Billing Information: Name <u>GCTALD</u> TOMPKINS Address <u>505 KINC AVE</u> City, State, ZipCOLIAMPENS, Off 43201	Alpha A 255 Glenda Sparks, Ne Phone (77	cal, Inc. e, Suite 21 31-5778 144	Samples Collected From Which State? 0 2 6 3 0 3 AZ CA X NV WA
אוזאל, <i>Ott</i> 45 Fax	Fax (775) 355-0406		Analyses Required
Client Name DAVID COUVER	P.O.# 218013	New March 198500 # doc	Required QC Level?
. 1	EMail Address	4.2	
City, State, Zip SPN DIECO, CA 92/10	Phone # 619-726-7311 F	Fax #	EDD/EDF? YES NO
Matrix* Sam	Report Attention	of	Global ID #
Sampled Sampled Below Lab ID Number (Use Only)	Sample Description	TAT Field See below	REMARKS
10-X5-2011 X TWE BANTON 110-5X -01	MW-25-5		
	MW-25-4	XXX	IN A WEAL NOIT MANAGED
07 B	MW-25-3	×××	¥
04	MW-25-2	× × ×	
Gr hhar	MW-25-1	X	
00-04	58-13-11/06/08	× × ×	EQUIPMENT BLANK
	+B-13-11/06/08	- X	TEIP BANK
ADDITIONAL INSTRUCTIONS:			
Signature	Print Name	Company	Date Time
Relinquisheda	CITANE BIOGDON	INSIGHT	1/06/08 1300
Received by Marce WHANGBH	Tale Michael	" alphe	11/7/08 112Z
Received hy	(
Relinquished by			
Received by			
*Key: AQ - Aqueous SO - Soil WA - Waste	e OT - Other AR - Air **: L-Liter	ter V-Voa S-Soil Jar O-Orbo T-Tedlar Hazardous samples will be returned to client or disease	llar B-Brass P-Plastic OT-Other
		of the above samples is applicable only to those samples repeived by the laboratory with this oper. The licklift of the laboratory is limited to the same of the above samples is applicable only to those some of the above samples is applicable only to those some of the laboratory with this oper. The licklift of the laboratory with the laboratory with this oper.	vseu of at citerit expense. The report for the analysis



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: 21-Nov-08

David Conner Battelle Memorial Institute 505 King Avenue Columbus, OH 43201 (619) 574-4827

CASE NARRATIVE

Project: G005862/JPL Groundwater Monitoring

Work Order: BMI08111104		Cooler Temp: 4 °C
Alpha's Sample ID	Client's Sample ID	Matrix
08111104-01A	MW-26-2	Aqueous
08111104-02A	MW-26-1	Aqueous
08111104-03A	EB-14-11/07/08	Aqueous
08111104-04A	TB-14-11/07/08	Aqueous
08111104-05A	MW-23-5	Aqueous
08111104-06A	MW-23-4	Aqueous
08111104-07A	MW-23-3	Aqueous
08111104-08A	MW-23-2	Aqueous
08111104-09A	MW-23-1	Aqueous
08111104-10A	EB-15-11/10/08	Aqueous
08111104-11A	TB-15-11/10/08	Aqueous

Enclosed please find the analytical results of the samples received by Alpha Analytical, Inc. under the above mentioned Work Order/Chainof-Custody.

Alpha Analytical, Inc. has a formal Quality Assurance/Quality Control program, which is designed to meet or exceed the EPA requirements. All relevant QC met quality assurance objectives for this project unless otherwise stated in the footnotes.

If you have any questions with regards to this report, please contact Randy Gardner, Project Manager, at (800) 283-1183.

Roger Scholl

Kandy Dandmer

Walter Alor

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com



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ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring

Attn: David Conner Phone: (619) 574-4827 Fax: (614) 458-6641

Tentatively Identified Compounds - Volatile Organics by GC/MS

				Estimated			
		Parameter	Estimated	Reporting	Date	Date	Date
			Concentration	Limit	Received	Sampled	Analyzed
Client ID :	MW-26-2						
Lab ID :	BMI08111104-01A	* * * None Found * * *	ND	$2.0\ \mu\text{g/L}$	11/11/08	11/07/08	11/18/08
Client ID :	MW-26-1						
Lab ID :	BMI08111104-02A	* * * None Found * * *	ND	$2.0 \ \mu g/L$	11/11/08	11/07/08	11/18/08
Client ID :	EB-14-11/07/08						
Lab ID :	BMI08111104-03A	* * * None Found * * *	ND	$2.0\ \mu\text{g/L}$	11/11/08	11/07/08	11/17/08
Client ID :	TB-14-11/07/08						
Lab ID :	BMI08111104-04A	* * * None Found * * *	ND	2.0 µg/L	11/11/08	11/07/08	11/17/08
Client ID :	MW-23-5						
Lab ID :	BMI08111104-05A	Sulfur Dioxide	18	$2.0 \ \mu\text{g/L}$	11/11/08	11/10/08	11/18/08
Client ID :	MW-23-4						
Lab ID :	BMI08111104-06A	Sulfur Dioxide	9.4	2.0 µg/L	11/11/08	11/10/08	11/18/08
Client ID :	MW-23-3						
Lab ID :	BMI08111104-07A	Sulfur Dioxide	7.2	2.0 µg/L	11/11/08	11/10/08	11/18/08
Client ID :	MW-23-2						
Lab ID :	BMI08111104-08A	Sulfur Dioxide	2.7	2.0 µg/L	11/11/08	11/10/08	11/18/08
Client ID : Lab ID :	MW-23-1			.			11/10/00
	BMI08111104-09A	* * * None Found * * *	ND	2.0 µg/L	11/11/08	11/10/08	11/18/08
Client ID : Lab ID :	EB-15-11/10/08 BMI08111104-10A	*** \] 1 1 * * *	ND	2.0	11/11/08	11/10/08	11/17/09
		*** None Found ***	ND	2.0 µg/L	11/11/08	11/10/08	11/17/08
Client ID : Lab ID :	TB-15-11/10/08 BMI08111104-11A	* * * None Found * * *	ND	2.0	11/11/09	11/10/09	11/17/09
	DW100111104-11A	* * * None Found * * *	ND	2.0 µg/L	11/11/08	11/10/08	11/17/08

Note: Analysis conducted using EPA Method 524.2 criteria. ND = Not Detected

Roger Scholl

Walter Hiridman Kandy Santur

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

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11/24/08



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ANALYTICAL REPORT

Battelle Memorial Institute	Attn: David Conner
505 King Avenue	Phone: (619) 574-4827
Columbus, OH 43201	Fax: (614) 458-6641
Job#: G005862/JPL Groundwater Monitoring	· ·
Alpha Analytical Number: BMI08111104-01A	Sampled: 11/07/08
Client I.D. Number: MW-26-2	Received: 11/11/08
	Analyzed: 11/18/08

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting L	imit
1	Dichlorodifluoromethane	ND	0.50	µg/L	36	1.1.1.2-Tetrachloroethane	ND	0.50	μg/L
2	Chloromethane	ND	1.0	µg/L	37	Chlorobenzene	ND	0.50	µg/L
з	Vinyl chloride	ND	0.50	μg/L	38	Ethylbenzene	ND	0.50	µg/L
4	Chloroethane	ND	0.50	µg/L	39	m,p-Xylene	ND	0.50	µg/L
5	Bromomethane	' ND	* 1.0	µg/L	40	Bromoform	ND	0.50	µg/L
6	Trichlorofluoromethane	ND	0.50	µg/L	41	Styrene	ND	0.50	µg/L
7	1,1-Dichloroethene	ND	0.50	µg/L	42	o-Xylene	ND	0.50	µg/L
8	Dichloromethane	ND	1.0	µg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	µg/L
9	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	1.0	μg/L
10	trans-1,2-Dichloroethene	ND	0.50	µg/L	45	Isopropylbenzene	ND	0.50	µg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	µg/L	46	Bromobenzene	ND	0.50	µg/L
12	1,1-Dichloroethane	ND	0.50	µg/L	47	n-Propylbenzene	ND	0.50	μg/L
13	2-Butanone (MEK)	ND	10	µg/L	48	4-Chlorotoluene	ND	0.50	µg/L
14	cis-1,2-Dichloroethene	ND	0.50	µg/L	49	2-Chlorotoluene	ND	0.50	µg/L
15	Bromochloromethane	ND	0.50	µg/L	50	1,3,5-Trimethylbenzene	ND	0.50	µg/L
16	Chloroform	ND	0.50	µg/L	51	tert-Butylbenzene	ND	0.50	µg/L
17	2,2-Dichloropropane	ND	* 0.50	µg/L	52	1,2,4-Trimethylbenzene	ND	0.50	µg/L
18	1,2-Dichloroethane	ND	0.50	µg/L	53	sec-Butylbenzene	ND	0.50	µg/L
19	1,1,1-Trichloroethane	ND	0.50	µg/L	54	1,3-Dichlorobenzene	ND	0.50	µg/L
20	1,1-Dichloropropene	ND	0.50	µg/L	55	1,4-Dichlorobenzene	ND	0.50	µg/L
21	Carbon tetrachloride	ND	0.50	µg/L	56	4-Isopropyltoluene	ND	0.50	µg/L
22	Benzene	ND	0.50	µg/L	57	1,2-Dichlorobenzene	ND	0.50	µg/L
23	Dibromomethane	ND	0.50	µg/L	58	n-Butylbenzene	ND	0.50	µg/L
24	1,2-Dichloropropane	ND	0.50	µg/L	59	1,2-Dibromo-3-chloropropane (DBCF	P) ND	2.5	µg/L
25	Trichloroethene	ND	0.50	µg/L	60	1,2,4-Trichlorobenzene	ND	1.0	µg/L
26	Bromodichloromethane	ND	0.50	µg/L	61	Naphthalene	ND	1.0	µg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	1.0	µg/L
28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	1.0	µg/L
29	trans-1,3-Dichloropropene	ND	0.50	μg/L	64	Surr: 1,2-Dichloroethane-d4	93	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	102	(70-130)	%REC
31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	100	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	μg/L					
33	Dibromochloromethane	ND	0.50	μg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	μg/L					
35	Tetrachloroethene	ND	0.50	μg/L					

*Note: Bromomethane & 2,2-dichloropropane failed the method CV criteria of 70-130% @ 64% and 68%, respectively.

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Santur

Walter Arinhum

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11/24/08 Report Date



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ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring	Attn: David Conner Phone: (619) 574-4827 Fax: (614) 458-6641
Alpha Analytical Number: BMI08111104-02A Client I.D. Number: MW-26-1	Sampled: 11/07/08 Received: 11/11/08 Analyzed: 11/18/08

Volatile Organics by GC/MS

					······································				
	Compound	Compound Concentration		Limit		Compound	Concentration	Reporting Limit	
1	Dichlorodifluoromethane	ND	0.50	µg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	µg/L
2	Chloromethane	ND	1.0	µg/L	37	Chlorobenzene	ND	0.50	μg/L
3	Vinyl chloride	ND	0.50	µg/L	38	Ethylbenzene	ND	0.50	µg/L
4	Chloroethane	ND	0.50	µg/L	39	m,p-Xylene	ND	0.50	μg/L
5	Bromomethane	ND	* 1.0	µg/L	40	Bromoform	ND	0.50	µg/L
6	Trichlorofluoromethane	ND	0.50	µg/L	41	Styrene	ND	0.50	µg/L
7	1,1-Dichloroethene	ND	0.50	µg/L	42	o-Xylene	ND	0.50	µg/L
8	Dichloromethane	ND	1.0	µg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	µg/L
9	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	1.0	μg/L
10	trans-1,2-Dichloroethene	ND	0.50	μg/L	45	Isopropylbenzene	ND	0.50	µg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	µg/L	46	Bromobenzene	ND	0.50	µg/L
12	1,1-Dichloroethane	ND	0.50	μg/L	47	n-Propylbenzene	ND	0.50	μg/L
13	2-Butanone (MEK)	ND	10	µg/L	48	4-Chlorotoluene	ND	0.50	µg/L
14	cis-1,2-Dichloroethene	ND	0.50	µg/L	49	2-Chlorotoluene	ND	0.50	µg/L
15	Bromochloromethane	ND	0.50	µg/L	50	1,3,5-Trimethylbenzene	ND	0.50	µg/L
16	Chloroform	ND	0.50	µg/L	51	tert-Butylbenzene	ND	0.50	μg/L
17	2,2-Dichloropropane	ND	* 0.50	µg/L	52	1,2,4-Trimethylbenzene	ND	0.50	μg/L
18	1,2-Dichloroethane	ND	0.50	µg/L	53	sec-Butylbenzene	ND	0.50	µg/L
19	1,1,1-Trichloroethane	ND	0.50	µg/L	54	1,3-Dichlorobenzene	ND	0.50	μg/L
20	1,1-Dichloropropene	ND	0.50	µg/L	55	1,4-Dichlorobenzene	ND	0.50	µg/L
21	Carbon tetrachloride	ND	0.50	μg/L	56	4-Isopropyltoluene	ND	0.50	µg/L
22	Benzene	ND	0.50	µg/L	57	1,2-Dichlorobenzene	ND	0.50	µg/L
23	Dibromomethane	ND	0.50	µg/L	58	n-Butylbenzene	ND	0.50	µg/L
24	1,2-Dichloropropane	ND	0.50	µg/L	59	1,2-Dibromo-3-chloropropane (DBCl	P) ND	2.5	µg/L
25	Trichloroethene	ND	0.50	µg/L	60	1,2,4-Trichlorobenzene	ND	1.0	μg/L
26	Bromodichloromethane	ND	0.50	μg/L	61	Naphthalene	ND	1.0	µg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	1.0	µg/L
28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	1.0	µg/L
29	trans-1,3-Dichloropropene	ND	0.50	µg/L	64	Surr: 1,2-Dichloroethane-d4	93	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	101	(70-130)	%REC
31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	100	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	µg/L					
33	Dibromochloromethane	ND	0.50	µg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	ND	0.50	µg/L					

*Note: Bromomethane & 2,2-dichloropropane failed the method CV criteria of 70-130% @ 64% and 68%, respectively.

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

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ANALYTICAL REPORT

Battelle Memorial Institute	Attn: David Conner
505 King Avenue	Phone: (619) 574-4827
Columbus, OH 43201	Fax: (614) 458-6641
Job#: G005862/JPL Groundwater Monitoring	
Alpha Analytical Number: BMI08111104-03A Client I.D. Number: EB-14-11/07/08	Sampled: 11/07/08 Received: 11/11/08 Analyzed: 11/17/08

Volatile Organics by GC/MS

	Compound	Concentration	Reporting I	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	0.50	µg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	µg/L
2	Chloromethane	ND	1.0	µg/L	37	Chlorobenzene	ND	0.50	µg/L
з	Vinyl chloride	ND	0.50	μg/L	38	Ethylbenzene	ND	0.50	µg/L
4	Chloroethane	ND	0.50	μg/L	39	m,p-Xylene	ND	0.50	µg/L
5	Bromomethane	ND	* 1.0	μg/L	40	Bromoform	ND	0.50	µg/L
6	Trichlorofluoromethane	ND	0.50	µg/L	41	Styrene	ND	0.50	µg/L
7	1,1-Dichloroethene	ND	0.50	µg/L	42	o-Xylene	ND	0.50	µg/L
8	Dichloromethane	ND	1.0	µg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	µg/L
9	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	1.0	µg/L
10	trans-1,2-Dichloroethene	ND	0.50	µg/L	45	Isopropylbenzene	ND	0.50	µg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	µg/L	46	Bromobenzene	ND	0.50	µg/L
12	1,1-Dichloroethane	ND	0.50	µg/L	47	n-Propylbenzene	ND	0.50	µg/L
13	2-Butanone (MEK)	ND	10	µg/L	48	4-Chlorotoluene	ND	0.50	µg/L
14	cis-1,2-Dichloroethene	ND	0.50	µg/L	49	2-Chlorotoluene	ND	0.50	µg/L
15	Bromochloromethane	ND	0.50	µg/L	50	1,3,5-Trimethylbenzene	ND	0.50	µg/L
16	Chloroform	ND	0.50	µg/L	51	tert-Butylbenzene	ND	0.50	µg/L
17	2,2-Dichloropropane	ND	* 0.50	µg/L	52	1,2,4-Trimethylbenzene	ND	0.50	µg/L
18	1,2-Dichloroethane	ND	0.50	µg/L	53	sec-Butylbenzene	ND	0.50	µg/L
19	1,1,1-Trichloroethane	ND	0.50	µg/L	54	1,3-Dichlorobenzene	ND	0.50	µg/L
20	1,1-Dichloropropene	ND	0.50	µg/L	55	1,4-Dichlorobenzene	ND	0.50	µg/L
21	Carbon tetrachloride	ND	0.50	µg/L	56	4-Isopropyltoluene	ND	0.50	µg/L
22	Benzene	ND	0.50	µg/L	57	1,2-Dichlorobenzene	ND	0.50	µg/L
23	Dibromomethane	ND	0.50	µg/L	58	n-Butylbenzene	ND	0.50	µg/L
24	1,2-Dichloropropane	ND	0.50	µg/L	59	1,2-Dibromo-3-chloropropane (DBC		2.5	µg/L
25	Trichloroethene	ND	0.50	µg/L	60	1,2,4-Trichlorobenzene	ND	1.0	µg/L
26	Bromodichloromethane	ND	0.50	µg/L	61	Naphthalene	ND	1.0	µg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	1.0	µg/L
28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	1.0	µg/L
29	trans-1,3-Dichloropropene	ND	0.50	µg/L	64	Surr: 1,2-Dichloroethane-d4	92	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	101	(70-130)	%REC
31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	103	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	µg/L					
33	Dibromochloromethane	ND	0.50	µg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	ND	0.50	µg/L					

*Note: Bromomethane & 2,2-dichloropropane failed the method CV criteria of 70-130% @ 64% and 68%, respectively.

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

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Report Date Page 1 of 1



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ANALYTICAL REPORT

Battelle Memorial Institute	Attn: David Conner
505 King Avenue	Phone: (619) 574-4827
Columbus, OH 43201	Fax: (614) 458-6641
Job#: G005862/JPL Groundwater Monitoring	
Alpha Analytical Number: BMI08111104-04A	Sampled: 11/07/08
Client I.D. Number: TB-14-11/07/08	Received: 11/11/08
	Analyzed: 11/17/08

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	0.50	µg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	µg/L
2	Chloromethane	ND	1.0	μg/L	37	Chlorobenzene	ND	0.50	µg/L
з	Vinyl chloride	ND	0.50	µg/L	38	Ethylbenzene	ND	0.50	µg/L
4	Chloroethane	ND	0.50	µg/L	39	m,p-Xylene	ND	0.50	µg/L
5	Bromomethane	ND	* 1.0	µg/L	40	Bromoform	ND	0.50	µg/L
6	Trichlorofluoromethane	ND	0.50	µg/L	41	Styrene	ND	0.50	µg/L
7	1,1-Dichloroethene	ND	0.50	µg/L	42	o-Xylene	ND	0.50	µg/L
8	Dichloromethane	ND	1.0	µg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	µg/L
9	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	1.0	µg/L
10	trans-1,2-Dichloroethene	ND	0.50	µg/L	45	Isopropylbenzene	ND	0.50	µg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	µg/L	46	Bromobenzene	ND	0.50	µg/L
12	1,1-Dichloroethane	ND	0.50	µg/L	47	n-Propylbenzene	ND	0.50	µg/L
13	2-Butanone (MEK)	ND	10	µg/L	48	4-Chlorotoluene	ND	0.50	µg/L
14	cis-1,2-Dichloroethene	ND	0.50	µg/L	49	2-Chlorotoluene	ND	0.50	µg/L
15	Bromochloromethane	ND	0.50	µg/L	50	1,3,5-Trimethylbenzene	ND	0.50	µg/L
16	Chloroform	ND	0.50	µg/L	51	tert-Butylbenzene	ND	0.50	µg/L
17	2,2-Dichloropropane	ND	* 0.50	µg/L	52	1,2,4-Trimethylbenzene	ND	0.50	µg/L
18	1,2-Dichloroethane	ND	0.50	µg/L	53	sec-Butylbenzene	ND	0.50	µg/L
19	1,1,1-Trichloroethane	ND	0.50	µg/L	54	1,3-Dichlorobenzene	ND	0.50	µg/L
20	1,1-Dichloropropene	ND	0.50	µg/L	55	1,4-Dichlorobenzene	ND	0.50	µg/L
21	Carbon tetrachloride	ND	0.50	µg/L	56	4-Isopropyltoluene	ND	0.50	µg/L
22	Benzene	ND	0.50	µg/L	57	1,2-Dichlorobenzene	ND	0.50	µg/L
23	Dibromomethane	ND	0.50	µg/L	58	n-Butylbenzene	ND	0.50	µg/L
24	1,2-Dichloropropane	ND	0.50	µg/L	59	1,2-Dibromo-3-chloropropane (DBC		2.5	µg/L
25	Trichloroethene	ND	0.50	µg/L	60	1,2,4-Trichlorobenzene	ND	1.0	µg/L
26	Bromodichloromethane	ND	0.50	µg/L	61	Naphthalene	ND	1.0	µg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	1.0	µg/L
28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	1.0	µg/L
29	trans-1,3-Dichloropropene	ND	0.50	µg/L	64	Surr: 1,2-Dichloroethane-d4	92	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	102	(70-130)	%REC
31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	100	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	µg/L					
33	Dibromochloromethane	ND	0.50	µg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	ND	0.50	µg/L					

*Note: Bromomethane & 2,2-dichloropropane failed the method CV criteria of 70-130% @ 64% and 68%, respectively.

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Santur

Walter Airihum

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

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11/24/08 Report Date



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue	Attn: David Conner Phone: (619) 574-4827
Columbus, OH 43201	Fax: (614) 458-6641
Job#: G005862/JPL Groundwater Monitoring	
Alpha Analytical Number: BMI08111104-05A Client I.D. Number: MW-23-5	Sampled: 11/10/08 Received: 11/11/08 Analyzed: 11/18/08

Volatile Organics by GC/MS

	Compound	Concentration	Reporting I	Limit	Compound		Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	0.50	µg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	µg/L
2	Chloromethane	ND	1.0	µg/L	37	Chlorobenzene	ND	0.50	µg/L
3	Vinyl chloride	ND	0.50	µg/L	38	Ethylbenzene	ND	0.50	µg/L
4	Chloroethane	ND	0.50	µg/L	39	m,p-Xylene	ND	0.50	µg/L
5	Bromomethane	ND	* 1.0	µg/L	40	Bromoform	ND	0.50	µg/L
6	Trichlorofluoromethane	ND	0.50	μg/L	41	Styrene	ND	0.50	µg/L
7	1,1-Dichloroethene	ND	0.50	µg/L	42	o-Xylene	ND	0.50	µg/L
8	Dichloromethane	ND	1.0	µg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	µg/L
9	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	1.0	µg/L
10	trans-1,2-Dichloroethene	ND	0.50	µg/L	45	Isopropylbenzene	ND	0.50	µg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	µg/L	46	Bromobenzene	ND	0.50	µg/L
12	1,1-Dichloroethane	ND	0.50	µg/L	47	n-Propylbenzene	ND	0.50	µg/L
13	2-Butanone (MEK)	ND	10	µg/L	48	4-Chiorotoiuene	ND	0.50	µg/L
14	cis-1,2-Dichloroethene	ND	0.50	µg/L	49	2-Chlorotoluene	ND	0.50	µg/L
15	Bromochloromethane	ND	0.50	µg/L	50	1,3,5-Trimethylbenzene	ND	0.50	µg/L
16	Chloroform	ND	0.50	µg/L	51	tert-Butylbenzene	ND	0.50	µg/L
17	2,2-Dichloropropane	ND	* 0.50	µg/L	52	1,2,4-Trimethylbenzene	ND	0.50	µg/L
18	1,2-Dichloroethane	ND	0.50	µg/L	53	sec-Butylbenzene	ND	0.50	µg/L
19	1,1,1-Trichloroethane	ND	0.50	µg/L	54	1,3-Dichlorobenzene	ND	0.50	µg/L
20	1,1-Dichloropropene	ND	0.50	µg/L	55	1,4-Dichlorobenzene	ND	0.50	µg/L
21	Carbon tetrachloride	ND	0.50	µg/L	56	4-Isopropyltoluene	ND	0.50	µg/L
22	Benzene	ND	0.50	µg/L	57	1,2-Dichlorobenzene	ND	0.50	µg/L
23	Dibromomethane	ND	0.50	µg/L	58	n-Butylbenzene	ND	0.50	µg/L
24	1,2-Dichloropropane	ND	0.50	µg/L	59	1,2-Dibromo-3-chloropropane (DBC		2.5	µg/L
25	Trichloroethene	ND	0.50	µg/L	60	1,2,4-Trichlorobenzene	ND	1.0	µg/L
26	Bromodichloromethane	ND	0.50	µg/L	61	Naphthalene	ND	1.0	µg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	1.0	µg/L
28	cis-1,3-Dichloropropene	ND	0.50	μg/L	63	1,2,3-Trichlorobenzene	ND	1.0	µg/L
29	trans-1,3-Dichloropropene	ND	0.50	µg/L	64	Surr: 1,2-Dichloroethane-d4	89	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	102	(70-130)	%REC
31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	102	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	µg/L					
33	Dibromochloromethane	ND	0.50	µg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	ND	0.50	µg/L					

*Note: Bromomethane & 2,2-dichloropropane failed the method CV criteria of 70-130% @ 64% and 68%, respectively.

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

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Walter Acrim

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11/24/08

Report Date



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring	Attn: David Conner Phone: (619) 574-4827 Fax: (614) 458-6641
Alpha Analytical Number: BMI08111104-06A Client I.D. Number: MW-23-4	Sampled: 11/10/08 Received: 11/11/08 Analyzed: 11/18/08

Volatile Organics by GC/MS

							Concentration	Reporting Li	mit
	Compound	Concentration	Reporting	Limit		Compound		· · ·	
1	Dichlorodifluoromethane	ND	0.50	µg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	µg/L
2	Chloromethane	ND	1.0	µg/L	37	Chlorobenzene	ND	0.50	µg/L
з	Vinyl chloride	ND	0.50	µg/L	38	Ethylbenzene	ND	0.50	µg/L
4	Chloroethane	ND	0.50	µg/L	39	m,p-Xylene	ND	0.50	µg/L
5	Bromomethane	ND	* 1.0	µg/L	40	Bromoform	ND	0.50	µg/L
6	Trichlorofluoromethane	ND	0.50	µg/L	41	Styrene	ND	0.50	µg/L
7	1,1-Dichloroethene	ND	0.50	µg/L	42	o-Xylene	ND	0.50	µg/L
8	Dichloromethane	ND	1.0	µg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	µg/L
9	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	1.0	µg/L
10	trans-1,2-Dichloroethene	ND	0.50	µg/L	45	Isopropylbenzene	ND	0.50	µg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	µg/L	46	Bromobenzene	ND	0.50	µg/L
12	1,1-Dichloroethane	ND	0.50	µg/L	47	n-Propylbenzene	ND	0.50	μg/L
13	2-Butanone (MEK)	ND	10	µg/L	48	4-Chlorotoluene	ND	0.50	µg/L
14	cis-1,2-Dichloroethene	ND	0.50	µg/L	49	2-Chlorotoluene	ND	0.50	μg/L
15	Bromochloromethane	ND	0.50	µg/L	50	1,3,5-Trimethylbenzene	ND	0.50	µg/L
16	Chloroform	ND	0.50	µg/L	51	tert-Butylbenzene	ND	0.50	μg/L
17	2,2-Dichloropropane	ND	* 0.50	µg/L	52	1,2,4-Trimethylbenzene	ND	0.50	µg/L
18	1,2-Dichloroethane	ND	0.50	µg/L	53	sec-Butylbenzene	ND	0.50	µg/L
19	1,1,1-Trichloroethane	ND	0.50	µg/L	54	1,3-Dichlorobenzene	ND	0.50	µg/L
20	1,1-Dichloropropene	ND	0.50	µg/L	55	1,4-Dichlorobenzene	ND	0.50	µg/L
21	Carbon tetrachloride	ND	0.50	µg/L	56	4-Isopropyltoluene	ND	0.50	µg/L
22	Benzene	ND	0.50	µg/L	57	1,2-Dichlorobenzene	ND	0.50	µg/L
23	Dibromomethane	ND	0.50	µg/L	58	n-Butylbenzene	ND	0.50	µg/L
24	1,2-Dichloropropane	ND	0.50	µg/L	59	1,2-Dibromo-3-chloropropane (DBC		2.5	µg/L
25	Trichloroethene	ND	0.50	µg/L	60	1,2,4-Trichlorobenzene	ND	1.0	µg/L
26	Bromodichloromethane	ND	0.50	µg/L	61	Naphthalene	ND	1.0	µg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	1.0	µg/L
28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	1.0	µg/L
29	trans-1,3-Dichloropropene	ND	0.50	µg/L	64	Surr: 1,2-Dichloroethane-d4	90	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	101	(70-130)	%REC
31	Toluene	ND	0.50	μg/L	66	Surr: 4-Bromofluorobenzene	99	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	μg/L					
33	Dibromochloromethane	ND	0.50	μg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	μg/L					
35	Tetrachloroethene	ND	0.50	µg/L					

*Note: Bromomethane & 2,2-dichloropropane failed the method CV criteria of 70-130% @ 64% and 68%, respectively.

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

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Walter Acrim

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11/24/08

Report Date



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring	Attn: David Conner Phone: (619) 574-4827 Fax: (614) 458-6641
Alpha Analytical Number: BMI08111104-07A Client I.D. Number: MW-23-3	Sampled: 11/10/08 Received: 11/11/08 Analyzed: 11/18/08

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	0.50	µg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	µg/L
2	Chloromethane	ND	1.0	µg/L	37	Chlorobenzene	ND	0.50	µg/L
3	Vinyl chloride	ND	0.50	µg/L	38	Ethylbenzene	ND	0.50	µg/L
4	Chloroethane	ND	0.50	µg/L	39	m,p-Xylene	ND	0.50	µg/L
5	Bromomethane	ND	* 1.0	µg/L	40	Bromoform	ND	0.50	µg/L
6	Trichlorofluoromethane	ND	0.50	µg/L	41	Styrene	ND	0.50	μg/L
7	1,1-Dichloroethene	ND	0.50	µg/L	42	o-Xylene	ND	0.50	µg/L
8	Dichloromethane	ND	1.0	µg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	µg/L
9	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	1.0	µg/L
10	trans-1,2-Dichloroethene	ND	0.50	µg/L	45	Isopropylbenzene	ND	0.50	µg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	μg/L	46	Bromobenzene	ND	0.50	µg/L
12	1,1-Dichloroethane	ND	0.50	µg/L	47	n-Propylbenzene	ND	0.50	µg/L
13	2-Butanone (MEK)	ND	10	µg/L	48	4-Chlorotoluene	ND	0.50	µg/L
14	cis-1,2-Dichloroethene	ND	0.50	µg/L	49	2-Chlorotoluene	ND	0.50	µg/L
15	Bromochloromethane	ND	0.50	µg/L	50	1,3,5-Trimethylbenzene	ND	0.50	µg/L
16	Chloroform	ND	0.50	µg/L	51	tert-Butylbenzene	ND	0.50	µg/L
17	2,2-Dichloropropane	ND	* 0.50	µg/L	52	1,2,4-Trimethylbenzene	ND	0.50	µg/L
18	1,2-Dichloroethane	ND	0.50	µg/L	53	sec-Butylbenzene	ND	0.50	μg/L
19	1,1,1-Trichloroethane	ND	0.50	µg/L	54	1,3-Dichlorobenzene	ND	0.50	µg/L
20	1,1-Dichloropropene	ND	0.50	μg/L	55	1,4-Dichlorobenzene	ND	0.50	µg/L
21	Carbon tetrachloride	ND	0.50	µg/L	56	4-Isopropyltoluene	ND	0.50	µg/L
22	Benzene	ND	0.50	µg/L	57	1,2-Dichlorobenzene	ND	0.50	µg/L
23	Dibromomethane	ND	0.50	µg/L	58	n-Butylbenzene	ND	0.50	µg/L
24	1,2-Dichloropropane	ND	0.50	µg/L	59	1,2-Dibromo-3-chloropropane (DBC		2.5	µg/L
25	Trichloroethene	ND	0.50	µg/L	60	1,2,4-Trichlorobenzene	ND	1.0	µg/L
26	Bromodichloromethane	ND	0.50	µg/L	61	Naphthalene	ND	1.0	µg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	1.0	μg/L
28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	1.0	µg/L
29	trans-1,3-Dichloropropene	ND	0.50	µg/L	64	Surr: 1,2-Dichloroethane-d4	91	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	102	(70-130)	%REC
31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	99	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	µg/L					
33	Dibromochloromethane	ND	0.50	µg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	ND	0.50	µg/L					

*Note: Bromomethane & 2,2-dichloropropane failed the method CV criteria of 70-130% @ 64% and 68%, respectively.

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

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11/24/08 Report Date



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ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue	Attn: David Conner Phone: (619) 574-4827
Columbus, OH 43201	Fax: (614) 458-6641
Job#: G005862/JPL Groundwater Monitoring	
Alpha Analytical Number: BMI08111104-08A	Sampled: 11/10/08
Client I.D. Number: MW-23-2	Received: 11/11/08
	Analyzed: 11/18/08

Volatile Organics by GC/MS

CompoundConcentrationReporting LimitCompoundConcentrationReporting Limit1DichlorodifluoromethaneND0.50µg/L361,1,1,2-TetrachloroethaneND0.50µg/L2ChloromethaneND1.0µg/L38EthylbenzeneND0.50µg/L3Viryl chlorideND0.50µg/L38EthylbenzeneND0.50µg/L4ChloroethaneND0.50µg/L39mp-XyleneND0.50µg/L5BromomethaneND0.50µg/L40BromformND0.50µg/L6TrichloroffuoromethaneND0.50µg/L41StyreneND0.50µg/L71,1-DichloroetheneND0.50µg/L42o-XyleneND0.50µg/L8DichloromethaneND0.50µg/L431,1,2-3-TetrachloroethaneND0.50µg/L9Freon-113ND0.50µg/L441,2,3-TrichloropropaneND0.50µg/L10trans-12-DichloroetheneND0.50µg/L45IsopropylbenzeneND0.50µg/L1110-LibloroethaneND0.50µg/L46BromobenzeneND0.50µg/L121.1-DichloroetheneND0.50µg/L47n-PropylbenzeneND0.50µg/L132-Butanone (MEK)ND10µg/L<
Disknownentrane ND 0.00 µg/L 37 Chiorobenzene ND 0.50 µg/L 3 Vinyl chloride ND 0.50 µg/L 38 Ethylbenzene ND 0.50 µg/L 4 Chlorobethane ND 0.50 µg/L 39 m.p-Xylene ND 0.50 µg/L 5 Bromomethane ND 1.0 µg/L 40 Bromoform ND 0.50 µg/L 6 Trichlorofluoromethane ND 0.50 µg/L 41 Styrene ND 0.50 µg/L 7 1,1-Dichloroethane ND 0.50 µg/L 41 Styrene ND 0.50 µg/L 9 Freon-113 ND 0.50 µg/L 44 1,2,3-Trichloropthane ND 0.50 µg/L 10 trans.1,2-Dichloroethene ND 0.50 µg/L 47 n-Propylbenzene ND 0.50 µg/L 11 Mebryl eth-buly lether (M
2 Chloromethane ND 1.0 µg/L 37 Chlorobenzene ND 0.50 µg/L 3 Viryl chloride ND 0.50 µg/L 38 Ethylbenzene ND 0.50 µg/L 4 Chloroethane ND 0.50 µg/L 39 mp-Xylene ND 0.50 µg/L 6 Trichloroflucromethane ND 0.50 µg/L 41 Styrene ND 0.50 µg/L 7 1,1-Dichloroethene ND 0.50 µg/L 41 Styrene ND 0.50 µg/L 9 Freon-113 ND 0.50 µg/L 43 1,1,2,2-Tetrachloroethane ND 0.50 µg/L 10 trans-1,2-Dichloroethene ND 0.50 µg/L 44 1,2,3-Trichloroptopane ND 0.50 µg/L 11 Methyl terl-bulyl ethrof (MTBE) ND 0.50 µg/L 47 n-Propylbenzene ND 0.50 µg/L
4 Chloroethane ND 0.50 µg/L 39 mp-Xylene ND 0.50 µg/L 5 Bromomethane ND 1.0 µg/L 40 Bromoform ND 0.50 µg/L 6 Trichlorofluoromethane ND 0.50 µg/L 41 Styrene ND 0.50 µg/L 8 Dichloromethane ND 0.50 µg/L 43 1,1,2,2-Tetrachloroethane ND 0.50 µg/L 9 Freon-113 ND 0.50 µg/L 44 1,2,3-Trichloropropane ND 0.50 µg/L 10 trans-1,2-Dichloroethene ND 0.50 µg/L 44 Isopropylenzene ND 0.50 µg/L 11 Methyl tert-butyl ether (MTBE) ND 0.50 µg/L 47 n-Propylbenzene ND 0.50 µg/L 12 1,1-Dichloroethene ND 0.50 µg/L 48 4-Chlorotoluene ND 0.50 µg/L <tr< td=""></tr<>
4 Chloroethane ND 0.50 µg/L 39 m,p-Xylene ND 0.50 µg/L 5 Bromomethane ND 1.0 µg/L 40 Bromoform ND 0.50 µg/L 6 Trichlorofluoromethane ND 0.50 µg/L 41 Styrene ND 0.50 µg/L 8 Dichloromethane ND 1.0 µg/L 43 1,1,2,2-Tetrachloroethane ND 0.50 µg/L 9 Freen-113 ND 0.50 µg/L 44 1,2,3-Tichloropropane ND 0.50 µg/L 10 trans-1,2-Dichloroethene ND 0.50 µg/L 46 Bromobenzene ND 0.50 µg/L 11 Methyl tert-butyl ether (MTBE) ND 0.50 µg/L 47 n-Propylbenzene ND 0.50 µg/L 12 1,1-Dichloroethene ND 0.50 µg/L 48 4-Chlorotoluene ND 0.50 µg/L
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The inclusion entrance ND 0.50 µg/L 42 0-Xylene ND 0.50 µg/L 8 Dichloroethene ND 1.0 µg/L 43 1,1,2,2-Tetrachloroethane ND 0.50 µg/L 9 Freon-113 ND 0.50 µg/L 44 1,2,3-Trichloroethane ND 1.0 µg/L 10 trans-1,2-Dichloroethene ND 0.50 µg/L 44 Isopropylbenzene ND 0.50 µg/L 10 trans-1,2-Dichloroethane ND 0.50 µg/L 45 Isopropylbenzene ND 0.50 µg/L 12 1,1-Dichloroethane ND 0.50 µg/L 48 4-Chlorotoluene ND 0.50 µg/L 13 2-Butanone (MEK) ND 10 µg/L 48 4-Chlorotoluene ND 0.50 µg/L 14 cis-1,2-Dichloroethane ND 0.50 µg/L 50 1,3,5-Trimethylbenzene ND 0.50 µg/L
A In Public Notice Heile ND 1.0 µg/L 4.2 0 ND 1.0 µg/L 4.2 0 ND 0.0 µg/L 4.2 0 ND 0.0 µg/L 4.2 0 ND 0.0 µg/L 4.3 0.1.0 µg/L 4.3 0.1.0 µg/L 4.3 0.1.0 µg/L 4.3 1.1.2.2-Tetrachloroethane ND 1.0 µg/L 10 trans-1,2-Dichloroethane ND 0.50 µg/L 4.4 1.2,3-Trichloroptpane ND 0.50 µg/L 11 Methyl teth-butyl ether (MTBE) ND 0.50 µg/L 44 Bromobenzene ND 0.50 µg/L 12 1,1-Dichloroethane ND 0.50 µg/L 47 n-Propylbenzene ND 0.50 µg/L 13 2-Butanone (MEK) ND 10 µg/L 48 4-Chlorotoluene ND 0.50 µg/L 14 cis1,2-Dichloroethane ND 0.50 µg/L 50 1,3,5-Trimethylbenzene
bioinstitution ND information ND information ND information 9 Freon-113 ND 0.50 µg/L 44 1,2,3-Trichloropropane ND 0.50 µg/L 10 trans-1,2-Dichloroethene ND 0.50 µg/L 45 Isopropylbenzene ND 0.50 µg/L 11 Methyl tert-butyl ether (MTBE) ND 0.50 µg/L 47 n-Propylbenzene ND 0.50 µg/L 12 1,1-Dichloroethane ND 0.50 µg/L 48 4-Chlorotoluene ND 0.50 µg/L 13 2-Butanone (MEK) ND 10 µg/L 48 4-Chlorotoluene ND 0.50 µg/L 14 cis-1,2-Dichloroethane ND 0.50 µg/L 50 1,3,5-Trimethylbenzene ND 0.50 µg/L 16 Chloroform ND 0.50 µg/L 52 1,2,4-Trimethylbenzene ND 0.50 µg/L 13
Indentition ND 0.50 µg/L 11 LSD introductor ND 0.50 µg/L 10 trans-1,2-Dichloroethene ND 0.50 µg/L 45 Isopropylbenzene ND 0.50 µg/L 11 Methyl tert-butyl ether (MTBE) ND 0.50 µg/L 46 Bromobenzene ND 0.50 µg/L 12 1,1-Dichloroethane ND 0.50 µg/L 47 n-Propylbenzene ND 0.50 µg/L 13 2-Butanone (MEK) ND 10 µg/L 48 4-Chlorotoluene ND 0.50 µg/L 14 cis-1,2-Dichloroethene ND 0.50 µg/L 50 1,3,5-Trimethylbenzene ND 0.50 µg/L 15 Bromochloromethane ND 0.50 µg/L 52 1,2,4-Trimethylbenzene ND 0.50 µg/L 16 Chloroform ND 0.50 µg/L 53 sec-Butylbenzene ND 0.50 µg/L
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11 Merry retriction retriction retriction ND 0.50 µg/L 47 n-Propylbenzene ND 0.50 µg/L 12 1,1-Dichloroethane ND 0.50 µg/L 47 n-Propylbenzene ND 0.50 µg/L 13 2-Butanone (MEK) ND 10 µg/L 48 4-Chlorotoluene ND 0.50 µg/L 14 cis-1,2-Dichloroethane ND 0.50 µg/L 50 1,3,5-Trimethylbenzene ND 0.50 µg/L 15 Bromochloromethane ND 0.50 µg/L 50 1,3,5-Trimethylbenzene ND 0.50 µg/L 16 Chloroform ND 0.50 µg/L 51 tert-Butylbenzene ND 0.50 µg/L 18 1,2-Dichloroethane ND 0.50 µg/L 53 sec-Butylbenzene ND 0.50 µg/L 19 1,1,1-Trichloroethane ND 0.50 µg/L 54 1,3-Dichlorobenzene ND 0.50 µg/L 20 1,1-Dichloropropene ND 0.50
12 1,1-Dichloroethane ND 0.50 µg/L 47 n-Propylbenzene ND 0.50 µg/L 13 2-Butanone (MEK) ND 10 µg/L 48 4-Chlorotoluene ND 0.50 µg/L 14 cis-1,2-Dichloroethene ND 0.50 µg/L 49 2-Chlorotoluene ND 0.50 µg/L 15 Bromochloromethane ND 0.50 µg/L 50 1,3,5-Trimethylbenzene ND 0.50 µg/L 16 Chloroform ND 0.50 µg/L 51 tert-Butylbenzene ND 0.50 µg/L 17 2,2-Dichloroptopane ND 0.50 µg/L 52 1,2,4-Trimethylbenzene ND 0.50 µg/L 18 1,2-Dichloroptopane ND 0.50 µg/L 53 sec-Butylbenzene ND 0.50 µg/L 20 1,1-Trichloroethane ND 0.50 µg/L 54 1,3-Dichlorobenzene ND 0.50 µg/L 21 Carbon tetrachloride ND 0.50 µg/L <td< td=""></td<>
13 22-Dutatione (wLrt) ND ND 10 µg/L 49 40 monotone (wLrt) ND 0.50 µg/L 14 cis-1,2-Dichloroethene ND 0.50 µg/L 49 2-Chlorotoluene ND 0.50 µg/L 15 Bromochloromethane ND 0.50 µg/L 50 1,3,5-Trimethylbenzene ND 0.50 µg/L 16 Chloroform ND 0.50 µg/L 51 tert-Butylbenzene ND 0.50 µg/L 17 2,2-Dichloropropane ND 0.50 µg/L 52 1,2,4-Trimethylbenzene ND 0.50 µg/L 18 1,2-Dichloropropane ND 0.50 µg/L 53 sec-Butylbenzene ND 0.50 µg/L 19 1,1-Trichloroethane ND 0.50 µg/L 54 1,3-Dichlorobenzene ND 0.50 µg/L 20 1,1-Dichloropropene ND 0.50 µg/L 55 1,4-Dichlorobenzene ND 0.50 µg/L 21 Carbon tetrachloride ND 0.50
14 CLS*1,2-Dichlorodethelle ND 0.50 µg/L 50 1,3,5-Trimethylbenzene ND 0.50 µg/L 15 Bromochloromethane ND 0.50 µg/L 50 1,3,5-Trimethylbenzene ND 0.50 µg/L 16 Chloroform ND 0.50 µg/L 51 tert-Butylbenzene ND 0.50 µg/L 17 2,2-Dichloropropane ND 0.50 µg/L 52 1,2,4-Trimethylbenzene ND 0.50 µg/L 18 1,2-Dichloropthane ND 0.50 µg/L 53 sec-Butylbenzene ND 0.50 µg/L 19 1,1-Trichloroethane ND 0.50 µg/L 54 1,3-Dichlorobenzene ND 0.50 µg/L 20 1,1-Dichloroptopene ND 0.50 µg/L 55 1,4-Dichlorobenzene ND 0.50 µg/L 21 Carbon tetrachloride ND 0.50 µg/L 56 4-Isopropyltoluene ND 0.50 µg/L 22 Benzene ND 0.50 µg/L
15 Bromochloromethane ND 0.50 µg/L 50 1,3,5-Trimethylbenzene ND 0.50 µg/L 16 Chloroform ND 0.50 µg/L 51 tert-Butylbenzene ND 0.50 µg/L 17 2,2-Dichloropropane ND * 0.50 µg/L 52 1,2,4-Trimethylbenzene ND 0.50 µg/L 18 1,2-Dichloroethane ND 0.50 µg/L 53 sec-Butylbenzene ND 0.50 µg/L 19 1,1,1-Trichloroethane ND 0.50 µg/L 53 sec-Butylbenzene ND 0.50 µg/L 20 1,1-Dichloroptropene ND 0.50 µg/L 55 1,4-Dichlorobenzene ND 0.50 µg/L 21 Carbon tetrachloride ND 0.50 µg/L 56 4-Isopropyltoluene ND 0.50 µg/L 22 Benzene ND 0.50 µg/L 57 1,2-Dichlorobenzene ND 0
17 2,2-Dichloropropane ND * 0.50 µg/L 52 1,2,4-Trimethylbenzene ND 0.50 µg/L 18 1,2-Dichloropropane ND * 0.50 µg/L 52 1,2,4-Trimethylbenzene ND 0.50 µg/L 18 1,2-Dichloropropane ND 0.50 µg/L 53 sec-Butylbenzene ND 0.50 µg/L 19 1,1,1-Trichloroethane ND 0.50 µg/L 54 1,3-Dichlorobenzene ND 0.50 µg/L 20 1,1-Dichloropropane ND 0.50 µg/L 55 1,4-Dichlorobenzene ND 0.50 µg/L 21 Carbon tetrachloride ND 0.50 µg/L 56 4-Isopropyltoluene ND 0.50 µg/L 22 Benzene ND 0.50 µg/L 57 1,2-Dichlorobenzene ND 0.50 µg/L 23 Dibromomethane ND 0.50 µg/L 58 n-Butylbenzene ND 0.50 µg/L 24 1,2-Dichloropropane ND <td< td=""></td<>
17 2,2-Dichlorophopanie ND 0.50 µg/L 52 1,2-Finited rybolization ND 0.50 µg/L 18 1,2-Dichloroethane ND 0.50 µg/L 53 sec-Butylbenzene ND 0.50 µg/L 19 1,1-Trichloroethane ND 0.50 µg/L 54 1,3-Dichlorobenzene ND 0.50 µg/L 20 1,1-Dichloropropene ND 0.50 µg/L 55 1,4-Dichlorobenzene ND 0.50 µg/L 21 Carbon tetrachloride ND 0.50 µg/L 56 4-Isopropyltoluene ND 0.50 µg/L 22 Benzene ND 0.50 µg/L 57 1,2-Dichlorobenzene ND 0.50 µg/L 23 Dibromomethane ND 0.50 µg/L 58 n-Butylbenzene ND 0.50 µg/L 24 1,2-Dichloropropane ND 0.50 µg/L 59 1,2-Dibromo-3-chloropropane (DBCP) ND 2.5 µg/L 25 Trichloroethene 0.75 0.50 µg/L
19 1,1-Trichloroethane ND 0.50 µg/L 53 360-Dighterization ND 0.50 µg/L 19 1,1-Trichloroethane ND 0.50 µg/L 54 1,3-Dichlorobenzene ND 0.50 µg/L 20 1,1-Dichloropropene ND 0.50 µg/L 55 1,4-Dichlorobenzene ND 0.50 µg/L 21 Carbon tetrachloride ND 0.50 µg/L 56 4-Isopropyltoluene ND 0.50 µg/L 22 Benzene ND 0.50 µg/L 57 1,2-Dichlorobenzene ND 0.50 µg/L 23 Dibromomethane ND 0.50 µg/L 58 n-Butylbenzene ND 0.50 µg/L 24 1,2-Dichloropropane ND 0.50 µg/L 59 1,2-Dibromo-3-chloropropane (DBCP) ND 2.5 µg/L 25 Trichloroethene 0.75 0.50 µg/L 60 1,2,4-Trichlorobenzene ND 1.0 µg/L
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21 Carbon tetrachlorophopene ND 0.50 µg/L 56 4-Bonnosone ND 0.50 µg/L 21 Carbon tetrachlorophopene ND 0.50 µg/L 56 4-Isopropytoluene ND 0.50 µg/L 22 Benzene ND 0.50 µg/L 57 1,2-Dichlorobenzene ND 0.50 µg/L 23 Dibromomethane ND 0.50 µg/L 58 n-Butylbenzene ND 0.50 µg/L 24 1,2-Dichloropropane ND 0.50 µg/L 59 1,2-Dibromo-3-chloropropane (DBCP) ND 2.5 µg/L 25 Trichloroethene 0.75 0.50 µg/L 60 1,2,4-Trichlorobenzene ND 1.0 µg/L
21 Carbon retractione ND 0.50 µg/L 50 4-tsoppoption ND 1.0 µg/L 20 22 Benzene ND 0.50 µg/L 57 1,2-Dichlorobenzene ND 0.50 µg/L 23 Dibromomethane ND 0.50 µg/L 58 n-Butylbenzene ND 0.50 µg/L 24 1,2-Dichloropropane ND 0.50 µg/L 59 1,2-Dibromo-3-chloropropane (DBCP) ND 2.5 µg/L 25 Trichloroethene 0.75 0.50 µg/L 60 1,2,4-Trichlorobenzene ND 1.0 µg/L
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23 Distribution ND 0.50 µg/L 56 H Butyle/Lento ND 2.5 µg/L 24 1,2-Dichloropropane ND 0.50 µg/L 59 1,2-Dibromo-3-chloropropane (DBCP) ND 2.5 µg/L 25 Trichloroethene 0.75 0.50 µg/L 60 1,2,4-Trichloroebnzene ND 1.0 µg/L
25 Trichloroethene 0.75 0.50 µg/L 60 1,2,4-Trichlorobenzene ND 1.0 µg/L
26 Bromodichloromethane ND 0.50 µg/L 61 Naphthalene ND 1.0 µg/L
27 4-Methyl-2-pentanone (MIBK) ND 2.5 µg/L 62 Hexachlorobutadiene ND 1.0 µg/L
28 cis-1,3-Dichloropropene ND 0.50 µg/L 63 1,2,3-Trichlorobenzene ND 1.0 µg/L
29 trans-1,3-Dichloropropene ND 0.50 µg/L 64 Surr: 1,2-Dichloroethane-d4 92 (70-130) %REC
30 1,1,2-Trichloroethane ND 0.50 µg/L 65 Surr: Toluene-d8 102 (70-130) %REC
31 Toluene ND 0.50 µg/L 66 Surr: 4-Bromofluorobenzene 101 (70-130) %REC
32 1,3-Dichloropropane ND 0.50 µg/L
33 Dibromochloromethane ND 0.50 µg/L
34 1,2-Dibromoethane (EDB) ND 1.0 µg/L
35 Tetrachloroethene ND 0.50 µg/L

*Note: Bromomethane & 2,2-dichloropropane failed the method CV criteria of 70-130% @ 64% and 68%, respectively.

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Dantmer

Walter Aridmon

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.

11/24/08 Report Date



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201	Attn: David Conner Phone: (619) 574-4827 Fax: (614) 458-6641
Job#: G005862/JPL Groundwater Monitoring	
Alpha Analytical Number: BMI08111104-09A Client I.D. Number: MW-23-1	Sampled: 11/10/08 Received: 11/11/08 Analyzed: 11/18/08

Volatile Organics by GC/MS

	Compound	Concentration	Reporting I	Limit		Compound C	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	0.50	µg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	µg/L
2	Chloromethane	ND	1.0	µg/L	37	Chlorobenzene	ND	0.50	µg/L
3	Vinyl chloride	ND	0.50	μg/L	38	Ethylbenzene	ND	0.50	µg/L
4	Chloroethane	ND	0.50	µg/L	39	m,p-Xylene	ND	0.50	µg/L
5	Bromomethane	ND	* 1.0	µg/L	40	Bromoform	ND	0.50	µg/L
6	Trichlorofluoromethane	ND	0.50	µg/L	41	Styrene	ND	0.50	µg/L
7	1,1-Dichloroethene	ND	0.50	µg/L	42	o-Xylene	ND	0.50	µg/L
8	Dichloromethane	ND	1.0	µg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	µg/L
9	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	1.0	µg/L
10	trans-1,2-Dichloroethene	ND	0.50	µg/L	45	Isopropylbenzene	ND	0.50	µg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	µg/L	46	Bromobenzene	ND	0.50	µg/L
12	1,1-Dichloroethane	ND	0.50	µg/L	47	n-Propylbenzene	ND	0.50	µg/L
13	2-Butanone (MEK)	ND	10	µg/L	48	4-Chlorotoluene	ND	0.50	µg/L
14	cis-1,2-Dichloroethene	ND	0.50	µg/L	49	2-Chlorotoluene	ND	0.50	µg/L
15	Bromochloromethane	ND	0.50	µg/L	50	1,3,5-Trimethylbenzene	ND	0.50	µg/L
16	Chloroform	ND	0.50	µg/L	51	tert-Butylbenzene	ND	0.50	μg/L
17	2,2-Dichloropropane	ND	* 0.50	µg/L	52	1,2,4-Trimethylbenzene	ND	0.50	µg/L
18	1,2-Dichloroethane	ND	0.50	µg/L	53	sec-Butylbenzene	ND	0.50	µg/L
19	1,1,1-Trichloroethane	ND	0.50	µg/L	54	1,3-Dichlorobenzene	ND	0.50	µg/L
20	1,1-Dichloropropene	ND	0.50	µg/L	55	1,4-Dichlorobenzene	ND	0.50	µg/L
21	Carbon tetrachloride	ND	0.50	µg/L	56	4-Isopropyltoluene	ND	0.50	μg/L
22	Benzene	ND	0.50	μg/L	57	1,2-Dichlorobenzene	ND	0.50	µg/L
23	Dibromomethane	ND	0.50	µg/L	58	n-Butylbenzene	ND	0.50	µg/L
24	1,2-Dichloropropane	ND	0.50	μg/L	59	1,2-Dibromo-3-chloropropane (DBCF	P) ND	2.5	µg/L
25	Trichloroethene	1.1	0.50	μg/L	60	1,2,4-Trichlorobenzene	ND	1.0	µg/L
26	Bromodichloromethane	ND	0.50	µg/L	61	Naphthalene	ND	1.0	µg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	1.0	µg/L
28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	1.0	µg/L
29	trans-1,3-Dichloropropene	ND	0.50	µg/L	64	Surr: 1,2-Dichloroethane-d4	90	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	102	(70-130)	%REC
31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	99	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	µg/L					
33	Dibromochloromethane	ND	0.50	µg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	0.92	0.50	µg/L					

*Note: Bromomethane & 2,2-dichloropropane failed the method CV criteria of 70-130% @ 64% and 68%, respectively.

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

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Kandy Santur

Dalter Arihm

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Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.



Report Date



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ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring	Attn: David Conner Phone: (619) 574-4827 Fax: (614) 458-6641
Alpha Analytical Number: BMI08111104-10A Client I.D. Number: EB-15-11/10/08	Sampled: 11/10/08 Received: 11/11/08 Analyzed: 01/17/08

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	0.50	µg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	µg/L
2	Chloromethane	ND	1.0	µg/L	37	Chlorobenzene	ND	0.50	µg/L
3	Vinyl chloride	ND	0.50	µg/L	38	Ethylbenzene	ND	0.50	µg/L
4	Chloroethane	ND	0.50	µg/L	39	m,p-Xylene	ND	0.50	µg/L
5	Bromomethane	ND	* 1.0	µg/L	40	Bromoform	ND	0.50	µg/L
6	Trichlorofluoromethane	ND	0.50	µg/L	41	Styrene	ND	0.50	µg/L
7	1,1-Dichloroethene	ND	0.50	µg/L	42	o-Xylene	ND	0.50	µg/L
8	Dichloromethane	ND	1.0	µg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	µg/L
9	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	1.0	µg/L
10	trans-1,2-Dichloroethene	ND	0.50	µg/L	45	Isopropylbenzene	ND	0.50	µg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	µg/L	46	Bromobenzene	ND	0.50	µg/L
12	1,1-Dichloroethane	ND	0.50	µg/L	47	n-Propylbenzene	ND	0.50	µg/L
13	2-Butanone (MEK)	ND	10	µg/L	48	4-Chlorotoluene	ND	0.50	µg/L
14	cis-1,2-Dichloroethene	ND	0.50	µg/L	49	2-Chlorotoluene	ND	0.50	µg/L
15	Bromochloromethane	ND	0.50	µg/L	50	1,3,5-Trimethylbenzene	ND	0.50	µg/L
16	Chloroform	0.67	0.50	µg/L	51	tert-Butylbenzene	ND	0.50	µg/L
17	2,2-Dichloropropane	ND	* 0.50	µg/L	52	1,2,4-Trimethylbenzene	ND	0.50	µg/L
18	1,2-Dichloroethane	ND	0.50	µg/L	53	sec-Butylbenzene	ND	0.50	µg/L
19	1,1,1-Trichloroethane	ND	0.50	µg/L	54	1,3-Dichlorobenzene	ND	0.50	μg/L
20	1,1-Dichloropropene	ND	0.50	µg/L	55	1,4-Dichlorobenzene	ND	0.50	μg/L
21	Carbon tetrachloride	ND	0.50	µg/L	56	4-Isopropyltoluene	ND	0.50	µg/L
22	Benzene	ND	0.50	µg/L	57	1,2-Dichlorobenzene	ND	0.50	µg/L
23	Dibromomethane	ND	0.50	µg/L	58	n-Butylbenzene	ND	0.50	µg/L
24	1,2-Dichloropropane	ND	0.50	µg/L	59	1,2-Dibromo-3-chloropropane (DBC		2.5	µg/L
25	Trichloroethene	ND	0.50	μg/L	60	1,2,4-Trichlorobenzene	ND	1.0	µg/L
26	Bromodichloromethane	ND	0.50	µg/L	61	Naphthalene	ND	1.0	µg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	1.0	µg/L
28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	1.0	µg/L
29	trans-1,3-Dichloropropene	ND	0.50	µg/L	64	Surr: 1,2-Dichloroethane-d4	91	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	103	(70-130)	%REC
31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	102	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	µg/L					
33	Dibromochloromethane	ND	0.50	µg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	ND	0.50	µg/L					

*Note: Bromomethane & 2,2-dichloropropane failed the method CV criteria of 70-130% @ 64% and 68%, respectively.

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Sandmar

Walter Arihum

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.



Report Date



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Battelle Memorial Institute	Attn: David Conner
505 King Avenue	Phone: (619) 574-4827
Columbus, OH 43201	Fax: (614) 458-6641
Job#: G005862/JPL Groundwater Monitoring	
Alpha Analytical Number: BMI08111104-11A Client I.D. Number: TB-15-11/10/08	Sampled: 11/10/08 Received: 11/11/08 Analyzed: 11/17/08

Volatile Organics by GC/MS

	Compound	Concentration	Reporting I	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	0.50	µg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	µg/L
2	Chloromethane	ND	1.0	µg/L	37	Chlorobenzene	ND	0.50	µg/L
3	Vinyl chloride	ND	0.50	µg/L	38	Ethylbenzene	ND	0.50	µg/L
4	Chloroethane	ND	0.50	µg/L	39	m,p-Xylene	ND	0.50	µg/L
5	Bromomethane	ND	* 1.0	μg/L	40	Bromoform	ND	0.50	µg/L
6	Trichlorofluoromethane	ND	0.50	µg/L	41	Styrene	ND	0.50	µg/L
7	1,1-Dichloroethene	ND	0.50	µg/L	42	o-Xylene	ND	0.50	µg/L
8	Dichloromethane	ND	1.0	µg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	µg/L
9	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	1.0	µg/L
10	trans-1,2-Dichloroethene	ND	0.50	µg/L	45	Isopropylbenzene	ND	0.50	µg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	µg/L	46	Bromobenzene	ND	0.50	µg/L
12	1,1-Dichloroethane	ND	0.50	µg/L	47	n-Propylbenzene	ND	0.50	µg/L
13	2-Butanone (MEK)	ND	10	µg/L	48	4-Chlorotoluene	ND	0.50	µg/L
14	cis-1,2-Dichloroethene	ND	0.50	µg/L	49	2-Chlorotoluene	ND	0.50	µg/L
15	Bromochloromethane	ND	0.50	µg/L	50	1,3,5-Trimethylbenzene	ND	0.50	µg/L
16	Chloroform	ND	0.50	µg/L	51	tert-Butylbenzene	ND	0.50	µg/L
17	2,2-Dichloropropane	ND	* 0.50	µg/L	52	1,2,4-Trimethylbenzene	ND	0.50	µg/L
18	1,2-Dichloroethane	ND	0.50	µg/L	53	sec-Butylbenzene	ND	0.50	µg/L
19	1,1,1-Trichloroethane	ND	0.50	µg/L	54	1,3-Dichlorobenzene	ND	0.50	µg/L
20	1,1-Dichloropropene	ND	0.50	µg/L	55	1,4-Dichlorobenzene	ND	0.50	µg/L
21	Carbon tetrachloride	ND	0.50	µg/L	56	4-Isopropyltoluene	ND	0.50	µg/L
22	Benzene	ND	0.50	µg/L	57	1,2-Dichlorobenzene	ND	0.50	µg/L
23	Dibromomethane	ND	0.50	µg/L	58	n-Butylbenzene	ND	0.50	µg/L
24	1,2-Dichloropropane	ND	0.50	µg/L	59	1,2-Dibromo-3-chloropropane (DBC		2.5	µg/L
25	Trichloroethene	ND	0.50	µg/L	60	1,2,4-Trichlorobenzene	ND	1.0	µg/L
26	Bromodichloromethane	ND	0.50	µg/L	61	Naphthalene	ND	1.0	µg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	1.0	µg/L
28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	1.0	µg/L
29	trans-1,3-Dichloropropene	ND	0.50	µg/L	64	Surr: 1,2-Dichloroethane-d4	92	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	102	(70-130)	%REC
31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	101	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	µg/L					
33	Dibromochloromethane	ND	0.50	µg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	ND	0.50	µg/L					

*Note: Bromomethane & 2,2-dichloropropane failed the method CV criteria of 70-130% @ 64% and 68%, respectively.

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

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Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.

11/24/08

Report Date



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

VOC Sample Preservation Report

Work Order: BMI08111104

Project: G005862/JPL Groundwater Monitoring

Alpha's Sample ID	Client's Sample ID	Matrix	pH
08111104-01A	MW-26-2	Aqueous	2
08111104-02A	MW-26-1	Aqueous	2
08111104-03A	EB-14-11/07/08	Aqueous	2
08111104-04A	TB-14-11/07/08	Aqueous	2
08111104-05A	MW-23-5	Aqueous	2
08111104-06A	MW-23-4	Aqueous	2
08111104-07A	MW-23-3	Aqueous	2
08111104-08A	MW-23-2	Aqueous	2
08111104-09A	MW-23-1	Aqueous	2
08111104-10A	EB-15-11/10/08	Aqueous	2
08111104-11A	TB-15-11/10/08	Aqueous	2

11/24/08 Report Date



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201
 Attn:
 David Conner

 Phone:
 (619) 574-4827

 Fax:
 (614) 458-6641

 Date Received : 11/11/08

Job#: G005862/JPL Groundwater Monitoring

			Metals by ICPMS EPA Method 200.8			
		Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID : Lab ID :	MW-26-2 BMI08111104-01A	Chromium (Cr)	ND	0.0050 mg/L	11/07/08	11/21/08
Client ID : Lab ID :	MW-26-1 BMI08111104-02A	Chromium (Cr)	ND	0.0050 mg/L	11/07/08	11/21/08
Client ID : Lab ID :	EB-14-11/07/08 BMI08111104-03A	Chromium (Cr)	ND	0.0050 mg/L	11/07/08	11/21/08
Client ID : Lab ID :	MW-23-5 BMI08111104-05A	Chromium (Cr)	ND	0.0050 mg/L	11/10/08	11/21/08
Client ID : Lab ID :	MW-23-4 BMI08111104-06A	Chromium (Cr)	ND	0.0050 mg/L	11/10/08	11/21/08
Client ID : Lab ID :	MW-23-3 BMI08111104-07A	Chromium (Cr)	ND	0.0050 mg/L	11/10/08	11/21/08
Client ID : Lab ID :	MW-23-2 BMI08111104-08A	Chromium (Cr)	ND	0.0050 mg/L	11/10/08	11/21/08
Client ID : Lab ID :	MW-23-1 BMI08111104-09A	Chromium (Cr)	ND	0.0050 mg/L	11/10/08	11/21/08
Client ID : Lab ID :	EB-15-11/10/08 BMI08111104-10A	Chromium (Cr)	ND	0.0050 mg/L	11/10/08	11/21/08

ND = Not Detected

Roger Scholl

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11/24/08 Report Date

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201
 Attn:
 David Conner

 Phone:
 (619) 574-4827

 Fax:
 (614) 458-6641

 Date Received : 11/11/08

Job#: G005862/JPL Groundwater Monitoring

			Perchlorate by Ion Chromatography EPA Method 314.0		-
	· · · ·	Parameter	Concentration	Reporting Limit	Date Date Sampled Analyzed
Client ID : Lab ID :	MW-26-2 BMI08111104-01A	Perchlorate	ND	1.00 μg/L	11/07/08 11/14/08
Client ID : Lab ID :	MW-26-1 BMI08111104-02A	Perchlorate	1.70	1.00 μg/L	11/07/08 11/21/08
Client ID : Lab ID :	EB-14-11/07/08 BMI08111104-03A	Perchlorate	ND	1.00 μg/L	11/07/08 11/14/08
Client ID : Lab ID :	MW-23-5 BMI08111104-05A	Perchlorate	ND	1.00 μg/L	11/10/08 11/14/08
Client ID : Lab ID :	MW-23-4 BMI08111104-06A	Perchlorate	ND	1.00 μg/L	11/10/08 11/14/08
Client ID : Lab ID :	MW-23-3 BMI08111104-07A	Perchlorate	ND	1.00 μg/L	11/10/08 11/14/08
Client ID : Lab ID :	MW-23-2 BMI08111104-08A	Perchlorate	3.69	1.00 μg/L	11/10/08 11/14/08
Client ID : Lab ID :	MW-23-1 BMI08111104-09A	Perchlorate	2.14	1.00 μg/L	11/10/08 11/14/08
Client ID : Lab ID :	EB-15-11/10/08 BMI08111104-10A	Perchlorate	ND	1.00 µg/L	11/10/08 11/14/08

ND = Not Detected

Roger Scholl

Iter A

11/24/08 Report Date

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples

Matrix Type: AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report. NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Logged in by:	
Cempberth ada	Signature
ox Elizabeth Adcox	Print Name
Alpha Analytical, Inc.	Company
101 80-11-11	Date/Time

Columbus, OH 43201	13201			L BID CC7	indale Avenue, suite. [EL: (775) 355-1044	nue, sui 355-10	1te 21 Spar 44 FAX: (I Sparks, Nevada 894 FAX: (775) 355-0406	253 Giendale Avenue, suite 21 Sparks, Nevada 89451-577 TEL: (775) 355-1044 FAX: (775) 355-0406	18	Report Due By : 5:	Report Due By : 5:00 PM On : 25-Nov-08
Client:			Report Attention	_	Pho	Phone Number	4	EMail	EMail Address			
Battelle Memorial Institute	al Institute		David Conner	đ	(619	(619) 574-4827	27 x	connerd(connerd@battelle.org	UQ.		
505 King Avenue	Ø		Betsy Cutie		(619	(619) 574-4827	27 x	cutiee@l	cutiee@batelle.org		EDD Required : Yes	v 2
Columbus, OH 43201	13201		Shane Walton	ă	(614	(614) 424-4117	17 x	waltons(waltons@battelle.org		Sampled by : Client	ent
PO: 218013											Cooler Temp	Samples Received Date Printed
Client's COC #: 02	026309, 026306	Job :	G005862/JPL Groundwater Monitoring	L Grour	ndwater N	Monitori	ŋg				4 °C	11-Nov-08 11-Nov-08
QC Level: S4	= Final Rpt, MBLK, InitCal/ConCal data, LCS, MS/MSD With Surrogates	nitCal/Co	nCal data, L	CS, MS/	MSD Wit	th Surro	gates					
										Requested Tests	1 Tests	
Alpha	Client		Collection	No. of	No. of Bottles		314_W	METALS_D	VOC_TIC_	VOC_W		
Sample ID	Sample ID	Matrix	ix Date	Alpha	Sub	TAT		٤	٤			Sample Remarks
BMI08111104-01A	MW-26-2	AQ	11/07/08 07:50	10	0	10	Perchlorate	Ω	VOC by 524 Criteria	VOC by 524 Criteria		MS/MSD
BMI08111104-02A	MW-26-1	AQ	11/07/08 08:30	თ	0	10	Perchlorate	Ç	VOC by 524 Criteria	VOC by 524 Criteria		
BMI08111104-03A	EB-14-11/07/08	AQ	11/07/08 08:17	თ	0	10	Perchlorate	Ω	VOC by 524 Criteria	VOC by 524 Criteria		Equipment Blank
BMI08111104-04A	TB-14-11/07/08	AQ	11/07/08 00:00	-	0	10			VOC by 524 Criteria	VOC by 524 Criteria		Reno Trip Blank 9/30/08
BMI08111104-05A	MW-23-5	AQ	11/10/08 08:00	ъ	0	10	Perchlorate	٢	VOC by 524 Criteria	VOC by 524 Criteria		
BMI08111104-06A	MW-23-4	AQ	11/10/08 08:24	თ	0	10	Perchlorate	۵	VOC by 524 Criteria	VOC by 524 Criteria		
BMI08111104-07A	MW-23-3	AQ	11/10/08 08:52	5	0	10	Perchlorate	Ω	VOC by 524 Criteria	VOC by 524 Criteria		
BMI08111104-08A	MW-23-2	AQ	11/10/08 09:18	თ	0	10	Perchlorate	ç	VOC by 524 Criteria	VOC by 524 Criteria		
BMI08111104-09A	MW-23-1	AQ	11/10/08 09:43	თ	0	10	Perchlorate	Ω	VOC by 524 Criteria	VOC by 524 Criteria		
BMI08111104-10A	EB-15-11/10/08	AQ	11/10/08 09:09	თ	0	10	Perchlorate	Ç	VOC by 524 Criteria	VOC by 524 Criteria		Equipment Blank

Billing Information :

CHAIN-OF-CUSTODY RECORD

Alpha Analytical, Inc.

WorkOrder: BMI08111104

CA A

Page: 1 of 2

Battelle

505 King Avenue

Client's COC #: 026309, 026306 PO: 218013 Client: Billing Information : Alpha Sample ID **Comments:** BMI08111104-11A TB-15-11/10/08 QC Level: S4 The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report Matrix Type: AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Columbus, OH 43201 Battelle Memorial Institute Columbus, OH 43201 505 King Avenue 505 King Avenue Battelle Logged in by: NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. No security seals. Frozen ice. Temp Blank #7348 rec'd @ 4°. Level IV QC. Samples should be used as the control spike sample if possible (I.E.: MS/MSD). Perchlorate RL of 1.0 ug/L.: Sample ID Client = Final Rpt, MBLK, InitCal/ConCal data, LCS, MS/MSD With Surrogates Cenabeth (Idoux Job : AQ 11/10/08 00:00 Matrix Date Signatur G005862/JPL Groundwater Monitoring Collection No. of Bottles Report Attention Shane Walton David Conner Betsy Cutie CHAIN-OF-CUSTODY RECORD 255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778 Alpha Sub TAT TEL: (775) 355-1044 FAX: (775) 355-0406 0 Alpha Analytical, Inc. Phone Number (614) 424-4117 x (619) 574-4827 x (619) 574-4827 x 10 Elizabeth Helcox 314_W WETALS_D VOC_TIC_ cutiee@batelle.org connerd@battelle.org waltons@battelle.org EMail Address Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other Print Name VOC by 524 VOC by 524 Criteria Criteria VOC_W **Requested Tests** Report Due By : 5:00 PM On : 25-Nov-08 WorkOrder : BMI08111104 EDD Required : Yes Sampled by : Client CA A Cooler Temp Alpha Analytical, Inc. 4°C Company Samples Received 11-Nov-08 Reno Trip Blank 9/30/08 Page: 2 of 2 11-11-08 1104 Sample Remarks Date/Time Date Printed 11-Nov-08

))		Alpha Analytical, Inc.	nples Colle	ch State? 02くこく
Name 6 ETRINET (ANT MIN) Address and KINL AVE		255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778	OTHER	Page # of
JALIA BUS DE		Phone (775) 355-1044 Fåx (775) 355-0406	Analyses Required	л
Phone Number Fax				
Client Name	P.O.# 21ろの3	2922CO3# gor	رى ك	Required QC Level?
-	EMail Address		24 2 22	/ (II) IV
NCCO CV	Phone # (19-726-721)	Fax #		EDD / EDF? YES NO
Matrix* Sampled by	Report Attention	Total and type of containers		Global ID #
Sampled Sampled Below Lab ID Number (Use Only)	Sample Description	TAT Field ** See below		REMARKS
0- 4-21/104 NU BMILOS 111104 -01	MW-26-2	01	× × ×	MS/MSD
	Mar - 26-1	, j	< × ×	
-03	28-14-11/07/08	7	××	EQUINCHT PANK
+0.	5B-14.11/07/08		×	TRIP BUNK
	· · ·			
ADDITIONAL INSTRUCTIONS:				
Signature	Print Name		Company	Date Time
Relinquished by	CHARC BROG	KUZNI INSICH	A CEO	1/07/08
Received by Onabuth Odlor	Elizabeth P	dax (llpha	11-11-08 1104
Relinquished by	-			-
Received by				
Relinquished by			- Contraction of the second seco	
Received by				
*Key: AQ - Aqueous SO - Soil WA - Waste OT - Other AR - Air **: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other	te OT - Other AR - Air	r **: L-Liter V-Voa S-Soil Jar ents are made. Hazardous samples will be r	ar O-Orbo T-Tedlar B-Brass e returned to client or disposed of at client e	P-Plastic OT-Other expense. The report for the analysis

of the above samples is applicable only to those samples received by the laboratory with this coc. The liability of the laboratory is limited to the amount paid for the report.

1. C. M.

6	TOMPKI	255 G Spark	255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778	AZ CA NY ID OR OTHER	R Page # of
Address <u>5,000</u> City, State, Zip <u>Cozer</u> Phone Number	$\frac{1}{(22000)^3} \frac{1}{(2500)^3} 1$	Fax (Phone (775) 355-1044 Fax (775) 355-0406	Analyses Required	
Client Name	Concerne and	P.O.# 218013	2995003 # gor	1 10 10 10	Required QC Level?
Address 2990 OCh	N. 13	EMail Address		24.0	/ / I II @ IV
	166 1	Phone # 619-726-7311	Fax #		EDD / EDF? YES NO
Matrix*		Report Attention		<u>}</u>	Global ID #
<u>a</u>	Lab ID Number (Use Only)	Sample Description	TAT Filed ** See below		REMARKS
CV 761/ 0180	- Q	5 MW - 23-5	5	× × ×	
4130	. Of	0 Mw - 23 - 4		× × ×	
<i>6</i> 5≶2	-07	7 MW-23-3		× ×	
3/60	-08	8 MW - 23-2		× < <	
2400	- උ			×××	
1000	- 10	NA I	51	× × ~	Campler TAPK
	-	and the search and a		×	TRIP PLANK -
		×.			
		- 38			
ADDITIONAL INSTRUCTIONS:	STRUCTIONS:	<i>x</i> .			
~	Signature	Print Name		Company	Date Time
Relinquished by	M	OHAGE BROWN	1/2//S/1	HT ECCI	0021 34/0/11
Received by (bith Ralcox	Elizabeth Adrox		upha	11-11-08 104
Relinquished by	(
Received by					
Relinquished by					
Received by			- 		

of the above samples is applicable only to those samples received by the laboratory with this doc. The liability of the laboratory is limited to the amount paid for the report.



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: 25-Nov-08

David Conner Battelle Memorial Institute 505 King Avenue Columbus, OH 43201 (619) 574-4827

CASE NARRATIVE

Project:	G005862/JPL Ground	dwater Monitoring		
Work Order:	BMI08111255		Cooler Temp:	4 °C
Alpha's	Sample ID	Client's Sample ID	Matr	rix
08111	255-01A	MW-7	Aque	ous
08111	255-02A	MW-16	Aque	ous
08111	255-03A	TB-16-11/11/08	Aque	ous
08111	255-03A	TB-16-11/11/08	Aque	ous

Enclosed please find the analytical results of the samples received by Alpha Analytical, Inc. under the above mentioned Work Order/Chainof-Custody.

Alpha Analytical, Inc. has a formal Quality Assurance/Quality Control program, which is designed to meet or exceed the EPA requirements. All relevant QC met quality assurance objectives for this project unless otherwise stated in the footnotes.

If you have any questions with regards to this report, please contact Randy Gardner, Project Manager, at (800) 283-1183.

Roger Scholl

Kandy Dandmer

Walter Hiridman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201
 Attn:
 David Conner

 Phone:
 (619) 574-4827

 Fax:
 (614) 458-6641

 Date Received : 11/12/08

Job#: G005862/JPL Groundwater Monitoring

		Anions by IC 1ethod 300.0 / 9056			
	Parameter	Concentration	Reporting Limit	Date / Time Sampled	Date / Time Analyzed
Client ID : MW-7	Nitrite (NO2) - N	ND	0.25 mg/L	11/11/08 09:29	11/12/08 13:34
Lab ID : BMI08111255-01A	Nitrate (NO3) - N	1.0	0.25 mg/L	11/11/08 09:29	11/12/08 13:34
Lab ID : BMI08111255-01A	Phosphate, ortho - P	ND	0.25 mg/L	11/11/08 09:29	11/12/08 13:34
Client ID : MW-16	Nitrite (NO2) - N	ND	0.25 mg/L	11/11/08 11:14	11/12/08 14:29
L.L.D. D.(100111255.024	Nitrate (NO3) - N	1.1	0.25 mg/L	11/11/08 11:14	11/12/08 14:29
Lab ID : BMI08111255-02A	Phosphate, ortho - P	ND	0.25 mg/L	11/11/08 11:14	11/12/08 14:29

ND = Not Detected

Roger Scholl

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11/25/08 Report Date



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ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201

David Conner Attn: Phone: (619) 574-4827 (614) 458-6641 Fax: Date Received : 11/12/08

Job#: G005862/JPL Groundwater Monitoring

		I	Anions by IC EPA Method 300.0 / 9056		
		Parameter	Concentration	Reporting Limit	Date Da Sampled Anal
Client ID :	MW-7				
Lab ID :	BMI08111255-01A	Chloride	77	0.50 mg/L	11/11/08 11/12/0
		Sulfate (SO4)	51	0.50 mg/L	11/11/08 11/12/0
Client ID :	MW-16				
Lab ID :	BMI08111255-02A	Chloride	78	0.50 mg/L	11/11/08 11/12/0
		Sulfate (SO4)	53	0.50 mg/L	11/11/08 11/12/0

Roger Scholl Kandy Salter Dalter Arihum

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Battelle Memorial Institute 505 King Avenue Columbus, OH 43201
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 David Conner

 Phone:
 (619) 574-4827

 Fax:
 (614) 458-6641

 Date Received : 11/12/08

Job#: G005862/JPL Groundwater Monitoring

			Metals by ICPMS EPA Method 200.8		
		Parameter	Concentration	Reporting Limit	Date Date Sampled Analyzed
Client ID : Lab ID :	MW-7 BMI08111255-01A	Chromium (Cr)	0.0076	0.0050 mg/L	11/11/08 11/21/08
Client ID : Lab ID :	MW-16 BMI08111255-02A	Chromium (Cr)	0.0058	0.0050 mg/L	11/11/08 11/21/08

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ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201

David Conner Attn: Phone: (619) 574-4827 Fax: (614) 458-6641 Date Received : 11/12/08

G005862/JPL Groundwater Monitoring Job#:

		Pe	erchlorate by Ion Chromatography EPA Method 314.0		
		Parameter	Concentration	Reporting Limit	Date Date Sampled Analyzed
Client ID : Lab ID :	MW-7 BMI08111255-01A	Perchlorate	ND	1.00 μg/L	11/11/08 11/14/08
Client ID : Lab ID :	MW-16 BMI08111255-02A	Perchlorate	ND	1.00 μg/L	11/11/08 11/14/08

ND = Not Detected

Roger Scholl

Kandy Dantmer Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

Walter Arihm

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Sacramento, CA $\boldsymbol{\cdot}$ (916) 366-9089 / Las Vegas, NV $\boldsymbol{\cdot}$ (702) 736-7522 / info@alpha-analytical.com Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.

11/25/08 **Report Date**



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ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring Attn: David Conner Phone: (619) 574-4827 Fax: (614) 458-6641

Tentatively Identified Compounds - Volatile Organics by GC/MS

		Parameter	Estimated Concentration	Estimated Reporting Limit	Date Received	Date Sampled	Date Analyzed
Client ID : Lab ID :	MW-7 BMI08111255-01A	*** None Found ***	ND	2.0 µg/L	11/12/08	11/11/08	11/14/08
Client ID : Lab ID :	MW-16 BMI08111255-02A	* * * None Found * * *	ND	2.0 µg/L	11/12/08	11/11/08	11/14/08
Client ID : Lab ID :	TB-16-11/11/08 BMI08111255-03A	* * * None Found * * *	ND	2.0 µg/L	11/12/08	11/11/08	11/14/08

Analysis conducted using EPA Method 524.2 criteria. ND = Not Detected

Walter Arihm Kandy Saulmer Roger Scholl

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.

11/25/08 Report Date Page 1 of 1



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ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201	Attn: David Conner Phone: (619) 574-4827 Fax: (614) 458-6641
Job#: G005862/JPL Groundwater Monitoring	
Alpha Analytical Number: BMI08111255-01A Client I.D. Number: MW-7	Sampled: 11/11/08 Received: 11/12/08 Analyzed: 11/14/08

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	imit
1	Dichlorodifluoromethane	ND	0.50	µg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	µg/L
2	Chloromethane	ND	1.0	µg/L	37	Chlorobenzene	ND	0.50	µg/L
3	Vinyl chloride	ND	0.50	µg/L	38	Ethylbenzene	ND	0.50	µg/L
4	Chloroethane	ND	0.50	µg/L	39	m,p-Xylene	ND	0.50	µg/L
5	Bromomethane	ND	1.0	µg/L	40	Bromoform	ND	0.50	µg/L
6	Trichlorofluoromethane	ND	0.50	µg/L	41	Styrene	ND	0.50	µg/L
7	1,1-Dichloroethene	ND	0.50	µg/L	42	o-Xylene	ND	0.50	µg/L
8	Dichloromethane	ND	1.0	µg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	µg/L
9	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	1.0	µg/L
10	trans-1,2-Dichloroethene	ND	0.50	µg/L	45	Isopropylbenzene	ND	0.50	µg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	µg/L	46	Bromobenzene	ND	0.50	µg/L
12	1,1-Dichloroethane	ND	0.50	µg/L	47	n-Propylbenzene	ND	0.50	µg/L
13	2-Butanone (MEK)	ND	10	µg/L	48	4-Chlorotoluene	ND	0.50	µg/L
14	cis-1,2-Dichloroethene	ND	0.50	µg/L	49	2-Chlorotoluene	ND	0.50	µg/L
.15	Bromochloromethane	ND	0.50	µg/L	50	1,3,5-Trimethylbenzene	ND	0.50	µg/L
16	Chloroform	5.1	0.50	µg/L	51	tert-Butylbenzene	ND	0.50	µg/L
17	2,2-Dichloropropane	ND	0.50	µg/L	52	1,2,4-Trimethylbenzene	ND	0.50	µg/L
18	1,2-Dichloroethane	ND	0.50	µg/L	53	sec-Butylbenzene	ND	0.50	µg/L
19	1,1,1-Trichloroethane	ND	0.50	µg/L	54	1,3-Dichlorobenzene	ND	0.50	µg/L
20	1,1-Dichloropropene	ND	0.50	µg/L	55	1,4-Dichlorobenzene	ND	0.50	µg/L
21	Carbon tetrachloride	ND	0.50	µg/L	56	4-Isopropyltoluene	ND	0.50	µg/L
22	Benzene	ND	0.50	µg/L	57	1,2-Dichlorobenzene	ND	0.50	µg/L
23	Dibromomethane	ND	0.50	µg/L	58	n-Butylbenzene	ND	0.50	µg/L
24	1,2-Dichloropropane	ND	0.50	µg/L	59	1,2-Dibromo-3-chloropropane (DBCI	P) ND	2.5	µg/L
25	Trichloroethene	ND	0.50	µg/L	60	1,2,4-Trichlorobenzene	ND	1.0	µg/L
26	Bromodichloromethane	1.3	0.50	µg/L	61	Naphthalene	ND	1.0	µg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	1.0	µg/L
28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1.2.3-Trichlorobenzene	ND	1.0	µg/L
29	trans-1,3-Dichloropropene	ND	0.50	µg/L	64	Surr: 1.2-Dichloroethane-d4	96	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	101	(70-130)	%REC
31	Toluene	1.3	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	101	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	µg/L				· · ·	
33	Dibromochloromethane	ND	0.50	µg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Sandmer

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11/25/08

Report Date



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ANALYTICAL REPORT

Battelle Memorial Institute	Attn: David Conner
505 King Avenue	Phone: (619) 574-4827
Columbus, OH 43201	Fax: (614) 458-6641
Job#: G005862/JPL Groundwater Monitoring	
Alpha Analytical Number: BMI08111255-02A	Sampled: 11/11/08
Client I.D. Number: MW-16	Received: 11/12/08
	Analyzed: 11/14/08

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting L	imit
1	Dichlorodifluoromethane	ND	0.50	µg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	µg/L
2	Chloromethane	ND	1.0	µg/L	37	Chlorobenzene	ND	0.50	µg/L
3	Vinyl chloride	ND	0.50	µg/L	38	Ethylbenzene	ND	0.50	µg/L
4	Chloroethane	ND	0.50	µg/L	39	m,p-Xylene	ND	0.50	µg/L
5	Bromomethane	ND	1.0	µg/L	40	Bromoform	ND	0.50	µg/L
6	Trichlorofluoromethane	ND	0.50	µg/L	41	Styrene	ND	0.50	µg/L
7	1,1-Dichloroethene	ND	0.50	µg/L	42	o-Xylene	ND	0.50	µg/L
8	Dichloromethane	ND	1.0	µg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	µg/L
9	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	1.0	µg/L
10	trans-1,2-Dichloroethene	ND	0.50	µg/L	45	Isopropylbenzene	ND	0.50	µg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	µg/L	46	Bromobenzene	ND	0.50	µg/L
12	1,1-Dichloroethane	ND	0.50	µg/L	47	n-Propylbenzene	ND	0.50	µg/L
13	2-Butanone (MEK)	ND	10	µg/L	48	4-Chlorotoluene	ND	0.50	µg/L
14	cis-1,2-Dichloroethene	ND	0.50	µg/L	49	2-Chlorotoluene	ND	0.50	µg/L
15	Bromochloromethane	ND	0.50	µg/L	50	1,3,5-Trimethylbenzene	ND	0.50	µg/L
16	Chloroform	3.4	0.50	µg/L	51	tert-Butylbenzene	ND	0.50	µg/L
17	2,2-Dichloropropane	ND	0.50	µg/L	52	1,2,4-Trimethylbenzene	ND	0.50	µg/L
18	1,2-Dichloroethane	ND	0.50	µg/L	53	sec-Butylbenzene	ND	0.50	µg/L
19	1,1,1-Trichloroethane	ND	0.50	µg/L	54	1,3-Dichlorobenzene	ND	0.50	µg/L
20	1,1-Dichloropropene	ND	0.50	µg/L	55	1,4-Dichlorobenzene	ND	0.50	µg/L
21	Carbon tetrachloride	ND	0.50	µg/L	56	4-Isopropyltoluene	ND	0.50	µg/L
22	Benzene	ND	0.50	µg/L	57	1,2-Dichlorobenzene	ND	0.50	µg/L
23	Dibromomethane	ND	0.50	µg/L	58	n-Butylbenzene	ND	0.50	µg/L
24	1,2-Dichloropropane	ND	0.50	µg/L	59	1,2-Dibromo-3-chloropropane (DBCF	P) ND	2.5	µg/L
25	Trichloroethene	ND	0.50	µg/L	60	1,2,4-Trichlorobenzene	ND	1.0	µg/L
26	Bromodichloromethane	1.7	0.50	µg/L	61	Naphthalene	ND	1.0	µg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	1.0	µg/L
28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	1.0	µg/L
29	trans-1,3-Dichloropropene	ND	0.50	µg/L	64	Surr: 1,2-Dichloroethane-d4	96	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	101	(70-130)	%REC
31	Toluene	3.7	0.50	μg/L	66	Surr: 4-Bromofluorobenzene	100	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	µg/L					
33	Dibromochloromethane	0.71	0.50	µg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Sandmer

Walter Aridmon

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ANALYTICAL REPORT

Battelle Memorial Institute	Attn: David Conner
505 King Avenue	Phone: (619) 574-4827
Columbus, OH 43201	Fax: (614) 458-6641
Job#: G005862/JPL Groundwater Monitoring	
Alpha Analytical Number: BMI08111255-03A	Sampled: 11/11/08
Client I.D. Number: TB-16-11/11/08	Received: 11/12/08
	Analyzed: 11/14/08

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting L	imit
1	Dichlorodifluoromethane	ND	0.50	µg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	µg/L
2	Chloromethane	ND	1.0	µg/L	37	Chlorobenzene	ND	0.50	µg/L
3	Vinyl chloride	ND	0.50	µg/L	38	Ethylbenzene	ND	0.50	µg/L
4	Chloroethane	ND	0.50	µg/L	39	m,p-Xylene	ND	0.50	µg/L
5	Bromomethane	ND	1.0	µg/L	40	Bromoform	ND	0.50	µg/L
6	Trichlorofluoromethane	ND	0.50	µg/L	41	Styrene	ND	0.50	µg/L
7	1,1-Dichloroethene	ND	0.50	µg/L	42	o-Xylene	ND	0.50	µg/L
8	Dichloromethane	ND	1.0	µg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	µg/L
9	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	1.0	µg/L
10	trans-1,2-Dichloroethene	ND	0.50	µg/L	45	Isopropylbenzene	ND	0.50	µg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	µg/L	46	Bromobenzene	ND	0.50	µg/L
12	1,1-Dichloroethane	ND	0.50	µg/L	47	n-Propylbenzene	ND	0.50	µg/L
13	2-Butanone (MEK)	ND	10	µg/L	48	4-Chlorotoluene	ND	0.50	µg/L
14	cis-1,2-Dichloroethene	ND	0.50	µg/L	49	2-Chlorotoluene	ND	0.50	µg/L
15	Bromochloromethane	ND	0.50	µg/L	50	1,3,5-Trimethylbenzene	ND	0.50	µg/L
16	Chloroform	ND	0.50	µg/L	51	tert-Butylbenzene	ND	0.50	µg/L
17	2,2-Dichloropropane	ND	0.50	µg/L	52	1,2,4-Trimethylbenzene	ND	0.50	µg/L
18	1,2-Dichloroethane	ND	0.50	µg/L	53	sec-Butylbenzene	ND	0.50	µg/L
19	1,1,1-Trichloroethane	ND	0.50	µg/L	54	1,3-Dichlorobenzene	ND	0.50	µg/L
20	1,1-Dichloropropene	ND	0.50	µg/L	55	1,4-Dichlorobenzene	ND	0.50	µg/L
21	Carbon tetrachloride	ND	0.50	µg/L	56	4-Isopropyltoluene	ND	0.50	µg/L
22	Benzene	ND	0.50	µg/L	57	1,2-Dichlorobenzene	ND	0.50	µg/L
23	Dibromomethane	ND	0.50	µg/L	58	n-Butylbenzene	ND	0.50	µg/L
24	1,2-Dichloropropane	ND	0.50	µg/L	59	1,2-Dibromo-3-chloropropane (DBCI	P) ND	2.5	µg/L
25	Trichloroethene	ND	0.50	µg/L	60	1,2,4-Trichlorobenzene	ND	1.0	µg/L
26	Bromodichloromethane	ND	0.50	µg/L	61	Naphthalene	ND	1.0	µg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	1.0	µg/L
28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	1.0	µg/L
29	trans-1,3-Dichloropropene	ND	0.50	µg/L	64	Surr: 1,2-Dichloroethane-d4	93	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	101	(70-130)	%REC
31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	102	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	µg/L	-		,	. ,	
33	Dibromochloromethane	ND	0.50	µg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Sandmer

Walter Ainihm

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11/25/08 Report Date



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VOC Sample Preservation Report

Work Order: BMI08111255

Project: G005862/JPL Groundwater Monitoring

Alpha's Sample ID	Client's Sample ID	Matrix	рН	
08111255-01A	MW-7	Aqueous	2	
08111255-02A	MW-16	Aqueous	2	
08111255-03A	TB-16-11/11/08	Aqueous	2	

The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report. Matrix Type: AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

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	Logged in by	
	Mue 1	
	Jul Marson 1	Signature
C	1 and 1/icknown	Print Name
	Alpha Analytical, Inc.	Company
-	11/12/0X 1200	Date/Time

Comments: No security seals. Frozen ice. Temp Blank #4980 rec'd @ 4. Level IV OC. Samples should be used as the control spike sample if possible (I.E.: MS/MSD). Perchlorate RL of 1.0 ug/L.:

Billing Information : Battelle	CHAIN	-OF-CUS	CHAIN-OF-CUSTODY RECORD	ORD	CA	Page: 1 of 1
505 King Avenue		Alpha Analytical, Inc.	lytical, Inc.	W	orkOrder •	WorkOrder · BMI08111255
Columbus, OH 43201	255 Gleno TE	endale Avenue, Suite 21 Sparks, Nevada 894 TEL: (775) 355-1044 FAX: (775) 355-0406	255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778 TEL: (775) 355-1044 FAX: (775) 355-0406		or ACT der . ort Due By : 5	Report Due By : 5:00 PM On : 26-Nov-08
Client:	Report Attention	Phone Number	EMail Address			
Battelle Memorial Institute	David Conner	(619) 574-4827 x	x connerd@battelle.org			
505 King Avenue	Betsy Cutie	(619) 574-4827 x	x cutice@batelle.org	EI	EDD Required : Yes	
Columbus, OH 43201	Shane Walton	(614) 424-4117 x	x waltons@battelle.org	βQ	Sampled by : Client	ent
PO: 218013					Cooler Temp	Samples Received Date Printed
Client's COC #: 026295	Job : G005862/JPL Groundwater Monitoring	dwater Monitoring			4°C	12-Nov-08 12-Nov-08
QC Level : S4 = Final Rpt, MBLk	Final Rpt, MBLK, InitCal/ConCal data, LCS, MS/MSD With Surrogates	MSD With Surrogate	ö			
				Requested Tests		
Alpha Client Sample ID Sample ID	Collection No. of Bottles Matrix Date Alpha Sub	TAT	300_0(A)_ 300_0(B)_ 300_0(C)_ W	Aut. 1	314_W METALS_D VOC_TIC_ VOC_W	Sample Remarks
BMI08111255-01A MW-7	AQ 11/11/08 5 09:29	0 10 NO2	NO2, NO3, NO2, NO3, NO2, NO3, SO4, C1, SO4, C1, SO4, C1, SO4, C1, Ortho-P Ortho-P Ortho-P Ortho-P	Perchlorate Cr	VOC by 524 VOC by 524 Criteria Criteria	
BMI08111255-02A MW-16	AQ 11/11/08 5 11:14	0 10 NO2 SO	NO2, NO3, NO2, NO3, NO2, NO3, SO4, Cl, SO4, Cl, SO4, Cl, Ortho-P Ortho-P Ortho-P	Perchlorate Cr	VOC by 524 VOC by 524 Criteria Criteria	
BMI08111255-03A TB-16-11/11/08	AQ 11/11/08 1 00:00	0 10			VOC by 524 VOC by 524 Criteria Criteria	Reno TB, 9/30/08.

Billing Information: Name <u>CCRALD TOMPKINS</u> Address 505 KING AVE	Alpha 255 Glenn Sparks, N	I, Inc. Suite 21	Samples Collected From Which State? AZ CA _X NV WA ID OR OTHER F	hich State? 026295 WA Page # 1 of 1
MBU:	Fax (775	Phone (775) 355-1044 Fax (775) 355-0406	Analyses Required	d
Client Name DAVID CONNER	PO.# 218013	Job # 6-005 862	1 1 m/ () / /	Required QC Level?
	EMail Address		1 10 10 10 10 10 10 10 10 10 10 10 10 10	/ I II 🛈 IV
DIECO, CA 921/0	9-726-7311	Fax #	() () () () () () () () () ()	EDD / EDF? YES NO
Matrix* San	Report Attention	Total and type of	C AL STORY	Global ID #
Sampled Sampled Below Lab ID Number (Use Only)	Sample Description	TAT Field ** See below	X R JJ ist	REMARKS
979/1/2 AQ BMTD& 111255.01	MW-7	5	\times \times \times \times	
-02	MW-16	7	× × × ×	
	TB-16-11/11/08			TTYP BLANK
ADDITIONAL INSTRUCTIONS:				
Signature	Print Name		Company	Date Time
Relinquianted by	CHASK BOUDON	SNV	WHT EECE,	11/11/08 1300
Received by Nac Juluula	7 Tare Jickner	AN ICA	Me 1	1200 X0/21/1
Received by				
Relinquished by				
Received by				
*Key: AQ - Aqueous SO - Soil WA - Waste OT - Other AR - Air **: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis	OT - Other AR - Air **: L reported unless other arrangements are mac	**: L-Liter V-Voa S-Soil Jar made. Hazardous samples will be retur	O-Orbo T-Tedlar B-Brass rned to client or disposed of at client e	P-Plastic OT-Other expense. The report for the analysis
of the above samples is applicable only to those samples received by the laboratory with this coc. The liability of the laboratory is limited to the amount paid for the report.	s received by the laboratory with this coc. In	e liability of the laboratory is limited	to the amount paid for the report.	



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: 25-Nov-08 David Conner Battelle Memorial Institute 505 King Avenue Columbus, OH 43201 (619) 574-4827

CASE NARRATIVE

Project:	G005862/JPL Groundwater Monitoring						
Work Order:	BMI08111304		Cooler Temp:	4 °C			
Alpha's	Sample ID	Client's Sample ID	Matr	rix			
08111	304-01A	MW-10	Aque	cous			
08111	304-02A	MW-15	Aque	cous			
08111	304-03A	TB-17-11/12/08	Aque	cous			

Enclosed please find the analytical results of the samples received by Alpha Analytical, Inc. under the above mentioned Work Order/Chainof-Custody.

Alpha Analytical, Inc. has a formal Quality Assurance/Quality Control program, which is designed to meet or exceed the EPA requirements. All relevant QC met quality assurance objectives for this project unless otherwise stated in the footnotes.

If you have any questions with regards to this report, please contact Randy Gardner, Project Manager, at (800) 283-1183.

Roger Scholl

Kandy Dandmer

Walter Acrim

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com



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ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201
 Attn:
 David Conner

 Phone:
 (619) 574-4827

 Fax:
 (614) 458-6641

 Date Received : 11/13/08

Job#: G005862/JPL Groundwater Monitoring

Perchlorate by Ion Chromatography EPA Method 314.0						
		Parameter	Concentration	Reporting Limit	Date Date Sampled Analyzed	
Client ID : Lab ID :	MW-10 BMI08111304-01A	Perchlorate	2.77	1.00 µg/L	11/12/08 11/14/08	
Client ID : Lab ID :	MW-15 BMI08111304-02A	Perchlorate	ND	1.00 μg/L	11/12/08 11/14/08	

ND = Not Detected

Roger Scholl

Kandy Sandmer

Dalter Arihm

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

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ANALYTICAL REPORT

Battelle Memorial InstituteAttn:David Conner505 King AvenuePhone: (619) 574-4827Columbus, OH 43201Fax: (614) 458-6641Job#:G005862/JPL Groundwater Monitoring

Tentatively Identified Compounds - Volatile Organics by GC/MS

		D		Estimated			D. (
		Parameter	Estimated Concentration	Reporting Limit	Date Received	Date Sampled	Date Analyzed
Client ID : Lab ID :	MW-10 BMI08111304-01A	* * * None Found * * *	ND	2.0 µg/L	11/13/08	11/12/08	11/17/08
Client ID : Lab ID :	MW-15 BMI08111304-02A	* * * None Found * * *	ND	2.0 µg/L	11/13/08	11/12/08	11/17/08
Client ID : Lab ID :	TB-17-11/12/08 BMI08111304-03A	* * * None Found * * *	ND	2.0 µg/L	11/13/08	11/12/08	11/17/08

Note: Analysis conducted using EPA Method 524.2 criteria. ND = Not Detected

Walter Acrim Kandy Sandmer Roger Scholl

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.

11/26/08

Report Date
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ANALYTICAL REPORT

Battelle Memorial Institute	Attn: David Conner
505 King Avenue	Phone: (619) 574-4827
Columbus, OH 43201	Fax: (614) 458-6641
Job#: G005862/JPL Groundwater Monitoring	· ·
Alpha Analytical Number: BMI08111304-01A	Sampled: 11/12/08
Client I.D. Number: MW-10	Received: 11/13/08
	Analyzed: 11/17/08

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting L	imit
1	Dichlorodifluoromethane	ND	0.50	µg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	µg/L
2	Chloromethane	ND	1.0	µg/L	37	Chlorobenzene	ND	0.50	μg/L
3	Vinyl chloride	ND	0.50	μg/L	38	Ethylbenzene	ND	0.50	μg/L
4	Chloroethane	ND	0.50	µg/L	39	m,p-Xylene	ND	0.50	µg/L
5	Bromomethane	ND	* 1.0	μg/L	40	Bromoform	ND	0.50	µg/L
6	Trichlorofluoromethane	ND	0.50	μg/L	41	Styrene	ND	0.50	µg/L
7	1,1-Dichloroethene	ND	0.50	µg/L	42	o-Xylene	ND	0.50	µg/L
8	Dichloromethane	ND	1.0	μg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	µg/L
9	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	1.0	µg/L
10	trans-1,2-Dichloroethene	ND	0.50	µg/L	45	Isopropylbenzene	ND	0.50	μg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	µg/L	46	Bromobenzene	ND	0.50	µg/L
12	1,1-Dichloroethane	ND	0.50	µg/L	47	n-Propylbenzene	ND	0.50	µg/L
13	2-Butanone (MEK)	ND	10	µg/L	48	4-Chlorotoluene	ND	0.50	μg/L
14	cis-1,2-Dichloroethene	ND	0.50	µg/L	49	2-Chlorotoluene	ND	0.50	μg/L
15	Bromochloromethane	ND	0.50	µg/L	50	1,3,5-Trimethylbenzene	ND	0.50	μg/L
16	Chloroform	0.50	0.50	µg/L	51	tert-Butylbenzene	ND	0.50	µg/L
17	2,2-Dichloropropane	ND	0.50	µg/L	52	1,2,4-Trimethylbenzene	ND	0.50	μg/L
18	1,2-Dichloroethane	ND	0.50	µg/L	53	sec-Butylbenzene	ND	0.50	µg/L
19	1,1,1-Trichloroethane	ND	0.50	µg/L	54	1,3-Dichlorobenzene	ND	0.50	µg/L
20	1,1-Dichloropropene	ND	0.50	µg/L	55	1,4-Dichlorobenzene	ND	0.50	µg/L
21	Carbon tetrachloride	ND	0.50	µg/L	56	4-Isopropyltoluene	ND	0.50	µg/L
22		ND	0.50	µg/L	57	1,2-Dichlorobenzene	ND	0.50	μg/L
23	Dibromomethane	ND	0.50	µg/L	58	n-Butylbenzene	ND	0.50	µg/L
24	1,2-Dichloropropane	ND	0.50	µg/L	59	1,2-Dibromo-3-chloropropane (DBCF	P) ND	2.5	µg/L
25	Trichloroethene	2.6	0.50	µg/L	60	1,2,4-Trichlorobenzene	ND	1.0	µg/L
26	Bromodichloromethane	ND	0.50	µg/L	61	Naphthalene	ND	1.0	µg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	1.0	µg/L
28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	1.0	μg/L
29	trans-1,3-Dichloropropene	ND	0.50	µg/L	64	Surr: 1,2-Dichloroethane-d4	92	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	101	(70-130)	%REC
31	Toluene	1.2	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	101	(70-130)	%REC
32	,	ND	0.50	μg/L					
33	Dibromochloromethane	ND	0.50	µg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	1.2	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

*Bromomethane failed the method CV criteria of 70-130% recovery @ 58%.

ND = Not Detected

Roger Scholl

Kandy Sandmer

Walter Ainihum

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11/26/08

Report Date



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ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI08111304-02A Client I.D. Number: MW-15 Attn:David ConnerPhone:(619) 574-4827Fax:(614) 458-6641

Sampled: 11/12/08 Received: 11/13/08 Analyzed: 11/17/08

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	0.50	µg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	µg/L
2	Chloromethane	ND	1.0	µg/L	37	Chlorobenzene	ND	0.50	µg/L
3	Vinyl chloride	ND	0.50	μg/L	38	Ethylbenzene	ND	0.50	µg/L
4	Chloroethane	ND	0.50	µg/L	39	m,p-Xylene	ND	0.50	µg/L
5	Bromomethane	ND	* 1.0	µg/L	40	Bromoform	ND	0.50	µg/L
6	Trichlorofluoromethane	ND	0.50	µg/L	41	Styrene	ND	0.50	µg/L
7	1,1-Dichloroethene	ND	0.50	μg/L	42	o-Xylene	ND	0.50	µg/L
8	Dichloromethane	ND	1.0	µg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	µg/L
9	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	1.0	μg/L
10	trans-1,2-Dichloroethene	ND	0.50	μg/L	45	Isopropylbenzene	ND	0.50	μg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	µg/L	46	Bromobenzene	ND	0.50	µg/L
12	1,1-Dichloroethane	ND	0.50	μg/L	47	n-Propylbenzene	ND	0.50	µg/L
13	2-Butanone (MEK)	ND	10	µg/L	48	4-Chlorotoluene	ND	0.50	µg/L
14	cis-1,2-Dichloroethene	ND	0.50	µg/L	49	2-Chlorotoluene	ND	0.50	µg/L
15	Bromochloromethane	NĎ	0.50	μg/L	50	1,3,5-Trimethylbenzene	ND	0.50	µg/L
16	Chloroform	ND	0.50	µg/L	51	tert-Butylbenzene	ND	0.50	µg/L
17	2,2-Dichloropropane	ND	0.50	µg/L	52	1,2,4-Trimethylbenzene	ND	0.50	µg/L
18	1,2-Dichloroethane	ND	0.50	µg/L	53	sec-Butylbenzene	ND	0.50	µg/L
19	1,1,1-Trichloroethane	ND	0.50	µg/L	54	1,3-Dichlorobenzene	ND	0.50	µg/L
20	1,1-Dichloropropene	ND	0.50	µg/L	55	1,4-Dichlorobenzene	ND	0.50	µg/L
21	Carbon tetrachloride	ND	0.50	µg/L	56	4-Isopropyltoluene	ND	0.50	µg/L
22	Benzene	ND	0.50	µg/L	57	1,2-Dichlorobenzene	ND	0.50	µg/L
23	Dibromomethane	ND	0.50	µg/L	58	n-Butylbenzene	ND	0.50	µg/L
24	1,2-Dichloropropane	ND	0.50	µg/L	59	1,2-Dibromo-3-chloropropane (DBC	P) ND	2.5	µg/L
25	Trichloroethene	ND	0.50	µg/L	60	1,2,4-Trichlorobenzene	ND	1.0	µg/L
26	Bromodichloromethane	ND	0.50	µg/L	61	Naphthalene	ND	1.0	µg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	1.0	µg/L
28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	1.0	µg/L
29	trans-1,3-Dichloropropene	ND	0.50	µg/L	64	Surr: 1,2-Dichloroethane-d4	92	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	102	(70-130)	%REC
31	Toluene	0.76	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	100	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	µg/L					
33	Dibromochloromethane	ND	0.50	µg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

*Bromomethane failed the method CV criteria of 70-130% recovery @ 58%.

ND = Not Detected

Roger Scholl

Kandy Sandman

Walter Acrilmon

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

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11/26/08 Report Date

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ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI08111304-03A Client I.D. Number: TB-17-11/12/08 Attn:David ConnerPhone:(619) 574-4827Fax:(614) 458-6641

Sampled: 11/12/08 Received: 11/13/08 Analyzed: 11/17/08

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting L	imit
1	Dichlorodifluoromethane	ND	0.50	µg/L	36	1.1.1.2-Tetrachloroethane	ND	0.50	µg/L
2	Chloromethane	ND	1.0	µg/L	37	Chlorobenzene	ND	0.50	μg/L
3	Vinyl chloride	ND	0.50	μg/L	38	Ethylbenzene	ND	0.50	μg/L
4	Chloroethane	ND	0.50	µg/L	39	m,p-Xylene	ND	0.50	µg/L
5	Bromomethane	ND	* 1.0	μg/L	40	Bromoform	ND	0.50	µg/L
6	Trichlorofluoromethane	ND	0.50	µg/L	41	Styrene	ND	0.50	µg/L
7	1,1-Dichloroethene	ND	0.50	µg/L	42	o-Xylene	ND	0.50	µg/L
8	Dichloromethane	ND	1.0	µg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	µg/L
9	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	1.0	µg/L
10	trans-1,2-Dichloroethene	ND	0.50	µg/L	45	Isopropylbenzene	ND	0.50	µg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	μg/L	46	Bromobenzene	ND	0.50	µg/L
12	1,1-Dichloroethane	ND	0.50	μg/L	47	n-Propylbenzene	ND	0.50	µg/L
13	2-Butanone (MEK)	ND	10	µg/L	48	4-Chlorotoluene	ND	0.50	µg/L
14	cis-1,2-Dichloroethene	ND	0.50	μg/L	49	2-Chlorotoluene	ND	0.50	µg/L
15	Bromochloromethane	ND	0.50	μg/L	50	1,3,5-Trimethylbenzene	ND	0.50	µg/L
16	Chloroform	ND	0.50	µg/L	51	tert-Butylbenzene	ND	0.50	μg/L
17	2,2-Dichloropropane	ND	0.50	µg/L	52	1,2,4-Trimethylbenzene	ND	0.50	µg/L
18	1,2-Dichloroethane	ND	0.50	μg/L	53	sec-Butylbenzene	ND	0.50	μg/L
19	1,1,1-Trichloroethane	ND	0.50	µg/L	54	1,3-Dichlorobenzene	ND	0.50	µg/L
20	1,1-Dichloropropene	ND	0.50	µg/L	55	1,4-Dichlorobenzene	ND	0.50	µg/L
21	Carbon tetrachloride	ND	0.50	µg/L	56	4-Isopropyltoluene	ND	0.50	µg/L
22	Benzene	ND	0.50	μg/L	57	1,2-Dichlorobenzene	ND	0.50	µg/L
23	Dibromomethane	ND	0.50	µg/L	58	n-Butylbenzene	ND	0.50	µg/L
24	1,2-Dichloropropane	ND	0.50	μg/L	59	1,2-Dibromo-3-chloropropane (DBCF	P) ND	2.5	µg/L
25	Trichloroethene	ND	0.50	μg/L	60	1,2,4-Trichlorobenzene	ND	1.0	µg/L
26	Bromodichloromethane	ND	0.50	μg/L	61	Naphthalene	ND	1.0	µg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	μg/L	62	Hexachlorobutadiene	ND	1.0	µg/L
28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	1.0	µg/L
29	trans-1,3-Dichloropropene	ND	0.50	μg/L	64	Surr: 1,2-Dichloroethane-d4	95	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	μg/L	65	Surr: Toluene-d8	100	(70-130)	%REC
31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	100	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	µg/L				. ,	
33	Dibromochloromethane	ND	0.50	µg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

*Bromomethane failed the method CV criteria of 70-130% recovery @ 58%.

ND = Not Detected

Roger Scholl

Kandy Dantmen

Walter Acrim

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11/26/08 Report Date



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

VOC Sample Preservation Report

Work Order: BMI08111304

Project: G005862/JPL Groundwater Monitoring

Alpha's Sample ID	Client's Sample ID	Matrix	рН	
08111304-01A	MW-10	Aqueous	2	
08111304-02A	MW-15	Aqueous	2	
08111304-03A	TB-17-11/12/08	Aqueous	2	



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ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201
 Attn:
 David Conner

 Phone:
 (619) 574-4827

 Fax:
 (614) 458-6641

 Date Received : 11/13/08

Job#: G005862/JPL Groundwater Monitoring

			Metals by ICPMS EPA Method 200.8		
		Parameter	Concentration	Reporting Limit	Date Date Sampled Analyzed
Client ID : Lab ID :	MW-10 BMI08111304-01A	. ,	0.022	0.0050 mg/L	11/12/08 11/21/08
Client ID : Lab ID :	MW-15 BMI08111304-02A	Chromium (Cr)	0.0076	0.0050 mg/L	11/12/08 11/21/08

Roger Scholl

Kandy Saulmer

Walter Hiridmon

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.

11/26/08

Report Date

Matrix Type: AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report. NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. < Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Logged in by:	
Cenabutt	
1 Adrox	Signature
Elizabeth	Prin
Adcox	t Name
Alpha Analytical, Inc.	Company
11-13-08 1258	Date/Time

No security seals. Frozen ice. Temp Blank #8264 rec'd @ 4°. Level IV QC. Samples should be used as the control spike sample if possible (I.E.: MS/MSD). Perchlorate RL of 1.0 ug/L.:

Comments:

505 King Avenue					Alph	a Al	Alpha Analytical, Inc.	al, Ind	:		WorkOrder : BMI08111304	BMI08111304	
Columbus, OH 43201	201			255 Gle T	ndale Aver TEL: (775)	iue, Suit 355-104	endale Avenue, Suite 21 Sparks, Nevada 894 TEL: (775) 355-1044 FAX: (775) 355-0406	ks, Nevada 775) 355-0	255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778 TEL: (775) 355-1044 FAX: (775) 355-0406	œ	Report Due By : 5:00 PM On : 28-Nov-08	00 PM On : 28-I	Nov-08
Client:			Report Attention	_	Phon	Phone Number	ber	EMail Address	ddress				
Battelle Memorial Institute	Institute		David Conner	T	(619)	(619) 574-4827 x	27 x	connerd@	connerd@battelle.org				
505 King Avenue			Betsy Cutie		(619)	(619) 574-4827 x	27 x	cutiee@batelle.org	atelle.org		EDD Required : Yes		
Columbus OH 43201	201		Shane Walton	1	(614)	(614) 424-4117 x	17 x	waltons@	waltons@battelle.org		Sampled by : Client	nt	
PO: 218013											Cooler Temp	ived	Date Printed
Client's COC #: 026294	-	Jop :	G005862/JPL Groundwater Monitoring	Grou	ndwater N	lonitorir	ng L				4°C	13-Nov-08	13-Nov-08
QC Level: S4	= Final Rpt, MBLK, InitCal/ConCal data, LCS, MS/MSD With Surrogates	Cal/Co	nCal data, LC	S, MS	/MSD With	ר Surro	gates						
										Requested Tests	d Tests		
Alpha Sample ID	Client Sample ID	Matri	Collection Matrix Date	No. of Alpha	f Bottles Sub	TAT	314_W	METALS_D VOC_TIC_	VOC_TIC_	VOC_W		Sample Remarks	Remarks
BMI08111304-01A MW-10	MW-10	Ą	11/12/08 09:13	U	0	10	Perchlorate	ç	VOC by 524 Criteria	VOC by 524 Criteria			
BMI08111304-02A MW-15	MW-15	Ą	11/12/08 10:36	თ	0	10	Perchlorate	Ċŗ	VOC by 524 VOC by 524 Criteria Criteria	VOC by 524 Criteria			
BMI08111304-03A TB-17-11/12/08	TB-17-11/12/08	Ą	11/12/08 00:00		0	10			VOC by 524 Criteria	VOC by 524 Criteria		Reno Trip B	Reno Trip Blank 9/30/08

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA

Page: 1 of 1

Battelle

Billing Information: Name <u>CERALD</u> TOMPKINS Address <u>505 KINC AVE</u> City, State, Zip <u>COLUMIENS , Ott 43201</u> Phone Number Fax	Fax	Alpha Analytical, Inc. 255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778 Phone (775) 355-1044 Fax (775) 355-0406	Samples Collected From Which State? AZ CA_X VV WA ID OR OTHERF Analyses Required	hich State? 026294 WA Page # _ /_ of _ / Fage # _ /_ of _ /
IT CONVER	PO.# 2 友の3	# dot		Required OC Level?
	EMail Address	10,025	24 20 14.0	
0, CA 92110	Phone #619-726-731/	Fax #		EDD / EDF? YES NO
Matrix* Sampled by See Key	Report Attention	Total and type of containers		
sampled Below	Sample Description	TAT Filed ** See below		REMARKS
1/2 A AQ 5M TO811304	MW-10	<u>ل</u>	XXX	
LO-	MW-15	2	XXX	
-03	475-17-11/1408	4		TRIP BLANK
ADDITIONAL INSTRUCTIONS:			-	
0 instance				
Relinquisbed by	PULACE STATIN	\downarrow $/$ $// // // //$	Company	Date Time
Received by Que buch Colour F	lizabeth Adax			1.13.08 12.58
Relinquished by U			-	
Received by Relinguished by				
Received by				
*Key: AQ - Aqueous SQ - Soil WA - Waste OT - Other AR - Air **: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this coc. The liability of the laboratory is limited to the amount paid for the report.	OT - Other AR - Air eported unless other arrangements are received by the laboratory with this co	**: L-Liter V-Voa S-Soil Jar made. Hazardous samples will be r 2. The liability of the laboratory is lim	O-Orbo T-Tedlar B-Brass eturned to client or disposed of at client ¢ lited to the amount paid for the report.	P-Plastic OT-Other expense. The report for the analysis
			de e	

- Ang



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: 26-Nov-08 David Conner Battelle Memorial Institute 505 King Avenue Columbus, OH 43201 (619) 574-4827

CASE NARRATIVE

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bus
bus

Enclosed please find the analytical results of the samples received by Alpha Analytical, Inc. under the above mentioned Work Order/Chainof-Custody.

Alpha Analytical, Inc. has a formal Quality Assurance/Quality Control program, which is designed to meet or exceed the EPA requirements. All relevant QC met quality assurance objectives for this project unless otherwise stated in the footnotes.

If you have any questions with regards to this report, please contact Randy Gardner, Project Manager, at (800) 283-1183.

Roger Scholl

Walter Acridmon Kandy Danlmer

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com



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ANALYTICAL REPORT

Battelle Memorial InstituteAttn:David Conner505 King AvenuePhone: (619) 574-4827Columbus, OH 43201Fax: (614) 458-6641Job#:G005862/JPL Groundwater Monitoring

Tentatively Identified Compounds - Volatile Organics by GC/MS

				Estimated			
		Parameter	Estimated	Reporting	Date	Date	Date
			Concentration	Limit	Received	Sampled	Analyzed
Client ID :	MW-13						
Lab ID :	BMI08111425-01A	* * * None Found * * *	ND	$2.0 \ \mu g/L$	11/14/08	11/13/08	11/18/08
Client ID :	MW-8						
Lab ID :	BMI08111425-02A	* * * None Found * * *	ND	$2.0 \ \mu g/L$	11/14/08	11/13/08	11/18/08
Client ID :	TB-18-11/13/08						
Lab ID :	BMI08111425-03A	Sulfur dioxide	2.6	$2.0 \ \mu g/L$	11/14/08	11/13/08	11/18/08

Note: Analysis conducted using EPA Method 524.2 criteria. ND = Not Detected

Dalter Aridman Roger Scholl Kandy Santur

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.

11/28/08 Report Date Page 1 of 1



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ANALYTICAL REPORT

Battelle Memorial Institute	Attn: David Conner
505 King Avenue	Phone: (619) 574-4827
Columbus, OH 43201	Fax: (614) 458-6641
Job#: G005862/JPL Groundwater Monitoring	
Alpha Analytical Number: BMI08111425-01A	Sampled: 11/13/08
Client I.D. Number: MW-13	Received: 11/14/08
	Analyzed: 11/18/08
	Analyzed: 11/18/08

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting L	mit
1	Dichlorodifluoromethane	ND	0.50	µg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	µg/L
2	Chloromethane	ND	1.0	µg/L	37	Chlorobenzene	ND	0.50	µg/L
3	Vinyl chloride	ND	0.50	µg/L	38	Ethylbenzene	ND	0.50	µg/L
4	Chloroethane	ND	0.50	µg/L	39	m,p-Xylene	ND	0.50	µg/L
5	Bromomethane	ND	* 1.0	µg/L	40	Bromoform	ND	0.50	µg/L
6	Trichlorofluoromethane	ND	0.50	µg/L	41	Styrene	ND	0.50	µg/L
7	1,1-Dichloroethene	ND	0.50	µg/L	42	o-Xylene	ND	0.50	µg/L
8	Dichloromethane	ND	1.0	µg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	µg/L
9	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	1.0	μg/L
10	trans-1,2-Dichloroethene	ND	0.50	µg/L	45	Isopropylbenzene	ND	0.50	µg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	µg/L	46	Bromobenzene	ND	0.50	µg/L
12	1,1-Dichloroethane	ND	0.50	µg/L	47	n-Propylbenzene	ND	0.50	μg/L
13	2-Butanone (MEK)	ND	10	µg/L	48	4-Chlorotoluene	ND	0.50	µg/L
14	cis-1,2-Dichloroethene	ND	0.50	µg/L	49	2-Chlorotoluene	ND	0.50	µg/L
15	Bromochloromethane	ND	0.50	µg/L	50	1,3,5-Trimethylbenzene	ND	0.50	µg/L
16	Chloroform	0.69	0.50	µg/L	51	tert-Butylbenzene	ND	0.50	µg/L
17	2,2-Dichloropropane	ND	0.50	µg/L	52	1,2,4-Trimethylbenzene	ND	0.50	µg/L
18	1,2-Dichloroethane	ND	0.50	µg/L	53	sec-Butylbenzene	ND	0.50	µg/L
19	1,1,1-Trichloroethane	ND	0.50	µg/L	54	1,3-Dichlorobenzene	ND	0.50	µg/L
20	1,1-Dichloropropene	ND	0.50	µg/L	55	1,4-Dichlorobenzene	ND	0.50	µg/L
21	Carbon tetrachloride	ND	0.50	µg/L	56	4-Isopropyltoluene	ND	0.50	µg/L
22	Benzene	ND	0.50	µg/L	57	1,2-Dichlorobenzene	ND	0.50	µg/L
23	Dibromomethane	ND	0.50	µg/L	58	n-Butylbenzene	ND	0.50	µg/L
24	1,2-Dichloropropane	ND	0.50	µg/L	59	1,2-Dibromo-3-chloropropane (DBC	P) ND	2.5	µg/L
25	Trichloroethene	0.76	0.50	µg/L	60	1,2,4-Trichlorobenzene	ND	1.0	µg/L
26	Bromodichloromethane	ND	0.50	µg/L	61	Naphthalene	ND	1.0	μg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	1.0	µg/L
28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	1.0	µg/L
29	trans-1,3-Dichloropropene	ND	0.50	µg/L	64	Surr: 1,2-Dichloroethane-d4	93	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	101	(70-130)	%REC
31	Toluene	3.4	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	103	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	µg/L					
33	Dibromochloromethane	ND	0.50	µg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	0.51	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

*Bromomethane failed the method CV criteria of 70-130% recovery @ 56.1%.

ND = Not Detected

Roger Scholl

Walter Arihm

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

Kandy Santur

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11/28/08 Report Date



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Battelle Memorial Institute	Attn: David Conner
505 King Avenue	Phone: (619) 574-4827
Columbus, OH 43201	Fax: (614) 458-6641
Job#: G005862/JPL Groundwater Monitoring	
Alpha Analytical Number: BMI08111425-02A	Sampled: 11/13/08
Client I.D. Number: MW-8	Received: 11/14/08
	Analyzed: 11/18/08

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	0.50	µg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	µg/L
2	Chloromethane	ND	1.0	µg/L	37	Chlorobenzene	ND	0.50	µg/L
3	Vinyl chloride	ND	0.50	µg/L	38	Ethylbenzene	ND	0.50	µg/L
4	Chloroethane	ND	0.50	µg/L	39	m,p-Xylene	ND	0.50	µg/L
5	Bromomethane	ND	* 1.0	µg/L	40	Bromoform	0.87	0.50	µg/L
6	Trichlorofluoromethane	0.96	0.50	µg/L	41	Styrene	ND	0.50	µg/L
7	1,1-Dichloroethene	ND	0.50	µg/L	42	o-Xylene	ND	0.50	μg/L
8	Dichloromethane	ND	1.0	µg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	µg/L
9	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	1.0	µg/L
10	trans-1,2-Dichloroethene	ND	0.50	µg/L	45	Isopropylbenzene	ND	0.50	µg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	µg/L	46	Bromobenzene	ND	0.50	µg/L
12	1,1-Dichloroethane	ND	0.50	µg/L	47	n-Propylbenzene	ND	0.50	μg/L
13	2-Butanone (MEK)	ND	10	µg/L	48	4-Chlorotoluene	ND	0.50	μg/L
14	cis-1,2-Dichloroethene	ND	0.50	µg/L	49	2-Chlorotoluene	ND	0.50	µg/L
15	Bromochloromethane	ND	0.50	µg/L	50	1,3,5-Trimethylbenzene	ND	0.50	µg/L
16	Chloroform	1.1	0.50	µg/L	51	tert-Butylbenzene	ND	0.50	µg/L
17	2,2-Dichloropropane	ND	0.50	µg/L	52	1,2,4-Trimethylbenzene	ND	0.50	µg/L
18	1,2-Dichloroethane	ND	0.50	µg/L	53	sec-Butylbenzene	ND	0.50	µg/L
19	1,1,1-Trichloroethane	ND	0.50	µg/L	54	1,3-Dichlorobenzene	ND	0.50	µg/L
20	1,1-Dichloropropene	ND	0.50	µg/L	55	1,4-Dichlorobenzene	ND	0.50	µg/L
21	Carbon tetrachloride	ND	0.50	µg/L	56	4-isopropyltoluene	ND	0.50	µg/L
22	Benzene	ND	0.50	µg/L	57	1,2-Dichlorobenzene	ND	0.50	µg/L
23	Dibromomethane	ND	0.50	µg/L	58	n-Butylbenzene	ND	0.50	µg/L
24	1,2-Dichloropropane	ND	0.50	µg/L	59	1,2-Dibromo-3-chloropropane (DBC	P) ND	2.5	µg/L
25	Trichloroethene	ND	0.50	µg/L	60	1,2,4-Trichlorobenzene	ND	1.0	µg/L
26	Bromodichloromethane	1.3	0.50	µg/L	61	Naphthalene	ND	1.0	µg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	1.0	µg/L
28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	1.0	µg/L
29	trans-1,3-Dichloropropene	ND	0.50	µg/L	64	Surr: 1,2-Dichloroethane-d4	94	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	101	(70-130)	%REC
31	Toluene	2.5	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	102	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	µg/L					
33	Dibromochloromethane	1.3	0.50	µg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

*Bromomethane failed the method CV criteria of 70-130% recovery @ 56.1%.

ND = Not Detected

Roger Scholl

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11/28/08 Report Date



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ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue	Attn:David ConnerPhone:(619) 574-4827
Columbus, OH 43201	Fax: (614) 458-6641
Job#: G005862/JPL Groundwater Monitoring	
Alpha Analytical Number: BMI08111425-03A	Sampled: 11/13/08
Client I.D. Number: TB-18-11/13/08	Received: 11/14/08
	Analyzed: 11/18/08

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	0.50	µg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	µg/L
2	Chloromethane	ND	1.0	µg/L	37	Chlorobenzene	ND	0.50	µg/L
3	Vinyl chloride	ND	0.50	µg/L	38	Ethylbenzene	ND	0.50	µg/L
4	Chloroethane	ND	0.50	µg/L	39	m,p-Xylene	ND	0.50	µg/L
5	Bromomethane	ND	* 1.0	µg/L	40	Bromoform	ND	0.50	µg/L
6	Trichlorofluoromethane	ND	0.50	µg/L	41	Styrene	ND	0.50	µg/L
7	1,1-Dichloroethene	ND	0.50	µg/L	42	o-Xylene	ND	0.50	µg/L
8	Dichloromethane	ND	1.0	µg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	µg/L
9	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	1.0	µg/L
10	trans-1,2-Dichloroethene	ND	0.50	µg/L	45	Isopropylbenzene	ND	0.50	μg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	µg/L	46	Bromobenzene	ND	0.50	µg/L
12	1,1-Dichloroethane	ND	0.50	µg/L	47	n-Propylbenzene	ND	0.50	µg/L
13	2-Butanone (MEK)	ND	10	µg/L	48	4-Chlorotoluene	ND	0.50	µg/L
14	cis-1,2-Dichloroethene	ND	0.50	µg/L	49	2-Chlorotoluene	ND	0.50	µg/L
15	Bromochloromethane	ND	0.50	µg/L	50	1,3,5-Trimethylbenzene	ND	0.50	µg/L
16	Chloroform	ND	0.50	µg/L	51	tert-Butylbenzene	ND	0.50	µg/L
17	2,2-Dichloropropane	ND	0.50	µg/L	52	1,2,4-Trimethylbenzene	ND	0.50	µg/L
18	1,2-Dichloroethane	ND	0.50	µg/L	53	sec-Butylbenzene	ND	0.50	µg/L
19	1,1,1-Trichloroethane	ND	0.50	µg/L	54	1,3-Dichlorobenzene	ND	0.50	µg/L
20	1,1-Dichloropropene	ND	0.50	µg/L	55	1,4-Dichiorobenzene	ND	0.50	µg/L
21	Carbon tetrachloride	ND	0.50	µg/L	56	4-Isopropyltoluene	ND	0.50	µg/L
22	Benzene	ND	0.50	μg/L	57	1,2-Dichlorobenzene	ND	0.50	µg/L
23	Dibromomethane	ND	0.50	µg/L	58	n-Butylbenzene	ND	0.50	µg/L
24	1,2-Dichloropropane	ND	0.50	µg/L	59	1,2-Dibromo-3-chloropropane (DBCI	P) ND	2.5	μg/L
25	Trichloroethene	ND	0.50	µg/L	60	1,2,4-Trichlorobenzene	ND	1.0	µg/L
26	Bromodichloromethane	ND	0.50	µg/L	61	Naphthalene	ND	1.0	µg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	1.0	µg/L
28	cis-1,3-Dichloropropene	ND	0.50	μg/L	63	1,2,3-Trichlorobenzene	ND	1.0	µg/L
29	trans-1,3-Dichloropropene	ND	0.50	µg/L	64	Surr: 1,2-Dichloroethane-d4	91	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	102	(70-130)	%REC
31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	104	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	µg/L					
33	Dibromochloromethane	ND	0.50	µg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

*Bromomethane failed the method CV criteria of 70-130% recovery @ 56.1%.

ND = Not Detected

Roger Scholl

Kandy Daulmer

Walter Aridman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.

11/28/08

Report Date



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

VOC Sample Preservation Report

Work Order: BMI08111425 Project: G005862/JPL Groundwater Monitoring Alpha's Sample ID pН Client's Sample ID Matrix 2 08111425-01A MW-13 Aqueous 2 08111425-02A MW-8 Aqueous 08111425-03A 2 TB-18-11/13/08 Aqueous

11/28/08 Report Date



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201
 Attn:
 David Conner

 Phone:
 (619) 574-4827

 Fax:
 (614) 458-6641

 Date Received : 11/14/08

Job#: G005862/JPL Groundwater Monitoring

		Anions by IC Iethod 300.0 / 9056			
	Parameter	Concentration	Reporting Limit	Date / Time Sampled	Date / Time Analyzed
Client ID : MW-13	Nitrite (NO2) - N	ND	0.25 mg/L	11/13/08 09:09	11/14/08 14:39
Lab ID : BMI08111425-01A	Nitrate (NO3) - N Phosphate, ortho - P	6.6 ND	0.25 mg/L 0.25 mg/L	11/13/08 09:09 11/13/08 09:09	11/14/08 14:39 11/14/08 14:39
Client ID : MW-8 Lab ID : BMI08111425-02A	Nitrite (NO2) - N Nitrate (NO3) - N Phosphate, ortho - P	ND 3.7 ND	0.25 mg/L 0.25 mg/L 0.25 mg/L	11/13/08 10:59 11/13/08 10:59 11/13/08 10:59	11/14/08 15:34 11/14/08 15:34 11/14/08 15:34

ND = Not Detected

Roger Scholl

Kandy Daulmer

Walter Arihm

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Ke 11/28/08 Report Date



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ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201
 Attn:
 David Conner

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 Fax:
 (614) 458-6641

 Date Received : 11/14/08

Job#: G005862/JPL Groundwater Monitoring

		H	Anions by IC EPA Method 300.0 / 9056			
		Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID :	MW-13					
Lab ID :	BMI08111425-01A	Chloride	37	0.50 mg/L		1/14/08
		Sulfate (SO4)	54	2.5 mg/L	11/13/08 1	1/14/08
Client ID :	MW-8					
Lab ID :	BMI08111425-02A	Chloride	44	0.50 mg/L	11/13/08 1	11/14/08
		Sulfate (SO4)	65	2.5 mg/L	11/13/08 1	11/14/08

Roger Scholl

Walter Arihm

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Kandy Soulmer

11/28/08

Report Date



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ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201
 Attn:
 David Conner

 Phone:
 (619) 574-4827

 Fax:
 (614) 458-6641

 Date Received : 11/14/08

Job#: G005862/JPL Groundwater Monitoring

			Metals by ICPMS EPA Method 200.8		
		Parameter	Concentration	Reporting Limit	Date Date Sampled Analyzed
Client ID : Lab ID :	MW-13 BMI08111425-01A	Chromium (Cr)	0.088	0.0050 mg/L	11/13/08 11/21/08
Client ID : Lab ID :	MW-8 BMI08111425-02A	Chromium (Cr)	0.013	0.0050 mg/L	11/13/08 11/21/08

Roger Scholl

Kandy Saulmer

Walter Hiridmon

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11/28/08 **Report Date**



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 (619) 574-4827

 Fax:
 (614) 458-6641

 Date Received : 11/14/08

Job#: G005862/JPL Groundwater Monitoring

			Perchlorate by Ion Chromatography EPA Method 314.0		
		Parameter	Concentration	Reporting Limit	Date Date Sampled Analyzed
Client ID : Lab ID :	MW-13 BMI08111425-01A	Perchlorate	431	10.0 µg/L	11/13/08 11/21/08
Client ID : Lab ID :	MW-8 BMI08111425-02A	Perchlorate	257	10.0 μg/L	11/13/08 11/21/08

Roger Scholl

Kandy Daulmer

Walter Hirihm

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11/28/08

Report Date

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	Alpha	Analyti	ical, In	:		W	nrkOr	der	RM108111425	
255 Glenc TE	fale Avenue, L: (775) 355	Suite 21 Sp 1044 FAX	arks, Nevada : (775) 355-0	89431-5778 1406	~	Repo	ort Due	By: 5:	00 PM On: 01	-Dec-08
-	Phone N	umber	EMail A	ddress						
nner	(619) 574	-4827 x	connerd@	battelle.org				1		
ie	(619) 574	-4827 x	cutiee@ba	atelle.org		EL	D Requi	red : Yes		
ulton	(614) 424	-4117 x	waltons@	battelle.org			Sampled	by : Clie	nt	
							Cooler]		Samples Received	Date Printed
JPL Ground	dwater Moni	toring					4	č	14-Nov-08	14-Nov-08
LCS, MS/N										
	Final Rpt, MBLK, InitCal/ConCal data, LCS, MS/MSD With Surrogates	irrogates				i				
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CollectionNo. of IxDateAlpha11/13/08509:095	ASD With Su Bottles Sub TAT	rrogates 300_0(A) W Ct,NO2,NO ,PO4,SO4	gates Reques 300_0(A)_ 300_0(C)_ 314_W 300_0(A)_ 300_0(B)_ 300_0(C)_ 314_W 300_0(A)_ W W 314_W C1,N02,N03 C1,N02,N03, C1,N02,N03, Perchlorate ,P04,S04 P04,S04 Po4,S04 Perchlorate	300_0(C)_ W CI,NO2,NO3, PO4,SO4	e	netals_p vr	VOC_TIC_ VOC_W W VOC by 524 VOC by 524 Criteria	VOC_W VOC by 524 Criteria	Samp	e Remarks
Collection No. of I c Date Alpha 11/13/08 5 09:09 11/13/08 5 10:59	ASD With Su Bottles Sub TA1 0 10 0 10	1000 100 100 100 100 100 100 100 100 10	gates Reques 300_0(A)_ 300_0(C)_ 314_W 300_0(A)_ 300_0(B)_ 300_0(C)_ 314_W 200_0(A)_ 300_0(B)_ 300_0(C)_ 314_W 200_0(A)_ 904,S03 CI,N02,N03, Perchlorate 200_0(A)_ 904,S04 PO4,S04 Perchlorate 200_0(A)_S04 PO4,S04 PO4,S04 Perchlorate	300_0(C)_ W CI,NO2,NO3, PO4,SO4 PO4,SO4	e	d Tests אפדאנא_ס מי	VOC_TIC_ WOC by 524 Criteria VOC by 524 VOC by 524 VOC by 524 VOC by 524 VOC by 524 VOC by 524	VOC_W VOC by 524 Criteria VOC by 524	Sample	Sample Remarks
	CHAIN- 255 Glene TE Report Attention David Conner Betsy Cutie Betsy Cutie Shane Walton	Alpha Alpha 255 Glendale Avenue, TEL: (775) 355- TEL: (775) 355- TEL: (775) 355- TEL: (775) 355- (619) 574 tie (619) 574 tie (619) 574 dalton (614) 424	CHAIN-OF-CUST Alpha Analyti 255 Glendale Avenue, Suite 21 Sp. 255 Glendale Avenue, Suite 21 Sp. TEL: (775) 355-1044 FAX Report Attention Phone Number David Conner (619) 574-4827 x Betsy Cutie (619) 574-4827 x Shane Walton (614) 424-4117 x G005862/JPL Groundwater Monitoring	HAIN-OF-CUSTODY I Alpha Analytical, In 255 Glendale Avenue, Suite 21 Sparks, Nevada TEL: (775) 355-1044 FAX: (775) 355-0 Itention Phone Number EMail A nmer (619) 574-4827 x connerd@ tie (619) 574-4827 x cutice@b tie (614) 424-4117 x waltons@	HAIN-OF-CUSTODY RECC Alpha Analytical, Inc. Alpha Analytical, Inc. 255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778 TEL: (775) 355-1044 FANDE Number EMail Address Inner (619) 574-4827 connerd@battelle.org tie (619) 574-4827 x cutice@battelle.org tie (619) 574-4827 x cutice@battelle.org tie (619) 574-4827 x cutice@battelle.org tie (619) 574-4827 x waltons@battelle.org tie (614) 424-4117 x waltons@battelle.org Albon (614) 424-4117 x waltons@battelle.org	STODY RECU alytical, Inc. 21 Sparks, Nevada 89431-5778 FAX: (775) 355-0406 r EMail Address x connerd@battelle.org x cutice@batelle.org x waltons@battelle.org	STODY RECORD alytical, Inc. 21 Sparks, Nevada 89431-5778 FAX: (775) 355-0406 r EMail Address x connerd@battelle.org x cutice@battelle.org x waltons@battelle.org	Ytical, Inc. Sparks, Nevada 89431-5778 AX: (775) 355-0406 EMail Address connerd@battelle.org cutiee@battelle.org waltons@battelle.org	STODY RECOKU alytical, Inc. 21 Sparks, Nevada 89431-5778 FAX: (775) 355-0406 r EMail Address x connerd@battelle.org x cutiee@batelle.org x waltons@battelle.org	STODY RECORD CA alytical, Inc. WorkOrder : BMI081 21 Sparks, Nevada 89431-5778 Report Due By : 5:00 PM 0 FAX: (775) 355-0406 Report Due By : 5:00 PM 0 r EMail Address x connerd@battelle.org x cutice@batelle.org x waltons@battelle.org x waltons@battelle.org x waltons@battelle.org x Cooler Temp Sampled by : Client Cooler Temp Samples Reco 4 °C 14-Nov-06

The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report. NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Matrix Type: AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other)

Logged in by:	
Kuluay	Signature
K-Munau	Print Name
Alpha Analytical, Inc.	Company
11/14/08 1230	Date/Time

No security seals. Frozen ice. Temp Blank #7682 rec'd @, 4°. Level IV QC. Samples should be used as the control spike sample if possible (I.E.: MS/MSD). Perchlorate RL of 1.0 ug/L.:

Comments:

	Phone (775) 355-1044			•
Fa	Fax (775) 355-0406	Analyses	Required /	
PO.# 218013	Jop # 002.8(7	2.8		Required QC Level?
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of the above samples is applicable only to those samples received by the laboratory with this coc. The liability of the laboratory is limited to the amount paid for the report. NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: 01-Dec-08

David Conner Battelle Memorial Institute 505 King Avenue Columbus, OH 43201 (619) 574-4827

CASE NARRATIVE

Project: Work Order:	G005862/JPL Groun BMI08111803	ndwater Monitoring	Cooler Temp: 4 °C	
Alpha's	Sample ID	Client's Sample ID	Matrix	
08111	803-01A	MW-5	Aqueous	
08111	803-02A	MW-6	Aqueous	
08111	803-03A	TB-19-11/14/08	Aqueous	
08111	803-04A	MW-01	Aqueous	
08111	803-05A	MW-09	Aqueous	
08111	1803-06A	TB-20-11/17/08	Aqueous	

Enclosed please find the analytical results of the samples received by Alpha Analytical, Inc. under the above mentioned Work Order/Chainof-Custody.

Alpha Analytical, Inc. has a formal Quality Assurance/Quality Control program, which is designed to meet or exceed the EPA requirements. All relevant QC met quality assurance objectives for this project unless otherwise stated in the footnotes.

If you have any questions with regards to this report, please contact Randy Gardner, Project Manager, at (800) 283-1183.

Roger Scholl

Dalter. 4 Kandys

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com



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ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring Attn: David Conner Phone: (619) 574-4827 Fax: (614) 458-6641

Tentatively Identified Compounds - Volatile Organics by GC/MS

				Estimated			
		Parameter	Estimated	Reporting	Date	Date	Date
			Concentration	Limit	Received	Sampled	Analyzed
Client ID : Lab ID :	MW-5 BMI08111803-01A	* * * None Found * * *	ND	2 .0 μg/L	11/18/08	11/14/08	11/21/08
Client ID : Lab ID :	MW-6 BMI08111803-02A	* * * None Found * * *	ND	2.0 μg/L	11/18/08	11/14/08	11/21/08
Client ID : Lab ID :	TB-19-11/14/08 BMI08111803-03A	* * * None Found * * *	ND	2.0 μg/L	11/18/08	11/14/08	11/21/08
Client ID : Lab ID :	MW-01 BMI08111803-04A	* * * None Found * * *	ND	2.0 μg/L	11/18/08	11/17/08	11/21/08
Client ID : Lab ID :	MW-09 BMI08111803-05A	* * * None Found * * *	ND	2.0 μg/L	11/18/08	11/17/08	11/21/08
Client ID : Lab ID :	TB-20-11/17/08 BMI08111803-06A	* * * None Found * * *	ND	2.0 μg/L	11/18/08	11/17/08	11/21/08

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

12/2/08

Report Date Page 1 of 1

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.



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ANALYTICAL REPORT							
Battelle Memorial Institute 505 King Avenue	Attn: David Conner Phone: (619) 574-4827						
Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring	Fax: (614) 458-6641						
Alpha Analytical Number: BMI08111803-01A Client I.D. Number: MW-5	Sampled: 11/14/08 Received: 11/18/08 Analyzed: 11/21/08						

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	0.50	µg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	µg/L
2	Chloromethane	ND	1.0	μg/L	37	Chlorobenzene	ND	0.50	µg/L
з	Vinyl chloride	ND	0.50	µg/L	38	Ethylbenzene	ND	0.50	µg/L
4	Chloroethane	ND	0.50	μg/L	39	m,p-Xylene	ND	0.50	µg/L
5	Bromomethane	ND	1.0	μg/L	40	Bromoform	ND	0.50	µg/L
6	Trichlorofluoromethane	ND	0.50	µg/L	41	Styrene	ND	0.50	µg/L
7	1,1-Dichloroethene	ND	0.50	μg/L	42	o-Xylene	ND	0.50	µg/L
8	Dichloromethane	ND	1.0	μg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	µg/L
9	Freon-113	ND	0.50	μg/L	44	1,2,3-Trichloropropane	ND	1.0	µg/L
10	trans-1,2-Dichloroethene	ND	0.50	μg/L	45	Isopropylbenzene	ND	0.50	µg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	μg/L	46	Bromobenzene	ND	0.50	μg/L
12	1,1-Dichloroethane	ND	0.50	μg/L	47	n-Propylbenzene	ND	0.50	µg/L
13	2-Butanone (MEK)	ND	10	µg/L	48	4-Chlorotoluene	ND	0.50	µg/L
14	cis-1,2-Dichloroethene	ND	0.50	μg/L	49	2-Chlorotoluene	ND	0.50	µg/L
15	Bromochloromethane	ND	0.50	μg/L	50	1,3,5-Trimethylbenzene	ND	0.50	µg/L
16	Chloroform	ND	0.50	µg/L	51	tert-Butylbenzene	ND	0.50	µg/L
17	2,2-Dichloropropane	ND	0.50	µg/L	52	1,2,4-Trimethylbenzene	ND	0.50	µg/L
18	1,2-Dichloroethane	ND	0.50	µg/L	53	sec-Butylbenzene	ND	0.50	µg/L
19	1,1,1-Trichloroethane	ND	0.50	µg/L	54	1,3-Dichlorobenzene	ND	0.50	µg/L
20	1,1-Dichloropropene	ND	0.50	µg/L	55	1,4-Dichlorobenzene	ND	0.50	µg/L
21	Carbon tetrachloride	ND	0.50	μg/L	56	4-Isopropyltoluene	ND	0.50	µg/L
22	Benzene	ND	0.50	μg/L	57	1,2-Dichlorobenzene	ND	0.50	µg/L
23	Dibromomethane	ND	0.50	µg/L	58	n-Butylbenzene	ND	0.50	µg/L
24	1,2-Dichloropropane	ND	0.50	µg/L	59	1,2-Dibromo-3-chloropropane (DBC	P) ND	2.5	µg/L
25	Trichloroethene	0.53	0.50	µg/L	60	1,2,4-Trichlorobenzene	ND	1.0	µg/L
26	Bromodichloromethane	ND	0.50	µg/L	61	Naphthalene	ND	1.0	µg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	μg/L	62	Hexachlorobutadiene	ND	1.0	µg/L
28	cis-1,3-Dichloropropene	ND	0.50	μg/L	63	1,2,3-Trichlorobenzene	ND	1.0	µg/L
29	trans-1,3-Dichloropropene	ND	0.50	µg/L	64	Surr: 1,2-Dichloroethane-d4	94	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	99	(70-130)	%REC
31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	100	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	µg/L					
33	Dibromochloromethane	ND	0.50	µg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

Note: 2,2-dichloropropane failed the method CV criteria of 70-130% recovery @ 67%.

ND = Not Detected

Roger Scholl

Kandy Dantmer

Dalter Acridmon

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

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12/2/08

Report Date Page 1 of 1



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ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring	Attn: David Conner Phone: (619) 574-4827 Fax: (614) 458-6641
Alpha Analytical Number: BMI08111803-02A Client I.D. Number: MW-6	Sampled: 11/14/08 Received: 11/18/08 Analyzed: 11/21/08

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	imit
1	Dichlorodifluoromethane	ND	0.50	µg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	µg/L
2	Chloromethane	ND	1.0	µg/L	37	Chlorobenzene	ND	0.50	μg/L
3	Vinyl chloride	ND	0.50	μg/L	38	Ethylbenzene	ND	0.50	µg/L
4	Chloroethane	ND	0.50	μg/L	39	m,p-Xylene	ND	0.50	µg/L
5	Bromomethane	ND	1.0	μg/L	40	Bromoform	ND	0.50	µg/L
6	Trichlorofluoromethane	ND	0.50	µg/L	41	Styrene	ND	0.50	μg/L
7	1,1-Dichloroethene	ND	0.50	µg/L	42	o-Xylene	ND	0.50	µg/L
8	Dichloromethane	ND	1.0	µg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	µg/L
9	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	1.0	μg/L
10	trans-1,2-Dichloroethene	ND	0.50	µg/L	45	Isopropylbenzene	ND	0.50	μg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	µg/L	46	Bromobenzene	ND	0.50	μg/L
12	1,1-Dichloroethane	ND	0.50	µg/L	47	n-Propylbenzene	ND	0.50	µg/L
13	2-Butanone (MEK)	ND	10	µg/L	48	4-Chlorotoluene	ND	0.50	µg/L
14	cis-1,2-Dichloroethene	ND	0.50	µg/L	49	2-Chlorotoluene	ND	0.50	µg/L
15	Bromochloromethane	ND	0.50	µg/L	50	1,3,5-Trimethylbenzene	ND	0.50	µg/L
16	Chloroform	ND	0.50	µg/L	51	tert-Butylbenzene	ND	0.50	μg/L
17	2,2-Dichloropropane	ND	0.50	µg/L	52	1,2,4-Trimethylbenzene	ND	0.50	µg/L
18	1,2-Dichloroethane	ND	0.50	µg/L	53	sec-Butylbenzene	ND	0.50	µg/L
19	1,1,1-Trichloroethane	ND	0.50	µg/L	54	1,3-Dichlorobenzene	ND	0.50	μg/L
20	1,1-Dichloropropene	ND	0.50	µg/L	55	1,4-Dichlorobenzene	ND	0.50	µg/L
21	Carbon tetrachloride	ND	0.50	µg/L	56	4-Isopropyltoluene	ND	0.50	µg/L
22	Benzene	ND	0.50	µg/L	57	1,2-Dichlorobenzene	ND	0.50	µg/L
23	Dibromomethane	ND	0.50	µg/L	58	n-Butylbenzene	ND	0.50	µg/L
24	1,2-Dichloropropane	ND	0.50	µg/L	59	1,2-Dibromo-3-chloropropane (DBC	P) ND	2.5	μg/L
25	Trichloroethene	1.9	0.50	µg/L	60	1,2,4-Trichlorobenzene	ND	1.0	µg/L
26	Bromodichloromethane	ND	0.50	µg/L	61	Naphthalene	ND	1.0	µg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	1.0	μg/L
28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	1.0	μg/L
29	trans-1,3-Dichloropropene	ND	0.50	µg/L	64	Surr: 1,2-Dichloroethane-d4	95	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	99	(70-130)	%REC
31	Toluene	0.99	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	100	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	µg/L					
33	Dibromochloromethane	ND	0.50	µg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	1.2	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

Note: 2,2-dichloropropane failed the method CV criteria of 70-130% recovery @ 67%.

ND = Not Detected

Roger Scholl

Kandy Daulmer

Walter Airihun

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

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12/2/08

Report Date



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Battelle Memorial Institute	Attn: David Conner
505 King Avenue	Phone: (619) 574-4827
Columbus, OH 43201	Fax: (614) 458-6641
Job#: G005862/JPL Groundwater Monitoring	
Alpha Analytical Number: BMI08111803-03A Client I.D. Number: TB-19-11/14/08	Sampled: 11/14/08 Received: 11/18/08
Chent 1.D. Number. 1B-19-11/14/08	Analyzed: 11/18/08
	Analyzed: 11/21/08

Volatile Organics by GC/MS

Compound		Concentration	Reporting	Reporting Limit		Compound	Concentration	Reporting Limit	
1	Dichlorodifluoromethane	ND	0.50	µg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	μg/L
2	Chloromethane	ND	1.0	μg/L	37	Chlorobenzene	ND	0.50	μg/L
3	Vinyl chloride	ND	0.50	µg/L	38	Ethylbenzene	ND	0.50	µg/L
4	Chioroethane	ND	0.50	µg/L	39	m,p-Xylene	ND	0.50	µg/L
5	Bromomethane	ND	1.0	μg/L	40	Bromoform	ND	0.50	µg/L
6	Trichlorofluoromethane	ND	0.50	µg/L	41	Styrene	ND	0.50	µg/L
7	1,1-Dichloroethene	ND	0.50	µg/L	42	o-Xylene	ND	0.50	μg/L
8	Dichloromethane	ND	1.0	µg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	µg/L
9	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	1.0	µg/L
10	trans-1,2-Dichloroethene	ND	0.50	µg/L	45	Isopropylbenzene	ND	0.50	µg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	µg/L	46	Bromobenzene	ND	0.50	µg/L
12	1,1-Dichloroethane	ND	0.50	μg/L	47	n-Propylbenzene	ND	0.50	µg/L
13	2-Butanone (MEK)	ND	10	µg/L	48	4-Chlorotoluene	ND	0.50	µg/L
14	cis-1,2-Dichloroethene	ND	0.50	µg/L	49	2-Chlorotoluene	ND	0.50	µg/L
15	Bromochloromethane	ND	0.50	µg/L	50	1,3,5-Trimethylbenzene	ND	0.50	µg/L
16	Chloroform	ND	0.50	µg/L	51	tert-Butylbenzene	ND	0.50	µg/L
17	2,2-Dichloropropane	ND	0.50	µg/L	52	1,2,4-Trimethylbenzene	ND	0.50	µg/L
18	1,2-Dichloroethane	ND	0.50	μg/L	53	sec-Butylbenzene	ND	0.50	µg/L
19	1,1,1-Trichloroethane	ND	0.50	μg/L	54	1,3-Dichlorobenzene	ND	0.50	µg/L
20	1,1-Dichloropropene	ND	0.50	µg/L	55	1,4-Dichlorobenzene	ND	0.50	μg/L
21	Carbon tetrachloride	ND	0.50	µg/L	56	4-Isopropyltoluene	ND	0.50	μg/L
22	Benzene	ND	0.50	µg/L	57	1,2-Dichlorobenzene	ND	0.50	μg/L
23	Dibromomethane	ND	0.50	µg/L	58	n-Butylbenzene	ND	0.50	μg/L
24	1,2-Dichloropropane	ND	0.50	μg/L	59	1,2-Dibromo-3-chloropropane (DBC	P) ND	2.5	μg/L
25	Trichloroethene	ND	0.50	µg/L	60	1,2,4-Trichlorobenzene	ND	1.0	µg/L
26	Bromodichloromethane	ND	0.50	µg/L	61	Naphthalene	ND	1.0	μg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	1.0	μg/L
28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	1.0	μg/L
29	trans-1,3-Dichloropropene	ND	0.50	µg/L	64	Surr: 1,2-Dichloroethane-d4	96	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	98	(70-130)	%REC
31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	101	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	μg/L				•	
33	Dibromochloromethane	ND	0.50	μg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

Note: 2,2-dichloropropane failed the method CV criteria of 70-130% recovery @ 67%.

ND = Not Detected

Roger Scholl

Kandy Santur

Walter Hiridmon

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

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12/2/08

Report Date



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANA	LYTICAL REPORT	
Battelle Memorial Institute 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring	Attn: David Conner Phone: (619) 574-4827 Fax: (614) 458-6641	
Alpha Analytical Number: BMI08111803-04A Client I.D. Number: MW-01	Sampled: 11/17/08 Received: 11/18/08 Analyzed: 11/21/08	

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	imit
1	Dichlorodifluoromethane	ND	0.50	µg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	µg/L
2	Chloromethane	ND	1.0	µg/L	37	Chlorobenzene	ND	0.50	μg/L
3	Vinyl chloride	ND	0.50	µg/L	38	Ethylbenzene	ND	0.50	µg/L
4	Chloroethane	ND	0.50	µg/L	39	m,p-Xylene	ND	0.50	µg/L
5	Bromomethane	ND	1.0	µg/L	40	Bromoform	ND	0.50	µg/L
6	Trichlorofluoromethane	ND	0.50	µg/L	41	Styrene	ND	0.50	μg/L
7	1,1-Dichloroethene	ND	0.50	µg/L	42	o-Xylene	ND	0.50	µg/L
8	Dichloromethane	ND	1.0	µg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	μg/L
9	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	1.0	µg/L
10	trans-1,2-Dichloroethene	ND	0.50	µg/L	45	Isopropylbenzene	ND	0.50	µg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	µg/L	46	Bromobenzene	ND	0.50	µg/L
12	,	ND	0.50	µg/L	47	n-Propylbenzene	ND	0.50	µg/L
13	2-Butanone (MEK)	ND	10	µg/L	48	4-Chlorotoluene	ND	0.50	µg/L
14	cis-1,2-Dichloroethene	ND	0.50	µg/L	49	2-Chlorotoluene	ND	0.50	µg/L
15	Bromochloromethane	ND	0.50	µg/L	50	1,3,5-Trimethylbenzene	ND	0.50	µg/L
16	Chloroform	ND	0.50	µg/L	51	tert-Butylbenzene	ND	0.50	µg/L
17	2,2-Dichloropropane	ND	0.50	µg/L	52	1,2,4-Trimethylbenzene	ND	0.50	µg/L
18	1,2-Dichloroethane	ND	0.50	µg/L	53	sec-Butylbenzene	ND	0.50	µg/L
19	1,1,1-Trichloroethane	ND	0.50	µg/L	54	1,3-Dichlorobenzene	ND	0.50	µg/L
20	1,1-Dichloropropene	ND	0.50	µg/L	55	1,4-Dichlorobenzene	ND	0.50	µg/L
21	Carbon tetrachloride	ND	0.50	µg/L	56	4-Isopropyltoluene	ND	0.50	μg/L
22	Benzene	ND	0.50	µg/L	57	1,2-Dichlorobenzene	ND	0.50	µg/L
23	Dibromomethane	ND	0.50	µg/L	58	n-Butylbenzene	ND	0.50	µg/L
24	1,2-Dichloropropane	ND	0.50	μg/L	59	1,2-Dibromo-3-chloropropane (DBC	P) ND	2.5	µg/L
25	Trichloroethene	ND	0.50	μg/L	60	1,2,4-Trichlorobenzene	ND	1.0	µg/L
26	Bromodichloromethane	ND	0.50	µg/L	61	Naphthalene	ND	1.0	µg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	1.0	µg/L
28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	1.0	µg/L
29	trans-1,3-Dichloropropene	ND	0.50	µg/L	64	Surr: 1,2-Dichloroethane-d4	94	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	100	(70-130)	%REC
31	Toluene	ND	0.50	μg/L	66	Surr: 4-Bromofluorobenzene	99	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	µg/L					
33	Dibromochloromethane	ND	0.50	µg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

Note: 2,2-dichloropropane failed the method CV criteria of 70-130% recovery @ 67%.

ND = Not Detected

Roger Scholl

Kandy Santur

Walter Hiridmon

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12/2/08

Report Date Page 1 of 1



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

AN	ALYTICAL REPORT	
Battelle Memorial Institute 505 King Avenue Columbus, OH 43201	Attn: David Conner Phone: (619) 574-4827 Fax: (614) 458-6641	
Job#: G005862/JPL Groundwater Monitoring		
Alpha Analytical Number: BMI08111803-05A Client I.D. Number: MW-09	Sampled: 11/17/08 Received: 11/18/08 Analyzed: 11/21/08	

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	0.50	µg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	µg/L
2	Chloromethane	ND	1.0	µg/L	37	Chlorobenzene	ND	0.50	µg/L
3	Vinyl chloride	ND	0.50	µg/L	38	Ethylbenzene	ND	0.50	µg/L
4	Chloroethane	ND	0.50	µg/L	39	m,p-Xylene	ND	0.50	µg/L
5	Bromomethane	ND	1.0	µg/L	40	Bromoform	ND	0.50	µg/L
6	Trichlorofluoromethane	ND	0.50	µg/L	41	Styrene	ND	0.50	µg/L
7	1,1-Dichloroethene	ND	0.50	µg/L	42	o-Xylene	ND	0.50	µg/L
8	Dichloromethane	ND	1.0	µg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	µg/L
9	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	1.0	µg/L
10	trans-1,2-Dichloroethene	ND	0.50	µg/L	45	Isopropylbenzene	ND	0.50	µg/L
.11	Methyl tert-butyl ether (MTBE)	ND	0.50	µg/L	46	Bromobenzene	ND	0.50	µg/L
12	1,1-Dichloroethane	ND	0.50	µg/L	47	n-Propylbenzene	ND	0.50	µg/L
13	2-Butanone (MEK)	ND	10	µg/L	48	4-Chlorotoluene	ND	0.50	µg/L
14	cis-1,2-Dichloroethene	ND	0.50	µg/L	49	2-Chlorotoluene	ND	0.50	µg/L
15	Bromochloromethane	ND	0.50	µg/L	50	1,3,5-Trimethylbenzene	ND	0.50	μg/L
16	Chloroform	ND	0.50	µg/L	51	tert-Butylbenzene	ND	0.50	µg/L
17	2,2-Dichloropropane	ND	0.50	µg/L	52	1,2,4-Trimethylbenzene	ND	0.50	µg/L
18	1,2-Dichloroethane	ND	0.50	µg/L	53	sec-Butylbenzene	ND	0.50	µg/L
19	1,1,1-Trichloroethane	ND	0.50	µg/L	54	1,3-Dichlorobenzene	ND	0.50	µg/L
20	1,1-Dichloropropene	ND	0.50	µg/L	55	1,4-Dichlorobenzene	ND	0.50	μg/L
21	Carbon tetrachloride	ND	0.50	µg/L	56	4-Isopropyltoluene	ND	0.50	µg/L
22	Benzene	ND	0.50	µg/L	57	1,2-Dichlorobenzene	ND	0.50	µg/L
23	Dibromomethane	ND	0.50	µg/L	58	n-Butylbenzene	ND	0.50	µg/L
24	1,2-Dichloropropane	ND	0.50	µg/L	59	1,2-Dibromo-3-chloropropane (DBC	P) ND	2.5	µg/L
25	Trichloroethene	ND	0.50	µg/L	60	1,2,4-Trichlorobenzene	ND	1.0	µg/L
26	Bromodichloromethane	ND	0.50	μg/L	61	Naphthalene	ND	1.0	µg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	1.0	μg/L
28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	1.0	μg/L
29	trans-1,3-Dichloropropene	ND	0.50	µg/L	64	Surr: 1,2-Dichloroethane-d4	91	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	100	(70-130)	%REC
31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	101	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	µg/L				. ,	
33	Dibromochloromethane	ND	0.50	µg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	ND	0.50	μg/L					
		•							

Note: Analysis conducted using EPA Method 524.2 criteria.

Note: 2,2-dichloropropane failed the method CV criteria of 70-130% recovery @ 67%.

ND = Not Detected

Roger Scholl

Kandy Santmar

Walter Hiridmon

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12/2/08

Report Date



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ANALYTICAL REPORT

Battelle Memorial Institute	Attn: David Conner
505 King Avenue	Phone: (619) 574-4827
Columbus, OH 43201	Fax: (614) 458-6641
Job#: G005862/JPL Groundwater Monitoring	
Alpha Analytical Number: BMI08111803-06A Client I.D. Number: TB-20-11/17/08	Sampled: 11/17/08 Received: 11/18/08 Analyzed: 11/21/08

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting L	mit
1	Dichlorodifluoromethane	ND	0.50	µg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	µg/L
2	Chloromethane	ND	1.0	µg/L	37	Chlorobenzene	ND	0.50	µg/L
з	Vinyl chloride	ND	0.50	µg/L	38	Ethylbenzene	ND	0.50	µg/L
4	Chloroethane	ND	0.50	µg/L	39	m,p-Xylene	ND	0.50	µg/L
5	Bromomethane	ND	1.0	µg/L	40	Bromoform	ND	0.50	µg/L
6	Trichlorofluoromethane	ND	0.50	µg/L	41	Styrene	ND	0.50	μg/L
7	1,1-Dichloroethene	ND	0.50	µg/L	42	o-Xylene	ND	0.50	µg/L
8	Dichloromethane	ND	1.0	µg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	µg/L
9	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	1.0	μg/L
10	trans-1,2-Dichloroethene	ND	0.50	µg/L	45	Isopropylbenzene	ND	0.50	µg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	µg/L	46	Bromobenzene	ND	0.50	µg/L
12	1,1-Dichloroethane	ND	0.50	µg/L	47	n-Propylbenzene	ND	0.50	µg/L
13	2-Butanone (MEK)	ND	10	µg/L	48	4-Chlorotoluene	ND	0.50	µg/L
14	cis-1,2-Dichloroethene	ND	0.50	µg/L	49	2-Chlorotoluene	ND	0.50	µg/L
15	Bromochloromethane	ND	0.50	µg/L	50	1,3,5-Trimethylbenzene	ND	0.50	μg/L
16	Chloroform	ND	0.50	µg/L	51	tert-Butylbenzene	ND	0.50	µg/L
17	2,2-Dichloropropane	ND	0.50	µg/L	52	1,2,4-Trimethylbenzene	ND	0.50	µg/L
18	1,2-Dichloroethane	ND	0.50	µg/L	53	sec-Butylbenzene	ND	0.50	µg/L
19	1,1,1-Trichloroethane	ND	0.50	µg/L	54	1,3-Dichlorobenzene	ND	0.50	µg/L
20	1,1-Dichloropropene	ND	0.50	μg/L	55	1,4-Dichlorobenzene	ND	0.50	µg/L
21	Carbon tetrachloride	ND	0.50	µg/L	56	4-Isopropyltoluene	ND	0.50	µg/L
22	Benzene	ND	0.50	µg/L	57	1,2-Dichlorobenzene	ND	0.50	µg/L
23	Dibromomethane	ND	0.50	µg/L	58	n-Butylbenzene	ND	0.50	µg/L
24	1,2-Dichloropropane	ND	0.50	µg/L	59	1,2-Dibromo-3-chloropropane (DBC	P) ND	2.5	µg/L
25	Trichloroethene	ND	0.50	µg/L	60	1,2,4-Trichlorobenzene	ND	1.0	µg/L
26	Bromodichloromethane	ND	0.50	µg/L	61	Naphthalene	ND	1.0	µg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	1.0	µg/L
28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	1.0	µg/L
29	trans-1,3-Dichloropropene	ND	0.50	µg/L	64	Surr: 1,2-Dichloroethane-d4	95	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	99	(70-130)	%REC
31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	101	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	μg/L			·		
33	Dibromochloromethane	ND	0.50	μg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	ND	0.50	µg/L					
				-					

Note: Analysis conducted using EPA Method 524.2 criteria.

Note: 2,2-dichloropropane failed the method CV criteria of 70-130% recovery @ 67%.

ND = Not Detected

Roger Scholl

Kandy Dantmer

Walter Hiridmon

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.

12/2/08

Report Date



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

VOC Sample Preservation Report

Work Order: BMI08111803

Project: G005862/JPL Groundwater Monitoring

Alpha's Sample ID	Client's Sample ID	Matrix	рН	
08111803-01A	MW-5	Aqueous	2	
08111803-02A	MW-6	Aqueous	2	•
08111803-03A	TB-19-11/14/08	Aqueous	2	
08111803-04A	MW-01	Aqueous	2	
08111803-05A	MW-09	Aqueous	2	
08111803-06A	TB-20-11/17/08	Aqueous	2	

12/2/08 Report Date



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201
 Attn:
 David Conner

 Phone:
 (619) 574-4827

 Fax:
 (614) 458-6641

 Date Received : 11/18/08

Job#: G005862/JPL Groundwater Monitoring

			Metals by ICPMS EPA Method 200.8		
		Parameter	Concentration	Reporting Limit	Date Date Sampled Analyzed
Client ID : Lab ID :	MW-5 BMI08111803-01A	Chromium (Cr)	ND	0.0050 mg/L	11/14/08 11/21/08
Client ID : Lab ID :	MW-6 BMI08111803-02A	Chromium (Cr)	0.014	0.0050 mg/L	11/14/08 11/21/08
Client ID : Lab ID :	MW-01 BMI08111803-04A	Chromium (Cr)	ND	0.0050 mg/L	11/17/08 11/21/08
Client ID : Lab ID :	MW-09 BMI08111803-05A	Chromium (Cr)	ND	0.0050 mg/L	11/17/08 11/21/08

ND = Not Detected

Roger Scholl Kandy Saulner

Walter Airihan

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.

12/2/08 Report Date



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201
 Attn:
 David Conner

 Phone:
 (619) 574-4827

 Fax:
 (614) 458-6641

 Date Received : 11/18/08

Job#: G005862/JPL Groundwater Monitoring

	Percl	nlorate by Ion Chromatography EPA Method 314.0		
	Parameter	Concentration	Reporting Limit	Date Date Sampled Analyzed
Client ID : MW-5 Lab ID : BMI08111803-01.	A Perchlorate	7.53	1.00 μg/L	11/14/08 11/21/08
Client ID : MW-6 Lab ID : BMI08111803-02.	A Perchlorate	1.87	1.00 μg/L	11/14/08 11/21/08
Client ID : MW-01 Lab ID : BMI08111803-04.	A Perchlorate	ND	1.00 μg/L	11/17/08 11/21/08
Client ID : MW-09 Lab ID : BMI08111803-05.	A Perchlorate	ND	1.00 µg/L	11/17/08 11/21/08

ND = Not Detected

Roger Scholl Kandy Daulmer

Walter Acrilmon

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples

2/08 **Report Date**

Date/ 1 line	Company	Print Name)	2 CA	\$, (Logged in by:
				h		Signature	Sign	ક	
Perchlorate RL of 1.0 ug/	No security seals. Frozen ice, Temp Blanks #7848 and #7280 rec'd @ 4°. Level IV OC. Samples should be used as the control spike sample if possible (I.E.: MS/MSD). Perchlorate RL of 1.0 ug/L.:	les should be used as the contro	el IV QC. Samp	<u>) rec'd @ 4°. Lev</u>	3 and #728(Blanks #7848	n ice. Temp	o security seals. Froze	Comments: <u>N</u>
Reno Trip Blank 9/30/08		VOC by 524 VOC by 524 Criteria Criteria		0 10		11/17/08 00:00	ÂQ	TB-20-11/17/08	BMI08111803-06A T
		VOC by 524 VOC by 524 Criteria Criteria	Perchlorate Cr	0 10	Сл	11/17/08 10:23	AQ	MW-09	
Level IV QC		VOC by 524 VOC by 524 Criteria Criteria	Perchlorate Cr	0 10	J	11/17/08 09:06	AQ	MW-01	
Reno Trip Blank 9/30/08		VOC by 524 VOC by 524 Criteria Criteria		0 10	-	11/14/08 00:00	AQ	1B-19-11/14/08	
		VOC by 524 VOC by 524 Criteria Criteria	Perchlorate Cr	0 10	თ	11/14/08 09:54	ÂQ	MW-6	
		Criteria Criteria	Perchlorate Cr	0 10	J	11/14/08 08:13	AQ	MW-5	
Sample Remarks		METALS_D_VOC_TICVOC_W	314_W META	Sub TAT	ha i	x Date	Matrix	Sample ID	e D
	Tests			5 tt		Collection		Client	Alpha
			jates	SD With Surrog	CS, MS/M	nCal data, Li	InitCal/Co	= Final Rpt, MBLK, InitCal/ConCal data, LCS, MS/MSD With Surrogates	QC Level: S4
			Q	G005862/JPL Groundwater Monitoring	⁹ L Ground	G005862/JF	Job :	026311, 026312	Client's COC #: 0263
leceived Date Printed	Cooler Temp Samples Received								PO: 218013
	Sampled by : Client	waltons@battelle.org	x	(614) 424-4117	n	Shane Walton		01	Columbus, OH 43201
	EDD Required : Yes	cutiee@batelle.org	×	(619) 574-4827		Betsy Cutie			
		connerd@battelle.org	x	(619) 574-4827	ler	David Conner		nstitute	505 King Avenue
		EMail Address		Phone Number	Intion	Report Attention			Client:
On : 03-Dec-08	Report Due By : 5:00 PM On : 03-Dec-08	31-5778	e 21 Sparks, N 4 FAX: (775)	endale Avenue, Suite 21 Sparks, Nevada 894 TEL: (775) 355-1044 FAX: (775) 355-0406	255 Glend TE			01	Columbus, OH 43201
8111803	WorkOrder : RMI08111803	Inc.	nalytical,	Alpha Analytical, Inc.					505 King Avenue
rage: 1011	CA	CHAIN-OF-CUSTODY RECORD	SIUD						Battelle

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report. Matrix Type: AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information: Name CERALD TOMPAINS	Alpha A 255 Glenda Sparks, Ne	Alpha Analytical, Inc. Samples 255 Glendale Avenue, Suite 21 AZ Sparks, Nevada 89431-5778 ID	Samples Collected From Which State? 026311 AZCA XNVWA IDOROTHERPage # /of _/_
te, Zip <u>کا محرمی</u> umber	Phone (775) 355-10 Fax (775) 355-0406	Phone (775) 355-1044 Fax (775) 355-0406	
Client Name DAVID CONNER	013	\sim	$\dot{\omega}$ Required QC Level?
LD BUN AVE. C-205		4.2	
120, CA 92110	7-726-7311	~	
Matrix* Sampled by	Report Attention	 در العر	97 Global ID #
Sampled Sampled Below Lab ID Number (Use Only)	Sample Description	TAT Field "See below / A A	
0613 1/14/2 DMID8/11803.01	MK-S	51 X X	X
CO- CO-	MW-6	× × ×	×
03	TB-19-11/14/04		trans Trank
ADDITIONAL INSTRUCTIONS:			
Diano transmissione			7
Relinquished by	CHAYE BROGTA	TNS// FT FE	1 80
Received by Compating Clock	Elizabeth Adonx	Jupha	11-18:08 9:57
Relinquished by		(
Received by			
Relinquished by			
Received by			
*Key: AQ - Aqueous SO - Soil WA - Waste NOTE: Samples are discarded 60 days after results are	OT - Other AR - Air **: L-Liter reported unless other arrangements are made. Harring and the statements are made. Harring and the statements are made.	. Iter V-Voa S-Soil Jar O-Orbo	*Key: AQ - Aqueous SO - Soil WA - Waste OT - Other AR - Air **: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis
of the above samples is applicable only to those samples received by the laboratory with this coc. The liability of the laboratory is limited to the amount paid for the report.	s received by the laboratory with this coc. The	liability of the laboratory is limited to the amo	unt paid for the report.

Billing Information:		Alpha Analytical, Inc.	mples Collected	h State? 026312
Address <u>505 KLNC AVE</u> City, State, Zip <u>Collar Bus</u> , off 4320 Phone Number Fax		Sparks, Nevada 89431-5778 Phone (775) 355-1044 Fax (775) 355-0406	Analyses Required	
Client Name DAVID CONVER	P.O.# 2 18013	798500-7 _{# qor}		Required QC Level?
DLD TOWN AVE. C-	205 EMail Address	•	4.2	(ill) V
YEGO, CA	Phone # 6/9-726-7311	Fax #		EDD / EDF? YES NO
Matrix* Sampled by	Report Attention	Total and type of containers		Global ID #
Sampled Sampled Below Lab ID Number (Use Only)	y) Sample Description	TAT Filtered ** See below		/ REMARKS
	-04 MW-01	5	×××	OC LEVEL TIT
1023	-05mm-09	7	×××	
-	- D6 73-20-11/11/08	1-2	×	TT-IP BLANK
ADDITIONAL INSTRUCTIONS:				
Signature	Print Name		Company	Date Time
Relinquished by	CHASE BLOCK	2/2N1 1/2/6	AT I	0021 20/2/11
Received by Comp beth Odicurc	Elizabeth Ad		Jepha 1	11-18.08 9:57
Received by				
Relinquished by				
Received by				
*Key: AQ - Aqueous SO - Soil WA - Waste OT - Other AR - Air **: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this coc. The liability of the laboratory is limited to the amount paid for the report.	WA - Waste OT - Other AR - Air results are reported unless other arrangement ose samples received by the laboratory with th	**: L-Liter V-Voa S-Soil Jar s are made. Hazardous samples will be r is coc. The liability of the laboratory is lim	O-Orbo T-Tedlar B-Brass eturned to client or disposed of at client ex lited to the amount paid for the report.	P-Plastic OT-Other pense. The report for the analysis
			-	



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: 02-Dec-08 David Conner Battelle Memorial Institute 505 King Avenue Columbus, OH 43201 (619) 574-4827

CASE NARRATIVE

oject:	G005862/JPL Groun	dwater Monitoring			
ork Order:	BMI08111956		Cooler Temp: 4 °C		
Alpha's	Sample ID	Client's Sample ID	Matrix		
08111	1956-01A	MW-20-5RS	Aqueous		
08111	1956-02A	MW-20-4RS	Aqueous		
08111956-03A		MW-20-3RS	Aqueous		
08111956-04A		MW-20-2RS	Aqueous		
08111956-05A		MW-20-1RS	Aqueous	eous	
08111	1956-06A	EB-16-11/18/08	Aqueous		
08111	1956-07A	TB-21-11/18/08	Aqueous		

Enclosed please find the analytical results of the samples received by Alpha Analytical, Inc. under the above mentioned Work Order/Chainof-Custody.

Alpha Analytical, Inc. has a formal Quality Assurance/Quality Control program, which is designed to meet or exceed the EPA requirements. All relevant QC met quality assurance objectives for this project unless otherwise stated in the footnotes.

If you have any questions with regards to this report, please contact Randy Gardner, Project Manager, at (800) 283-1183.

Roger Scholl

Kandy Saulmer

Walter Acrim



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Battelle	Memorial Institute	Attn:	David C
505 Kin	g Avenue	Phone:	(619) 57
Columb	us, OH 43201	Fax:	(614) 45
Job#:	G005862/JPL Groundwater Monitoring		

Alpha Analytical Number: BMI08111956-01A Client I.D. Number: MW-20-5RS

Conner 4-4827 8-6641

Sampled:	11/18/08	
Received:	11/19/08	

Analyte	Result	Reporting Limit	Qual	Units	Date Analyzed Analytical Method
Iron (Fe)	ND	0.10		mg/L	11/21/2008 EPA Method 200.8
Iron, Ferrous (+2)	ND	0.050		mg/L	11/19/2008 SM3500-Fe D
Iron, Ferric (+3) (by calculation)	ND	0.10		mg/L	11/21/2008 SM3500-Fe D / EPA Method 6020A

Ferric iron concentrations are based off of raw (non-rounded ferrous and total iron) data. Therefore, hand calculated ferric iron values may differ slightly.

ND = Not Detected

Roger Scholl Kandy Soulan

Walter Airihum

12/3/08

Report Date

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com Alpha Analytical, Inc currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Battelle	Memorial Institute	Attn:	David Conner
505 King Avenue		Phone:	(619) 574-4827
Columbus, OH 43201		Fax:	(614) 458-6641
Job#:	G005862/JPL Groundwater Monitoring		

Alpha Analytical Number: BMI08111956-02A Client I.D. Number: MW-20-4RS

Sampled: 11/18/08 Received: 11/19/08

Analyte	Result	Reporting Limit	Qual Units	Date Analyzed	Analytical Method
Iron (Fe)	0.12	0.10	mg/L	12/03/2008 EPA	Method 200.8
Iron, Ferrous (+2)	ND	0.050	mg/L	11/19/2008 SM	3500-Fe D
Iron, Ferric (+3) (by calculation)	0.12	0.10	mg/L	12/03/2008 SM	3500-Fe D / EPA Method 6020A

Ferric iron concentrations are based off of raw (non-rounded ferrous and total iron) data. Therefore, hand calculated ferric iron values may differ slightly.

ND = Not Detected

Roger Scholl

Kandy Soular

Walter Arihun

12/3/08

Report Date

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ANALYTICAL REPORT

Battelle Memorial Institute	Attn:	David Conner
505 King Avenue	Phone:	(619) 574-482
Columbus, OH 43201	Fax:	(614) 458-664
Job#: G005862/JPL Groundwater Monitoring		

Alpha Analytical Number: BMI08111956-03A Client I.D. Number: MW-20-3RS

4827 6641

> Sampled: 11/18/08 Received: 11/19/08

Analyte	Result	Reporting Limit	Qual Units	Date Analyzed	Analytical Method
Iron (Fe)	ND	0.10	mg/L	11/21/2008 EP	A Method 200.8
Iron, Ferrous (+2)	ND	0.050	mg/L	11/19/2008 SM	3500-Fe D
Iron, Ferric (+3) (by calculation)	ND	0.10	mg/L	11/21/2008 SM	3500-Fe D / EPA Method 6020A

Ferric iron concentrations are based off of raw (non-rounded ferrous and total iron) data. Therefore, hand calculated ferric iron values may differ slightly.

ND = Not Detected

Roger Scholl Kandy Soulan Walter Airihan

12/3/08

Report Date



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Battelle	Memorial Institute	Attn:	David Conner
505 Kin	g Avenue	Phone:	(619) 574-4827
Columb	us, OH 43201	Fax:	(614) 458-6641
Job#:	G005862/JPL Groundwater Monitoring		

Alpha Analytical Number: BMI08111956-04A Client I.D. Number: MW-20-2RS

Sampled: 11/18/08 Received: 11/19/08

Analyte	Result	Reporting Limit	Qual Units	Date Analyzed	Analytical Method
Iron (Fe)	0.55	0.10	mg/L	11/21/2008 EPA	Method 200.8
Iron, Ferrous (+2)	ND	0.050	mg/L	11/19/2008 SM3	3500-Fe D
Iron, Ferric (+3) (by calculation)	0.55	0.10	mg/L	11/21/2008 SM	3500-Fe D / EPA Method 6020A

Ferric iron concentrations are based off of raw (non-rounded ferrous and total iron) data. Therefore, hand calculated ferric iron values may differ slightly.

ND = Not Detected

Roger Scholl Kandy Santur

Walter Airihm

12/3/08

Report Date



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Battelle	Memorial Institute	Attn:	David Conner
505 King Avenue		Phone:	(619) 574-4827
Columb	us, OH 43201	Fax:	(614) 458-6641
Job#:	G005862/JPL Groundwater Monitoring		

Alpha Analytical Number: BMI08111956-05A Client I.D. Number: MW-20-1RS

Sampled: 11/18/08 Received: 11/19/08

Analyte	Result	Reporting Limit	Qual	Units	Date Analyzed	Analytical Method
Iron (Fe)	0.52	0.10		mg/L	11/21/2008 EPA	Method 200.8
Iron, Ferrous (+2)	ND	0.050		mg/L	11/19/2008 SM	3500-Fe D
Iron, Ferric (+3) (by calculation)	0.52	0.10		mg/L	11/21/2008 SM	3500-Fe D / EPA Method 6020A

Ferric iron concentrations are based off of raw (non-rounded ferrous and total iron) data. Therefore, hand calculated ferric iron values may differ slightly.

ND = Not Detected

Roger Scholl Kandy Soulan Walter Hiridan

12/3/08

Report Date

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.



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ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201
 Attn:
 David Conner

 Phone:
 (619) 574-4827

 Fax:
 (614) 458-6641

 Date Received : 11/19/08

Job#: G005862/JPL Groundwater Monitoring

			Metals by ICPMS			
			EPA Method 200.8			
		Parameter	Concentration	Reporting	Date	Date
				Limit	Sampled	Analyzed
Client ID :	MW-20-5RS					
ab ID :	BMI08111956-01A	Sodium (Na)	51	0.50 mg/L	11/18/08	11/21/08
		Magnesium (Mg)	1.1	0.50 mg/L	11/18/08	11/21/08
		Potassium (K)	1.0	0.50 mg/L	11/18/08	11/21/08
		Calcium (Ca)	4.7	0.50 mg/L	11/18/08	11/21/08
		Chromium (Cr)	ND	0.0050 mg/L	11/18/08	11/21/08
lient ID :	MW-20-4RS					
ab ID :	BMI08111956-02A	Sodium (Na)	60	0.50 mg/L	11/18/08	12/03/08
		Magnesium (Mg)	3.5	0.50 mg/L	11/18/08	12/03/08
		Potassium (K)	0.84	0.50 mg/L	11/18/08	12/03/08
		Calcium (Ca)	13	0.50 mg/L	11/18/08	12/03/08
		Chromium (Cr)	ND	0.0050 mg/L	11/18/08	11/21/08
lient ID :	MW-20-3RS					
ab ID :	BMI08111956-03A	Sodium (Na)	51	0.50 mg/L	11/18/08	11/21/08
		Magnesium (Mg)	12	0.50 mg/L	11/18/08	11/21/08
		Potassium (K)	2.1	0.50 mg/L	11/18/08	11/21/08
		Calcium (Ca)	20	0.50 mg/L	11/18/08	11/21/08
		Chromium (Cr)	ND	0.0050 mg/L	11/18/08	11/21/08
lient ID :	MW-20-2RS					
.ab ID :	BMI08111956-04A	Sodium (Na)	14	0.50 mg/L	11/18/08	11/21/08
		Magnesium (Mg)	21	0.50 mg/L	11/18/08	11/21/08
		Potassium (K)	2.1	0.50 mg/L	11/18/08	11/21/08
		Calcium (Ca)	73	0.50 mg/L	11/18/08	11/21/08
		Chromium (Cr)	ND	0.0050 mg/L	11/18/08	11/21/08
lient ID :	MW-20-1RS					
ab ID :	BMI08111956-05A	Sodium (Na)	15	0.50 mg/L	11/18/08	11/21/08
		Magnesium (Mg)	18	0.50 mg/L	11/18/08	11/21/08
		Potassium (K)	2.5	0.50 mg/L	11/18/08	11/21/08
		Calcium (Ca)	65	0.50 mg/L	11/18/08	11/21/08
		Chromium (Cr)	ND	0.0050 mg/L	11/18/08	11/21/08
Client ID :	EB-16-11/18/08					
.ab ID :	BMI08111956-06A	Chromium (Cr)	ND	0.0050 mg/L	11/18/08	11/21/08
		Iron (Fe)	ND	0.10 mg/L	11/18/08	11/21/08



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ND = Not Detected

Walter Aridm

Rogen Scholl Kandy Soulan Dalter Hinihum Roger L. Scholl, Ph D., Laboratory Director · · Randy Gardner, Laboratory Manager · · Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.



Report Date



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ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue .Columbus, OH 43201
 Attn:
 David Conner

 Phone:
 (619) 574-4827

 Fax:
 (614) 458-6641

 Date Received : 11/19/08

Job#: G005862/JPL Groundwater Monitoring

Sulfide SM4500-S D							
		Parameter	Concentration	Reporting Limit	Date Date Sampled Analyzed		
Client ID : Lab ID :	MW-20-5RS BMI08111956-01A	Sulfide	0.67	0.10 mg/L	11/18/08 11/19/08		
Client ID : Lab ID :	MW-20-4RS BMI08111956-02A	Sulfide	0.94	0.10 mg/L	11/18/08 11/19/08		
Client ID : Lab ID :	MW-20-3RS BMI08111956-03A	Sulfide	0.24	0.10 mg/L	11/18/08 11/19/08		
Client ID : Lab ID :	MW-20-2RS BMI08111956-04A	Sulfide	ND	0.10 mg/L	11/18/08 11/19/08		
Client ID : Lab ID :	MW-20-1RS BMI08111956-05A	Sulfide	ND	0.10 mg/L	11/18/08 11/19/08		

ND = Not Detected

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		Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID : Lab ID :	MW-20-5RS BMI08111956-01A	Solids, Total Dissolved (TDS)	63	10 mg/L	11/18/08	11/21/08
Client ID : Lab ID :	MW-20-4RS BMI08111956-02A	Solids, Total Dissolved (TDS)	170	10 mg/L	11/18/08	11/21/08
Client ID : Lab ID :	MW-20-3RS BMI08111956-03A	Solids, Total Dissolved (TDS)	250	10 mg/L	11/18/08	11/21/08
Client ID : Lab ID :	MW-20-2RS BMI08111956-04A	Solids, Total Dissolved (TDS)	360	10 mg/L	11/18/08	11/21/08
Client ID : Lab ID :	MW-20-1RS BMI08111956-05A	Solids, Total Dissolved (TDS)	340	10 mg/L	11/18/08	11/21/08

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Job#: G005862/JPL Groundwater Monitoring

	Total Organic Carbon as NonPurgeable Organic Carbon EPA Method SW9060 / SM5310C								
		Parameter		Concentration	Reporting Limit	Date Sampled	Date Analyzed		
Client ID : Lab ID :	MW-20-5RS BMI08111956-01A	Total Organic Carbon		ND	1.0 mg/L	11/18/08	11/20/08		
Client ID : Lab ID :	MW-20-4RS BMI08111956-02A	Total Organic Carbon		ND	1.0 mg/L	11/18/08	11/20/08		
Client ID : Lab ID :	MW-20-3RS BMI08111956-03A	Total Organic Carbon		ND	1.0 mg/L	11/18/08	11/20/08		
Client ID : Lab ID :	MW-20-2RS BMI08111956-04A	Total Organic Carbon		ND	1.0 mg/L	11/18/08	11/20/08		
Client ID : Lab ID :	MW-20-1RS BMI08111956-05A	Total Organic Carbon		ND	1.0 mg/L	11/18/08	11/20/08		

ND = Not Detected

Dalter Arihum Rogen Scholl Kandy

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 Date Received : 11/19/08

Job#: G005862/JPL Groundwater Monitoring

	Dissolved Organic Carbon as NonPurgeable Organic Carbon EPA Method SW9060/415.1/SM-5310C								
		Parameter	Concentration	Reporting Limit	Date Date Sampled Analyzed				
Client ID : Lab ID :	MW-20-5RS BMI08111956-01A	Dissolved Organic Carbon	ND	1.0 mg/L	11/18/08 11/24/08				
Client ID : Lab ID :	MW-20-4RS BMI08111956-02A	Dissolved Organic Carbon	ND	1.0 mg/L	11/18/08 11/24/08				
Client ID : Lab ID :	MW-20-3RS BMI08111956-03A	Dissolved Organic Carbon	1.1	1.0 mg/L	11/18/08 11/24/08				
Client ID : Lab ID :	MW-20-2RS BMI08111956-04A	Dissolved Organic Carbon	1.1	1.0 mg/L	11/18/08 11/24/08				
Client ID : Lab ID :	MW-20-1RS BMI08111956-05A	Dissolved Organic Carbon	1.1	1.0 mg/L	11/18/08 11/24/08				

ND = Not Detected

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 Date Received : 11/19/08

Job#: G005862/JPL Groundwater Monitoring

Anions by IC EPA Method 300.0 / 9056								
	Parameter	Concentration	Reporting Limit	Date / Time Sampled	Date / Time Analyzed			
Client ID : MW-20-5RS	Nitrite (NO2) - N	ND	0.25 mg/L	11/18/08 08:24	11/19/08 14:27			
Lab ID : BMI08111956-01A	Nitrate (NO3) - N	ND	0.25 mg/L	11/18/08 08:24	11/19/08 14:27			
Client ID : MW-20-4RS	Nitrite (NO2) - N	ND	0.25 mg/L	11/18/08 09:46	11/19/08 14:45			
Lab ID : BMI08111956-02A	Nitrate (NO3) - N	ND	0.25 mg/L	11/18/08 09:46	11/19/08 14:45			
Client ID : MW-20-3RS	Nitrite (NO2) - N	ND	0.25 mg/L	11/18/08 10:57	11/19/08 15:04			
Lab ID : BMI08111956-03A	Nitrate (NO3) - N	ND	0.25 mg/L	11/18/08 10:57	11/19/08 15:04			
Client'ID : MW-20-2RS	Nitrite (NO2) - N	ND	0.25 mg/L	11/18/08 11:53	11/19/08 15:22			
Lab ID : BMI08111956-04A	Nitrate (NO3) - N	6.8	0.25 mg/L	11/18/08 11:53	11/19/08 15:22			
Client ID : MW-20-1RS	Nitrite (NO2) - N	ND	0.25 mg/L	11/18/08 12:54	11/19/08 15:41			
Lab ID : BMI08111956-05A	Nitrate (NO3) - N	3.6	0.25 mg/L	11/18/08 12:54	11/19/08 15:41			

ND = Not Detected

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Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.

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	Anions by IC EPA Method 300.0 / 9056									
		Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed				
Client ID :	MW-20-5RS									
Lab ID :	BMI08111956-01A	Chloride	9.5	0.50 mg/L	11/18/08	11/19/08				
		Sulfate (SO4)	3.2	0.50 mg/L	11/18/08	11/19/08				
Client ID :	MW-20-4RS									
Lab ID :	BMI08111956-02A	Chloride	11	0.50 mg/L	11/18/08	11/19/08				
		Sulfate (SO4)	17	0.50 mg/L	11/18/08	11/19/08				
Client ID :	MW-20-3RS									
Lab ID :	BMI08111956-03A	Chloride	41	0.50 mg/L	11/18/08	11/19/08				
		Sulfate (SO4)	24	0.50 mg/L	11/18/08	11/19/08				
Client ID :	MW-20-2RS									
Lab ID :	BMI08111956-04A	Chloride	40	0.50 mg/L	11/18/08	11/19/08				
		Sulfate (SO4)	68	0.50 mg/L	11/18/08	11/19/08				
Client ID :	MW-20-1RS									
Lab ID :	BMI08111956-05A	Chloride	24	0.50 mg/L	11/18/08	11/19/08				
		Sulfate (SO4)	83	0.50 mg/L	11/18/08	11/19/08				

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 (614) 458-6641

 Date Received : 11/19/08

Job#: G005862/JPL Groundwater Monitoring

			Alkalinity SM2320B			
		Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID : Lab ID :	MW-20-5RS BMI08111956-01A	Alkalinity, Total (As CaCO3 at pH 4.5)	130	1.0 mg/L	11/18/08	12/01/08
Client ID : Lab ID :	MW-20-4RS BMI08111956-02A	Alkalinity, Total (As CaCO3 at pH 4.5)	140	1.0 mg/L	11/18/08	12/01/08
Client ID : Lab ID :	MW-20-3RS BMI08111956-03A	Alkalinity, Total (As CaCO3 at pH 4.5)	160	1.0 mg/L	11/18/08	12/01/08
Client ID : Lab ID :	MW-20-2RS BMI08111956-04A	Alkalinity, Total (As CaCO3 at pH 4.5)	190	1.0 mg/L	11/18/08	12/01/08
Client ID : Lab ID :	MW-20-1RS BMI08111956-05A	Alkalinity, Total (As CaCO3 at pH 4.5)	170	1.0 mg/L	11/18/08	12/01/08

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David Conner Attn: (619) 574-4827 Phone: (614) 458-6641 Fax: Date Received : 11/19/08

Job#: G005862/JPL Groundwater Monitoring

	Ammonia as Nitrogen SM4500-NH3D									
		Parameter	Concentration	Reporting Limit	Date Date Sampled Analyzed					
Client ID : Lab ID :	MW-20-5RS BMI08111956-01A	Nitrogen, Ammonia (As N)	ND	0.10 mg/L	11/18/08 11/21/08					
Client ID : Lab ID :	MW-20-4RS BMI08111956-02A	Nitrogen, Ammonia (As N)	ND	0.10 mg/L	11/18/08 11/21/08					
Client ID : Lab ID :	MW-20-3RS BMI08111956-03A	Nitrogen, Ammonia (As N)	ND	0.10 mg/L	11/18/08 11/21/08					
Client ID : Lab ID :	MW-20-2RS BMI08111956-04A	Nitrogen, Ammonia (As N)	ND	0.10 mg/L	11/18/08 11/21/08					
Client ID : Lab ID :	MW-20-1RS BMI08111956-05A	Nitrogen, Ammonia (As N)	ND	0.10 mg/L	11/18/08 11/21/08					

ND = Not Detected

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ANALYTICAL REPORT

Specific Conductance at 25°C

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201
 Attn:
 David Conner

 Phone:
 (619) 574-4827

 Fax:
 (614) 458-6641

 Date Received : 11/19/08

Job#: G005862/JPL Groundwater Monitoring

		-	d 120.1 / SM2510B / SW9050A			an a
		Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID : Lab ID :	MW-20-5RS BMI08111956-01A	Specific Conductance (at 25°C)	280	10 μS/cm	11/18/08	11/19/08
Client ID : Lab ID :	MW-20-4RS BMI08111956-02A	Specific Conductance (at 25°C)	330	10 µS/cm	11/18/08	11/19/08
Client ID : Lab ID :	MW-20-3RS BMI08111956-03A	Specific Conductance (at 25°C)	470	10 μS/cm	11/18/08	11/19/08
Client ID : Lab ID :	MW-20-2RS BMI08111956-04A	Specific Conductance (at 25°C)	620	10 µS/cm	11/18/08	11/19/08
Client ID : Lab ID :	MW-20-1RS BMI08111956-05A	Specific Conductance (at 25°C)	560	10 μS/cm	11/18/08	11/19/08
Client ID : Lab ID :	EB-16-11/18/08 BMI08111956-06A	Specific Conductance (at 25°C)	ND	10 µS/cm	11/18/08	11/19/08

ND = Not Detected

Roger Scholl

Kandy Doulner

Walter Acrim

12/3/08 Report Date

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

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 (614) 458-6641

 Date Received : 11/19/08

Job#: G005862/JPL Groundwater Monitoring

			Perchlorate by Ion Chromatography EPA Method 314.0		
		Parameter	Concentration	Reporting Limit	Date Date Sampled Analyzed
Client ID : Lab ID :	MW-20-5RS BMI08111956-01A	Perchlorate	16.2	1.00 μg/L	11/18/08 11/21/08
Client ID : Lab ID :	MW-20-4RS BMI08111956-02A	Perchlorate	42.4	1.00 µg/L	11/18/08 11/21/08
Client ID : Lab ID :	MW-20-3RS BMI08111956-03A	Perchlorate	ND	1.00 μg/L	11/18/08 11/21/08
Client ID : Lab ID :	MW-20-2RS BMI08111956-04A	Perchlorate	2.59	1.00 μg/L	11/18/08 11/21/08
Client ID : Lab ID :	MW-20-1RS BMI08111956-05A	Perchlorate	ND	1.00 μg/L	11/18/08 11/21/08
Client ID : Lab ID :	EB-16-11/18/08 BMI08111956-06A	Perchlorate	ND	1.00 µg/L	11/18/08 11/21/08

ND = Not Detected

Roger Scholl

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Battelle Memorial Institute 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring Attn: David Conner Phone: (619) 574-4827 (614) 458-6641 Fax:

Tentatively Identified Compounds - Volatile Organics by GC/MS

				Estimated			
		Parameter	Estimated	Reporting	Date	Date	Date
			Concentration	Limit	Received	Sampled	Analyzed
Client ID :	MW-20-5RS						
Lab ID :	BMI08111956-01A	Carbon disulfide	2.2	2.0 μg/L	11/19/08	11/18/08	11/21/08
		Sulfur Dioxide	33	2.0 μg/L	11/19/08	11/18/08	11/21/08
Client ID :	MW-20-4RS						
Lab ID :	BMI08111956-02A	Sulfur Dioxide	35	2.0 μg/L	11/19/08	11/18/08	11/21/08
				10			
Client ID :	MW-20-3RS			• • <i>/</i> /		11/10/00	11/21/00
Lab ID :	BMI08111956-03A	Sulfur Dioxide	24	2.0 μg/L	11/19/08	11/18/08	11/21/08
Client ID :	MW-20-2RS						
Lab ID :	BMI08111956-04A	Sulfur Dioxide	18	2.0 μg/L	11/19/08	11/18/08	11/21/08
Client ID :	MW-20-1RS						
Lab ID :	BMI08111956-05A	Sulfur Dioxide	19	2.0 μg/L	11/19/08	11/18/08	11/21/08
	Dimoorrigioo	Sundi Dioxide	15	2.0 µg/L	11113,00	11,10,00	
Client ID :	EB-16-11/18/08						
Lab ID :	BMI08111956-06A	* * * None Found * * *	ND	2.0 μg/L	11/19/08	11/18/08	11/21/08
Client ID :	TB-21-11/18/08						
Lab ID :	BMI08111956-07A	* * * None Found * * *	ND	2.0 μg/L	11/19/08	11/18/08	11/21/08

Note: Analysis conducted using EPA Method 524.2 criteria. ND = Not Detected

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lter A Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

12/3/08

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ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI08111956-01A Client I.D. Number: MW-20-5RS Attn: David Conner Phone: (619) 574-4827 Fax: (614) 458-6641

Sampled: 11/18/08 Received: 11/19/08 Analyzed: 11/21/08

Volatile Organics by GC/MS

							A	Deve entire et l	
	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	0.50	µg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	µg/L
2	Chloromethane	ND	1.0	µg/L	37	Chlorobenzene	ND	0.50	µg/L
3	Vinyl chloride	ND	0.50	µg/L	38	Ethylbenzene	ND	0.50	µg/L
4	Chloroethane	ND	0.50	µg/L	39	m,p-Xylene	ND	0.50	µg/L
5	Bromomethane	ND	1.0	µg/L	40	Bromoform	ND	0.50	µg/L
6	Trichlorofluoromethane	ND	0.50	µg/L	41	Styrene	ND	0.50	µg/L
7	1,1-Dichloroethene	ND	0.50	µg/L	42	o-Xylene	ND	0.50	µg/L
8	Dichloromethane	ND	1.0	µg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	µg/L
9	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	1.0	µg/L
10	trans-1,2-Dichloroethene	ND	0.50	µg/L	45	Isopropylbenzene	ND	0.50	µg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	µg/L	46	Bromobenzene	ND	0.50	µg/L
12	1,1-Dichloroethane	ND	0.50	µg/L	47	n-Propylbenzene	ND	0.50	µg/L
13	2-Butanone (MEK)	ND	10	µg/L	48	4-Chlorotoluene	ND	0.50	µg/L
14	cis-1,2-Dichloroethene	ND	0.50	µg/L	49	2-Chlorotoluene	ND	0.50	µg/L
15	Bromochloromethane	ND	0.50	µg/L	50	1,3,5-Trimethylbenzene	ND	0.50	µg/L
16	Chloroform	ND	0.50	µg/L	51	tert-Butylbenzene	ND	0.50	µg/L
17	2,2-Dichloropropane	ND	0.50	µg/L	52	1,2,4-Trimethylbenzene	ND	0.50	µg/L
18	1,2-Dichloroethane	ND	0.50	µg/L	53	sec-Butylbenzene	ND	0.50	µg/L
19	1,1,1-Trichloroethane	ND	0.50	µg/L	54	1,3-Dichlorobenzene	ND	0.50	µg/L
20	1,1-Dichloropropene	ND	0.50	µg/L	55	1,4-Dichlorobenzene	ND	0.50	µg/L
21	Carbon tetrachloride	ND	* 0.50	µg/L	56	4-Isopropyltoluene	ND	0.50	µg/L
22	Benzene	ND	0.50	µg/L	57	1,2-Dichlorobenzene	ND	0.50	µg/L
23	Dibromomethane	ND	0.50	µg/L	58	n-Butylbenzene	ND	0.50	µg/L
24	1,2-Dichloropropane	ND	0.50	µg/L	59	1,2-Dibromo-3-chloropropane (DBC		2.5	µg/L
25	Trichloroethene	ND	0.50	µg/L	60	1,2,4-Trichlorobenzene	ND	1.0	µg/L
26	Bromodichloromethane	ND	0.50	µg/L	61	Naphthalene	ND	1.0	µg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	1.0	µg/L
28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	1.0	µg/L
29	trans-1,3-Dichloropropene	ND	0.50	µg/L	64	Surr: 1,2-Dichloroethane-d4	96	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	99	(70-130)	%REC
31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	99	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	μg/L					
33	Dibromochloromethane	ND	0.50	μg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

*No Carbon tetrachloride was observed above an estimated reporting limit of 0.25 μ g/L.

ND = Not Detected

Roger Scholl

In

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.

12/3/08

Report Date

Page 1 of 1



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201 Job#: <u>G005862/JPL Groundwater Monitoring</u>

Alpha Analytical Number: BMI08111956-02A Client I.D. Number: MW-20-4RS
 Attn:
 David Conner

 Phone:
 (619) 574-4827

 Fax:
 (614) 458-6641

Sampled: 11/18/08 Received: 11/19/08 Analyzed: 11/21/08

Volatile Organics by GC/MS

	Compound	Concentration			~	Compound	Concentration	Reporting Li	mit
	•	Concentration	Reporting	Limit		Compound			
1	Dichlorodifluoromethane	ND	0.50	µg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	µg/L
2	Chloromethane	ND	1.0	µg/L	37	Chlorobenzene	ND	0.50	µg/L
3	Vinyl chloride	ND	0.50	µg/L	38	Ethylbenzene	ND	0.50	µg/L
4	Chloroethane	ND	0.50	µg/L	39	m,p-Xylene	ND	0.50	µg/L
5	Bromomethane	ND	1.0	µg/L	40	Bromoform	ND	0.50	µg/L
6	Trichlorofluoromethane	ND	0.50	µg/L	41	Styrene	ND	0.50	µg/L
7	1,1-Dichloroethene	ND	0.50	µg/L	42	o-Xylene	ND	0.50	µg/L
8	Dichloromethane	ND	1.0	µg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	µg/L
9	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	1.0	µg/L
10	trans-1,2-Dichloroethene	ND	0.50	µg/L	45	Isopropylbenzene	ND	0.50	µg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	µg/L	46	Bromobenzene	ND	0.50	µg/L
12	1,1-Dichloroethane	ND	0.50	µg/L	47	n-Propylbenzene	ND	0.50	µg/L
13	2-Butanone (MEK)	ND	10	µg/L	48	4-Chlorotoluene	ND	0.50	µg/L
14	cis-1,2-Dichloroethene	ND	0.50	µg/L	49	2-Chlorotoluene	ND	0.50	µg/L
15	Bromochloromethane	ND	0.50	µg/L	50	1,3,5-Trimethylbenzene	ND	0.50	µg/L
16	Chloroform	ND	0.50	μg/L	51	tert-Butylbenzene	ND	0.50	µg/L
17	2,2-Dichloropropane	ND	0.50	µg/L	52	1,2,4-Trimethylbenzene	ND	0.50	µg/L
18	1,2-Dichloroethane	ND	0.50	μg/L	53	sec-Butylbenzene	ND	0.50	µg/L
19	1,1,1-Trichloroethane	ND	0.50	µg/L	54	1,3-Dichlorobenzene	ND	0.50	μg/L
20	1,1-Dichloropropene	ND	0.50	µg/L	55	1,4-Dichlorobenzene	ND	0.50	µg/L
21	Carbon tetrachloride	ND	* 0.50	µg/L	56	4-Isopropyltoluene	ND	0.50	µg/L
22	Benzene	ND	0.50	μg/L	57	1,2-Dichlorobenzene	ND	0.50	μg/L
23	Dibromomethane	ND	0.50	µg/L	58	n-Butylbenzene	ND	0.50	μg/L
24	1,2-Dichloropropane	ND	0.50	µg/L	59	1,2-Dibromo-3-chloropropane (DBCI	P) ND	2.5	μg/L
25	Trichloroethene	ND	0.50	µg/L	60	1,2,4-Trichlorobenzene	ND	1.0	µg/L
26	Bromodichloromethane	ND	0.50	µg/L	61	Naphthalene	ND	1.0	μg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	1.0	µg/L
28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	1.0	μg/L
29	trans-1,3-Dichloropropene	ND	0.50	μg/L	64	Surr: 1,2-Dichloroethane-d4	97	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	97	(70-130)	%REC
31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	98	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	µg/L	-		·		
33	Dibromochloromethane	ND	0.50	µg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

*No Carbon tetrachloride was observed above an estimated reporting limit of 0.25 μ g/L.

ND = Not Detected

Rogen Scholl

Kandys

Walter Hirihm

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.

12/3/08

Report Date



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring Attn:David ConnerPhone:(619) 574-4827Fax:(614) 458-6641

Alpha Analytical Number: BMI08111956-03A Client I.D. Number: MW-20-3RS Sampled: 11/18/08 Received: 11/19/08 Analyzed: 11/21/08

Volatile Organics by GC/MS

	_								.,
	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	0.50	µg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	µg/L
2	Chloromethane	ND	1.0	μg/L	37	Chlorobenzene	ND	0.50	µg/L
3	Vinyl chloride	ND	0.50	μg/L	38	Ethylbenzene	ND	0.50	µg/L
4	Chloroethane	ND	0.50	μg/L	39	m,p-Xylene	ND	0.50	µg/L
5	Bromomethane	ND	1.0	µg/L	40	Bromoform	ND	0.50	µg/L
6	Trichlorofluoromethane	ND	0.50	µg/L	41	Styrene	ND	0.50	µg/L
7	1,1-Dichloroethene	ND	0.50	µg/L	42	o-Xylene	ND	0.50	µg/L
8	Dichloromethane	ND	1.0	µg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	µg/L
9	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	1.0	µg/L
10	trans-1,2-Dichloroethene	ND	0.50	µg/L	45	Isopropylbenzene	ND	0.50	µg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	µg/L	46	Bromobenzene	ND	0.50	µg/L
12	1,1-Dichloroethane	ND	0.50	µg/L	47	n-Propylbenzene	ND	0.50	µg/L
13	2-Butanone (MEK)	ND	10	µg/L	48	4-Chlorotoluene	ND	0.50	µg/L
14	cis-1,2-Dichloroethene	ND	0.50	µg/L	49	2-Chlorotoluene	ND	0.50	µg/L
15	Bromochloromethane	ND	0.50	µg/L	50	1,3,5-Trimethylbenzene	ND	0.50	µg/L
16	Chloroform	ND	0.50	µg/L	51	tert-Butylbenzene	ND	0.50	µg/L
17	2,2-Dichloropropane	ND	0.50	µg/L	52	1,2,4-Trimethylbenzene	ND	0.50	µg/L
18	1,2-Dichloroethane	ND	0.50	µg/L	53	sec-Butylbenzene	ND	0.50	µg/L
19	1,1,1-Trichloroethane	ND	0.50	µg/L	54	1,3-Dichlorobenzene	ND	0.50	µg/L
20	1,1-Dichloropropene	ND	0.50	µg/L	55	1,4-Dichlorobenzene	ND	0.50	µg/L
21	Carbon tetrachloride	ND	* 0.50	µg/L	56	4-Isopropyltoluene	ND	0.50	µg/L
22	Benzene	ND	0.50	µg/L	57	1,2-Dichlorobenzene	ND	0.50	µg/L
23	Dibromomethane	ND	0.50	µg/L	58	n-Butylbenzene	ND	0.50	µg/L
24	1,2-Dichloropropane	ND	0.50	µg/L	59	1,2-Dibromo-3-chloropropane (DBC	P) ND	2.5	µg/L
25	Trichloroethene	ND	0.50	µg/L	60	1,2,4-Trichlorobenzene	ND	1.0	µg/L
26	Bromodichloromethane	ND	0.50	µg/L	61	Naphthalene	ND	1.0	µg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	1.0	µg/L
28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	1.0	µg/L
29	trans-1,3-Dichloropropene	ND	0.50	µg/L	64	Surr: 1,2-Dichloroethane-d4	96	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	99	(70-130)	%REC
31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	98	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	µg/L					
33	Dibromochloromethane	ND	0.50	µg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

*No Carbon tetrachloride was observed above an estimated reporting limit of 0.25 µg/L.

ND = Not Detected

Roger Scholl

Kandys

Walter Hiridmon

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

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12/3/08

Report Date Page 1 of 1



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201 G005862/JPL Groundwater Monitoring Job#:

Alpha Analytical Number: BMI08111956-04A Client I.D. Number: MW-20-2RS

David Conner Attn: Phone: (619) 574-4827 (614) 458-6641 Fax:

Sampled: 11/18/08 Received: 11/19/08 Analyzed: 11/21/08

			Volati	le Orga	nics t	by GC/MS			
	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	0.50	μg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	μg/l
2	Chloromethane	ND	1.0	µg/L	37	Chlorobenzene	ND	0.50	μg/l
3	Vinyl chloride	· ND	0.50	μg/L	38	Ethylbenzene	ND	0.50	µg/l
4	Chloroethane	ND	0.50	µg/L	39	m,p-Xylene	ND	0.50	µg/l
5	Bromomethane	ND	1.0	µg/L	40	Bromoform	ND	0.50	µg/l
6	Trichlorofluoromethane	ND	0.50	μg/L	41	Styrene	ND	0.50	µg/l
7	1,1-Dichloroethene	ND	0.50	µg/L	42	o-Xylene	ND	0.50	µg/l
8	Dichloromethane	ND	1.0	µg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	µg/l
9	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	1.0	µg/l
10	trans-1,2-Dichloroethene	ND	0.50	µg/L	45	Isopropylbenzene	ND	0.50	µg/l
11	Methyl tert-butyl ether (MTBE)	ND	0.50	µg/L	46	Bromobenzene	ND	0.50	µg/l
12	1,1-Dichloroethane	ND	0.50	µg/L	47	n-Propylbenzene	ND	0.50	µg/l
13	2-Butanone (MEK)	ND	10	µg/L	48	4-Chlorotoluene	ND	0.50	µg/l
14	cis-1,2-Dichloroethene	ND	0.50	µg/L	49	2-Chlorotoluene	ND	0.50	µg/l
15	Bromochloromethane	ND	0.50	μg/L	50	1,3,5-Trimethylbenzene	ND	0.50	µg/l
16	Chloroform	ND	0.50	µg/L	51	tert-Butylbenzene	ND	0.50	µg/l
17	2,2-Dichloropropane	ND	0.50	µg/L	52	1,2,4-Trimethylbenzene	ND	0.50	μg/l
18	1,2-Dichloroethane	ND	0.50	µg/L	53	sec-Butylbenzene	ND	0.50	µg/l
19	1,1,1-Trichloroethane	ND	0.50	µg/L	54	1.3-Dichlorobenzene	ND	0.50	μg/l
20	1,1-Dichloropropene	ND	0.50	µg/L	55	1,4-Dichlorobenzene	ND	0.50	µg/l
21	Carbon tetrachloride	ND	* 0.50	μg/L	56	4-Isopropyltoluene	ND	0.50	µg/l
22	Benzene	ND	0.50	µg/L	57	1,2-Dichlorobenzene	ND	0.50	μg/
23	Dibromomethane	ND	0.50	µg/L	58	n-Butylbenzene	ND	0.50	µg/
24	1,2-Dichloropropane	ND	0.50	µg/L	59	1.2-Dibromo-3-chloropropane (DBCF	P) ND	2.5	µg∕
25	Trichloroethene	ND	0.50	µg/L	60	1.2.4-Trichlorobenzene	ND	1.0	µg∕
26	Bromodichloromethane	ND	0.50	µg/L	61	Naphthalene	ND	1.0	μg/
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	μg/L	62	Hexachlorobutadiene	ND	1.0	μg/
28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1.2.3-Trichlorobenzene	ND	1.0	μg/
29	trans-1,3-Dichloropropene	ND	0.50	µg/L	64		95	(70-130)	%RE
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	100	(70-130)	%RE
31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	98	(70-130)	%RE
32	1,3-Dichloropropane	ND	0.50	µg/L					
33	Dibromochloromethane	ND	0.50	µg/L					
24	1.2 Dibromeethere (CDD)	ND							

Note: Analysis conducted using EPA Method 524.2 criteria.

*No Carbon tetrachloride was observed above an estimated reporting limit of 0.25 µg/L.

ND

ND

ND = Not Detected

Tetrachloroethene

34 1,2-Dibromoethane (EDB)

35

Roger Scholl

Kandys

1.0

0.50

µg/L

µg/L

Walter Hiridmon

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

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Report Date



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring Attn: David Conner Phone: (619) 574-4827 Fax: (614) 458-6641

Alpha Analytical Number: BMI08111956-05A Client I.D. Number: MW-20-1RS Sampled: 11/18/08 Received: 11/19/08 Analyzed: 11/21/08

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	0.50	µg/L	36	1.1.1.2-Tetrachloroethane	ND	0.50	µg/L
2	Chloromethane	ND	1.0	μg/L	37	Chlorobenzene	ND	0.50	µg/L
3	Vinyl chloride	ND	0.50	µg/L	38	Ethylbenzene	ND	0.50	µg/L
4	Chloroethane	ND	0.50	µg/L	39	m,p-Xylene	ND	0.50	µg/L
5	Bromomethane	ND	1.0	µg/L	40	Bromoform	ND	0.50	µg/L
6	Trichlorofluoromethane	ND	0.50	µg/L	41	Styrene	ND	0.50	µg/L
7	1,1-Dichloroethene	ND	0.50	µg/L	42	o-Xylene	ND	0.50	µg/L
8	Dichloromethane	ND	1.0	μg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	µg/L
9	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	1.0	µg/L
10	trans-1,2-Dichloroethene	ND	0.50	µg/L	45	Isopropylbenzene	ND	0.50	µg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	µg/L	46	Bromobenzene	ND	0.50	µg/L
12	1,1-Dichloroethane	ND	0.50	µg/L	47	n-Propylbenzene	ND	0.50	µg/L
13	2-Butanone (MEK)	ND	10	µg/L	48	4-Chlorotoluene	ND	0.50	µg/L
14	cis-1,2-Dichloroethene	ND	0.50	µg/L	49	2-Chlorotoluene	ND	0.50	µg/L
15	Bromochloromethane	ND	0.50	µg/L	50	1,3,5-Trimethylbenzene	ND	0.50	µg/L
16	Chloroform	ND	0.50	µg/L	51	tert-Butylbenzene	ND	0.50	µg/L
17	2,2-Dichloropropane	ND	0.50	µg/L	52	1,2,4-Trimethylbenzene	ND	0.50	µg/L
18	1,2-Dichloroethane	ND	0.50	µg/L	53	sec-Butylbenzene	ND	0.50	µg/L
19	1,1,1-Trichloroethane	ND	0.50	µg/L	54	1,3-Dichlorobenzene	ND	0.50	µg/L
20	1,1-Dichloropropene	ND	0.50	µg/L	55	1,4-Dichlorobenzene	ND	0.50	µg/L
21	Carbon tetrachloride	ND	* 0.50	µg/L	56	4-Isopropyltoluene	ND	0.50	µg/L
22	Benzene	ND	0.50	µg/L	57	1,2-Dichlorobenzene	ND	0.50	µg/L
23	Dibromomethane	ND	0.50	µg/L	58	n-Butylbenzene	ND	0.50	µg/L
24	1,2-Dichloropropane	ND	0.50	µg/L	59	1,2-Dibromo-3-chloropropane (DBCI		2.5	µg/L
25	Trichloroethene	ND	0.50	µg/L	60	1,2,4-Trichlorobenzene	ND	1.0	µg/L
26	Bromodichloromethane	ND	0.50	µg/L	61	Naphthalene	ND	1.0	µg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	1.0	µg/L
28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	1.0	µg/L
29	trans-1,3-Dichloropropene	ND	0.50	µg/L	64	Surr: 1,2-Dichloroethane-d4	95	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	99	(70-130)	%REC
31	Toluene	ND	0.50	μg/L	66	Surr: 4-Bromofluorobenzene	97	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	μg/L					
33	Dibromochloromethane	ND	0.50	μg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	ND	0.50	μg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

*No Carbon tetrachloride was observed above an estimated reporting limit of 0.25 μ g/L.

ND = Not Detected

Roger Scholl

Kandys

ilm Walter 4

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

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12/3/08

Report Date



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI08111956-06A Client I.D. Number: EB-16-11/18/08 Attn:David ConnerPhone:(619) 574-4827Fax:(614) 458-6641

Sampled: 11/18/08 Received: 11/19/08 Analyzed: 11/21/08

Volatile Organics by GC/MS

				<u></u>					
	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	0.50	µg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	µg/L
2	Chloromethane	ND	1.0	µg/L	37	Chlorobenzene	ND	0.50	µg/L
3	Vinyl chloride	ND	0.50	µg/L	38	Ethylbenzene	ND	0.50	µg/L
4	Chloroethane	ND	0.50	µg/L	39	m,p-Xylene	ND	0.50	µg/L
5	Bromomethane	ND	1.0	µg/L	40	Bromoform	ND	0.50	µg/L
6	Trichlorofluoromethane	ND	0.50	µg/L	41	Styrene	ND	0.50	µg/L
7	1,1-Dichloroethene	ND	0.50	µg/L	42	o-Xylene	ND	0.50	µg/L
8	Dichloromethane	ND	1.0	µg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	µg/L
9	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	1.0	µg/L
10	trans-1,2-Dichloroethene	ND	0.50	µg/L	45	Isopropylbenzene	ND	0.50	µg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	µg/L	46	Bromobenzene	ND	0.50	µg/L
12	1,1-Dichloroethane	ND	0.50	µg/L	47	n-Propylbenzene	ND	0.50	µg/L
13	2-Butanone (MEK)	ND	10	µg/L	48	4-Chlorotoluene	ND	0.50	µg/L
14	cis-1,2-Dichloroethene	ND	0.50	µg/L	49	2-Chlorotoluene	ND	0.50	µg/L
15	Bromochloromethane	ND	0.50	µg/L	50	1,3,5-Trimethylbenzene	ND	0.50	µg/L
16	Chloroform	ND	0.50	µg/L	51	tert-Butylbenzene	ND	0.50	µg/L
17	2,2-Dichloropropane	ND	0.50	µg/L	52	1,2,4-Trimethylbenzene	ND	0.50	µg/L
18	1,2-Dichloroethane	ND	0.50	µg/L	53	sec-Butylbenzene	ND	0.50	µg/L
19	1,1,1-Trichloroethane	ND	0.50	µg/L	54	1,3-Dichlorobenzene	ND	0.50	µg/L
20	1,1-Dichloropropene	ND	0.50	µg/L	55	1,4-Dichlorobenzene	ND	0.50	µg/L
21	Carbon tetrachloride	ND	* 0.50	µg/L	56	4-Isopropyltoluene	ND	0.50	µg/L
22	Benzene	ND	0.50	µg/L	57	1,2-Dichlorobenzene	ND	0.50	µg/L
23	Dibromomethane	ND	0.50	µg/L	58	n-Butylbenzene	ND	0.50	µg/L
24	1,2-Dichloropropane	ND	0.50	µg/L	59	1,2-Dibromo-3-chloropropane (DBCI		2.5	µg/L
25	Trichloroethene	ND	0.50	µg/L	60	1,2,4-Trichlorobenzene	ND	1.0	µg/L
26	Bromodichloromethane	ND	0.50	µg/L	61	Naphthalene	ND	1.0	µg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	1.0	µg/L
28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	1.0	µg/L
29	trans-1,3-Dichloropropene	ND	0.50	µg/L	64	Surr: 1,2-Dichloroethane-d4	98	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	99	(70-130)	%REC
31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	100	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	µg/L					
33	Dibromochloromethane	ND	0.50	µg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

*No Carbon tetrachloride was observed above an estimated reporting limit of 0.25 μ g/L.

ND = Not Detected

Roger Scholl

Kandys

lan

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.

12/3/08

Report Date



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201 Job#: G0<u>05862/JPL Groundwater Monitoring</u>

Alpha Analytical Number: BMI08111956-07A Client I.D. Number: TB-21-11/18/08 Attn:David ConnerPhone:(619) 574-4827Fax:(614) 458-6641

Sampled: 11/18/08 Received: 11/19/08 Analyzed: 11/21/08

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	0.50	μg/L	36	1.1.1.2-Tetrachloroethane	ND	0.50	μg/L
2	Chloromethane	ND	1.0	μg/L	37	Chlorobenzene	ND	0.50	µg/L
3	Vinyl chloride	ND	0.50	µg/L	38	Ethylbenzene	ND	0.50	µg/L
4	Chloroethane	ND	0.50	µg/L	39	m,p-Xylene	ND	0.50	µg/L
5	Bromomethane	ND	1.0	µg/L	40	Bromoform	ND	0.50	µg/L
6	Trichlorofluoromethane	ND	0.50	µg/L	41	Styrene	ND	0.50	µg/L
7	1,1-Dichloroethene	ND	0.50	µg/L	42	o-Xylene	ND	0.50	µg/L
8	Dichloromethane	ND	1.0	µg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	µg/L
9	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	1.0	µg/L
10	trans-1,2-Dichloroethene	ND	0.50	µg/L	45	Isopropylbenzene	ND	0.50	µg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	µg/L	46	Bromobenzene	ND	0.50	µg/L
12	1,1-Dichloroethane	ND	0.50	µg/L	47	n-Propylbenzene	ND	0.50	µg/L
13	2-Butanone (MEK)	ND	10	µg/L	48	4-Chlorotoluene	ND	0.50	µg/L
14	cis-1,2-Dichloroethene	ND	0.50	µg/L	49	2-Chlorotoluene	ND	0.50	µg/L
15	Bromochloromethane	ND	0.50	µg/L	50	1,3,5-Trimethylbenzene	ND	0.50	μg/L
16	Chloroform	ND	0.50	µg/L	51	tert-Butylbenzene	ND	0.50	µg/L
17	2,2-Dichloropropane	ND	0.50	µg/L	52	1,2,4-Trimethylbenzene	ND	0.50	µg/L
18	1,2-Dichloroethane	ND	0.50	µg/L	53	sec-Butylbenzene	ND	0.50	μg/L
19	1,1,1-Trichloroethane	ND	0.50	µg/L	54	1,3-Dichlorobenzene	ND	0.50	µg/L
20	1,1-Dichloropropene	ND	0.50	µg/L	55	1,4-Dichlorobenzene	ND	0.50	µg/L
21	Carbon tetrachloride	ND	* 0.50	µg/L	56	4-Isopropyltoluene	ND	0.50	µg/L
22	Benzene	ND	0.50	µg/L	57	1,2-Dichlorobenzene	ND	0.50	µg/L
23	Dibromomethane	ND	0.50	µg/L	58	n-Butylbenzene	ND	0.50	μg/L
24	1,2-Dichloropropane	ND	0.50	µg/L	59	1,2-Dibromo-3-chloropropane (DBC	P) ND	2.5	μg/L
25	Trichloroethene	ND	0.50	µg/L	60	1,2,4-Trichlorobenzene	ND	1.0	µg/L
26	Bromodichloromethane	ND	0.50	µg/L	61	Naphthalene	ND	1.0	μg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	1.0	µg/L
28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	1.0	µg/L
29	trans-1,3-Dichloropropene	ND	0.50	µg/L	64	Surr: 1,2-Dichloroethane-d4	96	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	98	(70-130)	%REC
31	Toluene	ND	0.50	μg/L	66	Surr: 4-Bromofluorobenzene	101	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	µg/L					
33	Dibromochloromethane	ND	0.50	µg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

*No Carbon tetrachloride was observed above an estimated reporting limit of 0.25 μ g/L.

ND = Not Detected

Roger Scholl

Kandys

Walter Airihm

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical com

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.

12/3/08

Report Date



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

VOC Sample Preservation Report

Work Order: BMI08111956

Project: G005862/JPL Groundwater Monitoring

Alpha's Sample ID	Client's Sample ID	Matrix	pH	
08111956-01A	MW-20-5RS	Aqueous	2	
08111956-02A	MW-20-4RS	Aqueous	2	
08111956-03A	MW-20-3RS	Aqueous	2	
08111956-04A	MW-20-2RS	Aqueous	2	
08111956-05A	MW-20-1RS	Aqueous	2	
08111956-06A	EB-16-11/18/08	Aqueous	2	
08111956-07A	TB-21-11/18/08	Aqueous	2	

The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report. Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other	NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.	
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NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.
The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.

11 haby 11	Alpha Analytical, Inc.	Vous Nick Insur	INCH MARS MININ	Logged in by 1000
Date/Time	Company	Print Name	Signature	

No security seals. Frozen ice. TOC pH=2. Temp. Blank #8597 rec'd @, 4°. Samples should be used as the control spike sample if possible (I.E.: MS/MSD). Perchlorate RL of 1.0 ug/L. J Flag

Comments:

										Requested Tests	ed Tests				
Alpha	Client		Collection	No. of	No. of Bottles	•	300_0(A)_	300_0(B)_	300_0(C)_		314_W 3500FE_20 3500FE_3IC ALKALINIT AMMONIA_	3500FE_3IC	ALKALINIT	AMMONIA	
Sample ID	Sample ID	Matr	Matrix Date	Alpha	Sub	TAT	٤	٤	٤		N_S	×	M_A	٤	Sample Remarks
BMI08111956-01A	MW-20-5RS	AQ	11/18/08 08:24	14	0	10	NO2, NO3, SO4, CI	NO2, NO3, SO4, CI	NO2, NO3, SO4, CI	Perchlorate	FE+2	FE+3	Alk	NH3	
BMI08111956-02A	MW-20-4RS	AQ	11/18/08 09:46	14	0	10	NO2, NO3, SO4, CI	NO2, NO3, SO4, CI	NO2, NO3, SO4, CI	Perchlorate	FE+2	FE+3	Alk	NH3	
BMI08111956-03A	MW-20-3RS	AQ	11/18/08 10:57	14	0	10	NO2, NO3, SO4, CI	NO2, NO3, SO4, CI	NO2, NO3, SO4, CI	Perchlorate	FE+2	FE+3	Alk	NH3	
BMI08111956-04A	MW-20-2RS	AQ	11/18/08 11:53	14	0	10	NO2, NO3, SO4, CI	NO2, NO3, SO4, CI	NO2, NO3, SO4, CI	Perchlorate	FE+2	FE+3	Alk	NH3	
BMI08111956-05A	MW-20-1RS	AQ	11/18/08 12:54	14	0	10	NO2, NO3, SO4, CI	NO2, NO3, SO4, CI	NO2, NO3, SO4, CI	Perchlorate	FE+2	FE+3	Alk	NH3	
BMI08111956-06A	EB-16-11/18/08	AQ	11/18/08 12:33	ъ	0	10				Perchlorate					Equipment Blank
BMI08111956-07A	TB-21-11/18/08	AQ	11/18/08 00:00	N	0	10									Reno TB, (2) 11/5/08.

Report Attention CHAIN-OF-CUSTODY RECORD 255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778 TEL: (775) 355-1044 FAX: (775) 355-0406 Alpha Analytical, Inc. Phone Number EMail Address Report Due By : 5:00 PM On : 04-Dec-08 WorkOrder: BMI08111956 C A

РО ..

218013

Columbus, OH 43201

Client:

Columbus, OH 43201

505 King Avenue

Battelle Memorial Institute

505 King Avenue

Client's COC #: 026292, 25192

Job : G005862/JPL Groundwater Monitoring

Shane Walton Betsy Cutie David Conner

(614) 424-4117 x (619) 574-4827 x

waltons@battelle.org cutiee@batelle.org connerd@battelle.org

EDD Required : Yes

Sampled by : Client

Cooler Temp 4 °C

Samples Received 19-Nov-08

19-Nov-08 **Date Printed** (619) 574-4827 x

Page: 1 of

Billing Information :

Battelle

The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report. Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

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No security seals. Frozen ice. TOC pH=2. Temp. Blank #8597 rec'd @, 4°. Samples should be used as the control spike sample if possible (I.E.: MS/MSD). Perchlorate RL of 1.0 ug/L. J Flag Carbonarchloride down to 0.25.: Ok to use Te by 200.8 instead of by 6020 for Ferric Iron calculation, per Walter.

Comments:

Columbus, OH 43201	3201		Shane Walton	ă	(614	(614) 424-4117	17 x	waltons(waltons@battelle.org			Sampled by :	Sampled by : Client	ent Comples F		Data Drintad
Client's COC #: 026292, 25192	6292, 25192	Job :	G005862/JPL Groundwater Monitoring	³ L Grour	ndwater I	Monitori	Ð					4	4 °C	19-Nov-08	v-08	<u>19-Nov-08</u>
QC Level: S4	= Final Rpt, MBLK, InitCal/ConCal data, LCS, MS/MSD With Surrogates	K, InitCal/Co	nCal data, L	CS, MS/	MSD Wi	th Surro	gates									
										Requested Tests	ed Tests					
Alpha Sample ID	Client Sample ID	Matri	Collection Matrix Date	No. of Alpha	No. of Bottles Alpha Sub	TAT		DOC_W	METALS_D	SULFIDE	TDS	TOC_W	VOC_TIC_ VOC_W	VOC_W	Sample	Sample Remarks
BMI08111956-01A	MW-20-5RS	AQ	11/18/08 08:24	14	0	10	Conductivity	DOC	Fe, Cr, Ca, Na, K, Mg	Sulfide	TDS	TOC	VOC by 524 VOC by 524 Criteria Criteria	VOC by 524 Criteria		
BMI08111956-02A	MW-20-4RS	Ą	11/18/08 09:46	14	0	10	Conductivity	DOC	Fe, Cr, Ca, Na, K, Mg	Sulfide	TDS	TOC	VOC by 524 VOC by 524 Criteria Criteria	VOC by 524 Criteria		
BMI08111956-03A	MW-20-3RS	AQ	11/18/08 10:57	14	0	10	Conductivity	DOC	Fe, Cr, Ca, Na, K, Mg	Sulfide	TDS	TOC	VOC by 524 VOC by 524 Criteria Criteria	VOC by 524 Criteria		
BMI08111956-04A	MW-20-2RS	AQ	11/18/08 11:53	14	0	10	Conductivity	DOC	Fe, Cr, Ca, Na, K, Mg	Sulfide	TDS	TOC	VOC by 524 VOC by 524 Criteria Criteria	VOC by 524 Criteria		
BMI08111956-05A	MW-20-1RS	AQ	11/18/08 12:54	14	0	10	Conductivity	DOC	Fe, Cr, Ca, Na, K, Mg	Sulfide	TDS	TOC	VOC by 524 VOC by 524 Criteria Criteria	VOC by 524 Criteria		
BMI08111956-06A	EB-16-11/18/08	ĄQ	11/18/08 12:33	თ	0	10	Conductivity		Fe, Cr				VOC by 524 VOC by 524 Criteria Criteria	VOC by 524 Criteria	Equipr	Equipment Blank
BMI08111956-07A	TB-21-11/18/08	AQ	11/18/08 00:00	N	0	10							VOC by 524 VOC by 524 Criteria Criteria	VOC by 524 Criteria	Reno TB	Reno TB, (2) 11/5/08.

Report Due By: 5:00 PM On: 04-Dec-08 WorkOrder: BMI08111956 CA A Page: Nor

CHAIN-OF-CUSTODY RECORD Alpha Analytical, Inc.

255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778 TEL: (775) 355-1044 FAX: (775) 355-0406

Client:

Report Attention

Phone Number (619) 574-4827 x

connerd@battelle.org

EDD Required : Yes

EMail Address

Shane Walton **Betsy Cutie** David Conner

(614) 424-4117 x (619) 574-4827 x

waltons@battelle.org cutiee@batelle.org Columbus, OH 43201

Battelle Memorial Institute

505 King Avenue

Billing Information :

Battelle

505 King Avenue

Received by MU (UNTURON 104 1) URINON OLD	Relinquished A A CHASE BLOCDON INSIGHT	Signature Print Name Cor	ADDITIONAL INSTRUCTIONS: # (J FLAG CHON to 0.25)				- 21 -	1233 -06 23-16-11/18/08 5 X	-05 MW-20-1 RS	MW-20-7 22	- 02-7W GOT		BMINY111990-01 mw-20-5-RS	d Sampled Below Lab ID Number (Use Crinc) Sample Description TAT Filered	Sampled by Report Attention Total and type of	$D_{1} (A 92110)$ Phone # $Pax = 100 Phone = 100 Phon$	D TOWN AVE., C-205 EMail Address	Client Name TAVTO CONVER PO. # 218013 Job # Cross 62 /	Phone Number Fax Fax	ALD 1000478123 のデーはいん AVE 213201 アプロ・ロード 255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778 Phone (775) 355-1044	g Information:
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of the above samples is applicable only to those samples received by the laboratory with this coc. The liability of the laboratory is limited to the amount paid for the report.

tion: TOMPKIN		Alpha Analytical, Inc. 255 Glendale Avenue, Suite 21	Samples Collected From Which Stater AZ CA X NV WA Pag ID OR OTHER Pag	Which State? 25192 WA Page # 2 of 2
Address <u>505 KIND AVE</u> . City, State, Zip Conner Muss off 43201		Sparks, Nevada 89431-5778 Phone (775) 355-1044 Fax (775) 355-0406	Analys	
Client Name	P.O. #	dot # dot	TAN A	
D CONTRACT	エレッシュ レン Address	798 5000	376.	A Required QC Level?
$\frac{1}{2} \frac{1}{2} \frac{1}$	Phone # 10 00 . 7211	Fax #	2 507	
ix* Sampled by	Report Attention	Total and type of	KAL KAL	
ă O	Sample Description	TAT Filered ** See below	2/ 5 JES	/ REMARKS
BMIDSIIA	MW-20-575		XXXX	
0946 1 1 -02	MW-20-4 25		X X X X	
50- To - To	MW-20-3 75		X X X X	
-04	MW-20-275			
20-25-	MW-20-175	4	XXXX	
00-	63-16-11/18/08	7		EQUIPMENT BLANK
	773-21-11/18/08	4		TRIP BLANK
ADDITIONAL INSTRUCTIONS:				
Signature	Print Name		Company	Date, Time
Relinquiented by	CHASE BROWN	DNS/L	HT.	11/18/08 1430
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*Key: AQ - Aqueous SO - Soil WA - Waste OT - Other AR - Air **: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis	e OT - Other AR - Air eported unless other arrangemen	**: L-Liter V-Voa S-Soil Jar ts are made. Hazardous samples will be	O-Orbo T-Tedlar B-Brass	ass P-Plastic OT-Other ant expense. The report for the analysis
of the above samples is applicable only to those samples received by the laboratory with this coc.	es received by the laboratory with the	his coc. The liability of the laboratory is li	The liability of the laboratory is limited to the amount paid for the report.	ŗ.



(805) 526-7270 fax

CAS SR #P0803489

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Sample Acceptance Check Form	
Hexavalent Chromium Analytical Data	
Hexavalent Chromium Raw Data	

(805) 526-7161

(805) 526-7270 fax



LABORATORY REPORT

October 30, 2008

David Conner Battelle 3990 Old Town Ave., Suite C-205 San Diego, CA 92110

RE: JPL Groundwater Monitoring 4Q08 / G486090

Dear David:

Enclosed are the results of the samples submitted to our laboratory on October 21, 2008. For your reference, these analyses have been assigned our service request number P0803489.

All Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.caslab.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein. Your report contains $\frac{25}{25}$ pages.

Columbia Analytical Services, Inc. is certified by the California Department of Health Services, NELAP Laboratory Certificate No. 02115CA; Arizona Department of Health Services, Certificate No. AZ0694; Florida Department of Health, NELAP Certification E871020; New Jersey Department of Environmental Protection, NELAP Laboratory Certification ID #CA009; New York State Department of Health, NELAP NY Lab ID No: 11221; Oregon Environmental Laboratory Accreditation Program, NELAP ID: CA20007; The American Industrial Hygiene Association, Laboratory #101661; Department of the Navy (NFESC); Pennsylvania Registration No. 68-03307; TX Commission of Environmental Quality, NELAP ID T104704413-08-TX. Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact me for information corresponding to a particular certification.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

Columbia Analytical Services, Inc.

Juderta

Sue Anderson Project Manager





Client: Project: Battelle

CAS Project No: JPL Groundwater Monitoring 4Q08 / G486090

P0803489

CASE NARRATIVE

The samples were received intact under chain of custody on October 21, 2008 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Hexavalent Chromium by EPA Method 7196A

No anomalies were encountered during this analysis.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for utilization of less than the complete report.

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
P0803489-001	MW-21-5	10/21/08	08:35
P0803489-002	MW-21-4	10/21/08	09:15
P0803489-003	MW-21-3	10/21/08	10:09
P0803489-004	MW-21-2	10/21/08	10:43
P0803489-005	MW-21-1	10/21/08	11:17
P0803489-006	DUPE-01-4Q08	10/21/08	00:00
P0803489-007	EB-01-10/21/08	10/21/08	11:05

Columbia Analytical Services, Inc.

<u>Acronyms</u>

CA LUFT	California DHS LUFT Method
ASTM	American Society for Testing and Materials
BTEX	Benzene/Toluene/Ethylbenzene/Xylenes
CAS Number	Chemical Abstract Service Registry Number
CFC	Chlorofluorocarbon
CRDL	Contract Required Detection Limit
DLCS	Duplicate Laboratory Control Sample
DMS	Duplicate Matrix Spike
DOH or DHS	Department of Health Services
EPA	U.S. Environmental Protection Agency
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
IC	Ion Chromatography
ICB	Initial Calibration Blank
ICV	Initial Calibration Verification
LCS	Laboratory Control Sample
LUFT	Leaking Underground Fuel Tank
Μ	Modified Method
MDL	Method Detection Limit
MRL	Method Reporting Limit
MS	Matrix Spike
MTBE	Methyl tert -Butyl Ether
NA	Not Applicable
NC	Not Calculated
ND	None Detected at or above the Method Reporting/Detection Limit (MRL/MDL)
NTU	Nephelometric Turbidity Units
ppb	Parts Per Billion
ppm	Parts Per Million
PQL	Practical Quantitation Limit
QA/QC RCRA	Quality Assurance/Quality Control Resource Conservation and Recovery Act
RCRA RPD	Relative Percent Difference
SIM	Selected Ion Monitoring
SM	Standard Methods for the Examination of Water and Wastewater, 19th Ed., 1995.
SW	Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846,
511	Third Edition, 1986 and as amended by Updates I, II, IIA, and IIB.
TDS	Total Dissolved Solids
ТРН	Total Petroleum Hydrocarbons
TSS	Total Suspended Solids
TTLC	Total Threshold Limit Concentration
VOA	Volatile Organic Analyte(s)
VOC	Volatile Organic Compound(s)

<u>Qualifiers</u>

U	The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
J	The result is an estimated concentration that is less than the MRL (PQL), but greater than or equal to the MDL.
В	Analyte detected in the method blank above MRL (PQL).
Ε	Estimated; result based on response which exceeded the instrument calibration range.
Ν	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
D	The reported result is from a dilution.
X	See case narrative.

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DIVIDER SHEET

ANALYTICAL DATA FOR

Hexavalent Chromium

ANALYSIS

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client :BattelleProject Name :JPL Groundwater Monitoring 4Q08Project Number :G486090Sample Matrix :WATER

Service Request : P0803489 Date Collected : 10/21/08 Date Received : 10/21/08

Chromium, Hexavalent

Prep Method : None Analysis Method : 7196A Test Notes : Units : mg/L (ppm) Basis : NA

Sample Name	Lab Code	PQL	MDL	Dilution Factor	Date Extracted	Date/Time Analyzed	Result	Result Notes
MW-21-5	P0803489-001	0.010	0.006	1	NA	10/21/08 15:40	ND	
MW-21-4	P0803489-002	0.010	0.006	1	NA	10/21/08 15:40	ND	
MW-21-3	P0803489-003	0.010	0.006	1	NA	10/21/08 15:40	ND	
MW-21-2	P0803489-004	0.010	0.006	1	NA	10/21/08 15:40	ND	
MW-21-1	P0803489-005	0.010	0.006	1	NA	10/21/08 15:40	ND	
DUPE-01-4Q08	P0803489-006	0.010	0.006	1	NA	10/21/08 15:40	ND	
EB-01-10/21/08	P0803489-007	0.010	0.006	1	NA	10/21/08 15:40	ND	
Method Blank	P0803489-MB	0.010	0.006	1	NA	10/21/08 15:40	ND	

Approved By

Juderta he

Date :

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CAS SR #P0803507

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Hexavalent Chromium Analytical Data	8-13
Hexavalent Chromium Raw Data	



LABORATORY REPORT

October 31, 2008

David Conner Battelle 3990 Old Town Ave., Suite C-205 San Diego, CA 92110

RE: JPL Groundwater Monitoring 4Q08 / G486090

Dear David:

Enclosed are the results of the samples submitted to our laboratory on October 22, 2008. For your reference, these analyses have been assigned our service request number P0803507.

All Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.caslab.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein. Your report contains $\frac{24}{20}$ pages.

Columbia Analytical Services, Inc. is certified by the California Department of Health Services, NELAP Laboratory Certificate No. 02115CA; Arizona Department of Health Services, Certificate No. AZ0694; Florida Department of Health, NELAP Certification E871020; New Jersey Department of Environmental Protection, NELAP Laboratory Certification ID #CA009; New York State Department of Health, NELAP NY Lab ID No: 11221; Oregon Environmental Laboratory Accreditation Program, NELAP ID: CA20007; The American Industrial Hygiene Association, Laboratory #101661; Department of the Navy (NFESC); Pennsylvania Registration No. 68-03307; TX Commission of Environmental Quality, NELAP ID T104704413-08-TX. Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact me for information corresponding to a particular certification.

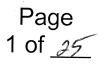
If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

Columbia Analytical Services, Inc.

Judest

Sue Anderson Project Manager





Client: Project:

Battelle JPL Groundwater Monitoring 4Q08 / G486090

Project No:

P0803507

CASE NARRATIVE

The samples were received intact under chain of custody on October 22, 2008 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Hexavalent Chromium by EPA Method 7196A

No anomalies were encountered during this analysis.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for utilization of less than the complete report.

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
P0803507-001	MW-19-5	10/22/08	08:20
P0803507-002	MW-19-4	10/22/08	08:49
P0803507-003	MW-19-3	10/22/08	09:17
P0803507-004	MW-19-2	10/22/08	09:45
P0803507-005	MW-19-1	10/22/08	10:13
P0803507-006	EB-02-10/22/08	10/22/08	10:03

Columbia Analytical Services, Inc.

<u>Acronyms</u>

CA LUFT	California DHS LUFT Method
ASTM	American Society for Testing and Materials
BTEX	Benzene/Toluene/Ethylbenzene/Xylenes
CAS Number	Chemical Abstract Service Registry Number
CFC	Chlorofluorocarbon
CRDL	Contract Required Detection Limit
DLCS	Duplicate Laboratory Control Sample
DMS	Duplicate Matrix Spike
DOH or DHS	Department of Health Services
EPA	U.S. Environmental Protection Agency
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
IC	Ion Chromatography
ICB	Initial Calibration Blank
ICV	Initial Calibration Verification
LCS	Laboratory Control Sample
LUFT	Leaking Underground Fuel Tank
Μ	Modified Method
MDL	Method Detection Limit
MRL	Method Reporting Limit
MS	Matrix Spike
MTBE	Methyl <i>tert</i> -Butyl Ether
NA	Not Applicable
NC	Not Calculated
ND	None Detected at or above the Method Reporting/Detection Limit (MRL/MDL)
NTU	Nephelometric Turbidity Units
ppb	Parts Per Billion
ppm	Parts Per Million
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RPD	Relative Percent Difference
SIM	Selected Ion Monitoring
SM	Standard Methods for the Examination of Water and Wastewater, 19th Ed., 1995.
SW	Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846,
	Third Edition, 1986 and as amended by Updates I, II, IIA, and IIB.
TDS	Total Dissolved Solids
ТРН	Total Petroleum Hydrocarbons
TSS	Total Suspended Solids
TTLC	Total Threshold Limit Concentration
VOA	Volatile Organic Analyte(s)
VOC	Volatile Organic Compound(s)

<u>Qualifiers</u>

U	The compound	was analyzed for	or, but was not	t detected ("I	Non-detect")	at or above the MRL/MDL.
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- The result is an estimated concentration that is less than the MRL (PQL), but greater than or equal to the MDL.
- **B** Analyte detected in the method blank above MRL (PQL).
- E Estimated; result based on response which exceeded the instrument calibration range.
- **N** The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- **D** The reported result is from a dilution.
- X See case narrative.

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Water & Soil - Chain of Custody Record & Analytical Service Request 2655 Park Center Drive. Suite A

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DIVIDER SHEET

ANALYTICAL DATA FOR

Hexavalent Chromium

ANALYSIS

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client :	Battelle	Service Request :	P0803507
Project Name :	JPL Groundwater Monitoring 4Q08	Date Collected :	10/22/08
Project Number :	G486090	Date Received :	10/22/08
Sample Matrix :	WATER		

Chromium, Hexavalent

Prep Method : None Analysis Method: 7196A Test Notes :

Units : mg/L (ppm) Basis: NA

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Extracted	Date/Time Analyzed	Result	Result Notes
MW-19-5	P0803507-001	0.010	0.006	1	NA	10/22/08 15:45	ND	
MW-19-4	P0803507-002	0.010	0.006	1	NA	10/22/08 15:45	ND	
MW-19-3	P0803507-003	0.010	0.006	1	NA	10/22/08 15:45	ND	
MW-19-2	P0803507-004	0.010	0.006	1	NA	10/22/08 15:45	ND	
MW-19-1	P0803507-005	0.010	0.006	1	NA	10/22/08 15:45	ND	
EB-02-10/22/08	P0803507-006	0.010	0.006	1	NA	10/22/08 15:45	ND	
Method Blank	P0803507-MB	0.010	0.006	1	NA	10/22/08 15:45	ND	

Approved By

ne Julesta Date: 10/31/08

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Report By:NFallahi



CAS SR #P0803530

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Sample Acceptance Check Form	
Hexavalent Chromium Analytical Data	
Hexavalent Chromium Raw Data	



LABORATORY REPORT

November 3, 2008

David Conner Battelle 3990 Old Town Ave., Suite C-205 San Diego, CA 92110

RE: JPL Groundwater Monitoring 4Q08 / G486090

Dear David:

Enclosed are the results of the samples submitted to our laboratory on October 23, 2008. For your reference, these analyses have been assigned our service request number P0803530.

All Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.caslab.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein. Your report contains $\mathcal{D}_{\mathcal{P}}$ pages.

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If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

Columbia Analytical Services, Inc.

Judersz

Sue Anderson Project Manager



P0803530

Client: Project: Battelle JPL Groundwater Monitoring 4Q08 / G486090

CAS Project No:

CASE NARRATIVE

The samples were received intact under chain of custody on October 23, 2008 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Hexavalent Chromium by EPA Method 7196A

No anomalies were encountered during this analysis.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for utilization of less than the complete report.

Client:BattelleProject:JPL Groundwater Monitoring 4Q08/G486090

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
P0803530-001	MW-20-5	10/23/08	08:34
P0803530-002	MW-20-4	10/23/08	09:07
P0803530-003	MW-20-3	10/23/08	09:38
P0803530-004	MW-20-2	10/23/08	10:09
P0803530-005	MW-20-1	10/23/08	11:08
P0803530-006	EB-03-10/23/08	10/23/08	10:54

Columbia Analytical Services, Inc.

<u>Acronyms</u>

CA LUFT	California DHS LUFT Method
ASTM	American Society for Testing and Materials
BTEX	Benzene/Toluene/Ethylbenzene/Xylenes
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TSS	Total Suspended Solids
TTLC	Total Threshold Limit Concentration
VOA	Volatile Organic Analyte(s)
VOC	Volatile Organic Compound(s)

Qualifiers

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U	The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
J	The result is an estimated concentration that is less than the MRL (PQL), but greater than or equal to the MDL.
В	Analyte detected in the method blank above MRL (PQL).
E	Estimated; result based on response which exceeded the instrument calibration range.
Ν	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
D	The reported result is from a dilution.
X	See case narrative.

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Zn Acetate XWE Asc Acid Project Requirements (MRLs, QAPP) Preservative Key H2S04 NaOH HN03 None Other HCL ပ္ပ Remarks MS/MSW 1. 1 m Cooler / Blank / Ice / No Ice 20 1.1 0 N 0 4 S ø ~ 0, CAS Project CAS Contac Temperature Date: Date: Time: lime: Requested Turnaround Time in Business Days (Surcharges) please circle 1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day - Standard EDD required Yes / No Type: Analysis Method and/or Analytes Date: Preservative Code MRL required Yes / No MDL/ PQL / J required Yes / No 11 L k 0 X X × × > 2 N Semi-Volatile Organics GC/MS 625

8270C

(Subcontracted) RAN TPH Diesel Lovi Level 8015B

(Subcontracted) TPH Diesel 801'5B

(Subcontracted) BTEX 8021B 🗆 MTBE 8021B TPH Gas 8015B Received by: (Signature) Received by: (Signature Volatile Organics GC/MS 624 □ 8260B □ Oxygenates □ TPH Gas □ Received by: (Signa Number of Containers 2000 à. 3 Tier III - (Data Validation Package) 10% Surcharge ALANKAL + ł 2 17 5 200 P.O. # / Billing Information 1-0-1 Tiprée O Tipter '4 NOW CORRENTS Matrix 2412 0.45(0.6%) 3 Time: Project Number Project Name WARLEN (S Sampler (Print & Sign) Ĩ, 500 214 319 Time Collected 13 h690 199231 1244 FO7 3338 105 209 Date Date: Simi Valley, California 93065 Date Collected 2500 Phone (805) 526-7161 6-25 Company Name & Address (Reporting Information) Fax (805) 526-7270 ſ Laboratory ID Number CHIZO , prv im 2 5 X 5 Email Address for Result Reporting < 2 Tier 1 - (Results/Default if not specified) Fax 2 Report Tier Levels - please select TOU. (2)50 CONNE $\mathbb{D} \times \mathbb{C}$ 1122 Relinquished by (Signature) 24 Relinquished by: (Signature) Relinquisher y: (Signature) 3990 0275 5 Fier II - (Results + QC) 1:0 n' Project Manager 121.101 445 \sim in the second se Client Sample ID с. Сч 026- 726 AL MALL The C ţ Phone N. MIN AA à Att

DIVIDER SHEET

ANALYTICAL DATA FOR

Hexavalent Chromium

ANALYSIS

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client :BattelleProject Name :JPL Groundwater Monitoring 4Q08Project Number :G486090Sample Matrix :WATER

Service Request : P0803530 **Date Collected :** 10/23/08 **Date Received :** 10/23/08

Chromium, Hexavalent

Prep Method : None Analysis Method : 7196A Test Notes : Units : mg/L (ppm) Basis : NA

8

				Dilution	Date	Date/Time		Result
Sample Name	Lab Code	PQL	MDL	Factor	Extracted	Analyzed	Result	Notes
MW-20-5	P0803530-001	0.010	0.006	1	NA	10/23/08 14:50	ND	
MW-20-4	P0803530-002	0.010	0.006	1	NA	10/23/08 14:50	ND	
MW-20-3	P0803530-003	0.010	0.006	1	NA	10/23/08 14:50	ND	
MW-20-2	P0803530-004	0.010	0.006	1	NA	10/23/08 14:50	ND	
MW-20-1	P0803530-005	0.010	0.006	1	NA	10/23/08 14:50	ND	
EB-03-10/23/08	P0803530-006	0.010	0.006	1	NA	10/23/08 14:50	ND	
Method Blank	P0803530-MB	0.010	0.006	1	NA	10/23/08 14:50	ND	

Approved By

Report By:NFallahi

The Julesto Date: 3/08



CAS SR #P0803553

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LABORATORY REPORT

November 10, 2008

David Conner Battelle 3990 Old Town Ave., Suite C-205 San Diego, CA 92110

RE: JPL Groundwater Monitoring 4Q08 / G486090

Dear David:

Enclosed are the results of the samples submitted to our laboratory on October 24, 2008. For your reference, these analyses have been assigned our service request number P0803553.

All Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.caslab.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein. Your report contains <u>25</u> pages.

Columbia Analytical Services, Inc. is certified by the California Department of Health Services, NELAP Laboratory Certificate No. 02115CA; Arizona Department of Health Services, Certificate No. AZ0694; Florida Department of Health, NELAP Certification E871020; New Jersey Department of Environmental Protection, NELAP Laboratory Certification ID #CA009; New York State Department of Health, NELAP NY Lab ID No: 11221; Oregon Environmental Laboratory Accreditation Program, NELAP ID: CA20007; The American Industrial Hygiene Association, Laboratory #101661; Department of the Navy (NFESC); Pennsylvania Registration No. 68-03307; TX Commission of Environmental Quality, NELAP ID T104704413-08-TX. Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact me for information corresponding to a particular certification.

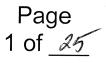
If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

Columbia Analytical Services, Inc.

e Quilesk

Sue Anderson Project Manager





Client: Project: Battelle

JPL Groundwater Monitoring 4Q08 / G486090

CAS Project No: P0803553

(805) 526-7270 fax

CASE NARRATIVE

The samples were received intact under chain of custody on October 24, 2008 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Hexavalent Chromium by EPA Method 7196A

No anomalies were encountered during this analysis.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for utilization of less than the complete report.

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
P0803553-001	MW-18-5	10/24/08	08:31
P0803553-002	MW-18-4	10/24/08	09:09
P0803553-003	MW-18-3	10/24/08	10:00
P0803553-004	MW-18-2	10/24/08	10:43
P0803553-005	MW-18-1	10/24/08	11:27
P0803553-006	DUPE-02-4Q08	10/24/08	00:00
P0803553-007	EB-04-10/24/08	10/24/08	11:07

Columbia Analytical Services, Inc.

<u>Acronyms</u>

CA LUFT	California DHS LUFT Method
ASTM	American Society for Testing and Materials
BTEX	Benzene/Toluene/Ethylbenzene/Xylenes
CAS Number	Chemical Abstract Service Registry Number
CFC	Chlorofluorocarbon
CRDL	Contract Required Detection Limit
DLCS	Duplicate Laboratory Control Sample
DMS	Duplicate Matrix Spike
DOH or DHS	Department of Health Services
EPA	U.S. Environmental Protection Agency
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
IC	Ion Chromatography
ICB	Initial Calibration Blank
ICV	Initial Calibration Verification
LCS	Laboratory Control Sample
LUFT	Leaking Underground Fuel Tank
Μ	Modified Method
MDL	Method Detection Limit
MRL	Method Reporting Limit
MS	Matrix Spike
MTBE	Methyl tert -Butyl Ether
NA	Not Applicable
NC	Not Calculated
ND	None Detected at or above the Method Reporting/Detection Limit (MRL/MDL)
NTU	Nephelometric Turbidity Units
ppb	Parts Per Billion
ppm	Parts Per Million
PQL	Practical Quantitation Limit
QA/QC	Quality Assurance/Quality Control
RCRA	Resource Conservation and Recovery Act
RPD	Relative Percent Difference
SIM	Selected Ion Monitoring
SM	Standard Methods for the Examination of Water and Wastewater, 19th Ed., 1995.
SW	Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846,
	Third Edition, 1986 and as amended by Updates I, II, IIA, and IIB.
TDS	Total Dissolved Solids
ТРН	Total Petroleum Hydrocarbons
TSS	Total Suspended Solids
TTLC	Total Threshold Limit Concentration
VOA	Volatile Organic Analyte(s)
VOC	Volatile Organic Compound(s)

<u>Qualifiers</u>

The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
The result is an estimated concentration that is less than the MRL (PQL), but greater than or equal to the MDL.
Analyte detected in the method blank above MRL (PQL).
Estimated; result based on response which exceeded the instrument calibration range.
The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
The reported result is from a dilution.
See case narrative.

Water & Soil - Chain of Custody Record & Analytical Service Request

Analytical Sarvices Mc	2655 Park Center Drive, Suite A Simi Valley, California 93065	iter Drive, § Ilifornia 93	Suite A 065													
	Phone (805) 526-7161 Fax (805) 526-7270	26-7161 -7270		Requested 1 Day (100%	Requested Turnaround Time in Business Days (Surcharges) please circle 1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day	Time in B %) 3 Day	usiness (50%) 4	Days (Surc Day (35%)	harges) p 5 Day (2	lease circle 5%) 10 Day	r cie Day - Standard	dard	CA	CAS Project No.	6.2555 0.3555	
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DIVIDER SHEET

ANALYTICAL DATA FOR

Hexavalent Chromium

ANALYSIS

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client :BattelleProject Name :JPL Groundwater Monitoring 4Q08Project Number :G486090Sample Matrix :WATER

Service Request : P0803553 **Date Collected :** 10/24/08 **Date Received :** 10/24/08

Chromium, Hexavalent

Prep Method : None Analysis Method : 7196A Test Notes : Units : mg/L (ppm) Basis : NA

				Dilution	Date	Date/Time		Result
Sample Name	Lab Code	PQL	MDL	Factor	Extracted	Analyzed	Result	Notes
MW-18-5	P0803553-001	0.010	0.006	1	NA	10/24/08 14:45	ND	
MW-18-4	P0803553-002	0.010	0.006	1	NA	10/24/08 14:45	ND	
MW-18-3	P0803553-003	0.010	0.006	1	NA	10/24/08 14:45	ND	
MW-18-2	P0803553-004	0.010	0.006	1	NA	10/24/08 14:45	ND	
MW-18-1	P0803553-005	0.010	0.006	1	NA	10/24/08 14:45	ND	
DUPE-02-4Q08	P0803553-006	0.010	0.006	1	NA	10/24/08 14:45	ND	
EB-04-10/24/08	P0803553-007	0.010	0.006	1	NA	10/24/08 14:45	ND	
Method Blank	P0803553-MB	0.010	0.006	1	NA	10/24/08 14:45	ND	

Approved By

he Julert

Date :

1/10/08

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CAS SR #P0803567

(805) 526-7161

(805) 526-7270 fax

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LABORATORY REPORT

November 7, 2008

David Conner Battelle 3990 Old Town Ave., Suite C-205 San Diego, CA 92110

RE: JPL Groundwater Monitoring 4Q08 / G486090

Dear David:

Enclosed are the results of the samples submitted to our laboratory on October 27, 2008. For your reference, these analyses have been assigned our service request number P0803567.

All Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.caslab.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein. Your report contains **25** pages.

Columbia Analytical Services, Inc. is certified by the California Department of Health Services, NELAP Laboratory Certificate No. 02115CA; Arizona Department of Health Services, Certificate No. AZ0694; Florida Department of Health, NELAP Certification E871020; New Jersey Department of Environmental Protection, NELAP Laboratory Certification ID #CA009; New York State Department of Health, NELAP NY Lab ID No: 11221; Oregon Environmental Laboratory Accreditation Program, NELAP ID: CA20007; The American Industrial Hygiene Association, Laboratory #101661; Department of the Navy (NFESC); Pennsylvania Registration No. 68-03307; TX Commission of Environmental Quality, NELAP ID T104704413-08-TX. Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact me for information corresponding to a particular certification.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

Columbia Analytical Services, Inc.

Juderter

Sue Anderson Project Manager

Page 1 of <u>15</u>

An Employee - Owned Company

Client: Project: Battelle JPL Groundwater Monitoring 4Q08 / G486090 (805) 526-7270 fax

P0803567

CASE NARRATIVE

The samples were received intact under chain of custody on October 27, 2008 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Hexavalent Chromium by EPA Method 7196A

No anomalies were encountered during this analysis.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for utilization of less than the complete report.

Client:BattelleProject:JPL Groundwater Monitoring 4Q08/G486090

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
P0803567-001	MW-17-5	10/27/08	08:25
P0803567-002	MW-17-4	10/27/08	08:56
P0803567-003	MW-17-3	10/27/08	09:56
P0803567-004	MW-17-2	10/27/08	10:34
P0803567-005	MW-17-1	10/27/08	11:06
P0803567-006	DUPE-03-4Q08	10/27/08	00:00
P0803567-007	EB-05-10/27/08	10/27/08	10:51

3

Columbia Analytical Services, Inc.

<u>Acronyms</u>

CA LUFT	California DHS LUFT Method
ASTM	
BTEX	American Society for Testing and Materials
CAS Number	Benzene/Toluene/Ethylbenzene/Xylenes
CAS Number CFC	Chemical Abstract Service Registry Number Chlorofluorocarbon
CRDL	Contract Required Detection Limit
DLCS	
DLCS DMS	Duplicate Laboratory Control Sample Duplicate Matrix Spike
DMS DOH or DHS	Department of Health Services
EPA	-
GC	U.S. Environmental Protection Agency
GC GC/MS	Gas Chromatography Gas Chromatography/Mass Spectrometry
IC	Ion Chromatography
IC ICB	Initial Calibration Blank
ICV	Initial Calibration Verification
LCS	Laboratory Control Sample
LUFT	Leaking Underground Fuel Tank
M	Modified Method
MDL	Method Detection Limit
MRL	Method Reporting Limit
MS	Matrix Spike
МТВЕ	Methyl <i>tert</i> -Butyl Ether
NA	Not Applicable
NC	Not Calculated
ND	None Detected at or above the Method Reporting/Detection Limit (MRL/MDL)
NTU	Nephelometric Turbidity Units
ppb	Parts Per Billion
ppm	Parts Per Million
PQL	Practical Quantitation Limit
QA/QC	Quality Assurance/Quality Control
RCRA	Resource Conservation and Recovery Act
RPD	Relative Percent Difference
SIM	Selected Ion Monitoring
SM	Standard Methods for the Examination of Water and Wastewater, 19th Ed., 1995.
SW	Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846,
	Third Edition, 1986 and as amended by Updates I, II, IIA, and IIB.
TDS	Total Dissolved Solids
ТРН	Total Petroleum Hydrocarbons
TSS	Total Suspended Solids
TTLC	Total Threshold Limit Concentration
VOA	Volatile Organic Analyte(s)
VOC	Volatile Organic Compound(s)

<u>Qualifiers</u>

U	The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
J	The result is an estimated concentration that is less than the MRL (PQL), but greater than or equal to the MDL.
В	Analyte detected in the method blank above MRL (PQL).
E	Estimated; result based on response which exceeded the instrument calibration range.
Ν	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
D	The reported result is from a dilution.

X See case narrative.

Columbia	Analytical	Services	An Employee - Owned Compar

Water & Soil - Chain of Custody Record & Analytical Service Request

Page / of /

Analytical	2655 Park Center Drive, Suite A Simi Valley, California 93065	ter Drive, S ifornia 930	Suite A 065	-						
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MW-17-4	3		0856				×			
MW-17-3	3		0956				×			
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DIVIDER SHEET

ANALYTICAL DATA FOR

Hexavalent Chromium

ANALYSIS

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client :BattelleProject Name :JPL Groundwater Monitoring 4Q08Project Number :G486090Sample Matrix :WATER

Service Request: P0803567 **Date Collected**: 10/27/08 **Date Received**: 10/27/08

Chromium, Hexavalent

Prep Method : None Analysis Method : 7196A Test Notes : Units : mg/L (ppm) Basis : NA

				Dilution	Date	Date/Time		Result
Sample Name	Lab Code	PQL	MDL	Factor	Extracted	Analyzed	Result	Notes
MW-17-5	P0803567-001	0.010	0.006	1	NA	10/27/08 15:30	ND	
MW-17-4	P0803567-002	0.010	0.006	1	NA	10/27/08 15:30	ND	
MW-17-3	P0803567-003	0.010	0.006	1	NA	10/27/08 15:30	ND	
MW-17-2	P0803567-004	0.010	0.006	1	NA	10/27/08 15:30	ND	
MW-17-1	P0803567-005	0.010	0.006	1	NA	10/27/08 15:30	ND	
DUPE-03-4Q08	P0803567-006	0.010	0.006	1	NA	10/27/08 15:30	ND	
EB-05-10/27/08	P0803567-007	0.010	0.006	1	NA	10/27/08 15:30	ND	
Method Blank	P0803567-MB	0.010	0.006	1	NA	10/27/08 15:30	ND	

Approved By

The Julest Date:

7/08

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CAS SR #P0803577

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LABORATORY REPORT

November 7, 2008

David Conner Battelle 3990 Old Town Ave., Suite C-205 San Diego, CA 92110

RE: JPL Groundwater Monitoring 4Q08 / G486090

Dear David:

Enclosed are the results of the samples submitted to our laboratory on October 28, 2008. For your reference, these analyses have been assigned our service request number P0803577.

All Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.caslab.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein. Your report contains <u>25</u> pages.

Columbia Analytical Services, Inc. is certified by the California Department of Health Services, NELAP Laboratory Certificate No. 02115CA; Arizona Department of Health Services, Certificate No. AZ0694; Florida Department of Health, NELAP Certification E871020; New Jersey Department of Environmental Protection, NELAP Laboratory Certification ID #CA009; New York State Department of Health, NELAP NY Lab ID No: 11221; Oregon Environmental Laboratory Accreditation Program, NELAP ID: CA20007; The American Industrial Hygiene Association, Laboratory #101661; Department of the Navy (NFESC); Pennsylvania Registration No. 68-03307; TX Commission of Environmental Quality, NELAP ID T104704413-08-TX. Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact me for information corresponding to a particular certification.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

Columbia Analytical Services, Inc.

Ene Julest

Sue Anderson Project Manager

Page 1 of <u>*2*5</u>



Client: Project: Battelle JPL Groundwater Monitoring 4Q08 / G486090 CAS Project No:

P0803577

CASE NARRATIVE

The samples were received intact under chain of custody on October 28, 2008 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Hexavalent Chromium by EPA Method 7196A

No anomalies were encountered during this analysis.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for utilization of less than the complete report.

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
P0803577-001	MW-3-5	10/28/08	08:40
P0803577-002	MW-3-4	10/28/08	09:15
P0803577-003	MW-3-3	10/28/08	09:42
P0803577-004	MW-3-2	10/28/08	10:13
P0803577-005	MW-3-1	10/28/08	10:45
P0803577-006	DUPE-04-4Q08	10/28/08	00:00
P0803577-007	EB-06-10/28/08	10/28/08	10:31

Columbia Analytical Services, Inc.

Acronyms

CA LUFT	California DHS LUFT Method
ASTM	American Society for Testing and Materials
BTEX	Benzene/Toluene/Ethylbenzene/Xylenes
CAS Number	Chemical Abstract Service Registry Number
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CRDL	Contract Required Detection Limit
DLCS	Duplicate Laboratory Control Sample
DMS	Duplicate Matrix Spike
DOH or DHS	Department of Health Services
EPA	U.S. Environmental Protection Agency
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
IC	Ion Chromatography
ICB	Initial Calibration Blank
ICV	Initial Calibration Verification
LCS	Laboratory Control Sample
LUFT	Leaking Underground Fuel Tank
Μ	Modified Method
MDL	Method Detection Limit
MRL	Method Reporting Limit
MS	Matrix Spike
MTBE	Methyl tert -Butyl Ether
NA	Not Applicable
NC	Not Calculated
ND	None Detected at or above the Method Reporting/Detection Limit (MRL/MDL)
NTU	Nephelometric Turbidity Units
ppb	Parts Per Billion
ppm	Parts Per Million
PQL	Practical Quantitation Limit
QA/QC	Quality Assurance/Quality Control
RCRA	Resource Conservation and Recovery Act
RPD	Relative Percent Difference
SIM	Selected Ion Monitoring
SM	Standard Methods for the Examination of Water and Wastewater, 19th Ed., 1995.
SW	Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846,
	Third Edition, 1986 and as amended by Updates I, II, IIA, and IIB.
TDS	Total Dissolved Solids
TPH	Total Petroleum Hydrocarbons
TSS TTL C	Total Suspended Solids
TTLC	Total Threshold Limit Concentration
VOA	Volatile Organic Analyte(s)
VOC	Volatile Organic Compound(s)

<u>Qualifiers</u>

- J The result is an estimated concentration that is less than the MRL (PQL), but greater than or equal to the MDL.
- **B** Analyte detected in the method blank above MRL (PQL).
- E Estimated; result based on response which exceeded the instrument calibration range.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- **D** The reported result is from a dilution.
- X See case narrative.

Columbia	Analytical	Services ^{INC}	An Employee - Owned Company

Water & Soil - Chain of Custody Record & Analytical Service Request

	3	Water &	Soil -	Chain of (Custody Record	Record	& Analvtic	Analytical Service Reg	Request	Page of	
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An Employee - Owned Company	Phone (805) 526-7161 Fax (805) 526-7270	161	Requested Turna 1 Day (100%) 2 [Turnaround Time) 2 Day (75%) 3	ime in Business (6) 3 Day (50%)	Days (Surc 4 Day (35%)	in Business Days (Surcharges) please circle Day (50%) 4 Day (35%) 5 Day (25%) 10 Day	ircle Day - Standard	CAS Project N	iject No. 3, 577	N
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Email Address for Result Reporting		Sampler (Print & Sign)	10/2		8042B 🗆 12B 🗆 12B 🗆		-17				
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DIVIDER SHEET

ANALYTICAL DATA FOR

Hexavalent Chromium

ANALYSIS

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client :BattelleProject Name :JPL Groundwater Monitoring 4Q08Project Number :G486090Sample Matrix :WATER

Service Request : P0803577 Date Collected : 10/28/08 Date Received : 10/28/08

17/128

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Chromium, Hexavalent

Prep Method : None Analysis Method : 7196A Test Notes : Units : mg/L (ppm) Basis : NA

Sample Name	Lab Code	PQL	MDL	Dilution Factor	Date Extracted	Date/Time Analyzed	Result	Result Notes
MW-3-5	P0803577-001	0.010	0.006	1	NA	10/28/08 15:05	ND	
MW-3-4	P0803577-002	0.010	0.006	1	NA	10/28/08 15:05	ND	
MW-3-3	P0803577-003	0.010	0.006	1	NA	10/28/08 15:05	ND	
MW-3-2	P0803577-004	0.010	0.006	1	NA	10/28/08 15:05	ND	
MW-3-1	P0803577-005	0.010	0.006	1	NA	10/28/08 15:05	ND	
DUPE-04-4Q08	P0803577-006	0.010	0.006	1	NA	10/28/08 15:05	ND	
EB-06-10/28/08	P0803577-007	0.010	0.006	1	NA	10/28/08 15:05	ND	
Method Blank	P0803577-MB	0.010	0.006	1	NA	10/28/08 15:05	ND	

Rue Julester Date: 11/

Approved By



CAS SR #P0803590

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Hexavalent Chromium Raw Data	15-26



LABORATORY REPORT

November 10, 2008

David Conner Battelle 3990 Old Town Ave., Suite C-205 San Diego, CA 92110

RE: JPL Groundwater Monitoring 4Q08 / G486090

Dear David:

Enclosed are the results of the samples submitted to our laboratory on October 29, 2008. For your reference, these analyses have been assigned our service request number P0803590.

All Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.caslab.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein. Your report contains \mathcal{H}_{o} pages.

Columbia Analytical Services, Inc. is certified by the California Department of Health Services, NELAP Laboratory Certificate No. 02115CA; Arizona Department of Health Services, Certificate No. AZ0694; Florida Department of Health, NELAP Certification E871020; New Jersey Department of Environmental Protection, NELAP Laboratory Certification ID #CA009; New York State Department of Health, NELAP NY Lab ID No: 11221; Oregon Environmental Laboratory Accreditation Program, NELAP ID: CA20007; The American Industrial Hygiene Association, Laboratory #101661; Department of the Navy (NFESC); Pennsylvania Registration No. 68-03307; TX Commission of Environmental Quality, NELAP ID T104704413-08-TX. Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact me for information corresponding to a particular certification.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

Columbia Analytical Services, Inc.

Juderte

Sue Anderson Project Manager

Page 1 of _*26*

Columbia Analytical Services INC.

Client:BattelleProject:JPL Groundwater Monitoring 4Q08 / G486090

CAS Project No:

P0803590

(805) 526-7270 fax

CASE NARRATIVE

The samples were received intact under chain of custody on October 29, 2008 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Hexavalent Chromium by EPA Method 7196A

No anomalies were encountered during this analysis.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for utilization of less than the complete report.

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
P0803590-001	MW-14-5	10/29/08	08:15
P0803590-002	MW-14-4	10/29/08	08:51
P0803590-003	MW-14-3	10/29/08	09:45
P0803590-004	MW-14-2	10/29/08	10:41
P0803590-005	MW-14-1	10/29/08	11:20
P0803590-006	DUPE-05-4Q08	10/29/08	00:00
P0803590-007	EB-07-10/29/08	10/29/08	11:00

Columbia Analytical Services, Inc.

Acronyms

CA LUFT	California DHS LUFT Method		
ASTM	American Society for Testing and Materials		
BTEX	Benzene/Toluene/Ethylbenzene/Xylenes		
CAS Number	Chemical Abstract Service Registry Number		
CFC	Chlorofluorocarbon		
CRDL	Contract Required Detection Limit		
DLCS	Duplicate Laboratory Control Sample		
DMS	Duplicate Matrix Spike		
DOH or DHS	Department of Health Services		
EPA	U.S. Environmental Protection Agency		
GC	Gas Chromatography		
GC/MS	Gas Chromatography/Mass Spectrometry		
IC	Ion Chromatography		
ICB	Initial Calibration Blank		
ICV	Initial Calibration Verification		
LCS	Laboratory Control Sample		
LUFT	Leaking Underground Fuel Tank		
Μ	Modified Method		
MDL	Method Detection Limit		
MRL	Method Reporting Limit		
MS	Matrix Spike		
MTBE	Methyl tert -Butyl Ether		
NA	Not Applicable		
NC	Not Calculated		
ND	None Detected at or above the Method Reporting/Detection Limit (MRL/MDL)		
NTU	Nephelometric Turbidity Units		
ppb	Parts Per Billion		
ppm	Parts Per Million		
PQL	Practical Quantitation Limit		
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TDS	Total Dissolved Solids		
ТРН	Total Petroleum Hydrocarbons		
TSS	Total Suspended Solids		
TTLC	Total Threshold Limit Concentration		
VOA	Volatile Organic Analyte(s)		
VOC	Volatile Organic Compound(s)		

Qualifiers

U	The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
J	The result is an estimated concentration that is less than the MRL (PQL), but greater than or equal to the MDL.
В	Analyte detected in the method blank above MRL (PQL).
E	Estimated; result based on response which exceeded the instrument calibration range.
NI	The equilitie measurementing. The explore uses to static build entitled, but a confirmation exploring uses not nonformed

- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.D The reported result is from a dilution.
- X See case narrative.