

**RECEIVED**

**9:16 am, Jun 05, 2012**

Alameda County  
Environmental Health

June 1, 2012



Mr. Jerry Wickham  
Alameda County Health Care Services  
Environmental Health Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

**Subject: Response to Alameda County Environmental Health Public Comments for Fuel Leak Case No. RO0000207 and GeoTracker Global ID T0600102092, Mission Valley Rock and Asphalt, 7999 Athenour Way, Sunol, CA 94586**

Dear Mr. Wickham:

The attached Response to Alameda County Environmental Health (ACEH) Comments letter was prepared by ARCADIS U.S. Inc. ("ARCADIS") on behalf of Lehigh Hanson West Region ("Hanson") for the Mission Valley Rock Facility, located at 7999 Athenour Way, Sunol, California ("the Site"). The letter responds to comments provided by the ACEH in an April 9, 2012 letter ("the ACEH Comment Letter") regarding the "Response to Public Comments on the Potential Case Closure letter, dated March 19, 2012 (Response to Comments). The ACEH Comment Letter requested the collection of additional groundwater level measurements to confirm that the dewatering efforts in the region are not impacting the plume at the Site. The letter provides groundwater elevation contours and tabular groundwater flow and gradient data. Based on the measurements, ARCADIS concluded that the 2012 groundwater elevations, flow, and gradients are consistent with historical data.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any questions or comments concerning this Air Injection System and Groundwater Monitoring Report, please call me at (925) 244-6584 or Ron Goloubow of ARCADIS at (510) 652-4500.

Sincerely,

A handwritten signature in blue ink that reads "Lee W. Cover".

Lee W. Cover  
Environmental Manager  
Lehigh Hanson West Region

Attachment

Mr. Jerry Wickham  
Senior Hazardous Materials Specialist  
Alameda County Health Care Services, Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502

ARCADIS U.S., Inc.  
2000 Powell Street  
Suite 700  
Emeryville  
California 94608  
Tel 510 652 4500  
Fax 510 652 4906  
[www.arcadis-us.com](http://www.arcadis-us.com)

Subject:  
Response to Alameda County Environmental Health Public Comments for Fuel Leak  
Case No. RO0000207 and GeoTracker Global ID T0600102092, Mission Valley  
Rock and Asphalt, 7999 Athenour Way, Sunol, CA 94586

Date:  
June 1, 2012

Dear Mr. Wickham:

ARCADIS U.S., Inc. (ARCADIS) has prepared this letter on behalf of Lehigh Hanson Inc., for the Mission Valley Rock and Asphalt Plant located at 7999 Athenour Way in Sunol, California ("the Site"; Figure 1). This letter responds to comments provided by the Alameda County Health Care Services, Environmental Health (ACEH) in a April 9, 2012 letter ("the ACEH Comment Letter") regarding the "Response to Public Comments on the Potential Case Closure letter, dated March 19, 2012 (Response to Comments). The ACEH comments are provided below followed by the response to each comment.

#### **ACEH Comment #1**

**1. Confirming No Changes in Water Level Elevations and Hydraulic Gradient.** In order to confirm that dewatering efforts in the region have not impacted the plume at the Hanson site, we request that you measure the water levels in each existing monitoring well at the site. Please present these data in tabular form along with groundwater elevation contour maps for each vertical zone. These results are to be compared to historic water level and hydraulic gradient data in a brief letter report.

#### **Response**

In response to this comment, depth to groundwater was measured in the 26 groundwater monitoring wells on May 1, 2012 (Figure 2). Depth to groundwater was not monitored in the three injection wells.

Contact:  
Ron Goloubow  
  
Phone:  
510-596-9550  
  
Email:  
[Ron.Goloubow@arcadis-us.com](mailto:Ron.Goloubow@arcadis-us.com)  
  
Our ref:  
EM0009480.0015

Imagine the result

The depth to groundwater was measured relative to the top of casing (TOC) using a Solinst water-level indicator, and measurements were recorded on field sheets. The water level at well MW-11D was measured using an oil-water interface probe. Groundwater elevations were calculated by subtracting the depth-to-groundwater measurement from the TOC elevation. Groundwater elevations measured on May 1, 2012 are presented in Table 1, and historical groundwater elevation data are presented in Table 2.

Groundwater elevation contour maps were prepared using the water levels measured on May 1, 2012 for three groundwater intervals: the shallow interval (Figure 3), the deep interval (Figure 4), and the Livermore Formation (Figure 5). Based on the interpreted groundwater contours, the local groundwater flow direction was approximately to the southeast in wells completed in the shallow and deep intervals, and approximately to the east-southeast in wells completed in the Livermore Formation (note that the general groundwater flow direction for the Livermore Formation is based on groundwater elevation data from only seven monitoring wells).

These groundwater flow directions are consistent with groundwater flow directions previously observed during groundwater monitoring events conducted at the Site. The groundwater flow direction observed in the Livermore Formation is slightly more northerly than in the 2010 monitoring events and continues to be inconsistent with the regional groundwater flow direction, which is presumed to be toward the northwest, based on the general surface topography in the vicinity of the Site. The hydraulic gradient for each of the three intervals was approximately 0.027 in the shallow interval, approximately 0.03 in the deep interval, and approximately 0.011 in the Livermore Formation. These values are also consistent with the results from previous groundwater monitoring events. Table 3 summarizes the groundwater flow directions and gradients for each of the three intervals measured between March 2009 and May 2012.

As noted in Table 1, approximately 0.61 feet of non-aqueous phase liquid (NAPL) was measured at well MW-11D on May 1, 2012 at a depth of 3.74 feet below ground surface. The presence of NAPL at this well is consistent with observations previously reported during the measurement of water levels at this well (see Table 2).

**Summary**

The groundwater flow directions and gradients calculated using the groundwater elevations measured at monitoring wells completed in the shallow, deeper, and Livermore Formation at the Site on May 1, 2012 are consistent with historical groundwater flow directions and gradients collected at the Site. Therefore it does not appear that the dewatering activities that are reported to be taking place for the construction of the Irvington Tunnel Project have affected the groundwater flow direction and gradients at the Site.

Based on the information and assessments presented in this letter, we believe that the technical comment has been adequately answered in support of closure of the fuel leak case referenced herein. If you have any questions, please contact the undersigned or Mr. Lee Cover of Hanson.

Sincerely,  
ARCADIS U.S., Inc.



Ron Goloubow, P.G. 8655  
Principal Geologist



Expires Nov. 30, 2015

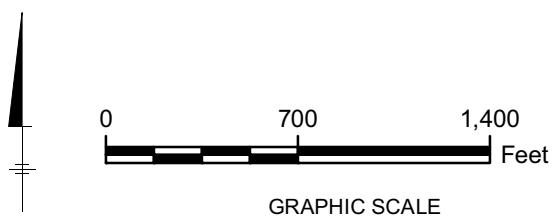
Enclosures:

- Figure 1 Site Vicinity Map
- Figure 2 Site Plan
- Figure 3 Groundwater Elevation Contours for Shallow Interval (May 2012)
- Figure 4 Groundwater Elevation Contours for Deep Interval (May 2012)
- Figure 5 Groundwater Elevation Contours for Livermore Formation (May 2012)
  
- Table 1 Groundwater Elevation Data – May 2012
- Table 2 Historical Groundwater Elevation Data
- Table 3 Historical Groundwater Flow Directions and Gradients



HANSON AGGREGATES, 7999 ATHENOUR WAY,  
SUNOL, CALIFORNIA

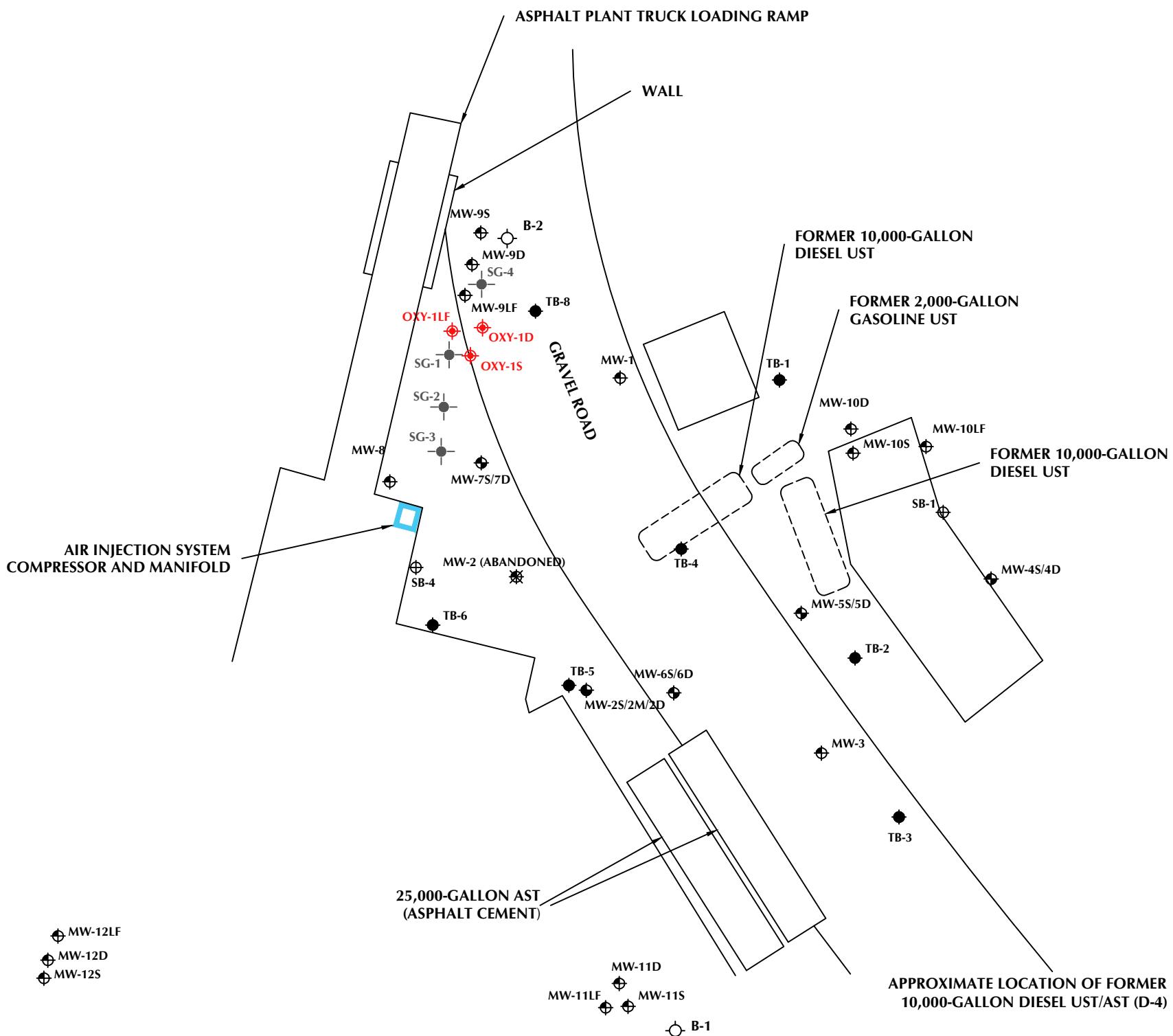
**SITE LOCATION MAP**



 **ARCADIS**

FIGURE  
1

XREFS: IMAGES: PROJECTNAME: ----



#### EXPLANATION:

- ◆ MW-9S Groundwater monitoring well (single completion; well cluster)
- ◆ MW-7S/7D Groundwater monitoring well (dual nested)
- ◆ MW-2S/2M/2D Groundwater monitoring well (triple nested)
- ◆ MW-2 Abandoned groundwater monitoring well
- TB-6 Grab groundwater sample location
- ◆ SB-4 Temporary soil boring location
- B-2 Sonic boring / grab groundwater
- MIP-3 MIP boring / grab groundwater
- SG-1 Soil gas monitoring probe (approximate location)
- ◆ OXY-1S Air injection well (approximate location)

AST = Aboveground storage tank  
 UST = Underground storage tank  
 MIP = Membrane Interface Probe

0 30 FEET  
 APPROXIMATE SCALE

HANSON AGGREGATES, SUNOL, CALIFORNIA

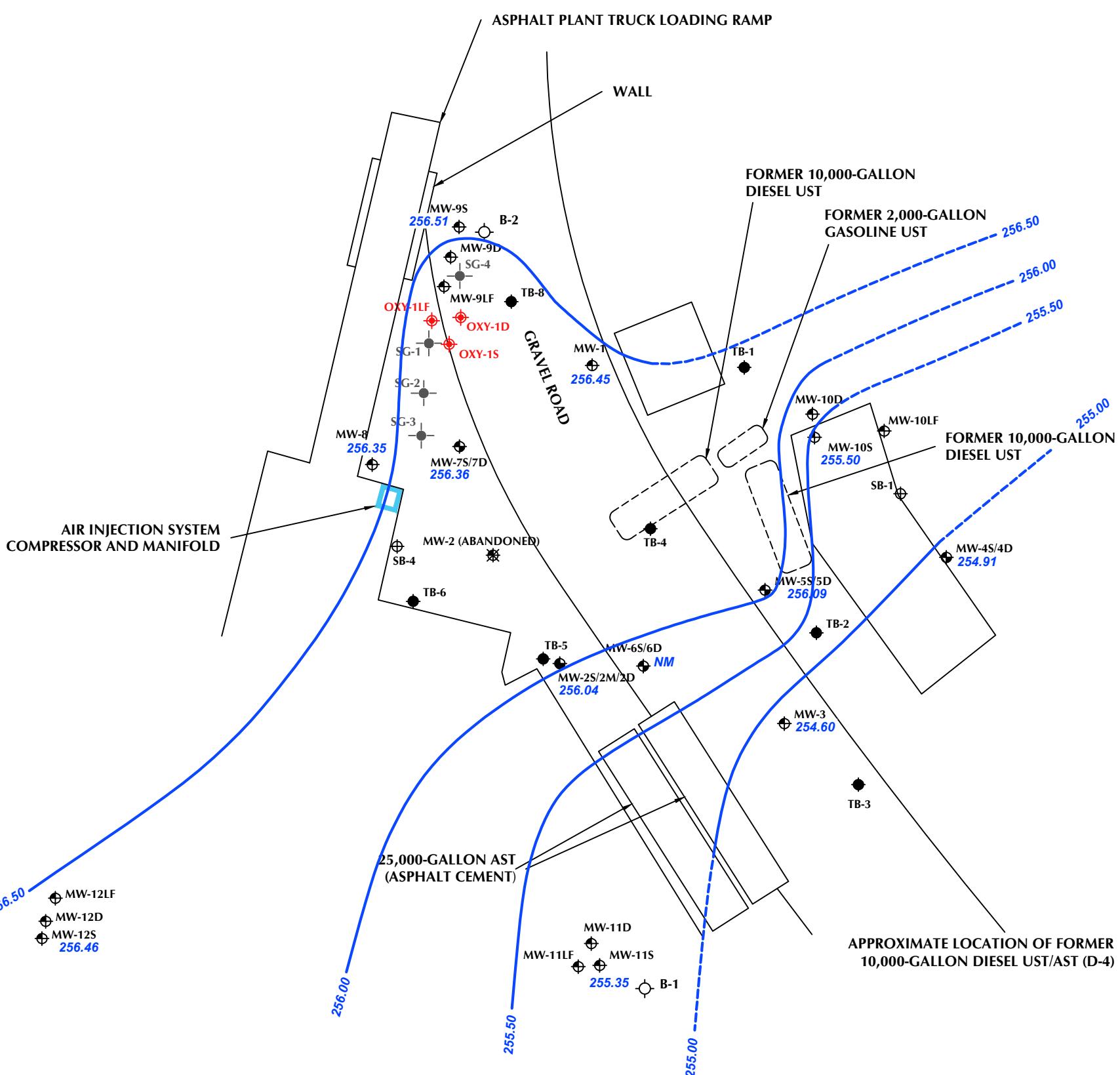
SITE PLAN

ARCADIS

FIGURE

2

-○- MIP-1



#### EXPLANATION:

- ◆ MW-9S Groundwater monitoring well (single completion; well cluster)
- ◆ MW-7S/7D Groundwater monitoring well (dual nested)
- ◆ MW-2S/2M/2D Groundwater monitoring well (triple nested)
- ◆ MW-2 Abandoned groundwater monitoring well
- ◆ TB-6 Grab groundwater sample location
- ◆ SB-4 Temporary soil boring location
- ◆ B-2 Sonic boring / grab groundwater
- ◆ MIP-3 MIP boring / grab groundwater
- ◆ SG-1 Soil gas monitoring probe (approximate location)
- ◆ OXY-1S Air injection well (approximate location)
- 255.0 Groundwater elevation contour (feet above mean sea level), dashed where inferred
- 256.46 Groundwater elevation (feet above mean sea level)
- AST = Aboveground storage tank
- UST = Underground storage tank
- MIP = Membrane Interface Probe
- NM = Not Measured

0 30 FEET  
APPROXIMATE SCALE

HANSON AGGREGATES, SUNOL, CALIFORNIA

GROUNDWATER ELEVATION CONTOURS  
FOR SHALLOW INTERVAL  
(MAY 2012)

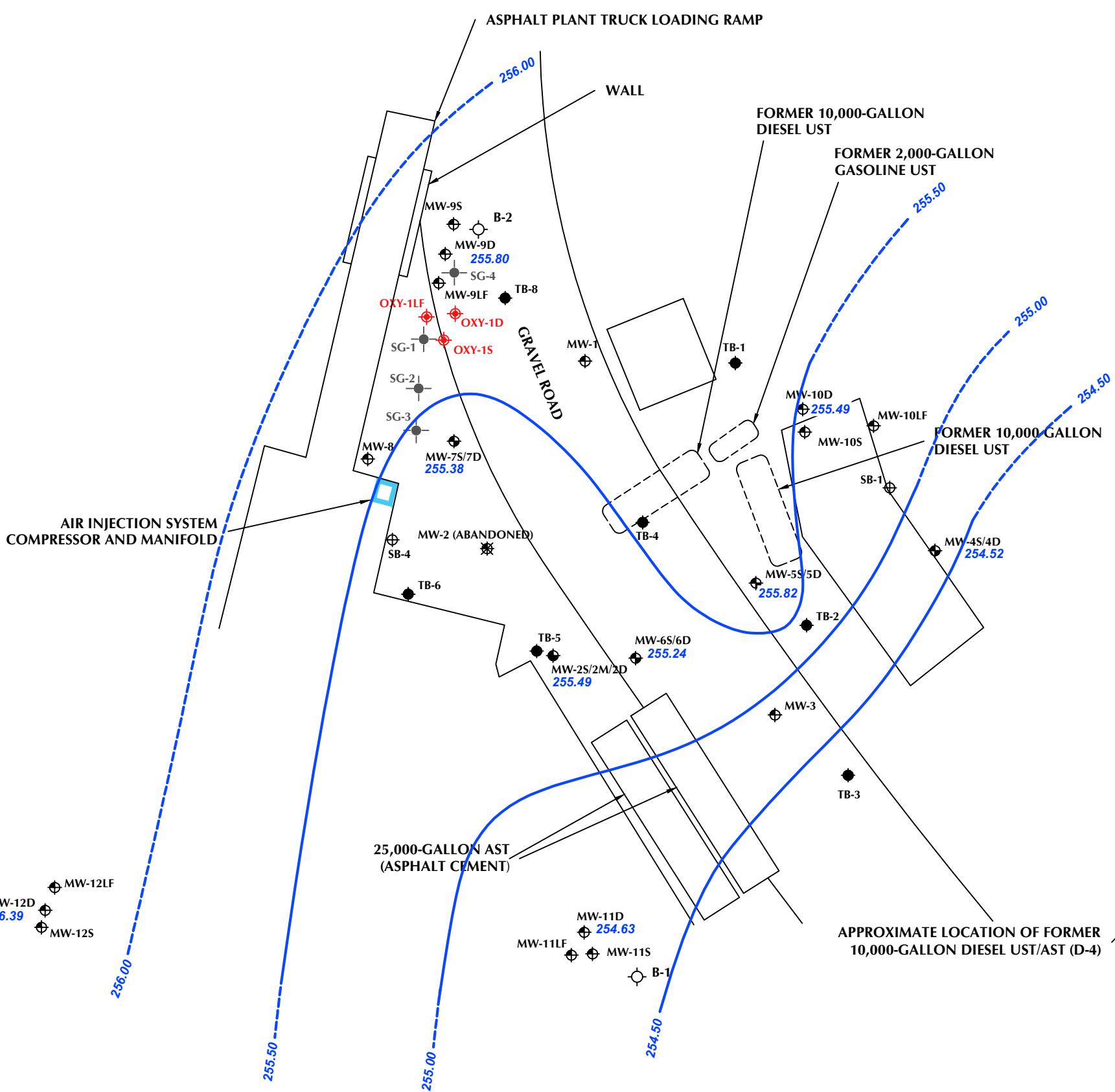
ARCADIS

FIGURE

3

XREFS: IMAGES: PROJECTNAME: ---

-MIP-1



#### EXPLANATION:

MW-9S	Groundwater monitoring well (single completion; well cluster)
MW-7S/7D	Groundwater monitoring well (dual nested)
MW-2S/2M/2D	Groundwater monitoring well (triple nested)
MW-2	Abandoned groundwater monitoring well
TB-6	Grab groundwater sample location
SB-4	Temporary soil boring location
B-2	Sonic boring / grab groundwater
MIP-3	MIP boring / grab groundwater
SG-1	Soil gas monitoring probe (approximate location)
OXY-1S	Air injection well (approximate location)
255.0	Groundwater elevation contour (feet above mean sea level), dashed where inferred
256.39	Groundwater elevation (feet above mean sea level)
AST =	Aboveground storage tank
UST =	Underground storage tank
MIP =	Membrane Interface Probe
NM =	Not Measured

0 30 FEET  
APPROXIMATE SCALE

HANSON AGGREGATES, SUNOL, CALIFORNIA

GROUNDWATER ELEVATION CONTOURS  
FOR DEEP INTERVAL  
(MAY 2012)

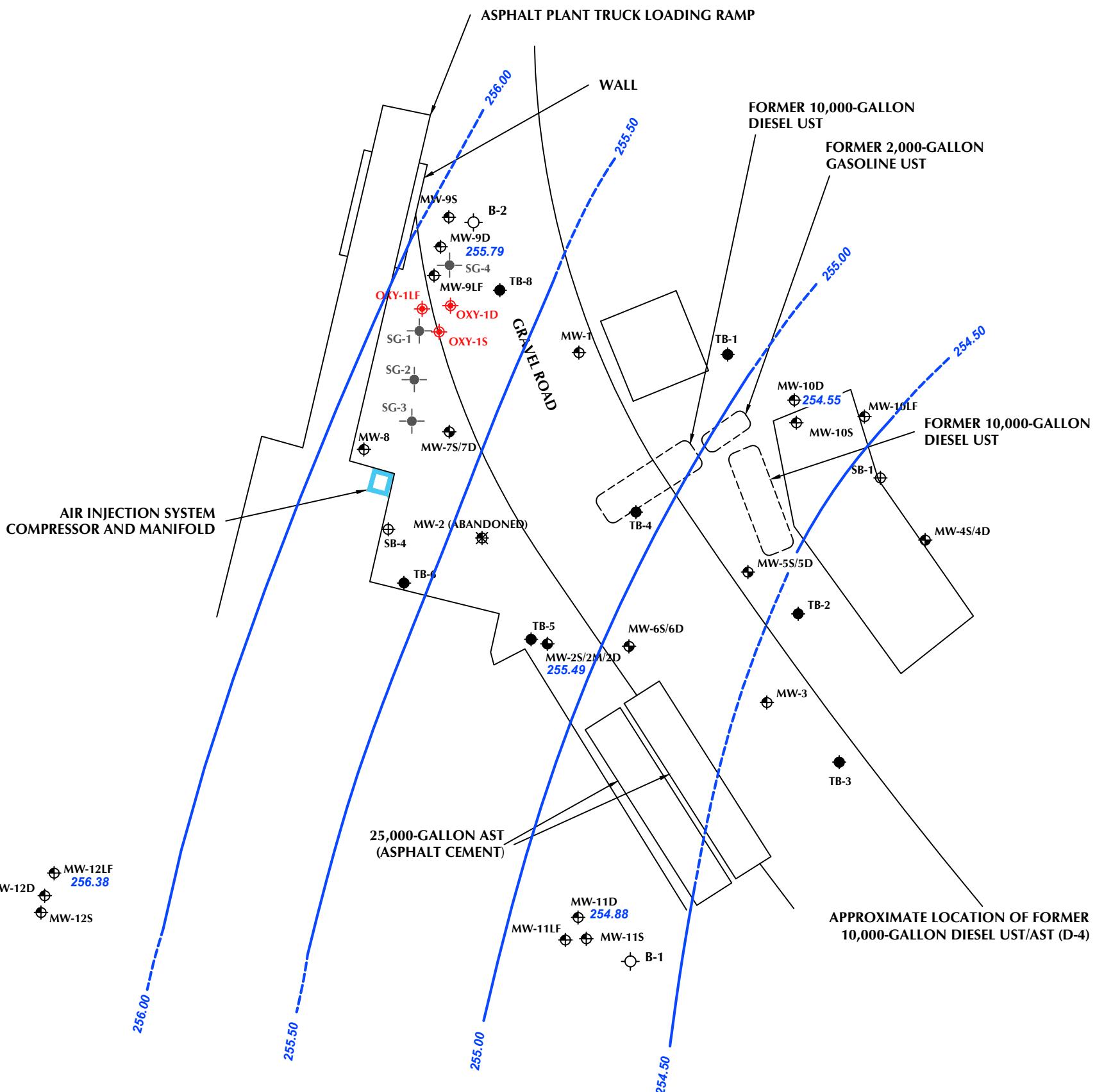
ARCADIS

FIGURE

4

XREFS: IMAGES: PROJECTNAME: ----

-○- MIP-1



-○- MIP-3

-○- MIP-6

0 30 FEET  
APPROXIMATE SCALE

HANSON AGGREGATES, SUNOL, CALIFORNIA

GROUNDWATER ELEVATION CONTOURS  
FOR LIVERMORE FORMATION  
(MAY 2012)

ARCADIS

FIGURE

5

**Table 1**  
**Groundwater Elevation Data - May 1, 2012**  
**Lehigh Hanson Sunol Facility Asphalt Plant Area**  
**7999 Athenour Way, Sunol, California**

Well	Top of Casing Elevation (feet MSL)	Date Measured	Depth to Water (feet TOC)	GW Elevation (feet MSL)	Product Observation or Thickness (feet)
MW-1	258.68	5/1/12	2.23	256.45	ND
MW-2S	258.84	5/1/12	2.80	256.04	ND
MW-2M	258.99	5/1/12	3.22	255.77	ND
MW-2D	258.91	5/1/12	3.42	255.49	ND
MW-3	259.08	5/1/12	4.48	254.60	Odor
MW-4S	259.14	5/1/12	4.23	254.91	ND
MW-4D	259.22	5/1/12	4.70	254.52	ND
MW-5S	259.43	5/1/12	3.34	256.09	ND
MW-5D	259.40	5/1/12	3.58	255.82	ND
MW-6S	258.75	5/1/12	NM	NM	NM
MW-6D	259.27	5/1/12	4.03	255.24	ND
MW-7S	258.84	5/1/12	2.48	256.36	Odor
MW-7D	258.80	5/1/12	3.42	255.38	Odor
MW-8	258.84	5/1/12	2.29	256.55	ND
MW-9S	258.41	5/1/12	1.90	256.51	ND
MW-9D	258.86	5/1/12	3.06	255.80	ND
MW-9LF	258.94	5/1/12	3.15	255.79	ND
MW-10S	260.67	5/1/12	5.17	255.50	ND
MW-10D	260.64	5/1/12	5.15	255.49	ND
MW-10LF	260.58	5/1/12	6.03	254.55	ND
MW-11S	258.96	5/1/12	3.61	255.35	ND
MW-11D	258.98	5/1/12	4.35	254.63	DTP 3.74, Thickness 0.61'
MW-11LF	259.01	5/1/12	4.13	254.88	ND
MW-12S	262.69	5/1/12	6.23	256.46	ND
MW-12D	262.70	5/1/12	6.31	256.39	ND
MW-12LF	262.90	5/1/12	6.52	256.38	ND

**Notes:**

feet MSL = feet relative to mean sea level

feet TOC = feet below top of casing

ND = not detected

DTP = depth to product

Odor = Moderate to strong fuel hydrocarbon odor observed during the purging of the well

NM = not measured

**Table 2**  
**Historical Groundwater Elevation Data**  
**Lehigh Hanson Sunol Facility Asphalt Plant Area**  
**7999 Athenour Way, Sunol, California**

Well	Top of Casing Elevation (feet MSL)	Date Measured	Depth to Water (feet TOC)	GW Elevation (feet MSL)	Product Observation or Thickness (feet)
MW-1	256.51	6/23/98	1.32	255.19	ND
MW-1		1/5/99	2.28	254.23	ND
MW-1		3/29/99	1.88	254.63	ND
MW-1		6/10/99	3.35	253.16	ND
MW-1		9/17/99	3.66	252.85	ND
MW-1		12/27/99	2.94	253.57	ND
MW-1		3/22/00	2.72	253.79	Odor
MW-1		6/30/00	4.01	252.50	Slight Odor
MW-1		9/14/00	5.11	251.40	Slight Odor
MW-1		12/20/00	4.95	251.56	ND
MW-1		3/22/01	2.28	254.23	ND
MW-1		6/27/01	3.60	252.91	ND
MW-1		9/21/01	6.50	250.01	ND
MW-1		12/27/01	1.29	255.22	ND
MW-1		3/29/02	2.91	253.60	ND
MW-1		6/13/02	3.95	252.56	ND
MW-1		9/27/02	5.18	251.33	ND
MW-1		12/3/02	3.90	252.61	ND
MW-1		3/31/03	1.40	255.11	ND
MW-1		6/27/03	2.65	253.86	ND
MW-1		9/19/03	4.67	251.84	ND
MW-1		12/22/03	4.60	251.91	ND
MW-1	258.68	1/17/05	3.41	255.27	ND
MW-1		5/4/05	1.20	257.48	ND
MW-1		8/12/05	4.52	254.16	ND
MW-1		12/12/05	6.44	252.24	ND
MW-1		3/2/06	0.71	257.97	ND
MW-1		6/12/06	2.47	256.21	ND
MW-1		9/5/06	6.13	252.55	ND
MW-1		12/4/06	5.42	253.26	ND
MW-1		2/26/07	2.46	256.22	ND
MW-1		6/11/07	4.10	254.58	ND
MW-1		9/11/07	5.48	253.20	ND
MW-1		12/10/07	5.35	253.33	ND
MW-1		3/10/08	1.90	256.78	ND
MW-1		6/9/08	3.26	255.42	ND
MW-1		9/8/08	4.49	254.19	ND
MW-1		12/8/08	5.90	252.78	ND
MW-1		3/9/09	2.47	256.21	ND
MW-1		5/6/09	3.39	255.29	ND
MW-1		5/6/09	3.39	255.29	ND
MW-1		6/9/09	3.50	255.18	ND
MW-1		7/14/09	4.74	253.94	ND

**Table 2**  
**Historical Groundwater Elevation Data**  
**Lehigh Hanson Sunol Facility Asphalt Plant Area**  
**7999 Athenour Way, Sunol, California**

Well	Top of Casing Elevation (feet MSL)	Date Measured	Depth to Water (feet TOC)	GW Elevation (feet MSL)	Product Observation or Thickness (feet)
MW-1		9/21/09	4.15	254.53	ND
MW-1		12/17/09	4.34	254.34	ND
MW-1		3/2/10	1.83	256.85	ND
MW-1		6/9/10	1.67	257.01	ND
MW-1		9/27/10	3.43	255.25	ND
MW-1		12/13/10	3.27	255.41	ND
MW-1		5/1/12	2.23	256.45	ND
MW-2	256.7	6/23/98	1.72	254.98	0.005
MW-2		1/5/99	2.69	254.01	4.00
MW-2		3/29/99	2.50	254.20	ND
MW-2		6/10/99	4.00	252.70	Sheen
MW-2		9/17/99	4.54	252.16	0.50
MW-2		12/27/99	3.85	252.85	0.13
MW-2		3/22/00	3.20	253.50	0.03
MW-2		6/30/00	4.62	252.08	0.02
MW-2		9/14/00	5.95	250.75	>0.01
MW-2		12/20/00	5.65	251.05	0.07
MW-2		3/22/01	3.21	253.49	0.10
MW-2		6/27/01	3.31	253.39	0.06
MW-2		9/21/01	7.08	249.62	0.34
MW-2		12/27/01	2.18	254.52	0.26
MW-2		3/29/02	3.40	253.30	0.90
MW-2		6/13/02	4.35	252.35	0.08
MW-2		9/27/02	5.54	251.16	ND
MW-2		12/3/02	4.30	252.40	ND
MW-2		3/31/03	1.78	254.92	ND
MW-2		6/27/03	3.10	253.60	ND
MW-2		9/19/03	5.02	251.68	ND
MW-2		1/5/05	Well abandoned		
MW-2S	258.84	1/17/05	4.25	254.59	ND
MW-2S		5/4/05	1.98	256.86	ND
MW-2S		8/12/05	5.46	253.38	ND
MW-2S		12/12/05	7.38	251.46	ND
MW-2S		3/2/06	2.24	256.60	ND
MW-2S		6/12/06	3.08	255.76	ND
MW-2S		9/5/06	7.01	251.83	ND
MW-2S		12/4/06	6.40	252.44	ND
MW-2S		2/26/07	3.52	255.32	ND
MW-2S		6/11/07	4.93	253.91	ND
MW-2S		9/11/07	6.45	252.39	ND
MW-2S		12/10/07	6.55	252.29	ND

**Table 2**  
**Historical Groundwater Elevation Data**  
**Lehigh Hanson Sunol Facility Asphalt Plant Area**  
**7999 Athenour Way, Sunol, California**

Well	Top of Casing Elevation (feet MSL)	Date Measured	Depth to Water (feet TOC)	GW Elevation (feet MSL)	Product Observation or Thickness (feet)
MW-2S		3/10/08	2.82	256.02	ND
MW-2S		6/9/08	4.03	254.81	ND
MW-2S		9/8/08	5.42	253.42	ND
MW-2S		12/8/08	6.95	251.89	ND
MW-2S		3/9/09	3.40	255.44	ND
MW-2S		6/10/09	4.30	254.54	ND
MW-2S		9/21/09	4.90	253.94	ND
MW-2S		3/2/10	2.13	256.71	ND
MW-2S		9/27/10	4.38	254.46	ND
MW-2S		12/13/10	4.46	254.38	ND
MW-2S		5/1/20012	2.80	256.04	ND
MW-2M	258.99	1/17/05	4.68	254.31	ND
MW-2M		5/4/05	2.32	256.67	ND
MW-2M		8/12/05	5.77	253.22	ND
MW-2M		12/12/05	7.78	251.21	ND
MW-2M		3/2/06	2.10	256.89	ND
MW-2M		6/12/06	3.39	255.60	ND
MW-2M		9/5/06	7.36	251.63	ND
MW-2M		12/4/06	6.89	252.10	ND
MW-2M		2/26/07	3.79	255.20	ND
MW-2M		6/11/07	5.30	253.69	ND
MW-2M		9/11/07	6.88	252.11	ND
MW-2M		12/10/07	7.04	251.95	ND
MW-2M		3/10/08	3.15	255.84	ND
MW-2M		6/9/08	4.39	254.60	ND
MW-2M		9/8/08	5.85	253.14	ND
MW-2M		12/8/08	7.35	251.64	ND
MW-2M		3/9/09	3.68	255.31	ND
MW-2M		6/10/09	4.67	254.32	ND
MW-2M		9/21/09	5.22	253.77	ND
MW-2M		3/2/10	2.40	256.59	ND
MW-2M		9/27/10	4.61	254.38	ND
MW-2M		12/13/10	4.57	254.42	ND
MW-2M		5/1/512	3.22	255.77	ND
MW-2D	258.91	1/17/05	4.75	254.16	ND
MW-2D		5/4/05	2.38	256.53	ND
MW-2D		8/12/05	5.90	253.01	ND
MW-2D		12/12/05	7.85	251.06	ND
MW-2D		3/2/06	2.16	256.75	ND
MW-2D		6/12/06	3.48	255.43	ND
MW-2D		9/5/06	7.44	251.47	ND

**Table 2**  
**Historical Groundwater Elevation Data**  
**Lehigh Hanson Sunol Facility Asphalt Plant Area**  
**7999 Athenour Way, Sunol, California**

Well	Top of Casing Elevation (feet MSL)	Date Measured	Depth to Water (feet TOC)	GW Elevation (feet MSL)	Product Observation or Thickness (feet)
MW-2D		12/4/06	6.94	251.97	ND
MW-2D		2/26/07	3.89	255.02	ND
MW-2D		6/11/07	5.45	253.46	ND
MW-2D		9/11/07	7.00	251.91	ND
MW-2D		12/10/07	7.23	251.68	ND
MW-2D		3/10/08	3.22	255.69	ND
MW-2D		6/9/08	4.46	254.45	ND
MW-2D		9/8/08	5.94	252.97	ND
MW-2D		12/8/08	7.60	251.31	ND
MW-2D		3/9/09	3.80	255.11	ND
MW-2D		6/10/09	4.85	254.06	ND
MW-2D		9/21/09	5.42	253.49	ND
MW-2D		3/2/10	2.60	256.31	ND
MW-2D		9/27/10	4.80	254.11	ND
MW-2D		12/13/10	4.80	254.11	ND
MW-2D		5/1/12	3.42	255.49	ND
MW-3	256.72	6/23/98	2.66	254.06	ND
MW-3		1/5/99	4.47	252.25	Slight Odor
MW-3		3/29/99	3.96	252.76	Sheen
MW-3		6/10/99	5.54	251.18	ND
MW-3		9/17/99	6.18	250.54	Sheen
MW-3		12/27/99	5.52	251.20	Odor
MW-3		3/22/00	4.61	252.11	Odor
MW-3		6/30/00	6.35	250.37	Very Slight Odor
MW-3		9/14/00	7.30	249.42	Very Slight Odor
MW-3		12/20/00	7.29	249.43	ND
MW-3		3/22/01	4.73	251.99	ND
MW-3		6/27/01	-	-	-
MW-3		9/21/01	7.89	248.83	ND
MW-3		12/27/01	3.77	252.95	ND
MW-3		3/29/02	5.12	251.60	ND
MW-3		6/13/02	6.52	250.20	ND
MW-3		9/27/02	7.28	249.44	ND
MW-3		12/3/02	6.40	250.32	ND
MW-3		3/31/03	4.01	252.71	ND
MW-3		6/27/03	5.13	251.59	ND
MW-3		9/19/03	5.13	251.59	ND
MW-3		12/22/03	7.20	249.52	ND
MW-3	259.08	1/17/05	5.81	253.27	ND
MW-3		5/4/05	3.50	255.58	ND
MW-3		8/12/05	6.01	253.07	ND
MW-3		12/12/05	8.45	250.63	ND

**Table 2**  
**Historical Groundwater Elevation Data**  
**Lehigh Hanson Sunol Facility Asphalt Plant Area**  
**7999 Athenour Way, Sunol, California**

Well	Top of Casing Elevation (feet MSL)	Date Measured	Depth to Water (feet TOC)	GW Elevation (feet MSL)	Product Observation or Thickness (feet)
MW-3		3/2/06	3.42	255.66	ND
MW-3		6/12/06	4.15	254.93	ND
MW-3		9/5/06	7.97	251.11	ND
MW-3		12/4/06	7.30	251.78	ND
MW-3		2/26/07	4.62	254.46	ND
MW-3		6/11/07	6.11	252.97	ND
MW-3		9/11/07	7.47	251.61	ND
MW-3		12/10/07	7.95	251.13	ND
MW-3		3/10/08	3.89	255.19	ND
MW-3		6/9/08	-	-	-
MW-3		9/8/08	6.33	252.75	ND
MW-3		12/8/08	8.00	251.08	ND
MW-3		3/9/09	4.42	254.66	ND
MW-3		6/9/09	5.55	253.53	ND
MW-3		9/21/09	5.98	253.10	ND
MW-3		3/2/10	3.24	255.84	ND
MW-3		9/27/10	5.82	253.26	ND
MW-3		12/13/10	5.59	253.49	Odor
MW-3		5/1/12	4.48	254.60	ND
MW-4S	259.14	1/17/05	4.62	254.52	ND
MW-4S		5/4/05	3.73	255.41	ND
MW-4S		8/12/05	3.45	255.69	ND
MW-4S		12/12/05	5.48	253.66	ND
MW-4S		3/2/06	3.10	256.04	ND
MW-4S		6/12/06	4.10	255.04	ND
MW-4S		9/5/06	3.90	255.24	ND
MW-4S		12/4/06	4.05	255.09	ND
MW-4S		2/26/07	3.40	255.74	ND
MW-4S		6/11/07	4.75	254.39	ND
MW-4S		9/11/07	4.77	254.37	ND
MW-4S		12/10/07	5.35	253.79	ND
MW-4S		3/10/08	3.20	255.94	ND
MW-4S		6/9/08	4.11	255.03	ND
MW-4S		9/8/08	4.60	254.54	ND
MW-4S		12/8/08	5.25	253.89	ND
MW-4S		3/9/09	4.10	255.04	ND
MW-4S		6/9/09	4.80	254.34	ND
MW-4S		9/21/09	4.98	254.16	ND
MW-4S		3/2/10	3.14	256.00	Slight Gasoline Odor
MW-4S		9/27/10	4.94	254.20	ND
MW-4S		12/13/10	4.44	254.70	ND
MW-4S		5/1/12	4.23	254.91	ND

**Table 2**  
**Historical Groundwater Elevation Data**  
**Lehigh Hanson Sunol Facility Asphalt Plant Area**  
**7999 Athenour Way, Sunol, California**

Well	Top of Casing Elevation (feet MSL)	Date Measured	Depth to Water (feet TOC)	GW Elevation (feet MSL)	Product Observation or Thickness (feet)
MW-4D	259.22	1/17/05	5.96	253.26	ND
MW-4D		5/4/05	3.93	255.29	ND
MW-4D		8/12/05	5.60	253.62	ND
MW-4D		12/12/05	8.50	250.72	ND
MW-4D		3/2/06	3.63	255.59	ND
MW-4D		6/12/06	4.51	254.71	ND
MW-4D		9/5/06	8.18	251.04	ND
MW-4D		12/4/06	7.95	251.27	ND
MW-4D		2/26/07	4.49	254.73	ND
MW-4D		6/11/07	6.25	252.97	ND
MW-4D		9/11/07	7.54	251.68	ND
MW-4D		12/10/07	8.16	251.06	ND
MW-4D		3/10/08	4.05	255.17	ND
MW-4D		6/9/08	5.09	254.13	ND
MW-4D		9/8/08	6.30	252.92	ND
MW-4D		12/8/08	8.16	251.06	ND
MW-4D		3/9/09	4.60	254.62	ND
MW-4D		6/9/09	5.60	253.62	ND
MW-4D		9/21/09	6.15	253.07	ND
MW-4D		3/3/2010 <sup>(1)</sup>	3.41	255.81	Gasoline Odor
MW-4D		9/27/10	6.05	253.17	ND
MW-4D		12/13/10	5.64	253.58	ND
MW-4D		5/1/12	4.70	254.52	ND
MW-5S	259.43	1/17/05	4.57	254.86	ND
MW-5S		5/4/05	2.50	256.93	ND
MW-5S		8/12/05	5.30	254.13	ND
MW-5S		12/12/05	7.68	251.75	ND
MW-5S		3/2/06	1.42	258.01	ND
MW-5S		6/12/06	3.73	255.70	ND
MW-5S		9/5/06	7.02	252.41	ND
MW-5S		12/4/06	6.31	253.12	ND
MW-5S		2/26/07	3.06	256.37	ND
MW-5S		6/11/07	5.10	254.33	ND
MW-5S		9/11/07	6.49	252.94	ND
MW-5S		12/10/07	6.84	252.59	ND
MW-5S		3/10/08	3.34	256.09	ND
MW-5S		6/9/08	4.44	254.99	ND
MW-5S		9/8/08	5.44	253.99	ND
MW-5S		12/8/08	7.03	252.40	ND
MW-5S		3/9/09	3.50	255.93	ND
MW-5S		6/9/09	4.83	254.60	ND

**Table 2**  
**Historical Groundwater Elevation Data**  
**Lehigh Hanson Sunol Facility Asphalt Plant Area**  
**7999 Athenour Way, Sunol, California**

Well	Top of Casing Elevation (feet MSL)	Date Measured	Depth to Water (feet TOC)	GW Elevation (feet MSL)	Product Observation or Thickness (feet)
MW-5S		9/21/09	5.27	254.16	ND
MW-5S		3/2/10	2.50	256.93	ND
MW-5S		9/27/10	4.89	254.54	ND
MW-5S		12/13/10	4.70	254.73	ND
MW-5S		5/1/12	3.34	256.09	ND
MW-5D	259.40	1/17/05	5.15	254.25	ND
MW-5D		5/4/05	2.75	256.65	ND
MW-5D		8/12/05	5.60	253.80	ND
MW-5D		12/12/05	7.92	251.48	ND
MW-5D		3/2/06	1.98	257.42	ND
MW-5D		6/12/06	3.64	255.76	ND
MW-5D		9/5/06	7.30	252.10	ND
MW-5D		12/4/06	6.69	252.71	ND
MW-5D		2/26/07	3.56	255.84	ND
MW-5D		6/11/07	5.39	254.01	ND
MW-5D		9/11/07	6.76	252.64	ND
MW-5D		12/10/07	7.19	252.21	ND
MW-5D		3/10/08	3.50	255.90	ND
MW-5D		6/9/08	4.59	254.81	ND
MW-5D		9/8/08	5.69	253.71	ND
MW-5D		12/8/08	7.30	252.10	ND
MW-5D		3/9/09	3.80	255.60	ND
MW-5D		6/9/09	4.95	254.45	ND
MW-5D		9/21/09	5.40	254.00	ND
MW-5D		3/2/10	2.79	256.61	ND
MW-5D		9/27/10	5.03	254.37	ND
MW-5D		12/13/10	4.85	254.55	ND
MW-5D		5/1/12	3.58	255.82	ND
MW-6S	258.75	1/17/05	4.30	254.45	ND
MW-6S		5/4/05	1.96	256.79	ND
MW-6S		8/12/05	5.17	253.58	ND
MW-6S		12/12/05	7.48	251.27	ND
MW-6S		3/2/06	1.95	256.80	ND
MW-6S		6/12/06	3.10	255.65	ND
MW-6S		9/5/06	6.94	251.81	ND
MW-6S		12/4/06	6.30	252.45	ND
MW-6S		2/26/07	3.44	255.31	ND
MW-6S		6/11/07	4.80	253.95	ND
MW-6S		9/11/07	6.32	252.43	ND
MW-6S		12/10/07	6.52	252.23	ND
MW-6S		3/10/08	2.89	255.86	ND

**Table 2**  
**Historical Groundwater Elevation Data**  
**Lehigh Hanson Sunol Facility Asphalt Plant Area**  
**7999 Athenour Way, Sunol, California**

Well	Top of Casing Elevation (feet MSL)	Date Measured	Depth to Water (feet TOC)	GW Elevation (feet MSL)	Product Observation or Thickness (feet)
MW-6S		6/9/08	4.00	254.75	ND
MW-6S		9/8/08	5.40	253.35	ND
MW-6S		12/8/08	6.95	251.80	ND
MW-6S		3/9/09	3.30	255.45	ND
MW-6S		6/10/09	4.40	254.35	ND
MW-6S		9/21/09	4.96	253.79	ND
MW-6S		3/2/10	2.10	256.65	ND
MW-6S		9/27/10	4.42	254.33	ND
MW-6S		12/13/10	4.40	254.35	ND
MW-6S		5/1/12	NM	NM	NM
MW-6D	259.27	1/17/05	5.17	254.10	ND
MW-6D		5/4/05	2.80	256.47	ND
MW-6D		8/12/05	6.30	252.97	ND
MW-6D		12/12/05	8.32	250.95	ND
MW-6D		3/2/06	2.70	256.57	ND
MW-6D		6/12/06	4.05	255.22	ND
MW-6D		9/5/06	7.90	251.37	ND
MW-6D		12/4/06	7.37	251.90	ND
MW-6D		2/26/07	4.35	254.92	ND
MW-6D		6/11/07	5.93	253.34	ND
MW-6D		9/11/07	7.46	251.81	Odor
MW-6D		12/10/07	7.80	251.47	ND
MW-6D		3/10/08	3.75	255.52	ND
MW-6D		6/9/08	4.95	254.32	ND
MW-6D		9/8/08	6.44	252.83	ND
MW-6D		12/8/08	8.00	251.27	ND
MW-6D		3/9/09	4.30	254.97	ND
MW-6D		6/10/09	5.30	253.97	ND
MW-6D		9/21/09	6.01	253.26	ND
MW-6D		3/2/10	3.13	256.14	Gasoline Odor
MW-6D		9/27/10	5.31	253.96	ND
MW-6D		12/13/10	5.23	254.04	ND
MW-6D		5/1/12	4.03	255.24	ND
MW-7S	258.82	1/17/05	3.42	255.40	ND
MW-7S		5/4/05	1.44	257.38	ND
MW-7S		8/12/05	4.80	254.02	ND
MW-7S		12/12/05	6.64	252.18	ND
MW-7S		3/2/06	0.95	257.87	ND
MW-7S	258.84	6/12/06	2.55	256.29	ND
MW-7S		9/5/06	6.30	252.54	ND
MW-7S		12/4/06	5.60	253.24	ND

**Table 2**  
**Historical Groundwater Elevation Data**  
**Lehigh Hanson Sunol Facility Asphalt Plant Area**  
**7999 Athenour Way, Sunol, California**

Well	Top of Casing Elevation (feet MSL)	Date Measured	Depth to Water (feet TOC)	GW Elevation (feet MSL)	Product Observation or Thickness (feet)
MW-7S		2/26/07	2.61	256.23	ND
MW-7S		6/11/07	4.32	254.52	ND
MW-7S		9/11/07	5.76	253.08	ND
MW-7S		12/10/07	5.62	253.22	ND
MW-7S		3/10/08	2.15	256.69	ND
MW-7S		6/9/08	3.51	255.33	ND
MW-7S		9/8/08	4.80	254.04	ND
MW-7S		12/8/08	6.20	252.64	ND
MW-7S		3/9/09	2.75	256.09	ND
MW-7S		5/6/09	3.32	255.52	ND
MW-7S		6/8/09	2.90	255.94	ND
MW-7S		7/14/09	4.83	254.01	ND
MW-7S		9/21/09	4.67	254.17	ND
MW-7S		12/17/09	5.32	253.52	ND
MW-7S		3/2/10	1.95	256.89	Gasoline Odor
MW-7S		6/9/10	1.82	257.02	ND
MW-7S		9/27/10	3.70	255.14	Observed
MW-7S		12/14/10	3.53	255.31	Odor
MW-7S		5/1/12	2.48	256.36	Odor
MW-7D	258.07	1/17/05	5.50	252.57	ND
MW-7D		5/4/05	1.45	256.62	ND
MW-7D		8/12/05	4.70	253.37	ND
MW-7D		12/12/05	7.40	250.67	ND
MW-7D		3/2/06	5.10	252.97	Gasoline odor
MW-7D	258.80	6/12/06	3.66	255.14	Gasoline odor
MW-7D		9/5/06	7.19	251.61	ND
MW-7D		12/4/06	6.64	252.16	ND
MW-7D		2/26/07	3.65	255.15	ND
MW-7D		6/11/07	4.95	253.85	ND
MW-7D		9/11/07	6.59	252.21	Odor
MW-7D		12/10/07	6.38	252.42	ND
MW-7D		3/10/08	2.21	256.59	ND
MW-7D		6/9/08	3.70	255.10	ND
MW-7D		9/8/08	5.18	253.62	ND
MW-7D		12/8/08	6.70	252.10	Odor
MW-7D		3/9/09	2.95	255.85	Odor
MW-7D		5/6/09	4.53	254.27	ND
MW-7D		6/8/09	4.15	254.65	ND
MW-7D		7/15/09	5.75	253.05	ND
MW-7D		9/21/09	6.41	252.39	ND
MW-7D		12/17/09	4.80	254.00	ND
MW-7D		3/4/2010 <sup>(2)</sup>	1.23	257.57	Strong Gasoline Odor

**Table 2**  
**Historical Groundwater Elevation Data**  
**Lehigh Hanson Sunol Facility Asphalt Plant Area**  
**7999 Athenour Way, Sunol, California**

Well	Top of Casing Elevation (feet MSL)	Date Measured	Depth to Water (feet TOC)	GW Elevation (feet MSL)	Product Observation or Thickness (feet)
MW-7D		6/9/10	3.03	255.77	ND
MW-7D		9/27/10	3.82	254.98	ND
MW-7D		12/14/10	4.09	254.71	Odor
MW-7D		5/1/12	3.42	255.38	Odor
MW-8	258.84	1/17/05	3.45	255.39	ND
MW-8		5/4/05	1.25	257.59	ND
MW-8		8/12/05	4.92	253.92	ND
MW-8		12/12/05	6.67	252.17	ND
MW-8		3/2/06	0.78	258.06	ND
MW-8		6/12/06	2.44	256.40	ND
MW-8		9/5/06	6.45	252.39	ND
MW-8		12/4/06	5.80	253.04	ND
MW-8		2/26/07	2.68	256.16	ND
MW-8		6/11/07	4.32	254.52	ND
MW-8		9/11/07	5.80	253.04	ND
MW-8		12/10/07	5.54	253.30	ND
MW-8		3/10/08	1.89	256.95	ND
MW-8		6/9/08	3.35	255.49	ND
MW-8		9/8/08	4.75	254.09	ND
MW-8		12/8/08	6.28	252.56	ND
MW-8		3/9/09	2.50	256.34	ND
MW-8		5/6/09	2.58	256.26	ND
MW-8		6/8/09	3.35	255.49	ND
MW-8		7/14/09	4.40	254.44	ND
MW-8		7/14/09	4.40	254.44	ND
MW-8		9/21/09	3.98	254.86	ND
MW-8		12/17/09	4.32	254.52	ND
MW-8		3/2/10	1.19	257.65	ND
MW-8		6/9/10	1.12	257.72	ND
MW-8		9/27/10	3.42	255.42	ND
MW-8		12/13/10	3.27	255.57	ND
MW-8		5/1/12	2.29	256.55	ND
MW-9S	258.41	6/12/06	2.14	256.27	ND
MW-9S		9/5/06	5.92	252.49	ND
MW-9S		12/4/06	5.21	253.20	ND
MW-9S		2/26/07	3.28	255.13	ND
MW-9S		6/11/07	3.70	254.71	ND
MW-9S		9/11/07	5.26	253.15	ND
MW-9S		12/10/07	5.06	253.35	ND
MW-9S		3/10/08	1.55	256.86	ND
MW-9S		6/9/08	3.00	255.41	ND

**Table 2**  
**Historical Groundwater Elevation Data**  
**Lehigh Hanson Sunol Facility Asphalt Plant Area**  
**7999 Athenour Way, Sunol, California**

Well	Top of Casing Elevation (feet MSL)	Date Measured	Depth to Water (feet TOC)	GW Elevation (feet MSL)	Product Observation or Thickness (feet)
MW-9S		9/8/08	4.29	254.12	ND
MW-9S		12/8/08	5.65	252.76	Odor
MW-9S		3/9/09	2.25	256.16	Odor
MW-9S		5/6/09	2.48	255.93	ND
MW-9S		6/8/09	4.10	254.31	ND
MW-9S		6/8/09	4.10	254.31	ND
MW-9S		7/15/09	4.35	254.06	ND
MW-9S		9/21/09	4.52	253.89	ND
MW-9S		12/17/09	4.60	253.81	ND
MW-9S		3/4/2010 <sup>(2)</sup>	0.50	257.91	ND
MW-9S		6/9/10	1.45	256.96	ND
MW-9S		9/27/10	3.11	255.30	ND
MW-9S		12/13/10	2.90	255.51	ND
MW-9S		5/1/12	1.90	256.51	ND
MW-9D	258.86	6/12/06	3.16	255.70	ND
MW-9D		9/5/06	7.12	251.74	ND
MW-9D		12/4/06	6.58	252.28	ND
MW-9D		2/26/07	3.52	255.34	Sheen
MW-9D		6/11/07	5.19	253.67	Sheen
MW-9D		9/11/07	6.67	252.19	Odor
MW-9D		12/10/07	6.71	252.15	ND
MW-9D		3/10/08	2.75	256.11	ND
MW-9D		6/9/08	4.17	254.69	ND
MW-9D		9/8/08	5.60	253.26	ND
MW-9D		12/8/08	7.10	251.76	Odor
MW-9D		3/9/09	3.46	255.40	Odor
MW-9D		5/6/09	3.88	254.98	ND
MW-9D		6/8/09	3.00	255.86	ND
MW-9D		7/15/09	6.14	252.72	ND
MW-9D		9/21/09	6.40	252.46	ND
MW-9D		12/17/09	6.90	251.96	ND
MW-9D		3/2/10	2.83	256.03	ND
MW-9D		6/9/10	3.95	254.91	ND
MW-9D		9/27/10	4.31	254.55	ND
MW-9D		12/14/10	4.15	254.71	Odor
MW-9D		5/1/12	3.06	255.80	ND
MW-9LF	258.94	6/12/06	3.46	255.48	ND
MW-9LF		9/5/06	7.37	251.57	ND
MW-9LF		12/4/06	6.85	252.09	ND
MW-9LF		2/26/07	3.79	255.15	ND
MW-9LF		6/11/07	8.94	250.00	ND

**Table 2**  
**Historical Groundwater Elevation Data**  
**Lehigh Hanson Sunol Facility Asphalt Plant Area**  
**7999 Athenour Way, Sunol, California**

Well	Top of Casing Elevation (feet MSL)	Date Measured	Depth to Water (feet TOC)	GW Elevation (feet MSL)	Product Observation or Thickness (feet)
MW-9LF		9/11/07	7.00	251.94	ND
MW-9LF		12/10/07	7.04	251.90	ND
MW-9LF		3/10/08	3.00	255.94	ND
MW-9LF		6/9/08	4.38	254.56	ND
MW-9LF		9/8/08	5.83	253.11	ND
MW-9LF		12/8/08	7.36	251.58	ND
MW-9LF		3/9/09	3.60	255.34	ND
MW-9LF		5/6/09	3.71	255.23	ND
MW-9LF		6/8/09	4.97	253.97	ND
MW-9LF		6/8/09	4.85	254.09	ND
MW-9LF		7/15/09	5.83	253.11	ND
MW-9LF		9/21/09	6.05	252.89	ND
MW-9LF		12/17/09	6.46	252.48	ND
MW-9LF		3/2/10	2.74	256.20	ND
MW-9LF		6/9/10	3.49	255.45	ND
MW-9LF		9/27/10	4.44	254.50	ND
MW-9LF		12/14/10	4.31	254.63	ND
MW-9LF		5/1/12	3.15	255.79	ND
MW-10S	260.67	6/12/06	5.00	255.67	ND
MW-10S		9/5/06	5.62	255.05	ND
MW-10S		12/4/06	5.04	255.63	ND
MW-10S		2/26/07	3.88	256.79	ND
MW-10S		6/11/07	4.84	255.83	ND
MW-10S		9/11/07	4.94	255.73	ND
MW-10S		12/10/07	4.90	255.77	ND
MW-10S		3/10/08	4.10	256.57	ND
MW-10S		6/9/08	4.80	255.87	ND
MW-10S		9/8/08	4.89	255.78	ND
MW-10S		12/8/08	5.21	255.46	ND
MW-10S		3/9/09	4.97	255.70	ND
MW-10S		6/9/09	5.50	255.17	ND
MW-10S		9/21/09	5.52	255.15	ND
MW-10S		3/2/10	4.21	256.46	ND
MW-10S		9/27/10	5.25	255.42	ND
MW-10S		12/13/10	5.15	255.52	ND
MW-10S		5/1/12	5.17	255.50	ND
MW-10D	260.64	6/12/06	5.42	255.22	ND
MW-10D		9/5/06	8.92	251.72	ND
MW-10D		12/4/06	8.18	252.46	ND
MW-10D		2/26/07	5.40	255.24	ND
MW-10D		6/11/07	7.13	253.51	ND

**Table 2**  
**Historical Groundwater Elevation Data**  
**Lehigh Hanson Sunol Facility Asphalt Plant Area**  
**7999 Athenour Way, Sunol, California**

Well	Top of Casing Elevation (feet MSL)	Date Measured	Depth to Water (feet TOC)	GW Elevation (feet MSL)	Product Observation or Thickness (feet)
MW-10D		9/11/07	8.50	252.14	ND
MW-10D		12/10/07	8.81	251.83	ND
MW-10D		3/10/08	4.99	255.65	ND
MW-10D		6/9/08	6.17	254.47	ND
MW-10D		9/8/08	7.45	253.19	ND
MW-10D		12/8/08	8.88	251.76	Odor
MW-10D		3/9/09	5.45	255.19	Odor
MW-10D		6/10/09	6.70	253.94	ND
MW-10D		9/21/09	7.09	253.55	ND
MW-10D		3/2/10	4.35	256.29	Gasoline Odor
MW-10D		9/27/10	6.50	254.14	ND
MW-10D		12/13/10	6.30	254.34	ND
MW-10D		5/1/12	5.15	255.49	ND
MW-10LF	260.58	6/12/06	5.99	254.59	ND
MW-10LF		9/5/06	9.65	250.93	ND
MW-10LF		12/4/06	9.02	251.56	ND
MW-10LF		2/26/07	6.23	254.35	ND
MW-10LF		6/11/07	7.86	252.72	ND
MW-10LF		9/11/07	9.24	251.34	ND
MW-10LF		12/10/07	9.73	250.85	ND
MW-10LF		3/10/08	5.65	254.93	ND
MW-10LF		6/9/08	6.71	253.87	ND
MW-10LF		9/8/08	8.08	252.50	ND
MW-10LF		12/8/08	9.75	250.83	Odor
MW-10LF		3/9/09	6.20	254.38	Odor
MW-10LF		6/10/09	7.15	253.43	ND
MW-10LF		9/21/09	7.77	252.81	ND
MW-10LF		3/2/10	4.94	255.64	Gasoline Odor
MW-10LF		9/27/10	7.38	253.20	ND
MW-10LF		12/13/10	7.15	253.43	ND
MW-10LF		5/1/12	6.03	254.55	ND
MW-11S	258.96	6/12/06	3.69	255.27	ND
MW-11S		9/5/06	7.69	251.27	ND
MW-11S		12/4/06	7.28	251.68	ND
MW-11S		2/26/07	4.20	254.76	ND
MW-11S		6/11/07	5.72	253.24	ND
MW-11S		9/11/07	7.10	251.86	ND
MW-11S		12/10/07	7.27	251.69	ND
MW-11S		3/10/08	3.31	255.65	ND
MW-11S		6/9/08	4.50	254.46	ND
MW-11S		9/8/08	5.80	253.16	ND

**Table 2**  
**Historical Groundwater Elevation Data**  
**Lehigh Hanson Sunol Facility Asphalt Plant Area**  
**7999 Athenour Way, Sunol, California**

Well	Top of Casing Elevation (feet MSL)	Date Measured	Depth to Water (feet TOC)	GW Elevation (feet MSL)	Product Observation or Thickness (feet)
MW-11S		12/8/08	7.50	251.46	ND
MW-11S		3/9/09	3.76	255.20	ND
MW-11S		6/9/09	4.75	254.21	ND
MW-11S		9/21/09	5.29	253.67	ND
MW-11S		3/2/10	2.54	256.42	ND
MW-11S		9/27/10	5.04	253.92	ND
MW-11S		12/14/10	4.63	254.33	ND
MW-11S		5/1/12	3.61	255.35	ND
MW-11D	258.98	6/12/06	3.70	255.28	ND
MW-11D		9/5/06	8.50	250.48	ND
MW-11D		12/4/06	7.65	251.33	ND
MW-11D		2/26/07	4.48	254.50	Sheen
MW-11D		6/11/07	6.14	252.84	Sheen
MW-11D		9/11/07	8.08	250.90	Sheen
MW-11D		12/10/07	7.75	251.23	ND
MW-11D		3/10/08	3.56	255.42	ND
MW-11D		6/9/08	4.84	254.14	ND
MW-11D		9/8/08	6.35	252.63	ND
MW-11D		12/8/08	8.35	250.63	ND
MW-11D		3/9/09	4.26	254.72	ND
MW-11D		6/10/09	4.92	254.06	ND
MW-11D		9/21/09	5.59	253.39	ND
MW-11D		3/2/10	2.88	256.10	ND
MW-11D		9/27/10	5.49	253.49	Observed
MW-11D		12/14/10	5.41	253.57	Observed
MW-11D		5/1/12	4.35	254.63	DTP 3.74, Thickness 0.61'
MW-11LF	259.01	6/12/06	3.90	255.11	ND
MW-11LF		9/5/06	7.84	251.17	ND
MW-11LF		12/4/06	7.75	251.26	ND
MW-11LF		2/26/07	4.69	254.32	ND
MW-11LF		6/11/07	6.15	252.86	ND
MW-11LF		9/11/07	7.70	251.31	ND
MW-11LF		12/10/07	7.92	251.09	ND
MW-11LF		3/10/08	3.65	255.36	ND
MW-11LF		6/9/08	4.89	254.12	ND
MW-11LF		9/8/08	6.49	252.52	ND
MW-11LF		12/8/08	8.30	250.71	ND
MW-11LF		3/9/09	4.25	254.76	ND
MW-11LF		6/9/09	5.13	253.88	ND
MW-11LF		9/21/09	5.84	253.17	ND
MW-11LF		3/2/10	2.82	256.19	ND

**Table 2**  
**Historical Groundwater Elevation Data**  
**Lehigh Hanson Sunol Facility Asphalt Plant Area**  
**7999 Athenour Way, Sunol, California**

Well	Top of Casing Elevation (feet MSL)	Date Measured	Depth to Water (feet TOC)	GW Elevation (feet MSL)	Product Observation or Thickness (feet)
MW-11LF		9/27/10	5.28	253.73	ND
MW-11LF		12/14/10	5.25	253.76	ND
MW-11LF		5/1/12	4.13	254.88	ND
MW-12S	262.69	6/12/06	5.77	256.92	ND
MW-12S		9/5/06	10.51	252.18	ND
MW-12S		12/4/06	10.00	252.69	ND
MW-12S		2/26/07	6.45	256.24	ND
MW-12S		6/11/07	7.95	254.74	ND
MW-12S		9/11/07	9.54	253.15	ND
MW-12S		12/10/07	8.95	253.74	ND
MW-12S		3/10/08	4.90	257.79	ND
MW-12S		6/9/08	6.62	256.07	ND
MW-12S		9/8/08	8.27	254.42	ND
MW-12S		12/8/08	10.09	252.60	ND
MW-12S		3/9/09	5.84	256.85	ND
MW-12S		6/9/09	7.00	255.69	ND
MW-12S		9/21/09	7.35	255.34	ND
MW-12S		3/2/10	4.20	258.49	ND
MW-12S		9/27/10	6.94	255.75	ND
MW-12S		12/14/10	7.04	255.65	ND
MW-12S		5/1/12	6.23	256.46	ND
MW-12D	262.70	6/12/06	5.69	257.01	ND
MW-12D		9/5/06	10.40	252.30	ND
MW-12D		12/4/06	9.94	252.76	ND
MW-12D		2/26/07	6.47	256.23	ND

**Table 2**  
**Historical Groundwater Elevation Data**  
**Lehigh Hanson Sunol Facility Asphalt Plant Area**  
**7999 Athenour Way, Sunol, California**

Well	Top of Casing Elevation (feet MSL)	Date Measured	Depth to Water (feet TOC)	GW Elevation (feet MSL)	Product Observation or Thickness (feet)
MW-12D		6/11/07	7.96	254.74	ND
MW-12D		9/11/07	9.45	253.25	ND
MW-12D		12/10/07	8.74	253.96	ND
MW-12D		3/10/08	4.65	258.05	ND
MW-12D		6/9/08	6.42	256.28	ND
MW-12D		9/8/08	8.15	254.55	ND
MW-12D		12/8/08	10.00	252.70	ND
MW-12D		3/9/09	5.62	257.08	ND
MW-12D		6/9/09	6.80	255.90	ND
MW-12D		9/21/09	7.02	255.68	ND
MW-12D		3/2/10	3.75	258.95	ND
MW-12D		9/27/10	6.62	256.08	ND
MW-12D		12/14/10	6.85	255.85	ND
MW-12D		5/1/12	6.31	256.39	ND
MW-12LF	262.90	6/12/06	5.92	256.98	ND
MW-12LF		9/5/06	10.69	252.21	ND
MW-12LF		12/4/06	10.25	252.65	ND
MW-12LF		2/26/07	6.65	256.25	ND
MW-12LF		6/11/07	8.10	254.80	ND
MW-12LF		9/11/07	9.71	253.19	ND
MW-12LF		12/10/07	9.02	253.88	ND
MW-12LF		3/10/08	4.85	258.05	ND
MW-12LF		6/9/08	6.65	256.25	ND
MW-12LF		9/8/08	8.32	254.58	ND
MW-12LF		12/8/08	10.25	252.65	ND
MW-12LF		3/9/09	5.82	257.08	ND
MW-12LF		6/9/09	7.05	255.85	ND
MW-12LF		9/21/09	7.22	255.68	ND
MW-12LF		3/2/10	3.89	259.01	ND
MW-12LF		9/27/10	6.85	256.05	ND
MW-12LF		12/14/10	7.06	255.84	ND
MW-12LF		5/1/12	6.52	256.38	ND

**Notes:**

feet MSL = feet relative to mean sea level

feet TOC = feet below top of casing

GW = groundwater

DTP = depth to product

ND = not detected

NM = not measured

<sup>(1)</sup> = Measured one day later than most wells included in this monitoring and sampling event

<sup>(2)</sup> = Measured two days later than the majority of wells included in this monitoring and sampling event

**Table 3**  
**Historical Groundwater Flow Direction and Gradient Data**  
**Lehigh Hanson Sunol Facility Asphalt Plant Area**  
**7999 Athenour Way, Sunol, California**

	Shallow		Deep		Livermore Formation	
	Flow Direction	Gradient	Flow Direction	Gradient	Flow Direction	Gradient
Mar-09	E/SE <sup>a</sup>	0.011/0.015 <sup>a</sup>	SE/ESE <sup>b</sup>	0.008/0.015 <sup>b</sup>	E	0.007/0.017 <sup>b</sup>
Jun-09	E/SE <sup>c</sup>	0.01/0.021 <sup>c</sup>	E/ESE <sup>a</sup>	0.014/0.01 <sup>a</sup>	E	0.005/0.014 <sup>b</sup>
Sep-09	E/SE <sup>c</sup>	0.012/0.025 <sup>c</sup>	E/SE/NW <sup>d</sup>	0.016/0.010/0.010 <sup>d</sup>	NE/E <sup>b</sup>	0.005/0.017 <sup>b</sup>
Mar-10	SE	0.02	SE	0.02	E	0.02
Sep-10	SE	0.015	SE	0.02	E	0.017
May-12	SE	0.027	SE	0.03	ESE	0.011

<sup>a</sup> Indicates direction and gradient in southwestern portion of site/northern and northeastern portions of the site.

<sup>b</sup> Indicates direction and gradient in the east/west portions of the site.

<sup>c</sup> Indicates direction and gradient in southwestern portion of site/eastern portion of the site.

<sup>d</sup> Indicates direction and gradient in southwestern/southeastern/northwestern portions of the site.



ENVIRONMENTAL HEALTH SERVICES  
ENVIRONMENTAL PROTECTION  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577  
(510) 567-6700  
FAX (510) 337-9335

April 9, 2012

Mr. Lee Cover (Sent via E-mail to: [Lee.Cover@hanson.biz](mailto:Lee.Cover@hanson.biz))

Hanson Aggregates  
3000 Busch Road  
Pleasanton, CA 94566-8403

Subject: Response to Public Comments for Fuel Leak Case No. R00000207 and GeoTracker Global ID T0600102092, Mission Valley Rock and Asphalt, 7999 Athenour Way, Sunol, CA 94586

Dear Mr. Cover:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the above-referenced site including the recently submitted document entitled, "*Response to Public Comments on the Potential Case Closure for Fuel Leak Case No. 207 and Geotracker Global ID T0600102092, Mission Valley Rock and Asphalt, 7999 Athenour Way, Sunol, CA 94586*," dated March 19, 2012 (Response to Comments). The Response to Comments addresses three technical comments that were provided in ACEH's previous technical correspondence dated February 1, 2012. The three technical comments included one written comment received during the Sunol Citizen's Advisory Committee meeting on January 18, 2012 and two additional comments from ACEH regarding future groundwater use at the site and surrounding area.

The March 19, 2012 Response to Technical Comment 1 indicates that there will not be an interaction between the fuel leak plume at the Hanson site and the dewatering that is taking place for the SFPUC tunnel project. This conclusion appears to be based largely on predictions from groundwater modeling conducted for the Environmental Impact Report for the Irvington Tunnel Project. These predictions can be readily confirmed by measuring current water levels in the existing monitoring wells at the Hanson site and comparing the groundwater elevations and hydraulic gradients to previous data collected in 2011. The requested effort to confirm the model predictions are described in technical comment 1 below.

Provided that the water level data confirm there is no impact in the fuel leak area, we intend to proceed with the steps leading to case closure. As discussed previously, site management requirements will be required to address residual groundwater contamination left in place. We request that you address the technical comment below, perform the proposed work, and send us the reports requested below.

#### **TECHNICAL COMMENTS**

1. **Confirming No Changes in Water Level Elevations and Hydraulic Gradient.** In order to confirm that dewatering efforts in the region have not impacted the plume at the Hanson site, we request that you measure the water levels in each existing monitoring well at the site. Please present these data in tabular form along with groundwater elevation contour maps for each vertical zone. These results are to be compared to historic water level and hydraulic gradient data in a brief letter report.

Mr. Lee Cover  
RO0000207  
April 9, 2012  
Page 2

## **TECHNICAL REPORT REQUEST**

Please submit technical reports to Alameda County Environmental Health (Attention: Jerry Wickham), according to the following schedule:

- **June 1, 2012** – Water Level Data as Described in Technical Comment 1

If you have any questions, please call me at (510) 567-6791 or send me an electronic mail message at [jerry.wickham@acgov.org](mailto:jerry.wickham@acgov.org).

Sincerely,

Jerry Wickham, California PG 3766, CEG 1177, and CHG 297  
Senior Hazardous Materials Specialist

Attachment: Responsible Party(ies) Legal Requirements/Obligations

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Colleen Winey (QIC 8021), Zone 7 Water Agency, 100 North Canyons Pkwy, Livermore, CA 94551  
(Sent via E-mail to: [cwiney@zone7water.com](mailto:cwiney@zone7water.com))

Ron Goloubow, ARCADIS, 1900 Powell Street, 12<sup>th</sup> Floor, Emeryville, CA 94608-1827 (Sent via E-mail to: [Ron.Goloubow@arcadis-us.com](mailto:Ron.Goloubow@arcadis-us.com))

Fred Stanin, Malcolm Pirnie, 1900 Powell Street, Suite 1180, Emeryville, CA 94608-1827 (Sent via E-mail to: [fstanin@pirnie.com](mailto:fstanin@pirnie.com))

Jennifer Nyman, Malcolm Pirnie, 1900 Powell Street, Suite 1180, Emeryville, CA 94608-1827 (Sent via E-mail to: [jnyman@pirnie.com](mailto:jnyman@pirnie.com))

Tona Henninger, Alameda County Planning Department (Sent via E-mail to:  
[tona.henninger@acgov.org](mailto:tona.henninger@acgov.org))

Brooks Loeffler, (Sent via E-mail to: [brooksnsue@yahoo.com](mailto:brooksnsue@yahoo.com))

Donna Drogos, ACEH (Sent via E-mail to: [donna.drogos@acgov.org](mailto:donna.drogos@acgov.org))  
Jerry Wickham, ACEH

GeoTracker, eFile

## Attachment 1

### **Responsible Party(ies) Legal Requirements / Obligations**

#### **REPORT REQUESTS**

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

#### **ELECTRONIC SUBMITTAL OF REPORTS**

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements ([http://www.waterboards.ca.gov/water\\_issues/programs/ust/electronic\\_submittal/](http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/)).

#### **PERJURY STATEMENT**

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

#### **PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS**

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

#### **UNDERGROUND STORAGE TANK CLEANUP FUND**

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

#### **AGENCY OVERSIGHT**

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

<b>Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)</b>	<b>REVISION DATE:</b> July 20, 2010 <b>ISSUE DATE:</b> July 5, 2005 <b>PREVIOUS REVISIONS:</b> October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
<b>SECTION:</b> Miscellaneous Administrative Topics & Procedures	<b>SUBJECT:</b> Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

## REQUIREMENTS

- Please **do not** submit reports as attachments to electronic mail.
- Entire report including cover letter must be submitted to the ftp site as a **single portable document format (PDF) with no password protection**.
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document.** Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted.**
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

RO#\_Report Name\_Year-Month-Date (e.g., RO#5555\_WorkPlan\_2005-06-14)

## Submission Instructions

- 1) Obtain User Name and Password
  - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
    - i) Send an e-mail to [deh.loptoxic@acgov.org](mailto:deh.loptoxic@acgov.org)
  - b) In the subject line of your request, be sure to include "ftp PASSWORD REQUEST" and in the body of your request, include the **Contact Information, Site Addresses, and the Case Numbers (RO# available in Geotracker) you will be posting for.**
- 2) Upload Files to the ftp Site
  - a) Using Internet Explorer (IE4+), go to <ftp://alcoftp1.acgov.org>
    - (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
  - b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
  - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
  - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
  - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
  - a) Send email to [deh.loptoxic@acgov.org](mailto:deh.loptoxic@acgov.org) notify us that you have placed a report on our ftp site.
  - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
  - c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
  - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.