AGRA
Earth & Environmental

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March 20, 1997
6-024-01173-1 Task 5

Seekins Ford-Lincoln-Mercury
1625 Old Steese Highway
Fairbanks, Alaska 99712

FILE COPY

Attention: Al Haynes

RE: GROUNDWATER SAMPLING RESULTS, FEBRUARY 1997
SEEKINS FORD-LINCOLN-MERCURY, NRO File No. 100.26.131

Dear Al:

In February 1997, AGRA Earth & Environmental, Inc. (AEE) completed the fourth quarterly sampling event under the *Interim Corrective Action Plan* (ICAP) approved for Seekins Ford-Lincoln-Mercury in Fairbanks, Alaska. The plan was approved by the Alaska Department of Environmental Conservation (ADEC) and the Environmental Protection Agency (EPA) in April 1996. This letter summarizes the results of the fourth sampling event. The locations of the monitoring wells are shown on the attached Figure 1.

FIELD METHODS

Prior to sampling, AEE field personnel measured the depth to water in each well using an Associated Remedial Technologies, Inc. Model IS101-E hydrocarbon interface probe. This measurement was then subtracted from the surveyed elevation of the top of the well casing to yield the elevation of the water surface within the well. The survey data and measurements obtained during sample collection are included in the attached Table 1.

During well sampling, AEE personnel used the decontamination, purging, and sampling procedures outlined in the ADEC *Underground Storage Tanks Procedures Manual.* Disposable polyethylene bailers were used to retrieve the water samples. One sample was collected as a quality assurance (QA) duplicate sample from monitoring well MW-3. The water samples and QA duplicate were shipped in a chilled cooler to the AEE Environmental Chemistry Laboratory in Portland, Oregon.

RESULTS

The original samples and the QA duplicate were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) by Alaska Test Method AK101, gasoline range petroleum hydrocarbons (GRPH) by Alaska Test Method AK101, diesel range petroleum hydrocarbons (DRPH) by Alaska Test Method AK102, and volatile organic compounds (VOCs) by EPA Method 624. Additionally, select

samples were analyzed for polynuclear aromatic hydrocarbons (PAHs) based on the proximity of the monitoring wells to the former injection well area. Copies of the laboratory analytical reports for these samples are included with this letter. In addition to the above samples, AEE field personnel submitted a trip blank sample, which accompanied the samples throughout the sampling event. This sample exhibited non-detectable concentrations of all tested compounds. Sampling data and analytical results are summarized in Tables 1 and 2.

CLOSURE

AEE is pleased to be of continued service to Seekins. We will be collecting water level measurements at each well monthly during March and April 1997. We will provide you with a summary of that information after completing the work. If you have any questions or comments regarding this letter, please contact our office.

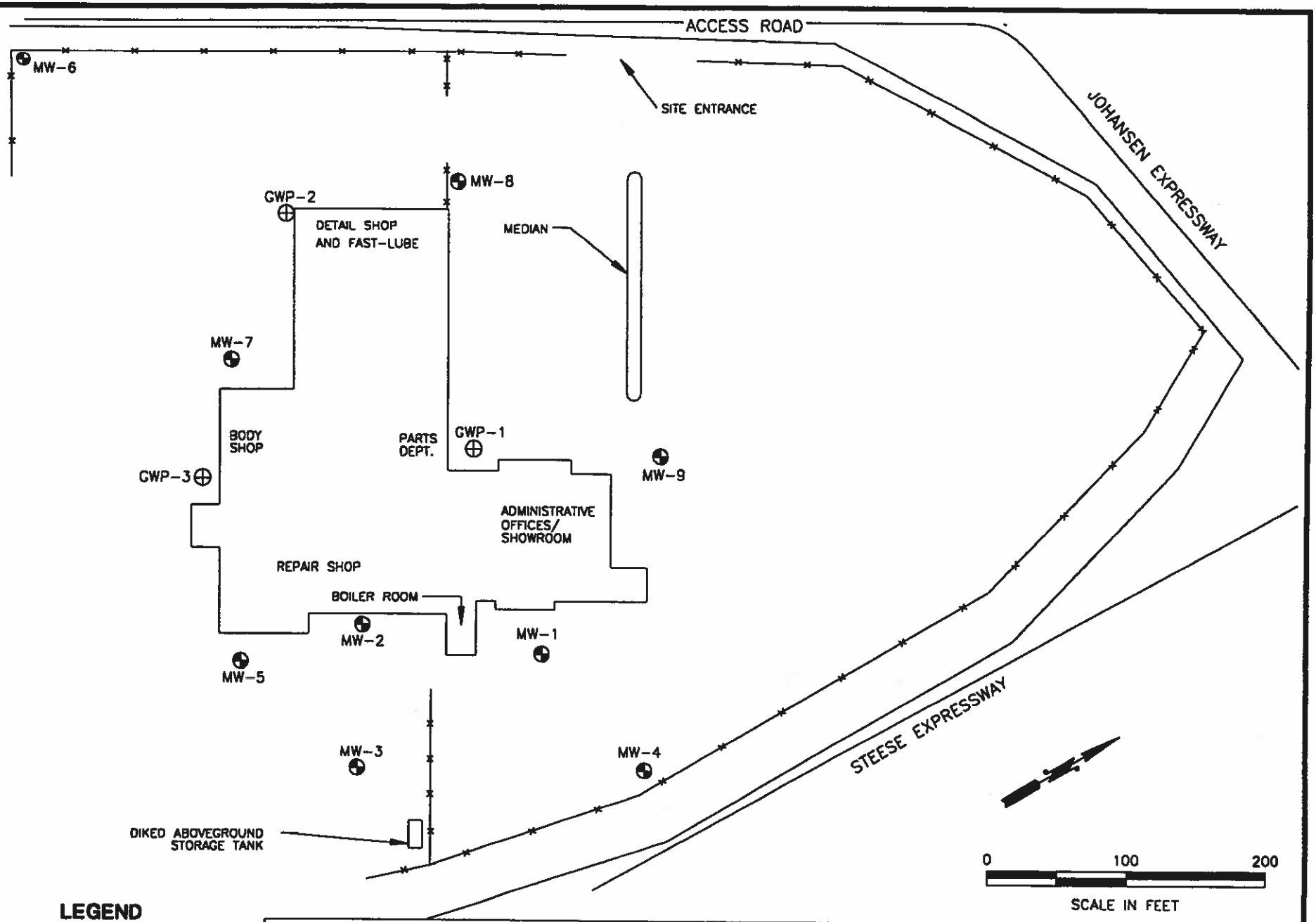
Sincerely,

AGRA Earth & Environmental, Inc.

James A. Spontak
Project Manager

Atch: Figure 1, Site Plan
Tables 1 and 2, Summary of Groundwater Analytical Data
Laboratory Report

c: Steve Bainbridge, ADEC - Fairbanks
Jonathan Williams, EPA - Seattle



LEGEND

- MONITORING WELL
- TEMPORARY WELL POINT

AGRA
Earth & Environmental
3504 Industrial Ave. Suite 5
Fairbanks, Alaska 99701

W.O.	6-024-01173-1
DESIGN	MPP
DRAWN	MPP / LOCWELL
DATE	06/06/96
SCALE	1"=100'

SEEKINS FORD-LINCOLN-MERCURY
1625 OLD STEESE HIGHWAY
FAIRBANKS, ALASKA

SITE PLAN
FIGURE 1

TABLE 1

Summary of Groundwater Analytical Data for Seekins Ford-Lincoln-Mercury

BTEX, GRPH, and DRPH Results

Well Number	Date	MP Elevation	DTW	Ground Water Elevation	EPA 8020/AK101 Benzene (ug/L)	EPA 8020/AK101 Total BTEX (ug/L)	EPA 8020/AK101 GRPH (mg/L)	EPA 8100/AK102 DRPH (mg/L)
Maximum Contaminant Level (ug/L)					5			
MW-1	21-Jul-95	97.13	14.20	82.93	12,000	71,300	180	5.4
	01-May-96	97.11	15.70	81.41	7,500	97,300	240	6.2
	07-Aug-96	97.11	15.26	81.83	8,500	96,800	250	11
	21-Nov-96	97.11	15.57	81.54	11,000	133,400	330	9.6
	19-Feb-97	97.11	16.27	80.84	11,000	138,300	310	7.5
MW-2	21-Jul-95	97.57	14.64	82.93	ND(0.5)	6.8	0.15	0.35
	01-May-96	97.57	16.13	81.44	1.69	26.3	0.26	0.74
	07-Aug-96	97.57	15.72	81.85	ND(1)	ND	0.16	3.4
	21-Nov-96	97.57	16.02	81.55	ND(0.5)	8.16	0.105	2.1
	19-Feb-97	97.59	16.71	80.88	ND(0.5)	6.85	0.067	1.8
MW-3	21-Jul-95	96.62	13.70	82.92	8	NT	2.8	13
	01-May-96	96.62	15.18	81.44	ND(1)	151	0.99	5.4
	07-Aug-96	96.64	14.78	81.86	ND(1)	29.4	0.27	3.6
	21-Nov-96	96.64	15.06	81.58	ND(0.5)	43.4	0.16	5.4
	19-Feb-97	96.63	15.77	80.86	1.42	86.85	0.321	4.5
MW-4	21-Jul-95	95.88	12.93	82.95	ND(0.5)	ND	ND(0.05)	ND(0.1)
	01-May-96	95.88	14.43	81.45	ND(1)	ND	ND(0.05)	0.24
	07-Aug-96	95.88	14.02	81.86	ND(0.5)	ND	ND(0.05)	0.23
	21-Nov-96	95.88	14.29	81.59	ND(0.5)	ND	ND(0.05)	0.24
	19-Feb-97	95.90	15.01	80.89	ND(0.5)	ND	ND(0.05)	0.37
MW-5	21-Jul-95	—	—	—	MONITORING WELL INSTALLED IN APRIL 1996.			
	01-May-96	97.08	15.68	81.40	2.49	33.9	0.17	1.1
	07-Aug-96	97.11	15.27	81.84	1.24	7.9	ND(0.05)	0.99
	21-Nov-96	97.11	15.61	81.50	1.05	5	ND(0.05)	1
	19-Feb-97	97.17	16.32	80.85	0.76	1.65	ND(0.05)	0.9
MW-6	21-Jul-95	—	—	—	MONITORING WELL INSTALLED IN APRIL 1996.			
	01-May-96	97.14	15.78	81.36	ND(1)	23.3	0.12	0.94
	07-Aug-96	97.14	15.35	81.79	ND(0.5)	0.5	ND(0.05)	0.56
	21-Nov-96	97.14	15.64	81.50	ND(0.5)	0.67	ND(0.05)	0.59
	19-Feb-97	97.00	16.35	80.65	ND(0.5)	ND	ND(0.05)	0.41
MW-7	21-Jul-95	—	—	—	MONITORING WELL INSTALLED IN APRIL 1996.			
	01-May-96	97.70	16.29	81.41	ND(1)	48.3	0.26	0.47
	07-Aug-96	97.70	15.86	81.84	ND(1)	ND	ND(0.05)	0.3
	21-Nov-96	97.70	16.14	81.56	ND(0.5)	ND	ND(0.05)	0.2
	19-Feb-97	97.55	16.87	80.68	ND(0.5)	ND	ND(0.05)	0.22
MW-8	21-Jul-95	—	—	—	MONITORING WELL INSTALLED IN APRIL 1996.			
	01-May-96	97.85	16.49	81.36	8.39	110.2	0.35	0.69
	07-Aug-96	97.85	16.04	81.81	1.36	1.36	ND(0.05)	0.38
	21-Nov-96	97.85	16.33	81.52	ND(0.5)	ND	ND(0.05)	0.15
	19-Feb-97	97.68	17.04	80.64	0.59	0.59	ND(0.05)	0.2
MW-9	21-Jul-95	—	—	—	MONITORING WELL INSTALLED IN APRIL 1996.			
	01-May-96	97.37	15.95	81.42	ND(1)	8.8	0.06	0.84
	07-Aug-96	97.39	15.53	81.86	ND(0.5)	ND	ND(0.05)	0.64
	21-Nov-96	97.38	15.84	81.54	ND(0.5)	ND	ND(0.05)	0.68
	19-Feb-97	97.24	16.55	80.69	ND(0.5)	ND	ND(0.05)	0.6
GWP-1	21-Jul-95	97.47	14.62	82.85	1,500	1,722	4	0.19
	01-May-96	97.53	16.11	81.42	117	134.3	0.34	0.48
	07-Aug-96	97.54	15.69	81.85	230	240.3	0.84	0.72
	21-Nov-96	97.54	15.97	81.57	160	165.62	0.499	0.29
	19-Feb-97	97.39	16.68	80.71	19.5	22.73	0.059	0.29
GWP-2	21-Jul-95	97.75	15.02	82.73	ND(0.5)	ND	ND(0.05)	ND(0.1)
	01-May-96	97.91	16.54	81.37	ND(1)	ND	ND(0.05)	0.35
	07-Aug-96	97.91	16.1	81.81	ND(0.5)	ND	ND(0.05)	0.16
	21-Nov-96	97.91	16.4	81.51	ND(0.5)	ND	ND(0.05)	0.11
	19-Feb-97	97.75	17.12	80.63	ND(0.5)	ND	ND(0.05)	0.18
GWP-3	21-Jul-95	97.02	14.18	82.84	ND(0.5)	NT	ND(0.05)	ND(0.1)
	01-May-96	97.14	15.71	81.43	ND(1)	ND	ND(0.05)	0.17
	07-Aug-96	97.14	15.31	81.83	ND(0.5)	ND	ND(0.05)	0.29
	21-Nov-96	97.14	15.58	81.56	ND(0.5)	ND	ND(0.05)	0.17
	19-Feb-97	97.01	16.3	80.71	ND(0.5)	ND	ND(0.05)	0.2
DUP-1	01-May-96	—	—	—	10,000	124,600	220	5.6
	07-Aug-96	—	—	—	9,700	110,000	250	9.4
	21-Nov-96	—	—	—	ND(0.5)	49.86	0.231	4.8
	19-Feb-97	—	—	—	ND(25)	ND	ND(2.5)	3.6

NT INDICATES THAT THE MONITORING WELL WAS NOT TESTED FOR THIS PARAMETER.
ND INDICATES THAT THE COMPOUND WAS NON-DETECTABLE ABOVE THE LIMIT SHOWN.

TABLE 2
Summary of Groundwater Analytical Data for Seekins Ford-Lincoln-Mercury
VOC and PAH Compounds

Well Number	Date	EPA 624 (ug/L) Trichloro-fluoro-methane	Tetra-chloro-ethene	1,2-Dichloro-benzene	Tri-chloro-ethene	1,1,1-Trichloro-ethane	1,1-Dichloro-ethane	Dichloro-methane	Chloroform	1,2-Dichloro-ethane	Chloro-methene	1,4-Dichloro-benzene	Carbon Tetrachloride	Acetone	2-Butanone (MEK)	Isopropyl Benzene	1,2,3-Trichloro propane	n-Propyl benzene	1,3,5-Trimethyl benzene	1,2,4-Trimethyl benzene	sec-Butyl benzene	1,3-Dichloro benzene	4-Isopropyl toluene	n-Butyl benzene	2-Hexanone	Naphthalene	EPA 8310 (ug/L) Fluorene	Phenanthrene	Fluoranthene	Pyrene	Naphthalene	Acenaphthylen	Acenaphthene
Maximum Contaminant Level (ug/L)		20	5	600	5	200		89	46		190	75	5	280	280											59			68		59		
MW-1	21-Jul-95	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	01-May-96	ND(300)	ND(300)	ND(300)	ND(300)	ND(300)	ND(300)	ND(300)	ND(300)	ND(300)	ND(300)	ND(300)	ND(300)	ND(6000)	ND(3000)	ND(300)	ND(300)	420	740	3,000	ND(300)	ND(300)	ND(300)	ND(300)	ND(3,000)	ND(300)	NT	NT	NT	NT	NT	NT	NT
	07-Aug-96	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	21-Nov-96	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	19-Feb-97	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
MW-2	21-Jul-95	8.3	20	ND(3)	ND(3)	57	ND(3)	ND(10)	ND(3)	ND[1]	ND[10]	ND(3)	8.2	ND(40)	ND(20)	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	01-May-96	ND(1)	1.71	ND(1)	ND(1)	9.39	1.68	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(20)	ND(10)	3.53	ND(1)	9.59	16.2	22.2	ND(1)	ND(1)	1.3	ND(1)	ND(10)	ND(5)	ND(0.1)	ND(0.05)	ND(0.1)	ND(0.1)	ND(0.5)	ND(1)	ND(1)
	07-Aug-96	8.94	57	ND(1)	ND(1)	180	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(20)	ND(20)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(20)	ND(10)	ND(5)	ND(5)	ND(0.1)	ND(0.6)	ND(5)	ND(5)	ND(5)
	21-Nov-96	7.19	28.4	ND(1)	ND(1)	48.3	1.11	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(20)	ND(10)	1.69	ND(1)	4.74	6.81	8.55	ND(1)	ND(1)	ND(1)	ND(1)	ND(10)	ND(20)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
	19-Feb-97	8.56	21.7	ND(0.5)	ND(0.5)	32.5	0.54	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(10)	ND(5.0)	0.76	ND(0.5)	2.07	3.81	2.05	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(5.0)	ND(10)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	0.221	ND(0.1)	ND(0.1)
MW-3	21-Jul-95	8.8	29	90	12	ND(3)	8.5	240	ND(3)	ND(1)	ND(10)	ND(3)	ND(3)	ND(40)	ND(20)	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	01-May-96	ND(1)	23	86	22	ND(1)	ND(1)	230	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(20)	ND(10)	ND(1)	ND(1)	6.4	18	49	ND(1)	ND(1)	7.6	ND(1)	ND(10)	ND(5)	1.4	1.7	1.1	0.3	9	ND(1)	ND(1)
	07-Aug-96	14	15	39	2.1	ND(1)	ND(1)	17	ND(1)	ND(1)	1.6	1.8	ND(1)	25	ND(20)	1.2	ND(1)	2.4	9.6	19.5	ND(1)	ND(1)	6.5	ND(1)	ND(20)	27	ND(5)	ND(5)	ND(0.1)	ND(0.6)	6.8	ND(5)	ND(5)
	21-Nov-96	2.33	13.8	36.6	3.55	ND(1)	ND(1)	26.3	ND(1)	ND(1)	ND(1)	1.65	ND(1)	ND(20)	ND(10)	1.22	ND(1)	2.39	9.07	19.9	ND(1)	ND(1)	5.76	ND(1)	ND(10)	28.9	0.9	0.8	0.1	0.1	11	0.3	0.5
	19-Feb-97	ND(1)	10.3	62.8	6.35	ND(1)	1.88	48.7	ND(1)	ND(1)	ND(1)	2.71	ND(1)	ND(20)	ND(10)	2.4	ND(1)	4.3	14.8	97.6	1.12	9.26	6.34	ND(1)	ND(10)	41.3	0.544	0.369	ND(0.1)	ND(0.1)	42.8	ND(0.1)	0.421
MW-4	21-Jul-95	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(10)	5.5	ND(1)	ND(10)	ND(3)	ND(3)	ND(40)	ND(20)	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	01-May-96	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(20)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(5)	NT	NT	NT	NT	NT	NT	NT
	07-Aug-96	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	1.08	ND(0.5)	0.72	ND(0.5)	ND(0.5)	ND(0.5)	ND(10)	ND(10)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(5)	NT	NT	NT	NT	NT	NT	NT
	21-Nov-96	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(10)	ND(5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(5)	ND(10)	NT	NT	NT	NT	NT	NT	NT
	19-Feb-97	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	0.86	ND(0.5)	ND(0.5)	ND(0.5)	ND(10)	ND(5.0)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(5)	ND(10)	NT	NT	NT	NT	NT	NT	NT
MW-5	21-Jul-95	MONITORING WELL INSTALLED IN APRIL 1996																															
	01-May-96	ND(1)	ND(1)	2.71	ND(1)	ND(1)	1.45	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(20)	ND(10)	1.85	ND(1)	4.43	15	36.2	2.66	ND(1)	3.5	ND(1)	ND(10)	18	NT	NT	NT	NT	NT	NT	NT	NT
	07-Aug-96	ND(0.5)	1.1	3.3	ND(0.5)	ND(0.5)	4.2	1.09	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	26	ND(10)	ND(0.5)	ND(0.5)	0.7	3.3	7.6	ND(0.5)	ND(0.5)	0.9	ND(0.5)	ND(10)	7.5	NT	NT	NT	NT	NT	NT	NT	NT
	21-Nov-96	ND(0.5)	ND(0.5)	1.45	ND(0.5)	ND(0.5)	0.78	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(10)	ND(5)	ND(0.5)	ND(0.5)	0.85	2.38	6.52	ND(0.5)	ND(0.5)	0.6	ND(0.5)	ND(5)	ND(10)	NT	NT	NT	NT	NT	NT	NT	NT
	19-Feb-97	ND(0.5)	ND(0.5)	0.61	ND(0.5)	ND(0.5)	0.62	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(10)	ND(5.0)	ND(0.5)	ND(0.5)	ND(0.5)	1.39	3.14	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(5)	ND(10)	NT	NT	NT	NT	NT	NT	NT	NT
MW-6	21-Jul-95	MONITORING WELL INSTALLED IN APRIL 1996																															
	01-May-96	10.1	5.23	ND(1)	ND(1)	2.29	2.93	ND(1)	1.01	ND(1)	ND(1)	ND(1)	ND(1)	27.2	ND(10)	3.11	ND(1)	8.96	11.7	37.7	4.73	ND(1)	8.89	11	ND(10)	35.2	NT	NT	NT	NT	NT	NT	NT	NT
	07-Aug-96	5	5.17	ND(0.5)	0.7	1.11	2.6	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(10)	ND(10)	ND(0.5)	ND(0.5)	ND(0.5)	0.7	1.2	ND(0.5)	ND(0.5)	0.5	ND(0.5)	ND(10)	ND(5)	NT	NT	NT	NT	NT	NT	NT	NT
	21-Nov-96	7.45	5.78	ND(0.5)	0.53	1.19	1.86	0.73	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(10)	ND(5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(5)	ND(10)	NT	NT	NT	NT	NT	NT	NT	NT
	19-Feb-97	13.2	8.42	ND(0.5)	0.59	2.23	2.28	0.66	0.69	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(10)	ND(5.0)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(5)	ND(10)	NT	NT	NT	NT	NT	NT	NT	NT
MW-7	21-Jul-95	MONITORING WELL INSTALLED IN APRIL 1996																															
	01-May-96	13.4	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(20)	ND(10)	2.50	ND(1)	5.78	7.45	25.8	1.33	ND(1)	2.47	2.42	ND(10)	12	NT	NT	NT	NT	NT	NT	NT	NT
	07-Aug-96	70	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	3.2	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	287	ND(20)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(20)	ND(10)	NT	NT	NT	NT	NT	NT	NT	NT
	21-Nov-96	69	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	2.87	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	451	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(10)	ND(20)	NT	NT	NT	NT	NT	NT	NT	NT
	19-Feb-97	38	3.18	ND(1)	ND(1)	ND(1)	ND(1)	1.27	ND(1)	ND(1)	1.19	ND(1)	ND(1)	284	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	1.6	ND(1)	ND(10)	ND(20)	NT	NT	NT	NT	NT	NT	NT	NT
MW-8	21-Jul-95	MONITORING WELL INSTALLED IN APRIL 1996																															
	01-May-96	16.4	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	4.01	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	36.2	18	3.84	1.14	9.67	13	41.8	2.64	ND(1)	4.06	5.06	ND(10)	20.4	NT	NT	NT	NT	NT	NT	NT	NT
	07-Aug-96	10.6	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	1.4	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(10)	ND(10)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(10)	ND(5)	NT	NT	NT	NT	NT	NT	NT	NT
	21-Nov-96	9.5	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(10)	ND(5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(5)	ND(10)	NT	NT	NT	NT	NT	NT	NT	NT
	19-Feb-97	11.4	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(10)	ND(5.0)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(5)	ND(10)	NT	NT	NT	NT	NT	NT	NT	NT
MW-9	21-Jul-95	MONITORING WELL INSTALLED IN APRIL 1996																															
	01-May-96	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	3.56	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(20)	ND(10)	1.08	ND(1)	2.95	3.43	11.32	1.67	ND(1)	2.11	3.72	ND(10)	10.9	NT	NT	NT	NT	NT	NT	NT	NT
	07-Aug-96	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	1.3	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(10)	ND(10)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(10)	ND(5)	NT	NT	NT	NT	NT	NT	NT	NT
	21-Nov-96	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(10)	ND(5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(5)	ND(10)	NT	NT	NT	NT	NT	NT	NT	NT
	19-Feb-97	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(10)	ND(5.0)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(5)	ND(10)	NT	NT	NT	NT	NT	NT	NT	NT
GWP-1	21-Jul-95	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	01-May-96	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	3.63	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(20)	ND(10)	3.79	ND(1)	1.53	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(10)	ND(5)	NT	NT	NT	NT	NT	NT	NT	NT
	07-Aug-96	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	21-Nov-96	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	19-Feb-97	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
GWP-2	21-Jul-95	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	01-May-96	33.4	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	3.87	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(20)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(10)	ND(5)	NT	NT	NT	NT	NT	NT	NT	NT
	07-Aug-96	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	21-Nov-96	44.3	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(20)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(10)	ND(20)	NT	NT	NT	NT	NT	NT	NT	NT
	19-Feb-97	29.6	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(20)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(10)	ND(20)	NT	NT	NT	NT	NT	NT	NT	NT
GWP-3	21-Jul-95	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	01-May-96	2.22	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	4.91	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(20)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(10)	NO(5)	ND(0.1)	ND(0.5)	ND(0.1)	ND(0.1)	ND(0.5)	ND(1)	ND(1)
	07-Aug-96	1.24	ND(0.5)	ND(0.5)	ND(0.5)	0.7	0.8	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(10)	ND(10)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(10)	ND(5)	ND(0)	ND(5)	ND(0.1)	ND(0.5)	ND(5)	ND(5)	ND(5)
	21-Nov-96	2.47	ND(0.5)	ND(0.5)	ND(0.5)	0.69	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(10)	ND(5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(5)	ND(10)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
	19-Feb-97	2.7	ND(0.5)	ND(0.5)	ND(0.5)	0.67	ND(0.5)	0.62	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(10)	ND(5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(5)	ND(10)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
DUP-1	01-May-96	ND(300)	ND(300)	ND(300)	ND(300)	ND(300)	ND(300)	ND(1)	ND(300)	ND(300)	ND(300)	ND(300)	ND(300)	ND(6000)	ND(3000)	ND(300)	ND(300)	410	780	3,100	ND(300)	ND(300)	ND(300)	ND(300)	ND(3,000)	ND(300)	NT	NT	NT	NT	NT	NT	NT	NT
	07-Aug-96	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	630	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(10,000)	ND(5000)	ND(500)	ND(500)	ND(500)	710	2,300	ND(500)	ND(500)	ND(500)	ND(500)	ND(5,000)	ND(10,000)	NT	NT	NT	NT	NT	NT	NT	NT
	21-Nov-96	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	19-Feb-97	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT

NT INDICATES THAT THE MONITORING WELL WAS NOT TESTED FOR THIS PARAMETER.
ND(xx) INDICATES THAT THE COMPOUND WAS NON-DETECTABLE ABOVE THE LIMIT SHOWN.
ONLY THOSE ANALYTES REPORTED IN DETECTABLE CONCENTRATIONS ARE LISTED IN THIS TABLE. ALL OTHER VOC AND PAH COMPOUNDS WERE NON-DETECTABLE.
MAXIMUM CONTAMINANT LEVELS (EXCEPT THOSE IN ITALICS) ARE FROM THE ADEC INTERIM GUIDANCE FOR SURFACE AND GROUNDWATER CLEANUP LEVELS.
MAXIMUM CONTAMINANT LEVELS IN ITALICS ARE FROM THE RCRA HANDBOOK.
NO MAXIMUM CONTAMINANT LEVEL INDICATES THAT NO MCL HAS BEEN ESTABLISHED FOR THAT COMPOUND.
DICHLOROMETHANE IS LISTED ON SOME ANALYTICAL REPORTS AS METHYLENE CHLORIDE.

AGRA
Earth & Environmental

AGRA Earth & Environmental, Inc.
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Tel (503) 639-3400
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March 7, 1997

AGRA Earth & Environmental
3504 Industrial Avenue, Suite 5
Fairbanks, AK 99701

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Attention: Mr. James Spontak

Dear Mr. Spontak:

RE: Analytical Results For Project 6-024-01173-1

Attached are the results for the samples submitted on February 21, 1997 from the above referenced project. For your reference, our project number associated with these samples is AK970101.

The samples were analyzed for diesel range organics, gasoline range petroleum hydrocarbons & BTEX, and volatile organic compounds by GC/MSD at the AGRA Earth & Environmental Portland Chemistry Laboratory. Samples MW-2, MW-3, and GWP-3 were subcontracted to North Creek Analytical (NCA) for PAH analysis. The NCA data will be reported under separate cover at a later date.

All analyses were conducted in accordance with applicable QA/QC guidelines. The results apply only to the samples submitted.

Please feel free to contact me if you have any questions regarding this report, or if I can be of any assistance in any other matter.

Respectfully submitted,

AGRA Earth & Environmental

Sean Gormley
Laboratory Manager
Laboratory ID # UST-008

Project: Seekins
Project No.: 6-024-01173-1,T05
Project Manager: James Spontak
Sample Matrix: Water

Service Request No.: AK970101
Report Date: 3/6/97
Report No.: 97010107a
C.O.C. No.: 03003/03004

Gasoline Range Organics & BTEX
ADEC Method AK101
ug/L(ppb)

Sample Name:	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	**Method Reporting Limit**
Lab Code:	0101-1	0101-2	0101-3	0101-4	0101-5	0101-6	
Gasoline:	310,000(a)	66.8	321	ND	ND	ND	50.0
Benzene:	11,000(a)	ND	1.42	ND	0.76	ND	0.50
Toluene:	75,000(b)	ND	19.9	ND	ND	ND	0.50
Ethylbenzene:	7300(a)	2.67	8.23	ND	ND	ND	0.50
Total Xylenes:	45,000(a)	4.18	57.3	ND	0.89	ND	0.50
Sample Date:	2/19/97	2/19/97	2/19/97	2/19/97	2/19/97	2/19/97	
Analysis Date:	2/26/97	2/26/97	2/26/97	2/26/97	2/26/97	2/26/97	
Surrogate Recovery: (a,a,a-Trifluorotoluene):							**Control Limits**
Gasoline Analysis(FID):	69.6%	71.4%	71.0%	68.9%	70.3%	69.8%	50%-150%
BTEX Analysis(PID):	94.7%	95.9%	90.5%	92.8%	93.0%	93.3%	74%-118%
	(1:2000 dilution)						
Gasoline Analysis(FID):	69.9%						50%-150%
BTEX Analysis(PID):	90.1%						74%-118%

ND Not Detected
(a) Result is from a 1:1000 dilution.
(b) Result is from a 1:2000 dilution.

Signature of Chemist

QA/QC Review

AGRA
Earth & Environmental

Project: Seekins
Project No.: 6-024-01173-1,T05
Project Manager: James Spontak
Sample Matrix: Water

Service Request No.: AK970101
Report Date: 3/6/97
Report No.: 97010107b
C.O.C. No.: 03003/03004

Gasoline Range Organics & BTEX
ADEC Method AK101
ug/L(ppb)

Sample Name:	MW-7	MW-8	MW-9	GWP-1	GWP-2	GWP-3	**Method Reporting Limit**
Lab Code:	0101-7	0101-8	0101-9	0101-10	0101-11	0101-12	
Gasoline:	ND	ND	ND	59.2	ND	ND	50.0
Benzene:	ND	0.59	ND	19.5	ND	ND	0.50
Toluene:	ND	ND	ND	ND	ND	ND	0.50
Ethylbenzene:	ND	ND	ND	ND	ND	ND	0.50
Total Xylenes:	ND	ND	ND	3.23	ND	ND	0.50
Sample Date:	2/19/97	2/19/97	2/19/97	2/19/97	2/19/97	2/19/97	
Analysis Date:	2/26/97	2/26/97	2/26/97	2/26/97	2/26/97	2/26/97	
Surrogate Recovery: (a,a,a-Trifluorotoluene):							**Control Limits**
Gasoline Analysis(FID):	69.6%	69.8%	70.0%	70.6%	69.1%	70.0%	50%-150%
BTEX Analysis(PID):	91.7%	92.6%	92.2%	90.3%	90.8%	90.6%	74%-118%

ND Not Detected

Signature of Chemist

QA/QC Review

AGRA
Earth & Environmental

Project: Seekins
Project No.: 6-024-01173-1,T05
Project Manager: James Spontak
Sample Matrix: Water

Service Request No.: AK970101
Report Date: 3/6/97
Report No.: 97010107c
C.O.C. No.: 03003/03004

Gasoline Range Organics & BTEX
ADEC Method AK101
ug/L(ppb)

Sample Name:	(a) DUP	Trip Blank	Lab Blank	Lab Blank	**Method Reporting**
Lab Code:	0101-13	0101-14	0101-MB	0101-MB	**Limit**
Gasoline:	<2500	ND	ND	ND	50.0
Benzene:	<25	ND	ND	ND	0.50
Toluene:	<25	ND	ND	ND	0.50
Ethylbenzene:	<25	ND	ND	ND	0.50
Total Xylenes:	<25	ND	ND	ND	0.50
Sample Date:	2/19/97	2/19/97	2/25/97	3/4/97	
Analysis Date:	3/4/97	2/26/97	2/26/97	3/4/97	
Surrogate Recovery: (a,a,a-Trifluorotoluene):					**Control Limits**
Gasoline Analysis(FID):	91.9%	69.2%	69.0%	91.8%	50%-150%
BTEX Analysis(PID):	104%	89.6%	93.3%	106%	74%-118%

ND Not Detected
(a) Results are from a 1:50 dilution due to matrix interference.

Signature of Chemist

QA/QC Review

AGRA
Earth & Environmental

Project: Seekins
Project No.: 6-024-01173-1,T05
Project Manager: James Spontak
Sample Matrix: Water

Service Request No.: AK970101
Report Date: 3/6/97
Report No.: 97010108
C.O.C. No.: 03003/03004

QC Data Report
Matrix Spike Recoveries
Gasoline Range Organics & BTEX
ADEC Method AK101
ug/L(ppb)

Sample Name: / **Lab Code:**	MW-4 0101-4	Spike Level (ug/L)	Matrix Spike	Percent Recovery (MS)	Matrix Spike Duplicate	Percent Recovery (DMS)	Relative Percent Difference
Gasoline:	<50.0	488	515	106	515	106	<1
Benzene:	<0.50	5.02	5.91	118	6.01	120	2
Toluene:	<0.50	37.0	37.5	101	37.9	102	1
Ethylbenzene:	<0.50	12.7	14.3	113	14.7	116	3
Total Xylenes:	<0.50	48.8	55.0	113	55.6	114	1
Acceptance Limits:	~	~	~	60%-120%	~	60%-120%	<20
Sample Date:	2/19/97	~	2/19/97	~	2/19/97	~	~
Analysis Date:	2/26/97	~	2/26/97	~	2/26/97	~	~
Surrogate Recovery (a,a,a-Trifluorotoluene):							**Control Limits**
Gasoline Analysis(FID):	68.9%	~	96.8%	~	96.9%	~	60% - 120%
BTEX Analysis(PID):	92.8%	~	93.4%	~	93.2%	~	74% - 118%

ND Not Detected
Spike Source: ERA Hydrocarbon Fuels in Water, Lot # 50007.

Signature of Chemist

QA/QC Review

AGRA
Earth & Environmental

Project: Seekins
Project No.: 6-024-01173-1
Project Manager: James Spontak
Sample Matrix: Water

Service Request No.: AK970101
Report Date: 3/3/97
Report No.: 97010105
C.O.C. No.: 03003/03004

Diesel Range Organics
ADEC Method AK 102
mg/L (ppm)

Sample Name	Lab Code	Sample Date	Extraction Date	Analysis Date	Diesel Result	Surrogate Recovery O-Terphenyl
MW-1	0101-1	2/19/97	2/24/97	2/26/97	7.5(a)	(b)
MW-2	0101-2	2/19/97	2/24/97	2/26/97	1.8(c)	130
MW-3	0101-3	2/19/97	2/24/97	2/26/97	4.5	(b)
MW-4	0101-4	2/19/97	2/24/97	2/26/97	0.37(d)	130
MW-5	0101-5	2/19/97	2/24/97	2/26/97	0.90	120
MW-6	0101-6	2/19/97	2/24/97	2/26/97	0.41	120
MW-7	0101-7	2/19/97	2/24/97	2/26/97	0.22	120
MW-8	0101-8	2/19/97	2/24/97	2/26/97	0.20(d)	120
MW-9	0101-9	2/19/97	2/24/97	2/26/97	0.60	120
GWP-1	0101-10	2/19/97	2/24/97	2/26/97	0.29(d)	120
GWP-2	0101-11	2/19/97	2/24/97	2/26/97	0.18(d)	140
GWP-3	0101-12	2/19/97	2/24/97	2/26/97	0.20(d)	130
DUP	0101-13	2/19/97	2/24/97	2/27/97	3.6	(b)
Lab Blank	0101-MB	2/24/97	2/24/97	2/25/97	<0.10	110

Acceptance Criteria: 50%-150%

(a) Result is from a 1:10 dilution.
(b) Not applicable due to the presence of chromatographic peaks from target and nontarget compounds which prevented determination of the surrogate.
(c) Results are quantified as diesel, but the chromatographic evidence suggests that heavy oil range petroleum hydrocarbons are eluting within the diesel range.
(d) Results are quantified as diesel, but the chromatographic pattern does not match that of the standard.

Signature of Chemist

QA/QC Review

AGRA
Earth & Environmental

Project: Seekins
Project No.: 6-024-01173-1
Project Manager: James Spontak
Sample Matrix: Water

Service Request No.: AK970101
Report Date: 3/3/97
Report No.: 97010106
C.O.C. No.: 03003/03004

Quality Assurance Data Report
Laboratory Control Sample Summary
Diesel Range Organics
ADEC Method AK 102
mg/L(ppm)

Standard Source	Lab Code	True Value	LCS Result	LCS Recovery	LCS Dup Result	LCS Dup Recovery	% Recovery Acceptance Limits	RPD LCS/LCS Dup
* Restek	0101-LCS	2.5	3.1	120	2.9	120	60%-120%	7
Date Extracted:	~	~	2/24/97	~	2/24/97	~		
Date Analyzed:	~	~	2/24/97	~	2/24/97	~		
Surrogate Recovery:							**ADEC Acceptance Criteria**	
O-Terphenyl:	~	~	100%	~	86%	~	50%-150%	

* Restek Diesel Fuel (Lot #A005769).

Signature of Chemist

QA/QC Review

AGRA
Earth & Environmental

Project: Seekins
Project No.: 6-024-01173-1,T05
Project Manager: James Spontak
Sample Matrix: Water

Service Request No.: AK970101
Report Date: 2/25/97
Report No.: 97010101a
C.O.C. No.: 03003/03004

Volatile Organic Compounds by GC/MSD
EPA Methods 5030/624
Low Level
ug/L(ppb)

Sample Name:	MW-2	MW-4	MW-5	MW-6	Reporting
Lab Code:	0101-2	0101-4	0101-5	0101-6	Limit
Dichlorodifluoromethane	ND	ND	ND	ND	0.5
Chloromethane	ND	ND	ND	ND	0.5
Vinyl Chloride	ND	ND	ND	ND	0.5
Bromomethane	ND	ND	ND	ND	0.5
Chloroethane	ND	ND	ND	ND	0.5
Trichlorofluoromethane	6.59	ND	ND	13.2	0.5
1,1-Dichloroethene	ND	ND	ND	ND	0.5
Acetone	ND	ND	ND	ND	10
Carbon Disulfide	ND	ND	ND	ND	0.5
Methylene Chloride	ND	ND	ND	0.66	0.5
trans-1,2-Dichloroethene	ND	ND	ND	ND	0.5
1,1-Dichloroethane	0.54	ND	0.62	2.26	0.5
2,2-Dichloropropane	ND	ND	ND	ND	0.5
cis-1,2-Dichloroethene	ND	ND	ND	ND	0.5
2-Butanone(MEK)	ND	ND	ND	ND	5.0
Bromochloromethane	ND	ND	ND	ND	0.5
Chloroform	ND	ND	ND	0.69	0.5
1,1,1-Trichloroethane	32.5	ND	ND	2.23	0.5
Carbon Tetrachloride	ND	ND	ND	ND	0.5
1,1-Dichloropropene	ND	ND	ND	ND	0.5
Benzene	ND	ND	0.91	ND	0.5
1,2-Dichloroethane	ND	0.86	ND	ND	0.5
Trichloroethene	ND	ND	ND	0.59	0.5
1,2-Dichloropropane	ND	ND	ND	ND	0.5
Dibromomethane	ND	ND	ND	ND	0.5
Bromodichloromethane	ND	ND	ND	ND	0.5
cis-1,3-Dichloropropene	ND	ND	ND	ND	0.5
4-Methyl-2-Pentanone(MIBK)	ND	ND	ND	ND	5.0
Toluene	ND	ND	ND	ND	0.5
trans-1,3-Dichloropropene	ND	ND	ND	ND	0.5
1,1,2-Trichloroethane	ND	ND	ND	ND	0.5
Tetrachloroethene	21.7	ND	ND	6.42	0.5
2-Hexanone	ND	ND	ND	ND	5.0
1,3-Dichloropropane	ND	ND	ND	ND	0.5
Dibromochloromethane	ND	ND	ND	ND	0.5
1,2-Dibromoethane	ND	ND	ND	ND	0.5
Chlorobenzene	ND	ND	ND	ND	0.5
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	0.5
Ethylbenzene	2.41	ND	ND	ND	0.5

ND Not Detected

AGRA
Earth & Environmental

Project: Seekins
Project No.: 6-024-01173-1,T05
Project Manager: James Spontak
Sample Matrix: Water

Service Request No.: AK970101
Report Date: 2/25/97
Report No.: 97010101a
C.O.C. No.: 03003/03004

Volatile Organic Compounds by GC/MSD
EPA Methods 5030/624
Low Level
ug/L(ppb)

Sample Name:	MW-2	MW-4	MW-5	MW-6	**Reporting**
Lab Code:	0101-2	0101-4	0101-5	0101-6	**Limit**
m,p-Xylene	3.13	ND	0.56	ND	0.5
o-Xylene	ND	ND	0.55	ND	0.5
Styrene	ND	ND	ND	ND	0.5
Bromoform	ND	ND	ND	ND	0.5
Isopropylbenzene	0.78	ND	ND	ND	0.5
Bromobenzene	ND	ND	ND	ND	0.5
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	0.5
1,2,3-Trichloropropane	ND	ND	ND	ND	0.5
n-Propylbenzene	2.07	ND	ND	ND	0.5
2-Chlorotoluene	ND	ND	ND	ND	0.5
4-Chlorotoluene	ND	ND	ND	ND	0.5
1,3,5-Trimethylbenzene	3.81	ND	1.39	ND	0.5
tert-Butylbenzene	ND	ND	ND	ND	0.5
1,2,4-Trimethylbenzene	2.05	ND	3.14	ND	0.5
sec-Butylbenzene	ND	ND	ND	ND	0.5
1,3-Dichlorobenzene	ND	ND	ND	ND	0.5
4-Isopropyltoluene	ND	ND	ND	ND	0.5
1,4-Dichlorobenzene	ND	ND	ND	ND	0.5
1,2-Dichlorobenzene	ND	ND	0.51	ND	0.5
n-Butylbenzene	ND	ND	ND	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	ND	ND	ND	0.5
1,2,4-Trichlorobenzene	ND	ND	ND	ND	0.5
Hexachlorobutadiene	ND	ND	ND	ND	0.5
Naphthalene	ND	ND	ND	ND	10
1,2,3-Trichlorobenzene	ND	ND	ND	ND	10
Sample Date:	2/19/97	2/19/97	2/19/97	2/19/97	
Analysis Date:	2/24/97	2/24/97	2/24/97	2/24/97	
					%Recovery
Surrogate Recoveries:					**Acceptance**
Dibromofluoromethane:	101%	108%	108%	110%	86%-118%
Toluene-d_8:	100%	102%	103%	102%	88%-110%
4-Bromofluorobenzene:	96.8%	100%	95.9%	95.6%	86%-115%

ND Not Detected

Signature of Chemist

QA/QC Review

AGRA
Earth & Environmental

Project: Seekins
Project No.: 6-024-01173-1,T05
Project Manager: James Spontak
Sample Matrix: Water

Service Request No.: AK970101
Report Date: 2/25/97
Report No.: 97010103
C.O.C. No.: 03003/03004

Volatile Organic Compounds by GC/MSD
EPA Methods 5030/624
ug/L(ppb)

Sample Name:	MW-3	MW-7	GWP-2	Lab Blank	Lab Blank	Reporting
Lab Code:	0101-3	0101-7	0101-11	0101-MB	0101-MB	Limit
Dichlorodifluoromethane	ND	ND	ND	ND	ND	1.0
Chloromethane	ND	1.19	ND	ND	ND	1.0
Vinyl Chloride	ND	ND	ND	ND	ND	1.0
Bromomethane	ND	ND	ND	ND	ND	1.0
Chloroethane	ND	ND	ND	ND	ND	1.0
Trichlorofluoromethane	ND	38.0	29.5	ND	ND	1.0
1,1-Dichloroethene	ND	ND	ND	ND	ND	1.0
Acetone	ND	294	ND	ND	ND	20
Carbon Disulfide	ND	ND	ND	ND	ND	1.0
Methylene Chloride	48.7	1.27	ND	ND	ND	1.0
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	1.0
1,1-Dichloroethane	1.88	ND	ND	ND	ND	1.0
2,2-Dichloropropane	ND	ND	ND	ND	ND	1.0
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	1.0
2-Butanone(MEK)	ND	ND	ND	ND	ND	10
Bromochloromethane	ND	ND	ND	ND	ND	1.0
Chloroform	ND	ND	ND	ND	ND	1.0
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	1.0
Carbon Tetrachloride	ND	ND	ND	ND	ND	1.0
1,1-Dichloropropene	ND	ND	ND	ND	ND	1.0
Benzene	1.66	ND	ND	ND	ND	1.0
1,2-Dichloroethane	ND	ND	ND	ND	ND	1.0
Trichloroethene	6.35	ND	ND	ND	ND	1.0
1,2-Dichloropropane	ND	ND	ND	ND	ND	1.0
Dibromomethane	ND	ND	ND	ND	ND	1.0
Bromodichloromethane	ND	ND	ND	ND	ND	1.0
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	1.0
4-Methyl-2-Pentanone(MIBK)	ND	ND	ND	ND	ND	10
Toluene	18.9	ND	ND	ND	ND	1.0
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	1.0
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	1.0
Tetrachloroethene	19.3	3.18	ND	ND	ND	1.0
2-Hexanone	ND	ND	ND	ND	ND	10
1,3-Dichloropropane	ND	ND	ND	ND	ND	1.0
Dibromochloromethane	ND	ND	ND	ND	ND	1.0
1,2-Dibromoethane	ND	ND	ND	ND	ND	1.0
Chlorobenzene	ND	ND	ND	ND	ND	1.0
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	1.0
Ethylbenzene	7.22	ND	ND	ND	ND	1.0

ND Not Detected

Project: Seekins
Project No.: 6-024-01173-1,T05
Project Manager: James Spontak
Sample Matrix: Water

Service Request No.: AK970101
Report Date: 2/25/97
Report No.: 97010103
C.O.C. No.: 03003/03004

Volatile Organic Compounds by GC/MSD
EPA Methods 5030/624
ug/L(ppb)

Sample Name:	MW-3	MW-7	GWP-2	Lab Blank	Lab Blank	Reporting
Lab Code:	0101-3	0101-7	0101-11	0101-MB	0101-MB	Limit
m,p-Xylene	28.8	ND	ND	ND	ND	1.0
o-Xylene	16.7	ND	ND	ND	ND	1.0
Styrene	ND	ND	ND	ND	ND	1.0
Bromoform	ND	ND	ND	ND	ND	1.0
Isopropylbenzene	2.40	ND	ND	ND	ND	1.0
Bromobenzene	ND	ND	ND	ND	ND	1.0
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	1.0
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	1.0
n-Propylbenzene	4.30	ND	ND	ND	ND	1.0
2-Chlorotoluene	ND	ND	ND	ND	ND	1.0
4-Chlorotoluene	ND	ND	ND	ND	ND	1.0
1,3,5-Trimethylbenzene	14.8	ND	ND	ND	ND	1.0
tert-Butylbenzene	ND	ND	ND	ND	ND	1.0
1,2,4-Trimethylbenzene	37.6	ND	ND	ND	ND	1.0
sec-Butylbenzene	1.12	ND	ND	ND	ND	1.0
1,3-Dichlorobenzene	1.26	ND	ND	ND	ND	1.0
4-Isopropyltoluene	6.34	1.60	ND	ND	ND	1.0
1,4-Dichlorobenzene	2.71	ND	ND	ND	ND	1.0
1,2-Dichlorobenzene	62.8	ND	ND	ND	ND	1.0
n-Butylbenzene	ND	ND	ND	ND	ND	1.0
1,2-Dibromo-3-Chloropropane	ND	ND	ND	ND	ND	1.0
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	1.0
Hexachlorobutadiene	ND	ND	ND	ND	ND	1.0
Naphthalene	41.3	ND	ND	ND	ND	20
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	20
Sample Date:	2/19/97	2/19/97	2/19/97	2/21/97	2/24/97	
Analysis Date:	2/21/97	2/21/97	2/24/97	2/21/97	2/24/97	
Surrogate Recoveries:						**%Recovery Acceptance**
Dibromofluoromethane:	96.3%	102%	104%	98.0%	106%	90%-107%
Toluene-d_8:	96.8%	98.2%	99.8%	96.7%	97.9%	93%-105%
4-Bromofluorobenzene:	117%	97.0%	103%	108%	102%	92%-121%

ND Not Detected

Signature of Chemist

QA/QC Review

AGRA
Earth & Environmental

Project: Seekins
Project No.: 6-024-01173-1,T05
Project Manager: James Spontak
Sample Matrix: Water

Service Request No.: AK970101
Report Date: 2/25/97
Report No.: 97010101b
C.O.C. No.: 03003/03004

Volatile Organic Compounds by GC/MSD
EPA Methods 5030/624
Low Level
ug/L(ppb)

Sample Name:	MW-8	MW-9	GWP-3	Lab Blank	Reporting
Lab Code:	0101-8	0101-9	0101-12	0101-MB	Limit
Dichlorodifluoromethane	ND	ND	ND	ND	0.5
Chloromethane	ND	ND	ND	ND	0.5
Vinyl Chloride	ND	ND	ND	ND	0.5
Bromomethane	ND	ND	ND	ND	0.5
Chloroethane	ND	ND	ND	ND	0.5
Trichlorofluoromethane	11.4	ND	2.70	ND	0.5
1,1-Dichloroethene	ND	ND	ND	ND	0.5
Acetone	ND	ND	ND	ND	10
Carbon Disulfide	ND	ND	ND	ND	0.5
Methylene Chloride	ND	ND	0.62	ND	0.5
trans-1,2-Dichloroethene	ND	ND	ND	ND	0.5
1,1-Dichloroethane	ND	ND	ND	ND	0.5
2,2-Dichloropropane	ND	ND	ND	ND	0.5
cis-1,2-Dichloroethene	ND	ND	ND	ND	0.5
2-Butanone(MEK)	ND	ND	ND	ND	5.0
Bromochloromethane	ND	ND	ND	ND	0.5
Chloroform	ND	ND	ND	ND	0.5
1,1,1-Trichloroethane	ND	ND	0.67	ND	0.5
Carbon Tetrachloride	ND	ND	ND	ND	0.5
1,1-Dichloropropene	ND	ND	ND	ND	0.5
Benzene	0.81	ND	ND	ND	0.5
1,2-Dichloroethane	ND	ND	ND	ND	0.5
Trichloroethene	ND	ND	ND	ND	0.5
1,2-Dichloropropane	ND	ND	ND	ND	0.5
Dibromomethane	ND	ND	ND	ND	0.5
Bromodichloromethane	ND	ND	ND	ND	0.5
cis-1,3-Dichloropropene	ND	ND	ND	ND	0.5
4-Methyl-2-Pentanone(MIBK)	ND	ND	ND	ND	5.0
Toluene	ND	ND	ND	ND	0.5
trans-1,3-Dichloropropene	ND	ND	ND	ND	0.5
1,1,2-Trichloroethane	ND	ND	ND	ND	0.5
Tetrachloroethene	ND	ND	ND	ND	0.5
2-Hexanone	ND	ND	ND	ND	5.0
1,3-Dichloropropane	ND	ND	ND	ND	0.5
Dibromochloromethane	ND	ND	ND	ND	0.5
1,2-Dibromoethane	ND	ND	ND	ND	0.5
Chlorobenzene	ND	ND	ND	ND	0.5
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	0.5
Ethylbenzene	ND	ND	ND	ND	0.5

ND Not Detected

AGRA
Earth & Environmental

Project: Seekins
Project No.: 6-024-01173-1,T05
Project Manager: James Spontak
Sample Matrix: Water

Service Request No.: AK970101
Report Date: 2/25/97
Report No.: 97010101b
C.O.C. No.: 03003/03004

Volatile Organic Compounds by GC/MSD
EPA Methods 5030/624
Low Level
ug/L(ppb)

Sample Name:	MW-8	MW-9	GWP-3	Lab Blank	**Reporting**
Lab Code:	0101-8	0101-9	0101-12	0101-MB	**Limit**
m,p-Xylene	ND	ND	ND	ND	0.5
o-Xylene	ND	ND	ND	ND	0.5
Styrene	ND	ND	ND	ND	0.5
Bromoform	ND	ND	ND	ND	0.5
Isopropylbenzene	ND	ND	ND	ND	0.5
Bromobenzene	ND	ND	ND	ND	0.5
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	0.5
1,2,3-Trichloropropane	ND	ND	ND	ND	0.5
n-Propylbenzene	ND	ND	ND	ND	0.5
2-Chlorotoluene	ND	ND	ND	ND	0.5
4-Chlorotoluene	ND	ND	ND	ND	0.5
1,3,5-Trimethylbenzene	ND	ND	ND	ND	0.5
tert-Butylbenzene	ND	ND	ND	ND	0.5
1,2,4-Trimethylbenzene	ND	ND	ND	ND	0.5
sec-Butylbenzene	ND	ND	ND	ND	0.5
1,3-Dichlorobenzene	ND	ND	ND	ND	0.5
4-Isopropyltoluene	ND	ND	ND	ND	0.5
1,4-Dichlorobenzene	ND	ND	ND	ND	0.5
1,2-Dichlorobenzene	ND	ND	ND	ND	0.5
n-Butylbenzene	ND	ND	ND	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	ND	ND	ND	0.5
1,2,4-Trichlorobenzene	ND	ND	ND	ND	0.5
Hexachlorobutadiene	ND	ND	ND	ND	0.5
Naphthalene	ND	ND	ND	ND	10
1,2,3-Trichlorobenzene	ND	ND	ND	ND	10
Sample Date:	2/19/97	2/19/97	2/19/97	2/24/97	
Analysis Date:	2/24/97	2/24/97	2/24/97	2/24/97	
					%Recovery
Surrogate Recoveries:					**Acceptance**
Dibromofluoromethane:	107%	111%	110%	105%	86%-118%
Toluene-d_8:	102%	101%	103%	100%	88%-110%
4-Bromofluorobenzene:	99.2%	95.0%	99.1%	102%	86%-115%

ND Not Detected

Signature of Chemist

QA/QC Review

AGRA
Earth & Environmental

Project: Seekins
Project No.: 6-024-01173-1,T05
Project Manager: James Spontak
Sample Matrix: Water

Service Request No.: AK970101
Report Date: 2/25/97
Report No.: 97010104
C.O.C.: 03003/03004

QC Data Report
MS/MSD Summary
Volatile Organic Compounds by GC/MS
EPA Methods 5030/624
ug/L(ppb)

Sample Name: / **Lab Code:**	GWP-2 0101-11	Spike Level (ug/L)	Matrix Spike	Percent Recovery (MS)	Matrix Spike Duplicate	Percent Recovery (DMS)	EPA % Recovery Acceptance Criteria (a)	Relative Percent Difference (RPD)
1,1 - Dichloroethene	<1.0	50.0	58.2	116	57.1	114	75% - 129%	2
Benzene	<1.0	50.0	54.3	109	53.9	108	91% - 115%	<1
Trichloroethene	<1.0	50.0	46.8	93.6	46.0	92.0	86% - 110%	2
Toluene	<1.0	50.0	54.3	109	54.5	109	86% - 116%	<1
Chlorobenzene	<1.0	50.0	53.7	107	53.4	107	92% - 113%	<1
Sample Date:	2/19/97	~	2/19/97	~	2/19/97	~	~	
Analysis Date:	2/24/97	~	2/24/97	~	2/24/97	~	~	
Surrogate Recovery:							**Control Limits**	
Dibromofluoromethane:	104%	~	104%	~	105%	~	90%-107%	
Toluene-d_8:	99.8%	~	102%	~	103%	~	93%-105%	
4-Bromofluorobenzene:	103%	~	102%	~	105%	~	92%-121%	

ND Not Detected
(a) Criteria from AEE Laboratory statistically derived matrix data.

Signature of Chemist

QA/QC Review

AGRA
Earth & Environmental

Project: Seekins
Project No.: 6-024-01173-1,T05
Project Manager: James Spontak
Sample Matrix: Water

Service Request No.: AK970101
Report Date: 2/25/97
Report No.: 97010102
C.O.C.: 03003/03004

QC Data Report
MS/MSD Summary
Volatile Organic Compounds by GC/MS
EPA Methods 5030/624
Low Level Method
ug/L(ppb)

Sample Name: / **Lab Code:**	MW-9 0101-9	Spike Level (ug/L)	Matrix Spike	Percent Recovery (MS)	Matrix Spike Duplicate	Percent Recovery (DMS)	EPA % Recovery Acceptance Criteria (a)	Relative Percent Difference (RPD)
1,1 - Dichloroethene	<0.5	10.0	11.8	118	11.0	110	75% - 129%	7
Benzene	<0.5	10.0	9.82	98.2	9.74	97.4	91% - 115%	<1
Trichloroethene	<0.5	10.0	10.8	108	10.0	100	86% - 110%	8
Toluene	<0.5	10.0	9.92	99.2	9.99	99.9	86% - 116%	<1
Chlorobenzene	<0.5	10.0	10.2	102	10.0	100	92% - 113%	2
Sample Date:	2/19/97	~	2/19/97	~	2/19/97	~	~	
Analysis Date:	2/24/97	~	2/24/97	~	2/24/97	~	~	
Surrogate Recovery:							**Control Limits**	
Dibromofluoromethane:	111%	~	97.5%	~	106%	~	86%-118%	
Toluene-d_8:	101%	~	98.8%	~	101%	~	88%-110%	
4-Bromofluorobenzene:	95.0%	~	103%	~	96.2%	~	86%-115%	

ND Not Detected
(a) Criteria from AEE Laboratory statistically derived matrix data.

Signature of Chemist

QA/QC Review

AGRA
Earth & Environmental

03003

AGRA
Earth & Environmental
3504 Industrial Avenue, Suite 5
Fairbanks, Alaska, U.S.A. 99701
Tel (907) 479-7586 Fax (907) 479-0193

CHAIN OF CUSTODY

PROJECT: Seekins	PROJECT No.: TOS 6-024-01173-1
CLIENT: AEE	PHONE No.: (907) 479-7586
PROJECT MANAGER: Jim Spontak	PHONE No.: "
SAMPLER'S NAME (please print): Ann Farris	PHONE No.: "
SAMPLER'S SIGNATURE: Ann Farris	

ANALYSIS REQUESTED (circle, check box or write preferred method in box)

SAMPLE I.D.	DATE	TIME	MATRIX	PRESERVATIVE	CONTAINERS No.	CONTAINERS VOL.	BTEX by 5030 / 8020	GRPH by 5030 /8015	DRPH by 3550 / 8100	BTEX/GRPH Combo by 5030 / 8020-8015	TPH by 3550 / 418.1	Halogenated Volatiles by 5030 / 8010	WTPH-418.1 MODIFIED	Aromatics by 602	Polynuclear Aromatics by 610 or 8310	Total Halogens (TOX) by 9076	Total Metals by ICP AA	Purgeable Organics GC/MS by 8240 or 624	Base/Neut/acid/Organics GC/MS by 625 or 8270	PCB by 8080	BTEX/GRPH by AK101	DRPH by AK102	EPA 624 Volatile Organics	PAHs	
1. MW-1	2/19/97	1130	Water	HCl/chill	3	40ml L															X	X			
2. MW-2		1055			6	40ml L															X	X	X	X	
3. MW-3		1050			6	40ml L															X	X	X	X	
4. MW-4		1150			2	40ml L															X	X	X		
5. MW-5		1120			2	40ml L															X	X	X		
6. MW-6		1255			2	40ml L															X	X	X		
7. MW-7		1345			2	40ml L															X	X	X		
8. MW-8		1430			2	40ml L															X	X	X		
9. MW-9		1500			2	40ml L															X	X	X		
10. GWP-1		1455			3	40ml L															X	X			

SAMPLE RECEIPT	LABORATORY: Portland AEE lab	TURNAROUND TIME	SPECIAL INSTRUCTIONS / ADDITIONAL COMMENTS
TOTAL # CONTAINERS: 3	SHIPPING I.D. / AIRBILL #	☐ 8 HOUR ☐ 24 HOUR ☐ 1 WEEK ☒ 2 WEEK (standard) ☐ OTHER	
CONDITION OF CONTAINERS	CARRIER: Federal Express		
CONDITION OF SEALS	DOT DESIGNATION		

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
1. Ann Farris	2/20/97	11:00	1.		
2.			2.		
3.			3. Cynthia Muxoll	2/21/97	915am

PAGE 1 OF 2

DISTRIBUTION: White, Yellow - Laboratory, Pink - Originator

AK970101

03004

AGRA
Earth & Environmental
3504 Industrial Avenue, Suite 5
Fairbanks, Alaska, U.S.A. 99701
Tel (907) 479-7586 Fax (907) 479-0193

CHAIN OF CUSTODY

PROJECT	PROJECT No. TOS
Seekins	6-024-01173-1
CLIENT	PHONE No.
AEE	(907) 479-7586
PROJECT MANAGER	PHONE No.
Jim Spartak	"
SAMPLER'S NAME (please print)	PHONE No.
Ann Farris	"
SAMPLER'S SIGNATURE	
Ann Farris	

ANALYSIS REQUESTED (circle, check box or write preferred method in box)

	SAMPLE I.D.	DATE	TIME	MATRIX	PRESERVATIVE	CONTAINERS No.	CONTAINERS VOL.	BTEX by 5030 / 8020	GRPH by 5030 /8015	DRPH by 3550 / 8100	BTEX/GRPH Combo by 5030 / 8020-8015	TPH by 3550 / 418.1	Halogenated Volatiles by 5030 / 8010	WTPH-418.1 MODIFIED	Aromatics by 802	Polynuclear Aromatics by 610 or 8310	Total Halogens (TOX) by 9076	Total Metals by ICP AA	Purgeable Organics GC/MS by 8240 or 624	Base/Neut/Acid/Organics GC/MS by 625 or 8270	PCB by 8080	BTEX/GRPH by AK101	DRPH by AK102	Organic Volatiles by EPA 624	PAHs	
11	1. GWP-2	2/19/97	1415	Water	HCl/chill	3	40ml VOA															X	X	(X)		
12	2. GWP-3	↓	1210	↓	↓	6	40ml VOA															X	X	X	X	
13	3. DUP		—			6	40ml VOA															X	X	X		
14	4. Trip Blank	↓	—	↓	↓	2	40ml VOA															X				
	5.																									
	6.																									
	7.																									
	8.																									
	9.																									
	10.																									

SAMPLE RECEIPT	LABORATORY Portland AEE lab	TURNAROUND TIME	SPECIAL INSTRUCTIONS / ADDITIONAL COMMENTS
TOTAL # CONTAINERS 3	SHIPPING I.D. / AIRBILL #	☐ 8 HOUR	(X) = added on 2/21/97 at 15:29 per Stephanie Forester
CONDITION OF CONTAINERS	CARRIER Federal Express	☐ 24 HOUR	
CONDITION OF SEALS	DOT DESIGNATION	☐ 1 WEEK	
		☒ 2 WEEK (standard)	
		☐ OTHER _____	

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
1. Ann Farris	2/20/97	11:00	1.		
2.			2.		
3.			3. Cynthia Nevaril	2/21/97	915am

PAGE 2 OF 2

AGRA Earth & Environmental, Inc. (7/94)

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AGRA
Earth & Environmental

AGRA Earth & Environmental, Inc.
7477 SW Tech Center Drive
Portland, Oregon
U.S.A. 97223-8025
Tel (503) 639-3400
Fax (503) 620-7892

March 12, 1997

AGRA Earth & Environmental
3504 Industrial Avenue, Suite 5
Fairbanks, AK 99701

Attention: Mr. James Spontak

Dear Mr. Spontak:

RE: Analytical Results For Project 6-024-01173-1

Attached are the PAH results for the samples submitted on February 21, 1997 from the above referenced project. For your reference, our project number associated with these samples is AK970101.

Diesel range organics, gasoline range petroleum hydrocarbons & BTEX, and volatile organic compounds by GC/MSD results were reported under separate cover in a package dated March 7, 1997.

All analyses were conducted in accordance with applicable QA/QC guidelines. The results apply only to the samples submitted.

Please feel free to contact me if you have any questions regarding this report, or if I can be of any assistance in any other matter.

Respectfully submitted,

AGRA Earth & Environmental

Sean Gormley
Laboratory Manager
Laboratory ID # UST-008

NORTH CREEK ANALYTICAL
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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Agra Earth and Environmental, Inc	Project:	Seehins	Sampled: 2/19/97
7477 S.W. Tech Center Drive	Project Number:	6-024-01173-1 TO 5	Received: 2/24/97
Portland, OR 97223-8024	Project Manager:	Sean Gormley	Reported: 3/11/97 18:05

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
MW-2	P702383-01	Water	2/19/97
MW-3	P702383-02	Water	2/19/97
GWP-3	P702383-03	Water	2/19/97

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Agra Earth and Environmental, Inc	Project:	Seehins	Sampled: 2/19/97
7477 S.W. Tech Center Drive	Project Number:	6-024-01173-1 TO 5	Received: 2/24/97
Portland, OR 97223-8024	Project Manager:	Sean Gormley	Reported: 3/11/97 18:05

Polynuclear Aromatic Compounds per EPA 8270M-SIM
North Creek Analytical - Portland

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-2			**P702383-01**				**Water**	
Acenaphthene	0270490	2/25/97	3/8/97		0.100	ND	ug/l	
Acenaphthylene	"	"	"		0.100	ND	"	
Anthracene	"	"	"		0.100	ND	"	
Benzo (a) anthracene	"	"	"		0.100	ND	"	
Benzo (a) pyrene	"	"	"		0.100	ND	"	
Benzo (b) fluoranthene	"	"	"		0.100	ND	"	
Benzo (ghi) perylene	"	"	"		0.100	ND	"	
Benzo (k) fluoranthene	"	"	"		0.100	ND	"	
Chrysene	"	"	"		0.100	ND	"	
Dibenzo (a,h) anthracene	"	"	"		0.200	ND	"	
Fluoranthene	"	"	"		0.100	ND	"	
Fluorene	"	"	"		0.100	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.100	ND	"	
Naphthalene	"	"	"		0.100	**0.221**	"	
Phenanthrene	"	"	"		0.100	ND	"	
Pyrene	"	"	"		0.100	ND	"	
Surrogate: 2-Fluorobiphenyl	"	"	"	*43.0-116*		*67.6*	*%*	
Surrogate: Nitrobenzene-d5	"	"	"	*35.0-114*		*73.6*	"	
Surrogate: p-Terphenyl-d14	"	"	"	*33.0-141*		*48.0*	"	
MW-3			**P702383-02**				**Water**	
Acenaphthene	0270490	2/25/97	3/8/97		0.100	**0.421**	ug/l	
Acenaphthylene	"	"	"		0.100	ND	"	
Anthracene	"	"	"		0.100	ND	"	
Benzo (a) anthracene	"	"	"		0.100	ND	"	
Benzo (a) pyrene	"	"	"		0.100	ND	"	
Benzo (b) fluoranthene	"	"	"		0.100	ND	"	
Benzo (ghi) perylene	"	"	"		0.100	ND	"	
Benzo (k) fluoranthene	"	"	"		0.100	ND	"	
Chrysene	"	"	"		0.100	ND	"	
Dibenzo (a,h) anthracene	"	"	"		0.200	ND	"	
Fluoranthene	"	"	"		0.100	ND	"	
Fluorene	"	"	"		0.100	**0.544**	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.100	ND	"	
Naphthalene	"	"	3/10/97		10.0	**42.8**	"	
Phenanthrene	"	"	3/8/97		0.100	**0.369**	"	
Pyrene	"	"	"		0.100	ND	"	
Surrogate: 2-Fluorobiphenyl	"	"	"	*43.0-116*		*51.2*	*%*	

North Creek Analytical, Inc.

**Refer to end of report for text of notes and definitions.*

Philip Nerenberg, Laboratory Manager

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Agra Earth and Environmental, Inc	Project:	Seehins	Sampled: 2/19/97
7477 S.W. Tech Center Drive	Project Number:	6-024-01173-1 TO 5	Received: 2/24/97
Portland, OR 97223-8024	Project Manager:	Sean Gormley	Reported: 3/11/97 18:05

Polynuclear Aromatic Compounds per EPA 8270M-SIM
North Creek Analytical - Portland

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-3 (continued)			**P702383-02**				**Water**	
Surrogate: Nitrobenzene-d5	*0270490*	*2/25/97*	*3/10/97*	*35.0-114*		*10.2*	*%*	*1*
Surrogate: p-Terphenyl-d14	"	"	*3/8/97*	*33.0-141*		*19.9*	"	*1*
GWP-3			**P702383-03**				**Water**	
Acenaphthene	0270490	2/25/97	3/8/97		0.100	ND	ug/l	
Acenaphthylene	"	"	"		0.100	ND	"	
Anthracene	"	"	"		0.100	ND	"	
Benzo (a) anthracene	"	"	"		0.100	ND	"	
Benzo (a) pyrene	"	"	"		0.100	ND	"	
Benzo (b) fluoranthene	"	"	"		0.100	ND	"	
Benzo (ghi) perylene	"	"	"		0.100	ND	"	
Benzo (k) fluoranthene	"	"	"		0.100	ND	"	
Chrysene	"	"	"		0.100	ND	"	
Dibenzo (a,h) anthracene	"	"	"		0.200	ND	"	
Fluoranthene	"	"	"		0.100	ND	"	
Fluorene	"	"	"		0.100	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.100	ND	"	
Naphthalene	"	"	"		0.100	ND	"	
Phenanthrene	"	"	"		0.100	ND	"	
Pyrene	"	"	"		0.100	ND	"	
Surrogate: 2-Fluorobiphenyl	"	"	"	*43.0-116*		*82.1*	*%*	
Surrogate: Nitrobenzene-d5	"	"	"	*35.0-114*		*85.8*	"	
Surrogate: p-Terphenyl-d14	"	"	"	*33.0-141*		*75.0*	"	

North Creek Analytical, Inc.

**Refer to end of report for text of notes and definitions.*

PW

Philip Nerenberg, Laboratory Manager

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Agra Earth and Environmental, Inc	Project:	Seehins	Sampled: 2/19/97
7477 S.W. Tech Center Drive	Project Number:	6-024-01173-1 TO 5	Received: 2/24/97
Portland, OR 97223-8024	Project Manager:	Sean Gormley	Reported: 3/11/97 18:05

Polynuclear Aromatic Compounds per EPA 8270M-SIM/Quality Control
North Creek Analytical - Portland

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0270490	**Date Prepared: 2/25/97**					**Extraction Method: EPA 3510/600 Series**				
Blank	**0270490-BLK1**									
Acenaphthene	3/8/97			ND	ug/l	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	"	0.200				
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: 2-Fluorobiphenyl	"	*2.50*		*2.02*	"	*43.0-116*	*80.8*			
Surrogate: Nitrobenzene-d5	"	*2.50*		*2.04*	"	*35.0-114*	*81.6*			
Surrogate: p-Terphenyl-d14	"	*2.50*		*2.20*	"	*33.0-141*	*88.0*			
LCS	**0270490-BS1**									
Acenaphthylene	3/8/97	5.01		4.10	ug/l	50.0-150	81.8			
Benzo (k) fluoranthene	"	5.01		4.82	"	50.0-150	96.2			
Pyrene	"	5.01		4.51	"	50.0-150	90.0			
Surrogate: 2-Fluorobiphenyl	"	*2.50*		*1.92*	"	*43.0-116*	*76.8*			
Surrogate: Nitrobenzene-d5	"	*2.50*		*1.88*	"	*35.0-114*	*75.2*			
Surrogate: p-Terphenyl-d14	"	*2.50*		*1.75*	"	*33.0-141*	*70.0*			
LCS Dup	**0270490-BSD1**									
Acenaphthylene	3/8/97	5.01		4.27	ug/l	50.0-150	85.2	60.0	4.07	
Benzo (k) fluoranthene	"	5.01		4.99	"	50.0-150	99.6	60.0	3.47	
Pyrene	"	5.01		5.06	"	50.0-150	101	60.0	11.5	
Surrogate: 2-Fluorobiphenyl	"	*2.50*		*1.83*	"	*43.0-116*	*73.2*			
Surrogate: Nitrobenzene-d5	"	*2.50*		*1.93*	"	*35.0-114*	*77.2*			
Surrogate: p-Terphenyl-d14	"	*2.50*		*1.87*	"	*33.0-141*	*74.8*			

North Creek Analytical, Inc.

**Refer to end of report for text of notes and definitions.*

PN

Philip Nerenberg, Laboratory Manager

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Agra Earth and Environmental, Inc	Project:	Seehins	Sampled:	2/19/97
7477 S.W. Tech Center Drive	Project Number:	6-024-01173-1 TO 5	Received:	2/24/97
Portland, OR 97223-8024	Project Manager:	Sean Gormley	Reported:	3/11/97 18:05

Notes and Definitions

#	Note
1	Outside of acceptance limits. Matrix interferences are suspected due to emulsion encountered during extraction. Insufficient sample for re-extraction.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical, Inc.

Philip Nerenberg, Laboratory Manager

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NORTH CREEK ANALYTICAL
Environmental Laboratory Services

CHAIN OF CUSTODY REPORT

Work Order # [redacted]

REPORT TO: AEE
ATTENTION: Sean Gormley
ADDRESS: 7477 SW Tech Center Dr.
Portland, OR 97223
PHONE: 639-3100 FAX: 620-7852
PROJECT NAME: Seehins
PROJECT NUMBER: G-024-01173-1 TO 5
SAMPLED BY:

INVOICE TO: Same
ATTENTION: Accounts Payable
ADDRESS: Same
P.O. NUMBER: NCA QUOTE #:

TURNAROUND REQUEST in Business Days *
Organic & Inorganic Analyses: 10 Standard | X | 5 | 4 | 3 | 2 | 1 | Same Day
Fuels & Hydrocarbon Analyses: 5 Standard | 3-4 | 2 | 1 | Same Day
OTHER Specify:
* Turnaround Requests less than standard may incur Rush Charges.

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)	Analysis Request: PAHs *	MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS
1.	MW-2	7/19/97 10:55		X	W	3	
2.	MW-3	10:50		X		3	
3.	GWP-3	12:10		X		3	
4.							
5.							
6.							
7.							
8.							
9.							
10.							

RELINQUISHED BY (Signature): [signature] DATE: 7/21/97
PRINT NAME: Sean Gormley FIRM: AEE-PDX TIME: 1405
RECEIVED BY (Signature): [signature] DATE: 7-24-
PRINT NAME: Larry Spangler FIRM: NCA TIME: 14

RELINQUISHED BY (Signature): [signature] DATE: 7-24-97
PRINT NAME: Larry Spangler FIRM: NCA TIME: 1540
RECEIVED BY (Signature): [signature] DATE: 22
PRINT NAME: Karin Stanley FIRM: NCA TIME: 164

ADDITIONAL REMARKS: * Need lowest possible reporting limits.
AK970101

PAGE 1 OF 1