



ANALYTICAL SUMMARY REPORT

January 26, 2016

EOG Resources Inc
600 17th St Ste 1000 N
Denver, CO 80202

Work Order: C16010394
Project Name: SIMBA 1-6 SWD

Energy Laboratories, Inc. Casper WY received the following 2 samples for EOG Resources Inc on 1/18/2016 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C16010394-001	A	01/15/16 10:10	01/18/16	Soil	Volatile Organics, Methanol Extraction SW8260B VOCs, BTEX
C16010394-002	B	01/15/16 10:25	01/18/16	Soil	Same As Above

The results as reported relate only to the item(s) submitted for testing. The analyses presented in this report were performed at Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601, unless otherwise noted. Radiochemistry analyses were performed at Energy Laboratories, Inc., 2325 Kerzell Lane, Casper, WY 82601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

If you have any questions regarding these test results, please call.

Report Approved By:



LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: EOG Resources Inc
Project: SIMBA 1-6 SWD
Lab ID: C16010394-001
Client Sample ID: A

Report Date: 01/26/16
Collection Date: 01/15/16 10:10
Date Received: 01/18/16
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	mg/kg		0.2		SW8260B	01/26/16 09:53 / dm
Ethylbenzene	ND	mg/kg		0.2		SW8260B	01/26/16 09:53 / dm
m+p-Xylenes	ND	mg/kg		0.2		SW8260B	01/26/16 09:53 / dm
o-Xylene	ND	mg/kg		0.2		SW8260B	01/26/16 09:53 / dm
Toluene	ND	mg/kg		0.2		SW8260B	01/26/16 09:53 / dm
Xylenes, Total	ND	mg/kg		0.2		SW8260B	01/26/16 09:53 / dm
Surr: 1,2-Dichlorobenzene-d4	120	%REC		70-130		SW8260B	01/26/16 09:53 / dm
Surr: Dibromofluoromethane	102	%REC		70-130		SW8260B	01/26/16 09:53 / dm
Surr: p-Bromofluorobenzene	111	%REC		70-130		SW8260B	01/26/16 09:53 / dm
Surr: Toluene-d8	110	%REC		70-130		SW8260B	01/26/16 09:53 / dm

Report
Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: EOG Resources Inc
Project: SIMBA 1-6 SWD
Lab ID: C16010394-002
Client Sample ID: B

Report Date: 01/26/16
Collection Date: 01/15/16 10:25
Date Received: 01/18/16
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	mg/kg		0.2		SW8260B	01/26/16 10:28 / dm
Ethylbenzene	ND	mg/kg		0.2		SW8260B	01/26/16 10:28 / dm
m+p-Xylenes	ND	mg/kg		0.2		SW8260B	01/26/16 10:28 / dm
o-Xylene	ND	mg/kg		0.2		SW8260B	01/26/16 10:28 / dm
Toluene	ND	mg/kg		0.2		SW8260B	01/26/16 10:28 / dm
Xylenes, Total	ND	mg/kg		0.2		SW8260B	01/26/16 10:28 / dm
Surr: 1,2-Dichlorobenzene-d4	106	%REC		70-130		SW8260B	01/26/16 10:28 / dm
Surr: Dibromofluoromethane	99.0	%REC		70-130		SW8260B	01/26/16 10:28 / dm
Surr: p-Bromofluorobenzene	113	%REC		70-130		SW8260B	01/26/16 10:28 / dm
Surr: Toluene-d8	100	%REC		70-130		SW8260B	01/26/16 10:28 / dm

Report
Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



QA/QC Summary Report

Prepared by Casper, WY Branch

Client: EOG Resources Inc

Report Date: 01/26/16

Project: SIMBA 1-6 SWD

Work Order: C16010394

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B										Batch: 46694
Lab ID: MB-46694	10	Method Blank				Run: SATURNCA_160125E				01/26/16 09:17
Benzene		ND	mg/kg	0.20						
Ethylbenzene		ND	mg/kg	0.20						
m+p-Xylenes		ND	mg/kg	0.20						
o-Xylene		ND	mg/kg	0.20						
Toluene		ND	mg/kg	0.20						
Xylenes, Total		ND	mg/kg	0.20						
Surr: 1,2-Dichlorobenzene-d4				0.20	110	70	130			
Surr: Dibromofluoromethane				0.20	108	70	130			
Surr: p-Bromofluorobenzene				0.20	112	70	130			
Surr: Toluene-d8				0.20	107	70	130			
Lab ID: LCS-46694	10	Laboratory Control Sample				Run: SATURNCA_160125E				01/26/16 11:04
Benzene		1.99	mg/kg	0.20	100	70	130			
Ethylbenzene		2.05	mg/kg	0.20	102	70	130			
m+p-Xylenes		3.78	mg/kg	0.20	95	70	130			
o-Xylene		1.91	mg/kg	0.20	96	70	130			
Toluene		2.24	mg/kg	0.20	112	70	130			
Xylenes, Total		5.70	mg/kg	0.20	95	70	130			
Surr: 1,2-Dichlorobenzene-d4				0.20	123	70	130			
Surr: Dibromofluoromethane				0.20	112	70	130			
Surr: p-Bromofluorobenzene				0.20	144	70	130			S
Surr: Toluene-d8				0.20	114	70	130			
Lab ID: LCSD-46694	10	Laboratory Control Sample Duplicate				Run: SATURNCA_160125E				01/26/16 11:39
Benzene		2.27	mg/kg	0.20	114	70	130	13	20	
Ethylbenzene		2.10	mg/kg	0.20	105	70	130	2.3	20	
m+p-Xylenes		4.10	mg/kg	0.20	103	70	130	8.1	20	
o-Xylene		2.09	mg/kg	0.20	104	70	130	8.8	20	
Toluene		2.20	mg/kg	0.20	110	70	130	1.8	20	
Xylenes, Total		6.19	mg/kg	0.20	103	70	130	8.3	20	
Surr: 1,2-Dichlorobenzene-d4				0.20	118	70	130	0.0	10	
Surr: Dibromofluoromethane				0.20	97	70	130	0.0	10	
Surr: p-Bromofluorobenzene				0.20	140	70	130	0.0	10	S
Surr: Toluene-d8				0.20	108	70	130	0.0	10	
Lab ID: C16010394-002AMS	10	Sample Matrix Spike				Run: SATURNCA_160125E				01/26/16 12:15
Benzene		2.11	mg/kg	0.20	106	70	130			
Ethylbenzene		2.08	mg/kg	0.20	104	70	130			
m+p-Xylenes		3.94	mg/kg	0.20	98	70	130			
o-Xylene		2.00	mg/kg	0.20	100	70	130			
Toluene		2.02	mg/kg	0.20	101	70	130			
Xylenes, Total		5.94	mg/kg	0.20	99	70	130			
Surr: 1,2-Dichlorobenzene-d4				0.20	114	70	130			
Surr: Dibromofluoromethane				0.20	98	70	130			
Surr: p-Bromofluorobenzene				0.20	117	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



QA/QC Summary Report

Prepared by Casper, WY Branch

Client: EOG Resources Inc

Project: SIMBA 1-6 SWD

Report Date: 01/26/16

Work Order: C16010394

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B										Batch: 46694
Lab ID: C16010394-002AMS	10	Sample Matrix Spike				Run: SATURNCA_160125E				01/26/16 12:15
Surr: Toluene-d8				0.20	102	70	130			
Method: SW8260B										Analytical Run: R208554
Lab ID: 012516_CCV_37	10	Continuing Calibration Verification Standard								01/26/16 07:44
Benzene		2.24	mg/kg	0.20	112	70	130			
Ethylbenzene		2.21	mg/kg	0.20	110	70	130			
m+p-Xylenes		4.56	mg/kg	0.20	114	70	130			
o-Xylene		2.27	mg/kg	0.20	114	70	130			
Toluene		2.37	mg/kg	0.20	118	70	130			
Xylenes, Total		6.83	mg/kg	0.20	114	70	130			
Surr: 1,2-Dichlorobenzene-d4				0.20	106	70	130			
Surr: Dibromofluoromethane				0.20	93	70	130			
Surr: p-Bromofluorobenzene				0.20	118	70	130			
Surr: Toluene-d8				0.20	109	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



Work Order Receipt Checklist

EOG Resources Inc

C16010394

Login completed by: Ralph Stanley

Date Received: 1/18/2016

Reviewed by: Kathy Hamre

Received by: res

Reviewed Date: 1/20/2016

Carrier name: NDA

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on all shipping container(s)/cooler(s)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on all sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Not Applicable <input type="checkbox"/>
Container/Temp Blank temperature:	8.0°C On Ice		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

Contact and Corrective Action Comments:

None



Chain of Custody and Analytical Request Record

PLEASE PRINT (Provide as much information as possible.)

Company Name: EOG Resources, Inc.		Project Name, PWS, Permit, Etc. SIMBA 1-6 SWD		EPA/State Compliance: Yes <input type="radio"/> No <input checked="" type="radio"/>	
Report Mail Address (Required): 600 17th Street, Suite 1000N Denver, CO 80202		Contact Name: Jessica Marten		State: (303) 358-9263	
<input checked="" type="checkbox"/> No Hard Copy Email: <u>jessica_marten@eogresources.com</u>		Phone/Fax: (303) 262-2862		Sampler: (Please Print) Theo Federer	
Invoice Address (Required): 600 17th Street, Suite 1000N Denver, CO 80202		Invoice Contact & Phone: Jessica Marten		Purchase Order: (303) 262-2862	
<input checked="" type="checkbox"/> No Hard Copy Email: <u>jessica_marten@eogresources.com</u>		Special Report/Formats: <input checked="" type="checkbox"/> DW <input type="checkbox"/> POTW/WWTP <input type="checkbox"/> State: <input type="checkbox"/> Other: <input type="checkbox"/>		Quote/Bottle Order:	
Special Report/Formats: <input checked="" type="checkbox"/> EDD/EDT (Electronic Data) <input type="checkbox"/> Format: <input type="checkbox"/> LEVEL IV <input type="checkbox"/> NELAC		Number of Containers Sample Type: A W S V B O DW Vegetation Bioassay Other DW - Drinking Water		Shipped by: RSN Cooler ID(s): LSO Receipt Temp: 18.7 °C On Ice: <input checked="" type="radio"/> N Custody Seal On Bottle: Y AN On Cooler: Y N Intact: Y N Signature Match: Y N	
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)		Collection Date		Collection Time	
1 A		1/15/16		10:05am	
2 B		1/15/16		10:25am	
3					
4					
5					
6					
7					
8					
9					
10					
Matrix		BTEX		Standard Turnaround (TAT)	
SEE ATTACHED				R U S H	
Contact ELI prior to RUSH sample submittal for charges and scheduling - See instruction page		Comments:		LABORATORY USE ONLY (16210394)	
Relinquished by (print): Theo Federer		Date/Time: 1-15-16 12:01 pm		Signature: <i>Theo Federer</i>	
Relinquished by (print):		Date/Time:		Signature:	
Sample Disposal: <input type="radio"/> Return to Client: <input type="radio"/> Lab Disposal: <input checked="" type="radio"/>		Received by (print):		Date/Time:	
Custody Record MUST be Signed		Received by Laboratory: 1/18/16 9:23		Signature: <i>Adapt. Benly</i>	

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report. Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.