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ANALYTICA
Environmental Laboratories

12/19/2012

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

Work Order #: B1212030
Date: 12/19/2012
Work ID: Sulphur Gulch
Date Received: 12/6/2012
Proj #: None

Sample Identification

Lab Sample Number	Client Description	Lab Sample Number	Client Description
B1212030-01	Pit - North	B1212030-02	Pit - South
B1212030-03	Pit - East	B1212030-04	Pit - West
B1212030-05	Pit - Bottom		

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: B1212030

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:
Five (5) samples were received on 12/6/2012 10:03:00 AM at a temperature of 4.1°C at Analytica-Thornton. The samples were 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: ASTM D2216 - Pmoist - Soil

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

Test Method: VOC by GC/FID via method 8015B - RRO - Soil
MS/MSD and DUP OUTLIERS:
As shown below, the MS and MSD were outside the acceptance limits. The target had a sample concentration greater than four times the spike amount. In this case it is inappropriate to calculate recovery and the result should be used as a replicate

Type	Client Sample	LabSample	Analyte	Recovery	LCL	UCL	Parent	Spike
MS	Pit - Bottom	B1212030-05B	Residual Range Organ	273	50	150	458	68.8
MSD	Pit - Bottom	B1212030-05B	Residual Range Organ	241	50	150	458	68.9

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): B1212030

Project: **Sulphur Gulch**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

Report Section: Client Sample Report

Client Sample Name: **Pit - North**

Matrix: Soil

Collection Date: 12/4/2012 11:08:00AM

The following test was conducted by: Analytica - Thornton

Lab Sample Number:	B1212030-01B	Analysis Date:	12/18/2012 1:09:13PM
Prep Date:	12/11/2012	Instrument:	GC_E
Analytical Method ID:	VOC by GC/FID via method 8015B - RRO	File Name:	12121805.D
Prep Method ID:	3550	Dilution Factor:	10
Prep Batch Number:	T121211001	Percent Moisture	2.76
Report Basis:	Dry Weight Basis	Analyst Initials:	kh
Sample prep wt./vol:	29.96 g	Prep Extract Vol:	2.00 ml

Analyte	CASNo	Result	Flags	Units	PQL	MDL	run #:
Residual Range Organics	n/a	**3,900**		mg/Kg	120	48	2

Surrogate	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL	run #:
Squalane	111-01-3	**ND**		mg/Kg	6.9	2.2	1.7	**121**	50	150	2 DIL

The following test was conducted by: Analytica - Thornton

Lab Sample Number:	B1212030-01A	Analysis Date:	12/14/2012 2:23:27PM
Prep Date:	12/11/2012	Instrument:	GC_E
Analytical Method ID:	SVOC by GC/FID via method 8015B - DRO	File Name:	12121407.D
Prep Method ID:	3550B	Dilution Factor:	1
Prep Batch Number:	T121211002	Percent Moisture	2.76
Report Basis:	Dry Weight Basis	Analyst Initials:	kh
Sample prep wt./vol:	29.95 g	Prep Extract Vol:	2.00 ml

Analyte	CASNo	Result	Flags	Units	PQL	MDL	run #:
Diesel Range Organics	n/a	**430**		mg/Kg	10	3.0	1

Surrogate	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL	run #:
o-Terphenyl	84-15-1	**1.3**		mg/Kg	0.69	0.54	1.7	**75.8**	50	150	1

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): B1212030

Project: **Sulphur Gulch**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

Report Section: Client Sample Report

Client Sample Name: **Pit - South**

Matrix: Soil

Collection Date: 12/4/2012 11:20:00AM

The following test was conducted by: Analytica - Thornton

Lab Sample Number:	B1212030-02B	Analysis Date:	12/17/2012 4:53:18PM
Prep Date:	12/11/2012	Instrument:	GC_E
Analytical Method ID:	VOC by GC/FID via method 8015B - RRO	File Name:	12121708.D
Prep Method ID:	3550	Dilution Factor:	1
Prep Batch Number:	T121211001	Percent Moisture	5.72
Report Basis:	Dry Weight Basis	Analyst Initials:	kh
Sample prep wt./vol:	30.04 g	Prep Extract Vol:	1.00 ml

Analyte	CASNo	Result	Flags	Units	PQL	MDL	run #:
Residual Range Organics	n/a	**84**		mg/Kg	6.0	2.5	1

Surrogate	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL	run #:
Squalane	111-01-3	**1.4**		mg/Kg	0.35	0.11	1.8	**82.1**	50	150	1

The following test was conducted by: Analytica - Thornton

Lab Sample Number:	B1212030-02A	Analysis Date:	12/14/2012 4:02:29PM
Prep Date:	12/11/2012	Instrument:	GC_E
Analytical Method ID:	SVOC by GC/FID via method 8015B - DRO	File Name:	12121409.D
Prep Method ID:	3550B	Dilution Factor:	1
Prep Batch Number:	T121211002	Percent Moisture	5.72
Report Basis:	Dry Weight Basis	Analyst Initials:	kh
Sample prep wt./vol:	30.04 g	Prep Extract Vol:	2.00 ml

Analyte	CASNo	Result	Flags	Units	PQL	MDL	run #:
Diesel Range Organics	n/a	**49**		mg/Kg	11	3.0	1

Surrogate	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL	run #:
o-Terphenyl	84-15-1	**1.6**		mg/Kg	0.71	0.55	1.8	**87.8**	50	150	1

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): B1212030

Project: **Sulphur Gulch**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

Report Section: Client Sample Report

Client Sample Name: **Pit - East**

Matrix: Soil

Collection Date: 12/4/2012 11:25:00AM

The following test was conducted by: Analytica - Thornton

Lab Sample Number:	B1212030-03B	Analysis Date:	12/17/2012 5:42:35PM
Prep Date:	12/11/2012	Instrument:	GC_E
Analytical Method ID:	VOC by GC/FID via method 8015B - RRO	File Name:	12121709.D
Prep Method ID:	3550	Dilution Factor:	1
Prep Batch Number:	T121211001	Percent Moisture	4.38
Report Basis:	Dry Weight Basis	Analyst Initials:	kh
Sample prep wt./vol:	30.01 g	Prep Extract Vol:	1.00 ml

Analyte	CASNo	Result	Flags	Units	PQL	MDL	run #:
Residual Range Organics	n/a	**56**		mg/Kg	5.9	2.4	1

Surrogate	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL	run #:
Squalane	111-01-3	**1.6**		mg/Kg	0.35	0.11	1.7	**93.7**	50	150	1

The following test was conducted by: Analytica - Thornton

Lab Sample Number:	B1212030-03A	Analysis Date:	12/14/2012 5:41:21PM
Prep Date:	12/11/2012	Instrument:	GC_E
Analytical Method ID:	SVOC by GC/FID via method 8015B - DRO	File Name:	12121411.D
Prep Method ID:	3550B	Dilution Factor:	1
Prep Batch Number:	T121211002	Percent Moisture	4.38
Report Basis:	Dry Weight Basis	Analyst Initials:	kh
Sample prep wt./vol:	30.04 g	Prep Extract Vol:	2.00 ml

Analyte	CASNo	Result	Flags	Units	PQL	MDL	run #:
Diesel Range Organics	n/a	**56**		mg/Kg	10	3.0	1

Surrogate	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL	run #:
o-Terphenyl	84-15-1	**1.6**		mg/Kg	0.70	0.55	1.7	**91.2**	50	150	1

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): B1212030

Project: **Sulphur Gulch**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

Report Section: **Client Sample Report**

Client Sample Name: **Pit - West**

Matrix: Soil

Collection Date: 12/4/2012 11:30:00AM

The following test was conducted by: Analytica - Thornton

Lab Sample Number:	B1212030-04B	Analysis Date:	12/17/2012 6:32:10PM
Prep Date:	12/11/2012	Instrument:	GC_E
Analytical Method ID:	VOC by GC/FID via method 8015B - RRO	File Name:	12121710.D
Prep Method ID:	3550	Dilution Factor:	1
Prep Batch Number:	T121211001	Percent Moisture	5.28
Report Basis:	Dry Weight Basis	Analyst Initials:	kh
Sample prep wt./vol:	29.98 g	Prep Extract Vol:	1.00 ml

Analyte	CASNo	Result	Flags	Units	PQL	MDL	run #:
Residual Range Organics	n/a	**8.2**		mg/Kg	6.0	2.5	1

Surrogate	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL	run #:
Squalane	111-01-3	**1.6**		mg/Kg	0.35	0.11	1.8	**93.2**	50	150	1

The following test was conducted by: Analytica - Thornton

Lab Sample Number:	B1212030-04A	Analysis Date:	12/14/2012 7:19:27PM
Prep Date:	12/11/2012	Instrument:	GC_E
Analytical Method ID:	SVOC by GC/FID via method 8015B - DRO	File Name:	12121413.D
Prep Method ID:	3550B	Dilution Factor:	1
Prep Batch Number:	T121211002	Percent Moisture	5.28
Report Basis:	Dry Weight Basis	Analyst Initials:	kh
Sample prep wt./vol:	29.98 g	Prep Extract Vol:	1.00 ml

Analyte	CASNo	Result	Flags	Units	PQL	MDL	run #:
Diesel Range Organics	n/a	**ND**		mg/Kg	5.3	1.5	1

Surrogate	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL	run #:
o-Terphenyl	84-15-1	**1.4**		mg/Kg	0.35	0.28	1.8	**80.5**	50	150	1

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): B1212030

Project: **Sulphur Gulch**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

Report Section: Client Sample Report

Client Sample Name: **Pit - Bottom**

Matrix: Soil

Collection Date: 12/4/2012 11:40:00AM

The following test was conducted by: Analytica - Thornton

Lab Sample Number:	B1212030-05B	Analysis Date:	12/18/2012 1:58:27PM
Prep Date:	12/11/2012	Instrument:	GC_E
Analytical Method ID:	VOC by GC/FID via method 8015B - RRO	File Name:	12121806.D
Prep Method ID:	3550	Dilution Factor:	10
Prep Batch Number:	T121211001	Percent Moisture	3.10
Report Basis:	Dry Weight Basis	Analyst Initials:	kh
Sample prep wt./vol:	29.97 g	Prep Extract Vol:	1.00 ml

Analyte	CASNo	Result	Flags	Units	PQL	MDL	run #:
Residual Range Organics	n/a	**460**		mg/Kg	59	24	2

Surrogate	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL	run #:
Squalane	111-01-3	**ND**		mg/Kg	3.4	1.1	1.7	**107**	50	150	2 DIL

The following test was conducted by: Analytica - Thornton

Lab Sample Number:	B1212030-05A	Analysis Date:	12/15/2012 2:36:14AM
Prep Date:	12/11/2012	Instrument:	GC_E
Analytical Method ID:	SVOC by GC/FID via method 8015B - DRO	File Name:	12121422.D
Prep Method ID:	3550B	Dilution Factor:	1
Prep Batch Number:	T121211002	Percent Moisture	3.10
Report Basis:	Dry Weight Basis	Analyst Initials:	kh
Sample prep wt./vol:	29.95 g	Prep Extract Vol:	1.00 ml

Analyte	CASNo	Result	Flags	Units	PQL	MDL	run #:
Diesel Range Organics	n/a	**94**		mg/Kg	5.2	1.5	1

Surrogate	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL	run #:
o-Terphenyl	84-15-1	**1.6**		mg/Kg	0.34	0.27	1.7	**94.0**	50	150	1

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): B1212030

Project: **Sulphur Gulch**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

Report Section: Method Blank Report

Client Sample Name: **MB**

Matrix: Solid

Collection Date: 12/11/2012 4:31:00PM

The following test was conducted by: Analytica - Thornton

Lab Sample Number:	T121211001-MB	Analysis Date:	12/17/2012 2:24:57PM
Prep Date:	12/11/2012	Instrument:	GC_E
Analytical Method ID:	VOC by GC/FID via method 8015B - RRO	File Name:	12121705.D
Prep Method ID:	3550	Dilution Factor:	1
Prep Batch Number:	T121211001	Percent Moisture	NA
Report Basis:	As Received	Analyst Initials:	kh
Sample prep wt./vol:	29.96 g	Prep Extract Vol:	1.00 ml

Analyte	CASNo	Result	Flags	Units	PQL	MDL	run #:
Residual Range Organics	n/a	**ND**		mg/Kg	5.7	2.3	1

Surrogate	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL	run #:
Squalane	111-01-3	**1.1**		mg/Kg	0.33	0.11	1.7	**64.4**	50	150	1

The following test was conducted by: Analytica - Thornton

Lab Sample Number:	T121211002-MB	Analysis Date:	12/14/2012 12:44:26PM
Prep Date:	12/11/2012	Instrument:	GC_E
Analytical Method ID:	SVOC by GC/FID via method 8015B - DRO	File Name:	12121405.D
Prep Method ID:	3550B	Dilution Factor:	1
Prep Batch Number:	T121211002	Percent Moisture	NA
Report Basis:	As Received	Analyst Initials:	kh
Sample prep wt./vol:	29.96 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	**1.2**		mg/Kg	0.33	0.26	1.7	**71.1**	50	150	1

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): B1212030

Project: **Sulphur Gulch**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

Tests Run at: Analytica Environmental Laboratories - Thornton, Colorado

Workorder (SDG): B1212030

Project: Sulphur Gulch

Project Number:

QUALITY CONTROL REPORT

Prep Batch: **T121211002**

LCS REPORT

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

MB: T121211002-MB

Prep Date: 12/11/2012

MB Anal. Date: 12/14/2012 12:44:26PM

Units: mg/Kg

LCS Anal. Date: 12/14/2012 1:33:58PM

Matrix: Solid

Analyte Name	SampResult	LCSRes.	SPLev	Recov.	Recov Lim	RPDLim	Flag
Diesel Range Organics	ND	61.1	66.6	91.7	75 - 125		

MS/MSD REPORT

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

Parent: B1212030-04A

Prep Date: 12/11/2012

Samp. Anal. Date: 12/14/2012 7:19:27PM

Units: mg/Kg

MS Anal. Date: 12/14/2012 11:22:01PM MSD Anal. Date: 12/15/2012 12:59:02AM Matrix: Soil

Analyte Name	SampResult	MSRes.	MSDRes	SPLev	SPDLev	Recov.	MSD Rec.	RPD	Recov Lim	RPDLim	Flag
Diesel Range Organics	ND	71.5	62.3	70.4	70.3	101.6	88.6	13.8	50 - 129	20	

Prep Batch: **T121211001**

LCS REPORT

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

MB: T121211001-MB

Prep Date: 12/11/2012

MB Anal. Date: 12/17/2012 2:24:57PM

Units: mg/Kg

LCS Anal. Date: 12/17/2012 9:47:31PM

Matrix: Solid

Analyte Name	SampResult	LCSRes.	SPLev	Recov.	Recov Lim	RPDLim	Flag
Residual Range Organics	ND	43.3	66.8	64.9	60 - 120		

MS/MSD REPORT

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

Parent: B1212030-05B

Prep Date: 12/11/2012

Samp. Anal. Date: 12/18/2012 1:58:27PM

Units: mg/Kg

MS Anal. Date: 12/18/2012 2:48:15PM MSD Anal. Date: 12/18/2012 3:37:34PM Matrix: Soil

Analyte Name	SampResult	MSRes.	MSDRes	SPLev	SPDLev	Recov.	MSD Rec.	RPD	Recov Lim	RPDLim	Flag
Residual Range Organics	458	646	625	68.8	68.9	273.3	242.5	3.3	50 - 150	40	*NOTE 2* *NOTE 2*

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): B1212030

Project: **Sulphur Gulch**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

Tests Run at: Analytica Environmental Laboratories - Thornton, Colorado

Workorder (SDG): B1212030

Project: Sulphur Gulch

Project Number:

Prep Batch: **T121211003**

QUALITY CONTROL REPORT

SAMPLE DUPLICATE REPORT

Analysis: ASTM D2216 - Pmoist

Base Sample: B1212030-05A

Prep Date: 12/11/2012

Samp. Anal. Date: 12/13/2012 9:36:03AM

DUP Anal. Date: 12/13/2012 9:36:03AM

Units: %

Matrix: Soil

Analyte Name	SampResult	DUPRes.	RPD	RPDLim	Flag
Moisture	3.10	3.79	20.0	20	OUT

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.

SURROGATE RECOVERY SUMMARY REPORT

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): B1212030

Project: **Sulphur Gulch**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

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

Lab Sample #: B1212030-01A | Dilution: 1
Analysis Date: 12/14/2012 2:23:27PM | Client Sample: **Pit - North**
Batch Number: T121211002 | Data File: 12121407.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
o-Terphenyl	76	50	150		Complete

Lab Sample #: B1212030-02A | Dilution: 1
Analysis Date: 12/14/2012 4:02:29PM | Client Sample: **Pit - South**
Batch Number: T121211002 | Data File: 12121409.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
o-Terphenyl	88	50	150		Complete

Lab Sample #: B1212030-03A | Dilution: 1
Analysis Date: 12/14/2012 5:41:21PM | Client Sample: **Pit - East**
Batch Number: T121211002 | Data File: 12121411.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
o-Terphenyl	91	50	150		Complete

Lab Sample #: B1212030-04A | Dilution: 1
Analysis Date: 12/14/2012 7:19:27PM | Client Sample: **Pit - West**
Batch Number: T121211002 | Data File: 12121413.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
o-Terphenyl	81	50	150		Complete

Lab Sample #: B1212030-05A | Dilution: 1
Analysis Date: 12/15/2012 2:36:14AM | Client Sample: **Pit - Bottom**
Batch Number: T121211002 | Data File: 12121422.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
o-Terphenyl	94	50	150		Complete

Lab Sample #: T121211002-MB | Dilution: 1
Analysis Date: 12/14/2012 12:44:26PM | Client Sample: **MB**
Batch Number: T121211002 | Data File: 12121405.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
o-Terphenyl	71	60	120		Complete

Lab Sample #: T121211002-LCS | Dilution: 1
Analysis Date: 12/14/2012 1:33:58PM | Client Sample: **LCS**
Batch Number: T121211002 | Data File: 12121406.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
o-Terphenyl	90	60	120		Complete

Lab Sample #: B1212030-04A-MS | Dilution: 1
Analysis Date: 12/14/2012 11:22:01PM | Client Sample: **MS**
Batch Number: T121211002 | Data File: 12121418.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
o-Terphenyl	93	50	150		Complete

Lab Sample #: B1212030-04A-MSD | Dilution: 1
Analysis Date: 12/15/2012 12:59:02AM | Client Sample: **MSD**
Batch Number: T121211002 | Data File: 12121420.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): B1212030

Project: **Sulphur Gulch**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

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

Lab Sample #:	B1212030-04A-MSD	Dilution:	1
Analysis Date:	12/15/2012 12:59:02AM	Client Sample:	**MSD**
Batch Number:	T121211002	Data File:	12121420.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
o-Terphenyl	87	50	150		Complete

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): B1212030

Project: **Sulphur Gulch**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

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

Lab Sample #: B1212030-01B | Dilution: 1
Analysis Date: 12/17/2012 4:03:53PM | Client Sample: **Pit - North**
Batch Number: T121211001 | Data File: 12121707.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
Squalane	68	50	150		Rrun

Lab Sample #: B1212030-02B | Dilution: 1
Analysis Date: 12/17/2012 4:53:18PM | Client Sample: **Pit - South**
Batch Number: T121211001 | Data File: 12121708.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
Squalane	82	50	150		Complete

Lab Sample #: B1212030-03B | Dilution: 1
Analysis Date: 12/17/2012 5:42:35PM | Client Sample: **Pit - East**
Batch Number: T121211001 | Data File: 12121709.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
Squalane	94	50	150		Complete

Lab Sample #: B1212030-04B | Dilution: 1
Analysis Date: 12/17/2012 6:32:10PM | Client Sample: **Pit - West**
Batch Number: T121211001 | Data File: 12121710.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
Squalane	93	50	150		Complete

Lab Sample #: B1212030-05B | Dilution: 1
Analysis Date: 12/17/2012 7:21:02PM | Client Sample: **Pit - Bottom**
Batch Number: T121211001 | Data File: 12121711.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
Squalane	110	50	150		Rrun

Lab Sample #: B1212030-01B | Dilution: 10
Analysis Date: 12/18/2012 1:09:13PM | Client Sample: **Pit - North**
Batch Number: T121211001 | Data File: 12121805.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
Squalane	121	50	150	DILUTED OUT	Complete

Lab Sample #: B1212030-05B | Dilution: 10
Analysis Date: 12/18/2012 1:58:27PM | Client Sample: **Pit - Bottom**
Batch Number: T121211001 | Data File: 12121806.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
Squalane	107	50	150	UNDER QUANT LIMIT	Complete

Lab Sample #: T121211001-MB | Dilution: 1
Analysis Date: 12/17/2012 2:24:57PM | Client Sample: **MB**
Batch Number: T121211001 | Data File: 12121705.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
Squalane	64	60	120		Complete

Lab Sample #: T121211001-LCS | Dilution: 1
Analysis Date: 12/17/2012 3:14:28PM | Client Sample: **LCS**
Batch Number: T121211001 | Data File: 12121706.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): B1212030

Project: **Sulphur Gulch**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

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

Lab Sample #: T121211001-LCS | Dilution: 1
Analysis Date: 12/17/2012 3:14:28PM | Client Sample: **LCS**
Batch Number: T121211001 | Data File: 12121706.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
Squalane	86	60	120		Rrun

Lab Sample #: T121211001-LCS | Dilution: 1
Analysis Date: 12/17/2012 9:47:31PM | Client Sample: **LCS**
Batch Number: T121211001 | Data File: 12121714.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
Squalane	100	60	120		Complete

Lab Sample #: B1212030-05B-MS | Dilution: 1
Analysis Date: 12/17/2012 8:09:52PM | Client Sample: **MS**
Batch Number: T121211001 | Data File: 12121712.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
Squalane	106	50	150		Rrun

Lab Sample #: B1212030-05B-MS | Dilution: 10
Analysis Date: 12/18/2012 2:48:15PM | Client Sample: **MS**
Batch Number: T121211001 | Data File: 12121807.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
Squalane	123	50	150	UNDER QUANT LIMIT	Complete

Lab Sample #: B1212030-05B-MSD | Dilution: 1
Analysis Date: 12/17/2012 8:58:43PM | Client Sample: **MSD**
Batch Number: T121211001 | Data File: 12121713.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
Squalane	113	50	150		Rrun

Lab Sample #: B1212030-05B-MSD | Dilution: 10
Analysis Date: 12/18/2012 3:37:34PM | Client Sample: **MSD**
Batch Number: T121211001 | Data File: 12121808.D

AnalyteName	SSRecov	LCL	UCL	SSFlag	Result Status
Squalane	107	50	150	UNDER QUANT LIMIT	Complete

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): B1212030

Project: **Sulphur Gulch**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

QC BATCH ASSOCIATIONS - BY METHOD BLANK

Lab Project ID: **144,699** **Lab Project Number:** **B1212030**

Prep Date: 12/11/2012

Lab Method Blank Id: T121211001-MB
Prep Batch ID: T121211001
Method: VOC by GC/FID via method 8015B - RRO

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

SampleNum	ClientSampleName	DataFile	AnalysisDate	
B1212030-02B	Pit - South	12121708.D	12/17/2012	4:53:18PM
B1212030-03B	Pit - East	12121709.D	12/17/2012	5:42:35PM
B1212030-04B	Pit - West	12121710.D	12/17/2012	6:32:10PM
T121211001-LCS	LCS	12121714.D	12/17/2012	9:47:31PM
B1212030-01B	Pit - North	12121805.D	12/18/2012	1:09:13PM
B1212030-05B	Pit - Bottom	12121806.D	12/18/2012	1:58:27PM
B1212030-05B-MS	MS	12121807.D	12/18/2012	2:48:15PM
B1212030-05B-MSD	MSD	12121808.D	12/18/2012	3:37:34PM

Prep Date: 12/11/2012

Lab Method Blank Id: T121211002-MB
Prep Batch ID: T121211002
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	
T121211002-LCS	LCS	12121406.D	12/14/2012	1:33:58PM
B1212030-01A	Pit - North	12121407.D	12/14/2012	2:23:27PM
B1212030-02A	Pit - South	12121409.D	12/14/2012	4:02:29PM
B1212030-03A	Pit - East	12121411.D	12/14/2012	5:41:21PM
B1212030-04A	Pit - West	12121413.D	12/14/2012	7:19:27PM
B1212030-04A-MS	MS	12121418.D	12/14/2012	11:22:01PM
B1212030-04A-MSD	MSD	12121420.D	12/15/2012	12:59:02AM
B1212030-05A	Pit - Bottom	12121422.D	12/15/2012	2:36:14AM

Detailed Analytical Report

Analytica Environmental Laboratories, Inc.

Workorder (SDG): B1212030

Project: **Sulphur Gulch**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

QC BATCH ASSOCIATIONS - BY METHOD BLANK

Lab Project ID: **144,699** **Lab Project Number:** **B1212030**

Prep Date: 12/11/2012

Lab Method Blank Id: T121211003-MB

Prep Batch ID: T121211003

Method: ASTM D2216 - Pmoist

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

SampleNum	ClientSampleName	DataFile	AnalysisDate	
B1212030-01A	Pit - North		12/13/2012	9:36:03AM
B1212030-02A	Pit - South		12/13/2012	9:36:03AM
B1212030-03A	Pit - East		12/13/2012	9:36:03AM
B1212030-04A	Pit - West		12/13/2012	9:36:03AM
B1212030-05A	Pit - Bottom		12/13/2012	9:36:03AM
B1212030-05A-DUP	DUP		12/13/2012	9:36:03AM

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

Workorder (SDG): B1212030

Project: **Sulphur Gulch**

Client: **Maralex Resources, Inc.**

Client Project Number: **None**

REPORTING CONVENTIONS FOR THIS REPORT

B1212030

TestPkgName	Basis	# Sig Figs	Reporting Limit
8015/3550 (Solid) - RRO	Dry Weight Basis	2	Report to PQL
8015B/3550B (Solid) - DRO	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 ®

5438 Shaune Drive, Juneau, AK 99801, (907) 780-6668, (907) 780-6670 fax
5761 Silverado Way, # N, Anchorage, AK 99518, (907) 258-2155, (907) 258-6634 fax
3330 Industrial Ave, Fairbanks, AK 99701, (907) 456-3116, (907) 456-3125 fax
12189 Pennsylvania St, Thornton, CO 80241, (303) 469-8868, (303) 469-5254 fax

Page _____ of _____

Chain of Custody No: 77851

Client Name & Address: Environmental Services Inc

Report to: Heydenbenk
Phone No: (970) 948-8978
Fax No:
E-mail: esi.craig@supra
Special Instructions/Comments: Net

Public Water System (PWS) ID#:
Project Name: Maraler Resources, Inc Sulfur Gulch 9/98-10/98

Turnaround Time for Results (TAT)
X Standard ___ Expedited (< 10 days, prior authorization required) (please specify due date below; add'l charges may apply)
Requested Due Date for Results:

Section To be Completed by Analytica
Quote ID:
LGN: B1212030
Account #: Cash Credit Card

Invoice to Name & Address: Maraler Mr 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 (Ref. 8015 Mod.)	RRO (Ref. 8015 Mod.)						Field Preserved	Field Filtered	MS/MSD ?
Pit - North	12/4/12	11:08	S	2	X	X								
Pit - South		11:20												
Pit - East		11:25												
Pit - West		11:30												
Pit - Bottom		11:40												

Relinquished by:	Date	Time	Received by:	Date	Time
DCH	12/4/12	17:00	[illegible]	12/6/12	10:03
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time

Name of Sampler: (printed) Heydenbenk

Section To Be Completed by Analytica

	THO	ANC	JNU	FBKS
Condition of Custody Seal?:	Intact			
Initialed By:	DCH			
Temp/Loc:	4.1			
Thermo ID#:				
Shipped Via:	F			

Version 2.0