



*Alpha*

Alpha Analytical Laboratories Inc.

e-mail: [clientservices@alpha-labs.com](mailto:clientservices@alpha-labs.com)

Corporate: 208 Mason St., Ukiah, CA 95482 • Phone: (707) 468-0401 • Fax: (707) 468-5267

Satellite Laboratory: 6398 Dougherty Rd., Suite 35, Dublin, CA 94568 • Phone: (925) 828-6226 • Fax: (925) 828-6309

ELAP Certificate Numbers 1551 and 2728

17 April 2014

Golder Associates - Sunnyvale

Attn: George Wegman

425 Lakeside Drive

Sunnyvale, CA 94085

RE: Lehigh Permanente- SW

Work Order: 14D0353

Enclosed are the results of analyses for samples received by the laboratory on 04/03/14 22:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jeanette L. Poplin For Robbie C. Phillips  
Project Manager



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Golder Associates - Sunnyvale  
Sunnyvale CA, 94085  
425 Lakeside Drive

Project Manager: George Wegman  
Project: Lehigh Permanente- SW  
Project Number: 0637109914

Reported:  
04/17/14 14:51

### ANALYTICAL REPORT FOR SAMPLES

| Sample ID   | Laboratory ID | Matrix | Date Sampled   | Date Received  |
|-------------|---------------|--------|----------------|----------------|
| Pond 30 Eff | 14D0353-01    | Water  | 04/02/14 10:30 | 04/03/14 22:00 |



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Project Number: 0637109914

Reported:  
04/17/14 14:51

**Metals by APHA/EPA Methods**  
**Alpha Analytical Laboratories, Inc.**

| Analyte  | Result      | MDL    | Reporting |  | Units | Dilution | Batch   | Prepared       | Analyzed       | Method      | Notes |
|--|-------------|--------|-----------|--|-------|----------|---------|----------------|----------------|-------------|-------|
|  |             |        | Limit     |  |       |          |         |                |                |             |       |
| <b>Pond 30 Eff (14D0353-01) Water    Sampled: 04/02/14 10:30    Received: 04/03/14 22:00</b> |             |        |           |  |       |          |         |                |                |             |       |
| Chromium, hexavalent   | ND          | 0.0050 | 0.010     |  | mg/l  | 1        | AD41629 | 04/16/14 13:00 | 04/16/14 14:24 | SM3500-Cr B | U     |
| <b>Mercury</b>   | <b>12.0</b> | 0.200  | 0.500     |  | ng/l  | "        | AD40845 | 04/08/14 16:00 | 04/09/14 16:10 | EPA 1631E   |       |



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Reported:  
 04/17/14 14:51

**Conventional Chemistry Parameters by APHA/EPA Methods**  
**Alpha Analytical Laboratories, Inc.**

| Analyte  | Result      | MDL   | Reporting |  | Units | Dilution | Batch   | Prepared       | Analyzed       | Method    | Notes |
|--|-------------|-------|-----------|--|-------|----------|---------|----------------|----------------|-----------|-------|
|  |             |       | Limit     |  |       |          |         |                |                |           |       |
| <b>Pond 30 Eff (14D0353-01) Water    Sampled: 04/02/14 10:30    Received: 04/03/14 22:00</b> |             |       |           |  |       |          |         |                |                |           |       |
| <b>Oil &amp; Grease (HEM)</b>  | <b>1.7</b>  | 0.80  | 5.0       |  | mg/l  | 1        | AD41104 | 04/11/14 07:59 | 04/15/14 16:56 | EPA 1664A | J     |
| <b>Total Dissolved Solids</b>  | <b>1100</b> | 5.0   | 10        |  | "     | "        | AD40920 | 04/09/14 14:00 | 04/14/14 09:00 | SM2540C   |       |
| <b>Total Suspended Solids</b>  | <b>13</b>   | 0.30  | 1.0       |  | "     | "        | AD40830 | 04/08/14 10:00 | 04/10/14 12:00 | SM2540D   |       |
| <b>Total Organic Carbon</b>  | <b>2.90</b> | 0.100 | 0.300     |  | "     | "        | AD40618 | 04/06/14 17:51 | 04/08/14 08:41 | SM5310C   |       |

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 04/17/14 14:51

**Metals by APHA/EPA Methods - Quality Control**  
**Alpha Analytical Laboratories, Inc.**

| Analyte   | Result | MDL    | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD  | RPD Limit | Notes |
|---|--------|--------|-----------------|-------|-------------|---------------|------|-------------|------|-----------|-------|
| <b>Batch AD40845 - EPA 1631</b>   |        |        |                 |       |             |               |      |             |      |           |       |
| <b>Blank (AD40845-BLK1)</b> Prepared: 04/08/14 Analyzed: 04/09/14                               |        |        |                 |       |             |               |      |             |      |           |       |
| Mercury   | ND     | 0.200  | 0.500           | ng/l  |             |               |      |             |      |           | U     |
| <b>LCS (AD40845-BS1)</b> Prepared: 04/08/14 Analyzed: 04/09/14                                  |        |        |                 |       |             |               |      |             |      |           |       |
| Mercury   | 4.82   | 0.200  | 0.500           | ng/l  | 5.00        |               | 96.4 | 77-123      |      |           |       |
| <b>Matrix Spike (AD40845-MS1)</b> Source: 14D0012-01 Prepared: 04/08/14 Analyzed: 04/09/14      |        |        |                 |       |             |               |      |             |      |           |       |
| Mercury   | 21.9   | 0.200  | 0.500           | ng/l  | 25.0        | 2.24          | 78.6 | 71-125      |      |           |       |
| <b>Matrix Spike (AD40845-MS2)</b> Source: 14D0078-03 Prepared: 04/08/14 Analyzed: 04/09/14      |        |        |                 |       |             |               |      |             |      |           |       |
| Mercury   | 19.0   | 0.200  | 0.500           | ng/l  | 25.0        | 1.06          | 71.7 | 71-125      |      |           |       |
| <b>Matrix Spike Dup (AD40845-MSD1)</b> Source: 14D0012-01 Prepared: 04/08/14 Analyzed: 04/09/14 |        |        |                 |       |             |               |      |             |      |           |       |
| Mercury   | 20.0   | 0.200  | 0.500           | ng/l  | 25.0        | 2.24          | 71.1 | 71-125      | 8.87 | 24        |       |
| <b>Matrix Spike Dup (AD40845-MSD2)</b> Source: 14D0078-03 Prepared: 04/08/14 Analyzed: 04/09/14 |        |        |                 |       |             |               |      |             |      |           |       |
| Mercury   | 20.1   | 0.200  | 0.500           | ng/l  | 25.0        | 1.06          | 76.2 | 71-125      | 5.73 | 24        |       |
| <b>Batch AD41629 - SM3500 Cr6 Water</b>   |        |        |                 |       |             |               |      |             |      |           |       |
| <b>Blank (AD41629-BLK1)</b> Prepared & Analyzed: 04/16/14                                       |        |        |                 |       |             |               |      |             |      |           |       |
| Chromium, hexavalent  | ND     | 0.0050 | 0.010           | mg/l  |             |               |      |             |      |           | U     |
| <b>LCS (AD41629-BS1)</b> Prepared & Analyzed: 04/16/14  |        |        |                 |       |             |               |      |             |      |           |       |
| Chromium, hexavalent  | 0.107  | 0.0050 | 0.010           | mg/l  | 0.100       |               | 107  | 80-120      |      |           |       |
| <b>Duplicate (AD41629-DUP1)</b> Source: 14D0353-01 Prepared & Analyzed: 04/16/14                |        |        |                 |       |             |               |      |             |      |           |       |
| Chromium, hexavalent  | ND     | 0.0050 | 0.010           | mg/l  |             | ND            |      |             |      | 20        | U     |

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 Sunnyvale CA, 94085  
 425 Lakeside Drive

Project Manager: George Wegman  
 Project: Lehigh Permanente- SW  
 Project Number: 0637109914

Reported:  
 04/17/14 14:51

**Metals by APHA/EPA Methods - Quality Control**  
**Alpha Analytical Laboratories, Inc.**

| Analyte                                 | Result | MDL                       | Reporting Limit | Units | Spike Level                              | Source Result | %REC | %REC Limits | RPD  | RPD Limit | Notes |
|---|--------|---------------------------|-----------------|-------|--|---------------|------|-------------|------|-----------|-------|
| <b>Batch AD41629 - SM3500 Cr6 Water</b> |        |                           |                 |       |  |               |      |             |      |           |       |
| <b>Matrix Spike (AD41629-MS1)</b>       |        | <b>Source: 14D0353-01</b> |                 |       | <b>Prepared &amp; Analyzed: 04/16/14</b> |               |      |             |      |           |       |
| Chromium, hexavalent                    | 0.0967 | 0.0050                    | 0.010           | mg/l  | 0.100                                    | ND            | 96.7 | 0-200       |      |           |       |
| <b>Matrix Spike Dup (AD41629-MSD1)</b>  |        | <b>Source: 14D0353-01</b> |                 |       | <b>Prepared &amp; Analyzed: 04/16/14</b> |               |      |             |      |           |       |
| Chromium, hexavalent                    | 0.0957 | 0.0050                    | 0.010           | mg/l  | 0.100                                    | ND            | 95.7 | 0-200       | 1.08 | 20        |       |

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Reported:  
 04/17/14 14:51

**Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control**  
**Alpha Analytical Laboratories, Inc.**

| Analyte   | Result | MDL   | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD  | RPD Limit | Notes |
|---|--------|-------|-----------------|-------|-------------|---------------|------|-------------|------|-----------|-------|
| <b>Batch AD40618 - General Prep</b>   |        |       |                 |       |             |               |      |             |      |           |       |
| <b>Blank (AD40618-BLK1)</b> Prepared: 04/06/14 Analyzed: 04/07/14                               |        |       |                 |       |             |               |      |             |      |           |       |
| Total Organic Carbon  | ND     | 0.100 | 0.300           | mg/l  |             |               |      |             |      |           | U     |
| <b>LCS (AD40618-BS1)</b> Prepared: 04/06/14 Analyzed: 04/07/14                                  |        |       |                 |       |             |               |      |             |      |           |       |
| Total Organic Carbon  | 10.8   | 0.100 | 0.300           | mg/l  | 10.0        |               | 108  | 85-115      |      |           |       |
| <b>LCS Dup (AD40618-BSD1)</b> Prepared: 04/06/14 Analyzed: 04/07/14                             |        |       |                 |       |             |               |      |             |      |           |       |
| Total Organic Carbon  | 11.0   | 0.100 | 0.300           | mg/l  | 10.0        |               | 110  | 85-115      | 1.52 | 20        |       |
| <b>Duplicate (AD40618-DUP1)</b> Source: 14D0137-01 Prepared: 04/06/14 Analyzed: 04/07/14        |        |       |                 |       |             |               |      |             |      |           |       |
| Total Organic Carbon  | ND     | 0.100 | 0.300           | mg/l  |             | ND            |      |             |      | 20        | U     |
| <b>Matrix Spike (AD40618-MS1)</b> Source: 14D0137-01 Prepared: 04/06/14 Analyzed: 04/07/14      |        |       |                 |       |             |               |      |             |      |           |       |
| Total Organic Carbon  | 10.8   | 0.100 | 0.300           | mg/l  | 10.0        | ND            | 108  | 70-130      |      |           |       |
| <b>Matrix Spike Dup (AD40618-MSD1)</b> Source: 14D0137-01 Prepared: 04/06/14 Analyzed: 04/07/14 |        |       |                 |       |             |               |      |             |      |           |       |
| Total Organic Carbon  | 11.1   | 0.100 | 0.300           | mg/l  | 10.0        | ND            | 111  | 70-130      | 2.79 | 20        |       |
| <b>Batch AD40830 - General Preparation</b>  |        |       |                 |       |             |               |      |             |      |           |       |
| <b>Blank (AD40830-BLK1)</b> Prepared: 04/08/14 Analyzed: 04/10/14                               |        |       |                 |       |             |               |      |             |      |           |       |
| Total Suspended Solids  | ND     | 0.30  | 1.0             | mg/l  |             |               |      |             |      |           | U     |
| <b>Duplicate (AD40830-DUP1)</b> Source: 14D0333-01 Prepared: 04/08/14 Analyzed: 04/10/14        |        |       |                 |       |             |               |      |             |      |           |       |
| Total Suspended Solids  | 735    | 0.30  | 1.0             | mg/l  |             | 640           |      |             | 13.8 | 30        |       |
| <b>Duplicate (AD40830-DUP2)</b> Source: 14D0455-01 Prepared: 04/08/14 Analyzed: 04/10/14        |        |       |                 |       |             |               |      |             |      |           |       |
| Total Suspended Solids  | 352    | 0.30  | 1.0             | mg/l  |             | 388           |      |             | 9.73 | 30        |       |

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Project Number: 0637109914

Reported:  
04/17/14 14:51

## Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control Alpha Analytical Laboratories, Inc.

| Analyte | Result | MDL | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

### Batch AD40920 - General Preparation

#### Blank (AD40920-BLK1)

Prepared: 04/09/14 Analyzed: 04/14/14

|                        |    |     |    |      |  |  |  |  |  |  |   |
|------------------------|----|-----|----|------|--|--|--|--|--|--|---|
| Total Dissolved Solids | ND | 5.0 | 10 | mg/l |  |  |  |  |  |  | U |
|------------------------|----|-----|----|------|--|--|--|--|--|--|---|

#### Duplicate (AD40920-DUP1)

Source: 14D0347-03

Prepared: 04/09/14 Analyzed: 04/14/14

|                        |     |     |    |      |  |     |  |  |      |    |  |
|------------------------|-----|-----|----|------|--|-----|--|--|------|----|--|
| Total Dissolved Solids | 542 | 5.0 | 10 | mg/l |  | 558 |  |  | 2.91 | 30 |  |
|------------------------|-----|-----|----|------|--|-----|--|--|------|----|--|

#### Duplicate (AD40920-DUP2)

Source: 14D0353-01

Prepared: 04/09/14 Analyzed: 04/14/14

|                        |      |     |    |      |  |      |  |  |      |    |  |
|------------------------|------|-----|----|------|--|------|--|--|------|----|--|
| Total Dissolved Solids | 1060 | 5.0 | 10 | mg/l |  | 1060 |  |  | 0.00 | 30 |  |
|------------------------|------|-----|----|------|--|------|--|--|------|----|--|

### Batch AD41104 - General Preparation

#### Blank (AD41104-BLK1)

Prepared: 04/11/14 Analyzed: 04/15/14

|                    |    |      |     |      |  |  |  |  |  |  |   |
|--------------------|----|------|-----|------|--|--|--|--|--|--|---|
| Oil & Grease (HEM) | ND | 0.80 | 5.0 | mg/l |  |  |  |  |  |  | U |
|--------------------|----|------|-----|------|--|--|--|--|--|--|---|

#### LCS (AD41104-BS1)

Prepared: 04/11/14 Analyzed: 04/15/14

|                    |      |      |     |      |      |  |      |        |  |  |  |
|--------------------|------|------|-----|------|------|--|------|--------|--|--|--|
| Oil & Grease (HEM) | 35.8 | 0.80 | 5.0 | mg/l | 40.0 |  | 89.5 | 78-114 |  |  |  |
|--------------------|------|------|-----|------|------|--|------|--------|--|--|--|

#### LCS Dup (AD41104-BSD1)

Prepared: 04/11/14 Analyzed: 04/15/14

|                    |      |      |     |      |      |  |      |        |      |    |  |
|--------------------|------|------|-----|------|------|--|------|--------|------|----|--|
| Oil & Grease (HEM) | 35.1 | 0.80 | 5.0 | mg/l | 40.0 |  | 87.8 | 78-114 | 1.97 | 18 |  |
|--------------------|------|------|-----|------|------|--|------|--------|------|----|--|

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Project Number: 0637109914

Reported:  
04/17/14 14:51

### Notes and Definitions

- J Detected but below the Reporting Limit; therefore, result is an estimated concentration, detected but not quantified (DNQ).
- U Analyte included in analysis, but not detected at or above MDL.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



**Golder Associates Inc.**  
**CHAIN OF CUSTODY**

Page 1 of 1  
Quotation No. Direct Bill to  
Lehigh, Item 7 Golder

Project # 1400353

PROJECT AND PHASE NO.: 0637109914 SITE NAME: Lehigh Permanente - SW

SAMPLER SIGNATURE(S): *[Signature]*  
CONTRACT LABORATORY: Alpha  
TURN-AROUND TIME: Standard

| Sample ID   | Lab ID | Collection |      | Matrix | Depth | Preserv. | Container Info |     |       | Type | Volume | Filter | Preserv. | Matrix | Depth | Preserv. | Remarks |
|-------------|--------|------------|------|--------|-------|----------|----------------|-----|-------|------|--------|--------|----------|--------|-------|----------|---------|
|             |        | Date       | Time |        |       |          | 1 L            | 1 L | 40 ml |      |        |        |          |        |       |          |         |
| Pond 30 Eff |        | 4/2/14     | 1050 | W      |       |          | N              | N   | N     | N    | N      | N      | N        |        |       |          |         |

| Sample ID | Lab ID | Collection Date | Collection Time | Matrix | Depth | Preserv. | Container Info |     |       | Type | Volume | Filter | Preserv. | Matrix | Depth | Preserv. | Remarks |
|-----------|--------|-----------------|-----------------|--------|-------|----------|----------------|-----|-------|------|--------|--------|----------|--------|-------|----------|---------|
|           |        |                 |                 |        |       |          | 1 L            | 1 L | 40 ml |      |        |        |          |        |       |          |         |
|           |        |                 |                 |        |       |          | N              | N   | N     | N    | N      | N      | N        |        |       |          |         |

Relinquished by (signature): *[Signature]* Date/Time: 4/3/14 1515  
 Received by (signature): *[Signature]*  
 Relinquished by (signature): *[Signature]* Date/Time: 4-3-14 1910  
 Received by (signature): *[Signature]*  
 Relinquished by (signature): *[Signature]* Date/Time: 4-3-14 2000  
 Received by (signature): *[Signature]*

SEND RESULTS TO:  
 Lehigh: Greg Knapp, Chow Yip  
 Attention: George Wegmann  
 Golder Associates Inc.  
 425 Lakeside Drive  
 Sunnyvale, CA 94085  
 Phone (408) 220-9223  
 Fax (408) 220-9224