

AP – 119

Q1 AGWMR

03 / 24 / 2014

TABLE 1

## CUMULATIVE GROUNDWATER ELEVATION DATA

PRO-KEM, INC.  
 LOVINGTON YARD  
 LEA COUNTY, NEW MEXICO  
 NMOCD REF NO: AP-119

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO WATER	CORRECTED GROUNDWATER ELEVATION	TOTAL WELL DEPTH	FREE PRODUCT THICKNESS
MW-1	10/24/12	3,895.67	65.43	3,830.24	73.06	0.00
MW-1	01/29/13	3,895.67	65.66	3,830.01	73.01	0.00
MW-1	05/09/13	3,895.67	66.02	3,829.65	72.58	0.00
MW-1	08/16/13	3,895.67	66.35	3,829.32	72.41	0.00
MW-1	12/13/13	3,895.67	65.89	3,829.78	72.71	0.00
MW-1	02/26/14	3,895.67	66.81	3,828.86	73.85	0.00
MW-2	10/24/12	3,894.33	64.81	3,829.52	69.87	0.00
MW-2	01/29/13	3,894.33	65.17	3,829.16	69.84	0.00
MW-2	05/09/13	3,894.33	63.44	3,830.89	69.85	0.00
MW-2	08/16/13	3,894.33	65.73	3,828.60	69.87	0.00
MW-2	12/13/13	3,894.33	65.27	3,829.06	69.85	0.00
MW-2	02/26/14	3,894.33	66.23	3,828.10	69.92	0.00
MW-3	10/24/12	3,894.13	65.51	3,828.62	70.68	0.00
MW-3	01/29/13	3,894.13	65.75	3,828.38	70.68	0.00
MW-3	05/09/13	3,894.13	66.11	3,828.02	70.75	0.00
MW-3	08/16/13	3,894.13	66.25	3,827.88	70.76	0.00
MW-3	12/13/13	3,894.13	65.88	3,828.25	70.80	0.00
MW-3	02/26/14	3,894.13	66.94	3,827.19	71.31	0.00

TABLE 1

## CUMULATIVE CONCENTRATIONS OF BTEX &amp; CARBON TETRACHLORIDE IN GROUNDWATER

PRO-KEM, INC.  
 LOVINGTON YARD  
 LEA COUNTY, NEW MEXICO  
 NMOCD REFERENCE NO: AP-119

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8260b							
		BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL-BENZENE (mg/L)	M,P-XYLENES (mg/L)	O-XYLENES (mg/L)	TOTAL XYLENE (mg/L)	TOTAL BTEX (mg/L)	CARBON TERTRACHLORIDE (mg/L)
MW-1	10/24/2012	<0.001	<0.001	<0.001	<0.002	<0.001	<0.003	<0.003	0.180
MW-1	1/29/2013	<0.001	<0.001	<0.001	<0.002	<0.001	<0.003	<0.003	0.134
MW-1	5/9/2013	<0.001	<0.001	<0.001	<0.002	<0.001	<0.003	<0.003	0.167
MW-1	8/16/2013	<0.002	<0.002	<0.002	<0.004	<0.002	<0.006	<0.006	0.294
MW-1	12/13/2013	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	<0.002	<0.002	0.147
MW-1	2/26/2014	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	<0.002	<0.002	0.328
MW-2	10/24/2012	<0.010	<0.010	<0.010	<0.020	<0.010	<0.030	<0.030	1.55
MW-2	1/29/2013	<0.001	<0.001	<0.001	<0.002	<0.001	<0.003	<0.003	1.50
MW-2	5/9/2013	<0.001	<0.001	<0.001	<0.002	<0.001	<0.003	<0.003	0.181
MW-2	8/16/2013	<0.005	<0.005	<0.005	<0.010	<0.005	<0.015	<0.015	0.744
MW-2	12/13/2013	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	<0.002	<0.002	0.693
MW-2	2/26/2014	<0.002	<0.002	<0.002	<0.005	<0.002	<0.008	<0.008	0.281
MW-3	10/24/2012	<0.001	<0.001	<0.001	<0.002	<0.001	<0.003	<0.003	0.034
MW-3	1/29/2013	<0.001	<0.001	<0.001	<0.002	<0.001	<0.003	<0.003	0.020
MW-3	5/9/2013	<0.001	<0.001	<0.001	<0.002	<0.001	<0.003	<0.003	0.012
MW-3	8/16/2013	<0.001	<0.001	<0.001	<0.002	<0.001	<0.003	<0.003	0.012
MW-3	12/13/2013	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	<0.002	<0.002	0.009
MW-3	2/26/2014	<0.0005	<0.0005	<0.0005	<0.001	<0.002	<0.0005	<0.0005	0.009
WQCC Standard		0.01	0.75	0.75	TOTAL XYLENES		0.62		0.002

March 10, 2014

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: LOVINGTON YARD (AP1-119)

Enclosed are the results of analyses for samples received by the laboratory on 02/26/14 13:10.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

Basin Environmental Service  
P.O. Box 301  
Lovington NM, 88260

Project: LOVINGTON YARD (AP1-119)  
Project Number: NONE GIVEN  
Project Manager: BEN J. ARGUIJO  
Fax To: (575) 396-1429

Reported:  
10-Mar-14 15:32

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	H400578-01	Water	26-Feb-14 12:00	26-Feb-14 13:10
MW-2	H400578-02	Water	26-Feb-14 12:20	26-Feb-14 13:10
MW-3	H400578-03	Water	26-Feb-14 12:40	26-Feb-14 13:10

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

### Analytical Results For:

Basin Environmental Service  
P.O. Box 301  
Lovington NM, 88260

Project: LOVINGTON YARD (AP1-119)  
Project Number: NONE GIVEN  
Project Manager: BEN J. ARGUIJO  
Fax To: (575) 396-1429

Reported:  
10-Mar-14 15:32

### MW-1

### H400578-01 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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### Cardinal Laboratories

#### VOLATILES BY GC/MS

<b>Carbon tetrachloride*</b>	<b>0.328</b>		0.002	mg/L	5	4030604	MS	08-Mar-14	8260B	
<b>Benzene*</b>	ND		0.0005	mg/L	1	4030604	MS	06-Mar-14	8260B	
<b>Toluene*</b>	ND		0.0005	mg/L	1	4030604	MS	06-Mar-14	8260B	
<b>Ethylbenzene*</b>	ND		0.0005	mg/L	1	4030604	MS	06-Mar-14	8260B	
<b>m+p - Xylene*</b>	ND		0.001	mg/L	1	4030604	MS	06-Mar-14	8260B	
<b>o-Xylene*</b>	ND		0.0005	mg/L	1	4030604	MS	06-Mar-14	8260B	
<b>Total Xylenes*</b>	ND		0.002	mg/L	1	4030604	MS	06-Mar-14	8260B	
<i>Surrogate: Dibromofluoromethane</i>			96.4 %		87.3-113	4030604	MS	08-Mar-14	8260B	
<i>Surrogate: Toluene-d8</i>			105 %		89.6-110	4030604	MS	08-Mar-14	8260B	
<i>Surrogate: 4-Bromofluorobenzene</i>			99.4 %		82.3-119	4030604	MS	08-Mar-14	8260B	

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Project Number: NONE GIVEN  
Project Manager: BEN J. ARGUIJO  
Fax To: (575) 396-1429

Reported:  
10-Mar-14 15:32

**MW-2**
**H400578-02 (Water)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**
**VOLATILES BY GC/MS**

<b>Carbon tetrachloride*</b>	<b>0.281</b>		0.002	mg/L	5	4030604	MS	08-Mar-14	8260B	
<b>Benzene*</b>	ND		0.002	mg/L	5	4030604	MS	08-Mar-14	8260B	
<b>Toluene*</b>	ND		0.002	mg/L	5	4030604	MS	08-Mar-14	8260B	
<b>Ethylbenzene*</b>	ND		0.002	mg/L	5	4030604	MS	08-Mar-14	8260B	
<b>m+p - Xylene*</b>	ND		0.005	mg/L	5	4030604	MS	08-Mar-14	8260B	
<b>o-Xylene*</b>	ND		0.002	mg/L	5	4030604	MS	08-Mar-14	8260B	
<b>Total Xylenes*</b>	ND		0.008	mg/L	5	4030604	MS	08-Mar-14	8260B	
<i>Surrogate: Dibromofluoromethane</i>			98.5 %			4030604	MS	08-Mar-14	8260B	
<i>Surrogate: Toluene-d8</i>			102 %			4030604	MS	08-Mar-14	8260B	
<i>Surrogate: 4-Bromofluorobenzene</i>			98.9 %			4030604	MS	08-Mar-14	8260B	

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Reported:  
10-Mar-14 15:32

**MW-3**
**H400578-03 (Water)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**
**VOLATILES BY GC/MS**

<b>Carbon tetrachloride*</b>	<b>0.009</b>		0.0005	mg/L	1	4030604	MS	07-Mar-14	8260B	
<b>Benzene*</b>	ND		0.0005	mg/L	1	4030604	MS	07-Mar-14	8260B	
<b>Toluene*</b>	ND		0.0005	mg/L	1	4030604	MS	07-Mar-14	8260B	
<b>Ethylbenzene*</b>	ND		0.0005	mg/L	1	4030604	MS	07-Mar-14	8260B	
<b>m+p - Xylene*</b>	ND		0.001	mg/L	1	4030604	MS	07-Mar-14	8260B	
<b>Total Xylenes*</b>	ND		0.002	mg/L	1	4030604	MS	07-Mar-14	8260B	
<b>o-Xylene*</b>	ND		0.0005	mg/L	1	4030604	MS	07-Mar-14	8260B	
<i>Surrogate: Dibromofluoromethane</i>			98.7 %		87.3-113	4030604	MS	07-Mar-14	8260B	
<i>Surrogate: Toluene-d8</i>			103 %		89.6-110	4030604	MS	07-Mar-14	8260B	
<i>Surrogate: 4-Bromofluorobenzene</i>			100 %		82.3-119	4030604	MS	07-Mar-14	8260B	

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Reported:  
10-Mar-14 15:32

### VOLATILES BY GC/MS - Quality Control

#### Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch 4030604 - Volatiles

##### Blank (4030604-BLK1)

Prepared & Analyzed: 06-Mar-14

Carbon tetrachloride	ND	0.0005	mg/L							
Benzene	ND	0.0005	mg/L							
Toluene	ND	0.0005	mg/L							
Ethylbenzene	ND	0.0005	mg/L							
m+p - Xylene	ND	0.001	mg/L							
Total Xylenes	ND	0.002	mg/L							
o-Xylene	ND	0.0005	mg/L							
Surrogate: Dibromofluoromethane	0.00980		mg/L	0.0100		98.0	87.3-113			
Surrogate: Toluene-d8	0.0104		mg/L	0.0100		104	89.6-110			
Surrogate: 4-Bromofluorobenzene	0.0104		mg/L	0.0100		104	82.3-119			

##### LCS (4030604-BS1)

Prepared & Analyzed: 06-Mar-14

Dichlorodifluoromethane	0.017	0.0005	mg/L	0.0200		86.6	67-140			
Chloromethane	0.017	0.0005	mg/L	0.0200		86.4	66-133			
Vinyl chloride	0.021	0.0005	mg/L	0.0200		103	75-138			
Bromomethane	0.020	0.0005	mg/L	0.0200		101	75-133			
Chloroethane	0.019	0.0005	mg/L	0.0200		96.7	68-137			
Trichlorofluoromethane	0.021	0.0005	mg/L	0.0200		106	67-139			
1,1-Dichloroethene	0.021	0.0005	mg/L	0.0200		104	65-139			
Carbon disulfide	0.021	0.0005	mg/L	0.0200		105	70-132			
Iodomethane	0.021	0.0005	mg/L	0.0200		105	74-130			
Acrolein	0.102	0.002	mg/L	0.100		102	10-174			
Methylene chloride	0.016	0.0005	mg/L	0.0200		79.4	69-128			
Acetone	0.026	0.002	mg/L	0.0200		130	67-146			
trans-1,2-Dichloroethene	0.021	0.0005	mg/L	0.0200		106	76-127			
Methyl t-Butyl Ether	0.021	0.0005	mg/L	0.0200		104	84-118			
1,1-Dichloroethane	0.021	0.0005	mg/L	0.0200		104	80-126			
Acrylonitrile	0.024	0.0005	mg/L	0.0200		119	76-127			
Vinyl acetate	0.024	0.002	mg/L	0.0200		119	78-125			
cis-1,2-Dichloroethene	0.021	0.0005	mg/L	0.0200		105	83-124			
2,2-Dichloropropane	0.020	0.0005	mg/L	0.0200		101	80-126			

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Celey D. Keene, Lab Director/Quality Manager

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Basin Environmental Service  
P.O. Box 301  
Lovington NM, 88260

Project: LOVINGTON YARD (AP1-119)  
Project Number: NONE GIVEN  
Project Manager: BEN J. ARGUIJO  
Fax To: (575) 396-1429

Reported:  
10-Mar-14 15:32

### VOLATILES BY GC/MS - Quality Control

#### Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch 4030604 - Volatiles

##### LCS (4030604-BS1)

Prepared & Analyzed: 06-Mar-14

Bromochloromethane	0.020	0.0005	mg/L	0.0200		97.8	82-123			
Chloroform	0.019	0.0005	mg/L	0.0200		94.1	81-123			
Carbon tetrachloride	0.020	0.0005	mg/L	0.0200		102	81-132			
1,1,1-Trichloroethane	0.020	0.0005	mg/L	0.0200		99.6	81-132			
1,1-Dichloropropene	0.023	0.0005	mg/L	0.0200		114	84-125			
2-Butanone	0.023	0.002	mg/L	0.0200		113	82-123			
Benzene	0.021	0.0005	mg/L	0.0200		107	86-119			
1,2-Dichloroethane	0.022	0.0005	mg/L	0.0200		111	82-124			
Trichloroethene	0.021	0.0005	mg/L	0.0200		105	82-126			
Dibromomethane	0.020	0.0005	mg/L	0.0200		99.6	82-122			
1,2-Dichloropropane	0.022	0.0005	mg/L	0.0200		112	87-118			
Bromodichloromethane	0.022	0.0005	mg/L	0.0200		108	77-126			
cis-1,3-Dichloropropene	0.023	0.0005	mg/L	0.0200		113	82-122			
Toluene	0.021	0.0005	mg/L	0.0200		107	84-118			
4-Methyl-2-pentanone	0.023	0.002	mg/L	0.0200		117	82-121			
Tetrachloroethene	0.020	0.0005	mg/L	0.0200		99.4	79-126			
trans-1,3-Dichloropropene	0.023	0.0005	mg/L	0.0200		114	85-118			
1,1,2-Trichloroethane	0.021	0.0005	mg/L	0.0200		106	88-116			
Dibromochloromethane	0.022	0.0005	mg/L	0.0200		111	80-124			
1,3-Dichloropropane	0.022	0.0005	mg/L	0.0200		108	85-117			
1,2-Dibromoethane	0.022	0.0005	mg/L	0.0200		109	83-122			
2-Hexanone	0.023	0.002	mg/L	0.0200		116	79-122			
Chlorobenzene	0.021	0.0005	mg/L	0.0200		104	84-117			
Ethylbenzene	0.020	0.0005	mg/L	0.0200		101	83-119			
1,1,1,2-Tetrachloroethane	0.022	0.0005	mg/L	0.0200		109	86-120			
m+p - Xylene	0.042	0.001	mg/L	0.0400		104	82-122			
o-Xylene	0.021	0.0005	mg/L	0.0200		103	82-121			
Total Xylenes	0.062	0.002	mg/L	0.0600		104	82-122			
Bromoform	0.021	0.0005	mg/L	0.0200		105	65-132			
Styrene	0.022	0.0005	mg/L	0.0200		111	82-122			
Isopropylbenzene	0.021	0.0005	mg/L	0.0200		107	81-126			
Bromobenzene	0.021	0.0005	mg/L	0.0200		103	83-117			

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Celey D. Keene, Lab Director/Quality Manager

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Reported:  
10-Mar-14 15:32

### VOLATILES BY GC/MS - Quality Control

#### Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch 4030604 - Volatiles

##### LCS (4030604-BS1)

Prepared & Analyzed: 06-Mar-14

n-Propylbenzene	0.020	0.0005	mg/L	0.0200		102	75-129			
1,1,2,2-Tetrachloroethane	0.021	0.0005	mg/L	0.0200		104	84-119			
2-Chlorotoluene	0.020	0.0005	mg/L	0.0200		102	77-125			
1,2,3-trichloropropane	0.021	0.0005	mg/L	0.0200		105	78-119			
1,3,5-Trimethylbenzene	0.021	0.0005	mg/L	0.0200		104	78-126			
trans-1,4-Dichloro-2-butene	0.022	0.0005	mg/L	0.0200		108	46-150			
4-Chlorotoluene	0.020	0.0005	mg/L	0.0200		101	75-126			
tert-Butylbenzene	0.021	0.0005	mg/L	0.0200		103	76-131			
1,2,4-Trimethylbenzene	0.021	0.0005	mg/L	0.0200		104	79-125			
sec-Butylbenzene	0.021	0.0005	mg/L	0.0200		105	77-131			
p-Isopropyltoluene	0.021	0.0005	mg/L	0.0200		104	78-127			
1,3-Dichlorobenzene	0.020	0.0005	mg/L	0.0200		101	80-122			
1,4 Dichlorobenzene	0.014	0.0005	mg/L	0.0200		70.8	78-127			
n-Butylbenzene	0.021	0.0005	mg/L	0.0200		105	72-132			
1,2-Dichlorobenzene	0.020	0.0005	mg/L	0.0200		98.6	81-123			
1,2-Dibromo-3-chloropropane	0.015	0.001	mg/L	0.0200		76.0	70-138			
Hexachlorobutadiene	0.019	0.0005	mg/L	0.0200		94.1	72-150			
1,2,4-Trichlorobenzene	0.019	0.0005	mg/L	0.0200		95.4	75-130			
Naphthalene	0.016	0.0005	mg/L	0.0200		79.2	77-133			
1,2,3-Trichlorobenzene	0.016	0.0005	mg/L	0.0200		81.4	76-136			
Surrogate: Dibromofluoromethane	0.00980		mg/L	0.0100		98.0	87.3-113			
Surrogate: Toluene-d8	0.0102		mg/L	0.0100		102	89.6-110			
Surrogate: 4-Bromofluorobenzene	0.0102		mg/L	0.0100		102	82.3-119			

##### LCS Dup (4030604-BS1)

Prepared & Analyzed: 06-Mar-14

Dichlorodifluoromethane	0.017	0.0005	mg/L	0.0200		86.2	67-140	0.347	24	
Chloromethane	0.017	0.0005	mg/L	0.0200		86.1	66-133	0.348	27	
Vinyl chloride	0.021	0.0005	mg/L	0.0200		106	75-138	2.95	30	
Bromomethane	0.020	0.0005	mg/L	0.0200		102	75-133	0.492	28	
Chloroethane	0.020	0.0005	mg/L	0.0200		99.3	68-137	2.60	26	
Trichlorofluoromethane	0.021	0.0005	mg/L	0.0200		107	67-139	1.08	19	
Carbon disulfide	0.021	0.0005	mg/L	0.0200		106	70-132	1.14	24	

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Celey D. Keene, Lab Director/Quality Manager

### Analytical Results For:

Basin Environmental Service  
P.O. Box 301  
Lovington NM, 88260

Project: LOVINGTON YARD (AP1-119)  
Project Number: NONE GIVEN  
Project Manager: BEN J. ARGUIJO  
Fax To: (575) 396-1429

Reported:  
10-Mar-14 15:32

### VOLATILES BY GC/MS - Quality Control

#### Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch 4030604 - Volatiles

#### LCS Dup (4030604-BSD1)

Prepared & Analyzed: 06-Mar-14

1,1-Dichloroethene	0.021	0.0005	mg/L	0.0200		106	65-139	1.48	27	
Iodomethane	0.021	0.0005	mg/L	0.0200		104	74-130	0.862	27	
Acrolein	0.069	0.002	mg/L	0.100		69.2	10-174	38.2	23	
Methylene chloride	0.016	0.0005	mg/L	0.0200		81.7	69-128	2.79	27	
Acetone	0.026	0.002	mg/L	0.0200		130	67-146	0.0386	35	
trans-1,2-Dichloroethene	0.021	0.0005	mg/L	0.0200		107	76-127	0.939	25	
Methyl t-Butyl Ether	0.021	0.0005	mg/L	0.0200		104	84-118	0.193	26	
1,1-Dichloroethane	0.021	0.0005	mg/L	0.0200		104	80-126	0.769	25	
Acrylonitrile	0.024	0.0005	mg/L	0.0200		118	76-127	1.52	24	
Vinyl acetate	0.023	0.002	mg/L	0.0200		117	78-125	2.07	29	
cis-1,2-Dichloroethene	0.021	0.0005	mg/L	0.0200		104	83-124	1.29	28	
2,2-Dichloropropane	0.020	0.0005	mg/L	0.0200		100	80-126	0.298	30	
Bromochloromethane	0.019	0.0005	mg/L	0.0200		96.0	82-123	1.86	27	
Chloroform	0.019	0.0005	mg/L	0.0200		93.0	81-123	1.23	26	
Carbon tetrachloride	0.021	0.0005	mg/L	0.0200		104	81-132	1.74	28	
1,1,1-Trichloroethane	0.020	0.0005	mg/L	0.0200		99.8	81-132	0.301	25	
1,1-Dichloropropene	0.022	0.0005	mg/L	0.0200		112	84-125	1.60	26	
2-Butanone	0.024	0.002	mg/L	0.0200		118	82-123	3.98	27	
Benzene	0.021	0.0005	mg/L	0.0200		105	86-119	1.56	24	
1,2-Dichloroethane	0.022	0.0005	mg/L	0.0200		112	82-124	1.21	25	
Trichloroethene	0.021	0.0005	mg/L	0.0200		106	82-126	1.23	26	
Dibromomethane	0.020	0.0005	mg/L	0.0200		99.9	82-122	0.251	26	
1,2-Dichloropropane	0.022	0.0005	mg/L	0.0200		112	87-118	0.179	24	
Bromodichloromethane	0.021	0.0005	mg/L	0.0200		107	77-126	1.35	26	
cis-1,3-Dichloropropene	0.023	0.0005	mg/L	0.0200		114	82-122	1.41	25	
Toluene	0.022	0.0005	mg/L	0.0200		108	84-118	1.11	24	
4-Methyl-2-pentanone	0.024	0.002	mg/L	0.0200		119	82-121	1.70	25	
Tetrachloroethene	0.021	0.0005	mg/L	0.0200		104	79-126	4.48	26	
trans-1,3-Dichloropropene	0.023	0.0005	mg/L	0.0200		115	85-118	0.877	24	
1,1,2-Trichloroethane	0.021	0.0005	mg/L	0.0200		106	88-116	0.612	22	
Dibromochloromethane	0.023	0.0005	mg/L	0.0200		113	80-124	1.87	24	
1,3-Dichloropropane	0.022	0.0005	mg/L	0.0200		108	85-117	0.139	23	

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Celey D. Keene, Lab Director/Quality Manager

### Analytical Results For:

Basin Environmental Service  
P.O. Box 301  
Lovington NM, 88260

Project: LOVINGTON YARD (AP1-119)  
Project Number: NONE GIVEN  
Project Manager: BEN J. ARGUIJO  
Fax To: (575) 396-1429

Reported:  
10-Mar-14 15:32

### VOLATILES BY GC/MS - Quality Control

#### Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch 4030604 - Volatiles

#### LCS Dup (4030604-BSD1)

Prepared & Analyzed: 06-Mar-14

1,2-Dibromoethane	0.022	0.0005	mg/L	0.0200		111	83-122	1.59	24	
2-Hexanone	0.024	0.002	mg/L	0.0200		118	79-122	1.33	27	
Chlorobenzene	0.021	0.0005	mg/L	0.0200		104	84-117	0.721	26	
Ethylbenzene	0.020	0.0005	mg/L	0.0200		102	83-119	1.68	25	
1,1,1,2-Tetrachloroethane	0.022	0.0005	mg/L	0.0200		108	86-120	0.971	25	
m+p - Xylene	0.042	0.001	mg/L	0.0400		106	82-122	1.60	25	
Total Xylenes	0.063	0.002	mg/L	0.0600		106	82-122	1.88	25	
o-Xylene	0.021	0.0005	mg/L	0.0200		105	82-121	2.45	25	
Bromoform	0.022	0.0005	mg/L	0.0200		108	65-132	2.64	26	
Styrene	0.022	0.0005	mg/L	0.0200		112	82-122	0.539	27	
Isopropylbenzene	0.021	0.0005	mg/L	0.0200		107	81-126	0.280	26	
Bromobenzene	0.020	0.0005	mg/L	0.0200		102	83-117	0.537	25	
n-Propylbenzene	0.021	0.0005	mg/L	0.0200		103	75-129	1.46	27	
1,1,2,2-Tetrachloroethane	0.021	0.0005	mg/L	0.0200		103	84-119	1.11	24	
2-Chlorotoluene	0.020	0.0005	mg/L	0.0200		102	77-125	0.0490	25	
1,2,3-trichloropropane	0.020	0.0005	mg/L	0.0200		101	78-119	3.65	21	
1,3,5-Trimethylbenzene	0.021	0.0005	mg/L	0.0200		106	78-126	1.62	26	
trans-1,4-Dichloro-2-butene	0.021	0.0005	mg/L	0.0200		106	46-150	1.78	19	
4-Chlorotoluene	0.020	0.0005	mg/L	0.0200		101	75-126	0.643	26	
tert-Butylbenzene	0.020	0.0005	mg/L	0.0200		102	76-131	0.195	29	
1,2,4-Trimethylbenzene	0.021	0.0005	mg/L	0.0200		106	79-125	2.01	27	
sec-Butylbenzene	0.021	0.0005	mg/L	0.0200		105	77-131	0.237	27	
p-Isopropyltoluene	0.021	0.0005	mg/L	0.0200		104	78-127	0.241	26	
1,3-Dichlorobenzene	0.020	0.0005	mg/L	0.0200		100	80-122	0.398	25	
1,4 Dichlorobenzene	0.014	0.0005	mg/L	0.0200		70.3	78-127	0.779	25	
n-Butylbenzene	0.021	0.0005	mg/L	0.0200		104	72-132	1.20	28	
1,2-Dichlorobenzene	0.020	0.0005	mg/L	0.0200		98.0	81-123	0.661	26	
1,2-Dibromo-3-chloropropane	0.016	0.001	mg/L	0.0200		78.1	70-138	2.66	27	
Hexachlorobutadiene	0.017	0.0005	mg/L	0.0200		86.6	72-150	8.36	30	
1,2,4-Trichlorobenzene	0.019	0.0005	mg/L	0.0200		92.9	75-130	2.60	29	
Naphthalene	0.016	0.0005	mg/L	0.0200		78.2	77-133	1.14	27	
1,2,3-Trichlorobenzene	0.016	0.0005	mg/L	0.0200		78.8	76-136	3.31	34	

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**Basin Environmental Service  
P.O. Box 301  
Lovington NM, 88260Project: LOVINGTON YARD (AP1-119)  
Project Number: NONE GIVEN  
Project Manager: BEN J. ARGUIJO  
Fax To: (575) 396-1429Reported:  
10-Mar-14 15:32**VOLATILES BY GC/MS - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4030604 - Volatiles****LCS Dup (4030604-BSD1)**

Prepared &amp; Analyzed: 06-Mar-14

Surrogate: Dibromofluoromethane	0.00970		mg/L	0.0100		97.0	87.3-113			
Surrogate: Toluene-d8	0.0100		mg/L	0.0100		100	89.6-110			
Surrogate: 4-Bromofluorobenzene	0.0103		mg/L	0.0100		103	82.3-119			

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager

LAB Order ID # **H400578**

Page 1 of 5

# Cardinal Laboratories

101 East Marland  
Hobbs, NM 88240  
Tel (575) 393-2326  
Fax (575) 393-2476

Company Name: Basin Environmental Service Technologies, LLC

Phone #:

(575)396-2378

Address: P.O. Box 301  
Lovington, NM 88260

Fax #:

(575)396-1429

Contact Person:

E-mail:

pm@basineny.com

Invoice to: Basin Environmental Service Technologies, LLC

Project #:

Pro-Kern

Project Name:

Lovington Yard AP-119

Project Location:  
(include state) Lea Co., NMSampler  
Signature:LAB ID  
(LAB USE ONLY)

SAMPLE ID

(G)RAB or (C)OMP

# CONTAINERS

WATER  
SOIL  
AIR  
SLUDGEHCL  
HNO<sub>3</sub>  
H<sub>2</sub>SO<sub>4</sub>  
NaOH  
ICE  
NONEDATE  
TIMETHP  
Carbon Tetra Chloride  
BTXANALYSIS REQUEST  
(Circle or Specify Method No.)

Turn Around Time if different from standard

Hold

Relinquished by: M. Brown Company: Basin Environmental Service Technologies, LLC Date: 2-26-14 Time: 13:16Received by: M. Brown Company: Basin Environmental Service Technologies, LLC Date: 2-26-14 Time: 13:16  
INST 54  
OBS 28.8 °C  
COR 0.0 °CLAB USE ONLY  
Intact Y / N  
Headspace Y / N / NA  
Log-In Review

## REMARKS:

☐ Dry Weight Basis Required☐ TRRP Report Required☐ Check, if Special Reporting Limits Are Needed

Relinquished by: Company: Date: Time:

Received by: Company: Date: Time:

LAB USE ONLY

☐ Dry Weight Basis Required☐ TRRP Report Required☐ Check, if Special Reporting Limits Are Needed

Submittal of samples constitutes agreement to Terms and Conditions

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