



Transmittal

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Date: September 16, 2010 **From:** Dan Jablonski
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Subject: Third Quarter 2010 (Sentry) Monitoring Event Submittal
Project Name: Defense Fuel Support Point (DFSP) Norwalk

Item	Description
1	Table 1 - Summary of Groundwater Elevations, Third Quarter 2010 Sentry Event
2	Table 2 - Summary of Groundwater Analytical Data, Third Quarter 2010 Sentry Event
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4	Table 4 - Summary of Groundwater Extraction Pump Operation, Third Quarter 2010 Sentry Event

Remarks

On behalf of SFPP, L.P., an operating partnership of Kinder Morgan Energy Partners, L.P. (KMEP), CH2M HILL is transmitting the groundwater monitoring results for the third quarter 2010 sentry event conducted at the DFSP Norwalk site. Groundwater elevations and analytical data for wells monitored during this event are summarized in Tables 1 through 3, and are briefly discussed below. The operation of SFPP's wells during this event is summarized in Table 4.

- 1) Eighteen (18) wells located in the south-central/intermediate 24-inch block valve, southeastern, southern off-site, and western off-site areas were gauged and sampled by Blaine Tech Services, Inc., on behalf of SFPP during this sentry event. Three extraction wells in the southeastern area (GMW-36, GMW-O-15, and GMW-O-18) were also sampled but not gauged since these wells were in operation. Samples were collected from the operating wells through the wellhead sampling ports.
- 2) Groundwater elevations have generally increased in the uppermost aquifer and decreased in the Exposition aquifer beneath the site since the first quarter 2010 sentry event. The groundwater extraction system was in operation during this monitoring event, thus the groundwater levels do not reflect the static water level conditions in the area.
- 3) Volatile organic compounds (VOCs) and total petroleum hydrocarbons (TPH) quantified as gasoline (TPH-g) and fuel product (TPH-fp) were not detected in groundwater samples

collected from Exposition aquifer wells.

- 4) Two wells in the south-central/intermediate block valve area (MW-SF-1 and MW-SF-4) and one well in the southeastern area (GMW-38) were voluntarily monitored by KMEP during the sentry event.
- 5) In the southeastern area, the RWQCB requested KMEP to increase the monitoring frequency from quarterly to monthly for wells GMW-36, GMW-O-15, GMW-O-16, GMW-O-18, GMW-O-19, and PZ-5. KMEP began monthly monitoring at these wells in March 2010. The results of this monthly monitoring are provided in monthly transmittals to the RWQCB. During this sentry monitoring event, concentrations of VOCs, TPH-g, and TPH-fp in well GMW-36 were substantially lower than past concentrations in this well. Decreases in TPH-g and TPH-fp concentrations also were reported in well GMW-O-15. An increase in methyl tertiary butyl ether (MTBE) and tertiary butyl ether (TBA) was reported in well GMW-O-15 since the first semiannual 2010 event. VOCs, TPH-g, and TPH-fp were not detected in wells GMW-O-16 and GMW-O-19 with the exception that benzene and MTBE were detected at low concentrations in well GMW-O-16. Reported concentrations of VOCs in well GMW-O-18 have generally decreased since October 2009 with the exception of TBA. TPH-fp was not detected in well GMW-O-18; the TPH-g concentration was similar to the concentration reported in the first semiannual 2010 event. The TBA concentration in well PZ-5 increased since the first semiannual 2010 event, but remains within the range of past concentrations in this well. Groundwater extraction will continue in the southeastern area and groundwater conditions will continue to be monitored. In addition, a work plan for additional groundwater assessment near well GMW-O-18 has been submitted to the RWQCB for review, and was approved on August 12, 2010.
- 6) In the southern off-site area, no VOCs, TPH-g, or TPH-fp were detected in wells GMW-O-1, GMW-O-2, and GMW-O-3. The detected concentrations of VOCs, TPH-g, and TPH-fp in well GMW-O-14 continued to decrease from the interim high concentrations measured during the first quarter 2010 sentry event (March 16, 2010), continuing the decrease in concentrations measured during the first semiannual 2010 event (May 28, 2010) as observed in the time-series concentration chart shown at the July 29, 2010 RAB meeting.
- 7) In the western off-site area, no VOCs, TPH-g, or TPH-fp were detected in well WCW-13. 1,2-dichloroethane (1,2-DCA) was detected in wells WCW-3 and WCW-7. MTBE and diisopropyl ether were also detected in well WCW-7. The detected concentrations of 1,2-DCA and MTBE in this area remained below the risk-based corrective action levels of 70 µg/L for 1,2-DCA and 40 µg/L for MTBE.
- 8) Three equipment blanks and one trip blank sample were collected during this sampling event. No VOCs, TPH-g, or TPH-fp were detected at or above laboratory reporting limits in the equipment or trip blank samples.

Please contact Dan Jablonski at 213.228.8271 if you have any questions.

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TABLE 1

**SUMMARY OF GROUNDWATER ELEVATIONS
THIRD QUARTER 2010 SENTRY EVENT
Defense Fuel Support Point Norwalk
Norwalk, California**

Well	Date	Top of Casing Elevation (feet msl)	Depth to Product (feet btoc)	Depth to Water (feet btoc)	Apparent Product Thickness (feet)	Groundwater Elevation (feet msl)
EXP-1	7/12/2010	78.44	---	55.28	---	23.16
EXP-2	7/12/2010	79.43	---	55.84	---	23.59
EXP-3	7/12/2010	77.58	---	54.60	---	22.98
EXP-5	7/12/2010	72.41	---	49.45	---	22.96
GMW-36	7/12/2010	74.53	NM	NM	NC	NC
GMW-38	7/12/2010	75.47	---	27.31	---	48.16
GMW-39	7/12/2010	75.05	---	27.01	---	48.04
GMW-O-1	7/12/2010	71.45	---	23.47	---	47.98
GMW-O-14	7/12/2010	74.08	---	25.78	---	48.30
GMW-O-15	7/12/2010	74.23	NM	NM	NC	NC
GMW-O-16	7/12/2010	74.10	---	26.28	---	47.82
GMW-O-18	7/12/2010	74.36	NM	NM	NC	NC
GMW-O-19	7/12/2010	74.46	---	26.04	---	48.42
GMW-O-2	7/12/2010	72.54	---	24.47	---	48.07
GMW-O-3	7/12/2010	72.19	---	24.14	---	48.05
MW-SF-1	7/12/2010	78.93	---	30.51	---	48.42
MW-SF-4	7/12/2010	79.38	---	31.37	---	48.01
PZ-5	7/12/2010	73.97	---	26.09	---	47.88
WCW-13	7/12/2010	77.70	---	30.68	---	47.02
WCW-3	7/12/2010	76.16	---	29.06	---	47.10
WCW-7	7/12/2010	76.44	---	29.29	---	47.15

Abbreviations

--- = not detected.

feet btoc = feet below top of casing.

feet msl = feet above mean sea level based on the National Geodetic Vertical Datum of 1929.

NC = not calculated.

NM = not measured since groundwater extraction pump was in operation.

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL DATA
THIRD QUARTER 2010 SENTRY EVENT
 Defense Fuel Support Point Norwalk
 Norwalk, California
 Results reported in micrograms per liter (µg/L)

Well	Well	Date	TPH-g	TPH-fp	Benzene	Toluene	Ethyl-benzene	Total Xylenes ¹	1,2-DCA	MTBE	TBA	DIPE	ETBE	TAME
Exposition Aquifer	EXP-1	07/12/2010	<50	<100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<1.0	<1.0	<1.0
	EXP-2	07/12/2010	<50	<100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<1.0	<1.0	<1.0
	EXP-3	07/12/2010	<50	<100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<1.0	<1.0	<1.0
	EXP-5	07/12/2010	<50	<100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<1.0	<1.0	<1.0
Southeastern Area	GMW-36	07/13/2010	500	4,500	49	51	4.9	68	<0.5	0.91	340	<1.0	<1.0	<1.0
	GMW-38	07/13/2010	<50	<100	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<10	<1.0	<1.0	<1.0
	GMW-39	07/13/2010	<50	<100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	230	<1.0	<1.0	<1.0
	GMW-O-15	07/13/2010	580	250	110	7.5	11	33.7	<1	300	5,100	<1.0	<1.0	1.5
	GMW-O-16	07/13/2010	<50	<100	0.73	<0.5	<0.5	<0.5	<0.5	1.9	<10	<1.0	<1.0	<1.0
	GMW-O-18	07/14/2010	110	<100	<0.5	<0.5	<0.5	<0.5	<0.5	0.85	11,000	<1.0	<1.0	<1.0
	GMW-O-19	07/13/2010	<50	<100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<1.0	<1.0	<1.0
PZ-5	07/14/2010	4,600	1,300	1,900	<10	180	<10	<20	530	82,000	<20	<20	<20	
South-central Area	MW-SF-1	07/13/2010	8,600	11,000	4,000	41	64	<25	<50	350	<500	<50	<50	<50
	MW-SF-4	07/14/2010	13,000	9,500	4,400	37	450	360	<50	320	<500	64	<50	<50
Southern Off-site Area	GMW-O-1	07/12/2010	<50	<100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<1.0	<1.0	<1.0
	GMW-O-2	07/13/2010	<50	<100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<1.0	<1.0	<1.0
	GMW-O-3	07/12/2010	<50	<100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<1.0	<1.0	<1.0
	GMW-O-14	07/14/2010	22,000	6,700	7,900	420	77	2,440	100	<50	<1000	130	<100	<100
Western Off-site Area	WCW-13	07/12/2010	<50	<100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<1.0	<1.0	<1.0
	WCW-3	07/12/2010	<50	<100	<0.5	<0.5	<0.5	<0.5	4.4	<0.5	<10	<1.0	<1.0	<1.0
	WCW-7	07/13/2010	<50	<100	<0.5	<0.5	<0.5	<0.5	20	1.6	<10	3.4	<1.0	<1.0

Notes

1. The total xylenes result is the sum of m,p-xylenes and o-xylenes when detected.

Abbreviations

<50 = not detected at or above the laboratory reporting limit shown.
 1,2-DCA = 1,2-dichloroethane.
 DIPE = diisopropyl ether.
 ETBE = ethyl tertiary butyl ether.
 MTBE = methyl tertiary butyl ether.
 TAME = tertiary amyl methyl ether.
 TBA = tertiary butyl alcohol.

TPH-fp = total extractable petroleum hydrocarbons quantified using a site fuel product standard.
 TPH-g = total purgeable petroleum hydrocarbons quantified using a gasoline standard (C4-C13).

TABLE 3

**SUMMARY OF MISCELLANEOUS COMPOUNDS DETECTED IN GROUNDWATER SAMPLES
THIRD QUARTER 2010 SENTRY EVENT**

Defense Fuel Support Point Norwalk
Norwalk, California

Results reported in micrograms per liter ($\mu\text{g/L}$)

Well	Date	1,2,4- Trimethylbenzene	1,3,5- Trimethylbenzene	n-Butylbenzene	n-Propylbenzene
GMW-36	07/13/2010	10	6	1.5	<1.0
GMW-O-14	07/14/2010	400	<100	<100	<100
GMW-O-15	07/13/2010	7.2	2.4	<1	1.1
MW-SF-4	07/14/2010	140	<50	<50	54

Notes

<50 = not detected at or above the laboratory reporting limit shown.

TABLE 4

**SUMMARY OF TOTAL FLUIDS AND GROUNDWATER EXTRACTION PUMP OPERATION
THIRD QUARTER 2010 SENTRY EVENT**

Defense Fuel Support Point Norwalk
Norwalk, California

Remediation Area	Remediation Well ID	Pump Type	7/20/10 Pump Status (ON/OFF)	Comments
South-Central Area	GMW-9	TFE	OFF	Off due to high selenium concentration
	GMW-22	TFE	OFF	Off due to high selenium concentration
	GMW-24	TFE	OFF	Off due to high selenium concentration
	GMW-25	GWE	OFF	Off due to high selenium concentration
	GWR-3	GWE	OFF	Off due to high selenium concentration
	MW-SF-2	TFE	OFF	Off due to high selenium concentration
	MW-SF-3	TFE	OFF	Off due to high selenium concentration
	MW-SF-6	TFE	OFF	Off due to high selenium concentration
	MW-SF-11	TFE	OFF	Off due to high selenium concentration
	MW-SF-12	TFE	OFF	Off due to high selenium concentration
	MW-SF-13	TFE	OFF	Off due to high selenium concentration
	MW-SF-14	TFE	ON	
	MW-SF-15	TFE	ON	
	MW-SF-16	TFE	OFF	Off due to high selenium concentration
	MW-O-1	TFE	OFF	Off due to high selenium concentration
	MW-O-2	TFE	OFF	Off due to high selenium concentration
	GMW-O-11	TFE	ON	
	GMW-O-20	TFE	OFF	Off due to high selenium concentration
	GMW-O-21	TFE	OFF	Off due to high selenium concentration
GMW-O-23	TFE	OFF	Off due to high selenium concentration	
Southeastern Area	GMW-O-15	TFE	ON	
	GMW-O-18	TFE	ON	
	GMW-36	TFE	ON	

Notes

Data reported based on information provided by SFPP, L.P.

Abbreviations

GWE = groundwater extraction.

TFE = total fluids extraction.