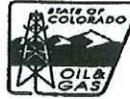


State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 (303) 894-2100 Fax 894-2109



FOR OGCC USE ONLY

SITE INVESTIGATION AND REMEDIATION WORKPLAN

This form shall be submitted to the Director for approval prior to the initiation of site investigation and remediation activities. Form 27 is intended to be used whenever possible. Additional documentation will be required when large volumes of soil and groundwater have been impacted or involve large facilities with multiple source areas. See Rule 910. Attach as many pages as needed to fully describe the proposed work.

OGCC Employee:

Spill Complaint
 Inspection NOAV

Tracking No:

CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED

Spill or Release Plug & Abandon Central Facility Closure Site/Facility Closure Other (describe): _____

GENERAL INFORMATION

OGCC Operator Number: 47120		Contact Name and Telephone	
Name of Operator: Kerr-McGee Oil and Gas Onshore, LP		Name: Phillip Hamlin	
Address: 1099 18th Street, Suite 1800		No: 970-336-3500	
City: Denver State: CO Zip: 80202		Fax: 970-336-3656	
API/Facility No: 329576	County: Weld		
Facility Name: Warren	Facility Number: 63N67W29NESE		
Well Name: Warren	Well Number: 29-9L		
Location (Qtr, Sec, Twp, Rng, Meridian): NESE S29 T3N R67W		Latitude: 40.195527	Longitude: -104.906045

TECHNICAL CONDITIONS

Type of Waste Causing Impact (crude oil, condensate, produced water, etc.): Crude Oil and Produced Water

Site Conditions: Is location within a sensitive area (according to Rule 901e)? Y N If yes, attach evaluation.

Adjacent land use (cultivated, irrigated, dry land farming, industrial, residential, etc.): Crop Land

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Coarse sand, gravel/river rock

Potential receptors (water wells within 1/4 mi, surface waters, etc.): The nearest surface water is located approximately 105' west of the site.
The nearest water well is located approximately 742' south of the release area.

Description of Impact (if previously provided, refer to that form or document):

Impacted Media (check):	Extent of Impact:	How Determined:
<input checked="" type="checkbox"/> Soils	15' (E-W) x 15' (N-S) x 19' bgs	Excavation, soil sampling, and laboratory analysis
<input type="checkbox"/> Vegetation		
<input checked="" type="checkbox"/> Groundwater	See attached data	Groundwater sampling and laboratory analysis
<input type="checkbox"/> Surface water		

REMEDIATION WORKPLAN

Describe initial action taken (if previously provided, refer to that form or document):

On July 15, 2014, historical hydrocarbon impacts were discovered during replacement of the produced water sump at the Warren 63N67W29NESE production facility. The volume of released material is unknown. The well was shut in, associated underground infrastructure removed, and excavation activities commenced. Groundwater was not encountered in the excavation. An Initial Form 19 was submitted to the COGCC on July 18, 2014 (COGCC Document No. 400646026), and a Supplemental Form 19 was submitted on July 25, 2014 (COGCC Document No. 400649221). The COGCC has issued Spill Tracking Number 438253 for this release.

Describe how source is to be removed:

On July 15, 2014, excavation activities commenced and approximately 290 cubic yards of impacted material were excavated and transported to the Buffalo Ridge Landfill in Keenesburg, Colorado for disposal. Excavation activities were guided in the field using a photoionization detector (PID) to measure volatile organic compound (VOC) concentrations in soil. Soil samples were collected from the sidewalls and base of the final extent of the excavation area at approximately 10 and 19 feet below ground surface (bgs), respectively. Soil samples were submitted to eAnalytics Laboratory in Loveland, Colorado for analysis of benzene, toluene, ethylbenzene, total xylenes (BTEX), total petroleum hydrocarbons (TPH) - gasoline range organics (GRO) by USEPA Method 8260, TPH - diesel range organics and oil range organics (DRO and ORO) by USEPA Method 8015. Laboratory results indicated that constituent concentrations in the soil samples collected from the final lateral extent of the excavation area were below applicable COGCC Table 910-1 standards. Benzene and TPH concentrations in the base sample (B01@19) were above the applicable COGCC Table 910-1 standards. Additional excavation was not completed due to unstable soils, and groundwater was not encountered in the excavation area. The excavation was subsequently backfilled and re-contoured to match pre-existing conditions; impacted soil was left in place to be addressed by future in-situ remediation. Soil analytical results are summarized in Table 1. Soil sample locations are illustrated on Figure 1 and laboratory analytical reports are included as Attachment A.

Describe how remediation of existing impacts is to be accomplished, including removal and disposal at an injection well or licensed facility, land treatment on site, removal of impacted groundwater, insitu bioremediation, burning of oily vegetation, etc.:

Impacted soil was excavated and transported to the Buffalo Ridge Landfill in Keenesburg, Colorado. Impacted soil left in place at the base of the excavation will be treated using in-situ remediation technologies. Groundwater monitoring and remediation measures are described on the following page.



Tracking Number: Name of Operator: OGCC Operator No: Received Date: Well Name & No: Facility Name & No:

REMEDIATION WORKPLAN (CONT.)

OGCC Employee:

If groundwater has been impacted, describe proposed monitoring plan (# of wells or sample points, sampling schedule, analytical methods, etc.): On March 27, 2015, three temporary groundwater monitoring/remediation wells (BH01-BH03) were installed at the site to assess the extent of potential groundwater impacts...

Describe reclamation plan. Discuss existing and new grade recontouring; method and testing of compaction alleviation; and reseeding program, including location of new seed, seed mix and noxious weed prevention. Attach diagram or drawing. Use additional sheet for description if required. The excavation has been backfilled with clean soil and graded to match the adjacent topography...

Attach samples and analytical results taken to verify remediation of impacts. Show locations of samples on an onsite schematic or drawing. Is further site investigation required? [X] Y [] N If yes, describe: Impacted soil was left at the base of the excavation and will be addressed in-place. Temporary monitoring/remediation wells have been installed to assess groundwater impacts...

Final disposition of E&P waste (land treated and disposed onsite, name of licensed disposal facility, recycling, reuse, etc.): Impacted soil was transported to the Front Range Regional Landfill in Erie, Colorado for disposal. Impacted groundwater was transported to a licensed injection facility for disposal.

IMPLEMENTATION SCHEDULE

Table with 4 columns: Date Site Investigation Began, Date Site Investigation Completed, Remediation Plan Submitted, Remediation Start Date, Anticipated Completion Date, Actual Completion Date.

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct, and complete.

Print Name: Phillip Hamlin

Signed: [Signature] Title: Senior HSE Representative Date: 12/6/15

OGCC Approved: Title: Date:

FIGURES



DATE:	October 29, 2015
DESIGNED BY:	R. Bruner
DRAWN BY:	R. Bruner



Kerr-McGee Oil and Gas Onshore, LP
WARREN 63N67W29NESE
 NESE, Section 29, Township 3 North, Range 67 West
 Weld County, Colorado

Sample Location
 Map

FIGURE
1



DATE:	October 29, 2015
DESIGNED BY:	R. Bruner
DRAWN BY:	R. Bruner



Kerr-McGee Oil and Gas Onshore, LP
WARREN 63N67W29NESE
 NESE, Section 29, Township 3 North, Range 67 West
 Weld County, Colorado

Groundwater Sample Results
 Map (10/14/2015)

FIGURE
 2



DATE:	October 29, 2015
DESIGNED BY:	R. Bruner
DRAWN BY:	R. Bruner



Kerr-McGee Oil and Gas Onshore, LP
WARREN 63N67W29NESE
 NESE, Section 29, Township 3 North, Range 67 West
 Weld County, Colorado

Groundwater Elevation Contour
 Map (07/28/2015)

FIGURE
3

**ANALYTICAL
TABLES**

TABLE 1
WARREN 63N67W29NESE
SOIL SAMPLE RESULTS SUMMARY TABLE
KERR-McGEE OIL AND GAS ONSHORE LP

Sample ID	Date	Depth (ft. bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	TVPH-GRO (mg/kg)	TEPH-DRO (mg/kg)	TEPH-ORO (mg/kg)
COGCC standards for soil (mg/kg) ⁽¹⁾			0.17	85	100	175	500		
W01 @ 10	07/15/14	10	<0.01	<0.01	<0.01	<0.01	<50	<50	<50
E01 @ 10	07/15/14	10	<0.01	<0.01	<0.01	<0.01	<50	<50	<50
N01 @ 10	07/15/14	10	<0.01	<0.01	<0.01	<0.01	<50	<50	<50
S01 @ 10	07/15/14	10	<0.01	<0.01	<0.01	<0.01	<50	<50	<50
B01 @ 19	07/15/14	19	0.948	13.4	5.19	49.5	2465	604	58.2

Notes:

1. Standards for soil are taken from 2 CCR 404-1, Table 910-1, effective February 1, 2014.

COGCC = Colorado Oil and Gas Conservation Commission

(<) = Analytical result is less than the indicated laboratory reporting limit

TVPH - GRO = Total volatile petroleum hydrocarbons - gasoline range organics

TEPH - DRO = Total extractable petroleum hydrocarbons - diesel range organics

TEPH - ORO = Total extractable petroleum hydrocarbons - oil range organics

mg/kg = Milligrams per kilogram

ft. bgs = Feet below ground surface

BOLD = Analytical result is in exceedance of COGCC Table 910-1 soil standards

TABLE 2
WARREN 63N67W29NESE
GROUNDWATER RESULTS SUMMARY TABLE
KERR-McGEE OIL AND GAS ONSHORE LP

Sample ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Depth To Water (ft. bgs)
COGCC Standards for groundwater (µg/L) ⁽¹⁾		5	560	700	1,400	
BH01	04/03/15	NS	NS	NS	NS	DRY
BH01	07/28/15	18.3	1	<1.0	80.8	20.75
BH01	10/14/15	NS	NS	NS	NS	DRY
BH02	04/03/15	NS	NS	NS	NS	DRY
BH02	07/28/15	66.1	7.4	32.4	235	20.80
BH02	10/14/15	6.4	<2.0	8.9	9.0	25.81
BH03	04/03/15	NS	NS	NS	NS	DRY
BH03	07/28/15	<1.0	<1.0	<1.0	<1.0	22.98
BH03	10/14/15	NS	NS	NS	NS	DRY

Notes:

1. Standards for groundwater are taken from 2 CCR 404-1, Table 910-1, effective February 1, 2014.

COGCC = Colorado Oil and Gas Conservation Commission

(<) = Analytical result is less than the indicated laboratory reporting limit

µg/L = Micrograms per liter

ft. bgs = Feet below ground surface

NS = Not Sampled

BOLD = Analytical result is in exceedance of COGCC Table 910-1 groundwater standards

**ATTACHMENT A
LABORATORY
ANALYTICAL REPORTS**

Test Report

eANALYTICS LABORATORY

July 16, 2014

Client: Tasman Geosciences / Anadarko

Project: Warren 29-9L & 29-16L

Lab ID: 1780

Date Samples Received: 7/15/2014

Number of Samples: 5

Sample Condition: Samples arrived intact and in appropriate sample containers

Sample Temperature: Within acceptable range of 2-6° C, or as specified in EPA Method

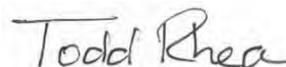
The quality control procedures associated with the requested analyses were satisfactorily passed before the samples were run.

Thank you for allowing eAnalytics Laboratory to provide laboratory services for you.

Sincerely,



Christopher Dieken
Quality Assurance Manager



Todd Rhea
Laboratory Manager

eAnalytics Laboratory

1767 Rocky Mountain Avenue Loveland CO 80538

Chain of Custody

eANALYTICS

LABORATORY

Chain of Custody Fo

eANALYTICS LABORATORY			LABORATORY							
1767 Rocky Mountain Avenue Loveland CO 80538			Phone: (970) 667-6975		Fax: (970) 669-0941		www.eAnalyticsLab.com			
CLIENT INFORMATION			ANALYSIS INFORMATION							
Company: Tasman Geosciences / Anadarko			Other Analysis							
Project: Warren 29-9L & 29-16L			Matrix: (S) Soil (W) Water (V) Vapor (O) Other BTEX (EPA 8260) BTEX/GRO (EPA 8260) DRO/ORO (EPA 8015) TPH-CRO/DRO/ORO (EPA 8260/8015) SAR (US Dept of Ag Method 20B) EC (US Dept of Ag Method 3) pH (EPA 9045D)							
Project Manager: Paul Schneider / Phil Hamlin										
Sampler: Christine Wasko										
Phone/Email: 720-409-8791 / cwasko@tasman-geo.com										
Address: 6899 Pecos Street, Unit C Denver, CO 80221										
Lab ID	Sample Name	Sampling Date/Time	Number of Containers	BTEX (EPA 8260)	BTEX/GRO (EPA 8260)	DRO/ORO (EPA 8015)	TPH-CRO/DRO/ORO (EPA 8260/8015)	SAR (US Dept of Ag Method 20B)	EC (US Dept of Ag Method 3)	pH (EPA 9045D)
1	W01@10	7/15/14 930 AM	1 S		X	X				
2	ED1@10	935 AM								
3	ND1@10	940 AM								
4	801@10	1020 AM								
5	B01@19	1330 PM								
		AM/PM								
		AM/PM								
		AM/PM								
		AM/PM								
		AM/PM								
		AM/PM								
		AM/PM								
		AM/PM								
Comments:										
Turnaround Time (Business Days) TAT begins when sample is received by eANALYTICS <input type="radio"/> Normal (5-10 Days) Rush analysis requires an extra charge. <input type="radio"/> 3 Day (1.25x) <input type="radio"/> 1 Day (2x) <input type="radio"/> Same Day (3x) <input type="radio"/> Next Bus. Morning (APC Pricing)				Record of Custody Relinquished by: [Signature] Date: 7/15/14 1700 AM/PM Company: Tasman Received by: [Signature] Date: 7/15/14 1700 AM/PM Company:						
For eANALYTICS Use Samples Received Intact <input checked="" type="radio"/> Yes <input type="radio"/> No Received Within Temperature Range (2-6°C) <input checked="" type="radio"/> Yes <input type="radio"/> No Sample Preservative <input checked="" type="radio"/> None <input type="radio"/> Acid <input type="radio"/> Other				Relinquished by: [Signature] Date: 7/15/14 1700 AM/PM Company: eANALYTICS Received by: [Signature] Date: 7/15/14 1700 AM/PM Company:						

WO # 88584726
1780

eANALYTICS: Environmental testing made Easy

Page ___ of ___



Client: Tasman Geosciences / Anadarko Lab ID: 1780

Project: Warren 29-9L & 29-16L

Analysis: Volatile Organics Method: EPA8260
TPH EPA8260/8015

Sample Name	Benzene mg/kg	Toluene mg/kg	Ethyl- benzene mg/kg	Total Xylenes mg/kg	TPH	TPH	TPH	Date Sampled	Date Analyzed	Lab ID
					GRO C6-C10 mg/kg	DRO C10-C28 mg/kg	ORO C28-C36 mg/kg			
W01 @ 10	< 0.01	< 0.01	< 0.01	< 0.01	< 50	< 50	< 50	07/15/14	07/15/14	1780 1
E01 @ 10'	< 0.01	< 0.01	< 0.01	< 0.01	< 50	< 50	< 50	07/15/14	07/15/14	1780 2
N01 @ 10'	< 0.01	< 0.01	< 0.01	< 0.01	< 50	< 50	< 50	07/15/14	07/15/14	1780 3
S01 @ 10'	< 0.01	< 0.01	< 0.01	< 0.01	< 50	< 50	< 50	07/15/14	07/15/14	1780 4
B01 @ 19'	0.948	13.4	5.19	49.5	2465	604	58.2	07/15/14	07/15/14	1780 5



Client: Tasman Geosciences / Anadarko Lab ID: 1780
 Project: Warren 29-9L & 29-16L Method: EPA8260

Sample Name	Dibromo- fluoromethane % Recovery	1,2 Dichloro- ethane-D4 % Recovery	Toluene-D8 % Recovery	Bromo- fluorobenzene % Recovery	Date Sampled	Date Analyzed	Lab ID
W01 @ 10	104	92	87	91	07/15/14	07/15/14	1780 1
E01 @ 10'	100	101	95	87	07/15/14	07/15/14	1780 2
N01 @ 10'	107	105	87	93	07/15/14	07/15/14	1780 3
S01 @ 10'	104	101	97	89	07/15/14	07/15/14	1780 4
B01 @ 19'	108	91	101	109	07/15/14	07/15/14	1780 5



Client: Tasman Geosciences / Anadarko Lab ID: 1780

Project: Warren 29-9L & 29-16L

Analysis: Volatile Organics Method: EPA8260
TPH EPA8260/8015

Sample Name	Benzene	Toluene	Ethyl- benzene	Total Xylenes	TPH GRO C6-C10	TPH DRO C10-C28	TPH ORO C28-C36	Date Analyzed	Lab ID
	% Rec	% Rec	% Rec	% Rec	% Rec	% Rec	% Rec		
Laboratory Control Sample (70-130%)	96	101	93	96	89	101	100	07/15/14	LCS 1780 1
Method Blank	< 0.01	< 0.01	< 0.01	< 0.01	< 50	< 50	< 50	07/15/14	MB 1780 1
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		



August 03, 2015

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver CO 80211

Project Name - KMG - Warren 29-9L, 29-16L

Project Number - [none]

Attached are your analytical results for KMG - Warren 29-9L, 29-16L received by Origins Laboratory, Inc. July 28, 2015. This project is associated with Origins project number X507382-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows; "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.
303.433.1322
o-squad@oelabinc.com



1725 Elk Place, Denver, CO 80211 | Phone: 303.433.1322 | Fax: 303.265.9645

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Warren 29-9L, 29-16L

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01	X507382-01	Water	July 28, 2015 14:20	07/28/2015 16:38
BH02	X507382-02	Water	July 28, 2015 14:28	07/28/2015 16:38
BH03	X507382-03	Water	July 28, 2015 14:35	07/28/2015 16:38

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - Warren 29-9L, 29-16L

Origins Laboratory

F-012207-01-R1
 Effective Date: 01/09/12

Sample Receipt Checklist

Origins Work Order: YS07382 Client: Tasman
 Client Project ID: KMG-warren
 Checklist Completed by: Jeff Smith Shipped Via: HD
 Date/time completed: 7/29/15 (UPS, FedEx, Hand Delivered, Pick-up, etc.)
 Airbill #: N/A
 Matrix(s) Received: (Check all that apply): Soil/Solid Water Other: _____
 Cooler Number/Temperature: 1 / 5.9 °C _____ / _____ °C _____ / _____ °C (Describe)
 Thermometer ID: T003

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?	X			
Is there ice present (document if blue ice is used)	X			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		Y		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		X		
Were all samples received intact ⁽¹⁾ ?	X			
Was adequate sample volume provided ⁽¹⁾ ?	X			
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?		X		
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	X			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	X			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	X			
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	X			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.		X		
Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/pH <2 for samples preserved with HNO ₃ , HCL, H ₂ SO ₄ / (pH >10 for samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH)	X			Heu
Additional Comments (if any):				

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note date/time and person contacted as well as the corrective action to in the additional comments (above) and the case narrative.

Reviewed by (Project Manager) Jeff Smith Date/Time Reviewed 7/29/15

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - Warren 29-9L, 29-16L

BH01

7/28/2015 2:20:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	-------

Origins Laboratory, Inc.
X507382-01 (Water)

BTEX by EPA 8260C

Benzene	18.3	1.0	ug/L	1	5G29009	07/29/2015	07/30/2015	
Toluene	1.0	1.0	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	
Xylenes, total	80.8	1.0	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	115 %	84-121			"	"	"	
Surrogate: Toluene-d8	98.5 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	92.8 %	84-114			"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - Warren 29-9L, 29-16L

BH02

7/28/2015 2:28:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	-------

Origins Laboratory, Inc.
X507382-02 (Water)

BTEX by EPA 8260C

Benzene	66.1	1.0	ug/L	1	5G29009	07/29/2015	07/30/2015	
Toluene	7.4	1.0	"	"	"	"	"	
Ethylbenzene	32.4	1.0	"	"	"	"	"	
Xylenes, total	235	1.0	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	118 %	84-121			"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	90.0 %	84-114			"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - Warren 29-9L, 29-16L

BH03

7/28/2015 2:35:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	-------

Origins Laboratory, Inc.
X507382-03 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	5G29009	07/29/2015	07/30/2015	
Toluene	ND	1.0	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	
Xylenes, total	ND	1.0	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	119 %	84-121			"	"	"	
Surrogate: Toluene-d8	100 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	92.6 %	84-114			"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - Warren 29-9L, 29-16L

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 5G29009 - EPA 5030B (Water)

Blank (5G29009-BLK1)

Prepared: 07/29/2015 Analyzed: 07/30/2015

Benzene	ND	1.0	ug/L							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes, total	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	69		"	62.5	110		87.3-113			
Surrogate: Toluene-d8	63		"	62.5	101		90.9-108			
Surrogate: 4-Bromofluorobenzene	58		"	62.5	92.9		88.6-111			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - Warren 29-9L, 29-16L

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 5G29009 - EPA 5030B (Water)

Blank (5G29009-BLK2)

Prepared: 07/29/2015 Analyzed: 07/30/2015

Benzene	ND	1.0	ug/L							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes, total	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	69		"	62.5	111		87.3-113			
Surrogate: Toluene-d8	63		"	62.5	100		90.9-108			
Surrogate: 4-Bromofluorobenzene	61		"	62.5	97.6		88.6-111			

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - Warren 29-9L, 29-16L

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 5G29009 - EPA 5030B (Water)

LCS (5G29009-BS1)

Prepared: 07/29/2015 Analyzed: 07/30/2015

Benzene	52.2	1.0	ug/L	50.0		104	75-126			
Toluene	50.2	1.0	"	50.0		100	78.7-126			
Ethylbenzene	52.6	1.0	"	50.0		105	80-130			
m,p-Xylene	105	2.0	"	100		105	77.2-133			
o-Xylene	50.7	1.0	"	50.0		101	77.9-126			
Surrogate: 1,2-Dichloroethane-d4	67		"	62.5		108	87.3-113			
Surrogate: Toluene-d8	62		"	62.5		98.6	90.9-108			
Surrogate: 4-Bromofluorobenzene	59		"	62.5		94.9	88.6-111			

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - Warren 29-9L, 29-16L

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 5G29009 - EPA 5030B (Water)

LCS (5G29009-BS2)

Prepared: 07/29/2015 Analyzed: 07/30/2015

Benzene	48.9	1.0	ug/L	50.0		97.7	75-126			
Toluene	45.8	1.0	"	50.0		91.6	78.7-126			
Ethylbenzene	46.9	1.0	"	50.0		93.9	80-130			
m,p-Xylene	93.4	2.0	"	100		93.4	77.2-133			
o-Xylene	47.4	1.0	"	50.0		94.8	77.9-126			
Surrogate: 1,2-Dichloroethane-d4	66		"	62.5		105	87.3-113			
Surrogate: Toluene-d8	62		"	62.5		99.6	90.9-108			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		96.1	88.6-111			

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - Warren 29-9L, 29-16L

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 5G29009 - EPA 5030B (Water)

Matrix Spike (5G29009-MS1)	Source: X507382-01			Prepared: 07/29/2015 Analyzed: 07/30/2015						
Benzene	88.8	1.0	ug/L	50.0	18.3	141	74-130			QM-07
Toluene	58.5	1.0	"	50.0	1.0	115	73-131			
Ethylbenzene	58.6	1.0	"	50.0	ND	117	76-132			
m,p-Xylene	194	2.0	"	100	56.3	137	69-139			
o-Xylene	90.7	1.0	"	50.0	24.6	132	74-131			QM-07
Surrogate: 1,2-Dichloroethane-d4	69		"	62.5		110	87.3-113			
Surrogate: Toluene-d8	63		"	62.5		101	90.9-108			
Surrogate: 4-Bromofluorobenzene	59		"	62.5		93.9	88.6-111			

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - Warren 29-9L, 29-16L

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 5G29009 - EPA 5030B (Water)

Matrix Spike (5G29009-MS2)	Source: X507382-02			Prepared: 07/29/2015 Analyzed: 07/30/2015						
Benzene	61.8	1.0	ug/L	50.0	66.1	NR	74-130			QM-07
Toluene	53.5	1.0	"	50.0	7.4	92.2	73-131			
Ethylbenzene	60.0	1.0	"	50.0	32.4	55.2	76-132			QM-07
m,p-Xylene	163	2.0	"	100	179	NR	69-139			QM-07
o-Xylene	68.8	1.0	"	50.0	56.6	24.3	74-131			QM-07
Surrogate: 1,2-Dichloroethane-d4	71		"	62.5		114	87.3-113			
Surrogate: Toluene-d8	66		"	62.5		105	90.9-108			
Surrogate: 4-Bromofluorobenzene	59		"	62.5		94.1	88.6-111			

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - Warren 29-9L, 29-16L

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 5G29009 - EPA 5030B (Water)

Matrix Spike Dup (5G29009-MSD1)	Source: X507382-01			Prepared: 07/29/2015 Analyzed: 07/30/2015						
Benzene	83.3	1.0	ug/L	50.0	18.3	130	74-130	6.36	20	
Toluene	60.0	1.0	"	50.0	1.0	118	73-131	2.55	20	
Ethylbenzene	60.0	1.0	"	50.0	ND	120	76-132	2.35	20	
m,p-Xylene	185	2.0	"	100	56.3	129	69-139	4.66	20	
o-Xylene	87.1	1.0	"	50.0	24.6	125	74-131	4.03	20	
Surrogate: 1,2-Dichloroethane-d4	70		"	62.5		112	87.3-113			
Surrogate: Toluene-d8	61		"	62.5		98.1	90.9-108			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.7	88.6-111			

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - Warren 29-9L, 29-16L

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 5G29009 - EPA 5030B (Water)

Matrix Spike Dup (5G29009-MSD2)	Source: X507382-02			Prepared: 07/29/2015 Analyzed: 07/30/2015						
Benzene	76.6	1.0	ug/L	50.0	66.1	20.9	74-130	21.3	20	QM-07
Toluene	56.0	1.0	"	50.0	7.4	97.4	73-131	4.71	20	
Ethylbenzene	66.0	1.0	"	50.0	32.4	67.3	76-132	9.59	20	QM-07
m,p-Xylene	196	2.0	"	100	179	17.1	69-139	18.1	20	QM-07
o-Xylene	78.5	1.0	"	50.0	56.6	43.7	74-131	13.2	20	QM-07
Surrogate: 1,2-Dichloroethane-d4	70		"	62.5		111	87.3-113			
Surrogate: Toluene-d8	62		"	62.5		99.6	90.9-108			
Surrogate: 4-Bromofluorobenzene	57		"	62.5		91.6	88.6-111			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Warren 29-9L, 29-16L

Notes and Definitions

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jen Pellegrini For Noelle Doyle Mathis, President

October 21, 2015

Tasman Geosciences

Christine Wasko

6899 Pecos Street, Unit C

Denver CO 80211

Project Name - KMG - Warren 29-9L, 29-16L

Project Number - [none]

Attached are your analytical results for KMG - Warren 29-9L, 29-16L received by Origins Laboratory, Inc. October 14, 2015. This project is associated with Origins project number X510169-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows; "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.
303.433.1322
o-squad@oelabinc.com



Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Christine Wasko
Project Number: [none]
Project: KMG - Warren 29-9L, 29-16L

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH02	X510169-01	Water	October 14, 2015 10:02	10/14/2015 15:00

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Christine Wasko
 Project Number: [none]
 Project: KMG - Warren 29-9L, 29-16L

Origins Laboratory

F-012207-01-R1
 Effective Date: 01/09/12

Sample Receipt Checklist

Origins Work Order: XS10169 Client: Tasman
 Client Project ID: KMG - Warren
 Checklist Completed by: Jeff Smith Shipped Via: 41D
 Date/time completed: 10/5/15 (UPS, FedEx, Hand Delivered, Pick-up, etc.)
 Airbill #: N/A
 Matrix(s) Received: (Check all that apply): Soil/Solid Water Other:
 Cooler Number/Temperature: 1 126.6 °C 1 °C 1 °C 1 °C
 Thermometer ID: TOUB

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?		x		sampled same day
Is there ice present (document if blue ice is used)	x			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		x		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		x		
Were all samples received intact ⁽¹⁾ ?	✓			
Was adequate sample volume provided ⁽¹⁾ ?	✓			
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?		x		
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	✓			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	✓			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	✓			
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	✓			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.		✓		
Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/(pH <2 for samples preserved with HNO3, HCL, H2SO4) / (pH >10 for samples preserved with NaAsO2+NaOH, ZnAc+NaOH)	x			HCL
Additional Comments (if any):				

⁽¹⁾If NO, then contact the client before proceeding with analysis and note date/time and person contacted as well as the corrective action to in the additional comments (above) and the case narrative.

Reviewed by (Project Manager) [Signature] Date/Time Reviewed 10/5/15

Origins Laboratory, Inc.

Jefe Pellegrini

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Christine Wasko
 Project Number: [none]
 Project: KMG - Warren 29-9L, 29-16L

BH02
10/14/2015 10:02:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X510169-01 (Water)

BTEX by EPA 8260C

Benzene	6.4	2.0	ug/L	2	5J16006	10/16/2015	10/17/2015	
Toluene	ND	2.0	"	"	"	"	"	
Ethylbenzene	8.9	2.0	"	"	"	"	"	
Xylenes, total	9.0	2.0	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	87.9 %	84-121			"	"	"	
Surrogate: Toluene-d8	100 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	96.1 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Christine Wasko
 Project Number: [none]
 Project: KMG - Warren 29-9L, 29-16L

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 5J16006 - EPA 5030B (Water)

Blank (5J16006-BLK1)

Prepared: 10/16/2015 Analyzed: 10/16/2015

Benzene	ND	1.0	ug/L							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes, total	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	56		"	62.5		89.1	84-121			
Surrogate: Toluene-d8	62		"	62.5		98.4	85-115			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		96.7	84-114			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Christine Wasko
 Project Number: [none]
 Project: KMG - Warren 29-9L, 29-16L

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 5J16006 - EPA 5030B (Water)

LCS (5J16006-BS1)

Prepared: 10/16/2015 Analyzed: 10/16/2015

Benzene	56.2	1.0	ug/L	50.0		112	75-126			
Toluene	54.0	1.0	"	50.0		108	78.7-126			
Ethylbenzene	53.2	1.0	"	50.0		106	80-130			
m,p-Xylene	106	2.0	"	100		106	77.2-133			
o-Xylene	55.2	1.0	"	50.0		110	77.9-126			
Surrogate: 1,2-Dichloroethane-d4	51		"	62.5		81.3	84-121			
Surrogate: Toluene-d8	63		"	62.5		101	85-115			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		98.2	84-114			

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Christine Wasko
 Project Number: [none]
 Project: KMG - Warren 29-9L, 29-16L

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 5J16006 - EPA 5030B (Water)

Matrix Spike (5J16006-MS1)	Source: X510168-01			Prepared: 10/16/2015 Analyzed: 10/16/2015						
Benzene	61.1	1.0	ug/L	50.0	ND	122	74-130			
Toluene	58.7	1.0	"	50.0	ND	117	73-131			
Ethylbenzene	58.9	1.0	"	50.0	ND	118	76-132			
m,p-Xylene	117	2.0	"	100	ND	117	69-139			
o-Xylene	56.4	1.0	"	50.0	ND	113	74-131			
Surrogate: 1,2-Dichloroethane-d4	57		"	62.5		91.9	84-121			
Surrogate: Toluene-d8	62		"	62.5		99.4	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.7	84-114			

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Christine Wasko
 Project Number: [none]
 Project: KMG - Warren 29-9L, 29-16L

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 5J16006 - EPA 5030B (Water)

Matrix Spike Dup (5J16006-MSD1)	Source: X510168-01			Prepared: 10/16/2015 Analyzed: 10/16/2015						
Benzene	57.1	1.0	ug/L	50.0	ND	114	74-130	6.77	20	
Toluene	54.4	1.0	"	50.0	ND	109	73-131	7.48	20	
Ethylbenzene	54.8	1.0	"	50.0	ND	110	76-132	7.34	20	
m,p-Xylene	109	2.0	"	100	ND	109	69-139	7.16	20	
o-Xylene	53.1	1.0	"	50.0	ND	106	74-131	5.94	20	
Surrogate: 1,2-Dichloroethane-d4	58		"	62.5		92.2	84-121			
Surrogate: Toluene-d8	62		"	62.5		98.4	85-115			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		96.8	84-114			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Christine Wasko
Project Number: [none]
Project: KMG - Warren 29-9L, 29-16L

Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

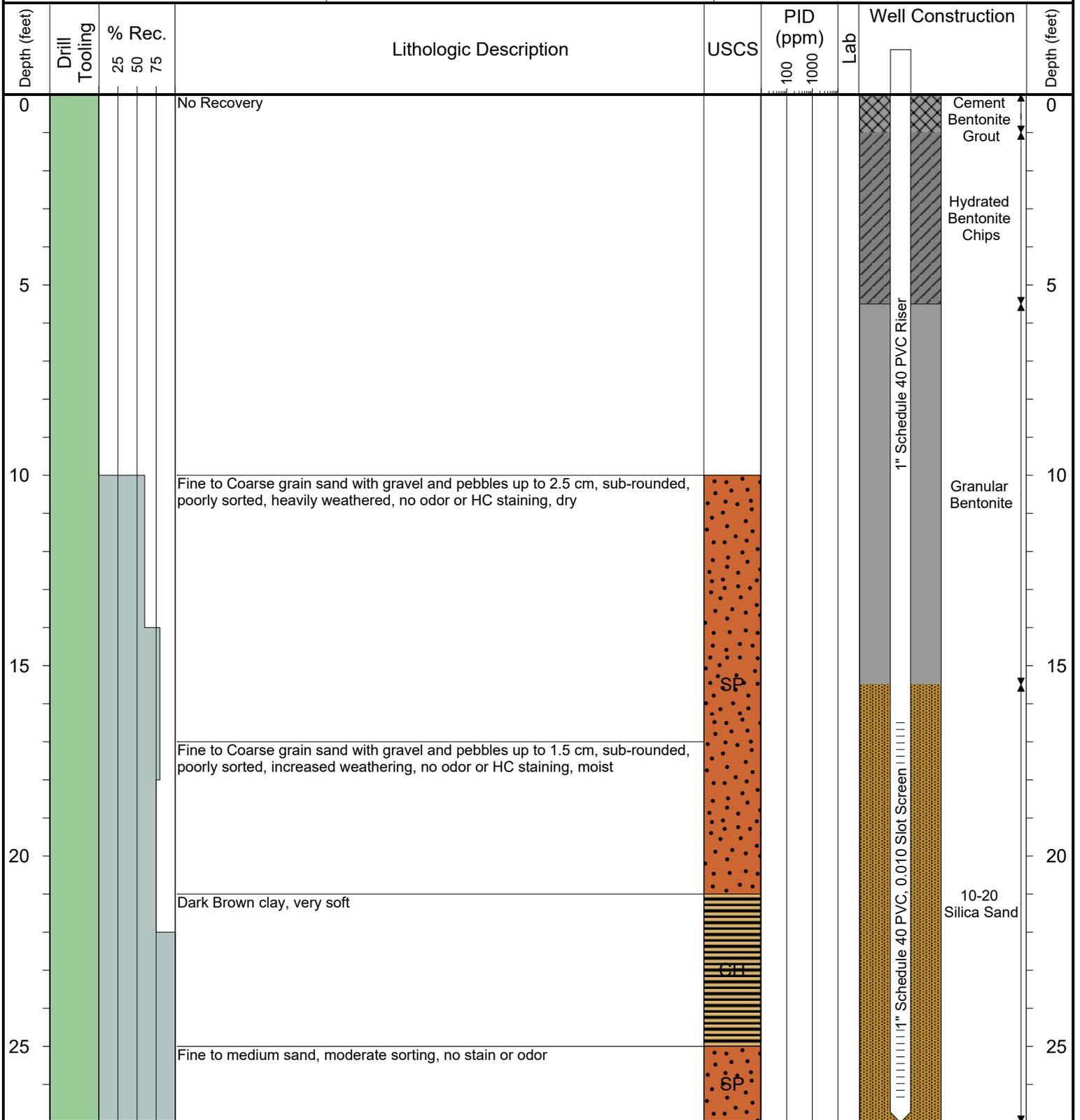
**ATTACHMENT B
SOIL BORING &
WELL COMPLETION
LOGS**



6899 Pecos Street, Unit C
Denver, Colorado 80221

CLIENT: Kerr-McGee Oil and Gas Onshore, LP
 LOGGED BY: Jason Spector
 PROJECT MANAGER: Robert Cornez
 DRILLING CONTRACTOR: Tasman Geosciences
 DRILLING EQUIPMENT: Direct Push
 DRILL BIT SIZE (INCHES): 2 3/8"
 DATE STARTED - COMPLETED: 3/27/2015
 TOTAL WELL DEPTH (FT. BGS): 27
 DEPTH TO WATER (FT. BGS): Dry (10/14/15)

Warren 63N67W29NESE
 BORING / WELL ID: BH01
 LOCATION: Weld County, Colorado
 NORTHING (CO STATE PLANE): 40.189848
 EASTING (CO STATE PLANE): -104.904937
 CASING ELEVATION (FT. AMSL): 4802.94
 GROUND ELEVATION (FT. AMSL): 4802.65



Drilling / Sample Method:

- Macro-Core
- Expendable Well Tip
- Perforated Injection Tool
- HydroPunch Groundwater Sampler

Laboratory Sample Types:

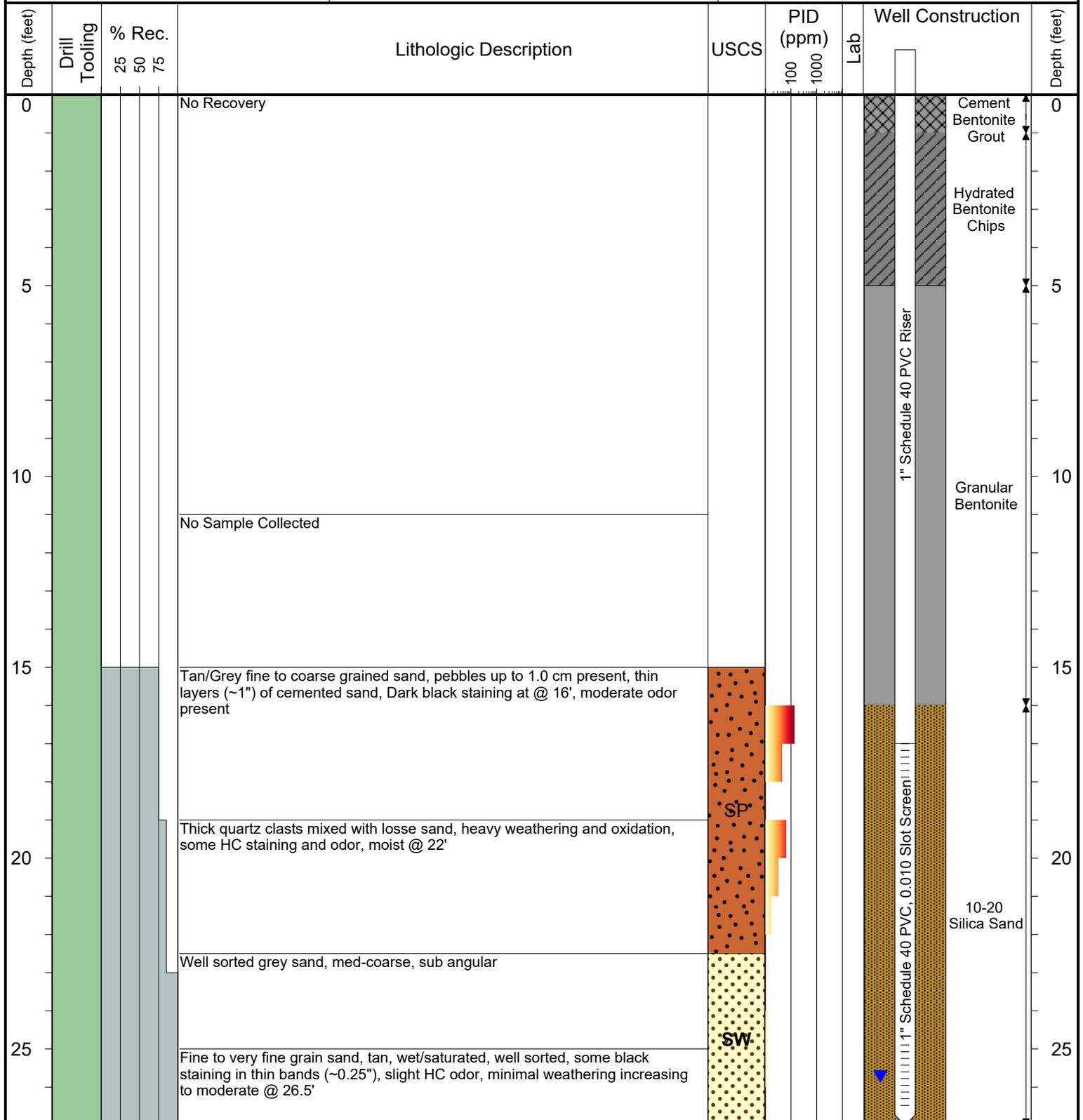
- Geotechnical Lab
- Analytical Chemistry Lab
- Geotechnical & Analytical Chemistry Lab



6899 Pecos Street, Unit C
Denver, Colorado 80221

CLIENT: Kerr-McGee Oil and Gas Onshore, LP
 LOGGED BY: Jason Spector
 PROJECT MANAGER: Robert Cornez
 DRILLING CONTRACTOR: Tasman Geosciences
 DRILLING EQUIPMENT: Direct Push
 DRILL BIT SIZE (INCHES): 2 3/8"
 DATE STARTED - COMPLETED: 3/27/2015
 TOTAL WELL DEPTH (FT. BGS): 27
 DEPTH TO WATER (FT. BGS): 25.72 (10/14/15) ▼

Warren 63N67W29NESE
 BORING / WELL ID: BH02
 LOCATION: Weld County, Colorado
 NORTHING (CO STATE PLANE): 40.189837
 EASTING (CO STATE PLANE): -104.904851
 CASING ELEVATION (FT. AMSL): 4802.69
 GROUND ELEVATION (FT. AMSL): 4802.23



Drilling / Sample Method:
 Macro-Core (Green), Expendable Well Tip (Dark Green), Perforated Injection Tool (Yellow), HydroPunch Groundwater Sampler (Blue)

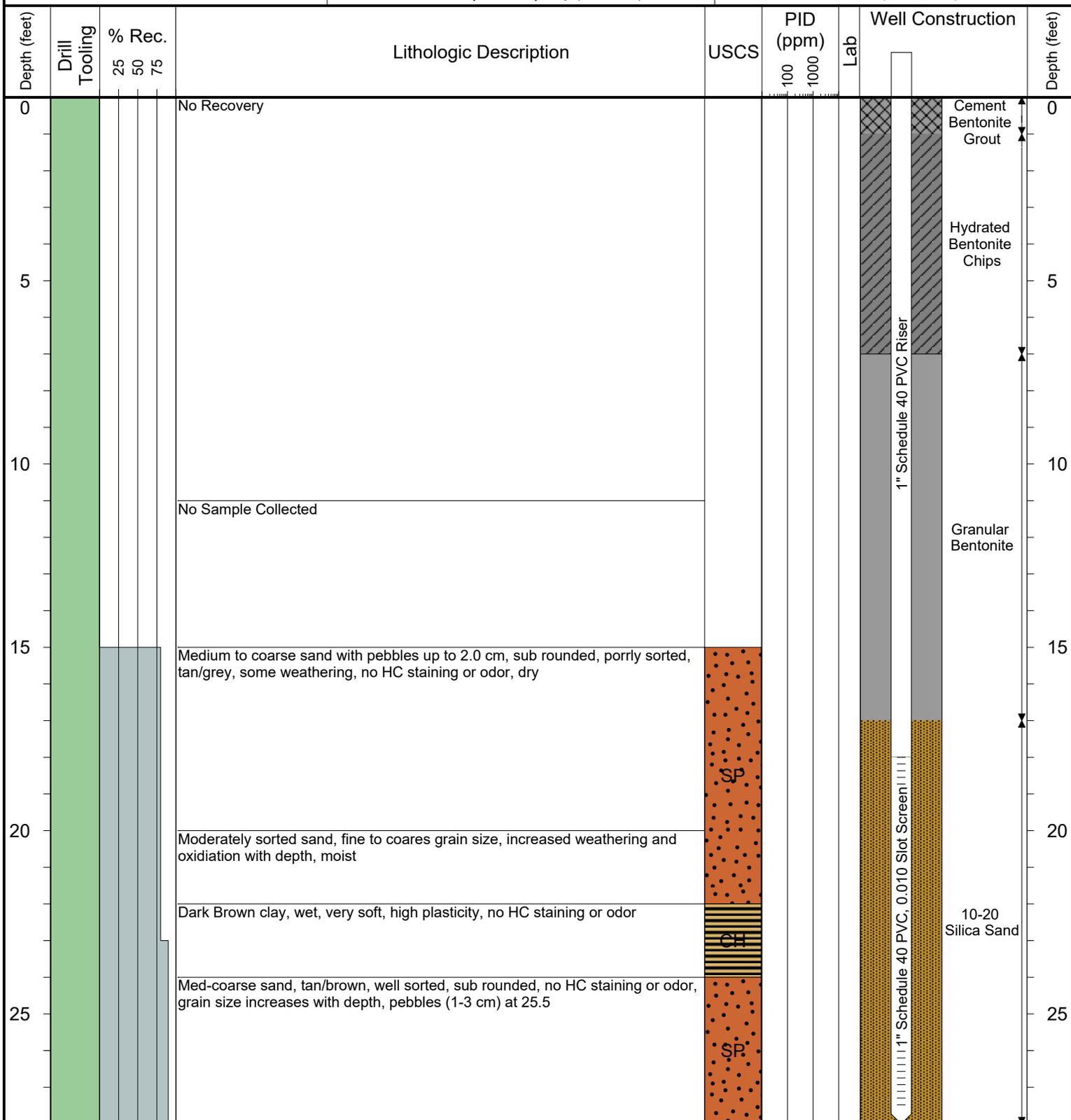
Laboratory Sample Types:
 Geotechnical Lab (Purple), Analytical Chemistry Lab (Yellow), Geotechnical & Analytical Chemistry Lab (Blue/Yellow)



6899 Pecos Street, Unit C
Denver, Colorado 80221

CLIENT: Kerr-McGee Oil and Gas Onshore, LP
 LOGGED BY: Jason Spector
 PROJECT MANAGER: Robert Cornez
 DRILLING CONTRACTOR: Tasman Geosciences
 DRILLING EQUIPMENT: Direct Push
 DRILL BIT SIZE (INCHES): 2 3/8"
 DATE STARTED - COMPLETED: 3/27/2015
 TOTAL WELL DEPTH (FT. BGS): 28
 DEPTH TO WATER (FT. BGS): Dry (10/14/15)

Warren 63N67W29NESE
 BORING / WELL ID: BH03
 LOCATION: Weld County, Colorado
 NORTHING (CO STATE PLANE): 40.189802
 EASTING (CO STATE PLANE): -104.904977
 CASING ELEVATION (FT. AMSL): 4803.07
 GROUND ELEVATION (FT. AMSL): 4802.82



Drilling / Sample Method:

- Macro-Core
- Expendable Well Tip
- Perforated Injection Tool
- HydroPunch Groundwater Sampler

Laboratory Sample Types:

- Geotechnical Lab
- Analytical Chemistry Lab
- Geotechnical & Analytical Chemistry Lab