

September 22, 2011

Mr. Paul Cho, PG, Site Cleanup Unit IV
California Environmental Protection Agency
California Regional Water Quality Control Board, Los Angeles Region
320 W. 4th Street, Suite 200
Los Angeles, California 90013

Re: 2011 Third Quarter Groundwater Monitoring Results
DFSP Norwalk Facility, Norwalk
NPDES No. CAC834001
File No. 90-02

Dear Mr. Cho:

Parsons is transmitting the groundwater monitoring results for the 2011 third quarter sentry event at the DFSP Norwalk Facility in Norwalk, California. A summary of the results is presented here and the details, including field and laboratory reports, will be included in the second 2011 semiannual report that will be prepared by Parsons reporting the data from the entire site, including KMEPs. The site location map is shown on Figure 1 and Figure 2 presents the well network.

Groundwater gauging, monitoring, sample collection and laboratory analyses were performed in accordance with the sampling plan. Field activities included measuring water levels and light non-aqueous phase liquid (LNAPL) thicknesses and purging and sampling of the designated wells. Eighty three (83) wells have been gauged for groundwater levels and free product. Groundwater elevations and LNAPL thickness are presented in Table 1.

Product sheen was observed in nine wells during this groundwater gauging event. LNAPL was measured in five wells during the third quarter event ranging in thickness from 0.01 feet to 0.11 feet. This is consistent with past events as continues to indicate the reduced LNAPL plume and occurrences in the groundwater monitoring wells.

Fourteen wells were purged and sampled on July 11 and 12, 2011. Wells sampled by Blaine Tech Services, Inc. on behalf of Parsons were purged and sampled using low-flow methods in general conformance with ASTM D6771-02. All purged groundwater was transferred to the onsite groundwater treatment system.

All groundwater samples were labeled, entered onto a chain-of-custody form, and delivered to Calscience Environmental Laboratories, Inc., a State-certified analytical laboratory in Garden Grove, California. Groundwater samples were analyzed using U.S. Environmental Protection Agency (EPA) Method 8015 modified for total petroleum hydrocarbons (TPH) as jet propellant 5 (TPH as JP5). Groundwater samples were also analyzed for volatile organic compounds

2011 Third Quarter Groundwater Monitoring Results

(VOCs) using EPA Method 8260B, which includes methyl-tertiary butyl ether (MTBE) and oxygenates. Some selected samples were also analyzed for TPH as gasoline (TPHg). Table 2 presents a summary of analytical results for TPH, benzene, toluene, ethylbenzene, and xylenes (BTEX), MTBE, and tert-butyl alcohol (TBA) detected in the sampled wells. Table 3 presents a summary of miscellaneous VOC compounds detected in groundwater.

TPH was not detected in groundwater samples collected from the Exposition aquifer monitoring wells, EXP-1, EXP-2, or EXP-3. However, as shown on Table 2, there was one detection of 1,2-Dichloroethane (1,2-DCA) and MTBE in EXP-3 at 0.62 micrograms per liter ($\mu\text{g/L}$) and 0.45 $\mu\text{g/L}$, respectively.

TPH as JP5 was detected in seven of the sampled wells, with GMW-47 indicating the highest concentration at 3,000 $\mu\text{g/L}$. The detected TPH as JP5 concentration of 4,100 $\mu\text{g/L}$ is higher compared to concentration reported during previous quarterly sampling event (1,800 $\mu\text{g/L}$ in April 2011). TPHg was analyzed and detected at three wells, with a maximum concentration of 2,200 $\mu\text{g/L}$ at GMW-60, which is slightly lower than the previous quarter (2,100 $\mu\text{g/L}$ in April 2011).

Benzene was detected in six wells sampled, with the highest concentration present in GMW-60 (560 $\mu\text{g/L}$) which is lower than the previous quarter (590 $\mu\text{g/L}$ in April 2011). Toluene was detected below its reporting limit of 0.50 $\mu\text{g/L}$ in all wells. The highest concentrations of ethylbenzene and total xylenes were detected at well GMW-60 at 10 $\mu\text{g/L}$ and 0.27 $\mu\text{g/L}$, respectively. MTBE was detected in four wells with the highest concentration of 7.8 $\mu\text{g/L}$ at MW-22 MID. TBA was detected in five wells with the highest concentration of 32 $\mu\text{g/L}$ at well GMW-47.

Other VOCs detected during this sampling quarter included 1,1-dichloroethane (1,1-DCA), acetone, diisopropyl ether (DIPE), isopropylbenzene, methylene chloride, naphthalene, n-butylbenzene, n-propylbenzene, sec-butylbenzene, and tert-butylbenzene. Summary of miscellaneous VOC compounds detected is presented in Table 3.

The information presented in this letter-report will also be included in the 2011 second semiannual groundwater monitoring report for the site. If you have any questions, please call me at 602-734-1083 or Mary Lucas at 626-440-6032.

Sincerely,



Redwan N. Hassan, PG
Project Manager

PARSONS



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Attachments:

- Figure 1 – Site Location Map
- Figure 2 – Site Map with Groundwater Well Locations
- Table 1 – Groundwater Elevations
- Table 2 – Summary of Groundwater Analytical Data
- Table 3 – Summary of Miscellaneous Compounds Detected in Groundwater

Distribution:

- Mr. Matthew Young, DLA Energy
- Mr. Kola Olowu, DLA Energy
- Lt. Col. Tam Gaffney, DLA Energy
- Mr. Tim Whyte, URS
- Ms. Adriana Figueroa, City of Norwalk
- Mr. Thomas Lynch, City of Norwalk
- Mr. Norman Dupont, City of Norwalk Attorney
- Mr. Charles Emig, City of Cerritos
- Ms. Nancy Matsumoto, Water Replenishment District of So. CA
- Mr. Gary Lynch, Park Water Company
- Ms. Minxia Dong, Norwalk Regional Library
- Mr. Steve Defibaugh, KMEP
- Mr. Mark Wuttig, CH2M Hill
- Mr. Dan Jablonski, CH2M Hill
- Ms. Mary Lucas, Parsons
- Office of Congresswoman Grace Napolitano

RAB Members

- Ms. Mary Jane McIntosh
- Dr. Eugene Garcia
- Mr. Bob Hoskins
- Ms. Tracy Winkler



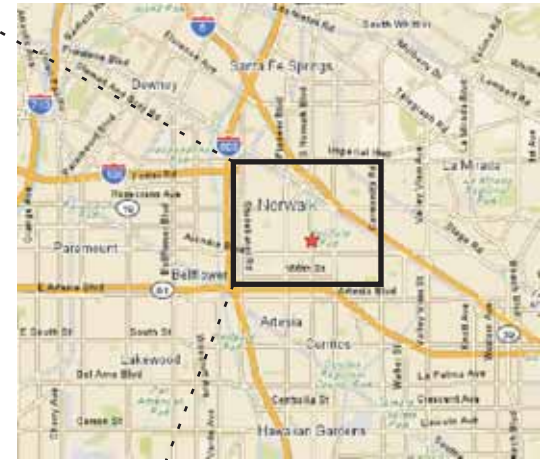


Figure 1
SITE LOCATION MAP

DFSP NORWALK
15306 Norwalk Blvd.
Norwalk, California

PARSONS

Pasadena, California

Legend

- ▲ Extraction Well Used for Site Remediation
- Groundwater Monitoring Well

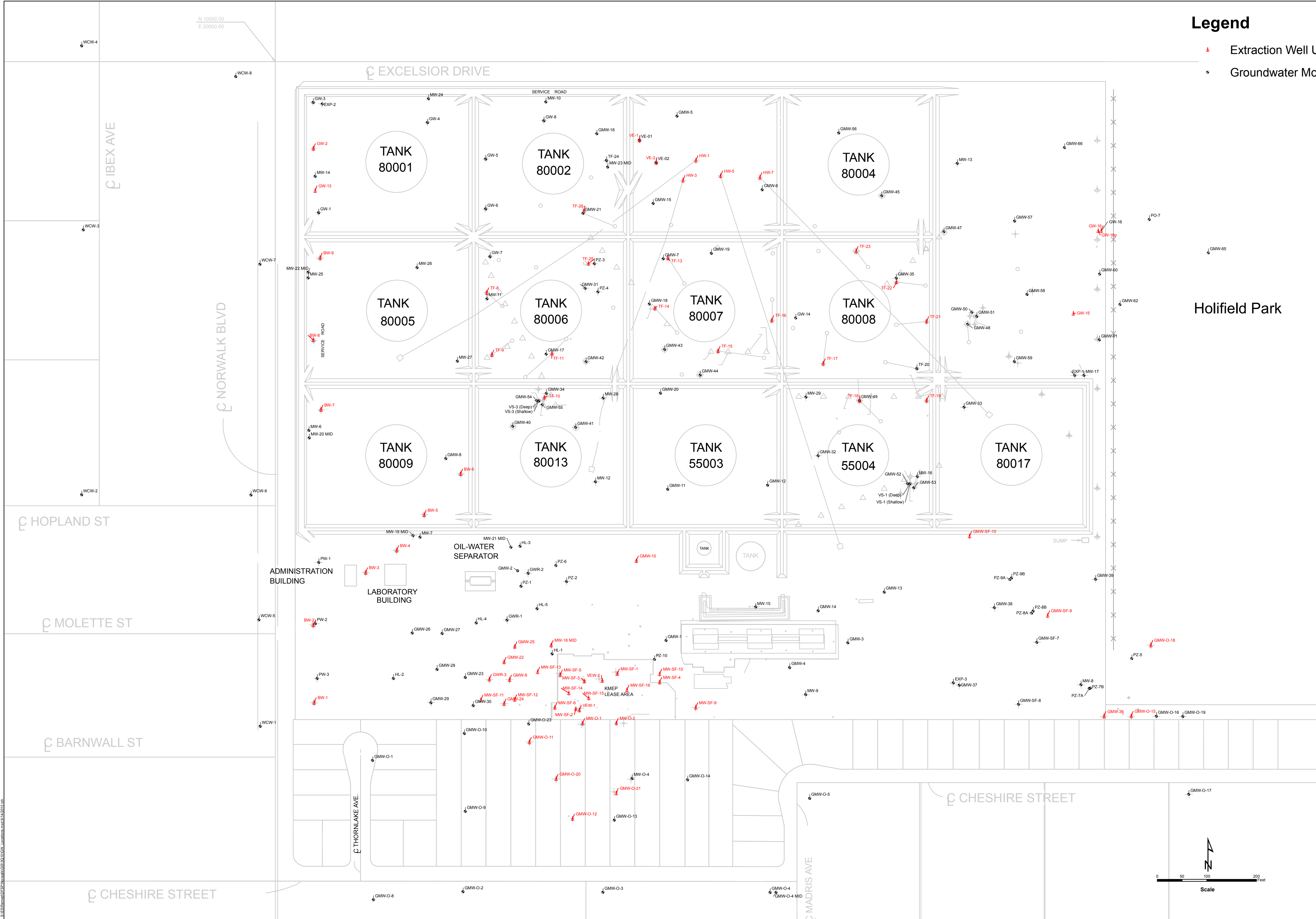


FIGURE 2
Site Map with
Groundwater Well Locations
 DFSP Norwalk
 Norwalk, CA
PARSONS
 Pasadena, California

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Table 1
Groundwater Elevations
Third Quarter 2011 Sentry Event
 Defense Fuel Support Point, Norwalk
 Norwalk, California

Well	Date	Casing Diameter (inches)	Casing Elevation (ftmsl)	Depth to LNAPL (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Groundwater Elevation (ftmsl)	Comments
EXP-1	7/7/2011	4	78.44	Sheen	53.65		24.79	Sheen was probably due to dirty probe. Level rechecked and no sheen observed
EXP-2	7/7/2011	4	79.43	--	54.18	--	25.25	
EXP-3	7/8/2011	4	77.58	--	52.73	--	24.85	
GMW-5	7/7/2011	4	77.61	--	29.76	--	47.85	
GMW-6	7/7/2011	4	77.31	--	29.16	--	48.15	
GMW-12	7/8/2011	4	75.21	--	26.57	--	48.64	
GMW-15	7/7/2011	4	76.21	Sheen	28.05		48.16	
GMW-16	7/7/2011	4	77.00	--	29.04	--	47.96	
GMW-17	7/8/2011	4	74.66	--	25.50	--	49.16	
GMW-19	7/8/2011	4	76.83	--	--	--	--	Could not locate due to muddy conditions; may have been damaged.
GMW-21	7/7/2011	4	76.23	--	27.95	--	48.28	
GMW-31	7/8/2011	4	76.50	--	28.34	--	48.16	
GMW-32	7/8/2011	4	76.12	--	--	--	--	Bees in well
GMW-33	7/8/2011	4		--	--	--	--	Well damaged; need to be cleared from mud.
GMW-41	7/8/2011	4	74.46	--	26.01	--	48.45	
GMW-43	7/8/2011	4	74.44	Sheen	26.10		48.34	
GMW-44	7/8/2011	4	74.45	--	--	--	--	not able to locate
GMW-45	7/7/2011	4	75.67	--	27.63	--	48.04	Concrete encasement is broken; must clean dirt.
GMW-47	7/7/2011	4	75.98	--	27.83	--	48.15	
GMW-48	7/7/2011	4	75.03	--	25.89	--	49.14	
GMW-56	7/7/2011	4	76.52	--	28.45	--	48.07	Broken concrete encasement
GMW-57	7/7/2011	4	76.66	--	28.53	--	48.13	
GMW-58	7/8/2011	4	75.48	--	26.46	--	49.02	
GMW-59	7/7/2011	4	75.28	sheen	25.69		49.59	
GMW-60	7/7/2011	4	76.24	--	28.02	--	48.22	
GMW-61	7/7/2011	4	75.60	--	27.23	--	48.37	
GMW-62	7/7/2011	4	76.34	28.03	28.14	0.11	48.29	
GMW-63	7/7/2011	4	77.32	--	29.13	--	48.19	
GMW-64	7/7/2011	4	75.84	--	27.21	--	48.63	
GMW-65	7/7/2011	4	76.78	--	28.63	--	48.15	
GMW-66	7/7/2011	4	77.00	--	28.96	--	48.04	
GW-1	7/7/2011	4	75.46	--	28.45	--	47.01	
GW-2	7/7/2011	4	76.39	--	28.25	--	48.14	
GW-3	7/8/2011	4	75.79	--	28.36	--	47.43	
GW-4	7/8/2011	4	74.77	--	--	--	--	Well has cap with hose
GW-5	7/8/2011	4	76.99	--	29.24	--	47.75	
GW-6	7/7/2011	4	76.38	28.51	28.52	0.01	47.87	
GW-7	7/8/2011	4	76.76	--	27.00	--	49.76	
GW-8	7/7/2011	4	76.15	sheen	28.41		47.74	
GW-13	7/7/2011	6	77.00	--	29.45	--	47.55	
GW-14	7/8/2011	6	76.54	--	28.31	--	48.23	
GW-15	7/7/2011	6	74.94	27.57	27.61	0.04	47.36	
GW-16	7/7/2011	6	76.33	--	28.96	--	47.37	

Table 1
Groundwater Elevations
Third Quarter 2011 Sentry Event
Defense Fuel Support Point, Norwalk
Norwalk, California

Well	Date	Casing Diameter (inches)	Casing Elevation (ftmsl)	Depth to LNAPL (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Groundwater Elevation (ftmsl)	Comments
MW-10	7/7/2011	4	79.12	--	31.37	--	47.75	
MW-13	7/7/2011	4	78.25	--	30.19	--	48.06	
MW-14	7/7/2011	4	78.60	--	31.13	--	47.47	
MW-16	7/8/2011	4	76.87	sheen	28.34		48.53	
MW-17	7/7/2011	4	77.86	sheen	29.49		48.37	
MW-22 (MID)	7/8/2011	4	79.57	--	33.34	--	46.23	
MW-23 (MID)	7/7/2011	4	79.59	--	31.62	--	47.97	
MW-24	7/7/2011	4	78.51	--	31.03	--	47.48	
MW-25	7/8/2011	4	79.15	--	31.55	--	47.60	
MW-26	7/8/2011	4	77.40	--	29.48	--	47.92	
MW-27	7/8/2011	4	78.46	--	30.03	--	48.43	
MW-29	7/8/2011	4	79.13	--	30.65	--	48.48	
PO - 7	7/8/2011	4	80.26	--	--	--	--	No access
PZ-3	7/8/2011	2	76.17	--	27.85	--	48.32	
TF-8	7/8/2011	4	74.86	--	26.66	--	48.20	
TF-9	7/8/2011	4	74.47	--	26.03	--	48.44	
TF-10	7/8/2011	4	73.61	--	25.15	--	48.46	
TF-11	7/8/2011	4	74.40	--	25.40	--	49.00	
TF-13	7/8/2011	4	75.47	--	27.13	--	48.34	
TF-14	7/8/2011	4	74.35	--	25.93	--	48.42	
TF-15	7/8/2011	4	74.78	--	26.33	--	48.45	
TF-16	7/8/2011	4	75.89	--	27.51	--	48.38	
TF-17	7/8/2011	4	74.88	--	26.40	--	48.48	cage in well
TF-18	7/8/2011	4	73.94	25.30	25.40	0.10	48.62	
TF-19	7/8/2011	4	75.61	--	26.37	--	49.24	
TF-20	7/8/2011	4	75.59	--	27.45	--	48.14	
TF-21	7/8/2011	4	75.60	--	26.59	--	49.01	
TF-22	7/8/2011	4	74.76	--	26.30	--	48.46	
TF-23	7/8/2011	4	75.31	--	26.76	--	48.55	
TF-24	7/7/2011	4	76.43	--	28.47	--	47.96	
TF-25	7/8/2011	4	74.85	--	26.63	--	48.22	
TF-26	7/7/2011	5	75.85	--	27.50	--	48.35	
WCW-1	7/7/2011	4	72.86	--	24.40	--	48.46	re-tap bolts needed
WCW-2	7/7/2011	4	75.34	sheen	27.40		47.94	
WCW-3	7/7/2011	4	76.16	--	28.75	--	47.41	re-tap bolts needed
WCW-4	7/7/2011	4	78.05	--	30.86	--	47.19	
WCW-5	7/7/2011	4	73.49	--	24.85	--	48.64	re-tap bolts needed
WCW-6	7/7/2011	4	75.52	--	27.19	--	48.33	re-tap bolts needed
WCW-7	7/7/2011	4	76.44	--	28.96	--	47.48	cover needs to be secured. re-tap bolts
WCW-8	7/7/2011	4	77.34	--	30.07	--	47.27	
WCW-9	7/7/2011	4	77.74	sheen	30.66		47.08	
WCW-10	7/7/2011	4	74.06	--	25.40	--	48.66	
WCW-11	7/7/2011	4	75.29	27.18	27.19	0.01	48.11	
WCW-12	7/7/2011	4	76.27	--	28.60	--	47.67	
WCW-13	7/7/2011	4	77.70	--	30.42	--	47.28	
WCW-14	7/7/2011	4	78.81	--	31.60	--	47.21	

ftmsl - feet below mean sea level
LNAPL - light non-aqueous phase liquid
ft - feet

Table 2
Summary of Groundwater Analytical Data
Third Quarter 2011 Sentry Event
 Defense Fuel Support Point, Norwalk
 Norwalk, California

Results reported in micrograms per liter (µg/L)

Well	Sample Date	TPH as JP5 ¹	TPHg ²	Benzene	Toluene	Ethyl-benzene	O-xylene	P/M-xylene	1,2-DCA ³	MTBE ⁴	TBA ⁵
EXP-1	11-Jul-11	< 100	< 100	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 10
EXP-2	11-Jul-11	< 100	< 100	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 10
EXP-3	12-Jul-11	< 100	< 100	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.62	0.45	< 10
GMW-47	12-Jul-11	3000	--	0.54	< 0.50	0.58	< 0.50	< 0.50	< 0.50	3.8	32
GMW-57	11-Jul-11	130	--	10	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 10
GMW-58	11-Jul-11	220	--	31	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 10
GMW-58 DUP	11-Jul-11	220	--	32	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 10
GMW-59	12-Jul-11	1700	1400	14	< 0.50	0.43	< 0.50	< 0.50	< 0.50	< 0.50	8
GMW-59 DUP	12-Jul-11	2000	--	14	< 0.50	0.41	< 0.50	< 0.50	< 0.50	< 0.50	7.5
GMW-60	12-Jul-11	1500	2200	560	< 0.50	10	0.27	< 0.50	< 0.50	< 0.50	8.8
GMW-61	12-Jul-11	240	230	6.4	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 10
GMW-63	11-Jul-11	< 100	--	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 10
GMW-64	11-Jul-11	< 100	--	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 10
GMW-65	11-Jul-11	< 100	--	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 10
MW-14	11-Jul-11	< 100	--	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.48	11
MW-22 MID	11-Jul-11	100	--	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.5	7.8	13

Notes:

¹TPH as JP5 = total petroleum hydrocarbons against a jet propellant 5 standard.

²TPHg = total petroleum hydrocarbons against a gasoline standard.

³1,2-DCA = 1,2-Dichloroethane.

⁴MTBE = Methyl tert-butyl ether.

⁵TBA = Tert-butyl alcohol.

⁶< 100 = compound not detected at or above the indicated reporting limit.

⁷DUP = duplicate.

Table 3
Summary of Miscellaneous VOC Compounds Detected in Groundwater
Third Quarter 2011 Sentry Event
 Defense Fuel Support Point, Norwalk
 Norwalk, California

Results reported in micrograms per liter (µg/L)

Well	Sample Date	1,1-Dichloroethane	Acetone	Diisopropyl Ether (DIPE)	Isopropylbenzene	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	sec-Butylbenzene	tert-Butylbenzene
GMW-47	12-Jul-11	0.36	< 20 ¹	< 2.0	18	< 5.0	< 10	< 1.0	0.53	2.4	0.76
GMW-57	11-Jul-11	0.52	6.7	< 2.0	4	< 5.0	< 10	< 1.0	1	< 1.0	< 1.0
GMW-58	11-Jul-11	0.52	< 20	< 2.0	3.2	< 5.0	< 10	< 1.0	0.88	0.35	< 1.0
GMW-58 DUP	11-Jul-11	0.52	< 20	< 2.0	3.6	< 5.0	< 10	< 1.0	0.98	0.38	< 1.0
GMW-59	12-Jul-11	< 1.0	6.8	< 2.0	27	< 5.0	4.3	1.2	19	3.4	0.76
GMW-59 DUP	12-Jul-11	< 1.0	< 20	< 2.0	27	< 5.0	3.9	1.2	19	3.4	0.76
GMW-60	12-Jul-11	< 1.0	< 20	< 2.0	83	< 5.0	150	3.7	85	10	1.5
GMW-61	12-Jul-11	< 1.0	< 20	< 2.0	15	< 5.0	< 10	< 1.0	1	3.2	0.56
MW-22 MID	11-Jul-11	< 1.0	< 20	0.48	< 1.0	< 5.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0
TB-1	11-Jul-11	< 1.0	< 20	< 2.0	< 1.0	2.1	< 10	< 1.0	< 1.0	< 1.0	< 1.0
TB-2	12-Jul-11	< 1.0	< 20	< 2.0	< 1.0	2.2	< 10	< 1.0	< 1.0	< 1.0	< 1.0

Notes:

¹<20 = compound not detected at or above the indicated reporting limit.