Chevron

John Charles 6
San Juan County, New Mexico
Current Well Schematic as of May 11, 2010

API: 30-045-06545
Legals: Sec. 13, T27N, R9W
Field:

KB 12' Spud Date: 5/1/59
KB Elev 5988' Compl Date: 5/23/59
GR Elev 5976' Spacing

Formations	Top
Pictured Cliffs	2096
Mesa Verde	3620
Pt Lookout	4282

Surface Casing:
10 3/4" 32.75# H-40 @ 174'
200 sx 2% CaCl
cmt circ to surf

currently on PL

TOC @ 1062'
by '59 temp surv

Tubing (1994):
2 3/8", 139 jts @ 4436'
4' perf sub, pinned collar, SN

Previous (1959):
2 3/8", 139 jts @ 4426'
4' perf sub, pinned collar

sqze top of liner @ 2227' w/50 sx reg (1959)
sqze top of liner @ 2227' w/50 sx reg and 50 sx 4% gel and 2% CaCl (1959)

5 1/2" 14# J-55 liner @ 2227-4498'
250 sx cmt, 50% pozmix w/1/4# flocele/sk
top of Brown Oil Tool type C liner hanger @ 2227'

Production Casing:
7 5/8" 26.4# H-40 @ 2305'
200 sx reg cmt 4% gel

Menefee: 4 Lane Wells tpe E bullets per foot, 56', 224 holes
3930-48, 3954-59, 4022-33, 4167-80, 4212-17, 4249-53
frac: 50 k# 20/40, 32,876 gal wtr, 8,694 gal wtr, 63.6 bpm

acid (5/12/94): 600 gal 15% HCl down annulus to clean scale from tbg ext

Point Lookout: 4 Lane Wells type E bullets per foot, 79', 316 holes
4300-10, 4318-22, 4328-53, 4360-82, 4385-93, 4397-4409,
4417-21, 4440-44'
frac: 50 k# 20/40, 51,114 gal wtr, 8,946 gal wtr flush, 67.4 bpm

PBTD = 4469'
TD = 4500'

Prepared by: Jason Chow
Date: 5/11/2010

Revised by:
Date:

John Charles #6

API: 30-045-06545

Section 13 T27N R9W

flow now
BTEX on water

Bradenhead Repair Procedure:

- Rig up run 4-3/4" bit and scrapper to top of liner @ 2227'
- Set bridge plug at ~2100'
- Load casing with water and test to 500 psi
- Run sector cement bond log from ~2100' to surface.
    - Determine good top of cement
- Perforate 4 squeeze holes at top of cement
    - At approximately 1000' - previous TOC by temp survey in 1959
- Set cement retainer ~50-100' above squeeze holes
- Attempt to establish circulation out the bradenhead and rate
- Cement casing
- WOC
- Drill out retainer and test squeeze hole to 500 psi
    - Re-squeeze if necessary by setting cement retainer 50' above previous setting depth.
    - If cement does not circulate to pit – a subsequent sector cement bond log will be run to identify TOC.
        - Followed with a discussion with the NMOCD on a path forward.
- Continue to drill out bridge plug and cleanout to PBTD of 4469'
- Return well to production

CBL on entire well
fluid level?

Navajo alloted

Call Randy -
dug out valves
verify what's under
wellhead

Chevron

CHAIN OF CUSTODY FORM

ONE SAMPLE PER SHEET

Chevron Entity:

- Chevron Midcontinent L.P. ☐
- Chevron USA Inc. ☐
- Four Corners Gas & Oil Company ☒

Well site/location: John Clark 6 API: 030-045-06545

Sample matrix: Soil: Solid: Sludge: (Aqueous) Other:

Sample Identification: Bradenhead water # and volume of containers 1

Lab identification number: _____

Sampled by (Name): Randy Calcutt

Date: 4-1-14 Time: 900 AM

Analysis requested: _____

_____

Relinquished by: Randy Calcutt

Date: 4-2-14 Time: 2 00 PM

Accepted by: _____

Date: _____ Time: _____

Instructions:

Check correct operator entity.
Fill in name of well site and API.
What kind of sample is it? Soil? Mud? Water?
Identify sample- for example: gas from Bradenhead? How many containers? How much do they hold?
Lab identification number? How will they track the sample?
Sampled by: Name of sampler, date of sampling and time of sampling.
Analysis requested: Bradenhead gas? Production water from gas stream? Bradenhead water?
Who dropped off the sample? Date and time.
Who accepted the sample? Date and time.

One form for each location.
Return form - with ALL signatures - to Regulatory Specialist.

Green Analytical Laboratories

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Durango, CO 81303
970.247.4220 Phone
970.247.4227 Fax
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13 November 2013

Tim Ulrich
Baker Hughes
1215 Basin Rd
Farmington, NM 87401

RE: TPH 8015

Enclosed are the results of analyses for samples received by the laboratory on 11/05/13 14:50.
If you need any further assistance, please feel free to contact me.

Sincerely,

Debbie Zufelt

Debbie Zufelt
Reports Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. Our NELAP accreditation can be viewed at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water.

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water

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www.GreenAnalytical.com

Baker Hughes	Project: TPH 8015	
1215 Basin Rd	Project Name / Number: [none]	**Reported:**
Farmington NM, 87401	Project Manager: Tim Ulrich	11/13/13 17:09

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
John Charles #6 Braden Head	1311023-01	Water	10/29/13 00:00	11/05/13 14:50
John Charles #6 Clear Oil Sample	1311023-02	Water	10/29/13 00:00	11/05/13 14:50

Green Analytical Laboratories

Debbie Zufelt

Debbie Zufelt, Reports Manager

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Baker Hughes	Project: TPH 8015	
1215 Basin Rd	Project Name / Number: [none]	**Reported:**
Farmington NM, 87401	Project Manager: Tim Ulrich	11/13/13 17:09

Subcontracted – **Cardinal Laboratories**

John Charles #6 Braden Head

1311023-01 (Water)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Petroleum Hydrocarbons by GC FID									**S-06**
Surrogate: 1-Chlorooctadecane			*514 %*	*63.6-154*		*11/11/13*	*8015B*		MS
Surrogate: 1-Chlorooctane			*366 %*	*65.2-140*		*11/11/13*	*8015B*		MS
DRO >C10-C28	**354000**	2000	394	mg/kg	200	11/11/13	8015B		MS
EXT DRO >C28-C35	**58900**	2000	394	mg/kg	200	11/11/13	8015B		MS
GRO C6-C10	**140000**	2000	256	mg/kg	200	11/11/13	8015B		MS

John Charles #6 Clear Oil Sample

1311023-02 (Water)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Petroleum Hydrocarbons by GC FID									**S-06**
Surrogate: 1-Chlorooctadecane			*185 %*	*63.6-154*		*11/11/13*	*8015B*		MS
Surrogate: 1-Chlorooctane			*433 %*	*65.2-140*		*11/11/13*	*8015B*		MS
DRO >C10-C28	**77000**	2000	394	mg/kg	200	11/11/13	8015B		MS
EXT DRO >C28-C35	**5980**	2000	394	mg/kg	200	11/11/13	8015B		MS
GRO C6-C10	**1000000**	2000	256	mg/kg	200	11/11/13	8015B		MS

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Baker Hughes	Project: TPH 8015	
1215 Basin Rd	Project Name / Number: [none]	**Reported:**
Farmington NM, 87401	Project Manager: Tim Ulrich	11/13/13 17:09

Petroleum Hydrocarbons by GC FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3111002 - General Prep - Organics										
Blank (3111002-BLK1)				Prepared: 11/10/13 Analyzed: 11/11/13						
Surrogate: 1-Chlorooctadecane	*52.4*		mg/kg	*50.0*		*105*	*63.6-154*			
Surrogate: 1-Chlorooctane	*46.4*		mg/kg	*50.0*		*92.8*	*65.2-140*			
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C35	ND	10.0	mg/kg							
GRO C6-C10	ND	10.0	mg/kg							
Total TPH C6-C28	ND	10.0	mg/kg							
LCS (3111002-BS1)				Prepared: 11/10/13 Analyzed: 11/11/13						
Surrogate: 1-Chlorooctadecane	*50.9*		mg/kg	*50.0*		*102*	*63.6-154*			
Surrogate: 1-Chlorooctane	*45.4*		mg/kg	*50.0*		*90.8*	*65.2-140*			
DRO >C10-C28	169	10.0	mg/kg	200		84.5	61.6-132			
GRO C6-C10	170	10.0	mg/kg	200		84.9	66.4-124			
Total TPH C6-C28	339	10.0	mg/kg	400		84.7	69.7-122			
LCS Dup (3111002-BSD1)				Prepared: 11/10/13 Analyzed: 11/11/13						
Surrogate: 1-Chlorooctadecane	*55.6*		mg/kg	*50.0*		*111*	*63.6-154*			
Surrogate: 1-Chlorooctane	*51.4*		mg/kg	*50.0*		*103*	*65.2-140*			
DRO >C10-C28	180	10.0	mg/kg	200		90.2	61.6-132	6.55	23.1	
GRO C6-C10	191	10.0	mg/kg	200		95.4	66.4-124	11.6	23.4	
Total TPH C6-C28	371	10.0	mg/kg	400		92.8	69.7-122	9.11	20.6	

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Baker Hughes	Project: TPH 8015	
1215 Basin Rd	Project Name / Number: [none]	**Reported:**
Farmington NM, 87401	Project Manager: Tim Ulrich	11/13/13 17:09

Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis *Results reported on as received basis unless designated as dry.
RPD	Relative Percent Difference
LCS	Laboratory Control Sample (Blank Spike)
RL	Report Limit
MDL	Method Detection Limit

Green Analytical Laboratories

Debbie Zufelt

Debbie Zufelt, Reports Manager

Client: Baker-Hughes	Phone#		Contact:	505-486-5652
1215 Basin Road	E-Mail Address:	timothy.ulrich@bakerhughes.com		
Farmington, NM 87401		kevin.scott@bakerhughes.com		

Green Analytical Labs
75 Suttle Street
Durango, CO 81303
Phone:970-247-4220
FAX: 970-247-4227

2.4°C
No ice

GAL Work Order # 1311-023, 01-02
PO#
Project Name: Blanco Wash CHEVRON

6°C #9
on ice

Collection			Miscellaneous				Preservative			Analyses Required				
Sample ID	Date	Time	Collected By: (Init.)	Matrix Type	No. of Containers	Filtered: Y / N	Unpreserved	H2SO4	Other	Iron and Manganese PD	THP-8015		Oil & Grease	Corrison Coupon
01 1.John Charles #6 Braden head	10/29/2013				1						x			
02 2. John Charles #6 Clear Oil sample	10/29/2013				1						x			
3.														
4.														
5.														
6.														
7.														
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Relinquished by:	Date:	Time:	Received By:	Date:	Time:
	11/5/13	1450	Monica Clark	11/5/13	1450
Monica Clark	11/5/13	1645	Kangaroo Express	11/5/13	1645
Kangaroo Ex	11/6/13	930	C Casey	11/6/13	908

John Charles 6 Bradenhead/Tubing Hydrocarbon Comparison

	Analytical Results		
	GRO (C6-C10) mg/kg	DRO (C10 -C28) mg/kg	Ext. DRO (C28-C35) mg/kg
John Charles 6 (Tubing - Clear Oil)	1000000	77000	5950
John Charles 6 (Bradenhead)	140000	354000	58900

	Normalized Results (% by Wt.)		
	GRO (C6-C10)	DRO (C10 -C28)	Ext. DRO (C28-C35)
John Charles 6 (Tubing - Clear Oil)	92%	7%	1%
John Charles 6 (Bradenhead)	25%	64%	11%