567	35,567	0	683,796,886	440		35,567	0	0.22	0.16	0.00	790.00	0.00	0.00	0.00	0.00	0.38	397.94	171.14	0%	171.14
3	17	7	198	7/1/2030	10,100,000	1,403	854,167	119	0	0	0	0	0	0	0	1,521	1,521	0	683,796,886	440		1,521	0	0.01	0.01	0.00	790.00	0.00	0.00	0.00	0.00	0.02	397.96	169.76	0%	169.76
3	17	8	199	8/1/2030	10,100,000	5,144	833,333	424	0	0	0	0	0	0	0	5,568	5,568	0	683,796,886	440		5,568	0	0.03	0.02	0.00	790.00	0.00	0.00	0.00	0.00	0.06	398.02	168.37	0%	168.37
3	17	9	200	9/1/2030	10,100,000	25,250	812,500	2,031	0	0	0	0	0	0	0	27,281	27,281	0	683,796,886	440		27,281	0	0.17	0.11	0.00	790.00	0.00	0.00	0.00	0.00	0.29	398.31	166.97	0%	166.97
3	17	10	201	10/1/2030	10,100,000	374,074	791,667	29,329	0	0	0	0	0	0	0	403,395	403,395	0	683,796,886	440		403,395	0	2.53	1.65	0.00	790.00	0.00	0.00	0.00	0.00	4.21	402.52	165.57	0%	165.57
3	17	11	202	11/1/2030	10,100,000	1,226,963	770,833	93,642	0	0	0	0	0	0	0	1,320,605	1,320,605	0	683,796,886	440		1,320,605	0	8.28	5.27	0.00	790.00	0.00	0.00	0.00	0.00	13.67	416.19	164.16	0%	164.16
3	17	12	203	12/1/2030	10,100,000	1,787,139	750,000	132,708	0	0	0	0	0	0	0	1,919,847	1,919,847	0	683,796,886	440		1,919,847	0	12.06	7.46	0.00	790.00	0.00	0.00	0.00	0.00	19.70	435.89	162.75	0%	162.75
3	18	1	204	1/1/2031	10,100,000	1,416,806	729,167	102,286	0	0	0	0	0	0	0	1,519,091	1,519,091	0	683,796,886	440		1,519,091	0	9.56	5.75	0.00	790.00	0.00	0.00	0.00	0.00	15.45	451.34	161.33	0%	161.33
3	18	2	205	2/1/2031	10,100,000	2,350,588	708,333	164,851	0	0	0	0	0	0	0	2,515,439	2,515,439	0	683,796,886	440		2,515,439	0	15.87	9.27	0.00	790.00	0.00	0.00	0.00	0.00	25.36	476.70	159.90	0%	159.90
3	18	3	206	3/1/2031	10,100,000	1,219,949	687,500	83,041	0	0	0	0	0	0	0	1,302,990	1,302,990	0	683,796,886	440		1,302,990	0	8.23	4.67	0.00	790.00	0.00	0.00	0.00	0.00	13.02	489.72	158.48	0%	158.48
3	18	4	207	4/1/2031	10,100,000	706,065	666,667	46,605	0	0	0	0	0	0	0	752,670	752,670	0	683,796,886	440		752,670	0	4.77	2.62	0.00	790.00	0.00	0.00	0.00	0.00	7.45	497.17	157.04	0%	157.04
3	18	5	208	5/1/2031	10,100,000	194,986	645,833	12,468	0	0	0	0	0	0	0	207,454	207,454	0	683,796,886	440		207,454	0	1.32	0.70	0.00	790.00	0.00	0.00	0.00	0.00	2.04	499.21	155.60	0%	155.60
3	18	6	209	6/1/2031	10,100,000	32,731	625,000	2,025	0	0	0	0	0	0	0	34,757	34,757	0	683,796,886	440		34,757	0	0.22	0.11	0.00	790.00	0.00	0.00	0.00	0.00	0.34	499.55	154.15	0%	154.15
3	18	7	210	7/1/2031	10,100,000	1,403	604,167	84	0	0	0	0	0	0	0	1,487	1,487	0	683,796,886	440		1,487	0	0.01	0.00	0.00	790.00	0.00	0.00	0.00	0.00	0.01	499.56	152.70	0%	152.70
3	18	8	211	8/1/2031	10,100,000	5,144	583,333	297	0	0	0	0	0	0	0	5,441	5,441	0	683,796,886	440		5,441	0	0.03	0.02	0.00	790.00	0.00	0.00	0.00	0.00	0.05	499.61	151.24	0%	151.24
3	18	9	212	9/1/2031	10,100,000	25,250	562,500	1,406	0	0	0	0	0	0	0	26,656	26,656	0	683,796,886	440		26,656	0	0.17	0.08	0.00	790.00	0.00	0.00	0.00	0.00	0.25	499.86	149.78	0%	149.78
3	18	10	213	10/1/2031	10,100,000	374,074	541,667	20,062	0	0	0	0	0	0	0	394,136	394,136	0	683,796,886	440		394,136	0	2.53	1.13	0.00	790.00	0.00	0.00	0.00	0.00	3.69	503.55	148.31	0%	148.31
3	18	11	214	11/1/2031	10,100,000	1,226,963

NA	27	6	293	6/1/2038	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.22	0.09	0.00	790.00	0.00	0.00	0.00	0.00	0.01	0.00	145.36	0%	145.36
NA	27	7	294	7/1/2038	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.01	0.00	0.00	790.00	0.00	0.00	0.00	0.00	0.00	0.00	145.36	0%	145.36
NA	27	8	295	8/1/2038	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.03	0.01	0.00	790.00	0.00	0.00	0.00	0.00	0.05	0.00	145.36	0%	145.36
NA	27	9	296	9/1/2038	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.17	0.07	0.00	790.00	0.00	0.00	0.00	0.00	0.24	0.00	145.36	0%	145.36
NA	27	10	297	10/1/2038	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	2.53	1.04	0.00	790.00	0.00	0.00	0.00	0.00	3.57	0.00	145.36	0%	145.36
NA	27	11	298	11/1/2038	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	8.28	3.42	0.00	790.00	0.00	0.00	0.00	0.00	11.70	0.00	145.36	0%	145.36
NA	27	12	299	12/1/2038	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	12.06	4.98	0.00	790.00	0.00	0.00	0.00	0.00	17.04	0.00	145.36	0%	145.36
NA	28	1	300	1/1/2039	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	9.56	3.95	0.00	790.00	0.00	0.00	0.00	0.00	13.51	0.00	145.36	0%	145.36
NA	28	2	301	2/1/2039	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	15.87	6.55	0.00	790.00	0.00	0.00	0.00	0.00	22.41	0.00	145.36	0%	145.36
NA	28	3	302	3/1/2039	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	8.23	3.40	0.00	790.00	0.00	0.00	0.00	0.00	11.63	0.00	145.36	0%	145.36
NA	28	4	303	4/1/2039	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	4.77	1.97	0.00	790.00	0.00	0.00	0.00	0.00	6.73	0.00	145.36	0%	145.36
NA	28	5	304	5/1/2039	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	1.32	0.54	0.00	790.00	0.00	0.00	0.00	0.00	1.86	0.00	145.36	0%	145.36
NA	28	6	305	6/1/2039	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.22	0.09	0.00	790.00	0.00	0.00	0.00	0.00	0.31	0.00	145.36	0%	145.36
NA	28	7	306	7/1/2039	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.01	0.00	0.00	790.00	0.00	0.00	0.00	0.00	0.01	0.00	145.36	0%	145.36
NA	28	8	307	8/1/2039	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.03	0.01	0.00	790.00	0.00	0.00	0.00	0.00	0.05	0.00	145.36	0%	145.36
NA	28	9	308	9/1/2039	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.17	0.07	0.00	790.00	0.00	0.00	0.00	0.00	0.24	0.00	145.36	0%	145.36
NA	28	10	309	10/1/2039	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	2.53	1.04	0.00	790.00	0.00	0.00	0.00	0.00	3.57	0.00	145.36	0%	145.36
NA	28	11	310	11/1/2039	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	8.28	3.42	0.00	790.00	0.00	0.00	0.00	0.00	11.70	0.00	145.36	0%	145.36
NA	28	12	311	12/1/2039	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	12.06	4.98	0.00	790.00	0.00	0.00	0.00	0.00	17.04	0.00	145.36	0%	145.36
NA	29	1	312	1/1/2040	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	9.56	3.95	0.00	790.00	0.00	0.00	0.00	0.00	13.51	0.00	145.36	0%	145.36
NA	29	2	313	2/1/2040	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	15.87	6.55	0.00	790.00	0.00	0.00	0.00	0.00	22.41	0.00	145.36	0%	145.36
NA	29	3	314	3/1/2040	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	8.23	3.40	0.00	790.00	0.00	0.00	0.00	0.00	11.63	0.00	145.36	0%	145.36
NA	29	4	315	4/1/2040	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	4.77	1.97	0.00	790.00	0.00	0.00	0.00	0.00	6.73	0.00	145.36	0%	145.36
NA	29	5	316	5/1/2040	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	1.32	0.54	0.00	790.00	0.00	0.00	0.00	0.00	1.86	0.00	145.36	0%	145.36
NA	29	6	317	6/1/2040	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.22	0.09	0.00	790.00	0.00	0.00	0.00	0.00	0.31	0.00	145.36	0%	145.36
NA	29	7	318	7/1/2040	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.01	0.00	0.00	790.00	0.00	0.00	0.00	0.00	0.01	0.00	145.36	0%	145.36
NA	29	8	319	8/1/2040	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.03	0.01	0.00	790.00	0.00	0.00	0.00	0.00	0.05	0.00	145.36	0%	145.36
NA	29	9	320	9/1/2040	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.17	0.07	0.00	790.00	0.00	0.00	0.00	0.00	0.24	0.00	145.36	0%	145.36
NA	29	10	321	10/1/2040	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	2.53	1.04	0.00	790.00	0.00	0.00	0.00	0.00	3.57	0.00	145.36	0%	145.36
NA	29	11	322	11/1/2040	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	8.28	3.42	0.00	790.00	0.00	0.00	0.00	0.00	11.70	0.00	145.36	0%	145.36
NA	29	12	323	12/1/2040	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	12.06	4.98	0.00	790.00	0.00	0.00	0.00	0.00	17.04	0.00	145.36	0%	145.36
NA	30	1	324	1/1/2041	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	9.56	3.95	0.00	790.00	0.00	0.00	0.00	0.00	13.51	0.00	145.36	0%	145.36
NA	30	2	325	2/1/2041	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	15.87	6.55	0.00	790.00	0.00	0.00	0.00	0.00	22.41	0.00	145.36	0%	145.36
NA	30	3	326	3/1/2041	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	8.23	3.40	0.00	790.00	0.00	0.00	0.00	0.00	11.63	0.00	145.36	0%	145.36
NA	30	4	327	4/1/2041	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	4.77	1.97	0.00	790.00	0.00	0.00	0.00	0.00	6.73	0.00	145.36	0%	145.36
NA	30	5	328	5/1/2041	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	1.32	0.54	0.00	790.00	0.00	0.00	0.00	0.00	1.86	0.00	145.36	0%	145.36
NA	30	6	329	6/1/2041	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.22	0.09	0.00	790.00	0.00	0.00	0.00	0.00	0.31	0.00	145.36	0%	145.36
NA	30	7	330	7/1/2041	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.01	0.00	0.00	790.00	0.00	0.00	0.00	0.00	0.01	0.00	145.36	0%	145.36
NA	30	8	331	8/1/2041	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.03	0.01	0.00	790.00	0.00	0.00	0.00	0.00	0.05	0.00	145.36	0%	145.36
NA	30	9	332	9/1/2041	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.17	0.07	0.00	790.00	0.00	0.00	0.00	0.00	0.24	0.00	145.36	0%	145.36
NA	30	10	333	10/1/2041	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	2.53	1.04	0.00	790.00	0.00	0.00	0.00	0.00	3.57	0.00	145.36	0%	145.36
NA	30	11	334	11/1/2041	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	8.28	3.42	0.00	790.00	0.00	0.00	0.00	0.00	11.70	0.00	145.36	0%	145.36
NA	30	12	335	12/1/2041	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	12.06	4.98	0.00	790.00	0.00	0.00	0.00	0.00	17.04	0.00	145.36	0%	145.36
NA	31	1	336	1/1/2042	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	9.56	3.95	0.00	790.00	0.00	0.00	0.00	0.00	13.51	0.00	145.36	0%	145.36
NA	31	2	337	2/1/2042	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	15.87	6.55	0.00	790.00	0.00	0.00	0.00	0.00	22.41	0.00	145.36	0%	145.36
NA	31	3	338	3/1/2042	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	8.23	3.40	0.00	790.00	0.00	0.00	0.00	0.00	11.63	0.00	145.36	0%	145.36
NA	31	4	339	4/1/2042	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	4.77	1.97	0.00	790.00	0.00	0.00	0.00	0.00	6.73	0.00	145.36	0%	145.36
NA	31	5	340	5/1/2042	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	1.32	0.54	0.00	790.00	0.00	0.00	0.00	0.00	1.86	0.00	145.36	0%	145.36
NA	31	6	341	6/1/2042	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.22	0.09	0.00	790.00	0.00	0.00	0.00	0.00	0.31	0.00	145.36	0%	145.36
NA	31	7	342	7/1/2042	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.01	0.00	0.00	790.00	0.00	0.00	0.00	0.00	0.01	0.00	145.36	0%	145.36
NA	31	8	343	8/1/2042	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.03	0.01	0.00	790.00	0.00	0.00	0.00	0.00	0.05	0.00	145.36	0%	145.36
NA	31	9	344	9/1/2042	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.17	0.07	0.00	790.00	0.00	0.00	0.00	0.00	0.24	0.00	145.36	0%	145.36
NA	31	10	345	10/1/2042	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	2.53	1.04	0.00	790.00	0.00	0.00	0.00	0.00	3.57	0.00	145.36	0%	145.36
NA	31	11	346	11/1/2042	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	8.28	3.42	0.00	790.00	0.00	0.00	0.00	0.00	11.70	0.00	145.36	0%	145.36
NA	31	12	347	12/1/2042	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	12.06	4.98	0.00	790.00	0.00	0.00	0.00	0.00	17.04	0.00	145.36	0%	145.36
NA	32	1	348	1/1/2043	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	9.56	3.95	0.00	790.00	0.00	0.00	0.00	0.00	13.51	0.00	145.36	0%	145.36
NA	32	2	349	2/1/2043	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	15.87	6.55	0.00	790.00	0.00	0.00	0.00	0.00	22.41	0.00	145.36	0%	145.36
NA	32	3	350	3/1/2043	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	8.23	3.40	0.00	790.00	0.00	0.00	0.00	0.00	11.63	0.00	145.36	0%	145.36
NA	32	4	351	4/1/2043	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	4.77	1.97	0.00	790.00	0.00	0.00	0.00	0.00	6.73	0.00	145.36	0%	145.36
NA	32	5	352	5/1/2043	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	1.32	0.54	0.00	790.00	0.00	0.00	0.00	0.00	1.86	0.00	145.36	0%	145.36
NA	32	6	353	6/1/2043	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.22	0.09	0.00	790.00	0.00	0.00	0.00	0.00	0.31	0.00	145.36	0%	145.36
NA	32	7	354	7/1/2043	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.01	0.00	0.00	790.00	0.00	0.00	0.00	0.00	0.01	0.00	145.36	0%	145.36
NA	32	8	355	8/1/2043	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.03	0.01	0.00	790.00	0.00	0.00	0.00	0.00	0.05	0.00	145.36	0%	145.36
NA	32	9	356	9/1/2043	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.17	0.07	0.00	790.00	0.00	0.00	0.00	0.00	0.24	0.00	145.36	0%	145.36
NA	32	10	357	10/1/2043	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	2.53	1.04	0.00	790.00	0.00	0.00	0.00	0.00	3.57	0.00	145.36	0%	145.36
NA	32	11	358	11/1/2043	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	8.28	3.42	0.00	790.00	0.00	0.00	0.00	0.00	11.70	0.00	145.36	0%	145.36
NA	32	12	359	12/1/2043	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	12.06	4.98	0.00	790.00	0.00	0.00	0.00	0.00	17.04	0.00	145.36	0%	145.36
NA	33	1	360	1/1/2044	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	9.56	3.95	0.00	790.00	0.00	0.00	0.00	0.00	13.51	0.00	145.36	0%	145.36
NA	33	2	361	2/1/2044	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	15.87	6.55	0.00	790.00	0.00	0.00	0.00	0.00	22.41	0.00	145.36	0%	145.36
NA	33	3	362	3/1/2044	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	8.23	3.40	0.00	790.00	0.00	0.00	0.00	0.00	11.63	0.00	145.36	0%	145.36
NA	33	4	363	4/1/2044	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	4.77	1.97	0.00	790.00	0.00	0.00	0.00	0.00	6.73	0.00	145.36	0%	145.36
NA	33	5	364	5/1/2044	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	1.32	0.54	0.00	790.00	0.00	0.00	0.00	0.00	1.86	0.00	145.36	0%	145.36
NA	33	6	365	6/1/2044	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.22	0.09	0.00	790.00	0.00	0.00	0.00	0.00	0.31	0.00	145.36	0%	145.36
NA	33	7	366	7/1/2044	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.01	0.00	0.00	790.00	0.00	0.00	0.00	0.00	0.01	0.00	145.36	0%	145.36
NA	33	8	367	8/1/2044	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.03	0.01	0.00	790.00	0.00	0.00	0.00	0.00	0.05	0.00	145.36	0%	145.36
NA	33	9	368	9/1/2044	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.17	0.07	0.00	790.00	0.00	0.00	0.00	0.00	0.24	0.00	145.36	0%	145.36
NA	33	10	369	10/1/2044	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	2.53	1.04	0.00	790.00	0.00	0.00	0.00	0.00	3.57	0.00	145.36	0%	145.36
NA	33	11	370	11/1/2044	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	8.28	3.42	0.00	790.00	0.00	0.00	0.00	0.00	11.70	0.00	145.36	0%	145.36
NA	33	12	371	12/1/2044	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	12.06	4.98	0.00	790.00	0.00	0.00	0.00	0.00	17.04	0.00	145.36	0%	145.36
NA	34	1	372	1/1/2045	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	9.56	3.95	0.00	790.00	0.00	0.00	0.00	0.00	13.51	0.00

NA	42	9	476	9/1/2053	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.17	0.07	0.00	790.00	0.00	0.00	0.00	0.00	0.24	0.00	145.36	0%	145.36
NA	42	10	477	10/1/2053	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	2.53	1.04	0.00	790.00	0.00	0.00	0.00	0.00	3.57	0.00	145.36	0%	145.36
NA	42	11	478	11/1/2053	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	8.28	3.42	0.00	790.00	0.00	0.00	0.00	0.00	11.70	0.00	145.36	0%	145.36
NA	42	12	479	12/1/2053	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	12.06	4.98	0.00	790.00	0.00	0.00	0.00	0.00	17.04	0.00	145.36	0%	145.36
NA	43	1	480	1/1/2054	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	9.56	3.95	0.00	790.00	0.00	0.00	0.00	0.00	13.51	0.00	145.36	0%	145.36
NA	43	2	481	2/1/2054	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	15.87	6.55	0.00	790.00	0.00	0.00	0.00	0.00	22.41	0.00	145.36	0%	145.36
NA	43	3	482	3/1/2054	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	8.23	3.40	0.00	790.00	0.00	0.00	0.00	0.00	11.63	0.00	145.36	0%	145.36
NA	43	4	483	4/1/2054	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	4.77	1.97	0.00	790.00	0.00	0.00	0.00	0.00	6.73	0.00	145.36	0%	145.36
NA	43	5	484	5/1/2054	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	1.32	0.54	0.00	790.00	0.00	0.00	0.00	0.00	1.86	0.00	145.36	0%	145.36
NA	43	6	485	6/1/2054	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.22	0.09	0.00	790.00	0.00	0.00	0.00	0.00	0.31	0.00	145.36	0%	145.36
NA	43	7	486	7/1/2054	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.01	0.00	0.00	790.00	0.00	0.00	0.00	0.00	0.01	0.00	145.36	0%	145.36
NA	43	8	487	8/1/2054	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.03	0.01	0.00	790.00	0.00	0.00	0.00	0.00	0.05	0.00	145.36	0%	145.36
NA	43	9	488	9/1/2054	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.17	0.07	0.00	790.00	0.00	0.00	0.00	0.00	0.24	0.00	145.36	0%	145.36
NA	43	10	489	10/1/2054	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	2.53	1.04	0.00	790.00	0.00	0.00	0.00	0.00	3.57	0.00	145.36	0%	145.36
NA	43	11	490	11/1/2054	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	8.28	3.42	0.00	790.00	0.00	0.00	0.00	0.00	11.70	0.00	145.36	0%	145.36
NA	43	12	491	12/1/2054	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	12.06	4.98	0.00	790.00	0.00	0.00	0.00	0.00	17.04	0.00	145.36	0%	145.36
NA	44	1	492	1/1/2055	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	9.56	3.95	0.00	790.00	0.00	0.00	0.00	0.00	13.51	0.00	145.36	0%	145.36
NA	44	2	493	2/1/2055	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	15.87	6.55	0.00	790.00	0.00	0.00	0.00	0.00	22.41	0.00	145.36	0%	145.36
NA	44	3	494	3/1/2055	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	8.23	3.40	0.00	790.00	0.00	0.00	0.00	0.00	11.63	0.00	145.36	0%	145.36
NA	44	4	495	4/1/2055	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	4.77	1.97	0.00	790.00	0.00	0.00	0.00	0.00	6.73	0.00	145.36	0%	145.36
NA	44	5	496	5/1/2055	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	1.32	0.54	0.00	790.00	0.00	0.00	0.00	0.00	1.86	0.00	145.36	0%	145.36
NA	44	6	497	6/1/2055	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.22	0.09	0.00	790.00	0.00	0.00	0.00	0.00	0.31	0.00	145.36	0%	145.36
NA	44	7	498	7/1/2055	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.01	0.00	0.00	790.00	0.00	0.00	0.00	0.00	0.01	0.00	145.36	0%	145.36
NA	44	8	499	8/1/2055	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.03	0.01	0.00	790.00	0.00	0.00	0.00	0.00	0.05	0.00	145.36	0%	145.36
NA	44	9	500	9/1/2055	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.17	0.07	0.00	790.00	0.00	0.00	0.00	0.00	0.24	0.00	145.36	0%	145.36
NA	44	10	501	10/1/2055	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	2.53	1.04	0.00	790.00	0.00	0.00	0.00	0.00	3.57	0.00	145.36	0%	145.36
NA	44	11	502	11/1/2055	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	8.28	3.42	0.00	790.00	0.00	0.00	0.00	0.00	11.70	0.00	145.36	0%	145.36
NA	44	12	503	12/1/2055	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	12.06	4.98	0.00	790.00	0.00	0.00	0.00	0.00	17.04	0.00	145.36	0%	145.36
NA	45	1	504	1/1/2056	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	9.56	3.95	0.00	790.00	0.00	0.00	0.00	0.00	13.51	0.00	145.36	0%	145.36
NA	45	2	505	2/1/2056	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	15.87	6.55	0.00	790.00	0.00	0.00	0.00	0.00	22.41	0.00	145.36	0%	145.36
NA	45	3	506	3/1/2056	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	8.23	3.40	0.00	790.00	0.00	0.00	0.00	0.00	11.63	0.00	145.36	0%	145.36
NA	45	4	507	4/1/2056	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	4.77	1.97	0.00	790.00	0.00	0.00	0.00	0.00	6.73	0.00	145.36	0%	145.36
NA	45	5	508	5/1/2056	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	1.32	0.54	0.00	790.00	0.00	0.00	0.00	0.00	1.86	0.00	145.36	0%	145.36
NA	45	6	509	6/1/2056	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.22	0.09	0.00	790.00	0.00	0.00	0.00	0.00	0.31	0.00	145.36	0%	145.36
NA	45	7	510	7/1/2056	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.01	0.00	0.00	790.00	0.00	0.00	0.00	0.00	0.01	0.00	145.36	0%	145.36
NA	45	8	511	8/1/2056	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.03	0.01	0.00	790.00	0.00	0.00	0.00	0.00	0.05	0.00	145.36	0%	145.36
NA	45	9	512	9/1/2056	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.17	0.07	0.00	790.00	0.00	0.00	0.00	0.00	0.24	0.00	145.36	0%	145.36
NA	45	10	513	10/1/2056	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	2.53	1.04	0.00	790.00	0.00	0.00	0.00	0.00	3.57	0.00	145.36	0%	145.36
NA	45	11	514	11/1/2056	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	8.28	3.42	0.00	790.00	0.00	0.00	0.00	0.00	11.70	0.00	145.36	0%	145.36
NA	45	12	515	12/1/2056	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	12.06	4.98	0.00	790.00	0.00	0.00	0.00	0.00	17.04	0.00	145.36	0%	145.36
NA	46	1	516	1/1/2057	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	9.56	3.95	0.00	790.00	0.00	0.00	0.00	0.00	13.51	0.00	145.36	0%	145.36
NA	46	2	517	2/1/2057	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	15.87	6.55	0.00	790.00	0.00	0.00	0.00	0.00	22.41	0.00	145.36	0%	145.36
NA	46	3	518	3/1/2057	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	8.23	3.40	0.00	790.00	0.00	0.00	0.00	0.00	11.63	0.00	145.36	0%	145.36
NA	46	4	519	4/1/2057	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	4.77	1.97	0.00	790.00	0.00	0.00	0.00	0.00	6.73	0.00	145.36	0%	145.36
NA	46	5	520	5/1/2057	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	1.32	0.54	0.00	790.00	0.00	0.00	0.00	0.00	1.86	0.00	145.36	0%	145.36
NA	46	6	521	6/1/2057	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.22	0.09	0.00	790.00	0.00	0.00	0.00	0.00	0.31	0.00	145.36	0%	145.36
NA	46	7	522	7/1/2057	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.01	0.00	0.00	790.00	0.00	0.00	0.00	0.00	0.01	0.00	145.36	0%	145.36
NA	46	8	523	8/1/2057	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.03	0.01	0.00	790.00	0.00	0.00	0.00	0.00	0.05	0.00	145.36	0%	145.36
NA	46	9	524	9/1/2057	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.17	0.07	0.00	790.00	0.00	0.00	0.00	0.00	0.24	0.00	145.36	0%	145.36
NA	46	10	525	10/1/2057	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	2.53	1.04	0.00	790.00	0.00	0.00	0.00	0.00	3.57	0.00	145.36	0%	145.36
NA	46	11	526	11/1/2057	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	8.28	3.42	0.00	790.00	0.00	0.00	0.00	0.00	11.70	0.00	145.36	0%	145.36
NA	46	12	527	12/1/2057	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	12.06	4.98	0.00	790.00	0.00	0.00	0.00	0.00	17.04	0.00	145.36	0%	145.36
NA	47	1	528	1/1/2058	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	9.56	3.95	0.00	790.00	0.00	0.00	0.00	0.00	13.51	0.00	145.36	0%	145.36
NA	47	2	529	2/1/2058	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	15.87	6.55	0.00	790.00	0.00	0.00	0.00	0.00	22.41	0.00	145.36	0%	145.36
NA	47	3	530	3/1/2058	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	8.23	3.40	0.00	790.00	0.00	0.00	0.00	0.00	11.63	0.00	145.36	0%	145.36
NA	47	4	531	4/1/2058	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	4.77	1.97	0.00	790.00	0.00	0.00	0.00	0.00	6.73	0.00	145.36	0%	145.36
NA	47	5	532	5/1/2058	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	1.32	0.54	0.00	790.00	0.00	0.00	0.00	0.00	1.86	0.00	145.36	0%	145.36
NA	47	6	533	6/1/2058	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.22	0.09	0.00	790.00	0.00	0.00	0.00	0.00	0.31	0.00	145.36	0%	145.36
NA	47	7	534	7/1/2058	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.01	0.00	0.00	790.00	0.00	0.00	0.00	0.00	0.01	0.00	145.36	0%	145.36
NA	47	8	535	8/1/2058	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.03	0.01	0.00	790.00	0.00	0.00	0.00	0.00	0.05	0.00	145.36	0%	145.36
NA	47	9	536	9/1/2058	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.17	0.07	0.00	790.00	0.00	0.00	0.00	0.00	0.24	0.00	145.36	0%	145.36
NA	47	10	537	10/1/2058	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	2.53	1.04	0.00	790.00	0.00	0.00	0.00	0.00	3.57	0.00	145.36	0%	145.36
NA	47	11	538	11/1/2058	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	8.28	3.42	0.00	790.00	0.00	0.00	0.00	0.00	11.70	0.00	145.36	0%	145.36
NA	47	12	539	12/1/2058	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	12.06	4.98	0.00	790.00	0.00	0.00	0.00	0.00	17.04	0.00	145.36	0%	145.36
NA	48	1	540	1/1/2059	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	9.56	3.95	0.00	790.00	0.00	0.00	0.00	0.00	13.51	0.00	145.36	0%	145.36
NA	48	2	541	2/1/2059	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	15.87	6.55	0.00	790.00	0.00	0.00	0.00	0.00	22.41	0.00	145.36	0%	145.36
NA	48	3	542	3/1/2059	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	8.23	3.40	0.00	790.00	0.00	0.00	0.00	0.00	11.63	0.00	145.36	0%	145.36
NA	48	4	543	4/1/2059	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	4.77	1.97	0.00	790.00	0.00	0.00	0.00	0.00	6.73	0.00	145.36	0%	145.36
NA	48	5	544	5/1/2059	10,100,000	194,986	500,000	9,653	0	0	0	0	0	0	0	204,639	204,639	0	683,796,886	440		204,639	0	1.32	0.54	0.00	790.00	0.00	0.00	0.00	0.00	1.86	0.00	145.36	0%	145.36
NA	48	6	545	6/1/2059	10,100,000	32,731	500,000	1,620	0	0	0	0	0	0	0	34,352	34,352	0	683,796,886	440		34,352	0	0.22	0.09	0.00	790.00	0.00	0.00	0.00	0.00	0.31	0.00	145.36	0%	145.36
NA	48	7	546	7/1/2059	10,100,000	1,403	500,000	69	0	0	0	0	0	0	0	1,472	1,472	0	683,796,886	440		1,472	0	0.01	0.00	0.00	790.00	0.00	0.00	0.00	0.00	0.01	0.00	145.36	0%	145.36
NA	48	8	547	8/1/2059	10,100,000	5,144	500,000	255	0	0	0	0	0	0	0	5,398	5,398	0	683,796,886	440		5,398	0	0.03	0.01	0.00	790.00	0.00	0.00	0.00	0.00	0.05	0.00	145.36	0%	145.36
NA	48	9	548	9/1/2059	10,100,000	25,250	500,000	1,250	0	0	0	0	0	0	0	26,500	26,500	0	683,796,886	440		26,500	0	0.17	0.07	0.00	790.00	0.00	0.00	0.00	0.00	0.24	0.00	145.36	0%	145.36
NA	48	10	549	10/1/2059	10,100,000	374,074	500,000	18,519	0	0	0	0	0	0	0	392,593	392,593	0	683,796,886	440		392,593	0	2.53	1.04	0.00	790.00	0.00	0.00	0.00	0.00	3.57	0.00	145.36	0%	145.36
NA	48	11	550	11/1/2059	10,100,000	1,226,963	500,000	60,741	0	0	0	0	0	0	0	1,287,704	1,287,704	0	683,796,886	440		1,287,704	0	8.28	3.42	0.00	790.00	0.00	0.00	0.00	0.00	11.70	0.00	145.36	0%	145.36
NA	48	12	551	12/1/2059	10,100,000	1,787,139	500,000	88,472	0	0	0	0	0	0	0	1,875,611	1,875,611	0	683,796,886	440		1,875,611	0	12.06	4.98	0.00	790.00	0.00	0.00	0.00	0.00	17.04	0.00	145.36	0%	145.36
NA	49	1	552	1/1/2060	10,100,000	1,416,806	500,000	70,139	0	0	0	0	0	0	0	1,486,944	1,486,944	0	683,796,886	440		1,486,944	0	9.56	3.95	0.00	790.00	0.00	0.00	0.00	0.00	13.51	0.00	145.36	0%	145.36
NA	49	2	553	2/1/2060	10,100,000	2,350,588	500,000	116,366	0	0	0	0	0	0	0	2,466,954	2,466,954	0	683,796,886	440		2,466,954	0	15.87	6.55	0.00	790.00	0.00	0.00	0.00	0.00	22.41	0.00	145.36	0%	145.36
NA	49	3	554	3/1/2060	10,100,000	1,219,949	500,000	60,394	0	0	0	0	0	0	0	1,280,343	1,280,343	0	683,796,886	440		1,280,343	0	8.23	3.40	0.00	790.00	0.00	0.00	0.00	0.00	11.63	0.00	145.36	0%	145.36
NA	49	4	555	4/1/2060	10,100,000	706,065	500,000	34,954	0	0	0	0	0	0	0	741,019	741,019	0	683,796,886	440		741,019	0	4.77	1.97	0.00	790.00	0.00	0.00