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GETTLER-RYAN INC.

February 11, 2009

Alameda County Environmental Health Department
1131 Harbor Bay Parkway, Ste. 250
Alameda, California 94502

Subject: **4th Quarter 2008 Groundwater Monitoring and Sampling Report**
Rolls-Royce Engine Service Test Facility,
6701 Old Earhart Road, Oakland, California
Alameda County Site #RO0002606

On behalf of Rolls-Royce Engine Services-Oakland Inc. (RR), Gettler-Ryan Inc. (GR) has prepared this fourth quarter 2008 groundwater monitoring and sampling report for the above-referenced property. This report describes the field and analytical methods, provides a summary of groundwater monitoring results, and presents conclusions and recommendations regarding groundwater conditions at the site.

Site Location and Description
The subject site is located at 6701 Old Earhart Road, adjacent to the Metropolitan Oakland International Airport (MOIA)-North Field, Oakland, California (Figure 1). Topography in the vicinity of the subject site is relatively flat at an average elevation of approximately 7.5 feet above mean sea level. The closest surface water is within the tidal wetlands bordering the site to the east.

Pertinent site features consist of six engine test cells with auxiliary structures (sheds, pumphouse, waste water sumps, aboveground oil/water separator, control buildings, gas conditioning facility, air receivers, cooling towers, flare stack, etc), one 30,000-gallon aboveground liquefied petroleum fuel tank, one 10,000-gallon jet A fuel underground storage tank (UST) and two paired 8,000-gallon jet A fuel USTs. Pertinent site features and the location of the USTs are shown on Figure 2.

For site background and previous environmental investigation, please refer to GR report No. 25-948218.07, *Well Installation Report*, dated January 11, 2008.

Groundwater Monitoring
On December 19, 2008, GR personnel conducted quarterly groundwater monitoring of nineteen wells (MW-1 through MW-15, MW-17, MW-18, NPORD MW-3 and NPORD MW-4). Work at the site included measuring static groundwater levels, evaluating groundwater in the wells for the presence of petroleum hydrocarbons, and purging and sampling the wells for laboratory analysis. Groundwater monitoring and sampling were performed in accordance with GR Field Methods and Procedures, Quarterly Groundwater Sampling (attached).

On December 19, 2008, GR collected depth to groundwater measurements in nineteen wells (MW-1 through MW-15, MW-17, MW-18, NPORD MW-3 and NPORD MW-4) and checked groundwater for the presence of Separate-Phase Hydrocarbons (SPH). Approximately 0.36 ft of SPH were observed in well MW-18.

Approximately 0.16 gallon (20 ounces) of SPH and 0.13 gallon of water were bailed from well MW-18 and were stored onsite in a 55-gallon DOT approved drum pending disposal. Water level data, groundwater elevations, and SPH thicknesses are presented in attached Table 1. Field data sheets for this event are attached.

Groundwater monitoring wells MW-1 through MW-15, MW-17, MW-18, NPORD MW-3 and NPORD MW-4 were purged and sampled on the same date they were monitored. Well MW-18 was not sampled due to presence of 0.36 feet of SPH. Groundwater samples were submitted under chain-of-custody protocol to Kiff Analytical (ELAP #2236) of Davis, California. A copy of the laboratory analytical reports and chain-of-custody documents are attached. Purge water generated from the sampling activities was stored onsite in 55-gallon DOT approved drums pending disposal. GR understands that the disposal of water generated will be handled by RR.

Results

Groundwater Gradient

On December 19, 2008, the groundwater flow direction varied with hydraulic gradients ranging between 0.01 ft/ft to 0.04 ft/ft. A Potentiometric Map is presented as Figure 3.

Analytical Results

Groundwater samples were analyzed for Total Petroleum Hydrocarbons as gasoline (TPHg), Benzene, Toluene, Ethylbenzene, and total Xylenes (BTEX), Methyl-tert Butyl Ether (MtBE), and naphthalene by EPA Method 8260B, and for Total Petroleum Hydrocarbons as diesel (TPHd), Total Petroleum Hydrocarbons as motor oil (TPHmo), and Total Petroleum Hydrocarbons as jet fuel (TPHjf) by modified EPA Method 8015. Groundwater chemical analytical results for this event are presented in Table 1.

Concentrations of TPHg, TPHd, TPHmo, TPHjf, BTEX, MtBE and naphthalene were reported below the laboratory method detection limits in groundwater samples collected from wells MW-1, MW-2, MW-12, MW-15, and NPORD MW-3.

TPHg was detected in the water sample collected from well MW-13 at a concentration of 280 parts per billion (ppb). Concentrations of TPHg were reported below the laboratory method detection limits in water samples collected from the remaining wells.

TPHd was detected in nine wells at concentrations ranging from 130 ppb in well MW-13 to 4,100 ppb in well MW-9. Concentrations of TPHmo were detected in eight wells at levels ranging from 640 ppb in well NPORD MW-4 to 8,500 ppb in well MW-9. TPHjf was detected in thirteen wells at concentrations ranging from 54 ppb in well MW-17 to 4,000 ppb in well MW-9.

BTEX constituents were reported as below the laboratory method detection limits in all of the wells, except for benzene detected in well MW-13 at a concentration of 0.89 ppb.

MtBE was detected in wells MW-3, MW-13, MW-14 at concentrations of 1.2 ppb, 1.7 ppb, and 1.2 ppb, respectively. Napthalene was detected in well MW-13 at a concentration of 4.8 ppb. TPHg, TPHd, TPHmo and TPHjf concentrations are presented on Figure 4.

Conclusions and Recommendations
Based on the results of this groundwater monitoring and sampling event, GR concludes and recommends the following:

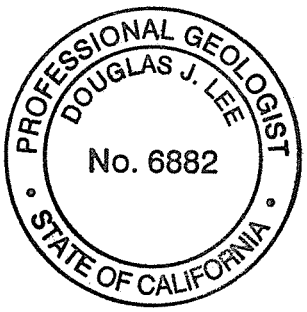
- Non-detectable concentrations of dissolved petroleum hydrocarbons were present in wells MW-1, MW-2, MW-12, MW-15 and NPORD MW-3 located along the northeast edge of the site;
- Detectable dissolved concentrations of TPHg appear limited to the areas in the vicinity of well MW-13;
- Separate-phase hydrocarbons continue to be limited to the vicinity of MW-18;
- Detectable dissolved concentrations of TPHd, TPHmo and TPHjf were present in a majority of the site wells. The highest concentrations have been detected in the northwest portion of the site in the vicinity of Test Cells 5, 6, and 7; and
- GR recommends continuing quarterly groundwater monitoring and sampling of all wells to further evaluate groundwater flow direction, groundwater quality and plume stability over time.

If you have any questions, please feel free to contact our Rancho Cordova office at (916) 631-1300.

Sincerely,
Gettler-Ryan Inc.

Geoffrey D. Risse
Staff Geologist

Douglas J. Lee
Senior Geologist, P.G. No. 6882



Attachments: Table 1, Groundwater Monitoring Results
Figure 1, Vicinity Map
Figure 2, Site Plan
Figure 3, Potentiometric Map
Figure 4, Concentration Map
GR Field Methods and Procedures
Field Data Sheets
Laboratory Analytical Report and Chain of Custody

CC: Dave Goldberg, Rolls-Royce Engine Services-Oakland Inc
Dale Klettke, Port of Oakland

Table 1

Groundwater Monitoring Results

Rolls-Royce Engine Service Test Facility

6701 Old Earhart Road

Oakland, California

Sample ID	Sample Date	TOC (feet)	DTW (feet)	SPH Thickness (feet)	GWE (feet)	TPHg (ppb)	TPHd[1] (ppb)	TPHmo (ppb)	TPHjf (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MtBE (ppb)	Napthalene (ppb)
MW-1	10/3/07	7.17	3.04	0.00	4.13	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	3/14/08	7.17	3.02	0.00	4.15	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	6/26/08	7.17	3.38	0.00	3.79	<50	<50	<100	51[7]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	9/25/08	7.17	3.03	0.00	4.14	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	12/19/08	**7.17**	**2.82**	**0.00**	**4.35**	**<50**	**<50**	**<100**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**
MW-2	10/3/07	7.03	2.80	0.00	4.23	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	3/14/08	7.03	2.94	0.00	4.09	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	6/26/08	7.03	3.32	0.00	3.71	<50	<50	<100	97[7]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	9/25/08	7.03	2.75	0.00	4.28	<50	<50	<100	410[16]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	12/19/08	**7.03**	**2.54**	**0.00**	**4.49**	**<50**	**<50**	**<100**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**
MW-3	10/2/07	6.73	4.56	0.00	2.17	<50	<50	<100	410	<0.50	<0.50	<0.50	<0.50	1.6[4]	<0.50
	3/14/08	6.73	3.98	0.00	2.75	<50	<50	<100	120[9]	<0.50	<0.50	<0.50	<0.50	0.99	<0.50
	6/26/08	6.73	4.21	0.00	2.52	<50	<50	<100	610[7]	<0.50	1.7	<0.50	<0.50	0.93	<0.50
	9/25/08	6.73	4.25	0.00	2.48	<50	<50	<100	650[16]	<0.50	<0.50	<0.50	<0.50	1.2	<0.50
	12/19/08	**6.73**	**4.25**	**0.00**	**2.48**	**<50**	**<50**	**<100**	**520[18]**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**1.2**	**<0.50**
MW-4	10/2/07[4]	9.79	5.81	0.00	3.98	<50	86	<100	280	<0.50	0.63	<0.50	<0.50	<0.50	<0.50

Table 1

Groundwater Monitoring Results

Rolls-Royce Engine Service Test Facility

6701 Old Earhart Road

Oakland, California

Sample ID	Sample Date	TOC (feet)	DTW (feet)	SPH Thickness (feet)	GWE (feet)	TPHg (ppb)	TPHd[1] (ppb)	TPHmo (ppb)	TPHjf (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MtBE (ppb)	Napthalene (ppb)
MW-4	3/14/08	9.79	5.82	0.00	3.97	<50	3,300	2,400	3,400[7]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
(con't)	6/26/08	9.79	6.08	0.00	3.71	<50	2,300	1,900	2,700[7]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	9/25/08	9.79	5.98	0.00	3.81	<50	1,600	1,400	2,100[16]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	12/19/08	**9.79**	**5.93**	**0.00**	**3.86**	**<50**	**<50[19]**	**<100[19]**	**440[18]**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**
MW-5	10/2/07	8.35	4.75	0.00	3.60	<50	5,600	11,000	5,300	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	3/14/08	8.35	4.40	0.00	3.95	<50	1,200[6]	1,700	1,100[7]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	6/26/08	8.35	4.68	0.00	3.67	<50	1,400[6]	3,200	2,000[7]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	9/25/08	8.35	4.52	0.00	3.83	<50	670[6]	1,200	940[16]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	12/19/08	**8.35**	**4.43**	**0.00**	**3.92**	**<50**	**2,100[6]**	**4,100**	**1,900[18]**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**
MW-6	10/2/07	9.51	5.90	0.00	3.61	<50	3,000[6]	7,700	2,500[7]	<0.50	<0.50	0.86	1.1	<0.50	0.53
	3/14/08	9.51	5.55	0.00	3.96	<50	3,600[10]	7,600	2,800[7]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	6/26/08	9.51	5.80	0.00	3.71	<50	3,200[10]	9,400	3,200[7]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	9/25/08	9.51	5.69	0.00	3.82	<50	3,500[10]	8,800	3,800[16]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	12/19/08	**9.51**	**5.43**	**0.00**	**4.08**	**<50**	**1,500[10]**	**5,500**	**1,200[18]**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**
MW-7	10/2/07	9.23	5.68	0.00	3.55	<50	12,000[6]	34,000	9,100[7]	<0.50	<0.50	<0.50	<0.50	<0.50	0.76
	3/14/08	9.23	5.32	0.00	3.91	<50	7,900[6]	20,000	5,500[11]	<0.50	<0.50	<0.50	<0.50	<0.50	3.5
	6/26/08	9.23	5.56	0.00	3.67	<50	3,300[6]	10,000	3,300[7]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

Table 1

Groundwater Monitoring Results

Rolls-Royce Engine Service Test Facility

6701 Old Earhart Road

Oakland, California

Sample ID	Sample Date	TOC (feet)	DTW (feet)	SPH Thickness (feet)	GWE (feet)	TPHg (ppb)	TPHd[1] (ppb)	TPHmo (ppb)	TPHjf (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MtBE (ppb)	Napthalene (ppb)
MW-7	9/25/08	9.23	5.46	0.00	3.77	<50	5,300[10]	13,000	6,000[16]	<0.50	<0.50	<0.50	<0.50	<0.50	0.98
(con't)	**12/19/08**	**9.23**	**5.38**	**0.00**	**3.85**	**<50**	**<50[19]**	**<100[19]**	**350[18]**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**
MW-8	9/14/07	8.25	4.65	0.00	3.60	<50	790[3]	2,700	1,000[2]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	3/14/08	Not able to sample well-no access agreement between Rolls-Royce and Port of Oakland													
	7/3/04	8.25	4.49	0.00	3.76	<50	1,200[6]	4,400	1,800[7]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	9/25/08	8.25	4.41	0.00	3.84	<50	<50	130	140[16]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	12/19/08	**8.25**	**4.31**	**0.00**	**3.94**	**<50**	**160[6]**	**840**	**340[18]**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**
MW-9	10/3/07	9.44	5.81	0.00	3.63	<50	7,700	10,000	6,700	<0.50	<0.50	<0.50	<0.50	<0.50[4]	<0.50
	3/14/08	9.44	5.51	0.00	3.93	<50	6,400	8,000	4,000[7]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	6/26/08	9.44	5.72	0.00	3.72	<50	1,600[10]	1,800	1,800[7]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	9/25/08	9.44	5.59	0.00	3.85	<50	5,900[10]	9,300	6,300[16]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	12/19/08	**9.44**	**5.43**	**0.00**	**4.01**	**<50**	**4,100[6]**	**8,500**	**4,000[18]**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**
MW-10	10/3/07	7.51	3.89	0.00	3.62	110	4,200	1,300	4,500	<0.50	<0.50	<0.50	<0.50	<0.50[4]	<0.50
	3/14/08	7.51	3.68	0.00	3.83	53	420	270	420[7]	<0.50	<0.50	<0.50	<0.50	<0.50	0.50
	6/26/08	7.51	3.80	0.00	3.71	120	1,200	1,000	2,000	<0.50	<0.50	<0.50	<0.50	<0.50	5.0
	9/25/08	7.51	3.68	0.00	3.83	<50	3,100[10]	2,200	3,600	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

Table 1
Groundwater Monitoring Results
Rolls-Royce Engine Service Test Facility
6701 Old Earhart Road
Oakland, California

Sample ID	Sample Date	TOC (feet)	DTW (feet)	SPH Thickness (feet)	GWE (feet)	TPHg (ppb)	TPHd[1] (ppb)	TPHmo (ppb)	TPHjf (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MtBE (ppb)	Napthalene (ppb)
MW-10 (con't)	**12/19/08**	**7.51**	**3.54**	**0.00**	**3.97**	**<50**	**1,700**	**1,200**	**1,900[18]**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**
MW-11	10/3/07	7.60	4.01	0.00	3.59	80	250	490	610	<0.50	<0.50	<0.50	<0.50	<0.50[4]	<0.50
	3/14/08	7.60	3.71	0.00	3.89	61	410[6]	1,200	520[7]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	6/26/08	7.60	3.92	0.00	3.68	<50	2,700[10]	7,300	3,600[15]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	9/25/08	7.60	3.82	0.00	3.78	<50	2,800[10]	5,900	3,800[16]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	12/19/08	**7.60**	**3.71**	**0.00**	**3.89**	**<50**	**1,500[6]**	**3,700**	**1,800[18]**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**
MW-12	10/3/07	7.32	3.61	0.00	3.71	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50[4]	<0.50
	3/14/08	7.32	3.35	0.00	3.97	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	6/26/08	7.32	3.60	0.00	3.72	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	9/25/08	7.32	3.50	0.00	3.82	<50	<50	<100	51[16]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	12/19/08	**7.32**	**3.09**	**0.00**	**4.23**	**<50**	**<50**	**<100**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**
MW-13	10/3/07	6.10	2.86	0.00	3.24	160	70[8]	<100	660	<0.50	<0.50	<0.50	<0.50	1.2[4]	1.7
	3/14/08	6.10	1.96	0.00	4.14	350[12]	490	130[13]	1,200	0.89	<0.50	<0.50	<0.50	2.0	8.9
	6/26/08	6.10	2.57	0.00	3.53	720	200[8]	<100	4,100[15]	2.0	<0.50	<0.50	0.60	3.3	3.3
	9/25/08	6.10	2.48	0.00	3.62	600	<200[17]	130[13]	1,900[16]	1.2	<0.50	<0.50	<0.50	2.9	11
	12/19/08	**6.10**	**2.68**	**0.00**	**3.42**	**280**	**130[8]**	**<100**	**1,300[18]**	**0.89**	**<0.50**	**<0.50**	**<0.50**	**1.7**	**4.8**

Table 1

Groundwater Monitoring Results

Rolls-Royce Engine Service Test Facility

6701 Old Earhart Road

Oakland, California

Sample ID	Sample Date	TOC (feet)	DTW (feet)	SPH Thickness (feet)	GWE (feet)	TPHg (ppb)	TPHd[1] (ppb)	TPHmo (ppb)	TPHjf (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MtBE (ppb)	Napthalene (ppb)
MW-14	10/2/07	6.42	2.40	0.00	4.02	67	300	870	1,400	<0.50	<0.50	<0.50	<0.50	1.4[4]	6.1
	3/14/08	6.42	2.44	0.00	3.98	50	250[6]	350	500[7]	<0.50	<0.50	<0.50	<0.50	1.7	5.0
	6/26/08	6.42	2.62	0.00	3.80	<50	570[10]	2,700	2,000[15]	<0.50	<0.50	<0.50	<0.50	1.4	3.1
	9/25/08	6.42	2.58	0.00	3.84	<50	510[10]	1,700	1,800[16]	<0.50	<0.50	<0.50	<0.50	1.0	<0.50
	12/19/08	**6.42**	**2.14**	**0.00**	**4.28**	**<50**	**480[6]**	**2,100**	**1,200[18]**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**1.2**	**<0.50**
MW-15	10/2/07	7.51	4.85	0.00	2.66	<50	99	<100	120	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	3/14/08	7.51	4.62	0.00	2.89	<50	<50	<100	88[7]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	6/26/08	7.51	4.81	0.00	2.70	<50	<50	<100	84[7]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	9/25/08	7.51	4.81	0.00	2.70	<50	<50	<100	53	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	12/19/08	**7.51**	**4.67**	**0.00**	**2.84**	**<50**	**<50**	**<100**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**
MW-17	9/14/07	0.04	4.10	0.00	-4.06	<50	<50	220	150[2]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	3/14/08	Not able to sample well-no access agreement between Rolls-Royce and Port of Oakland													
	7/3/08	0.04	1.98	0.00	-1.94	<50	<50	<100	84[7]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	9/25/08[14]	0.04	4.77	0.00	-4.73	<50	<50	120	110[16]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	12/19/08	**0.04**	**2.24**	**0.00**	**-2.20**	**<50**	**<50**	**<100**	**54**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**
MW-18	10/2/07	7.05	4.15	0.55	3.34**	Not developed or sampled due to presence of SPH									
	3/14/08	7.05	3.62	0.63	3.93**	Not sampled due to presence of SPH									

Table 1
Groundwater Monitoring Results
Rolls-Royce Engine Service Test Facility
6701 Old Earhart Road
Oakland, California

Sample ID	Sample Date	TOC (feet)	DTW (feet)	SPH Thickness (feet)	GWE (feet)	TPHg (ppb)	TPHd[1] (ppb)	TPHmo (ppb)	TPHjf (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MtBE (ppb)	Napthalene (ppb)
MW-18	6/26/08	7.05	4.11	1.14	3.85**				Not sampled due to presence of SPH						
(con't)	9/25/08	7.05	3.77	0.56	3.73**				Not sampled due to presence of SPH						
	12/19/08	**7.05**	**3.30**	**0.36**	**4.04****				**Not sampled due to presence of SPH**						
NPORD MW-3	9/14/07	8.11	4.43	0.00	3.68	<50	<50	<100	64[2]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	3/14/08			Not able to sample well-no access agreement between Rolls-Royce and Port of Oakland											
	7/3/08	8.11	3.96	0.00	4.15	<50	<50	<100	99[7]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	9/25/08	8.11	4.06	0.00	4.05	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	12/19/08	**8.11**	**3.78**	**0.00**	**4.33**	**<50**	**<50**	**<100**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**
NPORD MW-4	9/14/07	10.06	6.48	0.00	3.58	50	1,000[3]	1,400	2,000[2]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	3/14/08			Not able to sample well-no access agreement between Rolls-Royce and Port of Oakland											
	7/3/08	10.06	6.26	0.00	3.80	<50	360[6]	700	960[7]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	9/25/08	10.06	6.28	0.00	3.78	<50	150[6]	240	820[16]	<0.50	<0.50	<0.50	<0.50	<0.50[4]	<0.50
	12/19/08	**10.06**	**6.15**	**0.00**	**3.91**	**<50**	**320[10]**	**640**	**1,400[18]**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**
QA	9/14/07	--	--	--	--	<50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	10/2/07	--	--	--	--	<50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	3/14/08	--	--	--	--	<50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	6/26/08[14]	--	--	--	--	<50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

Table 1

Groundwater Monitoring Results

Rolls-Royce Engine Service Test Facility

6701 Old Earhart Road

Oakland, California

Sample ID	Sample Date	TOC (feet)	DTW (feet)	SPH Thickness (feet)	GWE (feet)	TPHg (ppb)	TPHd[1] (ppb)	TPHmo (ppb)	TPHjf (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MtBE (ppb)	Napthalene (ppb)
QA	7/3/08	--	--	--	--	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
(con't)	9/25/08	--	--	--	--	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	12/19/08	--	--	--	--	**<50**	**<50**	**<100**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**

Explanation:

TOC = Top of Casing Elevation

DTW = Depth to Water

GWE = Groundwater Elevation

ft = feet

SPH = Separate Phase Hydrocarbons

ppb = parts per billion (µg/L)

NA = Not Analyzed

-- = Not Applicable

QA = Trip Blank

TPHg = Total Petroleum Hydrocarbons as gasoline

TPHd = Total Petroleum Hydrocarbons as diesel

TPHmo = Total Petroleum Hydrocarbons as motor oil

TPHjf = Total Petroleum Hydrocarbons as jet fuel

B = Benzene

Analytical Laboratory:

Kiff Analytical LLC (ELAP # 2236)

Analytical Methods:

TPHg/BTEX/MtBE/Napthalene by EPA Method 8260B

TPHd/TPHmo/TPHjf by modified EPA Method 8015

Table 1

Groundwater Monitoring Results

Rolls-Royce Engine Service Test Facility

6701 Old Earhart Road

Oakland, California

Explanation: (con't)

T = Toluene

E = Ethylbenzene

X = total xylenes

MtBE = Methyl tert-Butyl Ether

** = GWE corrected for the presence of SPH [(TOC-DTW) + (SPH thickness x SPH specific gravity)]. Specific gravity of SPH is assumed to be 0.8.

Notes:

TOC elevations surveyed relative to mean sea level by Morrow Surveying (PLS #5161) on October 8, 2007

[1] With Silica Gel Cleanup

[2] Discrete peaks, higher boiling hydrocarbons present in sample that are atypical for Jet Fuel

[3] Discrete peaks, higher boiling hydrocarbons present in sample that are atypical for Diesel Fuel

[4] Matrix spike/matrix spike duplicate results associated with these samples for the analyte Methyl-t-butyl ether were affected by the analyte concentrations already present in the un-spiked sample.

[5] Due to the formation of an emulsion in this sample, the sample was centrifruged and decanted prior to extraction.

[6] Hydrocarbons present in this sample are higher-boiling than typical Diesel Fuel.

[7] Hydrocarbons present in this sample are higher-boiling than typical Jet Fuel.

[8] Lower boiling hydrocarbons are present in this sample that are atypical for Diesel Fuel.

[9] Discrete peaks present in this sample that are atypical for Jet Fuel.

[10] Some lower-boiling hydrocarbons than Diesel and some higher-boiling hydrocarbons than Diesel are present in this sample.

[11] Both lower-boiling and higher-boiling hydrocarbons than Jet Fuel are present in this sample.

[12] Sample contained primarily compounds not found in typical Gasoline.

[13] Hydrocarbons present in this sample are lower-boiling than typical Motor Oil

Table 1

Groundwater Monitoring Results

Rolls-Royce Engine Service Test Facility

6701 Old Earhart Road

Oakland, California

Notes: (con't)

[14] Sample was analyzed by EPA Method 8260B using bottles that contained headspace bubbles greater than 1/4-inch in diameter

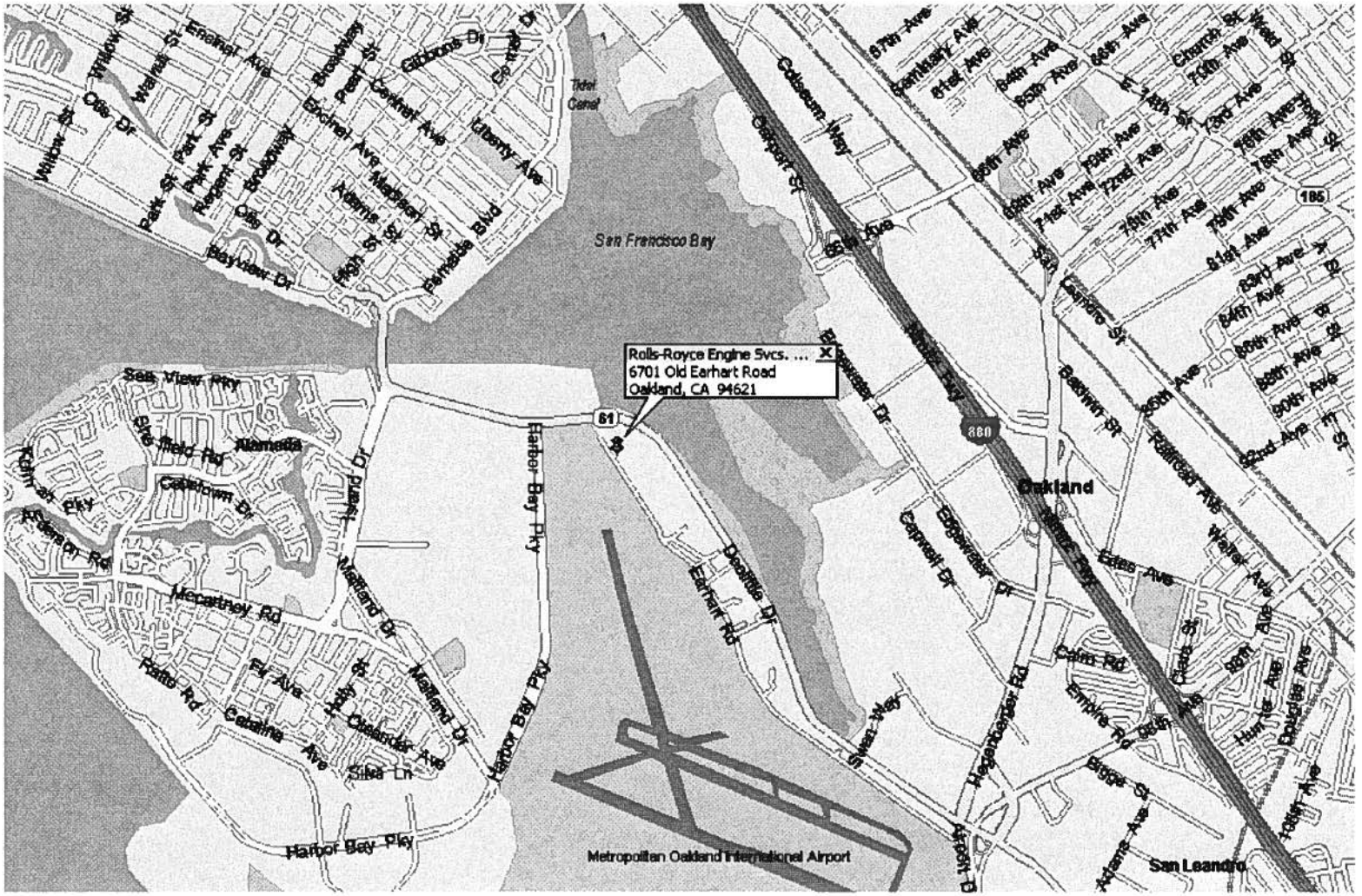
[15] Lower boiling hydrocarbons are present in this sample that are atypical for Jet Fuel.

[16] Chromatographic pattern not typical for Jet Fuel.

[17] Diesel method reporting limit for this sample was increased due to interference from Gasoline range hydrocarbons.

[18] Higher-boiling hydrocarbons are present in this sample that are atypical for Jet Fuel.

[19] Laboratory confirmed results



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6747 Sierra Court, Suite J
Dublin, CA 94568 (925) 551-7555

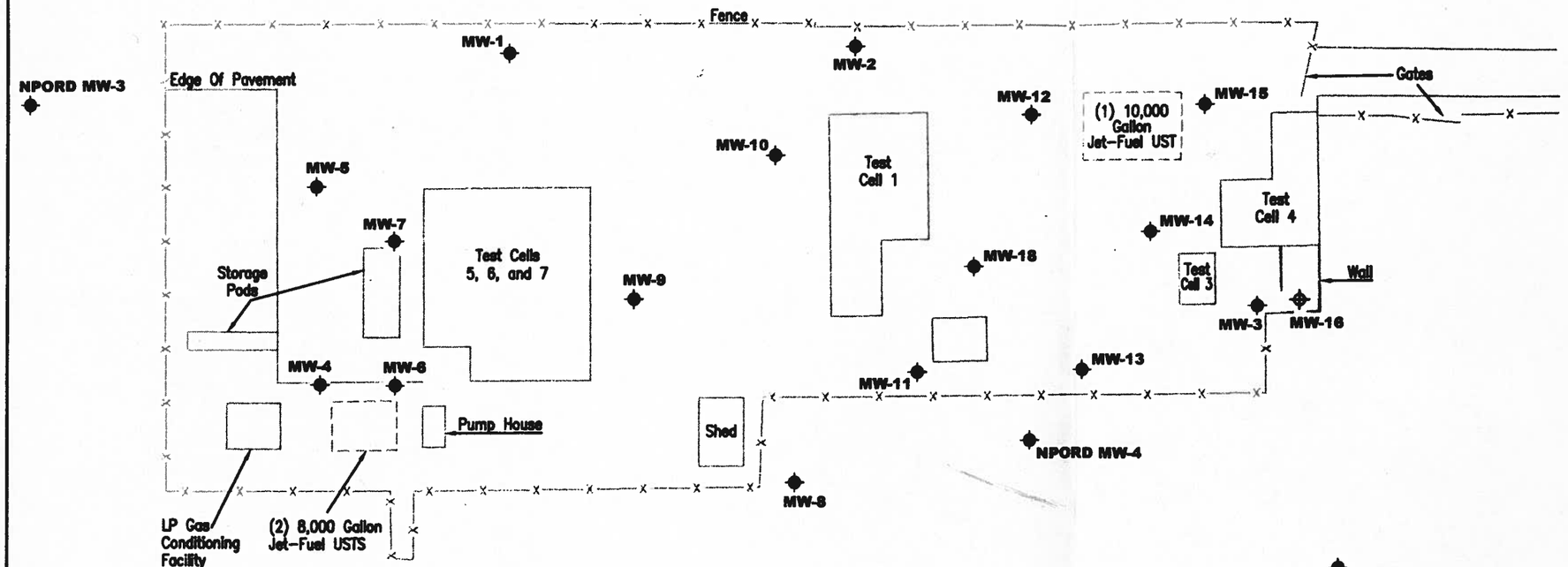
SITE LOCATION MAP
ROLLS-ROYCE ENGINE SERVICES TEST FACILITY
6701 OLD EARHART RD.
OAKLAND, CA

FIGURE
1

PROJECT NUMBER	REVIEWED BY	DATE	REVISED DATE
25-948218.7		11/13/07	

EXPLANATION

- Groundwater monitoring well
- Proposed monitoring well – not installed location inaccessible by drill rig



Source: Figure modified from drawing provided by Morrow Surveying, Dated: 10/8/07.

FIGURE 2

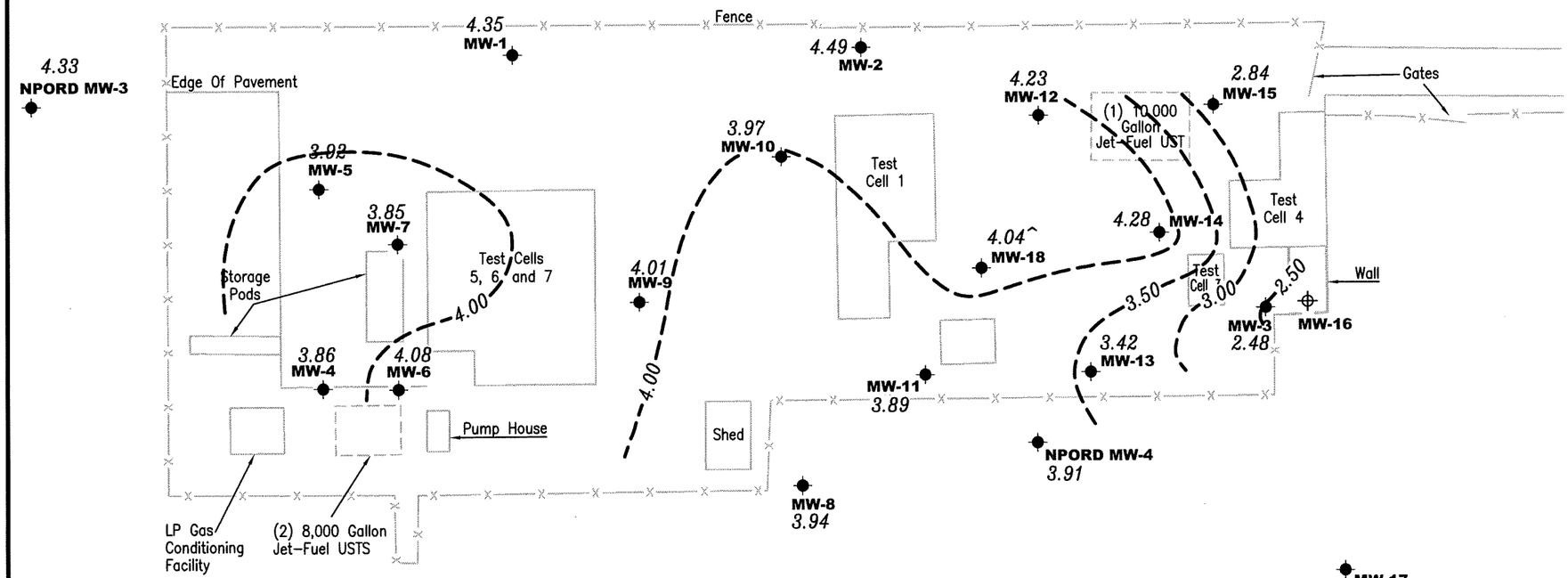
SITE PLAN
Rolls-Royce Engine Services Test Facility
6701 Old Earhart Road
Oakland, CA

GETTLER - RYAN INC.
6747 Sierra Court, Suite J
Dublin, CA 94568
(925) 551-7555

PROJECT NUMBER 948218.2
REVISED BY
REVISED DATE
DATE 11/07
FILE NAME: P:\Enviro\Rolls Royce\007-Rolls Royce.dwg | Layout Tab: Site Plan

EXPLANATION

- Groundwater monitoring well
- Proposed monitoring well – not installed location inaccessible by drill rig
- *99.99* Groundwater elevation in feet referenced to Mean Sea Level
- --99.99-- Groundwater elevation contour, dashed where inferred
- ^ Groundwater elevation corrected for the presence of separate-phase hydrocarbons
- *[99.99]* Not used in contouring



Source: Figure modified from drawing provided by Morrow Surveying, Dated: 10/8/07.

FIGURE 3

POTENTIOMETRIC MAP
Rolls-Royce Engine Services Test Facility
6701 Old Earhart Road
Oakland, CA

REVISED DATE

DATE
December 19, 2008

GETTLER-RYAN INC.
6747 Sierra Court, Suite J
Dublin, CA 94568
(925) 551-7555

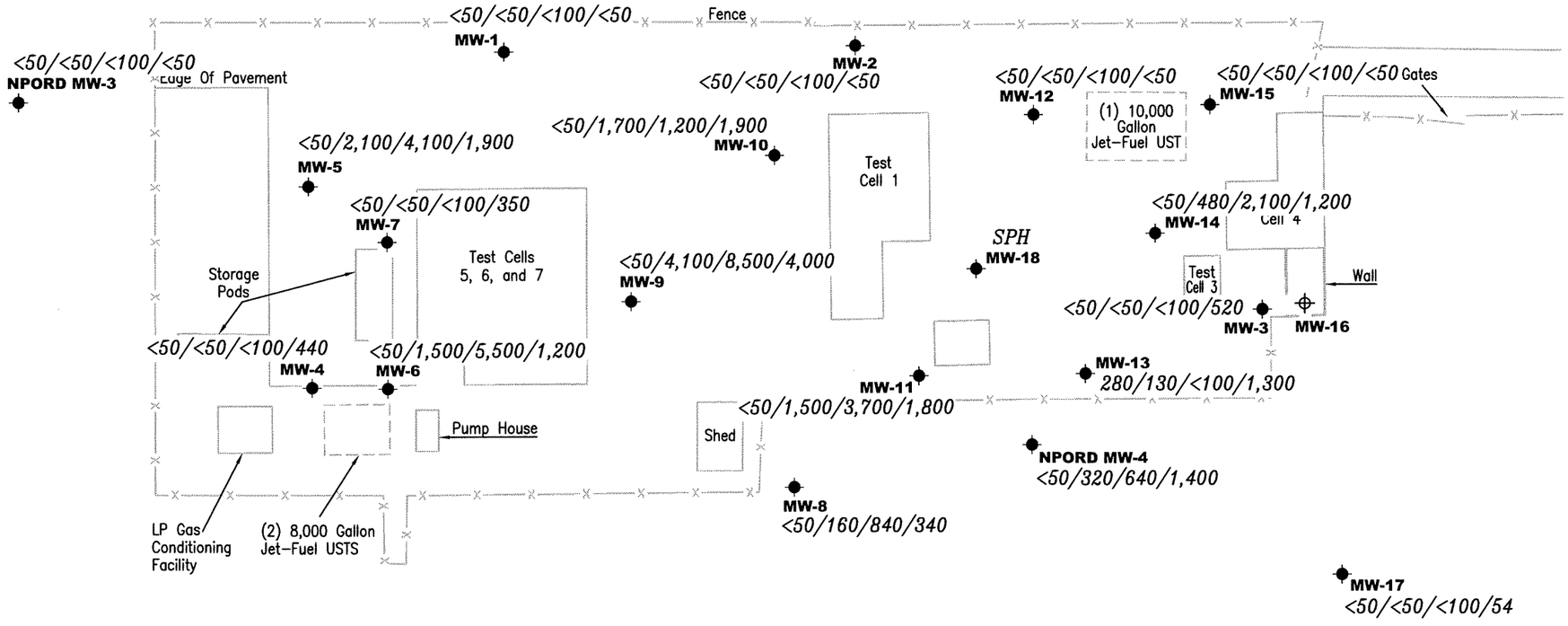
PROJECT NUMBER
948218.2

REVIEWED BY

FILE NAME: P:\Enviro\Rolls Royce\Q08-Rolls Royce-GR.dwg | Layout Tab: Plot4

EXPLANATION

- ● Groundwater monitoring well
- ⊕ Proposed monitoring well – not installed location inaccessible by drill rig
- *A/B/C/D* Total Petroleum Hydrocarbons (TPH) as Gasoline/TPH as Diesel/ TPH as Motor Oil/TPH as Jet Fuel concentrations in µg/L
- *SPH* Separate Phase Hydrocarbons



Source: Figure modified from drawing provided by Morrow Surveying, Dated: 10/8/07.

FIGURE 4

CONCENTRATION MAP
Rolls-Royce Engine Services Test Facility
6701 Old Earhart Road
Oakland, CA

DATE December 19, 2008

REVISED DATE

GETTLER - RYAN INC.
6747 Sierra Court, Suite J
Dublin, CA 94568
(925) 551-7555

PROJECT NUMBER 948218.2

REVIEWED BY

FILE NAME: P:\Enviro\Rolls Royce\Q08-Rolls Royce-GR.dwg | Layout Tab: Con4

STANDARD OPERATING PROCEDURE - QUARTERLY GROUNDWATER SAMPLING

Gettler-Ryan field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analyses by the analytical laboratory. Prior to sample collection, the type of analyses to be performed is determined. Loss prevention of volatile compounds is controlled and sample preservation for subsequent analyses is maintained.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using a MMC flexi-dip interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is recorded in the field notes. In addition, static water level measurements are collected with the interface probe and are also recorded in the field notes.

After water levels are collected and prior to sampling, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or polyvinyl chloride bailers. Temperature, pH, and electrical conductivity are measured a minimum of three times during purging. Purging continues until these parameters stabilize.

Groundwater samples are collected using disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories are used when possible. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards. The samples are labeled to include job number, sample identification, collection date and time, analyses, preservative (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4 ^{o}C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivery to the laboratory.

The chain of custody includes the job number, type of preservation, if any, analyses requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory-supplied trip blank accompanies each sampling set. For sampling sets greater than 20 samples, 5% trip blanks are included. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

WELL CONDITION STATUS SHEET

Client/Facility #: **Rolls Royce Engine Test**
Site Address: **6701 Old Earhart Road**
City: **Oakland, CA**

Job # **25-948218.1**
Event Date: 12/18/08
Sampler: JD

WELL ID	Vault Frame Condition	Gasket/ O-Ring (M)missing	BOLTS (M) Missing (R) Replaced	Bolt Flanges B= Broken S= Stripped R=Retap	APRON Condition C=Cracked B=Broken G=Gone	Grout Seal (Deficient) inches from TOC	Casing (Condition prevents tight cap seal)	REPLACE LOCK Y / N	REPLACE CAP Y / N	WELL VAULT Manufacture/Size/ # of Bolts	Pictures Taken Yes / No
MW-9	OK	N/A	→	→	OK	→	→	N	N	Monument	N
MW-10	OK	→	→	→	→	→	→	N	N	12" Morrison	N
MW-8	OK	→	→	→	→	→	→	N	N	8" Morrison	N
MW-7	OK	→	→	→	→	→	→	N	N	↓	N
MW-6	OK	→	→	→	→	→	→	N	N	↓	N
MW-5	OK	→	→	→	→	→	→	N	N	↓	N

Comments

WELL CONDITION STATUS SHEET

Client/Facility #: **Rolls Royce Engine Test**
Site Address: **6701 Old Earhart Road**
City: **Oakland, CA**

Job # **25-948218.1**
Event Date: 12-19-08
Sampler: SH

WELL ID	Vault Frame Condition	Gasket/ O-Ring (M)issing	BOLTS (M) Missing (R) Replaced	Bolt Flanges B= Broken S= Stripped R=Retap	APRON Condition C=Cracked B=Broken G=Gone	Grout Seal (Deficient) inches from TOC	Casing (Condition prevents tight cap seal)	REPLACE LOCK Y / N	REPLACE CAP Y / N	WELL VAULT Manufacture/Size/ # of Bolts	Pictures Taken Yes / No
MW-5	OK									Morrison/8"/2	
MW-1	OK			3 >	OK					BL/8"/3	
MW-9	OK									Morrison/8"/2	
MW-10	OK									"	
MW-11	OK									"	
MW-2	OK			3S	OK					BL/8"/3	

Comments

WELL CONDITION STATUS SHEET

Client/Facility #: **Rolls Royce Engine Test** Job # **25-948218.1**

Site Address: **6701 Old Earhart Road** Event Date: 12-19-08

City: **Oakland, CA** Sampler: AW

WELL ID	Vault Frame Condition	Gasket/ O-Ring (M)missing	BOLTS (M) Missing (R) Replaced	Bolt Flanges B= Broken S= Stripped R=Retap	APRON Condition C=Cracked B=Broken G=Gone	Grout Seal (Deficient) inches from TOC	Casing (Condition prevents tight cap seal)	REPLACE LOCK Y / N	REPLACE CAP Y / N	WELL VAULT Manufacture/Size/ # of Bolts	Pictures Taken Yes / No
MW-17	OK							N	N	Morrison / 8" / 2	
MW-15	OK							N	N	↓	
MW-12	OK							N	N	↓	
MW-14	OK							N	N	↓	
MW-3	OK	OK	2M/2B	2B	OK			N	N	Boart Longyr / 8" / 3	
MW-13	OK							N	N	Morrison / 12" / 2	
MW-19	OK							N	N	Morrison / 8" / 2	

Comments

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Rolls Royce Engine Test Job Number: 25-948218.1
Site Address: 6701 Old Earhart Road Event Date: 12-19-08 (inclusive)
City: Oakland, CA Sampler: SH

Well ID: MW-1 Date Monitored: 12-19-08
Well Diameter: (2) 4 in.
Total Depth: 7.45 ft.
Depth to Water: 2.82 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

4.63 xVF .17 = 0.79 x3 case volume = Estimated Purge Volume: 2.5 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 3.75

Purge Equipment:
- Disposable Bailer: ✓
- Stainless Steel Bailer:
- Stack Pump:
- Suction Pump:
- Grundfos:
- Peristaltic Pump:
- QED Bladder Pump:
- Other:

Sampling Equipment:
- Disposable Bailer: ✓
- Pressure Bailer:
- Discrete Bailer:
- Peristaltic Pump:
- QED Bladder Pump:
- Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 0953 Weather Conditions: Cloudy
Sample Time/Date: 1020 / 12-19-08 Water Color: Cloudy Odor: Y / (N)
Approx. Flow Rate: — gpm. Sediment Description: Light
Did well de-water? NO If yes, Time: — Volume: — gal. DTW @ Sampling: 3.01

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm) (µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
0956	1	7.83	Out of Range	16.7		
0959	2	7.87	↓	16.8		
1005	2.5	7.85	↓	16.8		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-1	7 x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-D w/sg(8015)/ TPH-G/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS:

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Rolls Royce Engine Test Job Number: 25-948218.1
Site Address: 6701 Old Earhart Road Event Date: 12-19-08 (inclusive)
City: Oakland, CA Sampler: SH

Well ID MW-2
Well Diameter (2) 4 in.
Total Depth 11.80 ft.
Depth to Water 2.54 ft.
9.26 xVF .17 = 1.57

Date Monitored: 12-19-08

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

x3 case volume = Estimated Purge Volume: 5 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 4.39

Purge Equipment:

Disposable Bailer	X
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	X
Pressure Bailer	
Discrete Bailer	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 1251 Weather Conditions: Cloudy
Sample Time/Date: 1330 / 12-19-08 Water Color: Cloudy Odor: Y (N)
Approx. Flow Rate: — gpm. Sediment Description: light
Did well de-water? NO If yes, Time: — Volume: — gal. DTW @ Sampling: 3.59

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - (S))	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1258	2	8.37	OUTOFRANGE	15.6		
1303	4	8.41	↓	16.3		
1310	5	8.56		16.5		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-2	7 x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-D w/sg(8015)/ TPH-G/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS:

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Rolls Royce Engine Test
Site Address: 6701 Old Earhart Road
City: Oakland, CA

Job Number: 25-948218.1
Event Date: 12-19-08 (inclusive)
Sampler: AW

Well ID: ~~NPORD~~MW-3
Well Diameter: 2 in.
Total Depth: 12.10 ft.
Depth to Water: 4.25 ft.
Check if water column is less then 0.50 ft.
7.85 xVF .17 = 1.33 x3 case volume = Estimated Purge Volume: 4.00 gal.
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 5.82

Date Monitored: 12-19-08

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Purge Equipment:

Disposable Bailer	✓
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	✓
Pressure Bailer	
Discrete Bailer	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 1130
Sample Time/Date: 1155 / 12-19-08
Approx. Flow Rate: — gpm.
Did well de-water? N If yes, Time: — Volume: — gal.

Weather Conditions: Cloudy
Water Color: Cloudy Odor: Y. / (N)
Sediment Description: Cloudy
DTW @ Sampling: 4.99

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm) (µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1135	1.5	6.69	2661	15.9		
1140	3.0	6.74	3246	16.3		
1145	4.0	6.76	3757	16.8		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
~~NPORD~~MW-3	7 x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-D w/sg(8015)/ TPH-G/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS:

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Rolls Royce Engine Test | Job Number: 25-948218.1
Site Address: 6701 Old Earhart Road | Event Date: 12/15/08 (inclusive)
City: Oakland, CA | Sampler: JH

Well ID: MW-4 | Date Monitored: 12/15/08
Well Diameter: 2 | 4 in.
Total Depth: 9.89 ft.
Depth to Water: 5.93 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

3.96 xVF .17 = .67 x3 case volume = Estimated Purge Volume: 2.01 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 6.72

Purge Equipment:		Sampling Equipment:	
Disposable Bailer	X	Disposable Bailer	X
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Discrete Bailer	
Suction Pump		Peristaltic Pump	
Grundfos		QED Bladder Pump	
Peristaltic Pump		Other:	
QED Bladder Pump			
Other:			

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 1240 | Weather Conditions: Cloudy
Sample Time/Date: 1300 / 12/15/08 | Water Color: Cloudy | Odor Y / N | Slight
Approx. Flow Rate: — gpm. | Sediment Description: Slight
Did well de-water? No If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 6.61

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1242	.75	7.34	1804	17.7		
1244	1.5	7.30	1861	17.4		
1246	2.0	7.11	1854	17.2		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-4	7 x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-D w/sg(8015)/ TPH-G/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS:

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Rolls Royce Engine Test** Job Number: **25-948218.1**

Site Address: **6701 Old Earhart Road** Event Date: 12-19-08 (inclusive)

City: **Oakland, CA** Sampler: SH

Well ID MW-5 Date Monitored: 12-19-08

Well Diameter 2 4 in.

Total Depth 9.90 ft.

Depth to Water 4.43 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

5.47 xVF 1.0 = 1 x3 case volume = Estimated Purge Volume: 3 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 5.52

Purge Equipment:		**Sampling Equipment:**	
Disposable Bailer	X	Disposable Bailer	X
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Discrete Bailer	
Suction Pump		Peristaltic Pump	
Grundfos		QED Bladder Pump	
Peristaltic Pump		Other:	
QED Bladder Pump			
Other:			

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 0915 Weather Conditions: Cloudy

Sample Time/Date: 0945 / 12-19-08 Water Color: Grey Odor: Y / N

Approx. Flow Rate: — gpm. Sediment Description: Moderate

Did well de-water? NO If yes, Time: — Volume: — gal. DTW @ Sampling:

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
0920	1	7.31	Out of Range	16.6		
0924	2	7.42	↓	17.0		
0928	3	7.46		17.1		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-5	7 x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-D w/sg(8015)/ TPH-G/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS:

Add/Replaced Lock: Add/Replaced Plug: Add/Replaced Bolt:

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Rolls Royce Engine Test | Job Number: 25-948218.1
Site Address: 6701 Old Earhart Road | Event Date: 12/19/08 (inclusive)
City: Oakland, CA | Sampler: JH

Well ID: MW-6 | Date Monitored: 12/19/08
Well Diameter: 2 (4) in.
Total Depth: 10.00 ft.
Depth to Water: 5.43 ft. ☐ Check if water column is less then 0.50 ft.
4.57 xVF .17 = .77 x3 case volume = Estimated Purge Volume: 2.33 gal.
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 6.34

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Purge Equipment:
Disposable Bailer: X
Stainless Steel Bailer:
Stack Pump:
Suction Pump:
Grundfos:
Peristaltic Pump:
QED Bladder Pump:
Other:

Sampling Equipment:
Disposable Bailer: X
Pressure Bailer:
Discrete Bailer:
Peristaltic Pump:
QED Bladder Pump:
Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 1155 | Weather Conditions: cloudy
Sample Time/Date: 1220 / 12/19/08 | Water Color: clear | Odor: (Y) / N
Approx. Flow Rate: — gpm. | Sediment Description: 1.5 Ft
Did well de-water? NO If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 6.10

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1157	.75	7.27	OUT OF Range	17.5		
1200	1.5	7.20	↓	17.1		
1203	2.25	7.09	↓	16.7		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-6	7 x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-D w/sg(8015)/ TPH-G/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS:

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Rolls Royce Engine Test
Site Address: 6701 Old Earhart Road
City: Oakland, CA

Job Number: 25-948218.1
Event Date: 12/19/08 (inclusive)
Sampler: JH

Well ID: MW-7
Well Diameter: (2)/4 in.
Total Depth: 10.00 ft.
Depth to Water: 5.38 ft.

Date Monitored: 12/19/08

Volume Factor (VF)				
	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

4.62 xVF .17 = .78 x3 case volume = Estimated Purge Volume: 2.35 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 6.30

Purge Equipment:
- Disposable Bailer ____
- Stainless Steel Bailer ____
- Stack Pump ____
- Suction Pump ____
- Grundfos ____
- Peristaltic Pump ____
- QED Bladder Pump ____
- Other: ____

Sampling Equipment:
- Disposable Bailer X
- Pressure Bailer ____
- Discrete Bailer ____
- Peristaltic Pump ____
- QED Bladder Pump ____
- Other: ____

Time Started: ____ (2400 hrs)
Time Completed: ____ (2400 hrs)
Depth to Product: ____ ft
Depth to Water: ____ ft
Hydrocarbon Thickness: ____ ft
Visual Confirmation/Description: ____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ____ gal
Amt Removed from Well: ____ gal
Water Removed: ____
Product Transferred to: ____

Start Time (purge): 1320
Sample Time/Date: 1345 / 12/19/08
Approx. Flow Rate: — gpm.
Did well de-water? No If yes, Time: ____ Volume: ____ gal.

Weather Conditions: cloudy
Water Color: cloudy
Odor: (Y) / N light
Sediment Description: @ light
DTW @ Sampling: 6.25

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - (µS))	Temperature ((C) / F)	D.O. (mg/L)	ORP (mV)
1323	.75	7.22	out of Range	17.2		
1326	1.5	7.09	↓	17.1		
1329	2.25	6.94	↓	16.7		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-7	7 x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-D w/sg(8015)/ TPH-G/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS: ____

Add/Replaced Lock: ____ Add/Replaced Plug: ____ Add/Replaced Bolt: ____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Rolls Royce Engine Test | Job Number: 25-948218.1
Site Address: 6701 Old Earhart Road | Event Date: 12/19/08 (inclusive)
City: Oakland, CA | Sampler: JH

Well ID: MW-8 | Date Monitored: 12/19/08
Well Diameter: (2)4 in.
Total Depth: 9.79 ft.
Depth to Water: 4.31 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

5.48 xVF .17 = .93 x3 case volume = Estimated Purge Volume: 2.79 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 5.40

Purge Equipment:

Disposable Bailer	X
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	X
Pressure Bailer	
Discrete Bailer	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ gal
Amt Removed from Well: _____ gal
Water Removed: _____
Product Transferred to: _____

Start Time (purge): 1000 | Weather Conditions: Cloudy
Sample Time/Date: 1030 / 12/19/08 | Water Color: Cloudy | Odor: Y / (N)
Approx. Flow Rate: — gpm. | Sediment Description: Lt Brn
Did well de-water? No | If yes, Time: _____ | Volume: _____ gal. | DTW @ Sampling: 5.40

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm (µS))	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1003	1	7.35	out of Range	16.2		
1008	2	7.20	↓	15.8		
1012	3	7.09	↓	15.5		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-8	7 x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-D w/sg(8015)/ TPH-G/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS: _____

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/Facility#: Rolls Royce Engine Test Job Number: 25-948218.1
Site Address: 6701 Old Earhart Road Event Date: 12-19-08 (inclusive)
City: Oakland, CA Sampler: SH

Well ID: MW-9 Date Monitored: 12-19-08
Well Diameter: 2 4 in.
Total Depth: 9.97 ft.
Depth to Water: 5.43 ft.
4.54 xVF .17 = 0.77

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

x3 case volume = Estimated Purge Volume: 2.5 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 6.34

Purge Equipment:
- Disposable Bailer: X
- Stainless Steel Bailer:
- Stack Pump:
- Suction Pump:
- Grundfos:
- Peristaltic Pump:
- QED Bladder Pump:
- Other:

Sampling Equipment:
- Disposable Bailer: X
- Pressure Bailer:
- Discrete Bailer:
- Peristaltic Pump:
- QED Bladder Pump:
- Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 1038 Weather Conditions: Cloudy
Sample Time/Date: 1110 12-19-08 Water Color: Grey Odor: Y / (N)
Approx. Flow Rate: gpm. Sediment Description: heavy
Did well de-water? NO If yes, Time: — Volume: — gal. DTW @ Sampling: 5.72

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1042	1	7.43	out of Range	17.3		
1046	2	7.46		17.5		
1051	25	7.43		17.6		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-9	7 x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-D w/sg(8015)/ TPH-G/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS:

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Rolls Royce Engine Test Job Number: 25-948218.1
Site Address: 6701 Old Earhart Road Event Date: 12-19-08 (inclusive)
City: Oakland, CA Sampler: SH

Well ID MW- 10 Date Monitored: 12-19-08
Well Diameter (2) 4 in.
Total Depth 10.13 ft.
Depth to Water 3.54 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

6.59 xVF .17 = 1.12 x3 case volume = Estimated Purge Volume: 3.5 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 4.86

Purge Equipment:
Disposable Bailer: X
Stainless Steel Bailer:
Stack Pump:
Suction Pump:
Grundfos:
Peristaltic Pump:
QED Bladder Pump:
Other:

Sampling Equipment:
Disposable Bailer: X
Pressure Bailer:
Discrete Bailer:
Peristaltic Pump:
QED Bladder Pump:
Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 1122 Weather Conditions: Cloudy
Sample Time/Date: 1155 / 12-19-08 Water Color: Grey Odor: (Y) N
Approx. Flow Rate: — gpm. Sediment Description: heavy
Did well de-water? NO If yes, Time: — Volume: — gal. DTW @ Sampling: 4.12

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1126	1	7.71	out of Range	16.3		
1129	2	7.64	↓	16.8		
1134	3.5	7.61		16.7		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW- 10	7 x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-D w/sg(8015)/ TPH-G/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS:

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Rolls Royce Engine Test | Job Number: 25-948218.1
Site Address: 6701 Old Earhart Road | Event Date: 12-19-08 (inclusive)
City: Oakland, CA | Sampler: SH

Well ID: MW- 11 | Date Monitored: 12-19-08
Well Diameter: (2)/4 in.
Total Depth: 10.01 ft.
Depth to Water: 3.71 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

6.30 xVF .17 = 1.07 x3 case volume = Estimated Purge Volume: 3.5 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 4.97

Purge Equipment:

Disposable Bailer	X
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	X
Pressure Bailer	
Discrete Bailer	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 1211 | Weather Conditions: Cloudy
Sample Time/Date: 1230 / 12-19-08 | Water Color: Gray | Odor: Y / N Strong
Approx. Flow Rate: - gpm. | Sediment Description: Heavy
Did well de-water? no If yes, Time: — Volume: — gal. DTW @ Sampling: 4.21

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm (µS))	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1215	1	7.54	OUT OF RANGE	16.8		
1208	2	7.57	↓	16.9		
1213	3.5	7.47		17.0		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW- 11	7 x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-D w/sg(8015)/ TPH-G/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS:

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Rolls Royce Engine Test Job Number: 25-948218.1
Site Address: 6701 Old Earhart Road Event Date: 12-19-08 (inclusive)
City: Oakland, CA Sampler: AW

Well ID MW-12
Well Diameter 2 4 in.
Total Depth 9.85 ft.
Depth to Water 3.09 ft.
Date Monitored: 12-19-08

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

6.76 xVF .17 = 1.15 x3 case volume = Estimated Purge Volume: 3.5 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 4.44

Purge Equipment:
Disposable Bailer ✓
Stainless Steel Bailer
Stack Pump
Suction Pump
Grundfos
Peristaltic Pump
QED Bladder Pump
Other:

Sampling Equipment:
Disposable Bailer ✓
Pressure Bailer
Discrete Bailer
Peristaltic Pump
QED Bladder Pump
Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 1005 Weather Conditions: Cloudy
Sample Time/Date: 1025 / 12-19-08 Water Color: Cloudy Odor: Y / N
Approx. Flow Rate: — gpm. Sediment Description: Cloudy
Did well de-water? N If yes, Time: — Volume: — gal. DTW @ Sampling: 4.37

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm) (µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1008	1.0	6.89	out of range	15.8		
1012	2.0	6.94	↓	16.0		
1016	3.5	6.98		16.0		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-12	7 x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-D w/sg(8015)/ TPH-G/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS:

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Rolls Royce Engine Test | Job Number: 25-948218.1
Site Address: 6701 Old Earhart Road | Event Date: 12-19-08 (inclusive)
City: Oakland, CA | Sampler: AW

Well ID [redacted]MW-13 | Date Monitored: 12-19-08
Well Diameter 2 in.
Total Depth 9.52 ft.
Depth to Water 2.68 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

6.84 xVF .66 = 4.51 x3 case volume = Estimated Purge Volume: 14.0 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 4.05

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	✓
Suction Pump	
Grundfos	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	✓
Pressure Bailer	
Discrete Bailer	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 1215 | Weather Conditions: Cloudy
Sample Time/Date: 1250 / 12-19-08 | Water Color: yellow | Odor: Y / N
Approx. Flow Rate: 1.0 gpm. | Sediment Description: Clear
Did well de-water? N | If yes, Time: 1219 | Volume: ~8.0 gal. | DTW @ Sampling: 4.05

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm mS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1218	5.0	6.61	out of range	16.4		
1223	10.0	6.65	↓	17.0		
1236	14.0	6.68		17.3		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
[redacted]MW-13	7 x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-D w/sg(8015)/ TPH-G/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS: Allowed time for recovery

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Rolls Royce Engine Test Job Number: 25-948218.1
Site Address: 6701 Old Earhart Road Event Date: 12-19-06 (inclusive)
City: Oakland, CA Sampler: AW

Well ID MW-14 Date Monitored: 12-19-06
Well Diameter 2/4 in.
Total Depth 10.00 ft.
Depth to Water 7.14 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

7.86 xVF .17 = 1.33 x3 case volume = Estimated Purge Volume: 4.0 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 3.71

Purge Equipment:		Sampling Equipment:	
Disposable Bailer	✓	Disposable Bailer	✓
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Discrete Bailer	
Suction Pump		Peristaltic Pump	
Grundfos		QED Bladder Pump	
Peristaltic Pump		Other:	
QED Bladder Pump			
Other:			

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 1045 Weather Conditions: Cloudy
Sample Time/Date: 1112 / 12-19-06 Water Color: dark Odor: Y / N
Approx. Flow Rate: — gpm. Sediment Description: Cloudy
Did well de-water? N If yes, Time: — Volume: — gal. DTW @ Sampling: 7.88

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1050	1.5	7.42	Out of range	13.5		
1055	3.0	7.39	↓	14.2		
1100	4.0	7.37	↓	14.5		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-14	7 x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-D w/sg(8015)/ TPH-G/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS:

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Rolls Royce Engine Test** Job Number: **25-948218.1**
Site Address: **6701 Old Earhart Road** Event Date: 12-19-08 (inclusive)
City: **Oakland, CA** Sampler: AW

Well ID MW- 15 Date Monitored: 12-19-08
Well Diameter 4 in.
Total Depth 9.95 ft.
Depth to Water 4.67 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

5.28 xVF .17 = 0.87 x3 case volume = Estimated Purge Volume: 3.0 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 5.73

Purge Equipment:		Sampling Equipment:	
Disposable Bailer	✓	Disposable Bailer	✓
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Discrete Bailer	
Suction Pump		Peristaltic Pump	
Grundfos		QED Bladder Pump	
Peristaltic Pump		Other:	
QED Bladder Pump			
Other:			

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 0930 Weather Conditions: Cloudy
Sample Time/Date: 0955 / 12-19-08 Water Color: Dark Odor: Y / (N)
Approx. Flow Rate: — gpm. Sediment Description: Moderate
Did well de-water? N If yes, Time: — Volume: — gal. DTW @ Sampling: 5.72

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
0934	1.0	6.80	Out of range	18.0		
0937	2.0	6.83	↓	18.2		
0940	3.0	6.83		18.3		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-15	7 x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-D w/sg(8015)/ TPH-G/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS:

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/Facility#: Rolls Royce Engine Test Job Number: 25-948218.1
Site Address: 6701 Old Earhart Road Event Date: 12-19-08 (inclusive)
City: Oakland, CA Sampler: AW

Well ID MW-17 Date Monitored: 12-19-08
Well Diameter (2)4 in.
Total Depth 9.80 ft.
Depth to Water 2.24 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

7.56 xVF .17 = 1.28 x3 case volume = Estimated Purge Volume: 4.0 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 3.75

Purge Equipment:		Sampling Equipment:	
Disposable Bailer	✓	Disposable Bailer	✓
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Discrete Bailer	
Suction Pump		Peristaltic Pump	
Grundfos		QED Bladder Pump	
Peristaltic Pump		Other:	
QED Bladder Pump			
Other:			

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 0900 Weather Conditions: Cloudy
Sample Time/Date: 0920 / 12-19-08 Water Color: yellow tint Odor: Y / N / Slight
Approx. Flow Rate: — gpm. Sediment Description: Clear
Did well de-water? N If yes, Time: — Volume: — gal. DTW @ Sampling: 3.75

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm, µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
0904	1.5	6.88	out of range	17.8		
0908	3.0	6.84	↓	18.0		
0912	4.0	6.82	↓	18.1		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-17	7 x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-D w/sg(8015)/ TPH-G/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS:

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Rolls Royce Engine Test** Job Number: **25-948218.1**

Site Address: **6701 Old Earhart Road** Event Date: 12-1908 (inclusive)

City: **Oakland, CA** Sampler: AW

Well ID MW-18 Date Monitored: 12-1908

Well Diameter (2) 4 in.

Total Depth 9.92 ft.

Depth to Water 3.30 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

6.62 xVF _____ = _____ x3 case volume = Estimated Purge Volume: _____ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: _____

Purge Equipment:		**Sampling Equipment:**	
Disposable Bailer	✓	Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Discrete Bailer	
Suction Pump		Peristaltic Pump	
Grundfos		QED Bladder Pump	
Peristaltic Pump		Other:	
QED Bladder Pump			
Other:			

Time Started: 1300 (2400 hrs)
Time Completed: 1325 (2400 hrs)
Depth to Product: 2.94 ft
Depth to Water: 3.30 ft
Hydrocarbon Thickness: 0.36 ft
Visual Confirmation/Description: Dark . Oily
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ gal
Amt Removed from Well: 600 mL
Water Removed: 500mL
Product Transferred to: Drum on site

Start Time (purge): _____ Weather Conditions: _____

Sample Time/Date: _____ / _____ Water Color: _____ Odor: **Y / N** _____

Approx. Flow Rate: _____ gpm. Sediment Description: _____

Did well de-water? _____ If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: _____

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-D w/sg(8015)/ TPH-G/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS: * SPH *

2 absorbant pads used

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Rolls Royce Engine Test Job Number: 25-948218.1
Site Address: 6701 Old Earhart Road Event Date: 12/19/07 (inclusive)
City: Oakland, CA Sampler: JH

Well ID ~~MW-1~~ NPORDMW-3 Date Monitored: 12/19/07
Well Diameter 2 (4) in.
Total Depth 16.38 ft.
Depth to Water 3.78 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

12.60 xVF .66 = 8.31 x3 case volume = Estimated Purge Volume: 24.94 gal.
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 6.30

Purge Equipment:
Disposable Bailer
Stainless Steel Bailer
Stack Pump X
Suction Pump
Grundfos
Peristaltic Pump
QED Bladder Pump
Other:

Sampling Equipment:
Disposable Bailer X
Pressure Bailer
Discrete Bailer
Peristaltic Pump
QED Bladder Pump
Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 1050 Weather Conditions: cloudy
Sample Time/Date: 1135 / 12/19/07 Water Color: clear Odor: Y / (N)
Approx. Flow Rate: 1 gpm. Sediment Description: 1-3 hr
Did well de-water? NO If yes, Time: ____ Volume: ____ gal. DTW @ Sampling: 5.21

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1058	8	7.23	out of Range	16.7		
1106	16	7.17	↓	16.4		
1115	25	7.11	↓	16.2		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
~~MW-~~ NPOR2MW-3	7 x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-D w/sg(8015)/ TPH-G/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS:

Add/Replaced Lock: ____ Add/Replaced Plug: ____ Add/Replaced Bolt: ____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/Facility#: Rolls Royce Engine Test Job Number: 25-948218.1
Site Address: 6701 Old Earhart Road Event Date: 12/19/08 (inclusive)
City: Oakland, CA Sampler: JW

Well ID ~~MW-~~ NPORD-4/-4 Date Monitored: 12/19/08
Well Diameter (2)4 in.
Total Depth 18.23 ft.
Depth to Water 6.15 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

12.08 xVF .17 = 2.05 x3 case volume = Estimated Purge Volume: 6.16 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.56

Purge Equipment:

Disposable Bailer	X
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	X
Pressure Bailer	
Discrete Bailer	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ gal
Amt Removed from Well: _____ gal
Water Removed: _____
Product Transferred to: _____

Start Time (purge): 0920 Weather Conditions: Cloudy
Sample Time/Date: 0945 / 12/19/08 Water Color: Cloudy Odor: Y / (N)
Approx. Flow Rate: — gpm. Sediment Description: Light
Did well de-water? No If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 7.83

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - (µS))	Temperature ((C) / F)	D.O. (mg/L)	ORP (mV)
0926	2	6.99	out of Range	14.2		
0932	4	6.84	"	14.0		
0938	6.25	6.76	"	13.5		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
~~MW-~~ NPORD-4	7 x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-D w/sg(8015)/ TPH-G/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS: _____

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

KIFF Analytical LLC

Report Number : 66615
Date : 02/05/2009

Geoffrey Risse
Gettler-Ryan Inc.
3140 Gold Camp Dr. Suite 170
Rancho Cordova, CA 95670

Subject : 19 Water Samples
Project Name : Rolls-Royce Engine Test Facility
Project Number : 25-948218.1

Dear Mr. Risse,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

Joel Kiff

KIFF Analytical LLC

Report Number : 66615
Date : 02/05/2009

Project Name : **Rolls-Royce Engine Test Facility**
Project Number : **25-948218.1**

Sample : **QA** Matrix : Water Lab Number : 66615-01
Sample Date :12/19/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/23/2008
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	12/23/2008
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/23/2008
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	12/23/2008
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	12/23/2008
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	12/23/2008
Naphthalene	**< 0.50**	0.50	ug/L	EPA 8260B	12/23/2008
1,2-Dichloroethane-d4 (Surr)	102		% Recovery	EPA 8260B	12/23/2008
Toluene - d8 (Surr)	99.7		% Recovery	EPA 8260B	12/23/2008
4-Bromofluorobenzene (Surr)	97.0		% Recovery	EPA 8260B	12/23/2008
TPH as Diesel (Silica Gel)	**< 50**	50	ug/L	M EPA 8015	12/30/2008
TPH as Jet Fuel	**< 50**	50	ug/L	M EPA 8015	12/29/2008
TPH as Motor Oil	**< 100**	100	ug/L	M EPA 8015	12/29/2008
Octacosane (Silica Gel Surr)	106		% Recovery	M EPA 8015	12/30/2008
Octacosane (Diesel Surrogate)	89.6		% Recovery	M EPA 8015	12/29/2008

KIFF Analytical LLC

Report Number : 66615
Date : 02/05/2009

Project Name : **Rolls-Royce Engine Test Facility**
Project Number : **25-948218.1**

Sample : **MW-1** Matrix : Water Lab Number : 66615-02
Sample Date :12/19/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	12/24/2008
Naphthalene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
1,2-Dichloroethane-d4 (Surr)	100		% Recovery	EPA 8260B	12/24/2008
Toluene - d8 (Surr)	99.7		% Recovery	EPA 8260B	12/24/2008
4-Bromofluorobenzene (Surr)	96.2		% Recovery	EPA 8260B	12/24/2008
TPH as Diesel (Silica Gel)	**< 50**	50	ug/L	M EPA 8015	12/30/2008
TPH as Jet Fuel	**< 50**	50	ug/L	M EPA 8015	12/29/2008
TPH as Motor Oil	**< 100**	100	ug/L	M EPA 8015	12/29/2008
Octacosane (Silica Gel Surr)	104		% Recovery	M EPA 8015	12/30/2008
Octacosane (Diesel Surrogate)	84.3		% Recovery	M EPA 8015	12/29/2008

KIFF Analytical LLC

Report Number : 66615
Date : 02/05/2009

Project Name : **Rolls-Royce Engine Test Facility**
Project Number : **25-948218.1**

Sample : **MW-2** Matrix : Water Lab Number : 66615-03
Sample Date :12/19/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	12/24/2008
Naphthalene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
1,2-Dichloroethane-d4 (Surr)	102		% Recovery	EPA 8260B	12/24/2008
Toluene - d8 (Surr)	98.7		% Recovery	EPA 8260B	12/24/2008
4-Bromofluorobenzene (Surr)	94.8		% Recovery	EPA 8260B	12/24/2008
TPH as Diesel (Silica Gel)	**< 50**	50	ug/L	M EPA 8015	12/30/2008
TPH as Jet Fuel	**< 50**	50	ug/L	M EPA 8015	12/30/2008
TPH as Motor Oil	**< 100**	100	ug/L	M EPA 8015	12/30/2008
Octacosane (Silica Gel Surr)	105		% Recovery	M EPA 8015	12/30/2008
Octacosane (Diesel Surrogate)	81.7		% Recovery	M EPA 8015	12/30/2008

KIFF Analytical LLC

Report Number : 66615
Date : 02/05/2009

Project Name : **Rolls-Royce Engine Test Facility**
Project Number : **25-948218.1**

Sample : **MW-3** Matrix : Water Lab Number : 66615-04
Sample Date :12/19/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Methyl-t-butyl ether (MTBE)	**1.2**	0.50	ug/L	EPA 8260B	12/24/2008
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	12/24/2008
Naphthalene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
1,2-Dichloroethane-d4 (Surr)	99.0		% Recovery	EPA 8260B	12/24/2008
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	12/24/2008
4-Bromofluorobenzene (Surr)	92.7		% Recovery	EPA 8260B	12/24/2008
TPH as Diesel (Silica Gel)	**< 50**	50	ug/L	M EPA 8015	12/30/2008
TPH as Jet Fuel	**520**	50	ug/L	M EPA 8015	12/30/2008
(Note: Higher boiling hydrocarbons present, atypical for Jet Fuel)					
TPH as Motor Oil	**< 100**	100	ug/L	M EPA 8015	12/30/2008
Octacosane (Silica Gel Surr)	101		% Recovery	M EPA 8015	12/30/2008
Octacosane (Diesel Surrogate)	85.8		% Recovery	M EPA 8015	12/30/2008

KIFF Analytical LLC

Report Number : 66615
Date : 02/05/2009

Project Name : **Rolls-Royce Engine Test Facility**
Project Number : **25-948218.1**

Sample : **MW-4** Matrix : Water Lab Number : 66615-05
Sample Date :12/19/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	12/24/2008
Naphthalene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
1,2-Dichloroethane-d4 (Surr)	98.1		% Recovery	EPA 8260B	12/24/2008
Toluene - d8 (Surr)	99.3		% Recovery	EPA 8260B	12/24/2008
4-Bromofluorobenzene (Surr)	96.7		% Recovery	EPA 8260B	12/24/2008
TPH as Diesel (Silica Gel)	**< 50**	50	ug/L	M EPA 8015	12/30/2008
TPH as Jet Fuel	**440**	50	ug/L	M EPA 8015	12/30/2008
(Note: Higher boiling hydrocarbons present, atypical for Jet Fuel)					
TPH as Motor Oil	**< 100**	100	ug/L	M EPA 8015	12/30/2008
Octacosane (Silica Gel Surr)	106		% Recovery	M EPA 8015	12/30/2008
Octacosane (Diesel Surrogate)	91.7		% Recovery	M EPA 8015	12/30/2008

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Date : 02/05/2009

Project Name : **Rolls-Royce Engine Test Facility**
Project Number : **25-948218.1**

Sample : **MW-5** Matrix : Water Lab Number : 66615-06
Sample Date :12/19/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	12/24/2008
Naphthalene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
1,2-Dichloroethane-d4 (Surr)	99.4		% Recovery	EPA 8260B	12/24/2008
Toluene - d8 (Surr)	99.4		% Recovery	EPA 8260B	12/24/2008
4-Bromofluorobenzene (Surr)	89.4		% Recovery	EPA 8260B	12/24/2008
TPH as Diesel (Silica Gel)	**2100**	50	ug/L	M EPA 8015	12/30/2008
(Note: Hydrocarbons are higher-boiling than typical Diesel Fuel.)					
TPH as Jet Fuel	**1900**	50	ug/L	M EPA 8015	12/30/2008
(Note: Higher boiling hydrocarbons present, atypical for Jet Fuel)					
TPH as Motor Oil	**4100**	100	ug/L	M EPA 8015	12/30/2008
Octacosane (Silica Gel Surr)	104		% Recovery	M EPA 8015	12/30/2008
Octacosane (Diesel Surrogate)	90.8		% Recovery	M EPA 8015	12/30/2008

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Date : 02/05/2009

Project Name : **Rolls-Royce Engine Test Facility**
Project Number : **25-948218.1**

Sample : **MW-6** Matrix : Water Lab Number : 66615-07
Sample Date :12/19/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	12/24/2008
Naphthalene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
1,2-Dichloroethane-d4 (Surr)	97.5		% Recovery	EPA 8260B	12/24/2008
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	12/24/2008
4-Bromofluorobenzene (Surr)	90.9		% Recovery	EPA 8260B	12/24/2008
TPH as Diesel (Silica Gel)	**1500**	50	ug/L	M EPA 8015	12/30/2008
(Note: Some hydrocarbons lower-boiling, some higher-boiling than Diesel.)					
TPH as Jet Fuel	**1200**	50	ug/L	M EPA 8015	12/30/2008
(Note: Higher boiling hydrocarbons present, atypical for Jet Fuel)					
TPH as Motor Oil	**5500**	100	ug/L	M EPA 8015	12/30/2008
Octacosane (Silica Gel Surr)	97.1		% Recovery	M EPA 8015	12/30/2008
Octacosane (Diesel Surrogate)	94.5		% Recovery	M EPA 8015	12/30/2008

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Project Name : **Rolls-Royce Engine Test Facility**
Project Number : **25-948218.1**

Sample : **MW-7** Matrix : Water Lab Number : 66615-08
Sample Date :12/19/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	12/24/2008
Naphthalene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
1,2-Dichloroethane-d4 (Surr)	100		% Recovery	EPA 8260B	12/24/2008
Toluene - d8 (Surr)	99.6		% Recovery	EPA 8260B	12/24/2008
4-Bromofluorobenzene (Surr)	97.0		% Recovery	EPA 8260B	12/24/2008
TPH as Diesel (Silica Gel)	**< 50**	50	ug/L	M EPA 8015	12/30/2008
TPH as Jet Fuel	**350**	50	ug/L	M EPA 8015	12/30/2008
(Note: Higher boiling hydrocarbons present, atypical for Jet Fuel)					
TPH as Motor Oil	**< 100**	100	ug/L	M EPA 8015	12/30/2008
Octacosane (Silica Gel Surr)	82.6		% Recovery	M EPA 8015	12/30/2008
Octacosane (Diesel Surrogate)	83.9		% Recovery	M EPA 8015	12/30/2008

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Project Name : **Rolls-Royce Engine Test Facility**
Project Number : **25-948218.1**

Sample : **MW-8** Matrix : Water Lab Number : 66615-09
Sample Date :12/19/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	12/24/2008
Naphthalene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
1,2-Dichloroethane-d4 (Surr)	100		% Recovery	EPA 8260B	12/24/2008
Toluene - d8 (Surr)	99.5		% Recovery	EPA 8260B	12/24/2008
4-Bromofluorobenzene (Surr)	97.1		% Recovery	EPA 8260B	12/24/2008
TPH as Diesel (Silica Gel)	**160**	50	ug/L	M EPA 8015	12/30/2008
(Note: Hydrocarbons are higher-boiling than typical Diesel Fuel.)					
TPH as Jet Fuel	**340**	50	ug/L	M EPA 8015	12/30/2008
(Note: Higher boiling hydrocarbons present, atypical for Jet Fuel)					
TPH as Motor Oil	**840**	100	ug/L	M EPA 8015	12/30/2008
Octacosane (Silica Gel Surr)	87.7		% Recovery	M EPA 8015	12/30/2008
Octacosane (Diesel Surrogate)	91.0		% Recovery	M EPA 8015	12/30/2008

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Project Name : **Rolls-Royce Engine Test Facility**
Project Number : **25-948218.1**

Sample : **MW-9** Matrix : Water Lab Number : 66615-10
Sample Date :12/19/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	12/24/2008
Naphthalene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
1,2-Dichloroethane-d4 (Surr)	99.6		% Recovery	EPA 8260B	12/24/2008
Toluene - d8 (Surr)	99.6		% Recovery	EPA 8260B	12/24/2008
4-Bromofluorobenzene (Surr)	93.4		% Recovery	EPA 8260B	12/24/2008
TPH as Diesel (Silica Gel)	**4100**	50	ug/L	M EPA 8015	12/30/2008
(Note: Hydrocarbons are higher-boiling than typical Diesel Fuel.)					
TPH as Jet Fuel	**4000**	50	ug/L	M EPA 8015	12/30/2008
(Note: Higher boiling hydrocarbons present, atypical for Jet Fuel)					
TPH as Motor Oil	**8500**	100	ug/L	M EPA 8015	12/30/2008
Octacosane (Silica Gel Surr)	94.5		% Recovery	M EPA 8015	12/30/2008
Octacosane (Diesel Surrogate)	102		% Recovery	M EPA 8015	12/30/2008

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Project Name : **Rolls-Royce Engine Test Facility**
Project Number : **25-948218.1**

Sample : **MW-10** Matrix : Water Lab Number : 66615-11
Sample Date :12/19/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	12/24/2008
Naphthalene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
1,2-Dichloroethane-d4 (Surr)	99.6		% Recovery	EPA 8260B	12/24/2008
Toluene - d8 (Surr)	99.5		% Recovery	EPA 8260B	12/24/2008
4-Bromofluorobenzene (Surr)	94.1		% Recovery	EPA 8260B	12/24/2008
TPH as Diesel (Silica Gel)	**1700**	50	ug/L	M EPA 8015	12/30/2008
TPH as Jet Fuel	**1900**	50	ug/L	M EPA 8015	12/30/2008
(Note: Higher boiling hydrocarbons present, atypical for Jet Fuel)					
TPH as Motor Oil	**1200**	100	ug/L	M EPA 8015	12/30/2008
Octacosane (Silica Gel Surr)	108		% Recovery	M EPA 8015	12/30/2008
Octacosane (Diesel Surrogate)	87.2		% Recovery	M EPA 8015	12/30/2008

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Project Name : **Rolls-Royce Engine Test Facility**
Project Number : **25-948218.1**

Sample : **MW-11** Matrix : Water Lab Number : 66615-12
Sample Date :12/19/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/27/2008
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	12/27/2008
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/27/2008
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	12/27/2008
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	12/27/2008
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	12/27/2008
Naphthalene	**< 0.50**	0.50	ug/L	EPA 8260B	12/27/2008
1,2-Dichloroethane-d4 (Surr)	103		% Recovery	EPA 8260B	12/27/2008
Toluene - d8 (Surr)	104		% Recovery	EPA 8260B	12/27/2008
4-Bromofluorobenzene (Surr)	98.0		% Recovery	EPA 8260B	12/27/2008
TPH as Diesel (Silica Gel)	**1500**	50	ug/L	M EPA 8015	12/30/2008
(Note: Hydrocarbons are higher-boiling than typical Diesel Fuel.)					
TPH as Jet Fuel	**1800**	50	ug/L	M EPA 8015	12/30/2008
(Note: Higher boiling hydrocarbons present, atypical for Jet Fuel)					
TPH as Motor Oil	**3700**	100	ug/L	M EPA 8015	12/30/2008
Octacosane (Silica Gel Surr)	120		% Recovery	M EPA 8015	12/30/2008
Octacosane (Diesel Surrogate)	101		% Recovery	M EPA 8015	12/30/2008

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Project Name : **Rolls-Royce Engine Test Facility**
Project Number : **25-948218.1**

Sample : **MW-12** Matrix : Water Lab Number : 66615-13
Sample Date :12/19/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	12/24/2008
Naphthalene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
1,2-Dichloroethane-d4 (Surr)	99.6		% Recovery	EPA 8260B	12/24/2008
Toluene - d8 (Surr)	99.5		% Recovery	EPA 8260B	12/24/2008
4-Bromofluorobenzene (Surr)	95.0		% Recovery	EPA 8260B	12/24/2008
TPH as Diesel (Silica Gel)	**< 50**	50	ug/L	M EPA 8015	12/30/2008
TPH as Jet Fuel	**< 50**	50	ug/L	M EPA 8015	12/30/2008
TPH as Motor Oil	**< 100**	100	ug/L	M EPA 8015	12/30/2008
Octacosane (Silica Gel Surr)	102		% Recovery	M EPA 8015	12/30/2008
Octacosane (Diesel Surrogate)	90.8		% Recovery	M EPA 8015	12/30/2008

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Project Name : **Rolls-Royce Engine Test Facility**
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Sample : **MW-13** Matrix : Water Lab Number : 66615-14
Sample Date :12/19/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**0.89**	0.50	ug/L	EPA 8260B	12/24/2008
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Methyl-t-butyl ether (MTBE)	**1.7**	0.50	ug/L	EPA 8260B	12/24/2008
TPH as Gasoline	**280**	50	ug/L	EPA 8260B	12/24/2008
Naphthalene	**4.8**	0.50	ug/L	EPA 8260B	12/24/2008
1,2-Dichloroethane-d4 (Surr)	100		% Recovery	EPA 8260B	12/24/2008
Toluene - d8 (Surr)	98.8		% Recovery	EPA 8260B	12/24/2008
4-Bromofluorobenzene (Surr)	94.0		% Recovery	EPA 8260B	12/24/2008
TPH as Diesel (Silica Gel)	**130**	50	ug/L	M EPA 8015	12/30/2008
(Note: Lower boiling hydrocarbons present, atypical for Diesel Fuel)					
TPH as Jet Fuel	**1300**	50	ug/L	M EPA 8015	12/30/2008
(Note: Higher boiling hydrocarbons present, atypical for Jet Fuel)					
TPH as Motor Oil	**< 100**	100	ug/L	M EPA 8015	12/30/2008
Octacosane (Silica Gel Surr)	105		% Recovery	M EPA 8015	12/30/2008
Octacosane (Diesel Surrogate)	95.9		% Recovery	M EPA 8015	12/30/2008

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Project Name : **Rolls-Royce Engine Test Facility**
Project Number : **25-948218.1**

Sample : **MW-14** Matrix : Water Lab Number : 66615-15
Sample Date :12/19/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Methyl-t-butyl ether (MTBE)	**1.2**	0.50	ug/L	EPA 8260B	12/24/2008
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	12/24/2008
Naphthalene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
1,2-Dichloroethane-d4 (Surr)	102		% Recovery	EPA 8260B	12/24/2008
Toluene - d8 (Surr)	99.8		% Recovery	EPA 8260B	12/24/2008
4-Bromofluorobenzene (Surr)	92.3		% Recovery	EPA 8260B	12/24/2008
TPH as Diesel (Silica Gel)	**480**	50	ug/L	M EPA 8015	12/30/2008
(Note: Hydrocarbons are higher-boiling than typical Diesel Fuel.)					
TPH as Jet Fuel	**1200**	50	ug/L	M EPA 8015	12/30/2008
(Note: Higher boiling hydrocarbons present, atypical for Jet Fuel)					
TPH as Motor Oil	**2100**	100	ug/L	M EPA 8015	12/30/2008
Octacosane (Silica Gel Surr)	107		% Recovery	M EPA 8015	12/30/2008
Octacosane (Diesel Surrogate)	90.7		% Recovery	M EPA 8015	12/30/2008

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Project Name : **Rolls-Royce Engine Test Facility**
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Sample : **MW-15** Matrix : Water Lab Number : 66615-16
Sample Date :12/19/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	12/24/2008
Naphthalene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
1,2-Dichloroethane-d4 (Surr)	102		% Recovery	EPA 8260B	12/24/2008
Toluene - d8 (Surr)	99.7		% Recovery	EPA 8260B	12/24/2008
4-Bromofluorobenzene (Surr)	91.8		% Recovery	EPA 8260B	12/24/2008
TPH as Diesel (Silica Gel)	**< 50**	50	ug/L	M EPA 8015	12/30/2008
TPH as Jet Fuel	**< 50**	50	ug/L	M EPA 8015	12/30/2008
TPH as Motor Oil	**< 100**	100	ug/L	M EPA 8015	12/30/2008
Octacosane (Silica Gel Surr)	119		% Recovery	M EPA 8015	12/30/2008
Octacosane (Diesel Surrogate)	84.7		% Recovery	M EPA 8015	12/30/2008

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Project Name : **Rolls-Royce Engine Test Facility**
Project Number : **25-948218.1**

Sample : **MW-17** Matrix : Water Lab Number : 66615-17
Sample Date :12/19/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	12/24/2008
Naphthalene	**< 0.50**	0.50	ug/L	EPA 8260B	12/24/2008
1,2-Dichloroethane-d4 (Surr)	99.7		% Recovery	EPA 8260B	12/24/2008
Toluene - d8 (Surr)	99.7		% Recovery	EPA 8260B	12/24/2008
4-Bromofluorobenzene (Surr)	93.5		% Recovery	EPA 8260B	12/24/2008
TPH as Diesel (Silica Gel)	**< 50**	50	ug/L	M EPA 8015	12/30/2008
TPH as Jet Fuel	**54**	50	ug/L	M EPA 8015	12/30/2008
TPH as Motor Oil	**< 100**	100	ug/L	M EPA 8015	12/30/2008
Octacosane (Silica Gel Surr)	122		% Recovery	M EPA 8015	12/30/2008
Octacosane (Diesel Surrogate)	76.3		% Recovery	M EPA 8015	12/30/2008

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Project Name : **Rolls-Royce Engine Test Facility**
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Sample : **NPORD MW-3** Matrix : Water Lab Number : 66615-18
Sample Date :12/19/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/27/2008
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	12/27/2008
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/27/2008
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	12/27/2008
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	12/27/2008
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	12/27/2008
Naphthalene	**< 0.50**	0.50	ug/L	EPA 8260B	12/27/2008
1,2-Dichloroethane-d4 (Surr)	96.5		% Recovery	EPA 8260B	12/27/2008
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	12/27/2008
4-Bromofluorobenzene (Surr)	94.6		% Recovery	EPA 8260B	12/27/2008
TPH as Diesel (Silica Gel)	**< 50**	50	ug/L	M EPA 8015	12/30/2008
TPH as Jet Fuel	**< 50**	50	ug/L	M EPA 8015	12/30/2008
TPH as Motor Oil	**< 100**	100	ug/L	M EPA 8015	12/30/2008
Octacosane (Silica Gel Surr)	84.2		% Recovery	M EPA 8015	12/30/2008
Octacosane (Diesel Surrogate)	89.6		% Recovery	M EPA 8015	12/30/2008

KIFF Analytical LLC

Report Number : 66615
Date : 02/05/2009

Project Name : **Rolls-Royce Engine Test Facility**
Project Number : **25-948218.1**

Sample : **NPORD MW-4** Matrix : Water Lab Number : 66615-19
Sample Date :12/19/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/27/2008
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	12/27/2008
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	12/27/2008
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	12/27/2008
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	12/27/2008
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	12/27/2008
Naphthalene	**< 0.50**	0.50	ug/L	EPA 8260B	12/27/2008
1,2-Dichloroethane-d4 (Surr)	97.9		% Recovery	EPA 8260B	12/27/2008
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	12/27/2008
4-Bromofluorobenzene (Surr)	91.1		% Recovery	EPA 8260B	12/27/2008
TPH as Diesel (Silica Gel)	**320**	50	ug/L	M EPA 8015	12/30/2008
(Note: Some hydrocarbons lower-boiling, some higher-boiling than Diesel.)					
TPH as Jet Fuel	**1400**	50	ug/L	M EPA 8015	12/30/2008
(Note: Higher boiling hydrocarbons present, atypical for Jet Fuel)					
TPH as Motor Oil	**640**	100	ug/L	M EPA 8015	12/30/2008
Octacosane (Silica Gel Surr)	93.8		% Recovery	M EPA 8015	12/30/2008
Octacosane (Diesel Surrogate)	91.2		% Recovery	M EPA 8015	12/30/2008

Report Number : 66615

Date : 02/05/2009

QC Report : Method Blank Data

Project Name : **Rolls-Royce Engine Test Facility**

Project Number : **25-948218.1**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	12/29/2008
TPH as Jet Fuel	< 50	50	ug/L	M EPA 8015	12/29/2008
TPH as Motor Oil	< 100	100	ug/L	M EPA 8015	12/29/2008
Octacosane (Diesel Surrogate)	80.8		%	M EPA 8015	12/29/2008
Octacosane (Silica Gel Surr)	87.1		%	M EPA 8015	12/29/2008
TPH as Jet Fuel	< 50	50	ug/L	M EPA 8015	12/30/2008
TPH as Motor Oil	< 100	100	ug/L	M EPA 8015	12/30/2008
Octacosane (Diesel Surrogate)	81.7		%	M EPA 8015	12/30/2008
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/23/2008
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/23/2008
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/23/2008
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/23/2008
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/23/2008
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/23/2008
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	12/23/2008
1,2-Dichloroethane-d4 (Surr)	99.6		%	EPA 8260B	12/23/2008
4-Bromofluorobenzene (Surr)	97.0		%	EPA 8260B	12/23/2008
Toluene - d8 (Surr)	99.5		%	EPA 8260B	12/23/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/24/2008
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/24/2008
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/24/2008
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/24/2008
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/24/2008
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/24/2008
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	12/24/2008
1,2-Dichloroethane-d4 (Surr)	98.0		%	EPA 8260B	12/24/2008
4-Bromofluorobenzene (Surr)	92.2		%	EPA 8260B	12/24/2008
Toluene - d8 (Surr)	100		%	EPA 8260B	12/24/2008
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/27/2008
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/27/2008
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/27/2008
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/27/2008
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/27/2008
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/27/2008
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	12/27/2008
1,2-Dichloroethane-d4 (Surr)	98.0		%	EPA 8260B	12/27/2008
4-Bromofluorobenzene (Surr)	91.3		%	EPA 8260B	12/27/2008
Toluene - d8 (Surr)	99.8		%	EPA 8260B	12/27/2008

Report Number : 66615

QC Report : Method Blank Data

Date : 02/05/2009

Project Name : **Rolls-Royce Engine Test Facility**

Project Number : **25-948218.1**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/27/2008
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/27/2008
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/27/2008
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/27/2008
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/27/2008
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/27/2008
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	12/27/2008
1,2-Dichloroethane-d4 (Surr)	95.6		%	EPA 8260B	12/27/2008
4-Bromofluorobenzene (Surr)	101		%	EPA 8260B	12/27/2008
Toluene - d8 (Surr)	103		%	EPA 8260B	12/27/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed

Report Number : 66615

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 02/05/2009

Project Name : **Rolls-Royce Engine Test Facility**

Project Number : **25-948218.1**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH-D (Si Gel)	BLANK	<50	1000	1000	878	814	ug/L	M EPA 8015	12/29/08	87.8	81.4	7.52	70-130	25
TPH as Diesel	BLANK	<50	1000	1000	925	895	ug/L	M EPA 8015	12/29/08	92.5	89.5	3.25	70-130	25
TPH as Diesel	BLANK	<100	1000	1000	990	1020	ug/L	M EPA 8015	12/30/08	99.0	102	2.60	70-130	25
Benzene	66615-02	<0.50	38.7	39.0	36.5	36.7	ug/L	EPA 8260B	12/24/08	94.2	94.0	0.222	70-130	25
Methyl-t-butyl ether	66615-02	<0.50	39.0	39.3	39.4	41.8	ug/L	EPA 8260B	12/24/08	101	106	5.09	70-130	25
Toluene	66615-02	<0.50	39.5	39.8	38.4	38.5	ug/L	EPA 8260B	12/24/08	97.2	96.6	0.590	70-130	25
Benzene	66650-09	<0.50	39.3	39.3	35.1	35.1	ug/L	EPA 8260B	12/24/08	89.3	89.3	0.0540	70-130	25
Methyl-t-butyl ether	66650-09	<0.50	39.6	39.6	41.1	41.8	ug/L	EPA 8260B	12/24/08	104	106	1.78	70-130	25
Toluene	66650-09	<0.50	40.1	40.1	37.8	37.4	ug/L	EPA 8260B	12/24/08	94.1	93.2	0.933	70-130	25
Benzene	66653-04	<0.50	39.3	39.3	37.1	36.9	ug/L	EPA 8260B	12/27/08	94.2	93.8	0.396	70-130	25
Methyl-t-butyl ether	66653-04	<0.50	39.6	39.6	42.0	41.3	ug/L	EPA 8260B	12/27/08	106	104	1.60	70-130	25
Toluene	66653-04	<0.50	40.1	40.1	37.4	36.9	ug/L	EPA 8260B	12/27/08	93.3	91.9	1.54	70-130	25
Benzene	66653-02	<0.50	39.3	39.3	38.4	37.6	ug/L	EPA 8260B	12/27/08	97.5	95.5	2.15	70-130	25
Methyl-t-butyl ether	66653-02	<0.50	39.6	39.6	33.3	33.8	ug/L	EPA 8260B	12/27/08	84.2	85.4	1.44	70-130	25
Toluene	66653-02	<0.50	40.1	40.1	43.6	42.8	ug/L	EPA 8260B	12/27/08	109	107	1.87	70-130	25

Report Number : 66615

QC Report : Laboratory Control Sample (LCS)

Date : 02/05/2009

Project Name : **Rolls-Royce Engine Test Facility**

Project Number : **25-948218.1**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	39.3	ug/L	EPA 8260B	12/23/08	93.7	70-130
Methyl-t-butyl ether	39.6	ug/L	EPA 8260B	12/23/08	102	70-130
Toluene	40.1	ug/L	EPA 8260B	12/23/08	97.5	70-130
Benzene	39.9	ug/L	EPA 8260B	12/24/08	94.3	70-130
Methyl-t-butyl ether	39.5	ug/L	EPA 8260B	12/24/08	102	70-130
Toluene	39.9	ug/L	EPA 8260B	12/24/08	98.3	70-130
Benzene	39.9	ug/L	EPA 8260B	12/27/08	88.0	70-130
Methyl-t-butyl ether	39.5	ug/L	EPA 8260B	12/27/08	93.3	70-130
Toluene	39.9	ug/L	EPA 8260B	12/27/08	91.4	70-130
Benzene	39.8	ug/L	EPA 8260B	12/27/08	100	70-130
Methyl-t-butyl ether	39.4	ug/L	EPA 8260B	12/27/08	87.3	70-130
Toluene	39.8	ug/L	EPA 8260B	12/27/08	109	70-130

☐ Yes
☐ No

66615

Chain-of-Custody-Record

Direct Bill To:
Geoffrey Risse
Gettler-Ryan Inc.
3140 Gold Camp Dr.
Rancho Cordova, CA
95670

Facility: Rolls-Royce Engine Test Facility
Facility Address: 6701 Old Earhart Road, Oakland, CA
Consultant Project #: 25-948218.1
Consultant Name: GETTLER-RYAN INC.
Address: 3140 Gold Camp Dr., Suite 170, Rancho Cordova, CA 95670
Project Contact: (Name) Geoffrey Risse e-mail grisse@grinc.com
(Phone) 916-631-1300x12 (Fax) 916-631-1317

(Name) Geoffrey Risse
(Phone) 916-631-1300x12
Laboratory Name: Kiff Analytical
Laboratory Service Order:
Laboratory Service Code:
Samples Collected by: (Name) Jim Herr...
Signature:

State Method: ☑ CA ☐ OR ☐ WA ☐ NW Series ☐ CO ☐ UT ☐ ID

Sample I.D.	Number of Containers	Matrix S=Soil A=Air W=Water C=Charcoal	DATE/SAMPLE COLLECTION TIME	TPH-Jet A Fuel (8015) (HCL)	TPH-MO (8015) (HCL)	TPH-D with Silica Gel Cleanup (8015) (HCL)	TPH-G/BTEX/MTBE/ Naphthalene (8260) (HCL)	TPH-Jet A Fuel (8015) (NP)	TPH-MO (8015) (NP)	TPH-D with Silica Gel Cleanup (8015) (NP)	TPH-G/BTEX/MTBE/ Naphthalene (8260) (NP)	Remarks / Lab Sample No.
QA	2	W	12/18/08	X	X	X	X		VOA			01
MW-1	7		1020	X	X	X	X					02
MW-2			1330	X	X	X	X					03
MW-3			1155	X	X	X	X					04
MW-4			1300	X	X	X	X					05
MW-5			0945	X	X	X	X					06
MW-6			1220	X	X	X	X					07
MW-7			1345	X	X	X	X					08
MW-8			1030	X	X	X	X					09
MW-9			1110	X	X	X	X					10
MW-10			1155	X	X	X	X					11
MW-11			1230	X	X	X	X					12
MW-12			1025	X	X	X	X					13
MW-13	↓	↓	1250	X	X	X	X					14

1 of 2

SAMPLE RECEIPT
Temp °C 3.2 Therm.ID# IR-1
Initial JR Date 122208
Time 1719 Coolant present: Yes / No

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	Iced (Y/N)
	GR	12/18/1800		GR INC	12-22-08 1145	
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	Iced (Y/N)
	GR INC	12-22-08 1145				
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time	Iced (Y/N)
			Kiff Analytical		122208 1145	

Turn Around Time (Circle Choice)

24 Hrs.
48 Hrs.
5 Days
10 Days
~~As Contracted~~

☐ Yes
☐ No

66615

Chain-of-Custody-Record

Direct Bill To:
Geoffrey Risse
Gettler-Ryan Inc.
3140 Gold Camp Dr.
Rancho Cordova, CA
95670

Facility: Rolls-Royce Engine Test Facility
Facility Address: 6701 Old Earhart Road, Oakland, CA
Consultant Project #: 25-948218.1
Consultant Name: GETTLER-RYAN INC.
Address: 3140 Gold Camp Dr., Suite 170, Rancho Cordova, CA 95670
Project Contact: (Name) Geoffrey Risse e-mail grisse@grinc.com
(Phone) 916-631-1300x12 (Fax) 916-631-1317

(Name) Geoffrey Risse
(Phone) 916-631-1300x12
Laboratory Name: Kiff Analytical
Laboratory Service Order:
Laboratory Service Code:
Samples Collected by: (Name) Jim Hozz
Signature:

State Method: ☑ CA ☐ OR ☐ WA ☐ NW Series ☐ CO ☐ UT ☐ ID

Sample I.D.	Number of Containers	Matrix S=Soil A=Air W=Water C=Charcoal	DATE/SAMPLE COLLECTION TIME	TPH-Jet A Fuel (8015) (HCL)	TPH-MO (8015) (HCL)	TPH-D with Silica Gel Cleanup (8015) (HCL)	TPH-G/BTEX/MTBE/ Naphthalene (8260) (HCL)	TPH-Jet A Fuel (8015) (NP)	TPH-MO (8015) (NP)	TPH-D with Silica Gel Cleanup (8015) (NP)	TPH-G/BTEX/MTBE/ Naphthalene (8260) (NP)	Remarks / Lab Sample No.
MW-14	7	W	12/19/08 1112	X	X	X	X					15
MW-15			0955	X	X	X	X					16
MW-17			0920	X	X	X	X					17
NPond MW-3			1135	X	X	X	X					18
NPond MW-4			0945	X	X	X	X					19

Remarks: 2 of 2

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	Iced (Y/N)
	GRwc	12/19/08 1800		GRwc	12-22-08 1145	
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	Iced (Y/N)
	GRwc	12-22-08 1145				
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time	Iced (Y/N)
			Kiff Analytical		122208 1145	

Turn Around Time (Circle Choice)

24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted