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ANALYTICA
Environmental Laboratories

4/22/2013

Maralex Resources, Inc.
864 20 Road
Unit A
Fruita, CO 81521
Attn: Jim Graves

Work Order #: B1304034
Date: 4/22/2013
Work ID: 9-98-10 #1
Date Received: 4/5/2013
Proj #: None

Sample Identification

Lab Sample Number	Client Description	Lab Sample Number	Client Description
B1304034-01	9-98-10 #1		

Enclosed are the analytical results for the submitted sample(s). Please review the CASE NARRATIVE for a discussion of any data and/or quality control issues. Listings of data qualifiers, analytical codes, key dates, and QC relationships are provided at the end of the report.

Sincerely,

Carissa Seltrecht
Project Manager

"The Science of Analysis, The Art of Service"

Case Narrative

Analytica Environmental Laboratories, Inc.

Work Order: B1304034

Samples were prepared and analyzed according to EPA or equivalent methods outlined in the following references:

Standard Method for Laboratory Determination of Water (Moisture) Content of Soil, Rock, and Soil-Aggregate Mixtures, ASTM D 2216-80, July 1980.

Test Methods for Evaluating Solid Waste, USEPA SW-846, Third Edition, Revision 4, December 1996.

SAMPLE RECEIPT:
One (1) sample was received on 4/5/2013 10:18:00 AM at a temperature of 2.2°C at Analytica-Thornton. The sample was received in good condition and in order per chain of custody.

REVIEW FOR COMPLIANCE WITH ANALYTICA QA PLAN

A summary of our review is shown below.

All analytical results contained in this report have been reviewed under Analytica's internal quality assurance and quality control program. Any deviations in quality control parameters for specific analyses are noted in the following text. A complete quality assurance report, including laboratory control, matrix spike, and sample duplicate recoveries, is kept on file in our office and is available upon request.

All method specifications were met for the following tests, unless otherwise noted:

Test Method: Aromatic VOCs by GC/PID via method 8021B - BTEX - Soil
MS/MSD and DUP OUTLIERS:
Several targets were recovered outside the acceptance limits in the batch MS/MSD associated with this analysis. However, the sample spiked is not associated with this project.

Test Method: ASTM D2216 - Pmoist - Soil

Test Method: SVOC by GC/FID via method 8015B - DRO - Soil

Test Method: VOC by GC/FID via method 8015B - GRO - Soil
MS/MSD and DUP OUTLIERS:
The target was recovered outside the acceptance limits in the batch MS/MSD associated with this analysis. However, the sample spiked is not associated with this project.

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): B1304034

Project: **9-98-10 #1**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

Report Section: **Client Sample Report**

Client Sample Name: **9-98-10 #1**

Matrix: Soil

Collection Date: 4/3/2013 8:20:00AM

The following test was conducted by: Analytica - Thornton

Lab Sample Number: B1304034-01A
Prep Date: 4/11/2013
Analytical Method ID: SVOC by GC/FID via method 8015B - DRO
Prep Method ID: 3550B
Prep Batch Number: T130411012
Report Basis: Dry Weight Basis
Sample prep wt./vol: 29.98 g

Analysis Date: 4/17/2013 6:57:59PM
Instrument: GC_E
File Name: 13041711.D
Dilution Factor: 1
Percent Moisture 6.65
Analyst Initials: kh
Prep Extract Vol: 1.00 ml

Analyte	CASNo	Result	Flags	Units	PQL	MDL	run #:
Diesel Range Organics	n/a	**340**		mg/Kg	5.4	1.5	1

Surrogate	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL	run #:
o-Terphenyl	84-15-1	**1.5**		mg/Kg	0.36	0.28	1.8	**81.7**	50	150	1

The following test was conducted by: Analytica - Thornton

Lab Sample Number: B1304034-01B
Prep Date: 4/11/2013
Analytical Method ID: Aromatic VOCs by GC/PID via method 8021B - BTEX
Prep Method ID: 5030B
Prep Batch Number: T130415003
Report Basis: Dry Weight Basis
Sample prep wt./vol: 5.00 g

Analysis Date: 4/11/2013 4:31:00PM
Instrument: GC_B
File Name: 13041108.D
Dilution Factor: 1
Percent Moisture 6.65
Analyst Initials: CK
Prep Extract Vol: 5.00 ml

Analyte	CASNo	Result	Flags	Units	PQL	MDL	run #:
Benzene	71-43-2	**ND**		ug/Kg	1.1	0.35	1
Ethylbenzene	100-41-4	**ND**		ug/Kg	1.6	0.49	
Toluene	108-88-3	**ND**		ug/Kg	1.1	0.21	
Xylenes, Total	1330-20-7	**ND**		ug/Kg	3.2	0.88	

Surrogate	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL	run #:
p-Bromofluorobenzene	460-00-4	**29**		ug/Kg	0.54	0.35	29	**101**	70	130	1

The following test was conducted by: Analytica - Thornton

Lab Sample Number: B1304034-01B
Prep Date: 4/11/2013
Analytical Method ID: VOC by GC/FID via method 8015B - GRO
Prep Method ID: 5030B
Prep Batch Number: T130415002
Report Basis: Dry Weight Basis
Sample prep wt./vol: 5.00 g

Analysis Date: 4/11/2013 4:31:00PM
Instrument: GC_B
File Name: 13041108.D
Dilution Factor: 1
Percent Moisture 6.65
Analyst Initials: CK
Prep Extract Vol: 5.00 ml

Analyte	CASNo	Result	Flags	Units	PQL	MDL	run #:
Gasoline Range Organics	n/a	**ND**		ug/Kg	210	28	2

Surrogate	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL	run #:
p-Bromofluorobenzene	460-00-4	**15**		ug/Kg	3.2	1.1	29	**51.4**	50	150	2

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): B1304034

Project: **9-98-10 #1**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

Report Section: Method Blank Report

Client Sample Name: **MB**

Matrix: Solid

Collection Date: 4/11/2013 3:23:00PM

The following test was conducted by: Analytica - Thornton

Lab Sample Number:	T130411012-MB	Analysis Date:	4/17/2013 2:46:49PM
Prep Date:	4/11/2013	Instrument:	GC_E
Analytical Method ID:	SVOC by GC/FID via method 8015B - DRO	File Name:	13041706.D
Prep Method ID:	3550B	Dilution Factor:	1
Prep Batch Number:	T130411012	Percent Moisture	NA
Report Basis:	As Received	Analyst Initials:	kh
Sample prep wt./vol:	29.97 g	Prep Extract Vol:	1.00 ml

Analyte	CASNo	Result	Flags	Units	PQL	MDL	run #:
Diesel Range Organics	n/a	**ND**		mg/Kg	5.0	1.4	1

Surrogate	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL	run #:
o-Terphenyl	84-15-1	**1.3**		mg/Kg	0.33	0.26	1.7	**76.3**	50	150	1

The following test was conducted by: Analytica - Thornton

Lab Sample Number:	T130415003-MB	Analysis Date:	4/11/2013 2:22:00PM
Prep Date:	4/11/2013	Instrument:	GC_B
Analytical Method ID:	Aromatic VOCs by GC/PID via method 8021B - BTEX	File Name:	13041104.D
Prep Method ID:	5030B	Dilution Factor:	1
Prep Batch Number:	T130415003	Percent Moisture	NA
Report Basis:	As Received	Analyst Initials:	CK
Sample prep wt./vol:	5.00 g	Prep Extract Vol:	5.00 ml

Analyte	CASNo	Result	Flags	Units	PQL	MDL	run #:
Benzene	71-43-2	**ND**		ug/Kg	1.0	0.33	1
Ethylbenzene	100-41-4	**ND**		ug/Kg	1.5	0.46	
Toluene	108-88-3	**ND**		ug/Kg	1.0	0.20	
Xylenes, Total	1330-20-7	**ND**		ug/Kg	3.0	0.82	

Surrogate	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL	run #:
p-Bromofluorobenzene	460-00-4	**26**		ug/Kg	0.50	0.33	27	**95.7**	70	130	1

The following test was conducted by: Analytica - Thornton

Lab Sample Number:	T130415002-MB	Analysis Date:	4/11/2013 2:22:00PM
Prep Date:	4/11/2013	Instrument:	GC_B
Analytical Method ID:	VOC by GC/FID via method 8015B - GRO	File Name:	13041104.D
Prep Method ID:	5030B	Dilution Factor:	1
Prep Batch Number:	T130415002	Percent Moisture	NA
Report Basis:	As Received	Analyst Initials:	CK
Sample prep wt./vol:	5.00 g	Prep Extract Vol:	5.00 ml

Analyte	CASNo	Result	Flags	Units	PQL	MDL	run #:
Gasoline Range Organics	n/a	**ND**		ug/Kg	200	26	1

Surrogate	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL	run #:
p-Bromofluorobenzene	460-00-4	**23**		ug/Kg	3.0	1.0	27	**86.2**	50	150	1

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): B1304034

Project: **9-98-10 #1**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

Tests Run at: Analytica Environmental Laboratories - Thornton, Colorado

Workorder (SDG): B1304034

Project: 9-98-10 #1

Project Number:

Prep Batch: **T130411012**

QUALITY CONTROL REPORT

LCS REPORT

Analysis: SVOC by GC/FID via method 8015B - DRO

MB: T130411012-MB

Prep Date: 4/11/2013

MB Anal. Date: 4/17/2013 2:46:49PM

Units: mg/Kg

LCS Anal. Date: 4/17/2013 4:30:40PM

Matrix: Solid

Analyte Name	SampResult	LCSRes.	SPLev	Recov.	Recov Lim	RPDLim	Flag
Diesel Range Organics	ND	59.9	66.6	89.9	75 - 125		

FOOTNOTES TO QC REPORT

Note 1: Results are shown to three significant figures to avoid rounding errors in calculations.

Note 2: If the sample concentration is greater than 4 times the spike level, a recovery is not meaningful, and the result should be used as a replicate. In such cases the spike is not as high as expected random measurement variability of the sample result itself.

Note 3: For sample duplicates, if the result is less than the PQL, the duplicate RPD is not applicable. If the sample and duplicate results are not five times the PQL or greater, then the RPD is not expected to fall within the window shown and the comparison should be made on the basis of the absolute difference. Analytica uses the criterion that the absolute difference should be less than the PQL for water or less than 2XPQL for other matrices.

Note 4: For serial dilutions, if the result is less than the PQL, the duplicate RPD is not applicable. If the sample result is not 50 times the MDL or greater, then the fact that the RPD does not meet the 10% criterion has little signifcance. Otherwise it indicates that a matrix bias may exist at the analytical step.

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): B1304034

Project: **9-98-10 #1**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

Tests Run at: Analytica Environmental Laboratories - Thornton, Colorado

Workorder (SDG): B1304034

Project: 9-98-10 #1

Project Number:

QUALITY CONTROL REPORT

Prep Batch: **T130415002**

LCS REPORT

Analysis: VOC by GC/FID via method 8015B - GRO

MB: T130415002-MB

Prep Date: 4/11/2013

MB Anal. Date: 4/11/2013 2:22:00PM

Units: ug/Kg

LCS Anal. Date: 4/11/2013 3:26:00PM

Matrix: Solid

Analyte Name	SampResult	LCSRes.	SPLev	Recov.	Recov Lim	RPDLim	Flag
Gasoline Range Organics	ND	445	500	89.0	60 - 118		

Prep Batch: **T130415003**

LCS REPORT

Analysis: Aromatic VOCs by GC/PID via method 8021B - BTEX

MB: T130415003-MB

Prep Date: 4/11/2013

MB Anal. Date: 4/11/2013 2:22:00PM

Units: ug/Kg

LCS Anal. Date: 4/11/2013 2:54:00PM

Matrix: Solid

Analyte Name	SampResult	LCSRes.	SPLev	Recov.	Recov Lim	RPDLim	Flag
Benzene	ND	10.3	10.0	103.0	70 - 130		
Toluene	ND	10.3	10.0	103.0	70 - 130		
Ethylbenzene	ND	10.8	10.0	108.0	70 - 130		
Xylenes, Total	ND	31.9	30.0	106.3	70 - 130		

FOOTNOTES TO QC REPORT

Note 1: Results are shown to three significant figures to avoid rounding errors in calculations.

Note 2: If the sample concentration is greater than 4 times the spike level, a recovery is not meaningful, and the result should be used as a replicate. In such cases the spike is not as high as expected random measurement variability of the sample result itself.

Note 3: For sample duplicates, if the result is less than the PQL, the duplicate RPD is not applicable. If the sample and duplicate results are not five times the PQL or greater, then the RPD is not expected to fall within the window shown and the comparison should be made on the basis of the absolute difference. Analytica uses the criterion that the absolute difference should be less than the PQL for water or less than 2XPQL for other matrices.

Note 4: For serial dilutions, if the result is less than the PQL, the duplicate RPD is not applicable. If the sample result is not 50 times the MDL or greater, then the fact that the RPD does not meet the 10% criterion has little signifcance. Otherwise it indicates that a matrix bias may exist at the analytical step.

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): B1304034

Project: **9-98-10 #1**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

SURROGATE RECOVERY SUMMARY REPORT

Test Method: **SVOC by GC/FID via method 8015B - DRO**

Lab Sample #:	B1304034-01A		Dilution:	1			
Analysis Date:	4/17/2013 6:57:59PM		Client Sample:	**9-98-10 #1**			
Batch Number:	T130411012		Data File:	13041711.D			
AnalyteName		**SSRecov**	**LCL**	**UCL**	**SSFlag**		**Result Status**
o-Terphenyl		82	50	150			Complete
Lab Sample #:	B1304034-01A		Dilution:	10			
Analysis Date:	4/17/2013 7:47:15PM		Client Sample:	**9-98-10 #1**			
Batch Number:	T130411012		Data File:	13041712.D			
AnalyteName		**SSRecov**	**LCL**	**UCL**	**SSFlag**		**Result Status**
o-Terphenyl		89	50	150		DILUTED OUT	Rrun
Lab Sample #:	B1304038-01B		Dilution:	1			
Analysis Date:	4/18/2013 3:17:49PM		Client Sample:	**Batch QC**			
Batch Number:	T130411012		Data File:	13041723.D			
AnalyteName		**SSRecov**	**LCL**	**UCL**	**SSFlag**		**Result Status**
o-Terphenyl		89	50	150			Complete
Lab Sample #:	B1304038-01B		Dilution:	10			
Analysis Date:	4/18/2013 4:07:14PM		Client Sample:	**Batch QC**			
Batch Number:	T130411012		Data File:	13041724.D			
AnalyteName		**SSRecov**	**LCL**	**UCL**	**SSFlag**		**Result Status**
o-Terphenyl		70	50	150		DILUTED OUT	Rrun
Lab Sample #:	T130411012-MB		Dilution:	1			
Analysis Date:	4/17/2013 2:46:49PM		Client Sample:	**MB**			
Batch Number:	T130411012		Data File:	13041706.D			
AnalyteName		**SSRecov**	**LCL**	**UCL**	**SSFlag**		**Result Status**
o-Terphenyl		76	60	120			Complete
Lab Sample #:	T130411012-LCS		Dilution:	1			
Analysis Date:	4/17/2013 4:30:40PM		Client Sample:	**LCS**			
Batch Number:	T130411012		Data File:	13041708.D			
AnalyteName		**SSRecov**	**LCL**	**UCL**	**SSFlag**		**Result Status**
o-Terphenyl		87	60	120			Complete
Lab Sample #:	B1304038-01B-MS		Dilution:	1			
Analysis Date:	4/18/2013 4:56:58PM		Client Sample:	**MS**			
Batch Number:	T130411012		Data File:	13041725.D			
AnalyteName		**SSRecov**	**LCL**	**UCL**	**SSFlag**		**Result Status**
o-Terphenyl		100	50	150			Complete
Lab Sample #:	B1304038-01B-MSD		Dilution:	1			
Analysis Date:	4/19/2013 9:44:43AM		Client Sample:	**MSD**			
Batch Number:	T130411012		Data File:	13041727.D			
AnalyteName		**SSRecov**	**LCL**	**UCL**	**SSFlag**		**Result Status**
o-Terphenyl		102	50	150			Complete

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): B1304034

Project: **9-98-10 #1**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

Test Method: **Aromatic VOCs by GC/PID via method 8021B - BTEX**

Lab Sample #: B1304034-01B | Dilution: 1
Analysis Date: 4/11/2013 4:31:00PM | Client Sample: **9-98-10 #1**
Batch Number: T130415003 | Data File: 13041108.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
p-Bromofluorobenzene	101	70	130		Complete

Lab Sample #: B1304038-02C | Dilution: 1
Analysis Date: 4/11/2013 8:50:00PM | Client Sample: **Batch QC**
Batch Number: T130415003 | Data File: 13041116.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
p-Bromofluorobenzene	101	70	130		Complete
p-Bromofluorobenzene	101	70	130		Rrun

Lab Sample #: T130415003-MB | Dilution: 1
Analysis Date: 4/11/2013 2:22:00PM | Client Sample: **MB**
Batch Number: T130415003 | Data File: 13041104.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
p-Bromofluorobenzene	96	70	130		Complete
p-Bromofluorobenzene	96	70	130		Rrun

Lab Sample #: T130415003-LCS | Dilution: 1
Analysis Date: 4/11/2013 2:54:00PM | Client Sample: **LCS**
Batch Number: T130415003 | Data File: 13041105.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
p-Bromofluorobenzene	113	70	130		Complete
p-Bromofluorobenzene	113	70	130		Rrun

Lab Sample #: B1304038-02C-MS | Dilution: 1
Analysis Date: 4/11/2013 9:22:00PM | Client Sample: **MS**
Batch Number: T130415003 | Data File: 13041117.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
p-Bromofluorobenzene	109	70	130		Complete

Lab Sample #: B1304038-02C-MSD | Dilution: 1
Analysis Date: 4/11/2013 9:54:00PM | Client Sample: **MSD**
Batch Number: T130415003 | Data File: 13041118.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
p-Bromofluorobenzene	100	70	130		Complete

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): B1304034

Project: **9-98-10 #1**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

Test Method: **VOC by GC/FID via method 8015B - GRO**

Lab Sample #: B1304034-01B | Dilution: 1
Analysis Date: 4/11/2013 4:31:00PM | Client Sample: **9-98-10 #1**
Batch Number: T130415002 | Data File: 13041108.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
p-Bromofluorobenzene	51	50	150		Complete
p-Bromofluorobenzene	51	50	150		Rrun

Lab Sample #: B1304038-01C | Dilution: 1
Analysis Date: 4/11/2013 6:40:00PM | Client Sample: **Batch QC**
Batch Number: T130415002 | Data File: 13041112.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
p-Bromofluorobenzene	80	50	150		Complete
p-Bromofluorobenzene	80	50	150		Rrun

Lab Sample #: T130415002-MB | Dilution: 1
Analysis Date: 4/11/2013 2:22:00PM | Client Sample: **MB**
Batch Number: T130415002 | Data File: 13041104.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
p-Bromofluorobenzene	86	63	130		Complete

Lab Sample #: T130415002-LCS | Dilution: 1
Analysis Date: 4/11/2013 3:26:00PM | Client Sample: **LCS**
Batch Number: T130415002 | Data File: 13041106.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
p-Bromofluorobenzene	96	63	130		Complete
p-Bromofluorobenzene	96	63	130		Rrun

Lab Sample #: B1304038-01C-MS | Dilution: 1
Analysis Date: 4/11/2013 7:13:00PM | Client Sample: **MS**
Batch Number: T130415002 | Data File: 13041113.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
p-Bromofluorobenzene	80	50	150		Complete
p-Bromofluorobenzene	80	50	150		Rrun

Lab Sample #: B1304038-01C-MSD | Dilution: 1
Analysis Date: 4/11/2013 7:45:00PM | Client Sample: **MSD**
Batch Number: T130415002 | Data File: 13041114.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
p-Bromofluorobenzene	98	50	150		Complete
p-Bromofluorobenzene	98	50	150		Rrun

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): B1304034

Project: **9-98-10 #1**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

QC BATCH ASSOCIATIONS - BY METHOD BLANK

Lab Project ID: **147,846** **Lab Project Number:** **B1304034**

Prep Date: 4/10/2013

Lab Method Blank Id: T130410009-MB
Prep Batch ID: T130410009
Method: ASTM D2216 - Pmoist

This Method blank and sample preparation batch are associated with the following samples, spikes, and duplicates:

SampleNum	ClientSampleName	DataFile	AnalysisDate
B1304034-01A	9-98-10 #1		4/11/2013 9:49:33AM
B1304038-02B	Batch QC		4/11/2013 9:49:33AM
B1304038-02B-DUP	DUP		4/11/2013 9:49:33AM

Prep Date: 4/11/2013

Lab Method Blank Id: T130411012-MB
Prep Batch ID: T130411012
Method: SVOC by GC/FID via method 8015B - DRO

This Method blank and sample preparation batch are associated with the following samples, spikes, and duplicates:

SampleNum	ClientSampleName	DataFile	AnalysisDate
T130411012-LCS	LCS	13041708.D	4/17/2013 4:30:40PM
B1304034-01A	9-98-10 #1	13041711.D	4/17/2013 6:57:59PM
B1304038-01B	Batch QC	13041723.D	4/18/2013 3:17:49PM
B1304038-01B-MS	MS	13041725.D	4/18/2013 4:56:58PM
B1304038-01B-MSD	MSD	13041727.D	4/19/2013 9:44:43AM

Prep Date: 4/11/2013

Lab Method Blank Id: T130415002-MB
Prep Batch ID: T130415002
Method: VOC by GC/FID via method 8015B - GRO

This Method blank and sample preparation batch are associated with the following samples, spikes, and duplicates:

SampleNum	ClientSampleName	DataFile	AnalysisDate
T130415002-LCS	LCS	13041106.D	4/11/2013 3:26:00PM
B1304034-01B	9-98-10 #1	13041108.D	4/11/2013 4:31:00PM
B1304038-01C	Batch QC	13041112.D	4/11/2013 6:40:00PM
B1304038-01C-MS	MS	13041113.D	4/11/2013 7:13:00PM
B1304038-01C-MSD	MSD	13041114.D	4/11/2013 7:45:00PM

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): B1304034

Project: **9-98-10 #1**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

QC BATCH ASSOCIATIONS - BY METHOD BLANK

Lab Project ID: **147,846** **Lab Project Number:** **B1304034**

Prep Date: 4/11/2013

Lab Method Blank Id: T130415003-MB

Prep Batch ID: T130415003

Method: Aromatic VOCs by GC/PID via method 8021B - BTEX

This Method blank and sample preparation batch are associated with the following samples, spikes, and duplicates:

SampleNum	ClientSampleName	DataFile	AnalysisDate
T130415003-LCS	LCS	13041105.D	4/11/2013 2:54:00PM
B1304034-01B	9-98-10 #1	13041108.D	4/11/2013 4:31:00PM
B1304038-02C	Batch QC	13041116.D	4/11/2013 8:50:00PM
B1304038-02C-MS	MS	13041117.D	4/11/2013 9:22:00PM
B1304038-02C-MSD	MSD	13041118.D	4/11/2013 9:54:00PM

Workorder (SDG): B1304034

Project: **9-98-10 #1**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

DATA FLAGS AND DEFINITIONS

The PQL is the Method Quantitation Limit as defined by USACE.
Reporting Limit: Limit below which results are shown as "ND". This may be the PQL, MDL, or a value between. See the report conventions below.

Result Field:

ND = Not Detected at or above the Reporting Limit
NA = Analyte not applicable (see Case Narrative for discussion)

Qualifier Fields:

LOW = Recovery is below Lower Control Limit
HIGH = Recovery , RPD, or other parameter is above Upper Control Limit
E = Reported concentration is above the instrument calibration upper range

Organic Analysis Flags:

B = Analyte was detected in the laboratory method blank
J = Analyte was detected above MDL or Reporting Limit but below the Quant Limit (PQL)

Inorganic Analysis Flags:

J = Analyte was detected above the Reporting Limit but below the Quant Limit (PQL)
W = Post digestion spike did not meet criteria
S = Reported value determined by the Method of Standard Additions (MSA)

Several ways of defining the limit of detection and quantitation are prevalent in the laboratory industry and may appear in Analytica reports. These include the following:

MRL = "minimum reporting level", from the EPA Safe Drinking Water program (SDW)
PQL = "practical quantitation limit", from SW-846
EQL = "estimated quantitation limit", from SW-846
LOQ = "limit of quantitation", from a number of authoritative sources

In Analytica's work, all of these terms have the same meaning, equivalent to the EPA definition of the MRL. This reporting level is supported by a satisfactory calibration data point which is at that level or lower, and also is supported by a method detection limit (MDL) determined by the procedure in 40CFR. The MDL is lower than the MRL and represents an estimate of the level where positive detections have a 99% probability of being real, but where quantitation accuracy is unknown.

The MRL as defined by Analytica is the lowest demonstrated point of known quantitation accuracy.
The MRL should not be confused with the MCL, which is the EPA-defined "maximum contaminant level" allowed for certain regulated targets under specific regulations, such as the National Primary Drinking Water Regulations. Normally, the MRL is set at a level which is much lower than the MCL in order to ensure that levels are well below those limits. Not all target analytes have MCL levels established.

Other Flags may be applied. See Case Narrative for Description

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): B1304034

Project: **9-98-10 #1**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

REPORTING CONVENTIONS FOR THIS REPORT

B1304034

TestPkgName	Basis	# Sig Figs	Reporting Limit
8015/5030B (Solid) - GRO	Dry Weight Basis	2	Report to PQL
8015B/3550B (Solid) - DRO	Dry Weight Basis	2	Report to PQL
8021/5030B (Solid) - BTEX	Dry Weight Basis	2	Report to PQL
ASTMD2216/ASTMD2216 (Solid) - Pmoist	As Received	3	Report to MDL, J qual below PQL

Analytica Chain of Custody Form

ANALYTICA GROUP

12189 Pennsylvania St.
Thornton, CO 80241
(303) 469-8868
(303) 469-5254 fax

4307 Arctic Boulevard
Anchorage, AK 99503
(907) 258-2155
(907) 258-6634 fax

475 Hall St.
Fairbanks, AK 99701
(907) 456-3116
(907) 456 3125 fax

1203 W. Parks HWY
Wasilla, AK 99654
(907) 373-5440

Page 1 of 1

Chain of Custody No: 084831

Client Name & Address: Enviramental Services 429 Buck Point Road Carbondale Co 81623

Report to: Heydenberk

Phone No: (970)948-8978

Fax No:

E-mail: esi.craig@sopris.net

Special Instructions/Comments: Hold Samples

Public Water System (PWS) ID#:

Project Name: Maralex 9-98-10 #1

Turnaround Time for Results (TAT)

X Standard ___ Expedited (< 10 days, prior authorization required)

___ Routine ___ Non-Routine (please specify due date below; add'l charges may apply)

Requested Due Date for Results:

Section to be Completed by Analytica

Quote ID:

LGN: B1304034

Account #:

Check ___ Credit Card ___

Invoice to Name & Address: Maralex Resources ATTN: Jim Graves

P.O. or Contract No:

Kit Prep/Shipping Charge: $

Requested Analysis/Method

Client Sample Identification / Location	Date Sampled	Time Sampled	Matrix (S-DW-WW-Other)	No. of Containers	DRO	GRO	BTEX									Field Preserved	Field Filtered	MS/MSD ?
9-98-10 #1	4/3/13	8:20	S	4	X	X	X											

Lot #: Pres:

Relinquished by:	Date	Time	Received by:	Date	Time
[illegible]			[illegible]	4/5/13	10:15
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time

Name of Sampler: (printed) Heydenberk

Section to be completed by Analytica

	THO	ANC	FBKS	WAS
Condition of Custody Seal?				
Initialed by:				
Temp/Loc:				
Thermo ID#:				
Shipped Via:				

Version 2.0