



02/04/14

Technical Report for

Diamond Operating Inc.

Walters #1 - Skim Pit

Below Old Skim Pit

Accutest Job Number: D54618

Sampling Date: 01/27/14



Report to:

Diamond Operating Inc.
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Boulder, CO 80301
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ATTN: Dave Peterson

Total number of pages in report: 39



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Scott Heideman
Laboratory Director

Client Service contact: Renea Jackson 303-425-6021

Certifications: CO (CO00049), ID, NE (CO00049), ND (R-027), NJ (CO 0007), OK (D9942), UT (NELAP CO00049), TX (T104704511)

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Test results relate only to samples analyzed.

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Accutest Laboratories

Sample Summary

Diamond Operating Inc.

Job No: D54618

Walters #1 -Skim Pit
Project No: Below Old Skim Pit

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
D54618-1	01/27/14	15:00	SGDP 01/28/14	SO	Soil	WALTERS SOIL
D54618-1A	01/27/14	15:00	SGDP 01/28/14	SO	Soil	WALTERS SOIL

Soil samples reported on a dry weight basis unless otherwise indicated on result page.



CASE NARRATIVE / CONFORMANCE SUMMARY

Client: Diamond Operating Inc.

Job No D54618

Site: Walters #1 -Skim Pit

Report Date 2/4/2014 3:29:17 PM

On 01/28/2014, 1 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 12.4 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D54618 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GC By Method SW846 8015B

Matrix	SO	Batch ID:	GGB1298
--------	----	-----------	---------

- * All samples were analyzed within the recommended method holding time.
- * All method blanks for this batch meet method specific criteria.
- * Sample(s) D54618-1MS, D54618-1MSD were used as the QC samples indicated.

Volatiles by GC By Method SW846 8021B

Matrix	SO	Batch ID:	GTB1298
--------	----	-----------	---------

- * All samples were analyzed within the recommended method holding time.
- * Sample(s) D54618-1MS, D54618-1MSD were used as the QC samples indicated.
- * All method blanks for this batch meet method specific criteria.

Extractables by GC By Method SW846-8015B

Matrix	SO	Batch ID:	OP9322
--------	----	-----------	--------

- * All samples were extracted within the recommended method holding time.
- * All samples were analyzed within the recommended method holding time.
- * All method blanks for this batch meet method specific criteria.
- * Sample(s) D54592-2MS, D54592-2MSD were used as the QC samples indicated.

Metals By Method SW846 6010C

Matrix	AQ	Batch ID:	MP12242
--------	----	-----------	---------

- * All samples were digested within the recommended method holding time.
- * All samples were analyzed within the recommended method holding time.
- * All method blanks for this batch meet method specific criteria.
- * Sample(s) D54701-1AMS, D54701-1AMSD, D54701-1ASDL were used as the QC samples for the metals analysis.

Wet Chemistry By Method SM2540G-2011 M

Matrix	SO	Batch ID:	GN23480
--------	----	-----------	---------

- * The data for SM2540G-2011 M meets quality control requirements.

Wet Chemistry By Method SW846 9045D

Matrix SO	Batch ID: GN23517
-----------	-------------------

- * The following samples were run outside of holding time for method SW846 9045D: D54618-1

Wet Chemistry By Method USDA HANDBOOK 60

Matrix SO	Batch ID: MP12242
-----------	-------------------

- * D54618-1A for Sodium Adsorption Ratio: Calculated as: $(\text{Na meq/L}) / \sqrt{[(\text{Ca meq/L}) + (\text{Mg meq/L})/2]}$

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.

Summary of Hits

Job Number: D54618
 Account: Diamond Operating Inc.
 Project: Walters #1 -Skim Pit
 Collected: 01/27/14



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
D54618-1	WALTERS SOIL					
TPH-DRO (C10-C28)		9.04	7.2	5.4	mg/kg	SW846-8015B
Specific Conductivity		485	1.0		umhos/cm	SM 2510B-2011 MOD
pH		7.93			su	SW846 9045D
D54618-1A	WALTERS SOIL					
Calcium		54.4	2.0		mg/l	SW846 6010C
Magnesium		7.61	1.0		mg/l	SW846 6010C
Sodium		8.52	2.0		mg/l	SW846 6010C
Sodium Adsorption Ratio ^a		0.286			ratio	USDA HANDBOOK 60

(a) Calculated as: $(\text{Na meq/L}) / \text{sqrt} [(\text{Ca meq/L}) + (\text{Mg meq/L})/2]$



4

Sample Results

Report of Analysis

Report of Analysis

4.1
4

Client Sample ID: WALTERS SOIL	Date Sampled: 01/27/14
Lab Sample ID: D54618-1	Date Received: 01/28/14
Matrix: SO - Soil	Percent Solids: 92.1
Method: SW846 8015B	
Project: Walters #1 -Skim Pit	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB23519.D	1	01/30/14	EV	n/a	n/a	GGB1298
Run #2							

Run #	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	12	5.8	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	90%		60-140%		

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: WALTERS SOIL	Date Sampled: 01/27/14
Lab Sample ID: D54618-1	Date Received: 01/28/14
Matrix: SO - Soil	Percent Solids: 92.1
Method: SW846 8021B	
Project: Walters #1 -Skim Pit	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TB23519.D	1	01/30/14	EV	n/a	n/a	GTB1298
Run #2							

Run #	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	58	19	ug/kg	
108-88-3	Toluene	ND	120	58	ug/kg	
100-41-4	Ethylbenzene	ND	120	58	ug/kg	
1330-20-7	Xylenes (total)	ND	120	120	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	96%		60-140%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.1
4

Report of Analysis

4.1
4

Client Sample ID: WALTERS SOIL	Date Sampled: 01/27/14
Lab Sample ID: D54618-1	Date Received: 01/28/14
Matrix: SO - Soil	Percent Solids: 92.1
Method: SW846-8015B SW846 3546	
Project: Walters #1 -Skim Pit	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FH017684.D	1	01/29/14	JS	01/29/14	OP9322	GFH876
Run #2							

Run #	Initial Weight	Final Volume
Run #1	30.2 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	9.04	7.2	5.4	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	53%		20-130%		

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: WALTERS SOIL	Date Sampled: 01/27/14
Lab Sample ID: D54618-1	Date Received: 01/28/14
Matrix: SO - Soil	Percent Solids: 92.1
Project: Walters #1 -Skim Pit	

4.1
4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
%solids Solids, Percent	92.1		%	1	01/29/14	SWT	SM2540G-2011 M
prep: DEPT.OF AG, BOOK N9 Specific Conductivity	485	1.0	umhos/cm	1	02/03/14	KB	SM 2510B-2011 MOD
pH	7.93		su	1	01/31/14 14:50	AK	SW846 9045D

RL = Reporting Limit

Report of Analysis

Client Sample ID: WALTERS SOIL	Date Sampled: 01/27/14
Lab Sample ID: D54618-1A	Date Received: 01/28/14
Matrix: SO - Soil	Percent Solids: 92.1
Project: Walters #1 -Skim Pit	

4.2
4

SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	54.4	2.0	mg/l	1	01/31/14	02/03/14 KV	SW846 6010C ¹	SW846 3010A/M ²
Magnesium	7.61	1.0	mg/l	1	01/31/14	02/03/14 KV	SW846 6010C ¹	SW846 3010A/M ²
Sodium	8.52	2.0	mg/l	1	01/31/14	02/03/14 KV	SW846 6010C ¹	SW846 3010A/M ²

(1) Instrument QC Batch: MA4425

(2) Prep QC Batch: MP12242

RL = Reporting Limit

Report of Analysis

Client Sample ID: WALTERS SOIL	Date Sampled: 01/27/14
Lab Sample ID: D54618-1A	Date Received: 01/28/14
Matrix: SO - Soil	Percent Solids: 92.1
Project: Walters #1 -Skim Pit	

4.2
4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio ^a	0.286		ratio	1	02/03/14 13:53	KV	USDA HANDBOOK 60

(a) Calculated as: $(Na \text{ meq/L}) / \sqrt{[(Ca \text{ meq/L}) + (Mg \text{ meq/L})/2]}$

RL = Reporting Limit



Misc. Forms



Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

GC Volatiles



QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: D54618
 Account: DIAMOCOB Diamond Operating Inc.
 Project: Walters #1 -Skim Pit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB1298-MB	GB23517.D	1	01/30/14	EV	n/a	n/a	GGB1298

The QC reported here applies to the following samples:

Method: SW846 8015B

D54618-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	10	5.0	mg/kg	
CAS No.	Surrogate Recoveries	Limits				
120-82-1	1,2,4-Trichlorobenzene	91%	60-140%			

6.1.1



Method Blank Summary

Job Number: D54618
Account: DIAMOCOB Diamond Operating Inc.
Project: Walters #1 -Skim Pit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTB1298-MB	TB23517.D	1	01/30/14	EV	n/a	n/a	GTB1298

The QC reported here applies to the following samples:

Method: SW846 8021B

D54618-1

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	50	16	ug/kg	
100-41-4	Ethylbenzene	ND	100	50	ug/kg	
108-88-3	Toluene	ND	100	50	ug/kg	
1330-20-7	Xylenes (total)	ND	100	100	ug/kg	

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	96% 60-140%

6.1.2



Blank Spike Summary

Job Number: D54618
 Account: DIAMOCOB Diamond Operating Inc.
 Project: Walters #1 -Skim Pit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB1298-BS	GB23518.D	1	01/30/14	EV	n/a	n/a	GGB1298

The QC reported here applies to the following samples:

Method: SW846 8015B

D54618-1

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	110	105	95	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	96%	60-140%

6.2.1

6

* = Outside of Control Limits.

Blank Spike Summary

Job Number: D54618
 Account: DIAMOCOB Diamond Operating Inc.
 Project: Walters #1 -Skim Pit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTB1298-BS	TB23518.D	1	01/30/14	EV	n/a	n/a	GTB1298

The QC reported here applies to the following samples:

Method: SW846 8021B

D54618-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	1360	1330	98	70-130
100-41-4	Ethylbenzene	2280	2290	100	70-130
108-88-3	Toluene	10600	9740	92	70-130
1330-20-7	Xylenes (total)	10800	11300	105	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	100%	60-140%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D54618
 Account: DIAMOCOB Diamond Operating Inc.
 Project: Walters #1 -Skim Pit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D54618-1MS	GB23520.D	1	01/30/14	EV	n/a	n/a	GGB1298
D54618-1MSD	GB23521.D	1	01/30/14	EV	n/a	n/a	GGB1298
D54618-1	GB23519.D	1	01/30/14	EV	n/a	n/a	GGB1298

The QC reported here applies to the following samples:

Method: SW846 8015B

D54618-1

CAS No.	Compound	D54618-1 mg/kg	Spike Q	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND	128	126	98	123	96	2	70-130/30
CAS No.	Surrogate Recoveries	MS	MSD	D54618-1		Limits			
120-82-1	1,2,4-Trichlorobenzene	96%	97%	90%		60-140%			

* = Outside of Control Limits.

6.3.1
6

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D54618
 Account: DIAMOCOB Diamond Operating Inc.
 Project: Walters #1 -Skim Pit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D54618-1MS	TB23520.D	1	01/30/14	EV	n/a	n/a	GTB1298
D54618-1MSD	TB23521.D	1	01/30/14	EV	n/a	n/a	GTB1298
D54618-1	TB23519.D	1	01/30/14	EV	n/a	n/a	GTB1298

The QC reported here applies to the following samples:

Method: SW846 8021B

D54618-1

CAS No.	Compound	D54618-1 ug/kg	Spike Q	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	1590	1560	98	1550	98	1	70-130/30
100-41-4	Ethylbenzene	ND	2660	2660	100	2640	99	1	70-130/30
108-88-3	Toluene	ND	12300	11400	92	11400	92	0	70-130/30
1330-20-7	Xylenes (total)	ND	12600	13000	103	12900	103	1	66-142/30

CAS No.	Surrogate Recoveries	MS	MSD	D54618-1	Limits
120-82-1	1,2,4-Trichlorobenzene	100%	102%	96%	60-140%

* = Outside of Control Limits.

6.3.2



GC Semi-volatiles

QC Data Summaries

7

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: D54618
 Account: DIAMOCOB Diamond Operating Inc.
 Project: Walters #1 -Skim Pit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9322-MB	FH017675.D 1		01/29/14	JS	01/29/14	OP9322	GFH876

The QC reported here applies to the following samples:

Method: SW846-8015B

D54618-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	6.7	5.0	mg/kg	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	68%	20-130%

7.1.1

7

Blank Spike Summary

Job Number: D54618
 Account: DIAMOCOB Diamond Operating Inc.
 Project: Walters #1 -Skim Pit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9322-BS	FH017676.D 1		01/29/14	JS	01/29/14	OP9322	GFH876

The QC reported here applies to the following samples:

Method: SW846-8015B

D54618-1

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	666	448	67	42-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	72%	20-130%

7.2.1

7

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D54618
 Account: DIAMOCOB Diamond Operating Inc.
 Project: Walters #1 -Skim Pit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9322-MS	FH017677.D	1	01/29/14	JS	01/29/14	OP9322	GFH876
OP9322-MSD	FH017678.D	1	01/29/14	JS	01/29/14	OP9322	GFH876
D54592-2	FH017679.D	1	01/29/14	JS	01/29/14	OP9322	GFH876

The QC reported here applies to the following samples:

Method: SW846-8015B

D54618-1

CAS No.	Compound	D54592-2 mg/kg	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	ND	749	432	58	433	58	0	20-150/30
CAS No.	Surrogate Recoveries	MS	MSD	D54592-2	Limits				
84-15-1	o-Terphenyl	60%	59%	66%	20-130%				

7.3.1

7

* = Outside of Control Limits.

Metals Analysis

QC Data Summaries



Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D54618
Account: DIAMOCOB - Diamond Operating Inc.
Project: Walters #1 -Skim Pit

QC Batch ID: MP12242
Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
Units: ug/l

Prep Date: 01/31/14

Metal	RL	IDL	MDL	MB raw	final
Aluminum	500	55	210		
Antimony	150	11	95		
Arsenic	130	19	28		
Barium	50	1	7		
Beryllium	50	4.5	6		
Boron	250	4	33		
Cadmium	50	1	1.8		
Calcium	2000	12	210	186	<2000
Chromium	50	1.5	2		
Cobalt	25	2.5	2.9		
Copper	50	4	9.5		
Iron	350	7.5	48		
Lead	250	11	110		
Lithium	25	2	14		
Magnesium	1000	34	95	18.5	<1000
Manganese	25	2.5	2.3		
Molybdenum	50	2	4.2		
Nickel	150	2.5	4.4		
Phosphorus	500	75	100		
Potassium	5000	500	1400		
Selenium	250	36	55		
Silicon	250	24	26		
Silver	150	1.5	3		
Sodium	2000	37	850	119	<2000
Strontium	25	.05	.6		
Thallium	50	9	20		
Tin	250	60	80		
Titanium	50	.5	11		
Uranium	250	15	28		
Vanadium	50	2	2		
Zinc	150	2	16		

Associated samples MP12242: D54618-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

8.1.1

8

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D54618
Account: DIAMOCOB - Diamond Operating Inc.
Project: Walters #1 -Skim Pit

QC Batch ID: MP12242
Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

8.1.1

8

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D54618
 Account: DIAMOCOB - Diamond Operating Inc.
 Project: Walters #1 -Skim Pit

QC Batch ID: MP12242
 Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
 Units: ug/l

Prep Date: 01/31/14

Metal	D54701-1A Original MS	Spikelot ICPALL2	% Rec	QC Limits
-------	--------------------------	---------------------	-------	--------------

Aluminum					
Antimony					
Arsenic					
Barium					
Beryllium					
Boron					
Cadmium					
Calcium	10800	141000	125000	104.2	75-125
Chromium					
Cobalt					
Copper					
Iron					
Lead					
Lithium					
Magnesium	3250	127000	125000	99.0	75-125
Manganese					
Molybdenum					
Nickel					
Phosphorus					
Potassium					
Selenium					
Silicon					
Silver					
Sodium	8670	132000	125000	96.7	75-125
Strontium					
Thallium					
Tin					
Titanium					
Uranium					
Vanadium					
Zinc					

Associated samples MP12242: D54618-1A

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits

8.1.2
8

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D54618
Account: DIAMOCOB - Diamond Operating Inc.
Project: Walters #1 -Skim Pit

QC Batch ID: MP12242
Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
Units: ug/l

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

8.1.2

8

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D54618
 Account: DIAMOCOB - Diamond Operating Inc.
 Project: Walters #1 -Skim Pit

QC Batch ID: MP12242
 Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
 Units: ug/l

Prep Date: 01/31/14

Metal	D54701-1A Original MSD	Spikelot ICPALL2	% Rec	MSD RPD	QC Limit
-------	---------------------------	---------------------	-------	------------	-------------

Aluminum						
Antimony						
Arsenic						
Barium						
Beryllium						
Boron						
Cadmium						
Calcium	10800	143000	125000	105.8	1.4	20
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Lithium						
Magnesium	3250	127000	125000	99.0	0.0	20
Manganese						
Molybdenum						
Nickel						
Phosphorus						
Potassium						
Selenium						
Silicon						
Silver						
Sodium	8670	133000	125000	99.5	0.8	20
Strontium						
Thallium						
Tin						
Titanium						
Uranium						
Vanadium						
Zinc						

Associated samples MP12242: D54618-1A

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits

8.1.2
8

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D54618
Account: DIAMOCOB - Diamond Operating Inc.
Project: Walters #1 -Skim Pit

QC Batch ID: MP12242
Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
Units: ug/l

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

8.1.2
8

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D54618
 Account: DIAMOCOB - Diamond Operating Inc.
 Project: Walters #1 -Skim Pit

QC Batch ID: MP12242
 Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
 Units: ug/l

Prep Date: 01/31/14

Metal	BSP Result	Spikelot ICPALL2	% Rec	QC Limits
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Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium				
Calcium	129000	125000	103.2	80-120
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Lithium				
Magnesium	121000	125000	96.8	80-120
Manganese				
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium				
Silicon				
Silver				
Sodium	121000	125000	96.8	80-120
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP12242: D54618-1A

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits

8.1.3

8

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D54618
Account: DIAMOCOB - Diamond Operating Inc.
Project: Walters #1 -Skim Pit

QC Batch ID: MP12242
Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

8.1.3
8

SERIAL DILUTION RESULTS SUMMARY

Login Number: D54618
 Account: DIAMOCOB - Diamond Operating Inc.
 Project: Walters #1 -Skim Pit

QC Batch ID: MP12242
 Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
 Units: ug/l

Prep Date: 01/31/14

Metal	D54701-1A	Original SDL 1:5	%DIF	QC Limits
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Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium				
Calcium	2160	2160	0.0	0-10
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Lithium				
Magnesium	650	667	2.5	0-10
Manganese				
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium				
Silicon				
Silver				
Sodium	1730	1900	9.7	0-10
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP12242: D54618-1A

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits

8.1.4

8

SERIAL DILUTION RESULTS SUMMARY

Login Number: D54618
Account: DIAMOCOB - Diamond Operating Inc.
Project: Walters #1 -Skim Pit

QC Batch ID: MP12242
Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

8.1.4

8

General Chemistry

QC Data Summaries

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Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D54618
Account: DIAMOCOB - Diamond Operating Inc.
Project: Walters #1 -Skim Pit

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Specific Conductivity	GP11891/GN23531			umhos/cm	9995	9860	98.6	90-110%
pH	GN23517			su	8.00	7.98	99.7	99.3-100.7%

Associated Samples:
Batch GN23517: D54618-1
Batch GP11891: D54618-1
(*) Outside of QC limits

9.1

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