

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

<b>Date:</b> 11-Aug-08	(	C S	ummar	y Repor	t				<b>Work Ord</b> 08073040	
Method Blank File ID: 080608.B\A108SMPL.D		Туре М		est Code: El atch ID: 203		hod 200.8		sis Date:	08/07/2008 00:38	
Sample ID: MB-20360	Units : mg/L		Run ID: IC	P/MS_0808	06F		Prep l	Date:	08/04/2008	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	val %RPD(Limit)	Qual
Chromium (Cr)	ND	0.005	5							
Laboratory Control Spike File ID: 080608.B\007_LCS.D\		Τуре Ι		est Code: El atch ID: 203		hod 200.8		sis Date:	08/07/2008 11:39	
Sample ID: LCS-20360	Units : mg/L		-	P/MS_0808			Prep I		08/04/2008	
Analyte	Result	PQL				LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qual
Chromium (Cr)	0.0579	0.005	5 0.05		116	80	120			<u> </u>
Sample Matrix Spike File ID: 080608.B\A116SMPL.D		Type N		est Code: El atch ID: 203		hod 200.8		sis Date:	08/07/2008 01:24	
Sample ID: 08073040-02AMS	Units : mg/L		Run ID: IC	P/MS_0808	06F		Prep (	Date:	08/04/2008	
Analyte	Result	PQL				LCL(ME)	UCL(ME)	RPDRef\	Val %RPD(Limit)	Qual
Chromium (Cr)	0.0551	0.005	5 0.05	0	110	80	120			
Sample Matrix Spike Duplicate File ID: 080608.B\A117SMPL D		Type N		est Code: El atch ID: 203		hod 200.8		sis Date:	08/07/2008 01:30	
Sample ID: 08073040-02AMSD	Units : mg/L		_	P/MS_0808			Prep I		08/04/2008	
Analyte	Result	PQL				LCL(ME)	•		Val %RPD(Limit)	Qual
Chromium (Cr)	0.0539	0.005		0		80	120	0.0550	· · · · ·	<u> </u>

#### Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



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<b>Date:</b> 06-Aug-08		(	DC S	Sumr	nary	Report	-				<b>Work Ord</b> 0807304	
Method Blan File ID: 14 Sample ID:	k MBLK-20339	Units : µg/L	Туре	MBLK	Bat	st Code: EP tch ID: 2033 3 080731A	9	thod 314.0			07/31/2008 11:45 07/31/2008	;
Analyte		Result	PQL		_			LCL(ME)			Val %RPD(Limit)	Qua
Perchlorate		ND		1								
Laboratory H File ID: 15	Fortified Blank		Туре	LFB		st Code: EP tch ID: 2033		thod 314.0	Analys	sis Date:	07/31/2008 12:04	
Sample ID: Analyte	LFB-20339	Units : <b>µg/L</b> Result	PQL			3_080731A SpkRefVal		CLCL(ME)	Prep [ UCL(ME)		<b>07/31/2008</b> Val %RPD(Limit)	Qua
Perchlorate		24.2		2	25		97	85	115			
Sample Matr File ID: 46	ix Spike		Туре	LFM		st Code: EP		thod 314.0		sis Date:	07/31/2008 21:34	•
Sample ID: Analyte	08073040-02ALFM	Units : <b>µg/L</b> Result	PQL		-	3_080731A SpkRefVal		CLCL(ME)	Prep [ UCL(ME)		<b>07/31/2008</b> Val %RPD(Limit)	Qua
Perchlorate		22.2		2	25	0	89	80	120			
Sample Matr File ID: 47	ix Spike Duplicate		Туре	LFMD		st Code: EP tch ID: 2033		thod 314.0		sis Date:	07/31/2008 21:53	 
Sample ID: Analyte	08073040-02ALFMD	Units : <b>µg/L</b> Result	PQL		_	3_080731A SpkRefVal		CLCL(ME)	Prep [ UCL(ME)		<b>07/31/2008</b> Val %RPD(Limit)	Qua
Perchlorate		22.3		2	25	0	89	80	120	22.1		

#### Comments:

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Date: 06-Aug-08	QC Summary Report	<b>Work Order:</b> 08073040
Method Blank File ID: Sample ID: MBLK-W0730CN	Type         MBLK         Test Code:         EPA Method         120.1 / SM2510B / SW9050A           Batch ID:         W0730CN         Analysis         Date:         07/30/           Units:         uS/cm         Run ID:         WETLAB         080730A         Prep Date:         07/30/	
Analyte	Units : µS/cm Run ID: WETLAB_080730A Prep Date: 07/30/ Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %R	
Specific Conductance (at 25°C)	ND 10	
Laboratory Control Spike File ID:	Type LCSTest Code: EPA Method 120.1 / SM2510B / SW9050ABatch ID: W0730CNAnalysis Date: 07/30	/2008 00:00
Sample ID: LCS-W0730CN	Units : <b>µS/cm</b> Run ID: <b>WETLAB_080730A</b> Prep Date: <b>07/30/</b>	2008
Analyte	Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %F	PD(Limit) Qua
Specific Conductance (at 25°C)	1420 10 1410 101 98 102	

#### **Comments:**

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



Date: 11-Aug-08	(	OC Summ	ary Report			Work Orde 08073040	
Method Blank		Type MBLK	Test Code: EPA M	ethod SW820	50B		<u> </u>
File ID: 08080506.D			Batch ID: MS15W0	)805K5	Analysis Date:	08/05/2008 10:26	
Sample ID: MBLK MS15W0805K	Units : µg/L	Run ID	: MSD_15_080805A		Prep Date:	08/05/2008	
Analyte	Result		Val SpkRefVal %RE		UCL(ME) RPDRef	/al %RPD(Limit)	Qua
Dichlorodifluoromethane	ND	0.5	•		·····		
Chloromethane	ND	0.5					
Vinyl chloride	ND	0.5					
Chloroethane	ND	0.5					
Bromomethane	ND	1					
Trichlorofluoromethane	ND	0.5					
1,1-Dichloroethene Dichloromethane	ND	0.5					
Freon-113	ND ND	1 0.5					
trans-1,2-Dichloroethene	ND	0.5					
Methyl tert-butyl ether (MTBE)	ND	0.5					
1,1-Dichloroethane	ND	0.5					
2-Butanone (MEK)	ND	10					
cis-1,2-Dichloroethene	ND	0.5					
Bromochloromethane Chloroform	ND	0.5					
2,2-Dichloropropane	ND ND	0.5 0.5					
1,2-Dichloroethane	ND	0.5					
1,1,1-Trichloroethane	ND	0.5					
1,1-Dichloropropene	ND	0.5					
Carbon tetrachloride	ND	0.5					
Benzene	ND	0.5					
Dibromomethane	ND	0.5					
1,2-Dichloropropane Trichloroethene	ND	0.5					
Bromodichloromethane	ND ND	0.5 0.5					
4-Methyl-2-pentanone (MIBK)	ND	2.5					
cis-1,3-Dichloropropene	ND	0.5					
trans-1,3-Dichloropropene	ND	0.5					
1,1,2-Trichloroethane	ND	0.5					
Toluene	ND	0.5					
1,3-Dichloropropane Dibromochloromethane	ND	0.5					
1,2-Dibromoethane (EDB)	ND ND	0.5 1					
Tetrachloroethene	ND	0.5					
1,1,1,2-Tetrachloroethane	ND	0.5					
Chlorobenzene	ND	0.5					
Ethylbenzene	ND	0.5					
m,p-Xylene	ND	0.5					
Bromoform Styrene	ND	0.5					
o-Xylene	ND ND	0.5 0.5					
1,1,2,2-Tetrachloroethane	ND	0.5					
1,2,3-Trichloropropane	ND	1					
lsopropylbenzene	ND	0.5					
Bromobenzene	ND	0.5					
n-Propylbenzene	ND	0.5					
4-Chlorotoluene 2-Chlorotoluene	ND	0.5					
1,3,5-Trimethylbenzene	ND ND	0.5 0.5					
tert-Butylbenzene	ND	0.5					
1,2,4-Trimethylbenzene	ND	0.5					
sec-Butylbenzene	ND	0.5					
1,3-Dichlorobenzene	ND	0.5					
1,4-Dichlorobenzene	ND	0.5					
4-isopropyltoluene 1,2-Dichlorobenzene	ND ND	0.5					
n-Butylbenzene	ND ND	0.5 0.5					
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.5					
1,2,4-Trichlorobenzene	ND	1					
Naphthalene	ND	1					
Hexachlorobutadiene	ND	1					
1,2,3-Trichlorobenzene	ND	1	40 ····	^	400		
Surr: 1,2-Dichloroethane-d4 Surr: Toluene-d8	11.7		10 11 <sup>-</sup> 10 97		130 130		
Gunt I Gluene-do	9.74		10 97	70	150		



Date: 11-Aug-08	(	QC Sum	mary	Report			Work Ord 0807304	
Surr: 4-Bromofluorobenzene	9.79		10	98	70	130		
Laboratory Control Spike File ID: 08080504.D Sample ID: LCS MS15W0805K	Units : µg/L	Type LCS	Batc	Code: EPA Meth h ID: MS15W080 _15_080805A			ate: 08/05/2008 09:24 : 08/05/2008	
Analyte	Result				LCL(ME)		RefVal %RPD(Limit)	Qua
Dichlorodifluoromethane	12	1	10	120	21	160		
Chloromethane	8.45	2	10	85	45	145		
Vinyl chloride	11.4	1	10	114	80	120		
Chloroethane	12.1	1	10	121	53	163		
Bromomethane	13.4	2	10	134	10	180		
Trichlorofluoromethane	16.7	1	10	167	50	160		L51
1,1-Dichloroethene	11.4	1	10	114	80	120		
Dichloromethane	10.2	2	10	102	70	130		
trans-1,2-Dichloroethene Methyl tert-butyl ether (MTBE)	11.2	1	10	112	70	130		
1,1-Dichloroethane	13.1 10.4	0.5 1	10 10	131 104	68 70	134 130		
cis-1,2-Dichloroethene	11.6	1	· 10	116	70	130		
Bromochloromethane	12.4	1	10	124	70	130		
Chloroform	11.3	1	10	113	80	120		
2,2-Dichloropropane	12.4	1	10	124	70	145		
1,2-Dichloroethane	12.9	1	10	129	69	136		
1,1,1-Trichloroethane	13	1	10	130	70	136		
1,1-Dichloropropene	11.8	1	10	118	70	130		
Carbon tetrachloride Benzene	13.4	1	10	134	64	150		
Dibromomethane	10.2 13.2	0.5 1	10 10	102 132	70 70	130 134		
1,2-Dichloropropane	10.1	1	10	101	80	120		
Trichloroethene	11.7	1	10	117	70	130		
Bromodichloromethane	13.2	1	10	132	70	134		
cis-1,3-Dichloropropene	10.5	1	10	105	70	130		
trans-1,3-Dichloropropene	11.3	1	10	113	70	130		
1,1,2-Trichloroethane	11.9	1	10	119	70	130		
Toluene	9.53	0.5	10	95	80	120		
1,3-Dichloropropane Dibromochloromethane	10.9 11.6	1	10 10	109 116	70 70	130 130		
1,2-Dibromoethane (EDB)	24.5	1 2	20	122	70	130		
Tetrachloroethene	11.2	1	10	112	70	130		
1,1,1,2-Tetrachloroethane	11.9	1	10	119	70	130		
Chlorobenzene	10.3	1	10	103	70	130		
Ethylbenzene	10.5	0.5	10	105	80	120		
m,p-Xylene	11.2	0.5	10	112	70	130		
Bromoform	13.2	1	10	132	70	131		L51
Styrene	10.4	1	10	104	70	130		
o-Xylene 1,1,2,2-Tetrachloroethane	10.3	0.5	10	103	70	130		
1,2,3-Trichloropropane	9.71 23.9	1 2	10 20	97 120	70 70	130 130		
Isopropylbenzene	10.3	1	20 10	120	70	130		
Bromobenzene	10.2	1	10	102	70	130		
n-Propylbenzene	10.4	1	10	104	70	130		
4-Chlorotoluene	10.4	1	10	104	70	130		
2-Chlorotoluene	10.1	1	10	101	70	130		
1,3,5-Trimethylbenzene	10.5	1	10	105	70	131		
tert-Butylbenzene	11.2	1	10	112	70	131		
1,2,4-Trimethylbenzene sec-Butylbenzene	10.5 10.6	1 1	10 10	105 106	70 70	130 130		
1,3-Dichlorobenzene	9.93	1	10	99	70	130		
1,4-Dichlorobenzene	10	1	10	100	70	130		
4-Isopropyltoluene	10.8	1	10	108	70	133		
1,2-Dichlorobenzene	9.49	1	10	95	70	130		
n-Butylbenzene	10.3	1	10	103	70	130		
1,2-Dibromo-3-chloropropane (DBCP)	55.2	3	50	110	70	130		
1,2,4-Trichlorobenzene	11	2	10	110	67	130		
Naphthalene Hexachlorobutadiene	11.2	2	10	112	45	153		
1,2,3-Trichlorobenzene	23.1 12.2	2 2	20 10	116 122	64 58	133 133		
Surr: 1,2-Dichloroethane-d4	12.2	2	10 10	122	58 70	133		
Surr: Toluene-d8	9.25		10	93	70	130		
	vv			~~				



### Alpha Analytical, Inc.

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<b>Date:</b> 11-Aug-08	(	QC Sui	nmary	Report				<b>Work Ord</b> 0807304	
Sample Matrix Spike		Type MS	Tes	t Code: EP/	A Met	hod SW82	260B		
File ID: 08080507.D			Bato	h ID: <b>MS15</b>	5W080	)5K5	Analysis Dat	te: 08/05/2008 10:48	
Sample ID: 08073040-02AMS	Units : µg/L	R	un ID: MSE	0_15_08080	)5A		Prep Date:	08/05/2008	
Analyte	Result	PQL	SpkVal S	pkRefVal %	6REC	LCL(ME)	UCL(ME) RPDR	efVal %RPD(Limit)	Qual
Dichlorodifluoromethane	41.7	2.5	50	0	83	10	160		
Chloromethane	32.2	10	50	Ő	64	27	145		
Vinyl chloride	42.7	2.5	50	0	85	38	132		
Chloroethane	48.7	2.5	50	0	95	25	163		
Bromomethane	59.8	10	50	0	120	10	180		
Trichlorofluoromethane	71.7	2.5	50	0	143	34	160		
1,1-Dichloroethene Dichloromethane	46.3 43.6	2.5	50	0 0	93 87	51 65	130 130		
trans-1,2-Dichloroethene	43.6 47.8	10 2.5	50 50	0	87 96	63	130		
Methyl tert-butyl ether (MTBE)	57.5	1.3	50	Ő	115	53	151		
1,1-Dichloroethane	45.2	2.5	50	õ	90	65	130		
cis-1,2-Dichloroethene	50.3	2.5	50	Ō	101	70	130		
Bromochloromethane	53.5	2.5	50	0	107	70	130		
Chloroform	50.1	2.5	50	0	100	70	130		
2,2-Dichloropropane	54.8	2.5	50	0	110	40	146		
1,2-Dichloroethane 1,1,1-Trichloroethane	57.5 55.7	2.5	50 50	0 0	115 111	66 59	136 136		
1,1-Dichloropropene	49.6	2.5 2.5	50 50	0	99	59 59	130		
Carbon tetrachloride	58.2	2.5	50 50	0	116	44	150		
Benzene	44.4	1.3	50	ŏ	89	69	130		
Dibromomethane	57.2	2.5	50	Ō	114	70	134		
1,2-Dichloropropane	44.5	2.5	50	0	89	69	130		
Trichloroethene	48.5	2.5	50	0	97	64	130		
Bromodichloromethane	58.1	2.5	50	0	116	70	134		
cis-1,3-Dichloropropene	44.6	2.5	50	0	89	66 67	130		
trans-1,3-Dichloropropene 1,1,2-Trichloroethane	48.1 51.5	2.5 2.5	50 50	0 0	96 103	67 70	130 130		
Toluene	40.7	1.3	50	0	81	65	130		
1,3-Dichloropropane	47	2.5	50	õ	94	70	130		
Dibromochloromethane	50.7	2.5	50	0	101	70	130		
1,2-Dibromoethane (EDB)	104	10	100	0	104	70	130		
Tetrachloroethene	46.5	2.5	50	0	93	54	130		
1,1,1,2-Tetrachloroethane	51.5	2.5	50	0	103	70	130		
Chlorobenzene Ethylbenzene	44.6 44.8	2.5 1.3	50 50	0	89 90	70 67	130 130		
m,p-Xylene	44.0 47.5	1.3	50 50	0	90 95	67	130		
Bromoform	57.7	2.5	50 50	ŏ	115	68	131		
Styrene	45.4	2.5	50	Ō	91	62	130		
o-Xylene	44.7	1.3	50	0	89	70	130		
1,1,2,2-Tetrachloroethane	42.9	2.5	50	0	86	70	130		
1,2,3-Trichloropropane	103	10	100	0	103	70	130		
isopropylbenzene Bromobenzene	43.5 43.9	2.5 2.5	50 50	0 0	87 88	59 70	131 130		
n-Propylbenzene	43.9 42.9	2.5	50 50	0	86	61	130		
4-Chlorotoluene	44.4	2.5	50	ő	89	70	130		
2-Chlorotoluene	44	2.5	50	Ō	88	68	130		
1,3,5-Trimethylbenzene	44.7	2.5	50	0	89	64	131		
tert-Butylbenzene	47.4	2.5	50	0	95	58	130		
1,2,4-Trimethylbenzene	44.9	2.5	50	0	90	59	133		
sec-Butylbenzene 1,3-Dichlorobenzene	44	2.5	50	0	88	59	130 130		
1,4-Dichlorobenzene	43.2 43.1	2.5 2.5	50 50	0 0	86 86	70 70	130		
4-Isopropyltoluene	45	2.5	50	0	90	62	133		
1,2-Dichlorobenzene	41	2.5	50	Õ	82	70	130		
n-Butylbenzene	44.1	2.5	50	0	88	58	131		
1,2-Dibromo-3-chloropropane (DBCP)	236	15	250	0	95	70	130		
1,2,4-Trichlorobenzene	45.2	10	50	0	90	67	130		
Naphthalene	43.7	10	50	0	87 06	45	155		
Hexachlorobutadiene 1,2,3-Trichlorobenzene	96.3 48.3	10 10	100 50	0	96 97	51 58	133 133		
Surr: 1,2-Dichloroethane-d4	48.3 52.8	10	50 50	U	97 106	58 70	130		
Surr: Toluene-d8	45.9		50		92	70	130		
Surr: 4-Bromofluorobenzene	49.4		50		99	70	130		
			-						



<b>Date:</b> 11-Aug-08	(	OC Sui	mmarv	y Repor	t				Work Orde 08073040	
Sample Matrix Spike Duplicate		Type MS		est Code: El atch ID: MS1				ais Date: 00/	05/2008 11:10	
Sample ID: 08073040-02AMSD	Units : µg/L	P				5565	Prep E		)5/2008	
Analyte	Result	PQL		SD_15_0808			•	RPDRefVal		Qual
· · · · · · · · · · · · · · · · · · ·				·						
Dichlorodifluoromethane Chloromethane	39.2 33.5	2.5 10	50 50	0 0	78 67	10 27	160 145	41.72 32.22	6.2() 4.0()	
Vinyl chloride	42.7	2.5	50	0	85	38	132	42.67	0.0()	
Chloroethane	47.9	2.5	50	Ō	93	25	163	48.67	1.6()	
Bromomethane	66	10	50	0	132	10	180	59.79	9.8()	
Trichlorofluoromethane	64.8	2.5	50	0	130	34	160	71.73	10.1()	
1,1-Dichloroethene	44.1	2.5	50	0	88	51	130	46.26	4.8()	
Dichloromethane trans-1,2-Dichloroethene	44.5 47.3	10 2.5	50 50	0	89 95	65 63	130 130	43.62 47.79	1.9() 0.9()	
Methyl tert-butyl ether (MTBE)	60.7	1.3	50	ő	121	53	151	57.52	5.4()	
1,1-Dichloroethane	44.9	2.5	50	Ō	90	65	130	45.15	0.6()	
cis-1,2-Dichloroethene	51.2	2.5	50	0	102	70	130	50.32	1.7()	
Bromochloromethane	57.4	2.5	50	0	115	70	130	53.5	7.0()	
Chloroform 2,2-Dichloropropane	49.8	2.5	50	0	100 104	70	130	50.11 54.78	0.7() 4.9()	
1,2-Dichloroethane	52.2 59.2	2.5 2.5	50 50	0	104	40 66	146 136	54.78 57.53	2.8()	
1,1,1-Trichloroethane	53.2	2.5	50 50	0	106	59	136	55.68	4.5()	
1,1-Dichloropropene	48.8	2.5	50	Ō	98	59	130	49.57	1.6()	
Carbon tetrachloride	54.8	2.5	50	0	110	44	150	58.15	6.0()	
Benzene	44.2	1.3	50	0	88	69	130	44.4	0.4()	
Dibromomethane 1.2-Dichloropropane	60.6	2.5	50	0	121	70	134	57.24	5.7()	
Trichloroethene	45.6 48	2.5 2.5	50 50	0	91 96	69 64	130 130	44.52 48.47	2.3() 0.9()	
Bromodichloromethane	58.2	2.5	50	0	116	70	134	58.11	0.2()	
cis-1,3-Dichloropropene	45.6	2.5	50	0	91	66	130	44.55	2.3()	
trans-1,3-Dichloropropene	50.1	2.5	50	0	100	67	130	48.11	4.0()	
1,1,2-Trichloroethane	53.7	2.5	50	0	107	70	130	51.45	4.3()	
Toluene 1,3-Dichloropropane	40.7	1.3	50	0	81 98	65 70	130 130	40.71 47.02	0.1() 4.3()	
Dibromochloromethane	49.1 52.1	2.5 2.5	50 50	0	90 104	70	130	50.67	2.8()	
1,2-Dibromoethane (EDB)	110	10	100	Ő	110	70	130	103.7	5.8()	
Tetrachloroethene	45.8	2.5	50	0	92	54	130	46.5	1.5()	
1,1,1,2-Tetrachloroethane	52.4	2.5	50	0	105	70	130	51.51	1.8()	
Chlorobenzene	45.1	2.5	50	0	90	70	130	44.55	1.3()	
Ethylbenzene m,p-Xylene	43.8 47	1.3 1.3	50 50	0	88 94	67 67	130 130	44.8 47.53	2.2() 1.1()	
Bromoform	60.3	2.5	50 50	0	121	68	131	57.68	4.5()	
Styrene	46.1	2.5	50	Ő	92	62	130	45.43	1.4()	
o-Xylene	44.7	1.3	50	0	89	70	130	44.71	0.0()	
1,1,2,2-Tetrachloroethane	45.3	2.5	50	0	91	70	130	42.92	5.3()	
1,2,3-Trichloropropane Isopropylbenzene	106	10	100	0	106 87	70 59	130 131	102.5 43.48	3.7() 0.4()	
Bromobenzene	43.3 45.8	2.5 2.5	50 50	0	92	59 70	130	43.40	4.2()	
n-Propylbenzene	43.1	2.5	50	Ő	86	61	130	42.93	0.4()	
4-Chlorotoluene	45.1	2.5	50	0	90	70	130	44.36	1.7()	
2-Chlorotoluene	44.6	2.5	50	0	89	68	130	43.98	1.4()	
1,3,5-Trimethylbenzene	44.8	2.5	50	0	90	64	131	44.66	0.4()	
tert-Butylbenzene 1,2,4-Trimethylbenzene	47.3 45.6	2.5 2.5	50 50	0 0	95 91	58 59	130 133	47.43 44.92	0.3() 1.5()	
sec-Butylbenzene	44.1	2.5	50 50	0	88	59	130	43.98	0.3()	
1,3-Dichlorobenzene	44.8	2.5	50	Ő	90	70	130	43.23	3.5()	
1,4-Dichlorobenzene	45	2.5	50	0	90	70	130	43.08	4.3()	
4-Isopropyltoluene	45.2	2.5	50	0	90	62	133	45	0.4()	
1,2-Dichlorobenzene n-Butylbenzene	43.3	2.5	50 50	0	87 88	70 58	130 131	40.95 44.05	5.7() 0.3()	
1,2-Dibromo-3-chloropropane (DBCP)	43.9 250	2.5 15	50 250	0	88 99.9	58 70	131	44.05 236.5	0.3() 5.4()	
1,2,4-Trichlorobenzene	48.9	10	250 50	0	99.9 98	67	130	45.23	7.9()	
Naphthalene	48.2	10	50	Ő	96	45	155	43.71	9.8()	
Hexachlorobutadiene	101	10	100	0	101	51	133	96.3	4.3()	
1,2,3-Trichlorobenzene	53	10	50	0	106	58	133	48.31	9.3()	
Surr: 1,2-Dichloroethane-d4 Surr: Toluene-d8	52.3 46.1		50 50		105 92	70 70	130 130			
Surr: 4-Bromofluorobenzene	50.3		50 50		92 101	70	130			
	00.0					. •				



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

### QC Summary Report

Work Order: 08073040

#### 11-Aug-08 Comments:

Date:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

L51 = Analyte recovery was above acceptance limits for the LCS, but was acceptable in the MS/MSD.

Billing Information : Battelle			CH	AIN	-OF	-Cl	JSTO	CHAIN-OF-CUSTODY RECO	REC	ORD		C.A	Page	Page: 1 of 1
505 King Avenue					Alp	ha A	nalytic	Alpha Analytical, Inc.	•				DIATIONTON	
Columbus. OH 43201	01			255 Glen	dale Ave	mue, Sui	te 21 Spar	255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778	89431-57	78		or worder	VV OI KUTUEL : DIVILUOU / 3040	40
	-			Е	EL: (775)	355-104	44 FAX: (	TEL: (775) 355-1044 FAX: (775) 355-0406	406		Repo	rt Due By : :	Report Due By : 5:00 PM On : 13-Aug-08	13-Aug-08
Client:		_	Report Attention	tion	Pho	Phone Number	ber	EMail Address	ddress					
Battelle Memorial Institute	nstitute		David Conner	7	(619	(619) 574-4827 x	27 x	connerd@battelle.org	battelle.or	89				
anua Viug Anuana											ED	EDD Required : Yes	es	
Columbus, OH 43201	01											Sampled by : Client	lient	
PO :												Cooler Temp	Samples Received	Date Printed
Client's COC #: 026286		Job :	G005862/JPL Groundwater Monitoring	- Groun	dwater N	Monitorir	Ð					4°C	30-Jul-08	31-Jul-08
QC Level: S4	= Final Rpt, MBLK, InitCal/ConCal data, LCS, MS/MSD With Surrogates	Sal/Cor	nCal data, LC	S, MS/N	NSD WI	th Surro	gates							
				:						<b>Requested Tests</b>	ed Tests			
Sample ID S	Sample ID	Matri	Collection Matrix Date	No. of Alpha	No. of Bottles Alpha Sub	TAT	314_W	CONDUCTI VITY	METALS_D W	VITY W W W	VOC_W		Sam	Sample Remarks
BMI08073040-01A MW-23-4	fW-23-4	Ą	07/29/08 07:56	<b>د</b>	0	10			ß					
BMI08073040-02A	MW-23-3	Ą	07/29/08 08:45	10	0	10	Perchlorate	Perchlorate	Ŷ	VOC by 524 Criteria	VOC by 524 Criteria			MS/MSD
BMI08073040-03A MW-23-2	1W-23-2	Ą	07/29/08 09:34	<b>С</b> т	0	10	Perchlorate	Perchlorate	ß	VOC by 524 Criteria	VOC by 524 Criteria			
BMI08073040-04A MW-23-1	1W-23-1	ð	07/29/08 10:01	<b>с</b> л	0	10	Perchlorate	Perchlorate	Ŷ	VOC by 524 Criteria	VOC by 524 Criteria			
BMI08073040-05A E	EB-07-07/29/08	Å	07/29/08 09:24	5	0	10	Perchlorate	Perchlorate	Ŷ	VOC by 524 VOC by 524 Criteria Criteria	VOC by 524 Criteria			

No security seals. Frozen ice. Client provided Temp Blank rec'd @ 4°. Level IV QC. Amended 7/31/08 13:46 to add TICS per project requirements. TP : 2

**Comments:** 

BMI08073040-06A TB-07-07/29/08

AQ 07/29/08 00:00

-

0

10

VOC by 524 VOC by 524 Criteria Criteria VOC by 524 VOC by 524 Criteria Criteria

**RENO TRIP BLANK 6/24/08** 

Logged in by: The leave have	Signature
Tasha Pasca	Print Name
Alpha Analytical, Inc. 7	Company
7/31/68 1405	Date

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-Tediar B-Brass P-Plastic OT-Other

Billing Information : Battelle	CHAIN-OF-CUSTODY RECOI	RD CA Page: 1 of 1
505 King Avenue	Alpha Analytical, Inc.	
Columbus OH 43201	255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778	
	TEL: (775) 355-1044 FAX: (775) 355-0406	Report Due By : 5:00 PM On : 13-Aug-08
Client:	Report Attention Phone Number EMail Address	
Battelle Memorial Institute	David Conner (626) 345-0598 x connerd@battelle.org	
505 King Avenue		EDD Required : Yes
Columbus, OH 43201		Sampled by : Client
PO:		Cooler Temp Samples Received Date Printed
Client's COC #: 026286	Job : G005862/JPL Groundwater Monitoring	30-Jul-08
QC Level : S4 = Final Rpt, MBL	Final Rpt, MBLK, InitCal/ConCal data, LCS, MS/MSD With Surrogates	
		Requested Tests
Sample ID Sample ID	Matrix Date Alpha Sub TAT	vuc_w Sample Remarks
BMI08073040-01A MW-23-4	AQ 07/29/08 1 0 10 cr	
BMI08073040-02A MW-23-3	AQ         07/29/08         10         0         10         Perchlorate         Perchlorate         Cr         VOC           08:45         0         10         10         Perchlorate         Cr         VOC	Criteria MS/MSD
BMI08073040-03A MW-23-2	AQ         07/29/08         5         0         10         Perchlorate         Perchlorate         Cr         VOC           09:34         5         0         10         Perchlorate         Cr         VOC	VOC by 524 Criteria
BMI08073040-04A MW-23-1	AQ         07/29/08         5         0         10         Perchiorate         Perchiorate         Cr         VOC           10:01         5         0         10         Perchiorate         Cr         VOC	VOC by 524
BMI08073040-05A EB-07-07/29/08	AQ         07/29/08         5         0         10         Perchlorate         Perchlorate         Cr         VOC           09:24         5         0         10         Perchlorate         Cr         VOC	Criteria
BMI08073040-06A TB-07-07/29/08	AQ         07/29/08         1         0         10         10         voc           00:00         1         0         10         10         voc         voc	Criteria RENO TRIP BLANK 6/24/08
2		

No security sears. Frozen ice. Chent provided Lemp Blank rec d (a) 4°. Level IV UC.

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.

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.

asha Pascal

----

> Alpha Analytical, Inc. Company

7/30/08/1000

Print Name

Comments:

Logged in by:

(Para Signature

Billing Information: Name GERALD TOMPKINS Address 505 KING AVE. City, State, Zip COLUMIOUS, OH 43201	Alph 255 Gl Sparks Phone Fax (7	<b>cal, Inc.</b> e, Suite 21 31-5778	Samples Collected From Which State? AZCANVWAF IDOROTHERF	te? 026286 Page # <u>1</u> of <u>1</u>
Fax	Fax (7	Fax (775) 355-0406	Analyses Required	<u> </u>
	P.O. # 218017 EMail Address	Job# Gr005862	<u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u>	od QC Lev
	EMail Address			(111) IV
City, State, Zip SIEGO, CA 92110	Phone #619-726-7311	Fax #		EDD/EDF? YESNO
Time Date Matrix* Sampled by	Report Attention	Total and type of		Global ID #
Sampled Sampled Below Lab ID Number (Use Only)	Sample Description	TAT Filed ** See below		REMARKS
07571/19/00 AQ BINTLO8073040-01	MW-23-4	NORM		
0845 02	MW-23-3	) o ×	×	15/14D
<i>03</i> 4 703	MW-23-2	- 2J	X ×	
100- -04	MW-23-1		× × -	
50- G0-	25-07-0729/08	×	× × · · · · · · · · · · · · · · · · · ·	Eahppneist BLANK
-06-	80/22/10 - 10 - 5T		d tyte	UP BLANK
ADDITIONAL INSTRUCTIONS:				
Signature Relinquished by	Print Name	Con	Company Date	e Time
Received by Relinquished by	TASha Pascal	H HT	17 July 17	08 945
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 <b>NOTE:</b> 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.	e OT - Other AR - Air ** reported unless other arrangements are n is received by the laboratory with this coc.	**: L-Liter V-Voa S-Soil Jar O- made. Hazardous samples will be returned c. The liability of the laboratory is limited to t	O-Orbo T-Tedlar B-Brass P-Pl ed to client or disposed of at client expense. To to the amount paid for the report.	P-Plastic OT-Other se. The report for the analysis



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**Date:** *12-Aug-08* 

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

### CASE NARRATIVE

Project:	G005862/JPL Groun	ndwater Monitoring		
Work Order:	BMI08073120		Cooler Temp: 4 °C	
Alpha's	Sample ID	Client's Sample ID	Matrix	
08073	3120-01A	MW-11-4	Aqueous	
08073	3120-02A	MW-11-3	Aqueous	
08073	3120-03A	MW-11-2	Aqueous	
08073	3120-04A	MW-11-1	Aqueous	
08073	3120-05A	DUPE-06-3Q08	Aqueous	
08073	3120-06A	MW-22-3	Aqueous	
08073	3120-07A	MW-22-2	Aqueous	
08073	3120-08A	MW-22-1	Aqueous	
08073	3120-09A	EB-08-07/30/08	Aqueous	
08073	3120-10A	TB-08-07/30/08	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.

Walter Arridmon Kandy Saulur 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.



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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-11-4 BMI08073120-01A	Sulfur dioxide	5.9	2.0 µg/L	07/31/08	07/30/08	08/05/08
Client ID : Lab ID :	<b>MW-11-3</b> BMI08073120-02A	Sulfur dioxide	5.3	2.0 μg/L	07/31/08	07/30/08	08/05/08
Client ID : Lab ID :	MW-11-2 BMI08073120-03A	Sulfur dioxide	3.4	2.0 μg/L	07/31/08	07/30/08	08/05/08
Client ID : Lab ID :	MW-11-1 BMI08073120-04A	Sulfur dioxide	2.3	2.0 μg/L	07/31/08	07/30/08	08/05/08
Client ID : Lab ID :	DUPE-06-3Q08 BMI08073120-05A	Sulfur dioxide	8.3	2.0 µg/L	07/31/08	07/30/08	08/05/08
Client ID : Lab ID :	<b>MW-22-3</b> BMI08073120-06A	* * * None Found * * *	ND	2.0 µg/L	07/31/08	07/30/08	08/05/08
Client ID : Lab ID :	<b>MW-22-2</b> BMI08073120-07A	* * * None Found * * *	ND	2.0 µg/L	07/31/08	07/30/08	08/05/08
Client ID : Lab ID :	MW-22-1 BMI08073120-08A	* * * None Found * * *	ND	2.0 µg/L	07/31/08	07/30/08	08/05/08
Client ID : Lab ID :	EB-08-07/30/08 BMI08073120-09A	*** None Found ***	ND	2.0 µg/L	07/31/08	07/30/08	08/05/08
Client ID : Lab ID :	TB-08-07/30/08 BMI08073120-10A	* * * None Found * * *	ND	2.0 μg/L	07/31/08	07/30/08	08/05/08

ND = Not Detected

Roger Scholl

Kandy Sandmer

Walter Arridmon

8/13/08

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	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: BMI08073120-01A	Sampled: 07/30/08
Client I.D. Number: MW-11-4	Received: 07/31/08
	Analyzed: 08/05/08

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 tetrachioride	ND	0.50	µg/L	56	4-isopropyltoiuene	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	120	(75-128)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	97	(80-120)	%REC
31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	105	(80-120)	%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 Santur Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

Walter Arridmon

8/13/08

**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: BMI08073120-02A Client I.D. Number: MW-11-3	Sampled: 07/30/08 Received: 07/31/08
	Analyzed: 08/05/08

#### 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	μ <b>g</b> /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-Chlorotoiuene	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	119	(75-128)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	96	(80-120)	%REC
31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	101	(80-120)	%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

Rogen Scholl

Kandy Santur

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.

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

8/13/08

**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	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: BMI08073120-03A	Sampled: 07/30/08
Client I.D. Number: MW-11-2	Received: 07/31/08
	Analyzed: 08/05/08

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-Chiorotoluene	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	123	(75-128)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	96	(80-120)	%REC
31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	99	(80-120)	%REC
32	1,3-Dichloropropane	ND	0.50	μg/L					
33	Dibromochloromethane	ND	0.50	μ <b>g/L</b>					
34	1,2-Dibromoethane (EDB)	ND	1.0	μg/L					
35	Tetrachloroethene	ND	0.50	μ <b>g/L</b>					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Rogen Scholl

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

Walter Aridman

8/13/08

**Report Date** 

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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: BMI08073120-04A	Sampled: 07/30/08
Client I.D. Number: MW-11-1	Received: 07/31/08
	Analyzed: 08/05/08

#### 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	μġ/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-Chiorotoluene	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-isopropyitoluene	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	124	(75-128)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	96	(80-120)	%REC
31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	100	(80-120)	%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 Santra Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

Walter Aridman

8/13/08

**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: BMI08073120-05A	Sampled: 07/30/08
Client I.D. Number: DUPE-06-3Q08	Received: 07/31/08
	Analyzed: 08/05/08
	Received: 07/31/08

#### 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	μ <b>g/L</b>
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	122	(75-128)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	96	(80-120)	%REC
31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	104	(80-120)	%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					
35	Tetrachloroethene	ND							

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Rogen Scholl

Kandy Sandmen 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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Walter Arihm

8/13/08

**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: BMI08073120-06A	Sampled: 07/30/08
Client I.D. Number: MW-22-3	Received: 07/31/08
	Analyzed: 08/05/08

Volatile Organics by GC/MS

Compound		Concentration	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	Chioromethane	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-Isopropyitoluene	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/Ľ	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	121	(75-128)	%REC	
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	98	(80-120)	%REC	
31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	102	(80-120)	%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

Rogen Scholl

Kandy Sandmer 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

Walter Aridmon

8/13/08

**Report Date** 

Page 1 of 1

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: BMI08073120-07A	Sampled: 07/30/08
Client I.D. Number: MW-22-2	Received: 07/31/08
	Analyzed: 08/05/08

#### 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	Chiorobenzene	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	Isopropyibenzene	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	μ <b>g/L</b>
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	123	(75-128)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	96	(80-120)	%REC
31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	101	(80-120)	%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

Rogen Scholl

Kandy Saulmer

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

8/13/08

**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: BMI08073120-08A	Sampled: 07/30/08
Client I.D. Number: MW-22-1	Received: 07/31/08
	Analyzed: 08/05/08

#### Volatile Organics by GC/MS

Compound		Concentration	Reporting	Limit		Compound	Concentration	Reporting L	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	μ <b>g/L</b>	
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	Chioroform	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	121	(75-128)	%REC	
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	96	(80-120)	%REC	
31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	103	(80-120)	%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	1.0	0.50	µg/L						

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Rogen Scholl

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

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Walter Aridmon

8/13/08

**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: BMI08073120-09A	Sampled: 07/30/08
Client I.D. Number: EB-08-07/30/08	Received: 07/31/08
	Analyzed: 08/05/08

#### 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	0.51	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-Isopropyitoluene	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	Hexachiorobutadiene	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	111	(75-128)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	97	(80-120)	%REC
31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	100	(80-120)	%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 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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Walter Hiridan

8/13/08

**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: BMI08073120-10A	Sampled: 07/30/08
Client I.D. Number: TB-08-07/30/08	Received: 07/31/08
	Analyzed: 08/05/08

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	μ <b>g</b> /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	111	(75-128)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	99	(80-120)	%REC
31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	101	(80-120)	%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 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.

Walter Aridmon

8/13/08

**Report Date** 

Page 1 of 1



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### **VOC Sample Preservation Report**

Matrix

#### Work Order: BMI08073120 Project: G005862/JPL Groundwater Monitoring Alpha's Sample ID Client's Sample ID

• •				
08073120-01A	MW-11-4	Aqueous	2	
08073120-02A	MW-11-3	Aqueous	2	
08073120-03A	MW-11-2	Aqueous	2	
08073120-04A	MW-11-1	Aqueous	2	
08073120-05A	DUPE-06-3Q08	Aqueous	2	
08073120-06A	MW-22-3	Aqueous	2	
08073120-07A	MW-22-2	Aqueous	2	
08073120-08A	MW-22-1	Aqueous	2	
08073120-09A	EB-08-07/30/08	Aqueous	2	
08073120-10A	TB-08-07/30/08	Aqueous	2	

8/13/08 **Report Date** 

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### ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201

David Conner Attn: (619) 574-4827 Phone: Fax: (614) 458-6641 Date Received : 07/31/08

#### Job#: G005862/JPL Groundwater Monitoring

### Specific Conductance at 25°C EPA Method 120.1 / SM2510B / SW9050A

		Parameter	Concentration	Reporting Limit	Date Sampled A	Date Analyzed
Client ID : Lab ID :	<b>MW-11-4</b> BMI08073120-01A	Specific Conductance (at 25°C)	220	10 µS/cm	07/30/08 07	7/31/08
Client ID : Lab ID :	<b>MW-11-3</b> BMI08073120-02A	Specific Conductance (at 25°C)	400	10 µS/cm	07/30/08 07	7/31/08
Client ID : Lab ID :	<b>MW-11-2</b> BMI08073120-03A	Specific Conductance (at 25°C)	440	10 µS/cm	07/30/08 07	7/31/08
Client ID : Lab ID :	<b>MW-11-1</b> BMI08073120-04A	Specific Conductance (at 25°C)	560	10 µS/cm	07/30/08 07	7/31/08
Client ID : Lab ID :	DUPE-06-3Q08 BMI08073120-05A	Specific Conductance (at 25°C)	220	10 µS/cm	07/30/08 07	7/31/08
Client ID : Lab ID :	<b>MW-22-3</b> BM108073120-06A	Specific Conductance (at 25°C)	640	10 µS/cm	07/30/08 03	7/31/08
Client ID : Lab ID :	<b>MW-22-2</b> BMI08073120-07A	Specific Conductance (at 25°C)	560	10 µS/cm	07/30/08 07	7/31/08
Client ID : Lab ID :	<b>MW-22-1</b> BMI08073120-08A	Specific Conductance (at 25°C)	1,200	10 µS/cm	07/30/08 07	7/31/08
Client ID : Lab ID :	EB-08-07/30/08 BMI08073120-09A	Specific Conductance (at 25°C)	ND	10 µS/cm	07/30/08 07	7/31/08

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

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8/13/08 **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 : 07/31/08

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 :	<b>MW-11-4</b> BMI08073120-01A	Perchlorate	ND	2.00 μg/L	07/30/08 07/31/08		
Client ID : Lab ID :	<b>MW-11-3</b> BMI08073120-02A	Perchlorate	ND	2.00 μg/L	07/30/08 07/31/08		
Client ID : Lab ID :	MW-11-2 BMI08073120-03A	Perchlorate	ND	2.00 μg/L	07/30/08 07/31/08		
Client ID : Lab ID :	MW-11-1 BMI08073120-04A	Perchlorate	ND	2.00 μg/L	07/30/08 07/31/08		
Client ID : Lab ID :	DUPE-06-3Q08 BMI08073120-05A	Perchlorate	ND	2.00 μg/L	07/30/08 07/31/08		
Client ID : Lab ID :	MW-22-3 BMI08073120-06A	Perchlorate	2.28	2.00 μg/L	07/30/08 07/31/08		
Client ID : Lab ID :	MW-22-2 BMI08073120-07A	Perchlorate	ND	2.00 µg/L	07/30/08 07/31/08		
Client ID : Lab ID :	<b>MW-22-1</b> BMI08073120-08A	Perchlorate	2.07	2.00 μg/L	07/30/08 07/31/08		
Client ID : Lab ID :	EB-08-07/30/08 BMI08073120-09A	Perchlorate	ND	2.00 µg/L	07/30/08 07/31/08		

ND = Not Detected

Roger Scholl

Kandy Dardmen

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8/13/08 Report Date

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Job#: G005862/JPL Groundwater Monitoring

Metals by ICPMS EPA Method 200.8									
	Parameter	Concentration	Reporting Limit	Date Date Sampled Analyzed					
Client ID : <b>MW-11-3</b> Lab ID : BMI08073120-02A	Chromium (Cr)	ND	0.0050 mg/L	07/30/08 08/07/08					
Client ID : <b>MW-11-2</b> Lab ID : BMI08073120-03A	Chromium (Cr)	ND	0.0050 mg/L	07/30/08 08/07/08					
Client ID : <b>MW-11-1</b> Lab ID : BMI08073120-04A	Chromium (Cr)	ND	0.0050 mg/L	07/30/08 08/07/08					
Client ID : <b>MW-22-3</b> Lab ID : BMI08073120-06A	Chromium (Cr)	ND	0.0050 mg/L	07/30/08 08/07/08					
Client ID : <b>MW-22-2</b> Lab ID : BMI08073120-07A	Chromium (Cr)	ND	0.0050 mg/L	07/30/08 08/07/08					
Client ID : <b>MW-22-1</b> Lab ID : BMI08073120-08A	Chromium (Cr)	ND	0.0050 mg/L	07/30/08 08/07/08					
Client ID : <b>EB-08-07/30/08</b> Lab ID : BMI08073120-09A	Chromium (Cr)	ND	0.0050 mg/L	07/30/08 08/07/08					

ND = Not Detected

Roger Scholl

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Walter Acrihan

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A 8/13/08

**Report Date** 



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### 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 : <b>MW-11-1</b> Lab ID : BMI08073120-04A	Nitrite (NO2) - N Nitrate (NO3) - N Phosphate, ortho - P	ND 1.2 ND	0.25 mg/L 0.25 mg/L 0.25 mg/L	07/30/08 13:34	07/31/08 12:38 07/31/08 12:38 07/31/08 12:38					

ND = Not Detected

Roger Scholl

Kandy Soutres

Walter Hiridman

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8/13/08 Report Date



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 Date Received : 07/31/08

Job#: G005862/JPL Groundwater Monitoring

Anions by IC EPA Method 300.0 / 9056								
		Parameter	Concentration	Reporting Limit	Date Date Sampled Analyzed			
	<b>MW-11-1</b> BMI08073120-04A	Chloride Sulfate (SO4)	26 58	0.50 mg/L 0.50 mg/L	07/30/08 07/31/08 07/30/08 07/31/08			

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¥ 8/13/08 Report Date

G005862/JPL Groundwater Monitoring



<b>Date:</b> 12-Aug-08		(	<u>)C Su</u>	mmary Report Work Order 08073120								
Method Bla File ID: 08080			Type ME		EPA Metho S15W0805			: 08/05/2008 10:26	 ;			
Sample ID:	MBLK MS15W0805K	Units : µg/L	F	un ID: MSD_15_0	80805A		Prep Date:	08/05/2008				
Analyte		Result	PQL			_CL(ME)	UCL(ME) RPDRe	fVal %RPD(Limit)	Qua			
Dichlorodifluor	romethane	ND	0.5			<u>`</u> `						
Chloromethan		ND	0.5									
Vinyl chloride	•	ND	0.5									
Chloroethane		ND	0.5									
Bromomethan	e	ND	1									
Trichlorofluoro	omethane	ND	0.5									
1,1-Dichloroet		ND	0.5									
Dichlorometha	ane	ND	1									
Freon-113	lave ath an a	ND	0.5									
trans-1,2-Dich	tyl ether (MTBE)	ND ND	0.5 0.5									
1,1-Dichloroet	, . ,	ND	0.5									
2-Butanone (M		ND	10									
cis-1,2-Dichlor		ND	0.5									
Bromochlorom		ND	0.5									
Chloroform		ND	0.5									
2,2-Dichloropr		ND	0.5									
1,2-Dichloroet		ND	0.5									
1,1,1-Trichloro		ND	0.5									
1,1-Dichloropr	-	ND	0.5									
Carbon tetrach Benzene	nionde	ND ND	0.5 0.5									
Dibromometha	ane	ND	0.5									
1,2-Dichloropr		ND	0.5									
Trichloroethen		ND	0.5									
Bromodichloro		ND	0.5									
4-Methyl-2-per	ntanone (MIBK)	ND	2.5									
cis-1,3-Dichlor		ND	0.5									
trans-1,3-Dich		ND	0.5									
1,1,2-Trichloro	bethane	ND	0.5									
Toluene		ND	0.5									
1,3-Dichloropr Dibromochloro	•	ND ND	0.5 0.5									
1.2-Dibromoet		ND	0.5									
Tetrachloroeth		ND	0.5									
1,1,1,2-Tetrac		ND	0.5									
Chlorobenzen		ND	0.5									
Ethylbenzene		ND	0.5									
m,p-Xylene		ND	0.5									
Bromoform		ND	0.5									
Styrene		ND	0.5									
o-Xylene	a blara ath an a	ND	0.5									
1,1,2,2-Tetrac 1,2,3-Trichlor		ND ND	0.5 1									
Isopropylbenz		ND	0.5									
Bromobenzen		ND	0.5									
n-Propylbenze		ND	0.5									
4-Chlorotolue	ne	ND	0.5									
2-Chlorotolue	ne	ND	0.5									
1,3,5-Trimethy	-	ND	0.5									
tert-Butylbenz		ND	0.5									
1,2,4-Trimeth	•	ND	0.5									
sec-Butylbenz		ND	0.5									
1,3-Dichlorob 1,4-Dichlorob		ND ND	0.5 0.5									
4-Isopropyltol		ND	0.5									
1,2-Dichlorob		ND	0.5									
n-Butylbenzer		ND	0.5									
	3-chloropropane (DBCP)	ND	2.5									
1,2,4-Trichlor	obenzene	ND	1									
Naphthalene		ND	1									
Hexachlorobu		ND	1									
1,2,3-Trichlor		ND	1	10	4 4 <del>- 4</del>	70	120					
Sufr: 1,2-Dich	nloroethane-d4 e-d8	11.7 9.74		10 10	117 97	70 70	130 130					



<b>Date:</b> 12-Aug-08	(	<u> OC</u> Si	ımmary F	Report			Work Ord 08073120			
Surr: 4-Bromofluorobenzene	9.79		10	98	70	130				
Laboratory Control Spike File ID: 08080504.D Sample ID: LCS MS15W0805K	Type LCS         Test Code: EPA Metho           Batch ID: MS15W0805M           Units : µg/L         Run ID: MSD_15_080805A					Analysis Date: 08/05/2008 09:24				
Analyte	Units : <b>µg/L</b> Result	PQL		_		Prep Date:	08/05/2008 efVal %RPD(Limit)	Qual		
Dichlorodifluoromethane	12				21	160				
Chloromethane	8.45	1 2	10 10	120 85	45	145				
Vinyl chloride	11.4	1	10	114	80	120				
Chloroethane	12.1	1	10	121	53	163				
Bromomethane	13.4	2	10	134	10	180				
Trichlorofluoromethane	16.7	1	10	167	50	160		L51		
1,1-Dichloroethene Dichloromethane	11.4	1	10	114 102	80 70	120 130				
trans-1,2-Dichloroethene	10.2 11.2	2 1	10 10	102	70 70	130				
Methyl tert-butyl ether (MTBE)	13.1	0.5	10	131	68	134				
1,1-Dichloroethane	10.4	1	10	104	70	130				
cis-1,2-Dichloroethene	11.6	1	10	116	70	130				
Bromochloromethane	12.4	1	10	124	70	130				
Chloroform 2,2-Dichloropropane	11.3	1	10	113	80 70	120 145				
1.2-Dichloroethane	12.4 12.9	1	10 10	124 129	70 69	136				
1,1,1-Trichloroethane	13	1	10	130	70	136				
1,1-Dichloropropene	11.8	1	10	118	70	130				
Carbon tetrachloride	13.4	1	10	134	64	150				
Benzene	10.2	0.5	10	102	70	130				
Dibromomethane	13.2	1	10	132	70	134				
1,2-Dichloropropane Trichloroethene	10.1 11.7	1	10 10	101 117	80 70	120 130				
Bromodichloromethane	13.2	1	10	132	70	134				
cis-1,3-Dichloropropene	10.5	1	10	105	70	130				
trans-1,3-Dichloropropene	11.3	1	10	113	70	130				
1,1,2-Trichloroethane	11.9	1	10	119	70	130				
Toluene	9.53	0.5	10	95	80	120				
1,3-Dichloropropane Dibromochloromethane	10. <del>9</del> 11.6	1	10 10	109 116	70 70	130 130				
1,2-Dibromoethane (EDB)	24.5	2	20	122	70	130				
Tetrachloroethene	11.2	1	10	112	70	130				
1,1,1,2-Tetrachloroethane	11.9	1	10	119	70	130				
Chlorobenzene	10.3	1	10	103	70	130				
Ethylbenzene	10.5	0.5	10	105	80	120				
m,p-Xylene Bromoform	11.2 13.2	0.5 1	10 10	112 132	70 70	130 131		L51		
Styrene	10.4	1	10	104	70	130		201		
o-Xylene	10.4	0.5	10	104	70	130				
1,1,2,2-Tetrachloroethane	9.71	1	10	97	70	130				
1,2,3-Trichloropropane	23.9	2	20	120	70	130				
Isopropylbenzene	10.3	1	10	103	70	131				
Bromobenzene n-Propylbenzene	10.2	1	10	102	70 70	130 130				
4-Chlorotoluene	10.4 10.4	1	10 10	104 104	70 70	130				
2-Chlorotoluene	10.4	1	10	104	70	130				
1,3,5-Trimethylbenzene	10.5	1	10	105	70	131				
tert-Butylbenzene	11.2	1	10	112	70	131				
1,2,4-Trimethylbenzene	10.5	1	10	105	70	130				
sec-Butylbenzene 1,3-Dichlorobenzene	10.6	1	10	106	70	130				
1,4-Dichlorobenzene	9.93 10	1	10 10	99 100	70 70	130 130				
4-Isopropyltoluene	10.8	1	10	108	70	133				
1,2-Dichlorobenzene	9.49	1	10	95	70	130				
n-Butylbenzene	10.3	1	10	103	70	130				
1,2-Dibromo-3-chloropropane (DBCP)	55.2	3	50	110	70	130				
1,2,4-Trichlorobenzene	11	2	10	110	67 45	130				
Naphthalene Hexachlorobutadiene	11.2 23.1	2 2	10 20	112 116	45 64	153 133				
1,2,3-Trichlorobenzene	12.2	2		122	58	133				
Surr: 1,2-Dichloroethane-d4	10.8	-	10	108	70	130				
Surr: Toluene-d8	9.25		10	93	70	130				
Surr: 4-Bromofluorobenzene	10.1		10	101	70	130				



<b>Date:</b> 12-Aug-08	(	DC Su	mmary	/ Repor	t			Work Ord 0807312	
Sample Matrix Spike		Type MS	S Te	st Code: El	PA Met	hod SW82			
File ID: 08080509.D			Ba	tch ID: MS1	5W080	5K5	Analysis Da	te: 08/05/2008 11:33	
Sample ID: 08073120-03AMS	Units : µg/L	F	Run ID: MS	SD_15_0808	805A		Prep Date:	08/05/2008	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME) RPDF	RefVal %RPD(Limit)	Qual
Dichlorodifluoromethane	41.9	2.5	50	0	84	10	160		
Chloromethane	35.9	10	50	0	72	27	145		
Vinyl chloride	45.6	2.5	50	0	91	38	132		
Chloroethane Bromomethane	51.7 72.1	2.5 10	50 50	0	103 144	25 10	163 180		
Trichlorofluoromethane	68.7	2.5	50 50	0	137	34	160		
1,1-Dichloroethene	48.6	2.5	50	ŏ	97	51	130		
Dichloromethane	47.3	10	50	0	95	65	130		
trans-1,2-Dichloroethene	51.7	2.5	50	0	103	63	130		
Methyl tert-butyl ether (MTBE) 1,1-Dichloroethane	57.9 48	1.3 2.5	50 50	0	116 96	53 65	151 130		
cis-1,2-Dichloroethene	53.3	2.5	50 50	0	107	70	130		
Bromochloromethane	56.5	2.5	50	Ő	113	70	130		
Chloroform	52.3	2.5	50	0	105	70	130		
2,2-Dichloropropane	56	2.5	50	0	112	40	146		
1,2-Dichloroethane 1,1,1-Trichloroethane	58.5 57.5	2.5 2.5	50 50	0	117 115	66 59	136 136		
1,1-Dichloropropene	57.5 52.7	2.5 2.5	50 50	0	105	59 59	130		
Carbon tetrachloride	59.2	2.5	50	õ	118	44	150		
Benzene	47.2	1.3	50	0	94	69	130		
Dibromomethane	58.3	2.5	50	0	117	70	134		
1,2-Dichloropropane Trichloroethene	47.2	2.5	50	0	94	69 64	130		
Bromodichloromethane	51.7 59.5	2.5 2.5	50 50	0	103 1 <b>19</b>	64 70	130 134		
cis-1,3-Dichloropropene	46.1	2.5	50	Ő	92	66	130		
trans-1,3-Dichloropropene	49.3	2.5	50	0	99	67	130		
1,1,2-Trichloroethane	52.1	2.5	50	0	104	70	130		
Toluene 1,3-Dichloropropane	43.5 48.3	1.3 2.5	50 50	0	87 97	65 70	130 130		
Dibromochloromethane	40.3 52.8	2.5	50 50	0	106	70	130		
1,2-Dibromoethane (EDB)	108	10	100	0	108	70	130		
Tetrachloroethene	49.6	2.5	50	0	99	54	130		
1,1,1,2-Tetrachloroethane	53.5	2.5	50	0	107	70	130		
Chlorobenzene Ethylbenzene	47.3 47.2	2.5 1.3	50 50	0	95 94	70 67	130 130		
m,p-Xylene	47.2	1.3	50 50	0	99.9	67	130		
Bromoform	57.6	2.5	50	Ő	115	68	131		
Styrene	48.6	2.5	50	0	97	62	130		
o-Xylene	47	1.3	50	0	94	70	130		
1,1,2,2-Tetrachloroethane 1,2,3-Trichloropropane	43 100	2.5 10	50 100	0	86 100	70 70	130 130		
Isopropylbenzene	47	2.5	100 50	0	94	59	131		
Bromobenzene	47.6	2.5	50	Ő	95	70	130		
n-Propylbenzene	46.5	2.5	50	0	93	61	130		
4-Chlorotoluene 2-Chlorotoluene	47.6	2.5	50	0	95	70	130		
1,3,5-Trimethylbenzene	47.2 48.5	2.5 2.5	50 50	0	94 97	68 64	130 131		
tert-Butylbenzene	-0.0	2.5	50	0	102	58	130		
1,2,4-Trimethylbenzene	48.7	2.5	50	Ő	97	59	133		
sec-Butylbenzene	47.6	2.5	50	0	95	59	130		
1,3-Dichlorobenzene 1,4-Dichlorobenzene	47.1	2.5	50	0	94	70	130		
4-isopropyltoluene	46.8 49	2.5 2.5	50 50	0	94 98	70 62	130 133		
1,2-Dichlorobenzene	43.7	2.5	50	0	90 87	70	130		
n-Butylbenzene	47.8	2.5	50	Õ	96	58	131		
1,2-Dibromo-3-chloropropane (DBCP)	232	15	250	0	93	70	130		
1,2,4-Trichlorobenzene	51.2	10	50	0	102	67	130		
Naphthalene Hexachlorobutadiene	48.3 110	10 10	50 100	0	97 110	45 51	155 133		
1,2,3-Trichlorobenzene	55.7	10	100 50	0	111	51	133		
Surr: 1,2-Dichloroethane-d4	49		50	0	98	70	130		
Surr: Toluene-d8	46.4		50		93	70	130		
Surr: 4-Bromofluorobenzene	50		50		100	70	130		



Date: 12-Aug-08	(	OC Su	mmary	Report				<b>Work Ord</b> 0807312	
Sample Matrix Spike		Type MS	Tes	t Code: EP/	A Met	hod SW82	260B		
File ID: 08080511.D			Bato	h ID: MS15	W080	5K5	Analysis Da	te: 08/05/2008 12:17	
Sample ID: 08073120-08AMS	Units : µg/L	F	lun ID: MSE	)_15_08080	)5A		Prep Date:	08/05/2008	
Analyte	Result	PQL	SpkVal S	pkRefVal %	6REC	LCL(ME)	UCL(ME) RPDF	RefVal %RPD(Limit)	Qual
Dichlorodifluoromethane	41.5	2.5	50	0	83	10	160		
Chloromethane	35.4	10	50	0	71	27	145		
Vinyl chloride Chloroethane	46.8	2.5	50	0	94	38	132 163		
Bromomethane	50 72.6	2.5 10	50 50		100 145	25 10	180		
Trichlorofluoromethane	66	2.5	50		132	34	160		
1,1-Dichloroethene	49	2.5	50	Ō	98	51	130		
Dichloromethane	47.6	10	50	0	95	65	130		
trans-1,2-Dichloroethene Methyl tert-butyl ether (MTBE)	52.1	2.5	50	0	104 119	63 53	130 151		
1,1-Dichloroethane	59.5 48.2	1.3 2.5	50 50	0	96	55 65	130		
cis-1,2-Dichloroethene	54.4	2.5	50		109	70	130		
Bromochloromethane	58.5	2.5	50	0	117	70	130		
Chloroform	52.1	2.5	50		104	70	130		
2,2-Dichloropropane 1,2-Dichloroethane	54.5 57.2	2.5 2.5	50 50		109 114	40 66	146 136		
1,1,1-Trichloroethane	56.8	2.5 2.5	50 50		114	59	136		
1,1-Dichloropropene	52.3	2.5	50		105	59	130		
Carbon tetrachloride	58.2	2.5	50		116	44	150		
Benzene	47	1.3	50	0	94	69 70	130		
Dibromomethane 1,2-Dichloropropane	59.4 47.1	2.5 2.5	50 50	0	119 94	70 69	134 130		
Trichloroethene	52.2	2.5	50 50		94 104	64	130		
Bromodichloromethane	59.4	2.5	50		119	70	134		
cis-1,3-Dichloropropene	47.1	2.5	50	0	94	66	130		
trans-1,3-Dichloropropene	47.7	2.5	50	0	95	67	130		
1,1,2-Trichloroethane Toluene	53.3 44	2.5 1.3	50 50	0 0	107 88	70 65	130 130		
1,3-Dichloropropane	49.6	2.5	50	Ő	99	70	130		
Dibromochloromethane	52.6	2.5	50	0	105	70	130		
1,2-Dibromoethane (EDB)	108	10	100	0	108	70	130		
Tetrachloroethene 1,1,1,2-Tetrachloroethane	51.5 54	2.5 2.5	50 50		101 108	54 70	130 130		
Chlorobenzene	47.3	2.5	50 50	0	95	70	130		
Ethylbenzene	47	1.3	50	õ	94	67	130		
m,p-Xylene	50.1	1.3	50		100	67	130		
Bromoform Styrene	58.5	2.5	50		117	68 60	131		
o-Xylene	47.9 47.8	2.5 1.3	50 50	0 0	96 96	62 70	130 130		
1,1,2,2-Tetrachloroethane	43.8	2.5	50	ŏ	88	70	130		
1,2,3-Trichloropropane	101	10	100	0	101	70	130		
Isopropylbenzene	46.9	2.5	50	0	94	59	131		
Bromobenzene n-Propylbenzene	48 47.2	2.5 2.5	50 50	0	96 94	70 61	130 130		
4-Chlorotoluene	47.8	2.5	50	ő	96	70	130		
2-Chlorotoluene	48	2.5	50	0	96	68	130		
1,3,5-Trimethylbenzene	48.3	2.5	50	0	97	64	131		
tert-Butylbenzene 1,2,4-Trimethylbenzene	50.9 48.4	2.5 2.5	50 50	0	102 97	58 59	130 133		
sec-Butylbenzene	48.4 47.5	2.5 2.5	50 50	0	97 95	59 59	130		
1,3-Dichlorobenzene	46.9	2.5	50	Õ	94	70	130		
1,4-Dichlorobenzene	47	2.5	50	0	94	70	130		
4-Isopropyltoluene	49.1	2.5	50	0	98	62	133		
1,2-Dichlorobenzene n-Butylbenzene	44.2 47.1	2.5 2.5	50 50	0 0	88 94	70 58	130 131		
1,2-Dibromo-3-chloropropane (DBCP)	231	2.5 15	250	0	94 92	70	130		
1,2,4-Trichlorobenzene	51.5	10	50		103	67	130		
Naphthalene	48	10	50	0	96	45	155		
Hexachlorobutadiene 1,2,3-Trichlorobenzene	108	10	100	0	108 109	51 58	133 133		
Fluorobenzene	54.4 10	10 0	50 50	0 0	109 20	58 50	200		
Chlorobenzene-d5	10	Ö	50	Ő	20	50	200		
1,2-Dichlorobenzene-d4	10	0	50	0	20	50	200		
Surr: 1,2-Dichloroethane-d4	49.7		50		99	70	130		
Surr: Toluene-d8	46.7		50		93	70	130		



Date: 12-Aug-08	(	DC Su	mmary	Report					Work Orde 08073120	
Surr: 4-Bromofluorobenzene	49.7		50		99	70	130			
Sample Matrix Spike Duplicate File ID: 08080510.D		Type MS	Ba	st Code: EP tch ID: MS1	5W080		Analy		/05/2008 11:55	
Sample ID: 08073120-03AMSD Analyte	Units : <b>µg/L</b> Result	PQL		D_15_0808			Prep		<b>'05/2008</b> %RPD(Limit)	Qual
Dichlorodifluoromethane	35.6	2.5	50 Spk Val	O DKneival	71	10	160	41.87	16.3()	Qua
Chloromethane	35.5	2.5	50 50	0	71	27	145	35.91	1.2()	
Vinyl chloride	40.6	2.5	50	0	81	38	132	45.61	11.7()	
Chloroethane	46.9	2.5	50	0	94	25	163	51.74	9.8()	
Bromomethane Trichlorofluoromethane	67.7 57.4	10 2.5	50 50	0 0	135 115	10 34	180 160	72.11 68.68	6.4() 18.0()	
1,1-Dichloroethene	41.8	2.5	50 50	0	84	51	130	48.6	15.1()	
Dichloromethane	44.5	10	50	Õ	89	65	130	47.29	6.0()	
trans-1,2-Dichloroethene	47	2.5	50	0	94	63	130	51.66	9.5()	
Methyl tert-butyl ether (MTBE) 1,1-Dichloroethane	57.2	1.3	50	0	114	53 65	151 130	57.92 48.01	1.2() 7.7()	
cis-1,2-Dichloroethene	44.5 51	2.5 2.5	50 50	0 0	89 102	65 70	130	53.28	4.4()	
Bromochloromethane	54.6	2.5	50	õ	109	70	130	56.48	3.4()	
Chloroform	49.1	2.5	50	0	98	70	130	52.34	6.5()	
2,2-Dichloropropane	49.8	2.5	50	0	99.7	40	146	56.03	11.7()	
1,2-Dichloroethane 1,1,1-Trichloroethane	56	2.5	50	0	112	66 50	136 136	58.45 57.46	4.4() 12.8()	
1,1-Dichloropropene	50.6 46.1	2.5 2.5	50 50	0	101 92	59 59	130	52.67	13.3()	
Carbon tetrachloride	51.1	2.5	50	Ő	102	44	150	59.22	14.7()	
Benzene	43.7	1.3	50	0	87	69	130	47.18	7.8()	
Dibromomethane	57.3	2.5	50	0	115	70	134	58.27	1.6()	
1,2-Dichloropropane Trichloroethene	44.8	2.5	50	0	90	69 64	130	47.21 51.69	5.2() 9.6()	
Bromodichloromethane	47 56.3	2.5 2.5	50 50	0	94 113	64 70	130 134	59.52	9.6() 5.5()	
cis-1,3-Dichloropropene	44	2.5	50 50	0	88	66	130	46.13	4.8()	
trans-1,3-Dichloropropene	45.4	2.5	50	0	91	67	130	49.31	8.2()	
1,1,2-Trichloroethane	50.4	2.5	50	0	101	70	130	52.13	3.5()	
Toluene 1,3-Dichloropropane	40.1	1.3	50	0	80	65 70	130 130	43.53 48.33	8.3() 3.6()	
Dibromochloromethane	46.6 50.9	2.5 2.5	50 50	0	93 102	70 70	130	46.33 52.77	3.7()	
1,2-Dibromoethane (EDB)	104	10	100	Ő	104	70	130	107.7	3.2()	
Tetrachloroethene	44.5	2.5	50	0	89	54	130	49.59	10.9()	
1,1,1,2-Tetrachloroethane	50.8	2.5	50	0	102	70	130	53.45	5.2()	
Chlorobenzene Ethylbenzene	44.2	2.5	50	0	88 86	70 67	130 130	47.27 47.15	6.8() 9.3()	
m,p-Xylene	43 46	1.3 1.3	50 50	0	92	67	130	47.15	8.2()	
Bromoform	56.8	2.5	50	Ő	114	68	131	57.59	1.4()	
Styrene	45.2	2.5	50	0	90	62	130	48.56	7.1()	
	44.1	1.3	50	0	88	70	130	47	6.4()	
1,1,2,2-Tetrachloroethane 1,2,3-Trichloropropane	42.1 95.9	2.5	50	0 0	84 96	70 70	130 130	42.98 100.3	2.0() 4.6()	
Isopropylbenzene	42.8	10 2.5	100 50	0	90 86	59	131	46.95	9.2()	
Bromobenzene	45.9	2.5	50	õ	92	70	130	47.6	3.8()	
n-Propylbenzene	42.7	2.5	50	0	85	61	130	46.54	8.7()	
4-Chlorotoluene 2-Chlorotoluene	45.5	2.5	50	0	91	70	130	47.64	4.5() 5.2()	
1,3,5-Trimethylbenzene	44.8 44.7	2.5 2.5	50 50	0	90 89	68 64	130 131	47.19 48.48	8.2()	
tert-Butylbenzene	40.9	2.5	50	Ő	82	58	130	51.01	22.0()	
1,2,4-Trimethylbenzene	45.4	2.5	50	Ō	91	59	133	48.7	7.1()	
sec-Butylbenzene	43.5	2.5	50	0	87	59	130	47.57	8.9()	
1,3-Dichlorobenzene 1,4-Dichlorobenzene	44.9	2.5	50	0	90	70	130	47.06	4.8()	
4-Isopropyltoluene	44.9 44.5	2.5 2.5	50 50	0 0	90 89	70 62	130 133	46.76 49.03	4.1() 9.7()	
1,2-Dichlorobenzene	42.8	2.5	50 50	0	86	70	130	43.73	2.2()	
n-Butylbenzene	42.8	2.5	50	ŏ	86	58	131	47.79	11.0()	
1,2-Dibromo-3-chloropropane (DBCP)	231	15	250	0	92	70	130	232.1	0.6()	
1,2,4-Trichlorobenzene	49.4	10	50	0	99	67	130	51.16	3.6()	
Naphthalene Hexachlorobutadiene	46.4 97.4	10 10	50 100	0 0	93 97	45 51	155 133	48.29 110.2	3. <del>9</del> () 12.4()	
1,2,3-Trichlorobenzene	97.4 52.4	10	50	0	97 105	58	133	55.69	6.1()	
Surr: 1,2-Dichloroethane-d4	50.5		50	5	101	70	130		• • •	
Surr: Toluene-d8	46.5		50		93	70	130			
Surr: 4-Bromofluorobenzene	51		50		102	70	130			



12-Aug-08	(	<u>)C Su</u>	ımmar	y Repor	t				Work Ord 0807312	
Sample Matrix Spike Duplicate		Type M	SD Te	est Code: El	PA Met	hod SW82	260B			
File ID: 08080512.D			Ba	atch ID: MS1	5W080	)5K5	Analy	sis Date: 0	8/05/2008 12:39	
Sample ID: 08073120-08AMSD	Units : <b>µg/L</b>	ļ		SD_15_0808			•		3/05/2008	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qua
Dichlorodifluoromethane	42.4	2.5	50	0	85	10	160	41.5	2.1()	
Chloromethane	39.8	10	50	0	80	27	145	35.35	11.8()	
Vinyl chloride	48.5	2.5	50	0	97	38	132	46.79	3.6()	
Chloroethane	52.6	2.5	50	0	105	25	163	49.98	5.0()	
Bromomethane Trichlorofluoromethane	75.9	10	50	0	152	10	180	72.55	4.5()	
1.1-Dichloroethene	67.4 49.9	2.5 2.5	50 50	0	135 99.7	34 51	160 130	65.98 48.96	2.1() 1.8()	
Dichloromethane	49.9	2.5	50 50	0	99.7 96	65	130	47.6	1.3()	
trans-1,2-Dichloroethene	53.6	2.5	50	Ő	107	63	130	52.05	3.0()	
Methyl tert-butyl ether (MTBE)	59.7	1.3	50	Õ	119	53	151	59.53	0.3()	
1,1-Dichloroethane	49	2.5	50	0	98	65	130	48.21	1.6()	
cis-1,2-Dichloroethene	55	2.5	50	0	110	70	130	54.38	1.1()	
Bromochloromethane	59.2	2.5	50	0	118	70	130	58.53	1.2()	
Chloroform	52.8	2.5	50	0	106	70	130	52.13	1.3()	
2,2-Dichloropropane 1.2-Dichloroethane	55.5 58	2.5	50 50	0	111 116	40 66	146 136	54.53 57.23	1.7() 1.3()	
1,1,1-Trichloroethane	58 58.2	2.5 2.5	50 50	0	116	66 59	136	56.8	2.4()	
1,1-Dichloropropene	53.2	2.5	50	ŏ	106	59	130	52.34	1.6()	
Carbon tetrachloride	59.1	2.5	50	õ	118	44	150	58.18	1.5()	
Benzene	48.3	1.3	50	0	97	69	130	47	2.7()	
Dibromomethane	59.5	2.5	50	0	119	70	134	59.36	0.3()	
1,2-Dichloropropane	48.6	2.5	50	0	97	69	130	47.1	3.1()	
Trichloroethene	52.6	2.5	50	0	105	64	130	52.19	0.7()	
Bromodichloromethane cis-1,3-Dichloropropene	60.4	2.5	50 50	0	121 96	70	134 130	59.39 47.07	1.6() 1.5()	
trans-1,3-Dichloropropene	47.8 49.3	2.5 2.5	50 50	0	99	66 67	130	47.68	3.3()	
1,1,2-Trichloroethane	52.9	2.5	50	0	106	70	130	53.28	0.7()	
Toluene	45.2	1.3	50	õ	90	65	130	44.03	2.6()	
1,3-Dichloropropane	49.9	2.5	50	0	99.7	70	130	49.55	0.6()	
Dibromochloromethane	53.5	2.5	50	0	107	70	130	52.59	1.7()	
1,2-Dibromoethane (EDB)	112	10	100	0	112	70	130	108.4	3.0()	
Tetrachloroethene	52.2	2.5	50	1.03	102	54	130	51.47	1.4()	
1,1,1,2-Tetrachloroethane Chlorobenzene	54.9 48.5	2.5 2.5	50 50	0	110 97	70 70	130 130	53.97 47.3	1.7() 2.4()	
Ethylbenzene	48.5	1.3	50 50	0	96	67	130	46.97	2.2()	
m,p-Xylene	51.8	1.3	50	ŏ	104	67	130	50.06	3.3()	
Bromoform	60.1	2.5	50	0	120	68	131	58.52	2.6()	
Styrene	49.2	2.5	50	0	98	62	130	47.94	2.5()	
o-Xylene	49.2	1.3	50	0	98	70	130	47.83	2.8()	
1,1,2,2-Tetrachloroethane	44.3	2.5	50	0	89	70	130	43.81	1.2()	
1,2,3-Trichloropropane	102	10	100	0	102	70	130	100.9	1.6()	
isopropylbenzene Bromobenzene	48 47.8	2.5 2.5	50 50	0 0	96 96	59 70	131 130	46.94 47.98	2.2() 0.4()	
n-Propylbenzene	47.2	2.5	50	0	94	61	130	47.17	0.0()	
4-Chlorotoluene	48.6	2.5	50	0	97	70	130	47.8	1.7()	
2-Chlorotoluene	47.9	2.5	50	0	96	68	130	48.01	0.2()	
1,3,5-Trimethylbenzene	48.4	2.5	50	0	97	64	131	48.3	0.3()	
tert-Butylbenzene	51.7	2.5	50	0	103	58	130	50.9	1.5()	
1,2,4-Trimethylbenzene	48.8	2.5	50	0	98	59 50	133	48.41	0.8()	
sec-Butylbenzene 1,3-Dichlorobenzene	49.1	2.5	50 50	0	98 04	59 70	130	47.48 46.9	3.4() 0.4()	
1,4-Dichlorobenzene	47.1 47.6	2.5 2.5	50 50	0	94 95	70 70	130 130	46.99 46.99	1.3()	
4-Isopropyltoluene	49.4	2.5	50 50	0	99 99	62	133	40.99	0.6()	
1,2-Dichlorobenzene	44.7	2.5	50	0	89	70	130	44.19	1.2()	
n-Butylbenzene	47.6	2.5	50	Ő	95	58	131	47.05	1.2()	
1,2-Dibromo-3-chloropropane (DBCP)	229	15	250	0	92	70	130	230.9	0.9()	
1,2,4-Trichlorobenzene	51.1	10	50	0	102	67	130	51.54	0.9()	
Naphthalene	47.6	10	50	0	95	45	155	47.98	0.8()	
Hexachlorobutadiene	108	10	100	0	108	51	133	108.5	0.1()	
1,2,3-Trichlorobenzene	53.5 49.1	10	50	0	107	58	133	54.38	1.7()	
Surr 1 2-Dichloroothana dA			50		98	70	130			
Surr: 1,2-Dichloroethane-d4 Surr: Toluene-d8	47.4		50		95	70	130			



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### OC Summary Report

Work Order: 08073120

#### 12-Aug-08 Comments:

Date:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

L51 = Analyte recovery was above acceptance limits for the LCS, but was acceptable in the MS/MSD.



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<b>Date:</b> 06-Aug-08	QC Summary Report	Work Order: 08073120
Method Blank File ID:	Type MBLK Test Code: EPA Method 120.1 / SM2510B / SW9050A Batch ID: W0731CN Analysis Date: 07/31/2	2008 00:00
Sample ID: MBLK-W0731CN	Units : <b>µS/cm</b> Run ID: <b>WETLAB_080731D</b> Prep Date: 07/31/2	
Analyte	Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RF	PD(Limit) Qua
Specific Conductance (at 25°C)	ND 10	
Laboratory Control Spike File ID:	Type LCS       Test Code: EPA Method 120.1 / SM2510B / SW9050A         Batch ID: W0731CN       Analysis Date: 07/31/2	2008 00:00
Sample ID: LCS-W0731CN	Units : µS/cm Run ID: WETLAB_080731D Prep Date: 07/31/2	008
Analyte	Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RF	PD(Limit) Qua
Specific Conductance (at 25°C)	1400 10 1410 99 98 102	<u> </u>

#### **Comments:**



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<b>Date:</b> 06-Aug-08		(	DC S	Sumr	nary	Report						Work Orde 08073120	
Method Blank File ID: 14 Sample ID: M	BLK-20339	Units : μg/L	Туре	MBLK	Batcl	Code: EP h ID: 2033 080731A		hod 314.0	Analy Prep		07/31 07/31	/2008 11:45	
Analyte	DER-20333	Result	PQL			-	6REC	LCL(ME)				RPD(Limit)	Qua
Perchlorate		ND		2									
Laboratory For File ID: 15	rtified Blank		Туре	LFB		Code: <b>EP</b> h ID: <b>2033</b>		hod 314.0	Analy	sis Date:	07/31	/2008 12:04	
Sample ID: L	FB-20339	Units : µg/L		Run I	D: IC_3	_080731A			Prep	Date:	07/31	/2008	
Analyte		Result	PQL	Sp	kVal Sp	okRefVal %	6REC	LCL(ME)	UCL(ME)	RPDRef	Val %I	RPD(Limit)	Qua
Perchlorate		24.2		2	25		97	85	115				
Sample Matrix File ID: 46	Spike		Туре	LFM		Code: EP. h ID: 2033		hod 314.0		sis Date:	07/31	/2008 21:34	
Sample ID: 08	3073040-02ALFM	Units : µg/L		Run I	D: IC 3	080731A			Prep	Date:	07/31	/2008	
Analyte		Result	PQL	Sp	kVal Sp	_ okRefVal ᠀	6REC	LCL(ME)	UCL(ME)	RPDRef	Val %	RPD(Limit)	Qua
Perchlorate		22.2		2	25	0	89	80	120				
Sample Matrix File ID: 47	Spike Duplicate		Туре	LFMD		Code: <b>EP</b>		hod 314.0		sis Date:	07/31	/2008 21:53	
Sample ID: 08	3073040-02ALFMD	Units : µg/L		Run I	D: IC 3	080731A			Prep	Date:	07/31	/2008	
Analyte		Result	PQL			-	6REC	LCL(ME)	UCL(ME)	RPDRef	Val %I	RPD(Limit)	Qua
Perchlorate		22.3		2	25	0	89	80	120	22.1		0.4(15)	

#### Comments:



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<b>Date:</b> 13-Aug-08	(	DC S	ummai	ry Repor	t				<b>Work Orde</b> 08073120	
Method Blank File ID: 080608.B\A108SMPL.D Sample ID: MB-20360	Units : <b>mg/L</b>		E Run ID: I	Fest Code: E Batch ID: 203 CP/MS_0808	60K 06F		Prep	Date:	08/07/2008 00:38 08/04/2008	0
Analyte Chromium (Cr)	Result ND	PQL 0.005	•	I SpkHerVal	%HEC	LCL(ME)	UCL(ME)	RPDRet	Val %RPD(Limit)	Qual
Laboratory Control Spike File ID: 080608.B\007_LCS.D\ Sample ID: LCS-20360 Analyte	Units : <b>mg/L</b> Result	Type L	E Run ID: I	Test Code: E Batch ID: 203 CP/MS_0808	60K 06F		Prep	Date:	08/07/2008 11:39 08/04/2008 Val %RPD(Limit)	Qual
Chromium (Cr)	0.0579	0.00			116	80	120			
Sample Matrix Spike File ID: 080608.B\A116SMPL.D Sample ID: 08073040-02AMS Analyte	Units : <b>mg/L</b> Result	Type N	E Run ID: I	Test Code: <b>E</b> Batch ID: <b>203</b> CP/MS_0808 I SpkRefVal	60K 06F		Prep	Date:	08/07/2008 01:24 08/04/2008 Val %RPD(Limit)	Qual
Chromium (Cr)	0.0551	0.00				80	120			
Sample Matrix Spike Duplicate File ID: 080608.B\A117SMPL.D Sample ID: 08073040-02AMSD	Units : <b>mg/L</b>	Type N	E	Test Code: E Batch ID: 203 CP/MS_0808	60K	hod 200.8	-	/sis Date: Date:	08/07/2008 01:30 08/04/2008	
Analyte	Result	PQL	SpkVa	I SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qual
Chromium (Cr)	0.0539	0.00	5 0.05	5 0	108	80	120	0.055	07 2.2(20)	

#### **Comments:**



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

<b>Date:</b> 07-Aug-08	(	)C Su	mmar	y Repor	t				<b>Work Orde</b> 08073120	
Method Blank		Туре МІ	BLK Te	est Code: El	PA Met	hod 300.0	/ 9056			
File ID: 16			Ba	atch ID: 2034	43A		Analy	sis Date:	07/31/2008 11:43	
Sample ID: MB-20343	Units : ma/L	F	Run ID: IC	2 0807314	<b>\</b>		Prep	Date:	07/31/2008	
Analyte	Result	PQL				LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qual
Nitrite (NO2) - N	ND	0.25								
Nitrate (NO3) - N	ND	0.25								
Phosphate, ortho - P	ND	0.25								
Laboratory Fortified Blank		Type LF	B Te	est Code: El	PA Met	hod 300.0	/ 9056			
File ID: 17			Ba	atch ID: 2034	43A		Analy	sis Date:	07/31/2008 12:01	
Sample ID: LFB-20343	Units : mg/L	I	Run ID: IC	_2_0807314	۹.		Prep I	Date:	07/31/2008	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qual
Nitrite (NO2) - N	1.15	0.25	1.25		92	90	110			
Nitrate (NO3) - N	1.16	0.25	1.25		93	90	110			
Phosphate, ortho - P	1.13	0.25	1.25		90	90	110			
Sample Matrix Spike		Type LF	М Те	est Code: El	PA Met	hod 300.0	/ 9056			
File ID: <b>25</b>			Ba	atch ID: 2034	43A		Analy	sis Date:	07/31/2008 14:29	
Sample ID: 08073120-04ALFM	Units : mg/L	I	Run ID: IC	_2_0807314	۹.		Prep I	Date:	07/31/2008	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qual
Nitrite (NO2) - N	1.23	0.25	1.25	0	98	80	120			
Nitrate (NO3) - N	2.36	0.25	1.25	1.16	96	80	120			
Phosphate, ortho - P	1.36	0.25	1.25	0	109	80	120			
Sample Matrix Spike Duplicate		Type LF	MD Te	est Code: El	PA Met	hod 300.0	/ 9056			
File ID: 26			Ba	atch ID: 203	43A		Analy	sis Date:	07/31/2008 14:48	
Sample ID: 08073120-04ALFMD	Units : mg/L	i	Run ID: IC	_2_0807314	4		Prep	Date:	07/31/2008	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qual
Nitrite (NO2) - N	1.22	0.25	1.25	0	98	80	120	1.22	• •	
Nitrate (NO3) - N	2.37	0.25	1.25	1.16	97	80	120	2.36	• •	
Phosphate, ortho - P	1.36	0.25	1.25	0	109	80	120	1.35	7 0.0(10)	

#### Comments:



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<b>Date:</b> 07-Aug-08	(	DC S	ummar	y Repor	t				<b>Work Orde</b> 08073120	
Method Blank		Туре	MBLK T	est Code: El	PA Met	thod 300.0	/ 9056			
File ID: 16			В	atch ID: 203	43B		Analy	sis Date:	07/31/2008 11:43	
Sample ID: MB-20343	Units : mg/L		Run ID: IC	2_080731	A		Prep	Date:	07/31/2008	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qua
Sulfate (SO4)	ND	0.	5							
Laboratory Fortified Blank		Туре	LFB T	est Code: El	PA Met	thod 300.0	/ 9056			
File ID: 17			В	atch ID: 203	43B		Analy	sis Date:	07/31/2008 12:01	
Sample ID: LFB-20343	Units : mg/L		Run ID: IC	_2_080731/	4		Prep	Date:	07/31/2008	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qua
Sulfate (SO4)	9.38	0.	5 10		94	90	110			
Sample Matrix Spike		Туре	LFM T	est Code: El	PA Met	thod 300.0	/ 9056			
File ID: 25			В	atch ID: 203	43B		Analy	sis Date:	07/31/2008 14:29	
Sample ID: 08073120-04ALFM	Units : mg/L		Run ID: IC	2_080731/	A		Prep	Date:	07/31/2008	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qua
Sulfate (SO4)	67.2	0.	5 10	58.43	88	80	120			
Sample Matrix Spike Duplicate		Туре	LFMD T	est Code: E	PA Met	thod 300.0	/ 9056			
File ID: 26			В	atch ID: 203	43B		Analy	sis Date:	07/31/2008 14:48	
Sample ID: 08073120-04ALFMD	Units : mg/L		Run ID: IC	2_080731	A		Prep	Date:	07/31/2008	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qua
Sulfate (SO4)	69.6	0.	5 10	58.43	111	80	120	67.2	2 3.5(10)	

#### Comments:



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<b>Date:</b> 07-Aug-08		(	OC S	umma	ry Rep	ort				<b>Work Ord</b> 08073120	
Method Bla	nk		Type I	MBLK	Test Code	: EPA Me	thod 300.0	/ 9056			
File ID: 16				1	Batch ID:	20343C		Analy	vsis Date:	07/31/2008 11:43	
Sample ID:	MB-20343	Units : mg/L		Run ID: I	C_2_0807	31A		Prep	Date:	07/31/2008	
Analyte		Result	PQL	SpkVa	l SpkRef	val %REC	CLCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qua
Chloride		ND	0.	5							
Laboratory	Fortified Blank		Type I	LFB	Test Code	: EPA Me	thod 300.0	/ 9056			
File ID: 17				ļ	Batch ID: 2	20343C		Analy	sis Date:	07/31/2008 12:01	
Sample ID:	LFB-20343	Units : mg/L		Run ID: I	C_2_0807	31A		Prep	Date:	07/31/2008	
Analyte		Result	PQL	SpkVa	l SpkRef	Val %RE0	C LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qua
Chloride		4.56	0.	5	5	91	90	110			
Sample Ma	trix Spike		Type I	LFM	Test Code	: EPA Me	thod 300.0	/ 9056			
File ID: 25	•			]	Batch ID: 2	20343C		Analy	sis Date:	07/31/2008 14:29	
Sample ID:	08073120-04ALFM	Units : mg/L		Run ID: I	C_2_0807	31A		Prep	Date:	07/31/2008	
Analyte		Result	PQL	SpkVa	l SpkRef	Val %REC	C LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qua
Chloride		30.6	0.	5	5 26	.13 89	80	120			
Sample Ma	trix Spike Duplicate		Type	LFMD	Test Code	: EPA Me	thod 300.0	/ 9056		-	
File ID: 26	• •				Batch ID: 2	20343C		Analy	sis Date:	07/31/2008 14:48	
Sample ID:	08073120-04ALFMD	Units : mg/L		Run ID: I	C_2_0807	'31A		Prep	Date:	07/31/2008	
Analyte		Result	PQL	SpkVa	l SpkRef	Val %RE(	C LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qua
Chloride		30.7	0.	5	5 26	.13 91	80	120	30.5	8 0.3(10)	

#### Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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•	ical, Inc.	Alpha Analytical, Inc.	Alt		Z	mar	1	K				ay	luna	File	by:	Logged in by:
Date/Time	ny	Company				Print Name	Pri					Signature	Signa			
add workorder note: Samples should be used as the control spike sample if possible.	<u>ised as the co</u>	should be u	Samples	<u>korder note:</u>	to add wor	1/08 13:50	nended 7/3	LIV QC. An	<u>) 4°. Leve</u>	<u>ık rec'd @</u> 1ents.KM	emp Blan requiren	provided Te e to project	<u>ice. Client</u> dd TI <u>Cs du</u>	No security seals. Frozen ice. Client provided Temp Blank rec'd @ 4°. Level IV QC. Amended 7/31/08 13:50 to (I.E.: MS/MSD); and to add TICs due to project requirements.KM :	(1.E	Comments:
MS/MSD. One set of bottles rec'd labeled MW-21-1, sample times match for MW- 22-1.	VOC by 524 Criteria	Criteria	ç	Perchlorate			888 18 July	Perchlorate	10	c	10	07/30/08 09:16	Â	L-22-AAIM		BMIU8073120-08A
	VOC by 524 Criteria		ជ	Perchlorate				Perchlorate	10	0	Сл	07/30/08 08:35		MW-22-2		BMI08073120-07A
Level IV QC	VOC by 524 Criteria	VOC by 524 Criteria	Ŷ	Perchlorate				Perchlorate	10	0	σ	07/30/08 08:02	AQ	MW-22-3		BMI08073120-06A
Duplicate	VOC by 524 VOC by 524 Criteria Criteria	VOC by 524 Criteria		Perchlorate				Perchlorate	10	0	4	07/30/08 00:00	Ą	DUPE-06-3Q08		BMI08073120-05A
NO2 not listed on client chain, logged in per bottle order.	VOC by 524 VOC by 524 Criteria Criteria	VOC by 524 Criteria	Ŷ	Perchlorate	Perchlorate CLNO2.NO3, CLNO2.NO3, CLNO2.NO3, Perchlorate P04.SO4 P04.SO4 P04.SO4 P04.SO4	Cl,NO2,NO3, PO4,SO4	CLNO2,NO3, PO4,SO4	Perchlorate	10	0	පැ	07/30/08 13:34	Â	MW-11-1		BMI08073120-04A
MS/MSD	VOC by 524 Criteria	VOC by 524 Criteria	C,	Perchlorate				Perchlorate	10	0	10	07/30/08 12:37	AQ	MW-11-2		BMI08073120-03A
Level IV QC	VOC by 524 Criteria	VOC by 524 Criteria	Q	Perchlorate				Perchlorate	10	0	თ	07/30/08 11:57	AQ	MW-11-3		BMI08073120-02A
	VOC by 524 Criteria	VOC by 524 Criteria		Perchlorate				Perchlorate	10	0	4	07/30/08 11:20	AQ	MW-11-4		BMI08073120-01A
Sample Remarks	voc_w	ANIONS(A) ANIONS(B) ANIONS(C) CONDUCTI METALS D VOC_TIC_ VOC_W	METALS_E		ANIONS(C)	ANIONS(B)_W	ANIONS(A)	314_W	s TAT	No. of Bottles Alpha Sub	~	Collection x Date	C Matrix	Client Sample ID	sa ci	Alpha Sample ID
				ed Tests	<b>Requested Tests</b>											
00-III C		+						ng oates	lith Surro	VMSD W	CS. MS	GUUS862/JPL Groundwater Monitoring	uop: hitCal/Con	Final Rot, MBLK, InitCal/ConCal data, LCS, MS/MSD With Surrogates		QC Level: S4
-	Samples Received	. Temp	Cooler Temp						:	-	<u>1</u>			N.	2000	PO: 218017
	ient	Sampled by : Client	Sample											01	DH 4320	Columbus, OH 43201
	š	EDD Required : Yes	)D Requ	ED			(								enue	505 King Avenue
					ρι	EMail Address connerd@battelle.org	EMail Address connerd@battelle	nber 327 x	Phone Number (619) 574-4827	(6]	ention ner	Report Attention David Conner		stitute	norial Ins	Client: Battelle Memorial Institute
Report Due By : 5:00 PM On : 14-Aug-08	5:00 PM	e By : 5	or KO	Repo	.78	t 89431-57 )406	1 Sparks, Nevada 894 FAX: (775) 355-0406	2	ndale Avenue, Suite FEL: (775) 355-1044	endale A TEL: (77)	255 GI	· · · · · · · ·		)1	DH 4320	Columbus, OH 43201
072170	BMIN					с. —	al, In	Alpha Analytical, Inc.	)ha A	Alp		-			enue	505 King Avenue
									(							Dallelle

CHAIN-OF-CUSTODY RECORD	CAANEND Frage 2 of 2
Alpha Analytical, Inc.	WorkOrder · RMI08073120
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778 TEL: (775) 355-1044 FAX: (775) 355-0406	Report Due By : 5:00 PM On : 14-Aug-08
Phone Number EMail Address	,
(619) 574-4827 x connerd@battelle.org	
	EDD Required : Yes
	Sampled by : Client
	Cooler Temp Samples Received Date Printed
	4 °C 31-Jul-08 31-Jul-08
Final Rpt, MBLK, InitCal/ConCal data, LCS, MS/MSD With Surrogates	A The sec
314_W ANIONS(A) ANIONS(B) ANIONS(C) CONDUCT _W _W _W _W VITY	ANIONS(A) ANIONS(B) ANIONS(C) CONDUCTI METALS_D_VOC_TICVOC_W _WWWWW_WTYWWWW
Perchlorate	Perchlorate Cr VOC by 524 VOC by 524 Equipment Blank
	VOC by 524 VOC by 524 Reno Trip Blank 6/24/08 Criteria

				i
7/21/08 1350	Alpha Analytical, Inc.	K Muray	Logged in by: KMUUAY	
Date/Time	Company	Print Name	Signature	
ntrol spike sample if possible	to add workorder note: Samples should be used as the control spike sample if possib	x'd @ 4°. Level IV QC. Amended 7/31/08 13:50 to add workon s.KM :	nments: <u>No security seals. Frozen ice. Client provided Temp Blank rec'd @ 4°. Level IV QC. Amended 7/31/08 13:50</u> (LE.: MS/MSD); and to add TICs due to project requirements.KM :	ç

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.

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.

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

1/08
3 13:50
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to add workorder n
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chain, logged in per bottle order. Duplicate Level IV QC MS/MSD. One set of bottles rec'd labeled MW-21-1, sample times match for MW 22-1. Date/Time	Company				1911	Muran	K				ay	luna	Kulh	Logged in by:
chain, logged in per bottle order. Duplicate Level IV QC MS/MSD. One set of bottles rec'd labeled MW-21-1, sample times match for MW 22-1.					Print Name	F			-		Signature	Sign		
chain, logged in per bottle order. Duplicate Level IV QC MS/MSD. One set of bottles rec'd labeled MW-21-1, sample times match for MW- 22-1.						ŀ••	rel IV QC.	@ 4°. Lev	ınk rec'd	Temp Bla	provided	ce, Client	No security seals. Frozen ice. Client provided Temp Blank rec'd @ 4°. Level IV QC. :	Comments:
chain, logged in per bottle order. Duplicate Level IV QC	VOC by 524 Criteria	Ŷ	Perchlorate			te	Perchlorate	10	0	10	07/30/08 09:16	AQ	MW-22-1	BMI08073120-08A
chain, logged in per bottle order. Duplicate Level IV QC	VOC by 524 Criteria	Cr	Perchlorate				Perchlorate	10	0	 	07/30/08 08:35	AQ	MW-22-2	BMI08073120-07A
chain, logged in per bottle order. Duplicate	VOC by 524 Criteria	ç	Perchlorate				Perchlorate	10	0	сл Сл	07/30/08 08:02	AQ	MW-22-3	BMI08073120-06A
chain, logged in per bottle order.	VOC by 524 Criteria		Perchlorate				Perchlorate	10	0		07/30/08 00:00	Å	DUPE-06-3Q08	BMI08073120-05A
NO2 not listed on client	VOC by 524 Criteria	ç	Perchlorate	CI,NO2,NO3, PO4,SO4	Perchlorate CLN02.N03, CLN02.N03, CLN02.N03, PO4.S04 PO4.S04 PO4.S04 PO4.S04	te CI,NO2,NO3 PO4,SO4	Perchlora	10	0	თ თ	07/30/08 13:34	ÂQ	MW-11-1	BMI08073120-04A
MS/MSD	VOC by 524 Criteria	ç	Perchlorate		***********	ť	Perchlorate	10	0	3 10	07/30/08 12:37	AQ	MW-11-2	BMI08073120-03A
Level IV QC	VOC by 524 Criteria	ç	Perchlorate			7. 	Perchlorate	10	0	сл Сл	07/30/08	AQ	MW-11-3	BMI08073120-02A
	VOC by 524 Criteria		Perchlorate			e	Perchlorate	10	0	4	07/30/08 11:20	AQ	MW-11-4	BMI08073120-01A
Sample Remarks	VOC_W	METALS_D W	CONDUCTI I VITY	ANIONS(C) CONDUCT _W VITY	ANIONS(A) ANIONS(B) ANIONS(C) CONDUCTI METALS_D _W _W _W VITY W		314_W	es TAT	No. of Bottles Alpha Sub		Collection Matrix Date	Matri	Client Sample ID	Alpha Sample ID
			i	3			rogates	With Sur	IS/MSD \	, LCS, M	nCal data,	itCal/Cor	= Final Rpt, MBLK, InitCal/ConCal data, LCS, MS/MSD With Surrogates	QC Level: S4
31-Jul-08 <b>31-Jul-08</b>	4 °C	4					vring	∍r Monito	oundwate	/JPL Grc	G005862/JPL Groundwater Monitoring	Job :	026275	Client's COC #: 026
Samples Received Date Printed		Cooler Temp												PO: 218017
	Sampled by : Client	Sample											201	Columbus, OH 43201
	EDD Required : Yes	D Requ	ED		connerd@battelle.org	conner(	4827 x	(619) 574-4827	((	onner	David Conner		msuure	505 King Avenue
					EMail Address	EMail Addr		Phone Number	<b>P</b>	ttention	Report Attention			Client:
WorkOrder: BM108073120 Report Due By: 5:00 PM On : 14-Aug-08	rder: BN	orkOj	Reno	œ	Alpha Analytical, Inc. 255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778	Alpha Analytical, Inc ale Avenue, Suite 21 Sparks, Nevada 8	<b>Inaly</b> uite 21 Sp	<b>pha</b> <i>k</i> Vvenue, Si	Al ilendale <i>F</i>	255 G			201	Columbus, OH 43201
Page: 1 of 2		C ►		ORD	HAIN-OF-CUSTODY RECO	ODY	UST	F-C	N-0	HAI	Ω			Battelle

Comments: No security	BMI08073120-10A TB-08-07/30/08	BMI08073120-09A EB-08-07/30/08	Sample ID Sample ID		QC Level : S4 = Final F	Client's COC #: 026275	PO : 218017	Columbus, OH 43201	505 King Avenue	Battelle Memorial Institute	Client:	Columbus, OH 43201	505 King Avenue	Billing Information : Battelle
No security seals. Frozen ice. Client provided Temp Blank rec'd @ 4°. Level IV QC. :	30/08 AQ 07/30/08 1 0 10 00:00 1	/30/08 AQ 07/30/08 5 0 10 08:59	Collection No. of Bottles Matrix Date Alpha Sub TAT		Final Rpt, MBLK, InitCal/ConCal data, LCS, MS/MSD With Surrogates	Job : G005862/JPL Groundwater Monitoring				David Conner (619) 574-4827 x	Report Attention Phone Number	255 Glendale Avenue, Sui TEL: (775) 355-10		CHAIN-OF-CU
IV OC .		Perchlorate	314_W ANIONS(A) ANIONS(B) ANIONS(C) CONDUCTI METALS_D VOC_W _W _W VITY W		gates	Ðu				27 x connerd@battelle.org	iber EMail Address	<b>EXEMPTING FAILUTION</b> 255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778 TEL: (775) 355-1044 FAX: (775) 355-0406	malytical Inc	CHAIN-OF-CUSTODY RECORD
	VOC by 524 Criteria	Perchlorate Cr VOC by 524 Criteria	TY METALS_D VOC_W	ests		4 °C	Cooler Temp	Sampled by : Client	EDD Required : Yes			WorkOrder: BMI08073120 Report Due By: 5:00 PM On: 14		$\mathbf{O}$
	Reno Trip Blank 6/24/08	Equipment Blank	Sample Remarks			31-Jul-08 <b>31-Jul-08</b>	Samples Received Date Printed	nt				WorkOrder : BMI08073120 Report Due By : 5:00 PM On : 14-Aug-08		Page: 2 of 2

Signature

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.

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.

KMUrang

Alpha Analytical, Inc. Company

7/31/08 1040 Date/Time

Print Name

Logged in by:

luuar

Billing Information: Name <u>(SERALD TOMPK)いろ</u> Address 505 KINム AVE		Alpha Analytical, Inc. 255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778	Samples Collected From Which State? AZ CA NV WA ID OR OTHER P	ag	026284 e#_/_of_/
le, Zip <u>CoLUM</u> BU umber		Phone (775) 355-1044 Fax (775) 355-0406	Analyses Required		
Client Name DAVID COULER	PO.# 218017	L)8500+ (1005862	1 2 Q 2 1	Requ	Required QC Level?
	EMail Address				" (j) IV
0/1	Phone # 6/9-726-73//	Fax #		EDD / EDF? YES	? YES NO
trix* Sampled by		Total and type of		Giobal ID #	
Sampled Sampled Below Lab ID Number (Use Only)	Sample Description	TAT Field ** See below		/ / REA	REMARKS
0807 7/348 AQ BM108073120-06	MW-22-3	NORM 5 X		QC LEN	Tener IX
07 OT	MW-22-2	M	× × ×		
80 8160	MW-22-1	10 X	X	M5/185)	
09 09	80foEfro-80-83	5	× × ×	Eaup B.	BLANK
01 10	773-08-07/30/08	-	× ×	JALD B	BLONK.
				1 1	
ADDITIONAL INSTRUCTIONS:					
Signature	Print Name		Company	Date	Time
Relinquished by	CHASE BUDNON	1 /NS/6/47	EENT	80/05/20	1500
Received by Chuudan	KMUNAN	AAT		7/21/08	0940
Relinquished by	7				
Received by					
Relinquished by					
Received by					
*Kev: AQ - Aqueous SO - Soil WA - Waste	OT - Other AR - Air	**: L-Liter V-Voa S-Soil Jar	O-Orbo T-Tedlar B-Brass	ass 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.

Billing Information: Name CACRALD TOMPKINS	Alpha 255 Gle Sparks.	Alpha Analytical, Inc. 255 Glendale Avenue, Suite 21 Sbarks. Nevada 89431-5778	Samples Collected From Which State? AZCANVWAP IDOROTHERP	hich State? 0262/5 WA
te, Zip <u>Columbus</u> , ott	Fax (77	Phone (775) 355-1044 Fax (775) 355-0406	Analyses Required	
Client Name DAVID CONNETL	P.O.# 218017	100 × 000 × 400	2)	Required QC Level?
T	EMail Address		24/20/24/2000	VI (III) II I
City, State, Zip SAN DEGO, CA 92110	Phone #6/8-72(- 7311	Fax #	() () () () () () () () () () () () () (	EDD / EDF? YES NO
Sampled by	Report Attention	Total and type of	V R/ 0/25 m	Global ID #
Sampled Sampled Below Lab ID Number (Use Only)	Sample Description	TAT Field ** See below	9 A Vision /	/ REMARKS
1120 7/2018 AR BM109075120-01	MW-11-4	rorm 4 X	×	
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1237 03	MW-11-2	× 0/ &	~ × ×	QSW/SW
40 Log	Mm-11-1		× × ×	
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				VULLICATE
ADDITIONAL INSTRUCTIONS:				
Signature	Print Name		Company	Date Time
Relinquished by	CHASE BROGDON	1N516H	T CELI	07/30/08 1500
Received by Kluulay	KMUNAU	ALT		7/31/08 0940
Relinquished by	/			
Received by				
Relinquished by				
2				
*Kev: AO - Aqueous SO - Soil WA - Waste	OT - Other AR - Air **:	I -l iter V-Voa S-Soil Jar	O-Orbo T-Tedlar R-Brass	se 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.



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

Date: 13-Aug-08 David Conner Battelle Memorial Institute 505 King Avenue Columbus, OH 43201 (619) 574-4827

### **CASE NARRATIVE**

#### Project: G005862/JPL Groundwater Monitoring

k Order: BMI08080155	(	Cooler Temp: 4 °C	
Alpha's Sample ID	Client's Sample ID	Matrix	,
08080155-01A	MW-12-5	Aqueous	
08080155-02A	MW-12-4	Aqueous	
08080155-03A	MW-12-3	Aqueous	
08080155-04A	MW-12-2	Aqueous	
08080155-05A	MW-12-1	Aqueous	
08080155-06A	DUPE-7-3Q08	Aqueous	
08080155-07A	EB-09-7/31/08	Aqueous	
08080155-08A	TB-09-7/31/08	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.

Walter A Roger Scholl Kandy Sa

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 : 08/01/08

#### Job#: G005862/JPL Groundwater Monitoring

		-	Conductance at 25°C 20.1 / SM2510B / SW9050A		
		Parameter	Concentration	Reporting Limit	Date Date Sampled Analyzed
Client ID : Lab ID :	<b>MW-12-5</b> BMI08080155-01A	Specific Conductance (at 25°C)	440	10 µS/cm	07/31/08 08/01/08
Client ID : Lab ID :	<b>MW-12-4</b> BMI08080155-02A	Specific Conductance (at 25°C)	490	10 µS/cm	07/31/08 08/01/08
Client ID : Lab ID :	<b>MW-12-3</b> BMI08080155-03A	Specific Conductance (at 25°C)	380	10 µS/cm	07/31/08 08/01/08
Client ID : Lab ID :	<b>MW-12-2</b> BMI08080155-04A	Specific Conductance (at 25°C)	540	10 µS/cm	07/31/08 08/01/08
Client ID : Lab ID :	<b>MW-12-1</b> BMI08080155-05A	Specific Conductance (at 25°C)	550	10 µS/cm	07/31/08 08/01/08
Client ID : Lab ID :	<b>DUPE-7-3Q08</b> BMI08080155-06A	Specific Conductance (at 25°C)	540	10 µS/cm	07/31/08 08/01/08
Client ID : Lab ID :	EB-09-7/31/08 BMI08080155-07A	Specific Conductance (at 25°C)	ND	10 µS/cm	07/31/08 08/01/08

ND = Not Detected

Roger Scholl

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V 8/14/08

**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 : 08/01/08

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 :	<b>MW-12-5</b> BMI08080155-01A	Perchlorate	1.85	1.00 μg/L	07/31/08 08/01/08
Client ID : Lab ID :	<b>MW-12-4</b> BMI08080155-02A	Perchlorate	2.90	1.00 μg/L	07/31/08 08/01/08
Client ID : Lab ID :	<b>MW-12-3</b> BMI08080155-03A	Perchlorate	ND	1.00 µg/L	07/31/08 08/01/08
Client ID : Lab ID :	<b>MW-12-2</b> BMI08080155-04A	Perchlorate	1.66	1.00 µg/L	07/31/08 08/01/08
Client ID : Lab ID :	<b>MW-12-1</b> BMI08080155-05A	Perchlorate	ND	1.00 μg/L	07/31/08 08/01/08
Client ID : Lab ID :	DUPE-7-3Q08 BMI08080155-06A	Perchlorate	1.74	1.00 μg/L	07/31/08 08/01/08
Client ID : Lab ID :	<b>EB-09-7/31/08</b> BMI08080155-07A	Perchlorate	ND	1.00 μg/L	07/31/08 08/01/08

ND = Not Detected

Roger Scholl

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8/14/08

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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 : 08/01/08

Job#: G005862/JPL Groundwater Monitoring

			Metals by ICPMS EPA Method 200.8			
		Parameter	Concentration	Reporting Limit	Date Da Sampled Analy	
Client ID : Lab ID :	<b>MW-12-3</b> BMI08080155-03A	Chromium (Cr)	ND	0.0050 mg/L	07/31/08 08/07/0	)8
Client ID : Lab ID :	<b>MW-12-2</b> BMI08080155-04A	Chromium (Cr)	ND	0.0050 mg/L	07/31/08 08/07/0	)8
Client ID : Lab ID :	<b>MW-12-1</b> BMI08080155-05A	Chromium (Cr)	ND	0.0050 mg/L	07/31/08 08/07/0	)8
Client ID : Lab ID :	<b>DUPE-7-3Q08</b> BMI08080155-06A	Chromium (Cr)	ND	0.0050 mg/L	07/31/08 08/07/0	)8
Client ID : Lab ID :	EB-09-7/31/08 BMI08080155-07A	Chromium (Cr)	ND	0.0050 mg/L	07/31/08 08/07/0	)8

ND = Not Detected

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Walter Hiridmon

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Report Date



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### **ANALYTICAL REPORT**

Battelle Memorial InstituteAttn:David Conner505 King AvenuePhone: (619) 574-4827Columbus, OH 43201Fax:Job#: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 : Lab ID :	<b>MW-12-5</b> BMI08080155-01A	* * * None Found * * *	ND	2.0 μg/L	08/01/08	07/31/08	08/06/08
Client ID : Lab ID :	<b>MW-12-4</b> BMI08080155-02A	* * * None Found * * *	ND	2.0 μg/L	08/01/08	07/31/08	08/06/08
Client ID : Lab ID :	<b>MW-12-3</b> BMI08080155-03A	* * * None Found * * *	ND	2.0 μg/L	08/01/08	07/31/08	08/06/08
Client ID : Lab ID :	<b>MW-12-2</b> BMI08080155-04A	* * * None Found * * *	ND	2.0 µg/L	08/01/08	07/31/08	08/06/08
Client ID : Lab ID :	<b>MW-12-1</b> BMI08080155-05A	* * * None Found * * *	ND	2.0 μg/L	08/01/08	07/31/08	08/06/08
Client ID : Lab ID :	<b>DUPE-7-3Q08</b> BMI08080155-06A	* * * None Found * * *	ND	2.0 μg/L	08/01/08	07/31/08	08/06/08
Client ID : Lab ID :	E <b>B-09-7/31/08</b> BMI08080155-07A	* * * None Found * * *	ND	2.0 µg/L	08/01/08	07/31/08	08/06/08
Client ID : Lab ID :	<b>TB-09-7/31/08</b> BMI08080155-08A	* * * None Found * * *	ND	2.0 μg/L	08/01/08	07/31/08	08/06/08

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

8/14/08 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: BMI08080155-01A	Sampled: 07/31/08
Client I.D. Number: MW-12-5	Received: 08/01/08
	Analyzed: 08/06/08

#### Volatile Organics by GC/MS

	Compound	Concentration	Reportin	g Limit		Compound	Concentration	Reporting L	imit
1	Dichlorodifluoromethane	ND	0.5	) µg/L	36	1.1.1.2-Tetrachloroethane	ND	0.50	µg/L
2	Chioromethane	ND	1.0		37	Chlorobenzene	ND	0.50	µg/L
3	Vinyl chloride	ND	0.5		38	Ethylbenzene	ND	0.50	μg/L
4	Chloroethane	ND	0.5		39	m,p-Xylene	ND	0.50	μg/L
5	Bromomethane	ND	1.0	) µg/L	40	Bromoform	ND	0.50	μĝ/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		43	1,1,2,2-Tetrachloroethane	ND	0.50	μg/L
9	Freon-113	ND	0.50		44	1,2,3-Trichloropropane	ND	1.0	μg/L
10	trans-1,2-Dichloroethene	ND	0.50		45	Isopropylbenzene	ND	0.50	µg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50		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	1(	) 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	0.51	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	0.97	J* 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	i 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	119	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50		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.

J= Estimated: The analyte was positively identified; the quantitation is an estimation.

\*Note: Carbon Tetrachloride failed the method CV criteria of 70-130% at 134%.

ND = Not Detected

Roger Scholl

Kandy Santun

Walter Acrim

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**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: BMI08080155-02A	Sampled: 07/31/08
	Received: 08/01/08
	Analyzed: 08/06/08

#### 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	Chioroform	0.80	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	1.8	J* 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	123	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	96	(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.

J= Estimated: The analyte was positively identified; the quantitation is an estimation.

\*Note: Carbon Tetrachloride failed the method CV criteria of 70-130% at 134%.

ND = Not Detected

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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: BMI08080155-03A	Sampled: 07/31/08
Client I.D. Number: MW-12-3	Received: 08/01/08
	Analyzed: 08/06/08

#### 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	0.67	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	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	123	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	95	(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.

ND = Not Detected

Roger Scholl

Kandy Dantmer

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

8/14/08

**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: BMI08080155-04A	Sampled: 07/31/08
Client I.D. Number: MW-12-2	Received: 08/01/08
	Analyzed: 08/06/08

#### 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-isopropyitoluene	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	128	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	94	(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

Rogen Scholl

Kandy Saulmer

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

8/14/08

**Report Date** 

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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: BMI08080155-05A	Sampled: 07/31/08
Client I.D. Number: MW-12-1	Received: 08/01/08
	Analyzed: 08/06/08

#### Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	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-Chiorotoluene	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		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	128	(70-130)	%REC	
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	96	(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.

ND = Not Detected

Rogen Scholl

Kandy Dontmen

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

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

8/14/08

**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#: G005862/JPL Groundwater Monitoring	Attn:         David Conner           Phone:         (619) 574-4827           Fax:         (614) 458-6641
Alpha Analytical Number: BMI08080155-06A Client I.D. Number: DUPE-7-3Q08	Sampled: 07/31/08 Received: 08/01/08 Analyzed: 08/06/08

#### 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	Isopropyibenzene	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-isopropyitoluene	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	129	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	95	(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.

ND = Not Detected

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

IPS 8/14/08

**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#: <u>G005862/JPL Groundwater Monitoring</u>	Attn:       David Conner         Phone:       (619) 574-4827         Fax:       (614) 458-6641
Alpha Analytical Number: BMI08080155-07A Client I.D. Number: EB-09-7/31/08	Sampled: 07/31/08 Received: 08/01/08 Analyzed: 08/06/08

#### 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	2.0	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-Xyiene	ND	0.50	µg/L
5	Bromomethane	ND	2.0	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	2.0	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	2.0	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-Chiorotoluene	ND	0.50	µg/L
14	cis-1,2-Dichloroethene	ND	0.50	μg/L	49	2-Chiorotoluene	ND	0.50	µg/L
15	Bromochloromethane	ND	0.50	µg/L	50	1,3,5-Trimethylbenzene	ND	0.50	µg/L
16	Chloroform	0.71	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	3.0	µg/L
25	Trichloroethene	ND	0.50	μg/L	60	1,2,4-Trichlorobenzene	ND	2.0	µg/L
26	Bromodichloromethane	ND	0.50	μg/L	61	Naphthalene	ND	2.0	µg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	2.0	µg/L
28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	2.0	µg/L
29	trans-1,3-Dichloropropene	ND	0.50	µg/L	64	Surr: 1,2-Dichloroethane-d4	118	(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	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	2.0	µg/L					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Sandman

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.

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

8/14/08

**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: BMI08080155-08A	Sampled: 07/31/08
Client I.D. Number: TB-09-7/31/08	Received: 08/01/08
	Analyzed: 08/06/08

#### Volatile Organics by GC/MS

Compound		Compound Concentration Reporting Limit		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-Isopropyitoluene	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	118	(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	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	Tetrachioroethene	ND	0.50	μg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

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

8/14/08

**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

### **VOC Sample Preservation Report**

#### Work Order: BMI08080155

#### Project: G005862/JPL Groundwater Monitoring

Alpha's Sample ID	Client's Sample ID	Matrix	pH
08080155-01A	MW-12-5	Aqueous	2
08080155-02A	MW-12-4	Aqueous	2
08080155-03A	MW-12-3	Aqueous	2
08080155-04A	MW-12-2	Aqueous	2
08080155-05A	MW-12-1	Aqueous	2
08080155-06A	DUPE-7-3Q08	Aqueous	2
08080155-07A	EB-09-7/31/08	Aqueous	2
08080155-08A	TB-09-7/31/08	Aqueous	2

8/14/08 Report Date



Date: 13-Aug-08		(	DC S	umm	ary Report	-			<b>Work Ord</b> 08080155	
Method Bla File ID: 08080			Туре М	MBLK	Test Code: Vo Batch ID: MS1		-	-	08/05/2008 21:35	
Sample ID: Analyte	MBLK MS15W0805L	Units : <b>µg/L</b> Result	PQL		: MSD_15_0808			Prep Date: UCL(ME) RPDRef	08/05/2008	Qual
Dichlorodifluo	romethane	ND	0.5			MEC L				
Chloromethar		ND	0.0							
Vinyl chloride		ND	0.5							
Chloroethane		ND	0.5	5						
Bromomethar		ND	1							
Trichlorofluoro		ND	0.5							
Dichlorometh		ND ND	0.5 1							
Freon-113		ND	0.5							
trans-1,2-Dich	loroethene	ND	0.5							
	tyl ether (MTBE)	ND	0.5	i i						
1,1-Dichloroet		ND	0.5							
2-Butanone (N cis-1,2-Dichlo		ND	10							
Bromochloron		ND ND	0.5 0.5							
Chloroform		ND	0.5							
2,2-Dichlorop		ND	0.5							
1,2-Dichloroel		ND	0.5	5						
1,1,1-Trichlor		ND	0.5							
1,1-Dichloropi Carbon tetrac	•	ND	0.5							
Benzene	monde	ND ND	0.5 0.5							
Dibromometh	ane	ND	0.5							
1,2-Dichloropi	ropane	ND	0.5						t	
Trichloroether		ND	0.5	i						
Bromodichlor		ND	0.5							
4-Methyl-2-pe cis-1,3-Dichlo	ntanone (MIBK)	ND	2.5							
trans-1,3-Dich		ND ND	0.5 0.5							
1,1,2-Trichlor		ND	0.5							
Toluene		ND	0.5							
1,3-Dichlorop	•	ND	0.5							
Dibromochlor		ND	0.5							
1,2-Dibromoe Tetrachloroeth		ND	1							
1,1,1,2-Tetrac		ND ND	0.5 0.5							
Chlorobenzen		ND	0.5							
Ethylbenzene	-	ND	0.5							
m,p-Xylene		ND	0.5							
Bromoform		ND	0.5							
Styrene		ND	0.5							
o-Xylene 1,1,2,2-Tetrac	hloroethane	ND ND	0.5							
1.2.3-Trichlor		ND	0.5 1							
Isopropylbenz	• • • • • •	ND	0.5							
Bromobenzen		ND	0.5							
n-Propylbenze		ND	0.5							
4-Chlorotolue		ND	0.5							
2-Chlorotoluei 1,3,5-Trimethy		ND	0.5							
tert-Butylbenz		ND ND	0.5 0.5							
1,2,4-Trimethy		ND	0.5							
sec-Butylbenz	ene	ND	0.5							
1,3-Dichlorobe		ND	0.5							
1,4-Dichlorobe		ND	0.5							
4-lsopropyltoli 1,2-Dichlorobe		ND	0.5							
n-Butyibenzer		ND ND	0.5 0.5							
-	-chloropropane (DBCP)	ND	2.5							
1,2,4-Trichlord		ND	2.0							
Naphthalene	. <b></b>	ND	1							
Hexachlorobu		ND	1							
1,2,3-Trichlord Surr: 1,2-Dich		ND	1		10	444	70	120		
		11.4 9.67			10 10	114 97	70 70	130 130		
Surr: Toluene		9.67			10	97	70	130		



Date: 13-Aug-08	(	QC Su	ımmar	y Report			Work Ord 0808015	
Surr: 4-Bromofluorobenzene	9.77		10	98	70	130		
Laboratory Control Spike		Type L	CS Te	est Code: Volatile	Organics	by GC/MS		
File ID: 08080533.D			Ba	itch ID: MS15W08	05L5	Analysis [	Date: 08/05/2008 20:28	6
Sample ID: LCS MS15W0805L	Units : µg/L		Run ID: M	SD_15_080805C		Prep Date	e: 08/05/2008	
Analyte	Result	PQL			LCL(ME	) UCL(ME) RPI	DRefVal %RPD(Limit)	Qu
Dichlorodifluoromethane	10.9	1		109	21	160		
Chloromethane	8.29	2		83	45	145		
Vinyl chloride	11.2	1		112	80	120		
Chloroethane	12.5	1		125	53	163		
Bromomethane	13.5	2	10	135	10	180		
Trichlorofluoromethane	16.5	1	10	165	50	160		L51
1,1-Dichloroethene	11.3	1	10	113	80	120		
Dichloromethane	9.87	2	10	99	70	130		
trans-1,2-Dichloroethene Methyl tert-butyl ether (MTBE)	10.9	1	10	109	70	130		
1,1-Dichloroethane	12.5 10.3	0.5	10	125	68 70	134		
cis-1,2-Dichloroethene	11.5	1	10 10	103 115	70 70	130 130		
Bromochloromethane	11.9	1	10	119	70	130		
Chloroform	11.2	. 1	10	113	80	120		
2,2-Dichloropropane	11.3	1	10	113	70	145	•	
1,2-Dichloroethane	12.4	1	10	124	69	136		
1,1,1-Trichloroethane	13.1	1	10	131	70	136		
1,1-Dichloropropene	11.7	1	10	117	70	130		
Carbon tetrachloride Benzene	13.4	1	10	134	64	150		
Dibromomethane	10.2	0.5	10	102	70	130		
1,2-Dichloropropane	12.5 9.99	1	10	125	70	134		
Trichloroethene	12.3	1	10 10	99.9 123	80 70	120 130		
Bromodichloromethane	12.0	1	10	123	70	134		
cis-1,3-Dichloropropene	9.88	1	10	99	70	130		
trans-1,3-Dichloropropene	10.5	1	10	105	70	130		
1,1,2-Trichloroethane	11.1	1	10	111	70	130		
	9.44	0.5	10	94	80	120		
1,3-Dichloropropane Dibromochloromethane	10.2	1	10	102	70	130		
1,2-Dibromoethane (EDB)	10.9	1	10	109	70	130		
Tetrachloroethene	22.5 11	2 1	20 10	112 110	70	130		
1,1,1,2-Tetrachloroethane	11.4	1	10	110	70 70	130 130		
Chlorobenzene	9.93	1	10	99	70	130		
Ethylbenzene	10.2	0.5	10	102	80	120		
m,p-Xylene	10.9	0.5	10	109	70	130		
Bromoform	12.2	1	10	122	70	131		
Styrene o-Xylene	10.1	1	10	101	70	130		
1,1,2,2-Tetrachloroethane	10.2	0.5	10	102	70	130		
1,2,3-Trichloropropane	8.28 21.4	1 2	10 20	83 107	70	130		
sopropylbenzene	10.3	2	20 10	107	70 70	130 131		
Bromobenzene	10	1	10	100	70	130		
n-Propylbenzene	10.3	1	10	103	70	130		
4-Chlorotoluene	10.2	1	10	102	70	130		
2-Chlorotoluene	10.2	1	10	102	70	130		
1,3,5-Trimethylbenzene	10.5	1	10	105	70	131		
ert-Butylbenzene	11.2	1	10	112	70	131		
1,2,4-Trimethylbenzene sec-Butylbenzene	10.5	1	10	105	70	130		
1,3-Dichlorobenzene	10.4 9.84	1	10 10	104 98	70 70	130 130		
,4-Dichlorobenzene	9.82	1	10	98	70	130		
-Isopropyltoluene	10.5	1	10	105	70	133		
,2-Dichlorobenzene	9.29	1	10	93	70	130		
n-Butylbenzene	10.3	1	10	103	70	130		
1,2-Dibromo-3-chloropropane (DBCP)	50	3	50	99.9	70	130		
I,2,4-Trichlorobenzene	10.2	2	10	102	67	130		
Naphthalene	9.72	2	10	97	45	153		
Hexachlorobutadiene 1,2,3-Trichlorobenzene	21.9	2	20	109	64	133		
Surr: 1,2-Dichloroethane-d4	10.5	2	10	105	58	133		
Surr: Toluene-d8	10.4 9.14		10 10	104 91	70 70	130 130		
Surr: 4-Bromofluorobenzene	9.14 10.1		10	91	70 70	130		



<b>Date:</b> 13-Aug-08	(	QC Sı	immary	Report				<b>Work Ord</b> 0808015	
Sample Matrix Spike		Туре М	S Te	st Code: Vol	atile (	Organics I	by GC/MS		
File ID: 08080537.D			Ba	tch ID: MS15	5W080	05L5	Analysis Da	ate: 08/05/2008 21:57	
Sample ID: 08080103-04AMS	Units : µg/L			D_15_08080			Prep Date:	08/05/2008	
Analyte	Result	PQL	SpkVal	SpkRefVal %	6REC	LCL(ME)	UCL(ME) RPD	RefVal %RPD(Limit)	Qual
Dichlorodifluoromethane	45.1	2.5	50	0	90	10	160		
Chloromethane Vinvl chloride	37.4 47.5	10 2.5	50 50	0 0	75 95	27 38	145 132		
Chloroethane	55	2.5	50	0	102	25	163		
Bromomethane	68.2	10	50	0	136	10	180		
Trichlorofluoromethane 1.1-Dichloroethene	77.3 51.6	2.5	50 50	0 0	155 103	34 51	160 130		
Dichloromethane	48.1	2.5 10	50 50	0	96	65	130		
trans-1,2-Dichloroethene	53	2.5	50	0	106	63	130		
Methyl tert-butyl ether (MTBE)	61.9	1.3	50	0	124	53	151		
1,1-Dichloroethane cis-1,2-Dichloroethene	49.9 55.2	2.5 2.5	50 50	0	99.8 110	65 70	130 130		
Bromochloromethane	59.8	2.5	50	Õ	120	70	130		
Chloroform	55.5	2.5	50		111	70	130		
2,2-Dichloropropane 1,2-Dichloroethane	50.4 62.2	2.5 2.5	50 50	0	101 124	40 66	146 136		
1,1,1-Trichloroethane	62.7	2.5	50	Ő	125	59	136		
1,1-Dichloropropene	56.6	2.5	50		113	59	130		
Carbon tetrachloride Benzene	64.7 48.6	2.5 1.3	50 50	0	129 97	44 69	150 130		
Dibromomethane	62.3	2.5	50 50	0	97 125	70	134		
1,2-Dichloropropane	48.3	2.5	50	Ō	97	69	130		
Trichloroethene	54.4	2.5	50	0	109	64	130		
Bromodichloromethane cis-1,3-Dichloropropene	62.6 47.9	2.5 2.5	50 50	0 0	125 96	70 66	134 130		
trans-1,3-Dichloropropene	50.9	2.5	50	Ö	102	67	130		
1,1,2-Trichloroethane	54.9	2.5	50	0	110	70	130		
Toluene 1,3-Dichloropropane	45.1 50	1.3 2.5	50 50	0	90 100	65 70	130 130		
Dibromochloromethane	54.4	2.5	50 50		100	70	130		
1,2-Dibromoethane (EDB)	112	10	100	0	112	70	130		
Tetrachloroethene 1,1,1,2-Tetrachloroethane	51.8	2.5	50	0	104	54 70	130 130		
Chlorobenzene	56.5 48.6	2.5 2.5	50 50	0	113 97	70	130		
Ethylbenzene	49.3	1.3	50	0	99	67	130		
m,p-Xylene	52	1.3	50	0	104	67	130		
Bromoform Stvrene	61.4 48.9	2.5 2.5	50 50	0	123 98	68 62	131 130		
o-Xylene	49.3	1.3	50	õ	99	70	130		
1,1,2,2-Tetrachloroethane	44.6	2.5	50	0	89	70	130		
1,2,3-Trichloropropane Isopropylbenzene	106 48.5	10 2.5	100 50	0 0	106 97	70 59	130 131		
Bromobenzene	47.8	2.5		0	96	70	130		
n-Propylbenzene	47.3	2.5	50	0	95	61	130		
4-Chlorotoluene 2-Chlorotoluene	49.2	2.5		0	98 96	70	130 130		
1,3,5-Trimethylbenzene	48.2 49.1	2.5 2.5	50 50	0	96 98	68 64	130		
tert-Butylbenzene	52.6	2.5	50	0	105	58	130		
1,2,4-Trimethylbenzene sec-Butylbenzene	49.7	2.5		0	99	59	133		
1.3-Dichlorobenzene	49.6 47.4	2.5 2.5		0	99 95	59 70	130 130		
1,4-Dichlorobenzene	47	2.5		0	94	70	130		
4-Isopropyltoluene	50	2.5			99.9	62	133		
1,2-Dichlorobenzene n-Butylbenzene	44.9 48.4	2.5 2.5		0 0	90 97	70 58	130 131		
1,2-Dibromo-3-chloropropane (DBCP)	250	15			99.9	70	130		
1,2,4-Trichlorobenzene	50.4	10	50	0	101	67	130		
Naphthalene Hexachlorobutadiene	50.3 107	10 10		0 0	101 107	45 51	155 133		
1,2,3-Trichlorobenzene	53.5	10		ő	107	58	133		
Surr: 1,2-Dichloroethane-d4	53		50		106	70	130		
Surr: Toluene-d8 Surr: 4-Bromofluorobenzene	45.9 49.3		50 50		92 99	70 70	130 130		
	+0.0		50		55				



Date: 13-Aug-08	·······	(	DC Sı	ımmar	y Repor	t				Work Ord 08080155	
Sample Matrix	Spike Duplicate		Туре М	SD T	est Code: V	olatile	Organics	by GC/MS			
File ID: 08080538.	D			B	atch ID: MS	15W08	05L5	Analy	sis Date: 0	8/05/2008 22:19	
Sample ID: 08	080103-04AMSD	Units : µg/L		Run ID: M	SD_15_080	805C		Prep	Date: 08	/05/2008	
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qua
Dichlorodifluorome	thane	39	2.5	50	0		10	160	45.1	14.4()	
Chloromethane		35.4	10	50	0		27	145	37.36	5.4()	
Vinyl chloride		44	2.5	50	Ő		38	132	47.46	7.7()	
Chloroethane		50.9	2.5	50	Ō		25	163	54.95	7.7()	
Bromomethane		71.7	10	50	0	143	10	180	68.19	5.0()	
Trichlorofluorometh	nane	63.7	2.5	50	0	127	34	160	77.26	19.3()	
1,1-Dichloroethene	)	46.4	2.5	50	0	93	51	130	51.5 <b>7</b>	10.5()	
Dichloromethane		47.5	10	50	0		65	130	48.06	1.2()	
trans-1,2-Dichloroe		49.5	2.5	50	0		63	130	53.0 <b>3</b>	6.9()	
Methyl tert-butyl et		60.6	1.3	50	0		53	151	61.88	2.2()	
1,1-Dichloroethane		47.2	2.5	50	0		65	130	49.89	5.6()	
cis-1,2-Dichloroeth		53.1	2.5	50	0		70	130	55.24	4.0()	
Bromochlorometha	ine	57.6	2.5	50	0	115	70	130	59.82	3.7()	
Chloroform		51.9	2.5	50	0		70	130	55.4 <b>7</b>	6.6()	
2,2-Dichloropropar 1.2-Dichloroethane		45.5	2.5	50	0		40	146	50.35	10.0()	
1,1,1-Trichloroethane		59.1	2.5	50 50	0		66 59	136 136	62.19 62.65	5.1() 12.4()	
1,1-Dichloroproper		55.3 50.7	2.5 2.5	50 50	0		59 59	130	56.58	11.0()	
Carbon tetrachloric		50.7 56.9	2.5 2.5	50 50	0		59 44	150	64.65	12.8()	
Benzene	10	46.3	1.3	50	0		69	130	48.61	5.0()	
Dibromomethane		60.3	2.5		0		70	134	62.34	3.3()	
1,2-Dichloropropar	e	46.8	2.5		Ő		69	130	48.31	3.1()	
Trichloroethene		50.7	2.5	50	õ		64	130	54.36	7.0()	
Bromodichloromet	hane	60.5	2.5		Ō		70	134	62.64	3.5()	
cis-1,3-Dichloropro	pene	46.6	2.5	50	0	93	66	130	47.87	2.7()	
trans-1,3-Dichlorop	propene	49.3	2.5	50	0	99	67	130	50.92	3.3()	
1,1,2-Trichloroetha	ine	53.8	2.5	50	0	108	70	130	54.87	2.0()	
Toluene		43.1	1.3	50	0		65	130	45.1	4.6()	
1,3-Dichloropropar		49	2.5		0		70	130	50.02	2.1()	
Dibromochloromet		53.2	2.5		0		70	130	54.44	2.2()	
1,2-Dibromoethane	e (EDB)	110	10		0		70	130	112.5	2.4()	
Tetrachloroethene	- 41	48.2	2.5		0		54	130	51.81	7.2()	
1,1,1,2-Tetrachloro	betnane	53.8	2.5		0		70	130	56.53 48.6	5.0()	
Chlorobenzene Ethylbenzene		46.9	2.5		0		70 67	130 130	49.28	3.6() 6.7()	
m,p-Xylene		46.1 49.1	1.3 1.3		0		67	130	49.28 52.03	5.9()	
Bromoform		59.4	2.5		0		68	131	61.39	3.2()	
Styrene		47.2	2.5		0		62	130	48.89	3.5()	
o-Xylene		46.9	1.3		0		70	130	49.31	5.1()	
1,1,2,2-Tetrachloro	bethane	44.4	2.5		0		70	130	44.57	0.4()	
1,2,3-Trichloroprop		104	10		0		70	130	105.6	1.10	
Isopropylbenzene		45.9	2.5		0	92	59	131	48.5	5.6()	
Bromobenzene		47.3	2.5		0		70	130	47.83	1.2()	
n-Propylbenzene		45.3	2.5	50	0	91	61	130	47.29	4.3()	
4-Chlorotoluene		47.4	2.5	50	0		70	130	49.17	3.8()	
2-Chlorotoluene		47.1	2.5		0		68	130	48.2	2.4()	
1,3,5-Trimethylben	izene	47.3	2.5		0		64	131	49.06	3.7()	
tert-Butylbenzene		43.9	2.5		0		58	130	52.64	18.1()	
1,2,4-Trimethylben	izene	47.7	2.5		0		59	133	49.69	4.1()	
sec-Butylbenzene		46.4	2.5		0		59	130	49.55	6.5()	
1,3-Dichlorobenzer		46.6	2.5		0		70	130	47.42 47.03	1.7() 0.0()	
1,4-Dichlorobenze		47.1	2.5				70	130	47.03	5.6()	
4-Isopropyltoluene 1,2-Dichlorobenze		47.2 44.5	2.5 2.5		0		62 70	133 130	49.96 44.85	0.8()	
n-Butylbenzene		44.5 45.1	2.5 2.5				58	130	44.85 48.4 <b>3</b>	7.2()	
	propropane (DBCP)	45.1 246	∠.≎ 15				58 70	130	40.43 249.6	1.4()	
1,2,4-Trichloroben		52.4	10				67	130	249.0 50.36	3.9()	
Naphthalene		53.5	10				45	155	50.34	6.0()	
Hexachlorobutadie	ne	102	10				45 51	133	106.6	4.3()	
1,2,3-Trichloroben		57.8	10				58	133	53.48	7.7()	
Surr: 1,2-Dichloroe		50.1	.0	50		100	70	130			
Surr: Toluene-d8		46.5		50		93	70	130			
	obenzene	50.4		50		101	70	130			



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#### **Date:** 13-Aug-08

### QC Summary Report

Work Order: 08080155

#### Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

L51 = Analyte recovery was above acceptance limits for the LCS, but was acceptable in the MS/MSD.



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Date: 14-Aug-08	(	C S	ummar	y Repor	rt				<b>Work Ord</b> 08080155	
Method Blank File ID: 080608.B\A108SMPL.D		Туре I		est Code: E atch ID: 203		hod 200.8		sis Date:	08/07/2008 00:38	
Sample ID: MB-20360	Units : mg/L		Run ID: IC	P/MS_0808	806F		Prep [	Date:	08/04/2008	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qua
Chromium (Cr)	ND	0.00	5							
Laboratory Control Spike		Туре І	LCS T	est Code: E	PA Met	hod 200.8				
File ID: 080608.B\007_LCS.D\			Ba	atch ID: 203	60K		Analy	sis Date:	08/07/2008 11:39	
Sample ID: LCS-20360	Units : mg/L		Run ID: IC	P/MS_0808	806F		Prep [	Date:	08/04/2008	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qua
Chromium (Cr)	0.0579	0.00	5 0.05		116	80	120			
Sample Matrix Spike		Type I	MS TO	est Code: E	PA Met	hod 200.8				
File ID: 080608.B\A116SMPL.D			Ba	atch ID: 203	60K		Analys	sis Date:	08/07/2008 01:24	
Sample ID: 08073040-02AMS	Units : mg/L		Run ID: IC	P/MS_0808	06F		Prep [	Date:	08/04/2008	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qua
Chromium (Cr)	0.0551	0.00	5 0.05	0	110	80	120			
Sample Matrix Spike Duplicate		Туре І	MSD Te	est Code: E	PA Met	hod 200.8				
File ID: 080608.B\A117SMPL.D			Ba	atch ID: 203	60K		Analys	sis Date:	08/07/2008 01:30	
Sample ID: 08073040-02AMSD	Units : mg/L		Run ID: IC	P/MS_0808	06F		Prep [	Date:	08/04/2008	
Analyte	Result	PQL				LCL(ME)	UCL(ME)	RPDRef	val %RPD(Limit)	Qua
Chromium (Cr)	0.0539	0.00	5 0.05	. 0	108	80	120	0.055	07 2.2(20)	

#### **Comments:**



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<b>Date:</b> 06-Aug-08		(	DC S	Sum	marv	y Repor	t				<b>Work Ord</b> 08080155	
Method Bla File ID: 17	nk		Туре	MBL		est Code: El atch ID: 2034		thod 314.0		sis Date:	08/01/2008 14:32	
Sample ID:	MBLK-20348	Units : µg/L		Rur	n ID: <b>IC</b>	_3_080801 <i>A</i>	۹.		Prep	Date:	08/01/2008	
Analyte		Result	PQL	S	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qua
Perchlorate		ND		1							, ··· ··· ··· ··· ··· ··· ··· ··· ··· ·	
Laboratory	Fortified Blank		Туре	LFB	Τe	est Code: El	PA Met	thod 314.0				
File ID: 18					Ba	atch ID: 203	48		Analy	sis Date:	08/01/2008 14:51	
Sample ID:	LFB-20348	Units : µg/L		Rur	n ID: <b>IC</b>	_3_0808014	۱.		Prep	Date:	08/01/2008	
Analyte		Result	PQL	5	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	val %RPD(Limit)	Qua
Perchlorate		21.4		2	25		86	85	115			
Sample Mat	rix Spike		Туре	LFM	Τe	est Code: El	PA Met	thod 314.0				
File ID: 28					Ba	atch ID: 203	48		Analy	sis Date:	08/01/2008 17:55	
Sample ID:	08080155-02ALFM	Units : µg/L		Rur	n ID: <b>IC</b>	_3_080801/	۹.		Prep	Date:	08/01/2008	
Analyte		Result	PQL	S	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qua
Perchlorate		24.7		2	25	2.902	87	80	120			
Sample Mat	rix Spike Duplicate		Туре	LFMI	Ο Τε	est Code: El	PA Met	thod 314.0				
File ID: 29	-				Ba	atch ID: 203	48		Analy	sis Date:	08/01/2008 18:13	
Sample ID:	08080155-02ALFMD	Units : µg/L		Ru	n ID: <b>IC</b>	_3_080801A	۹.		Prep	Date:	08/01/2008	
Analyte		Result	PQL	S	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qua
Perchlorate		25.1		2	25	2.902	89	80	120	24.6	6 1.7(15)	

#### Comments:



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<b>Date:</b> 06-Aug-08	QC Summary Report	Work Order: 08080155
Method Blank File ID:	Type MBLKTest Code: EPA Method 120.1 / SM2510B / SW9050ABatch ID: W0801CNAnalysis Date: 08/01/	
Sample ID: MBLK-W0801CN	Units : µS/cm Run ID: WETLAB_080801E Prep Date: 08/01/2	
Analyte	Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %R	PD(Limit) Qua
Specific Conductance (at 25°C)	ND 10	
Laboratory Control Spike	Type LCS Test Code: EPA Method 120.1 / SM2510B / SW9050A	
File ID:	Batch ID: W0801CN Analysis Date: 08/01/	2008 00:00
Sample ID: LCS-W0801CN	Units : <b>µS/cm</b> Run ID: <b>WETLAB_080801E</b> Prep Date: <b>08/01</b> /2	2008
Analyte	Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %R	PD(Limit) Qua
Specific Conductance (at 25°C)	1400 10 1410 99.6 98 102	

#### **Comments:**

Alpha Analytical, Inc.	
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778 TEL: (775) 355-1044 FAX: (775) 355-0406	Report Due By: 5:00 PM On: 15-Aug-08
Report Attention Phone Number EMail Address	
(619) 574-4827 x	
	EDD Required : Yes
	Sampled by : Client
	Cooler Temp Samples Received Date Printed
Job : G005862/JPL Groundwater Monitoring	4 °C 01-Aug-08 01-Aug-08
Final Rpt, MBLK, InitCal/ConCal data, LCS, MS/MSD With Surrogates	
	Requested Tests
Collection No. of Bottles 314_W CONDUCTI METALS_D VOC Matrix Date Alpha Sub TAT VITY W V	voc_ric_ voc_w W Sample Remarks
3 4 0 10 Perchlorate Perchlorate	VOC by 524 VOC by 524 Criteria Criteria
AQ 07/31/08 4 0 10 Perchlorate Perchlorate VOC1	Criteria Criteria Criteria Level IV QC
8 5 0 10 Perchlorate Perchlorate Cr	Criteria Criteria
AQ 07731/08 5 0 10 Perchlorate Perchlorate Cr VOC1 08:33 Cr VOC1	VOC by 524 VOC by 524 Criteria Criteria
AQ 07/31/08 5 0 10 Perchlorate Perchlorate Cr VOC1 09:23 Crit	Criteria Criteria Criteria
AQ 07731/08 5 0 10 Perchlorate Perchlorate Cr VOC1	Criteria Criteria Criteria Duplicate
AQ 07/31/08 5 0 10 Perchlorate Perchlorate Cr VOC1 09:12 Cri	Criteria Criteria Criteria Equip. Blank
AQ 07/31/08 1 0 10 voc:	VOC by 524 VOC by 524 Reno TB, 6/26/08. Only one Criteria Criteria Citeria
	Vtical, Inc.       Sparks, Nevada 89431-577       AX: (775) 355-0406       EMail Address       connerd@battelle.org       var       vrrv       vrrv       orate       Perchlorate       orate       Perchlorate       Cr       orate

Logged in by: May if Willinger Tava Nickinsun Alpha Analytical, Inc. Company S | 0 Y | 2 | 0

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

Information:	Alpha 255 Gler	Alpha Analytical, Inc.     Samples Collect       255 Glendale Avenue, Suite 21     AZ     CA       255 Glendale Avenue, Suite 21     ID     OR	Samples Collected From Which State? 026276 AZ CA NV WA Page # 1 of 1
Address 505 NING AVE City, State, Zip Columi305, off 4320 Phone Number Fax	Phone ( Fax (77)		Analyses Required
Client Name	P.O.# 218017	-	Required QC Level?
	EMail Address	24 24	
NECO , CA 9210	Phone # 6/9 - 726 - 7311	~	EDD / EDD / EDF? YES NO
Matrix* Sampled by	Report Attention	Total and type of / 2/ 2 X	Giobal ID #
Sampled Sampled Below Lab ID Number (Use Only)	Sample Description	TAT Filered ** See below / S & S	PEMARKS
718 Hully AR BWITOSOSULSSI	MW-12-5	X X X X	
744 -02	MW-12-4	4     ×	OC LEVEL JI
5-	MW-12-3	* × × × × ×	
10-	MW-12-2	× × × ×	
	440-12-1		
923 -05	mw-12-1	XXX	
8	DUPE - 7 - 3008	5 X X X	DUPLICATE
912 - OF	2-09-7/3/	x X x x x x	TAID RIANK
ADDITIONAL INSTRUCTIONS:	115-09-7131138		
Signature	Print Name	Company	
Relinquished by	hand renova	INSIGHT EEC	21/28 12
Received by Aren 1 Will Marcen	rava jidansan	AN di Ha	81105 1210
Received by			
Relinquished by			
	OT - Other AR - Air	** I -I iter V-Voa S-Soil Jar O-Orbo T-Tedlar	dlar 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. "Key: AQ - Aqueous 00 - 00I WA - Waste 



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Date: 19-Aug-08

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

### CASE NARRATIVE

Project: Work Order:	G005862/JPL Groun BMI08080506	dwater Monitoring	Cooler Temp: 4 °C	1	ر <b>م</b> رد ا
Alpha's	s Sample ID	Client's Sample ID	Matrix	• •	
08080	0506-01A	MW-24-4	Aqueous	<u> </u>	
08080	0506-02A	MW-24-3	Aqueous		
08080	0506-03A	MW-24-2	Aqueous		
08086	0506-04A	MW-24-1	Aqueous		
08080	0506-05A	EB-11-08/04/08	Aqueous		
08080	0506-06A	TB-11-08/04/08	Aqueous		
08080	0506-07A	MW-25-5	Aqueous		
08080	0506-08A	MW-25-4	Aqueous		
08080	0506-09A	MW-25-3	Aqueous		
08080	0506-10A	MW-25-2	Aqueous		
08080	0506-11A	MW-25-1	Aqueous		
08080	0506-12A	EB-10-8/1/08	Aqueous		
08080	0506-13A	TB-10-8/1/08	Aqueous		
08080	0506-14A	MW-26-2	Aqueous		
08080	0506-15A	MW-26-1	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.

Walter Hinihum Kandg 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.



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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-24-3						
Lab ID :	BMI08080506-02A	* * * None Found * * *	ND	2.0 μg/L	08/05/08	08/04/08	08/06/08
Client ID :	MW-24-2						
Lab ID :	BMI08080506-03A	*** None Found ***	ND	2.0 µg/L	08/05/08	08/04/08	08/06/08
Client ID :	MW-24-1						
Lab ID :	BMI08080506-04A	* * * None Found * * *	ND	2.0 µg/L	08/05/08	08/04/08	08/06/08
Client ID :	EB-11-08/04/08						
Lab ID :	BMI08080506-05A	* * * None Found * * *	ND	2.0 μg/L	08/05/08	08/04/08	08/06/08
Client ID :	TB-11-08/04/08						0.0.10.6.10.0
Lab ID :	BMI08080506-06A	*** None Found ***	ND	2.0 µg/L	08/05/08	08/04/08	08/06/08
Client ID :	MW-25-5				0.0 10 5 10 0	00/01/00	00/07/00
Lab ID :	BMI08080506-07A	Sulfur Dioxide	18	2.0 μg/L	08/05/08	08/01/08	08/06/08
Client ID : Lab ID :	MW-25-4 BMI08080506-08A	Sulfur Disuida	2.0	2.0	08/05/08	08/01/08	08/06/08
		Sulfur Dioxide	3.9	2.0 μg/L	08/05/08	08/01/08	08/00/08
Client ID : Lab ID :	MW-25-3 BMI08080506-09A	* * * None Found * * *	ND	2.0 μg/L	08/05/08	08/01/08	08/06/08
Client ID :		None i bana		2.0 µg/L	00/05/00	00/01/00	00,00,00
Lab ID :	MW-25-2 BMI08080506-10A	* * * None Found * * *	ND	2.0 μg/L	08/05/08	08/01/08	08/06/08
Client ID :	MW-25-1						
Lab ID :	BM108080506-11A	* * * None Found * * *	ND	2.0 μg/L	08/05/08	08/01/08	08/06/08
Client ID :	EB-10-8/1/08						
Lab ID :	BMI08080506-12A	* * * None Found * * *	ND	2.0 µg/L	08/05/08	08/01/08	08/06/08
Client ID :	TB-10-8/1/08						
Lab ID :	BM108080506-13A	* * * None Found * * *	ND	2.0 µg/L	08/05/08	08/01/08	08/06/08
Client ID :	MW-26-2						
Lab ID :	BMI08080506-14A	*** None Found ***	ND	2.0 µg/L	08/05/08	08/04/08	08/06/08
Client ID :	MW-26-1						
Lab ID :	BMI08080506-15A	*** None Found ***	ND	2.0 μg/L	08/05/08	08/04/08	08/06/08



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Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl Kandy Saulues Dalter Hirihum 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.

8/19/08

**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: BMI08080506-02A Client I.D. Number: MW-24-3	Sampled: 08/04/08 Received: 08/05/08 Analyzed: 08/06/08

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	UJ	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	μ <b>g</b> /L	55	1,4-Dichlorobenzene	ND	0.50	µg/L
21	Carbon tetrachloride	ND		0.50	µg/L	56	4-Isopropyitoluene	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	116	(70-130)	%REC
30	1,1,2-Trichloroethane	ND		0.50	µg/L	65	Surr: Toluene-d8	96	(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					

Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte.

Rogen Scholl

Kandy Danlmer

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

8/19/08

**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: BMI08080506-03A	Sampled: 08/04/08
Client I.D. Number: MW-24-2	Received: 08/05/08
	Analyzed: 08/06/08

Volatile Organics by GC/MS

	Compound	Concentration	R	eporting	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	UJ	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	0.65	J	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	119	(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	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					

Analysis conducted using EPA Method 524.2 criteria.

J= Estimated: The analyte was positively identified; the quantitation is an estimation.

#### ND = Not Detected

UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte.

Roger Scholl

Kandy Saular

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

8/19/08

**Report Date** 

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

<u>.</u>	ANALYTICAL REP	<u>ORT</u>
	Attn:	David Conner

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

Alpha Analytical Number: BMI08080506-04A Client I.D. Number: MW-24-1

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

Sampled: 08/04/08 Received: 08/05/08 Analyzed: 08/06/08

Volatile Organics by GC/MS

Compound		Concentration	R	eporting	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	UJ	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	Isopropyibenzene	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	16		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	μġ/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	μ <b>g/L</b>	
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	5.3	J	0.50	µg/L	61	Naphthalene	ND	1.0	μg/L	
27	4-Methyl-2-pentanone (MIBK)	ND		2.5	µg/L	62	Hexachiorobutadiene	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	122	(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	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						

#### Analysis conducted using EPA Method 524.2 criteria.

J= Estimated: The analyte was positively identified; the quantitation is an estimation.

#### ND = Not Detected

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Roger Scholl

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

8/19/08

**Report Date** 



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

#### ANALYTICAL REPORT

Attn: David Conner
Phone: (619) 574-4827
Fax: (614) 458-6641
Sampled: 08/04/08
Received: 08/05/08
Analyzed: 08/06/08

Volatile Organics by GC/MS

	Compound	ompound Concentration		eporting	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	UJ	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-Chlorotoiuene	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	0.57		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	μ <b>g/L</b>	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	115	(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	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					

Analysis conducted using EPA Method 524.2 criteria.

#### ND = Not Detected

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Roger Scholl

Kandy Saulur

8/19/08

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

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**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	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: BMI08080506-06A	Sampled: 08/04/08
Client I.D. Number: TB-11-08/04/08	Received: 08/05/08
	Analyzed: 08/06/08

Volatile Organics by GC/MS

	Compound	Concentration	F	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	UJ	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 (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	108	(70-130)	%REC
30	1,1,2-Trichloroethane	ND		0.50	µg/L	65	Surr: Toluene-d8	9 <b>9</b>	(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					

Analysis conducted using EPA Method 524.2 criteria.

#### ND = Not Detected

UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte.

Roger Scholl

Kandy Daulmer

Walter Acrilmon

8/19/08

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

ANAL	YTICAL 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: BMI08080506-07A Client I.D. Number: MW-25-5	Sampled: 08/01/08 Received: 08/05/08 Analyzed: 08/06/08

#### Volatile Organics by GC/MS

	Compound	Concentration	R	eporting l	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	UJ	1.0	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	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	μ <b>g/L</b>
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	121	(70-130)	%REC
30	1,1,2-Trichloroethane	ND		0.50	µg/L	65	Surr: Toluene-d8	9 <b>8</b>	(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					

Analysis conducted using EPA Method 524.2 criteria.

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Rogen Scholl

Kandy Daulmer

Walter Aridmon

8/19/08

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: BMI08080506-08A	Sampled: 08/01/08
Client I.D. Number: MW-25-4	Received: 08/05/08
	Analyzed: 08/06/08

#### Volatile Organics by GC/MS

	Compound	Concentration	F	leporting	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	UJ	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	μ <b>g/L</b>
7	1,1-Dichloroethene	ND		0.50	µg/L	42	o-Xylene	ND	0.50	μ <b>g/L</b>
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	μ <b>g/L</b>
13	2-Butanone (MEK)	ND		10	µg/L	48	4-Chlorotoluene	ND	0.50	μ <b>g/L</b>
14	cis-1,2-Dichloroethene	ND		0.50	µg/L	49	2-Chlorotoluene	ND	0.50	μ <b>g/L</b>
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	122	(70-130)	%REC
30	1,1,2-Trichloroethane	ND		0.50	µg/L	65	Surr: Toluene-d8	96	(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					

Analysis conducted using EPA Method 524.2 criteria.

#### ND = Not Detected

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Roger Scholl

Kandy Saulur

Walter Hiridmon

8/19/08

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: BMI08080506-09A	Sampled: 08/01/08
Client I.D. Number: MW-25-3	Received: 08/05/08
	Analyzed: 08/06/08

#### Volatile Organics by GC/MS

	Compound	Concentration	R	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	UJ	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	μ <b>g/L</b>
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	0.91		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	123	(70-130)	%REC
30	1,1,2-Trichloroethane	ND		0.50	µg/L	65	Surr: Toluene-d8	96	(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					

Analysis conducted using EPA Method 524.2 criteria.

#### ND = Not Detected

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Roger Scholl

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8/19/08

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Page 1 of 1

**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: BMI08080506-10A	Sampled: 08/01/08
Client I.D. Number: MW-25-2	Received: 08/05/08
	Analyzed: 08/06/08

Volatile Organics by GC/MS

Compound		Compound Concentration		Reporting Limit			Compound	Concentration	Reporting L	Reporting Limit	
1	Dichlorodifluoromethane	ND		0.50	µg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	μg/L	
2	Chloromethane	ND	UJ	1.0	µg/L	37	Chlorobenzene	ND	0.50	µg/L	
з	Vinyl chloride	ND		0.50	μg/L	38	Ethylbenzene	NĎ	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-Chiorotoluene	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	123	(70-130)	%REC	
30	1,1,2-Trichloroethane	ND		0.50	µg/L	65	Surr: Toluene-d8	96	(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						

Analysis conducted using EPA Method 524.2 criteria.

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Roger Scholl

Kandy Saulmer

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.

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

8/19/08

**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**

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4-4827
8-6641
/08
5/08
5/08

#### Volatile Organics by GC/MS

			•••••							
	Compound	Concentration	F	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	UJ	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-Chiorotoluene	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	126	(70-130)	%REC
30	1,1,2-Trichloroethane	ND		0.50	µg/L	65	Surr: Toluene-d8	94	(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					

Analysis conducted using EPA Method 524.2 criteria.

#### ND = Not Detected

UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte.

Roger Scholl

Kandy Daulman

Walter Arihm

8/19/08

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

#### ANALYTICAL REPORT

Attn: David Conner
Phone: (619) 574-4827
Fax: (614) 458-6641
Sampled: 08/01/08
Received: 08/05/08
Analyzed: 08/06/08

Volatile Organics by GC/MS

	Compound	mpound 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	IJJ	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	μ <b>g/L</b>	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	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	115	(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					

Analysis conducted using EPA Method 524.2 criteria.

#### ND = Not Detected

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8/19/08

**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	e Memorial Institute
505 Ki	ng Avenue
Columb	ous, OH 43201
Job#:	G005862/JPL Groundwater Monitoring

Client I.D. Number: TB-10-8/1/08

Alpha Analytical Number: BMI08080506-13A

 Attn:
 David Conner

 Phone:
 (619) 574-4827

 Fax:
 (614) 458-6641

Sampled: 08/01/08 Received: 08/05/08 Analyzed: 08/06/08

Volatile Organics by GC/MS

	Compound	Concentration	R	leporting l	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	UJ	1.0	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	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	μ <b>g/L</b>
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	μ <b>g/L</b>
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	μ <b>g/L</b>
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	μ <b>g/L</b>
24	1,2-Dichloropropane	ND		0.50	µg/L	59	1,2-Dibromo-3-chloropropane (DBC	P) ND	2.5	μ <b>g</b> /L
25	Trichloroethene	ND		0.50	μg/L	60	1,2,4-Trichlorobenzene	ND	1.0	μ <b>g/L</b>
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	μ <b>g</b> /L
29	trans-1,3-Dichloropropene	ND		0.50	µg/L	64	Surr: 1,2-Dichloroethane-d4	114	(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					
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Analysis conducted using EPA Method 524.2 criteria.

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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: BMI08080506-14A	Sampled: 08/04/08	
Client I.D. Number: MW-26-2	Received: 08/05/08	
	Analyzed: 08/06/08	

Volatile Organics by GC/MS

	Compound	Concentration	R	eporting l	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	UJ	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-Chiorotoluene	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
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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
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29	trans-1,3-Dichloropropene	ND		0.50	µg/L	64	Surr: 1,2-Dichloroethane-d4	125	(70-130)	%REC
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33	Dibromochloromethane	ND		0.50	µg/L					
34	1,2-Dibromoethane (EDB)	ND		1.0	μg/L					
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#### Analysis conducted using EPA Method 524.2 criteria.

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8/19/08

**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: BMI08080506-15A	Sampled: 08/04/08
Client I.D. Number: MW-26-1	Received: 08/05/08
	Analyzed: 08/06/08

Volatile Organics by GC/MS

	Compound	Concentration	R	eporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND		0.50	µg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	μ <b>g/L</b>
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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/∟
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	124	(70-130)	%REC
30	1,1,2-Trichloroethane	ND		0.50	µg/L	65	Surr: Toluene-d8	95	(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	Tetrachioroethene	ND		0.50	µg/L					

Analysis conducted using EPA Method 524.2 criteria.

#### ND = Not Detected

UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte.

Rogen Scholl

Kandy Saulur

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

8/19/08

**Report Date** 



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### **VOC Sample Preservation Report**

#### Work Order: BMI08080506

#### Project: G005862/JPL Groundwater Monitoring

Alpha's Sample ID	Client's Sample ID	Matrix	рН
08080506-02A	MW-24-3	Aqueous	2
08080506-03A	MW-24-2	Aqueous	3
08080506-04A	MW-24-1	Aqueous	2
08080506-05A	EB-11-08/04/08	Aqueous	2
08080506-06A	TB-11-08/04/08	Aqueous	2
08080506-07A	MW-25-5	Aqueous	2
08080506-08A	MW-25-4	Aqueous	2
08080506-09A	MW-25-3	Aqueous	2
08080506-10A	MW-25-2	Aqueous	2
08080506-11A	MW-25-1	Aqueous	2
08080506-12A	EB-10-8/1/08	Aqueous	2
08080506-13A	TB-10-8/1/08	Aqueous	2
08080506-14A	MW-26-2	Aqueous	2
08080506-15A	MW-26-1	Aqueous	2

8/19/08 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 : 08/05/08

### Job#: G005862/JPL Groundwater Monitoring

	Anions by IC EPA Method 300.0 / 9056						
	Parameter	Concentration	Reporting Limit	Date / Time S <b>a</b> mpled	Date / Time Analyzed		
Client ID : <b>MW-24-1</b> Lab ID : <b>BMI08080506-04A</b>	Nitrite (NO2) - N Nitrate (NO3) - N Phosphate, ortho - P	ND 0.60 ND	0.25 mg/L 0.25 mg/L 0.25 mg/L	08/ <b>0</b> 4/08 09:52 08/ <b>0</b> 4/08 09:52 08/ <b>0</b> 4/08 09:52			

ND = Not Detected

Roger Scholl

Kandy Soulmer

Dalter Arridmon

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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Ø 8/18/08 Report Date



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### ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201

David Conner Attn: (619) 574-4827 Phone: Fax: (614) 458-6641 Date Received: 08/05/08

Job#: G005862/JPL Groundwater Monitoring

	-	Anions by IC EPA Method 300.0 / 9056		
	Parameter	Concentration	Reporting Limit	Date Date Sampled Analyzed
Client ID : <b>MW-24-1</b> Lab ID : BMI08080506-04A	Chloride Sulfate (SO4)	63 49	2.5 mg/L 0.50 mg/L	08/04/08 08/07/08 08/04/08 08/05/08

Roger Scholl Kandy Soulan

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 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

8/18/08 **Report Date** 

6



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 (619) 574-4827

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 Date Received : 08/05/08

Job#: G005862/JPL Groundwater Monitoring

### Specific Conductance at 25°C EPA Method 120.1 / SM2510B / SW9050A

		Parameter	Concentration	Reporting Limit	Date Date Sampled Analyzed
Client ID : Lab ID :	<b>MW-24-3</b> BMI08080506-02A	Specific Conductance (at 25°C)	350	10 µS/cm	08/04/08 08/05/08
Client ID : Lab ID :	<b>MW-24-2</b> BMI08080506-03A	Specific Conductance (at 25°C)	490	10 µS/cm	08/04/08 08/05/08
Client ID : Lab ID :	MW-24-1 BMI08080506-04A	Specific Conductance (at 25°C)	620	10 µS/cm	08/04/08 08/05/08
Client ID : Lab ID :	EB-11-08/04/08 BMI08080506-05A	Specific Conductance (at 25°C)	ND	10 µS/cm	08/04/08 08/05/08
Client ID : Lab ID :	MW-25-5 BMI08080506-07A	Specific Conductance (at 25°C)	470	10 μS/cm	08/01/08 08/05/08
Client ID : Lab ID :	MW-25-4 BMI08080506-08A	Specific Conductance (at 25°C)	680	10 µS/cm	08/01/08 08/05/08
Client ID : Lab ID :	<b>MW-25-3</b> BMI08080506-09A	Specific Conductance (at 25°C)	660	10 µS/cm	08/01/08 08/05/08
Client ID : Lab ID :	MW-25-2 BMI08080506-10A	Specific Conductance (at 25°C)	670	10 µS/cm	08/01/08 08/05/08
Client ID : Lab ID :	MW-25-1 BMI08080506-11A	Specific Conductance (at 25°C)	890	10 μS/cm	08/01/08 08/05/08
Client ID : Lab ID :	EB-10-8/1/08 BMI08080506-12A	Specific Conductance (at 25°C)	ND	10 µS/cm	08/01/08 08/05/08
Client ID : Lab ID :	MW-26-2 BMI08080506-14A	Specific Conductance (at 25°C)	450	10 µS/cm	08/04/08 08/05/08
Client ID : Lab ID :	MW-26-1 BMI08080506-15A	Specific Conductance (at 25°C)	920	10 µS/cm	08/04/08 08/05/08



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ND = Not Detected

Walter Hindren

Roger Scholl Kandy Sanlaun Dalter Hirihur 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**

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 Attn:
 David Conner

 Phone:
 (619) 574-4827

 Fax:
 (614) 458-6641

 Date Received : 08/05/08

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 :	<b>MW-24-3</b> BMI08080506-02A	Perchlorate	ND	1.00 μg/L	08/04/08 08/07/08
Client ID : Lab ID :	<b>MW-24-2</b> BMI08080506-03A	Perchlorate	16.4	1.00 μg/L	08/04/08 08/07/08
Client ID : Lab ID :	MW-24-1 BM108080506-04A	Perchlorate	1.14	1.00 µg/L	08/04/08 08/07/08
Client ID : Lab ID :	EB-11-08/04/08 BMI08080506-05A	Perchlorate	ND	1.00 µg/L	08/04/08 08/07/08
Client ID : Lab ID :	<b>MW-25-5</b> BMI08080506-07A	Perchlorate	33.8	1.00 µg/L	08/01/08 08/07/08
Client ID : Lab ID :	MW-25-4 BMI08080506-08A	Perchlorate	6.83	1.00 μg/L	08/01/08 08/07/08
Client ID : Lab ID :	MW-25-3 BMI08080506-09A	Perchlorate	8.89	1.00 µg/L	08/01/08 08/07/08
Client ID : Lab ID :	MW-25-2 BMI08080506-10A	Perchlorate	13.1	1.00 μg/L	08/01/08 08/07/08
Client ID : Lab ID :	MW-25-1 BMI08080506-11A	Perchlorate	8.20	1.00 µg/L	08/01/08 08/07/08
Client ID : Lab ID :	EB-10-8/1/08 BM108080506-12A	Perchlorate	ND	1.00 μg/L	08/01/08 08/07/08
Client ID : Lab ID :	<b>MW-26-2</b> BMI08080506-14A	Perchlorate	ND	1.00 μg/L	08/04/08 08/08/08
Client ID : Lab ID :	MW-26-1 BMI08080506-15A	Perchlorate	1.97	1.00 µg/L	08/04/08 08/08/08



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ND = Not Detected

Rogen Scholl

Kandy Saulmer

Walter Arihan

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 Attn:
 David Conner

 Phone:
 (619) 574-4827

 Fax:
 (614) 458-6641

 Date Received : 08/05/08

Job#: G005862/JPL Groundwater Monitoring

	Metals by ICPMS EPA Method 200.8								
		Parameter	Concentration	Reporting Limit	Date Date Sampled Analyzed				
Client ID : Lab ID :	<b>MW-24-4</b> BMI08080506-01A	Chromium (Cr)	ND	0.0050 mg/L	08/04/08 08/14/08				
Client ID : Lab ID :	<b>MW-24-3</b> BMI08080506-02A	Chromium (Cr)	0.0059	0.0050 mg/L	08/04/08 08/14/08				
Client ID : Lab ID :	<b>MW-24-2</b> BMI08080506-03A	Chromium (Cr)	ND	0.0050 mg/L	08/04/08 08/14/08				
Client ID : Lab ID :	<b>MW-24-1</b> BMI08080506-04A	Chromium (Cr)	0.011	0.0050 mg/L	08/04/08 08/14/08				
Client ID : Lab ID :	EB-11-08/04/08 BMI08080506-05A	Chromium (Cr)	ND	0.0050 mg/L	08/04/08 08/14/08				
Client ID : Lab ID :	<b>MW-25-5</b> BMI08080506-07A	Chromium (Cr)	ND	0.0050 mg/L	08/01/08 08/14/08				
Client ID : Lab ID :	<b>MW-25-4</b> BMI08080506-08A	Chromium (Cr)	ND	0.0050 mg/L	08/01/08 08/14/08				
Client ID : Lab ID :	<b>MW-25-3</b> BMI08080506-09A	Chromium (Cr)	ND	0.0050 mg/L	08/01/08 08/15/08				
Client ID : Lab ID :	<b>MW-25-2</b> BMI08080506-10A	Chromium (Cr)	ND	0.0050 mg/L	08/01/08 08/15/08				
Client ID : Lab ID :	<b>MW-25-1</b> BMI08080506-11A	Chromium (Cr)	ND	0.0050 mg/L	08/01/08 08/15/08				
Client ID : Lab ID :	EB-10-8/1/08 BMI08080506-12A	Chromium (Cr)	ND	0.0050 mg/L	08/01/08 08/15/08				
Client ID : Lab ID :	<b>MW-26-2</b> BMI08080506-14A	Chromium (Cr)	ND	0.0050 mg/L	08/04/08 08/15/08				
Client ID : Lab ID :	<b>MW-26-1</b> BMI08080506-15A	Chromium (Cr)	ND	0.0050 mg/L	08/04/08 08/15/08				



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ND = Not Detected

Roger Scholl Kandy Santan Dalter Hirihum 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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<b>Date:</b> 14-Aug-08	Ç	C S	ummar	y Repor	t				Work Orde 08080506	
Method Blank File ID: 13 Sample ID: MB-20370	Units : mg/L	Туре N	Ba	est Code: E atch ID: 203	70A	hod 300.0	Analy	/sis Date: Date:	08/05/2008 14:39 08/05/2008	
Analyte	Result	PQL				LCL(ME)	•		al %RPD(Limit)	Qual
Nitrite (NO2) - N Nitrate (NO3) - N Phosphate, ortho - P	ND ND ND	0.25 0.25 0.25	5						÷	
Laboratory Fortified Blank		Type L	.FB Te	est Code: E	PA Met	hod 300.0	/ 9056		-	
File ID: 14 Sample ID: <b>FB-20370</b>	Units : mg/L			atch ID: 203				/sis Date: Date:	08/05/2008 14:58 08/05/2008	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	al %RPD(Limit)	Qua
Nitrite (NO2) - N Nitrate (NO3) - N Phosphate, ortho - P	1.19 1.23 1.22	0.25 0.25 0.25	5 1.25		95 98 98	90 90 90	110 110 110			
Sample Matrix Spike		Type L	.FM To	est Code: E	PA Met	hod 300.0	/ 9056			
File ID: 17           Sample ID:         08080506-04ALFM	Units : mg/L			atch ID: 203				/sis Date: Date:	08/05/2008 15:53 08/05/2008	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	al %RPD(Limit)	Qua
Nitrite (NO2) - N Nitrate (NO3) - N	1.29 1.82	0.25 0.25		0 0.5947	103 98	80 80	120 120			
Sample Matrix Spike Duplicate		Type L	.FMD To	est Code: E	PA Met	hod 300.0	/ 9056		-	
File ID: <b>18</b>			Ba	atch ID: <b>203</b>	70A		Analy	/sis Date:	08/05/2008 16:12	
Sample ID: 08080506-04ALFMD Analyte	Units : <b>mg/L</b> Result	PQL		_ <b>2_080805</b> SpkRefVal		LCL(ME)		Date: RPDRef	<b>08/05/2008</b> Val %RPD(Limit)	Qua
Nitrite (NO2) - N Nitrate (NO3) - N	1.36 1.87	0.25	5 1.25	0 0.5947	109	80 80	120 120	1.28 1.81	9 5.6(10)	

#### Comments:



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<b>Date:</b> 14-Aug-08		QC Summary Report										
Method Blar File ID: 13	nk		Туре I		Test Code: <b>I</b> Batch ID: <b>20</b>		hod 300.0		/sis Date:	08/05/2008 14:39		
Sample ID:	MB-20370	Units : mg/L		Run ID: I	C_2_080805	5A		Prep	Date:	08/05/2008		
Analyte		Result	PQL	SpkVa	il SpkRefVa	I %REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qual	
Sulfate (SO4)		ND	0.8	5								
•	Fortified Blank		Туре <b>і</b>	_FB	Test Code: I	EPA Met	hod 300.0	/ 9056				
File ID: <b>14</b>				I	Batch ID: 20	370B		Analy	/sis Date:	08/05/2008 14:58		
Sample ID:	FB-20370	Units : mg/L		Run ID: I	C_2_080805	5A		Prep	Date:	08/05/2008		
Analyte		Result	PQL	SpkVa	I SpkRefVa	I %REC	LCL(ME)	UCL(ME)	) RPDRef	Val %RPD(Limit)	Qua	
Sulfate (SO4)		9.83	0.8	5 10	)	98	90	110		-		
Sample Mat	rix Spike		Type L	FM	Test Code: I	EPA Met	hod 300.0	/ 9056		-		
File ID: 17				I	Batch ID: 20	370B		Analy	/sis Date:	08/05/2008 15:53		
Sample ID:	08080506-04ALFM	Units : mg/L		Run ID: I	C_2_080805	5A		Prep	Date:	08/05/2008		
Analyte		Result	PQL	SpkVa	l SpkRefVa	I %REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qual	
Sulfate (SO4)		60.6	0.8	5 10	) 48.99	9 116	80	120				
Sample Mat	rix Spike Duplicate		Type L	FMD	Test Code: I	EPA Met	hod 300.0	/ 9056	·			
File ID: 18				l	Batch ID: 20	370B		Analy	/sis Date:	08/05/2008 16:12		
Sample ID:	08080506-04ALFMD	Units : mg/L		Run ID: I	C_2_080805	5A		Prep	Date:	08/05/2008		
Analyte		Result	PQL				LCL(ME)	UCL(ME)	) RPDRef	Val %RPD(Limit)	Qual	
Sulfate (SO4)		60.2	0.9	5 10	0 48.99	9 112	80	120	60.6	1 0.7(10)		

#### Comments:



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<b>Date:</b> 14-Aug-08		(	DC S	QC Summary Report										
Method Bla	nk		Туре 1	MBLK Te	est Code: El	PA Met	hod 300.0	/ 9056		*				
File ID: 13				Ba	atch ID: 203	70C		Analy	sis Date:	08/05/2008 14:39				
Sample ID:	MB-20370	Units : mg/L		Run ID: IC	_2_0808058	3		Prep	Date:	08/05/2008				
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	al %RPD(Limit)	Qua			
Chloride		ND	0.9	5										
Laboratory	Fortified Blank		Туре 1	-FB Te	est Code: El	PA Met	hod 300.0	/ 9056		<b></b>				
File ID: 14				Ba	atch ID: 203	70C		Analy	sis Date:	08/05/2008 14:58				
Sample ID:	FB-20370	Units : mg/L		Run ID: IC	2_080805	3		Prep	Date:	08/05/2008				
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	al %RPD(Limit)	Qua			
Chloride		4.69	0.(	5 5		94	90	110						
Sample Mat	trix Spike		Type L	FM Te	est Code: El	PA Met	hod 300.0	/ 9056		<b>*</b> ******				
File ID: 63	-			Ba	atch ID: 203	70C		Analy	sis Date:	08/07/2008 05:14				
Sample ID:	08080506-04ALFM	Units : mg/L		Run ID: IC	_2_0808058	3		Prep	Date:	08/07/2008				
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	al %RPD(Limit)	Qua			
Chloride		88.1	0.	5 25	63.12	100	80	120						
Sample Mat	trix Spike Duplicate		Type I	<b>FMD</b> Te	est Code: El	PA Met	hod 300.0	/ 9056						
File ID: 64				Ba	atch ID: 203	70C		Analy	sis Date:	08/07/2008 05:32				
Sample ID:	08080506-04ALFMD	Units : mg/L		Run ID: IC	_2_0808058	3		Prep	Date:	08/07/2008				
Analyte		Result	PQL				LCL(ME)	UCL(ME)	RPDRef	al %RPD(Limit)	Qua			
Chloride		88.6	0.5	5 25	63.12	102	80	120	88.1	1 0.6(10)				

#### Comments:



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<b>Date:</b> 14-Aug-08	OC Summary Report Work Ord 0808050	
Method Blank File ID: Sample ID: MBLK-W0805CN	Type         MBLK         Test Code:         EPA Method         120.1 / SM2510B / SW9050A           Batch ID:         W0805CN         Analysis         Date:         08/05/2008         00:00	1
Analyte	Units : µS/cm Run ID: WETLAB_080805D Prep Date: 08/05/2008 Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit)	Qua
Specific Conductance (at 25°C)	ND 10	
Laboratory Control Spike File ID:	Type LCS         Test Code: EPA Method 120.1 / SM2510B / SW9050A           Batch ID: W0805CN         Analysis Date: 08/05/2008 00:00	•
Sample ID: LCS-W0805CN	Units : µS/cm Run ID: WETLAB_080805D Prep Date: 08/05/2008	
Analyte	Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit)	Qua
Specific Conductance (at 25°C)	1410 10 1410 99.7 98 102	

#### **Comments:**



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<b>Date:</b> 14-Aug-08		(	C S	Sum	mary	y Repor	t				V	<b>Work Order:</b> 08080506	
Method Blan File ID: 13 Sample ID:	Ik MBLK-20384	Units : µg/L			Ba ID: I <b>C</b> _	est Code: EF atch ID: 2038 _3_080807A	84	-	Analy Prep	Date:	08/07/20 08/07/20	08	_
Analyte Perchlorate		Result ND	PQL		okVal	SpkRefVal	%REC	C LCL(ME)	UCL(ME)	RPDRef	Val %RPL	D(Limit)	Qua
	Fortified Blank		Туре	LFB		est Code: EF		thod 314.0		sis Date:	08/07/20	08 19:02	
Sample ID: Analyte	LFB-20384	Units : <b>µg/L</b> Result	PQL		-	_ <b>3_080807</b> A SpkRefVal		LCL(ME)	Prep UCL(ME)		08/07/20 Val %RP[		Qua
Perchlorate		25.7		2	25		103	85	115				
Sample Matr File ID: 19			Туре		Ba	est Code: EF	34	thod 314.0	Analy		08/07/20		
Sample ID: Analyte	08080506-04ALFM	Units : <b>µg/L</b> Result	PQL			_ <b>3_080807</b> A SpkRefVal		CLCL(ME)	Prep   UCL(ME)		08/07/20 al %RPI		Qua
Perchlorate		23.5		2	25	1.137	90	80	120		*		
Sample Matr File ID: 20	rix Spike Duplicate	, , <u>e</u> n <del>i</del> i	Туре	LFMD		est Code: EF		thod 314.0		sis Date:	08/07/20	08 20:52	
Sample ID: Analyte	08080506-04ALFMD	Units : <b>µg/L</b> Result	PQL		-	_ <b>3_080807</b> SpkRefVal		CLCL(ME)	Prep UCL(ME)		<b>08/07/20</b> Val %RP[		Qua
Perchlorate		23.2		2	25	1.137	88	80	120	23.5	***	3(15)	

#### **Comments:**



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<b>Date:</b> 18-Aug-08	OC Summary Report										
Method Blank File ID: 081408.B\A034SMPL.D Sample ID: MB-20397 Analyte	Units : <b>mg/L</b> Result	Type N	B Run ID: IC	est Code: El atch ID: 203 P/MS_0808 SpkRefVal	97K 14D		Prep D	ate:	08/14/2008 16:37 08/08/2008 Val %RPD(Limit)	Qual	
Chromium (Cr)	ND	0.005	5								
Laboratory Control Spike File ID: 081408.B\018_LCS.D\ Sample ID: LCS-20397 Analyte	Units : <b>mg/L</b> Result	Type L	B Run ID: IC	est Code: El atch ID: 203 P/MS_0808 SpkRefVal	97K 14D		Prep D	ate:	08/15/2008 11:26 08/08/2008 Val %RPD(Limit)	Qual	
Chromium (Cr)	0.0513	0.005	5 0.05		103	80	120			_	
Sample Matrix Spike File ID: 081408.B\A038SMPL.D Sample ID: 08080506-04AMS Analyte	Units : <b>mg/L</b> Result	Type N	B Run ID: IC	est Code: El atch ID: 203 P/MS_0808 SpkRefVal	97K 14D		Prep D	ate:	08/14/2008 17:00 08/08/2008 Val %RPD(Limit)	Qual	
Chromium (Cr)	0.0638	0.005	5 0.05	0.01082	106	80	120				
Sample Matrix Spike Duplicate File ID: 081408.B\A039SMPL.D Sample ID: 08080506-04AMSD Analyte	Units : <b>mg/L</b> Result	Type N	B Run ID: IC	est Code: El atch ID: 203 P/MS_0808	97K 14D		Prep D	ate:	08/14/2008 17:05 08/08/2008 Val %RPD(Limit)	Qual	
Chromium (Cr)	0.0606	0.005		0.01082		80	120	0.063			

#### Comments:



<b>Date:</b> 19-Aug-08	(	OC Summ	ary Report		<b>Work Order:</b> 08080506		
Method Blank File ID: 08080606.D Sample ID: MBLK MS15W0806K	Units : µg/L	Type <b>MBLK</b> Run IE	Test Code: Batch ID: <b>MS15W0806K5</b> D: <b>MSD_15_080806A</b>	Analysis Date: Prep Date:	08/06/2008 09:58 08/06/2008		
Analyte	Result	PQL Spk	Val SpkRefVal %REC LCL(N	IE) UCL(ME) RPDRef	Val %RPD(Limit)	Qual	
Dichlorodifluoromethane	ND	0.5	· · · · · · · · · · · · · · · · · · ·				
Chloromethane	ND	1					
Vinyl chloride	ND	0.5					
Chloroethane	ND	0.5					
Bromomethane Trichlorofluoromethane	ND	1					
1,1-Dichloroethene	ND ND	0.5 0.5					
Dichloromethane	ND	1					
Freon-113	ND	0.5					
trans-1,2-Dichloroethene	ND	0.5					
Methyl tert-butyl ether (MTBE)	ND	0.5					
1,1-Dichloroethane 2-Butanone (MEK)	ND ND	0.5					
cis-1,2-Dichloroethene	ND	10 0.5					
Bromochloromethane	ND	0.5					
Chloroform	ND	0.5					
2,2-Dichloropropane	ND	0.5					
1,2-Dichloroethane	ND	0.5					
1,1,1-Trichloroethane 1,1-Dichloropropene	ND ND	0.5 0.5					
Carbon tetrachloride	ND	0.5					
Benzene	ND	0.5					
Dibromomethane	ND	0.5					
1,2-Dichloropropane	ND	0.5					
Trichloroethene	ND	0.5					
Bromodichloromethane 4-Methyl-2-pentanone (MIBK)	ND	0.5					
cis-1,3-Dichloropropene	ND ND	2.5 0.5					
trans-1,3-Dichloropropene	ND	0.5					
1,1,2-Trichloroethane	ND	0.5					
Toluene	ND	0.5					
1,3-Dichloropropane	ND	0.5					
Dibromochloromethane 1,2-Dibromoethane (EDB)	ND ND	0.5 1					
Tetrachloroethene	ND	0.5					
1,1,1,2-Tetrachloroethane	ND	0.5					
Chlorobenzene	ND	0.5					
Ethylbenzene	ND	0.5					
m,p-Xylene	ND	0.5					
Bromoform Styrene	ND ND	0.5					
o-Xylene	ND	0.5 0.5					
1,1,2,2-Tetrachloroethane	ND	0.5					
1,2,3-Trichloropropane	ND	1					
Isopropylbenzene	ND	0.5					
Bromobenzene n-Propylbenzene	ND	0.5					
4-Chlorotoluene	ND ND	0.5 0.5					
2-Chlorotoluene	ND	0.5					
1,3,5-Trimethylbenzene	ND	0.5					
tert-Butylbenzene	ND	0.5					
1,2,4-Trimethylbenzene	ND	0.5					
sec-Butylbenzene 1,3-Dichlorobenzene	ND	0.5					
1,3-Dichlorobenzene	ND ND	0.5 0.5					
4-Isopropyltoluene	ND	0.5					
1,2-Dichlorobenzene	ND	0.5					
n-Butylbenzene	ND	0.5		,			
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.5					
1,2,4-Trichlorobenzene	ND	1					
Naphthalene Hexachlorobutadiene	ND ND	1					
1,2,3-Trichlorobenzene	ND	1					
Surr: 1,2-Dichloroethane-d4	11.3	•	10 113 75	128			
Surr: Toluene-d8	9.71		10 97 80				



<b>Date:</b> 19-Aug-08	(	OC Sur	nmary I	Report			Work Ord 0808050	
Surr: 4-Bromofluorobenzene	9.99		10	99.9	70	130	···	
Laboratory Control Spike File ID: 08080604.D		Type LCS	Batch	Code: ID: <b>MS15W080</b>	6K5		te: 08/06/2008 08:56	
Sample ID: LCS MS15W0806K Analyte	Units : <b>µg/L</b> Result			15_080806A		Prep Date:	08/06/2008 RefVal %RPD(Limit)	Qua
Dichlorodifluoromethane	11.7	1	<u>эркуаг эр</u> 10	117	70	130	leival /onr D(Linit)	
Chloromethane	6.7	2	10	67	70	130		L50
Vinyl chloride	11.1	1	10	111	70	130		
Chloroethane	13.7	1	10	137	70	130		L51
Bromomethane Trichlorofluoromethane	8.48 18.1	2 1	10 10	85 181	70 70	130 130		L51
1,1-Dichloroethene	11.3	1	10	113	70	130		
Dichloromethane	9.82	2	10	98	70	130		
trans-1,2-Dichloroethene Methyl tert-butyl ether (MTBE)	11 11.8	1 0.5	10	110 118	70 70	130 130		
1,1-Dichloroethane	10.5	0.5	10 10	105	70	130		
cis-1,2-Dichloroethene	11.6	1	10	116	70	130		
Bromochloromethane Chloroform	11.7 11.5	1 1	10	117 115	70 70	130 130		
2,2-Dichloropropane	12.9	1	10 10	129	70	130		
1,2-Dichloroethane	12.6	1	10	126	70	130		
1,1,1-Trichloroethane	13.4	1	10	134	70	130		L51
1,1-Dichloropropene Carbon tetrachloride	12 14	1	10 10	120 140	70 70	130 130		L51
Benzene	10.2	0.5	10	102	70	130		201
Dibromomethane	12.5	1	10	125	70	130		
1,2-Dichloropropane Trichloroethene	9.91	1	10	99	70	130		
Bromodichloromethane	11.9 13.1	1	10 10	119 131	70 70	130 130		L51
cis-1,3-Dichloropropene	10.4	1	10	104	70	130		
trans-1,3-Dichloropropene	10.6	1	10	106	70	130		
1,1,2-Trichloroethane Toluene	11 9.7	1 0.5	10 10	110 97	70 70	130 130		
1,3-Dichloropropane	9.99	0.5	10	97 99.9	70	130		
Dibromochloromethane	11.1	1	10	111	70	130		
1,2-Dibromoethane (EDB) Tetrachloroethene	22.5 11.3	2 1	20	113 113	70 70	130 130		
1,1,1,2-Tetrachloroethane	11.8	1	10 10	118	70	130		
Chlorobenzene	10.3	1	10	103	70	130		
Ethylbenzene m,p-Xylene	10.6	0.5	10	106	70 70	130 130		
Bromoform	11.3 12.5	0.5 1	10 10	113 125	70	130		
Styrene	10.5	1	10	105	70	130		
o-Xylene 1,1,2,2-Tetrachloroethane	10.5	0.5	10	105	70	130		
1,2,3-Trichloropropane	8.76 21.4	1 2	10 20	88 107	70 70	130 130		
Isopropylbenzene	10.8	1	10	108	70	130		
Bromobenzene n-Propylbenzene	10.1	1	10	101	70	130		
4-Chlorotoluene	10.6 10.5	1	10 10	106 105	70 70	130 130		
2-Chlorotoluene	10.5	1	10	105	70	130		
1,3,5-Trimethylbenzene	10.8	1	10	108	70	130		
tert-Butylbenzene 1.2.4-Trimethylbenzene	11.6 10.9	1	10 10	116 109	70 70	130 130		
sec-Butylbenzene	11	1	10	110	70	130		
1,3-Dichlorobenzene	10.2	1	10	102	70	130		
1,4-Dichlorobenzene 4-Isopropyltoluene	10.1 11.1	1	10 10	101 111	70 70	130 130		
1,2-Dichlorobenzene	9.39	1	10	94	70	130		
n-Butylbenzene	10.9	1	10	109	70	130		
1,2-Dibromo-3-chloropropane (DBCP) 1,2,4-Trichlorobenzene	49 10.5	3 2	50 10	98 105	57 70	133 130		
Naphthalene	9.45	2	10	95	70	130		
Hexachlorobutadiene	23	2	20	115	70	130		
1,2,3-Trichlorobenzene Surr: 1,2-Dichloroethane-d4	10.5	2	10	105 105	70 75	130 128		
Surr: Toluene-d8	10.5 9.26		10 10	93	75 80	128		
Surr: 4-Bromofluorobenzene	10.2		10	102	70	130		



<b>Date:</b> 19-Aug-08	(	DC Si	ımmar	v Repor	t			<b>Work Ord</b> 0808050	
Sample Matrix Spike		Type M		est Code: _					_
File ID: 08080607.D			B	atch ID: MS	15W080	)6K5	,	ite: 08/06/2008 10:20	)
Sample ID: 08080506-04AMS	Units : µ <b>g/L</b>		Run ID: M	SD_15_080	806A		Prep Date:	08/06/2008	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME) RPDF	RefVal %RPD(Limit)	Qual
Dichlorodifluoromethane	42.1	2.5	50	0		20	137		
Chloromethane	27.3	10		0		31	148		
Vinyl chloride	43.1	2.5		0		46	138		
Chloroethane Bromomethane	53.3 42.9	2.5		0		34 20	170 189		
Trichlorofluoromethane	42.9 78.5	10 2.5		0		20 51	156		
1,1-Dichloroethene	48.5	2.5		0		66	132		
Dichloromethane	46.9	10		Ő		48	145		
trans-1,2-Dichloroethene	49.6	2.5	50	0	99	68	132		
Methyl tert-butyl ether (MTBE)	55.2	1.3		0		62	139		
1,1-Dichloroethane	48.5	2.5		0		70	130		
cis-1,2-Dichloroethene Bromochloromethane	52.8	2.5		0		70 70	130 130		
Chloroform	55.9 70	2.5 2.5		0 15.83		70 70	130		
2.2-Dichloropropane	59.5	2.5		10.00		50	152		
1,2-Dichloroethane	59.9	2.5		0		65	136		
1,1,1-Trichloroethane	59.7	2.5		Ō		67	133		
1,1-Dichloropropene	53.2	2.5		0		70	130		
Carbon tetrachloride	62.5	2.5		0		61	142		
Benzene	46.9	1.3		0		70	130		
Dibromomethane 1,2-Dichloropropane	58.4	2.5		0		69 70	130 132		
Trichloroethene	46.8 52	2.5 2.5		0		70 69	132		
Bromodichloromethane	68.1	2.5		5.32		70	130		
cis-1,3-Dichloropropene	46.9	2.5		0.01		66	130		
trans-1,3-Dichloropropene	49.2	2.5	50	0	98	65	134		
1,1,2-Trichloroethane	51.2	2.5		0		67	132		
Toluene	43	1.3		0		67	130		
1,3-Dichloropropane Dibromochloromethane	46.4	2.5		0		70	130		
1,2-Dibromoethane (EDB)	50.7 104	2.5 10		0		66 70	130 130		
Tetrachloroethene	49.2	2.5		Ő		59	135		
1,1,1,2-Tetrachloroethane	53.7	2.5		0		70	130		
Chlorobenzene	46.6	2.5		0		70	130		
Ethylbenzene	47.3	1.3		0		70	130		
m,p-Xylene Bromoform	49.9	1.3		0		69	130		
Bromoform Styrene	56.5 47.4	2.5 2.5		0		57 58	132 135		
o-Xylene	46.8	2.5		0		70	130		
1,1,2,2-Tetrachloroethane	41.2	2.5		ő		65	137		
1,2,3-Trichloropropane	98.9	10		0		67	132		
Isopropylbenzene	48	2.5		0	96	70	130		
Bromobenzene	47.8	2.5		0		70	130		
n-Propylbenzene 4-Chlorotoluene	47.6	2.5		0		70	130		
2-Chlorotoluene	49 48,2	2.5 2.5		0		70 70	130 130		
1,3,5-Trimethylbenzene	40.2	2.5 2.5		0		68	141		
tert-Butylbenzene	52.3	2.5		0		70	130		
1,2,4-Trimethylbenzene	50.1	2.5		0		67	146		
sec-Butylbenzene	48.6	2.5	50	0		70	130		
1,3-Dichlorobenzene	47.1	2.5		0		70	130		
1,4-Dichlorobenzene	47	2.5		0		70	130		
4-Isopropyltoluene 1,2-Dichlorobenzene	50.2	2.5		0		70 70	133		
n-Butylbenzene	44.3 49	2.5 2.5		0		70 66	130 145		
1,2-Dibromo-3-chloropropane (DBCP)	225	2.5		0		57	137		
1,2,4-Trichlorobenzene	46.9	10		0		39	157		
Naphthalene	41.5	10		0	83	26	163		
Hexachlorobutadiene	106	10		0		35	172		
1,2,3-Trichlorobenzene	46.6	10		0		30	170		
Surr: 1,2-Dichloroethane-d4 Surr: Toluene-d8	52.8 45 5		50		106	75	128		
Surr: 4-Bromofluorobenzene	45.5 51.3		50 50		91 103	80 70	120 130		
	01.0		50		103	10	100		



<b>Date:</b> 19-Aug-08	08 OC Summary Report										er: 5
Sample Mat			Туре М	S T	est Code: _						
File ID: 080800				B	atch ID: MS	1 <b>5W08</b>	06K5	Analysis	Date: 08/06/200		
Sample ID:	08080506-09AMS	Units : µg/L			SD_15_080			Prep Da			
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME) RF	PDRefVal %RPD	(Limit)	Qual
Dichlorodifluor		43.4	2.5	50	0	87	20	137			
Chloromethane	e	32.4	10		0		31	148			
Vinyl chloride		47.4	2.5		0		46	138			
Chloroethane Bromomethane	8	61.4 61.5	2.5 10		0		34 20	170 189			
Trichlorofluoror	•	77.1	2.5		0		51	156			
1,1-Dichloroeth		51.5	2.5		Ő		66	132			
Dichlorometha		47.4	10	50	0	95	48	145			
trans-1,2-Dichl		52.1	2.5		0		68	132			
1,1-Dichloroeth	vl ether (MTBE)	57.2	1.3		0		62	139			
cis-1,2-Dichloro		49.5 54.8	2.5 2.5		0		70 70	130 130			
Bromochlorom		56.2	2.5		0		70	130			
Chloroform		54.6	2.5	50	0.91	107	70	130			
2,2-Dichloropro	•	60.3	2.5	50	0	121	50	152			
1,2-Dichloroeth		58.3	2.5		0		65	136			
1,1,1-Trichloro 1,1-Dichloropro		60.8	2.5	50	0		67	133			
Carbon tetrach		55.2 63	2.5 2.5	50 50	0 0		70 61	130 142			
Benzene		48.3	1.3	50	0		70	130			
Dibromometha	ne	58.5	2.5		0		69	130			
1,2-Dichloropro	-	46.9	2.5		0		70	132			
Trichloroethene		53.4	2.5	50	0		69	130			
Bromodichloro		60.1	2.5	50	0		70	130			
trans-1,3-Dichl		47.4 48.5	2.5 2.5	50 50	0		66 65	130 134			
1,1,2-Trichloro		51.4	2.5		Ő		67	132			
Toluene		44.8	1.3	50	0	90	67	130			
1,3-Dichloropro	•	48	2.5	50	0		70	130			
Dibromochloro 1,2-Dibromoeth		51.7 106	2.5	50	0	103 106	66 70	130 130			
Tetrachloroeth		52.8	10 2.5	100 50	0		70 59	135			
1,1,1,2-Tetrach	nloroethane	53.9	2.5	50	Õ		70	130			
Chlorobenzene	9	48.2	2.5	50	0	96	70	130			
Ethylbenzene		48.9	1.3	50	0		70	130			
m,p-Xylene Bromoform		51.9	1.3	50	0	104	69 57	130			
Styrene		57.4 48.2	2.5 2.5	50 50	0	115 96	57 58	132 135			
o-Xylene		48.1	1.3	50	0		70	130			
1,1,2,2-Tetrach	loroethane	41.8	2.5	50	0		65	137			
1,2,3-Trichloro		98.2	10	100	0	98	67	132			
Isopropylbenze		49.6	2.5	50	0	99	70	130			
Bromobenzene n-Propylbenzer		47.7 49.4	2.5 2.5	50 50	0	95 99	70 70	130 130			
4-Chlorotoluen		49.4	2.5	50	0	99	70	130			
2-Chlorotoluen	e	49.4	2.5	50	Õ	99	70	130			
1,3,5-Trimethyl		50.6	2.5	50	0	101	68	141			
tert-Butylbenze		53.8	2.5	50	0	108	70	130			
1,2,4-Trimethyl sec-Butylbenze		50.6 50.3	2.5 2.5	50 50	0	101 101	67 70	146 130			
1,3-Dichlorober		48.1	2.5	50	0	96	70	130			
1,4-Dichlorober		48	2.5	50	Ő	96	70	130			
4-Isopropyltolu		52	2.5	50	0	104	70	133			
1,2-Dichlorober		44.8	2.5	50	0	90	70	130			
n-Butylbenzene	e -chloropropane (DBCP)	51	2.5	50	0	102	66 57	145			
1,2-Dibromo-3-		231 49.9	15 10	250 50	0	92 99.9	57 39	137 157			
Naphthalene		49.9	10	50 50	0	99.9 89	26	163			
Hexachlorobuta	adiene	114	10	100	Ő	114	35	172			
1,2,3-Trichlorol		52.1	10	50	0	104	30	170			
Surr: 1,2-Dichlo Surr: Toluene-c		50.5		50		101	75	128			
Surr: 4-Bromof		46 50.7		50 50		92 101	80 70	120 130			
		50.7		50		101	10	100			



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<b>Date:</b> 19-Aug-08		(	DC Su	mmar	v Repoi	t				<b>Work Ord</b> 0808050	
Sample Matrix Spik	e Duplicate		Type MS		est Code: _				-		
File ID: 08080608.D				Ba	atch ID: MS	15W08	06K5	Anal	ysis Date: 0	8/06/2008 10:42	
Sample ID: 080805	06-04AMSD	Units : µ <b>g/L</b>	F		SD_15_080			•		8/06/2008	
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME	) RPDRe <b>f</b> Va	I %RPD(Limit)	Qua
Dichlorodifluoromethane	Э	38.2	2.5	50	0	76	20	137	42.11	9.9(20)	
Chloromethane		25.3	10	50	0	51	31	148	27. <b>2</b> 6	7.4(20)	
Vinyl chloride		40.4	2.5	50	0		46	138	43.14	6.6(20)	
Chloroethane		53.5	2.5	50	0		34	170	53. <b>3</b>	0.3(20)	
Bromomethane Trichlorofluoromethane		48.5	10	50	0		20 51	189 156	42.91 78. <b>5</b> 2	12.2(20) 15.0(20)	
1,1-Dichloroethene		67.6 44.7	2.5 2.5	50 50	0		51 66	130	48. <b>4</b> 9	8.2(20)	
Dichloromethane		45.2	10	50	0		48	145	46.91	3.7(20)	
trans-1,2-Dichloroethen	e	47.1	2.5	50	0		68	132	49.56	5.0(20)	
Methyl tert-butyl ether (I	MTBE)	56.2	1.3	50	0		62	139	55.18	1.9(20)	
1,1-Dichloroethane		45.9	2.5	50	0	92	70	130	48. <b>4</b> 5	5.4(20)	
cis-1,2-Dichloroethene		50.9	2.5	50	0		70	130	52. <b>8</b> 4	3.7(20)	
Bromochloromethane		55.5	2.5	50	0		70	130	55.87	0.7(20)	
Chloroform		67.4	2.5	50	15.83		70	130	70. <b>02</b>	3.9(20)	
2,2-Dichloropropane		54.4	2.5	50	0		50 65	152 136	59. <b>4</b> 9 59. <b>9</b> 4	9.0(20) 3.0(20)	
1,2-Dichloroethane		58.2 54.5	2.5 2.5	50 50	0		65 67	136	59. <b>9</b> 4 59. <b>6</b> 8	9.0(20)	
1,1-Dichloropropene		49.1	2.5	50 50	0		70	130	53.16	7.9(20)	
Carbon tetrachloride		55.5	2.5	50 50	0		61	142	62.51	12.0(20)	
Benzene		44.9	1.3	50	Ő		70	130	46.88	4.3(20)	
Dibromomethane		59.3	2.5	50	0	119	69	130	58. <b>4</b> 2	1.4(20)	
1,2-Dichloropropane		45.9	2.5	50	0		70	132	46. <b>7</b> 5	1.9(20)	
Trichloroethene		48.9	2.5	50	0		69	130	52	6.1(20)	
Bromodichloromethane		65.6	2.5	50	5.32		70	130	68.09	3.7(20)	
cis-1,3-Dichloropropene		46.6	2.5	50	0		66	130	46. <b>8</b> 6	0.6(20)	
trans-1,3-Dichloroprope 1,1,2-Trichloroethane	ne	49.2	2.5	50	0		65 67	134 132	49. <b>24</b> 51. <b>2</b> 1	0.1(20) 0.8(20)	
Toluene		51.6 41.7	2.5 1.3	50 50	0		67	132	42.98	3.1(20)	
1,3-Dichloropropane		46.8	2.5	50 50	0		70	130	46.44	0.7(20)	
Dibromochloromethane		51.8	2.5	50	Ő		66	130	50. <b>6</b> 8	2.2(20)	
1,2-Dibromoethane (ED	B)	105	10	100	Ő		70	130	104.2	0.7(20)	
Tetrachloroethene		46.9	2.5	50	0	94	59	135	49. <b>1</b> 5	4.8(20)	
1,1,1,2-Tetrachloroetha	ne	53	2.5	50	0		70	130	53. <b>6</b> 6	1.2(20)	
Chlorobenzene		45.9	2.5	50	0		70	130	46. <b>5</b> 5	1.5(20)	
Ethylbenzene		45.5	1.3	50	0		70	130	47.28	3.9(20)	
m,p-Xylene Bromoform		48.1	1.3	50	0		69 57	130	49. <b>9</b> 4	3.8(20)	
Styrene		57.4 46.9	2.5 2.5	50 50	0		57 58	132 135	56. <b>5</b> 47. <b>3</b> 7	1.5(20) 1.1(20)	
o-Xylene		45.9	1.3	50 50	0		70	130	46.76	1.9(20)	
1,1,2,2-Tetrachloroetha	ne	41.7	2.5	50	0		65	137	41.17	1.2(20)	
1,2,3-Trichloropropane		99.1	10	100	0		67	132	98. <b>8</b> 7	0.2(20)	
Isopropylbenzene		45.4	2.5	50	0	91	70	130	48. <b>0</b> 3	5.7(20)	
Bromobenzene		46.9	2.5	50	0		70	130	47. <b>7</b> 6	1.8(20)	
n-Propylbenzene		44.6	2.5	50	0		70	130	47.6	6.5(20)	
4-Chiorotoluene		47.4	2.5	50	0		70	130	48. <b>9</b> 9	3.3(20)	
2-Chlorotoluene		46.7	2.5	50	0		70	130	48.15	3.0(20)	
1,3,5-Trimethylbenzene tert-Butylbenzene		47.3	2.5	50	0		68 70	141 130	49. <b>6</b> 52. <b>3</b> 2	4.7(20) 18.4(20)	
1,2,4-Trimethylbenzene	1	43.5 48	2.5 2.5	50 50	0		70 67	146	52.32 50. <b>1</b> 3	4.4(20)	
sec-Butylbenzene		40	2.5	50 50	0		70	130	48. <b>5</b> 6	6.0(20)	
1,3-Dichlorobenzene		46.3	2.5	50	0		70	130	47.14	1.7(20)	
1,4-Dichlorobenzene		46.7	2.5	50	Ő		70	130	46. <b>9</b> 7	0.6(20)	
4-Isopropyltoluene		47.4	2.5	50	0		70	133	50. <b>1</b> 5	5.7(20)	
1,2-Dichlorobenzene		43.8	2.5	50	0		70	130	44. <b>2</b> 8	1.1(20)	
n-Butylbenzene	/= = =	46.2	2.5	50	0		66	145	49. <b>0</b> 1	6.0(20)	
1,2-Dibromo-3-chloropro	opane (DBCP)	229	15	250	0		57	137	225.4	1.7(20)	
1,2,4-Trichlorobenzene		49.3	10	50	0		39	157	46.9	5.0(20)	
Naphthalene		44.2	10	50	0		26	163	41. <b>4</b> 9	6.4(20)	
Hexachlorobutadiene 1,2,3-Trichlorobenzene		103	10	100	0		35 30	172 170	105.7 46. <b>6</b> 2	2.4(20) 9.1(20)	
Surr: 1,2-Dichloroethan	e-d4	51.1 52.3	10	50 50	0	102	30 75	128	40.02	3.1(20)	
Surr: Toluene-d8	~ ~ 1	46.1		50		92	80	120			
	zene	51.2		50		102	70	130			



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Sample Matrix Spike Duplicate         Type MSD         Test Code:           File D: 0800010.0         Bath ID: MS15W0000K5         Analysis Date: 080062008 11:2           Sample ID: 0000010.0         Bath ID: MS15W0000K5         Analysis Date: 080062008 11:2           Dehbrordfluoromethane         40.5         2.5         50         0         81         20         177         43.38         2.9         1.39(20)           Ohloromethane         42.2         1         50         0         81         20         1.7         7.0(20)           Onloromethane         42.5         50         0         91         20         1.7         43.38         7.0(22)           Onloromethane         42.1         50         0         91         43.38         47.38         2.5         50         0         91         44         81.45         47.4         4.42         1.1         50         94         48         45         47.4         4.42         1.1         50         94         48         45         47.4         4.42         1.1         50         1.43         47.4         1.20         1.43         1.42         50         1.43         1.42         50         1.1         50         1.43         1.	Date: 19-Aug-08	(	<u>DC S</u> u	ımmar	v Report	,			<u> </u>	<b>Work Ord</b> 0808050	
Sample ID:         De000050-09ANSD         Units: uptL         Forum ID:         Starl Spik/al Spik/ent/al %REC LCL(ME)         PUCL (ME) RPDReVal %RED/Limit)           Dehrorofficormethane         405         2.5         50         0.81         20         137         43.38         7.020           Dehrorofficormethane         42.2         1         50         0.81         20         137         43.38         7.020           Choorentane         44.1         2.5         50         0.93         144         33.93         13.920           Bromomethane         46.8         10         50         0.94         44         145         47.4         0.020           Dehromothane         47.2         10         50         0.97         66         132         51.45         5.420           Dehromothane         47.2         10         50         0.94         48         47.4         0.420           Startartartartartartartartartartartartart	Sample Matrix Spike Duplicate		Type M	SD Te	est Code:						
Analyte         Pol.         Spkkai (spkRefval %bEC LCL/ME) UCL/ME) PDPmPVal %bPPDLmNl;           Dehlorodfluoromethane         40.5         2.5         50         0         81         201         177         43.2         39         13.2020)           Orioromethane         48.2         2.5         50         0         90         44         184         47.39         57.2020           Chioroethane         54.1         2.5         50         0         90         44         11.8         47.39         5.1.222         189         61.35         12.2.2620           Demomethane         70.5         2.5         50         0         97         66         13.2         57.44         0.42020           Trichlorotheme         4.7         2.5         50         0         94         48         14.4         47.4         0.42020           Dichlorotheme         4.4         2.2         50         0         110         52         57.2         1.0203         54.74         1.7020           Dichlorotheme         54.2         2.5         50         0         116         70         130         54.55         1.0203           Dichlorotheme         54.2         2.5         <	File ID: 08080610.D			Ba	atch ID: MS1	5W080	6K5	Analys	sis Date: 0	8/06/2008 11:27	
Analyse         Pol.         SpkNarl         S	Sample ID: 08080506-09AMSD	Units : µɑ/L		Run ID: M	SD 15 0808	06A		Prep D	Date: 0	8/06/2008	
Dichlorodthuoromethane 40.5 25 50 0 81 20 107 43.98 7.0200 Chlorodthane 44.8 25 50 0 90 46 138 20.87 7.0200 Chlorodthane 54.1 2.5 50 0 90 46 138 20.87 7.0200 Chlorodthane 54.1 2.5 50 0 90 46 138 7.22 62.0 Bromomethane 70.5 2.5 50 0 97 66 132 7.24 1.2200 Trichlorothoromethane 42.7 10 50 0 94 48 145 47.4 0.44201 Dichlorothoromethane 42.7 10 50 0 94 48 145 47.4 0.44201 Dichlorothorothere 42.7 10 50 0 94 48 145 47.4 0.44201 Dichlorothorothere 42.7 10 50 0 94 48 145 47.4 0.44201 Dichlorothorothere 42.7 10 50 0 94 48 145 47.4 0.44201 Dichlorothorothere 42.7 10 50 0 94 48 145 47.4 0.44201 Dichlorothorothere 42.7 10 50 0 94 48 145 47.4 0.44201 Dichlorothorothere 42.7 10 50 0 94 48 145 47.4 0.44201 Dichlorothorothere 42.7 10 50 0 118 57 13 57.4 1.7201 Dichlorothorothere 57.8 2.5 50 0 118 57 13 57.4 1.7201 Dichlorothorothere 57.8 2.5 50 0 118 57 13 55.7 1.7201 Dichlorothorothere 57.8 2.5 50 0 116 70 130 54.8 30/201 Chlorothorothere 57.7 2.5 50 0 116 70 130 54.8 30/201 Chlorothorothere 57.8 2.5 50 0 116 70 130 54.8 30/201 Dichlorothere 57.8 2.5 50 0 116 70 130 54.8 30/201 Dichlorothere 57.8 2.5 50 0 116 70 130 55.18 4.1/200 Dichlorothere 57.8 2.5 50 0 116 70 130 55.18 4.1/200 Dichlorothere 57.8 2.5 50 0 116 70 130 55.18 4.1/200 Dichlorothere 57.8 2.5 50 0 116 70 130 65.18 4.1/200 Dichlorothere 57.8 2.5 50 0 116 70 130 60.4 55.18 4.1/200 Dichlorothere 52.9 2.5 50 0 116 70 130 60.4 55.18 4.1/200 Dichlorothere 52.9 2.5 50 0 116 70 130 60.4 55.18 4.1/200 Dichlorothere 52.9 2.5 50 0 116 70 130 60.00 6.2020 Dichlorothere 52.9 2.5 50 0 116 70 130 60.00 6.2020 Dichlorothere 52.9 2.5 50 0 116 70 130 60.00 6.2020 Dichlorothere 52.9 50 0 116 70 130 60.00 6.2020 Dichlorothere 62.2 50 0 107 66 130 51.7 3.4220 Dichlorothere 64.2 5 50 0 99 70 130 64.2 5.202 Dichlorothere 64.2 5 50 0 99 70 130 64.2 5.202 Dichlorothere 64.2 5 50 0 99 70 130 64.2 5.20	Analyte						LCL(ME)				Qu
Chioromethane Ch											
Vinvi chordie         44,8         2,5         50         0         90         46         138         47.39         5.72(2)           Bromomethane         60,8         10         50         0         122         20         189         61,83         1.22(20)           Bromomethane         70.5         2,5         50         0         141         51         156         77.00         80,22         141         51         156         77.00         80,22         141         51         156         77.00         80,22         150         0         141         51         157         141         0.42         142         0.44         0.42											
Chioreshane 54,1 2,5 50 0 108 34 170 61.38 12.6(20) Trichloroducomethane 70.5 2,5 50 0 141 51 156 77,09 9,0(20) Dichloromethane 47,2 10 50 0 94 48 142 47, 4 0.4(20) Dichloromethane 47,2 10 50 0 94 48 142 47, 4 0.4(20) Dichloromethane 47,2 10 50 0 94 48 132 52,1 1,0(20) Methyl tarbuly differ (MTBE) 53,2 1,3 50 0 116 62 139 57,24 1,7(20) distribution differ (MTBE) 53,2 1,3 50 0 116 62 139 57,24 1,7(20) Dichloromethane 48,0 2,5 50 0 108 70 130 44,74 1,2(20) Dichloromethane 54,5 2,5 50 0 118 62 139 57,24 1,7(20) Dichloromethane 54,5 2,5 50 0 116 70 130 54,79 0,5(20) Dichloromethane 54,7 2,5 50 0 116 70 130 54,79 0,5(20) Dichloromethane 57,7 2,5 50 0 116 70 130 54,79 0,5(20) Dichloromethane 57,7 2,5 50 0 116 70 130 64,74 1,2(20) 2,2-Dichloropethane 57,7 2,5 50 0 116 70 130 66,43 1,2(20) 2,1,1,1-Tichloropethane 57,8 2,5 50 0 116 67 130 66,44 5,1(20) 2,2-Dichloropethane 57,8 2,5 50 0 116 67 130 66,44 5,1(20) 2,2-Dichloropethane 57,8 2,5 50 0 116 67 130 66,44 5,1(20) Dicromethane 57,8 2,5 50 0 116 67 130 66,42 1,2(20) 2,1,1,1-Tichloropethane 57,8 2,5 50 0 116 67 130 66,42 1,2(20) 2,2-Dichloropethane 57,8 2,5 50 0 116 67 130 66,42 1,2(20) 1,1,1-Tichloropethane 59 2,5 50 0 116 67 130 66,42 1,2(20) 2,2-Dichloropethane 59 2,5 50 0 105 69 130 63,34 1,2(20) Dicromethane 60 6, 2,5 50 0 105 69 130 4,44 1,2(20) Dicromethane 60 6, 2,5 50 0 105 69 130 4,45 1,2(20) Dicromotharomethane 62,2 5,50 0 105 69 130 4,45 1,2(20) Dicromotharomethane 64,8 2,5 50 0 107 66 134 4,45 1,2(20) Dicromotharomethane 64,8 2,5 50 0 107 66 134 4,45 1,2(20) Dicromotharomethane 64,8 2,5 50 0 108 67 132 5,46 2,2(20) Dicromotharomethane 64,8 2,5 50 0 101 70 130 64,37 1,4(20) Dicromotharomethane 64,8 2,5 50 0 98 70 130 4,48 14 1,4(20) Dicromotharomethane 65,4 2,5 50 0 98 70 130 4,81 3,30(20) m.p-Xviene 44,8 2,5 50 0 98 70 130 4,81 3,30(20) m.p-Xviene 44,8 2,5 50 0 97 70 130 4,81 3,30(20) Dicromotharomethane 65,8 2,5 50 0 97 70 130 4,81 4,14 2,01 Dicromotharomethane 65,8 2,5 50 0 97 70 130 4,81 4,14 2,01 Dicromotharomethane											
Bromomethane 60.8 10 50 0 122 20 189 61.53 1.220 Trichloroturomethane 70.5 2.5 50 0 97 66 132 61.45 5.4(20) Trains-1.2-Dichloroethane 41.7 2 10 50 0 94 48 145 47.4 0.4(20) Trains-1.2-Dichloroethane 51.6 2.5 50 0 103 68 132 52.1 1.0(20) Trains-1.2-Dichloroethane 51.6 2.5 50 0 103 68 70 130 64.47 1.2(20) Bromochloroethane 54.2 2.5 50 0 109 70 130 64.479 0.3(20) Bromochloroethane 57.9 2.5 50 0 116 70 130 65.18 3.0(20) Bromochloroethane 57.9 2.5 50 0 116 70 130 65.18 3.0(20) Dromochloroethane 57.9 2.5 50 0 116 70 130 65.18 3.0(20) Dromochloroethane 57.9 2.5 50 0 116 70 130 65.18 3.0(20) Dromochloroethane 57.9 2.5 50 0 116 70 130 65.18 3.0(20) Dromochloroethane 57.9 2.5 50 0 116 70 130 65.18 3.0(20) Dromochloroethane 57.9 2.5 50 0 116 70 130 65.18 3.0(20) Dromochloroethane 57.9 2.5 50 0 116 70 130 65.18 4.1(20) Dromochloroethane 57.9 5.2 50 0 116 70 130 65.18 4.1(20) Dromochloroethane 57.9 5.2 50 0 116 70 130 65.18 4.1(20) Dromochloroethane 57.9 5.2 50 0 116 70 130 65.18 4.1(20) Dromochlaroethane 57.9 5.2 50 0 116 70 130 65.18 4.1(20) Dromochlaroe 57.8 2.5 50 0 116 70 130 65.18 4.1(20) Dromochlaroe 57.5 5.2 50 0 116 70 130 65.18 4.1(20) Dromochlaroe 52.5 2.5 50 0 116 70 130 65.18 4.1(20) Dromochlaroe 52.5 2.5 50 0 116 70 130 65.08 1.0(20) Benzana 47.5 1.3 50 0 96 70 130 63.03 6.5(20) Benzana 60.6 2.5 50 0 105 70 132 64.92 1.6(20) Dromochlaroe 52.5 2.5 50 0 97 70 130 60.08 0.9(20) Dromochlaroe 60.6 2.5 50 0 107 66 130 47.4 1.8(20) Trains-1.3-Dichloropropene 48.2 2.5 50 0 97 70 130 60.08 0.9(20) Dromochlaroethane 60.6 2.5 50 0 107 66 130 61.7 4.18(20) Dromochlaroethane 60.6 2.5 50 0 107 66 130 61.7 4.18(20) Dromochlaroethane 60.6 2.5 50 0 107 66 130 61.7 4.18(20) Dromochlaroethane 60.6 2.5 50 0 101 70 130 63.6 1.2 (20) Dromochlaroethane 60.6 2.5 50 0 101 70 130 63.6 1.2 (20) Dromochlaroethane 60.6 2.5 50 0 97 70 130 44.8 51 2.6 (20) Dromochlaroethane 60.6 2.5 50 0 97 70 130 44.8 51 2.6 (20) Dromochlaroethane 60.6 2.5 50 0 97 70 130 44.8 51 2.6 (20) Dromochlaroethane 60.6 2.5 50 0 97											
Tichlorduoromethane         70.5         2.5         50         0         141         51         156         77.09         9.0(20)           Dichloromethane         47.2         10         50         0         94         48         145         47.4         0.4(20)           Dichloromethane         51.6         2.5         50         0         103         68         132         57.24         1.7(20)           Methy letr-bury ether (MTBE)         58.2         1.3         50         0         198         70         130         64.73         0.5(20)           cisi 1.2.Dichloroethane         54.5         2.5         50         0         116         62         133         64.73         0.5(20)           Chichoropropane         58.1         2.5         50         0         116         67         133         60.31         3.8(20)           1.2.Dichloropropane         52.9         2.5         50         0         116         67         133         60.44         5.1(20)           1.2.Dichloropropane         52.9         50         0         116         67         133         63.45         1200           1.2.Dichloropropane         52.9         50 <td></td>											
1.1-Dichloroethene       48.7       2.5       50       0       97       66       132       51.45       5.4(20)         trans-1.2-Dichloroethane       51.6       2.5       50       0       103       68       132       52.1       1.0(20)         terminus       54.2       1.3       50       0       103       68       132       52.1       1.0(20)         terminus       54.2       2.5       50       0       98       70       130       64.477       0.5(20)         Dichorothmane       57.9       2.5       50       0.91       106       70       130       65.455       1.0(20)         2.2       Dichorothmane       57.7       2.5       50       0.91       106       70       130       65.445       1.2(20)         1.1-Dichorothmane       52.5       50       0       116       67       133       65.44       1.2(20)         1.1-Dichorothmane       52.5       50       0       166       71       130       65.44       1.2(20)         1.1-Dichorothmane       52.5       55       0       166       71       30       63.45       1.2(20)         1.1-Dichorothmane	Trichlorofluoromethane				0	141	51	156	77.09		
trans-1.2-Dichloroethane         51 6         2.5         50         0         103         68         132         52.1         1.10/201           1,1-Dichloroethane         48.9         2.5         50         0         98         70         130         49.47         1.2(20)           Bromochloromethane         57.9         2.5         50         0         16         70         130         54.85         3.0(20)           Bromochloromethane         57.7         2.5         50         0         116         67         130         54.85         1.0(20)           2.2-Dichloropthane         57.7         2.5         50         0         116         67         133         60.44         5.1(20)           2.2-Dichloroptopene         52.9         2.5         50         0         116         67         130         53.44         1.2(20)           Carbon tetrachloride         59         2.5         50         0         130         53.45         1.1(20)           Dicromomethane         60.6         2.5         50         0         150         69         130         43.4         1.8(20)           Dicromochromethane         52.5         2.5         50	-		2.5	50	0	97	66	132	51.45	5.4(20)	
Wethy lether (NTEE)         52         1.3         50         0         116         62         139         57.44         1.7(20)           15-1.2-Dichloroethene         44.9         2.5         50         0         180         70         130         54.79         0.5(20)           15:1.2-Dichloroethane         57.9         2.5         50         0         116         70         130         54.55         1.0(20)           12-Dichloroethane         57.7         2.5         50         0         116         67         133         60.44         1.2(20)           12-Dichloropthane         57.8         2.5         50         0         116         67         133         60.44         1.2(20)           12-Dichloroptopene         52.9         2.5         50         0         16         70         130         63.620           11-Tichloroethane         59.1         2.5         50         0         15         70         130         60.82         1.6(20)           12-Dichloroptopane         47.6         2.5         50         0         150         69         130         53.35         1.6(20)           12-Dichomothane         52.2         50					0						
1,1-Dichlorogethane       48.9       2.5       50       98       70       130       49.47       1.2(20)         Bromochloromethane       57.9       2.5       50       0       116       70       130       54.18       3.0(20)         Dicordorm       54       2.5       50       0       116       70       130       54.55       1.0(20)         2.2-Dichloropethane       57.7       2.5       50       0       116       67       133       60.84       5.1(20)         2.2-Dichloropethane       57.7       2.5       50       0       116       67       133       60.84       5.1(20)         Darbon tetrachloride       59.1       2.5       50       0       118       61       142       63.03       6.5(20)         Dicromomethane       59       2.5       50       0       150       57       130       53.45       1.1(20)         Simodokhoromethane       50.6       2.5       50       0       150       60.84       4.1(20)       50.00       130       63.35       1.7(20)       50.00       130       63.45       1.7(20)       50.00       130       60.08       0.0(20)       50.17.14       44.82 <td></td>											
bis 1_2-Dichloroethene         54, 5         50         0         109         70         130         54.79         ()2(20)           Bromochloromethane         57,9         2,5         50         0         116         70         130         54.18         3.0(20)           2.2-Dichloropropane         58,1         2,5         50         0         115         66         136         56.34         1.3(20)           1,1-Dichloropropane         52,9         2,5         50         0         116         67         133         60.34         5.1(20)           1,1-Dichloropropane         59,1         2,5         50         0         166         71         30         46.25         1.1(20)           1,2-Dichloropropane         47,6         2,5         50         0         156         69         130         46.42         1.1(20)           1,2-Dichloropropane         47,6         2,5         50         0         157         66         130         47,4         1.8(20)           1,2-Dichloropropane         48,3         2,5         50         0         165         67         132         54.49         1.8(20)           1,2-Dichoropropane         48,4         2											
Bromechioromethane         57,9         2,5         50         0         116         70         130         56,18         3.0(20)           2.2-Dichloroptropane         58,1         2,5         50         0         116         56         136         53,32         1.1(2)           1,1,1-Tichloropthane         57,7         2,5         50         0         116         67         133         66.34         3.1(20)           1,1,1-Tichloropthane         52,9         2,5         50         0         166         70         130         65.34         4.1(20)           Carbon tetrachloride         59         2,5         50         0         18         69         130         56.47         1.0(20)           1,2-Dichloropropane         47,6         2,5         50         0         95         70         130         60.08         0.3(20)           Dibromomethane         62,5         2,5         50         0         97         66         130         47,4         1.8(20)           Trichloropropane         48,8         2,5         50         0         96         67         132         51,43         1.8(20)           Toluene         53,5         50 <td></td>											
Chlordorm 54 2.5 50 0.91 106 70 130 64.55 1.0(20) 1,2-Dichloroptane 57, 2.5 50 0.116 67 133 60.34 1.2(20) 1,1-Dichloroptane 52,9 2.5 50 0.106 70 130 65.18 4.12(20) 1,1-Dichloroptane 52,9 2.5 50 0.106 70 130 64.25 18(20) Earborn tetrachloride 59 1 2.5 50 0.166 70 130 44.25 1.2(20) 1,1-Dichloroptane 77, 2.5 50 0.166 70 130 44.25 1.2(20) 1,2-Dichloroptane 77, 2.5 50 0.166 70 130 44.25 1.2(20) 1,2-Dichloroptane 77, 2.5 50 0.166 70 130 44.25 1.2(20) 1,2-Dichloroptane 77, 2.5 50 0.195 70 130 44.25 1.2(20) 1,2-Dichloroptane 77, 2.5 50 0.195 70 130 44.25 1.2(20) 1,2-Dichloroptane 72, 2.5 50 0.195 70 130 40.32 1.2(20) Earborn tetrachloride 52, 2.5 50 0.195 70 130 40.32 1.2(20) Earborn tetrachloroptane 48,3 2.5 50 0.97 76 130 40.32 1.2(20) Earborn tetrachloroptane 48,3 2.5 50 0.997 66 130 47,4 1.2(20) Trans 1,3-Dichloroptane 49,4 2.5 50 0.997 66 130 47,4 1.2(20) Trans 1,3-Dichloroptane 49,4 2.5 50 0.997 70 130 44.8 0.3(20) 1,1,2-Tichloroethane 52,5 2.5 50 0.1099 77 130 44.8 0.3(20) 1,3-Dichloroptane 49,4 2.5 50 0.999 70 130 44.8 0.3(20) 1,3-Dichloroptane 49,4 2.5 50 0.999 70 130 44.8 0.3(20) 1,3-Dichloroptane 53,5 2.5 50 0.1017 66 130 51,7 3.4(20) Tarbornochloroethane 51,7 3.50 0.997 70 130 44.8 0.3(20) 1,1,2-Tetrachloroethane 51,7 3.50 0.997 70 130 48,18 1.3(20) Tarbornochloroethane 51,7 3.50 0.997 70 130 48,18 1.3(20) Envidemente 51,7 1.3 50 0.997 70 130 48,18 1.3(20) Envidemente 48,5 1.3 50 0.977 70 130 48,18 1.3(20) Envidemente 48,5 1.3 50 0.977 70 130 48,18 1.3(20) Envidemente 48,5 2.5 50 0.997 70 130 48,18 1.3(20) 1,1,2-Tetrachloroethane 48,5 2.5 50 0.977 70 130 44,51 2.4(20) Envidemente 48,5 2.5 50 0.977 70 130 44,51 2.4(20) Envidemente 48,5 2.5 50 0.997 70 130 44,51 2.4(20) Envidemente 48,5 2.5 50 0.997 70 130 44,51 2.4(20) 1,2.0-Tetrachloroethane 48,5 2.5 50 0.997 70 130 44,51 2.4(20) 1,2.2-Tetrachloroethane 48,5 2.5 50 0.997 7					-						
2.2-Dichlorogengane       58 1       2.5       50       0       116       50       152       60.31       33.8200         1.1.1-Tichlorogethane       57.7       2.5       50       0       116       67       133       60.84       5.11200         1.1.1-Tichlorogethane       52.9       2.5       50       0       116       67       133       60.84       5.11200         Carbon tetrachloride       59.1       2.5       50       0       118       61       142       63.03       6.54.27       1.16200         Dibromomethane       59       2.5       50       0       156       70       130       48.25       1.16200         Ticollorogroppane       47.6       2.5       50       0       105       69       130       50.36       0.71200         Bromodichlorogroppane       49.3       2.5       50       0       107       61.30       47.4       1.26001         1.1.2-Tichlorogroppane       49.3       2.5       50       0       90.6       65       134       48.600       0.92001       1.3.2501       1.3.600       1.3.251.4       3.1600       1.3.251.4       3.1600       1.3.2.20201       1.3.250       1.3.50 <td>· · · · · · · · · · · · · · · · · · ·</td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	· · · · · · · · · · · · · · · · · · ·				-						
1,2-Dichlorosethane       57,7       2,5       50       0       115       65       136       68,34       1,2(2)         1,1-Dichloropropene       52,9       2,5       50       0       166       67       130       65,18       4,1(2)         Carbon tetracholide       59,1       2,5       50       0       118       61       130       58,47       1.0(20)         Benzene       47,6       2,5       50       0       118       69       130       58,47       1.0(20)         12-Dichloropropene       47,6       2,5       50       0       105       69       130       55,35       1.1(20)         Bromodichloromethane       60,6       2,5       50       0       917       66       130       55,35       1.1(20)         Bromodichloropropene       48,3       2,5       50       0       90,6       67       132       61,43       1.6(20)         1,1,2-Trichlorosethane       52,2       2,5       50       0       107       66       130       57,7       3.4(42)       1.6(20)         1,3-Dichloropropane       49,4       2,5       50       0       107       66       130       51,7											
1,1,1-Tichkiorogenen       57,8       2,5       50       0       116       67       133       60.84       5.1(20)         Carbon tetrachloride       59,1       2,5       50       0       118       61       142       63.08       6.5(20)         Dipromomethane       59       2,5       50       0       95       70       133       60.84       5.1(20)         Dipromomethane       69       2,5       50       0       95       70       132       44.92       1.1(20)         Tichloroethane       60.6       2,5       50       0       95       73       130       60.08       0.9(20)         Tichloroothane       60.6       2,5       50       0       97       66       134       44.81       2.6(20)         Tass.1-3.Dichoropropene       49.8       2,5       50       0       90       67       130       47.4       1.8(20)         Totuene       49.4       2,5       50       0       105       67       130       47.4       2.8(20)         Dibromochiane (EDB)       109       10       0       100       100       100       100       130       65.4       2.5(20)											
1,1-Dichloropropene       52.9       2.5       50       0       106       70       130       55.18       4       142       63.08       6.5(20)         Benzene       47.5       1.3       50       0       95       70       130       48.25       1.6(20)         Dibromomethane       59       2.5       50       0       118       61       130       58.47       1.0(20)         Tichloroptopane       47.6       2.5       50       0       105       69       130       65.335       1.7(20)         Bromodichloromethane       60.6       2.5       50       0       97       66       130       47.4       1.8(20)         Tichloropropane       49.8       2.5       50       0       99.6       67       132       41.48       0.9(20)         Tichloropropane       49.4       2.5       50       0       90       67       130       47.4       1.8(20)         Tichloropropane       49.4       2.5       50       0       90       67       130       51.7       3.4(20)         Tichloropropane       49.4       2.5       50       0       103       55.4       2.650       101	•										
Carbon tetrachioride         59.1         2.5         50         0         118         61         142         63.02         6.5(20)           Dibromomethane         47.6         2.5         50         0         118         69         130         68.47         1.0(20)           12-Dichloropropane         47.6         2.5         50         0         195         70         132         46.392         1.5(20)           Tichloroethane         60.6         2.5         50         0         197         66         130         67.4         1.8(20)           Tichloroethane         48.3         2.5         50         0         97         66         134         48.51         2.6(20)           Tolarene         48.2         1.3         50         0         97         66         134         48.51         2.6(20)           Tolarene         48.4         2.5         50         0         105         67         130         44.8         0.9(20)           Tolarene         48.52         1.3         50         0         130         51.43         1.6(20)           Tolarene         48.52         5.5         0         130         51.43         <					-						
Benzene 47.5 1.3 50 0 95 70 130 48.25 1.6(20) Dibromodichioropropane 47.6 2.5 50 0 118 69 130 58.47 1.0(20) Trichloroethene 52.5 2.5 50 0 95 70 132 46.92 1.5(20) Bromodichioromethane 80.6 2.5 50 0 121 70 130 60.06 0.080 0.020) cis-1.3-Dichloropropane 48.3 2.5 50 0 97 66 130 47.4 1.8(20) cis-1.3-Dichloropropane 48.3 2.5 50 0 99.6 65 134 44.851 2.6(20) 1.1.2-Trichloroethane 52.3 2.5 50 0 99.6 67 132 51.43 1.6(20) Dibromochichloropropane 49.4 2.5 50 0 99.6 77 130 44.8 0.9(20) 1.3-Dichloropropane 49.4 2.5 50 0 99.6 77 130 44.8 0.9(20) 1.3-Dichloropropane 49.4 2.5 50 0 91.7 30 44.8 0.9(20) 1.3-Dichloroethane 53.5 2.5 50 0 107 66 130 51.7 3.4(20) Dibromochichroethane 54.4 2.5 50 0 110 70 61 30 51.7 3.4(20) 1.2-Dibromoethane 55.4 2.5 50 0 111 70 130 53.88 2.7(20) Dibromochichroethane 51.6 2.5 50 0 111 70 130 53.88 2.7(20) Dibromochichroethane 51.7 1.3 50 0 133 59 135 52.82 2.3(20) 1.1.1.2-Tetrachloroethane 48.8 2.5 50 0 99.7 70 130 48.18 1.3(20) Ethylbenzene 48.5 1.3 50 0 97.7 70 130 48.18 1.3(20) Ethylbenzene 48.5 2.5 50 0 99.7 70 130 48.18 1.3(20) Ethylbenzene 48.5 2.5 50 0 99.7 70 130 48.18 1.3(20) Ethylbenzene 48.5 2.5 50 0 99.7 70 130 48.18 1.3(20) Styrene 49.4 2.5 50 0 99.7 70 130 48.18 1.3(20) Styrene 49.4 2.5 50 0 99.7 70 130 48.18 1.3(20) Styrene 49.4 2.5 50 0 99.7 70 130 48.11 3.0(20) 1.1.2.2-Tetrachloroethane 48.5 2.5 50 0 99.7 70 130 49.57 2.3(20) Styrene 49.4 2.5 50 0 99.7 70 130 49.57 2.3(20) Styrene 49.4 2.5 50 0 99.7 70 130 49.52 2.3(20) 1.1.2.2-Tetrachloroethane 48.5 2.5 50 0 99.7 70 130 49.52 2.3(20) 1.1.2.2-Tetrachloroethane 48.5 2.5 50 0 99.7 70 130 49.52 2.3(20) 1.1.2.2-Tetrachloroethane 48.5 2.5 50 0 97.70 130 49.42 2.4(20) Styrene 49.4 2.5 50 0 99.7 70 130 49.52 2.4(20) 1.3.5-Timethylbenzene 48.5 2.5 50 0 97.70 130 49.52 2.4(20) 1.3.5-Timethylbenzene 48.5 2.5 50 0 99.7 70 130 49.65 2.2(20) 2.0.Diorobichenzene 48.5 2.5 50 0 99.7 70 130 49.65 2.2(20) 2.0.Diorobichenzene 48.5 2.5 50 0 99.7 70 130 49.65 2.4(20) 1.4.2-Dicholobenzene 48.5 2.5 50 0 99.7 70 130 49.65 2.					-						
Dibromethane         59         2.5         50         0         118         69         130         58.47         1.0(20)           Trichlorogropane         47.6         2.5         50         0         155         69         130         53.36         1.7(20)           Bromodichloromethane         60.6         2.5         50         0         125         66         130         67.4         1.8(20)           Strinbioropropene         48.3         2.5         50         0         97.6         66         134         48.51         2.6(20)           Tollene         45.2         1.3         50         0         99.7         70         130         44.8         0.9(20)           Toluren         45.2         1.3         50         0         99         70         130         47.96         2.9(20)           Dibromochloromethane         (50.8)         2.5         50         0         103         59         135         52.82         2.3(20)           Dibromochloromethane (EDB)         100         10         100         103         59         135         52.82         2.5(20)           Tolichoberzene         48.5         1.3         50	Benzene										
1,2-Dichloropropane       47.6       2.5       50       0       95       70       132       46.92       1.5(20)         Trichloroptheme       52       2.5       50       0       105       69       130       60.08       0.9(20)         cis-1,3-Dichloropropene       48.3       2.5       50       0       97       66       130       47.4       1.8(20)         trans-1,3-Dichloropropene       49.8       2.5       50       0       90       67       130       44.8       0.9(20)         1,1,2-Trichloropthane       49.4       2.5       50       0       90       67       130       47.96       2.9(20)         Dibromochiomethane (EDB)       109       10       100       0       109       70       130       106.1       2.5(20)         Tetrachloroethane       51.6       2.5       50       0       103       59       135       52.82       2.7(20)         L1,1,2-Tetrachloroethane       51.7       1.3       50       0       98       70       130       48.18       1.3(20)         Ethylbenzene       48.8       1.3       50       0       97       130       48.18       0.8(20)	Dibromomethane					118		130	58.47		
Bromodichloromethane         60.6         2.5         50         121         70         130         60.08         0.9201           cis-1.3-Dichloropropene         48.3         2.5         50         0         99.6         65         134         48.5         2.65         0         99.6         65         134         48.5         2.65         0         105         67         132         51.43         1.6(20)           Toluene         45.2         1.3         50         0         90         67         130         47.8         2.9(20)           1,3-Dichloropropane         49.4         2.5         50         0         107         66         130         47.86         2.9(20)           Dibromochloromethane         51.6         2.5         50         0         103         51.7         3.4(20)           Ethyloenzene         48.8         1.3         50         0         130         51.8         2.7(20)           1,1,1.2-Tettachloroethane         51.7         1.3         50         0         97         70         130         48.18         3.9(20)           1,1.2-Tettachloroethane         42.5         2.5         50         0         97         70 <td>1,2-Dichloropropane</td> <td>47.6</td> <td></td> <td>50</td> <td>0</td> <td>95</td> <td>70</td> <td></td> <td>46.92</td> <td>1.5(20)</td> <td></td>	1,2-Dichloropropane	47.6		50	0	95	70		46.92	1.5(20)	
cis-1.3-Dichloropropene       48.3       2.5       50       0       97       66       130       47.4       1.8(20)         trans-1.3-Dichloropropene       49.8       2.5       50       0       90.6       65       134       48.51       2.6(20)         Toluene       45.2       1.3       50       0       90       67       130       44.8       0.9(20)         Dibromochloropropane       49.4       2.5       50       0       90       67       130       44.8       0.9(20)         Dibromochloromethane       53.5       2.5       50       0       100       107       66       130       51.7       3.4(20)         12-Dibromoethane (EDB)       109       100       100       0       109       70       130       48.18       1.3(20)         Terachloroethane       51.6       2.5       50       0       130       45.38       2.5(20)         Terachloroethane       51.6       2.5       50       0       130       48.18       1.3(20)         Ethylbenzene       48.5       1.3       50       0       97       70       130       48.18       1.3(20)         Struene       51.7	Trichloroethene	52.5	2.5	50	0	105	69	130	53. <b>3</b> 5	1.7(20)	
trans-1,3-Dichloropropene       49,8       2,5       50       0       99,6       65       134       48,51       2.6(20)         1,1,2-Trichloropthane       45,2       1,3       50       0       90       67       132       51,43       1.6(20)         1,3-Dichloroptopane       49,4       2,5       50       0       90       67       130       44,8       0.9(20)         1,3-Dichloroptopane       109       10       100       0       109       70       130       16.1       2.5(20)         1,2-Ditromochtane       51.6       2.5       50       0       103       53       52.82       2.3(20)         1,1.1.2-Tetrachloroethane       55.4       2.5       50       0       111       70       130       48.38       0.8(20)         m.p-Xviene       48.5       1.3       50       97       70       130       48.38       0.8(20)         m.p-Xviene       49.4       2.5       50       0       116       57       32       57.4       1.4(20)         Styrene       49.4       2.5       50       0       165       137       41.30       0.0       100       103       49.5       2.6(20)		60.6	2.5	50	0	121	70				
1,1,2-Trichloroethane       52.3       2.5       50       0       105       67       132       51.43       1.6(20)         1,3-Dichloropropane       49.4       2.5       50       0       90       67       130       44.8       0.9(20)         1,3-Dichloropropane       53.5       2.5       50       0       90       70       130       47.96       2.9(20)         Dibromochloromethane       53.5       2.5       50       0       107       66       130       51.7       3.4(20)         1,1.2-Tetrachloroethane       51.6       2.5       50       0       111       70       130       48.18       1.3(20)         Ethylbenzene       48.8       2.5       50       0       97       70       130       48.93       0.8(20)         N.p-Xylene       51.7       1.3       50       0       97       70       130       48.93       0.8(20)         Styrene       49.4       2.5       50       0       99       58       135       48.16       2.6(20)         c-Xylene       49.6       1.3       50       99       70       130       48.16       2.6(20)         1,1,2-Tetrachloroeth					0						
Toluene       45.2       1.3       50       90       67       130       44.8       0.9(20)         1.3-Dichloropropane       49.4       2.5       50       0       99       70       130       47.96       2.9(20)         Dibromochloromethane       53.5       2.5       50       0       107       66       130       51.7       3.4(20)         1.2-Dibromoethane       51.6       2.5       50       0       103       59       135       52.82       2.3(20)         1.1.1.2-Tetrachloroethane       55.4       2.5       50       0       111       70       130       48.18       1.3(20)         Ethyliberzene       48.8       2.5       50       0       98       70       130       48.18       1.3(20)         Ethyliberzene       49.4       2.5       50       0       99       58       135       48.16       2.6(20)         Styrene       49.4       2.5       50       0       99       58       135       48.16       2.6(20)         -Xylene       49.4       2.5       50       0       97       70       130       48.14       3.0(20)         I1.1.2.2-Etrachloroethane											
1.3-Dichloropropane       49.4       2.5       50       0       99       70       130       47.96       2.9(2)         Dibromochlormethane       109       100       0       109       70       130       51.7       3.4(20)         1.2-Dibromoethane (EDB)       109       10       00       0       103       59       135       52.82       2.3(20)         1.1.1.2-Tetrachloroethane       55.4       2.5       50       0       117       0       130       53.88       2.7(20)         Chlorobenzene       48.8       2.5       50       0       98       70       130       48.18       2.3(20)         Ethylbenzene       48.5       1.3       50       0       97       70       130       48.30       0.8(20)         m.p-Xylene       51.7       1.3       50       0       97       71       130       48.30       0.8(20)         Styrene       49.6       1.3       50       0       99       70       130       48.16       2.6(20)         -Xylene       49.6       1.3       50       0       97       70       130       48.16       2.6(20)         1.2.3-Trichloropropane											
Dibromochloromethane         53.5         2.5         50         0         107         66         130         51.7         3.4(20)           1,2-Dibromoethane (EDB)         109         10         100         109         70         130         106.1         2.5(20)           Tetrachloroethane         51.6         2.5         50         0         103         59         135         52.82         2.3(20)           Chlorobenzene         48.8         2.5         50         0         111         70         130         48.93         0.8(20)           m,p-Xylene         51.7         1.3         50         0         97         70         130         48.93         0.8(20)           m,p-Xylene         48.5         1.3         50         0         97         70         130         48.16         2.6(20)           Styrene         49.6         1.3         50         0         99         58         135         48.16         2.6(20)           promobenzene         49.6         1.3         50         0         97         70         130         49.5         2.3(20)           1,1,2.2-Tetrachloroethane         42.5         2.5         50 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>											
1,2-Dibromoethane (EDB)       109       10       100       0       109       70       130       106.1       2.5(20)         Tetrachioroethene       51.6       2.5       50       0       103       59       135       52.82       2.3(20)         Chlorobenzene       48.8       2.5       50       0       98       70       130       48.18       1.3(20)         Ethylbenzene       48.5       1.3       50       0       97       70       130       48.93       0.8(20)         m.p.Xylene       51.7       1.3       50       0       97       70       130       48.16       2.6(20)         Styrene       49.4       2.5       50       0       99       58       135       48.16       2.6(20)         Oxlyrene       49.6       1.3       50       99       70       130       48.11       3.0(20)         1,1,2.3-Tictholrooethane       42.5       2.5       50       0       97       70       130       49.57       2.3(20)         Isopropylbenzene       48.5       2.5       50       0       97       70       130       49.45       2.5(20)         2-Chlorotoluene <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>											
Tetrachloroethene       51.6       2.5       50       0       103       59       135       52.82       2.3(20)         1,1,1,2-Tetrachloroethane       55.4       2.5       50       0       111       70       130       53.86       2.7(20)         Chlorobenzene       48.8       1.3       50       0       97       70       130       48.18       1.3(20)         Ethylbenzene       48.5       1.3       50       0       97       70       130       48.93       0.8(20)         m,p-Xylene       51.7       1.3       50       0       97       70       130       48.16       1.3(20)         Bromoform       58.2       2.5       50       0       165       7132       57.4       1.4(20)         Styrene       49.4       2.5       50       0       99       70       130       48.11       3.0(20)         1,1,2.2-Tetrachloroethane       42.5       2.5       50       0       97       70       130       49.57       2.3(20)         Bromobenzene       48.5       2.5       50       0       97       70       130       49.35       2.2(20)         4-Chlorotoluene       <											
1,1,1,2-Tetrachloroethane       55,4       2,5       50       0       111       70       130       53,88       2.7(20)         Chlorobenzene       48,8       2,5       50       0       98       70       130       48,18       1.3(20)         m,p-Xylene       51,7       1.3       50       0       97       70       130       48,39       0.8(20)         m,p-Xylene       51,7       1.3       50       0       103       69       130       51.92       0.5(20)         Bromoform       58,2       2.5       50       0       116       57       132       57.4       1.4(20)         Styrene       49,6       1.3       50       0       99       70       130       48.11       3.0(20)         c.2.3-Trichloropropane       102       10       100       0       102       67       132       98.24       3.5(20)         Isopropylbenzene       48.5       2.5       50       0       97       70       130       49.35       2.2(20)         4-Chlorotoluene       48.3       2.5       50       0       97       70       130       49.35       2.5(20)         1,3-5-Trimethy											
Chlorobenzene       48.8       2.5       50       0       98       70       130       48.18       1.3(20)         Ethylbenzene       48.5       1.3       50       0       97       70       130       48.93       0.8(20)         mp-Xylene       51.7       1.3       50       0       103       69       130       51.92       0.5(20)         Bromoform       58.2       2.5       50       0       99       58       132       57.4       1.4(20)         Styrene       49.4       2.5       50       0       99       58       137       41.76       1.8(20)         1,1,2.2-Tetrachloroethane       42.5       2.5       50       0       85       65       137       41.76       1.8(20)         1,2,3-Trichloropropane       48.5       2.5       50       0       97       70       130       49.57       2.3(20)         Bromobenzene       48.5       2.5       50       0       97       70       130       49.35       2.2(20)         4-Chlorotoluene       49.7       2.5       50       0       97       70       130       49.35       2.5(20)         1,3.5-Trimethylbenz											
Ethylbenzene       48.5       1.3       50       0       97       70       130       48.93       0.8(20)         m,p-Xylene       51.7       1.3       50       0       103       69       130       51.92       0.5(20)         Bromoform       58.2       2.5       50       0       116       57       132       57.4       1.4(20)         0-Xylene       49.4       2.5       50       0       99       58       135       48.16       2.6(20)         o-Xylene       49.6       1.3       50       0       99       70       130       48.11       3.0(20)         1,1,2,3-Trichoropropane       102       10       100       0       102       67       132       98.24       3.5(20)         Isopropylbenzene       48.5       2.5       50       0       97       70       130       49.35       2.2(20)         Probylbenzene       48.3       2.5       50       0       97       70       130       49.35       2.5(20)         2-Chlorotoluene       50.6       2.5       50       0       98       70       130       49.35       2.5(20)         2-Chlorotoluene       <											
m.p-Xylene       51.7       1.3       50       0       103       69       130       51.92       0.5(20)         Bromoform       58.2       2.5       50       0       116       57       132       57.4       1.4(20)         o-Xylene       49.6       1.3       50       0       99       58       135       48.16       2.6(20)         o-Xylene       49.6       1.3       50       0       99       70       130       48.11       3.0(20)         1,1,2,3-Trichloroptopane       102       10       100       0       102       67       132       98.24       3.5(20)         Isopropylbenzene       48.5       2.5       50       0       97       70       130       49.57       2.3(20)         Bromobenzene       48.5       2.5       50       0       97       70       130       49.35       2.5(20)         2-Chlorotoluene       50.6       2.5       50       0       97       70       130       49.35       2.5(20)         2-Chlorotoluene       49.2       2.5       50       0       98       70       130       49.41       0.5(20)         1,3,5-Trimethylbenzene <td></td>											
Bromoform       58.2       2.5       50       0       116       57       132       57.4       1.4(20)         Styrene       49.4       2.5       50       0       99       58       135       48.16       2.6(20)         o-Xylene       49.6       1.3       50       0       99       70       130       48.11       3.0(20)         1,1,2.2-Tetrachloroethane       42.5       2.5       50       0       85       65       137       41.76       1.8(20)         1,2.3-Trichloropropane       102       10       100       0       102       67       132       98.24       3.5(20)         Bromobenzene       48.5       2.5       50       0       97       70       130       47.65       1.8(20)         n-Propylbenzene       48.3       2.5       50       0       97       70       130       49.35       2.2(20)         4-Chlorotoluene       50.6       2.5       50       0       97       70       130       49.41       0.5(20)         1,3.5-Trimethylbenzene       49.7       2.5       50       0       93       70       130       53.75       14.1(20)         1,2.4-T	m,p-Xylene										
o-Xylene         49.6         1.3         50         0         99         70         130         48.11         3.0(20)           1,1,2,2-Tetrachloroethane         42.5         2.5         50         0         85         65         137         41.76         1.8(20)           1,2,3-Trichloropropane         102         10         100         0         102         67         132         98.24         3.5(20)           Isopropylbenzene         48.5         2.5         50         0         97         70         130         47.65         1.8(20)           n-Propylbenzene         48.3         2.5         50         0         97         70         130         49.35         2.2(20)           4-Chlorotoluene         50.6         2.5         50         0         97         70         130         49.35         2.5(20)           2-Chlorotoluene         49.7         2.5         50         0         98         70         130         49.41         0.5(20)           1,2.4-Trimethylbenzene         46.7         2.5         50         0         93         70         130         50.32         1.5(20)           1,2.4-Trimethylbenzene         48.6 <td< td=""><td>Bromoform</td><td></td><td></td><td></td><td>0</td><td>116</td><td>57</td><td>132</td><td>57.<b>4</b></td><td></td><td></td></td<>	Bromoform				0	116	57	132	57. <b>4</b>		
1,1,2,2-Tetrachloropethane       42.5       2.5       50       0       85       65       137       41.76       1.8(20)         1,2,3-Trichloropropane       102       10       100       0       102       67       132       98.24       3.5(20)         Isopropylbenzene       48.5       2.5       50       0       97       70       130       49.57       2.3(20)         Bromobenzene       48.5       2.5       50       0       97       70       130       49.35       2.2(20)         A-Chlorotoluene       48.3       2.5       50       0       97       70       130       49.35       2.2(20)         4-Chlorotoluene       49.2       2.5       50       0       98       70       130       49.35       2.5(20)         2-Chlorotoluene       49.7       2.5       50       0       98       70       130       41.176       1.8(20)         1,3,5-Trimethylbenzene       40.7       2.5       50       0       93       70       130       53.75       14.1(20)         1,2,4-Trimethylbenzene       48.5       2.5       50       0       97       70       130       48.05       1.0(20)	Styrene	49.4	2.5	50	0	99	58		48.16		
1,2,3-Trichloropropane       102       10       100       0       102       67       132       98.24       3.5(20)         Isopropylbenzene       48.5       2.5       50       0       97       70       130       49.57       2.3(20)         Bromobenzene       48.5       2.5       50       0       97       70       130       47.85       1.8(20)         n-Propylbenzene       48.3       2.5       50       0       97       70       130       49.35       2.2(20)         4-Chlorotoluene       50.6       2.5       50       0       98       70       130       49.35       2.5(20)         2-Chlorotoluene       49.2       2.5       50       0       98       70       130       49.41       0.5(20)         1,3.5-Trimethylbenzene       49.7       2.5       50       0       93       70       130       53.75       14.1(20)         1,2.4-Trimethylbenzene       50.3       2.5       50       0       99       70       130       50.32       1.5(20)         1,3-Dichlorobenzene       48.5       2.5       50       0       97       70       130       48.05       1.0(20)	-	49.6	1.3	50	0		70				
Isopropylbenzene48.52.5500977013049.572.3(20)Bromobenzene48.52.5500977013047.651.8(20)n-Propylbenzene48.32.5500977013049.352.2(20)4-Chlorotoluene50.62.55001017013049.352.5(20)2-Chlorotoluene49.22.5500987013049.410.5(20)1,3,5-Trimethylbenzene49.72.5500937013053.7514.1(20)1,2,4-Trimethylbenzene50.32.5500937013050.321.5(20)1,3-Dichlorobenzene48.42.5500977013049.851.6(20)1,4-Dichlorobenzene48.42.5500977013048.051.0(20)1,4-Dichlorobenzene48.42.5500977013048.051.0(20)1,4-Dichlorobenzene48.42.5500977013048.051.0(20)1,2-Dichlorobenzene49.42.5500977013048.051.0(20)1,2-Dichlorobenzene49.42.5500907013352.022.5(20)1,2-Dichlorobenzene49.42.5500907013352.022.5(20) <td></td>											
Bromobenzene48.52.5500977013047.651.8(20)n-Propylbenzene48.32.5500977013049.352.2(20)4-Chlorotoluene50.62.5500987013049.352.2(20)2-Chlorotoluene49.22.5500987013049.410.5(20)2-Chlorotoluene49.72.5500996814150.621.9(20)tert-Butylbenzene46.72.5500937013053.7514.1(20)1,2.4-Trimethylbenzene50.32.5500997013050.321.5(20)sec-Butylbenzene48.52.5500977013050.321.5(20)1,3-Dichlorobenzene48.52.5500977013048.051.0(20)1,4-Dichlorobenzene48.42.5500977013048.051.0(20)1,4-Dichlorobenzene48.42.5500977013047.970.9(20)1,2-Dichlorobenzene49.42.5500907013044.820.8(20)n-Butylbenzene49.42.5500907013044.820.8(20)1,2-Dichlorobenzene51.9105001043915749.943.8(20)1											
n-Propylbenzene       48.3       2.5       50       0       97       70       130       49.35       2.2(20)         4-Chlorotoluene       50.6       2.5       50       0       101       70       130       49.35       2.5(20)         2-Chlorotoluene       49.2       2.5       50       0       98       70       130       49.41       0.5(20)         2-Chlorotoluene       49.7       2.5       50       0       93       70       130       49.41       0.5(20)         1,3,5-Trimethylbenzene       46.7       2.5       50       0       93       70       130       53.75       14.1(20)         1,2,4-Trimethylbenzene       50.3       2.5       50       0       99       70       130       50.32       1.5(20)         1,3-Dichlorobenzene       48.5       2.5       50       0       97       70       130       48.05       1.0(20)         1,4-Dichlorobenzene       48.4       2.5       50       0       97       70       130       48.05       1.0(20)         1,2-Dichlorobenzene       48.4       2.5       50       0       97       70       130       44.82       0.8(20)											
4-Chlorotoluene       50.6       2.5       50       0       101       70       130       49.35       2.5(20)         2-Chlorotoluene       49.2       2.5       50       0       98       70       130       49.41       0.5(20)         1,3,5-Trimethylbenzene       49.7       2.5       50       0       99       68       141       50.62       1.9(20)         tert-Butylbenzene       46.7       2.5       50       0       93       70       130       53.75       14.1(20)         1,2,4-Trimethylbenzene       50.3       2.5       50       0       99       70       130       50.32       1.5(20)         1,3-Dichlorobenzene       49.6       2.5       50       0       97       70       130       48.05       1.0(20)         1,4-Dichlorobenzene       48.5       2.5       50       0       97       70       130       47.97       0.9(20)         1,2-Dichlorobenzene       48.4       2.5       50       0       97       70       130       47.97       0.9(20)         1,2-Dichlorobenzene       49.4       2.5       50       0       90       70       130       44.82       0.8(20)											
2-Chlorotoluene       49.2       2.5       50       0       98       70       130       49.41       0.5(20)         1,3,5-Trimethylbenzene       49.7       2.5       50       0       99       68       141       50.62       1.9(20)         tert-Butylbenzene       46.7       2.5       50       0       93       70       130       53.75       14.1(20)         1,2,4-Trimethylbenzene       50.3       2.5       50       0       101       67       146       50.55       0.5(20)         sec-Butylbenzene       49.6       2.5       50       0       99       70       130       50.32       1.5(20)         1,3-Dichlorobenzene       48.5       2.5       50       0       97       70       130       48.05       1.0(20)         1,4-Dichlorobenzene       48.4       2.5       50       0       97       70       130       44.82       0.8(20)         1,2-Dichlorobenzene       45.2       2.5       50       0       90       70       130       44.82       0.8(20)         1,2-Dichlorobenzene       49.4       2.5       50       0       90       70       130       44.82       0.8(20)	• /										
1,3,5-Trimethylbenzene49,72.5500996814150.621.9(20)tert-Butylbenzene46.72.5500937013053.7514.1(20)1,2,4-Trimethylbenzene50.32.55001016714650.550.5(20)sec-Butylbenzene49.62.5500997013050.321.5(20)1,3-Dichlorobenzene48.52.5500977013048.051.0(20)1,4-Dichlorobenzene48.42.5500977013047.970.9(20)4-Isopropyltoluene50.82.5500977013352.022.5(20)1,2-Dichlorobenzene45.22.5500907013044.820.8(20)n-Butylbenzene49.42.5500907013044.820.8(20)n-Butylbenzene49.42.5500907013044.820.8(20)n-Butylbenzene49.42.5500996614550.953.1(20)1,2-Dibromo-3-chloropropane (DBCP)2321525009357137231.10.3(20)1,2,4-Trichlorobenzene51.9105001043915749.943.8(20)Naphthalene4710500942616344.714.9(											
tert-Butylbenzene46.72.5500937013053.7514.1(20)1,2,4-Trimethylbenzene50.32.55001016714650.550.5(20)sec-Butylbenzene49.62.5500997013050.321.5(20)1,3-Dichlorobenzene48.52.5500977013048.051.0(20)1,4-Dichlorobenzene48.42.5500977013047.970.9(20)4-Isopropyltoluene50.82.5500907013044.820.8(20)1,2-Dichlorobenzene45.22.5500907013044.820.8(20)n-Butylbenzene49.42.5500907013044.820.8(20)n-Butylbenzene49.42.5500996614550.953.1(20)1,2-Dibromo-3-chloropropane (DBCP)2321525009357137231.10.3(20)1,2,4-Trichlorobenzene51.9105001043915749.943.8(20)Naphthalene4710500942616344.714.9(20)Hexachlorobutadiene11110100011135172113.92.9(20)1,2,3-Trichlorobenzene54.2105098751283.8(20) <td></td>											
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Surr: 1,2-Dichloroethane-d4 49 50 98 75 128											
			10		0				52.12	3.8(20)	
Surr: Toluene-d8         47.4         50         95         80         120           Surr: 4-Bromofluorobenzene         50.7         50         101         70         130											



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

### OC Summary Report

Work Order: 08080506

#### 19-Aug-08 Comments:

Date:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

L50 = Analyte recovery was below acceptance limits for the LCS, but was acceptable in the MS/MSD.

L51 = Analyte recovery was above acceptance limits for the LCS, but was acceptable in the MS/MSD.

Billing Information : Battelle			CH	AIN	Ō	F-C	USTO	CHAIN-OF-CUSTODY RECO	REC	ORD		CΔ			Page:	1 of 2
505 King Avenue					Alp	ha A	nalyti	Alpha Analytical, Inc	•		`	Vork(	)rder :	BMIO	WorkOrder : BMI08080506	
Columbus, OH 43201	201			255 Gle T	endale Avenue, Suite : TEL: (775) 355-1044	venue, St 5) 355-10	uite 21 Spar 044 FAX: (	255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778 TEL: (775) 355-1044 FAX: (775) 355-0406	89431-57' 106	78	Rep	ort Du	ue By : 5	:00 PN	Report Due By : 5:00 PM On : 19-Aug-08	Aug-08
Client:			Report Attention		Ph	Phone Number	3	EMail Address	Idress				1			I
Battelle Memorial Institute	Institute		David Conner	2	(61	(619) 574-4827	827 x	connerd@battelle.org	pattelle.org	04				3		
											T.	DD Keq	EDD Required : Yes	6		
Columbus, OH 43201	201											Sampl	Sampled by : Client	ent		
PO: 218017												Coole	Cooler Temp	Samples	Samples Received	Date Printed
Client's COC #: 0262	026287, 026288, 026289 J	: dob	G005862/JPL Groundwater Monitoring	L Grour	ndwater	Monitor	ing						4°C	05-A	05-Aug-08	05-Aug-08
QC Level: S4	= Final Rpt, MBLK, InitCal/ConCal data, LCS, MS/MSD With Surrogates	Cal/Co	nCal data, LC	CS, MS/	MSD W	ith Surr	ogates									
					i			14 m		Request	<b>Requested Tests</b>					
Alpha ( Sample ID	Client Sample ID	C Matrix	Collection ix Date	No. of Alpha	No. of Bottles Alpha Sub	s TAT	314_W	ANIONS(A)	NIONS(B)	ANIONS(C)		METALS	ANIONS(A) ANIONS(B) ANIONS(C) CONDUCTI METALS_D VOC_TIC_	VOC_W	Sample	Sample Remarks
BMI08080506-01A	MW-24-4	Ą	08/04/08 08:11		0	10						Ŷ				
BMI08080506-02A	MW-24-3	Ą	08/04/08 08:41	თ	0	10	Perchlorate				Perchlorate	Ŷ	VOC by 524 Criteria	VOC by 524 Criteria		
BMI08080506-03A	MW-24-2	Â	08/04/08 09:10	თ	0	10	Perchlorate				Perchlorate	ç	VOC by 524 Criteria	VOC by 524 Criteria		
BMI08080506-04A	MW-24-1	Ą	08/04/08 09:52	10	0	10	Perchlorate	NO2, NO3, SO4, CI, Ortho phos	NO2, NO3, SO4, Cl, Ortho phos	NO2, NO3, SO4, Cl, Ortho phos	Perchlorate	Ŷ	VOC by 524 Criteria	VOC by 524 Criteria		MS/MSD
BM108080506-05A	EB-11-08/04/08	Ą	08/04/08 09:30	51	0	10	Perchlorate				Perchlorate	Ω	VOC by 524 Criteria	VOC by 524 Criteria		Equipment Blank
BMI08080506-06A	TB-11-08/04/08	AQ	08/04/08 00:00	N	0	10							VOC by 524 Criteria	VOC by 524 Criteria		Reno Trip Blank 6/24/08
BM108080506-07A	MW-25-5	AQ	08/01/08 07:51	σī	0	10	Perchlorate				Perchlorate	ß	VOC by 524 Criteria	VOC by 524 Criteria		
BMI08080506-08A	MW-25-4	ð	08/01/08 08:24	<b>თ</b>	0	10	Perchlorate				Perchlorate	Ω	VOC by 524 Criteria	VOC by 524 Criteria		
BMI08080506-09A	MW-25-3	Ą	08/01/08 08:54	10	0	10	Perchlorate				Perchlorate	ç	VOC by 524 Criteria	VOC by 524 Criteria		MS/MSD
BMI08080506-10A	MW-25-2	Ą	08/01/08 09:47	თ	0	10	Perchlorate				Perchlorate	Cr	VOC by 524 Criteria	VOC by 524 VOC by 524 Criteria Criteria		
Comments:	No security seals. Frozen ic	e. Temj	Frozen ice. Temp Blank #7848 rec'd @ 4°. Level IV OC.	rec'd @	4°. Lev	el IV QC	. Perchlora	te RL of 1.0	ug/L. San	nples shoul	d be used a	as the cont	rol spike san	ple if poss	Perchlorate RL of 1.0 ug/L. Samples should be used as the control spike sample if possible (I.E.: MS/MSD). :	<u>SD). :</u>
			Signature					Prin	Print Name				Company	Ŋ	Dat	Date/Time
Logged in by:	Carporth	P	Canvag		ldu	 	Chiza	je to	j.	an va	magan	A	Alpha Analytical, Inc.	cal, Inc.	10.5.g	Litt &
NOTE: Sam	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	ys afte	r results are r	reported	unless	other a	rrangement	s are made	e. Hazaro	dous samp	oles will b	e returne	d to client or	disposed	of at client expe	ense.
The report for the an Matrix Type: AQ(Aq	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	lles is a bil) W	applicable on S(Waste) D	ly to tho W(Drint	ise samj king Wa	ples rec iter) O	eived by the F(Other)	e laboratory Bottle	/ with this Type: L-I	s COC. Th Liter V-V	ie liability oa S-So	of the lab il Jar O-	oratory is lir Orbo T-Te	nited to th dlar B-Bı	oratory with this COC. The liability of the laboratory is limited to the amount paid for the repo Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other	for the report. OT-Other

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CHA	IN-OF-CU	STODY R	ECORD	~	、				
	Alpha Ar	nalytical, Inc	•			1 5 5	MINS	NOUZUK	
25	5 Glendale Avenue, Suit	e 21 Sparks, Nevada 8	9431-5778	Renor		Rv · ·		On • 19- Aug-08	
Deport Attents		4 FAX: (7/3) 333-04						Con Guit (T ) IIC	
David Conner		×	attelle oro						
		:	9	EDI	) Requir	ed : Yes			
					ampled	by : Clie	ut		
					Cooler To		Samples R	Received Date Printed	
Job :	Groundwater Monitorin	g			<b>4</b> °	Ω	05-Au	g-08 05-Aug-08	
(, InitCal/ConCal data, LCS	, MS/MSD With Surrog	jates							
	lo. of Bottles		Requeste	d Tests ONDUCTI MI	TALS_D		VOC_W		
	lpha Sub TAT		W W	VITY	٤	۲		Sample Remarks	
AQ 08/01/08 10:18	5 0 10	Perchlorate		Perchlorate	C-	OC by 524 Criteria	7OC by 524 Criteria		
AQ 08/01/08 10:02	5 0 10	Perchlorate		Perchlorate	Cr	OC by 524 Criteria	/OC by 524 Criteria	Equipment Blank	
AQ 08/01/08 00:00	1 0 10					OC by 524 Criteria	/OC by 524 Criteria	Reno Trip Blank 6/24/08. Only 1 HCl voa received whereas COC states 2.	
AQ 08/04/08 11:30	5 0 10	Perchlorate		Perchlorate	Cr	OC by 524 Criteria	/OC by 524 Criteria		
AQ 08/04/08 12:05	5 0 10	Perchlorate		Perchlorate	Ω ر		/OC by 524 Criteria		
	Tue       25         143201       Report Attention         143201       Report Attention         143201       Report Attention         143201       David Conner         143201       Sample ID         Sample ID       Matrix Date         A       TB-10-8/1/08         A       A         A       MW-26-2         A       MW-26-1         A       MW-26-1         A       MW-26-1	Job : G005t InitCal/ConCal d Natrix Da AQ 08/0 AQ 08/0 10: 12:	Job : G005t InitCal/ConCal d AQ 08/0 AQ 08/0 AQ 08/0 10: 12:	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	CHAIN-OF-CUSTODY RECORD         Alpha Analytical, Inc.         255 Glendale Aveme, Suite 21 Sparks, Nevada 89431-5778 TEL: (775) 355-1044         Comer (619) 574-4827 x connerd@battell.org         David Comer         Dob: GODS862/JPL Groundwater Monitoring         IntrCal/ConCal data, LCS, MS/MSD With Surrogates         Reguested 1         Collection No. of Bottles         Matrix Date Alpha Sub TAT       Reguested 1         AQ       08/01/08       5       0       10       Perelaberate       mwws(h)       nuows(c)       nu         AQ       08/04/08       5       0       10       Perelaberate       Perelaberate       Perelaberate         AQ       08/04/08       5       0       10       Perelaberate       Perelaberate       Perelaberate       Perelaberate </td <td>CHAIN-OF-CUSTODY RECORD         Alpha Analytical, Inc.         255 Glenable Avenue, Suite 21 Sparks, Nevada 89431-5778 TEL: (775) 355-1044         Analytical, Inc.         David Come         Phone Number       EMail Address         David Come       Report Attention       Phone Number       EMail Address         David Come       Collection       No. of Bottles       Reguested         Matrix Date       Alpha Sub TAT       Reguested         AQ       08/01/08       5       0       10       Perelatorate         AQ       08/01/08       5       0        Perelatorate</td> <td>CHAIN-OF-CUSTODY RECORD         Alpha Analytical, Inc.         255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778 TEL: (775) 355-1044         Analytical, Inc.         David Come         Phone Number       EMail Address         David Come       Report Attention       Phone Number       EMail Address         David Come       (619) 574-4827 x       connerd@battelle.org         David Come       Natrix Data       Report Attention       No. of Bottles       Requested         Collection       No. of Bottles       Requested         AQ       08/01/08       5       0       10       Prevaluonale         AQ       08/04/08       5       0       10       Prevaluonale       <th c<="" td=""><td>CHAIN-OF-CUSTODY RECORD       CApha Analytical, Inc.         255 Globale Avenue, Suite 21 Sparts, Nevada 89431-5778       WorkOrder : BM108         Nort Attention       Phone Number       Elkell Address         David Comer       (6)9) 574-4827       Concelle Avenue, Suite 21 Sparts, Nevada 89431-5778       Report Due By : 5:00 PM         Nort Attention       Phone Number       Elkell Address       Ellell Address         David Comer       (6)9) 574-4827       Concelle Avenue, Suite 21 Sparts, Nevada 89431-5778       Sampled by : 5:00 PM         IntCarConcel data, LCS, MSMSD With Surrogates       Collection No. of Botties       Samples P       Ac       Osting Samples P         Matrix Date       Apha Sub TAT       Stite       Stite       Samples P       Osting Samples P         AQ       0800/108       5       0       10       Previouse       Requested Tests       Collection         AQ       0800/108       5       0       10       Previouse       Collection       Collection         AQ       0800/108       5       0       10       Previouse       Collection       Collection         AQ       0800/108       5       0       10       Previouse       Collection       Collection         AQ       0800/108</td></th></td>	CHAIN-OF-CUSTODY RECORD         Alpha Analytical, Inc.         255 Glenable Avenue, Suite 21 Sparks, Nevada 89431-5778 TEL: (775) 355-1044         Analytical, Inc.         David Come         Phone Number       EMail Address         David Come       Report Attention       Phone Number       EMail Address         David Come       Collection       No. of Bottles       Reguested         Matrix Date       Alpha Sub TAT       Reguested         AQ       08/01/08       5       0       10       Perelatorate         AQ       08/01/08       5       0        Perelatorate	CHAIN-OF-CUSTODY RECORD         Alpha Analytical, Inc.         255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778 TEL: (775) 355-1044         Analytical, Inc.         David Come         Phone Number       EMail Address         David Come       Report Attention       Phone Number       EMail Address         David Come       (619) 574-4827 x       connerd@battelle.org         David Come       Natrix Data       Report Attention       No. of Bottles       Requested         Collection       No. of Bottles       Requested         AQ       08/01/08       5       0       10       Prevaluonale         AQ       08/04/08       5       0       10       Prevaluonale       Prevaluonale <th c<="" td=""><td>CHAIN-OF-CUSTODY RECORD       CApha Analytical, Inc.         255 Globale Avenue, Suite 21 Sparts, Nevada 89431-5778       WorkOrder : BM108         Nort Attention       Phone Number       Elkell Address         David Comer       (6)9) 574-4827       Concelle Avenue, Suite 21 Sparts, Nevada 89431-5778       Report Due By : 5:00 PM         Nort Attention       Phone Number       Elkell Address       Ellell Address         David Comer       (6)9) 574-4827       Concelle Avenue, Suite 21 Sparts, Nevada 89431-5778       Sampled by : 5:00 PM         IntCarConcel data, LCS, MSMSD With Surrogates       Collection No. of Botties       Samples P       Ac       Osting Samples P         Matrix Date       Apha Sub TAT       Stite       Stite       Samples P       Osting Samples P         AQ       0800/108       5       0       10       Previouse       Requested Tests       Collection         AQ       0800/108       5       0       10       Previouse       Collection       Collection         AQ       0800/108       5       0       10       Previouse       Collection       Collection         AQ       0800/108       5       0       10       Previouse       Collection       Collection         AQ       0800/108</td></th>	<td>CHAIN-OF-CUSTODY RECORD       CApha Analytical, Inc.         255 Globale Avenue, Suite 21 Sparts, Nevada 89431-5778       WorkOrder : BM108         Nort Attention       Phone Number       Elkell Address         David Comer       (6)9) 574-4827       Concelle Avenue, Suite 21 Sparts, Nevada 89431-5778       Report Due By : 5:00 PM         Nort Attention       Phone Number       Elkell Address       Ellell Address         David Comer       (6)9) 574-4827       Concelle Avenue, Suite 21 Sparts, Nevada 89431-5778       Sampled by : 5:00 PM         IntCarConcel data, LCS, MSMSD With Surrogates       Collection No. of Botties       Samples P       Ac       Osting Samples P         Matrix Date       Apha Sub TAT       Stite       Stite       Samples P       Osting Samples P         AQ       0800/108       5       0       10       Previouse       Requested Tests       Collection         AQ       0800/108       5       0       10       Previouse       Collection       Collection         AQ       0800/108       5       0       10       Previouse       Collection       Collection         AQ       0800/108       5       0       10       Previouse       Collection       Collection         AQ       0800/108</td>	CHAIN-OF-CUSTODY RECORD       CApha Analytical, Inc.         255 Globale Avenue, Suite 21 Sparts, Nevada 89431-5778       WorkOrder : BM108         Nort Attention       Phone Number       Elkell Address         David Comer       (6)9) 574-4827       Concelle Avenue, Suite 21 Sparts, Nevada 89431-5778       Report Due By : 5:00 PM         Nort Attention       Phone Number       Elkell Address       Ellell Address         David Comer       (6)9) 574-4827       Concelle Avenue, Suite 21 Sparts, Nevada 89431-5778       Sampled by : 5:00 PM         IntCarConcel data, LCS, MSMSD With Surrogates       Collection No. of Botties       Samples P       Ac       Osting Samples P         Matrix Date       Apha Sub TAT       Stite       Stite       Samples P       Osting Samples P         AQ       0800/108       5       0       10       Previouse       Requested Tests       Collection         AQ       0800/108       5       0       10       Previouse       Collection       Collection         AQ       0800/108       5       0       10       Previouse       Collection       Collection         AQ       0800/108       5       0       10       Previouse       Collection       Collection         AQ       0800/108

**Comments:** No security scals. Frozen ice. Temp Blank #7848 rec'd @ 4°. Level IV QC. Perchlorate RL of 1.0 ug/L. Samples should be used as the control spike sample if possible (I.E.; MS/MSD). :

Logge	
gged in by:	
Cenpbeth Servag	Signature
nor	
Elizabeth Janva	Print Name
vageau	
Alpha Analytical, Inc.	Company
8-5-06 11:1	Date/Time

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

Billing Information: Name CRERALD TOMPKINS Address 505 KING AUC.		Alpha Analytical, Inc. 255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778		Samples Collected From Which State? AZCANVWA IDOROTHERF	ag	026287  e# <u>1_of</u> 1_
le, Zip <u>Сосимізиs</u> <del>б</del> а		Phone (775) 355-1044 Fax (775) 355-0406		Analyses Required		
Client Name DAVID CONNER	PO.# 218017	38500 m # gor	2	March Con 100	/ / Requ	Required QC Level?
M	-EMail Address		24	200 214		" "
EGO, CA 92/10	Phone # 619-726-7311	Fax #		Contraction of the second	EDD / EDF? YES	"? YES NO
Matrix* Sampled by See Key	Report Attention		Total and type of	A C K	Global ID #	
Sampled Sampled Below Lab ID Number (Use Only)	Sample Description	TAT Field	** See below / See below /		/ / RE	REMARKS
10-010508080801118 AR DMT08080506-01	MW-14-4	NORM				
-02	Mr- 24-3		× ×	×		
<i>6</i> / <i>0</i>	MW-24-2		Υ < ×	×		
	Jan 1					400 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100
-04 -04	Mw-24-1		<i>io</i> × ×	×	MS/MSD	Ä
0930 - 0560	80/Hay 80-11-03		× × ×	×	Caripmeri	NT BLANK
	18-11-38/24/28		2 2		7210 1	KAK
ADDITIONAL INSTRUCTIONS:						
Signature	Print Name		Company	y	Date	Time
Relinquished by	- CHASE BRANDA		WS/6HT.	EECT	8 14 /20	1330
Received by Chaurcage and	J. Janvagran	7	Depha		8.5-08	
Relinquished by	C	the second se	0			
Received by						
Relinquished by		į				
Received by						
*Key: AQ - Aqueous SO - Soil WA - Waste	e OT - Other AR - Air	**: L-Liter V-Voa	S-Soil Jar O-Orbo	T-Tedlar B	B-Brass P-Plastic	OT-Other
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.	is received by the laboratory with this	non The liability of the labor	atorv is limited to the a	mount naid for the rel	vient expense. The top	ปีเป็นปี และสาขาว

		Alpha Analytical, Inc. Sa	nples Collected From W	h State? 0.26023
A PUS	Sparks,	255 Glendale Avenue, Suite 21	OR OTHER	Pag
City, State, Zip     Counter     0H     43 201       Phone Number     Fax	Fax (77	Findre (775) 355-0406	Analyses Required	
Client Name POND CONNEL	P.O.# 218017	7622009 # qor	1   N / N	Required QC Level?
C7	EMail Address		24 200 4	
Co 921/0	Phone # 619-726-73//	Fax #		EDD / EDF? YES NO
Time Date Con Kon Sampled by	Report Attention			Global ID #
Sampled Sampled Below Lab ID Number (Use Only)	Sample Description	TAT Field ** See below		REMARKS
75/ 8/1/× AQ -07	MW-25-5	X	× ×	
80 08	MW-25-4		×	
60 - K58	MW-25-3		×	115/14515
۲۰۰۶ - ۲۰۰۶ - ۲۰۰۶	Mw-25-2	- 51 ×	X X	
	MW-25-1	X	X	
-'2 -'2	EB-12-8/1/28			EQUIP. BLANK
	TB-10-8/1/28	X 4		TRIP BLANK
ADDITIONAL INSTRUCTIONS:				
Signature	Print Name	c	Company	Date Time
Relinquished by	MARCO MENDO 20	INSIGHT	EEC P.	11/28 1200
Received by Carryan area	E. Sanvagian		John 8	8-5-08 1/17
Received by				
Relinquished by				
Received by				

i

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 \*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

L

Name <u>CERALD TOMPHIND</u> Address <u>505 KINL AVE</u> City, State, Zip ColumBus, OH 4320	8	255 Glendale Avenue, Suite 21	OR OTHER Pa	Page # _/of _/
Fax		ax (//b) 355-0406	Analyses Required	
Client Name	P.0.# 218017	100 # 600-5-826 # dot	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Required QC Level?
CA 921/0	Phone # 6/9-726-73//	Fax #		EDD/EDF? YES NO
Matrix* Sampled b	Report Attention	Total and type of	A       Giobal 10 #	##
Sampled Sampled Below Lab ID Number (Use Only)	) Sample Description	TAT Field "See below / y /		REMARKS
1130 8/4/00 AQ	-14 MW-26-2	NORM 5 X X	×	
1704	5 11-76-1	$\langle \cdot \rangle$	× 	
ADDITIONAL INSTRUCTIONS:				
Signature	Print Name	Company	y Date	Time
Relinquished by	CHASE BLOGDON	DON INS/LATT 6	ELT 08/04/08	1330
Received by Alk VOLTALL	E. Sauvagean	u Upha	8.5.0%	[]] []
Received by				
Relinquished 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. 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.



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

Date: 16-Sep-08

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

### **CASE NARRATIVE**

Project:	G005862 / JPL Goun	dwater Monitoring		
Work Order:	BMI08080649		Cooler Temp:	4 °C
Alpha's	Sample ID	Client's Sample ID	Matri	ix
	649-01A 649-02A	MW-7 TB-12-08/05/08	Aqueo	

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.

Dalter Ainihum Roger Scholl Kandy Saulman

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 : 08/06/08

### Job#: G005862/ JPL Goundwater Monitoring

		Anions by IC 1ethod 300.0 / 9056			
	Parameter	Concentration	Reporting Limit	Date / Time Sampled	Date / Time Analyzed
Client ID : <b>MW-7</b> Lab ID : BMI08080649-01A	Nitrite (NO2) - N Nitrate (NO3) - N Phosphate, ortho - P	ND 1.0 ND	0.25 mg/L 0.25 mg/L 0.25 mg/L	08/05/08 09:55 08/05/08 09:55 08/05/08 09:55	08/06/08 14:44 08/06/08 14:44 08/06/08 14:44

ND = Not Detected

Roger Scholl

Kandy Saulmen

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

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8/19/08 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 : 08/06/08

Job#: G005862/ JPL Goundwater Monitoring

	1	Anions by IC EPA Method 300.0 / 9056		
	Parameter	Concentration	Reporting Limit	Date Date Sampled Analyzed
Client ID : MW-7 Lab ID : BMI08080649-01A	Chloride Sulfate (SO4)	63 50	5.0 mg/L 0.50 mg/L	08/05/08 08/06/08 08/05/08 08/06/08

Roger Scholl

Kandy Danlow

Walter Hindren

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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8/10/08

**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 : 08/06/08

### Job#: G005862/ JPL Goundwater Monitoring

	•	Conductance at 25°C 0.1 / SM2510B / SW9050A	A	
	Parameter	Concentration	Reporting Limit	Date Date Sampled Analyzed
Client ID : <b>MW-7</b> Lab ID : BMI08080649-01A	Specific Conductance (at 25°C)	620	10 µS/cm	08/05/08 08/06/08

Roger Scholl

Kandy Saular

Walter Arilm

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 : 08/06/08

Job#: G005862/ JPL Goundwater Monitoring

	Рег	rchlorate by Ion Chromatography EPA Method 314.0		
	Parameter	Concentration	Reporting Limit	Date Date Sampled Analyzed
Client ID : <b>MW-7</b> Lab ID : BMI08080649-01A	Perchlorate	1.52	1.00 μg/L	08/05/08 08/08/08

Roger Scholl

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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 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.

8/19/08 Report Date

G005862/ JPL Goundwater Monitoring



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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 : 08/06/08

Job#: G005862/ JPL Goundwater Monitoring

		Metals by ICPMS EPA Method 200.8		
	Parameter	Concentration	Reporting Limit	Date Date Sampled Analyzed
Client ID : <b>MW-7</b> Lab ID : <b>BMI08080649-01A</b>	Chromium (Cr)	0.0065	0.0050 mg/L	08/05/08 08/15/08

Roger Scholl

Kandy Saula

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.

8/19/08 Report Date



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### **ANALYTICAL REPORT**

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201 Job#: G005862/ JPL Goundwater 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-7						
Lab ID :	BMI08080649-01A	* * * None Found * * *	ND	2.0 μg/L	08/06/0 <b>8</b>	08/05/08	08/14/08
Client ID :	TB-12-08/05/08						
Lab ID :	BMI08080649-02A	*** None Found ***	ND	2.0 µg/L	08/06/0 <b>8</b>	08/05/08	08/14/08

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

Walter Hiridmon Kandy Santur 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.

8/19/08

Report Date
Page 1 of 1



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### ANALYTICAL REPORT

Memorial Institute
g Avenue
us, OH 43201
G005862/ JPL Goundwater Monitoring

Alpha Analytical Number: BMI08080649-01A Client I.D. Number: MW-7

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

> Sampled: 08/05/08 Received: 08/06/08 Analyzed: 08/14/08

#### Volatile Organics by GC/MS

			Reporting
	Compound	Concentration	Limit
1	Dichlorodifluoromethane	ND	0.50 µg/L
2	Chloromethane	ND	1.0 µg/L
3	Vinyl chloride	ND	0.50 µg/L
4	Chloroethane	ND	0.50 µg/L
5	Bromomethane	ND	' 1.0 µg/L
6	Trichlorofluoromethane	ND	0.50 µg/L
7	1,1-Dichloroethene	ND	0.50 µg/L
8	Dichloromethane	, ND	1.0 µg/L
9	Freon-113	ND	0.50 µg/L
10	trans-1,2-Dichloroethene	ND	0.50 µg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L
12	1,1-Dichloroethane	: ND	0.50 µg/L
13	2-Butanone (MEK)	ND	10 µg/L
14	cis-1,2-Dichloroethene	ND	0.50 µg/L
15	Bromochloromethane	ND	0.50 µg/L
16	Chloroform	7.9	0.50 µg/L
17	2,2-Dichloropropane	ND	0.50 µg/L
18	1,2-Dichloroethane	ND	0.50 µg/L
19	1,1,1-Trichloroethane	ND	0.50 µg/L
20	1,1-Dichloropropene	ND	0.50 µg/L
21	Carbon tetrachloride	ND	0.50 µg/L
22	Benzene	ND	0.50 µg/L
23	Dibromomethane	ND	0.50 µg/L
24	1,2-Dichloropropane	ND	0.50 µg/L
25	Trichloroethene	ND	0.50 µg/L
26	Bromodichloromethane	7.8	0.50 µg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5 µa/L
28	cis-1,3-Dichloropropene	ND	0.50 µg/L
29	trans-1,3-Dichloropropene	ND	0.50 µg/L
30	1,1,2-Trichloroethane	ND	0.50 µg/L
31	Toluene	1.2	0.50 µg/L
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
36	1,1,1,2-Tetrachloroethane	ND	0.50 µg/L
37	Chlorobenzene	ND	0.50 µg/L
38	Ethylbenzene	ND	0.50 µg/L
39	m,p-Xylene	ND	0.50 µg/L
40	Bromoform	ND	0.50 μg/L
41	Styrene	ND	0.50 µg/L
42	o-Xylene	ND	0.50 μg/L
43	1,1,2,2-Tetrachioroethane	ND	0.50 μg/L
44	1,2,3-Trichloropropane	ND	1.0 µg/L
			1.0 µg/L

	Compound	Concentration	R	eporting Limit
45	Isopropylbenzene	ND	0.50	µg/L
46	Bromobenzene	ND	0.50	µg/L
47	n-Propylbenzene	ND	0.50	µg/L
48	4-Chlorotoluene	ND	0.50	µg/L
49	2-Chiorotoluene	ND	0.50	μg/L
50	1,3,5-Trimethylbenzene	ND	0.50	µg/L
51	tert-Butylbenzene	ND	0.50	µg/L
52	1,2,4-Trimethylbenzene	ND	0.50	μg/L
53	sec-Butylbenzene	ND	0.50	µg/L
54	1,3-Dichlorobenzene	ND	0.50	µg/L
55	1,4-Dichlorobenzene	ND	0.50	µg/L
56	4-Isopropyltoluene	ND	0.50	µg/L
57	1,2-Dichlorobenzene	ND	0.50	µg/L
58	n-Butyibenzene	ND	0.50	µg/L
59	1,2-Dibromo-3-chloropropane (DBCP)	ND	2.5	µg/L
60	1,2,4-Trichlorobenzene	ND	1.0	µg/L
61	Naphthalene	ND	1.0	µg/L
62	Hexachlorobutadiene	ND	1.0	µg/L
63	1,2,3-Trichlorobenzene	ND	1.0	µg/L
64	Surr: 1,2-Dichloroethane-d4	94	(70-130)	%REC
65	Surr: Toluene-d8	99	(70-130)	%REC
66	Surr: 4-Bromofluorobenzene	109	(70-130)	%REC

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

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

lter A.

8/19/08

**Report Date** 

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	g Avenue
Columba	is, OH 43201
Job#:	G005862/ JPL Goundwater Monitoring

Alpha Analytical Number: BMI08080649-02A Client I.D. Number: TB-12-08/05/08 Attn:David ConnerPhone:(619) 574-4827Fax:(614) 458-6641

Sampled: 08/05/08 Received: 08/06/08 Analyzed: 08/14/08

#### Volatile Organics by GC/MS

			Reporting
	Compound	Concentration	Limit
1	Dichlorodifluoromethane	ND	0.50 µg/L
2	Chloromethane	ND	1.0 µg/L
3	Vinyl chloride	ND	0.50 µg/L
4	Chloroethane	ND	0.50 µg/L
5	Bromomethane	ND	1.0 µg/L
6	Trichlorofluoromethane	ND	0.50 µg/L
7	1,1-Dichloroethene	ND	0.50 µg/L
8	Dichloromethane	ND	1.0 µg/L
9	Freon-113	ND	0.50 µg/L
10	trans-1,2-Dichloroethene	ND	0.50 µg/L
11	Methyl tert-butyl ether (MTBE)	ND	
12	1,1-Dichloroethane	ND	0.50 µg/L
13	2-Butanone (MEK)	ND	10 µg/L
14	cis-1,2-Dichloroethene	ND	0.50 µg/L
15	Bromochloromethane	ND	0.50 μg/L
16	Chloroform	ND	0.50 µg/L
17	2,2-Dichloropropane	ND	0.50 µg/L
18	1,2-Dichloroethane	ND	0.50 µg/L
19	1,1,1-Trichloroethane	ND	0.50 µg/L
20	1,1-Dichloropropene	ND	0.50 µg/L
21	Carbon tetrachloride	ND	0.50 µg/L
22	Benzene	; ND	0.50 µg/L
23	Dibromomethane	ND	0.50 µg/L
24	1,2-Dichloropropane	, ND	0.50 µg/L
25	Trichloroethene	ND	0.50 µg/L
26	Bromodichloromethane	ND	0.50 µg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5 µg/L
28	cis-1,3-Dichloropropene	ND	0.50 µg/L
29	trans-1,3-Dichloropropene	ND	0.50 µg/L
30	1,1,2-Trichloroethane	ND	0.50 µg/L
31	Toluene	ND	0.50 µg/L
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
36	1,1,1,2-Tetrachloroethane	ND	0.50 µg/L
37	Chlorobenzene	ND	0.50 µg/L
38	Ethylbenzene	ND	0.50 µg/L
39	m,p-Xylene	ND	0.50 µg/L
40 41	Bromoform	ND	0.50 µg/L
41 42	Styrene	ND	0.50 μg/L
42 43	o-Xylene	ND	0.50 µg/L
43 44	1,1,2,2-Tetrachloroethane	ND	0.50 µg/L
44	1,2,3-Trichloropropane	ND	1.0 μg/L

	Compound	Concentration	Re	eporting Limit
45	Isopropylbenzene	ND	0.50	µg/L
46	Bromobenzene	ND	0.50	µg/Ł
47	n-Propylbenzene	ND	0.50	µg/L
48	4-Chlorotoluene	ND	0.50	µg/L
49	2-Chlorotoluene	ND	0.50	µg/L
50	1,3,5-Trimethylbenzene	ND	0.50	µg/L
51	tert-Butylbenzene	ND	0.50	µg/L
52	1,2,4-Trimethylbenzene	ND	0.50	µg/L
53	sec-Butylbenzene	ND	0.50	µg/L
54	1,3-Dichlorobenzene	ND	0.50	µg/L
55	1,4-Dichlorobenzene	ND	0.50	µg/L
56	4-Isopropyltoluene	ND	0.50	µg/L
57	1,2-Dichlorobenzene	ND	0.50	µg/L
58	n-Butylbenzene	ND	0.50	µg/L
59	1,2-Dibromo-3-chloropropane (DBCP)	ND	2.5	µg/L
60	1,2,4-Trichlorobenzene	ND	1.0	µg/L
61	Naphthalene	ND	1.0	µg/L
62	Hexachlorobutadiene	ND	1.0	µg/L
63	1,2,3-Trichlorobenzene	ND	1.0	µg/L
64	Surr: 1,2-Dichloroethane-d4	95	(70-130)	%REC
65	Surr: Toluene-d8	100	(70-130)	%REC
66	Surr: 4-Bromofluorobenzene	111	(70-130)	%REC

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

do A

Ster. 9

8/19/08

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

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### **VOC Sample Preservation Report**

# Work Order: BMI08080649Project: G005862/ JPL Goundwater MonitoringAlpha's Sample IDClient's Sample IDMatrix08080649-01AMW-7Aqueous208080649-02ATB-12-08/05/08Aqueous2

8/19/08 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

<b>Date:</b> 14-Aug-08	(	C Su	ummar	y Repor	t				<b>Work Order:</b> 08080649	
Method Blank File ID: 13 Sample ID: MB-20376 Analyte	Units : <b>mg/L</b> Result	Type M	Ba Run ID: <b>IC</b>	est Code: El atch ID: 203 _2_0808064	76A		Analy Prep l	Date:	08/06/2008 13:48 08/06/2008 Val %RPD(Limit)	Qual
Nitrite (NO2) - N Nitrate (NO3) - N Phosphate, ortho - P	ND ND ND	0.25 0.25 0.25		Spkreival	/onec					
Laboratory Fortified Blank File ID: 14		Type L		est Code: El		thod 300.0		sis Date <sup>.</sup>	08/06/2008 14:07	
Sample ID: LFB-20376 Analyte	Units : <b>mg/L</b> Result	PQL	Run ID: IC	_2_0808064	4	LCL(ME)	Prep I	Date:	08/06/2008 Val %RPD(Limit)	Qual
Nitrite (NO2) - N Nitrate (NO3) - N Phosphate, ortho - P	1.16 1.19 1.2	0.25 0.25 0.25	1.25 1.25		93 96 96	90 90 90	110 110 110 110		· · · · · · · · · · · · · · · · · · ·	
Sample Matrix Spike		Type L		est Code: El		thod 300.0				
File ID: 17 Sample ID: 08080649-01ALFM Analyte	Units : <b>mg/L</b> Result	PQL	Run ID: IC	itch ID: 203 _2_0808064	1		Prep I	Date:	08/06/2008 15:02 08/06/2008 Val %RPD(Limit)	Qual
Nitrite (NO2) - N Nitrate (NO3) - N Phosphate, ortho - P	1.3 2.25 1.2	0.25 0.25 0.25	1.25 1.25	0 1.044 0	104 97 96	80 80 80 80	120 120 120 120	INF DIVEN		
Sample Matrix Spike Duplicate File ID: 18		Type LI		est Code: El		thod 300.0		sis Date:	08/06/2008 15:21	
Sample ID: 08080649-01ALFMD Analyte	Units : <b>mg/L</b> Result	PQL	-	_ <b>2_080806</b> A SpkRefVal		LCL(ME)	Prep ( UCL(ME)		08/06/2008 √al %RPD(Limit)	Qual
Nitrite (NO2) - N Nitrate (NO3) - N Phosphate, ortho - P	1.33 2.22 1.26	0.25 0.25 0.25	1.25 1.25 1.25	0 1.044 0	107 94 101	80 80 80 80	120 120 120	1.302 2.252 1.201	<b>2</b> 2.4(10) <b>2</b> 1.3(10)	

#### **Comments:**



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<b>Date:</b> 14-Aug-08	QC Summary Report							<b>Work Order:</b> 08080649			
Method Blan File ID: 13	k		Type I	MBLK	Test Code Batch ID:		ethod 300.0		sis Date:	08/06/2008 13:48	
Sample ID:	MB-20376	Units : mg/L			IC_2_0808			Prep I		08/06/2008	
Analyte		Result	PQL	Spk∖	/al SpkRef	Val %RE	C LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qual
Sulfate (SO4)		ND	0.	5							
Laboratory H File ID: 14	Fortified Blank		Type I	_FB	Test Code Batch ID:		ethod 300.0		sis Date:	08/06/2008 14:07	
Sample ID:	LFB-20376	Units : mg/L		Run ID:	IC 2 0808	806A		Prep I	Date:	08/06/2008	
Analyte		Result	PQL	Spk∖	/al_SpkRef	Val %RE	C LCL(ME)	UCL(ME)	RPDRef\	al %RPD(Limit)	Qual
Sulfate (SO4)		9.83	0.	5	10	98	90	110			
Sample Matr File ID: 17	ix Spike		Туре І	_FM	Test Code Batch ID:		ethod 300.0		nia Doto:	08/06/2008 15:02	
Sample ID:	08080649-01ALFM	Units : mg/L			IC_2_0808	306A		Prep I	Date:	08/06/2008	<u> </u>
Analyte	·····	Result	PQL	Spk∖			C LCL(ME)		RPDRef	al %RPD(Limit)	Qual
Sulfate (SO4)	····	60.5	0.	5	10 49	.63 109	80	120		÷	
Sample Matr File ID: 18	ix Spike Duplicate		Туре I	FMD	Test Code Batch ID:		ethod 300.0		sis Date:	08/06/2008 15:21	
Sample ID:	08080649-01ALFMD	Units : mg/L		Run ID:	IC_2_0808	306A		Prep I	Date:	08/06/2008	
Analyte		Result	PQL				C LCL(ME)	UCL(ME)	RPDRef	✔al %RPD(Limit)	Qual
Sulfate (SO4)		60.3	0.			.63 107		120	60.53	•	

#### Comments:



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<b>Date:</b> 		OC Summary Report							<b>Work Order:</b> 08080649		
Method Blan File ID: 13				Ва	atch ID: 203	76C	thod 300.0 /	Analy		08/06/2008 13:48	
Sample ID: Analyte	MB-20376	Units : mg/L Result	PQL		_2_080806			Prep		08/06/2008 Val %RPD(Limit)	Qual
Chloride	<u> </u>	ND	0.		Opkitervar	/01/12/	5 EOE(ME)				
Laboratory	Fortified Blank		Туре		est Code: E atch ID: 203		thod 300.0 /		sis Date:	08/06/2008 14:07	
Sample ID: Analyte	LFB-20376	Units : <b>mg/L</b> Result	PQL		_ <b>2_080806</b> SpkRefVal		C LCL(ME)	Prep UCL(ME)		<b>08/06/2008</b> Val %RPD(Limit)	Qual
Chloride		4.6	0.			92	90	110		÷	
Sample Mat	rix Spike		Туре		est Code: E atch ID: 203		thod 300.0 /		sis Date:	08/06/2008 15:58	
Sample ID: Analyte	08080649-01ALFM	Units : <b>mg/L</b> Result	PQL		_ <b>2_080806</b> l SpkRefVal		C LCL(ME)	Prep UCL(ME)		08/06/2008 Val %RPD(Limit)	Qual
Chloride		112	0.	5 50	63.08	98	80	120			
Sample Mat	rix Spike Duplicate		Туре		est Code: E atch ID: 203		thod 300.0 /		sis Date:	08/06/2008 16:16	
Sample ID:	08080649-01ALFMD	Units : mg/L			_2_080806			Prep		08/06/2008	
Analyte		Result	PQL				C LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qual
Chloride		112	0.	5 50	63.08	97	80	120	112.	1 0.5(10)	

#### **Comments:**



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<b>Date:</b> 14-Aug-08		(	DC S	Sum	mary	y Repor	t				Work Ord 08080649	
Method Blank File ID: 13			Туре		Ba	st Code: El tch ID: 203	84	thod 314.0	,		08/07/2008 18:43	
Sample ID: M Analyte	BLK-20384	Units : <b>µg/L</b> Result	PQL			_3_080807/			•	Date:	08/07/2008 Val %RPD(Limit)	Qua
Perchlorate	· · · · · · · · · · · · · · · · · · ·	ND	FQL	1	ркуа	эрккегча	70REC			REDREI		
Laboratory Fo	rtified Blank	······································	Туре	LFB		st Code: El	• • • • •	thod 314.0	Analy	sis Date:	08/07/2008 19:02	
Sample ID: LI Analyte	FB-20384	Units : <b>µg/L</b> Result	PQL			_ <b>3_080807</b> SpkRefVal		CLCL(ME)	•	Date: RPDRef	<b>08/07/2008</b> Val %RPD(Limit)	Qua
Perchlorate		25.7		2	25		103	85	115			
Sample Matrix File ID: 19	Spike		Туре	LFM		st Code: El		thod 314.0	Analy	sis Date:	08/07/2008 20:34	
Sample ID: 08 Analyte	3080506-04ALFM	Units : <b>µg/L</b> Result	PQL		-	_ <b>3_080807</b> SpkRefVal		CLCL(ME)		Date: RPDRef	<b>08/07/2008</b> Val %RPD(Limit)	Qua
Perchlorate		23.5		2	25	1.137	90	80	120			
Sample Matrix File ID: 20	Spike Duplicate		Туре	LFMI		st Code: El		thod 314.0	Analy	sis Date:	08/07/2008 20:52	
Sample ID: 08 Analyte	8080506-04ALFMD	Units : <b>µg/L</b> Result	PQL		n ID: IC	_3_080807	A	C LCL(ME)	Prep	Date:	08/07/2008 Val %RPD(Limit)	Qua
Perchlorate		23.2		2	25	1.137	88	80	120	23.5	****	

#### **Comments:**



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<b>Date:</b> 14-Aug-08	OC Summary Report Work Order: 08080649	_
Method Blank File ID: Sample ID: MBLK-W0806CN	Type         MBLK         Test Code:         EPA Method         120.1 / SM2510B / SW9050A           Batch ID:         W0806CN         Analysis Date:         08/06/2008         00:00           Units :         µS/cm         Run ID:         WETLAB_080806E         Prep Date:         08/06/2008	-
Analyte		Qua
Specific Conductance (at 25°C)	ND 10	
Laboratory Control Spike File ID:	Type LCS       Test Code: EPA Method 120.1 / SM2510B / SW9050A         Batch ID: W0806CN       Analysis Date: 08/06/2008 00:00	-
Sample ID: LCS-W0806CN	Units : µS/cm Run ID: WETLAB_080806E Prep Date: 08/06/2008	
Analyte	Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit) Q	Qua
Specific Conductance (at 25°C)	1420 10 1410 100 98 102	-

**Comments:** 



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<b>Date:</b> 19-Aug-08	(	DC S	ummar	y Repor	t				Work Orde 08080649	
Method Blank File ID: 081408.B\A034SMPL.D Sample ID: MB-20397	Units : <b>mg/L</b>	Type I	В	est Code: El atch ID: 203 P/MS_0808	97K	ihod 200.8	,	/sis Date: Date:	08/14/2008 16:37 08/08/2008	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	CLCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qua
Chromium (Cr)	ND	0.00	5							
Laboratory Control Spike File ID: 081408.B\018_LCS.D\ Sample ID: LCS-20397 Analyte	Units : <b>mg/L</b> Result	Type I	B Run ID: IC	est Code: El atch ID: 203 P/MS_0808 SpkRefVal	97K 14D		Prep	Date:	08/15/2008 11:26 08/08/2008 Val %RPD(Limit)	Qua
Chromium (Cr)	0.0513	0.00	5 0.05		103	80	120			
Sample Matrix Spike File ID: 081408.B\A038SMPL.D Sample ID: 08080506-04AMS Analyte	Units : <b>mg/L</b> Result	Type I	Ban ID: IC	est Code: El atch ID: <b>203</b> P/MS_0808 SpkRefVal	97K 14D		Prep	Date:	08/14/2008 17:00 08/08/2008 Val %RPD(Limit)	Qua
Chromium (Cr)	0.0638	0.00		0.01082	106	80	120		÷	_
Sample Matrix Spike Duplicate File ID: 081408.B\A039SMPL.D		Туре		est Code: El atch ID: 203		thod 200.8			08/14/2008 17:05	
Sample ID: 08080506-04AMSD	Units : mg/L			P/MS_0808			•	Date:	08/08/2008	0
Analyte Chromium (Cr)	Result 0.0606	PQL 0.00		O.01082		80	120	0.063	Val %RPD(Limit) 78 5.1(20)	Qua

#### Comments:

Billing Information : Battelle	CHAIN-OF-	CHAIN-OF-CUSTODY RECO	ORD CA		Page: 1 of 1
505 King Avenue	Alpha	Alpha Analytical, Inc.		WorkOrder : BMI08080649	30649
Columbus, OH 43201	255 Glendale Avenue TEL: (775) 35	255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778 TEL: (775) 355-1044 FAX: (775) 355-0406		Report Due By : 5:00 PM On : 20-Aug-08	n: 20-Aug-08
Client:	Report Attention Phone	Phone Number EMail Address			
Battelle Memorial Institute 505 King Avenue	David Conner (619) 5	(619) 574-4827 x connerd@battelle.org	EDD Required : Yes	ired : Yes	
Columbus OH 13201			Sample	Sampled by : Client	
PO · 918017			Cooler Temp	Femn Samples Received	eived Date Printed
Ç,	Job : G005862/ JPL Goundwater Monitoring	nitoring	7		
QC Level : S4 = Final Rpt, MB	Final Rpt, MBLK, InitCal/ConCal data, LCS, MS/MSD With Surrogates	Surrogates			
			Requested Tests		
Alpha Client Sample ID Sample ID	Collection No. of Bottles Matrix Date Alpha Sub T/	TAT 314_W ANIONS(A) ANIONS(B) A	ANIONS(C) CONDUCTI METALS_D VOC_TIC_	VOC_TIC VOC_W	
					Sample Kemarks
BMI08080649-01A MW-7	AQ 08/05/08 5 0 1 09:55 0 1	10         Perchlorate         I/O2, NO3, PO         NO2, NO3, PO         Perchlorate           4,SO4,Cl         4,SO4,Cl         4,SO4,Cl         4,SO4,Cl         4,SO4,Cl         4,SO4,Cl	02,NO3,PO Perchlorate Cr 4,SO4.Cl	VOC by 524 VOC by 524	
BMI08080649-02A TB-12-08/05/08	AQ 08/05/08 2 0 1	10		Criteria Criteria	
				Criteria VOC by 524 Criteria	Reno Trip Blanks 6/24/08
			-	Criteria Criteria	no Trip Blanks 6/24/08
Comments: <u>No security scals. F</u>	No security seals. Frozen ice. Client provided Temp Blank rec'd @ 4°. Level IV QC. Samples should be used as the control spike sample if possible (I.E.: MS/MSD). : Signature Company	. Level IV QC. Samples should be used a	as the control spike sample if p	Criteria Criteria P Criteria VOC by 524 Criteria P Sible (LE : MS/MSD). :	eno Trip Blanks 6/24/08 Date/Time

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

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.



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Date: 25-Aug-08

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

**CASE NARRATIVE** 

Project:	G005862 / JPL Grou	ndwater Monitoring		
Work Order:	BMI08081223		Cooler Temp:	4 °C
Alpha's	Sample ID	Client's Sample ID	Matr	rix
08081	1223-01A	MW-5	Aque	ous
08081	1223-02A	MW-6	Aqueo	ous
08081	223-03A	TB-13-08/08/08	Aqueo	ous
08081	223-04A	MW-15	Aqueo	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.

Walter Ainihum Kandy Saulmen 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.



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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-5 BMI08081223-01 A	* * * None Found * * *	ND	2.0 μg/L	08/12/08	08/08/08	08/15/08
Client ID : Lab ID :	MW-6 BMI08081223-02A	*** None Found ***	ND	2.0 μg/L	08/12/08	08/08/08	08/15/08
Client ID : Lab ID :	<b>TB-13-08/08/08</b> BMI08081223-03A	*** None Found ***	ND	2.0 µg/L	08/12/08	08/08/08	08/15/08

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

Walter Aridman Roger Scholl 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 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.

8/25/08

Report Date Page 1 of 1



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#### ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201 Job#: <u>G005862 / JPL Groundwater Monitoring</u>	Attn:         David Conner           Phone:         (619) 574-4827           Fax:         (614) 458-6641
Alpha Analytical Number: BMI08081223-01A Client I.D. Number: MW-5	Sampled: 08/08/08 Received: 08/12/08 Analyzed: 08/15/08

#### 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	2.0	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	2.0	µg/L	40	Bromoform	ND	0.50	µg/L
6	Trichlorofluoromethane	ND	0.50	µg/L	41	Styrene	ND	0.50	μ <b>g/L</b>
7	1,1-Dichloroethene	ND	0.50	µg/L	42	o-Xylene	ND	0.50	µg/L
8	Dichloromethane	ND	2.0	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	2.0	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	3.0	µg/L
25	Trichloroethene	ND	0.50	µg/L	60	1,2,4-Trichlorobenzene	ND	2.0	µg/L
26	Bromodichloromethane	ND	0.50	µg/L	61	Naphthalene	ND	2.0	µg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	2.0	µg/L
28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	2.0	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	100	(70-130)	%REC
31	Toluene	ND	0.50	μg/L	66	Surr: 4-Bromofluorobenzene	112	(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	2.0	µg/L					
35	Tetrachloroethene	ND	0.50	μg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Saulmer

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.

Walter Aridmen

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

8/25/08

**Report Date** 

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### ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201 Job#: <u>G005862 / JPL</u> Groundwater Monitoring	Attn:       David Conner         Phone:       (619) 574-4827         Fax:       (614) 458-6641
Alpha Analytical Number: BMI08081223-02A Client I.D. Number: MW-6	Sampled: 08/08/08 Received: 08/12/08 Analyzed: 08/15/08

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	2.0	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	2.0	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	2.0	µg/L	43	1,1,2,2-Tetrachioroethane	ND	0.50	µg/L
9	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	2.0	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	0.61	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	μ <b>g/L</b>
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	3.0	μg/L
25	Trichloroethene	2.2	0.50	µg/L	60	1,2,4-Trichlorobenzene	ND	2.0	μg/L
26	Bromodichloromethane	ND	0.50	µg/L	61	Naphthalene	ND	2.0	µg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	2.0	µg/L
28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	2.0	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	0.78	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	112	(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	2.0	μg/L					
35	Tetrachloroethene	1.3	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Rogen Scholl

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

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Walter Aridmon

8/25/08 **Report Date** 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.

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: BMI08081223-03A Client I.D. Number: TB-13-08/08/08	Sampled: 08/08/08 Received: 08/12/08 Analyzed: 08/15/08

Volatile Organics by GC/MS

Compound		Concentration	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	2.0	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	2.0	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	2.0	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	2.0	μ <b>g/L</b>
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	μ <b>g/L</b>
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	NĎ	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	μ <b>g/L</b>
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	3.0	µg/L
25	Trichloroethene	ND	0.50	µg/L	60	1,2,4-Trichlorobenzene	ND	2.0	μ <b>g/L</b>
26	Bromodichloromethane	ND	0.50	µg/L	61	Naphthalene	ND	2.0	µg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	2.0	μ <b>g/L</b>
28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	2.0	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	100	(70-130)	%REC
31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	112	(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	2.0	μg/L					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Sandmen

Walter Arridmon

8/25/08

**Report Date** 

Page 1 of 1

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



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### **VOC Sample Preservation Report**

#### Work Order: BMI08081223 Project: G005862 / JPL Groundwater Monitoring Alpha's Sample ID Client's Sample ID Matrix pН 08081223-01A 2 MW-5 Aqueous 08081223-02A 2 MW-6 Aqueous 08081223-03A TB-13-08/08/08 Aqueous 2

8/25/08 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 : 08/12/08

Job#: G005862 / JPL Groundwater Monitoring

	Specific Conductance at 25°C EPA Method 120.1 / SM2510B / SW9050A								
		Parameter	Concentration	Reporting Limit	Date Date Sampled Analyzed				
Client ID : Lab ID :	<b>MW-5</b> BMI08081223-01A	Specific Conductance (at 25°C)	340	10 µS/cm	08/08/08 08/12/08				
Client ID : Lab ID :	<b>MW-6</b> BMI08081223-02A	Specific Conductance (at 25°C)	1,300	10 μS/cm	08/08/08 08/12/08				

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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

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8/25/08 Report Date



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### **ANALYTICAL REPORT**

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201

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

Job#: G005862 / JPL Groundwater Monitoring

		Parameter	Concentration	Reporting Limit	Date Date Sampled Analyzed
	MW-5 BMI08081223-01A	Perchlorate	1.12	1.00 μg/L	08/08/08 08/14/08
	MW-6 BMI08081223-02A	Perchlorate	2.02	1.00 μg/L	08/08/08 08/14/08

Roger Scholl

Kandy Saular

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

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8/25/08 **Report Date** 



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### **ANALYTICAL REPORT**

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201

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

Job#: G005862 / JPL Groundwater Monitoring

Metals by ICPMS EPA Method 200.8							
	Parame	eter	Concentration	Reporting Limit	Date Sampled	Date Analyzed	
Client ID : MW-: Lab ID : BMI0	5 8081223-01A Chromium	n (Cr)	ND	0.0050 mg/L	08/08/08	08/15/08	
Client ID : MW- Lab ID : BMI0	6 8081223-02A Chromium	n (Cr)	0.0099	0.0050 mg/L	08/08/08	08/15/08	
Client ID : MW- Lab ID : BMI0	15 8081223-04A Chromium	n (Cr)	0.0051	0.0050 mg/L	08/08/08	08/15/08	

ND = Not Detected

Roger Scholl

Kandy

Iter Airihan

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**Report Date** 



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<b>Date:</b> 22-Aug-08	QC Summary Report								Work Order: 08081223	
Method Blar File ID: 18	nk		Туре	MBLK	Test Code: Batch ID: 20		thod 314.0		: 08/14/2008 10:28	_
Sample ID:	MBLK-20433	Units : µg/L		Run ID	IC_3_08081	4A		Prep Date:	08/13/2008	
Analyte		Result	PQL	Spk\	/al SpkRefVa	al %REC	CLCL(ME)	UCL(ME) RPDRe	fVal %RPD(Limit)	Qual
Perchlorate		ND		1		-				
Laboratory ] File ID: 16	Fortified Blank		Туре	LFB	Test Code:		thod 314.0			
Sample ID:	LFB-20433	Units : µg/L		Run ID:	Batch ID: 20			Prep Date:	: 08/14/2008 09:51 08/13/2008	
Analyte		Result	PQL	Spk∖	/al_SpkRefVa	al %REC	C LCL(ME)	UCL(ME) RPDRe	fVal %RPD(Limit)	Qual
Perchlorate		22.8		2	25	91	85	115		
Sample Mat	rix Spike		Туре	LFM	Test Code:	EPA Me	thod 314.0	•		
File ID: 20					Batch ID: 20	433		Analysis Date	: 08/14/2008 11:05	
Sample ID:	08081251-01ALFM	Units : µg/L		Run ID	IC_3_08081	4A		Prep Date:	08/13/2008	
Analyte		Result	PQL	Spk\	al SpkRefVa	al %REC	C LCL(ME)	UCL(ME) RPDRe	fVal %RPD(Limit)	Qual
Perchlorate		1890	10	0 12	50 747.	7 91	80	120		
Sample Mat	rix Spike Duplicate		Туре	LFMD	Test Code:	EPA Me	thod 314.0	•		
File ID: 21					Batch ID: 20	433		Analysis Date	: 08/14/2008 11:23	
Sample ID:	08081251-01ALFMD	Units : µg/L Run ID: IC_3_080814A Prep Date: 08/1					08/13/2008			
Analyte		Result	PQL				C LCL(ME)	UCL(ME) RPDRe	Val %RPD(Limit)	Qual
Perchlorate		1920	10	0 12	50 747.	7 93	80	120 188	9 1.4(15)	

#### Comments:



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Date: 22-Aug-08		QC S	ummar	y Report			Work Orde 08081223	
Method Blank File ID:		Туре М		est Code: EPA Met atch ID: W0812CN	hod 120.1	/ SM2510B / SW90 Analysis Date:	50A 08/12/2008 00:00	
Sample ID: MBLK-W0812CN	Units : <b>µS/c</b>	m	Run ID: W	ETLAB_080812D		Prep Date:	08/12/2008	
Analyte	Result	PQL	SpkVal	SpkRefVal %REC	LCL(ME)	UCL(ME) RPDRef	/al %RPD(Limit)	Qua
Specific Conductance (at 25°C)	ND	1(	)					
Laboratory Control Spike File ID:		Type L		est Code: EPA Met atch ID: W0812CN	hod 120.1	/ SM2510B / SW90 Analysis Date:	50A 08/12/2008 00:00	
Sample ID: LCS-W0812CN	Units : µS/c	m	Run ID: W	ETLAB 080812D		Prep Date:	08/12/2008	
Analyte	Result	PQL		-	LCL(ME)	UCL(ME) RPDRef	/al %RPD(Limit)	Qua
Specific Conductance (at 25°C)	1410	1(	) 1410	99.9	98	102		

#### Comments:



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<b>Date:</b> 25-Aug-08	(	DC S	ummar	y Repor	t				Work Orde 08081223	
Method Blank File ID: 081408.B\B034SMPL.D		Type I		est Code: El atch ID: 204:		hod 200.8		sis Date:	08/15/2008 12:56	
Sample ID: MB-20435	Units : mg/L			P/MS_0808			Prep [		08/13/2008	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qual
Chromium (Cr)	ND	0.00	5							
Laboratory Control Spike File ID: 081408.B\B035_LCS.D		Туре I		est Code: El atch ID: 204		hod 200.8		sis Date:	08/15/2008 13:02	
Sample ID: LCS-20435	Units : mg/L		Run ID: IC	P/MS_0808	15B		Prep [	Date:	08/13/2008	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qual
Chromium (Cr)	0.0505	0.00	5 0.05		101	80	120			
Sample Matrix Spike File ID: 081408.B\B038SMPL.D		Type I		est Code: El atch ID: 204		hod 200.8		sis Date:	08/15/2008 13:19	
Sample ID: 08081223-01AMS	Units : mg/L		Run ID: IC	P/MS_0808	15B		Prep [	Date:	08/13/2008	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qual
Chromium (Cr)	0.0509	0.00	5 0.05	0	102	80	120			
Sample Matrix Spike Duplicate File ID: 081408.B\B039SMPL.D		Type I		est Code: El		hod 200.8		aia Data:	08/15/2008 13:25	
	l latta a con d			atch ID: 204					08/13/2008 13:25	
Sample ID: 08081223-01AMSD Analyte	Units : <b>mg/L</b> Result	PQL		P/MS_0808			Prep I		Val %RPD(Limit)	Qual
Chromium (Cr)	0.0504			Spkreival 0	101	80	120	0.050		
	0.0504	0.00	5 0.05	0	101	00	120	0.050	00 0.9(20)	

#### Comments:



Method Blank File ID: 08081513.D	Ту	/pe MBLK	Test Code:				
File ID: 08081513 D					<del>`</del>		
			Batch ID: MS15W0815	K5	Analysis Date:	08/15/2008 18:02	
Sample ID: MBLK MS15W0815K Unit	s∶ <b>µg/L</b>		D: MSD_15_080815B		Prep Date:	08/15/2008	
Analyte Ri	esult P	PQL Sp	kVal SpkRefVal %REC L	CL(ME) L	JCL(ME) RPDRef	/al %RPD(Limit)	Qua
Dichlorodifluoromethane NE		0.5					
Chloromethane NE Vinyl chloride NE		1					
Vinyl chloride NE Chloroethane NE		0.5 0.5					
Bromomethane		1					
Trichlorofluoromethane NE		0.5					
1,1-Dichloroethene ND Dichloromethane ND		0.5					
Dichloromethane ND Freon-113 ND		1 0.5					
trans-1,2-Dichloroethene NE		0.5					
Methyl tert-butyl ether (MTBE) NE	)	0.5					
1,1-Dichloroethane NE		0.5					
2-Butanone (MEK) NC cis-1,2-Dichloroethene NC		10 0.5					•
Bromochloromethane NE		0.5					
Chloroform ND	)	0.5					
2,2-Dichloropropane NE		0.5					
1,2-DichloroethaneNE1,1,1-TrichloroethaneNE		0.5 0.5					
1,1-Dichloropropene ND		0.5 0.5					
Carbon tetrachloride NE		0.5					
Benzene ND		0.5					
Dibromomethane NE 1,2-Dichloropropane NE		0.5					
1,2-Dichloropropane NE Trichloroethene NE		0.5 0.5					
Bromodichloromethane		0.5					
4-Methyl-2-pentanone (MIBK) ND		2.5					
cis-1,3-Dichloropropene NE		0.5					
trans-1,3-Dichloropropene NE 1,1,2-Trichloroethane NE		0.5 0.5					
Toluene		0.5					
1,3-Dichloropropane ND		0.5					
Dibromochloromethane NE		0.5					
1,2-Dibromoethane (EDB) NE Tetrachloroethene NE		1 0.5					
1,1,1,2-Tetrachloroethane NE		0.5					
Chlorobenzene NE		0.5					
Ethylbenzene NE		0.5					
m,p-Xylene ND Bromoform ND		0.5					
Styrene NE		0.5 0.5					
o-Xylene ND		0.5					
1,1,2,2-Tetrachloroethane NE		0.5					
1,2,3-Trichloropropane NE Isopropylbenzene NE		1					
Bromobenzene NE		0.5 0.5					
n-Propylbenzene NE		0.5					
4-Chlorotoluene NE		0.5					
2-Chlorotoluene NC 1,3,5-Trimethylbenzene NC		0.5					
tert-Butyibenzene ND		0.5 0.5					
1,2,4-Trimethylbenzene NE		0.5					
sec-Butylbenzene ND	)	0.5					
1,3-Dichlorobenzene NE		0.5					
1,4-DichlorobenzeneNE4-IsopropyltolueneNE		0.5 0.5					
1,2-Dichlorobenzene NE		0.5					
n-Butylbenzene ND	)	0.5					
1,2-Dibromo-3-chloropropane (DBCP) NE		2.5					
1,2,4-Trichlorobenzene NE Naphthalene NE		1					
Hexachlorobutadiene ND		1					
1,2,3-Trichlorobenzene ND	)	1					
Surr: 1,2-Dichloroethane-d4	9.9		10 99	75	128		
Surr: Toluene-d8	9.92		10 99	80	120		



Date: 25-Aug-08	(	OC Su	mmary ]	Report			Work Ord 0808122	
Surr: 4-Bromofluorobenzene	10.8		10	108	70	130		
Laboratory Control Spike File ID: 08081511.D		Type LC		Code: 1 ID: <b>MS15W081</b>	5K5		Date: 08/15/2008 17:18	
Sample ID: LCS MS15W0815K	Units : <b>µg/L</b>	F		_15_080815B		Prep Dat		
Analyte	Result	PQL	SpkVal Sp	kRefVal %REC	LCL(ME	) UCL(ME) RF	DRefVal %RPD(Limit)	Qua
Dichlorodifluoromethane	7.32	1	10	73	70	130		
Chloromethane	9.12	2	10	91	70	130		
Vinyl chloride	10.5	1	10	105	70	130		
Chloroethane	12.4	1	10	124	70	130		1.54
Bromomethane	14.8	2	10	148	70	130		L51
Trichlorofluoromethane	15.1	1	10	151	70	130		L51
1,1-Dichloroethene Dichloromethane	10.9	1	10	109	70	130 130		
trans-1,2-Dichloroethene	10.5 11.3	2 1	10 10	105 113	70 70	130		
Methyl tert-butyl ether (MTBE)	12.6	0.5	10	126	70	130		
1,1-Dichloroethane	11.1	1	10	111	70	130		
cis-1,2-Dichloroethene	11.6	1	10	116	70	130		
Bromochloromethane	11.2	1	10	112	70	130		
Chloroform	11.2	1	10	112	70	130		
2,2-Dichloropropane	13.1	1	10	131	70	130		L51
1,2-Dichloroethane	12.5	1	10	125	70	130		
1,1,1-Trichloroethane	12.4	1	10	124	70	130		
1,1-Dichloropropene Carbon tetrachloride	12.3	1	10	123	70	130		
Benzene	12 10.9	1 0.5	10 10	120 109	70 70	130 130		
Dibromomethane	12.4	0.5	10	124	70	130		
1,2-Dichloropropane	10.9	1	10	109	70	130		
Trichloroethene	10.8	1	10	108	70	130		
Bromodichloromethane	12.4	1	10	124	70	130		
cis-1,3-Dichloropropene	10.7	1	10	107	70	130		
trans-1,3-Dichloropropene	11	1	10	110	70	130		
1,1,2-Trichloroethane Toluene	11.4 9.59	1 0.5	10 10	114 96	70 70	130 130		
1,3-Dichloropropane	9.59 10.2	0.5	10	96 102	70	130		
Dibromochloromethane	9.56	1	10	96	70	130		
1,2-Dibromoethane (EDB)	21.2	2	20	106	70	130		
Tetrachloroethene	9.43	1	10	94	70	130		
1,1,1,2-Tetrachloroethane	10.1	1	10	101	70	130		
Chlorobenzene	9.64	1	10	96	70	130		
Ethylbenzene	10.3	0.5	10	103	70	130		
m,p-Xylene Bromoform	10.7 9.32	0.5 1	10	107 93	70 70	130 130		
Styrene	9.88	1	10 10	99	70	130		
o-Xylene	9.83	0.5	10	98	70	130		
1,1,2,2-Tetrachloroethane	8.86	1	10	89	70	130		
1,2,3-Trichloropropane	18.8	2	20	94	70	130		
Isopropylbenzene	11.6	1	10	116	70	130		
Bromobenzene	10	1	10	100	70	130		
n-Propylbenzene 4-Chlorotoluene	11.4	1	10	114	70	130 130		
2-Chlorotoluene	10.9 10.9	1	10 10	109 109	70 70	130		
1,3,5-Trimethylbenzene	11.8	1	10	118	70	130		
tert-Butylbenzene	12.1	1	10	121	70	130		
1,2,4-Trimethylbenzene	11.7	1	10	117	70	130		
sec-Butylbenzene	11.1	1	10	111	70	130		
1,3-Dichlorobenzene	10.1	1	10	101	70	130		
1,4-Dichlorobenzene	10	1	10	100	70	130		
4-Isopropyltoluene 1,2-Dichlorobenzene	11.5 9.31	1	10 10	115 93	70 70	130 130		
n-Butylbenzene	9.31	1	10	93 120	70	130		
1,2-Dibromo-3-chloropropane (DBCP)	53.2	3	50	120	57	133		
1,2,4-Trichlorobenzene	9.02	2	10	90	70	130		
Naphthalene	9.24	2	10	92	70	130		
Hexachlorobutadiene	19.5	2	20	98	70	130		
1,2,3-Trichlorobenzene	9.14	2	10	91	70	130		
Surr: 1,2-Dichloroethane-d4	8.75		10	88	75	128		
Surr: Toluene-d8 Surr: 4-Bromofluorobenzene	9.31		10	93 111	80 70	120 130		
	11.1		10	111	70	130		



<b>Date:</b> 25-Aug-08		(	)C Su	mmar	y Repor	t			<b>Work Ord</b> 0808122	
Sample Ma	-		Type M		est Code: _					
File ID: 08081	514.D			Ba	atch ID: MS	15W081	15K5	•	ate: 08/15/2008 18:25	
Sample ID:	08081421-01AMS	Units : µg/L	I		SD_15_080			Prep Date:	08/15/2008	
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME) RPD	RefVal %RPD(Limit)	Qual
Dichlorodifluo	romethane	46.5	2.5	50	0	93	20	137		
Chloromethan	e	44.2	10	50	0	88	31	148		
Vinyl chloride		52.6	2.5	50	0	105	46	138		
Chloroethane		59.5	2.5	50	0	119	34	170		
Bromomethan Trichlorofluoro		57.6	10	50	0	115	20	189 156		
1,1-Dichloroet		70.6 49.1	2.5 2.5	50 50	0	141 98	51 66	132		
Dichlorometha		48.6	10	50 50	0	97	48	145		
trans-1,2-Dich		51.6	2.5	50	Õ	103	68	132		
Methyl tert-but	tyl ether (MTBE)	66.6	1.3	50	5.25	123	62	139		
1,1-Dichloroet		51.1	2.5	50	0	102	70	130		
cis-1,2-Dichlor		53.2	2.5	50	0	106	70	130		
Bromochloron	nethane	51.7	2.5	50	0	103	70	130		
Chloroform		52.3	2.5	50	0	105	70	130		
2,2-Dichloropr 1,2-Dichloroet	•	58.5	2.5	50	0	117 122	50 65	152 136		
1,1,1-Trichloro		116 54.9	2.5 2.5	50 50	55.24 0	110	65 67	133		
1,1-Dichloropr		54.5	2.5	50	0	109	70	130		
Carbon tetracl		53.1	2.5	50	õ	106	61	142		
Benzene		49.4	1.3	50	0	99	70	130		
Dibromometha	ane	56.3	2.5	50	0	113	69	130		
1,2-Dichloropr	•	51.6	2.5	50	0	103	70	132		
Trichloroether		47.7	2.5	50	0	95	69	130		
Bromodichloro		58.6	2.5	50	0	117	70	130		
cis-1,3-Dichlor trans-1,3-Dich	• •	49.3	2.5	50	0	99	66 65	130 134		
1,1,2-Trichlord		50.3 53.7	2.5 2.5	50 50	0	101 107	65 67	134		
Toluene	beilane	43.1	1.3	50 50	0	86	67	130		
1,3-Dichloropr	opane	48.1	2.5	50	Ő	96	70	130		
Dibromochloro	omethane	44.8	2.5	50	Ő	90	66	130		
1,2-Dibromoet	thane (EDB)	98.6	10	100	0	99	70	130		
Tetrachloroeth		40.6	2.5	50	0	81	59	135		
1,1,1,2-Tetrac		46.1	2.5	50	0	92	70	130		
Chlorobenzen	e	43.8	2.5	50	0	88	70	130		
Ethylbenzene m,p-Xylene		45.7 47.8	1.3 1.3	50 50	0	91 96	70 69	130 130		
Bromoform		47.8	2.5	50 50	0	90 90	09 57	132		
Styrene		45.2	2.5	50	ő	90	58	135		
o-Xylene		44.8	1.3	50	0	90	70	130		
1,1,2,2-Tetrac	hloroethane	41.3	2.5	50	0	83	65	137		
1,2,3-Trichlord		87.9	10	100	0	88	67	132		
Isopropylbenz		53	2.5	50	0	106	70	130		
Bromobenzen n-Propylbenze		47.7	2.5	50	0	95	70	130		
4-Chlorotoluer		51.1 51.3	2.5 2.5	50 50	0	102 103	70 70	130 130		
2-Chlorotoluer		51.3	2.5	50 50	0	102	70	130		
1,3,5-Trimethy		54	2.5	50	Ő	108	68	141		
tert-Butylbenz		55	2.5	50	0	110	70	130		
1,2,4-Trimethy	lbenzene	53.9	2.5	50	0	108	67	146		
sec-Butylbenz		50.1	2.5	50	0	100	70	130		
1,3-Dichlorobe		48.1	2.5	50	0	96	70	130		
1,4-Dichlorobe		47.8	2.5	50	0	96	70	130		
4-Isopropyltolu 1,2-Dichlorobe		52.9 44.7	2.5	50 50	0	106 89	70 70	133 130		
n-Butylbenzer		44.7 54.6	2.5 2.5	50 50	0	89 109	70 66	145		
	-chloropropane (DBCP)	254	2.5	250	0	103	57	137		
1,2,4-Trichlord		43.8	10	200 50	Ő	88	39	157		
Naphthalene		44.4	10	50	Ő	89	26	163		
Hexachlorobu		92.2	10	100	0	92	35	172		
1,2,3-Trichloro		42.7	10	. 50	0		30	170		
Surr: 1,2-Dich		44.1		50		88	75	128		
Surr: Toluene	-d8 ifluorobenzene	46.3		50		93	80 70	120 130		
Sun: 4-Dromo	muoropenzene	57.4		50		115	70	130		



Date: 25-Aug-08		(	DC Su	ımmar	y Repor	t	<u></u>			Work Ord 0808122	
Sample Matrix Spike	e Duplicate		Type M		est Code: _						
File ID: 08081515.D				B	atch ID: MS	15W08	15K5			8/15/2008 18:47	
Sample ID: 0808142	1-01AMSD	Units : <b>µg/L</b>	]	Run ID: M	SD_15_080	815B		Prep	Date: 08	3/15/2008	
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qua
Dichlorodifluoromethane		45.9	2.5	50	0	92	20	137	46.54	1.3(20)	
Chloromethane		46.5	10	50	0		31	148	44.17	5.1(20)	
Vinyl chloride		50.9	2.5	50	0		46	138	52.55	3.3(20)	
Chloroethane		56.4	2.5	50	0		34	170	59.46	5.3(20)	
Bromomethane Trichlorofluoromethane		67.8	10	50	0		20	189	57.63 70.64	16.3(20) 8.3(20)	
1,1-Dichloroethene		65 47.1	2.5 2.5	50 50	0		51 66	156 132	70.64 49.1	4.1(20)	
Dichloromethane		48.1	10	50 50	0	-	48	145	48.56	0.9(20)	
trans-1,2-Dichloroethene		49.7	2.5	50	õ		68	132	51.64	3.8(20)	
Methyl tert-butyl ether (N	ITBE)	66.9	1.3	50	5.25		62	139	66.55	0.5(20)	
1,1-Dichloroethane		49.3	2.5	50	0		70	130	51.09	3.5(20)	
cis-1,2-Dichloroethene		53.1	2.5	50	0		70	130	53.19	0.2(20)	
Bromochloromethane		52	2.5	50	0		70	130	51.67	0.7(20)	
Chloroform 2,2-Dichloropropane		50.9 57	2.5 2.5	50 50	0		70 50	130 152	52.27 58.48	2.7(20) 2.6(20)	
1,2-Dichloroethane		117	2.5 2.5	50 50	55.24		65	132	116	0.6(20)	
1,1,1-Trichloroethane		52.5	2.5	50	0.24		67	133	54.93	4.5(20)	
1,1-Dichloropropene		52.2	2.5	50	0		70	130	54.51	4.4(20)	
Carbon tetrachloride		50.3	2.5	50	Ő		61	142	53.09	5.5(20)	
Benzene		48	1.3	50	0		70	130	49.35	2.8(20)	
Dibromomethane		55.4	2.5	50	0	111	69	130	56.25	1.5(20)	
1,2-Dichloropropane		51.1	2.5	50	0		70	132	51.6	1.0(20)	
Trichloroethene		46	2.5	50	0		69	130	47.67	3.7(20)	
Bromodichloromethane		58	2.5	50	0		70	130	58.6	1.0(20) 1.5(20)	
cis-1,3-Dichloropropene trans-1,3-Dichloropropen	0	48.5 50.1	2.5 2.5	50 50	0		66 65	130 134	49.25 50.33	0.5(20)	
1,1,2-Trichloroethane		53.4	2.5	50 50	0		67	132	53.69	0.5(20)	
Toluene		42.7	1.3	50	ő		67	130	43.1	0.9(20)	
1,3-Dichloropropane		49.3	2.5	50	Ő		70	130	48.11	2.5(20)	
Dibromochloromethane		46.2	2.5	50	0	92	66	130	44.8	3.1(20)	
1,2-Dibromoethane (EDE	3)	102	10	100	0		70	130	98.59	3.0(20)	
Tetrachloroethene	_	40.3	2.5	50	0		59	135	40.61	0.8(20)	
1,1,1,2-Tetrachloroethan Chlorobenzene	е	46.8	2.5	50	0		70	130	46.1	1.4(20) 0.6(20)	
Ethylbenzene		44.1 45.2	2.5 1.3	50 50	0		70 70	130 130	43.84 45.74	1.1(20)	
m,p-Xylene		47	1.3	50	0		69	130	47.84	1.8(20)	
Bromoform		46.2	2.5	50	Ő		57	132	45.18	2.2(20)	
Styrene		45.8	2.5	50	0	92	58	135	45.15	1.3(20)	
o-Xylene		44.5	1.3	50	0		70	130	44.82	0.8(20)	
1,1,2,2-Tetrachloroethan	e	43.4	2.5	50	0		65	137	41.34	4.9(20)	
1,2,3-Trichloropropane		90.3	10	100	0		67	132	87.9	2.7(20)	
Isopropylbenzene Bromobenzene		51.9	2.5	50	0		70 70	130 130	53 47.66	2.1(20) 0.5(20)	
n-Propylbenzene		47.9 50.5	2.5 2.5	50 50	0 0		70	130	51.13	1.2(20)	
4-Chlorotoluene		51.3	2.5	50	Ő		70	130	51.26	0.2(20)	
2-Chlorotoluene		50.4	2.5	50	Ő		70	130	51.19	1.6(20)	
1,3,5-Trimethylbenzene		53.1	2.5	50	0	106	68	141	54	1.7(20)	
tert-Butylbenzene		54.1	2.5	50	0		70	130	55.01	1.7(20)	
1,2,4-Trimethylbenzene		53.8	2.5	50	0		67	146	53.85	0.0(20)	
sec-Butylbenzene		49.6	2.5	50	0		70	130	50.08	1.0(20)	
1,3-Dichlorobenzene 1,4-Dichlorobenzene		47.8	2.5	50	0		70 70	130	48.09 47.83	0.6(20)	
4-Isopropyltoluene		48.5 51.7	2.5 2.5	50 50	0 0		70 70	130 133	47.83 52.94	1.5(20) 2.4(20)	
1,2-Dichlorobenzene		45.7	2.5	50	0		70	130	44.68	2.2(20)	
n-Butylbenzene		54.3	2.5	50	0		66	145	54.59	0.5(20)	
1,2-Dibromo-3-chloropro	pane (DBCP)	260	15	250	Ő		57	137	254.1	2.4(20)	
1,2,4-Trichlorobenzene	•	46.3	10	50	Ő	93	39	157	43.83	5.5(20)	
Naphthalene		46.7	10	50	0		26	163	44.41	5.1(20)	
Hexachlorobutadiene		96	10	100	0		35	172	92.23	4.0(20)	
1,2,3-Trichlorobenzene	cl 4	46	10	50	0		30	170	42.73	7.4(20)	
Surr: 1,2-Dichloroethane Surr: Toluene-d8	-04	44		50		88	75 80	128 120			
	ene	46.5 56.2		50 50		93 112	80 70	120			



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

OC Summary Report

Work Order: 08081223

#### 25-Aug-08 Comments:

Date:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

L51 = Analyte recovery was above acceptance limits for the LCS, but was acceptable in the MS/MSD.

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Billing Information : Battelle			CHA	IN-C	)F-Cl	USTC	CHAIN-OF-CUSTODY RECOF	RECO	ORD			AMENDED Page: 1 of 1	1 of 1
505 King Avenue	æ			A	lpha A	nalyti	Alpha Analytical, Inc.					DIATIONO1777	~
Columbus, OH 43201	13201		25	5 Glendale TEL: (	- Avenue, Su 775) 355-1(	uite 21 Spa )44 FAX:	255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778 TEL: (775) 355-1044 FAX: (775) 355-0406	89431-577 406	78	Repo	or KOr der and a brt Due By :	Report Due By : 5:00 PM On : 26-Aug-08	-Aug-08
Client:		Rep	<b>Report Attention</b>	1	Phone Number	nber	EMail Address	ddress					
Battelle Memorial Institute	al Institute	Dav	David Conner	-	(619) 574-4827 x	827 x	connerd@battelle.org	battelle.org					
505 King Avenue	æ									ED	EDD Required : Yes	es	
Columbus, OH 43201	13201										Sampled by : Client	lient	
PO: 218017											Cooler Temp	Samples Received	Date Printed
Client's COC #: 026271		Job : G005862/JPL Groundwater Monitoring	5862/JPL (	Groundwa	ter Monitor	ing					4 °C	12-Aug-08	13-Aug-08
QC Level: S4	= Final Rpt, MBLK, InitCal/ConCal data, LCS, MS/MSD With Surrogates	Cal/ConCal	data, LCS	, MS/MSD	With Surn	ogates		3					
									Requested Tests	ed Tests			
Alpha Sample ID	Client Sample ID	Collecti Matrix Date	9	No. of Bottles Alpha Sub	tes b TAT	314_W	CONDUCTI METALS_D VOC_TIC_ VOC_W	METALS_D W	VOC_TIC_	VOC_W		Sample	Sample Remarks
BMI08081223-01A MW-5	MW-5	AQ 08/08/08 08:10		5 0	10	Perchlorate	Perchlorate Perchlorate	ç	VOC by 524 VOC by 524 Criteria Criteria	VOC by 524 Criteria			

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. almay Signature TUCau **Print Name** Alpha Analytical, Inc. Company 8/13/08 1450 Date/Time

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.

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

**Comments:** No security seals. Frozen ice, Client provided Temp Blank rec'd @ 4°. Level IV QC. Samples should be used as the control spike sample if possible (I.E.; MS/MSD). Amended 8/13/08 14:50 to add JPL Groundwater Monitoring to Job Name, due to login error. KM :

BMI08081223-04A MW-15

AQ 08/08/08 13:00

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VOC by 524 Criteria

VOC by 524 Criteria

Reno Trip Blanks 6/24/08

BMI08081223-03A TB-13-08/08/08

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08/08/08 00:00

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BMI08081223-02A

MW-6

AQ

08/08/08 11:40

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Perchlorate

Perchlorate

Q

VOC by 524 VOC by 524 Criteria Criteria

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

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	boratory with this COC. The liability of the laboratory is limited to the amount paid for the report	re made. Hazardous samples will be returned to client or disposed of at client expense.	

Logged in by:	
1 Munay	Signature
Kmonay	Print Name Company Date/Time
Alpha Analytical, Inc.	Company
8/12/08 1330	Date/Time

**Comments:** 

No security seals. Frozen ice. Client provided Temp Blank rec'd @.4°. Level IV QC. Samples should be used as the control spike sample if possible (I.E.: MS/MSD). :	

Billing Information : Battelle	CH	IAIN-0	F-CUS	CHAIN-OF-CUSTODY RECO	RECOH	RD	C.Δ	Page:	1 of 1
505 King Avenue		Al	pha Ana	Alpha Analytical, Inc.	°.		WarkOrdar .	WorkOrder BMI00081333	
Columbus, OH 43201	t 175 fasterez	255 Glendale A	venue, Suite 2	255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778	a 89431-5778			DIVIJOUOTZZ	
		TEL: (7	75) 355-1044	TEL: (775) 355-1044 FAX: (775) 355-0406	0406	×	eport Due By : 5	Report Due By : 5:00 PM On : 26-Aug-08	5-Aug-08
Client:	Report Attention		Phone Number	r EMail Address	ddress	a second a second			
Battelle Memorial Institute	David Conner		(619) 574-4827 x		connerd@battelle.org				
505 King Avenue	-						EDD Required : Yes	3	
Columbus, OH 43201							Sampled by : Client	ient	
PO: 218017							Cooler Temp	Samples Received	Date Printed
Client's COC #: 026271	Job : G005862						4 °C	12-Aug-08	12-Aug-08
QC Level : S4 = Final Rpt, MBLK, I	Final Rpt, MBLK, InitCal/ConCal data, LCS, MS/MSD With Surrogates	.CS, MS/MSD \	Vith Surrogat	es					
					Re	<b>Requested Tests</b>	its		
Alpha Client Sample ID Sample ID	Collection Matrix Date	No. of Bottles Alpha Sub	TAT	314_W CONDUCTI VITY	CONDUCTI METALS_D VOC_TIC_ VOC_W		` <b>X</b>	Sample	Sample Remarks
BMI08081223-01A MW-5	AQ 08/08/08 08:10	5	10 Per	Perchlorate Perchlorate		VOC by 524 VOC by 524 Criteria Criteria	524		
BMI08081223-02A MW-6	AQ 08/08/08 11:40	5 0	10 Per	Perchlorate Perchlorate	Cr VOC	VOC by 524 VOC by 524 Criteria Criteria	524 ia		
BMI08081223-03A TB-13-08/08/08	AQ 08/08/08 00:00	2	10		CH CH	VOC by 524 VOC by 524 Criteria Criteria	524 ia	Reno Trip	Reno Trip Blanks 6/24/08
BMI08081223-04A MW-15	AQ 08/08/08 13:00	1	10		Cr				

Billing Information: Name GERALD YOMPKINS	Alp 255 Spar	Alpha Analytical, Inc. 255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778	Samples Collected From Which State? AZCANVWAF IDOROTHERF	State? 0262/1
te, Zip Cotu umber	Fax	Phone (775) 355-1044 Fax (775) 355-0406	Analyses Required	,
Client Name DAVID CONNER	P.O.# 218017	Job # 67 005 862	1 1 10 m 10	Required QC Level?
	EMail Address		24.	/ I II (III) IV
Â	Phone # 6/9-726-731/	Fax #		EDD/EDF? YES NO
Sampled by	Report Attention	of		Global ID #
Sampled Sampled Below Lab ID Number (Use Only)	Sample Description	TAT Field "See below		REMARKS
0510 8/8/8 A& BM108081223-01	MW-5	NORM 5- X	×	
1040 A2	Mr-K	si s	××	
03	713-13-08/08/08	2 X		TTUP BLANK
1300 1 1 00Y	MW-15		×	
ADDITIONAL INSTRUCTIONS:				
Signature	Print Name	Cor	Company	Date Time
Relinquished by	CHISE BROWN	INSIGH.	T EECT ON	08/08 1300
Received by	KMMay	AA	8/12	2/08 1315
Relinquished by				
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 behavior of the behavior is limited to the amount poid for the poort	OT - Other AR - Air reported unless other arrangements are provided by the laboratory with this on	**: L-Liter V-Voa S-Soil Jar O made. Hazardous samples will be returned The liability of the laboratory is limited to	O-Orbo T-Tedlar B-Brass ed to client or disposed of at client experi-	P-Plastic OT-Other inse. 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 co	<ol> <li>The liability of the laboratory is limited to</li> </ol>	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-Aug-08

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

**CASE NARRATIVE** 

G005862 / JPL Grou	ndwater Monitoring		
BMI08081251		<b>Cooler Temp:</b>	4 °C
Sample ID	Client's Sample ID	Mat	rix
251-01A	MW-13	Aque	ous
251-02A	MW-8	Aque	ous
251-03A	TB-14-08/11/08	Aque	ous
	BMI08081251 Sample ID 251-01A 251-02A	Sample IDClient's Sample ID251-01AMW-13251-02AMW-8	BMI08081251Cooler Temp:Sample IDClient's Sample IDMate251-01AMW-13Aque251-02AMW-8Aque

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.

Walter Hinihun Roger Scholl Kandy Sandmer

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 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-13						
Lab ID :	BMI08081251-01A	* * * None Found * * *	ND	2.0 µg/L	08/12/08	08/11/08	08/14/08
Client ID :	MW-8						
Lab ID :	BMI08081251-02A	* * * None Found * * *	ND	2.0 µg/L	08/12/08	08/11/08	08/14/08
Client ID :	TB-14-08/11/08						
Lab ID :	BMI08081251-03A	* * * None Found * * *	ND	2.0 µg/L	08/12/08	08/11/08	08/14/08

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

Walter Arihm Roger Scholl Kandy Sardner.

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.

8/25/08

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: BMI08081251-01A Client I.D. Number: MW-13	Sampled: 08/11/08 Received: 08/12/08 Analyzed: 08/14/08

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	2.0	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	2.0	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	2.0	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	2.0	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	μ <b>g/L</b>
14	cis-1,2-Dichloroethene	ND	0.50	µg/L	49	2-Chlorotoluene	ND	0.50	μ <b>g/L</b>
15	Bromochloromethane	ND	0.50	µg/L	50	1,3,5-Trimethylbenzene	ND	0.50	µg/L
16	Chloroform	1.7	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	μ <b>g/L</b>
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	μ <b>g</b> /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	3.0	μ <b>g</b> /L
25	Trichloroethene	1.8	0.50	µg/L	60	1,2,4-Trichlorobenzene	ND	2.0	µg/L
26	Bromodichloromethane	ND	0.50	µg/L	61	Naphthalene	ND	2.0	μ <b>g/L</b>
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	2.0	µg/L
28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	2.0	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	100	(70-130)	%REC
31	Toluene	1.1	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	110	(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	2.0	μg/L					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Saulman

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

8/25/08

**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: BMI08081251-02A	Sampled: 08/11/08
Client I.D. Number: MW-8	Received: 08/12/08
	Analyzed: 08/14/08

#### Volatile Organics by GC/MS

			-							
	Compound	Concentration	Rep	porting	_imit		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		2.0	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		2.0	µg/L	40	Bromoform	ND	0.50	μg/L
6	Trichlorofluoromethane	1.1	J	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		2.0	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	2.0	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-Butyibenzene	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	µ <b>g/L</b>
24	1,2-Dichloropropane	ND		0.50	µg/L	59	1,2-Dibromo-3-chloropropane (DBCI	P) ND	3.0	μg/L
25	Trichloroethene	ND		0.50	μg/L	60	1,2,4-Trichlorobenzene	ND	2.0	µg/L
26	Bromodichloromethane	ND		0.50	μg/L	61	Naphthalene	ND	2.0	μg/L.
27	4-Methyl-2-pentanone (MIBK)	ND		2.5	µg/L	62	Hexachlorobutadiene	ND	2.0	µg/L
28	cis-1,3-Dichloropropene	ND		0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	2.0	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	99	(70-130)	%REC
31	Toluene	1.1		0.50	μg/L	66	Surr: 4-Bromofluorobenzene	111	(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		2.0	µg/L					
35	Tetrachloroethene	ND		0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

J = Estimated: The analyte was positively identified; the quantitation is an estimation. ND = Not Detected

Roger Scholl

Kandy Danlmer

Walter A 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

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8/25/08

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: BMI08081251-03A	Sampled: 08/11/08
Client I.D. Number: TB-14-08/11/08	Received: 08/12/08
	Analyzed: 08/14/08

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	2.0	μ <b>g</b> /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	2.0	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	NÐ	0.50	µg/L
8	Dichloromethane	ND	2.0	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	2.0	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	μ <b>g/L</b>
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	3.0	μg/L
25	Trichloroethene	ND	0.50	µq/L	60	1,2,4-Trichlorobenzene	ND	2.0	µg/L
26	Bromodichloromethane	ND	0.50	µg/L	61	Naphthalene	ND	2.0	μg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	2.0	μg/L
28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1.2.3-Trichlorobenzene	ND	2.0	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	111	(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	2.0	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 Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

Walter Aridmon

8/25/08

**Report Date** 

Page 1 of 1

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### **VOC Sample Preservation Report**

### Work Order: BMI08081251

### Project: G005862 / JPL Groundwater Monitoring

Client's Sample ID	Matrix	рН	and an a classic for some of the South To South
MW-13	Aqueous	2	
MW-8	Aqueous	2	
TB-14-08/11/08	Aqueous	2	
	MW-13 MW-8	MW-13 Aqueous MW-8 Aqueous	MW-13Aqueous2MW-8Aqueous2

8/25/08 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 : 08/12/08

### Job#: G005862 / JPL Groundwater Monitoring

	Specific Conductance at 25°C EPA Method 120.1 / SM2510B / SW9050A									
		Parameter	Concentration	Reporting Limit	Date Date Sampled Analyzed					
Client ID : Lab ID :	<b>MW-13</b> BMI08081251-01A	Specific Conductance (at 25°C)	630	10 μS/cm	08/11/08 08/12/08					
Client ID : Lab ID :	<b>MW-8</b> BMI08081251-02A	Specific Conductance (at 25°C)	630	10 µS/cm	08/11/08 08/12/08					

Rogen Scholl

Kandy Soulmer

Dalter 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 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.

8/25/08 Report Date



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### **ANALYTICAL REPORT**

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201

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

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 :	<b>MW-13</b> BMI08081251-01A	Perchlorate	748	50.0 μg/L			
Client ID : Lab ID :	<b>MW-8</b> BMI08081251-02A	Perchlorate	108	5.00 μg/L	08/11/08 08/14/08		

Roger Scholl

Kandy Doulmer

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.

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

8/25/08 **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 : 08/12/08

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-13	Nitrite (NO2) - N	ND	0.25 mg/L	08/11/08 09:05	08/12/08 20:46					
Lat ID . DMI00001261 014	Nitrate (NO3) - N	7.1	0.25 mg/L	08/11/08 09:05	08/12/08 20:46					
Lab ID : BMI08081251-01A	Phosphate, ortho - P	ND	0.25 mg/L	08/11/08 09:05	08/13/08 10:56					
Client ID : MW-8	Nitrite (NO2) - N	ND	0.25 mg/L	08/11/08 11:09	08/12/08 21:41					
	Nitrate (NO3) - N	3.3	0.25 mg/L	08/11/08 11:09	08/12/08 21:41					
Lab ID : BMI08081251-02A	Phosphate, ortho - P	ND	0.25 mg/L	08/11/08 11:09	08/13/08 11:15					

ND = Not Detected

Roger Scholl

Kandy Souther

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.

**Report Date** 



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Battelle Memorial Institute 505 King Avenue Columbus, OH 43201 
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 Date Received : 08/12/08

Job#: G005862 / JPL Groundwater Monitoring

	Anions by IC EPA Method 300.0 / 9056										
		Parameter	Concentration	Reporting Limit	Date Date Sampled Analyzed						
Client ID :	MW-13										
Lab ID :	BMI08081251-01A	Chloride	36	0.50 mg/L	08/11/08 08/12/08						
		Sulfate (SO4)	61	0.50 mg/L	08/11/08 08/12/08						
Client ID :	MW-8										
Lab ID :	BMI08081251-02A	Chloride	43	0.50 mg/L	08/11/08 08/12/08						
		Sulfate (SO4)	83	0.50 mg/L	08/11/08 08/12/08						

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8/25/08

**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 : 08/12/08

Job#: G005862 / JPL Groundwater Monitoring

Metals by ICPMS EPA Method 200.8									
		Parameter	Concentration	Reporting Limit	Date Date Sampled Analyzed				
Client ID : Lab ID :	<b>MW-13</b> BMI08081251-01A	Chromium (Cr)	0.051	0.0050 mg/L	08/11/08 08/15/08				
Client ID : Lab ID :	<b>MW-8</b> BM108081251-02A	Chromium (Cr)	0.0075	0.0050 mg/L	08/11/08 08/15/08				

Roger Scholl

Kandy Doulmer

Walter Aridman

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5/08

**Report Date** 



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Date: 25-Aug-08	(	DC S	Summa	ry Repor	t			Work Order: 08081251		
Method Blank File ID: 18		Туре		Test Code: E Batch ID: 204		hod 314.0		08/14/2008 10:28		
Sample ID: MBLK-20433	Units : µg/L			C_3_080814/			Prep Date:	08/13/2008		
Analyte	Result	PQL	SpkVa	I SpkRefVal	%REC	LCL(ME)	UCL(ME) RPDRet	Val %RPD(Limit)	Qua	
Perchlorate	ND		1							
Laboratory Fortified Blank		Туре	LFB	Test Code: E	PA Met	hod 314.0				
File ID: 16			E	Batch ID: 204	33		Analysis Date	08/14/2008 09:51		
Sample ID: LFB-20433	Units : µg/L		Run ID: I	C_3_080814	A		Prep Date:	08/13/2008		
Analyte	Result	PQL	SpkVa	I SpkRefVal	%REC	LCL(ME)	UCL(ME) RPDRef	Val %RPD(Limit)	Qua	
Perchlorate	22.8		2 25	5	91	85	115			
Sample Matrix Spike		Туре	LFM	Test Code: E	PA Met	thod 314.0				
File ID: 20			E	Batch ID: 204	33		Analysis Date	08/14/2008 11:05		
Sample ID: 08081251-01ALFM	Units : µg/L		Run ID: I	C_3_080814	A		Prep Date:	08/13/2008		
Analyte	Result	PQL	SpkVa	l SpkRefVal	%REC	LCL(ME)	UCL(ME) RPDRet	Val %RPD(Limit)	Qua	
Perchlorate	1890	10	0 1250	) 747.7	91	80	120			
Sample Matrix Spike Duplicate		Туре	LFMD	Test Code: E	PA Met	hod 314.0				
File ID: 21			E	Batch ID: 204	33		Analysis Date	08/14/2008 11:23		
Sample ID: 08081251-01ALFMD	Units : µg/L		Run ID: I	C_3_080814/	A		Prep Date:	08/13/2008		
Analyte	Result	PQL				LCL(ME)	UCL(ME) RPDRet	Val %RPD(Limit)	Qua	
Perchlorate	1920	10			93	80	120 188			

#### Comments:



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Date: 25-Aug-08	QC Summary Report								
Method Blank File ID:		Type I		est Code: EPA Met atch ID: W0812CN	hod 120.1	/ SM2510B / SW90 Analysis Date:	050A 08/12/2008 00:00		
Sample ID: MBLK-W0812CN	Units : µS/cı	n	Run ID: W	/ETLAB_080812D		Prep Date:	08/12/2008		
Analyte	Result	PQL	SpkVal	SpkRefVal %REC	LCL(ME)	UCL(ME) RPDRef	/al %RPD(Limit)	Qua	
Specific Conductance (at 25°C)	ND	1(	0	· ·· · · ·					
Laboratory Control Spike		Type I	LCS T	est Code: EPA Met	hod 120.1	/ SM2510B / SW90	50A		
File ID:			B	atch ID: W0812CN		Analysis Date:	08/12/2008 00:00		
Sample ID: LCS-W0812CN	Units : <b>µS/cı</b>	n	Run ID: W	/ETLAB_080812D		Prep Date:	08/12/2008		
Analyte	Result	PQL	SpkVal	SpkRefVal %REC	LCL(ME)	UCL(ME) RPDRef	/al %RPD(Limit)	Qua	
Specific Conductance (at 25°C)	1410	1(	0 1410	99.9	98	102			

#### Comments:



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Date: 25-Aug-08	(	DC Sı	ımmar	y Repor	t				Work Orde 08081251	
Method Blank File ID: 13 Sample ID: MB-20430 Analyte	Units : <b>mg/L</b> Result	Type M	Ba Run ID: <b>IC</b>	est Code: EF atch ID: 2043 _2_0808124 SpkRefVal	30A		Analy: Prep [	Date:	08/12/2008 19:50 08/12/2008 /al %RPD(Limit)	Qual
Nitrite (NO2) - N Nitrate (NO3) - N Phosphate, ortho - P	ND ND ND	0.25 0.25 0.25								
Laboratory Fortified Blank		Type L	FB Te	est Code: El	PA Met	hod 300.0	/ 9056			
File ID: 14 Sample ID: LFB-20430 Analyte	Units : mg/L	PQL	Run ID: IC	atch ID: 2043	<b>\</b>		Prep I	Date:	08/12/2008 20:09 08/12/2008 Val %RPD(Limit)	Qual
Nitrite (NO2) - N Nitrate (NO3) - N Phosphate, ortho - P	Result 1.2 1.13 1.19	0.25 0.25 0.25	1.25 1.25 1.25	Spinervar	96 91 95	90 90 90	110 110 110 110			
Sample Matrix Spike		Type L	FM Te	est Code: El	PA Met	hod 300.0	/ 9056			
File ID: 17			Ba	atch ID: 2043	30A		Analy	sis Date:	08/12/2008 21:04	
Sample ID: 08081251-01ALFM	Units : <b>mg/L</b>			_2_0808124			Prep l		08/12/2008	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qual
Nitrite (NO2) - N Nitrate (NO3) - N Phosphate, ortho - P	1.22 8.2 1.26	0.25 0.25 0.25	1.25	0 7.057 0	97 91 101	80 80 80	120 120 120			
Sample Matrix Spike Duplicate		Type L	FMD Te	est Code: El	PA Met	thod 300.0	/ 9056			
File ID: 18			Ba	atch ID: 204	30A		Analy	sis Date:	08/12/2008 21:23	
Sample ID: 08081251-01ALFMD	Units : mg/L		Run ID: IC	_2_0808124	۱.		Prep l	Date:	08/12/2008	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qual
Nitrite (NO2) - N Nitrate (NO3) - N Phosphate, ortho - P	1.23 8.25 1.28	0.25 0.25 0.25	1.25	0 7.057 0	98 96 103	80 80 80	120 120 120	1.21 8.19 1.26	9 0.7(10)	

### Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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<b>Date:</b> 25-Aug-08	QC Summary Report Work Order: 08081251
Method Blank	Type MBLK Test Code: EPA Method 300.0 / 9056
File ID: 13	Batch ID: 20430B Analysis Date: 08/12/2008 19:50
Sample ID: MB-20430	Units : mg/L Run ID: IC_2_080812A Prep Date: 08/12/2008
Analyte	Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit) Qua
Sulfate (SO4)	ND 0.5
Laboratory Fortified Blank	Type LFB Test Code: EPA Method 300.0 / 9056
File ID: 14	Batch ID: 20430B Analysis Date: 08/12/2008 20:09
Sample ID: LFB-20430	Units : mg/L Run ID: IC_2_080812A Prep Date: 08/12/2008
Analyte	Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit) Qua
Sulfate (SO4)	10.1 0.5 10 101 90 110
Sample Matrix Spike	Type LFM Test Code: EPA Method 300.0 / 9056
File ID: 17	Batch ID: 20430B Analysis Date: 08/12/2008 21:04
Sample ID: 08081251-01ALFI	I Units : mg/L Run ID: IC_2_080812A Prep Date: 08/12/2008
Analyte	Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit) Qu
Sulfate (SO4)	72 0.5 10 60.65 113 80 120
Sample Matrix Spike Duplic	te Type LFMD Test Code: EPA Method 300.0 / 9056
File ID: 18	Batch ID: 20430B Analysis Date: 08/12/2008 21:23
Sample ID: 08081251-01ALF	ID Units : mg/L Run ID: IC_2_080812A Prep Date: 08/12/2008
Analyte	Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit) Qu
Sulfate (SO4)	71.6 0.5 10 60.65 109 80 120 71.98 0.6(10)

#### Comments:



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<b>Date:</b> 25-Aug-08		QC Summary Report										<b>Work Order:</b> 08081251	
Method Bla File ID: 13	nk		Туре	MBLK		st Code: EF		hod 300.0		lysis Date:	08/12/2008	19:50	_
Sample ID:	MB-20430	Units : mg/L		Run ID:	IC_	2_080812A			Pre	o Date:	08/12/2008		
Analyte		Result	PQL	Spk\	al s	SpkRefVal	%REC	LCL(ME)	UCL(ME	E) RPDRef	Val %RPD(Li	mit) C	Qua
Chloride		ND	0.	5									_
•*	Fortified Blank	1.0	Туре	LFB	Tes	st Code: EF	PA Met	hod 300.0					
File ID: <b>14</b>					Bat	ch ID: 2043	30C		Ana	lysis Date:	08/12/2008	20:09	
Sample ID:	LFB-20430	Units : mg/L		Run ID:	IC_	2_080812A	۱.		Pre	o Date:	08/12/2008		
Analyte		Result	PQL	Spk\	/al S	SpkRefVal	%REC	LCL(ME)	UCL(ME	E) RPDRef	Val %RPD(Li	mit) C	Qual
Chloride		4.59	0.	5	5		92	90	110				
Sample Mat	trix Spike		Туре	LFM	Tes	st Code: EF	PA Met	hod 300.0	/ 9056				
File ID: 17					Bat	ch ID: 2043	30C		Ana	lysis Date:	08/12/2008	21:04	
Sample ID:	08081251-01ALFM	Units : mg/L		Run ID	IC_	2_080812A			Pre	o Date:	08/12/2008		
Analyte		Result	PQL	Spk\	/al S	SpkRefVal	%REC	LCL(ME)	UCL(ME	E) RPDRef	Val %RPD(Li	mit) C	Qual
Chloride		41.5	0.	5	5	35.62	117	80	120				
Sample Mat	trix Spike Duplicate		Туре	LFMD	Tes	st Code: EF	PA Met	hod 300.0	/ 9056				
File ID: 18	•				Bat	ch ID: 2043	30C		Ana	lysis Date:	08/12/2008	21:23	
Sample ID:	08081251-01ALFMD	Units : mg/L		Run ID	IC_	2_080812A	<b>۱</b>		Pre	p Date:	08/12/2008		
Analyte		Result	PQL	Spk\	/al 🕄	SpkRefVal	%REC	LCL(ME)	UCL(M	E) RPDRef	Val %RPD(Li	mit) C	Qua
Chloride		41.5	0.	5	5	35.62	117	80	120	41.4	9 0.0(1	0)	-

#### Comments:



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Date: 25-Aug-08	QC Summary Report									
Method Blank File ID: 081408.B\B034SMPL.D		08/15/2008 12:56								
Sample ID: MB-20435 Analyte	Units : mg/L Run ID: ICP/MS_080815B Prep Date: Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefV	08/13/2008 /al %RPD(Limit) Qual								
Chromium (Cr)	ND 0.005									
Laboratory Control Spike File ID: 081408.B\B035_LCS.D Sample ID: LCS-20435 Analyte		08/15/2008 13:02 08/13/2008 /al %RPD(Limit) Qual								
Chromium (Cr)	0.0505 0.005 0.05 101 80 120									
Sample Matrix Spike File ID: 081408.B\B038SMPL.D Sample ID: 08081223-01AMS Analyte		08/15/2008 13:19 08/13/2008 /al %RPD(Limit) Qual								
Chromium (Cr)	0.0509 0.005 0.05 0 102 80 120									
Sample Matrix Spike Duplicate File ID: 081408.B\B039SMPL.D Sample ID: 08081223-01AMSD	-	08/15/2008 13:25 08/13/2008								
Analyte	Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRef									
Chromium (Cr)	0.0504 0.005 0.05 0 101 80 120 0.0508	36 0.9(20)								

#### **Comments:**



<b>Date:</b> 25-Aug-08	(	)C Sumn	nary Report		Work Order 08081251	r:
Method Blank File ID: 08081408.D Sample ID: MBLK MS15W0814K	tinta d	Type MBLK	Test Code: Batch ID: MS15W0814K5		08/14/2008 12:02	
Sample ID: MBLK MS15W0814K Analyte	Units : µg/L		D: MSD_15_080814B	Prep Date:	08/14/2008	Qua
	Result		Val SpkRefVal %REC LCL			Qua
Dichlorodifluoromethane Chloromethane	ND ND	0.5 1				
Vinyl chloride	ND	0.5				
Chloroethane	ND	0.5				
Bromomethane	ND	1				
Trichlorofluoromethane 1.1-Dichloroethene	ND ND	0.5 0.5				
Dichloromethane	ND	1				
Freon-113	ND	0.5				
trans-1,2-Dichloroethene	ND	0.5				
Methyl tert-butyl ether (MTBE) 1,1-Dichloroethane	ND ND	0.5				
2-Butanone (MEK)	ND	0.5 10				
cis-1,2-Dichloroethene	ND	0.5				
Bromochloromethane	ND	0.5				
Chloroform 2,2-Dichloropropane	ND	0.5				
1,2-Dichloroethane	ND ND	0.5 0.5				
1,1,1-Trichloroethane	ND	0.5				
1,1-Dichloropropene	ND	0.5				
Carbon tetrachloride	ND	0.5				
Benzene Dibromomethane	ND ND	0.5 0.5				
1,2-Dichloropropane	ND	0.5				
Trichloroethene	ND	0.5				
Bromodichloromethane	ND	0.5				
4-Methyl-2-pentanone (MIBK)	ND	2.5				
cis-1,3-Dichloropropene trans-1,3-Dichloropropene	ND ND	0.5 0.5				
1,1,2-Trichloroethane	ND	0.5				
Toluene	ND	0.5				
1,3-Dichloropropane	ND	0.5				
Dibromochloromethane 1,2-Dibromoethane (EDB)	ND	0.5				
Tetrachloroethene	ND ND	1 0.5				
1,1,1,2-Tetrachloroethane	ND	0.5				
Chlorobenzene	ND	0.5				
Ethylbenzene	ND	0.5				
m,p-Xylene Bromoform	ND ND	0.5 0.5				
Styrene	ND	0.5				
o-Xylene	ND	0.5				
1,1,2,2-Tetrachloroethane	ND	0.5				
1,2,3-Trichloropropane Isopropylbenzene	ND ND	1 0.5				
Bromobenzene	ND	0.5				
n-Propylbenzene	ND	0.5				
4-Chlorotoluene	ND	0.5				
2-Chlorotoluene 1,3,5-Trimethylbenzene	ND	0.5				
tert-Butylbenzene	ND ND	0.5 0.5				
1,2,4-Trimethylbenzene	ND	0.5				
sec-Butylbenzene	ND	0.5				
1,3-Dichlorobenzene	ND	0.5				
1,4-Dichlorobenzene 4-Isopropyltoluene	ND ND	0.5 0.5				
1,2-Dichlorobenzene	ND	0.5 0.5				
n-Butylbenzene	ND	0.5				
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.5				
1,2,4-Trichlorobenzene	ND	1				
Naphthalene Hexachlorobutadiene	ND ND	1 1				
1,2,3-Trichlorobenzene	ND	1				
Surr: 1,2-Dichloroethane-d4	9.42			75 128		
Surr: Toluene-d8	10		10 100 8	80 120		



Date: 25-Aug-08	(	Work Ord 0808125						
Surr: 4-Bromofluorobenzene	10.9		10	109	70	130		
Laboratory Control Spike File ID: 08081405.D Sample ID: LCS MS15W0814K	Units : µg/L	Type LCS	Test Cod Batch ID: Di ID: MSD_15	MS15W081	4K5	Analysis Date: Prep Date:	08/14/2008 10:41 08/14/2008	
Analyte	Result				LCL(ME)	UCL(ME) RPDRef		Qua
Dichlorodifluoromethane	8.03	1	10	80	70	130		<sup>-</sup>
Chloromethane	8.48	2	10	85	70	130		
Vinyl chloride	10.8	1	10	108	70	130		
Chloroethane Bromomethane	12.4 15	1 2	10 10	124 150	70 70	130 130		L51
Trichlorofluoromethane	13.4	1	10	130	70	130		L51
1,1-Dichloroethene	11	1	10	110	70	130		
Dichloromethane	10.4	2	10	104	70	130		
trans-1,2-Dichloroethene	11.6	1	10	116	70	130		
Methyl tert-butyl ether (MTBE)	11.8	0.5	10	118	70	130		
1,1-Dichloroethane cis-1,2-Dichloroethene	10.8 11.6	1	10 10	108 116	70 70	130 130		
Bromochloromethane	10.9	1	10	109	70	130		
Chloroform	11	1	10	110	70	130		
2,2-Dichloropropane	12.9	1	10	129	70	130		
1,2-Dichloroethane	11.7	1	10	117	70	130		
1,1,1-Trichloroethane 1,1-Dichloropropene	12.1	1	10	121	70	130		
Carbon tetrachloride	12.3 11.5	1	10 10	123 115	70 70	130 130		
Benzene	10.7	0.5	10	107	70	130		
Dibromomethane	11.6	1	10	116	70	130		
1,2-Dichloropropane	10.6	1	10	106	70	130		
Trichloroethene	10.8	1	10	108	70	130		
Bromodichloromethane cis-1,3-Dichloropropene	12.2 10.4	1	10 10	122 104	70 70	130 130		
trans-1,3-Dichloropropene	10.4	1	10	104	70	130		
1,1,2-Trichloroethane	11	1	10	110	70	130		
Toluene	9.75	0.5	10	98	70	130		
1,3-Dichloropropane	10.2	1	10	102	70	130		
Dibromochloromethane 1,2-Dibromoethane (EDB)	9.44 21	1 2	10 20	94 105	70 70	130 130		
Tetrachloroethene	9.71	2	20 10	97	70	130		
1,1,1,2-Tetrachloroethane	9.83	1	10	98	70	130		
Chlorobenzene	9.76	1	10	98	70	130		
Ethylbenzene	10.3	0.5	10	103	70	130		
m,p-Xylene Bromoform	10.9	0.5 1	10	109 92	70 70	130 130		
Styrene	9.17 9.95	1	10 10	92 100	70	130		
o-Xylene	10.1	0.5	10	101	70	130		
1,1,2,2-Tetrachloroethane	8.52	1	10	85	70	130		
1,2,3-Trichloropropane	18.2	2	20	91	70	130		
lsopropylbenzene Bromobenzene	12.3 10.3	1 1	10 10	123 103	70 70	130 130		
n-Propylbenzene	11.9	1	10	119	70	130		
4-Chlorotoluene	11.5	1	10	115	70	130		
2-Chlorotoluene	11.5	1	10	115	70	130		
1,3,5-Trimethylbenzene	12.3	1	10	123	70 70	130		
tert-Butylbenzene 1,2,4-Trimethylbenzene	12.5 12.2	1	10 10	125 122	70 70	130 130		
sec-Butylbenzene	11.6	1	10	116	70	130		
1,3-Dichlorobenzene	10.5	1	10	105	70	130		
1,4-Dichlorobenzene	10.6	1	10	106	70	130		
4-Isopropyltoluene	12.1	1	10	121	70	130		
1,2-Dichlorobenzene n-Butylbenzene	9.67 12.5	1	10 10	97 125	70 70	130 130		
1,2-Dibromo-3-chloropropane (DBCP)	50.7	3	50	125	57	133		
1,2,4-Trichlorobenzene	9.58	2	10	96	70	130		
Naphthalene	9.43	2	10	94	70	130		
Hexachlorobutadiene	21.5	2	20	107	70	130		
1,2,3-Trichlorobenzene Surr: 1,2-Dichloroethane-d4	9.18	2	10	92 95	70 75	130 128		
	8.52		10	85	75			
Surr: Toluene-d8	9.46		10	95	80	120		



<b>Date:</b> 25-Aug-08	(	DC Su	mmar	y Repor	t			Work Ord 0808125	
Sample Matrix Spike		Type MS		est Code:					
File ID: 08081410.D			Ba	atch ID: MS1	5W081	14K5	Analysis	Date: 08/14/2008 12:46	
Sample ID: 08081327-01AMS	Units : µg/L	F		SD_15_0808			Prep Da		
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME) R	PDRefVal %RPD(Limit)	Qual
Dichlorodifluoromethane	55.8	2.5	50	0	112	20	137		
Chloromethane	43.7	10	50	0	87	31	148		
Vinyl chloride Chloroethane	56.6	2.5	50	0	113	46	138		
Bromomethane	62.7 56.5	2.5 10	50 50	0 0.75	125 111	34 20	170 189		
Trichlorofluoromethane	68	2.5	50	0.75	136	51	156		
1,1-Dichloroethene	53.6	2.5	50	0	107	66	132		
Dichloromethane	50.5	10	50	0	101	48	145		
trans-1,2-Dichloroethene Methyl tert-butyl ether (MTBE)	54.9 60.9	2.5	50	0	110 122	68 62	132 139		
1,1-Dichloroethane	51.9	1.3 2.5	50 50	0	122	62 70	139		
cis-1,2-Dichloroethene	56.2	2.5	50	ŏ	112	70	130		
Bromochloromethane	53.2	2.5	50	0	106	70	130		
Chloroform	52.6	2.5	50	0	105	70	130		
2,2-Dichloropropane 1,2-Dichloroethane	60.4	2.5	50	0	121	50 65	152		
1,1,1-Trichloroethane	58.7 57.1	2.5 2.5	50 50	0	117 114	65 67	136 133		
1,1-Dichloropropene	57	2.5	50 50	0	114	70	130		
Carbon tetrachloride	54.1	2.5	50	0	108	61	142		
Benzene	51.1	1.3	50	0	102	70	130		
Dibromomethane 1,2-Dichloropropane	55.9 50.8	2.5 2.5	50	0	112 102	69 70	130 132		
Trichloroethene	50.8 50.4	2.5 2.5	50 50	0	102	69	132		
Bromodichloromethane	59.4	2.5	50	õ	119	70	130		
cis-1,3-Dichloropropene	49.2	2.5	50	0	98	66	130		
trans-1,3-Dichloropropene	49.3	2.5	50	0	99	65	134		
1,1,2-Trichloroethane Toluene	53.7 45.6	2.5	50 50	0	107 91	67 67	132 130		
1,3-Dichloropropane	45.6 49.6	1.3 2.5	50 50	0	99	67 70	130		
Dibromochloromethane	46.4	2.5	50	Õ	93	66	130		
1,2-Dibromoethane (EDB)	104	10	100	0	104	70	130		
Tetrachloroethene 1,1,1,2-Tetrachloroethane	45.6	2.5	50	0	91	59	135		
Chlorobenzene	48.8 45.8	2.5 2.5	50 50	0	98 92	70 70	130 130		
Ethylbenzene	48	1.3	50 50	0	96	70	130		
m,p-Xylene	49.9	1.3	50	Ő	99.9	69	130		
Bromoform	45.9	2.5	50	0	92	57	132		
Styrene o-Xvlene	47.2	2.5	50	0	94	58	135		
1,1,2,2-Tetrachloroethane	47.1 42.3	1.3 2.5	50 50	0 0	94 85	70 65	130 137		
1,2,3-Trichloropropane	90.4	10	100	0	90	67	132		
Isopropylbenzene	54.6	2.5	50	0	109	70	130		
Bromobenzene	47.8	2.5	50	0	96	70	130		
n-Propylbenzene 4-Chlorotoluene	52.6	2.5	50 50	0	105 103	70 70	130 130		
2-Chlorotoluene	51.4 52.3	2.5 2.5	50 50	0	103	70 70	130		
1,3,5-Trimethylbenzene	55.1	2.5	50	õ	110	68	141		
tert-Butylbenzene	56.8	2.5	50	0	114	70	130		
1,2,4-Trimethylbenzene	54.5	2.5	50	0	109	67	146		
sec-Butylbenzene 1,3-Dichlorobenzene	52.4 48.1	2.5 2.5	50 50	0	105 96	70 70	130 130		
1,4-Dichlorobenzene	48.2	2.5	50 50	0	96	70	130		
4-Isopropyltoluene	53.9	2.5	50	Ō	108	70	133		
1,2-Dichlorobenzene	45	2.5	50	0	90	70	130		
n-Butylbenzene 1 2-Dibromo-3-chloropropano (DBCB)	56.4	2.5	50	0	113	66 57	145		
1,2-Dibromo-3-chloropropane (DBCP) 1,2,4-Trichlorobenzene	250 45.3	15 10	250 50	0	100 91	57 39	137 157		
Naphthalene	45.3	10	50 50	0	91 91	39 26	163		
Hexachlorobutadiene	98.1	10	100	Ő	98	35	172		
1,2,3-Trichlorobenzene	45.3	10	50	0	91	30	170		
Surr: 1,2-Dichloroethane-d4 Surr: Toluene-d8	44.5		50		89	75	128		
Surr: 4-Bromofluorobenzene	47.4 56		50 50		95 112	80 70	120 130		
	50		50		1 1 4	10	100		



Sample Matrix Spike Duplicate         Type MSD         Test Code:         Analysis Date:         08/14/2008 13           Sample ID: 0801327-01AMSD         Units: µg/L         Fun ID: MSD 15, 0800144KS         Analysis Date:         08/14/2008 13           Analysis         Result         POL         SpkVal         SpkKelVal         %REC         LCL(ME)         UCL(ME)         08/14/2008 13           Dichlorodifluoromethane         52.9         2.5         50         0         106         20         13         18         45.5         5         0         11         46         56.6         2.5(0)         11         46         56.6         2.6(0)         106         18         45.6         2.4(0)         11         100         56.6         46         11         100         56.6         11         46         66         122         53.6         4.6(2)         11         100         100         48         145         50.4         0.123         12         10         50         10         106         66         132         53.62         4.6(2)         11         100         100         48         145         50.4         1.02         100         100         100         100         100         100	<b>der:</b> 51
Sample ID:         0061327-01 AMSD         Presult         Product         Special	
Analyte         Result         POL         SptNal         SptNal <th>3</th>	3
bickloodfluorenethane         52.9         2.5         50         0         106         20         137         55.82         5.3(20)           Umor dibraide         45.1         10         50         0         90         911         46         138         55.82         5.3(20)           Vinvi dibraide         60.5         2.5         50         0         111         46         138         55.9         111         46         138         55.9         111         46         136         56.4         411         11.0         11.0         11.0         11.0         11.0         11.0         11.0         11.0         11.0         146         145         50.4         0         10.6         68.19         50.4         0.4(20)           1.1.0         10.0         10.0         11.0         146         145         50.4         0         10.0         10.0         10.0         13.7         0.4(20)         13.7         0.4(20)         13.7         0.4(20)         13.0         10.0         10.0         13.0         10.0         13.0         10.0         11.0         13.0         50.4         14.1         13.0         10.0         13.0         10.0         13.0         10	
Chioromethane         45,1         10         50         90         91         14         44         45,66         3.3(20)           Vinvi chioride         55,5         2,5         50         0         121         44         170         62,7         3.5(20)           Bromomethane         63,7         2,5         50         0         125         20         189         56,46         11.1(20)           Trichtorothene         51,2         2,5         50         0         102         66         132         53,62,0           Dichformethane         50,3         10         50         0         101         48         145         50,47         0.4(20)           Methy terb-buty ether (MTBE)         61,7         1,3         50         0         104         70         130         56,15         1.1(20)           Bromochtomomethane         58,6         2,5         50         0         101         70         130         58,17         0.9(20)           1,1-Dichroromethane         58,5         2,5         50         0         111         67         130         56,47         0.5(20)           1,2-Dichroropane         58,5         2,5         50	Qua
Chioromethane         45.1         10         50         90         91         14         44         45.66         3.3(20)           Viny chioride         55.5         2.5         50         0         121         44         170         62.7         3.5(20)           Bromomethane         63.7         2.5         50         0         125         20         189         56.46         11.1(20)           Trichtoroftuoromethane         53.7         2.5         50         0         102         66         13.2         53.62.0           Dichloromethane         52.9         2.5         60         0         104         70         130         51.9         0.2         0.42         13.22         0.44(20)           Methy tler-buryl etter (MTBE)         61.7         1.3         50         0         104         70         130         56.15         1.1(20)           Tholohorethane         58.6         2.5         50         0         1017         70         130         53.7         0.9(20)           1.1-Dichloromethane         58.5         2.5         50         0         111         67         130         57.04         3.8(20)           2.2-Dichloro	
Viny choirdie         55.5         2.5         50         0         111         46         138         56.59         2.02(2)           Brommethane         60.5         2.5         50         0         121         34         170         62.7         3.5(20)           Brommethane         51.2         2.5         50         0         102         66         16.4         6.4(20)           Dichloromethane         50.3         0         102         86         132         53.62         4.4(20)           1.1-Dichloromethane         51.8         2.5         50         0         104         70         130         51.92         0.2(20)           cis1-2.2-Dichloromethane         53.6         2.5         50         0         114         70         130         55.1         1.1(20)           Chibrotomethane         53.6         2.5         50         0         114         70         130         55.1         1.1         0.7         130         56.6         1.11(20)           Chibrotomethane         53.6         2.5         50         0         116         50         50.2         102         100.0         130         50.4         13.2         50.2<	
Bromomethane         63,1         10         50         0.75         125         20         189         56.44         11.1(2)           1.1-Dichloromethane         51.2         2.5         50         0         102         66         132         53.62         4.6(20)           Uchloromethane         50.3         10         50         0         104         48         50.47         0.4(20)           Unbulk ther (MTBE)         61.7         1.3         50         0         123         62         139         60.87         1.3(20)           0:hi-12-Dichloromethane         55.8         2.5         50         0         104         70         130         55.19         0.2(20)           0:hi-12-Dichloromethane         55.7         2.5         0         104         70         130         55.19         0.2(20)           0.Liboromethane         55.3         2.5         0         111         67         133         57.06         3.17         0.9(20)           2.2.Dichloropropane         57.4         2.5         50         0         110         70         130         57.04         3.2(20)           1.1.Dichloropropane         51.7         2.5         50 <td></td>	
Tichloroduoromethane       63,7       2,5       50       0       127       51       156       68,04       6,6,24         Dichloromethane       50,3       10       50       0       101       48       145       50,47       0,4(20)         Dichloromethane       52,9       2,5       50       0       104       81       50,47       0,4(20)         Methyl tert-bulyl ether (MTBE)       61,7       1,3       50       0       104       70       130       56,15       1,1(20)         Bromochioromethane       53,7       2,5       50       0       104       70       130       56,15       1,1(20)         Bromochioromethane       52,1       2,5       50       0       117       70       130       52,63       1,1(20)         1,2-Dichloropropane       57,4       2,5       50       0       117       65       136       5,020       113       70       130       57,04       3,8(20)         1,1-Dichloropropane       54,3       2,5       50       0       110       70       130       55,44       4,4(20)         1,1-Dichloropropane       54,3       2,5       50       0       110       70 <td></td>	
1.1-Dichloromethane       51.2       2.5       50       0       102       66       132       53.62       4.6(20)         Nethvit tert-buty tether (MTBE)       61.7       1.3       50       0       106       68       132       54.91       3.7(20)         Nethvit tert-buty tether (MTBE)       61.7       1.3       50       0       123       62       139       60.87       1.3(20)         cis-1.2-Dichloroethane       55.6       2.5       50       0       104       70       130       56.15       1.1(20)         Bromochloromethane       55.6       2.5       50       0       107       70       130       52.43       0.0(20)         2.2-Dichloroptopane       57.4       2.5       50       0       117       66       58.74       0.5(20)         2.2-Dichloroptopane       58.5       2.5       50       0       110       70       130       57.04       3.8(20)         1,1-Dichloroptopane       54.9       2.5       50       0       110       70       130       51.04       1.4(20)       50.44       1.5(20)         1,1-Dichloroptopane       50.4       1.3       50       0       101       70	
Dichloromethane         50.3         10         50         0         10         48         145         50.47         0.4(20)           Methry terb-utyl ether (MTBE)         61.7         1.3         50         0         102         62         139         60.87         1.3(20)           1.1-Dichloroethane         51.8         2.5         50         0         104         70         130         56.15         1.1(20)           Bromochloromethane         53.7         2.5         50         0         111         70         130         56.15         1.1(20)           2.2-Dichloropethane         57.4         2.5         50         0         117         65         152         60.37         2.63         1.1(20)           1.2-Dichloropethane         55.3         2.5         50         0         110         70         130         57.04         3.8(20)           2.1-Dichloropethane         56.3         2.5         50         0         103         61         142         54.07         4.4(20)           Dichoropethane         56.3         2.5         50         0         103         65.4         1.520           1.1-Dichloropropene         51.2         2.5 </td <td></td>	
trans-1,2-Dichloroethene         52.9         2.5         50         0         10.6         68         132         64.91         3.7(20)           1.1-Dichloroethane         51.8         2.5         50         0         14         70         130         51.92         0.2(20)           cis-1.2-Dichloroethane         53.7         2.5         50         0         111         70         130         56.15         1.1(20)           Dronochloromethane         53.7         2.5         50         0         107         70         130         52.63         1.1(20)           Dronochloromethane         53.7         2.5         50         0         115         50         60.37         50.020           2.2-Dichloroethane         58.5         2.5         50         0         111         67         133         57.08         3.2(20)           1,1-Dichloroptopane         54.9         2.5         50         0         103         61.1         44.20         3.8(20)           1,1-Dichloroptopane         50.4         1.3         50         0         107         130         55.4         1.5(20)           1,1-Dichloroptopane         51.2         2.5         50         <	
Methyl tent-bulyl ether (MTBE)         61.7         1.3         50         0         12.8         13.2         1	
1,1-Dichloroethane       51,8       2,5       50       0       114       70       130       51,92       0.2(20)         cis:1,2-Dichloroethane       53,7       2,5       50       0       107       70       130       53,17       0.9(20)         Chloroform       52,1       2,5       50       0       104       70       130       53,17       0.9(20)         2,2-Dichloroethane       58,5       2,5       50       0       111       76       133       57,08       3.2(20)         1,1-Dichloroethane       54,9       2,5       50       0       111       70       130       57,04       3.8(20)         Carbon tetrachloride       51,7       2,5       50       0       101       70       130       55,14       1.5(20)         J_2-Dichloropropane       50,4       1.3       50       0       101       70       130       55,11       1.4(20)         Dbromomethane       51,7       2,5       50       0       102       70       132       50,8       0.9(20)         Trichloroethane       49,5       2,5       50       0       102       70       130       51,7       114       60 <td></td>	
Bromochloromethane         53,7         2,5         50         0         107         70         130         53,17         0,9(2)           Chloroform         52,1         2,5         50         0         115         50         152         63,07         5,0(2)           1,2-Dichloropethane         58,5         2,5         50         0         111         65         153         68,74         0,5(2)           1,1-Tichloropethane         54,9         2,5         50         0         110         70         130         57,04         3.8(2)           Carbon tetrachloride         51,7         2,5         50         0         103         61         142         54,07         4.4(2)           Dibromomethane         56,8         2,5         50         0         102         70         130         55,14         1,5(2)           1,2-Dichloropropane         51,2         2,5         50         0         102         70         130         50,4         1,9(2)           Bromodichloromethane         58,7         2,5         50         0         102         50         0         102         50,44         49,25         3,9(2)         1,1(2)	
Chloroform         52,1         2,5         50         0         104         70         130         52,63         1,1(2)           2,2-Dichloropropane         57,4         2,5         50         0         115         50         152         60,37         5,0(20)           1,1-Trichloropropane         55,3         2,5         50         0         111         67         133         57,08         3,2(20)           Carbon tetrachloride         51,7         2,5         50         0         101         70         130         57,04         3,8(20)           Benzene         50,4         1,3         50         0         101         70         130         55,14         1,5(20)           Dibromomethane         56,8         2,5         50         0         102         70         132         50,8         0,9(2)           1,2-Dichloropropane         51,2         2,5         50         0         102         70         132         50,4         1,9(2)           Trichloropropane         49,5         2,5         50         0         102         65         134         49,25         3,9(2)           1,1-2.Trichloropropane         51,2         2,5	
22-Dichloropropane       57.4       2.5       50       0       115       50       152       60.37       5.0(20)         1,2-Dichloropthane       58.5       2.5       50       0       117       65       136       58.74       0.5(20)         1,1-Trichloropthane       55.3       2.5       50       0       110       70       130       57.04       3.8(20)         Carbon tetrachloide       51.7       2.5       50       0       101       70       130       51.11       1.4(20)         Dibromomethane       56.8       2.5       50       0       102       70       130       59.4       1.5(2)         Dibromomethane       49.5       2.5       50       0       101       70       130       59.37       1.1(20)         Cis-1,3-Dichloropropane       49.6       2.5       50       0       107       70       59.37       1.1(20)         Cis-1,3-Dichloropropane       49.6       2.5       50       0       102       65       134       49.25       3.9(20)         Trans-1,3-Dichloropropane       45.2       2.5       50       0       102       65       134       49.25       5.12(2)       1	
12-Dichloroethane       58.5       2.5       50       0       117       65       136       58.7       0.5(20)         1,1-1richloroethane       55.3       2.5       50       0       110       70       133       57.04       3.2(20)         1,1-Dichloropropene       54.9       2.5       50       0       100       70       130       57.04       3.8(20)         Carbon tetrachloride       51.7       2.5       50       0       101       70       130       55.14       4.4(20)         Dibromomethane       56.8       2.5       50       0       102       70       132       50.8       0.9(20)         Tichloroethane       49.5       2.5       50       0       199       66       130       49.1       1.20)         Eonodichloropropene       49.6       2.5       50       0       102       65       134       49.25       3.9(20)         1,12-Trichloroethane       55.1       2.5       50       0       102       63       34.9       9.7(20)       130       45.76       7.2(20)         1,12-Trichloroethane       45.8       2.5       50       0       98       70       130 <t< td=""><td></td></t<>	
1,1-1:Trichloropene       55.3       2.5       50       0       111       67       133       57.08       3.2(20)         1,1-Dichloropropene       51.7       2.5       50       0       103       61       142       54.07       4.4(20)         Benzene       50.4       1.3       50       0       103       61       142       55.94       1.5(20)         Dibromomethane       56.8       2.5       50       0       102       70       132       50.8       0.9(20)         12:Dichloropropane       51.2       2.5       50       0       177       70       130       59.37       1.1(20)         promodichioromethane       58.7       2.5       50       0       199       66       130       49.19       0.7(20)         promodichioromethane       55.1       2.5       50       0       110       67       132       53.74       2.5(20)       1.3       49.25       3.9(20)       1.1,2-Trichloropropane       44       1.3       50       0       88       67       130       45.6       3.5(20)       70       130       45.6       3.5(20)       70       130       45.6       3.5(20)       70       130 <td></td>	
1,1-Dichioropropene       54,9       2,5       50       0       110       70       130       57,04       3,8(20)         Carbon tetrachloride       51,7       2,5       50       0       103       61       142       54,07       4,4(20)         Benzene       50,4       1,3       50       0       114       69       130       55,94       1,5(20)         Dibromomethane       56,8       2,5       50       0       192       50,8       0,9(20)         Trichloroptopane       49,5       2,5       50       0       170       130       59,37       1,1(20)         cis-1,3-Dichloropropene       49,6       2,5       50       0       102       65       134       49,25       3,9(20)         1,1,2-Trichloroethane       51,1       2,5       50       0       102       65       134       49,25       3,9(20)       1,1,2-Trichloroethane       45,8       2,5       50       0       98       67       130       45,56       3,5(20)       1,30       45,56       3,5(20)       1,30       45,56       3,5(20)       1,30       45,66       5,1(20)       1,30       45,66       5,1(20)       1,1,2-Tetrachancethane       46,	
Carbon tetrachloride         51,7         2,5         50         0         103         61         142         54,07         4,4(20)           Benzene         50,4         1.3         50         0         101         70         130         51,11         1,4(20)           Dibromomethane         56,8         2,5         50         0         102         70         132         50,8         0,9(20)           Trichloroethane         49,5         2,5         50         0         99         66         130         49,19         0,7(20)           Taras-1,3-Dichloropropene         51,2         2,5         50         0         102         65         134         49,25         3,9(20)           1,12-Tichloropropene         51,1         2,5         50         0         102         65         134         49,25         3,9(20)           1,3-Dichloropropane         49,2         2,5         50         0         98         67         130         45,56         3,5(20)           1,3-Dichloropropane         49,2         2,5         50         0         92         66         130         48,43         1,3(20)           1,3-Dichloropropane         45,8         <	
Benzene         50.4         1.3         50         0         101         70         130         51.11         1.4(20)           Dibromomethane         56.8         2.5         50         0         114         69         130         55.94         1.5(20)           Trichloropropane         49.5         2.5         50         0         102         70         132         50.8         0.9(20)           Bromodichloropropene         49.6         2.5         50         0         117         70         130         59.37         1.1(20)           cis-1.3-Dichloropropene         49.6         2.5         50         0         102         65         134         49.25         3.9(20)           Toluene         44         1.3         50         0         88         67         130         45.56         3.5(20)           1,12-Trichloropropane         49.2         2.5         50         0         92         66         130         44.3         1.3(20)           1,2-Dichloropropane         49.2         2.5         50         0         92         66         130         45.6         5.1(20)           1,1.1         1.2         100         0	
Dibrommethane         56.8         2.5         50         0         114         69         130         55.94         1.5(20)           1,2-Dichloropropane         51.2         2.5         50         0         102         70         132         50.8         0.9(20)           Bromodichloromethane         58.7         2.5         50         0         99         66         130         49.1         1.9(20)           cis-1,3-Dichloropropene         49.6         2.5         50         0         102         65         134         49.25         3.9(20)           1,12-Trichloroethane         55.1         2.5         50         0         100         67         132         45.56         3.5(20)           1,3-Dichloropropane         49.2         2.5         50         0         98         70         130         49.57         0.7(20)           Dibromochloromethane         45.8         2.5         50         0         92         66         130         46.43         1.3(20)           1,2-Dibromochloromethane         45.8         2.5         50         0         93         70         130         46.7         2.5           1,1.2-Tetrachloroethane         45.	
Trichloroethene49.52.5500996913050.41.9(20)Bromodichloromethane58.72.55001177013059.371.1(20)cis-1.3-Dichloropropene49.62.55001026513449.253.9(20)1,1.2-Trichloroethane55.12.55001026513449.253.9(20)1,2-Trichloroethane441.3500886713045.563.5(20)1,3-Dichloropropane49.22.5500987013049.570.7(20)Dibromochloromethane45.82.5500926613046.431.3(20)1,2-Dibromochane (EDB)102101001027013048.765.1(20)1,1,1.2-Tetrachloroethane46.72.5500937013048.765.1(20)1,1,2-Tetrachloroethane46.72.5500937013048.765.1(20)1,1,1.2-Tetrachloroethane46.52.5500937013048.763.3(20)Ehvjbenzene46.41.3500937013048.933.0(20)Bromoform45.82.5500935813547.231.6(20)1,1,2-Tetrachloroethane48.51.350927013047.122.2(20)<	
Bromodichloromethane         58.7         2.5         50         0         117         70         130         59.37         1.1(20)           cis-1,3-Dichloropropene         49.6         2.5         50         0         99         66         130         49.19         0.7(20)           trans-1,3-Dichloropropene         51.2         2.5         50         0         110         67         132         53.74         2.5(20)           Toluene         44         1.3         50         0         88         67         130         45.56         3.5(20)           1,3-Dichloropropane         49.2         2.5         50         0         92         66         130         46.43         1.3(20)           1,2-Dibromoethane (EDB)         102         10         100         0         102         70         130         103.7         1.8(20)           Tetrachloroethane         45.2         2.5         50         0         93         70         130         45.75         1.3(20)           1,1,12-Tetrachloroethane         46.7         2.5         50         0         93         70         130         48.76         4.4(20)           Chlorobenzene         45.2	
cis-1,3-Dichloropropene         49.6         2.5         50         0         99         66         130         49.19         0.7(20)           trans-1,3-Dichloropropene         51.2         2.5         50         0         102         65         134         49.25         3.9(20)           Toluene         44         1.3         50         0         88         67         130         45.56         3.5(20)           1,3-Dichloropropane         49.2         2.5         50         0         98         70         130         49.57         0.7(20)           1,2-Dibromochlaromethane         45.8         2.5         50         0         92         66         130         46.43         1.3(20)           1,2-Dibromochlaromethane         45.8         2.5         50         0         93         70         130         48.76         5.1(20)           1,1,1,2-Tetrachloroethane         46.7         2.5         50         0         93         70         130         48.75         1.3(20)           Tetrachloroethane         45.2         2.5         50         0         93         70         130         48.75         1.3(20)           Bromochar         45.8	
trans-1,3-Dichloropropene51.22.55001026513449.253.9(20)1,1,2-Trichloroethane55.12.55001106713253.742.5(20)1,3-Dichloropropane49.22.5500986713045.563.5(20)1,3-Dichloropropane49.22.5500926613046.431.3(20)1,2-Dibromochloromethane45.82.5500926613046.431.3(20)1,2-Dibromochlane (EDB)1021010001027013048.764.4(20)1,1,1,2-Tetrachloroethane46.72.5500937013048.764.4(20)Chlorobenzene45.22.5500937013048.764.4(20)Chlorobenzene46.41.3500937013048.764.4(20)Chlorobenzene46.51.3500937013048.764.4(20)Styrene46.51.3500925713245.940.4(20)Styrene46.51.3500935813547.231.6(20)1,1,2,2-Tetrachloroethane43.32.5500935813547.231.6(20)1,1,2,2-Tetrachloroethane43.32.5500876513742.292.	
1,1,2-Trichloroethane       55.1       2.5       50       0       110       67       132       53.74       2.5(20)         Toluene       44       1.3       50       0       88       67       130       45.56       3.5(20)         1,3-Dichloropropane       49.2       2.5       50       0       98       70       130       49.57       0.7(20)         Dibromochloromethane       45.8       2.5       50       0       92       66       130       46.43       1.3(20)         1,2-Dibromoethane (EDB)       102       10       100       0       102       70       130       103.7       1.8(20)         Tetrachloroethane       46.7       2.5       50       0       93       70       130       48.76       4.4(20)         Chlorobenzene       46.4       1.3       50       0       93       70       130       48.01       3.5(20)         m,p-Xylene       48.5       1.3       50       0       93       70       130       48.01       3.5(20)         styrene       46.5       2.5       50       0       93       58       135       47.23       1.6(20)         o-Xylen	
Toluene         44         1.3         50         0         88         67         130         45.56         3.5(20)           1,3-Dichloropropane         49.2         2.5         50         0         98         70         130         49.57         0.7(20)           Dibromochloromethane         45.8         2.5         50         0         92         66         130         46.43         1.3(20)           1,2-Dibromoethane (EDB)         102         10         100         0         102         70         130         103.7         1.8(20)           1,1.1,2-Tetrachloroethane         46.7         2.5         50         0         87         59         135         45.6         5.1(20)           1,1,1,2-Tetrachloroethane         46.4         1.3         50         0         93         70         130         48.76         4.4(20)           Chlorobenzene         46.4         1.3         50         0         93         70         130         45.75         1.3(20)           1,2-Zifetrachloroethane         46.5         2.5         50         0         92         57         132         45.94         0.4(20)           Styrene         46.5	
1,3-Dichloropropane49.22.5500987013049.570.7(20)Dibromochloromethane45.82.5500926613046.431.3(20)1,2-Dibromoethane (EDB)10210100010270130103.71.8(20)1,2-Dibromoethane (EDB)1021010001027013048.655.1(20)1,1,1,2-Tetrachloroethane46.72.5500937013048.764.4(20)Chlorobenzene45.22.5500937013048.751.3(20)Ethylbenzene46.41.3500937013048.751.3(20)Bromoform45.82.5500937013048.933.0(20)Bromoform45.82.5500925713245.940.4(20)Styrene46.52.5500935813547.231.6(20)o-Xylene46.11.3500927013047.122.2(20)1,1,2,2-Tetrachloroethane49.6101000906713290.410.9(20)Isopropylbenzene52.82.55001067013054.63.5(20)Bromobenzene51.32.55001037013054.63.5(20)I,2,3-Trichloropr	
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4-Chlorotoluene50.92.55001027013051.360.9(20)2-Chlorotoluene51.12.55001027013052.342.5(20)1,3,5-Trimethylbenzene54.42.55001096814155.071.3(20)tert-Butylbenzene55.22.55001107013056.82.9(20)1,2,4-Trimethylbenzene54.72.55001096714654.510.4(20)sec-Butylbenzene502.55001007013052.424.7(20)	
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tert-Butylbenzene55.22.55001107013056.82.9(20)1,2,4-Trimethylbenzene54.72.55001096714654.510.4(20)sec-Butylbenzene502.55001007013052.424.7(20)	
1,2,4-Trimethylbenzene54.72.55001096714654.510.4(20)sec-Butylbenzene502.55001007013052.424.7(20)	
1,3-Dichlorobenzene         48.5         2.5         50         0         97         70         130         48.1         0.7(20)           1.4 Dichlorobenzene         48.5         2.5         50         0         97         70         130         48.1         0.7(20)	
1,4-Dichlorobenzene48.92.5500987013048.151.4(20)4-Isopropyltoluene53.42.55001077013353.870.9(20)	
4-Isopropyltoluene53.42.55001077013353.870.9(20)1,2-Dichlorobenzene45.82.5500927013045.041.6(20)	
n-Butylbenzene 55.4 2.5 50 0 111 66 145 56.41 1.8(20)	
1,2-Dibromo-3-chloropropane (DBCP) 253 15 250 0 101 57 137 250 1.1(20)	
1,2,4-Trichlorobenzene 47.1 10 50 0 94 39 157 45.29 3.9(20)	
Naphthalene         48.9         10         50         0         98         26         163         45.66         6.8(20)	
Hexachlorobutadiene         98.5         10         100         0         99         35         172         98.14         0.4(20)	
1,2,3-Trichlorobenzene         48.5         10         50         0         97         30         170         45.26         6.9(20)	
Surr:         1,2-Dichloroethane-d4         43.1         50         86         75         128           Surr:         Takuna d8         47.0         50         04         80         120	
Surr: Toluene-d8         47.2         50         94         80         120           Surr: 4-Bromofluorobenzene         56.3         50         113         70         130	
Surr: 4-Bromofluorobenzene         56.3         50         113         70         130	

Cér

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

### OC Summary Report

Work Order: 08081251

#### 25-Aug-08 Comments:

Date:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

L51 = Analyte recovery was above acceptance limits for the LCS, but was acceptable in the MS/MSD.

Billing Information : Battelle		CH	AIN	-OF-	CU	STO	CHAIN-OF-CUSTODY RECO	REC	ORD		C A			Page:	Page: 1 of 1
505 King Avenue				Alph	a An	ıalyti	Alpha Analytical, Inc.	?		W		WarkOrder · RMIN2021251	RMIN	08175	-
Columbus, OH 43201			255 Glen TF	dale Aven L: (775) 3	ue, Suite 355-1042	e 21 Spar 4 FAX:	255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778 TEL: (775) 355-1044 FAX: (775) 355-0406	1 89431-57 )406	78	Repo	rt Du	e By : 5	00 PM	On: 2	Report Due By : 5:00 PM On : 26-Aug-08
Client:		<b>Report Attention</b>		Phon	Phone Number	ĕŗ	EMail Address	uddress							
Battelle Memorial Institute		David Conner	G,	(619)	(619) 574-4827 x	7 ×	connerd@	connerd@battelle.org	<b>9</b> 9						
505 King Avenue										ED	D Requ	EDD Required : Yes			
Columbus, OH 43201											Sample	Sampled by : Client	int		
PO: 218017											Cooler Temp	Temp	Samples Received	eceived	Date Printed
Client's COC #: 026270	: dob	Job : G005862/JPL Groundwater Monitoring	L Ground	dwater M	onitorin	g					~	4 °C	12-Aug-08	9-08	12-Aug-08
QC Level : S4 = Final Rpt, MBLK, InitCal/ConCal data, LCS, MS/MSD With Surrogates	(, InitCal/Co	nCal data, Lu	CS, MS/N	NSD With	I Surrog	ates	- - - - - - - - - - - 								
Alpha Client Sample ID Sample ID	Matr	Collection Matrix Date	No. of Bottles Alpha Sub		TAT	314_W	ANIONS(A)	ANIONS(B)	Requested Tests	ed Tests conducti VITY	METALS_D	Requested Tests 314_W ANIONS(A) ANIONS(B) ANIONS(C) CONDUCTI METALS_D VOC_TIC_ VOC_W _W _W VITY W W	VOC_W	Samp	Sample Remarks
BMI08081251-01A MW-13	AQ	AQ 08/11/08 09:05	თ	0	10	Perchlorate	Perchlorate NO2, NO3, SO4, C1, Ortho phos	NO2, NO3, SO4, CL Ortho phos	NO2, NO3, SO4, Cl, Ortho phos	Perchlorate	ç	VOC by 524 VOC by 524 Criteria Criteria	VOC by 524 Criteria		
BMI08081251-02A MW-8	AQ	08/11/08 11:09	5	0	10	Perchlorate	NO2, NO3, SO4, CI, Ortho phos	NO2, NO3, SO4, Cl, Ortho phos	NO2, NO3, SO4, Cl, Ortho phos	Perchlorate	¢	VOC by 524 VOC by 524 Criteria Criteria	VOC by 524 Criteria		
BMI08081251-03A TB-14-08/11/08	AQ	08/11/08	<b></b>		5							VOC by 524 VOC by 524 Criteria Criteria	VOC by 524	Reno	Reno TB, 6/24/08

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. 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. Mua Jullundon When I Reprint Name Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other Company Date/Time Alpha Analytical, Inc. 8/12/08/10/66

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

Address 505 KIN'S AND	Sparks.	Sparks, Nevada 89431-5778		Page # 1 of
e, Zip <u>Collim Bus</u> , umber	Fax (7	Phone (775) 355-1044 Fax (775) 355-0406	Analyses Required	
Client Name DAVID GNNER	P.O.# 218017	198_500 bg # qor	N 23 0 000	Required QC Level?
Address 3990 and TOWN AVE, C-205	EMail Address		24.	/ / I II (III) IV
City, State, Zip SAN DIEGO, CA 92/10	Phone # 619-726-73/1	Fax #	~	EDD / EDF? YES NO
mpled by	'n	Total and type of		Global ID #
Sampled Sampled Below Lab ID Number (Use Only)	Sample Description	TAT Field ** See below		/ REMARKS
0905-8/11/28 AR BWITO8081251-01	MW-13	Noir M s	XXXX	
		7		
	0			
ζα-	773 - 14- 08/11/08			TRIP BLANK
ADDITIONAL INSTRUCTIONS:				
Signature	Print Name		Company	Date Time
Relinquished by	CHASE BROGDON	INSTE	HT EECT	0051 Se/11/8
Received by March 1 M.	/ Tara 1/ Changer	Q	lanc	\$/12/DY 10/CO
Received by				
Relinquished by				
Received by		-		
Received by				-

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

### **CASE NARRATIVE**

oject:		Froundwater Monitoring		
ork Order:	BMI08081320		Cooler Temp: 4 °C	
Alpha's	Sample ID	Client's Sample ID	Matrix	
08081	320-01A	MW-16	Aqueous	
08081	320-02A	MW-10	Aqueous	
08081	320-03A	TB-15-8/12/08	Aqueous	
		Manually Integrated	Analytes	
Alpha's Sar	mple ID	Test Reference	Analyte	
0808132	20-01A	EPA Method 300.0 / 9056	Nitrate (NO3) - N	

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 A Kandy

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 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

		Parameter	Estimated Concentration	Estimated Reporting Limit	Date Received	Date Sampled	Date Analyzed
Client ID : Lab ID :	<b>MW-16</b> BMI08081320-01A	* * * None Found * * *	ND	2.0 μg/L	08/13/08	08/12/08	08/14/08
Client ID : Lab ID :	<b>MW-10</b> BMI08081320-02A	* * * None Found * * *	ND	2.0 μg/L	08/13/08	08/12/08	08/14/08
Client ID : Lab ID :	<b>TB-15-8/12/08</b> BMI08081320-03A	* * * None Found * * *	ND	2.0 µg/L	08/13/08	08/12/08	08/14/08

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

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.

8/26/08 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	

Alpha Analytical Number: BMI08081320-01A Client I.D. Number: MW-16

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

Sampled: 08/12/08 Received: 08/13/08 Analyzed: 08/14/08

#### 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	3.0	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 (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	5.3	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	101	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	97	(70-130)	%REC
31	Toluene	1.5	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	112	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	µg/L					
33	Dibromochloromethane	4.3	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.

ND = Not Detected

Roger Scholl

Kandy Sandner

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

8/26/08

**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

Alpha Analytical Number: BMI08081320-02A Client I.D. Number: MW-10

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

Sampled: 08/12/08 Received: 08/13/08 Analyzed: 08/14/08

#### 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/∟
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 (DBCI	P) ND	2.5	µg/L
25	Trichloroethene	3.6	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	103	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	98	(70-130)	%REC
31	Toluene	1.3	0.50	μg/L	66	Surr: 4-Bromofluorobenzene	111	(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	0.83	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Saulmer

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.

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

8/26/08 **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

Alpha Analytical Number: BMI08081320-03A Client I.D. Number: TB-15-8/12/08

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

Sampled: 08/12/08 Received: 08/13/08 Analyzed: 08/14/08

#### 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/∟
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	101	(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	109	(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 Daulmer

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.

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

8/26/08

**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

## **VOC Sample Preservation Report**

### Work Order: BMI08081320

### Project: G005862 / JPL Groundwater Monitoring

Client's Sample ID	Matrix	pH	
MW-16	Aqueous	2	
<b>MW-10</b>	Aqueous	2	
TB-15-8/12/08	Aqueous	2	
	MW-16 MW-10	MW-16 Aqueous MW-10 Aqueous	MW-16Aqueous2MW-10Aqueous2

8/26/08 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 : 08/13/08

Job#: G005862 / JPL Groundwater Monitoring

		Anions by IC 1ethod 300.0 / 9056			
	Parameter	Concentration	Reporting Limit	Date / Time Sampled	Date / Time Analyzed
Client ID : <b>MW-16</b> Lab ID : BMI08081320-01A	Nitrite (NO2) - N Nitrate (NO3) - N Phosphate, ortho - P	ND 0.99 ND	0.25 mg/L 0.25 mg/L 0.25 mg/L	08/12/08 10:04 08/12/08 10:04 08/12/08 10:04	

ND = Not Detected

Roger Scholl

Kandy Sandmer

Walter Acrilian

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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8/26/08

**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 : 08/13/08

Job#: G005862 / JPL Groundwater Monitoring

		]	Anions by IC EPA Method 300.0 / 9056		
		Parameter	Concentration	Reporting Limit	Date Date Sampled Analyzed
	MW-16			0.50 //	00/12/00 00/12/00
Lab ID : I	BMI08081320-01A	Chloride Sulfate (SO4)	73 51	0.50 mg/L 0.50 mg/L	08/12/08 08/13/08 08/12/08 08/13/08

Roger Scholl

Kandy Dantmer

Walter Aridm

8/26/08 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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### ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201

Attn: David Conner Phone: (619) 574-4827 (614) 458-6641 Fax: Date Received : 08/13/08

Job#: G005862 / JPL Groundwater Monitoring

		Metals by ICPMS EPA Method 200.8		
	Parameter	Concentration	Reporting Limit	Date Date Sampled Analyzed
Client ID : <b>MW-16</b> Lab ID : BMI08081320-01A	Chromium (Cr)	0.0081	0.0050 mg/L	08/12/08 08/15/08
Client ID : <b>MW-10</b> Lab ID : BMI08081320-02A	Chromium (Cr)	0.017	0.0050 mg/L	08/12/08 08/15/08

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Roger Scholl

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

8/26/08

**Report Date** 



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Battelle Memorial Institute 505 King Avenue Columbus, OH 43201

David Conner Attn: Phone: (619) 574-4827 (614) 458-6641 Fax: Date Received : 08/13/08

Job#: G005862 / JPL Groundwater Monitoring

	-	Conductance at 25°C 0.1 / SM2510B / SW9050A	A	
	Parameter	Concentration	Reporting Limit	Date Date Sampled Analyzed
Client ID : <b>MW-16</b> Lab ID : BMI08081320-01A	Specific Conductance (at 25°C)	620	10 µS/cm	08/12/08 08/13/08
Client ID : <b>MW-10</b> Lab ID : BMI08081320-02A	Specific Conductance (at 25°C)	940	10 µS/cm	08/12/08 08/13/08

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

8/26/08 **Report Date** 



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### ANALYTICAL REPORT

Battelle Memorial Institute 505 King Avenue Columbus, OH 43201

David Conner Attn: Phone: (619) 574-4827 Fax: (614) 458-6641 Date Received : 08/13/08

Job#: G005862 / JPL Groundwater Monitoring

	Parameter	Concentration	Reporting Limit	Date Date Sampled Analyzed
Client ID : <b>MW-16</b> Lab ID : BMI08081320-01A	Perchlorate	19.3	1.00 µg/L	08/12/08 08/15/08
Client ID : <b>MW-10</b> Lab ID : BMI08081320-02A	Perchlorate	4.63	1.00 µg/L	08/12/08 08/15/08

Roger Scholl Kandy

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

8/26/08 **Report Date** 



Date: 26-Aug-08	(	C Sum	<b>Work Order:</b> 08081320	
Method Blank		Type MBLK		
File ID: 08081408.D		_	Batch ID: MS15W0814K5	Analysis Date: 08/14/2008 12:02
Sample ID: MBLK MS15W0814K	Units : µg/L		ID: MSD_15_080814B	Prep Date: 08/14/2008
Analyte	Result	PQL S	okVal SpkRefVal %REC LCL(ME	E) UCL(ME) RPDRefVal %RPD(Limit) Qua
Dichlorodifluoromethane	ND	0.5		
Chloromethane	ND	1		
Vinyl chloride Chloroethane	ND ND	0.5 0.5		
Bromomethane	ND	0.5		
Trichlorofluoromethane	ND	0.5		
1,1-Dichloroethene	ND	0.5		
Dichloromethane	ND	1		
Freon-113	ND	0.5		
trans-1,2-Dichloroethene	ND	0.5		
Methyl tert-butyl ether (MTBE) 1,1-Dichloroethane	ND ND	0.5 0.5		
2-Butanone (MEK)	ND	0.5 10		
cis-1.2-Dichloroethene	ND	0.5		
Bromochloromethane	ND	0.5		
Chloroform	ND	0.5		
2,2-Dichloropropane	ND	0.5		
1,2-Dichloroethane	ND	0.5		
1,1,1-Trichloroethane	ND	0.5		
1,1-Dichloropropene	ND	0.5		
Carbon tetrachloride Benzene	ND ND	0.5 0.5		
Dibromomethane	ND	0.5		
1,2-Dichloropropane	ND	0.5		
Trichloroethene	ND	0.5		
Bromodichloromethane	ND	0.5		
4-Methyl-2-pentanone (MIBK)	ND	2.5		
cis-1,3-Dichloropropene	ND	0.5		
trans-1,3-Dichloropropene 1,1,2-Trichloroethane	ND ND	0.5 0.5		
Toluene	ND	0.5		
1,3-Dichloropropane	ND	0.5		
Dibromochloromethane	ND	0.5		
1,2-Dibromoethane (EDB)	ND	1		
Tetrachloroethene	ND	0.5		
1,1,1,2-Tetrachloroethane	ND	0.5	•	
Chlorobenzene Ethylbenzene	ND ND	0.5 0.5		
m,p-Xylene	ND	0.5		
Bromoform	ND	0.5		
Styrene	ND	0.5		
o-Xylene	ND	0.5		
1,1,2,2-Tetrachloroethane	ND	0.5		
1,2,3-Trichloropropane	ND	1		
Isopropylbenzene Bromobenzene	ND ND	0.5 0.5		
n-Propylbenzene	ND	0.5		
4-Chlorotoluene	ND	0.5		
2-Chlorotoluene	ND	0.5		
1,3,5-Trimethylbenzene	ND	0.5		
tert-Butylbenzene	ND	0.5		
1,2,4-Trimethylbenzene	ND	0.5		
sec-Butylbenzene 1,3-Dichlorobenzene	ND ND	0.5 0.5		
1,4-Dichlorobenzene	ND	0.5		
4-Isopropyltoluene	ND	0.5		
1,2-Dichlorobenzene	ND	0.5		
n-Butylbenzene	ND	0.5		
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.5		
1,2,4-Trichlorobenzene	ND	1		
Naphthalene	ND	1		
Hexachlorobutadiene 1,2,3-Trichlorobenzene	ND ND	1		
Surr: 1,2-Dichloroethane-d4	9.42	I	10 94 75	128
Surr: Toluene-d8	10		10 100 80	120



<b>Date:</b> 26-Aug-08		(	QC Su	ımmary	Report			Work Ord 0808132	
	fluorobenzene	10.9		10	109	70	130		
File ID: 08081			Туре <b>L(</b>	Bato	Code: h ID: <b>MS15W081</b>	I4K5	-	Date: 08/14/2008 10:41	
Sample ID: Analyte	LCS MS15W0814K	Units : µg/L Result	PQL		)_15_080814B nkRef\/al_%REC	LCL(ME)	Prep Date	e: 08/14/2008 PDRefVal %RPD(Limit)	Qua
Dichlorodifluo	romethane	8.03		<u>- 3pkval 3</u> 10	80	70	130		
Chloromethan		8.48	2	10	85	70	130		
Vinyl chloride		10.8	1	10	108	70	130		
Chloroethane Bromomethan	0	12.4 15	1	10 10	124 150	70 70	130 130		L51
Trichlorofluoro		13.4	2	10	130	70	130		L51
1.1-Dichloroet		11	, 1	10	110	70	130		201
Dichlorometha		10.4	2	10	104	70	130		
trans-1,2-Dich		11.6	1	10	116	70	130		
Methyl tert-but 1,1-Dichloroet	tyl ether (MTBE)	11.8	0.5	10	118	70 70	130 130		
cis-1,2-Dichloi		10.8 11.6	1	10 10	108 116	70	130		
Bromochloron		10.9	1	10	109	70	130		
Chloroform		11	1	10	110	70	130		
2,2-Dichloropr 1,2-Dichloroet		12.9	1	10	129	70 70	130 130		
1,1,1-Trichlord		11.7 12.1	1	10 10	117 121	70	130		
1,1-Dichloropr		12.3	1	10	123	70	130		
Carbon tetracl	hloride	11.5	1	10	115	70	130		
Benzene		10.7	0.5	10	107	70	130		
Dibromometha 1,2-Dichloropr		11.6 10.6	1 1	10 10	116 106	70 70	130 130		
Trichloroether	•	10.0	1	10	108	70	130		
Bromodichloro		12.2	1	10	122	70	130		
cis-1,3-Dichlor		10.4	1	10	104	70	130		
trans-1,3-Dich 1,1,2-Trichlord		10.2 11	1	10 10	102 110	70 70	130 130		
Toluene	Jeanane	9.75	0.5	10	98	70	130		
1,3-Dichloropr	ropane	10.2	1	10	102	70	130		
Dibromochloro		9.44	1	10	94	70	130		
1,2-Dibromoel Tetrachloroeth		21 9.71	2 1	20 10	105 97	70 70	130 130		
1,1,1,2-Tetrac		9.83	1	10	98	70	130		
Chlorobenzen		9.76	1	10	98	70	130		
Ethylbenzene		10.3	0.5	10	103	70	130		
m,p-Xylene Bromoform		10.9 9.17	0.5	10 10	109 92	70 70	130 130		
Styrene		9.95	1 1	10	92 100	70	130		
o-Xylene		10.1	0.5	10	101	70	130		
1,1,2,2-Tetrac		8.52	1	10	85	70	130		
1,2,3-Trichloro Isopropylbenz		18.2	2	20	91	70 70	130 130		
Bromobenzen		12.3 10.3	1	10 10	123 103	70	130		
n-Propylbenze		11.9	1	10	119	70	130		
4-Chlorotolue		11.5	1	10	115	70	130		
2-Chlorotolue 1,3,5-Trimethy		11.5	1	10	115	70 70	130 130		
tert-Butylbenz		12.3 12.5	1	10 10	123 125	70	130		
1,2,4-Trimethy		12.2	1	10	122	70	130		
sec-Butylbenz		11.6	1	10	116	70	130	x	
1,3-Dichlorobe		10.5 10.6	1	10 10	105 106	70 70	130 130		
4-Isopropyltol		12.1	1	10	100	70	130		
1,2-Dichlorobe		9.67	1	10	97	70	130		
n-Butylbenzer		12.5	1	10	125	70	130		
	3-chloropropane (DBCP)	50.7	3	50	101	57	133		
1,2,4-Trichlor Naphthalene	bbenzene	9.58 9.43	2 2		96 94	70 70	130 130		
Hexachlorobu	tadiene	21.5	2		107	70	130		
1,2,3-Trichlord		9.18	2	10	92	70	130		
	loroethane-d4	8.52		10	85	75	128		
Surr: Toluene Surr: 4-Bromo	-a8 ofluorobenzene	9.46 11.4		10 10	95 114	80 70	120 130		
Surf - Diome		( ). <del>4</del>		10	114	10	100		



Date: 26-Aug-08	(	C Si	ımmar	y Repor	t			Work Orde 08081320	
Sample Matrix Spike		Туре М		est Code:					
File ID: 08081410.D			B	atch ID: MS1	5W08 <sup>-</sup>	14K5	Analysis Date	: 08/14/2008 12:46	
Sample ID: 08081327-01AMS	Units : µg/L			SD_15_0808			Prep Date:	08/14/2008	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	: LCL(ME)	UCL(ME) RPDRe	fVal %RPD(Limit)	Qual
Dichlorodifluoromethane	55.8	2.5		0	112	20	137		
Chloromethane	43.7	10		0	87	31	148		
Vinyl chloride Chloroethane	56.6 62.7	2.5 2.5	50 50	0 0	113 125	46 34	138 170		
Bromomethane	56.5	2.3		0.75	111	20	189		
Trichlorofluoromethane	68	2.5		0	136	51	156		
1,1-Dichloroethene	53.6	2.5		0	107	66	132		
Dichloromethane trans-1,2-Dichloroethene	50.5 54.9	10 2.5		0	101 110	48 68	145 132		
Methyl tert-butyl ether (MTBE)	60.9	1.3		0	122	62	139		
1,1-Dichloroethane	51.9	2.5		Ő	104	70	130		
cis-1,2-Dichloroethene	56.2	2.5		0	112	70	130		
Bromochloromethane	53.2	2.5		0	106	70	130		
Chloroform 2.2-Dichloropropane	52.6 60.4	2.5 2.5		0 0	105 121	70 50	130 152		
1,2-Dichloroethane	58.7	2.5		0	117	65	136		
1,1,1-Trichloroethane	57.1	2.5		0	114	67	133		
1,1-Dichloropropene	57	2.5	50	0	114	70	130		
Carbon tetrachloride	54.1	2.5		0	108	61	142		
Benzene Dibromomethane	51.1 55.9	1.3 2.5		0	102 112	70 69	130 130		
1,2-Dichloropropane	50.8	2.5		0	102	70	132		
Trichloroethene	50.4	2.5		Ő	101	69	130		
Bromodichloromethane	59.4	2.5		0	119	70	130		
cis-1,3-Dichloropropene	49.2	2.5		0	98	66	130		
trans-1,3-Dichloropropene 1,1,2-Trichloroethane	49.3 53.7	2.5 2.5		0	99 107	65 67	134 132		
Toluene	45.6	1.3		-	91	67	130		
1,3-Dichloropropane	49.6	2.5		Ō	99	70	130		
Dibromochloromethane	46.4	2.5		0	93	66	130		
1,2-Dibromoethane (EDB) Tetrachloroethene	104	10		0	104 91	70 59	130 135		
1,1,1,2-Tetrachloroethane	45.6 48.8	2.5 2.5		0	98	59 70	130		
Chlorobenzene	45.8	2.5		Ő	92	70	130		
Ethylbenzene	48	1.3			96	70	130		
m,p-Xylene	49.9	1.3		0	99.9	69	130		
Bromoform Styrene	45.9 47.2	2.5 2.5		0	92 94	57 58	132 135		
o-Xylene	47.1	1.3		0	94	70	130		
1,1,2,2-Tetrachloroethane	42.3	2.5		Ō	85	65	137		
1,2,3-Trichloropropane	90.4	10			90	67	132		
Isopropylbenzene	54.6	2.5			109	70 70	130 130		
Bromobenzene n-Propylbenzene	47.8 52.6	2.5 2.5			96 105	70	130		
4-Chlorotoluene	51.4	2.5			103	70	130		
2-Chlorotoluene	52.3	2.5			105	70	130		
1,3,5-Trimethylbenzene	55.1	2.5			110	68	141		
tert-Butylbenzene 1,2,4-Trimethylbenzene	56.8 54.5	2.5 2.5			114 109	70 67	130 146		
sec-Butylbenzene	52.4	2.5			105	70	130		
1,3-Dichlorobenzene	48.1	2.5			96	70	130		
1,4-Dichlorobenzene	48.2	2.5			96	70	130		
4-Isopropyltoluene	53.9	2.5			108	70	133		
1,2-Dichlorobenzene n-Butylbenzene	45 56.4	2.5 2.5			90 113	70 66	130 145		
1,2-Dibromo-3-chloropropane (DBCP)	250	2.5			100	57	137		
1,2,4-Trichlorobenzene	45.3	10			91	39	157		
Naphthalene	45.7	10			91	26	163		
Hexachlorobutadiene	98.1	10			98 91	35 30	172 170		
1,2,3-Trichlorobenzene Surr: 1,2-Dichloroethane-d4	45.3 44.5	10	50 50 50		91 89	30 75	128		
Surr: Toluene-d8	47.4		50		95	80	120		
Surr: 4-Bromofluorobenzene	56		50		112	70	130		



Date: 26-Aug-08	(	QC Sur	nmary	Report	t				Work Orde 08081320	
Sample Matrix Spike Duplicate		Type MSI		est Code:						
File ID: 08081411.D			Ba	tch ID: MS1	5W081	14K5	•		3/14/2008 13:09	
Sample ID: 08081327-01AMSD	Units : µg/L	R		SD_15_0808			Prep D		/14/2008	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Dichlorodifluoromethane	52.9	2.5	50	0	106	20	137	55.82	5.3(20)	
Chloromethane	45.1	10	50	0	90	31	148	43.66	3.3(20)	
Vinyl chloride Chloroethane	55.5 60.5	2.5 2.5	50 50	0	111 121	46 34	138 170	56.59 62.7	2.0(20) 3.5(20)	
Bromomethane	63.1	2.3 10	50 50	0.75	125	20	189	56.46	11.1(20)	
Trichlorofluoromethane	63.7	2.5	50	0	127	51	156	68.04	6.6(20)	
1,1-Dichloroethene	51.2	2.5	50	0	102	66	132	53.62	4.6(20)	
Dichloromethane	50.3	10	50	0	101	48	145	50.47	0.4(20)	
trans-1,2-Dichloroethene Methyl tert-butyl ether (MTBE)	52.9 61.7	2.5 1.3	50 50	0	106 123	68 62	132 139	54.91 60.87	3.7(20) 1.3(20)	
1,1-Dichloroethane	51.8	2.5	50	0	104	70	130	51.92	0.2(20)	
cis-1,2-Dichloroethene	55.6	2.5	50	0	111	70	130	56.15	1.1(20)	
Bromochloromethane	53.7	2.5	50	0	107	70	130	53.17	0.9(20)	
Chloroform	52.1	2.5	50	0	104	70	130	52.63	1.1(20)	
2,2-Dichloropropane 1,2-Dichloroethane	57.4 58.5	2.5 2.5	50 50	0	115 117	50 65	152 136	60.37 58.74	5.0(20) 0.5(20)	
1,1,1-Trichloroethane	55.3	2.5	50 50	0	111	67	133	57.08	3.2(20)	
1,1-Dichloropropene	54.9	2.5	50	Ő	110	70	130	57.04	3.8(20)	
Carbon tetrachloride	51.7	2.5	50	0	103	61	142	54.07	4.4(20)	
Benzene	50.4	1.3	50	0	101	70	130	51.11	1.4(20)	
Dibromomethane 1,2-Dichloropropane	56.8 51.2	2.5 2.5	50 50	0	114 102	69 70	130 132	55.94 50.8	1.5(20) 0.9(20)	
Trichloroethene	49.5	2.5	50 50	0	99	69	130	50.4	1.9(20)	
Bromodichloromethane	58.7	2.5	50	0	117	70	130	59.37	1.1(20)	
cis-1,3-Dichloropropene	49.6	2.5	50	0	99	66	130	49.19	0.7(20)	
trans-1,3-Dichloropropene	51.2	2.5	50	0	102	65	134	49.25	3.9(20)	
1,1,2-Trichloroethane Toluene	55.1 44	2.5 1.3	50 50	0	110 88	67 67	132 130	53.74 45.56	2.5(20) 3.5(20)	
1,3-Dichloropropane	49.2	2.5	50 50	0	98	70	130	49.57	0.7(20)	
Dibromochloromethane	45.8	2.5	50	Ō	92	66	130	46.43	1.3(20)	
1,2-Dibromoethane (EDB)	102	10	100	0	102	70	130	103.7	1.8(20)	
Tetrachloroethene	43.3	2.5	50	0	87	59	135	45.6	5.1(20)	
1,1,1,2-Tetrachloroethane Chlorobenzene	46.7 45.2	2.5 2.5	50 50	0	93 90	70 70	130 130	48.76 45.75	4.4(20) 1.3(20)	
Ethylbenzene	46.4	1.3	50 50	0	93	70	130	48.01	3.5(20)	
m,p-Xylene	48.5	1.3	50	Ō	97	69	130	49.93	3.0(20)	
Bromoform	45.8	2.5	50	0	92	57	132	45.94	0.4(20)	
Styrene	46.5	2.5	50	0	93	58	135	47.23	1.6(20)	
o-Xylene 1,1,2,2-Tetrachloroethane	46.1 43.3	1.3 2.5	50 50	0	92 87	70 65	130 137	47.12 42.29	2.2(20) 2.3(20)	
1,2,3-Trichloropropane	43.3 89.6	2.5	100	0	90	67	132	90.41	0.9(20)	
lsopropylbenzene	52.8	2.5	50	õ	106	70	130	54.6	3.5(20)	
Bromobenzene	48.8	2.5	50	0	98	70	130	47.76	2.2(20)	
n-Propylbenzene	51.3	2.5	50	0	103	70	130	52.59	2.6(20)	
4-Chlorotoluene 2-Chlorotoluene	50.9 51.1	2.5 2.5	50 50	0 0	102 102	70 70	130 130	51.36 52.34	0.9(20) 2.5(20)	
1,3,5-Trimethylbenzene	54.4	2.5	50	0	102	68	141	55.07	1.3(20)	
tert-Butylbenzene	55.2	2.5	50	Ő	110	70	130	56.8	2.9(20)	
1,2,4-Trimethylbenzene	54.7	2.5	50	0	109	67	146	54.51	0.4(20)	
sec-Butylbenzene	50	2.5	50	0	100	70	130	52.42	4.7(20)	
1,3-Dichlorobenzene 1,4-Dichlorobenzene	48.5 48.9	2.5 2.5	50 50	0 0	97 98	70 70	130 130	48.1 48.15	0.7(20) 1.4(20)	
4-Isopropyltoluene	53.4	2.5	50	ő	107	70	133	53.87	0.9(20)	
1,2-Dichlorobenzene	45.8	2.5	50	õ	92	70	130	45.04	1.6(20)	
n-Butylbenzene	55.4	2.5	50	0	111	66	145	56.41	1.8(20)	
1,2-Dibromo-3-chloropropane (DBCP)	253	15	250	0	101	57	137	250	1.1(20)	
1,2,4-Trichlorobenzene Naphthalene	47.1 48.9	10 10	50 50	0	94 98	39 26	157 163	45.29 45.66	3.9(20) 6.8(20)	
Hexachlorobutadiene	48.9 98.5	10	50 100	0	98 99	26 35	172	45.66 98.14	0.4(20)	
1,2,3-Trichlorobenzene	48.5	10	50	õ	97	30	170	45.26	6.9(20)	
Surr: 1,2-Dichloroethane-d4	43.1		50		86	75	128			
Surr: Toluene-d8 Surr: 4-Bromofluorobenzene	47.2		50		94	80	120			
Sun. 4-Dromonuorobenzene	56.3		50		113	70	130			



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### QC Summary Report

Work Order: 08081320

#### 26-Aug-08 Comments:

Date:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

L51 = Analyte recovery was above acceptance limits for the LCS, but was acceptable in the MS/MSD.



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<b>Date:</b> 26-Aug-08		(	)C Sı	ımmar	y Repor	t				<b>Work Orde</b> 08081320	
Method Blank File ID: 17 Sample ID: MB- Analyte	20439	Units : <b>mg/L</b> Result	Type M	Ba Run ID: <b>IC</b>	est Code: EF atch ID: 2043 _2_080813A SpkRefVal	89A		Analys Prep [	Date:	08/13/2008 12:10 08/13/2008 Val %RPD(Limit)	Qual
Nitrite (NO2) - N Nitrate (NO3) - N Phosphate, ortho - F	)	ND ND ND	0.25 0.25 0.25								
Laboratory Fort	ified Blank		Type L	FB Te	est Code: EF	PA Met	hod 300.0	/ 9056			
File ID: 18				Ba	atch ID: 2043	89A				08/13/2008 12:29	
	-20439	Units : <b>mg/L</b>			_2_080813A			Prep [		08/13/2008	- ·
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qual
Nitrite (NO2) - N Nitrate (NO3) - N Phosphate, ortho - F	0	1.21 1.15 1.17	0.25 0.25 0.25	1.25		97 92 94	90 90 90	110 110 110			
Sample Matrix S	pike		Type L	FM Te	est Code: EF	PA Met	hod 300.0	/ 9056			
File ID: 21	r		•••	Ba	atch ID: 2043	89A		Analy	sis Date:	08/13/2008 13:25	
Sample ID: 080	81320-01ALFM	Units : mg/L		Run ID: IC	_2_080813A			Prep [	Date:	08/13/2008	
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qual
Nitrite (NO2) - N Nitrate (NO3) - N Phosphate, ortho - F	0	1.25 2.09 1.2	0.25 0.25 0.25	1.25	0 0.9927 0	99.7 88 96	80 80 80	120 120 120			
Sample Matrix S	pike Duplicate		Type L	FMD Te	est Code: EF	PA Met	hod 300.0	/ 9056			
File ID: <b>22</b>	•			Ba	atch ID: 2043	89A		Analys	sis Date:	08/13/2008 13:43	
Sample ID: 080	81320-01ALFMD	Units : mg/L		Run ID: IC	_2_080813A			Prep (	Date:	08/13/2008	
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qual
Nitrite (NO2) - N Nitrate (NO3) - N Phosphate, ortho - F	)	1.29 2.1 1.25	0.25 0.25 0.25	1.25	0 0.9927 0	103 89 100	80 80 80	120 120 120	1.24 2.09 1.20	3 0.4(10)	

### Comments:

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<b>Date:</b> 26-Aug-08		(	DC S	umma	iry ]	Repor	t				Work Orde 08081320	
Method Blanl File ID: 17	k		Type I	MBLK		Code: EF n ID: 2043		hod 300.0		vsis Date:	08/13/2008 12:10	
Sample ID:	MB-20439	Units : mg/L		Run ID:	IC_2_	_080813A			Prep	Date:	08/13/2008	
Analyte		Result	PQL	SpkV	al Sp	kRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qua
Sulfate (SO4)		ND	0.	5								
	ortified Blank		Type <b>i</b>	FB				hod 300.0				
File ID: 18					Batch	n ID: <b>204</b> 3	9B				08/13/2008 12:29	
Sample ID:	LFB-20439	Units : mg/L				_080813A				Date:	08/13/2008	
Analyte		Result	PQL	SpkV	al Sp	kRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qua
Sulfate (SO4)		10.1	0.	5 1	0	-	101	90	110			
Sample Matri	ix Spike		Type I	FM	Test	Code: EF	PA Met	hod 300.0	/ 9056			
File ID: 21					Batch	n ID: <b>204</b> 3	9B		Analy	sis Date:	08/13/2008 13:25	
Sample ID:	08081320-01ALFM	Units : mg/L		Run ID:	IC_2_	_080813A	1		Prep	Date:	08/13/2008	
Analyte		Result	PQL	SpkV	al Sp	kRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qua
Sulfate (SO4)		59	0.	5 1	0	51.09	79	80	120			M2
Sample Matri	ix Spike Duplicate	··· ··································	Туре І	FMD	Test	Code: EF	PA Met	hod 300.0	/ 9056			
File ID: 22					Batch	n ID: 2043	9B		Analy	sis Date:	08/13/2008 13:43	
Sample ID:	08081320-01ALFMD	Units : mg/L		Run ID:	IC_2_	080813A			Prep	Date:	08/13/2008	
Analyte		Result	PQL					LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qua
Sulfate (SO4)		61.1	0.	5 1	0	51.09	100	80	120	59.0	3 3.4(10)	

#### Comments:

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M2 = Matrix spike recovery was low, the method control sample recovery was acceptable.



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<b>Date:</b> 26-Aug-08		(	)C S	umm	ary	Report	t				Work Orde 08081320	
Method Bla File ID: 17	nk		Type I	MBLK		st Code: EP		hod 300.0		ysis Date:	08/13/2008 12:10	<u></u>
Sample ID:	MB-20439	Units : mg/L		Run ID	: IC_	2_080813A			Prep	Date:	08/13/2008	
Analyte		Result	PQL	Spk\	/al S	SpkRefVal <sup>v</sup>	%REC	LCL(ME)	UCL(ME	) RPDRef	Val %RPD(Limit)	Qua
Chloride		ND	0.	5								
	Fortified Blank		Туре І	.FB	Tes	st Code: EP	A Met	hod 300.0	/ 9056			
File ID: 18					Bat	tch ID: 2043	9C		Anal	ysis Date:	08/13/2008 12:29	
Sample ID:	LFB-20439	Units : mg/L		Run ID	: IC_	2_080813A			Prep	Date:	08/13/2008	
Analyte		Result	PQL	Spk\	/al S	SpkRefVal <sup>(</sup>	%REC	LCL(ME)	UCL(ME	) RPDRef	Val %RPD(Limit)	Qua
Chloride		4.7	0.	5	5		94	90	110			
Sample Mat	trix Spike		Туре І	.FM	Tes	st Code: EP	A Met	hod 300.0	/ 9056			
File ID: <b>21</b>					Bat	ich ID: 2043	9C		Anal	ysis Date:	08/13/2008 13:25	
Sample ID:	08081320-01ALFM	Units : mg/L		Run ID	: IC_	2_080813A			Prep	Date:	08/13/2008	
Analyte		Result	PQL	Spk\	/al S	SpkRefVal <sup>v</sup>	%REC	LCL(ME)	UCL(ME	) RPDRef	Val %RPD(Limit)	Qua
Chloride		73.9	0.	5	5	72.75	23	80	120			M2
Sample Mat	trix Spike Duplicate	ni ini e	Туре І	FMD	Tes	st Code: EP	A Met	hod 300.0	/ 9056			
File ID: 22					Bat	tch ID: 2043	9C		Anal	ysis Date:	08/13/2008 13:43	
Sample ID:	08081320-01ALFMD	Units : mg/L		Run ID	: IC_:	2_080813A			Prep	Date:	08/13/2008	
Analyte		Result	PQL					LCL(ME)	UCL(ME	) RPDRef	Val %RPD(Limit)	Qua
Chloride		77.1	0.	5	5	72.75	86	80	120	73.9	4.2(10)	

#### Comments:

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M2 = Matrix spike recovery was low, the method control sample recovery was acceptable.



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Date: 26-Aug-08	(	DC S	ummar	y Repor	t				<b>Work Orde</b> 08081320	
Method Blank File ID: 081408.B\B034SMPL.D		Type I	Ba	est Code: El atch ID: 204	35K	hod 200.8	Analysis		08/15/2008 12:56	
Sample ID: MB-20435	Units : mg/L			P/MS_0808			Prep Da		08/13/2008	0
Analyte	Result	PQL		SpkRefVal	%REC	LCL(ME)	UCL(ME) R	PDRef	/al %RPD(Limit)	Qual
Chromium (Cr)	ND	0.00	5							
Laboratory Control Spike File ID: 081408.B\B035_LCS.D		Туре I		est Code: El atch ID: 204		hod 200.8		a Date:	08/15/2008 13:02	
Sample ID: LCS-20435	Units : mg/L		Run ID: IC	P/MS_0808	15B		Prep Da	ite:	08/13/2008	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME) R	PDRef\	/al %RPD(Limit)	Qual
Chromium (Cr)	0.0505	0.00	5 0.05		101	80	120			
Sample Matrix Spike File ID: 081408.B\B038SMPL.D		Type I		est Code: El atch ID: 204		hod 200.8		a Date:	08/15/2008 13:19	
Sample ID: 08081223-01AMS	Units : mg/L		Run ID: IC	P/MS_0808	15B		Prep Da	ite:	08/13/2008	
Analyte	Result	PQL		_		LCL(ME)	UCL(ME) R	PDRef\	/al %RPD(Limit)	Qual
Chromium (Cr)	0.0509	0.00	5 0.05	0	102	80	120			
Sample Matrix Spike Duplicate		Type I	NSD TO	est Code: El	PA Met	hod 200.8				
File ID: 081408.B\B039SMPL.D			Ba	atch ID: 204	35K		Analysis	Date:	08/15/2008 13:25	
Sample ID: 08081223-01AMSD	Units : mg/L		Run ID: IC	P/MS_0808	15B		Prep Da	ite:	08/13/2008	
Analyte	Result	PQL				LCL(ME)	UCL(ME) R	PDRef\	/al %RPD(Limit)	Qual
Chromium (Cr)	0.0504	0.00	5 0.05	0	101	80	120	0.0508	36 0.9(20)	

#### Comments:

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<b>Date:</b> 26-Aug-08	QC Summary Report	Work Order: 08081320
Method Blank File ID:	Type MBLKTest Code: EPA Method 120.1 / SM2510B / SW9050ABatch ID: W0813CNAnalysis Date: 08/13	3/2008 00:00
Sample ID: MBLK-W0813CN	Units : µS/cm Run ID: WETLAB_080813E Prep Date: 08/13	/2008
Analyte	Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %	RPD(Limit) Qua
Specific Conductance (at 25°C)	ND 10	
Laboratory Control Spike File ID:	Type LCS Test Code: EPA Method 120.1 / SM2510B / SW9050A Batch ID: W0813CN Analysis Date: 08/13	3/2008 00:00
Sample ID: LCS-W0813CN	Units : µS/cm Run ID: WETLAB_080813E Prep Date: 08/13	/2008
Analyte	Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %I	RPD(Limit) Qua
Specific Conductance (at 25°C)	1410 10 1410 100 98 102	

#### **Comments:**

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



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<b>Date:</b> 26-Aug-08		(	DC S	Sui	nmar	y Repor	t				<b>Work Orde</b> 08081320	
Method Blan File ID: 13	ık		Туре	МВ		est Code: El atch ID: 204		thod 314.0		Date:	08/15/2008 15:15	
Sample ID:	MBLK-20472	Units : µg/L		R	un ID: <b>IC</b>	_3_080815/	4		Prep Date	ə:	08/15/2008	
Analyte		Result	PQL		SpkVal	SpkRefVal	%REC	CLCL(ME)	UCL(ME) RP	DRef	val %RPD(Limit)	Qua
Perchlorate		ND		1								
•	Fortified Blank		Туре	LFE		est Code: E		thod 314.0				
File ID: <b>14</b> Sample ID:	LFB-20472	Units : µg/L		R	un ID: <b>IC</b>	atch ID: 204 _3_080815/	4		Prep Date	e:	08/15/2008 15:33 08/15/2008	
Analyte		Result	PQL		SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME) RP	DRef	Val %RPD(Limit)	Qua
Perchiorate	• • • • • • • • • • • • • • • • • • •	24.2		2	25		97	85	115			
Sample Matr File ID: 18	rix Spike		Туре	LFN		est Code: E atch ID: 204		thod 314.0		Date:	08/15/2008 16:47	
Sample ID:	08081320-02ALFM	Units : µg/L		R	un ID: <b>IC</b>	3 080815/	4		Prep Date	e:	08/15/2008	
Analyte		Result	PQL					LCL(ME)	UCL(ME) RP	DRef	val %RPD(Limit)	Qua
Perchlorate		27.1		2	25	4.626	90	80	120			
Sample Matr	rix Spike Duplicate		Туре	LFN	ND Te	est Code: E	PA Met	thod 314.0			<u> </u>	
File ID: 19					Ba	atch ID: 204	72		Analysis I	Date:	08/15/2008 17:05	
Sample ID:	08081320-02ALFMD	Units : µg/L		R	un ID: <b>IC</b>	_3_080815/	4		Prep Date	e:	08/15/2008	
Analyte		Result	PQL		SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME) RP	DRef	val %RPD(Limit)	Qua
Perchlorate	······································	28.2		2	25	4.626	94	80	120	27.1	1 4.0(15)	

#### Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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Billing Information : Battelle			CH/	N	-OF	-01	CHAIN-OF-CUSTODY RECO	DY I	REC	ORD		C.A			Page: 1 of 1	1 of 1
505 King Avenue					Alp	ha A	Alpha Analytical, Inc.	cal, Inc	ç		8	ork()	rder	RMIO	WorkOrder : BMI08081320	
Columbus, OH 43201	201			55 Glen TI	dale Ave 3L: (775)	nue, Sui ) 355-10	255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778 TEL: (775) 355-1044 FAX: (775) 355-0406	ks, Nevada (775) 355-0	89431-57 406	78	Repo	ort Due	By: 5:	00 PM	Report Due By : 5:00 PM On : 27-Aug-08	-Aug-08
Client:			Report Attention	ģ	Pho	Phone Number	ıber	EMail Address	ddress							
Battelle Memorial Institute	nstitute		David Conner		(619	(619) 574-4827 x	327 x	connerd@	connerd@battelle.org	04						
505 King Avenue		_									EI	DD Requ	EDD Required : Yes			
Columbus, OH 43201	201											Sample	Sampled by : Client	nt		
PO: 218017												Cooler Temp		Samples Received	Received	Date Printed
Client's COC #: 026269		ob :	Job : G005862/JPL Groundwater Monitoring	. Groun	dwater	Monitori	ng					4	4°C	13-Aug-08	1g-08	13-Aug-08
QC Level: S4	= Final Rpt, MBLK, InitCal/ConCal data, LCS, MS/MSD With Surrogates	Cal/Cor	nCal data, LC	S, MS/N	MSD Wi	th Surro	gates									
										<b>Requested Tests</b>	ed Tests					
Alpha Sample ID	Client Sample ID	Matri	Collection No. of Bottles Matrix Date Alpha Sub	No. of Bottle Alpha Sub	Bottles Sub	s TAT	314_W	ANIONS(A) ANIONS(B) ANIONS(C) CONDUCTI METALS_D VOC_TIC_	ANIONS(B)	ANIONS(C)		METALS_D W	VOC_TIC_	VOC_W	Sample	Sample Remarks
BMI08081320-01A	MW-16	AQ	08/12/08 10:04	σ	0	10	Perchlorate	Perchlorate CI,NO2,NO3, CI,NO2,NO3, CI,NO2,NO3, PO4,SO4 PO4,SO4 PO4,SO4 PO4,SO4	CI,NO2,NO3, PO4,SO4	CI,NO2,NO3, PO4,SO4	Perchlorate	ç	VOC by 524 VOC by 524 Criteria Criteria	VOC by 524 Criteria		
BMI08081320-02A	MW-10	AQ	08/12/08 13:05	5	0	10	Perchlorate				Perchlorate	ç	VOC by 524 VOC by 524 Criteria Criteria	VOC by 524 Criteria	Leve	Level IV QC
BMI08081320-03A TB-15-8/12/08	TB-15-8/12/08	AQ	08/12/08 00:00	د.	0	10							VOC by 524 VOC by 524 Criteria Criteria	VOC by 524 Criteria	Client provid	Client provided Trip Blank.

No security seals. Frozen ice. Temp Blank #7720 rec'd @ 4°. Level IV QC. Samples should be used as the control spike sample if possible (LE.: MS/MSD).:

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

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.

Monday

Alpha Analytical, Inc.

8/13/08 1035 Date/Time

Company

Print Name

**Comments:** 

Logged in by:

Canaday

Signature

Information:	255	₽ ?	Samples Collected From Which State? AZCANVWAF IDOROTHERF	a	026269 me# / of /
Address <u>505</u> KI we Ave City, State, Zip <u>Course</u> Buss , off <u>4320</u> ( Phone Number Fax	Fax	Sparks, Nevaua 09431-5770 Phone (775) 355-1044 Fax (775) 355-0406	Analys		
Client Name DAVID CONNER	P.0.# 218017	298-500-4905 # gor		Arequ	Required QC Level?
OWN ALE, C-205	EMail Address		14.		
EGO, CA 92110	Phone # 619-726-7311	Fax #	بحكح	EDD/EDF? YES	? YESNO
Matrix* Sampled by		Total and type of		Global ID #	
	Sample Description	<u> </u>	Cr	/ REI	REMARKS
1004 Shiles & BM108081320-01	MW-16	Norm S			
(30) 02	CIMM	5 >		6000	LEVEL IN
٤0 ٤0	TR-15-8/12/28	X 1 to		TRIP	BLANK
ADDITIONAL INSTRUCTIONS:					
Signature	Print Name		Company	Date	Time
Relinquished by	MARCO MENDOZA	INSIGHT		Stals 8	/330
Received by Kallunday	K Muray	AU	8	8/13/08	1025
Reinquished by					
Reinouished 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	e OT - Other AR - Air	**: L-Liter V-Voa S-Soil Jar	O-Orbo T-Tedlar B-Brass	P-Plastic	OT-Other

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.