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Chevron Environmental Management Company

Second Semi-Annual 2009 Groundwater Monitoring Report

Former Chevron Facility 306443
Gate 28, West Ramp, Fairbanks International Airport
Fairbanks, Alaska
ADEC File # 100.26.040

December 14, 2009

ARCADIS

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Second Semi-Annual 2009 Groundwater Monitoring Report

Former Chevron Facility 306443
Gate 28, West Ramp, Fairbanks International Airport
Fairbanks, Alaska

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December 14, 2009

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1. Introduction

On behalf of Chevron Environmental Management Company (Chevron), ARCADIS US, Inc. (ARCADIS), has prepared this report to document the second semi-annual 2009 groundwater sampling event and geochemical parameter monitoring results for former Chevron facility 306443 (the site) located at Gate 28, West Ramp at Fairbanks International Airport in Fairbanks, Alaska. The site location and surrounding area are shown on **Figure 1**. This report summarizes the groundwater sampling events conducted by ARCADIS on October 6 and 7, 2009. Work was conducted under the direction of a "qualified person" as defined in 18 Alaska Administrative Code (AAC) 75.990 (100), and 18 AAC 78.995 (118).

2. Site History and Background

The site facility lease included Parcel A and Parcel B of FIA Block 1, Lot 8, located at 5245 Airport Road. The site is currently owned by the Alaska Department of Transportation and Public Facilities (ADOT&PF) which is leasing Block 1, Lot 8 to Frontier Flying. Frontier Flying has been leasing Lot 8 since April 2003; previously Frontier Flying subleased Lot 8 from Falcon Properties. Nearby properties include the ADOT&PF airport maintenance and Alaska Rescue Fire Fighting (ARFF) facility across Brumbaugh Avenue to the northeast, and Northern Air Cargo (NAC) adjacent to the southwest.

Unocal formerly subleased a portion (Parcels A and B) of Lot 8 from Trans-Arctic Airlines and operated a fuel distribution facility that provided aviation gasoline and Jet-A fuel to airplanes at FIA. Parcel A was a rectangular piece of land, 100 feet in length and 50 feet in width, running northwest to southeast approximately 20 feet inside the northeastern lot boundary. Parcel B was a circular parcel of land adjacent to the southeasterly property line of Lot 8 and having a diameter of 200 feet (**Figure 2**). Parcel A and Parcel B are presently being used only for periodic vehicle storage, with the exception of the northwest corner of Parcel A. Frontier maintains a 12,000-gallon Jet-A fuel aboveground storage tank (AST) within the asphalt cutout near the northwest corner of Parcel A. It is unclear if the AST is within the boundaries of former Parcel A; however, the AST is on the gravel that was exposed during the removal of Unocal's fuel distribution system. Due to the airport development since the decommissioning of the Unocal facilities, the boundaries of Parcels A and B's boundaries are difficult to define.

In October 1991, Dames & Moore observed and monitored the removal of four 10,000-gallon underground storage tanks (USTs), two pump islands and associated piping, as reported in "Site Assessment Report for Underground Storage Tank Closure, CEM Leasing, Inc., Fairbanks, Alaska," dated December 17, 1991. The USTs were seated in sandy gravel, covered with 3 feet of silty sand, and capped with asphalt/concrete. Excavation and removal of the underground piping included two 5-foot deep by 4-foot wide trenches.

The UST excavation was approximately 65 feet by 40 feet and averaged 10 feet in depth. The four USTs were "free of dents and holes and appeared to be in good condition," according to Dames & Moore. Groundwater was encountered in the excavation; no free product was observed. Several samples had concentrations of diesel-range organics (DRO), and benzene, toluene, ethylbenzene, and total xylenes (BTEX), and gasoline-range organics (GRO) that were greater than Alaska Department of Environmental Conservation (ADEC) cleanup levels. Approximately 1,200 cubic yards of soil were excavated during UST and pipeline removal. Soil suspected of containing hydrocarbon impact was used to backfill the excavation. A layer of visqueen was placed over the impacted soil, and clean imported fill was used to restore the excavation area to original grade. GeoEngineers installed nine groundwater monitoring wells in September 2003; GEI-1 through GEI-9. During recent light non-aqueous phase liquid (LNAPL) gauging activities on September 10, 2008, LNAPL was detected in GEI-5 at a thickness of 0.34 feet. Hydrocarbon Identification (HCID) of free product collected from groundwater monitoring well GEI-5 indicated concentrations of aliphatic and aromatic hydrocarbons in the jet fuel range (C10-C16). Current site activities include semi-annual groundwater monitoring and semi-annual to monthly LNAPL gauging and removal.

In 2008, ARCADIS conducted further delineation of soil and groundwater impacts at the site; five monitoring wells (MW-1 through MW-5) and twelve soil borings (SB-1 through SB-10, SB-12, and SB-13) were installed onsite. Soil borings SB-1 through SB-5 were installed in Parcel A in a down-gradient direction from the former ASTs. Soil borings SB-6 through SB-10, SB-12, and SB-13 were installed in Parcel B at locations in cross- and down-gradient directions of the former USTs. Monitoring wells MW-1, MW-3, and MW-5 were installed in a down gradient direction relative to Parcels A and B, and MW-2 and MW-4 were installed in an up-gradient direction relative to these two parcels. Recovery well RW-1 was installed at a location north of GEI-1 and for future pilot testing and/or LNAPL recovery.

3. Groundwater Monitoring Methods

3.1. Groundwater Gauging Methods

On October 6, 2009, fourteen site monitoring wells and one recovery well were gauged with an oil/water interface probe to determine depth to water (and to ascertain if light non-aqueous phase liquid [LNAPL] was present). LNAPL was detected in monitoring wells GEI-1, GEI-3, GEI-5, GEI-6, GEI-7 and GEI-9 during gauging activities in October 2009. Thicknesses in these wells ranged from 0.02 feet in wells GEI-1, GEI-3 and GEI-7 to 0.17 feet in well GEI-6. On October 6th, monitoring well GEI-2 did not contain any water and was therefore not sampled.

Non-disposable groundwater monitoring equipment was decontaminated prior to and after each use with a detergent solution and rinsed in potable water.

3.2. Groundwater Elevation and Flow Direction

Depths to groundwater during the October 2009 event ranged from 9.89 feet below top of casing (btoc) in monitoring well MW-2 to 11.03 feet btoc in monitoring well MW-5. Groundwater elevations ranged from 421.72 feet above sea level (asl) in monitoring wells MW-4 to 422.74 feet asl in monitoring wells MW-3. Due to the presence of LNAPL, groundwater elevations recorded in monitoring wells GEI-1, GEI-3, GEI-5, GEI-6, GEI-7 and GEI-9 were corrected using the following formula:

Corrected Groundwater Elevation =

(Top of Casing – Depth to Water) + (LNAPL Thickness x Specific Gravity of LNAPL (0.82))

Based on the water levels measured during the October 2009 sampling event, the general groundwater flow direction at the site is to the west (summarized in **Table1** and shown on **Figure 2**). Due to GEI well elevations being surveyed to an arbitrary temporary benchmark; a potentiometric surface map could not be developed in conjunction with the MW wells surveyed to OPUS EPOCH 2003 datum.

Monthly gauging has been conducted at this site since 2008; however, monthly gauging activities could not be conducted from May to September 2009 due to airport construction activities.

4. Groundwater Monitoring Results

4.1. Groundwater Sampling Methods

Second semi-annual 2009 groundwater monitoring was conducted on October 6 and 7, 2009. Groundwater samples were collected using disposable Teflon® tubing with a Yellow Springs Instruments (YSI) multi-parameter water quality meter, a flow-through cell and a peristaltic pump. Geochemical parameters measured include dissolved oxygen (DO), oxidation-reduction potential (ORP), conductivity, pH, and temperature. Groundwater was purged until geochemical parameters stabilized to within ten percent of the value for pH, DO, and ORP, to within three percent of the value for conductivity, and to within one percent of the value for turbidity. These parameters were recorded on low-flow field data sheets presented in **Appendix A**. Groundwater samples were labeled, stored in a cooler packed with ice and shipped via FedEx to Test America located in Anchorage, Alaska under proper chain-of-custody procedures. Groundwater samples were analyzed in the field and/or submitted to the analytical laboratory for one or more of the following analyses:

- Gasoline range organics (GRO) by method AK101
- Diesel range organics (DRO) by method AK102
- Residual range organics (RRO) by method AK103
- Volitile Organic Compounds (VOCs) by method EPA 8260B
- Ethylene dibromide (EDB) by EPA method 8011
- Polynuclear Aromatic Hydrocarbons (PAHs) by EPA method 8270 GC/MS-SIM
- Dissolved Lead by EPA method 200.8

4.2. Groundwater Analytical Results

During the second semi-annual groundwater monitoring event in October 2009, the groundwater samples collected from monitoring wells GEI-4, MW-1 and RW-1 contained concentrations of DRO greater than the ADEC groundwater cleanup level (GCL) of 1,500 micrograms per liter (µg/L) with concentrations of 5,820 µg/L, 8,070 µg/L, and 4,260 µg/L, respectively.

The groundwater samples collected from monitoring wells GEI-4 and MW-1 contained concentrations of benzene greater than the ADEC GCL of 5 µg/L with concentrations of 15.7 µg/L and 25.4 µg/L, respectively.

The groundwater sample collected from monitoring well MW-1 contained a concentration of napthelene greater than the ADEC GCL of 730 µg/L with a concentration of 815 µg/L.

Groundwater samples collected during the second semi-annual 2009 groundwater monitoring event did not contain concentrations of toluene, ethylbenzene, total xylenes, lead, EDB, VOCs or PAHs greater than their respective cleanup levels.

Groundwater samples were not collected from monitoring wells GEI-1, GEI-3, GEI-5, GEI-6, GEI-7 and GEI-9 due to the presence of LNAPL.

Analytical results obtained from the second semi-annual 2009 groundwater monitoring event are summarized in **Table 2, Table 3, and Table 4** and are shown on **Figure 3**.

5. Laboratory Data Quality Assurance Summary

As required by ADEC (Technical Memorandum 06-002, dated August 20, 2008), ARCADIS completed a laboratory data review checklist for the Test America report during the second semi-annual 2009 reporting period. The laboratory report is included as **Appendix B** and data review checklist is included as **Appendix C**. The following quality assurance (QA) summary describes six parameters, related to the quality and usability of the data presented in this report.

5.1. Precision

The data meet precision objectives for laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) relative percent differences (RPDs).

5.2. Accuracy

The data meet accuracy objectives as indicated by the laboratory quality control samples, which were within method/laboratory limits. Analytes were not detected in the trip blanks submitted with the groundwater samples.

5.3. Representativeness

The data appear to be representative of site conditions and are generally consistent with historical groundwater monitoring results and expected impacts to groundwater.

5.4. Comparability

The laboratory results are presented in the same units as previous reports to allow comparison.

5.5. Completeness

The results appear to be valid and usable, and thus, the laboratory results have 100% completeness.

5.6. Sensitivity

The sensitivity of the analyses was adequate for the samples as the detection limits were less than the ADEC GCLs for compounds which were not detected.

6. Conclusions

The groundwater elevation data collected during October 2009 indicate groundwater flow direction and gradient are generally consistent with historical data. In addition, the analytical results of the October 2009 groundwater sampling events are generally consistent with previous events.

ARCADIS will continue to sample on a semi-annual basis using low-flow monitoring techniques. Site monitoring wells will continue to be gauged on a monthly basis. First semi-annual 2010 groundwater sampling will be conducted in April 2010. If you have any questions or would like to discuss this further, please contact Greg Montgomery at 206.726.4742.

7. References

ASTM Standard E1943-98, 2004. *Standard Guide for Remediation of Ground Water by Natural Attenuation at Petroleum Release Sites*. ASTM International, West Conshohocken, PA. DOI:10.1520/E1943-98R04.

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Tables

Table 1
Groundwater Elevation Data

Former Chevron Facility 306443
Gate 28, West Ramp, Fairbanks International Airport
Fairbanks, Alaska

Monitoring Well	Top of Casing Elevation (feet)	Date	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet)
GEI-1	99.87	09/04/03	6.32	--	--	93.55
		04/24/04	Well buried under snow/ice			
		09/16/04	8.56	--	--	91.31
		04/21/05	Well buried under snow/ice			
		09/30/05	8.17	--	--	91.70
		04/19/06	Well buried under snow/ice			
		09/21/06	9.04	--	--	90.83
		04/03/07	11.35	11.08	0.27	88.74
		09/29/07	8.60	8.54	0.06	91.32
		10/15/07	10.35	9.94	0.41	89.86
		11/19/07	10.91	10.78	0.13	89.07
		03/29/08	Well buried under snow/ice			
		06/25/08	9.35	--	--	90.52
		07/14/08	8.22	--	--	91.65
		08/06/08	5.83	--	--	94.04
		09/10/08	8.22	8.20	0.02	91.67
		11/24/08	9.88	--	--	89.99
		12/18/08	10.06	--	--	89.81
		01/27/09	10.73	10.70	0.03	89.16
		02/20/09	11.18	10.98	0.20	88.85
		04/21/09	Well buried under snow/ice			
		10/06/09	**10.35**	**10.33**	**0.02**	**89.54**
GEI-2	99.79	09/04/03	6.19	--	--	93.60
		04/24/04	Well buried under snow/ice			
		09/16/04	8.47	--	--	91.32
		04/21/05	Well buried under snow/ice			
		09/30/05	7.76	--	--	92.03
		04/19/06	Well buried under snow/ice			
		09/21/06	9.01	--	--	90.78
		04/03/07	Well Dry			
		09/29/07	8.57	--	--	91.22
		03/29/08	10.22	--	--	89.57
		09/10/08	8.18	--	--	91.61
		04/21/09	Well under water			
		10/06/09	**Well Dry**			
GEI-3	99.73	09/04/03	6.14	--	--	93.59
		04/24/04	9.49	--	--	90.24
		09/16/04	8.38	--	--	91.35
		04/21/05	9.84	--	--	89.89
		09/30/05	7.67	--	--	92.06
		04/19/06	11.28	10.75	0.53	88.88
		09/21/06	8.91	--	--	90.82
		04/03/07	10.80	10.78	0.02	88.95
		09/29/07	8.47	--	--	91.26
		03/29/08	10.15	--	--	89.58
		09/10/08	8.08	--	--	91.65
		04/21/09	11.11	10.89	0.22	88.80
		10/06/09	**10.22**	**10.20**	**0.02**	**89.53**

Table 1
Groundwater Elevation Data

Former Chevron Facility 306443
Gate 28, West Ramp, Fairbanks International Airport
Fairbanks, Alaska

Monitoring Well	Top of Casing Elevation (feet)	Date	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet)
GEI-4	99.66	09/04/03	6.12	--	--	93.54
		04/24/04	9.52	--	--	90.14
		09/16/04	8.41	--	--	91.25
		04/21/05	9.83	--	--	89.83
		09/30/05	7.69	--	--	91.97
		04/19/06	10.90	--	--	88.76
		09/21/06	8.91	--	--	90.75
		04/03/07	10.98	--	--	88.68
		09/29/07	8.44	--	--	91.22
		03/29/08	10.08	--	--	89.58
		09/10/08	8.03	--	--	91.63
		04/21/09	10.65	--	--	89.01
		10/06/09	**10.14**	--	--	**89.52**
GEI-5	99.88	09/04/03	8.28	5.97	2.31	93.49
		04/24/04	10.11	9.71	0.40	90.09
		09/16/04	10.40	8.21	2.19	91.28
		04/21/05	10.49	10.06	0.43	89.74
		09/30/05	7.95	--	--	91.97
		04/19/06	11.75	11.01	0.74	88.74
		09/21/06	10.09	9.01	1.08	90.68
		04/03/07	11.70	11.23	0.47	88.57
		09/29/07	9.22	8.72	0.50	91.07
		03/29/08	10.67	10.45	0.22	89.39
		09/10/08	8.71	8.37	0.34	91.45
		11/24/08	10.08	--	--	89.80
		12/18/08	10.29	--	--	89.59
		01/27/09	11.26	10.94	0.32	88.88
		02/20/09	11.65	11.21	0.44	88.59
		04/21/09	11.44	11.02	0.42	88.78
		10/06/09	**10.65**	**10.53**	**0.12**	**89.33**
GEI-6	99.95	09/04/03	6.47	--	--	93.48
		04/24/04	9.95	--	--	90.00
		09/16/04	8.83	--	--	91.12
		04/21/05	10.28	--	--	89.67
		09/30/05	8.24	--	--	91.71
		04/19/06	Well buried under snow/ice			
		09/21/06	9.30	9.30	<0.1	90.65
		04/03/07	Well Dry			
		09/29/07	9.10	8.81	0.29	91.09
		10/15/07	10.70	10.26	0.44	89.61
		11/19/07	11.04	10.71	0.33	89.18
		03/29/08	10.61	10.60	0.01	89.35
		06/25/08	9.58	--	--	90.37
		07/14/08	8.51	--	--	91.44
		08/06/08	6.44	6.08	0.36	93.81
		09/10/08	9.25	8.41	0.84	91.39
		11/24/08	10.30	10.22	0.08	89.72
		12/18/08	10.52	10.38	0.14	89.54
		01/27/09	11.10	10.96	0.14	88.96
		02/20/09	11.10	--	--	88.85
		04/21/09	Well blocked at 11.5' below TOC			
		10/06/09	**10.85**	**10.68**	**0.17**	**89.10**

Table 1
Groundwater Elevation Data

Former Chevron Facility 306443
Gate 28, West Ramp, Fairbanks International Airport
Fairbanks, Alaska

Monitoring Well	Top of Casing Elevation (feet)	Date	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet)
GEI-7	99.44	09/04/03	5.92	--	--	93.52
		04/24/04	9.49	--	--	89.95
		09/16/04	8.36	--	--	91.08
		04/21/05	9.95	--	--	89.49
		09/30/05	7.74	--	--	91.70
		04/19/06	11.04	--	--	88.40
		09/21/06	9.06	--	--	90.38
		04/03/07	11.21	--	--	88.23
		09/29/07	8.59	--	--	90.85
		03/29/08	10.28	10.26	0.02	89.18
		09/10/08	8.21	--	--	91.23
		04/21/09	10.90	10.86	0.04	88.57
		10/06/09	**10.36**	**10.34**	**0.02**	**89.10**
GEI-8	100.01	09/04/03	6.48	--	--	93.53
		04/24/04	9.94	--	--	90.07
		09/16/04	8.84	--	--	91.17
		04/21/05	10.31	--	--	89.70
		09/30/05	8.18	--	--	91.83
		04/19/06	11.47	--	--	88.54
		09/21/06	9.48	--	--	90.53
		04/03/07	11.63	--	--	88.38
		09/29/07	9.08	--	--	90.93
		03/29/08	10.77	--	--	89.24
		09/10/08	8.72	8.70	0.02	91.31
		11/24/08	10.36	--	--	89.65
		12/18/08	10.55	--	--	89.46
		01/27/09	11.24	--	--	88.77
		02/20/09	11.55	--	--	88.46
		04/21/09	11.50	--	--	88.51
		10/06/09	**10.82**	**--**	**--**	**89.19**
GEI-9	100.02	09/04/03	6.42	--	--	93.60
		04/24/04	9.82	--	--	90.20
		09/16/04	8.21	--	--	91.81
		04/21/05	Well buried under snow/ice			
		09/30/05	8.14	--	--	91.88
		04/19/06	Well buried under snow/ice			
		09/21/06	9.31	--	--	90.71
		04/03/07	11.39	--	--	88.63
		09/29/07	8.91	--	--	91.11
		03/29/08	10.73	10.65	0.08	89.36
		09/10/08	8.63	--	--	91.39
		04/21/09	Well buried under snow/ice			
		10/06/09	**10.90**	**10.87**	**0.03**	**89.12**

Table 1
Groundwater Elevation Data

Former Chevron Facility 306443
Gate 28, West Ramp, Fairbanks International Airport
Fairbanks, Alaska

Monitoring Well	Top of Casing Elevation (feet)	Date	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet)
MW-1	432.51	09/10/08	8.65	--	--	423.86
		04/21/09	11.26	--	--	421.25
		10/06/09	**10.75**	**--**	**--**	**421.76**
MW-2	431.79	09/10/08	7.75	--	--	424.04
		04/21/09	Well under water			
		10/06/09	**9.89**	**--**	**--**	**421.90**
MW-3	432.89	09/10/08	9.00	--	--	423.89
		04/21/09	11.69	--	--	421.20
		10/06/09	**10.15**	**--**	**--**	**422.74**
MW-4	432.29	09/10/08	8.26	--	--	424.03
		04/21/09	Well buried under snow/ice			
		10/06/09	**10.57**	**--**	**--**	**421.72**
MW-5	432.76	09/10/08	8.81	--	--	423.95
		04/21/09	11.51	--	--	421.25
		10/06/09	**11.03**	**--**	**--**	**421.73**
RW-1	432.30	09/10/08	8.30	--	--	424.00
		04/21/09	Well buried under snow/ice			
		10/06/09	**10.45**	**--**	**--**	**421.85**

Notes:
LNAPL = Light non-aqeous phase liquid
Groundwater elevations were corrected due to the presence of LNAPL in well. Specific gravity of 0.82 was used for the LNAPL (Jet-A Fuel).
Bold text indicates most recent sampling event.
TOC = top of casing.
"--" = not applicable.

Table 2
Groundwater Analytical Data

Former Chevron Facility 306443
Gate 28, West Ramp, Fairbanks International Airport
Fairbanks, Alaska

Monitoring Well	Date Sampled	GRO	DRO	RRO	Benzene	Toluene	Ethylbenzene	Total Xylenes	Lead	EDB
GCL:		***2,200***	***1,500***	***1,100***	***5***	***1,000***	***700***	***10,000***	***15***	***0.05***
GEI-1	04/24/04	Well buried by snow/ice								
	09/16/04	1,760	151,000	--	7.05	1.83	47.9	251	--	--
	09/16/04[D]	--	--	--	5.40	2.02	42.2	233	--	--
	04/21/05	Well buried by snow/ice								
	09/30/05	2,270	327,000	<3,970	5.52	0.945	36.6	208	--	--
	04/19/06	Well buried by snow/ice								
	09/21/06	1,300	690,000	<9,800	10.0	0.8	22	140	--	--
	04/03/07	LNAPL Present - Well not sampled								
	09/29/07	LNAPL Present - Well not sampled								
	03/29/08	Well buried by snow/ice								
	09/10/08	LNAPL Present - Well not sampled								
	04/22/09	Well buried under snow/ice								
	10/06/09	**LNAPL Present - Well not sampled**								
GEI-2	04/24/04	Well buried by snow/ice								
	09/16/04	76.6	1,430	--	2.53	0.547	<0.500	1.81	--	--
	04/21/05	Well buried by snow/ice								
	09/30/05	65.6	885	<391	<0.500	<0.500	<0.500	<1.50	--	--
	04/19/06	Well buried by snow/ice								
	09/21/06	56.0	1,500	430	<0.5	<0.500	<0.500	<1.50	--	--
	04/03/07	Well dry - Not sampled								
	09/29/07	30	--	--	<1.00	<1.00	<1.00	<2.00	--	--
	03/29/08	<50.0	--[3]	--[3]	<0.500	<0.500	<0.500	<1.00	--	--
	09/10/08	52[4]	5,300[5]	<743	0.225	<0.500	1.16	<1.00	<1.00	--
	04/22/09	Well under water								
	10/06/09	**Well dry - Not sampled**								
GEI-3	04/24/04	1,330	21,000	--	<5.00	<5.00	13.9	59.8	--	--
	09/16/04	310	18,300	--	1.26	<0.500	8.27	14.9	--	--
	04/21/05	464	22,900	--	<0.500	<0.500	6.24	14.6	--	--
	09/30/05	450	33,300	625	<0.500	<0.500	3.45	10.6	--	--
	04/19/06	LNAPL Present - Well not sampled								
	09/21/06	500	29,000	<480	<0.600	<0.500	7.7	25.0	--	--
	04/03/07	LNAPL Present - Well not sampled								
	09/29/07	700	65,000	<2,100	<5.00	<5.00	<5.00	<20	--	--
	03/29/08	492	47,100[2]	863	<0.500	<0.500	5.01	16.0	--	--
	09/10/08	374[4]	22,400[6]	<3,750	<1.00	<2.50	7.06	13.7	<1.00	--
	04/22/09	LNAPL Present - Well not sampled								
	10/06/09	**LNAPL Present - Well not sampled**								
GEI-4	04/24/04	1,270	43,600	--	<5.00	<5.00	14.6	57.2	--	--
	09/16/04	638	36,200	--	15.0	0.675	21.8	35.7	--	--
	04/21/05	570	37,500	--	35.4	1.27	17.7	40.1	--	--
	09/30/05	1,030	122,000	<4,100	7.47	4.88	25.1	58.7	--	--
	04/19/06	879	17,800	<391	7.58	<0.500	21.8	27.9	<1.00	--
	09/21/06	630	12,000	<480	24.0	0.5	25	43	--	--
	04/03/07	300	2,000	<40	5.0	<1.00	9	8.0	--	--
	09/29/07	1,400	43,000	<2,000	20	1.00	20	40	--	--
	03/29/08	255[1]	11,300[2]	<735	2.17	<0.500	4.16	9.20	--	--
	09/10/08	889[4]	32,300[5]	<3,750	53.2	2.42	37.9	71.0	<1.00	--
	04/22/09	229[1]	2,840[5]	<721	2.90	<0.500	4.50	7.64	<1.00[7]	<0.01
	10/06/09	**305**	**5,820**	**787**	**15.7**	**<1.00**	**17.3**	**33.77**	**<1.00**	**<0.0100**
GEI-5	04/24/04	LNAPL Present - Well not sampled								
	09/16/04	LNAPL Present - Well not sampled								
	04/21/05	LNAPL Present - Well not sampled								
	09/30/05	2,530	671,000	<8,700	12.4	<0.500	107	326	--	--
	04/19/06	LNAPL Present - Well not sampled								
	09/21/06	LNAPL Present - Well not sampled								
	04/03/07	LNAPL Present - Well not sampled								
	09/29/07	LNAPL Present - Well not sampled								
	03/29/08	68.1	1,860[2]	<708	<0.500	<0.500	<0.500	1.78		--
	09/10/08	LNAPL Present - Well not sampled								
	04/22/09	LNAPL Present - Well not sampled								
	10/06/09	**LNAPL Present - Well not sampled**								

Table 2
Groundwater Analytical Data

Former Chevron Facility 306443
Gate 28, West Ramp, Fairbanks International Airport
Fairbanks, Alaska

Monitoring Well	Date Sampled	GRO	DRO	RRO	Benzene	Toluene	Ethylbenzene	Total Xylenes	Lead	EDB
GCL:		***2,200***	***1,500***	***1,100***	***5***	***1,000***	***700***	***10,000***	***15***	***0.05***
GEI-6	04/24/04	2,930	168,000	--	8.17	<5.00	59.6	145	--	--
	09/16/04	1,880	39,600	--	7.80	1.57	23.8	75.0	--	--
	04/21/05	1,290	25,300	--	15.7	<0.500	57.1	134	--	--
	09/30/05	2,220	120,000	<4,770	14.8	<0.500	20.8	107	--	--
	04/19/06	Well buried by snow/ice								
	09/21/06	LNAPL Present - Well not sampled								
	04/03/07	Well Dry - Not sampled								
	09/29/07	LNAPL Present - Well not sampled								
	03/29/08	1,170 [1]	334,000 [2]	904	8.41	<2.50	33.8	128	58.8	--
	09/10/08	LNAPL Present - Well not sampled								
	04/22/09	Well blocked at 11.5' below TOC								
	10/06/09	**LNAPL Present - Well not sampled**								
GEI-7	04/24/04	2,440	43,200	--	6.97	<5.00	7.58	20.0	--	--
	09/16/04	363	5,660	--	<0.500	1.34	8.89	14.2	--	--
	04/21/05	1,080	13,600	--	32.6	2.52	64.6	92.0	--	--
	09/30/05	226	6,700	<397	<0.500	<0.500	3.68	4.72	--	--
	04/19/06	934	25,200	<856	37.9	4.11	77.8	103	<1.00	--
	09/21/06	470	4,100	<98	1.2	<0.5	14	15	--	--
	04/03/07	2,200	12,000	<980	50	4	90	200	--	--
	04/03/07[D]	2,200	12,000	<980	40	4	90	200	--	--
	09/29/07	1,500	130,000	<2,000	<5	<5	<10	<20	27.9	--
	09/29/07[D]	900	92,000	<2,000	<5	<5	<10	<20	--	--
	03/29/08	1,630 [1]	44,200	1,320	31.1	<5.00	90.5	147	--	--
	03/29/08[D]	1,630	51,400	1,470	26.8	<5.00	85.2	131	--	--
	09/10/08	352 [4]	15,200 [5]	<833	<1.00	<2.50	10.7	8.02	<1.00	--
	04/22/09	LNAPL Present - Well not sampled								
	10/06/09	**LNAPL Present - Well not sampled**								
GEI-8	04/24/04	<500	7,390	--	<5.00	<5.00	11.7	30.4	--	--
	09/16/04	82	8,690	--	<0.500	<0.500	0.520	1.12	--	--
	04/21/05	54.3	1,460	--	<0.500	<0.500	<0.500	<1.50	--	--
	04/21/05[D]	<50	--	--	<0.500	<0.500	<0.500	<1.50	--	--
	09/30/05	<50	4,970	<397	<0.500	<0.500	<0.500	<1.50	--	--
	04/19/06	<50	1,480	<400	<0.500	<0.500	<0.500	<1.50	--	--
	04/19/06[D]	78.0	--	--	<0.500	<0.500	<0.500	<1.50	<1.00	--
	09/21/06	40.0	1,800	<160	<0.5	<0.5	<0.5	<1.5	--	--
	04/03/07	60	910	360	<1.0	<1.0	<1.0	<2.0	--	--
	09/29/07	80	4,400	<200	<1.0	<1.0	<1.0	<2.0	--	--
	03/29/08	62.0 [1]	2,830 [2]	<758	<0.500	<0.500	<0.500	1.94	--	--
	09/10/08	LNAPL Present - Well not sampled								
	04/22/09	66.6 [1]	1,810 [9]	818 [9]	<0.200	<0.500	<0.500	<1.00	<1.00 [7]	<0.01
	10/06/09	**50.9**	**942**	**<391**	**<0.200**	**<1.00**	**<1.00**	**<3.00**	**<1.00**	**<0.0100**
GEI-9	04/24/04	8,370	33,700	--	9.53	<5.00	113	321	--	--
	09/16/04	1,350	77,400	--	17.3	<0.500	58.3	57.5	--	--
	04/21/05	Well buried by snow/ice								
	09/30/05	838	50,900	<443	16.2	<0.500	55.4	82.3	--	--
	04/19/06	Well buried by snow/ice								
	09/21/06	1,200	95,000	<1,900	23.0	<0.5	52	80	36.5	--
	09/21/06[D]	1,300	43,000	<980	22.0	<0.5	50	75	--	--
	04/03/07	1,600	9,700	<400	6.0	<1.0	40	80	0.62	--
	09/29/07	1,800	680,000	<20,000	10.0	<5.00	40	70	29.8	--
	03/29/08	1,690 [1]	111,000 [2]	839	7.23	<5.00	25.1	85.5	89.4	--
	09/10/08	1,510 [4]	118,000 [6]	<8,330	9.04	<5.00	29.3	63.1	<1.00	--
	9/10/08 [D]	1,150 [4]	191,000 [5]	<7,500	9.18	<5.00	25.0	56.1	<1.00	--
	04/22/09	Well buried under snow/ice								
	10/06/09	**LNAPL Present - Well not sampled**								

Table 2
Groundwater Analytical Data

Former Chevron Facility 306443
Gate 28, West Ramp, Fairbanks International Airport
Fairbanks, Alaska

Monitoring Well	Date Sampled	GRO	DRO	RRO	Benzene	Toluene	Ethylbenzene	Total Xylenes	Lead	EDB
GCL:		***2,200***	***1,500***	***1,100***	***5***	***1,000***	***700***	***10,000***	***15***	***0.05***
MW-1	09/10/08	2,000 [4]	10,900 [5]	<743	27.4	<0.500	99.8	163	<1.00	--
	04/22/09	2,260 [1]	20,700 [5]	1,190 [8]	42.2	0.566	84.3	236	<1.00 [7]	<0.01
	10/07/09	**1,040**	**8,070**	**642**	**25.4**	**<10.0**	**81.8**	**171.9**	**<1.00**	**<0.0100**
MW-2	09/10/08	<50.0	208 [6]	<743	<0.20	<0.500	<0.50	<1.00	<1.00	--
	04/22/09	Well buried under snow/ice								
	10/06/09	**<50.0**	**<410**	**<410**	**<0.200**	**<1.00**	**<1.00**	**<3.00**	**<1.00**	**<0.0100**
MW-3	09/10/08	144 [4]	2,800 [5]	<743	0.263	<0.500	0.687	1.56	<1.00	--
	04/22/09	96.4 [1]	1,600 [5]	<728	0.210	<0.500	1.09	1.81	<1.00 [7]	<0.01
	10/07/09	**205**	**1,350**	**<391**	**<0.400**	**<2.00**	**10.5**	**10.02**	**<1.00**	**<0.0100**
MW-4	09/10/08	<50.0	150 [6]	<743	<0.20	<0.500	<0.50	<1.00	<1.00	--
	04/22/09	Well buried under snow/ice								
	10/06/09	**<50.0**	**<391**	**<391**	**<0.200**	**<1.00**	**<1.00**	**<3.00**	**<1.00**	**<0.0100**
	10/06/09 [D]	**<50.0**	**<403**	**<403**	**<0.200**	**<1.00**	**<1.00**	**<3.00**	**<1.00**	**<0.0100**
MW-5	09/10/08	89.1 [4]	2,240 [5]	<743	0.378	<0.500	2.42	3.28	<1.00	--
	04/22/09	254 [1]	4,230 [5]	<728	0.590	<0.500	6.95	5.14	<1.00 [7]	<0.01
	04/2209 [D]	248 [1]	4,150 [5]	<721	0.593	<0.500	6.82	4.90	<1.00 [7]	<0.01
	10/07/09	**<50.0**	**1,040**	**<391**	**<0.200**	**<1.00**	**1.35**	**<3.00**	**<1.00**	**<0.0100**
RW-1	**10/06/09**	**172**	**4,260**	**512**	**<0.200**	**<1.00**	**1.04**	**2.25**	**<1.00**	**<0.0100**

Notes:
All results are reported in micrograms per liter (ug/l).
GCL = ADEC 18 AAC 75 Groundwater Cleanup Level.
[D] - duplicate of preceding sample.
-- = sample was not analyzed for this compound.
< = result did not exceed indicated method reporting limit; an elevated reporting limit indicates sample was diluted.
Highlighted cell= exceeds GCL.
Bold Type indicates most recent sampling event.
[1] Detected hydrocarbons in the gasoline range appear to be due to overlap of diesel range hydrocarbons.
[2] Hydrocarbon pattern most closely resembles kerosene.
[3] Insufficient water to collect sample.
[4] Does not match typical pattern.
[5] Detected hydrocarbons in the diesel range do not have a distinct diesel pattern and may be due to heavily weathered diesel.
[6] The chromatographic pattern is not consistent with diesel fuel.
[7] Sample filtered in lab.
[8] The heavy oil range organics present are due to hydrocarbons eluting primarily in the diesel range.
[9] Hydrocarbon pattern most closely resembles a blend of Weathered Diesel and Transformer Oil.

Table 3
Groundwater Polynuclear Aromatic Hydrocarbons Analytical Data

Former Chevron Facility 306443
Gate 28, West Ramp, Fairbanks International Airport
Fairbanks, Alaska

EPA Method:		8270 GC / MS-SIM																	
Monitoring Well ID	Date Sampled	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo (a) anthracene	Chrysene	Benzo (b) fluoranthene	Benzo (k) flouranthene	Benzo (a) pyrene	Indeno (1, 2, 3 - cd) pyrene	Dibenz (a,h) anthracene	Benzo (g, h, i) perylene	1-Methylnaphthalene	2-Methylnaphthalene
ADEC Groundwater Cleanup Levels[1]		730	2,200	2,200	1,500	11,000	11,000	1,500	1,100	1.2	120	1.2	12	0.2	1.2	0.12	1,100	150	150
GEI-1	04/22/09	Well buried under snow/ice																	
	10/06/09	**LNAPL present - well not sampled**																	
GEI-2	04/22/09	Well under water																	
	10/06/09	**Well Dry - Not Sampled**																	
GEI-3	04/22/09	LNAPL present - well not sampled																	
	10/06/09	**LNAPL present - well not sampled**																	
GEI-4	04/22/09	2.12	<0.0962	0.240	0.290	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	1.84	<0.0962
	10/06/09	**11.5**	**0.450**	**0.212**	**0.275**	**<0.106**	**<0.106**	**<0.106**	**<0.106**	**<0.106**	**<0.106**	**<0.106**	**<0.106**	**<0.106**	**<0.106**	**<0.106**	**<0.106**	**6.01**	**1.86**
GEI-5	04/22/09	LNAPL present - well not sampled																	
	10/06/09	**LNAPL present - well not sampled**																	
GEI-6	04/22/09	Well blocked at 11.5' feet below TOC																	
	10/06/09	**LNAPL present - well not sampled**																	
GEI-7	04/22/09	LNAPL present - well not sampled																	
	10/06/09	**LNAPL present - well not sampled**																	
GEI-8	04/22/09	0.196	<0.100	<0.100	0.148	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	0.916	0.424
	10/06/09	**0.277**	**<0.0988**	**<0.0988**	**0.158**	**<0.0988**	**<0.0988**	**<0.0988**	**<0.0988**	**<0.0988**	**<0.0988**	**<0.0988**	**<0.0988**	**<0.0988**	**<0.0988**	**<0.0988**	**<0.0988**	**0.677**	**<0.0988**
GEI-9	04/22/09	Well buried under snow/ice																	
	10/06/09	**LNAPL present - well not sampled**																	
MW-1	04/22/09	187	<0.962	<0.962	1.06	<0.962	<0.962	<0.962	<0.962	<0.962	<0.962	<0.962	<0.962	<0.962	<0.962	<0.962	<0.962	97.4	113
	10/07/09	**148**	**<0.103**	**0.284**	**0.459**	**0.304**	**<0.103**	**<0.103**	**<0.103**	**<0.103**	**<0.103**	**<0.103**	**<0.103**	**<0.103**	**<0.103**	**<0.103**	**<0.103**	**66.9**	**82.0**
MW-2	04/22/09	Well buried under snow/ice																	
	10/06/09	**<0.0978**	**<0.0978**	**<0.0978**	**<0.0978**	**<0.0978**	**<0.0978**	**<0.0978**	**<0.0978**	**<0.0978**	**<0.0978**	**<0.0978**	**<0.0978**	**<0.0978**	**<0.0978**	**<0.0978**	**<0.0978**	**<0.0978**	**<0.0978**
MW-3	04/22/09	0.983	<0.0943	<0.0943	0.121	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	<0.0943	3.41	0.804
	10/07/09	**3.72**	**0.545**	**0.131**	**0.152**	**<0.101**	**<0.101**	**<0.101**	**<0.101**	**<0.101**	**<0.101**	**<0.101**	**<0.101**	**<0.101**	**<0.101**	**<0.101**	**<0.101**	**6.60**	**1.55**
MW-4	04/22/09	Well buried under snow/ice																	
	10/06/09	**<0.0990**	**<0.0990**	**<0.0990**	**<0.0990**	**<0.0990**	**<0.0990**	**<0.0990**	**<0.0990**	**<0.0990**	**<0.0990**	**<0.0990[2]**	**<0.0990[2]**	**<0.0990[2]**	**<0.0990[2]**	**<0.0990[2]**	**<0.0990[2]**	**<0.0990**	**<0.0990**
	10/06/09 [D]	**<0.102**	**<0.102**	**<0.102**	**<0.102**	**<0.102**	**<0.102**	**<0.102**	**<0.102**	**<0.102**	**<0.102**	**<0.102**	**<0.102**	**<0.102**	**<0.102**	**<0.102**	**<0.102**	**<0.102**	**<0.102**
MW-5	04/22/09	5.09	<0.0962	0.169	0.279	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	5.79	<0.0962
	04/22/09 [D]	4.26	<0.0952	0.152	0.257	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	5.08	<0.0952
	10/07/09	**0.466**	**1.48**	**<0.104**	**<0.104**	**<0.104**	**<0.104**	**<0.104**	**<0.104**	**<0.104**	**<0.104**	**<0.104**	**<0.104**	**<0.104**	**<0.104**	**<0.104**	**<0.104**	**0.150**	**<0.104**
RW-1	**10/06/09**	**2.87**	**1.24[2]**	**<0.102[2]**	**<0.102[2]**	**<0.102**	**<0.102**	**<0.102**	**<0.102**	**<0.102**	**<0.102**	**<0.102**	**<0.102**	**<0.102**	**<0.102**	**<0.102**	**<0.102**	**2.25**	**0.751**

Notes:
All results are reported in micrograms per liter (µg/L)
[D] = duplicate of the preceding sample.
Highlighted values indicate an exceedance of the respective GCL.
Bold type indicates most recent sampling event.
<1 = result did not exceed indicated method reporting limit: an elevated reporting limit indicates sample was diluted.
-- = sample was not analyzed for this compound
[1] ADEC Groundwater Cleanup Levels per 18 AAC 75.345, Table C, Register 188, October 9, 2008.
[2] Internal Standard recovery was above method limits. Matrix interference was confirmed by reanalysis. A low bias to the analyte result is indicated.

Table 4
Groundwater Volatile Organic Compound Analytical Data

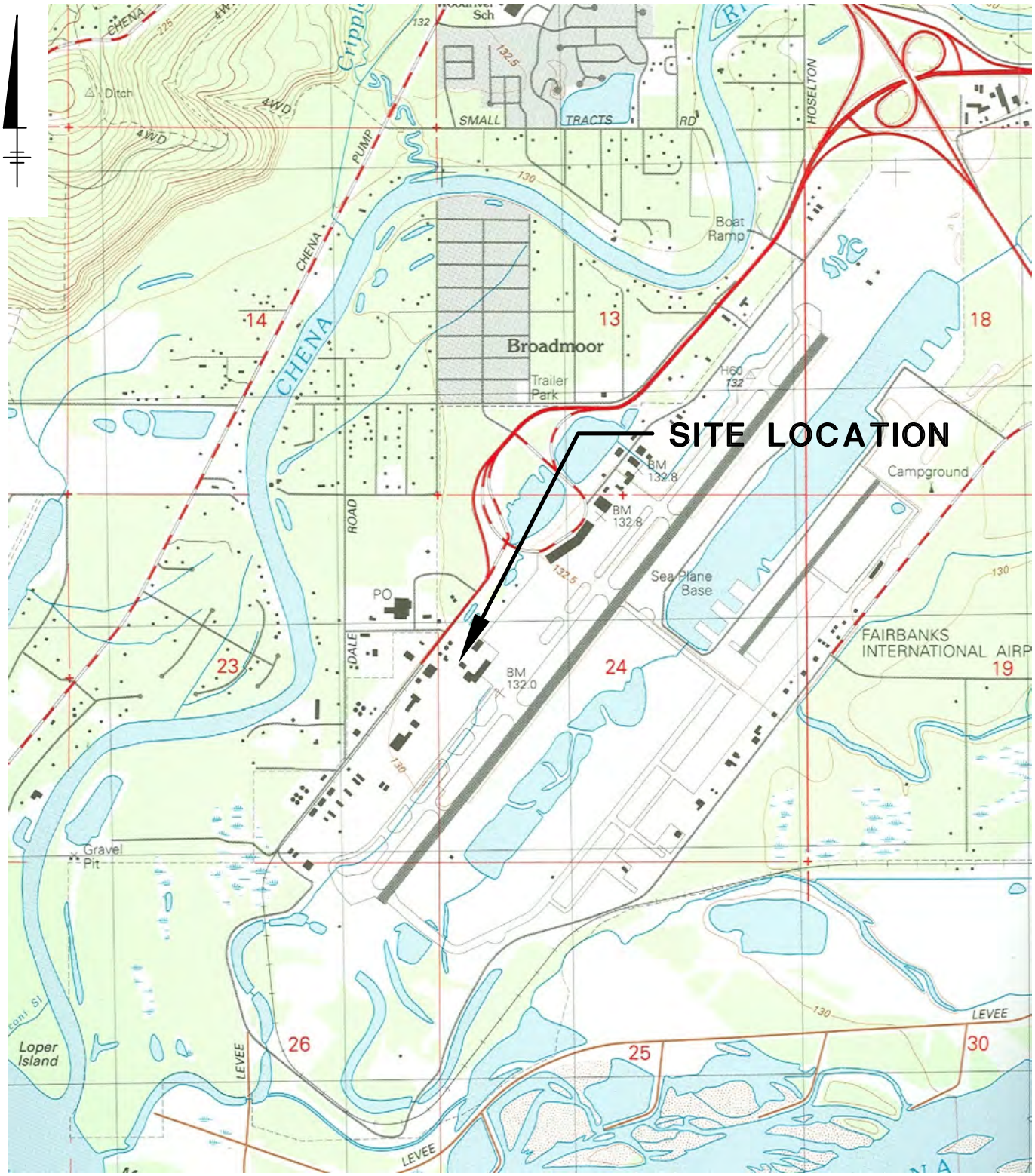
Former Chevron Facility 306443
Gate 28, West Ramp, Fairbanks International Airport
Fairbanks, Alaska

EPA Method:		8011	8260B																	8021B
Well Sampled	Sample Date	1,2-dibromoethane	1,1-dichloroethane	Dichlorodifluoromethane	1,3,5-Trimethylbenzene	1,1,1-trichloroethane	1,2,4-Trimethylbenzene	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	n-Hexane	p-Isopropyltoluene	Isopropylbenzene	n-Propylbenzene	Tetrachloroethene	1,2-dichloroethane	Trichloroethene	Naphthalene	Methyl tertiary butyl ether	Methyl tertiary butyl ether
GCL:		*0.05*	*7,300*	*7,300*	*1,800*	*200*	*1,800*	*370*	*370*	*370*	*NL*	*NL*	*3,700*	*370*	*5*	*5*	*5*	*730*	*470*	*470*
GEI-1	09/10/08	LNAPL Present - Well not sampled																		
	04/22/09	Well buried under snow/ice																		
	10/06/09	**LNAPL Present - Well not sampled**																		
GEI-2	09/10/08	<0.01	<1.00	<1.00	2.36	<1.00	4.87	<1.00	4.08	<1.00	<2.00	3.48	3.66	3.51	<1.00	<1.00	<1.00	<5.00	<2.00	--
	04/22/09	Well under water																		
	10/06/09	**Well Dry - Not Sampled**																		
GEI-3	09/10/08	<0.01	<1.00	<1.00	20.3	<1.00	64.0	7.25	7.35	1.27	<2.00	11.1	6.03	9.25	<1.00	<1.00	<1.00	17.2	<2.00	--
	04/22/09	LNAPL Present - Well not sampled																		
	10/06/09	**LNAPL Present - Well not sampled**																		
GEI-4	09/10/08	<0.01	<1.00	1.58	23.0	<1.00	84.0	1.68	5.32	<1.00	<2.00	4.28	12.9	13.1	<1.00	<1.00	<1.00	101	<2.00	--
	04/22/09	<0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/06/09	**<0.0100**	**<1.00**	**<1.00**	**9.02**	**<1.00**	**62.7**	**8.35**	**10.9**	**<1.00**	**<1.00**	**5.89**	**17.0**	**17.6**	**<1.00**	**<1.00**	**<1.00**	**33.2**	**<1.00**	**--**
GEI-5	09/10/08	LNAPL Present - Well not sampled																		
	04/22/09	LNAPL Present - Well not sampled																		
	10/06/09	**LNAPL Present - Well not sampled**																		
GEI-6	03/29/08	--	<1.00	<1.00	86.8	<1.00	187	6.37	5.08	1.80	<2.00	13.6	6.04	5.83	<1.00	<1.00	<1.00	130	<2.00	**--**
	09/10/08	LNAPL Present - Well not sampled																		
	04/22/09	Well blocked at 11.5' below TOC																		
	10/06/09	**LNAPL Present - Well not sampled**																		
GEI-7	09/29/07	--	<1.00	--	62	<0.8	170	28.0	27.0	2.0	--	22.0	22.0	41.0	<0.80	<0.50	<1.00	150	<0.50	--
	09/10/08	<0.01	<1.00	4.63	22.6	<1.00	70.7	16.5	15.2	1.08	<2.00	10.6	11.4	18.1	<1.00	<1.00	<1.00	58.3	<2.00	--
	04/22/09	LNAPL Present - Well not sampled																		
	10/06/09	**LNAPL Present - Well not sampled**																		
GEI-8	09/10/08	LNAPL Present - Well not sampled																		
	04/22/09	<0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/06/09	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<2.00**	**<1.00**	**--**
GEI-9	09/21/06	<0.0098	<1.00	<2.00	120	<0.80	540	36.0	17.0	1.00	--	17.0	25.0	59.0	<0.80	<0.50	<1.00	--	<0.50	<2.50
	04/03/07	--	<1.00	<2.00	100	<0.80	340	35.0	23.0	2.00	--	20.0	30.0	65.0	<0.80	<0.50	<1.00	--	<0.50	--
	09/29/07	--	<1.00	<2.00	120	<0.80	630	31.0	16.0	1.00	--	18.0	21.0	47.0	<0.80	<0.50	<1.00	100	<0.50	--
	03/29/08	--	<1.00	<1.00	69.9	<1.00	169	21.1	11.2	1.5	<2.00	13.0	20.3	31.8	<1.00	<1.00	<1.00	95.1	<2.00	--
	09/10/08	<0.01	<1.00	<1.00	88.8	<1.00	683	25.2	10.5	1.4	<2.0	12.7	13.6	28.4	<1.00	<1.00	<1.00	43.3	<2.00	--
	09/10/08 [D]	<0.01	<1.00	<1.00	95.7	<1.00	225	28.7	12.0	1.50	<2.0	12.9	14.5	29.5	<1.00	<1.00	<1.00	23.6	<2.00	--
	04/22/09	Well buried under snow/ice																		
	10/06/09	**LNAPL Present - Well not sampled**																		
MW-1	09/10/08	<0.01	<1.00	<1.00	80.8	<1.00	444	26.0	25.1	2.14	2.42	21.5	40.2	54.7	<1.00	<1.00	<1.00	433	<2.00	--
	04/22/09	<0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/07/09	**<10.0**	**<10.0**	**<10.0**	**103**	**<10.0**	**420**	**26.8**	**21.3**	**<10.0**	**<10.0**	**18.4**	**32.1**	**51.6**	**<10.0**	**<10.0**	**<10.0**	**815**	**<10.0**	**--**
MW-2	09/10/08	<0.01	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<2.00	--
	04/22/09	Well buried under snow/ice																		
	10/06/09	**<0.0100**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**1.00**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<2.00**	**<1.00**	**--**
MW-3	09/10/08	<0.01	<1.00	<1.00	2.01	<1.00	7.59	3.63	3.22	<1.00	<2.00	2.48	1.29	1.50	<1.00	<1.00	<1.00	<5.00	<2.00	--
	04/22/09	<0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/07/09	**<2.00**	**<2.00**	**<2.00**	**8.88**	**<2.00**	**89.8**	**10.9**	**12.9**	**<2.00**	**<2.00**	**9.12**	**13.5**	**19.6**	**<2.00**	**<2.00**	**<2.00**	**22.3**	**<2.00**	**--**
MW-4	09/10/08	<0.01	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<2.00	--
	04/22/09	Well buried under snow/ice																		
	10/06/09	**<0.0100**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**1.00**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<2.00**	**<1.00**	**--**
	10/06/09 [D]	**<0.0100**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**1.00**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<2.00**	**<1.00**	**--**
MW-5	09/10/08	<0.01	<1.00	<1.00	3.75	<1.00	10.1	<1.0	<1.00	<1.00	<2.00	<1.00	<1.00	1.36	<1.00	<1.00	<1.00	<5.00	<2.00	--
	04/22/09	<0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	04/22/09 [D]	<0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/07/09	**<1.00**	**<1.00**	**<1.00**	**7.87**	**<1.00**	**5.69**	**2.54**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**2.07**	**<1.00**	**<1.00**	**<1.00**	**2.12**	**<1.00**	**--**
RW-1	**10/06/09**	**<0.0100**	**<1.00**	**<1.00**	**28.8**	**<1.00**	**31.1**	**7.79**	**3.14**	**<1.00**	**<1.00**	**3.21**	**2.49**	**5.14**	**<1.00**	**<1.00**	**<1.00**	**5.64**	**<1.00**	**--**

Notes:
All results are reported in micrograms per liter (ug/l).
GCL = ADEC 18 AAC 75 Groundwater Cleanup Level.
-- = Not analyzed for this compound or data is not available.
<25 = Result did not exceed indicated method reporting limit.
[D] = Duplicate of preceding sample.
NL = No GCL available
Highlighted values indicate an exceedance of the respective GCL.

ARCADIS

Figures



SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE: FAIRBANKS (D-2) SW, AK., 1992, FAIRBANKS NORTH STAR BOROUGH, SECTION: 24, TOWNSHIP: 1S, RANGE: 2W

0 2000' 4000'

APPROXIMATE GRAPHIC SCALE

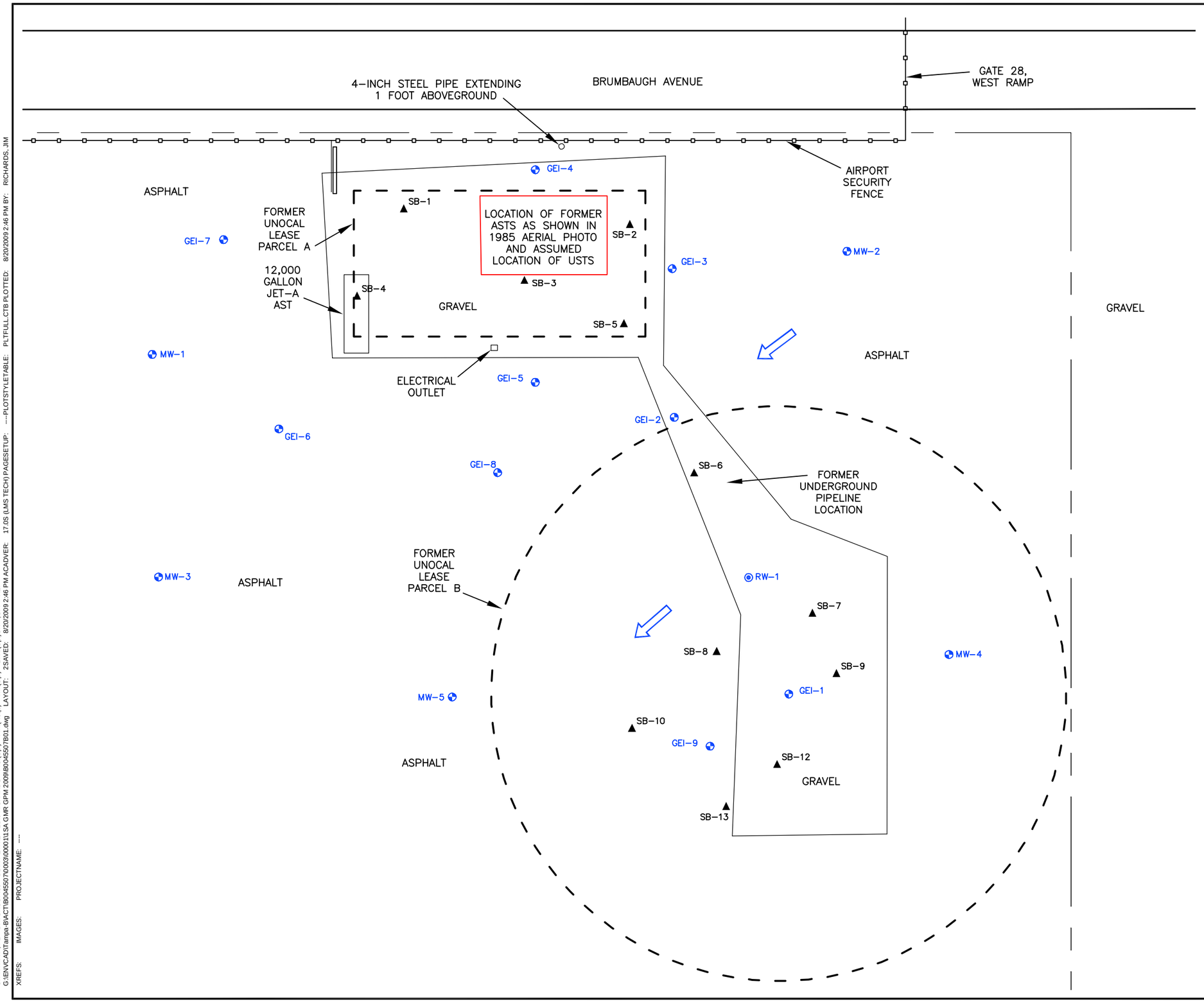
CHEVRON #306443 (FORMER UNOCAL BULK PLANT)
GATE 28, WEST RAMP, FAIRBANKS AIRPORT, FAIRBANKS, AK.
FIRST SEMI-ANNUAL 2009 GROUNDWATER MONITORING REPORT AND GEOCHEMICAL MONITORING RESULTS

SITE LOCATION MAP

ARCADIS

FIGURE 1

CITY:TMAPA,FL DIV/GROUP:85 DB:JAR LD:(Opt) PIC:(Opt) PM:(Reqd) TM:(Opt) LYR:(Opt)ON=*;OFF=*REF*
G:\ENVCAD\Tampa-BVAC\TB004550703000301\SA GMR GPM 2009\B004550703N01.dwg LAYOUT: 1 SAVED: 8/14/2009 1:22 PM ACADVER: 17.0S (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 8/20/2009 2:46 PM BY: RICHARDS, JIM
XREFS: IMAGES: PROJECTNAME: ---
ALASKA.jpg
FAIRBANKS-SW.jpg



LEGEND

- MONITORING WELL
- RECOVERY WELL
- SOIL BORING
- APPARENT DIRECTION OF GROUNDWATER FLOW

Notes:
GEI well elevations are relative to an arbitrary temporary benchmark.

0 30' 60'
GRAPHIC SCALE

SOURCE: Base map provided by GEOENGINEERS. Map date 5/15/05, full scale. Base map updated with survey information by "McLane Consulting, Inc.", Date 8/31/08, Vertical Datum: NAVD88. Survey datum source: OPUS EPOCH 2003.

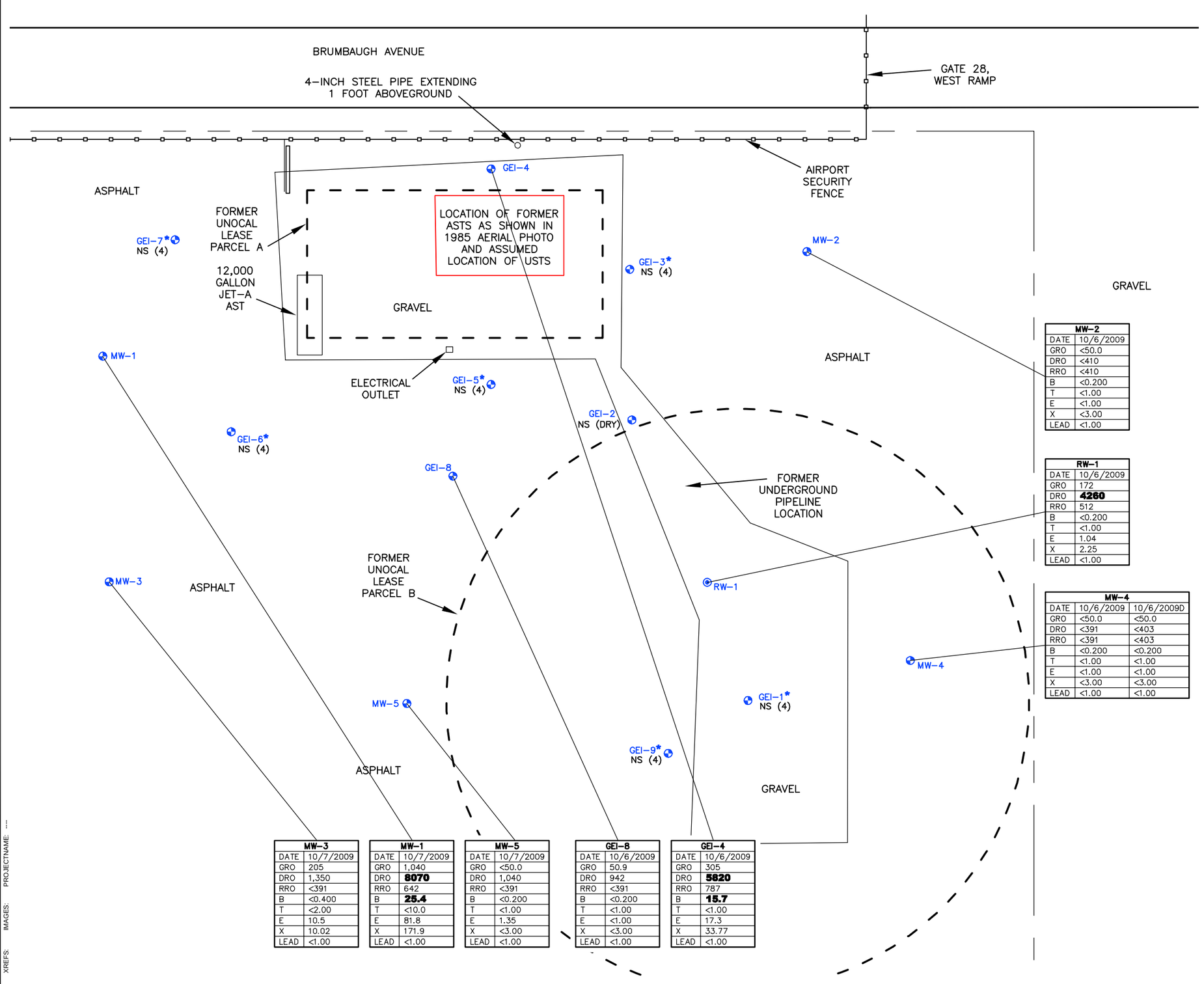
CHEVRON #306443 (FORMER UNOCAL BULK PLANT)
GATE 28, WEST RAMP, FAIRBANKS AIRPORT, FAIRBANKS, AK.
FIRST SEMI-ANNUAL 2009 GROUNDWATER MONITORING REPORT AND GEOCHEMICAL MONITORING RESULTS

SITE MAP

ARCADIS

FIGURE 2

CITY:TMA-A,FL DIV/GROUP:85 DB:R PETRIE LD:J RICHARDS PIC:(Opt) PM:(Reqd) TM:(Opt) LYR:(Opt)ON=*;OFF=*REF*
G:\ENVCAD\Tampa-BVACTIB\004550700030000\11\SA GMR GPM 2009\B004550700311SA GMR GPM 2009B01.dwg LAYOUT: 2SAVED: 8/20/2009 2:46 PM ACADVER: 17.0S (LMS TECH) PAGESETUP: ---PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 8/20/2009 2:46 PM BY: RICHARDS, JIM
XREFS: IMAGES: PROJECTNAME: ---



MW–2	
DATE	10/6/2009
GRO	<50.0
DRO	<410
RRO	<410
B	<0.200
T	<1.00
E	<1.00
X	<3.00
LEAD	<1.00

RW–1	
DATE	10/6/2009
GRO	172
DRO	**4260**
RRO	512
B	<0.200
T	<1.00
E	1.04
X	2.25
LEAD	<1.00

MW–4		
DATE	10/6/2009	10/6/2009D
GRO	<50.0	<50.0
DRO	<391	<403
RRO	<391	<403
B	<0.200	<0.200
T	<1.00	<1.00
E	<1.00	<1.00
X	<3.00	<3.00
LEAD	<1.00	<1.00

MW–3	
DATE	10/7/2009
GRO	205
DRO	1,350
RRO	<391
B	<0.400
T	<2.00
E	10.5
X	10.02
LEAD	<1.00

MW–1	
DATE	10/7/2009
GRO	1,040
DRO	**8070**
RRO	642
B	**25.4**
T	<10.0
E	81.8
X	171.9
LEAD	<1.00

MW–5	
DATE	10/7/2009
GRO	<50.0
DRO	1,040
RRO	<391
B	<0.200
T	<1.00
E	1.35
X	<3.00
LEAD	<1.00

GEI–8	
DATE	10/6/2009
GRO	50.9
DRO	942
RRO	<391
B	<0.200
T	<1.00
E	<1.00
X	<3.00
LEAD	<1.00

GEI–4	
DATE	10/6/2009
GRO	305
DRO	**5820**
RRO	787
B	**15.7**
T	<1.00
E	17.3
X	33.77
LEAD	<1.00

LEGEND

- MONITORING WELL
- RECOVERY WELL

SAMPLE LOCATION	
DATE	SAMPLE DATE
GRO	GASOLINE RANGE ORGANICS
DRO	DIESEL RANGE ORGANICS
RRO	RESIDUAL RANGE ORGANICS
B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	XYLENES
LEAD	LEAD

RESULTS REPORTED IN MICROGRAMS PER LITER (µg/L)

NS3 = NOT SAMPLED, SEE NOTE BELOW

BOLD CELL = EXCEEDS GROUNDWATER CLEANUP LEVEL (GCL)

29.3/25.0 = DUPLICATE SAMPLE COLLECTED

LNAPL = LIGHT NON–AQUEOUD PHASE LIQUID

Notes:
1. GEI well elevations are relative to an arbitrary temporary benchmark.
2. GEI–6 well blocked at 11.5 feet below top of casing, well not sampled.
3. The well could not be sampled due to snow/ice or standing water over top of well.
4. Could not be sampled due to the presence of LNAPL

0 30’ 60’

GRAPHIC SCALE

SOURCE: Base map provided by GEOENGINEERS. Map date 5/15/05, full scale. Base map updated with survey information by "McLane Consulting, Inc.", Date 8/31/08, Vertical Datum: NAVD88. Survey datum source: OPUS EPOCH 2003.

CHEVRON #306443 (FORMER UNOCAL BULK PLANT)
GATE 28, WEST RAMP, FAIRBANKS AIRPORT, FAIRBANKS, AK.
2008 SITE ASSESSMENT AND SECOND SEMI-ANNUAL GROUNDWATER MONITORING REPORT

GROUNDWATER ANALYTICAL SUMMARY MAP - OCTOBER 2009

ARCADIS

FIGURE 3

ARCADIS

Appendix A

Low-Flow Sampling Field Data Sheets

ARCADIS Groundwater Sampling Form

Project No. 36443 Well ID GEI-2 Date 10/6/09

Project Name/Location FIA Texaco Weather 39° Wind/overcast

Measuring Pt. Description _____ Screen Setting (ft-bmp) _____ Casing Diameter (in.) 2" Well Material X PVC ___ SS

Static Water Level (ft-btoc) 10.31 Total Depth (ft-btoc) _____ Water Column/ Gallons in Well YSI/per. Initial PID Reading (ppm) _____

TOC Elevation _____ Pump Intake (ft-btoc) _____ Purge Method: _____ Centrifugal _____ Submersible _____ Other _____ Sample Method YSI/per.

Pump On/Off _____ Volumes Purged _____

Sample Time: Label _____ Start _____ End _____ Replicate/ Code No. _____ Sampled by DMB

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (µMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
Well DRY												

Constituents Sampled	Container	Number	Preservative

Well Casing Volumes

Gallons/Foot 1" = 0.04 1.25" = 0.06 1.5" = 0.09 2" = 0.16 2.5" = 0.26 3" = 0.37 3.5" = 0.50 4" = 0.65 6" = 1.47

Well Information

Well Location: _____ Well Locked at Arrival: Yes / No

Condition of Well: _____ Well Locked at Departure: Yes / No

Well Completion: Flush Mount / Stick Up Key Number To Well: _____

ARCADIS Groundwater Sampling Form

Page 1 of 1

Project No. 30664 Well ID GEI-4 Date 10/6/09

Project Name/Location _____ Weather 40° overcast

Measuring Pt. Description _____ Screen Setting (ft-bmp) _____ Casing Diameter (in.) _____ Well Material X PVC ___ SS

Static Water Level (ft-btoc) 10.14 Total Depth (ft-btoc) 12.60 Water Column/ Gallons in Well _____ Initial PID Reading (ppm) _____

TOC Elevation _____ Pump Intake (ft-btoc) _____ Purge Method: peri pump Centrifugal _____ Submersible _____ Other _____ Sample Method YSI / peri

Pump On/Off _____ Volumes Purged _____

Sample Time: Label _____ Start _____ End _____ Replicate/ Code No. _____ Sampled by DMB

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (µMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance Color	Appearance Odor
16:17	0	4.37	10.16	0	6.36	1,191	40.8	1.53	6.57	-54.0	Turbid	Grey / no odor
16:20	3	4.34	10.16	<0.5	6.75	1,191	19.3	0.42	6.50	-60.4	"	"
16:23	6	4.31	10.16	<0.5	6.77	1,190	11.19	0.34	6.47	-61.7	less turbid	
16:26	9	4.31	10.17	0.5	6.80	1,188	8.73	0.34	6.44	-63.9	"	"
16:30	13	4.31	10.17	<0.5	6.83	1,188	5.85	0.36	6.44	-65.5	"	"
16:33	16	4.33	10.17	0.75	6.83	1,186	4.33	0.38	6.50	-66.8	"	"
16:36	19	4.33	10.17	<1	6.84	1,187	4.01	0.35	6.53	-66.1	"	"
			DTB:	12.60								
			Sampled @ 16:45									

Constituents Sampled	Container	Number	Preservative
BTEX/GRO			
DRO/RRO			
PAH			
EDB			
Dissolved Pb			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: Grass Well Locked at Arrival: (Yes) / No

Condition of Well: ok Well Locked at Departure: (Yes) / No

Well Completion: (Flush Mount) / Stick Up Key Number To Well: _____

ARCADIS Groundwater Sampling Form

Page 1 of 1

Project No. B0045507 | Well ID GEI-8 | Date 10/6/09

Project Name/Location FIA Unocal 306443/Fairbanks, AK | Weather D. Cloudy, 40s

Measuring Pt. Description: TOC | Screen Setting (ft-bmp): | Casing Diameter (in.): 2" | Well Material: ✓ PVC / SS

Static Water Level (ft-btoc): 10.82 | Total Depth (ft-btoc): | Water Column/ Gallons in Well: | Initial PID Reading (ppm): 6.6

TOC Elevation: | Pump Intake (ft-btoc): | Purge Method: Peristaltic (Centrifugal / Submersible / Other ✓) | Sample Method: Peristaltic

Pump On/Off: | Volumes Purged:

Sample Time: Label 1725, Start, End | Replicate/ Code No.: N/A | Sampled by: MLS

Time	Minutes Elapsed	Rate (~~gpm~~) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (µMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance Color	Appearance Odor
1703	0	200	10.82	0.1	6.98	1.261	30.10	1.23	6.52	-44.4	Clear	Slight Petro like
1707	4	200	"	0.3	6.94	1.325	18.00	0.36	6.49	-53.1	"	"
1711	4	200	"	0.5	6.89	1.376	6.63	0.38	6.50	-59.6	"	"
1716	5	200	"	0.7	6.84	1.410	3.13	0.50	6.50	-64.7	"	"
1720	4	200	"	0.9	6.80	1.434	3.02	0.49	6.50	-68.6	"	"
1724	4	200	"	1.0	6.78	1.450	2.20	0.48	6.51	-70.3	"	"

Constituents Sampled	Container	Number	Preservative
VOCs	VOA	3	HCl
GRO	VOA	3	HCl
BRO/RRO	Small Amber	2	HCl
EDB	Small Amber	1	—
PAHs	Amber	2	—
Diss. Lead	Poly	1	—

Well Casing Volumes

Gallons/Foot: 1" = 0.04; 1.25" = 0.06; 1.5" = 0.09; 2" = 0.16; 2.5" = 0.26; 3" = 0.37; 3.5" = 0.50; 4" = 0.65; 6" = 1.47

Well Information

Well Location: Pavement | Well Locked at Arrival: (Yes) / No

Condition of Well: Good | Well Locked at Departure: (Yes) / No

Well Completion: (Flush Mount) / Stick Up | Key Number To Well: 3916

GW Samp Form 9/25/2009

ARCADIS Groundwater Sampling Form

Page 1 of 1

Project No. B0045507 | Well ID MW-1 | Date 10/7/09

Project Name/Location FIA Unocal 306443 / Fairbanks, AK | Weather P. Sunny, 40s

Measuring Pt. Description TOC | Screen Setting (ft-bmp) | Casing Diameter (in.) 2" | Well Material ✓ PVC / SS

Static Water Level (ft-btoc) 10.75 | Total Depth (ft-btoc) | Water Column/ Gallons in Well | Initial PID Reading (ppm) 50.9

TOC Elevation | Pump Intake (ft-btoc) | Purge Method: Peristaltic / Centrifugal / Submersible / Other ✓ | Sample Method Peristaltic

Pump On/Off | Volumes Purged

Sample Time: Label 1025 / Start / End | Replicate/ Code No. N/A | Sampled by MLS

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (µMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance Color	Appearance Odor
0953	0	200	10.75	0.1	6.29	1.582	5.99	0.88	6.79	-133.8	Clear	None
0957	4	200	"	0.3	6.26	1.542	5.00	0.55	6.56	-135.0	"	"
1002	5	200	"	0.5	6.24	1.525	1.74	0.33	6.54	-119.6	"	"
1006	4	200	"	0.6	6.25	1.518	2.12	0.29	6.50	-108.6	"	"
1010	4	200	"	0.7	6.26	1.513	1.16	0.27	6.47	-100.3	"	"
1014	4	200	"	0.9	6.27	1.506	1.27	0.23	6.44	-96.6	"	"
1018	4	200	"	1.1	6.29	1.501	1.13	0.18	6.45	-93.9	"	"

Constituents Sampled	Container	Number	Preservative
VOCs	VOA	3	HCl
GRO	VOA	3	HCl
DRO/RRO	Small Amber	2	HCl
EDB	Small Amber	1	—
PAHs	Amber	2	—
Diss. Lead	Poly	1	—

Well Casing Volumes

Gallons/Foot: 1" = 0.04 | 1.25" = 0.06 | 1.5" = 0.09 | 2" = 0.16 | 2.5" = 0.26 | 3" = 0.37 | 3.5" = 0.50 | 4" = 0.65 | 6" = 1.47

Well Information

Well Location: Pavement | Well Locked at Arrival: (Yes) / No

Condition of Well: Good | Well Locked at Departure: (Yes) / No

Well Completion: (Flush Mount) / Stick Up | Key Number To Well: 3910

GW Samp Form 9/25/2009

ARCADIS Groundwater Sampling Form

Project No. 30643 Well ID MW-2 Date 10/6/09

Project Name/Location FIA Texaco Weather 40° overcast

Measuring Pt. Description ____ Screen Setting (ft-bmp) ____ Casing Diameter (in.) 2 Well Material X PVC ___ SS

Static Water Level (ft-btoc) 9.89 Total Depth (ft-btoc) ____ Water Column/ Gallons in Well ____ Initial PID Reading (ppm) ____

TOC Elevation ____ Pump Intake (ft-btoc) ____ Purge Method: ____ Centrifugal ____ Submersible ____ Other ____ Sample Method ____

Pump On/Off ____ Volumes Purged ____

Sample Time: Label ____ Start ____ End ____ Replicate/ Code No. ____ Sampled by ____

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (µMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance Color	Appearance Odor
14:00	0	4.08	9.93	0	5.58	0.671	193	14.83	8.64	272.2	orange	no
14:04	4	4.10	9.93	-	5.91	0.962	124	1.63	7.91	204.0	"	"
14:11	11	4.12	9.93	<0.5	5.52	0.962	105.4	1.34	7.91	199.2	"	"
14:15	15	4.12	9.93	<0.5	6.03	0.960	104.0	0.83	7.92	174.8	"	"
14:18	18	4.13	9.93	0.5	6.23	0.954	93.9	0.62	7.90	123.3	"	"
14:23	23	14.11	9.93	20.5	6.26	0.952	85.8	0.59	7.93	113.5	"	"
14:27	27	14.12	9.93	<0.5	6.29	0.950	81.8	0.57	7.97	106.5	"	"
14:29	29	14.12	9.93	0.75	6.35	0.948	80.5	0.65	7.98	93.4	"	"
14:33	33	14.12	9.93	<1	6.43	0.949	73.1	0.66	8.05	76.5	"	"
14:36	36	14.12	9.93	1	6.44	0.945	65.0	0.66	8.06	74.3	"	"
14:39	39	14.12	9.93	<1.5	6.46	0.949	43.4	0.50	8.11	68.8	"	"
14:42	42	14.12	9.93	1.5	6.47	0.949	31.3	0.51	8.16	67.4	"	"
14:47	47	14.12	9.93	<2	6.44	0.949	23.7	0.57	8.17	63.8	"	"
14:50	50	14.12	9.93	1.75	6.42	0.949	17.3	0.58	8.19	62.5	"	"
	sample @ 14:55											

Turbid Fe present

Constituents Sampled	Container	Number	Preservative
~~BTEX~~/GRO			
DRO			
RRO			
EDB			
PAH			
VOCs			
Dissolved Pb			

Well Casing Volumes

Gallons/Foot: 1" = 0.04; 1.25" = 0.06; 1.5" = 0.09; 2" = 0.16; 2.5" = 0.26; 3" = 0.37; 3.5" = 0.50; 4" = 0.65; 6" = 1.47

Well Information

Well Location: lot Well Locked at Arrival: (Yes) / No

Condition of Well: good Well Locked at Departure: (Yes) / No

Well Completion: (Flush Mount) / Stick Up Key Number To Well: ____

ARCADIS Groundwater Sampling Form

Page 1 of 1

Project No. B0045507 | Well ID MW-3 | Date 10/7/09

Project Name/Location FIA Unocal 306443 / Fairbanks, AK | Weather P. Sunny, 40s

Measuring Pt. Description TOC | Screen Setting (ft-bmp) | Casing Diameter (in.) 2" | Well Material ✓ PVC / SS

Static Water Level (ft-btoc) 10.15 | Total Depth (ft-btoc) | Water Column/ Gallons in Well | Initial PID Reading (ppm) 10.4

TOC Elevation | Pump Intake (ft-btoc) | Purge Method: peristaltic / Centrifugal / Submersible / Other ✓ | Sample Method Peristaltic

Pump On/Off | Volumes Purged

Sample Time: Label 1120 / Start / End | Replicate/ Code No. N/A | Sampled by MLS

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (µMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance Color	Appearance Odor
1054	0	200	10.15	0.1	6.72	1.132	2.73	1.42	5.85	-73.8	Clear	Slight Petro-lite
1058	4	200	"	0.2	6.66	1.136	1.38	0.31	5.52	-80.3	"	"
1102	4	200	"	0.4	6.66	1.137	1.12	0.23	5.44	-83.1	"	"
1106	4	200	"	0.5	6.65	1.140	0.80	0.26	5.33	-87.5	"	"
1110	4	200	"	0.6	6.67	1.139	0.76	0.23	5.26	-90.6	"	"
1114	4	200	"	0.7	6.66	1.143	0.69	0.21	4.93	-92.1	"	"

Constituents Sampled	Container	Number	Preservative
VOCs	VOA	3	HCl
GRO	~~5 VOA~~ VOA	3	HCl
DRO/RRO	Small Amber	2	HCl
EDB	small Amber	1	—
PAHs	Amber	2	—
Diss. Lead	Poly	1	—

Well Casing Volumes

Gallons/Foot: 1" = 0.04 | 1.25" = 0.06 | 1.5" = 0.09 | 2" = 0.16 | 2.5" = 0.26 | 3" = 0.37 | 3.5" = 0.50 | 4" = 0.65 | 6" = 1.47

Well Information

Well Location: Pavement | Well Locked at Arrival: (Yes) / No

Condition of Well: Good | Well Locked at Departure: (Yes) / No

Well Completion: (Flush Mount) / Stick Up | Key Number To Well: 3910

GW Samp Form 9/25/2009

ARCADIS Groundwater Sampling Form

Page 1 of 1

Project No. B0045507 Well ID MW-4 Date 12/6/09

Project Name/Location FIA Unocal 306443/Fairbanks, AK Weather Cloudy, 40s

Measuring Pt. Description TOC Screen Setting (ft-bmp) _____ Casing Diameter (in.) 2" Well Material ✓ PVC ___ SS

Static Water Level (ft-btoc) 10.57 Total Depth (ft-btoc) _____ Water Column/ Gallons in Well _____ Initial PID Reading (ppm) 13.0

TOC Elevation _____ Pump Intake (ft-btoc) _____ Purge Method: Peristaltic Centrifugal _____ Submersible _____ Other ✓ Sample Method Peristaltic

Pump On/Off _____ Volumes Purged _____

Sample Time: Label 1440 Start _____ End _____ Replicate/ Code No. BD-1 Sampled by MLS

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (µMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance Color	Appearance Odor
1407	0	200	10.57	0.1	6.37	0.859	1.18	0.40	6.94	260.0	Clear	Slight Petro like
1415	8	200	"	0.3	6.34	0.807	0.48	0.43	6.48	256.1	"	"
1420	5	200	"	0.5	6.33	0.796	0.30	0.38	6.33	239.1	"	"
1424	4	200	"	0.7	6.33	0.790	0.21	0.28	6.28	212.9	"	"
1429	5	200	"	0.9	6.34	0.787	0.20	0.24	6.24	197.8	"	"
1435	6	200	"	1.1	6.38	0.784	0.12	0.21	6.20	177.8	"	"
1440	5	200	"	1.3	6.39	0.782	0.65	0.20	6.20	164.5	"	"

Constituents Sampled	Container	Number	Preservative
VOCs	VOA	3	HCl
GRO	VOA	3	HCl
DRO/RRO	Small Amber	2	HCl
EDB	Small Amber	1	—
PAHs	Amber	2	—
Diss. Lead	Poly	1	—

Well Casing Volumes

Gallons/Foot: 1" = 0.04; 1.25" = 0.06; 1.5" = 0.09; 2" = 0.16; 2.5" = 0.26; 3" = 0.37; 3.5" = 0.50; 4" = 0.65; 6" = 1.47

Well Information

Well Location: Pavement Well Locked at Arrival: (Yes) / No

Condition of Well: Good Well Locked at Departure: (Yes) / No

Well Completion: (Flush Mount) / Stick Up Key Number To Well: 3910

GW Samp Form 9/25/2009

ARCADIS Groundwater Sampling Form

Page 1 of 1

Project No. B0045507 | Well ID MW-5 | Date 10/7/09

Project Name/Location FIA Unocal 306443 / Fairbanks, AK | Weather P. Sunny, 40s

Measuring Pt. Description: TOC | Screen Setting (ft-bmp): | Casing Diameter (in.): 2" | Well Material: ✓ PVC / SS

Static Water Level (ft-btoc): 11.03 | Total Depth (ft-btoc): | Water Column/ Gallons in Well: | Initial PID Reading (ppm): 1.4

TOC Elevation: | Pump Intake (ft-btoc): | Purge Method: Peristaltic / Centrifugal / Submersible / Other ✓ | Sample Method: Peristaltic

Pump On/Off: | Volumes Purged:

Sample Time: Label 1220, Start, End | Replicate/ Code No.: N/A | Sampled by: MLS

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. ~~(µMhos)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) ~~(°F)~~	Redox (mV)	Appearance	
											Color	Odor
1153	0	200	11.03	0.1	6.61	0.995	8.08	0.63	5.21	-17.8	Clear	Slight Petrol
1157	4	200	"	0.2	6.56	0.992	10.79	0.32	5.22	-13.6	"	"
1201	4	200	"	0.3	6.52	0.991	8.91	0.30	5.25	-8.6	"	"
1205	4	200	"	0.5	6.50	0.992	8.00	0.27	5.30	-5.8	"	"
1209	4	200	"	0.6	6.48	0.995	5.49	0.27	5.32	-5.9	"	"
1213	4	200	"	0.8	6.47	0.998	8.07	0.25	5.33	-7.4	"	"

Constituents Sampled	Container	Number	Preservative
VOCs	VOA	3	HCl
GRO	VOA	3	HCl
DRO/RRO	Small Amber	2	HCl
EDB	Small Amber	1	—
PAHs	Amber	2	—
Diss. Lead	Poly	1	—

Well Casing Volumes

Gallons/Foot: 1" = 0.04; 1.25" = 0.06; 1.5" = 0.09; 2" = 0.16; 2.5" = 0.26; 3" = 0.37; 3.5" = 0.50; 4" = 0.65; 6" = 1.47

Well Information

Well Location: Pavement | Well Locked at Arrival: (Yes) / No

Condition of Well: Good | Well Locked at Departure: (Yes) / No

Well Completion: (Flush Mount) / Stick Up | Key Number To Well: 3910

GW Samp Form 9/25/2009

ARCADIS Groundwater Sampling Form

Page 1 of 1

Project No. B0045507 | Well ID RW-1 | Date 10/6/09

Project Name/Location FIA Unocal 306443 / Fairbanks, AK | Weather P. Cloudy, 40s

Measuring Pt. Description TOC | Screen Setting (ft-bmp) | Casing Diameter (in.) 2" | Well Material ✓ PVC ___ SS

Static Water Level (ft-btoc) 10.45 | Total Depth (ft-btoc) | Water Column/ Gallons in Well | Initial PID Reading (ppm) 436

TOC Elevation | Pump Intake (ft-btoc) | Purge Method: Peristaltic / Centrifugal / Submersible / Other ✓ | Sample Method Peristaltic

Pump On/Off | Volumes Purged

Sample Time: Label 1620 / Start / End | Replicate/ Code No. N/A | Sampled by MLS

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (µMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance Color	Appearance Odor
1546	0	200	10.45	0.1	6.81	0.870	0.50	0.38	6.77	-92.4	Clear	Petro-like
1552	10	200	"	0.6	6.77	0.871	0.42	0.29	6.81	-95.2	"	"
1602	16	200	"	0.9	6.75	0.873	8.62	0.27	6.85	-98.0	"	"
1610	8	200	"	1.2	6.73	0.873	0.61	0.25	6.85	-98.4	"	"
1614	4	200	"	1.4	6.72	0.873	0.34	0.22	6.82	-98.9	"	"

Constituents Sampled	Container	Number	Preservative
~~BTEX~~ VOCs	VOA	3	HCl
GRO	VOA	3	HCl
DRO/RRO	Small Amber	2	HCl
EDB	Small Amber	1	—
PAHs	Amber	2	—
Diss. Lead	Poly	1	—

Well Casing Volumes

Gallons/Foot: 1" = 0.04 | 1.25" = 0.06 | 1.5" = 0.09 | 2" = 0.16 | 2.5" = 0.26 | 3" = 0.37 | 3.5" = 0.50 | 4" = 0.65 | 6" = 1.47

Well Information

Well Location: Gravel | Well Locked at Arrival: (Yes) / No

Condition of Well: Good | Well Locked at Departure: (Yes) / No

Well Completion: (Flush Mount) / Stick Up | Key Number To Well: 3910

GW Samp Form 9/25/2009

ARCADIS

Appendix B

Laboratory Analytical Reports

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANCHORAGE, AK 2000 W INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

October 22, 2009

Greg Montgomery
Arcadis - Seattle
2300 East Lake Ave East Suite 100
Seattle, WA 98102

RE: FIA Unocal

Enclosed are the results of analyses for samples received by the laboratory on 10/08/09 10:30. The following list is a summary of the Work Orders contained in this report, generated on 10/22/09 14:19.

If you have any questions concerning this report, please feel free to contact me.

Work Order	Project	ProjectNumber
ASJ0044	FIA Unocal	306443

TestAmerica Anchorage

Johanna Dreher

Johanna L Dreher, Client Services Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

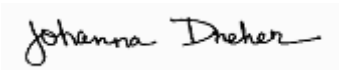
ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/22/09 14:19

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-2	ASJ0044-01	Water	10/06/09 14:55	10/08/09 10:30
MW-4	ASJ0044-02	Water	10/06/09 14:40	10/08/09 10:30
GEI-4	ASJ0044-03	Water	10/06/09 16:45	10/08/09 10:30
GEI-8	ASJ0044-04	Water	10/06/09 17:25	10/08/09 10:30
RW-1	ASJ0044-05	Water	10/06/09 16:20	10/08/09 10:30
BD-1	ASJ0044-06	Water	10/06/09 00:00	10/08/09 10:30
Trip Blank	ASJ0044-07	Water	10/06/09 00:00	10/08/09 10:30

TestAmerica Anchorage



Johanna L Dreher, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

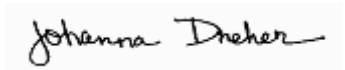
Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/22/09 14:19

Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO

TestAmerica Anchorage

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0044-01 (MW-2)			**Water**				**Sampled: 10/06/09 14:55**				
Diesel Range Organics	AK102/103	ND	-----	0.410	mg/l	1x	9100088	10/19/09 15:19	10/20/09 17:19	JN	
Residual Range Organics	"	ND	-----	0.410	"	"	"	"	"	JN	
Surrogate(s): 1-Chlorooctadecane			*99.3%*		*50 - 150 %*	"			"		
Triacontane			*84.0%*		*50 - 150 %*	"			"		
ASJ0044-02 (MW-4)			**Water**				**Sampled: 10/06/09 14:40**				
Diesel Range Organics	AK102/103	ND	-----	0.391	mg/l	1x	9100088	10/19/09 15:19	10/20/09 17:50	JN	
Residual Range Organics	"	ND	-----	0.391	"	"	"	"	"	JN	
Surrogate(s): 1-Chlorooctadecane			*89.5%*		*50 - 150 %*	"			"		
Triacontane			*92.7%*		*50 - 150 %*	"			"		
ASJ0044-03 (GEI-4)			**Water**				**Sampled: 10/06/09 16:45**				
Diesel Range Organics	AK102/103	**5.82**	-----	0.397	mg/l	1x	9100088	10/19/09 15:19	10/20/09 17:50	JN	
Residual Range Organics	"	**0.787**	-----	0.397	"	"	"	"	"	JN	
Surrogate(s): 1-Chlorooctadecane			*99.6%*		*50 - 150 %*	"			"		
Triacontane			*86.7%*		*50 - 150 %*	"			"		
ASJ0044-04 (GEI-8)			**Water**				**Sampled: 10/06/09 17:25**				
Diesel Range Organics	AK102/103	**0.942**	-----	0.391	mg/l	1x	9100088	10/19/09 15:19	10/20/09 18:22	JN	
Residual Range Organics	"	ND	-----	0.391	"	"	"	"	"	JN	
Surrogate(s): 1-Chlorooctadecane			*89.3%*		*50 - 150 %*	"			"		
Triacontane			*92.5%*		*50 - 150 %*	"			"		
ASJ0044-05 (RW-1)			**Water**				**Sampled: 10/06/09 16:20**				
Diesel Range Organics	AK102/103	**4.26**	-----	0.385	mg/l	1x	9100088	10/19/09 15:19	10/20/09 18:22	JN	
Residual Range Organics	"	**0.512**	-----	0.385	"	"	"	"	"	JN	
Surrogate(s): 1-Chlorooctadecane			*101%*		*50 - 150 %*	"			"		
Triacontane			*88.0%*		*50 - 150 %*	"			"		
ASJ0044-06 (BD-1)			**Water**				**Sampled: 10/06/09 00:00**				
Diesel Range Organics	AK102/103	ND	-----	0.403	mg/l	1x	9100088	10/19/09 15:19	10/20/09 18:53	JN	
Residual Range Organics	"	ND	-----	0.403	"	"	"	"	"	JN	
Surrogate(s): 1-Chlorooctadecane			*89.6%*		*50 - 150 %*	"			"		
Triacontane			*92.0%*		*50 - 150 %*	"			"		

TestAmerica Anchorage



Johanna L Dreher, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/22/09 14:19

Gasoline Range Organics (C6-C10) per AK101-MS

TestAmerica Anchorage

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0044-01 (MW-2)			**Water**				**Sampled: 10/06/09 14:55**				
Gasoline Range Organics	AK101 - MS	ND	-----	50.0	ug/l	1x	9100053	10/12/09 15:49	10/13/09 06:06	ds	
Surrogate(s): 4-BFB			*98.0%*		*85 - 115 %*	"			"		
Dibromofluoromethane			*110%*		*65 - 125 %*	"			"		
Toluene-d8			*98.1%*		*78 - 115 %*	"			"		
ASJ0044-02 (MW-4)			**Water**				**Sampled: 10/06/09 14:40**				
Gasoline Range Organics	AK101 - MS	ND	-----	50.0	ug/l	1x	9100053	10/12/09 15:49	10/13/09 06:35	ds	
Surrogate(s): 4-BFB			*99.5%*		*85 - 115 %*	"			"		
Dibromofluoromethane			*110%*		*65 - 125 %*	"			"		
Toluene-d8			*96.3%*		*78 - 115 %*	"			"		
ASJ0044-03 (GEI-4)			**Water**				**Sampled: 10/06/09 16:45**				
Gasoline Range Organics	AK101 - MS	**305**	-----	50.0	ug/l	1x	9100053	10/12/09 15:49	10/13/09 07:04	ds	
Surrogate(s): 4-BFB			*92.2%*		*85 - 115 %*	"			"		
Dibromofluoromethane			*110%*		*65 - 125 %*	"			"		
Toluene-d8			*98.0%*		*78 - 115 %*	"			"		
ASJ0044-04 (GEI-8)			**Water**				**Sampled: 10/06/09 17:25**				
Gasoline Range Organics	AK101 - MS	**50.9**	-----	50.0	ug/l	1x	9100053	10/12/09 15:49	10/13/09 07:33	ds	
Surrogate(s): 4-BFB			*97.0%*		*85 - 115 %*	"			"		
Dibromofluoromethane			*108%*		*65 - 125 %*	"			"		
Toluene-d8			*98.8%*		*78 - 115 %*	"			"		
ASJ0044-05 (RW-1)			**Water**				**Sampled: 10/06/09 16:20**				
Gasoline Range Organics	AK101 - MS	**172**	-----	50.0	ug/l	1x	9100053	10/12/09 15:49	10/13/09 09:58	ds	
Surrogate(s): 4-BFB			*93.0%*		*85 - 115 %*	"			"		
Dibromofluoromethane			*110%*		*65 - 125 %*	"			"		
Toluene-d8			*97.8%*		*78 - 115 %*	"			"		
ASJ0044-06 (BD-1)			**Water**				**Sampled: 10/06/09 00:00**				
Gasoline Range Organics	AK101 - MS	ND	-----	50.0	ug/l	1x	9100053	10/12/09 15:49	10/13/09 10:27	ds	
Surrogate(s): 4-BFB			*97.4%*		*85 - 115 %*	"			"		
Dibromofluoromethane			*107%*		*65 - 125 %*	"			"		
Toluene-d8			*97.5%*		*78 - 115 %*	"			"		

TestAmerica Anchorage

Johanna Dreher

Johanna L Dreher, Client Services Manager

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ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/22/09 14:19

Gasoline Range Organics (C6-C10) per AK101-MS

TestAmerica Anchorage

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0044-07 (Trip Blank)		**Water**				**Sampled: 10/06/09 00:00**					
Gasoline Range Organics	AK101 - MS	ND	-----	50.0	ug/l	1x	9100053	10/12/09 15:49	10/13/09 04:10	ds	
Surrogate(s): 4-BFB			*102%*			*85 - 115 %*	"			"	
Dibromofluoromethane			*110%*			*65 - 125 %*	"			"	
Toluene-d8			*97.3%*			*78 - 115 %*	"			"	

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ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/22/09 14:19

EDB by EPA Method 8011

TestAmerica Spokane

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0044-01 (MW-2)			**Water**				**Sampled: 10/06/09 14:55**				
1,2-Dibromoethane	EPA 8011	ND	-----	0.0100	ug/l	1x	9100055	10/09/09 07:14	10/14/09 14:26	Mat	
ASJ0044-02 (MW-4)			**Water**				**Sampled: 10/06/09 14:40**				
1,2-Dibromoethane	EPA 8011	ND	-----	0.0100	ug/l	1x	9100055	10/09/09 07:14	10/14/09 14:51	Mat	
ASJ0044-03 (GEI-4)			**Water**				**Sampled: 10/06/09 16:45**				
1,2-Dibromoethane	EPA 8011	ND	-----	0.0100	ug/l	1x	9100055	10/09/09 07:14	10/14/09 15:17	Mat	
ASJ0044-04 (GEI-8)			**Water**				**Sampled: 10/06/09 17:25**				
1,2-Dibromoethane	EPA 8011	ND	-----	0.0100	ug/l	1x	9100055	10/09/09 07:14	10/14/09 15:43	Mat	
ASJ0044-05 (RW-1)			**Water**				**Sampled: 10/06/09 16:20**				
1,2-Dibromoethane	EPA 8011	ND	-----	0.0100	ug/l	1x	9100055	10/09/09 07:14	10/14/09 16:09	Mat	
ASJ0044-06 (BD-1)			**Water**				**Sampled: 10/06/09 00:00**				
1,2-Dibromoethane	EPA 8011	ND	-----	0.0100	ug/l	1x	9100055	10/09/09 07:14	10/14/09 16:35	Mat	

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CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/22/09 14:19

Volatile Organic Compounds by EPA Method 8260B

TestAmerica Spokane

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0044-01 (MW-2)		**Water**				**Sampled: 10/06/09 14:55**					
Dichlorodifluoromethane	EPA 8260B	ND	-----	1.00	ug/l	1x	9100077	10/14/09 08:31	10/14/09 11:35	Chr	
Chloromethane	"	ND	-----	5.00	"	"	"	"	"	Chr	
Vinyl chloride	"	ND	-----	0.200	"	"	"	"	"	Chr	
Bromomethane	"	ND	-----	5.00	"	"	"	"	"	Chr	
Chloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Trichlorofluoromethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1-Dichloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Carbon disulfide	"	ND	-----	1.00	"	"	"	"	"	Chr	
Methylene chloride	"	ND	-----	10.0	"	"	"	"	"	Chr	
Acetone	"	ND	-----	25.0	"	"	"	"	"	Chr	
trans-1,2-Dichloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Methyl tert-butyl ether	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1-Dichloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
cis-1,2-Dichloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
2,2-Dichloropropane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Bromochloromethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Chloroform	"	ND	-----	1.00	"	"	"	"	"	Chr	
Carbon tetrachloride	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1,1-Trichloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
2-Butanone	"	ND	-----	10.0	"	"	"	"	"	Chr	
1,1-Dichloropropene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Benzene	"	ND	-----	0.200	"	"	"	"	"	Chr	
1,2-Dichloroethane (EDC)	"	ND	-----	1.00	"	"	"	"	"	Chr	
Trichloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Dibromomethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2-Dichloropropane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Bromodichloromethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
cis-1,3-Dichloropropene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Toluene	"	ND	-----	1.00	"	"	"	"	"	Chr	
4-Methyl-2-pentanone	"	ND	-----	10.0	"	"	"	"	"	Chr	
trans-1,3-Dichloropropene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Tetrachloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1,2-Trichloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Dibromochloromethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,3-Dichloropropane	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2-Dibromoethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
2-Hexanone	"	ND	-----	10.0	"	"	"	"	"	Chr	

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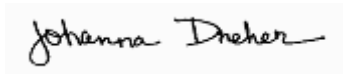

Johanna L Dreher, Client Services Manager

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ANCHORAGE, AK 99502-1119
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CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/22/09 14:19

Volatile Organic Compounds by EPA Method 8260B

TestAmerica Spokane

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0044-01 (MW-2)		**Water**				**Sampled: 10/06/09 14:55**					
Ethylbenzene	EPA 8260B	ND	-----	1.00	ug/l	1x	9100077	10/14/09 08:31	10/14/09 11:35	Chr	
Chlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1,1,2-Tetrachloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
m,p-Xylene	"	ND	-----	2.00	"	"	"	"	"	Chr	
o-Xylene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Styrene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Bromoform	"	ND	-----	1.00	"	"	"	"	"	Chr	
Isopropylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
n-Propylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1,2,2-Tetrachloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Bromobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,3,5-Trimethylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
2-Chlorotoluene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2,3-Trichloropropane	"	ND	-----	1.00	"	"	"	"	"	Chr	
4-Chlorotoluene	"	ND	-----	1.00	"	"	"	"	"	Chr	
tert-Butylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2,4-Trimethylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
sec-Butylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
p-Isopropyltoluene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,3-Dichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,4-Dichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
n-Butylbenzene	"	**1.00**	-----	1.00	"	"	"	"	"	Chr	
1,2-Dichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2-Dibromo-3-chloropropane	"	ND	-----	5.00	"	"	"	"	"	Chr	
Hexachlorobutadiene	"	ND	-----	2.00	"	"	"	"	"	Chr	
1,2,4-Trichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Naphthalene	"	ND	-----	2.00	"	"	"	"	"	Chr	
1,2,3-Trichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	

Surrogate(s):	*Dibromofluoromethane*	*85.4%*	*62.2 - 128 %*	"	"
	Toluene-d8	*87.8%*	*75.4 - 120 %*	"	"
	4-bromofluorobenzene	*117%*	*77.3 - 129 %*	"	"

TestAmerica Anchorage

Johanna Dreher

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ANCHORAGE, AK 99502-1119
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CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/22/09 14:19

Volatile Organic Compounds by EPA Method 8260B

TestAmerica Spokane

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0044-02 (MW-4)		**Water**				**Sampled: 10/06/09 14:40**					
Dichlorodifluoromethane	EPA 8260B	ND	-----	1.00	ug/l	1x	9100077	10/14/09 08:31	10/14/09 12:03	Chr	
Chloromethane	"	ND	-----	5.00	"	"	"	"	"	Chr	
Vinyl chloride	"	ND	-----	0.200	"	"	"	"	"	Chr	
Bromomethane	"	ND	-----	5.00	"	"	"	"	"	Chr	
Chloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Trichlorofluoromethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1-Dichloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Carbon disulfide	"	ND	-----	1.00	"	"	"	"	"	Chr	
Methylene chloride	"	ND	-----	10.0	"	"	"	"	"	Chr	
Acetone	"	ND	-----	25.0	"	"	"	"	"	Chr	
trans-1,2-Dichloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Methyl tert-butyl ether	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1-Dichloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
cis-1,2-Dichloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
2,2-Dichloropropane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Bromochloromethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Chloroform	"	ND	-----	1.00	"	"	"	"	"	Chr	
Carbon tetrachloride	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1,1-Trichloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
2-Butanone	"	ND	-----	10.0	"	"	"	"	"	Chr	
1,1-Dichloropropene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Benzene	"	ND	-----	0.200	"	"	"	"	"	Chr	
1,2-Dichloroethane (EDC)	"	ND	-----	1.00	"	"	"	"	"	Chr	
Trichloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Dibromomethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2-Dichloropropane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Bromodichloromethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
cis-1,3-Dichloropropene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Toluene	"	ND	-----	1.00	"	"	"	"	"	Chr	
4-Methyl-2-pentanone	"	ND	-----	10.0	"	"	"	"	"	Chr	
trans-1,3-Dichloropropene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Tetrachloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1,2-Trichloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Dibromochloromethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,3-Dichloropropane	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2-Dibromoethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
2-Hexanone	"	ND	-----	10.0	"	"	"	"	"	Chr	

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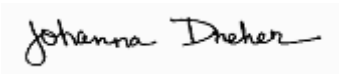

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CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/22/09 14:19

Volatile Organic Compounds by EPA Method 8260B

TestAmerica Spokane

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0044-02 (MW-4)		**Water**				**Sampled: 10/06/09 14:40**					
Ethylbenzene	EPA 8260B	ND	-----	1.00	ug/l	1x	9100077	10/14/09 08:31	10/14/09 12:03	Chr	
Chlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1,1,2-Tetrachloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
m,p-Xylene	"	ND	-----	2.00	"	"	"	"	"	Chr	
o-Xylene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Styrene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Bromoform	"	ND	-----	1.00	"	"	"	"	"	Chr	
Isopropylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
n-Propylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1,2,2-Tetrachloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Bromobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,3,5-Trimethylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
2-Chlorotoluene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2,3-Trichloropropane	"	ND	-----	1.00	"	"	"	"	"	Chr	
4-Chlorotoluene	"	ND	-----	1.00	"	"	"	"	"	Chr	
tert-Butylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2,4-Trimethylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
sec-Butylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
p-Isopropyltoluene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,3-Dichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,4-Dichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
n-Butylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2-Dichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2-Dibromo-3-chloropropane	"	ND	-----	5.00	"	"	"	"	"	Chr	
Hexachlorobutadiene	"	ND	-----	2.00	"	"	"	"	"	Chr	
1,2,4-Trichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Naphthalene	"	ND	-----	2.00	"	"	"	"	"	Chr	
1,2,3-Trichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	

Surrogate(s):	*Dibromofluoromethane*	*86.4%*	*62.2 - 128 %*	"	"
	Toluene-d8	*90.8%*	*75.4 - 120 %*	"	"
	4-bromofluorobenzene	*102%*	*77.3 - 129 %*	"	"

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CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/22/09 14:19

Volatile Organic Compounds by EPA Method 8260B

TestAmerica Spokane

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0044-03 (GEI-4)		**Water**				**Sampled: 10/06/09 16:45**					
Dichlorodifluoromethane	EPA 8260B	ND	-----	1.00	ug/l	1x	9100077	10/14/09 08:31	10/14/09 12:32	Chr	
Chloromethane	"	ND	-----	5.00	"	"	"	"	"	Chr	
Vinyl chloride	"	ND	-----	0.200	"	"	"	"	"	Chr	
Bromomethane	"	ND	-----	5.00	"	"	"	"	"	Chr	
Chloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Trichlorofluoromethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1-Dichloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Carbon disulfide	"	ND	-----	1.00	"	"	"	"	"	Chr	
Methylene chloride	"	ND	-----	10.0	"	"	"	"	"	Chr	
Acetone	"	ND	-----	25.0	"	"	"	"	"	Chr	
trans-1,2-Dichloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Methyl tert-butyl ether	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1-Dichloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
cis-1,2-Dichloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
2,2-Dichloropropane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Bromochloromethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Chloroform	"	ND	-----	1.00	"	"	"	"	"	Chr	
Carbon tetrachloride	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1,1-Trichloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
2-Butanone	"	ND	-----	10.0	"	"	"	"	"	Chr	
1,1-Dichloropropene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Benzene	"	**15.7**	-----	0.200	"	"	"	"	"	Chr	
1,2-Dichloroethane (EDC)	"	ND	-----	1.00	"	"	"	"	"	Chr	
Trichloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Dibromomethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2-Dichloropropane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Bromodichloromethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
cis-1,3-Dichloropropene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Toluene	"	ND	-----	1.00	"	"	"	"	"	Chr	
4-Methyl-2-pentanone	"	ND	-----	10.0	"	"	"	"	"	Chr	
trans-1,3-Dichloropropene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Tetrachloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1,2-Trichloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Dibromochloromethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,3-Dichloropropane	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2-Dibromoethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
2-Hexanone	"	ND	-----	10.0	"	"	"	"	"	Chr	

TestAmerica Anchorage

Johanna L Dreher, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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THE LEADER IN ENVIRONMENTAL TESTING

ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/22/09 14:19

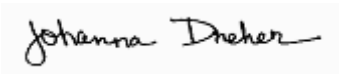
Volatile Organic Compounds by EPA Method 8260B

TestAmerica Spokane

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0044-03 (GEI-4)		**Water**				**Sampled: 10/06/09 16:45**					
Ethylbenzene	EPA 8260B	**17.3**	-----	1.00	ug/l	1x	9100077	10/14/09 08:31	10/14/09 12:32	Chr	
Chlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1,1,2-Tetrachloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
m,p-Xylene	"	**25.7**	-----	2.00	"	"	"	"	"	Chr	
o-Xylene	"	**8.07**	-----	1.00	"	"	"	"	"	Chr	
Styrene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Bromoform	"	ND	-----	1.00	"	"	"	"	"	Chr	
Isopropylbenzene	"	**17.0**	-----	1.00	"	"	"	"	"	Chr	
n-Propylbenzene	"	**17.6**	-----	1.00	"	"	"	"	"	Chr	
1,1,2,2-Tetrachloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Bromobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,3,5-Trimethylbenzene	"	**9.02**	-----	1.00	"	"	"	"	"	Chr	
2-Chlorotoluene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2,3-Trichloropropane	"	ND	-----	1.00	"	"	"	"	"	Chr	
4-Chlorotoluene	"	ND	-----	1.00	"	"	"	"	"	Chr	
tert-Butylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2,4-Trimethylbenzene	"	**62.7**	-----	10.0	"	10x	"	"	10/14/09 18:51	Chr	
sec-Butylbenzene	"	**10.9**	-----	1.00	"	1x	"	"	10/14/09 12:32	Chr	
p-Isopropyltoluene	"	**5.89**	-----	1.00	"	"	"	"	"	Chr	
1,3-Dichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,4-Dichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
n-Butylbenzene	"	**8.35**	-----	1.00	"	"	"	"	"	Chr	
1,2-Dichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2-Dibromo-3-chloropropane	"	ND	-----	5.00	"	"	"	"	"	Chr	
Hexachlorobutadiene	"	ND	-----	2.00	"	"	"	"	"	Chr	
1,2,4-Trichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Naphthalene	"	**33.2**	-----	2.00	"	"	"	"	"	Chr	
1,2,3-Trichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	

Surrogate(s):	*Dibromofluoromethane*	*87.6%*	*62.2 - 128 %*	"	"
	Toluene-d8	*90.4%*	*75.4 - 120 %*	"	"
	4-bromofluorobenzene	*126%*	*77.3 - 129 %*	"	"

TestAmerica Anchorage



Johanna L Dreher, Client Services Manager

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ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/22/09 14:19

Volatile Organic Compounds by EPA Method 8260B

TestAmerica Spokane

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0044-04 (GEI-8)		**Water**				**Sampled: 10/06/09 17:25**					
Dichlorodifluoromethane	EPA 8260B	ND	-----	1.00	ug/l	1x	9100077	10/14/09 08:31	10/14/09 13:00	Chr	
Chloromethane	"	ND	-----	5.00	"	"	"	"	"	Chr	
Vinyl chloride	"	ND	-----	0.200	"	"	"	"	"	Chr	
Bromomethane	"	ND	-----	5.00	"	"	"	"	"	Chr	
Chloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Trichlorofluoromethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1-Dichloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Carbon disulfide	"	ND	-----	1.00	"	"	"	"	"	Chr	
Methylene chloride	"	ND	-----	10.0	"	"	"	"	"	Chr	
Acetone	"	ND	-----	25.0	"	"	"	"	"	Chr	
trans-1,2-Dichloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Methyl tert-butyl ether	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1-Dichloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
cis-1,2-Dichloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
2,2-Dichloropropane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Bromochloromethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Chloroform	"	ND	-----	1.00	"	"	"	"	"	Chr	
Carbon tetrachloride	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1,1-Trichloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
2-Butanone	"	ND	-----	10.0	"	"	"	"	"	Chr	
1,1-Dichloropropene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Benzene	"	ND	-----	0.200	"	"	"	"	"	Chr	
1,2-Dichloroethane (EDC)	"	ND	-----	1.00	"	"	"	"	"	Chr	
Trichloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Dibromomethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2-Dichloropropane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Bromodichloromethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
cis-1,3-Dichloropropene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Toluene	"	ND	-----	1.00	"	"	"	"	"	Chr	
4-Methyl-2-pentanone	"	ND	-----	10.0	"	"	"	"	"	Chr	
trans-1,3-Dichloropropene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Tetrachloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1,2-Trichloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Dibromochloromethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,3-Dichloropropane	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2-Dibromoethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
2-Hexanone	"	ND	-----	10.0	"	"	"	"	"	Chr	

TestAmerica Anchorage

Johanna Dreher

Johanna L Dreher, Client Services Manager

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ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
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CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/22/09 14:19

Volatile Organic Compounds by EPA Method 8260B

TestAmerica Spokane

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0044-04 (GEI-8)		**Water**				**Sampled: 10/06/09 17:25**					
Ethylbenzene	EPA 8260B	ND	-----	1.00	ug/l	1x	9100077	10/14/09 08:31	10/14/09 13:00	Chr	
Chlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1,1,2-Tetrachloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
m,p-Xylene	"	ND	-----	2.00	"	"	"	"	"	Chr	
o-Xylene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Styrene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Bromoform	"	ND	-----	1.00	"	"	"	"	"	Chr	
Isopropylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
n-Propylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1,2,2-Tetrachloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Bromobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,3,5-Trimethylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
2-Chlorotoluene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2,3-Trichloropropane	"	ND	-----	1.00	"	"	"	"	"	Chr	
4-Chlorotoluene	"	ND	-----	1.00	"	"	"	"	"	Chr	
tert-Butylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2,4-Trimethylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
sec-Butylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
p-Isopropyltoluene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,3-Dichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,4-Dichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
n-Butylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2-Dichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2-Dibromo-3-chloropropane	"	ND	-----	5.00	"	"	"	"	"	Chr	
Hexachlorobutadiene	"	ND	-----	2.00	"	"	"	"	"	Chr	
1,2,4-Trichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Naphthalene	"	ND	-----	2.00	"	"	"	"	"	Chr	
1,2,3-Trichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	

Surrogate(s):	*Dibromofluoromethane*	*86.4%*	*62.2 - 128 %*	"	"
	Toluene-d8	*90.8%*	*75.4 - 120 %*	"	"
	4-bromofluorobenzene	*105%*	*77.3 - 129 %*	"	"

TestAmerica Anchorage

Johanna Dreher

Johanna L Dreher, Client Services Manager

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ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
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CS Approval Number: UST-067

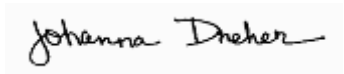
Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/22/09 14:19

Volatile Organic Compounds by EPA Method 8260B

TestAmerica Spokane

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0044-05 (RW-1)		**Water**				**Sampled: 10/06/09 16:20**					
Dichlorodifluoromethane	EPA 8260B	ND	-----	1.00	ug/l	1x	9100077	10/14/09 08:31	10/14/09 19:20	Chr	
Chloromethane	"	ND	-----	5.00	"	"	"	"	"	Chr	
Vinyl chloride	"	ND	-----	0.200	"	"	"	"	"	Chr	
Bromomethane	"	ND	-----	5.00	"	"	"	"	"	Chr	
Chloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Trichlorofluoromethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1-Dichloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Carbon disulfide	"	ND	-----	1.00	"	"	"	"	"	Chr	
Methylene chloride	"	ND	-----	10.0	"	"	"	"	"	Chr	
Acetone	"	ND	-----	25.0	"	"	"	"	"	Chr	
trans-1,2-Dichloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Methyl tert-butyl ether	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1-Dichloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
cis-1,2-Dichloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
2,2-Dichloropropane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Bromochloromethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Chloroform	"	ND	-----	1.00	"	"	"	"	"	Chr	
Carbon tetrachloride	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1,1-Trichloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
2-Butanone	"	ND	-----	10.0	"	"	"	"	"	Chr	
1,1-Dichloropropene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Benzene	"	ND	-----	0.200	"	"	"	"	"	Chr	
1,2-Dichloroethane (EDC)	"	ND	-----	1.00	"	"	"	"	"	Chr	
Trichloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Dibromomethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2-Dichloropropane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Bromodichloromethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
cis-1,3-Dichloropropene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Toluene	"	ND	-----	1.00	"	"	"	"	"	Chr	
4-Methyl-2-pentanone	"	ND	-----	10.0	"	"	"	"	"	Chr	
trans-1,3-Dichloropropene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Tetrachloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1,2-Trichloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Dibromochloromethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,3-Dichloropropane	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2-Dibromoethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
2-Hexanone	"	ND	-----	10.0	"	"	"	"	"	Chr	

TestAmerica Anchorage



Johanna L Dreher, Client Services Manager

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CS Approval Number: UST-067

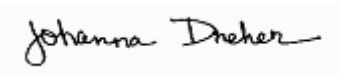
Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/22/09 14:19

Volatile Organic Compounds by EPA Method 8260B

TestAmerica Spokane

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0044-05 (RW-1)		**Water**			**Sampled: 10/06/09 16:20**						
Ethylbenzene	EPA 8260B	**1.04**	-----	1.00	ug/l	1x	9100077	10/14/09 08:31	10/14/09 19:20	Chr	
Chlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1,1,2-Tetrachloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
m,p-Xylene	"	**2.25**	-----	2.00	"	"	"	"	"	Chr	
o-Xylene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Styrene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Bromoform	"	ND	-----	1.00	"	"	"	"	"	Chr	
Isopropylbenzene	"	**2.49**	-----	1.00	"	"	"	"	"	Chr	
n-Propylbenzene	"	**5.14**	-----	1.00	"	"	"	"	"	Chr	
1,1,2,2-Tetrachloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Bromobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,3,5-Trimethylbenzene	"	**28.8**	-----	1.00	"	"	"	"	"	Chr	
2-Chlorotoluene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2,3-Trichloropropane	"	ND	-----	1.00	"	"	"	"	"	Chr	
4-Chlorotoluene	"	ND	-----	1.00	"	"	"	"	"	Chr	
tert-Butylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2,4-Trimethylbenzene	"	**31.1**	-----	1.00	"	"	"	"	"	Chr	
sec-Butylbenzene	"	**3.14**	-----	1.00	"	"	"	"	"	Chr	
p-Isopropyltoluene	"	**3.21**	-----	1.00	"	"	"	"	"	Chr	
1,3-Dichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,4-Dichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
n-Butylbenzene	"	**7.79**	-----	1.00	"	"	"	"	"	Chr	
1,2-Dichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2-Dibromo-3-chloropropane	"	ND	-----	5.00	"	"	"	"	"	Chr	
Hexachlorobutadiene	"	ND	-----	2.00	"	"	"	"	"	Chr	
1,2,4-Trichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Naphthalene	"	**5.64**	-----	2.00	"	"	"	"	"	Chr	
1,2,3-Trichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Surrogate(s):	*Dibromofluoromethane*		*91.0%*		*62.2 - 128 %*	"			"		
	Toluene-d8		*87.2%*		*75.4 - 120 %*	"			"		
	4-bromofluorobenzene		*144%*		*77.3 - 129 %*	"			"		***ZX***

TestAmerica Anchorage



Johanna L Dreher, Client Services Manager

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

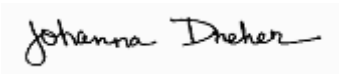
Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/22/09 14:19

Volatile Organic Compounds by EPA Method 8260B

TestAmerica Spokane

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0044-06 (BD-1)		**Water**				**Sampled: 10/06/09 00:00**					
Dichlorodifluoromethane	EPA 8260B	ND	-----	1.00	ug/l	1x	9100077	10/14/09 08:31	10/14/09 13:57	Chr	
Chloromethane	"	ND	-----	5.00	"	"	"	"	"	Chr	
Vinyl chloride	"	ND	-----	0.200	"	"	"	"	"	Chr	
Bromomethane	"	ND	-----	5.00	"	"	"	"	"	Chr	
Chloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Trichlorofluoromethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1-Dichloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Carbon disulfide	"	ND	-----	1.00	"	"	"	"	"	Chr	
Methylene chloride	"	ND	-----	10.0	"	"	"	"	"	Chr	
Acetone	"	ND	-----	25.0	"	"	"	"	"	Chr	
trans-1,2-Dichloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Methyl tert-butyl ether	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1-Dichloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
cis-1,2-Dichloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
2,2-Dichloropropane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Bromochloromethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Chloroform	"	ND	-----	1.00	"	"	"	"	"	Chr	
Carbon tetrachloride	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1,1-Trichloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
2-Butanone	"	ND	-----	10.0	"	"	"	"	"	Chr	
1,1-Dichloropropene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Benzene	"	ND	-----	0.200	"	"	"	"	"	Chr	
1,2-Dichloroethane (EDC)	"	ND	-----	1.00	"	"	"	"	"	Chr	
Trichloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Dibromomethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2-Dichloropropane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Bromodichloromethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
cis-1,3-Dichloropropene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Toluene	"	ND	-----	1.00	"	"	"	"	"	Chr	
4-Methyl-2-pentanone	"	ND	-----	10.0	"	"	"	"	"	Chr	
trans-1,3-Dichloropropene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Tetrachloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1,2-Trichloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Dibromochloromethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,3-Dichloropropane	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2-Dibromoethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
2-Hexanone	"	ND	-----	10.0	"	"	"	"	"	Chr	

TestAmerica Anchorage



Johanna L Dreher, Client Services Manager

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THE LEADER IN ENVIRONMENTAL TESTING

ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/22/09 14:19

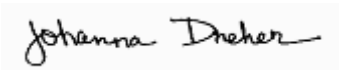
Volatile Organic Compounds by EPA Method 8260B

TestAmerica Spokane

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0044-06 (BD-1)		**Water**				**Sampled: 10/06/09 00:00**					
Ethylbenzene	EPA 8260B	ND	-----	1.00	ug/l	1x	9100077	10/14/09 08:31	10/14/09 13:57	Chr	
Chlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1,1,2-Tetrachloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
m,p-Xylene	"	ND	-----	2.00	"	"	"	"	"	Chr	
o-Xylene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Styrene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Bromoform	"	ND	-----	1.00	"	"	"	"	"	Chr	
Isopropylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
n-Propylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1,2,2-Tetrachloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Bromobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,3,5-Trimethylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
2-Chlorotoluene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2,3-Trichloropropane	"	ND	-----	1.00	"	"	"	"	"	Chr	
4-Chlorotoluene	"	ND	-----	1.00	"	"	"	"	"	Chr	
tert-Butylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2,4-Trimethylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
sec-Butylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
p-Isopropyltoluene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,3-Dichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,4-Dichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
n-Butylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2-Dichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2-Dibromo-3-chloropropane	"	ND	-----	5.00	"	"	"	"	"	Chr	
Hexachlorobutadiene	"	ND	-----	2.00	"	"	"	"	"	Chr	
1,2,4-Trichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Naphthalene	"	ND	-----	2.00	"	"	"	"	"	Chr	
1,2,3-Trichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	

Surrogate(s):	*Dibromofluoromethane*	*88.0%*	*62.2 - 128 %*	"	"
	Toluene-d8	*88.0%*	*75.4 - 120 %*	"	"
	4-bromofluorobenzene	*101%*	*77.3 - 129 %*	"	"

TestAmerica Anchorage



Johanna L Dreher, Client Services Manager

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ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

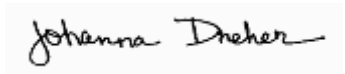
Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/22/09 14:19

Volatile Organic Compounds by EPA Method 8260B

TestAmerica Spokane

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0044-07 (Trip Blank)		**Water**				**Sampled: 10/06/09 00:00**					
Dichlorodifluoromethane	EPA 8260B	ND	-----	1.00	ug/l	1x	9100077	10/14/09 08:31	10/14/09 14:26	Chr	
Chloromethane	"	ND	-----	5.00	"	"	"	"	"	Chr	
Vinyl chloride	"	ND	-----	0.200	"	"	"	"	"	Chr	
Bromomethane	"	ND	-----	5.00	"	"	"	"	"	Chr	
Chloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Trichlorofluoromethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1-Dichloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Carbon disulfide	"	ND	-----	1.00	"	"	"	"	"	Chr	
Methylene chloride	"	ND	-----	10.0	"	"	"	"	"	Chr	
Acetone	"	ND	-----	25.0	"	"	"	"	"	Chr	
trans-1,2-Dichloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Methyl tert-butyl ether	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1-Dichloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
cis-1,2-Dichloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
2,2-Dichloropropane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Bromochloromethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Chloroform	"	ND	-----	1.00	"	"	"	"	"	Chr	
Carbon tetrachloride	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1,1-Trichloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
2-Butanone	"	ND	-----	10.0	"	"	"	"	"	Chr	
1,1-Dichloropropene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Benzene	"	ND	-----	0.200	"	"	"	"	"	Chr	
1,2-Dichloroethane (EDC)	"	ND	-----	1.00	"	"	"	"	"	Chr	
Trichloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Dibromomethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2-Dichloropropane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Bromodichloromethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
cis-1,3-Dichloropropene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Toluene	"	ND	-----	1.00	"	"	"	"	"	Chr	
4-Methyl-2-pentanone	"	ND	-----	10.0	"	"	"	"	"	Chr	
trans-1,3-Dichloropropene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Tetrachloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1,2-Trichloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Dibromochloromethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,3-Dichloropropane	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2-Dibromoethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
2-Hexanone	"	ND	-----	10.0	"	"	"	"	"	Chr	

TestAmerica Anchorage



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ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/22/09 14:19

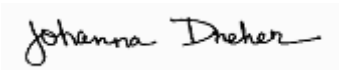
Volatile Organic Compounds by EPA Method 8260B

TestAmerica Spokane

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0044-07 (Trip Blank)		**Water**				**Sampled: 10/06/09 00:00**					
Ethylbenzene	EPA 8260B	ND	-----	1.00	ug/l	1x	9100077	10/14/09 08:31	10/14/09 14:26	Chr	
Chlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1,1,2-Tetrachloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
m,p-Xylene	"	ND	-----	2.00	"	"	"	"	"	Chr	
o-Xylene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Styrene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Bromoform	"	ND	-----	1.00	"	"	"	"	"	Chr	
Isopropylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
n-Propylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1,2,2-Tetrachloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Bromobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,3,5-Trimethylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
2-Chlorotoluene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2,3-Trichloropropane	"	ND	-----	1.00	"	"	"	"	"	Chr	
4-Chlorotoluene	"	ND	-----	1.00	"	"	"	"	"	Chr	
tert-Butylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2,4-Trimethylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
sec-Butylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
p-Isopropyltoluene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,3-Dichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,4-Dichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
n-Butylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2-Dichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2-Dibromo-3-chloropropane	"	ND	-----	5.00	"	"	"	"	"	Chr	
Hexachlorobutadiene	"	ND	-----	2.00	"	"	"	"	"	Chr	
1,2,4-Trichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Naphthalene	"	ND	-----	2.00	"	"	"	"	"	Chr	
1,2,3-Trichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	

Surrogate(s):	*Dibromofluoromethane*	*87.4%*	*62.2 - 128 %*	"	"
	Toluene-d8	*86.8%*	*75.4 - 120 %*	"	"
	4-bromofluorobenzene	*98.0%*	*77.3 - 129 %*	"	"

TestAmerica Anchorage



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ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

Arcadis - Seattle	Project Name: **FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number: 306443	Report Created:
Seattle, WA 98102	Project Manager: Greg Montgomery	10/22/09 14:19

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

TestAmerica Spokane

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0044-01 (MW-2)		**Water**				**Sampled: 10/06/09 14:55**					
1-Methylnapthalene	EPA 8270 mod.	ND	-----	0.0978	ug/l	1x	9100064	10/12/09 10:01	10/13/09 20:57	Mat	
2-Methylnaphthalene	"	ND	-----	0.0978	"	"	"	"	"	Mat	
Acenaphthene	"	ND	-----	0.0978	"	"	"	"	"	Mat	
Acenaphthylene	"	ND	-----	0.0978	"	"	"	"	"	Mat	
Anthracene	"	ND	-----	0.0978	"	"	"	"	"	Mat	
Benzo (a) anthracene	"	ND	-----	0.0978	"	"	"	"	"	Mat	
Benzo (a) pyrene	"	ND	-----	0.0978	"	"	"	"	"	Mat	
Benzo (b) fluoranthene	"	ND	-----	0.0978	"	"	"	"	"	Mat	
Benzo (ghi) perylene	"	ND	-----	0.0978	"	"	"	"	"	Mat	
Benzo (k) fluoranthene	"	ND	-----	0.0978	"	"	"	"	"	Mat	
Chrysene	"	ND	-----	0.0978	"	"	"	"	"	Mat	
Dibenzo (a,h) anthracene	"	ND	-----	0.0978	"	"	"	"	"	Mat	
Fluoranthene	"	ND	-----	0.0978	"	"	"	"	"	Mat	
Fluorene	"	ND	-----	0.0978	"	"	"	"	"	Mat	
Indeno (1,2,3-cd) pyrene	"	ND	-----	0.0978	"	"	"	"	"	Mat	
Naphthalene	"	ND	-----	0.0978	"	"	"	"	"	Mat	
Phenanthrene	"	ND	-----	0.0978	"	"	"	"	"	Mat	
Pyrene	"	ND	-----	0.0978	"	"	"	"	"	Mat	
Surrogate(s): *Nitrobenzene-d5*			*52.0%*		*29 - 150 %*	"			"		
2-FBP			*57.7%*		*20.9 - 122 %*	"			"		
p-Terphenyl-d14			*83.3%*		*35.2 - 150 %*	"			"		
ASJ0044-02 (MW-4)		**Water**				**Sampled: 10/06/09 14:40**					
1-Methylnapthalene	EPA 8270 mod.	ND	-----	0.0990	ug/l	1x	9100064	10/12/09 10:01	10/14/09 19:01	Mat	
2-Methylnaphthalene	"	ND	-----	0.0990	"	"	"	"	"	Mat	
Acenaphthene	"	ND	-----	0.0990	"	"	"	"	"	Mat	
Acenaphthylene	"	ND	-----	0.0990	"	"	"	"	"	Mat	
Anthracene	"	ND	-----	0.0990	"	"	"	"	"	Mat	
Benzo (a) anthracene	"	ND	-----	0.0990	"	"	"	"	"	Mat	
Benzo (a) pyrene	"	ND	-----	0.0990	"	"	"	"	"	Mat	I02
Benzo (b) fluoranthene	"	ND	-----	0.0990	"	"	"	"	"	Mat	I02
Benzo (ghi) perylene	"	ND	-----	0.0990	"	"	"	"	"	Mat	I02
Benzo (k) fluoranthene	"	ND	-----	0.0990	"	"	"	"	"	Mat	I02
Chrysene	"	ND	-----	0.0990	"	"	"	"	"	Mat	
Dibenzo (a,h) anthracene	"	ND	-----	0.0990	"	"	"	"	"	Mat	I02
Fluoranthene	"	ND	-----	0.0990	"	"	"	"	"	Mat	
Fluorene	"	ND	-----	0.0990	"	"	"	"	"	Mat	

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ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/22/09 14:19

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

TestAmerica Spokane

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0044-02 (MW-4)		**Water**				**Sampled: 10/06/09 14:40**					
Indeno (1,2,3-cd) pyrene	EPA 8270 mod.	ND	-----	0.0990	ug/l	1x	9100064	10/12/09 10:01	10/14/09 19:01	Mat	I02
Naphthalene	"	ND	-----	0.0990	"	"	"	"	"	Mat	
Phenanthrene	"	ND	-----	0.0990	"	"	"	"	"	Mat	
Pyrene	"	ND	-----	0.0990	"	"	"	"	"	Mat	
Surrogate(s): Nitrobenzene-d5			*33.9%*		*29 - 150 %*	"			"		
2-FBP			*42.2%*		*20.9 - 122 %*	"			"		
p-Terphenyl-d14			*65.3%*		*35.2 - 150 %*	"			"		
ASJ0044-03 (GEI-4)		**Water**				**Sampled: 10/06/09 16:45**					
1-Methylnapthalene	EPA 8270 mod.	**6.01**	-----	0.106	ug/l	1x	9100064	10/12/09 10:01	10/13/09 21:40	Mat	
2-Methylnaphthalene	"	**1.86**	-----	0.106	"	"	"	"	"	Mat	
Acenaphthene	"	**0.212**	-----	0.106	"	"	"	"	"	Mat	
Acenaphthylene	"	**0.450**	-----	0.106	"	"	"	"	"	Mat	
Anthracene	"	ND	-----	0.106	"	"	"	"	"	Mat	
Benzo (a) anthracene	"	ND	-----	0.106	"	"	"	"	"	Mat	
Benzo (a) pyrene	"	ND	-----	0.106	"	"	"	"	"	Mat	
Benzo (b) fluoranthene	"	ND	-----	0.106	"	"	"	"	"	Mat	
Benzo (ghi) perylene	"	ND	-----	0.106	"	"	"	"	"	Mat	
Benzo (k) fluoranthene	"	ND	-----	0.106	"	"	"	"	"	Mat	
Chrysene	"	ND	-----	0.106	"	"	"	"	"	Mat	
Dibenzo (a,h) anthracene	"	ND	-----	0.106	"	"	"	"	"	Mat	
Fluoranthene	"	ND	-----	0.106	"	"	"	"	"	Mat	
Fluorene	"	**0.275**	-----	0.106	"	"	"	"	"	Mat	
Indeno (1,2,3-cd) pyrene	"	ND	-----	0.106	"	"	"	"	"	Mat	
Naphthalene	"	**11.5**	-----	0.106	"	"	"	"	"	Mat	
Phenanthrene	"	ND	-----	0.106	"	"	"	"	"	Mat	
Pyrene	"	ND	-----	0.106	"	"	"	"	"	Mat	
Surrogate(s): Nitrobenzene-d5			*54.4%*		*29 - 150 %*	"			"		
2-FBP			*51.2%*		*20.9 - 122 %*	"			"		
p-Terphenyl-d14			*69.4%*		*35.2 - 150 %*	"			"		

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CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/22/09 14:19

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

TestAmerica Spokane

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0044-04 (GEI-8)		**Water**				**Sampled: 10/06/09 17:25**					
1-Methylnapthalene	EPA 8270 mod.	**0.677**	-----	0.0988	ug/l	1x	9100064	10/12/09 10:01	10/14/09 19:22	Mat	
2-Methylnaphthalene	"	ND	-----	0.0988	"	"	"	"	"	Mat	
Acenaphthene	"	ND	-----	0.0988	"	"	"	"	"	Mat	
Acenaphthylene	"	ND	-----	0.0988	"	"	"	"	"	Mat	
Anthracene	"	ND	-----	0.0988	"	"	"	"	"	Mat	
Benzo (a) anthracene	"	ND	-----	0.0988	"	"	"	"	"	Mat	
Benzo (a) pyrene	"	ND	-----	0.0988	"	"	"	"	"	Mat	
Benzo (b) fluoranthene	"	ND	-----	0.0988	"	"	"	"	"	Mat	
Benzo (ghi) perylene	"	ND	-----	0.0988	"	"	"	"	"	Mat	
Benzo (k) fluoranthene	"	ND	-----	0.0988	"	"	"	"	"	Mat	
Chrysene	"	ND	-----	0.0988	"	"	"	"	"	Mat	
Dibenzo (a,h) anthracene	"	ND	-----	0.0988	"	"	"	"	"	Mat	
Fluoranthene	"	ND	-----	0.0988	"	"	"	"	"	Mat	
Fluorene	"	**0.158**	-----	0.0988	"	"	"	"	"	Mat	
Indeno (1,2,3-cd) pyrene	"	ND	-----	0.0988	"	"	"	"	"	Mat	
Naphthalene	"	**0.277**	-----	0.0988	"	"	"	"	"	Mat	
Phenanthrene	"	ND	-----	0.0988	"	"	"	"	"	Mat	
Pyrene	"	ND	-----	0.0988	"	"	"	"	"	Mat	
Surrogate(s): *Nitrobenzene-d5*			*46.0%*		*29 - 150 %*	"			"		
2-FBP			*51.1%*		*20.9 - 122 %*	"			"		
p-Terphenyl-d14			*75.3%*		*35.2 - 150 %*	"			"		
ASJ0044-05 (RW-1)		**Water**				**Sampled: 10/06/09 16:20**					
1-Methylnapthalene	EPA 8270 mod.	**2.25**	-----	0.102	ug/l	1x	9100064	10/12/09 10:01	10/13/09 22:23	Mat	
2-Methylnaphthalene	"	**0.751**	-----	0.102	"	"	"	"	"	Mat	
Acenaphthene	"	ND	-----	0.102	"	"	"	"	"	Mat	I02
Acenaphthylene	"	**1.24**	-----	0.102	"	"	"	"	"	Mat	I02
Anthracene	"	ND	-----	0.102	"	"	"	"	"	Mat	
Benzo (a) anthracene	"	ND	-----	0.102	"	"	"	"	"	Mat	
Benzo (a) pyrene	"	ND	-----	0.102	"	"	"	"	"	Mat	
Benzo (b) fluoranthene	"	ND	-----	0.102	"	"	"	"	"	Mat	
Benzo (ghi) perylene	"	ND	-----	0.102	"	"	"	"	"	Mat	
Benzo (k) fluoranthene	"	ND	-----	0.102	"	"	"	"	"	Mat	
Chrysene	"	ND	-----	0.102	"	"	"	"	"	Mat	
Dibenzo (a,h) anthracene	"	ND	-----	0.102	"	"	"	"	"	Mat	
Fluoranthene	"	ND	-----	0.102	"	"	"	"	"	Mat	
Fluorene	"	ND	-----	0.102	"	"	"	"	"	Mat	I02

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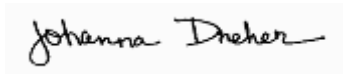

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CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/22/09 14:19

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

TestAmerica Spokane

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0044-05 (RW-1)		**Water**				**Sampled: 10/06/09 16:20**					
Indeno (1,2,3-cd) pyrene	EPA 8270 mod.	ND	-----	0.102	ug/l	1x	9100064	10/12/09 10:01	10/13/09 22:23	Mat	
Naphthalene	"	**2.87**	-----	0.102	"	"	"	"	"	Mat	
Phenanthrene	"	ND	-----	0.102	"	"	"	"	"	Mat	
Pyrene	"	ND	-----	0.102	"	"	"	"	"	Mat	
Surrogate(s): Nitrobenzene-d5			*55.3%*		*29 - 150 %*	"			"		
2-FBP			*22.4%*		*20.9 - 122 %*	"			"		***I02***
p-Terphenyl-d14			*67.5%*		*35.2 - 150 %*	"			"		
ASJ0044-06 (BD-1)		**Water**				**Sampled: 10/06/09 00:00**					
1-Methylnapthalene	EPA 8270 mod.	ND	-----	0.102	ug/l	1x	9100064	10/12/09 10:01	10/13/09 22:44	Mat	
2-Methylnaphthalene	"	ND	-----	0.102	"	"	"	"	"	Mat	
Acenaphthene	"	ND	-----	0.102	"	"	"	"	"	Mat	
Acenaphthylene	"	ND	-----	0.102	"	"	"	"	"	Mat	
Anthracene	"	ND	-----	0.102	"	"	"	"	"	Mat	
Benzo (a) anthracene	"	ND	-----	0.102	"	"	"	"	"	Mat	
Benzo (a) pyrene	"	ND	-----	0.102	"	"	"	"	"	Mat	
Benzo (b) fluoranthene	"	ND	-----	0.102	"	"	"	"	"	Mat	
Benzo (ghi) perylene	"	ND	-----	0.102	"	"	"	"	"	Mat	
Benzo (k) fluoranthene	"	ND	-----	0.102	"	"	"	"	"	Mat	
Chrysene	"	ND	-----	0.102	"	"	"	"	"	Mat	
Dibenzo (a,h) anthracene	"	ND	-----	0.102	"	"	"	"	"	Mat	
Fluoranthene	"	ND	-----	0.102	"	"	"	"	"	Mat	
Fluorene	"	ND	-----	0.102	"	"	"	"	"	Mat	
Indeno (1,2,3-cd) pyrene	"	ND	-----	0.102	"	"	"	"	"	Mat	
Naphthalene	"	ND	-----	0.102	"	"	"	"	"	Mat	
Phenanthrene	"	ND	-----	0.102	"	"	"	"	"	Mat	
Pyrene	"	ND	-----	0.102	"	"	"	"	"	Mat	
Surrogate(s): Nitrobenzene-d5			*37.4%*		*29 - 150 %*	"			"		
2-FBP			*40.1%*		*20.9 - 122 %*	"			"		
p-Terphenyl-d14			*55.6%*		*35.2 - 150 %*	"			"		

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CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/22/09 14:19

Dissolved Metals per EPA 200 Series Methods

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0044-01 (MW-2)			**Water**			**Sampled: 10/06/09 14:55**					
Lead	EPA 200.8	ND	-----	0.00100	mg/l	1x	9100500	10/15/09 07:06	10/15/09 14:25	ajh	
ASJ0044-02 (MW-4)			**Water**			**Sampled: 10/06/09 14:40**					
Lead	EPA 200.8	ND	-----	0.00100	mg/l	1x	9100500	10/15/09 07:06	10/15/09 14:30	ajh	
ASJ0044-03 (GEI-4)			**Water**			**Sampled: 10/06/09 16:45**					
Lead	EPA 200.8	ND	-----	0.00100	mg/l	1x	9100500	10/15/09 07:06	10/15/09 14:36	ajh	
ASJ0044-04 (GEI-8)			**Water**			**Sampled: 10/06/09 17:25**					
Lead	EPA 200.8	ND	-----	0.00100	mg/l	1x	9100500	10/15/09 07:06	10/15/09 14:48	ajh	
ASJ0044-05 (RW-1)			**Water**			**Sampled: 10/06/09 16:20**					
Lead	EPA 200.8	ND	-----	0.00100	mg/l	1x	9100500	10/15/09 07:06	10/15/09 14:59	ajh	
ASJ0044-06 (BD-1)			**Water**			**Sampled: 10/06/09 00:00**					
Lead	EPA 200.8	ND	-----	0.00100	mg/l	1x	9100500	10/15/09 07:06	10/15/09 15:05	ajh	

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Seattle, WA 98102	Project Manager:	Greg Montgomery	10/22/09 14:19

Lab Filtration

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0044-01 (MW-2)			**Water**			**Sampled: 10/06/09 14:55**					
Lab Filtration	NCA SOP	ND	-----	1.00	N/A	1x	9100442	10/14/09 07:15	10/14/09 07:15	BE	
ASJ0044-02 (MW-4)			**Water**			**Sampled: 10/06/09 14:40**					
Lab Filtration	NCA SOP	ND	-----	1.00	N/A	1x	9100442	10/14/09 07:15	10/14/09 07:15	BE	
ASJ0044-03 (GEI-4)			**Water**			**Sampled: 10/06/09 16:45**					
Lab Filtration	NCA SOP	ND	-----	1.00	N/A	1x	9100442	10/14/09 07:15	10/14/09 07:15	BE	
ASJ0044-04 (GEI-8)			**Water**			**Sampled: 10/06/09 17:25**					
Lab Filtration	NCA SOP	ND	-----	1.00	N/A	1x	9100442	10/14/09 07:15	10/14/09 07:15	BE	
ASJ0044-05 (RW-1)			**Water**			**Sampled: 10/06/09 16:20**					
Lab Filtration	NCA SOP	ND	-----	1.00	N/A	1x	9100442	10/14/09 07:15	10/14/09 07:15	BE	
ASJ0044-06 (BD-1)			**Water**			**Sampled: 10/06/09 00:00**					
Lab Filtration	NCA SOP	ND	-----	1.00	N/A	1x	9100442	10/14/09 07:15	10/14/09 07:15	BE	

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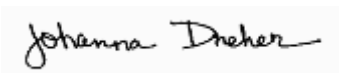

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2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/22/09 14:19

Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO - Laboratory Quality Control Results

TestAmerica Anchorage

QC Batch: 9100088 **Water Preparation Method: EPA 3510**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9100088-BLK1)							**Extracted: 10/19/09 15:19**							
Diesel Range Organics	AK102/103	ND	---	0.500	mg/l	1x	--	--	--	--	--	--	10/20/09 16:15	
Residual Range Organics	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 93.5%*			*Limits: 50-150%*	"							*10/20/09 16:15*	
Triacontane		*97.0%*			*50-150%*	"							"	
LCS (9100088-BS1)							**Extracted: 10/19/09 15:19**							
Diesel Range Organics	AK102/103	9.44	---	0.500	mg/l	1x	--	10.3	91.6%	(75-125)	--	--	10/20/09 16:15	
Residual Range Organics	"	9.29	---	0.500	"	"	--	10.2	91.0%	(60-120)	--	--	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 107%*			*Limits: 60-120%*	"							*10/20/09 16:15*	
Triacontane		*89.9%*			*60-120%*	"							"	
LCS Dup (9100088-BSD1)							**Extracted: 10/19/09 15:19**							
Diesel Range Organics	AK102/103	9.86	---	0.500	mg/l	1x	--	10.3	95.7%	(75-125)	4.39%	(20)	10/20/09 16:47	
Residual Range Organics	"	9.60	---	0.500	"	"	--	10.2	94.2%	(60-120)	3.36%	"	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 112%*			*Limits: 60-120%*	"							*10/20/09 16:47*	
Triacontane		*91.1%*			*60-120%*	"							"	
Duplicate (9100088-DUP1)					**QC Source: ASJ0043-02**		**Extracted: 10/19/09 15:19**							
Diesel Range Organics	AK102/103	ND	---	0.417	mg/l	1x	ND	--	--	--	26.6%	(20)	10/20/09 16:47	R4
Residual Range Organics	"	ND	---	0.417	"	"	ND	--	--	--	11.9%	(50)	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 85.8%*			*Limits: 50-150%*	"							*10/20/09 16:47*	
Triacontane		*88.3%*			*50-150%*	"							"	

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CS Approval Number: UST-067

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2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/22/09 14:19

Gasoline Range Organics (C6-C10) per AK101-MS - Laboratory Quality Control Results

TestAmerica Anchorage

QC Batch: 9100053 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9100053-BLK1)							**Extracted: 10/12/09 15:49**							
Gasoline Range Organics	AK101 - MS	ND	---	50.0	ug/l	1x	--	--	--	--	--	--	10/12/09 21:22	
Surrogate(s): 4-BFB		*Recovery: 101%*			*Limits: 85-115%*	"							*10/12/09 21:22*	
Dibromofluoromethane		*115%*			*65-125%*	"							"	
Toluene-d8		*99.3%*			*78-115%*	"							"	
LCS (9100053-BS2)							**Extracted: 10/12/09 15:49**							
Gasoline Range Organics	AK101 - MS	506	---	50.0	ug/l	1x	--	550	92.1%	(60-120)	--	--	10/12/09 21:51	
Surrogate(s): 4-BFB		*Recovery: 96.2%*			*Limits: 85-115%*	"							*10/12/09 21:51*	
Dibromofluoromethane		*110%*			*65-125%*	"							"	
Toluene-d8		*96.7%*			*78-115%*	"							"	
LCS Dup (9100053-BSD2)							**Extracted: 10/12/09 15:49**							
Gasoline Range Organics	AK101 - MS	444	---	50.0	ug/l	1x	--	550	80.6%	(60-120)	13.2%	(20)	10/13/09 09:00	
Surrogate(s): 4-BFB		*Recovery: 96.2%*			*Limits: 85-115%*	"							*10/13/09 09:00*	
Dibromofluoromethane		*109%*			*65-125%*	"							"	
Toluene-d8		*98.0%*			*78-115%*	"							"	
Duplicate (9100053-DUP1)							**QC Source: ASJ0044-03** **Extracted: 10/12/09 15:49**							
Gasoline Range Organics	AK101 - MS	437	---	50.0	ug/l	1x	305	--	--	--	35.6%	(12)	10/13/09 21:22	R2
Surrogate(s): 4-BFB		*Recovery: 91.8%*			*Limits: 85-115%*	"							*10/13/09 21:22*	
Dibromofluoromethane		*109%*			*65-125%*	"							"	
Toluene-d8		*98.2%*			*78-115%*	"							"	

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ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/22/09 14:19

EDB by EPA Method 8011 - Laboratory Quality Control Results

TestAmerica Spokane

QC Batch: 9100055 **Water Preparation Method: EPA 3510/600 Series**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9100055-BLK1)								**Extracted: 10/09/09 07:14**						
1,2-Dibromoethane	EPA 8011	ND	---	0.0100	ug/l	1x	--	--	--	--	--	--	10/13/09 23:42	
1,2-Dibromo-3-chloropropane	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
LCS (9100055-BS1)								**Extracted: 10/09/09 07:14**						
1,2-Dibromoethane	EPA 8011	0.132	---	0.0100	ug/l	1x	--	0.125	105%	(60-140)	--	--	10/14/09 00:07	
LCS (9100055-BS2)								**Extracted: 10/09/09 07:14**						
1,2-Dibromoethane	EPA 8011	0.127	---	0.0100	ug/l	1x	--	0.125	102%	(60-140)	--	--	10/14/09 00:31	

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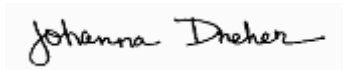

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ANCHORAGE, AK 99502-1119
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CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/22/09 14:19

Volatile Organic Compounds by EPA Method 8260B - Laboratory Quality Control Results

TestAmerica Spokane

QC Batch: 9100077 **Water Preparation Method: GC/MS Volatiles**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9100077-BLK1)								**Extracted: 10/14/09 08:31**						
Dichlorodifluoromethane	EPA 8260B	ND	---	1.00	ug/l	1x	--	--	--	--	--	--	10/14/09 10:39	
Chloromethane	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Vinyl chloride	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
Bromomethane	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Chloroethane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Trichlorofluoromethane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,1-Dichloroethene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Carbon disulfide	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Methylene chloride	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
Acetone	"	ND	---	25.0	"	"	--	--	--	--	--	--	"	
trans-1,2-Dichloroethene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Methyl tert-butyl ether	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,1-Dichloroethane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
cis-1,2-Dichloroethene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
2,2-Dichloropropane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Bromochloromethane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Chloroform	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Carbon tetrachloride	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,1,1-Trichloroethane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
2-Butanone	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
1,1-Dichloropropene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Benzene	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
1,2-Dichloroethane (EDC)	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Trichloroethene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Dibromomethane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,2-Dichloropropane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Bromodichloromethane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
cis-1,3-Dichloropropene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Toluene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
4-Methyl-2-pentanone	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
trans-1,3-Dichloropropene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Tetrachloroethene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,1,2-Trichloroethane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Dibromochloromethane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,3-Dichloropropane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,2-Dibromoethane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
2-Hexanone	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
Ethylbenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Chlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	

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ANCHORAGE, AK 99502-1119
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CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/22/09 14:19

Volatile Organic Compounds by EPA Method 8260B - Laboratory Quality Control Results

TestAmerica Spokane

QC Batch: 9100077 **Water Preparation Method: GC/MS Volatiles**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9100077-BLK1)							**Extracted: 10/14/09 08:31**							
1,1,1,2-Tetrachloroethane	EPA 8260B	ND	---	1.00	ug/l	1x	--	--	--	--	--	--	10/14/09 10:39	
m,p-Xylene	"	ND	---	2.00	"	"	--	--	--	--	--	--	"	
o-Xylene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Styrene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Bromoform	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Isopropylbenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
n-Propylbenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,1,2,2-Tetrachloroethane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Bromobenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,3,5-Trimethylbenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
2-Chlorotoluene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,2,3-Trichloropropane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
4-Chlorotoluene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
tert-Butylbenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,2,4-Trimethylbenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
sec-Butylbenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
p-Isopropyltoluene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,3-Dichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,4-Dichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
n-Butylbenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,2-Dichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,2-Dibromo-3-chloropropane	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Hexachlorobutadiene	"	ND	---	2.00	"	"	--	--	--	--	--	--	"	
1,2,4-Trichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Naphthalene	"	ND	---	2.00	"	"	--	--	--	--	--	--	"	
1,2,3-Trichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	

Surrogate(s):	*Dibromofluoromethane*	*Recovery:*	*85.8%*	*Limits:*	*62.2-128%*	*" 10/14/09 10:39*
	Toluene-d8		*84.8%*		*75.4-120%*	*" "*
	4-bromofluorobenzene		*93.6%*		*77.3-129%*	*" "*

TestAmerica Anchorage

Johanna Dreher

Johanna L Dreher, Client Services Manager

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ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/22/09 14:19

Volatile Organic Compounds by EPA Method 8260B - Laboratory Quality Control Results

TestAmerica Spokane

QC Batch: 9100077 **Water Preparation Method: GC/MS Volatiles**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS (9100077-BS1)								**Extracted: 10/14/09 08:31**						
1,1-Dichloroethene	EPA 8260B	10.4	---	1.00	ug/l	1x	--	10.0	104%	(60.4-140)	--	--	10/14/09 11:07	
Benzene	"	11.0	---	0.200	"	"	--	"	110%	(72.9-120)	--	--	"	
Trichloroethene	"	10.2	---	1.00	"	"	--	"	102%	(73.7-120)	--	--	"	
Toluene	"	10.8	---	1.00	"	"	--	"	108%	(72.4-132)	--	--	"	
Chlorobenzene	"	9.97	---	1.00	"	"	--	"	99.7%	(80-120)	--	--	"	
Surrogate(s): Dibromofluoromethane		*Recovery: 88.0%*			*Limits: 62.2-128%*	"							*10/14/09 11:07*	
Toluene-d8		*86.8%*			*75.4-120%*	"							"	
4-bromofluorobenzene		*97.6%*			*77.3-129%*	"							"	
Matrix Spike (9100077-MS1)							**QC Source: ASJ0044-02**		**Extracted: 10/14/09 08:31**					
1,1-Dichloroethene	EPA 8260B	10.3	---	1.00	ug/l	1x	ND	10.0	103%	(52.5-135)	--	--	10/14/09 17:53	
Benzene	"	11.5	---	0.200	"	"	ND	"	115%	(72.3-120)	--	--	"	
Trichloroethene	"	10.4	---	1.00	"	"	ND	"	104%	(80-120)	--	--	"	
Toluene	"	10.4	---	1.00	"	"	ND	"	104%	(62.7-137)	--	--	"	
Chlorobenzene	"	9.76	---	1.00	"	"	ND	"	97.6%	(78.9-120)	--	--	"	
Surrogate(s): Dibromofluoromethane		*Recovery: 91.4%*			*Limits: 62.2-128%*	"							*10/14/09 17:53*	
Toluene-d8		*84.0%*			*75.4-120%*	"							"	
4-bromofluorobenzene		*100%*			*77.3-129%*	"							"	
Matrix Spike Dup (9100077-MSD1)							**QC Source: ASJ0044-02**		**Extracted: 10/14/09 08:31**					
1,1-Dichloroethene	EPA 8260B	10.6	---	1.00	ug/l	1x	ND	10.0	106%	(52.5-135)	2.68%	(10.5)	10/14/09 18:22	
Benzene	"	11.4	---	0.200	"	"	ND	"	114%	(72.3-120)	1.14%	(10.7)	"	
Trichloroethene	"	10.4	---	1.00	"	"	ND	"	104%	(80-120)	0.00%	(10)	"	
Toluene	"	10.6	---	1.00	"	"	ND	"	106%	(62.7-137)	2.18%	(13)	"	
Chlorobenzene	"	9.74	---	1.00	"	"	ND	"	97.4%	(78.9-120)	0.205%	(11.2)	"	
Surrogate(s): Dibromofluoromethane		*Recovery: 91.0%*			*Limits: 62.2-128%*	"							*10/14/09 18:22*	
Toluene-d8		*84.2%*			*75.4-120%*	"							"	
4-bromofluorobenzene		*99.8%*			*77.3-129%*	"							"	

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CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/22/09 14:19

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring - Laboratory Quality Control Results

TestAmerica Spokane

QC Batch: 9100064 **Water Preparation Method: EPA 3510/600 Series**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9100064-BLK1)							**Extracted: 10/12/09 10:01**							
1-Methylnapthalene	EPA 8270 mod.	ND	---	0.100	ug/l	1x	--	--	--	--	--	--	10/13/09 19:53	
2-Methylnaphthalene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Acenaphthene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Acenaphthylene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Anthracene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Benzo (a) anthracene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Benzo (a) pyrene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Benzo (b) fluoranthene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Benzo (ghi) perylene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Benzo (k) fluoranthene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Chrysene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Dibenzo (a,h) anthracene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Fluoranthene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Fluorene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Indeno (1,2,3-cd) pyrene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Naphthalene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Phenanthrene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Pyrene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Surrogate(s): Nitrobenzene-d5		*Recovery: 47.2%*			*Limits: 29-150%*	"							*10/13/09 19:53*	
2-FBP		*59.0%*			*20.9-122%*	"							"	
p-Terphenyl-d14		*62.7%*			*35.2-150%*	"							"	
LCS (9100064-BS1)							**Extracted: 10/12/09 10:01**							
Chrysene	EPA 8270 mod.	3.98	---	0.100	ug/l	1x	--	5.00	79.5%	(24.8-120)	--	--	10/13/09 20:15	
Fluorene	"	3.26	---	0.100	"	"	--	"	65.2%	(35.4-120)	--	--	"	
Indeno (1,2,3-cd) pyrene	"	3.50	---	0.100	"	"	--	"	70.0%	(31.1-134)	--	--	"	
Naphthalene	"	2.46	---	0.100	"	"	--	"	49.3%	(21.8-120)	--	--	"	
Surrogate(s): Nitrobenzene-d5		*Recovery: 55.4%*			*Limits: 29-150%*	"							*10/13/09 20:15*	
2-FBP		*65.1%*			*20.9-122%*	"							"	
p-Terphenyl-d14		*85.0%*			*35.2-150%*	"							"	

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ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/22/09 14:19

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring - Laboratory Quality Control Results
TestAmerica Spokane

QC Batch: 9100064 **Water Preparation Method: EPA 3510/600 Series**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS Dup (9100064-BSD1)							**Extracted: 10/12/09 10:01**							
Chrysene	EPA 8270 mod.	3.21	---	0.100	ug/l	1x	--	5.00	64.2%	(24.8-120)	21.3%	(31.7)	10/13/09 20:36	
Fluorene	"	3.57	---	0.100	"	"	--	"	71.4%	(35.4-120)	9.08%	(28.9)	"	
Indeno (1,2,3-cd) pyrene	"	3.18	---	0.100	"	"	--	"	63.7%	(31.1-134)	9.42%	(35)	"	
Naphthalene	"	2.71	---	0.100	"	"	--	"	54.2%	(21.8-120)	9.47%	"	"	
Surrogate(s): Nitrobenzene-d5		*Recovery: 60.2%*			*Limits: 29-150%*	"							*10/13/09 20:36*	
2-FBP		*65.9%*			*20.9-122%*	"							*"*	
p-Terphenyl-d14		*63.3%*			*35.2-150%*	"							*"*	

TestAmerica Anchorage

Johanna Dreher

Johanna L Dreher, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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THE LEADER IN ENVIRONMENTAL TESTING

ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/22/09 14:19

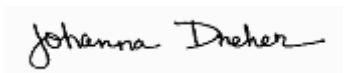
Dissolved Metals per EPA 200 Series Methods - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9100500 **Water Preparation Method: EPA 200/3005 Diss**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9100500-BLK1)								**Extracted: 10/15/09 07:06**						
Lead	EPA 200.8	ND	---	0.00100	mg/l	1x	--	--	--	--	--	--	10/15/09 14:13	
LCS (9100500-BS1)								**Extracted: 10/15/09 07:06**						
Lead	EPA 200.8	0.0911	---	0.00100	mg/l	1x	--	0.100	91.1%	(85-115)	--	--	10/15/09 14:19	
Duplicate (9100500-DUP1)					**QC Source: ASJ0044-03**				**Extracted: 10/15/09 07:06**					
Lead	EPA 200.8	ND	---	0.00100	mg/l	1x	ND	--	--	--	NR	(20)	10/15/09 14:42	
Matrix Spike (9100500-MS1)					**QC Source: ASJ0044-04**				**Extracted: 10/15/09 07:06**					
Lead	EPA 200.8	0.0920	---	0.00100	mg/l	1x	ND	0.100	92.0%	(70-130)	--	--	10/15/09 14:53	

TestAmerica Anchorage



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CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/22/09 14:19

Lab Filtration - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9100442 **Water Preparation Method: Lab Filter**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9100442-BLK1)								**Extracted: 10/14/09 07:15**						
Lab Filtration	NCA SOP	ND	---	1.00	N/A	1x	--	--	--	--	--	--	10/14/09 07:15	

TestAmerica Anchorage

Johanna Dreher

Johanna L Dreher, Client Services Manager

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Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/22/09 14:19

Notes and Definitions

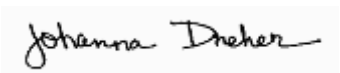
Report Specific Notes:

I02	-	Internal Standard recovery was above method limits. Matrix interference was confirmed by reanalysis. A low bias to the analyte result is indicated.
R2	-	The RPD exceeded the acceptance limit.
R4	-	Due to the low levels of analyte in the sample, the duplicate RPD calculation does not provide useful information.
ZX	-	Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.

Laboratory Reporting Conventions:

DET	-	Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.
ND	-	Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).
NR/NA	-	Not Reported / Not Available
dry	-	Sample results reported on a Dry Weight Basis. Results and Reporting Limits have been corrected for Percent Dry Weight.
wet	-	Sample results and reporting limits reported on a Wet Weight Basis (as received). Results with neither 'wet' nor 'dry' are reported on a Wet Weight Basis.
RPD	-	RELATIVE PERCENT DIFFERENCE (RPDs calculated using Results, not Percent Recoveries).
MRL	-	METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.
MDL*	-	METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. *MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated Results.
Dil	-	Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.
Reporting Limits	-	Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.
Electronic Signature	-	Electronic Signature added in accordance with TestAmerica's *Electronic Reporting and Electronic Signatures Policy.* Application of electronic signature indicates that the report has been reviewed and approved for release by the laboratory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

TestAmerica Anchorage



Johanna L Dreher, Client Services Manager

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11922 E. First Ave, Spokane, WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave,Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: ASJ0044

CLIENT: Chevron EMC

INVOICE TO: Chevron EMC

REPORT TO: ARCADIS
ADDRESS: 2300 Eastlake Ave. E, Ste. 200
Seattle, WA 98102
PHONE: 206-726-4742 FAX: 206-325-8218

P.O. NUMBER: NWRTB-0306443-LAB

PROJECT NAME: FIA Unocal
PROJECT NUMBER: 306443
SAMPLED BY: MLS/DMB

TURNAROUND REQUEST in Business Days *

Organic & Inorganic Analyses: [10] STD. [7] [5] [4] [3] [2] [1] [<1]

Petroleum Hydrocarbon Analyses: [5] STD. [4] [3] [2] [1] [<1]

[OTHER] Specify:

* Turnaround Requests less than standard may incur Rush Charges.

CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	PRESERVATIVE	VOCs 8260B	GRO AK101	DRO AK102	RRO AK103	EDB 8011	PAHs 8270C SIM	Diss. Lead 200.8	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1 MW-2	10/6/09/1455	HCl	X	X	X	X	X	X	X	W	12		01
2 MW-4	10/6/09/1440	HCl	X	X	X	X	X	X	X	W	12		02
3 GEI-4	10/6/09/1645	HCl	X	X	X	X	X	X	X	W	12		03
4 GEI-8	10/6/09/1725	HCl	X	X	X	X	X	X	X	W	12		04
5 RW-1	10/6/09/1620	—	X	X	X	X	X	X	X	W	12		05
6 BD-1	10/6/09/—	—	X	X	X	X	X	X	X	W	12		06
7 Trip Blank	—	—	X	X						O	6		07
8													
9													
10													

REQUESTED ANALYSES

RELEASED BY: [signature] DATE: 10/7/09
PRINT NAME: Michael Strickler FIRM: ARCADIS TIME: 0800

RECEIVED BY: [signature] DATE: 10/8/09
PRINT NAME: Anastasia Gumulia FIRM: TA Anc TIME: 10:30

RELEASED BY: DATE:
PRINT NAME: FIRM: TIME:

RECEIVED BY: DATE:
PRINT NAME: FIRM: TIME:

ADDITIONAL REMARKS:

cooler 1: TEMP: 1.7 PAGE 1 OF 1
2: 2.8
3: 1.0

TAL-1000(0408)

Cooler # 1

Test America Anchorage Cooler Receipt Form

(Army Corps. Compliant)

WORK ORDER # ASJ0094 CLIENT: Arcadis PROJECT: FIA Unocal

Date /Time Cooler Arrived 10 / 8 / 09 10 : 30 Cooler signed for by: Anastasia Gumulia
(Print name)

Preliminary Examination Phase:

Date cooler opened: [X] same as date received *or* ____/____/____

Cooler opened by (print) Anastasia Gumulia (sign) [signature]

1. Delivered by [ ] ALASKA AIRLINES [X] Fed-Ex [ ] UPS [ ] NAC [ ] LYNDEN [ ] CLIENT [ ] Other:

Shipment Tracking # if applicable 7955 0466 8950 (include copy of shipping papers in file)

2. Number of Custody Seals 1 Signed by See back Date 10 / 7 / 09

Were custody seals unbroken and intact on arrival? [X] Yes [ ] No

3. Were custody papers sealed in a plastic bag? [X] Yes [ ] No

4. Were custody papers filled out properly (ink, signed, etc.)? [X] Yes [ ] No

5. Did you sign the custody papers in the appropriate place? [X] Yes [ ] No

6. Was ice used? [X] Yes [ ] No Type of ice: [ ] blue ice [ ] gel ice [X] real ice [ ] dry ice Condition of Ice: melting

Temperature by Digi-Thermo Probe 1.7 °C Thermometer # Rec #5
Acceptance Criteria: 0 - 6°C

7. Packing in Cooler: [X] bubble wrap [ ] styrofoam [ ] cardboard [ ] Other:

8. Did samples arrive in plastic bags? [ ] Yes [X] No

9. Did all bottles arrive unbroken, and with labels in good condition? [X] Yes [ ] No

10. Are all bottle labels complete (ID, date, time, etc.) [X] Yes [ ] No

11. Do bottle labels and Chain of Custody agree? [X] Yes [ ] No

12. Are the containers and preservatives correct for the tests indicated? [X] Yes [ ] No

13. Conoco Phillips, Alyeska, BP H2O samples only: pH < 2? [ ] Yes [ ] No [X] N/A

14. Is there adequate volume for the tests requested? [X] Yes [ ] No

15. Were VOA vials free of bubbles? [ ] N/A [ ] Yes [X] No

If "NO" which containers contained "head space" or bubbles? All trip blanks

Log-in Phase:

Date of sample log-in 10 / 8 / 09

Samples logged in by (print) Anastasia Gumulia (sign) [signature]

1. Was project identifiable from custody papers? [X] Yes [ ] No
2. Do Turn Around Times and Due Dates agree? [X] Yes [ ] No
3. Was the Project Manager notified of status? [X] Yes [ ] No
4. Was the Lab notified of status? [X] Yes [ ] No
5. Was the COC scanned and copied? [X] Yes [ ] No

cooler #2

Test America Anchorage Cooler Receipt Form

(Army Corps. Compliant)

WORK ORDER # ASJ0044 CLIENT: Arcadis PROJECT: FIA Unocal

Date /Time Cooler Arrived 10 / 8 / 09 10 : 30 Cooler signed for by: Anastasia Gumulia
(Print name)

Preliminary Examination Phase:

Date cooler opened: [X] same as date received *or* ____/____/____

Cooler opened by (print) Anastasia Gumulia (sign) [signature]

1. Delivered by [ ] ALASKA AIRLINES [X] Fed-Ex [ ] UPS [ ] NAC [ ] LYNDEN [ ] CLIENT [ ] Other:

Shipment Tracking # if applicable 8688 9248 0981 (include copy of shipping papers in file)

2. Number of Custody Seals 1 Signed by See back Date 10 / 7 / 09

Were custody seals unbroken and intact on arrival? [X] Yes [ ] No

3. Were custody papers sealed in a plastic bag? [ ] Yes [ ] No No COC

4. Were custody papers filled out properly (ink, signed, etc.)? N/A [ ] Yes [ ] No

5. Did you sign the custody papers in the appropriate place? [ ] Yes [ ] No

6. Was ice used? [X] Yes [ ] No Type of ice: [ ] blue ice [ ] gel ice [X] real ice [ ] dry ice Condition of Ice: melting

Temperature by Digi-Thermo Probe 2.8 °C Thermometer # 5
Acceptance Criteria: 0 - 6°C

7. Packing in Cooler: [X] bubble wrap [ ] styrofoam [ ] cardboard [ ] Other:

8. Did samples arrive in plastic bags? [ ] Yes [X] No

9. Did all bottles arrive unbroken, and with labels in good condition? [X] Yes [ ] No

10. Are all bottle labels complete (ID, date, time, etc.) [X] Yes [ ] No

11. Do bottle labels and Chain of Custody agree? [X] Yes [ ] No

12. Are the containers and preservatives correct for the tests indicated? [X] Yes [ ] No

13. Conoco Phillips, Alyeska, BP H2O samples only: pH < 2? [ ] Yes [ ] No [X] N/A

14. Is there adequate volume for the tests requested? [X] Yes [ ] No

15. Were VOA vials free of bubbles? [X] N/A [ ] Yes [ ] No

If "NO" which containers contained "head space" or bubbles? ____

Log-in Phase:

Date of sample log-in 10 / 8 / 09

Samples logged in by (print) Anastasia Gumulia (sign) [signature]

1. Was project identifiable from custody papers? [X] Yes [ ] No
2. Do Turn Around Times and Due Dates agree? [X] Yes [ ] No
3. Was the Project Manager notified of status? [X] Yes [ ] No
4. Was the Lab notified of status? [X] Yes [ ] No
5. Was the COC scanned and copied? [X] Yes [ ] No

cooler #3

Test America Anchorage Cooler Receipt Form

(Army Corps. Compliant)

WORK ORDER # ASJ0044 CLIENT: Arcadis PROJECT: FIA Unocal

Date /Time Cooler Arrived 10 / 8 / 09 10 : 30 Cooler signed for by: Anastasia Gumulia (Print name)

Preliminary Examination Phase:

Date cooler opened: [X] same as date received *or* ____/____/____

Cooler opened by (print) Anastasia Gumulia (sign) [signature]

1. Delivered by [ ] ALASKA AIRLINES [X] Fed-Ex [ ] UPS [ ] NAC [ ] LYNDEN [ ] CLIENT [ ] Other:

Shipment Tracking # if applicable 7985 7955 0466 8940 (include copy of shipping papers in file)

2. Number of Custody Seals 1 Signed by See back Date 10 / 7 / 09

Were custody seals unbroken and intact on arrival? [X] Yes [ ] No

3. Were custody papers sealed in a plastic bag? [ ] Yes [ ] No NO COC

4. Were custody papers filled out properly (ink, signed, etc.)? N/A [ ] Yes [ ] No

5. Did you sign the custody papers in the appropriate place? [ ] Yes [ ] No

6. Was ice used? [X] Yes [ ] No Type of ice: [ ] blue ice [ ] gel ice [X] real ice [ ] dry ice Condition of Ice: melting

Temperature by Digi-Thermo Probe 1.0 °C Thermometer # 5

Acceptance Criteria: 0 - 6°C

7. Packing in Cooler: [X] bubble wrap [ ] styrofoam [ ] cardboard [ ] Other:

8. Did samples arrive in plastic bags? [ ] Yes [X] No

9. Did all bottles arrive unbroken, and with labels in good condition? [X] Yes [ ] No

10. Are all bottle labels complete (ID, date, time, etc.) [X] Yes [ ] No

11. Do bottle labels and Chain of Custody agree? [X] Yes [ ] No

12. Are the containers and preservatives correct for the tests indicated? [X] Yes [ ] No

13. Conoco Phillips, Alyeska, BP H2O samples only: pH < 2? [ ] Yes [ ] No [X] N/A

14. Is there adequate volume for the tests requested? [X] Yes [ ] No

15. Were VOA vials free of bubbles? [X] N/A [ ] Yes [ ] No

If "NO" which containers contained "head space" or bubbles? ____

Log-in Phase:

Date of sample log-in 10 / 8 / 09

Samples logged in by (print) Anastasia Gumulia (sign) [signature]

1. Was project identifiable from custody papers? [X] Yes [ ] No
2. Do Turn Around Times and Due Dates agree? [X] Yes [ ] No
3. Was the Project Manager notified of status? [X] Yes [ ] No
4. Was the Lab notified of status? [X] Yes [ ] No
5. Was the COC scanned and copied? [X] Yes [ ] No

Cooler # 1

ASJ 0044

Samples :

All 250 mL amber

All 40 mL voa vials

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46C711

Custody Seal

DATE 10/7/09

SIGNATURE

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
46C711

cooler #2 ASJ0044

samples:

All 125 mL amber

Polys: RW-1 MW-2
MW-4 ~~MW-5~~ GEI-8
BD-1
GEI-4

1L amber: GEI-8 (1)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
460714

Custody Seal
DATE 10/1/25
SIGNATURE

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
460714

cooler # 3

ASJ0044

samples: All 1L amber

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
460712

Custody Seal

DATE 10/7/09

SIGNATURE

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
460712

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CS Approval Number: UST-067

October 23, 2009

Greg Montgomery
Arcadis - Seattle
2300 East Lake Ave East Suite 100
Seattle, WA 98102

RE: FIA Unocal

Enclosed are the results of analyses for samples received by the laboratory on 10/09/09 10:30. The following list is a summary of the Work Orders contained in this report, generated on 10/23/09 16:15.

If you have any questions concerning this report, please feel free to contact me.

Work Order	Project	ProjectNumber
ASJ0049	FIA Unocal	306443

TestAmerica Anchorage

Johanna Dreher

Johanna L Dreher, Client Services Manager

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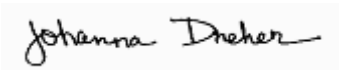
CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/23/09 16:15

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	ASJ0049-01	Water	10/07/09 10:25	10/09/09 10:30
MW-3	ASJ0049-02	Water	10/07/09 11:20	10/09/09 10:30
MW-5	ASJ0049-03	Water	10/07/09 12:20	10/09/09 10:30
Trip Blank	ASJ0049-04	Water	10/07/09 00:00	10/09/09 10:30

TestAmerica Anchorage



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Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/23/09 16:15

Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO

TestAmerica Anchorage

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0049-01 (MW-1)			**Water**				**Sampled: 10/07/09 10:25**				
Diesel Range Organics	AK102/103	**8.07**	-----	0.394	mg/l	1x	9100088	10/19/09 15:19	10/21/09 17:24	JN	
Residual Range Organics	"	**0.642**	-----	0.394	"	"	"	"	"	JN	
Surrogate(s): 1-Chlorooctadecane			*80.7%*		*50 - 150 %*	"				"	
Triacontane			*81.0%*		*50 - 150 %*	"				"	
ASJ0049-02 (MW-3)			**Water**				**Sampled: 10/07/09 11:20**				
Diesel Range Organics	AK102/103	**1.35**	-----	0.391	mg/l	1x	9100088	10/19/09 15:19	10/21/09 17:24	JN	
Residual Range Organics	"	ND	-----	0.391	"	"	"	"	"	JN	
Surrogate(s): 1-Chlorooctadecane			*93.7%*		*50 - 150 %*	"				"	
Triacontane			*88.4%*		*50 - 150 %*	"				"	
ASJ0049-03 (MW-5)			**Water**				**Sampled: 10/07/09 12:20**				
Diesel Range Organics	AK102/103	**1.04**	-----	0.391	mg/l	1x	9100088	10/19/09 15:19	10/21/09 17:56	JN	
Residual Range Organics	"	ND	-----	0.391	"	"	"	"	"	JN	
Surrogate(s): 1-Chlorooctadecane			*82.5%*		*50 - 150 %*	"				"	
Triacontane			*80.7%*		*50 - 150 %*	"				"	

TestAmerica Anchorage

Johanna Dreher

Johanna L Dreher, Client Services Manager

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Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/23/09 16:15

Gasoline Range Organics (C6-C10) per AK101-MS

TestAmerica Anchorage

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0049-01 (MW-1)			**Water**				**Sampled: 10/07/09 10:25**				
Gasoline Range Organics	AK101 - MS	**1040**	-----	50.0	ug/l	1x	9100064	10/14/09 09:33	10/14/09 20:07	kc	
Surrogate(s): 4-BFB			*94.2%*		*85 - 115 %*	"			"		
Dibromofluoromethane			*113%*		*65 - 125 %*	"			"		
Toluene-d8			*98.7%*		*78 - 115 %*	"			"		
ASJ0049-02 (MW-3)			**Water**				**Sampled: 10/07/09 11:20**				
Gasoline Range Organics	AK101 - MS	**205**	-----	50.0	ug/l	1x	9100064	10/14/09 09:33	10/14/09 20:36	kc	
Surrogate(s): 4-BFB			*94.0%*		*85 - 115 %*	"			"		
Dibromofluoromethane			*108%*		*65 - 125 %*	"			"		
Toluene-d8			*98.4%*		*78 - 115 %*	"			"		
ASJ0049-03 (MW-5)			**Water**				**Sampled: 10/07/09 12:20**				
Gasoline Range Organics	AK101 - MS	ND	-----	50.0	ug/l	1x	9100064	10/14/09 09:33	10/14/09 21:05	kc	
Surrogate(s): 4-BFB			*96.8%*		*85 - 115 %*	"			"		
Dibromofluoromethane			*107%*		*65 - 125 %*	"			"		
Toluene-d8			*97.8%*		*78 - 115 %*	"			"		
ASJ0049-04 (Trip Blank)			**Water**				**Sampled: 10/07/09 00:00**				
Gasoline Range Organics	AK101 - MS	ND	-----	50.0	ug/l	1x	9100064	10/14/09 09:33	10/14/09 17:41	kc	
Surrogate(s): 4-BFB			*101%*		*85 - 115 %*	"			"		
Dibromofluoromethane			*112%*		*65 - 125 %*	"			"		
Toluene-d8			*97.6%*		*78 - 115 %*	"			"		

TestAmerica Anchorage

Johanna Dreher

Johanna L Dreher, Client Services Manager

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

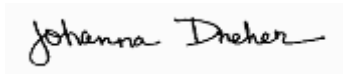
Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/23/09 16:15

EDB by EPA Method 8011

TestAmerica Spokane

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0049-01 (MW-1)		**Water**				**Sampled: 10/07/09 10:25**					
1,2-Dibromoethane	EPA 8011	ND	-----	0.0100	ug/l	1x	9100076	10/14/09 07:21	10/14/09 19:37	Mat	
1,2-Dibromo-3-chloropropane	"	ND	-----	0.0100	"	"	"	"	"	Mat	
ASJ0049-02 (MW-3)		**Water**				**Sampled: 10/07/09 11:20**					
1,2-Dibromoethane	EPA 8011	ND	-----	0.0100	ug/l	1x	9100076	10/14/09 07:21	10/14/09 20:03	Mat	
1,2-Dibromo-3-chloropropane	"	ND	-----	0.0100	"	"	"	"	"	Mat	
ASJ0049-03 (MW-5)		**Water**				**Sampled: 10/07/09 12:20**					
1,2-Dibromoethane	EPA 8011	ND	-----	0.0100	ug/l	1x	9100076	10/14/09 07:21	10/14/09 20:29	Mat	
1,2-Dibromo-3-chloropropane	"	ND	-----	0.0100	"	"	"	"	"	Mat	

TestAmerica Anchorage



Johanna L Dreher, Client Services Manager

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ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

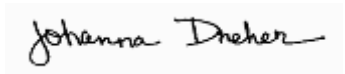
Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/23/09 16:15

Volatile Organic Compounds by EPA Method 8260B

TestAmerica Spokane

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0049-01 (MW-1)		**Water**				**Sampled: 10/07/09 10:25**					
Dichlorodifluoromethane	EPA 8260B	ND	-----	10.0	ug/l	10x	9100077	10/14/09 08:31	10/14/09 21:15	Chr	
Chloromethane	"	ND	-----	50.0	"	"	"	"	"	Chr	
Vinyl chloride	"	ND	-----	2.00	"	"	"	"	"	Chr	
Bromomethane	"	ND	-----	50.0	"	"	"	"	"	Chr	
Chloroethane	"	ND	-----	10.0	"	"	"	"	"	Chr	
Trichlorofluoromethane	"	ND	-----	10.0	"	"	"	"	"	Chr	
1,1-Dichloroethene	"	ND	-----	10.0	"	"	"	"	"	Chr	
Carbon disulfide	"	ND	-----	10.0	"	"	"	"	"	Chr	
Methylene chloride	"	ND	-----	100	"	"	"	"	"	Chr	
Acetone	"	ND	-----	250	"	"	"	"	"	Chr	
trans-1,2-Dichloroethene	"	ND	-----	10.0	"	"	"	"	"	Chr	
Methyl tert-butyl ether	"	ND	-----	10.0	"	"	"	"	"	Chr	
1,1-Dichloroethane	"	ND	-----	10.0	"	"	"	"	"	Chr	
cis-1,2-Dichloroethene	"	ND	-----	10.0	"	"	"	"	"	Chr	
2,2-Dichloropropane	"	ND	-----	10.0	"	"	"	"	"	Chr	
Bromochloromethane	"	ND	-----	10.0	"	"	"	"	"	Chr	
Chloroform	"	ND	-----	10.0	"	"	"	"	"	Chr	
Carbon tetrachloride	"	ND	-----	10.0	"	"	"	"	"	Chr	
1,1,1-Trichloroethane	"	ND	-----	10.0	"	"	"	"	"	Chr	
2-Butanone	"	ND	-----	100	"	"	"	"	"	Chr	
1,1-Dichloropropene	"	ND	-----	10.0	"	"	"	"	"	Chr	
Benzene	"	**25.4**	-----	2.00	"	"	"	"	"	Chr	
1,2-Dichloroethane (EDC)	"	ND	-----	10.0	"	"	"	"	"	Chr	
Trichloroethene	"	ND	-----	10.0	"	"	"	"	"	Chr	
Dibromomethane	"	ND	-----	10.0	"	"	"	"	"	Chr	
1,2-Dichloropropane	"	ND	-----	10.0	"	"	"	"	"	Chr	
Bromodichloromethane	"	ND	-----	10.0	"	"	"	"	"	Chr	
cis-1,3-Dichloropropene	"	ND	-----	10.0	"	"	"	"	"	Chr	
Toluene	"	ND	-----	10.0	"	"	"	"	"	Chr	
4-Methyl-2-pentanone	"	ND	-----	100	"	"	"	"	"	Chr	
trans-1,3-Dichloropropene	"	ND	-----	10.0	"	"	"	"	"	Chr	
Tetrachloroethene	"	ND	-----	10.0	"	"	"	"	"	Chr	
1,1,2-Trichloroethane	"	ND	-----	10.0	"	"	"	"	"	Chr	
Dibromochloromethane	"	ND	-----	10.0	"	"	"	"	"	Chr	
1,3-Dichloropropane	"	ND	-----	10.0	"	"	"	"	"	Chr	
1,2-Dibromoethane	"	ND	-----	10.0	"	"	"	"	"	Chr	
2-Hexanone	"	ND	-----	100	"	"	"	"	"	Chr	

TestAmerica Anchorage



Johanna L Dreher, Client Services Manager

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ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/23/09 16:15

Volatile Organic Compounds by EPA Method 8260B

TestAmerica Spokane

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0049-01 (MW-1)		**Water**				**Sampled: 10/07/09 10:25**					
Ethylbenzene	EPA 8260B	**81.8**	-----	10.0	ug/l	10x	9100077	10/14/09 08:31	10/14/09 21:15	Chr	
Chlorobenzene	"	ND	-----	10.0	"	"	"	"	"	Chr	
1,1,1,2-Tetrachloroethane	"	ND	-----	10.0	"	"	"	"	"	Chr	
m,p-Xylene	"	**141**	-----	20.0	"	"	"	"	"	Chr	
o-Xylene	"	**30.9**	-----	10.0	"	"	"	"	"	Chr	
Styrene	"	ND	-----	10.0	"	"	"	"	"	Chr	
Bromoform	"	ND	-----	10.0	"	"	"	"	"	Chr	
Isopropylbenzene	"	**32.1**	-----	10.0	"	"	"	"	"	Chr	
n-Propylbenzene	"	**51.6**	-----	10.0	"	"	"	"	"	Chr	
1,1,2,2-Tetrachloroethane	"	ND	-----	10.0	"	"	"	"	"	Chr	
Bromobenzene	"	ND	-----	10.0	"	"	"	"	"	Chr	
1,3,5-Trimethylbenzene	"	**103**	-----	10.0	"	"	"	"	"	Chr	
2-Chlorotoluene	"	ND	-----	10.0	"	"	"	"	"	Chr	
1,2,3-Trichloropropane	"	ND	-----	10.0	"	"	"	"	"	Chr	
4-Chlorotoluene	"	ND	-----	10.0	"	"	"	"	"	Chr	
tert-Butylbenzene	"	ND	-----	10.0	"	"	"	"	"	Chr	
1,2,4-Trimethylbenzene	"	**420**	-----	10.0	"	"	"	"	"	Chr	
sec-Butylbenzene	"	**21.3**	-----	10.0	"	"	"	"	"	Chr	
p-Isopropyltoluene	"	**18.4**	-----	10.0	"	"	"	"	"	Chr	
1,3-Dichlorobenzene	"	ND	-----	10.0	"	"	"	"	"	Chr	
1,4-Dichlorobenzene	"	ND	-----	10.0	"	"	"	"	"	Chr	
n-Butylbenzene	"	**26.8**	-----	10.0	"	"	"	"	"	Chr	
1,2-Dichlorobenzene	"	ND	-----	10.0	"	"	"	"	"	Chr	
1,2-Dibromo-3-chloropropane	"	ND	-----	50.0	"	"	"	"	"	Chr	
Hexachlorobutadiene	"	ND	-----	20.0	"	"	"	"	"	Chr	
1,2,4-Trichlorobenzene	"	ND	-----	10.0	"	"	"	"	"	Chr	
Naphthalene	"	**815**	-----	200	"	100x	"	"	10/14/09 15:52	Chr	
1,2,3-Trichlorobenzene	"	ND	-----	10.0	"	10x	"	"	10/14/09 21:15	Chr	

Surrogate(s):	*Dibromofluoromethane*	*92.4%*	*62.2 - 128 %*	*1x*	"
	Toluene-d8	*87.4%*	*75.4 - 120 %*	"	"
	4-bromofluorobenzene	*108%*	*77.3 - 129 %*	"	"

TestAmerica Anchorage

Johanna Dreher

Johanna L Dreher, Client Services Manager

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ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

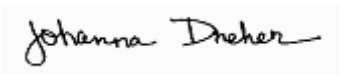
Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/23/09 16:15

Volatile Organic Compounds by EPA Method 8260B

TestAmerica Spokane

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0049-02 (MW-3)		**Water**				**Sampled: 10/07/09 11:20**					
Dichlorodifluoromethane	EPA 8260B	ND	-----	2.00	ug/l	2x	9100077	10/14/09 08:31	10/14/09 21:44	Chr	
Chloromethane	"	ND	-----	10.0	"	"	"	"	"	Chr	
Vinyl chloride	"	ND	-----	0.400	"	"	"	"	"	Chr	
Bromomethane	"	ND	-----	10.0	"	"	"	"	"	Chr	
Chloroethane	"	ND	-----	2.00	"	"	"	"	"	Chr	
Trichlorofluoromethane	"	ND	-----	2.00	"	"	"	"	"	Chr	
1,1-Dichloroethene	"	ND	-----	2.00	"	"	"	"	"	Chr	
Carbon disulfide	"	ND	-----	2.00	"	"	"	"	"	Chr	
Methylene chloride	"	ND	-----	20.0	"	"	"	"	"	Chr	
Acetone	"	ND	-----	50.0	"	"	"	"	"	Chr	
trans-1,2-Dichloroethene	"	ND	-----	2.00	"	"	"	"	"	Chr	
Methyl tert-butyl ether	"	ND	-----	2.00	"	"	"	"	"	Chr	
1,1-Dichloroethane	"	ND	-----	2.00	"	"	"	"	"	Chr	
cis-1,2-Dichloroethene	"	ND	-----	2.00	"	"	"	"	"	Chr	
2,2-Dichloropropane	"	ND	-----	2.00	"	"	"	"	"	Chr	
Bromochloromethane	"	ND	-----	2.00	"	"	"	"	"	Chr	
Chloroform	"	ND	-----	2.00	"	"	"	"	"	Chr	
Carbon tetrachloride	"	ND	-----	2.00	"	"	"	"	"	Chr	
1,1,1-Trichloroethane	"	ND	-----	2.00	"	"	"	"	"	Chr	
2-Butanone	"	ND	-----	20.0	"	"	"	"	"	Chr	
1,1-Dichloropropene	"	ND	-----	2.00	"	"	"	"	"	Chr	
Benzene	"	ND	-----	0.400	"	"	"	"	"	Chr	
1,2-Dichloroethane (EDC)	"	ND	-----	2.00	"	"	"	"	"	Chr	
Trichloroethene	"	ND	-----	2.00	"	"	"	"	"	Chr	
Dibromomethane	"	ND	-----	2.00	"	"	"	"	"	Chr	
1,2-Dichloropropane	"	ND	-----	2.00	"	"	"	"	"	Chr	
Bromodichloromethane	"	ND	-----	2.00	"	"	"	"	"	Chr	
cis-1,3-Dichloropropene	"	ND	-----	2.00	"	"	"	"	"	Chr	
Toluene	"	ND	-----	2.00	"	"	"	"	"	Chr	
4-Methyl-2-pentanone	"	ND	-----	20.0	"	"	"	"	"	Chr	
trans-1,3-Dichloropropene	"	ND	-----	2.00	"	"	"	"	"	Chr	
Tetrachloroethene	"	ND	-----	2.00	"	"	"	"	"	Chr	
1,1,2-Trichloroethane	"	ND	-----	2.00	"	"	"	"	"	Chr	
Dibromochloromethane	"	ND	-----	2.00	"	"	"	"	"	Chr	
1,3-Dichloropropane	"	ND	-----	2.00	"	"	"	"	"	Chr	
1,2-Dibromoethane	"	ND	-----	2.00	"	"	"	"	"	Chr	
2-Hexanone	"	ND	-----	20.0	"	"	"	"	"	Chr	

TestAmerica Anchorage



Johanna L Dreher, Client Services Manager

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CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/23/09 16:15

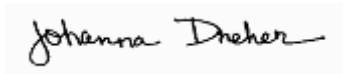
Volatile Organic Compounds by EPA Method 8260B

TestAmerica Spokane

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0049-02 (MW-3)		**Water**				**Sampled: 10/07/09 11:20**					
Ethylbenzene	EPA 8260B	**10.5**	-----	2.00	ug/l	2x	9100077	10/14/09 08:31	10/14/09 21:44	Chr	
Chlorobenzene	"	ND	-----	2.00	"	"	"	"	"	Chr	
1,1,1,2-Tetrachloroethane	"	ND	-----	2.00	"	"	"	"	"	Chr	
m,p-Xylene	"	**6.68**	-----	4.00	"	"	"	"	"	Chr	
o-Xylene	"	**3.34**	-----	2.00	"	"	"	"	"	Chr	
Styrene	"	ND	-----	2.00	"	"	"	"	"	Chr	
Bromoform	"	ND	-----	2.00	"	"	"	"	"	Chr	
Isopropylbenzene	"	**13.5**	-----	2.00	"	"	"	"	"	Chr	
n-Propylbenzene	"	**19.6**	-----	2.00	"	"	"	"	"	Chr	
1,1,2,2-Tetrachloroethane	"	ND	-----	2.00	"	"	"	"	"	Chr	
Bromobenzene	"	ND	-----	2.00	"	"	"	"	"	Chr	
1,3,5-Trimethylbenzene	"	**8.88**	-----	2.00	"	"	"	"	"	Chr	
2-Chlorotoluene	"	ND	-----	2.00	"	"	"	"	"	Chr	
1,2,3-Trichloropropane	"	ND	-----	2.00	"	"	"	"	"	Chr	
4-Chlorotoluene	"	ND	-----	2.00	"	"	"	"	"	Chr	
tert-Butylbenzene	"	ND	-----	2.00	"	"	"	"	"	Chr	
1,2,4-Trimethylbenzene	"	**89.8**	-----	2.00	"	"	"	"	"	Chr	
sec-Butylbenzene	"	**12.9**	-----	2.00	"	"	"	"	"	Chr	
p-Isopropyltoluene	"	**9.12**	-----	2.00	"	"	"	"	"	Chr	
1,3-Dichlorobenzene	"	ND	-----	2.00	"	"	"	"	"	Chr	
1,4-Dichlorobenzene	"	ND	-----	2.00	"	"	"	"	"	Chr	
n-Butylbenzene	"	**10.9**	-----	2.00	"	"	"	"	"	Chr	
1,2-Dichlorobenzene	"	ND	-----	2.00	"	"	"	"	"	Chr	
1,2-Dibromo-3-chloropropane	"	ND	-----	10.0	"	"	"	"	"	Chr	
Hexachlorobutadiene	"	ND	-----	4.00	"	"	"	"	"	Chr	
1,2,4-Trichlorobenzene	"	ND	-----	2.00	"	"	"	"	"	Chr	
Naphthalene	"	**22.3**	-----	4.00	"	"	"	"	"	Chr	
1,2,3-Trichlorobenzene	"	ND	-----	2.00	"	"	"	"	"	Chr	

Surrogate(s):	*Dibromofluoromethane*	*89.4%*	*62.2 - 128 %*	*1x*	*"*
	Toluene-d8	*89.0%*	*75.4 - 120 %*	*"*	*"*
	4-bromofluorobenzene	*116%*	*77.3 - 129 %*	*"*	*"*

TestAmerica Anchorage



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CS Approval Number: UST-067

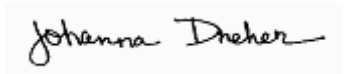
Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/23/09 16:15

Volatile Organic Compounds by EPA Method 8260B

TestAmerica Spokane

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0049-03 (MW-5)		**Water**				**Sampled: 10/07/09 12:20**					
Dichlorodifluoromethane	EPA 8260B	ND	-----	1.00	ug/l	1x	9100077	10/14/09 08:31	10/14/09 16:55	Chr	
Chloromethane	"	ND	-----	5.00	"	"	"	"	"	Chr	
Vinyl chloride	"	ND	-----	0.200	"	"	"	"	"	Chr	
Bromomethane	"	ND	-----	5.00	"	"	"	"	"	Chr	
Chloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Trichlorofluoromethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1-Dichloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Carbon disulfide	"	ND	-----	1.00	"	"	"	"	"	Chr	
Methylene chloride	"	ND	-----	10.0	"	"	"	"	"	Chr	
Acetone	"	ND	-----	25.0	"	"	"	"	"	Chr	
trans-1,2-Dichloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Methyl tert-butyl ether	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1-Dichloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
cis-1,2-Dichloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
2,2-Dichloropropane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Bromochloromethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Chloroform	"	ND	-----	1.00	"	"	"	"	"	Chr	
Carbon tetrachloride	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1,1-Trichloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
2-Butanone	"	ND	-----	10.0	"	"	"	"	"	Chr	
1,1-Dichloropropene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Benzene	"	ND	-----	0.200	"	"	"	"	"	Chr	
1,2-Dichloroethane (EDC)	"	ND	-----	1.00	"	"	"	"	"	Chr	
Trichloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Dibromomethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2-Dichloropropane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Bromodichloromethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
cis-1,3-Dichloropropene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Toluene	"	ND	-----	1.00	"	"	"	"	"	Chr	
4-Methyl-2-pentanone	"	ND	-----	10.0	"	"	"	"	"	Chr	
trans-1,3-Dichloropropene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Tetrachloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1,2-Trichloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Dibromochloromethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,3-Dichloropropane	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2-Dibromoethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
2-Hexanone	"	ND	-----	10.0	"	"	"	"	"	Chr	

TestAmerica Anchorage



Johanna L Dreher, Client Services Manager

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/23/09 16:15

Volatile Organic Compounds by EPA Method 8260B

TestAmerica Spokane

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0049-03 (MW-5)		**Water**				**Sampled: 10/07/09 12:20**					
Ethylbenzene	EPA 8260B	**1.35**	-----	1.00	ug/l	1x	9100077	10/14/09 08:31	10/14/09 16:55	Chr	
Chlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1,1,2-Tetrachloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
m,p-Xylene	"	ND	-----	2.00	"	"	"	"	"	Chr	
o-Xylene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Styrene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Bromoform	"	ND	-----	1.00	"	"	"	"	"	Chr	
Isopropylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
n-Propylbenzene	"	**2.07**	-----	1.00	"	"	"	"	"	Chr	
1,1,2,2-Tetrachloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Bromobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,3,5-Trimethylbenzene	"	**7.87**	-----	1.00	"	"	"	"	"	Chr	
2-Chlorotoluene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2,3-Trichloropropane	"	ND	-----	1.00	"	"	"	"	"	Chr	
4-Chlorotoluene	"	ND	-----	1.00	"	"	"	"	"	Chr	
tert-Butylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2,4-Trimethylbenzene	"	**5.69**	-----	1.00	"	"	"	"	"	Chr	
sec-Butylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
p-Isopropyltoluene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,3-Dichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,4-Dichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
n-Butylbenzene	"	**2.54**	-----	1.00	"	"	"	"	"	Chr	
1,2-Dichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2-Dibromo-3-chloropropane	"	ND	-----	5.00	"	"	"	"	"	Chr	
Hexachlorobutadiene	"	ND	-----	2.00	"	"	"	"	"	Chr	
1,2,4-Trichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Naphthalene	"	**2.12**	-----	2.00	"	"	"	"	"	Chr	
1,2,3-Trichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	

Surrogate(s):	*Dibromofluoromethane*	*90.4%*	*62.2 - 128 %*	"		"
	Toluene-d8	*85.6%*	*75.4 - 120 %*	"		"
	4-bromofluorobenzene	*108%*	*77.3 - 129 %*	"		"

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THE LEADER IN ENVIRONMENTAL TESTING

ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

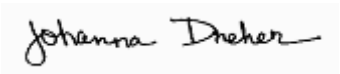
Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/23/09 16:15

Volatile Organic Compounds by EPA Method 8260B

TestAmerica Spokane

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0049-04 (Trip Blank)		**Water**				**Sampled: 10/07/09 00:00**					
Dichlorodifluoromethane	EPA 8260B	ND	-----	1.00	ug/l	1x	9100077	10/14/09 08:31	10/14/09 17:24	Chr	
Chloromethane	"	ND	-----	5.00	"	"	"	"	"	Chr	
Vinyl chloride	"	ND	-----	0.200	"	"	"	"	"	Chr	
Bromomethane	"	ND	-----	5.00	"	"	"	"	"	Chr	
Chloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Trichlorofluoromethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1-Dichloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Carbon disulfide	"	ND	-----	1.00	"	"	"	"	"	Chr	
Methylene chloride	"	ND	-----	10.0	"	"	"	"	"	Chr	
Acetone	"	ND	-----	25.0	"	"	"	"	"	Chr	
trans-1,2-Dichloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Methyl tert-butyl ether	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1-Dichloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
cis-1,2-Dichloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
2,2-Dichloropropane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Bromochloromethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Chloroform	"	ND	-----	1.00	"	"	"	"	"	Chr	
Carbon tetrachloride	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1,1-Trichloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
2-Butanone	"	ND	-----	10.0	"	"	"	"	"	Chr	
1,1-Dichloropropene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Benzene	"	ND	-----	0.200	"	"	"	"	"	Chr	
1,2-Dichloroethane (EDC)	"	ND	-----	1.00	"	"	"	"	"	Chr	
Trichloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Dibromomethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2-Dichloropropane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Bromodichloromethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
cis-1,3-Dichloropropene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Toluene	"	ND	-----	1.00	"	"	"	"	"	Chr	
4-Methyl-2-pentanone	"	ND	-----	10.0	"	"	"	"	"	Chr	
trans-1,3-Dichloropropene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Tetrachloroethene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1,2-Trichloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Dibromochloromethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,3-Dichloropropane	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2-Dibromoethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
2-Hexanone	"	ND	-----	10.0	"	"	"	"	"	Chr	

TestAmerica Anchorage



Johanna L Dreher, Client Services Manager

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ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/23/09 16:15

Volatile Organic Compounds by EPA Method 8260B

TestAmerica Spokane

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0049-04 (Trip Blank)		**Water**				**Sampled: 10/07/09 00:00**					
Ethylbenzene	EPA 8260B	ND	-----	1.00	ug/l	1x	9100077	10/14/09 08:31	10/14/09 17:24	Chr	
Chlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1,1,2-Tetrachloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
m,p-Xylene	"	ND	-----	2.00	"	"	"	"	"	Chr	
o-Xylene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Styrene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Bromoform	"	ND	-----	1.00	"	"	"	"	"	Chr	
Isopropylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
n-Propylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,1,2,2-Tetrachloroethane	"	ND	-----	1.00	"	"	"	"	"	Chr	
Bromobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,3,5-Trimethylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
2-Chlorotoluene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2,3-Trichloropropane	"	ND	-----	1.00	"	"	"	"	"	Chr	
4-Chlorotoluene	"	ND	-----	1.00	"	"	"	"	"	Chr	
tert-Butylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2,4-Trimethylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
sec-Butylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
p-Isopropyltoluene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,3-Dichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,4-Dichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
n-Butylbenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2-Dichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
1,2-Dibromo-3-chloropropane	"	ND	-----	5.00	"	"	"	"	"	Chr	
Hexachlorobutadiene	"	ND	-----	2.00	"	"	"	"	"	Chr	
1,2,4-Trichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	
Naphthalene	"	ND	-----	2.00	"	"	"	"	"	Chr	
1,2,3-Trichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	Chr	

Surrogate(s):	*Dibromofluoromethane*	*89.2%*	*62.2 - 128 %*	"	"
	Toluene-d8	*86.2%*	*75.4 - 120 %*	"	"
	4-bromofluorobenzene	*105%*	*77.3 - 129 %*	"	"

TestAmerica Anchorage

Johanna Dreher

Johanna L Dreher, Client Services Manager

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ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/23/09 16:15

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

TestAmerica Spokane

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0049-01 (MW-1)		**Water**				**Sampled: 10/07/09 10:25**					
1-Methylnapthalene	EPA 8270 mod.	**66.9**	-----	2.06	ug/l	20x	9100071	10/13/09 13:27	10/23/09 04:55	Mat	
2-Methylnaphthalene	"	**82.0**	-----	2.06	"	"	"	"	"	Mat	
Acenaphthene	"	**0.284**	-----	0.103	"	1x	"	"	10/14/09 21:10	Mat	
Acenaphthylene	"	ND	-----	0.103	"	"	"	"	"	Mat	
Anthracene	"	ND	-----	0.103	"	"	"	"	"	Mat	
Benzo (a) anthracene	"	ND	-----	0.103	"	"	"	"	"	Mat	
Benzo (a) pyrene	"	ND	-----	0.103	"	"	"	"	"	Mat	
Benzo (b) fluoranthene	"	ND	-----	0.103	"	"	"	"	"	Mat	
Benzo (ghi) perylene	"	ND	-----	0.103	"	"	"	"	"	Mat	
Benzo (k) fluoranthene	"	ND	-----	0.103	"	"	"	"	"	Mat	
Chrysene	"	ND	-----	0.103	"	"	"	"	"	Mat	
Dibenzo (a,h) anthracene	"	ND	-----	0.103	"	"	"	"	"	Mat	
Fluoranthene	"	ND	-----	0.103	"	"	"	"	"	Mat	
Fluorene	"	**0.459**	-----	0.103	"	"	"	"	"	Mat	
Indeno (1,2,3-cd) pyrene	"	ND	-----	0.103	"	"	"	"	"	Mat	
Naphthalene	"	**148**	-----	2.06	"	20x	"	"	10/23/09 04:55	Mat	
Phenanthrene	"	**0.304**	-----	0.103	"	1x	"	"	10/14/09 21:10	Mat	
Pyrene	"	ND	-----	0.103	"	"	"	"	"	Mat	

Surrogate(s):	*Nitrobenzene-d5*	*52.0%*	*29 - 150 %*	*20x*	*10/23/09 04:55*
	2-FBP	*32.6%*	*20.9 - 122 %*	*1x*	*10/14/09 21:10*
	p-Terphenyl-d14	*86.3%*	*35.2 - 150 %*	*"*	*"*

ASJ0049-02 (MW-3)		**Water**				**Sampled: 10/07/09 11:20**					
1-Methylnapthalene	EPA 8270 mod.	**6.60**	-----	0.101	ug/l	1x	9100071	10/13/09 13:27	10/14/09 21:31	Mat	
2-Methylnaphthalene	"	**1.55**	-----	0.101	"	"	"	"	"	Mat	
Acenaphthene	"	**0.131**	-----	0.101	"	"	"	"	"	Mat	
Acenaphthylene	"	**0.545**	-----	0.101	"	"	"	"	"	Mat	
Anthracene	"	ND	-----	0.101	"	"	"	"	"	Mat	
Benzo (a) anthracene	"	ND	-----	0.101	"	"	"	"	"	Mat	
Benzo (a) pyrene	"	ND	-----	0.101	"	"	"	"	"	Mat	
Benzo (b) fluoranthene	"	ND	-----	0.101	"	"	"	"	"	Mat	
Benzo (ghi) perylene	"	ND	-----	0.101	"	"	"	"	"	Mat	
Benzo (k) fluoranthene	"	ND	-----	0.101	"	"	"	"	"	Mat	
Chrysene	"	ND	-----	0.101	"	"	"	"	"	Mat	
Dibenzo (a,h) anthracene	"	ND	-----	0.101	"	"	"	"	"	Mat	
Fluoranthene	"	ND	-----	0.101	"	"	"	"	"	Mat	
Fluorene	"	**0.152**	-----	0.101	"	"	"	"	"	Mat	
Indeno (1,2,3-cd) pyrene	"	ND	-----	0.101	"	"	"	"	"	Mat	

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ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/23/09 16:15

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

TestAmerica Spokane

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0049-02 (MW-3)		**Water**				**Sampled: 10/07/09 11:20**					
Naphthalene	"	**3.72**	-----	0.101	"	"	"	"	"	Mat	
Phenanthrene	"	ND	-----	0.101	"	"	"	"	"	Mat	
Pyrene	"	ND	-----	0.101	"	"	"	"	"	Mat	
Surrogate(s): Nitrobenzene-d5			*44.0%*		*29 - 150 %*	"			"		
2-FBP			*44.9%*		*20.9 - 122 %*	"			"		
p-Terphenyl-d14			*66.6%*		*35.2 - 150 %*	"			"		
ASJ0049-03 (MW-5)		**Water**				**Sampled: 10/07/09 12:20**					
1-Methylnapthalene	EPA 8270 mod.	**0.150**	-----	0.104	ug/l	1x	9100071	10/13/09 13:27	10/14/09 21:53	Mat	
2-Methylnaphthalene	"	ND	-----	0.104	"	"	"	"	"	Mat	
Acenaphthene	"	ND	-----	0.104	"	"	"	"	"	Mat	
Acenaphthylene	"	**1.48**	-----	0.104	"	"	"	"	"	Mat	
Anthracene	"	ND	-----	0.104	"	"	"	"	"	Mat	
Benzo (a) anthracene	"	ND	-----	0.104	"	"	"	"	"	Mat	
Benzo (a) pyrene	"	ND	-----	0.104	"	"	"	"	"	Mat	
Benzo (b) fluoranthene	"	ND	-----	0.104	"	"	"	"	"	Mat	
Benzo (ghi) perylene	"	ND	-----	0.104	"	"	"	"	"	Mat	
Benzo (k) fluoranthene	"	ND	-----	0.104	"	"	"	"	"	Mat	
Chrysene	"	ND	-----	0.104	"	"	"	"	"	Mat	
Dibenzo (a,h) anthracene	"	ND	-----	0.104	"	"	"	"	"	Mat	
Fluoranthene	"	ND	-----	0.104	"	"	"	"	"	Mat	
Fluorene	"	ND	-----	0.104	"	"	"	"	"	Mat	
Indeno (1,2,3-cd) pyrene	"	ND	-----	0.104	"	"	"	"	"	Mat	
Naphthalene	"	**0.466**	-----	0.104	"	"	"	"	"	Mat	
Phenanthrene	"	ND	-----	0.104	"	"	"	"	"	Mat	
Pyrene	"	ND	-----	0.104	"	"	"	"	"	Mat	
Surrogate(s): Nitrobenzene-d5			*66.7%*		*29 - 150 %*	"			"		
2-FBP			*65.9%*		*20.9 - 122 %*	"			"		
p-Terphenyl-d14			*94.9%*		*35.2 - 150 %*	"			"		

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CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/23/09 16:15

Dissolved Metals per EPA 200 Series Methods

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0049-01 (MW-1)			**Water**			**Sampled: 10/07/09 10:25**					
Lead	EPA 200.8	ND	-----	0.00100	mg/l	1x	9100500	10/15/09 07:06	10/15/09 15:27	ajh	
ASJ0049-02 (MW-3)			**Water**			**Sampled: 10/07/09 11:20**					
Lead	EPA 200.8	ND	-----	0.00100	mg/l	1x	9100500	10/15/09 07:06	10/15/09 15:33	ajh	
ASJ0049-03 (MW-5)			**Water**			**Sampled: 10/07/09 12:20**					
Lead	EPA 200.8	ND	-----	0.00100	mg/l	1x	9100500	10/15/09 07:06	10/15/09 15:39	ajh	

TestAmerica Anchorage

Johanna Dreher

Johanna L Dreher, Client Services Manager

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ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/23/09 16:15

Lab Filtration

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ASJ0049-01 (MW-1)		**Water**				**Sampled: 10/07/09 10:25**					
Lab Filtration	NCA SOP	ND	-----	1.00	N/A	1x	9100442	10/14/09 07:15	10/14/09 07:15	BE	
ASJ0049-02 (MW-3)		**Water**				**Sampled: 10/07/09 11:20**					
Lab Filtration	NCA SOP	ND	-----	1.00	N/A	1x	9100442	10/14/09 07:15	10/14/09 07:15	BE	
ASJ0049-03 (MW-5)		**Water**				**Sampled: 10/07/09 12:20**					
Lab Filtration	NCA SOP	ND	-----	1.00	N/A	1x	9100442	10/14/09 07:15	10/14/09 07:15	BE	

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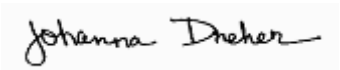

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Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/23/09 16:15

Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO - Laboratory Quality Control Results

TestAmerica Anchorage

QC Batch: 9100088 **Water Preparation Method: EPA 3510**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9100088-BLK1)							**Extracted: 10/19/09 15:19**							
Diesel Range Organics	AK102/103	ND	---	0.500	mg/l	1x	--	--	--	--	--	--	10/20/09 16:15	
Residual Range Organics	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 93.5%*			*Limits: 50-150%*	"							*10/20/09 16:15*	
Triacontane		*97.0%*			*50-150%*	"							"	
LCS (9100088-BS1)							**Extracted: 10/19/09 15:19**							
Diesel Range Organics	AK102/103	9.44	---	0.500	mg/l	1x	--	10.3	91.6%	(75-125)	--	--	10/20/09 16:15	
Residual Range Organics	"	9.29	---	0.500	"	"	--	10.2	91.0%	(60-120)	--	--	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 107%*			*Limits: 60-120%*	"							*10/20/09 16:15*	
Triacontane		*89.9%*			*60-120%*	"							"	
LCS Dup (9100088-BSD1)							**Extracted: 10/19/09 15:19**							
Diesel Range Organics	AK102/103	9.86	---	0.500	mg/l	1x	--	10.3	95.7%	(75-125)	4.39%	(20)	10/20/09 16:47	
Residual Range Organics	"	9.60	---	0.500	"	"	--	10.2	94.2%	(60-120)	3.36%	"	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 112%*			*Limits: 60-120%*	"							*10/20/09 16:47*	
Triacontane		*91.1%*			*60-120%*	"							"	
Duplicate (9100088-DUP1)					**QC Source: ASJ0043-02**		**Extracted: 10/19/09 15:19**							
Diesel Range Organics	AK102/103	ND	---	0.417	mg/l	1x	ND	--	--	--	26.6%	(20)	10/20/09 16:47	R4
Residual Range Organics	"	ND	---	0.417	"	"	ND	--	--	--	11.9%	(50)	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 85.8%*			*Limits: 50-150%*	"							*10/20/09 16:47*	
Triacontane		*88.3%*			*50-150%*	"							"	

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Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/23/09 16:15

Gasoline Range Organics (C6-C10) per AK101-MS - Laboratory Quality Control Results

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QC Batch: 9100064 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9100064-BLK1)							**Extracted: 10/14/09 09:33**							
Gasoline Range Organics	AK101 - MS	ND	---	50.0	ug/l	1x	--	--	--	--	--	--	10/14/09 17:12	
Surrogate(s): 4-BFB		*Recovery: 99.4%*			*Limits: 85-115%*	"							*10/14/09 17:12*	
Dibromofluoromethane		*111%*			*65-125%*	"							"	
Toluene-d8		*97.0%*			*78-115%*	"							"	
LCS (9100064-BS2)							**Extracted: 10/14/09 09:33**							
Gasoline Range Organics	AK101 - MS	462	---	50.0	ug/l	1x	--	550	84.0%	(60-120)	--	--	10/14/09 15:44	
Surrogate(s): 4-BFB		*Recovery: 95.0%*			*Limits: 85-115%*	"							*10/14/09 15:44*	
Dibromofluoromethane		*110%*			*65-125%*	"							"	
Toluene-d8		*96.2%*			*78-115%*	"							"	
LCS Dup (9100064-BSD2)							**Extracted: 10/14/09 09:33**							
Gasoline Range Organics	AK101 - MS	459	---	50.0	ug/l	1x	--	550	83.5%	(60-120)	0.632%	(20)	10/14/09 16:13	
Surrogate(s): 4-BFB		*Recovery: 97.2%*			*Limits: 85-115%*	"							*10/14/09 16:13*	
Dibromofluoromethane		*110%*			*65-125%*	"							"	
Toluene-d8		*96.6%*			*78-115%*	"							"	
Duplicate (9100064-DUP1)							**QC Source: ASJ0064-02**						**Extracted: 10/14/09 09:33**	
Gasoline Range Organics	AK101 - MS	750	---	50.0	ug/l	1x	739	--	--	--	1.48%	(12)	10/15/09 09:01	
Surrogate(s): 4-BFB		*Recovery: 95.4%*			*Limits: 85-115%*	"							*10/15/09 09:01*	
Dibromofluoromethane		*106%*			*65-125%*	"							"	
Toluene-d8		*95.8%*			*78-115%*	"							"	

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CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/23/09 16:15

EDB by EPA Method 8011 - Laboratory Quality Control Results

TestAmerica Spokane

QC Batch: 9100076 **Water Preparation Method: EPA 3510/600 Series**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9100076-BLK1)								**Extracted: 10/14/09 07:21**						
1,2-Dibromoethane	EPA 8011	ND	---	0.0100	ug/l	1x	--	--	--	--	--	--	10/14/09 18:19	
1,2-Dibromo-3-chloropropane	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
LCS (9100076-BS1)								**Extracted: 10/14/09 07:21**						
1,2-Dibromoethane	EPA 8011	0.142	---	0.0100	ug/l	1x	--	0.125	113%	(60-140)	--	--	10/14/09 18:45	
1,2-Dibromo-3-chloropropane	"	0.125	---	0.0100	"	"	--	"	100%	"	--	--	"	
LCS (9100076-BS2)								**Extracted: 10/14/09 07:21**						
1,2-Dibromoethane	EPA 8011	0.146	---	0.0100	ug/l	1x	--	0.125	117%	(60-140)	--	--	10/14/09 19:11	
1,2-Dibromo-3-chloropropane	"	0.144	---	0.0100	"	"	--	"	115%	"	--	--	"	

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CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/23/09 16:15

Volatile Organic Compounds by EPA Method 8260B - Laboratory Quality Control Results

TestAmerica Spokane

QC Batch: 9100077 **Water Preparation Method: GC/MS Volatiles**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9100077-BLK1)								**Extracted: 10/14/09 08:31**						
Dichlorodifluoromethane	EPA 8260B	ND	---	1.00	ug/l	1x	--	--	--	--	--	--	10/14/09 10:39	
Chloromethane	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Vinyl chloride	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
Bromomethane	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Chloroethane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Trichlorofluoromethane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,1-Dichloroethene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Carbon disulfide	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Methylene chloride	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
Acetone	"	ND	---	25.0	"	"	--	--	--	--	--	--	"	
trans-1,2-Dichloroethene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Methyl tert-butyl ether	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,1-Dichloroethane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
cis-1,2-Dichloroethene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
2,2-Dichloropropane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Bromochloromethane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Chloroform	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Carbon tetrachloride	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,1,1-Trichloroethane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
2-Butanone	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
1,1-Dichloropropene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Benzene	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
1,2-Dichloroethane (EDC)	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Trichloroethene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Dibromomethane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,2-Dichloropropane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Bromodichloromethane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
cis-1,3-Dichloropropene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Toluene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
4-Methyl-2-pentanone	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
trans-1,3-Dichloropropene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Tetrachloroethene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,1,2-Trichloroethane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Dibromochloromethane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,3-Dichloropropane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,2-Dibromoethane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
2-Hexanone	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
Ethylbenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Chlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	

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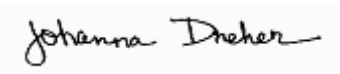

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Seattle, WA 98102	Project Manager:	Greg Montgomery	10/23/09 16:15

Volatile Organic Compounds by EPA Method 8260B - Laboratory Quality Control Results

TestAmerica Spokane

QC Batch: 9100077 **Water Preparation Method: GC/MS Volatiles**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9100077-BLK1)							**Extracted: 10/14/09 08:31**							
1,1,1,2-Tetrachloroethane	EPA 8260B	ND	---	1.00	ug/l	1x	--	--	--	--	--	--	10/14/09 10:39	
m,p-Xylene	"	ND	---	2.00	"	"	--	--	--	--	--	--	"	
o-Xylene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Styrene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Bromoform	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Isopropylbenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
n-Propylbenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,1,2,2-Tetrachloroethane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Bromobenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,3,5-Trimethylbenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
2-Chlorotoluene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,2,3-Trichloropropane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
4-Chlorotoluene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
tert-Butylbenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,2,4-Trimethylbenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
sec-Butylbenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
p-Isopropyltoluene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,3-Dichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,4-Dichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
n-Butylbenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,2-Dichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,2-Dibromo-3-chloropropane	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Hexachlorobutadiene	"	ND	---	2.00	"	"	--	--	--	--	--	--	"	
1,2,4-Trichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Naphthalene	"	ND	---	2.00	"	"	--	--	--	--	--	--	"	
1,2,3-Trichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Surrogate(s):	*Dibromofluoromethane*	*Recovery:*	*85.8%*	*Limits:*	*62.2-128%*	*"*							*10/14/09 10:39*	
	Toluene-d8		*84.8%*		*75.4-120%*	*"*							*"*	
	4-bromofluorobenzene		*93.6%*		*77.3-129%*	*"*							*"*	

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Arcadis - Seattle	Project Name: **FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number: 306443	Report Created:
Seattle, WA 98102	Project Manager: Greg Montgomery	10/23/09 16:15

Volatile Organic Compounds by EPA Method 8260B - Laboratory Quality Control Results

TestAmerica Spokane

QC Batch: 9100077 **Water Preparation Method: GC/MS Volatiles**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS (9100077-BS1)								**Extracted: 10/14/09 08:31**						
1,1-Dichloroethene	EPA 8260B	10.4	---	1.00	ug/l	1x	--	10.0	104%	(60.4-140)	--	--	10/14/09 11:07	
Benzene	"	11.0	---	0.200	"	"	--	"	110%	(72.9-120)	--	--	"	
Trichloroethene	"	10.2	---	1.00	"	"	--	"	102%	(73.7-120)	--	--	"	
Toluene	"	10.8	---	1.00	"	"	--	"	108%	(72.4-132)	--	--	"	
Chlorobenzene	"	9.97	---	1.00	"	"	--	"	99.7%	(80-120)	--	--	"	
Surrogate(s): Dibromofluoromethane		*Recovery: 88.0%*			*Limits: 62.2-128%*	"							*10/14/09 11:07*	
Toluene-d8		*86.8%*			*75.4-120%*	"							"	
4-bromofluorobenzene		*97.6%*			*77.3-129%*	"							"	
Matrix Spike (9100077-MS1)							**QC Source: SSJ0061-02**		**Extracted: 10/14/09 08:31**					
1,1-Dichloroethene	EPA 8260B	10.3	---	1.00	ug/l	1x	ND	10.0	103%	(52.5-135)	--	--	10/14/09 17:53	
Benzene	"	11.5	---	0.200	"	"	ND	"	115%	(72.3-120)	--	--	"	
Trichloroethene	"	10.4	---	1.00	"	"	ND	"	104%	(80-120)	--	--	"	
Toluene	"	10.4	---	1.00	"	"	ND	"	104%	(62.7-137)	--	--	"	
Chlorobenzene	"	9.76	---	1.00	"	"	ND	"	97.6%	(78.9-120)	--	--	"	
Surrogate(s): Dibromofluoromethane		*Recovery: 91.4%*			*Limits: 62.2-128%*	"							*10/14/09 17:53*	
Toluene-d8		*84.0%*			*75.4-120%*	"							"	
4-bromofluorobenzene		*100%*			*77.3-129%*	"							"	
Matrix Spike Dup (9100077-MSD1)							**QC Source: SSJ0061-02**		**Extracted: 10/14/09 08:31**					
1,1-Dichloroethene	EPA 8260B	10.6	---	1.00	ug/l	1x	ND	10.0	106%	(52.5-135)	2.68%	(10.5)	10/14/09 18:22	
Benzene	"	11.4	---	0.200	"	"	ND	"	114%	(72.3-120)	1.14%	(10.7)	"	
Trichloroethene	"	10.4	---	1.00	"	"	ND	"	104%	(80-120)	0.00%	(10)	"	
Toluene	"	10.6	---	1.00	"	"	ND	"	106%	(62.7-137)	2.18%	(13)	"	
Chlorobenzene	"	9.74	---	1.00	"	"	ND	"	97.4%	(78.9-120)	0.205%	(11.2)	"	
Surrogate(s): Dibromofluoromethane		*Recovery: 91.0%*			*Limits: 62.2-128%*	"							*10/14/09 18:22*	
Toluene-d8		*84.2%*			*75.4-120%*	"							"	
4-bromofluorobenzene		*99.8%*			*77.3-129%*	"							"	

TestAmerica Anchorage

Johanna Dreher

Johanna L Dreher, Client Services Manager

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/23/09 16:15

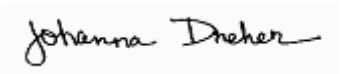
Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring - Laboratory Quality Control Results

TestAmerica Spokane

QC Batch: 9100071 **Water Preparation Method: EPA 3510/600 Series**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9100071-BLK1)							**Extracted: 10/13/09 13:27**							
1-Methylnapthalene	EPA 8270 mod.	ND	---	0.100	ug/l	1x	--	--	--	--	--	--	10/14/09 20:05	
2-Methylnaphthalene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Acenaphthene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Acenaphthylene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Anthracene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Benzo (a) anthracene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Benzo (a) pyrene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Benzo (b) fluoranthene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Benzo (ghi) perylene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Benzo (k) fluoranthene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Chrysene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Dibenzo (a,h) anthracene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Fluoranthene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Fluorene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Indeno (1,2,3-cd) pyrene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Naphthalene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Phenanthrene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Pyrene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Surrogate(s): Nitrobenzene-d5		*Recovery: 51.3%*			*Limits: 29-150%*	"							*10/14/09 20:05*	
2-FBP		*46.4%*			*20.9-122%*	"							"	
p-Terphenyl-d14		*59.4%*			*35.2-150%*	"							"	
LCS (9100071-BS1)							**Extracted: 10/13/09 13:27**							
Chrysene	EPA 8270 mod.	4.10	---	0.100	ug/l	1x	--	5.00	81.9%	(24.8-120)	--	--	10/14/09 20:27	
Fluorene	"	3.93	---	0.100	"	"	--	"	78.6%	(35.4-120)	--	--	"	
Indeno (1,2,3-cd) pyrene	"	3.88	---	0.100	"	"	--	"	77.6%	(31.1-134)	--	--	"	
Naphthalene	"	3.00	---	0.100	"	"	--	"	60.1%	(21.8-120)	--	--	"	
Surrogate(s): Nitrobenzene-d5		*Recovery: 72.5%*			*Limits: 29-150%*	"							*10/14/09 20:27*	
2-FBP		*84.0%*			*20.9-122%*	"							"	
p-Terphenyl-d14		*99.8%*			*35.2-150%*	"							"	

TestAmerica Anchorage



Johanna L Dreher, Client Services Manager

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CS Approval Number: UST-067

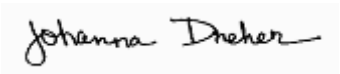
Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/23/09 16:15

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring - Laboratory Quality Control Results
TestAmerica Spokane

QC Batch: 9100071 **Water Preparation Method: EPA 3510/600 Series**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS Dup (9100071-BSD1)							**Extracted: 10/13/09 13:27**							
Chrysene	EPA 8270 mod.	3.77	---	0.100	ug/l	1x	--	5.00	75.4%	(24.8-120)	8.26%	(31.7)	10/14/09 20:48	
Fluorene	"	3.60	---	0.100	"	"	--	"	72.1%	(35.4-120)	8.63%	(28.9)	"	
Indeno (1,2,3-cd) pyrene	"	3.76	---	0.100	"	"	--	"	75.1%	(31.1-134)	3.27%	(35)	"	
Naphthalene	"	2.75	---	0.100	"	"	--	"	55.0%	(21.8-120)	8.86%	"	"	
Surrogate(s):	*Nitrobenzene-d5*	*Recovery:*	*58.1%*		*Limits:*	*29-150%*	*"*						*10/14/09 20:48*	
	2-FBP		*65.9%*			*20.9-122%*	*"*						*"*	
	p-Terphenyl-d14		*80.0%*			*35.2-150%*	*"*						*"*	

TestAmerica Anchorage



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Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/23/09 16:15

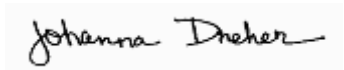
Dissolved Metals per EPA 200 Series Methods - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9100500 **Water Preparation Method: EPA 200/3005 Diss**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9100500-BLK1)								**Extracted: 10/15/09 07:06**						
Lead	EPA 200.8	ND	---	0.00100	mg/l	1x	--	--	--	--	--	--	10/15/09 14:13	
LCS (9100500-BS1)								**Extracted: 10/15/09 07:06**						
Lead	EPA 200.8	0.0911	---	0.00100	mg/l	1x	--	0.100	91.1%	(85-115)	--	--	10/15/09 14:19	
Duplicate (9100500-DUP1)					**QC Source: PSJ0323-03**					**Extracted: 10/15/09 07:06**				
Lead	EPA 200.8	ND	---	0.00100	mg/l	1x	ND	--	--	--	NR	(20)	10/15/09 14:42	
Matrix Spike (9100500-MS1)					**QC Source: PSJ0323-04**					**Extracted: 10/15/09 07:06**				
Lead	EPA 200.8	0.0920	---	0.00100	mg/l	1x	ND	0.100	92.0%	(70-130)	--	--	10/15/09 14:53	

TestAmerica Anchorage



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Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/23/09 16:15

Lab Filtration - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9100442 **Water Preparation Method: Lab Filter**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9100442-BLK1)								**Extracted: 10/14/09 07:15**						
Lab Filtration	NCA SOP	ND	---	1.00	N/A	1x	--	--	--	--	--	--	10/14/09 07:15	

TestAmerica Anchorage

Johanna Dreher

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CS Approval Number: UST-067

Arcadis - Seattle	Project Name:	**FIA Unocal**	
2300 East Lake Ave East Suite 100	Project Number:	306443	Report Created:
Seattle, WA 98102	Project Manager:	Greg Montgomery	10/23/09 16:15

Notes and Definitions

Report Specific Notes:

R4 - Due to the low levels of analyte in the sample, the duplicate RPD calculation does not provide useful information.

Laboratory Reporting Conventions:

DET - Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.

ND - Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).

NR/NA - Not Reported / Not Available

dry - Sample results reported on a Dry Weight Basis. Results and Reporting Limits have been corrected for Percent Dry Weight.

wet - Sample results and reporting limits reported on a Wet Weight Basis (as received). Results with neither 'wet' nor 'dry' are reported on a Wet Weight Basis.

RPD - RELATIVE PERCENT DIFFERENCE (RPDs calculated using Results, not Percent Recoveries).

MRL - METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.

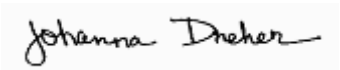
MDL* - METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. *MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated Results.

Dil - Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.

Reporting Limits - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.

Electronic Signature - Electronic Signature added in accordance with TestAmerica's *Electronic Reporting and Electronic Signatures Policy.* Application of electronic signature indicates that the report has been reviewed and approved for release by the laboratory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

TestAmerica Anchorage



Johanna L Dreher, Client Services Manager

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-8244 425-420-9200 FAX 420-9210
11922 E. First Ave, Spokane, WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave,Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: ASJ0049

CLIENT: Chevron EMC

REPORT TO: ARCADIS
ADDRESS: 2300 Eastlake Ave. E, Ste. 200
Seattle, WA 98102
PHONE: 206-726-4742 FAX: 206-325-8218

INVOICE TO: Chevron EMC

P.O. NUMBER: NWRTB-0306443-1-LAB

PROJECT NAME: FIA Unocal
PROJECT NUMBER: 306443
SAMPLED BY: MLS

TURNAROUND REQUEST in Business Days *

Organic & Inorganic Analyses: ~~10~~ STD. | 7 | 5 | 4 | 3 | 2 | 1 | <1

Petroleum Hydrocarbon Analyses: 5 STD. | 4 | 3 | 2 | 1 | <1

OTHER Specify:

* *Turnaround Requests less than standard may incur Rush Charges.*

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	PRESERVATIVE	REQUESTED ANALYSES: VOCs 8260B	GRO AK101	DRO AK102	RRO AK103	EDB 8011	PAHs 8270C SIM	Dissol. Lead 200.8	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1	MW-1	10/7/09 / 1025	HCl	X	X	X	X	X	X	X	W	12		01
2	MW-3	10/7/09 / 1120	HCl	X	X	X	X	X	X	X	W	12		02
3	MW-5	10/7/09 / 1220	HCl	X	X	X	X	X	X	X	W	12		03
4	Trip Blank		—	X	X						O	6		04
5			—											
6			—											
7			—											
8			—											
9			—											
10			—											

RELEASED BY: [signature] DATE: 10/8/09
PRINT NAME: Michael Strickler FIRM: ARCADIS TIME: 0800

RECEIVED BY: [signature] DATE: 10/9/09
PRINT NAME: Anastasia Gumnlia FIRM: TA Arc TIME: 10:30

RELEASED BY: DATE:
PRINT NAME: FIRM: TIME:

RECEIVED BY: DATE:
PRINT NAME: FIRM: TIME:

ADDITIONAL REMARKS:

cooler 1 : TEMP: 1.6
2 : 1.4

PAGE 1 OF 1

TAL-1000(0408)

cooler #1

Test America Anchorage Cooler Receipt Form

(Army Corps. Compliant)

WORK ORDER # ASJ0049 CLIENT: Arcadis PROJECT: FIA Unocal

Date /Time Cooler Arrived 10 / 9 / 09 ____:____ Cooler signed for by: Anastasia Gumulia
(Print name)

Preliminary Examination Phase:

Date cooler opened: [X] same as date received *or* ____/____/____

Cooler opened by (print) Anastasia Gumulia (sign) [signature]

1. Delivered by [ ] ALASKA AIRLINES [X] Fed-Ex [ ] UPS [ ] NAC [ ] LYNDEN [ ] CLIENT [ ] Other: ____

Shipment Tracking # if applicable 8688 9297 8216 (include copy of shipping papers in file)

2. Number of Custody Seals 1 Signed by see back Date 10 / 8 / 09

Were custody seals unbroken and intact on arrival? [X] Yes [ ] No

3. Were custody papers sealed in a plastic bag? [X] Yes [ ] No

4. Were custody papers filled out properly (ink, signed, etc.)? [X] Yes [ ] No

5. Did you sign the custody papers in the appropriate place? [X] Yes [ ] No

6. Was ice used? [X] Yes [ ] No Type of ice: [ ] blue ice [ ] gel ice [X] real ice [ ] dry ice Condition of Ice: melting

Temperature by Digi-Thermo Probe 1.6 °C Thermometer # 5
Acceptance Criteria: 0 - 6°C

7. Packing in Cooler: [X] bubble wrap [ ] styrofoam [ ] cardboard [ ] Other: ____

8. Did samples arrive in plastic bags? [ ] Yes [X] No

9. Did all bottles arrive unbroken, and with labels in good condition? [X] Yes [ ] No

10. Are all bottle labels complete (ID, date, time, etc.) [X] Yes [ ] No

11. Do bottle labels and Chain of Custody agree? [X] Yes [ ] No

12. Are the containers and preservatives correct for the tests indicated? [X] Yes [ ] No

13. Conoco Phillips, Alyeska, BP H2O samples only: pH < 2? [ ] Yes [ ] No [X] N/A

14. Is there adequate volume for the tests requested? [X] Yes [ ] No

15. Were VOA vials free of bubbles? [ ] N/A [ ] Yes [X] No

If "NO" which containers contained "head space" or bubbles? Trip Blanks

Log-in Phase:

Date of sample log-in 10 / 9 / 09

Samples logged in by (print) Anastasia Gumulia (sign) [signature]

1. Was project identifiable from custody papers? [X] Yes [ ] No
2. Do Turn Around Times and Due Dates agree? [X] Yes [ ] No
3. Was the Project Manager notified of status? [X] Yes [ ] No
4. Was the Lab notified of status? [X] Yes [ ] No
5. Was the COC scanned and copied? [X] Yes [ ] No

cooler #2

Test America Anchorage Cooler Receipt Form

(Army Corps. Compliant)

WORK ORDER # ASJ0049 CLIENT: Arcadis PROJECT: FIA Unocal

Date /Time Cooler Arrived 10 / 9 / 09 10 : 30 Cooler signed for by: Anastasia Gumulia
(Print name)

Preliminary Examination Phase:

Date cooler opened: [X] same as date received *or* ____/____/____

Cooler opened by (print) Anastasia Gumulia (sign) [signature]

1. Delivered by [ ] ALASKA AIRLINES [X] Fed-Ex [ ] UPS [ ] NAC [ ] LYNDEN [ ] CLIENT [ ] Other:

Shipment Tracking # if applicable 7955 0469 7979 (include copy of shipping papers in file)

2. Number of Custody Seals 1 Signed by See back Date 10 / 8 / 09

Were custody seals unbroken and intact on arrival? [X] Yes [ ] No

3. Were custody papers sealed in a plastic bag? [ ] Yes [ ] No NO COC

4. Were custody papers filled out properly (ink, signed, etc.)? N/A [ ] Yes [ ] No

5. Did you sign the custody papers in the appropriate place? [ ] Yes [ ] No

6. Was ice used? [X] Yes [ ] No Type of ice: [ ] blue ice [ ] gel ice [X] real ice [ ] dry ice Condition of Ice: melting

Temperature by Digi-Thermo Probe 1.4 °C Thermometer # 5
Acceptance Criteria: 0 - 6°C

7. Packing in Cooler: [X] bubble wrap [ ] styrofoam [ ] cardboard [ ] Other:

8. Did samples arrive in plastic bags? [ ] Yes [X] No

9. Did all bottles arrive unbroken, and with labels in good condition? [X] Yes [ ] No

10. Are all bottle labels complete (ID, date, time, etc.) [X] Yes [ ] No

11. Do bottle labels and Chain of Custody agree? [X] Yes [ ] No

12. Are the containers and preservatives correct for the tests indicated? [X] Yes [ ] No

13. Conoco Phillips, Alyeska, BP H2O samples only: pH < 2? [ ] Yes [ ] No [X] N/A

14. Is there adequate volume for the tests requested? [X] Yes [ ] No

15. Were VOA vials free of bubbles? [ ] N/A [ ] Yes [X] No

If "NO" which containers contained "head space" or bubbles? Trip Blanks

Log-in Phase:

Date of sample log-in 10 / 9 / 09

Samples logged in by (print) Anastasia Gumulia (sign) [signature]

1. Was project identifiable from custody papers? [X] Yes [ ] No
2. Do Turn Around Times and Due Dates agree? [X] Yes [ ] No
3. Was the Project Manager notified of status? [X] Yes [ ] No
4. Was the Lab notified of status? [X] Yes [ ] No
5. Was the COC scanned and copied? [X] Yes [ ] No

cooler #1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
456636

Custody Seal

DATE 10/8/09

SIGNATURE

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
456636

Cooler #2

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
456635

Custody Seal 10/8/09

DATE

SIGNATURE

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
456635

ARCADIS

Appendix C

ADEC Data Review Checklists

Laboratory Data Review Checklist

Completed by:	David Rasar
Title:	Scientist II
Date:	December 4, 2009
CS Report Name:	Second Semi-annual 2009 Groundwater Monitoring Report
Report Date:	October 22, 2009
Consultant Firm:	ARCADIS
Laboratory Name:	Test America
Laboratory Report Number:	ASJ0044
ADEC File Number:	100.24.040
ADEC RecKey Number:	1992310003501

1. Laboratory

   a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

   ☑ Yes ☐ No Comments:

   b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

   ☐ Yes ☐ No Comments:

   NA

2. Chain of Custody (COC)

   a. COC information completed, signed, and dated (including released/received by)?

   ☑ Yes ☐ No Comments:

   b. Correct analyses requested?

   ☑ Yes ☐ No Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☑ Yes ☐ No Comments:

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☑ Yes ☐ No Comments:

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☐ Yes ☐ No Comments:

NA

e. Data quality or usability affected? Explain.

Comments:

Not affected.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☐ Yes ☐ No Comments:

NA

c. Were all corrective actions documented?

☐ Yes ☐ No Comments:

NA

d. What is the effect on data quality/usability according to the case narrative?

Comments:

None.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☉ Yes ○ No Comments:

b. All applicable holding times met?

☉ Yes ○ No Comments:

c. All soils reported on a dry weight basis?

○ Yes ○ No Comments:

NA

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☉ Yes ○ No Comments:

e. Data quality or usability affected?

Comments:

Not affected.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☉ Yes ○ No Comments:

ii. All method blank results less than PQL?

☉ Yes ○ No Comments:

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No Comments:

NA

v. Data quality or usability affected? Explain.

Comments:

Not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No Comments:

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☑ Yes ☐ No Comments:

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

NA

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No Comments:

NA

vii. Data quality or usability affected? (Use comment box to explain)
Comments:

Not affected.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☑ Yes ☐ No Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No Comments:

NA

iv. Data quality or usability affected? (Use the comment box to explain.)
Comments:

Not affected.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (if not, enter explanation below.)

☑ Yes ☐ No Comments:

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No Comments:

Yes

iii. All results less than PQL?

☑ Yes ☐ No Comments:

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? Explain.

Comments:

Not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☑ Yes ☐ No Comments:

ii. Submitted blind to lab?

☑ Yes ☐ No Comments:

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$$

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

☑ Yes ☐ No Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

Duplicate and parent sample concentrations ND with maximum 3% RPD for detection limits.

f. Decontamination or Equipment Blank (If not applicable, a comment stating why must be entered below.)

☐ Yes ☐ No ☒ Not Applicable

i. All results less than PQL?

☐ Yes ☐ No Comments:

NA

ii. If above PQL, what samples are affected?

Comments:

NA

iii. Data quality or usability affected? Explain.

Comments:

NA

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

☒ Yes ☐ No Comments:

Laboratory Data Review Checklist

Completed by:	David Rasar
Title:	Scientist II
Date:	December 4, 2009
CS Report Name:	Second Semi-Annual 2009 Groundwater Monitoring Report
Report Date:	October 23, 2009
Consultant Firm:	ARCADIS
Laboratory Name:	Test America
Laboratory Report Number:	ASJ0049
ADEC File Number:	100.26.040
ADEC RecKey Number:	1992310003501

1. Laboratory

   a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

   ☑ Yes ☐ No Comments:

   b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

   ☐ Yes ☐ No Comments:

   NA

2. Chain of Custody (COC)

   a. COC information completed, signed, and dated (including released/received by)?

   ☑ Yes ☐ No Comments:

   b. Correct analyses requested?

   ☑ Yes ☐ No Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☑ Yes ☐ No Comments:

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☐ Yes ☑ No Comments:

NA

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☐ Yes ☐ No Comments:

NA

e. Data quality or usability affected? Explain.

Comments:

Not affected.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☐ Yes ☐ No Comments:

NA

c. Were all corrective actions documented?

☐ Yes ☐ No Comments:

NA

d. What is the effect on data quality/usability according to the case narrative?

Comments:

NA

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☉ Yes ○ No Comments:

b. All applicable holding times met?

☉ Yes ○ No Comments:

c. All soils reported on a dry weight basis?

○ Yes ○ No Comments:

NA

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☉ Yes ○ No Comments:

e. Data quality or usability affected?

Comments:

NA

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☉ Yes ○ No Comments:

ii. All method blank results less than PQL?

☉ Yes ○ No Comments:

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No Comments:

NA

v. Data quality or usability affected? Explain.

Comments:

Not affected

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No Comments:

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☑ Yes ☐ No Comments:

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

NA

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No Comments:

NA

vii. Data quality or usability affected? (Use comment box to explain)

Comments:

Not affected

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☑ Yes ☐ No Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No Comments:

NA

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

Not affected

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (if not, enter explanation below.)

☑ Yes ☐ No Comments:

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No Comments:

Yes

iii. All results less than PQL?

☑ Yes ☐ No Comments:

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? Explain.

Comments:

Not affected

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☐ Yes ☐ No Comments:

NA

ii. Submitted blind to lab?

☐ Yes ☐ No Comments:

NA

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

RPD (%) = Absolute value of: $\frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

☐ Yes ☐ No Comments:

NA

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

NA

f. Decontamination or Equipment Blank (If not applicable, a comment stating why must be entered below.)

☐ Yes ☐ No ☒ Not Applicable

i. All results less than PQL?

☐ Yes ☐ No Comments:

NA

ii. If above PQL, what samples are affected?

Comments:

NA

iii. Data quality or usability affected? Explain.

Comments:

NA

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

☐ Yes ☐ No Comments:

NA