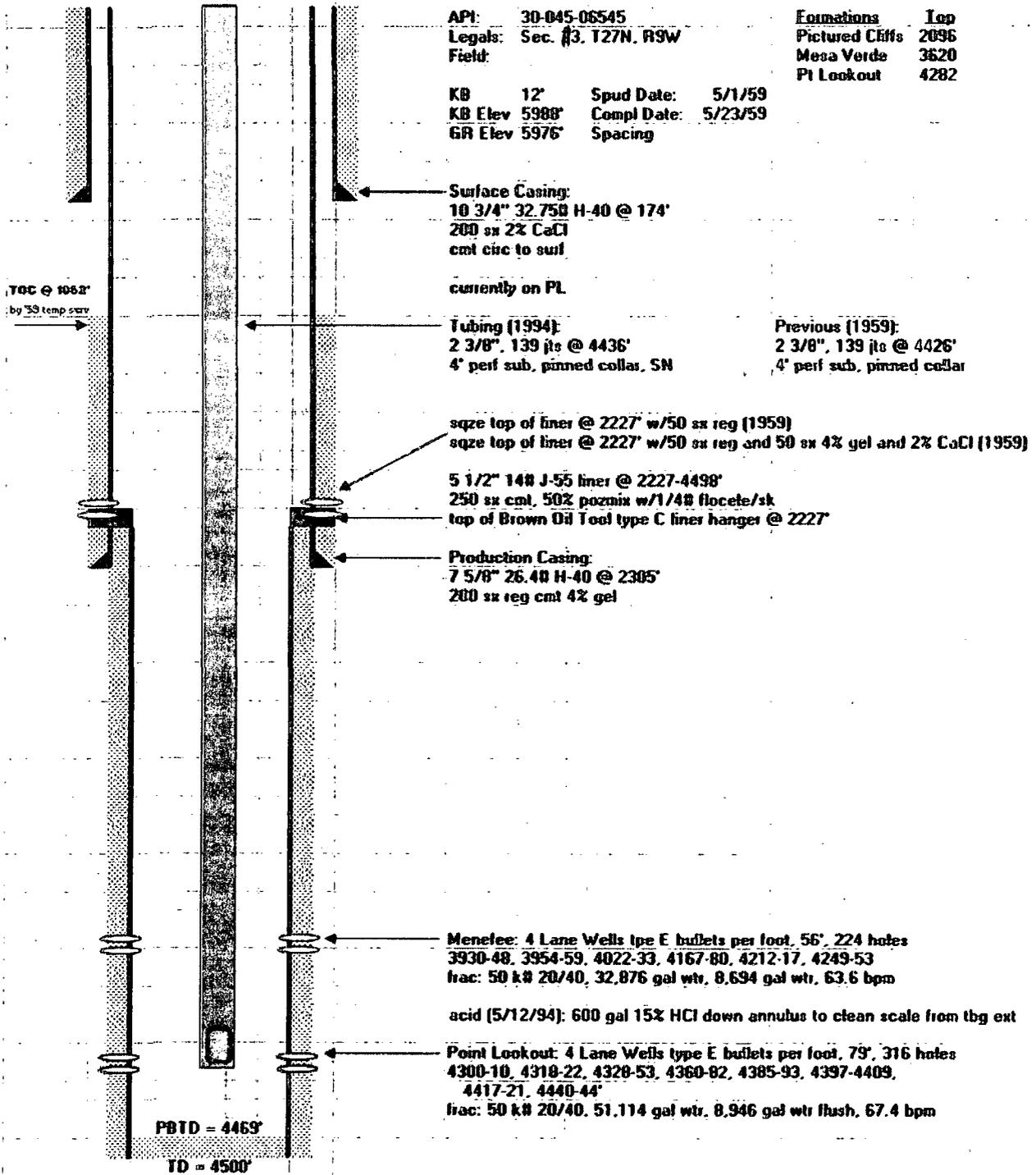




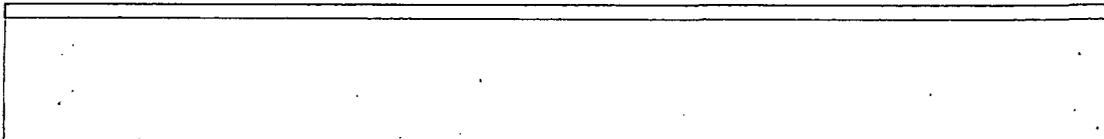
**John Charles 6**  
**San Juan County, New Mexico**  
**Current Well Schematic as of May 11, 2010**

APR 11 2014



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 PBD of 4469'
- Return well to production

*CBL mention well  
fluid level?*

*Navajo allotted*

*Call Randy -  
dig out valves  
verify what's under  
wellhead*



CHAIN OF CUSTODY FORM

ONE SAMPLE PER SHEET

Chevron Entity:

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

X

Well site/location: John Carlos 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: 9:00 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.



75 Suttle Street  
Durango, CO 81303  
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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,

A handwritten signature in black ink that reads "Debbie Zufelt". The signature is written in a cursive, flowing style.

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](http://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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Baker Hughes 1215 Basin Rd Farmington NM, 87401	Project: TPH 8015 Project Name / Number: [none] Project Manager: Tim Ulrich	Reported: 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, Reports Manager

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Baker Hughes 1215 Basin Rd Farmington NM, 87401	Project: TPH 8015 Project Name / Number: [none] Project Manager: Tim Ulrich	Reported: 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
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**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	100000	2000	256	mg/kg	200	11/11/13	8015B		MS

Green Analytical Laboratories

*Debbie Zufelt*

Debbie Zufelt, Reports Manager

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www.GreenAnalytical.com

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

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

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Client: Baker-Hughes		Phone#	Contact: 505-486-5652
1215 Basin Road		E-Mail Address: <a href="mailto:timothy.ulrich@bakerhughes.com">timothy.ulrich@bakerhughes.com</a>	
Farmington, NM 87401		<a href="mailto:kevin.scott@bakerhughes.com">kevin.scott@bakerhughes.com</a>	
Green Analytical Labs 75 Suttle Street Durango, CO 81303 Phone: 970-247-4220 FAX: 970-247-4227	21.4°C NOICE	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
1. John Charles #6 Braden head	10/29/2013				1						x		
2. John Charles #6 Clear Oil sample	10/29/2013				1						x		
3.													
4.													
5.													
6.													
7.													
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27.													
28.													
29.													
30.													

Relinquished by:	Date:	Time:	Received By:	Date:	Time:
<i>[Signature]</i>	11/5/13	1450	<i>[Signature]</i>	11/5/13	1450
<i>Konyanoo Ex</i>	11/5/13	1645	<i>Konyanoo Ex</i>	11/5/13	1645
	11/6/13	930	<i>CCasey</i>	11/6/13	905

### 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%