

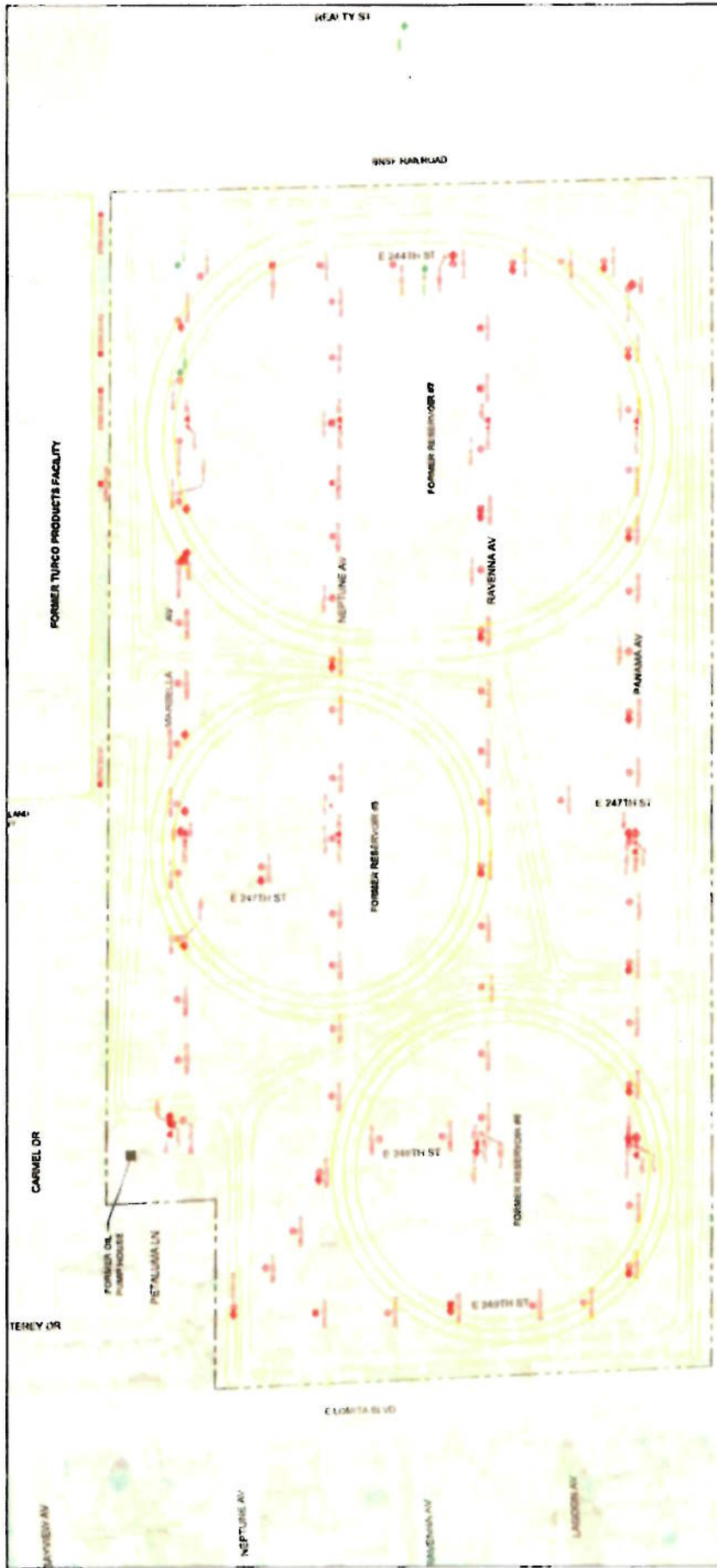
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**SITE VICINITY MAP**

Project No. 49194314	Date. JUNE 2008	Project: Former KAST Property	Figure 1
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K:\2008\KAST\figure 1 Vic Map.ai





**EXPLANATION**

- APPROXIMATE LOCATION OF LIFTPOST
- APPROXIMATE LOCATION OF DIRECT PUMP BLANK
- APPROXIMATE LOCATION OF 14" BGS SOL VAPOR MONITOR
- APPROXIMATE LOCATION OF 10 AND 24" BGS SOL VAPOR MONITORS
- APPROXIMATE LOCATION OF 317 BGS SOL VAPOR MONITORS (NOT SAMPLE)
- APPROXIMATE LOCATION OF 10 AND 24" SOL VAPOR MONITORS
- APPROXIMATE LOCATION OF SUBSURFACE MONITORING WELL
- APPROXIMATE LOCATION OF TURCO SUBMONITORING POINTS
- APPROXIMATE PROPERTY LINE



**URS Corporation**

**PREVIOUS EXPLORATION LOCATIONS**

Proj. No. 4314314	Date: AUGUST 2009
Project: FORMER EAST PROPERTY	Fig. No. 2





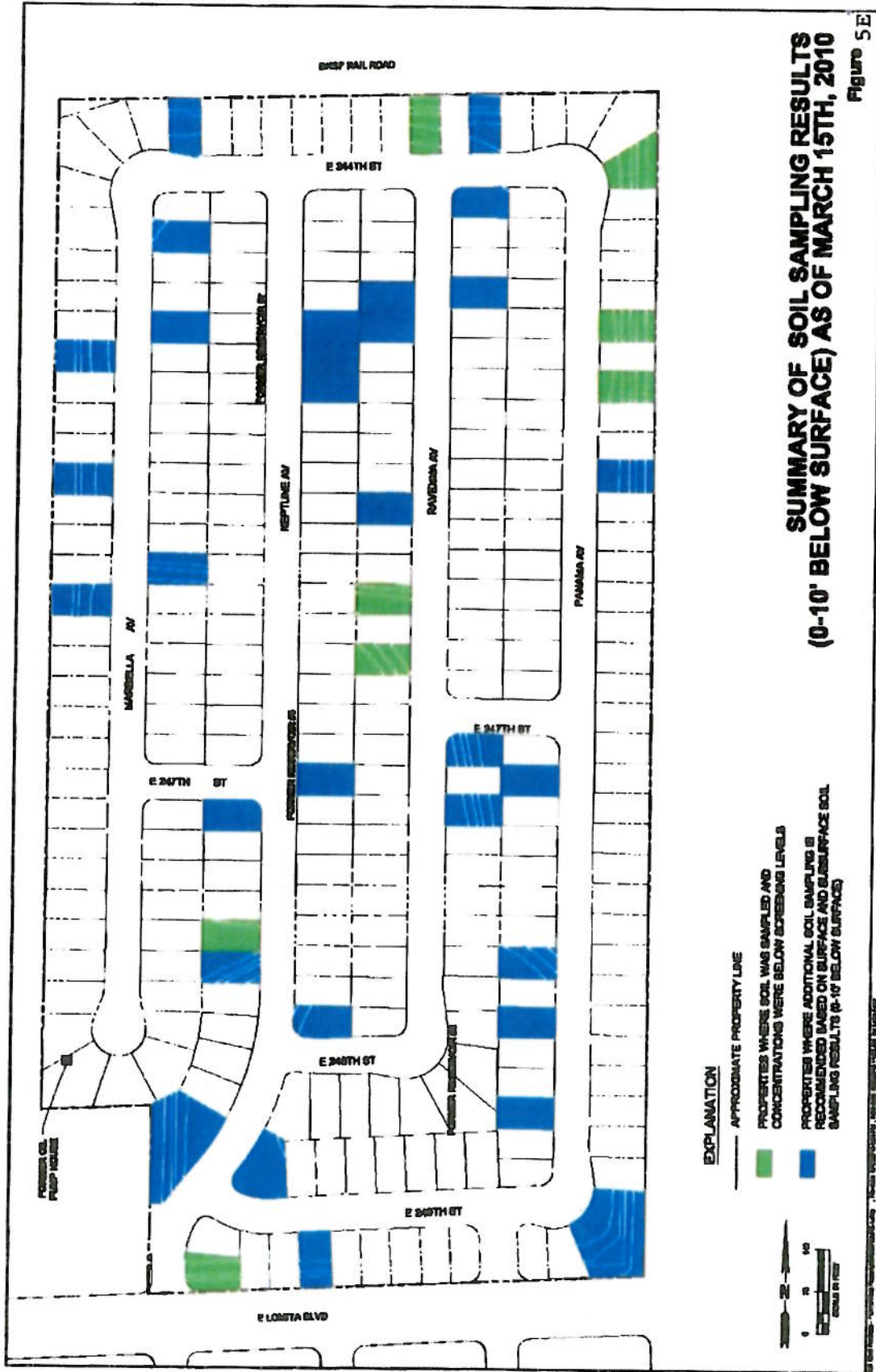






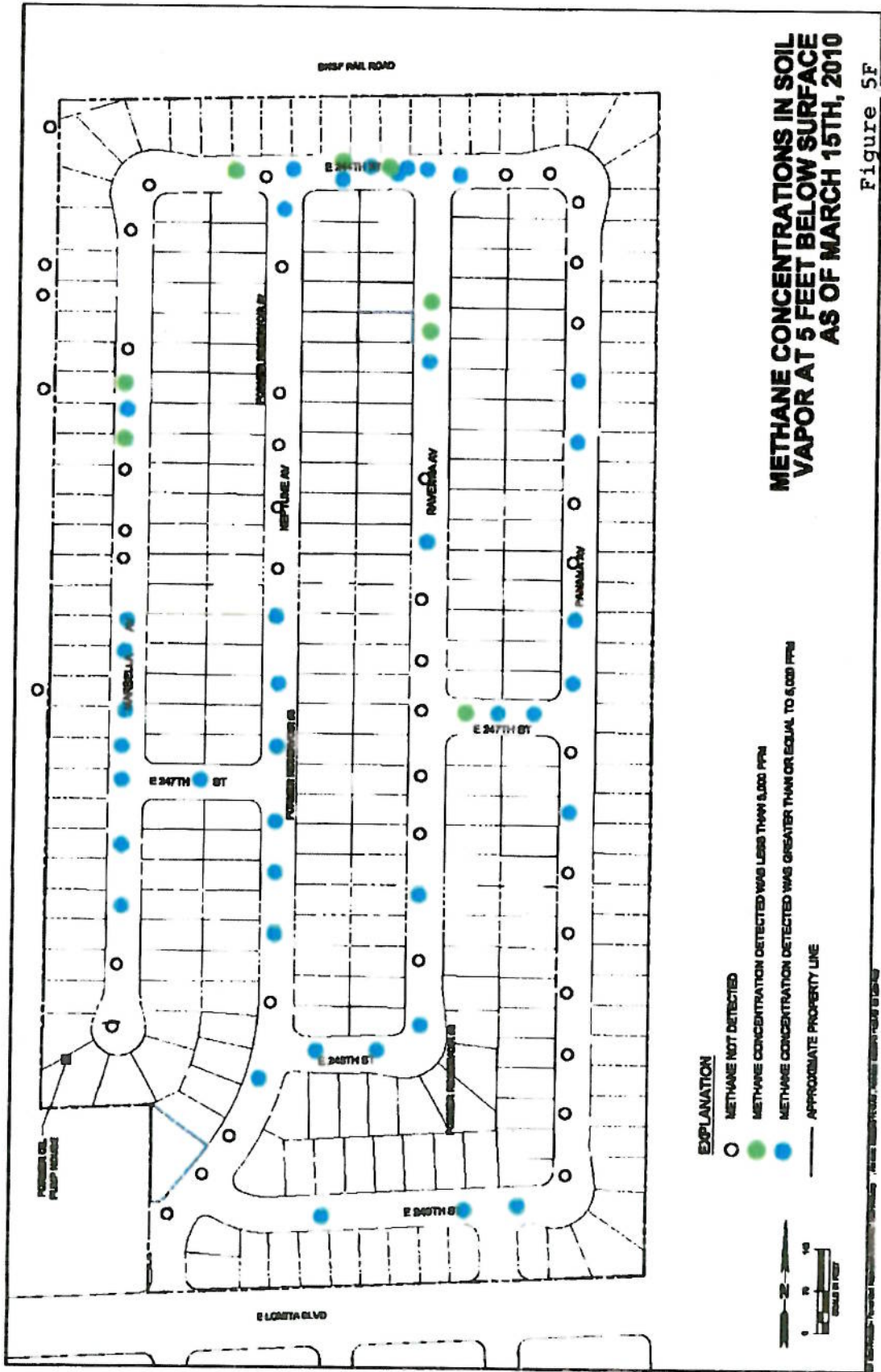


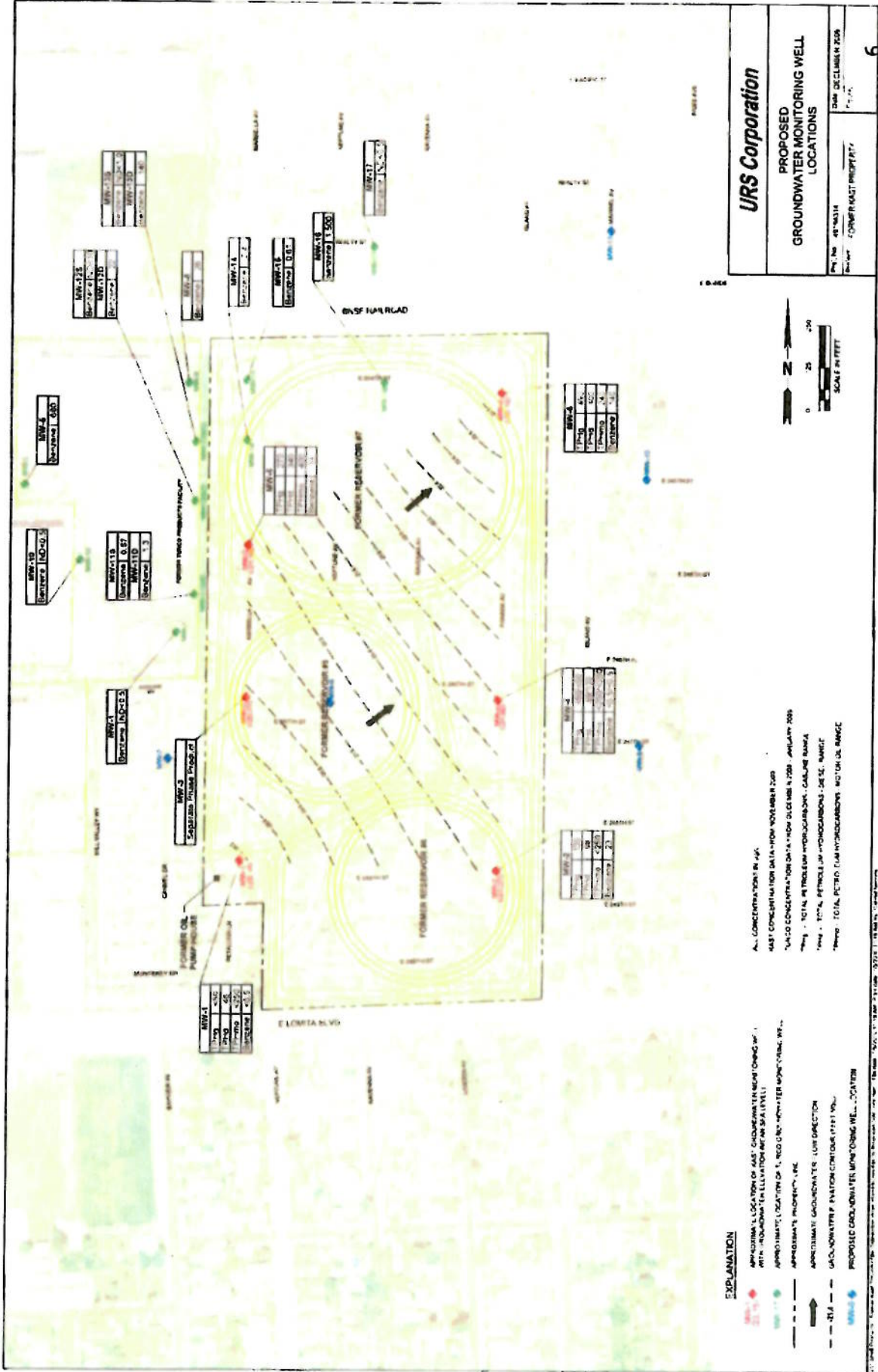




**SUMMARY OF SOIL SAMPLING RESULTS  
(0-10' BELOW SURFACE) AS OF MARCH 15TH, 2010**

**Figure 5E**





**URS Corporation**

**PROPOSED GROUNDWATER MONITORING WELL LOCATIONS**

Proj. No. 48740314 Date: 20/01/2014  
 Scale: 1" = 100' (AS SHOWN) PLOT NO. 6



- EXPLANATION**
- PROPOSED GROUNDWATER MONITORING WELL LOCATION
  - APPROXIMATE LOCATION OF ASST. CONCENTRATION MONITORING WELL WITH APPROXIMATE LOCATION OF ASST. WELL
  - APPROXIMATE LOCATION OF 1" TO 2" DIAMETER MONITORING WELL
  - APPROXIMATE MONITORING POINT
  - APPROXIMATE GROUNDWATER FLOW DIRECTION
  - GROUNDWATER FLOW DIRECTION (IF KNOWN)
  - PROPOSED GROUNDWATER MONITORING WELL LOCATION
- AL - CONCENTRATION IN AIR  
 ASST - CONCENTRATION DATA FROM NOVEMBER 2009  
 GROUND CONCENTRATION DATA FROM JULY 2009 - AUGUST 2009  
 TSS - TOTAL INTRUSION PARTICLES - CALIFORNIA STANDARD  
 TPC - TOTAL PARTICLES IN HYDROCARBONS - DIESEL RANGE  
 TTHM - TOTAL TRICHLOROETHYLENE HYDROCARBONS - DIESEL RANGE

Well ID	Depth (ft)	Flow (gpm)	Flow Direction
MW-1	100	0.5	SE
MW-2	100	0.5	SE
MW-3	100	0.5	SE
MW-4	100	0.5	SE
MW-5	100	0.5	SE
MW-6	100	0.5	SE
MW-7	100	0.5	SE
MW-8	100	0.5	SE
MW-9	100	0.5	SE
MW-10	100	0.5	SE
MW-11	100	0.5	SE
MW-12	100	0.5	SE
MW-13	100	0.5	SE
MW-14	100	0.5	SE
MW-15	100	0.5	SE
MW-16	100	0.5	SE
MW-17	100	0.5	SE
MW-18	100	0.5	SE

Table 1. Data Summary - Phase I & II Site Characterization

Medium	Constituents	Phase	Units	% of Sample Detection	5%ile	25%ile	Median	75%ile	95%ile	Maximum Detected Concentration	
Soil	Benzene	I	UG/KG	24.0%	ND 0.445	ND 0.5	ND 0.6	ND 110	4600	34000	
		II	UG/KG	55.2%	ND 0.13	ND 0.24	0.405	0.48	180	14000	
	Benzo (a) Pyrene	I	MG/KG	0%	ND 0.25	ND 0.25	ND 0.25	ND 1.25	ND 2.5	ND	
		II	MG/KG	67.2%	ND 0.0025	ND 0.011	0.25	0.25	2.5	3.6	
	Naphthalene	I	MG/KG	22.3%	ND 0.00455	ND 0.0055	ND 0.25	ND	14	29	
		II	MG/KG	43.5%	0.0015	0.0041	0.013	ND 0.25	4.7	61	
	TPH as Diesel	I	MG/KG	39.4%	ND 2.5	ND 2.5	ND 2.5	ND 2.5	2700	13000	22000
		II	MG/KG	71.8%	ND 2.5	ND 2.5	70	470	7300	33000	
	TPH as Gasoline	I	MG/KG	40.6%	ND 0.11	ND 0.125	ND 0.14	190	4300	8800	
		II	MG/KG	43.7%	ND 0.063	ND 0.10	ND 0.10	0.18	660	5500	
	TPH as Motor Oil	I	MG/KG	36.0%	ND 12.5	ND 12.5	ND 12.5	3500	11000	21000	
		II	MG/KG	74.7%	ND 12.5	ND 12.5	205	930	8900	41000	
Methane	I	%	55.1%	ND 0.39	ND 0.42	1.35	12.6	50.3	62.6		
	II	%	4.1%	ND 0.00011	ND 0.00012	ND 0.00012	ND 0.00012	ND 0.00024	78		
Soil Vapor	Benzene	I	UG/L	85.1%	ND 0.0016	0.028	0.10	3.3	150	3800	
		II	UG/L	27.6%	ND 0.0018	ND 0.0018	ND 0.0019	0.0038	0.013	6.5	
Naphthalene	I	UG/L	3.4%	ND 0.016	ND 0.12	ND 1.1	ND 8.5	ND 46	1.2		
	II	UG/L	26.7%	ND 0.0031	ND 0.0115	ND 0.012	0.0125	0.017	0.18		

Shaded cells indicate not-detected result. 1/2 Detection limit reported  
Phase II investigation reports submitted to Regional Board as of July 19, 2010.

Table 1. Data Summary - Phase I & II Site Characterization

Medium	Constituents	Phase	Units	% of Sample Detection	5%ile	25%ile	Median	75%ile	95%ile	Maximum Detected Concentration	
Soil	Benzene	I	UG/KG	24.0%	ND 0.445	ND 0.5	ND 0.6	ND 1.10	4600	34000	
		II	UG/KG	55.2%	ND 0.13	ND 0.24	0.405	0.48	180	14000	
	Benzo (a) Pyrene	I	MG/KG	0%	ND 0.25	ND 0.25	ND 0.25	ND 1.25	ND 2.5	ND	ND
		II	MG/KG	67.2%	ND 0.0025	ND 0.011	0.25	0.25	0.25	2.5	3.6
	Naphthalene	I	MG/KG	22.3%	ND 0.00455	ND 0.0055	ND 0.25	ND	ND	14	29
		II	MG/KG	43.5%	0.0015	0.0041	0.013	ND 0.25	ND 0.25	4.7	61
	TPH as Diesel	I	MG/KG	39.4%	ND 2.5	ND 2.5	ND 2.5	ND 2.5	2700	13000	22000
		II	MG/KG	71.8%	ND 2.5	ND 2.5	70	470	7300	33000	33000
	TPH as Gasoline	I	MG/KG	40.6%	ND 0.11	ND 0.125	ND 0.14	190	4300	8800	8800
		II	MG/KG	43.7%	ND 0.063	ND 0.10	ND 0.10	0.18	660	5500	5500
	TPH as Motor Oil	I	MG/KG	36.0%	ND 12.5	ND 12.5	ND 12.5	3500	11000	21000	21000
		II	MG/KG	74.7%	ND 12.5	ND 12.5	205	930	8900	41000	41000
Methane	I	%	55.1%	ND 0.39	ND 0.42	1.35	12.6	50.3	62.6	62.6	
	II	%	4.1%	ND 0.00011	ND 0.00012	ND 0.00012	ND 0.00012	ND 0.00024	78	78	
Soil Vapor	Benzene	I	UG/L	85.1%	ND 0.0016	0.028	0.10	3.3	150	3800	
		II	UG/L	27.6%	ND 0.0018	ND 0.0018	ND 0.0019	0.0038	0.013	6.5	
Naphthalene	I	UG/L	3.4%	ND 0.016	ND 0.12	ND 1.1	ND 8.5	ND 46	1.2	1.2	
	II	UG/L	26.7%	ND 0.0031	ND 0.0115	ND 0.012	0.0125	0.017	0.18	0.18	

Shaded cells indicate not-detected result. 1/2 Detection limit reported Phase II investigation reports submitted to Regional Board as of July 19, 2010.

**TABLE 1A**  
**Summary of Soil Sample Analytical Results- VOCs, SVOCs, and TPH**  
**Addendum to the IRAP- Further Site Characterization Report**  
**Former Kast Property**

LOCATION NAME			244SV05A7	244SV05A7	244SV05A7
SAMPLE DATE			2/2/2010	2/2/2010	2/2/2010
SAMPLE DEPTH, ft bgs			2.5	5	10
SAMPLE NAME			244SV05A7-2.5	244SV05A7-5	244SV05A7-10
SAMPLE DELIVERY GROUP (SDG)	Method	Unit	10-02-0133	10-02-0133	10-02-0133
1,2,4-Trimethylbenzene			14,000	9,700	33,000
1,3,5-Trimethylbenzene			3,300	300	12,000
Acetone			< 4000	< 4200	< 11000
Benzene			11,000	9,600	3,900
Chlorobenzene			< 80	< 85	< 220
cis-1,2-Dichloroethene			< 80	< 85	< 220
Cumene (Isopropylbenzene)			4,000	4,500	6,300
Ethylbenzene			12,000	12,000	19,000
Methyl-tert-Butyl Ether			< 160	< 170	< 440
Naphthalene	SW8260B	µg/kg	7,300	7,200	9,800
n-Butylbenzene			2,800	2,400	5,100
p-Isopropyltoluene			2,500	1,800	5,000
Propylbenzene			6,200	6,800	9,600
sec-Butylbenzene			2,100	2,500	3,500
tert-Butylbenzene			94	120	< 220
Toluene			< 80	< 85	< 220
Vinyl Acetate			< 800	< 850	< 2200
Xylenes, Total			7,300	2,500	56,000
1-Methylnaphthalene			19	9.9	13
2-Methylnaphthalene			28	16	21
Fluorene	SW8270C	mg/kg	< 5.0	< 5.0	< 5.0
Naphthalene			11	7.8	10
Phenanthrene			7.4	< 5.0	< 5.0
Pyrene			< 5.0	< 5.0	< 5.0
TPH as Gasoline	M8015	mg/kg	2,500	2,500	5,000
TPH as Motor Oil	M8015	mg/kg	8,100	6,200	5,700
TPH as Diesel	SW8015B	mg/kg	85,000	6,500	6,600

**Notes:**

Bold text indicates results above laboratory reporting limit.

µg/kg = micrograms per kilogram

mg/kg = milligrams per kilogram

ft bgs = feet below ground surface

**TABLE 2 B**  
**Summary of Soil Vapor Analytical Results - VOCs and Fixed Gases**  
**IRAP Further Site Characterization**  
**Former Kast Property**

LOCATION NAME			244-SV-05A5	244-SV-05A6	244-SV-05A7
SAMPLE DATE			2/4/2010	2/4/2010	2/4/2010
SAMPLE DEPTH, FT BGS			2.5	5	10
SAMPLE NAME			244-SV05A5-2.5	244-SV05A6-5	244-SV05A7-10
SAMPLE DELIVERY GROUP (SDG)	Method	Unit	1002129A/B	1002129A/B	1002129A/B
1,2,4-Trimethylbenzene	TO15	UG/M3	18000	< 2800	31000
1,3,6-Trimethylbenzene			< 6200	< 2800	8800
4-Ethyltoluene			17000	< 2800	20000
Benzene			390000 j	430000 j	630000
Cumene (Isopropylbenzene)			7600	8200	14000
Cyclohexane			1800000 j	470000 j	2700000 E
Ethylbenzene			50000	44000	85000
Heptane			1000000 j	< 2400	120000
Hexane			1900000 j	3300 j	250000
Naphthalene			590 J b	760 J b	1300 J b
o-Xylene			20000	< 2500	< 4900
p/m-Xylene			110000	< 2500	120000
Propylbenzene			8400	9300	15000
Toluene			33000	< 2200	< 4200
Carbon Dioxide					5.2
Methane	D1946	%	23	0.086	25
Oxygen			4.5	20	7.3

**Notes:**

Bold text indicates results above laboratory reporting limit.

µg/m<sup>3</sup> = micrograms per cubic meter

% = percent

B = Compound detected in associated laboratory method blank (laboratory qualified)

J = Estimated value (laboratory qualified)

b = Compound detected in associated laboratory method blank (qualified during validation)

j = Estimated value (qualified during validation as the result is possibly biased high)

E = Estimated value. Result exceeded instrument calibration range during analysis

FT BGS = Feet below ground surface

Table 3

Maximum Concentrations of Aliphatic and Aromatic Hydrocarbons by Hydrocarbon Fractionation at Individual Properties

Street Name	House No	Units	Aliphatics (C5 - C8)	Aromatics (C6 - C8)	Aliphatics (C9 - C18)	Aromatics (C9 - C16)	Aliphatics (C19 - C32)	Aromatics (C17 - C32)
244TH ST	351	MG/KG	ND	ND	ND	ND	46	26
244TH ST	361	MG/KG	ND	ND	ND	ND	30	29
249TH ST	345	MG/KG	0.84	ND	140	300	220	240
249TH ST	352	MG/KG	ND	ND	ND	17	48	59
249TH ST	412	MG/KG	ND	0.014	ND	39	80	71
MARBELLA AVE	24412	MG/KG	2300	2	4100	2400	3100	4400
MARBELLA AVE	24426	MG/KG	2.2	0.1	220	240	340	210
MARBELLA AVE	24433	MG/KG	ND	ND	1300	6800	7200	6000
MARBELLA AVE	24517	MG/KG	ND	ND	ND	15	12	27
MARBELLA AVE	24532	MG/KG	350	54	1000	1200	1900	1600
MARBELLA AVE	24603	MG/KG	2	0.058	980	2400	1300	2000
NEPTUNE AVE	24422	MG/KG	1.4	ND	79	170	190	180
NEPTUNE AVE	24426	MG/KG	ND	ND	37	63	99	92
NEPTUNE AVE	24502	MG/KG	0.64	ND	32	72	94	110
NEPTUNE AVE	24632	MG/KG	ND	ND	51	220	300	420
NEPTUNE AVE	24703	MG/KG	68	2.5	1100	2500	2000	2300
NEPTUNE AVE	24725	MG/KG	ND	ND	ND	ND	ND	ND
NEPTUNE AVE	24729	MG/KG	ND	ND	ND	ND	37	35
NEPTUNE AVE	24738	MG/KG	710	130	2100	2000	1900	1300
NEPTUNE AVE	24815	MG/KG	ND	ND	ND	ND	100	54
NEPTUNE AVE	24825	MG/KG	ND	ND	ND	22	84	160
NEPTUNE AVE	24912	MG/KG	ND	ND	ND	ND	12	10
PANAMA AVE	24406	MG/KG	ND	ND	ND	56	260	250
PANAMA AVE	24430	MG/KG	ND	ND	ND	ND	ND	ND
PANAMA AVE	24502	MG/KG	ND	ND	ND	ND	ND	ND
PANAMA AVE	24518	MG/KG	ND	ND	17	48	110	130
PANAMA AVE	24709	MG/KG	2.8	1.1	1100	6100	5100	7200
PANAMA AVE	24739	MG/KG	5.9	0.25	14	240	96	250
PANAMA AVE	24809	MG/KG	53	3.8	220	520	440	570
PANAMA AVE	24823	MG/KG	210	ND	610	540	560	1000
PANAMA AVE	24838	MG/KG	ND	ND	ND	22	96	130
RAVENNA AVE	24402	MG/KG	680	60	680	630	920	730
RAVENNA AVE	24416	MG/KG	3.8	0.32	640	1500	2000	1900
RAVENNA AVE	24419	MG/KG	1.2	0.07	280	510	790	890
RAVENNA AVE	24423	MG/KG	780	23	820	830	700	600
RAVENNA AVE	24523	MG/KG	2.4	0.16	100	250	210	290
RAVENNA AVE	24603	MG/KG	ND	ND	ND	ND	15	ND
RAVENNA AVE	24613	MG/KG	76	ND	500	340	590	760
RAVENNA AVE	24700	MG/KG	ND	ND	15	67	340	410
RAVENNA AVE	24712	MG/KG	1.1	0.013	140	130	240	360

Note: The concentrations shown are the maximum concentration detected at each property.

The maximum concentration of aliphatic or aromatic hydrocarbons in a particular carbon-chain range may not occur in the same sample as the maximum concentrations in a different carbon-chain range.



**Table 4: Target Schedule**

<b>Task</b>	<b>Estimated Start Date</b>	<b>Target Completion Date</b>	<b>Schedule (on, ahead or behind)</b>	<b>Comments</b>
Pilot Testing Work Plan	03/11/11	05/10/11		Within 60 days of the issuance of the CAO
Regional Board review of Pilot Testing Work Plan	05/11/11	07/11/11		Regional Board reviews Report and issues Response and approval
Pilot Test Report	07/12/11	11/07/11		Final Report due within 120 days with a bi monthly progress reporting
Environmental Impact Assessment (EIA) Report	NA	12/07/11		Within 30 days of the completion of the Pilot Testing Report
Regional Board Review of Pilot Test and EIA Reports	11/08/11	01/09/12		Review of Pilot Test & EIA Reports and Response
Site- Specific Cleanup Goals (SSCG)	NA	11/07/11		Due date is concurrent with the Pilot Test Report due date.
30 day Public Review of SSCG	11/08/11	12/08/11		
Remedial Action Plan (RAP)	01/11/12	03/11/12		Within 30 days of the completion of the Pilot Testing Report
30 day Public Review of RAP	03/12/12	04/12/12		
Regional Board Review of Remedial Action Plan	04/13/12	06/13/12		
Implementation of RAP	06/20/12			
Groundwater Monitoring and Reporting	On going			Quarterly Monitoring Program

**Notes:** (1) Dates are considered estimates and subject to revision in response to evolving field conditions and potential weather-related delays.  
(2) Project schedule reconciled/updated at the end of each calendar month.

## Office of Environmental Health Hazard Assessment



Linda S. Adams  
Secretary for Environmental Protection

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Arnold Schwarzenegger  
Governor

### MEMORANDUM

**TO:** Dr. Teklewold Ayalew  
Engineering Geologist  
Regional Water Quality Control Board  
320 West 4<sup>th</sup> Street, Suite 200  
Los Angeles, CA 90013

**FROM:** James C. Carlisle, D.V.M., M.Sc.,  
Lead Staff Toxicologist  
Integrated Risk Assessment Branch

**DATE:** May 19, 2010

**SUBJECT:** TPH DATA FOR 41 HOMES AT THE FORMER KAST SITE IN CARSON,  
CA (R4-09-17) OEHA # 880212-01

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#### Document reviewed

- Memo: "Kast TPH Data for 41 homes" dated April 6, 2010.

#### Site characterization

- Analytical data for TPH in soils data are supplied for 41 homes. Sample depths are not always stated but those that are provided are either 0.5 or 5 feet.

#### Hazard Assessment

Based on the data in the memo, I estimated maximum exposures for a child and compared the resulting exposure estimates to DTSC reference dosages (RfDs).

- In the table below, columns 3-8 show the maximum TPH concentrations detected at each property.
- Columns 9-14 show the corresponding TPH ingestion by a 15 kg child ingesting 200 mg soil per day.
- Columns 15-20 show the corresponding hazard quotients for a 15 kg child, obtained by dividing the daily ingestion by the reference dose. Hazard quotients exceeding unity are in bold font.

---

California Environmental Protection Agency

*The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption.*



PANAMA AVE	24823	210	ND	610	540	560	1000	2.8E-3		8.1E-3	7.2E-3	7.5E-3	1.3E-2	7.0E-2	*	8.1E-2	2.4E-1	3.7E-3	4.4E-1
PANAMA AVE	24838	ND	ND	ND	22	96	130				2.9E-4	1.3E-3	1.7E-3	0.0E+0	*	0.0E+0	9.8E-3	6.4E-4	5.8E-2
RAVENNA AVE	24402	680	60	680	630	920	730	9.1E-3	8.0E-4	9.1E-3	8.4E-3	1.2E-2	9.7E-3	2.3E-1	*	9.1E-2	2.8E-1	6.1E-3	3.2E-1
RAVENNA AVE	24416	3.8	0.32	640	1500	2000	1900	5.1E-5	4.3E-6	8.5E-3	2.0E-2	2.7E-2	2.5E-2	1.3E-3	*	8.5E-2	6.7E-1	1.3E-2	8.4E-1
RAVENNA AVE	24419	1.2	0.07	280	510	790	890	1.6E-5	9.3E-7	3.7E-3	6.8E-3	1.1E-2	1.2E-2	4.0E-4	*	3.7E-2	2.3E-1	5.3E-3	4.0E-1
RAVENNA AVE	24423	780	23	820	830	700	600	1.0E-2	3.1E-4	1.1E-2	1.1E-2	9.3E-3	8.0E-3	2.6E-1	*	1.1E-1	3.7E-1	4.7E-3	2.7E-1
RAVENNA AVE	24523	2.4	0.16	100	250	210	290	3.2E-5	2.1E-6	1.3E-3	3.3E-3	2.8E-3	3.9E-3	8.0E-4	*	1.3E-2	1.1E-1	1.4E-3	1.3E-1
RAVENNA AVE	24603	ND	ND	ND	ND	15	ND					2.0E-4		0.0E+0	*	0.0E+0	0.0E+0	1.0E-4	0.0E+0
RAVENNA AVE	24613	76	ND	500	340	590	760	1.0E-3		6.7E-3	4.5E-3	7.9E-3	1.0E-2	2.5E-2	*	6.7E-2	1.5E-1	3.9E-3	3.4E-1
RAVENNA AVE	24700	ND	ND	15	67	340	410			2.0E-4	8.9E-4	4.5E-3	5.5E-3	0.0E+0	*	2.0E-3	3.0E-2	2.3E-3	1.8E-1
RAVENNA AVE	24712	1.1	0.013	140	130	240	360	1.5E-5	1.7E-7	1.9E-3	1.7E-3	3.2E-3	4.8E-3	3.7E-4	*	1.9E-2	5.8E-2	1.6E-3	1.6E-1
RfD								0.04		0.1	0.03	2	0.03						

\* = No RfD

- Aromatic hydrocarbons in the C-9 to C-32 range at 24412, 24433, and 24603 Marbella Avenue, 24709 Panama Avenue, and 24703 Panama Neptune exceed their reference values for children (i.e. the hazard quotient is  $\geq 1$ ).
- While a hazard quotient  $\geq 1$  does not indicate that there will be definite toxic effects, it does indicate that the concentration exceeds the level that we can say is definitely safe.

#### Conclusions

- Aromatic hydrocarbons in the C-9 to C-32 range at five properties exceed their reference values for children (i.e. the hazard quotient is  $\geq 1$ ).

If you have any questions, do not hesitate to call or e-mail me at 916-323-2635 or [JCarlsle@OEHHA.CA.gov](mailto:JCarlsle@OEHHA.CA.gov), respectively.  
Memo reviewed by:

Ned Butler, PhD  
Staff Toxicologist  
Integrated Risk Assessment Branch



May 5, 2010

Ms. Tracy Egoscue  
Executive Officer  
California Regional Water Quality Control Board  
Los Angeles Region  
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Los Angeles, CA 90013

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**Reference: Former Kast Property, Carson, California  
Site Cleanup No. 1230; Site ID 2040330**

Dear Ms Egoscue:

As you know, during the past several months, Shell Oil Company employees and contractors have worked tirelessly to investigate and address the environmental issues at the former Kast Property. To date, we have sampled at approximately one-third of the homes in the Carousel neighborhood, and we will continue our work in conjunction with the RWQCB, based upon applicable and appropriate scientific and regulatory standards that are protective of human health and the environment. Like the RWQCB, our goal is to protect the residents of the Carousel neighborhood and address the environmental issues, while minimizing disruption to residents and preserving the integrity of the community.

Although elevated levels of compounds of concern (COCs) have been found beneath the streets and at certain residential properties, based on the data collected so far, there is no imminent risk to residents or the public in the Carousel neighborhood. Also, while Shell's investigation is not yet complete, it does not appear at this time that there is any significant off-site migration of soil impacts or soil vapor impacts from the former Kast Property.

Our approach, which is to develop a coherent conceptual framework for the mitigation and remediation of the Carousel neighborhood, is consistent with the RWQCB's guidelines providing for a principled, phased approach to investigating and remediating environmental impacts. Specifically, this approach follows the guidance set out in the State Water Resources Control Board's Resolution 92-49. In accordance with these guidelines, it includes "an evaluation of cleanup alternatives that are feasible at the site" and consistent with the maximum benefit to the people of the State. Because the soil and groundwater assessment is ongoing, a full evaluation of cleanup alternatives is premature at this time.

Nevertheless, we are considering a variety of potential alternatives that can be applied at specific properties and in the public streets in order to address environmental impacts and avoid any significant risk to human health in the Carousel neighborhood. For example, Shell has submitted a work plan for the soil vapor extraction pilot test. While evaluating alternatives, we place a priority on keeping the community intact and minimizing any disruption to residents of the Carousel community. If it becomes necessary for residents to relocate temporarily to perform this work, Shell will take appropriate steps to minimize any inconvenience and compensate them for any resulting expenses. We are also sensitive to the residents' concerns about their property values and are open to a dialogue with the RWQCB regarding these issues.

In addition, Shell is continuing to monitor the groundwater to ensure that there are no significant impacts emanating from the former Kast Property. In this regard, it is essential that groundwater conditions both up-gradient and down-gradient be evaluated. To date, our investigation suggests that groundwater up-gradient of the former Kast property is significantly contaminated. One potential source of this contamination appears to be the former Fletcher Oil Refinery, which we understand the County Sanitation District is remediating.

We look forward to further dialogue with the RWQCB regarding the draft Feasibility Study outline, recently submitted, as well as the Site Conceptual Model, to be submitted later this month. The Site Conceptual Model will provide: (1) an overview of our investigation efforts to date; (2) additional information regarding potential on and off-site sources for the COCs; and (3) a review of the available options for remediation of the former Kast property.

We appreciate your leadership on this project.

Sincerely,



William E. Platt  
Manager, Environmental Claims  
Shell Oil Company