General Information

NMOCD District:	District 2	Incident ID:	nAPP2127258746
Landowner:	Private	RP Reference:	N/A
Client:	EOG Resources, Inc.	Site Location:	Gates AAC #2 Battery
Date:	March 8, 2022	Project #:	22E-00124
Client Contact:	Robert Asher	Phone #:	575.748.4217
Vertex PM:	Monica Peppin	Phone #:	575.361.9880

Objective

The objective of the Environmental Site Remediation Work Plan is to identify exceedances found during site assessment/characterization activities and propose an appropriate remediation technique to address these areas. Areas of environmental concern identified and delineated include: earthen bermed containment area, pad area and surrounding pasturelands. Closure criteria has been selected as per New Mexico Administrative Code (NMAC) 19.15.29. All applicable research as it pertains to closure criteria selection is presented in Attachment 1. The closure criteria for the site is presented below.

Table 1. Closure Criteria for Soils Impacted by a Release

Minimum depth below any point within the horizontal boundary of the release to groundwater less than 10,000 mg/l TDS	Constituent	Limit
51 feet - 100 feet	Chloride	10,000 mg/kg
	TPH (GRO+DRO+MRO)	2,500 mg/kg
	GRO+DRO	1,000 mg/kg
	BTEX	50 mg/kg
	Benzene	10 mg/kg

Site Assessment/Characterization

Characterization was started by Talon LPE and completed by Vertex Resources. Talon LPE initiated site characterization on July 29, 2021. A total of 14 sample points were established and collected for field screening. Additional site characterization was completed on November 11, 2021. A total of 12 sample points and two background sample points were established, and samples collected for field screening. Samples at the deepest vertical distance below closure criteria or refusal were submitted to the laboratory for analysis. In total, 67 samples were submitted to Envirotech Analytical Laboratory, Farmington, New Mexico for analysis. The sample locations are presented in Figure 1 (Attachment 2). Laboratory analysis results were compared to the above noted closure criteria; results from the characterization activity are presented in Table 2 (Attachment 3). Exceedances are identified in the table as bold with a grey background and represent meeting strictest criteria for characterization. The Daily Field Reports and field screening forms associated with site characterization are presented in Attachment 4.

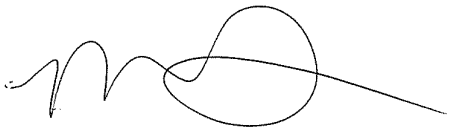
A drilling rig was unable to be secured in a timely fashion to determine the dept to groundwater as per the accepted NMOCD parameters. In the absence of current data, Vertex has temporarily utilized a Depth to Ground Water (DTGW) value of between 51 feet – 100 feet. The inferred DTGW is based on historical well values being greater than 51 feet BGS. The point of Diversion Summary found in the NMOSE records states that RA 09466 was drilled to a depth of 160’ ft and the DTWG was found at 70 ft BGS (Attachment 5). Vertex received permission from the Ranch owner to try and locate the above mentioned well to gauge the depth to groundwater using an Interface Probe. The well casing was not found however a large sinkhole-like depression was observed at the coordinates of the well location.

As the closure criteria being utilized for remediation is based on historical well data, it is understood by both EOG and Vertex that there is the potential that the DTGW is less than 50 ft. In that case, remedial excavation will follow the applicable criteria as outlined in the NMAC 19.15.29 Table 1. DTGW will be determined post the approval of the permitted WR-07 and plugging plan by NMOSE for the borehole. All the following remedial actions are based on utilizing the criteria associated with DTGW of 51 feet to 100 feet.

Remediation efforts began on January 10, 2022. The excavation area was fenced off in the interim and has been left open until DTGW determination is determined. Characterization of the current excavation was completed to obtain laboratory analysis of remaining contamination. Current excavation and sampling locations can be found in Figure 2 (Attachment 2). Results from the characterization activity are presented in Table 3 (Attachment 3). The Daily Field Reports and field screening forms are presented in Attachment 4.

A full characterization and remediation plan will be submitted within two (2) weeks of the DTGW determination. A WR-07 was submitted to the NMOSE on February 21, 2022, but rejected on February 28, 2022 for the following reason: Filing must be in duplicate/triplicate with original signature on each copy. The WR-07 and rejection letter can be found in Attachment 6. A corrected WR-07 in triplicate and original signature was mailed via certified mail to the NMOSE on March 4, 2022 and received on March 7, 2022. A copy of the corrected permit is presented in Attachment 6.

Should you have any questions or concerns, please do not hesitate to contact the undersigned at 575.361.9880 or mpeppin@vertex.ca.



03/09/2022

Monica Peppin
SR. ENVIRONMENTAL TECHNICIAN, REPORTING

Date

03/09/2022

Dhugal Hanton B.Sc.,SR/WA, P. Biol.
VICE PRESIDENT, REPORT REVIEW

Date

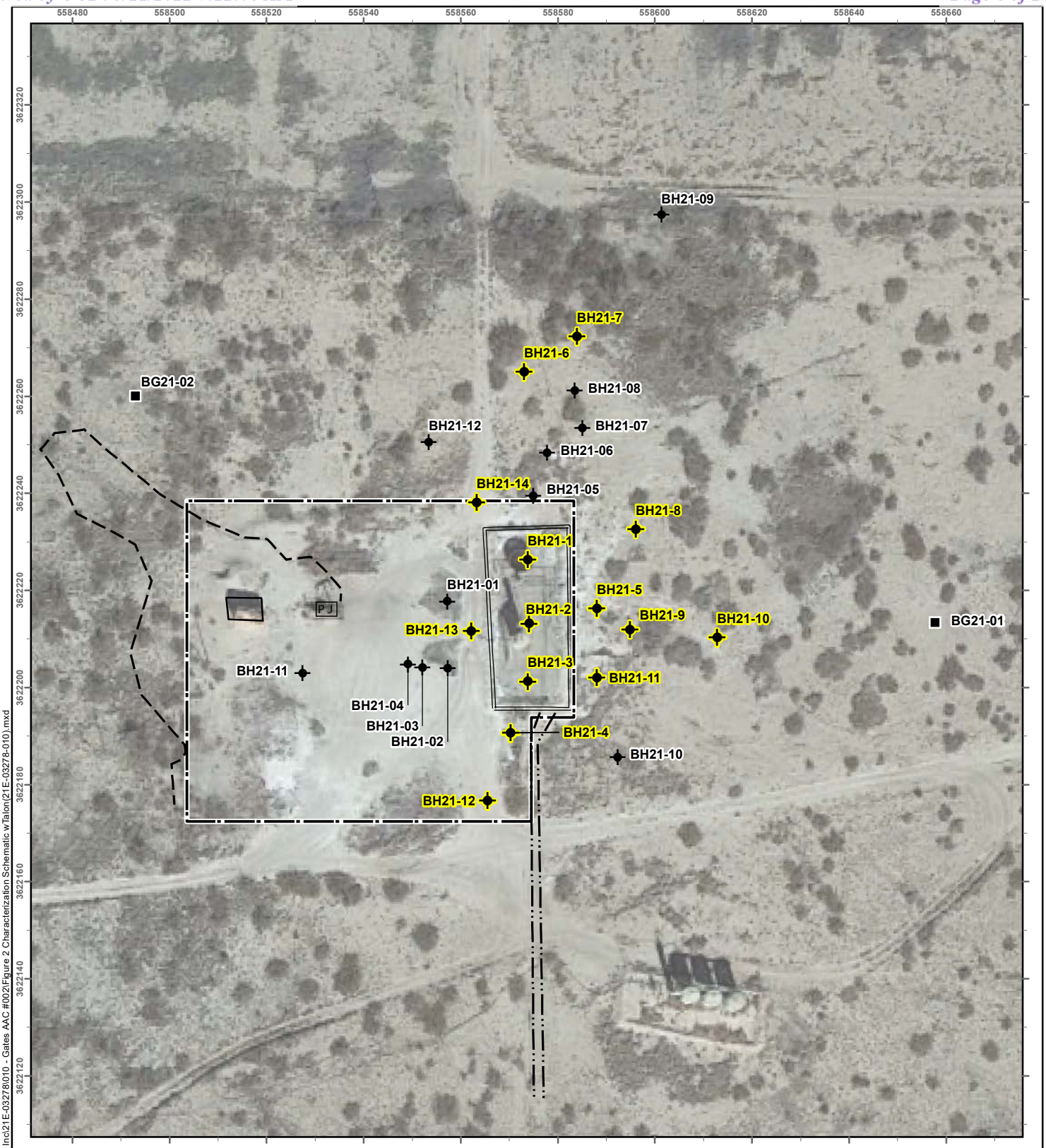
Attachments

Attachment 1. Closure Criteria Research Worksheet
Attachment 2. Sample Locations - Figures
Attachment 3. Laboratory Results Tables and Laboratory Analysis
Attachment 4. Daily Field Reports
Attachment 5. NMOSE Well Data
Attachment 6. NMOSE WR-07 Permits

ATTACHMENT 1

Closure Criteria Worksheet			
Site Name: Gates AAC #2			
Spill Coordinates:		X: 32.73780	Y: -104.37481
Site Specific Conditions		Value	Unit
1	Depth to Groundwater	**70**	feet
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	20,178	feet
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	14,618	feet
4	Within 300 feet from an occupied residence, school, hospital, institution or church	1,854	feet
5	i) Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, **or**	1,503	feet
	ii) Within 1000 feet of any fresh water well or spring	1,503	feet
6	Within incorporated municipal boundaries or within a defined municipal fresh water field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended, unless the municipality specifically approves	No	(Y/N)
7	Within 300 feet of a wetland	14,664	feet
8	Within the area overlying a subsurface mine	No	(Y/N)
9	Within an unstable area (Karst Map)	Low	Critical High Medium Low
10	Within a 100-year Floodplain	Zone X Unshaded	year
11	Soil Type	Karro Loam	
12	Ecological Classification	Limy	
13	Geology	Qp	
NMAC 19.15.29.12 E (Table 1) Closure Criteria		51-100'	<50' 51-100' >100'

ATTACHMENT 2



VERTEX

0 12.5 25 50 75 Feet

Map Center:
Lat/Long: 32.736259, -104.374838

N

Characterization Schematic
Gates AAC #002

FIGURE: **2**

eog resources

Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.

Notes: Background image provided by Google Earth, 2019.

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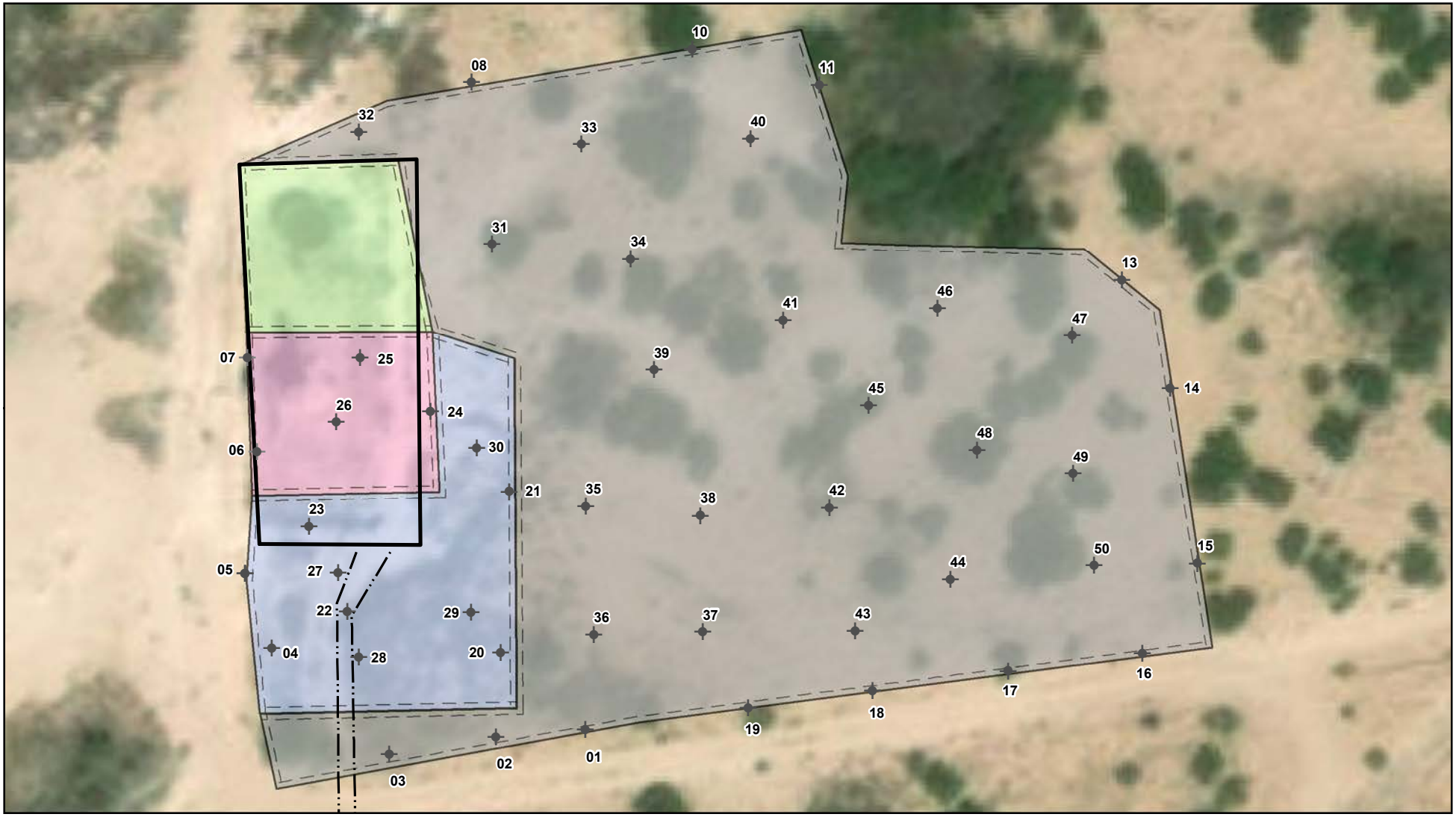
Document Path: G:\1-Projects_US PROJECTS\EOG Resources Inc\21E-03278\010 - Gates AAC #002\Figure 2 Characterization Schematic wTalon(21E-03278-010).mxd



points selection selection

Borehole (Excavated) (Prefixed by "BH22-")

Pipeline (Underground)

Containment

Excavation (depth 4 ft.) - 41,292 sq. ft.

Excavation (depth 6 ft.) - 3,002 sq. ft.

Excavation (depth 8ft.) - 7,056 sq. ft.

Excavation (depth 20 ft.) - 3,095 sq. ft.

VERTEX

0 7.5 15 30 45 ft

Map Center:
Lat/Long: 32.736138, -104.374424

NAD 1983 UTM Zone 13N
Date: Mar 09/22

N

Current Excavation
Gates AAC #2

FIGURE:
2

eog resources

Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.

Note: Imagery from ESRI, 2020. Borehole locations from GPS, Vertex Professional Services, Ltd., 2021.

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Document Path: \\vtx-s-fs01.corp.internal\shared\vps\04 - Geomatics\1-Projects_US PROJECTS\EOG Resources Inc\22E-00124\02 Gates AAC #2\Figure 2 Current Excavation Gates AAC #2.mxd

ATTACHMENT 3

Client Name: EOG Resources Inc.
Site Name: Gates AAC #1
NMOCD Tracking #: nAPP2127258746
Project #: 21E-03819-02
Lab Report(s): E110076, E110077, E110090, E111107

Table 2. Initial Characterization Sample Laboratory Results - Depth to Groundwater <50 feet bgs

Sample Description			Petroleum Hydrocarbons										Inorganic
			Volatile					Extractable					
Sample ID	Depth (ft)	Sample Date	Benzene	Toluene	Ethylbenzene	Xylenes (Total)	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
BG21-01	0	10/14/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG21-01	1	10/14/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	20.7
BG21-01	2	10/14/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	49.4
BG21-01	3	10/14/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	73.9
BG21-01	4	10/14/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	127
BG21-01	5	10/14/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	277
BG21-01	6	10/14/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	387
BG21-01	7	10/14/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	386
BG21-01	8	10/14/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	227
BG21-01	9	10/14/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	207
BG21-01	10	10/14/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	158
BG21-01	11	10/14/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	86.6
BG21-02	0	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG21-02	1	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	141
BG21-02	2	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	464
BG21-02	3	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	**647**
BG21-02	4	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	6
BG21-02	5	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	268
BG21-02	6	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG21-02	7	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG21-02	8	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG21-02	9	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	122
BG21-02	10	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	113
BG21-02	11	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	101
BG21-02	12	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	119
BH21-01	0	10/14/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BH21-01	1	10/14/2021	-	-	-	-	-	-	-	-	-	-
BH21-01	2	10/14/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	95.7
BH21-01	3	10/14/2021	-	-	-	-	-	-	-	-	-	-
BH21-01	4	10/14/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BH21-02	0	10/14/2021	ND	ND	ND	ND	ND	ND	ND	71	71	**2180**
BH21-02	1	10/14/2021	-	-	-	-	-	-	-	-	-	-
BH21-02	2	10/14/2021	-	-	-	-	-	-	-	-	-	-
BH21-02	3	10/14/2021	-	-	-	-	-	-	-	-	-	-
BH21-02	4	10/14/2021	-	-	-	-	-	-	-	-	-	-
BH21-02	5	10/14/2021	-	-	-	-	-	-	-	-	-	-
BH21-02	6	10/14/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1640**
BH21-02	7	10/14/2021	-	-	-	-	-	-	-	-	-	-
BH21-02	8	10/14/2021	-	-	-	-	-	-	-	-	-	-
BH21-02	9	10/14/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	**604**
BH21-02	10	10/14/2021	-	-	-	-	-	-	-	-	-	-
BH21-02	11	10/14/2021	-	-	-	-	-	-	-	-	-	-
BH21-02	12	10/14/2021	-	-	-	-	-	-	-	-	-	-

Table 2. Initial Characterization Sample Laboratory Results - Depth to Groundwater <50 feet bgs														
Sample Description			Petroleum Hydrocarbons											Inorganic
			Volatile					Extractable						
Sample ID	Depth (ft)	Sample Date	Benzene	Toluene	Ethylbenzene	Xylenes (Total)	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
BH21-03	0	10/14/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	105
BH21-03	1	10/14/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	580
BH21-03	2	10/14/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	**943**
BH21-03	3	10/14/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	**682**
BH21-03	4	10/14/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	577
BH21-04	0	10/15/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	340
BH21-04	1	10/15/2021	-	-	-	-	-	-	-	-	-	-
BH21-04	2	10/15/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	**902**
BH21-04	3	10/15/2021	-	-	-	-	-	-	-	-	-	-
BH21-04	4	10/15/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	**731**
BH21-04	5	10/15/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	**728**
BH21-04	6	10/15/2021	-	-	-	-	-	-	-	-	-	-
BH21-04	7	10/15/2021	-	-	-	-	-	-	-	-	-	-
BH21-04	8	10/15/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	29.7
BH21-05	0	10/15/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	136
BH21-05	1	10/15/2021	-	-	-	-	-	-	-	-	-	-
BH21-05	2	10/15/2021	-	-	-	-	-	-	-	-	-	-
BH21-05	3	10/15/2021	-	-	-	-	-	-	-	-	-	-
BH21-05	4	10/15/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1730**
BH21-05	5	10/15/2021	-	-	-	-	-	-	-	-	-	-
BH21-05	6	10/15/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1010**
BH21-05	7	10/15/2021	-	-	-	-	-	-	-	-	-	-
BH21-05	8	10/15/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	572
BH21-06	0	10/15/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BH21-06	1	10/15/2021	-	-	-	-	-	-	-	-	-	-
BH21-06	2	10/15/2021	-	-	-	-	-	-	-	-	-	-
BH21-06	3	10/15/2021	-	-	-	-	-	-	-	-	-	-
BH21-06	4	10/15/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2130**
BH21-06	5	10/15/2021	-	-	-	-	-	-	-	-	-	-
BH21-06	6	10/15/2021	-	-	-	-	-	-	-	-	-	-
BH21-06	7	10/15/2021	-	-	-	-	-	-	-	-	-	-
BH21-06	8	10/15/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	**880**
BH21-06	9	10/15/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	590
BH21-06	10	10/15/2021	-	-	-	-	-	-	-	-	-	-
BH21-06	11	10/15/2021	-	-	-	-	-	-	-	-	-	-
BH21-07	0	10/15/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BH21-07	1	10/15/2021	-	-	-	-	-	-	-	-	-	-
BH21-07	2	10/15/2021	-	-	-	-	-	-	-	-	-	-
BH21-07	3	10/15/2021	-	-	-	-	-	-	-	-	-	-
BH21-07	4	10/15/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1680**
BH21-07	5	10/15/2021	-	-	-	-	-	-	-	-	-	-
BH21-07	6	10/15/2021	-	-	-	-	-	-	-	-	-	-
BH21-07	7	10/15/2021	-	-	-	-	-	-	-	-	-	-
BH21-07	8	10/15/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1160**
BH21-08	0	10/15/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BH21-08	1	10/15/2021	-	-	-	-	-	-	-	-	-	-
BH21-08	2	10/15/2021	-	-	-	-	-	-	-	-	-	-
BH21-08	3	10/15/2021	-	-	-	-	-	-	-	-	-	-
BH21-08	4	10/15/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	**899**
BH21-09	0	10/15/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 2. Initial Characterization Sample Laboratory Results - Depth to Groundwater <50 feet bgs														
Sample Description			Petroleum Hydrocarbons											Inorganic
			Volatile					Extractable						
Sample ID	Depth (ft)	Sample Date	Benzene	Toluene	Ethylbenzene	Xylenes (Total)	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
BH21-09	1	10/15/2021	-	-	-	-	-	-	-	-	-	-
BH21-09	2	10/15/2021	-	-	-	-	-	-	-	-	-	-
BH21-09	3	10/15/2021	-	-	-	-	-	-	-	-	-	-
BH21-09	4	10/15/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BH21-10	0	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BH21-10	1	11/11/2021	-	-	-	-	-	-	-	-	-	-
BH21-10	2	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	197
BH21-10	3	11/11/2021	-	-	-	-	-	-	-	-	-	-
BH21-10	4	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	**631**
BH21-10	5	11/11/2021	-	-	-	-	-	-	-	-	-	-
BH21-10	6	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	**983**
BH21-10	7	11/11/2021	-	-	-	-	-	-	-	-	-	-
BH21-10	8	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	**918**
BH21-11	0	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	138
BH21-11	1	11/11/2021	-	-	-	-	-	-	-	-	-	-
BH21-11	2	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	**956**
BH21-11	3	11/11/2021	-	-	-	-	-	-	-	-	-	-
BH21-11	4	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	134
BH21-11	5	11/11/2021	-	-	-	-	-	-	-	-	-	-
BH21-11	6	11/11/2021	-	-	-	-	-	-	-	-	-	-
BH21-11	7	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	294
BH21-12	0	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BH21-12	1	11/11/2021	-	-	-	-	-	-	-	-	-	-
BH21-12	2	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1950**
BH21-12	3	11/11/2021	-	-	-	-	-	-	-	-	-	-
BH21-12	4	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	415
BH21-12	5	11/11/2021	-	-	-	-	-	-	-	-	-	-
BH21-12	6	11/11/2021	-	-	-	-	-	-	-	-	-	-
BH21-12	7	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	**682**

"ND" Not Detected at the Reporting Limit
"-" indicates not analyzed/assessed
Bold and grey shaded indicates exceedance outside of NMOCD Closure Criteria (Strictest)

Client Name: EOG Resources Inc.
Site Name: Gates AAC #1
NMOCD Tracking #: nAPP2127258746
Project #: 22E-00124-02
Lab Reports: E201130, E201131

Table 3. Excavation Characterization Sample Laboratory Results - Depth to Groundwater 51-100 feet bgs

Sample Description			Petroleum Hydrocarbons							Inorganic
			Volatile		Extractable					
Sample ID	Depth (ft)	Sample Date	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
BH22-01	0-4	1/25/2022	ND	ND	ND	ND	ND	ND	ND	842
BH22-02	0-4	1/25/2022	ND	ND	ND	ND	ND	ND	ND	1350
BH22-03	0-4	1/25/2022	ND	ND	ND	ND	ND	ND	ND	505
BH22-03	4-8	1/25/2022	ND	ND	ND	ND	ND	ND	ND	776
BH22-04	0-4	1/25/2022	ND	ND	ND	ND	ND	ND	ND	373
BH22-05	0-4	1/25/2022	ND	ND	ND	ND	ND	ND	ND	67.6
BH22-06	0-10	1/25/2022	ND	ND	ND	ND	ND	ND	ND	3630
BH22-06	10-20	1/25/2022	ND	ND	ND	49.3	ND	49.3	49.3	5060
BH22-07	0-4	1/25/2022	ND	ND	ND	127	100	127	227	1260
BH22-08	0-4	1/25/2022	ND	ND	ND	ND	ND	ND	ND	253
BH22-09	0-4	1/25/2022	ND	ND	ND	ND	ND	ND	ND	698
BH22-10	0-4	1/25/2022	ND	ND	ND	ND	ND	ND	ND	156
BH22-11	0-4	1/25/2022	ND	ND	ND	ND	ND	ND	ND	88
BH22-12	0-4	1/25/2022	ND	ND	ND	ND	ND	ND	ND	200
BH22-13	0-4	1/25/2022	ND	ND	ND	ND	ND	ND	ND	40.2
BH22-14	0-4	1/25/2022	ND	ND	ND	ND	ND	ND	ND	115
BH22-15	0-4	1/25/2022	ND	ND	ND	ND	ND	ND	ND	38
BH22-16	0-4	1/25/2022	ND	ND	ND	ND	ND	ND	ND	93.6
BH22-17	0-4	1/25/2022	ND	ND	ND	ND	ND	ND	ND	195
BH22-18	0-4	1/25/2022	ND	ND	ND	ND	ND	ND	ND	229
BH22-19	0-4	1/25/2022	ND	ND	ND	ND	ND	ND	ND	1010
BH22-20	4-8	1/25/2022	ND	ND	ND	ND	ND	ND	ND	1160
BH22-21	4-8	1/25/2022	ND	ND	ND	ND	ND	ND	ND	998
BH22-22	4-8	1/25/2022	ND	ND	ND	ND	ND	ND	ND	1050
BH22-23	4-10	1/25/2022	ND	ND	ND	ND	ND	ND	ND	2100
BH22-23	10-20	1/25/2022	ND	ND	ND	ND	ND	ND	ND	2080
BH22-24	10-20	1/25/2022	ND	ND	ND	ND	ND	ND	ND	7410
BH22-25	10-20	1/25/2022	ND	ND	ND	ND	ND	ND	ND	10600
BH22-26	20	1/25/2022	ND	ND	ND	87.9	ND	87.9	87.9	5550
BH22-27	8	1/25/2022	ND	ND	ND	31.4	ND	31.4	31.4	1780
BH22-28	8	1/25/2022	ND	ND	ND	ND	ND	ND	ND	1320
BH22-29	8	1/25/2022	ND	ND	ND	58.6	ND	58.6	58.6	1540
BH22-30	8	1/25/2022	ND	ND	ND	ND	ND	ND	ND	2010
BH22-31	4	1/25/2022	ND	ND	ND	ND	ND	ND	ND	1830
BH22-32	4	1/25/2022	ND	ND	ND	ND	ND	ND	ND	752
BH22-33	4	1/25/2022	ND	ND	ND	ND	ND	ND	ND	1670
BH22-34	4	1/25/2022	ND	ND	ND	ND	ND	ND	ND	846
BH22-35	4	1/25/2022	ND	ND	ND	ND	ND	ND	ND	356
BH22-36	4	1/25/2022	ND	ND	ND	ND	ND	ND	ND	1080

BH22-37	4	1/25/2022	ND	ND	ND	ND	ND	ND	ND	2480
BH22-38	4	1/25/2022	ND	ND	ND	49.1	ND	49.1	49.1	467
BH22-39	4	1/25/2022	ND	ND	ND	ND	ND	ND	ND	445
BH22-40	4	1/25/2022	ND	ND	ND	ND	ND	ND	ND	467
BH22-41	4	1/25/2022	ND	ND	ND	ND	ND	ND	ND	715
BH22-42	4	1/25/2022	ND	ND	ND	ND	ND	ND	ND	501
BH22-43	4	1/25/2022	ND	ND	ND	110	ND	110	110	81
BH22-44	4	1/25/2022	ND	ND	ND	ND	ND	ND	ND	875
BH22-45	4	1/25/2022	ND	ND	ND	ND	ND	ND	ND	299
BH22-46	4	1/25/2022	ND	ND	ND	ND	ND	ND	ND	98.9
BH22-47	4	1/25/2022	ND	ND	ND	ND	ND	ND	ND	129
BH22-48	4	1/25/2022	ND	ND	ND	ND	ND	ND	ND	101
BH22-49	4	1/25/2022	ND	ND	ND	ND	ND	ND	ND	55.3
BH22-50	4	1/25/2022	ND	ND	ND	ND	ND	ND	ND	327

"ND" Not Detected at the Reporting Limit
"-" indicates not analyzed/assessed
Bold and grey shaded indicates exceedance outside of NMOCD Closure Criteria
Bold and green shaded indicates exceedance outside of NMOCD Reclamation Criteria

ATTACHMENT 4

Daily Site Visit Report

Client:	EOG Resources Inc.	Inspection Date:	10/14/2021
Site Location Name:	Gates AAC #2	Report Run Date:	10/14/2021 10:27 PM
Client Contact Name:	Chase Settle	API #:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	10/14/2021 8:43 AM
Departed Site	10/14/2021 3:40 PM

Field Notes

8:50 Unloading Geoprobe, letting it warm up. While gathering sample supplies. All equipment is removed for containment area.

9:02 Tailgate/flha meeting

9:09 811 call clears at 9:30, work will begin after.

9:25 Drove Geoprobe east of containment about 100 yards to collect a background sample

9:54 Attempted to take BG21-01 to 12’ but hit refusal at 11’

10:04 Running Background samples

10:22 From about 8’ there is a limestone gypsiferous soil content

11:13 Began probing on BH21-01 just west of dirt berm

11:36 Running samples from BH21-01 0-4’

14:59 Moved probe to drill BH21-02, at the SW corner of the dirt berm.
12:50: drilled down an additional 4’. Running samples.
1:30- drilled down an additional 4’ for a total of 12’ ran samples.
2:18- moved probe west of BH02 to drill BH03
2:30- running samples
3:00- putting supplies away, greased tool cat and loaded on trailer.

Daily Site Visit Report

Next Steps & Recommendations

1 Continue delineation and stepping out BH21-03

Daily Site Visit Report

Site Photos

Viewing Direction: East	**Viewing Direction**: West
	
BG21-01	BG21-01
Viewing Direction: East	**Viewing Direction**: Southeast
	
BH21-01, west of dirt berm	BH21-02

Daily Site Visit Report

Viewing Direction: East

BH21-03

Daily Site Visit Report

Daily Site Visit Signature

Inspector: John Ramirez

Signature: 

Daily Site Visit Report

Client:	EOG Resources Inc.	Inspection Date:	10/15/2021
Site Location Name:	Gates AAC #2	Report Run Date:	10/15/2021 8:50 PM
Client Contact Name:	Chase Settle	API #:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	10/15/2021 7:47 AM
Departed Site	10/15/2021 2:04 PM

Field Notes

7:52 Tailgate/flha meeting. Unloading Geoprobe and letting it warm up.

8:42 Stepping out BH03, due to how close numbers came back on field screens from BH03.

8:51 BH04 clean at 8’

8:59 Moved Geoprobe to north side of containment to drill BH05

9:19 Stepped out BH05 to BH06

9:59 BH06 hit refusal at 11’

10:16 Running samples for petro and chlorides

10:44 Stepping out BH06 to BH07

12:00 Stepped out BH07 to BH08

13:45 Stepped BH08 out to BH09 right on the fence line.
12:50- loaded Geoprobe and picking up equipment.
1:35- BH09 was taken next to fence line and still didn’t clean up on surface. There’s lots of weeds around the area.

Next Steps & Recommendations

Daily Site Visit Report

1 Finish delineation Monday

Daily Site Visit Report

Site Photos

Viewing Direction: North	**Viewing Direction**: South
	
Stepped out BH03 to BH04	BH05, north of containment
Viewing Direction: South	**Viewing Direction**: East
	
Stepped out BH05 to BH06	Stepped out BH06 to BH07

Daily Site Visit Report

Viewing Direction: South	**Viewing Direction**: Northwest
	
Stepped out BH07 to BH08	BH21-09
Viewing Direction: North	**Viewing Direction**: Northeast
	
North of containment, the area we sampled in	North, Northeast of containment

Daily Site Visit Report

Daily Site Visit Signature

Inspector: John Ramirez

Signature: 

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Soil Sampling Project Data

Client Name	EOG Resources Inc.
Client Contact	Chase Settle
Client Contact P#	575-703-6537
Reference #	

Project Owner	Bob Asher
Project Manager	Dennis Williams
Field Supervisor	Monica Peppin
Unique Project ID	-Gates AAC #2
Project Site Name	Gates AAC #2

Project Start Date	
Project End Date	
Report Run Date	10/15/2021
API #	

Sample Point Data (Logged by: Dennis Williams)

Sample Point ID	BG21-01
Sample Point Lat	
Sample Point Long	

Well Top Elevation	
Total Depth	
Depth to Water	

UTM Zone (10-19)	
Drilling Company	Vertex Resource Services Inc
Drilling Method	Direct Push

Top (ft)
0

BG21-01 HZN-

BG21-01 0.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
0.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0		113	
												PPM	PPM	µS/cm	PPM

BG21-01 HZN-

BG21-01 1.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
1.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0		215	
												PPM	PPM	µS/cm	PPM

BG21-01 2.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
2.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded		PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0		555	
												PPM	PPM	µS/cm	PPM

BG21-01 3.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
3.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0		461	
												PPM	PPM	µS/cm	PPM

BG21-01 4.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
4.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	26		217
												PPM	PPM	µS/cm	PPM

BG21-01 HZN-

BG21-01 5.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
5.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0		598	
												PPM	PPM	µS/cm	PPM

BG21-01 6.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
6.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0		716	550
												PPM	PPM	µS/cm	PPM

BG21-01 7.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
7.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0		985	455
												PPM	PPM	µS/cm	PPM

BG21-01 8.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
8.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	10		350
												PPM	PPM	µS/cm	PPM

BG21-01 9.0' [Logged by: Dennis Williams on 10/14/2021]

	Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
	9.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES:												0			472
													PPM	PPM	µS/cm	PPM
	BG21-01 10.0' [Logged by: Dennis Williams on 10/14/2021]															
	Sample Depth	**Sample Type**	**Grab Count**	**% Major (>50%)**	**% Minor (10-40%)**	**% Trace (<10%)**	**Major Grain Size**	**Minor Grain Size**	**Moisture**	**Plasticity**	**Gradation**	**Color**	**VOC**	**TPH**	**EC**	**Chloride**
BG21-01 HZN-	10.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES:												0		962	182
													PPM	PPM	µS/cm	PPM
	BG21-01 11.0' [Logged by: Dennis Williams on 10/14/2021]															
	Sample Depth	**Sample Type**	**Grab Count**	**% Major (>50%)**	**% Minor (10-40%)**	**% Trace (<10%)**	**Major Grain Size**	**Minor Grain Size**	**Moisture**	**Plasticity**	**Gradation**	**Color**	**VOC**	**TPH**	**EC**	**Chloride**
	11.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES: Refusal												0	21		487
													PPM	PPM	µS/cm	PPM
	Bot. (ft)															

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VERTEX

Soil Sampling Project Data

Client Name	EOG Resources Inc.
Client Contact	Chase Settle
Client Contact P#	575-703-6537
Reference #	

Project Owner	Bob Asher
Project Manager	Dennis Williams
Field Supervisor	Monica Peppin
Unique Project ID	-Gates AAC #2
Project Site Name	Gates AAC #2

Project Start Date	
Project End Date	
Report Run Date	10/15/2021
API #	

Sample Point Data (Logged by: Dennis Williams)

Sample Point ID	BH21-01
Sample Point Lat	
Sample Point Long	

Well Top Elevation	
Total Depth	
Depth to Water	

UTM Zone (10-19)	
Drilling Company	Vertex Resource Services Inc
Drilling Method	Direct Push

Top (ft)
0

BH21-01 HZN-

BH21-01 0.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
0.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	53		265
												PPM	PPM	µS/cm	PPM

BH21-01 HZN-

BH21-01 1.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
1.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES: Not to lab												0	14		217
												PPM	PPM	µS/cm	PPM

BH21-01 2.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
2.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	18		252
												PPM	PPM	µS/cm	PPM

BH21-01 3.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
3.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	15		270
												PPM	PPM	µS/cm	PPM

BH21-01 4.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
4.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	17		202
												PPM	PPM	µS/cm	PPM

Bot. (ft)

Vertex Resource Services Inc.
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VERTEX

Soil Sampling Project Data

Client Name	EOG Resources Inc.	Project Owner	Bob Asher	Project Start Date	
Client Contact	Chase Settle	Project Manager	Dennis Williams	Project End Date	
Client Contact P#	575-703-6537	Field Supervisor	Monica Peppin	Report Run Date	10/15/2021
Reference #		Unique Project ID	-Gates AAC #2	API #	
		Project Site Name	Gates AAC #2		

Sample Point Data (Logged by: Dennis Williams)

Sample Point ID	BH21-02	Well Top Elevation		UTM Zone (10-19)	
Sample Point Lat		Total Depth		Drilling Company	Vertex Resource Services Inc
Sample Point Long		Depth to Water		Drilling Method	Direct Push

Top (ft)
0

BH21-02 HZN-

BH21-02 0.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
0.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	138		2315
												PPM	PPM	µS/cm	PPM

BH21-02 HZN-

BH21-02 1.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
1.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	40		3482
												PPM	PPM	µS/cm	PPM

BH21-02 2.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
2.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	28		3287
												PPM	PPM	µS/cm	PPM

BH21-02 3.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
3.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	28		3665
												PPM	PPM	µS/cm	PPM

BH21-02 4.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
4.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	52		2940
												PPM	PPM	µS/cm	PPM

BH21-02 5.0' [Logged by: Dennis Williams on 10/14/2021]

BH21-02 HZN-

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
5.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	56		2610
												PPM	PPM	µS/cm	PPM

BH21-02 6.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
6.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	51		1972
												PPM	PPM	µS/cm	PPM

BH21-02 7.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
7.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	55		1410
												PPM	PPM	µS/cm	PPM

BH21-02 8.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
8.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	49		2002
												PPM	PPM	µS/cm	PPM

BH21-02 9.0' [Logged by: Dennis Williams on 10/14/2021]

BH21-02 HZN-

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
9.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	49		742
												PPM	PPM	µS/cm	PPM

BH21-02 10.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
10.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES: Hold sample												0	45		532
												PPM	PPM	µS/cm	PPM

BH21-02 11.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
11.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES: Hold sample												0	39		440
												PPM	PPM	µS/cm	PPM

BH21-02 12.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
12.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	39		402
												PPM	PPM	µS/cm	PPM

Bot. (ft)

Vertex Resource Services Inc.
2001 Timberloch Place Suite 500
Houston, TX 77380

832-535-1585
info@vertex.ca
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VERTEX

Soil Sampling Project Data

Client Name	EOG Resources Inc.
Client Contact	Chase Settle
Client Contact P#	575-703-6537
Reference #	

Project Owner	Bob Asher
Project Manager	Dennis Williams
Field Supervisor	Monica Peppin
Unique Project ID	-Gates AAC #2
Project Site Name	Gates AAC #2

Project Start Date	
Project End Date	
Report Run Date	10/15/2021
API #	

Sample Point Data (Logged by: Dennis Williams)

Sample Point ID	BH21-03
Sample Point Lat	
Sample Point Long	

Well Top Elevation	
Total Depth	
Depth to Water	

UTM Zone (10-19)	
Drilling Company	Vertex Resource Services Inc
Drilling Method	Direct Push

Top (ft)
0

BH21-03 HZN-

BH21-03 0.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
0.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	39		265
												PPM	PPM	µS/cm	PPM

BH21-03 HZN-

BH21-03 1.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
1.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	31		747
												PPM	PPM	µS/cm	PPM

BH21-03 2.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
2.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	31		1020
												PPM	PPM	µS/cm	PPM

BH21-03 3.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
3.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	31		710
												PPM	PPM	µS/cm	PPM

BH21-03 4.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
4.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	42		912
												PPM	PPM	µS/cm	PPM

Bot. (ft)	

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VERTEX

Soil Sampling Project Data

Client Name	EOG Resources Inc.
Client Contact	Chase Settle
Client Contact P#	575-703-6537
Reference #	

Project Owner	Bob Asher
Project Manager	Dennis Williams
Field Supervisor	Monica Peppin
Unique Project ID	-Gates AAC #2
Project Site Name	Gates AAC #2

Project Start Date	
Project End Date	
Report Run Date	10/15/2021
API #	

Sample Point Data (Logged by: Dennis Williams)

Sample Point ID	BH21-04
Sample Point Lat	
Sample Point Long	

Well Top Elevation	
Total Depth	
Depth to Water	

UTM Zone (10-19)	
Drilling Company	Vertex Resource Services Inc
Drilling Method	Direct Push

Top (ft)
0

BH21-04 HZN-

BH21-04 0.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
0.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	13		335
												PPM	PPM	µS/cm	PPM

BH21-04 1.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
1.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	17		815
												PPM	PPM	µS/cm	PPM

BH21-04 2.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
2.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	20		747
												PPM	PPM	µS/cm	PPM

BH21-04 3.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
3.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration

BH21-04 HZN-

NOTES:												0	14		885
												PPM	PPM	µS/cm	PPM

BH21-04 4.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
4.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration

NOTES:												0	26		857
												PPM	PPM	µS/cm	PPM

BH21-04 5.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
5.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration

NOTES:												0	22		620
												PPM	PPM	µS/cm	PPM

BH21-04 6.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
6.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration

NOTES:												0	10		720
												PPM	PPM	µS/cm	PPM

BH21-04 7.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
7.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration

BH21-04 HZN-	NOTES:												0	12		685
													PPM	PPM	µS/cm	PPM
	BH21-04 8.0' [Logged by: Dennis Williams on 10/15/2021]															
	Sample Depth	**Sample Type**	**Grab Count**	**% Major (>50%)**	**% Minor (10-40%)**	**% Trace (<10%)**	**Major Grain Size**	**Minor Grain Size**	**Moisture**	**Plasticity**	**Gradation**	**Color**	**VOC**	**TPH**	**EC**	**Chloride**
	8.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES:												0	19		417
													PPM	PPM	µS/cm	PPM
Bot. (ft)																

Vertex Resource Services Inc.
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VERTEX

Soil Sampling Project Data

Client Name	EOG Resources Inc.
Client Contact	Chase Settle
Client Contact P#	575-703-6537
Reference #	

Project Owner	Bob Asher
Project Manager	Dennis Williams
Field Supervisor	Monica Peppin
Unique Project ID	-Gates AAC #2
Project Site Name	Gates AAC #2

Project Start Date	
Project End Date	
Report Run Date	10/15/2021
API #	

Sample Point Data (Logged by: Dennis Williams)

Sample Point ID	BH21-05
Sample Point Lat	
Sample Point Long	

Well Top Elevation	
Total Depth	
Depth to Water	

UTM Zone (10-19)	
Drilling Company	Vertex Resource Services Inc
Drilling Method	Direct Push

Top (ft)
0

BH21-05 HZN-

BH21-05 0.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
0.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	15		367
												PPM	PPM	µS/cm	PPM

BH21-05 1.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
1.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	11		1115
												PPM	PPM	µS/cm	PPM

BH21-05 2.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
2.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	13		1320
												PPM	PPM	µS/cm	PPM

BH21-05 3.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
3.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration

BH21-05 HZN-

NOTES:												0	7		1522
												PPM	PPM	µS/cm	PPM

BH21-05 4.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
4.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration

NOTES:												0	9		1892
												PPM	PPM	µS/cm	PPM

BH21-05 5.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
5.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration

NOTES:												0	11		1072
												PPM	PPM	µS/cm	PPM

BH21-05 6.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
6.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration

NOTES:												0	10		915
												PPM	PPM	µS/cm	PPM

BH21-05 7.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride

	7.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES:												0	10		985
													PPM	PPM	µS/cm	PPM
	BH21-05 8.0' [Logged by: Dennis Williams on 10/15/2021]															
BH21-05 HZN-	**Sample Depth**	**Sample Type**	**Grab Count**	**% Major (>50%)**	**% Minor (10-40%)**	**% Trace (<10%)**	**Major Grain Size**	**Minor Grain Size**	**Moisture**	**Plasticity**	**Gradation**	**Color**	**VOC**	**TPH**	**EC**	**Chloride**
	8.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES:												0	12		647
													PPM	PPM	µS/cm	PPM
Bot. (ft)																

Vertex Resource Services Inc.
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VERTEX

Soil Sampling Project Data

Client Name	EOG Resources Inc.
Client Contact	Chase Settle
Client Contact P#	575-703-6537
Reference #	

Project Owner	Bob Asher
Project Manager	Dennis Williams
Field Supervisor	Monica Peppin
Unique Project ID	-Gates AAC #2
Project Site Name	Gates AAC #2

Project Start Date	
Project End Date	
Report Run Date	10/15/2021
API #	

Sample Point Data (Logged by: Dennis Williams)

Sample Point ID	BH21-06
Sample Point Lat	
Sample Point Long	

Well Top Elevation	
Total Depth	
Depth to Water	

UTM Zone (10-19)	
Drilling Company	Vertex Resource Services Inc
Drilling Method	Direct Push

Top (ft)
0

BH21-06 HZN-

BH21-06 0.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
0.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	7		192
												PPM	PPM	µS/cm	PPM

BH21-06 1.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
1.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	12		195
												PPM	PPM	µS/cm	PPM

BH21-06 2.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
2.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	20		1582
												PPM	PPM	µS/cm	PPM

BH21-06 3.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
3.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration

BH21-06 HZN-

NOTES:												0	15		2142
												PPM	PPM	µS/cm	PPM

BH21-06 4.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
4.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration

NOTES:												0	26		1960
												PPM	PPM	µS/cm	PPM

BH21-06 5.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
5.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration

NOTES:												0	15		1342
												PPM	PPM	µS/cm	PPM

BH21-06 6.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
6.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration

NOTES:												0	12		940
												PPM	PPM	µS/cm	PPM

BH21-06 7.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride

	7.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES:												0	10		1042
													PPM	PPM	µS/cm	PPM
	BH21-06 8.0' [Logged by: Dennis Williams on 10/15/2021]															
	Sample Depth	**Sample Type**	**Grab Count**	**% Major (>50%)**	**% Minor (10-40%)**	**% Trace (<10%)**	**Major Grain Size**	**Minor Grain Size**	**Moisture**	**Plasticity**	**Gradation**	**Color**	**VOC**	**TPH**	**EC**	**Chloride**
	8.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES:												0	2		1185
													PPM	PPM	µS/cm	PPM
	BH21-06 9.0' [Logged by: Dennis Williams on 10/15/2021]															
BH21-06 HZN-	**Sample Depth**	**Sample Type**	**Grab Count**	**% Major (>50%)**	**% Minor (10-40%)**	**% Trace (<10%)**	**Major Grain Size**	**Minor Grain Size**	**Moisture**	**Plasticity**	**Gradation**	**Color**	**VOC**	**TPH**	**EC**	**Chloride**
	9.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES:												0	5		810
													PPM	PPM	µS/cm	PPM
	BH21-06 10.0' [Logged by: Dennis Williams on 10/15/2021]															
	Sample Depth	**Sample Type**	**Grab Count**	**% Major (>50%)**	**% Minor (10-40%)**	**% Trace (<10%)**	**Major Grain Size**	**Minor Grain Size**	**Moisture**	**Plasticity**	**Gradation**	**Color**	**VOC**	**TPH**	**EC**	**Chloride**
	10.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES: Hold												0	7		550
													PPM	PPM	µS/cm	PPM
	BH21-06 11.0' [Logged by: Dennis Williams on 10/15/2021]															

	Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
BH21-06 HZN-	11.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES: Hold												0	7		572
													PPM	PPM	µS/cm	PPM
Bot. (ft)																

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VERTEX

Soil Sampling Project Data

Client Name	EOG Resources Inc.
Client Contact	Chase Settle
Client Contact P#	575-703-6537
Reference #	

Project Owner	Bob Asher
Project Manager	Dennis Williams
Field Supervisor	Monica Peppin
Unique Project ID	-Gates AAC #2
Project Site Name	Gates AAC #2

Project Start Date	
Project End Date	
Report Run Date	10/15/2021
API #	

Sample Point Data (Logged by: Dennis Williams)

Sample Point ID	BH21-07
Sample Point Lat	
Sample Point Long	

Well Top Elevation	
Total Depth	
Depth to Water	

UTM Zone (10-19)	
Drilling Company	Vertex Resource Services Inc
Drilling Method	Direct Push

Top (ft)
0

BH21-07 HZN-

BH21-07 0.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
0.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	27		302
												PPM	PPM	µS/cm	PPM

BH21-07 1.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
1.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	20	152	
												PPM	PPM	µS/cm	PPM

BH21-07 2.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
2.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	23	2489	
												PPM	PPM	µS/cm	PPM

BH21-07 3.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
3.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration

BH21-07 HZN-

NOTES:												0	19	3925	
												PPM	PPM	µS/cm	PPM

BH21-07 4.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
4.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	26		1975
												PPM	PPM	µS/cm	PPM

BH21-07 5.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
5.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	22	3226	
												PPM	PPM	µS/cm	PPM

BH21-07 6.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
6.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	17	2754	
												PPM	PPM	µS/cm	PPM

BH21-07 7.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride

	7.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES:												0	14	2826	
													PPM	PPM	µS/cm	PPM
	BH21-07 8.0' [Logged by: Dennis Williams on 10/15/2021]															
BH21-07 HZN-	**Sample Depth**	**Sample Type**	**Grab Count**	**% Major (>50%)**	**% Minor (10-40%)**	**% Trace (<10%)**	**Major Grain Size**	**Minor Grain Size**	**Moisture**	**Plasticity**	**Gradation**	**Color**	**VOC**	**TPH**	**EC**	**Chloride**
	8.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES: Refusal												0	12	1539	
													PPM	PPM	µS/cm	PPM
Bot. (ft)																

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VERTEX

Soil Sampling Project Data

Client Name	EOG Resources Inc.
Client Contact	Chase Settle
Client Contact P#	575-703-6537
Reference #	

Project Owner	Bob Asher
Project Manager	Dennis Williams
Field Supervisor	Monica Peppin
Unique Project ID	-Gates AAC #2
Project Site Name	Gates AAC #2

Project Start Date	
Project End Date	
Report Run Date	10/15/2021
API #	

Sample Point Data (Logged by: Dennis Williams)

Sample Point ID	BH21-08
Sample Point Lat	
Sample Point Long	

Well Top Elevation	
Total Depth	
Depth to Water	

UTM Zone (10-19)	
Drilling Company	Vertex Resource Services Inc
Drilling Method	Direct Push

Top (ft)
0

BH21-08 HZN-

BH21-08 0.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
0.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	32	188	
												PPM	PPM	µS/cm	PPM

BH21-08 1.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
1.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	28	2167	
												PPM	PPM	µS/cm	PPM

BH21-08 2.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
2.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	22	2864	
												PPM	PPM	µS/cm	PPM

BH21-08 3.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
3.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration

BH21-08 HZN-	NOTES:												0	20	2350	
													PPM	PPM	µS/cm	PPM
	BH21-08 4.0' [Logged by: Dennis Williams on 10/15/2021]															
	Sample Depth	**Sample Type**	**Grab Count**	**% Major (>50%)**	**% Minor (10-40%)**	**% Trace (<10%)**	**Major Grain Size**	**Minor Grain Size**	**Moisture**	**Plasticity**	**Gradation**	**Color**	**VOC**	**TPH**	**EC**	**Chloride**
	4.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES:												0	14	1082	
													PPM	PPM	µS/cm	PPM
Bot. (ft)																

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VERTEX

Soil Sampling Project Data

Client Name	EOG Resources Inc.
Client Contact	Chase Settle
Client Contact P#	575-703-6537
Reference #	

Project Owner	Bob Asher
Project Manager	Dennis Williams
Field Supervisor	Monica Peppin
Unique Project ID	-Gates AAC #2
Project Site Name	Gates AAC #2

Project Start Date	
Project End Date	
Report Run Date	10/15/2021
API #	

Sample Point Data (Logged by: Dennis Williams)

Sample Point ID	BH21-09
Sample Point Lat	
Sample Point Long	

Well Top Elevation	
Total Depth	
Depth to Water	

UTM Zone (10-19)	
Drilling Company	Vertex Resource Services Inc
Drilling Method	Direct Push

Top (ft)
0

BH21-09 HZN-

BH21-09 0.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
0.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	79	0	
												PPM	PPM	µS/cm	PPM

BH21-09 1.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
1.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	52	1097	
												PPM	PPM	µS/cm	PPM

BH21-09 2.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
2.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	46	1058	
												PPM	PPM	µS/cm	PPM

BH21-09 3.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
3.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration

BH21-09 HZN-	NOTES:												0	16	722	
													PPM	PPM	µS/cm	PPM
	BH21-09 4.0' [Logged by: Dennis Williams on 10/15/2021]															
	Sample Depth	**Sample Type**	**Grab Count**	**% Major (>50%)**	**% Minor (10-40%)**	**% Trace (<10%)**	**Major Grain Size**	**Minor Grain Size**	**Moisture**	**Plasticity**	**Gradation**	**Color**	**VOC**	**TPH**	**EC**	**Chloride**
	4.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES:												0	0	683	
													PPM	PPM	µS/cm	PPM
Bot. (ft)																

Daily Site Visit Report

Client:	EOG Resources Inc.	Inspection Date:	10/28/2021
Site Location Name:	Gates AAC #2	Report Run Date:	10/29/2021 1:18 AM
Client Contact Name:	Chase Settle	API #:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	10/28/2021 12:08 PM
Departed Site	10/28/2021 3:30 PM

Field Notes

12:09 EM survey of area to help distinguish horizontal delineation

13:49 Going as close to the north fence as possible. Old pipeline located near fence that runs diagonal to it

14:15 A slightly elevated chloride level seems to exist all around area. Background samples to be used to verify

Next Steps & Recommendations

1 Em report

2 Finish delineation

Daily Site Visit Report

Site Photos

Viewing Direction: East	**Viewing Direction**: West
	
Northern area of em	West area
Viewing Direction: East	**Viewing Direction**: Northeast
	
South side of containment	North side of containment

Daily Site Visit Report

Viewing Direction: East	**Viewing Direction**: Southeast
	
North east area	East area
Viewing Direction: Southwest	**Viewing Direction**: West
	
East area towards containment	East area

Daily Site Visit Report

Viewing Direction: Northwest	**Viewing Direction**: Southeast
	
East area	Pasture north of location
Viewing Direction: West	**Viewing Direction**: North
	
Northwest area	Fence line area

Daily Site Visit Report

Viewing Direction: South	**Viewing Direction**: Southeast
	
Pasture northwest of site	Pasture area
Viewing Direction: North	**Viewing Direction**: East
	
West area	West side of pad

Daily Site Visit Report

Viewing Direction: South

Southwest area

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Monica Peppin

Signature:

Daily Site Visit Report

Client:	EOG Resources Inc.	Inspection Date:	11/11/2021
Site Location Name:	Gates AAC #2	Report Run Date:	11/11/2021 9:51 PM
Client Contact Name:	Chase Settle	API #:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	11/11/2021 7:23 AM
Departed Site	11/11/2021 2:11 PM

Field Notes

7:24 Tailgate/flha getting sample equipment ready.

8:06 Letting Geoprobe warm up, going over equipment to ensure it's ready to work. And also going to begin with a background samples west of location.

9:51 Chlorides are fluctuating on EC readings

11:07 Moved to drill BH21-10

12:02 Moved to BH21-11, just south of pump jack.

12:18 BH21-11 hit refusal at 7'

12:23 Moved to drill BH21-12 north of the pump jack

12:47 After 4' there gypsum stringers in both BH11 and 12.

13:41 All samples are jarred and will be ready for pickup. Greasing geoprobe

Next Steps & Recommendations

1 Submit samples to lab and await results

Daily Site Visit Report

Site Photos

Viewing Direction: Southwest

BG21-02. Drilled to 12’

Viewing Direction: Northwest

BH21-10 is South of the containment. We drilled to 8’

Viewing Direction: North

BH21-11. Refusal hit at 7’

Viewing Direction: South

BH21-12. Hit refusal at 7’

Daily Site Visit Report

Daily Site Visit Signature

Inspector: John Ramirez

Signature: 

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VERTEX

Soil Sampling Project Data

Client Name	EOG Resources Inc.
Client Contact	Chase Settle
Client Contact P#	575-703-6537
Reference #	

Project Owner	Bob Asher
Project Manager	Dennis Williams
Field Supervisor	Monica Peppin
Unique Project ID	-Gates AAC #2
Project Site Name	Gates AAC #2

Project Start Date	
Project End Date	
Report Run Date	11/12/2021
API #	

Sample Point Data (Logged by: Dennis Williams)

Sample Point ID	BG21-01
Sample Point Lat	
Sample Point Long	

Well Top Elevation	
Total Depth	
Depth to Water	

UTM Zone (10-19)	
Drilling Company	Vertex Resource Services Inc
Drilling Method	Direct Push

Top (ft)
0

BG21-01 0.0' [Logged by: Dennis Williams on 10/14/2021]

	Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
BG21-01 HZN-	0.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES:												0		113	
													PPM	PPM	µS/cm	PPM

BG21-01 HZN-

BG21-01 1.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
1.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0		215	
												PPM	PPM	µS/cm	PPM

BG21-01 2.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
2.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded		PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0		555	
												PPM	PPM	µS/cm	PPM

BG21-01 3.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
3.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0		461	
												PPM	PPM	µS/cm	PPM

BG21-01 4.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
4.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	26		217
												PPM	PPM	µS/cm	PPM

BG21-01 HZN-

BG21-01 5.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
5.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0		598	
												PPM	PPM	µS/cm	PPM

BG21-01 6.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
6.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0		716	550
												PPM	PPM	µS/cm	PPM

BG21-01 7.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
7.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0		985	455
												PPM	PPM	µS/cm	PPM

BG21-01 8.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
8.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	10		350
												PPM	PPM	µS/cm	PPM

BG21-01 9.0' [Logged by: Dennis Williams on 10/14/2021]

	Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
	9.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES:												0			472
													PPM	PPM	µS/cm	PPM
	BG21-01 10.0' [Logged by: Dennis Williams on 10/14/2021]															
	Sample Depth	**Sample Type**	**Grab Count**	**% Major (>50%)**	**% Minor (10-40%)**	**% Trace (<10%)**	**Major Grain Size**	**Minor Grain Size**	**Moisture**	**Plasticity**	**Gradation**	**Color**	**VOC**	**TPH**	**EC**	**Chloride**
BG21-01 HZN-	10.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES:												0		962	182
													PPM	PPM	µS/cm	PPM
	BG21-01 11.0' [Logged by: Dennis Williams on 10/14/2021]															
	Sample Depth	**Sample Type**	**Grab Count**	**% Major (>50%)**	**% Minor (10-40%)**	**% Trace (<10%)**	**Major Grain Size**	**Minor Grain Size**	**Moisture**	**Plasticity**	**Gradation**	**Color**	**VOC**	**TPH**	**EC**	**Chloride**
	11.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES: Refusal												0	21		487
													PPM	PPM	µS/cm	PPM
Bot. (ft)																

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Soil Sampling Project Data

Client Name	EOG Resources Inc.	Project Owner	Bob Asher	Project Start Date	
Client Contact	Chase Settle	Project Manager	Dennis Williams	Project End Date	
Client Contact P#	575-703-6537	Field Supervisor	Monica Peppin	Report Run Date	11/12/2021
Reference #		Unique Project ID	-Gates AAC #2	API #	
		Project Site Name	Gates AAC #2		

Sample Point Data (Logged by: Dennis Williams)

Sample Point ID	BG21-02	Well Top Elevation		UTM Zone (10-19)	
Sample Point Lat		Total Depth		Drilling Company	Vertex Resource Services Inc
Sample Point Long		Depth to Water		Drilling Method	Direct Push

Top (ft)
0

BG21-02 HZN-

BG21-02 0.0' [Logged by: Dennis Williams on 11/12/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
0.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Moist	Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	4	0.16	
												PPM	PPM		PPM

BG21-02 HZN-

BG21-02 1.0' [Logged by: Dennis Williams on 11/12/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
1.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Moist	Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0		0.94	
												PPM	PPM		PPM

BG21-02 2.0' [Logged by: Dennis Williams on 11/12/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
2.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Moist	Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0		1.21	
												PPM	PPM		PPM

BG21-02 3.0' [Logged by: Dennis Williams on 11/12/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
3.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Moist	Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0		1.22	
												PPM	PPM		PPM

BG21-02 4.0' [Logged by: Dennis Williams on 11/12/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
4.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Moist	Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0		0.51	
												PPM	PPM		PPM

BG21-02 5.0' [Logged by: Dennis Williams on 11/12/2021]

BG21-02 HZN-

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
5.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Moist	Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0		0.73	
												PPM	PPM		PPM

BG21-02 6.0' [Logged by: Dennis Williams on 11/12/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
6.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Moist	Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0		2.37	
												PPM	PPM		PPM

BG21-02 7.0' [Logged by: Dennis Williams on 11/12/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
7.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Moist	Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0		2.43	
												PPM	PPM		PPM

BG21-02 8.0' [Logged by: Dennis Williams on 11/12/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
8.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Moist	Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0		1.08	
												PPM	PPM		PPM

BG21-02 9.0' [Logged by: Dennis Williams on 11/12/2021]

BG21-02 HZN-

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
9.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Moist	Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0		0.48	
												PPM	PPM		PPM

BG21-02 10.0' [Logged by: Dennis Williams on 11/12/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
10.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Moist	Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0		0.48	
												PPM	PPM		PPM

BG21-02 11.0' [Logged by: Dennis Williams on 11/12/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
11.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Moist	Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0		0.41	
												PPM	PPM		PPM

BG21-02 12.0' [Logged by: Dennis Williams on 11/12/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
12.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Moist	Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	20	0.26	
												PPM	PPM		PPM

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Soil Sampling Project Data

Client Name	EOG Resources Inc.
Client Contact	Chase Settle
Client Contact P#	575-703-6537
Reference #	

Project Owner	Bob Asher
Project Manager	Dennis Williams
Field Supervisor	Monica Peppin
Unique Project ID	-Gates AAC #2
Project Site Name	Gates AAC #2

Project Start Date	
Project End Date	
Report Run Date	11/12/2021
API #	

Sample Point Data (Logged by: Dennis Williams)

Sample Point ID	BH21-01
Sample Point Lat	
Sample Point Long	

Well Top Elevation	
Total Depth	
Depth to Water	

UTM Zone (10-19)	
Drilling Company	Vertex Resource Services Inc
Drilling Method	Direct Push

Top (ft)
0

BH21-01 HZN-

BH21-01 0.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
0.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	53		265
												PPM	PPM	µS/cm	PPM

BH21-01 HZN-

BH21-01 1.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
1.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES: Not to lab												0	14		217
												PPM	PPM	µS/cm	PPM

BH21-01 2.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
2.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	18		252
												PPM	PPM	µS/cm	PPM

BH21-01 3.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
3.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	15		270
												PPM	PPM	µS/cm	PPM

BH21-01 4.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
4.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	17		202
												PPM	PPM	µS/cm	PPM

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Soil Sampling Project Data

Client Name	EOG Resources Inc.
Client Contact	Chase Settle
Client Contact P#	575-703-6537
Reference #	

Project Owner	Bob Asher
Project Manager	Dennis Williams
Field Supervisor	Monica Peppin
Unique Project ID	-Gates AAC #2
Project Site Name	Gates AAC #2

Project Start Date	
Project End Date	
Report Run Date	11/12/2021
API #	

Sample Point Data (Logged by: Dennis Williams)

Sample Point ID	BH21-02
Sample Point Lat	
Sample Point Long	

Well Top Elevation	
Total Depth	
Depth to Water	

UTM Zone (10-19)	
Drilling Company	Vertex Resource Services Inc
Drilling Method	Direct Push

Top (ft)
0

BH21-02 HZN-

BH21-02 0.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
0.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	138		2315
												PPM	PPM	µS/cm	PPM

BH21-02 HZN-

BH21-02 1.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
1.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	40		3482
												PPM	PPM	µS/cm	PPM

BH21-02 2.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
2.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	28		3287
												PPM	PPM	µS/cm	PPM

BH21-02 3.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
3.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	28		3665
												PPM	PPM	µS/cm	PPM

BH21-02 4.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
4.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	52		2940
												PPM	PPM	µS/cm	PPM

BH21-02 5.0' [Logged by: Dennis Williams on 10/14/2021]

BH21-02 HZN-

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
5.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	56		2610
												PPM	PPM	µS/cm	PPM

BH21-02 6.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
6.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	51		1972
												PPM	PPM	µS/cm	PPM

BH21-02 7.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
7.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	55		1410
												PPM	PPM	µS/cm	PPM

BH21-02 8.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
8.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	49		2002
												PPM	PPM	µS/cm	PPM

BH21-02 9.0' [Logged by: Dennis Williams on 10/14/2021]

BH21-02 HZN-

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
9.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	49		742
												PPM	PPM	µS/cm	PPM

BH21-02 10.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
10.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES: Hold sample												0	45		532
												PPM	PPM	µS/cm	PPM

BH21-02 11.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
11.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES: Hold sample												0	39		440
												PPM	PPM	µS/cm	PPM

BH21-02 12.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
12.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	39		402
												PPM	PPM	µS/cm	PPM

Bot. (ft)

Vertex Resource Services Inc.
2001 Timberloch Place Suite 500
Houston, TX 77380

832-535-1585
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https://vertex.ca

VERTEX

Soil Sampling Project Data

Client Name	EOG Resources Inc.
Client Contact	Chase Settle
Client Contact P#	575-703-6537
Reference #	

Project Owner	Bob Asher
Project Manager	Dennis Williams
Field Supervisor	Monica Peppin
Unique Project ID	-Gates AAC #2
Project Site Name	Gates AAC #2

Project Start Date	
Project End Date	
Report Run Date	11/12/2021
API #	

Sample Point Data (Logged by: Dennis Williams)

Sample Point ID	BH21-03
Sample Point Lat	
Sample Point Long	

Well Top Elevation	
Total Depth	
Depth to Water	

UTM Zone (10-19)	
Drilling Company	Vertex Resource Services Inc
Drilling Method	Direct Push

Top (ft)
0

BH21-03 HZN-

BH21-03 0.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
0.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	39		265
												PPM	PPM	µS/cm	PPM

BH21-03 HZN-

BH21-03 1.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
1.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	31		747
												PPM	PPM	µS/cm	PPM

BH21-03 2.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
2.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	31		1020
												PPM	PPM	µS/cm	PPM

BH21-03 3.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
3.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	31		710
												PPM	PPM	µS/cm	PPM

BH21-03 4.0' [Logged by: Dennis Williams on 10/14/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
4.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	42		912
												PPM	PPM	µS/cm	PPM

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VERTEX

Soil Sampling Project Data

Client Name	EOG Resources Inc.
Client Contact	Chase Settle
Client Contact P#	575-703-6537
Reference #	

Project Owner	Bob Asher
Project Manager	Dennis Williams
Field Supervisor	Monica Peppin
Unique Project ID	-Gates AAC #2
Project Site Name	Gates AAC #2

Project Start Date	
Project End Date	
Report Run Date	11/12/2021
API #	

Sample Point Data (Logged by: Dennis Williams)

Sample Point ID	BH21-04
Sample Point Lat	
Sample Point Long	

Well Top Elevation	
Total Depth	
Depth to Water	

UTM Zone (10-19)	
Drilling Company	Vertex Resource Services Inc
Drilling Method	Direct Push

Top (ft)
0

BH21-04 HZN-

BH21-04 0.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
0.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	13		335
												PPM	PPM	µS/cm	PPM

BH21-04 1.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
1.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	17		815
												PPM	PPM	µS/cm	PPM

BH21-04 2.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
2.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	20		747
												PPM	PPM	µS/cm	PPM

BH21-04 3.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
3.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration

BH21-04 HZN-

NOTES:												0	14		885
												PPM	PPM	µS/cm	PPM

BH21-04 4.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
4.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration

NOTES:												0	26		857
												PPM	PPM	µS/cm	PPM

BH21-04 5.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
5.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration

NOTES:												0	22		620
												PPM	PPM	µS/cm	PPM

BH21-04 6.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
6.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration

NOTES:												0	10		720
												PPM	PPM	µS/cm	PPM

BH21-04 7.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
7.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration

BH21-04 HZN-	NOTES:												0	12		685
													PPM	PPM	µS/cm	PPM
	BH21-04 8.0' [Logged by: Dennis Williams on 10/15/2021]															
	Sample Depth	**Sample Type**	**Grab Count**	**% Major (>50%)**	**% Minor (10-40%)**	**% Trace (<10%)**	**Major Grain Size**	**Minor Grain Size**	**Moisture**	**Plasticity**	**Gradation**	**Color**	**VOC**	**TPH**	**EC**	**Chloride**
	8.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES:												0	19		417
													PPM	PPM	µS/cm	PPM
Bot. (ft)																

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VERTEX

Soil Sampling Project Data

Client Name	EOG Resources Inc.
Client Contact	Chase Settle
Client Contact P#	575-703-6537
Reference #	

Project Owner	Bob Asher
Project Manager	Dennis Williams
Field Supervisor	Monica Peppin
Unique Project ID	-Gates AAC #2
Project Site Name	Gates AAC #2

Project Start Date	
Project End Date	
Report Run Date	11/12/2021
API #	

Sample Point Data (Logged by: Dennis Williams)

Sample Point ID	BH21-05
Sample Point Lat	
Sample Point Long	

Well Top Elevation	
Total Depth	
Depth to Water	

UTM Zone (10-19)	
Drilling Company	Vertex Resource Services Inc
Drilling Method	Direct Push

Top (ft)
0

BH21-05 HZN-

BH21-05 0.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
0.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	15		367
												PPM	PPM	µS/cm	PPM

BH21-05 1.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
1.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	11		1115
												PPM	PPM	µS/cm	PPM

BH21-05 2.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
2.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	13		1320
												PPM	PPM	µS/cm	PPM

BH21-05 3.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
3.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration

BH21-05 HZN-

NOTES:												0	7		1522
												PPM	PPM	µS/cm	PPM

BH21-05 4.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
4.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration

NOTES:												0	9		1892
												PPM	PPM	µS/cm	PPM

BH21-05 5.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
5.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration

NOTES:												0	11		1072
												PPM	PPM	µS/cm	PPM

BH21-05 6.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
6.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration

NOTES:												0	10		915
												PPM	PPM	µS/cm	PPM

BH21-05 7.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride

	7.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES:												0	10		985
													PPM	PPM	µS/cm	PPM
	BH21-05 8.0' [Logged by: Dennis Williams on 10/15/2021]															
BH21-05 HZN-	**Sample Depth**	**Sample Type**	**Grab Count**	**% Major (>50%)**	**% Minor (10-40%)**	**% Trace (<10%)**	**Major Grain Size**	**Minor Grain Size**	**Moisture**	**Plasticity**	**Gradation**	**Color**	**VOC**	**TPH**	**EC**	**Chloride**
	8.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES:												0	12		647
													PPM	PPM	µS/cm	PPM
Bot. (ft)																

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VERTEX

Soil Sampling Project Data

Client Name	EOG Resources Inc.
Client Contact	Chase Settle
Client Contact P#	575-703-6537
Reference #	

Project Owner	Bob Asher
Project Manager	Dennis Williams
Field Supervisor	Monica Peppin
Unique Project ID	-Gates AAC #2
Project Site Name	Gates AAC #2

Project Start Date	
Project End Date	
Report Run Date	11/12/2021
API #	

Sample Point Data (Logged by: Dennis Williams)

Sample Point ID	BH21-06
Sample Point Lat	
Sample Point Long	

Well Top Elevation	
Total Depth	
Depth to Water	

UTM Zone (10-19)	
Drilling Company	Vertex Resource Services Inc
Drilling Method	Direct Push

Top (ft)
0

BH21-06 HZN-

BH21-06 0.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
0.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	7		192
												PPM	PPM	µS/cm	PPM

BH21-06 1.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
1.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	12		195
												PPM	PPM	µS/cm	PPM

BH21-06 2.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
2.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	20		1582
												PPM	PPM	µS/cm	PPM

BH21-06 3.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
3.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration

BH21-06 HZN-

NOTES:												0	15		2142
												PPM	PPM	µS/cm	PPM

BH21-06 4.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
4.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration

NOTES:												0	26		1960
												PPM	PPM	µS/cm	PPM

BH21-06 5.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
5.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration

NOTES:												0	15		1342
												PPM	PPM	µS/cm	PPM

BH21-06 6.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
6.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration

NOTES:												0	12		940
												PPM	PPM	µS/cm	PPM

BH21-06 7.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride

	7.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES:												0	10		1042
													PPM	PPM	µS/cm	PPM
	BH21-06 8.0' [Logged by: Dennis Williams on 10/15/2021]															
	Sample Depth	**Sample Type**	**Grab Count**	**% Major (>50%)**	**% Minor (10-40%)**	**% Trace (<10%)**	**Major Grain Size**	**Minor Grain Size**	**Moisture**	**Plasticity**	**Gradation**	**Color**	**VOC**	**TPH**	**EC**	**Chloride**
	8.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES:												0	2		1185
													PPM	PPM	µS/cm	PPM
	BH21-06 9.0' [Logged by: Dennis Williams on 10/15/2021]															
BH21-06 HZN-	**Sample Depth**	**Sample Type**	**Grab Count**	**% Major (>50%)**	**% Minor (10-40%)**	**% Trace (<10%)**	**Major Grain Size**	**Minor Grain Size**	**Moisture**	**Plasticity**	**Gradation**	**Color**	**VOC**	**TPH**	**EC**	**Chloride**
	9.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES:												0	5		810
													PPM	PPM	µS/cm	PPM
	BH21-06 10.0' [Logged by: Dennis Williams on 10/15/2021]															
	Sample Depth	**Sample Type**	**Grab Count**	**% Major (>50%)**	**% Minor (10-40%)**	**% Trace (<10%)**	**Major Grain Size**	**Minor Grain Size**	**Moisture**	**Plasticity**	**Gradation**	**Color**	**VOC**	**TPH**	**EC**	**Chloride**
	10.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES: Hold												0	7		550
													PPM	PPM	µS/cm	PPM
	BH21-06 11.0' [Logged by: Dennis Williams on 10/15/2021]															

	Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
BH21-06 HZN-	11.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES: Hold												0	7		572
													PPM	PPM	µS/cm	PPM
Bot. (ft)																

Vertex Resource Services Inc.
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VERTEX

Soil Sampling Project Data

Client Name	EOG Resources Inc.
Client Contact	Chase Settle
Client Contact P#	575-703-6537
Reference #	

Project Owner	Bob Asher
Project Manager	Dennis Williams
Field Supervisor	Monica Peppin
Unique Project ID	-Gates AAC #2
Project Site Name	Gates AAC #2

Project Start Date	
Project End Date	
Report Run Date	11/12/2021
API #	

Sample Point Data (Logged by: Dennis Williams)

Sample Point ID	BH21-07
Sample Point Lat	
Sample Point Long	

Well Top Elevation	
Total Depth	
Depth to Water	

UTM Zone (10-19)	
Drilling Company	Vertex Resource Services Inc
Drilling Method	Direct Push

Top (ft)
0

BH21-07 HZN-

BH21-07 0.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
0.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	27		302
												PPM	PPM	µS/cm	PPM

BH21-07 1.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
1.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	20	152	
												PPM	PPM	µS/cm	PPM

BH21-07 2.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
2.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	23	2489	
												PPM	PPM	µS/cm	PPM

BH21-07 3.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
3.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration

BH21-07 HZN-

NOTES:												0 PPM	19 PPM	3925 µS/cm	PPM

BH21-07 4.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
4.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0 PPM	26 PPM	µS/cm	1975 PPM

BH21-07 5.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
5.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0 PPM	22 PPM	3226 µS/cm	PPM

BH21-07 6.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
6.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0 PPM	17 PPM	2754 µS/cm	PPM

BH21-07 7.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride

	7.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES:												0	14	2826	
													PPM	PPM	µS/cm	PPM
	BH21-07 8.0' [Logged by: Dennis Williams on 10/15/2021]															
BH21-07 HZN-	**Sample Depth**	**Sample Type**	**Grab Count**	**% Major (>50%)**	**% Minor (10-40%)**	**% Trace (<10%)**	**Major Grain Size**	**Minor Grain Size**	**Moisture**	**Plasticity**	**Gradation**	**Color**	**VOC**	**TPH**	**EC**	**Chloride**
	8.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES: Refusal												0	12	1539	
													PPM	PPM	µS/cm	PPM
Bot. (ft)																

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Soil Sampling Project Data

Client Name	EOG Resources Inc.
Client Contact	Chase Settle
Client Contact P#	575-703-6537
Reference #	

Project Owner	Bob Asher
Project Manager	Dennis Williams
Field Supervisor	Monica Peppin
Unique Project ID	-Gates AAC #2
Project Site Name	Gates AAC #2

Project Start Date	
Project End Date	
Report Run Date	11/12/2021
API #	

Sample Point Data (Logged by: Dennis Williams)

Sample Point ID	BH21-08
Sample Point Lat	
Sample Point Long	

Well Top Elevation	
Total Depth	
Depth to Water	

UTM Zone (10-19)	
Drilling Company	Vertex Resource Services Inc
Drilling Method	Direct Push

Top (ft)
0

BH21-08 HZN-

BH21-08 0.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
0.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	32	188	
												PPM	PPM	µS/cm	PPM

BH21-08 1.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
1.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	28	2167	
												PPM	PPM	µS/cm	PPM

BH21-08 2.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
2.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	22	2864	
												PPM	PPM	µS/cm	PPM

BH21-08 3.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
3.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration

	NOTES:												0	20	2350	
													PPM	PPM	µS/cm	PPM
	BH21-08 4.0' [Logged by: Dennis Williams on 10/15/2021]															
BH21-08 HZN-	**Sample Depth**	**Sample Type**	**Grab Count**	**% Major (>50%)**	**% Minor (10-40%)**	**% Trace (<10%)**	**Major Grain Size**	**Minor Grain Size**	**Moisture**	**Plasticity**	**Gradation**	**Color**	**VOC**	**TPH**	**EC**	**Chloride**
	4.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES:												0	14	1082	
													PPM	PPM		PPM
Bot. (ft)																

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VERTEX

Soil Sampling Project Data

Client Name	EOG Resources Inc.
Client Contact	Chase Settle
Client Contact P#	575-703-6537
Reference #	

Project Owner	Bob Asher
Project Manager	Dennis Williams
Field Supervisor	Monica Peppin
Unique Project ID	-Gates AAC #2
Project Site Name	Gates AAC #2

Project Start Date	
Project End Date	
Report Run Date	11/12/2021
API #	

Sample Point Data (Logged by: Dennis Williams)

Sample Point ID	BH21-09
Sample Point Lat	
Sample Point Long	

Well Top Elevation	
Total Depth	
Depth to Water	

UTM Zone (10-19)	
Drilling Company	Vertex Resource Services Inc
Drilling Method	Direct Push

Top (ft)
0

BH21-09 HZN-

BH21-09 0.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
0.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	79	0	
												PPM	PPM	µS/cm	PPM

BH21-09 1.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
1.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	52	1097	
												PPM	PPM	µS/cm	PPM

BH21-09 2.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
2.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	46	1058	
												PPM	PPM	µS/cm	PPM

BH21-09 3.0' [Logged by: Dennis Williams on 10/15/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
3.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration

BH21-09 HZN-	NOTES:												0	16	722	
													PPM	PPM	µS/cm	PPM
	BH21-09 4.0' [Logged by: Dennis Williams on 10/15/2021]															
	Sample Depth	**Sample Type**	**Grab Count**	**% Major (>50%)**	**% Minor (10-40%)**	**% Trace (<10%)**	**Major Grain Size**	**Minor Grain Size**	**Moisture**	**Plasticity**	**Gradation**	**Color**	**VOC**	**TPH**	**EC**	**Chloride**
	4.0	Discreet Sample	1	Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Damp	Non Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES:												0	0	683	
													PPM	PPM	µS/cm	PPM
Bot. (ft)																

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VERTEX

Soil Sampling Project Data

Client Name	EOG Resources Inc.
Client Contact	Chase Settle
Client Contact P#	575-703-6537
Reference #	

Project Owner	Bob Asher
Project Manager	Dennis Williams
Field Supervisor	Monica Peppin
Unique Project ID	-Gates AAC #2
Project Site Name	Gates AAC #2

Project Start Date	
Project End Date	
Report Run Date	11/12/2021
API #	

Sample Point Data (Logged by: Dennis Williams)

Sample Point ID	BH21-10
Sample Point Lat	
Sample Point Long	

Well Top Elevation	
Total Depth	
Depth to Water	

UTM Zone (10-19)	
Drilling Company	Vertex Resource Services Inc
Drilling Method	Direct Push

Top (ft)
0

BH21-10 HZN-

BH21-10 0.0' [Logged by: Dennis Williams on 11/12/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
0.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Dry	Non Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	36	0.11	
												PPM	PPM		PPM

BH21-10 HZN-

BH21-10 1.0' [Logged by: Dennis Williams on 11/12/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
1.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Dry	Non Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0		0.26	
												PPM	PPM		PPM

BH21-10 2.0' [Logged by: Dennis Williams on 11/12/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
2.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Dry	Non Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	23	1.08	
												PPM	PPM		PPM

BH21-10 3.0' [Logged by: Dennis Williams on 11/12/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
3.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Dry	Non Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0		5.18	
												PPM	PPM		PPM

BH21-10 4.0' [Logged by: Dennis Williams on 11/12/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
4.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Moist	Slightly Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	22	3.85	
												PPM	PPM		PPM

BH21-10 5.0' [Logged by: Dennis Williams on 11/12/2021]

BH21-10 HZN-

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
5.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Moist	Slightly Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0		4.48	
												PPM	PPM		PPM

BH21-10 6.0' [Logged by: Dennis Williams on 11/12/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
6.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Moist	Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0		2.17	
												PPM	PPM		PPM

BH21-10 7.0' [Logged by: Dennis Williams on 11/12/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
7.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Moist	Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0		1.38	
												PPM	PPM		PPM

BH21-10 8.0' [Logged by: Dennis Williams on 11/12/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
8.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Moist	Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	21	1.08	
												PPM	PPM		PPM

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VERTEX

Soil Sampling Project Data

Client Name	EOG Resources Inc.
Client Contact	Chase Settle
Client Contact P#	575-703-6537
Reference #	

Project Owner	Bob Asher
Project Manager	Dennis Williams
Field Supervisor	Monica Peppin
Unique Project ID	-Gates AAC #2
Project Site Name	Gates AAC #2

Project Start Date	
Project End Date	
Report Run Date	11/12/2021
API #	

Sample Point Data (Logged by: Dennis Williams)

Sample Point ID	BH21-11
Sample Point Lat	
Sample Point Long	

Well Top Elevation	
Total Depth	
Depth to Water	

UTM Zone (10-19)	
Drilling Company	Vertex Resource Services Inc
Drilling Method	Direct Push

Top (ft)
0

BH21-11 HZN-

BH21-11 0.0' [Logged by: Dennis Williams on 11/12/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
0.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Moist	Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	34	0.27	
												PPM	PPM		PPM

BH21-11 HZN-

BH21-11 1.0' [Logged by: Dennis Williams on 11/12/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
1.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Moist	Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0		1.88	
												PPM	PPM		PPM

BH21-11 2.0' [Logged by: Dennis Williams on 11/12/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
2.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Moist	Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	36	3.19	
												PPM	PPM		PPM

BH21-11 3.0' [Logged by: Dennis Williams on 11/12/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
3.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Moist	Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0		2.82	
												PPM	PPM		PPM

BH21-11 4.0' [Logged by: Dennis Williams on 11/12/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
4.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Moist	Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	71	1.55	
												PPM	PPM		PPM

BH21-11 5.0' [Logged by: Dennis Williams on 11/12/2021]

	Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
	5.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Moist	Plastic	Well Graded	Light-Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES:												0		1.95	
													PPM	PPM		PPM
	BH21-11 6.0' [Logged by: Dennis Williams on 11/12/2021]															
	Sample Depth	**Sample Type**	**Grab Count**	**% Major (>50%)**	**% Minor (10-40%)**	**% Trace (<10%)**	**Major Grain Size**	**Minor Grain Size**	**Moisture**	**Plasticity**	**Gradation**	**Color**	**VOC**	**TPH**	**EC**	**Chloride**
BH21-11 HZN-	6.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Moist	Plastic	Well Graded	Light Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES:												0		0.92	
													PPM	PPM		PPM
	BH21-11 7.0' [Logged by: Dennis Williams on 11/12/2021]															
	Sample Depth	**Sample Type**	**Grab Count**	**% Major (>50%)**	**% Minor (10-40%)**	**% Trace (<10%)**	**Major Grain Size**	**Minor Grain Size**	**Moisture**	**Plasticity**	**Gradation**	**Color**	**VOC**	**TPH**	**EC**	**Chloride**
	7.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Moist	Plastic	Well Graded	Light Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES:												0	43	0.67	
													PPM	PPM		PPM
Bot. (ft)																

Vertex Resource Services Inc.
2001 Timberloch Place Suite 500
Houston, TX 77380

832-535-1585
info@vertex.ca
https://vertex.ca

VERTEX

Soil Sampling Project Data

Client Name	EOG Resources Inc.
Client Contact	Chase Settle
Client Contact P#	575-703-6537
Reference #	

Project Owner	Bob Asher
Project Manager	Dennis Williams
Field Supervisor	Monica Peppin
Unique Project ID	-Gates AAC #2
Project Site Name	Gates AAC #2

Project Start Date	
Project End Date	
Report Run Date	11/12/2021
API #	

Sample Point Data (Logged by: Dennis Williams)

Sample Point ID	BH21-12
Sample Point Lat	
Sample Point Long	

Well Top Elevation	
Total Depth	
Depth to Water	

UTM Zone (10-19)	
Drilling Company	Vertex Resource Services Inc
Drilling Method	Direct Push

Top (ft)
0

BH21-12 HZN-

BH21-12 0.0' [Logged by: Dennis Williams on 11/12/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
0.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Moist	Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	28	0.17	
												PPM	PPM		PPM

BH21-12 HZN-

BH21-12 1.0' [Logged by: Dennis Williams on 11/12/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
1.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Moist	Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0		3.54	
												PPM	PPM		PPM

BH21-12 2.0' [Logged by: Dennis Williams on 11/12/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
2.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Moist	Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	28	4.22	
												PPM	PPM		PPM

BH21-12 3.0' [Logged by: Dennis Williams on 11/12/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
3.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Moist	Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0		5.13	
												PPM	PPM		PPM

BH21-12 4.0' [Logged by: Dennis Williams on 11/12/2021]

Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
4.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Moist	Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
NOTES:												0	31	2.89	
												PPM	PPM		PPM

BH21-12 5.0' [Logged by: Dennis Williams on 11/12/2021]

	Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
	5.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Moist	Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES:												0		2.52	
													PPM	PPM		PPM

BH21-12 6.0' [Logged by: Dennis Williams on 11/12/2021]

	Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
BH21-12 HZN-	6.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Moist	Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES:												0		2.29	
													PPM	PPM		PPM

BH21-12 7.0' [Logged by: Dennis Williams on 11/12/2021]

	Sample Depth	Sample Type	Grab Count	% Major (>50%)	% Minor (10-40%)	% Trace (<10%)	Major Grain Size	Minor Grain Size	Moisture	Plasticity	Gradation	Color	VOC	TPH	EC	Chloride
	7.0	Discrete Sample		Clay (Fine)	Silt (Fine)	Silt (Fine)	Medium	Fine	Moist	Plastic	Well Graded	Medium Brown	PID	PetroFlag	EC Probe	Silver Nitrate Titration
	NOTES:												0	44	1.23	
													PPM	PPM		PPM
Bot. (ft)																

Daily Site Visit Report

Client:	EOG Resources Inc.	Inspection Date:	1/10/2022
Site Location Name:	Gates AAC #2	Report Run Date:	1/10/2022 11:27 PM
Client Contact Name:	Chase Settle	API #:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	1/10/2022 8:00 AM
Departed Site	1/10/2022 4:30 PM

Field Notes

8:40 Safety paperwork complete, began clearing vegetation and soil near BH21-3

9:00 Third belly dump headed to landfill

9:02 Fourth belly dump arrived and filled

9:19 Placing liner south of excavation area

10:21 1 belly dump sent to landfill

11:35 1 belly dump to landfill

11:58 3 more belly dumps headed off

12:55 1 more belly dump filled

Next Steps & Recommendations

1 Continue excavation

Daily Site Visit Report

Site Photos

Viewing Direction: South	**Viewing Direction**: East
	
Filling first of three belly dumps	Location of dirt pile
Viewing Direction: East	**Viewing Direction**: East
	
Beginning the 14’ excavation at the south end of the battery area	Working on southern boundary to determine where to cap PVC line

Daily Site Visit Report

Viewing Direction: Northwest	**Viewing Direction**: Northeast
	
Excavation progress	Excavation progress

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Sally Carttar

Signature: 

Daily Soil Sampling

Client: Client: EOG Resources Inc.

Location: Site: Gates AAC #2

Date: (SD: 1/10/22)

Sampling											
		Field Screening							Data Collection		
		Hydrocarbon		Chloride							
Sample ID	Depth (ft)	VOC (PID)	TPH (ppm)	EC Reading (mS/cm)	Temp (°C)	EC Chloride (ppm)	Chloride Titration (ppm)	Lab Analysis	Photo Taken	Marked on Sketch	Refusal Depth (ft)
WES22-01	2.0	0	102	2.49	16.7	3681				✓	
WES22-01	4.0	0	104	3.75	15.5	5552				✓	
WES22-02	4.0	0	39	4.96	15.5	7298				✓	
WES22-03	6.0	0	70	4.20	21.5	5942				✓	
WES22-04	2.0	0	30	3.98	21.1	5641				✓	
WES22-04	4.0	0	57	5.08	22	7190				✓	
WES22-04	6.0	0	25	5.11	20.9	7281				✓	

Daily Site Visit Report

Client:	EOG Resources Inc.	Inspection Date:	1/11/2022
Site Location Name:	Gates AAC #2	Report Run Date:	1/12/2022 12:09 AM
Client Contact Name:	Chase Settle	API #:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	1/11/2022 7:49 AM
Departed Site	1/11/2022 4:15 PM

Field Notes

8:07 Safety meeting complete, 3 belly dumps on site

8:31 Loading two more belly dumps from yesterday's dirt pile

9:04 4 more belly dumps

9:46 10th truck out around 9:15

11:19 4 more belly dumps filled

12:01 Loading 5 more trucks

Next Steps & Recommendations

1 Continue excavation

Daily Site Visit Report

Site Photos

Viewing Direction: South	**Viewing Direction**: West
	
Pushing out east wall of southern third of battery area	Southern end of excavation

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Sally Carttar

Signature: 
Signature

Daily Site Visit Report

Client:	EOG Resources Inc.	Inspection Date:	1/12/2022
Site Location Name:	Gates AAC #2	Report Run Date:	1/13/2022 12:07 AM
Client Contact Name:	Chase Settle	API #:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	1/12/2022 7:40 AM
Departed Site	1/12/2022 4:15 PM

Field Notes

9:10 15 trucks sent to landfill

11:31 Loading more trucks

13:38 Loading more trucks

13:47 Loader blew a hydraulic line right before the trucks got here, so the track hoe is loading alone for now

15:16 Shifting attention to the eastern side of the excavation

Next Steps & Recommendations

1 Replace hose on loader

2 Get direction on how to approach road

3 Continue excavation in all directions

Daily Site Visit Report

Site Photos

Viewing Direction: South

Added a dirt pile on top of the northern section of the battery area

Viewing Direction: Southwest

Beginning excavation today at 9:00

Viewing Direction: Southwest

Southern end of excavation starts to approach the road

Viewing Direction: West

South edge of excavation East of lines reached road and still almost 6000ppm chloride.

Daily Site Visit Report

Viewing Direction: North

Excavation at end of day

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Sally Carttar

Signature: 
Signature

Daily Site Visit Report

Client:	EOG Resources Inc.	Inspection Date:	1/12/2022
Site Location Name:	Gates AAC #2	Report Run Date:	1/13/2022 12:07 AM
Client Contact Name:	Chase Settle	API #:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	1/12/2022 7:40 AM
Departed Site	1/12/2022 4:15 PM

Field Notes

9:10 15 trucks sent to landfill

11:31 Loading more trucks

13:38 Loading more trucks

13:47 Loader blew a hydraulic line right before the trucks got here, so the track hoe is loading alone for now

15:16 Shifting attention to the eastern side of the excavation

Next Steps & Recommendations

1 Replace hose on loader

2 Get direction on how to approach road

3 Continue excavation in all directions

Daily Site Visit Report

Site Photos

Viewing Direction: South

Added a dirt pile on top of the northern section of the battery area

Viewing Direction: Southwest

Beginning excavation today at 9:00

Viewing Direction: Southwest

Southern end of excavation starts to approach the road

Viewing Direction: West

South edge of excavation East of lines reached road and still almost 6000ppm chloride.

Daily Site Visit Report

Viewing Direction: North

Excavation at end of day

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Sally Carttar

Signature: 
Signature

Daily Site Visit Report

Client:	EOG Resources Inc.	Inspection Date:	1/14/2022
Site Location Name:	Gates AAC #2	Report Run Date:	1/15/2022 12:25 AM
Client Contact Name:	Chase Settle	API #:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	1/14/2022 8:05 AM
Departed Site	1/14/2022 4:30 PM

Field Notes

8:08 Trucks and loaders on site, safety meeting complete, ready to start loading

10:50 Loading more trucks

10:51 It is very dusty. A water truck is on the way to help manage dust.

13:15 Digging on center section of pad, uncovered liner >3’ deep.

15:16 Water truck came and sprayed the dust down

Next Steps & Recommendations

1

Daily Site Visit Report

Site Photos

Viewing Direction: West

First trucks of the day, loaded more efficiently with two loaders

Viewing Direction: East

Excavation cleared, ready to start moving eastward again this morning

Viewing Direction: North

Bottom of 3’ sample near the center of the contained area

Viewing Direction: North

Liner about 5’ deep under containment

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Sally Carttar

Signature: 
Signature

Daily Soil Sampling

Client: Client: EOG Resources Inc.

Location: Site: Gates AAC #2

Date: (SD: 1/14/22)

Sampling											
		Field Screening							Data Collection		
		Hydrocarbon		Chloride							
Sample ID	Depth (ft)	VOC (PID)	TPH (ppm)	EC Reading (mS/cm)	Temp (°C)	EC Chloride (ppm)	Chloride Titration (ppm)	Lab Analysis	Photo Taken	Marked on Sketch	Refusal Depth (ft)
WES22-05	3.0		162	4.11	25.6	5634			✓	✓	
WES22-06	3.0	1	143	4.86	24.9	6747			✓	✓	
WES22-07	3.0	0	59	5.53	24.2	7744			✓	✓	

Daily Site Visit Report

Client:	EOG Resources Inc.	Inspection Date:	1/17/2022
Site Location Name:	Gates AAC #2	Report Run Date:	1/18/2022 12:32 AM
Client Contact Name:	Chase Settle	API #:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	1/17/2022 7:48 AM
Departed Site	1/17/2022 4:30 PM

Field Notes

9:06 Fence unlocked, under the condition that we water the road before starting work.

9:48 Water truck on site spraying down the pad

10:27 Loading trucks

Next Steps & Recommendations

1 Keep digging the southern part down to find clean dirt

2 Keep digging down the center section

3 Dig walls East, west, and north into pad and pasture

Daily Site Visit Report

Site Photos

Viewing Direction: East

Gate locked, 12 trucks and crew waiting at entrance for direction

Viewing Direction: East

Fence down and spread across road when we arrived on site, probably due to wind

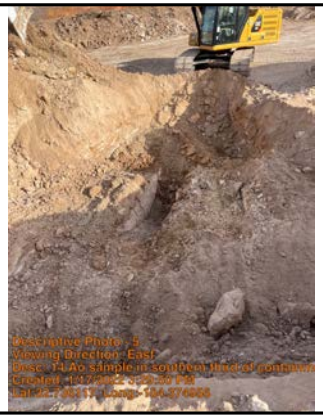
Viewing Direction: Southeast

Taking the center section of the containment down to 5’ to get under the liner

Viewing Direction: Northeast

Black spot at 5’ yesterday continues at about 8’

Daily Site Visit Report

Viewing Direction: East

14’ sample in southern third of containment came back very high in BTEX

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Sally Carttar

Signature: 

Signature

Daily Soil Sampling

Client: Client: EOG Resources Inc.

Location: Site: Gates AAC #2

Date: (SD: 1/17/22)

Sampling											
		Field Screening							Data Collection		
		Hydrocarbon		Chloride							
Sample ID	Depth (ft)	VOC (PID)	TPH (ppm)	EC Reading (mS/cm)	Temp (°C)	EC Chloride (ppm)	Chloride Titration (ppm)	Lab Analysis	Photo Taken	Marked on Sketch	Refusal Depth (ft)
BES22-01	3.0	1	24	3.58	17.9	5203			✓	✓	
BES22-02	3.0	3	37	3.72	17.9	5405			✓	✓	
BES22-03	3.0	0	31	2.65	18	3856			✓	✓	
BES22-04	8.0	94								✓	
BES22-05	14.0	256								✓	

Daily Site Visit Report

Client:	EOG Resources Inc.	Inspection Date:	1/18/2022
Site Location Name:	Gates AAC #2	Report Run Date:	1/18/2022 11:09 PM
Client Contact Name:	Chase Settle	API #:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	1/18/2022 7:50 AM
Departed Site	1/18/2022 4:20 PM

Field Notes

8:45 Safety meeting complete, loading trucks

9:32 Returning to the 14’

11:31 Very windy out of the west

Next Steps & Recommendations

1 Continue excavation and confirmation sampling

2 Excavate around lines and cap them to allow better benching

Daily Site Visit Report

Site Photos

Viewing Direction: Northeast

Excavation at 16’ with an 18’ sampling trench

Viewing Direction: South

Sloping excavation sides around 20’ pit

Viewing Direction: East

Terracing around the 20’

Viewing Direction: South

Pad wetted down for the end of the day

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Sally Carttar

Signature: 

Daily Soil Sampling

Client: Client: EOG Resources Inc.

Location: Site: Gates AAC #2

Date: (SD: 1/18/22)

Sampling											
		Field Screening							Data Collection		
		Hydrocarbon		Chloride							
Sample ID	Depth (ft)	VOC (PID)	TPH (ppm)	EC Reading (mS/cm)	Temp (°C)	EC Chloride (ppm)	Chloride Titration (ppm)	Lab Analysis	Photo Taken	Marked on Sketch	Refusal Depth (ft)
BES22-05	16.0	1203								✓	
BES22-05	18.0	279								✓	
BES22-05	20.0	530	99	3.06	23.7	4201			✓	✓	

Daily Site Visit Report

Client:	EOG Resources Inc.	Inspection Date:	1/19/2022
Site Location Name:	Gates AAC #2	Report Run Date:	1/19/2022 10:52 PM
Client Contact Name:	Chase Settle	API #:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	1/19/2022 7:50 AM
Departed Site	1/19/2022 4:00 PM

Field Notes

8:08 Roustabout crew on site to excavate lines

8:12 Safety meeting complete, loading first round of trucks

10:52 Roustabouts found both lines, working south to find where they are capped

14:09 Working the center section wall eastward chasing chlorides

14:26 Trucks have been coming at more of a trickle today rather than in groups

14:47 Capping both lines south of road. They found one cap, the other had been left uncapped.

15:49 Starting to close up for the night

Next Steps & Recommendations

1 Continue excavation in all directions to reach a clean sample

Daily Site Visit Report

Site Photos

Viewing Direction: Southeast	**Viewing Direction**: Northwest
	
Moving dirt, clearing lines	Water tank piece found in excavation
Viewing Direction: South	**Viewing Direction**: Southeast
	
Water truck spraying pad	Excavation at end of day

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Sally Carttar

Signature: 
Signature

Daily Site Visit Report

Client:	EOG Resources Inc.	Inspection Date:	1/20/2022
Site Location Name:	Gates AAC #2	Report Run Date:	1/20/2022 11:00 PM
Client Contact Name:	Chase Settle	API #:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	1/20/2022 7:45 AM
Departed Site	1/20/2022 4:15 PM

Field Notes

8:07 27 degrees when we arrived on site. Will stay alert for signs of weather-related illness and injury

8:22 Bringing backhoe over to help roustabouts cap lines

8:22 Loading trucks

12:57 Roustabouts found a third (unmarked) line

13:26 Found some gas in a line, taking longer than expected to bleed.

Next Steps & Recommendations

1 Keep digging to find a clean sample

Daily Site Visit Report

Site Photos

Viewing Direction: Southeast	**Viewing Direction**: Southeast
	
Working on the northeast corner of the excavation	Using dirt from top 4’ to backfill areas we went too deep
Viewing Direction: West	**Viewing Direction**: Northwest
	
Using backhoe to expose lines	3 lines at south end

Daily Site Visit Report

Viewing Direction: East	**Viewing Direction**: South
	
Pipe	Haven't needed to run the water truck today because of the cold

Viewing Direction: North	**Viewing Direction**: North
	
Watered the pad	Lines capped south of road

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Sally Carttar

Signature: 

Daily Soil Sampling

Client: Client: EOG Resources Inc.

Location: Site: Gates AAC #2

Date: (SD: 1/20/22)

Sampling											
		Field Screening							Data Collection		
		Hydrocarbon		Chloride							
Sample ID	Depth (ft)	VOC (PID)	TPH (ppm)	EC Reading (mS/cm)	Temp (°C)	EC Chloride (ppm)	Chloride Titration (ppm)	Lab Analysis	Photo Taken	Marked on Sketch	Refusal Depth (ft)
BES22-06	8.0	0	21	1.29	19.1	1845				✓	
BES22-07	8.0	0	27	1.31	18.7	1892				✓	
BES22-08	8.0	0	28	1.38	18.1	2019				✓	

Daily Site Visit Report

Client:	EOG Resources Inc.	Inspection Date:	1/21/2022
Site Location Name:	Gates AAC #2	Report Run Date:	1/21/2022 10:03 PM
Client Contact Name:	Chase Settle	API #:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	1/21/2022 8:00 AM
Departed Site	1/21/2022 3:00 PM

Field Notes

8:09 23 degrees on site this morning. Safety meeting complete, covered cold weather hazards.

8:26 Loading first round of trucks

9:54 Digging to find wall on the south edge of 16’

11:03 Loading more trucks

13:35 Loading more trucks

14:55 Ditch about 50’ out, no clean sample yet

Next Steps & Recommendations

1 Continue trench eastward

2 Expand excavation north and south of trench once we find an edge

3 Start excavating laterally west toward pad

Daily Site Visit Report

Site Photos

Viewing Direction: Northeast

Remnants of a PVC line

Viewing Direction: South

Trench (now closed) to the east from the northeast corner of the excavation to find the edge

Viewing Direction: Southwest

Equipment parked in excavation for the weekend

Viewing Direction: Southwest

Excavation at end of day

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Sally Carttar

Signature: 

Daily Site Visit Report

Client:	EOG Resources Inc.	Inspection Date:	1/24/2022
Site Location Name:	Gates AAC #2	Report Run Date:	1/24/2022 11:56 PM
Client Contact Name:	Chase Settle	API #:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	1/24/2022 8:00 AM
Departed Site	1/24/2022 4:00 PM

Field Notes

8:37 Done with safety meeting, loading first round of trucks.

9:07 Done loading trucks. We only have 2 operators today from WWS

9:20 Returning to the trench on the northeast corner to get a clean sample

12:50 Finally getting a couple clean samples out to the northeast, working to find a definite edge

14:11 Loading the last round of trucks

14:48 Wind/dust starting to pick up. Sending a water truck to pick up water

14:55 Found clean edges on all holes/trenches except the farthest south

15:25 Putting up fence and berms, waiting for water truck to come spray and finish everything off

15:30 Water truck here, spraying pad and sides of road where belly dumps line up outside the gate

Next Steps & Recommendations

1 Start tomorrow by pushing the farthest south existing trench out 5’

2 Continue digging holes and trenches south down the eastern edge of the spill

3 Define spill boundaries west and north of battery

Daily Site Visit Report

4 Dig out northern third of containment

Daily Site Visit Report

Site Photos

Viewing Direction: Southeast

Starting to dig out toward the end of the trench

Viewing Direction: South

Digging holes to find edges around trench

Viewing Direction: Northwest

Progress on holes and trenching to define boundary

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Sally Carttar

Signature: 

Daily Site Visit Report

Client:	EOG Resources Inc.	Inspection Date:	1/25/2022
Site Location Name:	Gates AAC #2	Report Run Date:	1/26/2022 1:36 PM
Client Contact Name:	Chase Settle	API #:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	1/25/2022 7:45 AM
Departed Site	1/25/2022 5:05 PM

Field Notes

8:13 Another fairly cold day, warming up equipment after the safety meeting

8:16 Loading trucks

9:11 15 trucks loaded, redirecting to the holes we were digging yesterday

10:49 Holding sampling for further direction from PMs

13:08 Mapping excavation and preparing to take samples

13:16 Watering down the pad and right of way

13:22 BH22-01 thru BH22-25 are wall samples and BH22-26 thru BH22-50 are base samples to characterize excavation

17:05 Sampling and field screens completed

Next Steps & Recommendations

1

Daily Site Visit Report

Site Photos

Viewing Direction: East

Holes east of dig

Viewing Direction: Southeast

Oil that came out of removed pipe

Viewing Direction: Northeast

Current excavation

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Sally Carttar

Signature: 

Daily Soil Sampling

Client: Client: EOG Resources Inc.

Location: Site: Gates AAC #2

Date: (SD: 1/26/22)

Sampling											
		Field Screening							Data Collection		
		Hydrocarbon		Chloride							
Sample ID	Depth (ft)	VOC (PID)	TPH (ppm)	EC Reading (mS/cm)	Temp (°C)	EC Chloride (ppm)	Chloride Titration (ppm)	Lab Analysis	Photo Taken	Marked on Sketch	Refusal Depth (ft)
BH22-01	4.0	0	29	1.62	19.5	2304			✓	✓	
BH22-02	4.0	0	50	3.01	18.5	4354			✓	✓	
BH22-03	4.0	0	60	2.19	18.3	3179			✓	✓	
BH22-03	8.0	0	65	2.39	17.6	3498			✓	✓	
BH22-04	4.0	0	0	1.17	17.6	1737			✓	✓	
BH22-05	4.0	0	23	3.65	17.1	5338			✓	✓	
BH22-06	10.0	0	48	6.02	17.5	8742			✓	✓	
BH22-06	20.0	0	160	6.58	17.7	9541			✓	✓	
BH22-07	8.0	0	114	2.67	19	3842			✓	✓	
BH22-08	4.0	0	121	1.54	20.2	2159			✓	✓	
BH22-09	4.0	0	51	2.58	19.8	3677			✓	✓	
BH22-10	4.0	0	46	0.52	20.2	686			✓	✓	
BH22-11	4.0	0	20	0.59	20.8	762			✓	✓	
BH22-12	4.0	0	9	0.99	20.5	1352			✓	✓	
BH22-13	4.0	0	10	0.38	19.2	528			✓	✓	
BH22-14	4.0	0	12	0.61	19.3	855			✓	✓	
BH22-15	4.0	0	0	0.37	19.5	500			✓	✓	
BH22-16	4.0	0	15	0.46	19.9	613			✓	✓	
BH22-17	4.0	2	270	0.56	20.1	749			✓	✓	
BH22-18	4.0	0	116	0.89	20.1	1225			✓	✓	
BH22-19	4.0	0	78	1.38	20.6	1910			✓	✓	
BH22-20	8.0	0	32	3.16	16.9	4640			✓	✓	
BH22-21	8.0	0	36	2.51	17.1	3693			✓	✓	
BH22-22	8.0	0	112	2.92	17.3	4276			✓	✓	
BH22-23	10.0	1	150	3.14	20	4477			✓	✓	
BH22-23	20.0	1	182	1.98	19.9	2807			✓	✓	
BH22-24	20.0	1	220	4.61	19.4	6624			✓	✓	
BH22-25	20.0	0	266	2.82	20	4015			✓	✓	

Daily Soil Sampling

VERTEX

BH22-26	20.0	1	155	3.29	19.7	4706				✓	
BH22-27	8.0	0	92	3.18	20.2	4526				✓	
BH22-28	8.0	0	83	3.18	20.1	4530				✓	
BH22-29	8.0	0	89	3.63	20.2	5175				✓	
BH22-30	8.0	0	71	3.53	20.2	5031				✓	
BH22-31	4.0	0	118	3.38	20.4	4806				✓	
BH22-32	4.0	0	76	2.22	20.4	3131				✓	
BH22-33	4.0	0	54	3.58	20.5	5090				✓	
BH22-34	4.0	0	113	2.80	20.4	3969				✓	
BH22-35	4.0	0	76	2.45	18.7	3537				✓	
BH22-36	4.0	0	88	2.93	19.4	4199				✓	
BH22-37	4.0	0	65	4.06	18.9	5852				✓	
BH22-38	4.0	0	276	2.89	19.2	4150				✓	
BH22-39	4.0	0	93	2.24	21.3	3121				✓	
BH22-40	4.0	0	121	1.79	21.5	2463				✓	
BH22-41	4.0	0	71	2.08	21.7	2873				✓	
BH22-42	4.0	0	89	1.34	21.8	1801				✓	
BH22-43	4.0	0	22	0.28	19.8	357				✓	
BH22-44	4.0	0	110	2.38	20.5	3358				✓	
BH22-45	4.0	0	55	1.05	20.3	1447				✓	

Daily Site Visit Report

Client:	EOG Resources Inc.	Inspection Date:	1/26/2022
Site Location Name:	Gates AAC #2	Report Run Date:	1/26/2022 11:46 PM
Client Contact Name:	Chase Settle	API #:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	1/26/2022 10:00 AM
Departed Site	1/26/2022 4:01 PM

Field Notes

10:58 Moving dirt piles and loading trucks

11:26 Removing secondary stockpile from containment to allow further excavation

13:14 Planning a new traffic pattern to maximize efficiency by loading trucks in the excavation

15:12 Pretty dusty in the excavation, water truck is on its way

Next Steps & Recommendations

1 Continue excavating to get clean samples

Daily Site Visit Report

Site Photos

Viewing Direction: Southeast	**Viewing Direction**: South
	
Heard word from PM, will continue with excavation	Digging out eastern edge of excavation that was planned yesterday
Viewing Direction: South	**Viewing Direction**: Southwest
	
Loading trucks inside excavation	Everything getting watered down

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Sally Carttar

Signature: 

Daily Site Visit Report

Client:	EOG Resources Inc.	Inspection Date:	1/27/2022
Site Location Name:	Gates AAC #2	Report Run Date:	1/28/2022 3:18 PM
Client Contact Name:	Chase Settle	API #:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	1/27/2022 8:00 AM
Departed Site	1/27/2022 3:30 PM

Field Notes

8:11 Cold and frosty this morning. Warming up and de-icing the equipment before we start loading trucks

10:49 Second round of trucks trickling through

13:25 Finally getting some clean samples at the northwest corner

14:38 Watering the excavation and pad

15:05 Filling in sample holes for end of day

Next Steps & Recommendations

1 Move out 10’ on the two holes closest to the road and 5’ on the hole marked with x

2 Dig out everything inside the boundary

3 Continue to clean samples on all walls and base

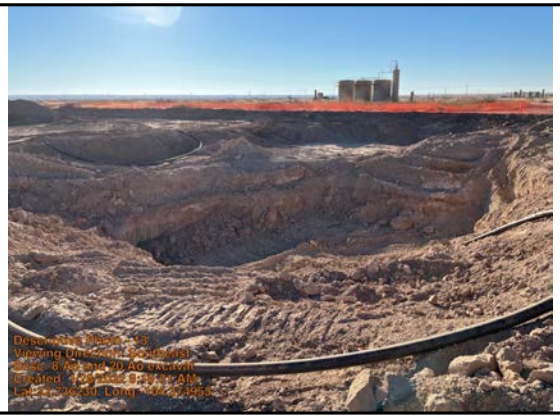
Daily Site Visit Report

Site Photos

Viewing Direction: Southeast	**Viewing Direction**: North
	
Digging at the southeast corner	8’ excavation
Viewing Direction: North	**Viewing Direction**: Northeast
	
4’ excavation under where lines were removed	20’ excavation

Daily Site Visit Report

Viewing Direction: Southeast



8’ and 20’ excavations

Viewing Direction: Northeast

Ramp across containment area for vehicle access

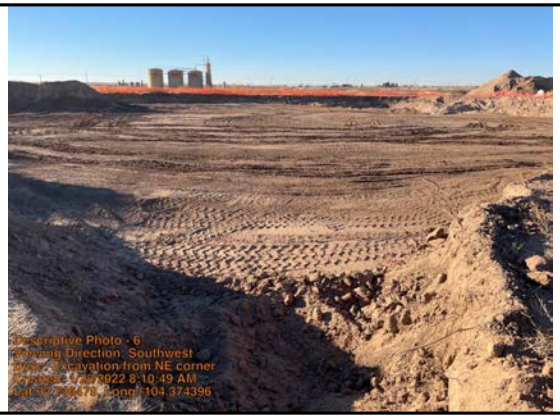
Viewing Direction: East

Starting to push the northern boundary of the excavation with trenches like those from Monday

Viewing Direction: Southeast

Reached the road with sampling on the north side

Daily Site Visit Report

Viewing Direction: Southeast	**Viewing Direction**: South
	
Excavation from NW corner	Excavation from N side
Viewing Direction: Southwest	**Viewing Direction**: West
	
Excavation from NE corner	Excavation from E side

Daily Site Visit Report

Viewing Direction: Northwest	**Viewing Direction**: North
	
Excavation from SE corner	Excavation from S side

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Sally Carttar

Signature: 

Daily Site Visit Report

Client:	EOG Resources Inc.	Inspection Date:	1/28/2022
Site Location Name:	Gates AAC #2	Report Run Date:	1/28/2022 10:17 PM
Client Contact Name:	Chase Settle	API #:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	1/28/2022 8:00 AM
Departed Site	1/28/2022 3:00 PM

Field Notes

8:47 Safety meeting complete, loading the first round of trucks. Looks like 16 today

9:01 Returning to sampling on the north where we left off yesterday

10:37 Reassessing yesterday's boundary using titration instead of EC

11:34 Have a new northern boundary established through titration, will start excavating out

13:39 Loading more trucks and continuing the excavation

14:43 Water truck on the way to spray everything down before the weekend

Next Steps & Recommendations

1 Finish digging on the remainder of the north side

2 Start working out into the pad area

3 Get to depth under the containment

Daily Site Visit Report

Site Photos

Viewing Direction: North	**Viewing Direction**: Northeast
	
Salt layer at 4’ coming back hot on ECs but clean on titration. Will be changing to using titration for the rest of the day	Eastern half of excavation from south side

Viewing Direction: Northwest	**Viewing Direction**: Northwest
	
Excavation from southeast corner	North half of excavation from eastern edge

Daily Site Visit Report

Viewing Direction: Southwest	**Viewing Direction**: Southeast
	
Excavation from northeast edge	Northeast edge of excavation
Viewing Direction: West	**Viewing Direction**: East
	
New north edge of excavation	New north edge of excavation

Daily Site Visit Report

Viewing Direction: East	**Viewing Direction**: Southeast
	
Digging out north wall to meet boundary established this morning	Excavation from NW corner
Viewing Direction: Southeast	**Viewing Direction**: East
	
Deep hole from NW corner	Excavation from west side

Daily Site Visit Report

Viewing Direction: Southeast	**Viewing Direction**: Northeast
	
Southern half of excavation	Northern half
Viewing Direction: Northeast	**Viewing Direction**: Northwest
	
Excavation from southwest corner	Western side of excavation from south edge

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Sally Carttar

Signature: 

Daily Site Visit Report

Client:	EOG Resources Inc.	Inspection Date:	1/31/2022
Site Location Name:	Gates AAC #2	Report Run Date:	2/1/2022 1:20 AM
Client Contact Name:	Chase Settle	API #:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	1/31/2022 7:45 AM
Departed Site	1/31/2022 3:15 PM

Field Notes

9:04 Loading 17 trucks this morning, planning to mostly dig today to flesh out the north side of the excavation as delineated on Friday.

9:09 A couple folks from WWS heading into Artesia to get replacements for some broken parts on one of the loaders.

9:55 Everyone's back on site, working to repair the loader before the next round of trucks arrive

10:45 Filling more trucks

13:42 Spraying water on the pad

Next Steps & Recommendations

1 Excavate down the west edge

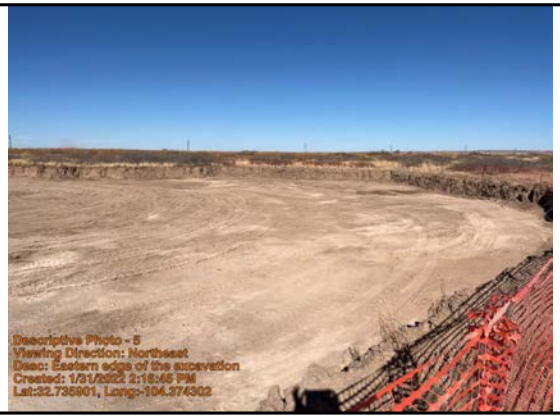
2 Dig out containment to depth

Daily Site Visit Report

Site Photos

Viewing Direction: Northwest	**Viewing Direction**: West
	
Excavation	Digging north of the containment
Viewing Direction: Northwest	**Viewing Direction**: North
	
Excavation	Excavation

Daily Site Visit Report

Viewing Direction: Northeast	**Viewing Direction**: Northeast
	
Eastern edge of the excavation	Northern extent of the excavation

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Sally Carttar

Signature: 

Daily Site Visit Report

Client:	EOG Resources Inc.	Inspection Date:	2/1/2022
Site Location Name:	Gates AAC #2	Report Run Date:	2/1/2022 10:00 PM
Client Contact Name:	Chase Settle	API #:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	2/1/2022 8:00 AM
Departed Site	2/1/2022 3:00 PM

Field Notes

10:22 Continue excavation along west wall

10:23 Collecting composite samples along west wall to determine if a further step out is needed or can move further down

11:02 Using titration to get closer field screen readings. Potential for screens very close to meeting criteria to send in and run for chlorides only to get a good idea of where numbers can be to come back clean from lab

13:03 Finishing taking out portion of containment area to deepest point and move north to finish the 6 ft area

14:46 Portion near west wall slopes up and samples collected at 8 ft base and wall samples 4-8 ft. All clean for guidance on field screens

Next Steps & Recommendations

1. Determine remaining excavation area to the south and west
2. Backfill to be completed before dtgw determination
3. Leave excavation open until dtgw determined
4. Backfill go consist of only top soil or both top soil and caliche along with west area near pad

Daily Site Visit Report

Site Photos

Viewing Direction: North	**Viewing Direction**: West
	
Wall area	Current excavation
Viewing Direction: Southwest	**Viewing Direction**: Southwest
	
Deepest area of excavation	West wall on pad area

Daily Site Visit Report

Viewing Direction: South	**Viewing Direction**: East
	
20 ft area	Northern area
Viewing Direction: North	**Viewing Direction**: East
	
West wall	Current excavation

Daily Site Visit Report

Viewing Direction: Northeast	**Viewing Direction**: Southeast
	
Current excavation	Current excavation
Viewing Direction: South	**Viewing Direction**: Southwest
	
Current excavation	Current excavation

Daily Site Visit Report

Viewing Direction: Northwest

Current excavation

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Monica Peppin

Signature:

Daily Site Visit Report

Client:	EOG Resources Inc.	Inspection Date:	2/2/2022
Site Location Name:	Gates AAC #2	Report Run Date:	2/2/2022 11:32 PM
Client Contact Name:	Chase Settle	API #:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	2/2/2022 7:45 AM
Departed Site	2/2/2022 3:31 PM

Field Notes

8:59 Loading trucks and working on the loader

11:33 Sampled north side of deep excavation, getting hotter on chlorides.

12:47 Continuing to load trucks as they come in, WWS still working on the loader

14:51 Hearing about worsening road conditions in the area, starting to close up for the day to get everyone home safe

Next Steps & Recommendations

1 Chase chlorides north from deep section

2 Finish out the 4’ extent to the west

3 Dig the north end of the containment down to 6’

Daily Site Visit Report

Site Photos

Viewing Direction: East

East wall of deep excavation discolored at 18’

Viewing Direction: East

Bringing center of containment back down to 4’

Viewing Direction: South

Terracing on deep section

Viewing Direction: Southeast

Northern part of excavation

Daily Site Visit Report

Viewing Direction: Northeast

Northern part of excavation

Viewing Direction: Northeast

Northern wall of deep section

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Sally Carttar

Signature: 

Daily Site Visit Report

Client:	EOG Resources Inc.	Inspection Date:	2/7/2022
Site Location Name:	Gates AAC #2	Report Run Date:	2/8/2022 3:21 PM
Client Contact Name:	Chase Settle	API #:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	2/7/2022 8:30 AM
Departed Site	2/7/2022 4:15 PM

Field Notes

9:06 On site a little late because of Vertex monthly safety meeting, loading trucks now after completing tailgate

10:48 Got a clean sample on part of the north wall of the pit, fine-tuning the rest of the wall to get clean

13:08 Clean samples on north wall of deep section

14:57 South wall still hot after taking off a foot, will dig farther south tomorrow

Next Steps & Recommendations

1 Remove ramp down to 6’ where planned and down to 4’ in pasture

2 Head farther south from sample points 1, 2, 19, and 18 to get clean

3 Slope and terrace the excavation in case we have to leave it for an extended amount of time

4 Clean up pad

Daily Site Visit Report

Site Photos

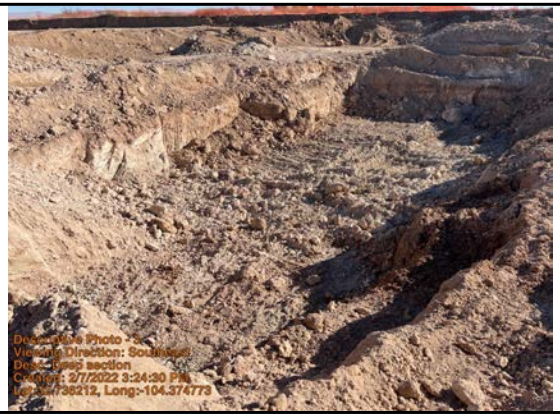
Viewing Direction: Southwest

Old pipe going out under pad from west wall

Viewing Direction: East

Took off a foot along south wall where labs came back hot

Viewing Direction: Southeast



Deep section

Viewing Direction: Southwest

Deep section

Daily Site Visit Report

Viewing Direction: East	**Viewing Direction**: Southeast
	
North wall of deep section	Southern portion of excavation
Viewing Direction: East	**Viewing Direction**: Southeast
	
North end	Excavation from northwest corner

Daily Site Visit Report

Viewing Direction: East

Excavation

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Sally Carttar

Signature: 

Daily Site Visit Report

Client:	EOG Resources Inc.	Inspection Date:	2/8/2022
Site Location Name:	Gates AAC #2	Report Run Date:	2/9/2022 12:01 AM
Client Contact Name:	Chase Settle	API #:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	2/8/2022 7:45 AM
Departed Site	2/8/2022 4:15 PM

Field Notes

8:20 Safety meeting complete, warming up loaders

8:25 Preparing to block off the road to start digging south for chlorides

8:27 Only have 6 trucks on site, trying to track down the rest

8:44 May be running only 8 of 10 trucks today

9:48 Still getting chloride values around 1000 1-2 feet into the road

12:36 Approaching clean in the road

13:50 Digging to the edge of the road in one section

13:59 Still seeing delays from the backlog at Lea Land, some trucks will only run 2 loads today

16:09 Approx. 3:30 WWS operator caught his hand between stake and the hammer, stake went through between thumb and index finger. Left for hospital 3:37.

Next Steps & Recommendations

1 Follow up after injury

2 See if we have permission to go beyond road, chase chlorides accordingly

Daily Site Visit Report

3 Finish cleaning up excavation and loading out dirt, prepare site to be on standby

Daily Site Visit Report

Site Photos

Viewing Direction: South

Pad sprayed

Viewing Direction: Southeast

Finishing up the 6’ section at the north end of the containment

Viewing Direction: Southeast

Southern part of dig

Viewing Direction: East

Southern edge of dig into road

Daily Site Visit Report

Viewing Direction: North	**Viewing Direction**: West
	
Dig from new south edge	New south edge
Viewing Direction: West	**Viewing Direction**: West
	
Stake similar to the one that went through hand	Approximate location of incident

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Sally Carttar

Signature: 

Daily Site Visit Report

Client:	EOG Resources Inc.	Inspection Date:	2/9/2022
Site Location Name:	Gates AAC #2	Report Run Date:	2/9/2022 11:10 PM
Client Contact Name:	Chase Settle	API #:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	2/9/2022 7:45 AM
Departed Site	2/9/2022 4:15 PM

Field Notes

9:15 Safety meeting complete, loading trucks

9:43 Digging on the road on the northwest wall in 1’ increments

16:08 25 truck loads sent to landfill

16:09 Watered pad about 2:00

Next Steps & Recommendations

1 Work west and south pending approval

2 Continue with confirmation sampling

Daily Site Visit Report

Site Photos

Viewing Direction: Northeast	**Viewing Direction**: Southwest
	
Concrete block found along west wall	Pad area
Viewing Direction: North	**Viewing Direction**: Northwest
	
New west wall north of ramp	Northwest quadrant of excavation

Daily Site Visit Report

Viewing Direction: South	**Viewing Direction**: Southwest
	
South side of excavation	Southwest quadrant
Viewing Direction: West	**Viewing Direction**: Northwest
	
West side	New west wall north of ramp

Daily Site Visit Report

Viewing Direction: Southeast

South half of excavation from ramp

Viewing Direction: Northeast

North half of excavation from ramp

Viewing Direction: Southeast

8’ and 20’ excavations

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Sally Carttar

Signature: 

Daily Site Visit Report

Client:	EOG Resources Inc.	Inspection Date:	2/10/2022
Site Location Name:	Gates AAC #2	Report Run Date:	2/10/2022 11:04 PM
Client Contact Name:	Chase Settle	API #:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	2/10/2022 3:15 PM
Departed Site	2/10/2022 4:00 PM

Field Notes

15:38 WWS working on loading/unloading equipment for site transfer

15:40 Holding off for now on sloping the sides of the 4’ excavation, will slope early next week or after confirmation sampling.

15:54 25 truckloads sent to landfill

Next Steps & Recommendations

1. Hold for approval from NMOCD
2. Continue with confirmation sampling
3. Still need clean samples on west and south walls, depending on permissions.

Daily Site Visit Report

Site Photos

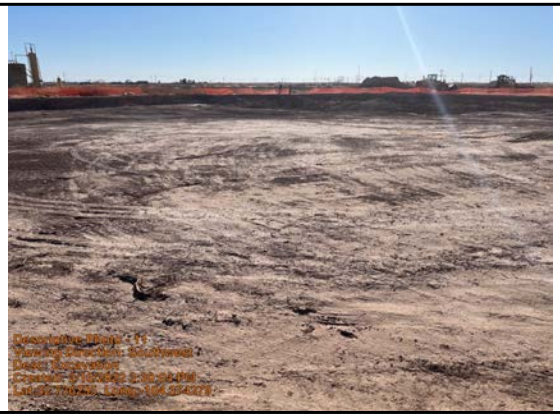
Viewing Direction: Southeast

Containment area excavation completed, ramp removed

Viewing Direction: Southeast

Eastern side

Viewing Direction: Southwest

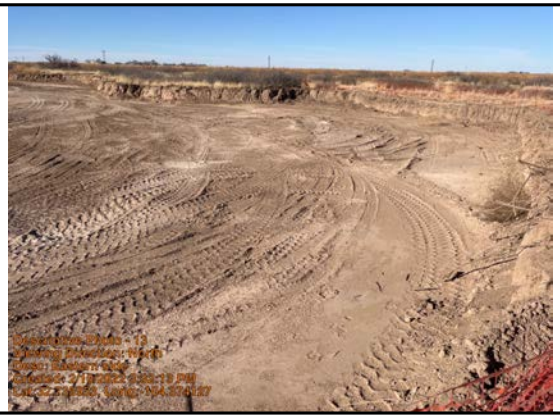


Excavation

Viewing Direction: West

Excavation from background sample location

Daily Site Visit Report

Viewing Direction: North	**Viewing Direction**: West
	
Eastern side	Southern half
Viewing Direction: South	**Viewing Direction**: Southeast
	
Containment area	North half of containment

Daily Site Visit Report

Viewing Direction: Northeast	**Viewing Direction**: Southeast
	
Western half of excavation	Former ramp location
Viewing Direction: Southwest	**Viewing Direction**: Southeast
	
Cleaning up pad with blade	Excavation

Daily Site Visit Report

Viewing Direction: South

Excavation

Viewing Direction: Southwest

West half of excavation

Viewing Direction: West

Northwest corner of excavation

Viewing Direction: Southeast

Northeast side

Daily Site Visit Report

Viewing Direction: Northwest

Northern half

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Sally Carttar

Signature: 

ATTACHMENT 5

New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	RA 09466	3	3	1	22	18S	26E	558353	3621996*

Driller License: 1064 **Driller Company:** DELFORD W. MARTIN

Driller Name: MARTIN, DELFORD

Drill Start Date:	12/15/1997	**Drill Finish Date:**	12/16/1997	**Plug Date:**	
Log File Date:	12/24/1997	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	20 GPM
Casing Size:	5.50	**Depth Well:**	160 feet	**Depth Water:**	70 feet

Water Bearing Stratifications:	Top	Bottom	Description
	92	154	Shallow Alluvium/Basin Fill

Casing Perforations:	Top	Bottom
	94	154

***UTM location was derived from PLSS - see Help**

ATTACHMENT 6

MIKE A. HAMMAN, P.E.
STATE ENGINEER

P.O. Box 25102
Santa Fe, NM 87504

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

District VI – Santa Fe

DATE: 2/28/22

OSE FILE NBR: _____

○ Application for permit to change an existing Water Right ○ Extension of Time ○ Emergency Authorization

~~○~~ New Well Permit ~~○~~ Plugging Plan of Operation

○ Change of Ownership ○ Meter Reading Form

Other type of Application (Specify): WR-07 NO WATER RIGHT

The document you submitted for action was not accepted/ rejected for the following reason(s):

○ Recorded Warranty Deed(s) for subject property is/are not attached

~~○~~ Filing must be in duplicate/triplicate with original signature on each copy

○ Deed(s) have not been recorded with the county

○ Incomplete form/Incorrect form

○ Incomplete Chain of Title

○ Critical management Area – No new appropriations

○ Plat map for property was not attached (cannot determine subject land)

○ Missing details for plugging plan (well depth, static water level, theoretical volume, etc.)

○ Coordinates provided, coordinate system, or units are incorrect

○ Missing details for change of Ownership (file number, subfile number, diversion amount, priority, ditch name, etc.)

○ Payment not submitted/Incorrect filing fee

○ Incomplete notary/Missing Notary

○ Acequia commission consent form is not included

Other: Application must be submitted w/ original signatures on duplicate/triplicate application copies.

Please complete the checked/noted deficiency(s) and return to this office within 14 days of the dated notice. If the checked/noted deficiency(s) is not corrected and returned within 14 days, your paperwork will be returned without action and you're filing fee will be forfeited and a new filing fee will be required.

If you have questions, please call our Office at (505)827-6120

OSE – District VI Staff

RECEIVED
MAR 3 2022
EOG RESOURCES, INC.
Artesia Division

File No.

NEW MEXICO OFFICE OF THE STATE ENGINEER

WR-07 APPLICATION FOR PERMIT TO DRILL

A WELL WITH NO WATER RIGHT

(check applicable box):

For fees, see State Engineer website: http://www.ose.state.nm.us/

Purpose:	☐ Pollution Control And/Or Recovery	☐ Ground Source Heat Pump
☐ Exploratory Well (Pump test)	☐ Construction Site/Public Works Dewatering	☐ Other(Describe):
☒ Monitoring Well	☐ Mine Dewatering	

A separate permit will be required to apply water to beneficial use regardless if use is consumptive or nonconsumptive.

☒ Temporary Request - Requested Start Date: 2/21/2022 Requested End Date: 3/31/2022

Plugging Plan of Operations Submitted? ☒ Yes ☐ No

1. APPLICANT(S)

Name: EOG Resources, Inc	Name:
Contact or Agent: check here if Agent ☐ Robert Asher	Contact or Agent: check here if Agent ☐
Mailing Address: 104 South Fourth Street	Mailing Address:
City: Artesia	City:
State: Zip Code: NM 88210	State: Zip Code:
Phone: 575-748-4217 ☐ Home ☐ Cell Phone (Work):	Phone: ☐ Home ☐ Cell Phone (Work):
E-mail (optional): bob_asher@eogresources.com	E-mail (optional):

FOR OSE INTERNAL USE Application for Permit, Form WR-07, Rev 11/17/16

File No.:	Trn. No.:	Receipt No.:
Trans Description (optional):		
Sub-Basin:	PCW/LOG Due Date:	

2. **WELL(S)** Describe the well(s) applicable to this application.

Location Required: Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), or Latitude/Longitude (Lat/Long - WGS84).
District II (Roswell) and District VII (Cimarron) customers, provide a PLSS location in addition to above.

☐ NM State Plane (NAD83) (Feet)
☐ NM West Zone
☐ NM East Zone
☐ NM Central Zone

☐ UTM (NAD83) (Meters)
☐ Zone 12N
☐ Zone 13N

■ Lat/Long (WGS84) (to the nearest 1/10th of second)

Well Number (if known):	X or Easting or Longitude:	Y or Northing or Latitude:	Provide if known: -Public Land Survey System (PLSS) (*Quarters or Halves , Section, Township, Range*) OR - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name
	32.734210	-104.381822	Unit Letter 'H', Section 21, T18S, R26E

NOTE: If more well locations need to be described, complete form WR-08 (Attachment 1 – POD Descriptions)
Additional well descriptions are attached: ☐ Yes ■ No **If yes, how many**_____

Other description relating well to common landmarks, streets, or other:

Well is on land owned by: EOG Resources, Inc.

Well Information: NOTE: If more than one (1) well needs to be described, provide attachment. Attached? ☐ Yes ■ No
If yes, how many_____

Approximate depth of well (feet): 55'	Outside diameter of well casing (inches): N/A
Driller Name: Hungry Horse, LLC	Driller License Number: 1755

3. **ADDITIONAL STATEMENTS OR EXPLANATIONS**

The borehole will be drilled according to NMOCD request. Depth to water data for the wells within a half mile of the site are all over 25 years old. Attempted to gauge one well and found the well had collapsed. Permission to gauge any other of these wells could not be obtained. As per NMOCD, drill a 55' borehole, wait 72 hrs, and check for presence of water. If water is present driller will notify NMOSE and NMOCD for guidance on possibly converting the well to a monitoring well. If no water is present the well will be plugged.

FOR OSE INTERNAL USE — Application for Permit, Form WR-07

File No.:	Trn No.:

4. SPECIFIC REQUIREMENTS: The applicant must include the following, as applicable to each well type. Please check the appropriate boxes, to indicate the information has been included and/or attached to this application:

Exploratory: ☐ Include a description of any proposed pump test, if applicable.	**Pollution Control and/or Recovery:** ☐ Include a plan for pollution control/recovery, that includes the following: ☐ A description of the need for the pollution control or recovery operation. ☐ The estimated maximum period of time for completion of the operation. ☐ The annual diversion amount. ☐ The annual consumptive use amount. ☐ The maximum amount of water to be diverted and injected for the duration of the operation. ☐ The method and place of discharge.	**Construction De-Watering:** ☐ Include a description of the proposed dewatering operation, ☐ The estimated duration of the operation, ☐ The maximum amount of water to be diverted, ☐ A description of the need for the dewatering operation, and, ☐ A description of how the diverted water will be disposed of.	**Mine De-Watering:** ☐ Include a plan for pollution control/recovery, that includes the following: ☐ A description of the need for mine dewatering. ☐ The estimated maximum period of time for completion of the operation. ☐ The source(s) of the water to be diverted. ☐ The geohydrologic characteristics of the aquifer(s). ☐ The maximum amount of water to be diverted per annum. ☐ The maximum amount of water to be diverted for the duration of the operation. ☐ The quality of the water. ☐ The method of measurement of water diverted. ☐ The recharge of water to the aquifer. ☐ Description of the estimated area of hydrologic effect of the project. ☐ The method and place of discharge. ☐ An estimation of the effects on surface water rights and underground water rights from the mine dewatering project. ☐ A description of the methods employed to estimate effects on surface water rights and underground water rights. ☐ Information on existing wells, rivers, springs, and wetlands within the area of hydrologic effect.
Monitoring: ■ Include the reason for the monitoring well, and, ■ The duration of the planned monitoring.	☐ The method of measurement of water produced and discharged. ☐ The source of water to be injected. ☐ The method of measurement of water injected. ☐ The characteristics of the aquifer. ☐ The method of determining the resulting annual consumptive use of water and depletion from any related stream system. ☐ Proof of any permit required from the New Mexico Environment Department. ☐ An access agreement if the applicant is not the owner of the land on which the pollution plume control or recovery well is to be located.	**Ground Source Heat Pump:** ☐ Include a description of the geothermal heat exchange project, ☐ The number of boreholes for the completed project and required depths. ☐ The time frame for constructing the geothermal heat exchange project, and, ☐ The duration of the project. ☐ Preliminary surveys, design data, and additional information shall be included to provide all essential facts relating to the request.	

ACKNOWLEDGEMENT

I, We (name of applicant(s)), Robert Asher
Print Name(s)

affirm that the foregoing statements are true to the best of (my, our) knowledge and belief.

Applicant Signature

Applicant Signature

ACTION OF THE STATE ENGINEER

This application is:

☐ approved ☐ partially approved ☐ denied

provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare and further subject to the attached conditions of approval.

Witness my hand and seal this _____ day of _____ 20 _____ , for the State Engineer,

_____, State Engineer

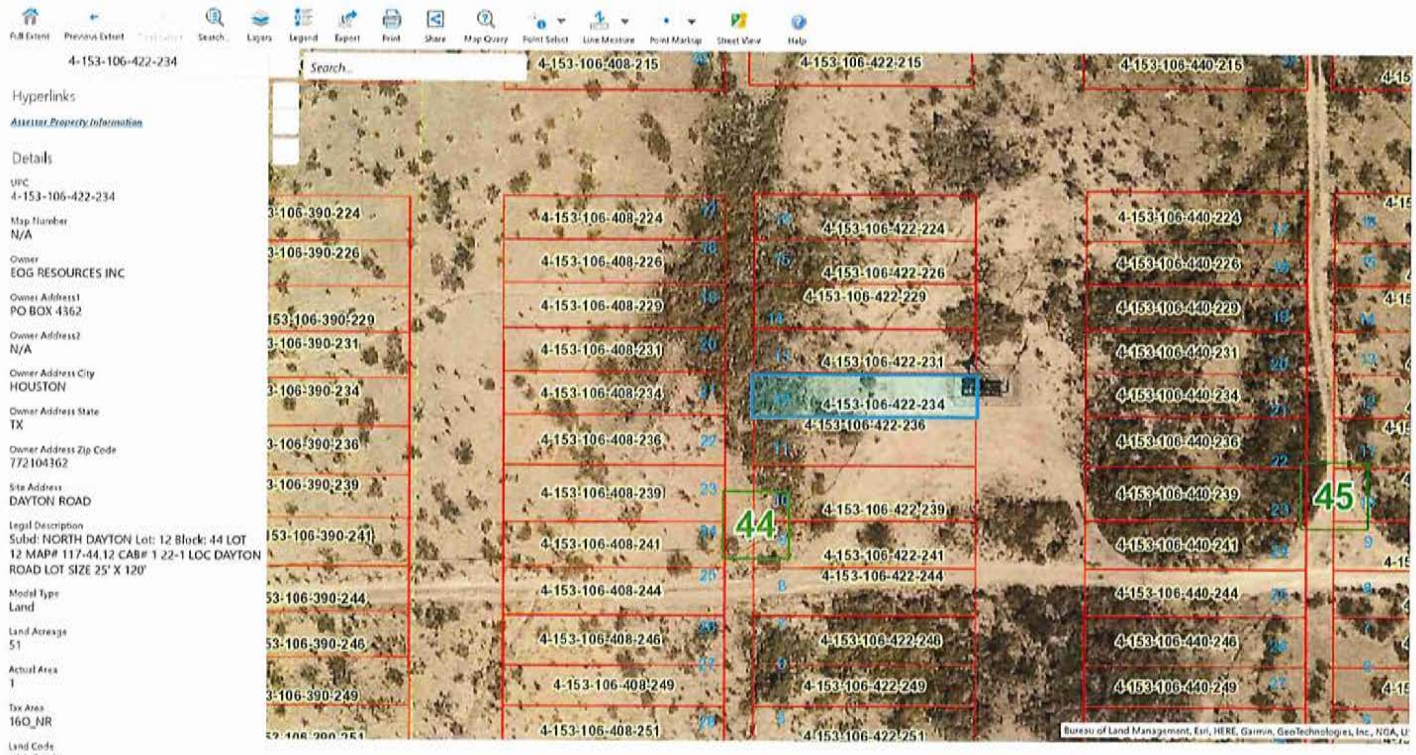
By: _____ _____
Signature Print

Title: _____
Print

FOR OSE INTERNAL USE

Application for Permit, Form WR-07

File No.:	Trn No.:



WELL PLUGGING PLAN OF OPERATIONS

NOTE: A Well Plugging Plan of Operations shall be filed with and accepted by the Office of the State Engineer prior to plugging. This form may be used to plug a single well, or if you are plugging multiple monitoring wells on the same site using the same plugging methodology.

Alert! Your well may be eligible to participate in the Aquifer Mapping Program (AMP)-NM Bureau of Geology geoinfo.nmt.edu/resources/water/cgmn/ if within an area of interest and meets the minimum construction requirements, such as there is still water in your well, and the well construction reflected in a well record and log is not compromised, contact AMP at 575-835-5038 or -6951, or by email nmbg-waterlevels@nmt.edu, prior to completing this prior form. Showing proof to the OSE that your well was accepted in this program, may delay the plugging of your well until a later date.

I. FILING FEE: There is no filing fee for this form.

II. GENERAL / WELL OWNERSHIP: ☐ Check here if proposing one plan for multiple monitoring wells on the same site and attaching WD-08m

Existing Office of the State Engineer POD Number (Well Number) for well to be plugged: _____

Name of well owner: EOG Resources, Inc.

Mailing address: 104 South Fourth Street County: Eddy

City: Artesia State: NM Zip code: 88210

Phone number: 575-748-4217 E-mail: bob_asher@gmail.com

III. WELL DRILLER INFORMATION:

Well Driller contracted to provide plugging services: Hungry Horse, LLC

New Mexico Well Driller License No.: 1755 Expiration Date: 10/14/2023

IV. WELL INFORMATION: ☐ **Check here if this plan describes method for plugging multiple monitoring wells on the same site and attach supplemental form WD-08m and skip to #2 in this section.**

Note: A copy of the existing Well Record for the well(s) to be plugged should be attached to this plan.

1) GPS Well Location: Latitude: 32 deg, 44 min, 3.16 sec
Longitude: 104 deg, 22 min, 54.56 sec, NAD 83

2) Reason(s) for plugging well(s):

No water present

3) Was well used for any type of monitoring program? Yes If yes, please use section VII of this form to detail what hydrogeologic parameters were monitored. If the well was used to monitor contaminated or poor quality water, authorization from the New Mexico Environment Department may be required prior to plugging.

4) Does the well tap brackish, saline, or otherwise poor quality water? No If yes, provide additional detail, including analytical results and/or laboratory report(s): N/A

5) Static water level: >100 feet below land surface / feet above land surface (circle one)

6) Depth of the well: 55 feet

7) Inside diameter of innermost casing: N/A inches.

8) Casing material: N/A

9) The well was constructed with:

☐ an open-hole production interval, state the open interval: N/A

☐ a well screen or perforated pipe, state the screened interval(s): N/A

10) What annular interval surrounding the artesian casing of this well is cement-grouted? N/A

11) Was the well built with surface casing? No If yes, is the annulus surrounding the surface casing grouted or otherwise sealed? N/A If yes, please describe:

N/A

12) Has all pumping equipment and associated piping been removed from the well? N/A If not, describe remaining equipment and intentions to remove prior to plugging in Section VII of this form.

V. DESCRIPTION OF PLANNED WELL PLUGGING:

☐ **If plugging method differs between multiple wells on same site, a separate form must be completed for each method.**

Note: If this plan proposes to plug an artesian well in a way other than with cement grout, placed bottom to top with a tremie pipe, a detailed diagram of the well showing proposed final plugged configuration shall be attached, as well as any additional technical information, such as geophysical logs, that are necessary to adequately describe the proposal. Attach a copy of any signed OSE variance to this plugging plan.

Also, if this planned plugging plan requires a variance to 19.27.4 NMAC, attach a detailed variance request signed by the applicant.

1) Describe the method by which cement grout shall be placed in the well, or describe requested plugging methodology proposed for the well:

The borehole will be grouted using a tremie pipe, from the bottom to the surface.

2) Will well head be cut-off below land surface after plugging? N/A

VI. PLUGGING AND SEALING MATERIALS:

Note: The plugging of a well that taps poor quality water may require the use of a specialty cement or specialty sealant. Attach a copy of the batch mix recipe from the cement company and/or product description for specialty cement mixes or any sealant that deviates from the list of OSE approved sealants.

1) For plugging intervals that employ cement grout, complete and attach Table A.

2) For plugging intervals that will employ approved non-cement based sealant(s), complete and attach Table B.

3) Theoretical volume of grout required to plug the well to land surface: 3 bags

4) Type of Cement proposed: Bentonite Pellets

5) Proposed cement grout mix: N/A gallons of water per 94 pound sack of Portland cement.

6) Will the grout be: _____ batch-mixed and delivered to the site

X mixed on site

7) Grout additives requested, and percent by dry weight relative to cement:

N/A

8) Additional notes and calculations:

N/A

VII. ADDITIONAL INFORMATION: List additional information below, or on separate sheet(s):

72 hours after drilling, the well (32.734210, -104.381822) will be checked for the presence of water. If water is present the NMOSE and NMOCD will be notified for guidance on possible conversion to monitor well. If no water is present the well will be plugged according to NMOSE Well Plugging Handbook, Appendix A, Permit Condition 6E. Within 20 days of well plugging, driller will submit Well Plugging Record WD-11 to NMOSE. The maximum period of time for completion of the operation will be 30 days.

VIII. SIGNATURE:

I, Robert Asher, say that I have carefully read the foregoing Well Plugging Plan of Operations and any attachments, which are a part hereof; that I am familiar with the rules and regulations of the State Engineer pertaining to the plugging of wells and will comply with them, and that each and all of the statements in the Well Plugging Plan of Operations and attachments are true to the best of my knowledge and belief.

Signature of Applicant — Date: 2/24/2022

IX. ACTION OF THE STATE ENGINEER:

This Well Plugging Plan of Operations is:

_____ Approved subject to the attached conditions.
_____ Not approved for the reasons provided on the attached letter.

Witness my hand and official seal this _____ day of _____, _____

John R. D'Antonio Jr. P.E., New Mexico State Engineer

By: _____

TABLE A - For plugging intervals that employ cement grout. Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of grout placement (ft bgl)			
Bottom of proposed interval of grout placement (ft bgl)			
Theoretical volume of grout required per interval (gallons)			
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement			
Mixed on-site or batch-mixed and delivered?			
Grout additive 1 requested			
Additive 1 percent by dry weight relative to cement			
Grout additive 2 requested			
Additive 2 percent by dry weight relative to cement			

TABLE B - For plugging intervals that will employ approved non-cement based sealant(s). Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of sealant placement (ft bgl)	10	0	
Bottom of proposed sealant of grout placement (ft bgl)	55	10	
Theoretical volume of sealant required per interval (gallons)	N/A	N/A	
Proposed abandonment sealant (manufacturer and trade name)	native soil	bentonite	

File No.

NEW MEXICO OFFICE OF THE STATE ENGINEER

WR-07 APPLICATION FOR PERMIT TO DRILL

A WELL WITH NO WATER RIGHT

(check applicable box):

For fees, see State Engineer website: http://www.ose.state.nm.us/

Purpose:	☐ Pollution Control And/Or Recovery	☐ Ground Source Heat Pump
☐ Exploratory Well (Pump test)	☐ Construction Site/Public Works Dewatering	☐ Other(Describe):
☒ Monitoring Well	☐ Mine Dewatering	

A separate permit will be required to apply water to beneficial use regardless if use is consumptive or nonconsumptive.

☒ Temporary Request - Requested Start Date: 2/21/2022 Requested End Date: 3/31/2022

Plugging Plan of Operations Submitted? ☒ Yes ☐ No

1. APPLICANT(S)

Name: EOG Resources, Inc	Name:
Contact or Agent: check here if Agent ☐ Robert Asher	Contact or Agent: check here if Agent ☐
Mailing Address: 104 South Fourth Street	Mailing Address:
City: Artesia	City:
State: NM Zip Code: 88210	State: Zip Code:
Phone: 575-748-4217 ☐ Home ☐ Cell Phone (Work):	Phone: ☐ Home ☐ Cell Phone (Work):
E-mail (optional): bob_asher@eogresources.com	E-mail (optional):

FOR OSE INTERNAL USE Application for Permit, Form WR-07, Rev 11/17/16

File No.:	Trn. No.:	Receipt No.:
Trans Description (optional):		
Sub-Basin:	PCW/LOG Due Date:	

2. WELL(S) Describe the well(s) applicable to this application.

Location Required: Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), or Latitude/Longitude (Lat/Long - WGS84).
District II (Roswell) and District VII (Cimarron) customers, provide a PLSS location in addition to above.

☐ NM State Plane (NAD83) (Feet)
☐ NM West Zone
☐ NM East Zone
☐ NM Central Zone

☐ UTM (NAD83) (Meters)
☐ Zone 12N
☐ Zone 13N

■ Lat/Long (WGS84) (to the nearest 1/10th of second)

Well Number (if known):	X or Easting or Longitude:	Y or Northing or Latitude:	Provide if known: -Public Land Survey System (PLSS) (*Quarters or Halves , Section, Township, Range*) OR - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name
	32.734210	-104.381822	Unit Letter 'H', Section 21, T18S, R26E

NOTE: If more well locations need to be described, complete form WR-08 (Attachment 1 – POD Descriptions)
Additional well descriptions are attached: ☐ Yes ■ No If yes, how many_____

Other description relating well to common landmarks, streets, or other:

Well is on land owned by: EOG Resources, Inc.

Well Information: NOTE: If more than one (1) well needs to be described, provide attachment. Attached? ☐ Yes ■ No
If yes, how many_____

Approximate depth of well (feet): 55'	Outside diameter of well casing (inches): N/A
Driller Name: Hungry Horse, LLC	Driller License Number: 1755

3. ADDITIONAL STATEMENTS OR EXPLANATIONS

The borehole will be drilled according to NMOCD request. Depth to water data for the wells within a half mile of the site are all over 25 years old. Attempted to gauge one well and found the well had collapsed. Permission to gauge any other of these wells could not be obtained. As per NMOCD, drill a 55' borehole, wait 72 hrs, and check for presence of water. If water is present driller will notify NMOSE and NMOCD for guidance on possibly converting the well to a monitoring well. If no water is present the well will be plugged.

4. SPECIFIC REQUIREMENTS: The applicant must include the following, as applicable to each well type. Please check the appropriate boxes, to indicate the information has been included and/or attached to this application:

Exploratory:	**Pollution Control and/or Recovery:**	**Construction De-Watering:**	**Mine De-Watering:**
☐ Include a description of any proposed pump test, if applicable.	☐ Include a plan for pollution control/recovery, that includes the following: ☐ A description of the need for the pollution control or recovery operation. ☐ The estimated maximum period of time for completion of the operation. ☐ The annual diversion amount. ☐ The annual consumptive use amount. ☐ The maximum amount of water to be diverted and injected for the duration of the operation. ☐ The method and place of discharge.	☐ Include a description of the proposed dewatering operation, ☐ The estimated duration of the operation, ☐ The maximum amount of water to be diverted, ☐ A description of the need for the dewatering operation, and, ☐ A description of how the diverted water will be disposed of.	☐ Include a plan for pollution control/recovery, that includes the following: ☐ A description of the need for mine dewatering. ☐ The estimated maximum period of time for completion of the operation. ☐ The source(s) of the water to be diverted. ☐ The geohydrologic characteristics of the aquifer(s). ☐ The maximum amount of water to be diverted per annum. ☐ The maximum amount of water to be diverted for the duration of the operation. ☐ The quality of the water. ☐ The method of measurement of water diverted. ☐ The recharge of water to the aquifer. ☐ Description of the estimated area of hydrologic effect of the project. ☐ The method and place of discharge. ☐ An estimation of the effects on surface water rights and underground water rights from the mine dewatering project. ☐ A description of the methods employed to estimate effects on surface water rights and underground water rights. ☐ Information on existing wells, rivers, springs, and wetlands within the area of hydrologic effect.
Monitoring: ■ Include the reason for the monitoring well, and, ■ The duration of the planned monitoring.	☐ The method of measurement of water produced and discharged. ☐ The source of water to be injected. ☐ The method of measurement of water injected. ☐ The characteristics of the aquifer. ☐ The method of determining the resulting annual consumptive use of water and depletion from any related stream system. ☐ Proof of any permit required from the New Mexico Environment Department. ☐ An access agreement if the applicant is not the owner of the land on which the pollution plume control or recovery well is to be located.	**Ground Source Heat Pump:** ☐ Include a description of the geothermal heat exchange project, ☐ The number of boreholes for the completed project and required depths. ☐ The time frame for constructing the geothermal heat exchange project, and, ☐ The duration of the project. ☐ Preliminary surveys, design data, and additional information shall be included to provide all essential facts relating to the request.	

ACKNOWLEDGEMENT

I, We (name of applicant(s)), Robert Asher
Print Name(s)

affirm that the foregoing statements are true to the best of (my, our) knowledge and belief.

Applicant Signature

Applicant Signature

ACTION OF THE STATE ENGINEER

This application is:

☐ approved ☐ partially approved ☐ denied

provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare and further subject to the attached conditions of approval.

Witness my hand and seal this _____ day of _____ 20 _____ , for the State Engineer,

_____, State Engineer

By: _____ _____
Signature Print

Title: _____
Print

FOR OSE INTERNAL USE

Application for Permit, Form WR-07

File No.:	Trn No.:

Full Extent | Previous Extent | Search | Layers | Legend | Export | Print | Share | Map Query | Point Select | Line Measure | Point Markup | Street View | Help

4-153-106-422-234

Hyperlinks

Assessor Property Information

Details

UPC
4-153-106-422-234

Map Number
N/A

Owner
EOG RESOURCES INC

Owner Address1
PO BOX 4362

Owner Address2
N/A

Owner Address City
HOUSTON

Owner Address State
TX

Owner Address Zip Code
772104362

Site Address
DAYTON ROAD

Legal Description
Subd: NORTH DAYTON Lot: 12 Block: 44 LOT 12 MAP# 117-44,12 CAB# 1 22-1 LOC DAYTON ROAD LOT SIZE 25' X 120'

Model Type
Land

Land Acreage
51

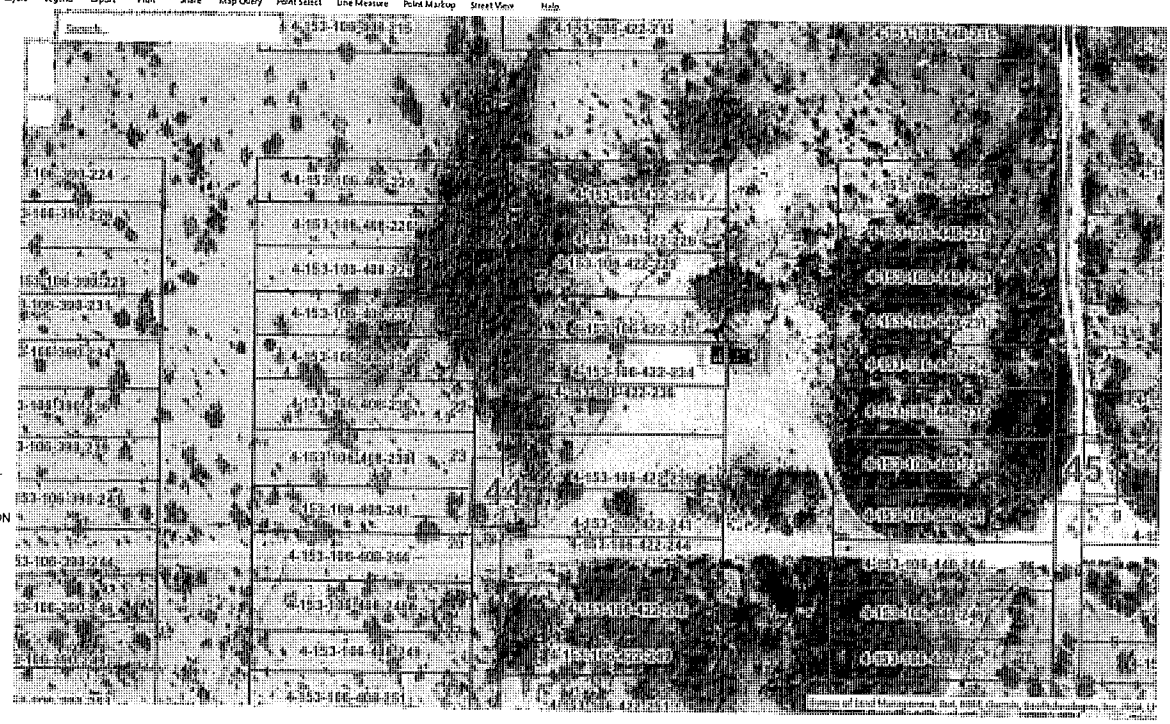
Actual Area
1

Tax Area
160_NR

Land Code
106_50_01

Book
N/A

Page
N/A



4-153-106-422-234 | World St... | 0 20 40ft | Scale 1: 564 | Go

WELL PLUGGING PLAN OF OPERATIONS

NOTE: A Well Plugging Plan of Operations shall be filed with and accepted by the Office of the State Engineer prior to plugging. This form may be used to plug a single well, or if you are plugging multiple monitoring wells on the same site using the same plugging methodology.

Alert! Your well may be eligible to participate in the Aquifer Mapping Program (AMP)-NM Bureau of Geology geoinfo.nmt.edu/resources/water/cgmn/ if within an area of interest and meets the minimum construction requirements, such as there is still water in your well, and the well construction reflected in a well record and log is not compromised, contact AMP at 575-835-5038 or -6951, or by email nmbg-waterlevels@nmt.edu, prior to completing this prior form. Showing proof to the OSE that your well was accepted in this program, may delay the plugging of your well until a later date.

I. FILING FEE: There is no filing fee for this form.

II. GENERAL / WELL OWNERSHIP: ☐ Check here if proposing one plan for multiple monitoring wells on the same site and attaching WD-08m

Existing Office of the State Engineer POD Number (Well Number) for well to be plugged: _____

Name of well owner: EOG Resources, Inc.

Mailing address: 104 South Fourth Street County: Eddy

City: Artesia State: NM Zip code: 88210

Phone number: 575-748-4217 E-mail: bob_asher@gmail.com

III. WELL DRILLER INFORMATION:

Well Driller contracted to provide plugging services: Hungry Horse, LLC

New Mexico Well Driller License No.: 1755 Expiration Date: 10/14/2023

IV. WELL INFORMATION: ☐ **Check here if this plau describes method for plugging multiple monitoring wells on the same site and attach supplemental form WD-08m and skip to #2 in this sectiou.**

Note: A copy of the existing Well Record for the well(s) to be plugged should be attached to this plan.

1) GPS Well Location: Latitude: 32 deg, 44 min, 3.16 sec
Longitude: 104 deg, 22 min, 54.56 sec, NAD 83

2) Reason(s) for plugging well(s):

No water present

3) Was well used for any type of monitoring program? Yes If yes, please use section VII of this form to detail what hydrogeologic parameters were monitored. If the well was used to monitor contaminated or poor quality water, authorization from the New Mexico Environment Department may be required prior to plugging.

4) Does the well tap brackish, saline, or otherwise poor quality water? No If yes, provide additional detail, including analytical results and/or laboratory report(s): N/A

5) Static water level: >100 feet below land surface / feet above land surface (circle one)

6) Depth of the well: 55 feet

7) Inside diameter of innermost casing: N/A inches.

8) Casing material: N/A

9) The well was constructed with:

☐ an open-hole production interval, state the open interval: N/A

☐ a well screen or perforated pipe, state the screened interval(s): N/A

10) What annular interval surrounding the artesian casing of this well is cement-grouted? N/A

11) Was the well built with surface casing? No If yes, is the annulus surrounding the surface casing grouted or otherwise sealed? N/A If yes, please describe:

N/A

12) Has all pumping equipment and associated piping been removed from the well? N/A If not, describe remaining equipment and intentions to remove prior to plugging in Section VII of this form.

V. DESCRIPTION OF PLANNED WELL PLUGGING:

☐ **If plugging method differs between multiple wells on same site, a separate form must be completed for each method.**

Note: If this plan proposes to plug an artesian well in a way other than with cement grout, placed bottom to top with a tremie pipe, a detailed diagram of the well showing proposed final plugged configuration shall be attached, as well as any additional technical information, such as geophysical logs, that are necessary to adequately describe the proposal. Attach a copy of any signed OSE variance to this plugging plan.

Also, if this planned plugging plan requires a variance to 19.27.4 NMAC, attach a detailed variance request signed by the applicant.

1) Describe the method by which cement grout shall be placed in the well, or describe requested plugging methodology proposed for the well:

The borehole will be grouted using a tremie pipe, from the bottom to the surface.

2) Will well head be cut-off below land surface after plugging? N/A

VI. PLUGGING AND SEALING MATERIALS:

Note: The plugging of a well that taps poor quality water may require the use of a specialty cement or specialty sealant. Attach a copy of the batch mix recipe from the cement company and/or product description for specialty cement mixes or any sealant that deviates from the list of OSE approved sealants.

1) For plugging intervals that employ cement grout, complete and attach Table A.

2) For plugging intervals that will employ approved non-cement based sealant(s), complete and attach Table B.

3) Theoretical volume of grout required to plug the well to land surface: 3 bags

4) Type of Cement proposed: Bentonite Pellets

5) Proposed cement grout mix: N/A gallons of water per 94 pound sack of Portland cement.

6) Will the grout be: _____ batch-mixed and delivered to the site

X mixed on site

7) Grout additives requested, and percent by dry weight relative to cement:

N/A

8) Additional notes and calculations:

N/A

VII. ADDITIONAL INFORMATION: List additional information below, or on separate sheet(s):

72 hours after drilling, the well (32.734210, -104.381822) will be checked for the presence of water. If water is present the NMOSE and NMOCD will be notified for guidance on possible conversion to monitor well. If no water is present the well will be plugged according to NMOSE Well Plugging Handbook, Appendix A, Permit Condition 6E. Within 20 days of well plugging, driller will submit Well Plugging Record WD-11 to NMOSE. The maximum period of time for completion of the operation will be 30 days.

VIII. SIGNATURE:

I, Robert Asher, say that I have carefully read the foregoing Well Plugging Plan of Operations and any attachments, which are a part hereof; that I am familiar with the rules and regulations of the State Engineer pertaining to the plugging of wells and will comply with them, and that each and all of the statements in the Well Plugging Plan of Operations and attachments are true to the best of my knowledge and belief.

Signature of Applicant — Date: 3/4/2022

IX. ACTION OF THE STATE ENGINEER:

This Well Plugging Plan of Operations is:

_____ Approved subject to the attached conditions.
_____ Not approved for the reasons provided on the attached letter.

Witness my hand and official seal this _____ day of _____, _____

John R. D'Antonio Jr. P.E., New Mexico State Engineer

By: _____

TABLE A - For plugging intervals that employ cement grout. Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of grout placement (ft bgl)			
Bottom of proposed interval of grout placement (ft bgl)			
Theoretical volume of grout required per interval (gallons)			
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement			
Mixed on-site or batch-mixed and delivered?			
Grout additive 1 requested			
Additive 1 percent by dry weight relative to cement			
Grout additive 2 requested			
Additive 2 percent by dry weight relative to cement			

TABLE B - For plugging intervals that will employ approved non-cement based sealant(s). Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of sealant placement (ft bgl)	10	0	
Bottom of proposed sealant of grout placement (ft bgl)	55	10	
Theoretical volume of sealant required per interval (gallons)	N/A	N/A	
Proposed abandonment sealant (manufacturer and trade name)	native soil	bentonite	

HUNGRY HORSE, LLC
P.O. BOX 1058
HOBBS, NM 88241
(575) 393-3386

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State of New Mexico
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Oil Conservation Division
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Santa Fe, NM 87505

CONDITIONS

Action 89447

CONDITIONS

Operator: EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702	OGRID: 7377
	Action Number: 89447
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	OCD accepts delay in submitting a Full Characterization and Remediation Plan after DTGW determination has been achieved. Please include Talon data if available. Please include all laboratory data. Please submit Full Characterization and Remediation Plan to the OCD portal by May 23, 2022	3/22/2022