CORRECTION #1

Confidentiality Requested:
☐ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1153639

Form ACO-1
August 2013
Form must be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 30604
Name: Raydon Exploration, Inc.
Address 1: 1601 NW EXPRESSWAY, STE 1300
Address 2:
City: OKLAHOMA CITY State: OK Zip: 73118 + 1462
Contact Person: David E. Rice
Phone: (620) 624-0156
CONTRACTOR: License # 34127
Name: Tomcat Drilling LLC
Wellsite Geologist: Ed Grieves
Purchaser:

Designate Type of Completion:

☑ New Well ☐ Re-Entry ☐ Workover

☐ Oil ☐ WSW ☐ SWD ☐ SIOW
☑ Gas ☐ D&A ☐ ENHR ☐ SIGW
☐ OG ☐ GSW ☐ Temp. Abd.
☐ CM *(Coal Bed Methane)*
☐ Cathodic ☐ Other *(Core, Expl., etc.)*:

If Workover/Re-entry: Old Well Info as follows:

Operator:
Well Name:
Original Comp. Date: Original Total Depth:

☐ Deepening ☐ Re-perf. ☐ Conv. to ENHR ☐ Conv. to SWD
☐ Plug Back ☐ Conv. to GSW ☐ Conv. to Producer

☐ Commingled Permit #:
☐ Dual Completion Permit #:
☐ SWD Permit #:
☐ ENHR Permit #:
☐ GSW Permit #:

12/11/2012 Spud Date or Recompletion Date
12/23/2012 Date Reached TD
05/15/2013 Completion Date or Recompletion Date

API No. 15 - 15-119-21331-00-00
Spot Description:
SE - SW - NW - SE Sec. 30 Twp. 33 S. R. 30 ☐ East ☑ West
1360 Feet from ☐ North / ☑ South Line of Section
2304 Feet from ☑ East / ☐ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☑ SE ☐ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Meade
Lease Name: George Well #: 1-30
Field Name:
Producing Formation: Chester
Elevation: Ground: 2716 Kelly Bushing: 2722
Total Vertical Depth: 5921 Plug Back Total Depth: 5823
Amount of Surface Pipe Set and Cemented at: 1680 Feet
Multiple Stage Cementing Collar Used? ☐ Yes ☑ No
If yes, show depth set: Feet
If Alternate II completion, cement circulated from:
feet depth to: w/ sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)

Chloride content: 2600 ppm Fluid volume: 250 bbls
Dewatering method used: Hauled to Disposal
Location of fluid disposal if hauled offsite:
Operator Name: Max's Water Service
Lease Name: Sneed 2-14 License #: 34021
Quarter NW Sec. 14 Twp. 34 S. R. 30 ☐ East ☑ West
County: Meade Permit #: D27876.0

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

☑ **Confidentiality Requested**
Date: 04/05/2013
☑ **Confidential Release Date:** 04/05/2015
☑ **Wireline Log Received**
☐ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ I ☐ II ☐ III **Approved by:** NAOMI JAMES **Date:** 07/31/2013

CORRECTION #1
Page Two

1153639

Operator Name: Raydon Exploration, Inc. Lease Name: George Well #: 1-30

Sec. 30 Twp. 33 S. R. 30 ☐ East ☑ West County: Meade

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

List All E. Logs Run:

Attached

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Base Heebner	4358	-1636
Toronto	4370	-1648
Lansing	4481	-2217
Marmaton	5134	-2412
Cherokee	5334	-2612
Morrow	5646	-2924
Chester	5728	-3006

CASING RECORD ☑ New ☐ Used
Report all strings set-conductor, surface, intermediate, production, etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12.25	8.625	24	1680	A-Con, Prem Plus	550	3%CC,.2%WCA1,Polyflake
Production	7.875	4.5	10.5	5915	A-Con, AA-2	325	3%CC,5%W60,Polyflake

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
___ Perforate ___ Protect Casing ___ Plug Back TD ___ Plug Off Zone	-			
	-			

Did you perform a hydraulic fracturing treatment on this well? ☐ Yes ☐ No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? ☐ Yes ☐ No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? ☐ Yes ☐ No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record *(Amount and Kind of Material Used)*	Depth
3	5732-5742	1000 gals 15% HCL	5732-5742
		7607 gals 15% FE acid	5732-5742

TUBING RECORD: Size: 2.375 Set At: 5714 Packer At:

Liner Run: ☐ Yes ☑ No

Date of First, Resumed Production, SWD or ENHR. 5/15/2013

Producing Method: ☑ Flowing ☐ Pumping ☐ Gas Lift ☐ Other *(Explain)*

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	5	429	3.5	0	40

DISPOSITION OF GAS:
☐ Vented ☑ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION:
☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☐ Other *(Specify)*

PRODUCTION INTERVAL:

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Raydon Exploration, Inc.
Well Name	George 1-30
Doc ID	1153639

All Electric Logs Run

Array Compensated True Resistivity Log
Spectral Density Dual Spaced Neutron Log
Annular Hole Volume Plot
Microlog
Borehole Compensated Sonic Array Log
Cement Bond Log

Summary of Changes

Lease Name and Number: George 1-30

API/Permit #: 15-119-21331-00-00

Doc ID: 1153639

Correction Number: 1

Approved By: NAOMI JAMES

Field Name	Previous Value	New Value
Approved Date	04/10/2013	07/31/2013
Completion Or Recompletion Date	04/10/2013	05/15/2013
Date of First or Resumed Production or SWD or Enhr		5/15/2013
Disposition Of Gas - Sold	No	Yes
Liner Run?		No
Method Of Completion - Perf	No	Yes
Perf_Depth_1		5732-5742
Perf_Depth_2		5732-5742
Perf_Material_1		1000 gals 15% HCL
Perf_Material_2		7607 gals 15% FE acid

Summary of changes for correction 1 continued

Field Name	Previous Value	New Value
Perf_Record_1		5732-5742
Perf_Shots_1		3
Producing Method Flowing	No	Yes
Production - Barrels Oil		5
Production - Barrels of Water		3.5
Production - Gas-Oil Ratio		0
Production - MCF Gas		429
Production - Oil Gravity		40
Save Link	../../kcc/detail/operatorEditDetail.cfm?docID=1131406	../../kcc/detail/operatorEditDetail.cfm?docID=1153639
Tubing Record - Set At		5714
Tubing Size		2.375

CONFIDENTIAL

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1131406

WELL COMPLETION FORM

WELL HISTORY - DESCRIPTION OF WELL & LEASE

Form ACO-1
June 2009
Form Must Be Typed
Form must be Signed
All blanks must be Filled

OPERATOR: License # 30604
Name: Raydon Exploration, Inc.
Address 1: 1601 NW EXPRESSWAY, STE 1300
Address 2:
City: OKLAHOMA CITY State: OK Zip: 73118 + 1462
Contact Person: David E. Rice
Phone: (620) 624-0156
CONTRACTOR: License # 34127
Name: Tomcat Drilling LLC
Wellsite Geologist: Ed Grieves
Purchaser:

Designate Type of Completion:

- [x] New Well
- [ ] Re-Entry
- [ ] Workover

- [ ] Oil
- [ ] WSW
- [ ] SWD
- [ ] SIOW
- [x] Gas
- [ ] D&A
- [ ] ENHR
- [ ] SIGW
- [ ] OG
- [ ] GSW
- [ ] Temp. Abd.
- [ ] CM *(Coal Bed Methane)*
- [ ] Cathodic
- [ ] Other *(Core, Expl., etc.)*:

If Workover/Re-entry: Old Well Info as follows:

Operator:
Well Name:

Original Comp. Date: Original Total Depth:

- [ ] Deepening
- [ ] Re-perf.
- [ ] Conv. to ENHR
- [ ] Conv. to SWD
- [ ] Conv. to GSW
- [ ] Plug Back: Plug Back Total Depth
- [ ] Commingled Permit #:
- [ ] Dual Completion Permit #:
- [ ] SWD Permit #:
- [ ] ENHR Permit #:
- [ ] GSW Permit #:

12/11/2012	12/23/2012	04/10/2013
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-119-21331-00-00
Spot Description:
SE - SW - NW - SE Sec. 30 Twp. 33 S. R. 30 [ ] East [x] West
1360 Feet from [ ] North / [x] South Line of Section
2304 Feet from [x] East / [ ] West Line of Section
Footages Calculated from Nearest Outside Section Corner:
[ ] NE [ ] NW [x] SE [ ] SW
County: Meade
Lease Name: George Well #: 1-30
Field Name:
Producing Formation: Chester
Elevation: Ground: 2716 Kelly Bushing: 2722
Total Depth: 5921 Plug Back Total Depth: 5823
Amount of Surface Pipe Set and Cemented at: 1680 Feet
Multiple Stage Cementing Collar Used? [ ] Yes [x] No
If yes, show depth set: Feet
If Alternate II completion, cement circulated from:
feet depth to: w/ sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)

Chloride content: 2600 ppm Fluid volume: 250 bbls
Dewatering method used: Hauled to Disposal

Location of fluid disposal if hauled offsite:

Operator Name: Max's Water Service
Lease Name: Sneed 2-14 License #: 34021
Quarter NW Sec. 14 Twp. 34 S. R. 30 [ ] East [x] West
County: Meade Permit #: D27876.0

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- [x] **Letter of Confidentiality Received**
  Date: 04/05/2013
- [ ] **Confidential Release Date:**
- [x] **Wireline Log Received**
- [ ] **Geologist Report Received**
- [ ] **UIC Distribution**

ALT [x] I [ ] II [ ] III **Approved by:** NAOMI JAMES **Date:** 04/10/2013

Operator Name: Raydon Exploration, Inc. Lease Name: George Well #: 1-30

Sec. 30 Twp. 33 S. R. 30 ☐ East ☑ West County: Meade

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken *(Attach Additional Sheets)*	☑ Yes	☐ No
Samples Sent to Geological Survey	☑ Yes	☐ No
Cores Taken	☐ Yes	☑ No
Electric Log Run	☑ Yes	☐ No
Geologist Report / Mud Logs	☐ Yes	☐ No

List All E. Logs Run:
Attached

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Base Heebner	4358	-1636
Toronto	4370	-1648
Lansing	4481	-2217
Marmaton	5134	-2412
Cherokee	5334	-2612
Morrow	5646	-2924
Chester	5728	-3006

CASING RECORD ☑ New ☐ Used
Report all strings set-conductor, surface, intermediate, production, etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12.25	8.625	24	1680	A-Con, Prem Plus	550	3%CC,.2%WCA1,Polyflake
Production	7.875	4.5	10.5	5915	A-Con, AA-2	325	3%CC,5%W60,Polyflake

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
☐ Perforate ☐ Protect Casing ☐ Plug Back TD ☐ Plug Off Zone	-			
	-			

1. Did you perform a hydraulic fracturing treatment on this well? ☐ Yes ☐ No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? ☐ Yes ☐ No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? ☐ Yes ☐ No *(If No, fill out Page Three of the ACO-1)*

Date of first Production/Injection or Resumed Production/ Injection:	Producing Method:
5/15/2013	☑ Flowing ☐ Pumping ☐ Gas Lift ☐ Other *(Explain)*

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	5	429	3.5	0	40

DISPOSITION OF GAS:	METHOD OF COMPLETION:	PRODUCTION INTERVAL: Top / Bottom
☐ Vented ☑ Sold ☐ Used on Lease *(If vented, Submit ACO-18.)*	☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*	

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record *(Amount and Kind of Material Used)*
3					1000 gals 15% HCL
					7607 gals 15% FE acid

TUBING RECORD:	Size:	Set At:	Packer At:
	2.375	5714	

Mail to: KCC - Conservation Division, 266 N. Main, Suite 220, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Raydon Exploration, Inc.
Well Name	George 1-30
Doc ID	1131406

All Electric Logs Run

Array Compensated True Resistivity Log
Spectral Density Dual Spaced Neutron Log
Annular Hole Volume Plot
Microlog
Borehole Compensated Sonic Array Log
Cement Bond Log

Form	ACO1 - Well Completion
Operator	Raydon Exploration, Inc.
Well Name	George 1-30
Doc ID	1131406

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.25	8.625	24	1680	A-Con, Prem Plus	550	3%CC,.2 %WCA1,P olyflake
Production	7.875	4.5	10.5	5915	A-Con, AA-2	325	3%CC,5% W60,Polyfl ake

BASIC℠ ENERGY SERVICES
Liberal, Kansas

Cement Report

Customer: Rayden Exploration	Lease No.		Date: 12-24-12
Lease: Gedrge	Well #: 1-30	Service Receipt: 30-33-30	
Casing: 4 1/2" 10.5	Depth: 5921'	County: Meade	State: KS
Job Type: 4 1/2 2nd. 7	Formation:	Legal Description: 03177	

Pipe Data		Perforating Data		Cement Data
Casing size: 4 1/2" 10.5#	Tubing Size	Shots/Ft		Lead 175 A Con
Depth: TD 5913'	Depth	From	To	
Volume: Disp 94 bbl	Volume	From	To	
Max Press: 1500#	Max Press	From	To	Tail in 250 AA2
Well Connection: TP-5921'	Annulus Vol.	From	To	
Plug Depth: ST-121'	Packer Depth	From	To	

Time	Casing Pressure	Tubing Pressure	Bbls. Pumbed	Rate	Service Log
2:00					on loc site assesment
3:00					spot trucks-rig up
4:00					Start csg & float equip
					csg on btm break circ
					Safety meeting / JSA
					press. line test 3000#
	200		5	5	pump 5 bbl H_2O spacer
	200		12	5	pump 500 gal Superflush
	200		5	5	pump 5 bbl H_2O spacer
	50		13	3	mix & pump 50 sk A Con plug
					rat & mouse holes
	200		39	5	mix pump 75 sk A Con @ 11.4#
	200		67	5	switch to tail 250 AA2 @ 15#
					wash lines
	0		0	6	drop plug disp csg
	900		80	2	slow rate
7:30	1400		94	0	land plug, float held

Service Units	19002	33550-19842	19827 19866	10276-19883		
Driver Names	A. Rivera	K. Hollowell	H. Puttanga	T. Bennett		

E. Andrews — Customer Representative

J. Bennett — Station Manager

A. Rivera — Cementer

Taylor Printing, Inc.

BASIC ENERGY SERVICES
Liberal, Kansas

Cement Report

Customer: Raydon Exploration	Lease No.	Date: 12/12/12	
Lease: Gragg	Well #: 1-30	Service Receipt	
Casing: 8 5/8	Depth: 1685'	County: Meade	State: KS
Job Type: Surface	Formation	Legal Description: 30/33/30	

Pipe Data

Casing size: 8 5/8	Tubing Size
Depth: 1687.79	Depth
Volume: 104.34	Volume
Max Press: 1500	Max Press
Well Connection: P.C.	Annulus Vol.
Plug Depth	Packer Depth

Perforating Data

Shots/Ft	From	To
	From	To
	From	To
	From	To
	From	To

Cement Data

Lead: 400sx A Con @ 11.4#
2.95 15.10

Tail in: 150sx C @ 14.8
1.34 6.33

Time	Casing Pressure	Tubing Pressure	Bbls. Pumbed	Rate	Service Log
17:00					on Loc, Spot trucks, R.U. Safety Mtg
22:05	2700				Test Lines.
22:15	190		0	5	Start Mixing @ 11.4#
22:55	150		210	5	on Tail @ 14.8#
23:00	0		36	0	Finished Mixing
23:09	0		0	5	Start Disp Wash up
23:30	500		94	1	Slow Rate
23:41	1050		104	0	Plug Down
23:42	0				Release PSI Float Held
					Job Complete

Service Units	19548	37273/37926	27508/14754	21633/7547		
Driver Names	C. Hintz	R. Childs	S. Grayden	I. Vasquez		

C. Andrews
Customer Representative

Jerry Bennett
Station Manager

Chad Hintz
Cementer

Taylor Printing, Inc.

Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802

Kansas
Corporation Commission

Phone: 316-337-6200
Fax: 316-337-6211
http://kcc.ks.gov/

April 03, 2013

David E. Rice
Raydon Exploration, Inc.
1601 NW EXPRESSWAY, STE 1300
OKLAHOMA CITY, OK 73118-1462

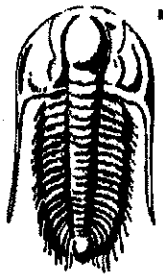
Re: ACO1
API 15-119-21331-00-00
George 1-30
SE/4 Sec.30-33S-30W
Meade County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,
David E. Rice



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Raydon Exploration**

1601 NW Expressway
STE 1300
Oklahoma City OK 73118

ATTN: Ed Grieves

George #1-30

30-33s-30w Meade,KS

Start Date: 2012.12.17 @ 16:13:15

End Date: 2012.12.18 @ 02:42:15

Job Ticket #: 51319 DST #: 1

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.12.26 @ 09:14:48

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC.

Raydon Exploration

1601 NW Expressway
STE 1300
Oklahoma City OK 73118
ATTN: Ed Grieves

30-33s-30w Meade,KS

George #1-30

Job Ticket: 51319 **DST#: 1**

Test Start: 2012.12.17 @ 16:13:15

GENERAL INFORMATION:

Formation: **"A"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:56:45
Time Test Ended: 02:42:15

Test Type: Conventional Bottom Hole (Initial)
Tester: Mike Roberts
Unit No: 65

Interval: 4485.00 ft (KB) To 4495.00 ft (KB) (TVD)
Total Depth: 4495.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

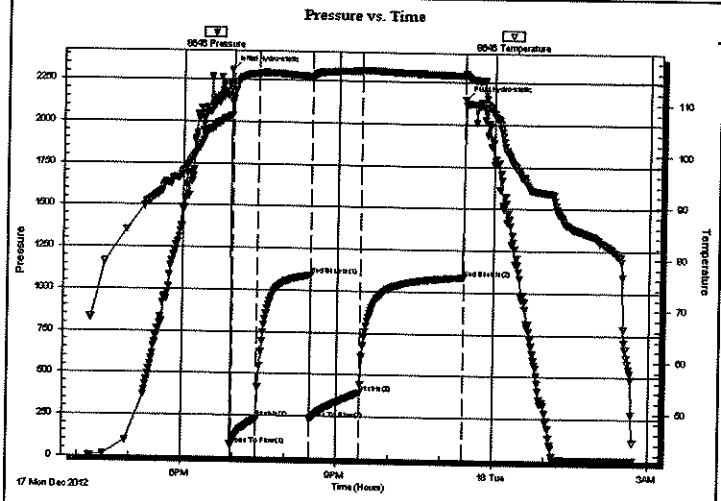
Reference Elevations: 4495.00 ft (KB)
4485.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8646 **Inside**

Press@RunDepth: 395.30 psig @ 4486.00 ft (KB)
Start Date: 2012.12.17 End Date: 2012.12.18
Start Time: 16:13:15 End Time: 02:42:15

Capacity: 8000.00 psig
Last Calib.: 2012.12.18
Time On Btm: 2012.12.17 @ 18:55:15
Time Off Btm: 2012.12.17 @ 23:26:30

TEST COMMENT: IF:BOB in 4 min.
IS:No return blow
FF:BOB in 5 min.
FS:No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2310.01	107.28	Initial Hydro-static
2	73.42	110.59	Open To Flow (1)
32	231.19	115.36	Shut-In(1)
93	1089.44	115.00	End Shut-In(1)
94	233.56	114.53	Open To Flow (2)
151	395.30	116.20	Shut-In(2)
271	1088.07	115.55	End Shut-In(2)
272	2150.46	115.90	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
979.00	sw 100%sw	11.03
124.00	mcw 50%m 50%w	1.74
134.00	w cm 20%w 80%m	1.88
2.00	free oil	0.03

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC.

Raydon Exploration

1601 NW Expressw ay
STE 1300
Oklahoma City OK 73118
ATTN: Ed Grieves

30-33s-30w Meade,KS

George #1-30

Job Ticket: 51319 **DST#: 1**

Test Start: 2012.12.17 @ 16:13:15

GENERAL INFORMATION:

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Hole Diameter: 7.88 inches Hole Condition: Fair

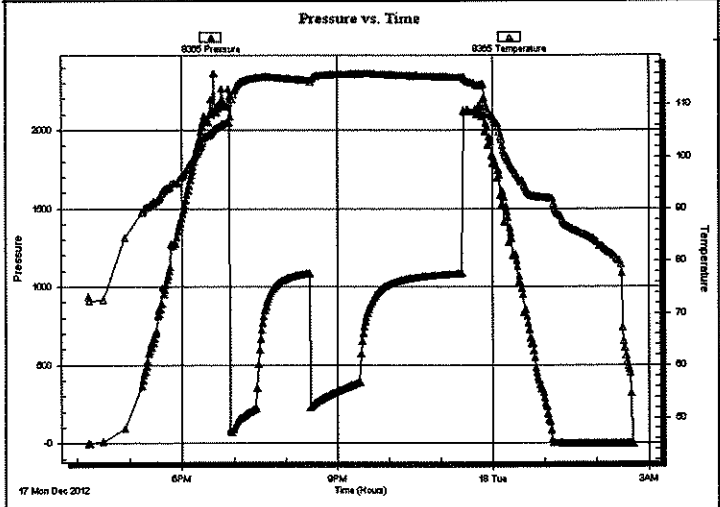
Reference Elevations: 4495.00 ft (KB)
4485.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8365 **Outside**

Press@RunDepth: psig @ 4486.00 ft (KB)
Start Date: 2012.12.17 End Date: 2012.12.18
Start Time: 16:13:00 End Time: 02:42:15

Capacity: 8000.00 psig
Last Calib.: 2012.12.18
Time On Btm:
Time Off Btm:

TEST COMMENT: IF:BOB in 4 min.
IS:No return blow
FF:BOB in 5 min.
FS:No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
979.00	sw 100%sw	11.03
124.00	mcw 50%m 50%w	1.74
134.00	w cm 20%w 80%m	1.88
2.00	free oil	0.03

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

TOOL DIAGRAM

Raydon Exploration

1601 NW Expressway
STE 1300
Oklahoma City OK 73118
ATTN: Ed Grieves

30-33s-30w Meade,KS

George #1-30

Job Ticket: 51319 **DST#: 1**

Test Start: 2012.12.17 @ 16:13:15

Tool Information

Drill Pipe:	Length:	4195.00 ft	Diameter:	3.80 inches	Volume:	58.84 bbl	Tool Weight:	1500.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length:	297.00 ft	Diameter:	2.25 inches	Volume:	1.46 bbl	Weight to Pull Loose:	80000.00 lb
					Total Volume:	60.30 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		26.00 ft					String Weight: Initial	70000.00 lb
Depth to Top Packer:		4485.00 ft					Final	72000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		10.00 ft						
Tool Length:		29.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			4467.00		
Shut In Tool	5.00			4472.00		
Hydraulic tool	5.00			4477.00		
Jars	5.00			4482.00		
Safety Joint	3.00			4485.00		
Packer	0.00			4485.00	19.00	Bottom Of Top Packer
Packer - Shale	0.00			4485.00		
Stubb	1.00			4486.00		
Recorder	0.00	8646	Inside	4486.00		
Recorder	0.00	8365	Outside	4486.00		
Perforations	4.00			4490.00		
Bullnose	5.00			4495.00	10.00	Anchor Tool
Total Tool Length:	**29.00**					

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Raydon Exploration

1601 NW Expressway
STE 1300
Oklahoma City OK 73118
ATTN: Ed Grieves

30-33s-30w Meade,KS

George #1-30

Job Ticket: 51319 **DST#: 1**

Test Start: 2012.12.17 @ 16:13:15

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	68000 ppm
Viscosity:	44.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.34 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	3800.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
979.00	sw 100%sw	11.027
124.00	mcw 50%m 50%w	1.739
134.00	w cm 20%w 80%m	1.880
2.00	free oil	0.028

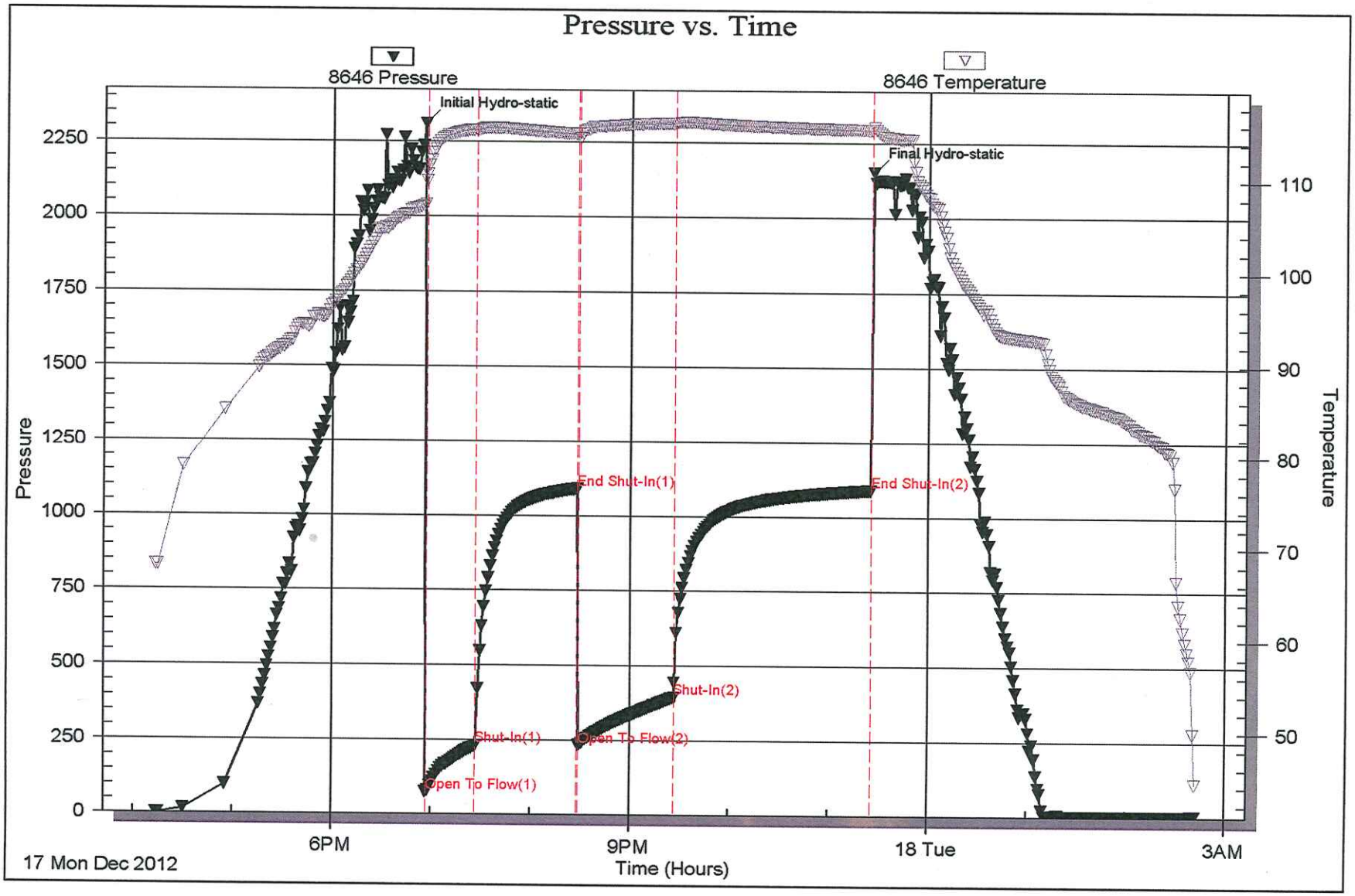
Total Length: 1239.00 ft Total Volume: 14.674 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

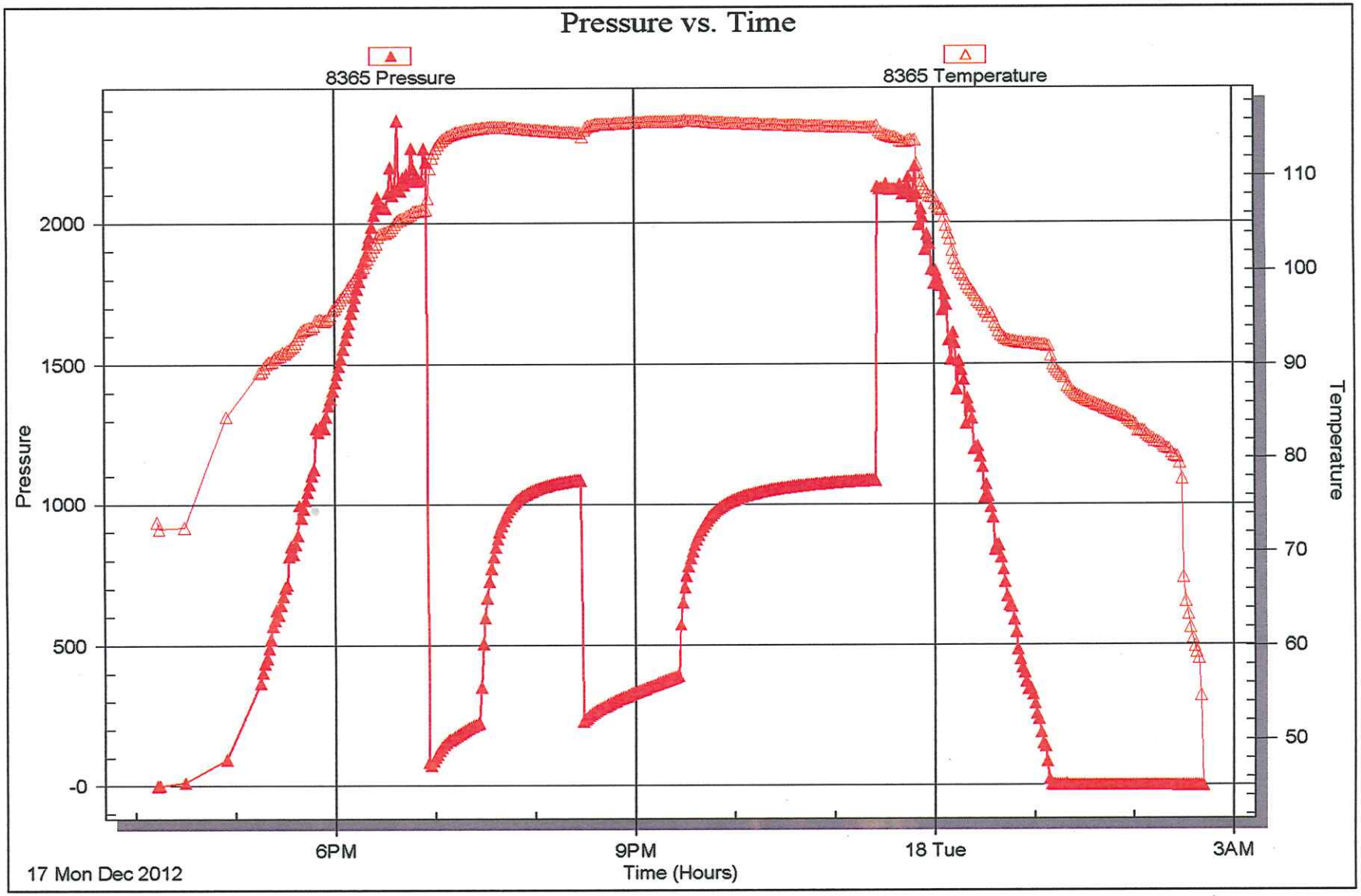
Recovery Comments: RW= >275 @ 35.7*=68,000 ppm

Serial #: 8646 **Inside** Raydon Exploration George #1-30 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 51319 Printed: 2012.12.26 @ 09:14:52

Serial #: 8365 **Outside** Raydon Exploration George #1-30 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 51319 Printed: 2012.12.26 @ 09:14:53

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Raydon Exploration**

1601 NW Expressway
STE 1300
Oklahoma City OK 73118

ATTN: Ed Grieves

George #1-30

30-33s-30w Meade,KS

Start Date: 2012.12.21 @ 21:00:00

End Date: 2012.12.22 @ 08:52:00

Job Ticket #: 51261 DST #: 2

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.12.26 @ 09:13:54

Raydon Exploration 30-33s-30w Meade,KS George #1-30 DST # 2 Morrow 2012.12.21

DRILL STEM TEST REPORT

Raydon Exploration

1601 NW Expressway
STE 1300
Oklahoma City OK 73118
ATTN: Ed Grieves

30-33s-30w Meade,KS

George #1-30

Job Ticket: 51261 **DST#: 2**

Test Start: 2012.12.21 @ 21:00:00

GENERAL INFORMATION:

Formation: **Morrow**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:45:00
Time Test Ended: 08:52:00

Test Type: Conventional Bottom Hole (Reset)
Tester: Sam Esparza
Unit No: 64

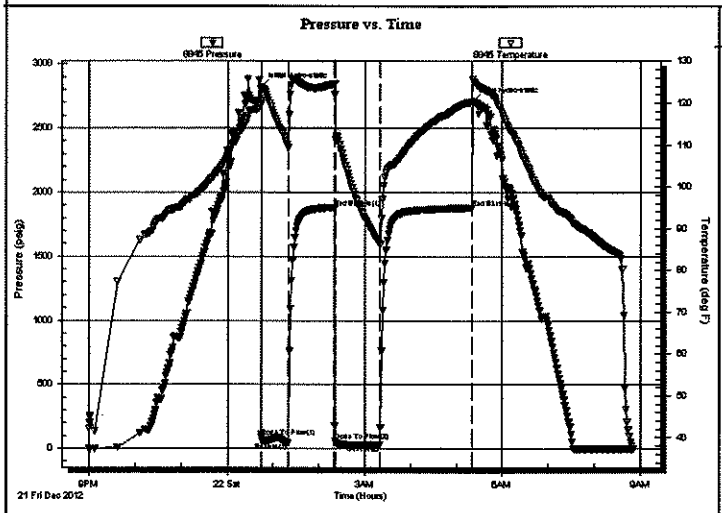
Interval: 5713.00 ft (KB) To 5730.00 ft (KB) (TVD)
Total Depth: 5730.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 4495.00 ft (KB)
4485.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8845 **Outside**
Press@RunDepth: 33.76 psig @ 5714.00 ft (KB)
Start Date: 2012.12.21 End Date: 2012.12.22
Start Time: 21:00:05 End Time: 08:52:00

Capacity: 8000.00 psig
Last Calib.: 2012.12.22
Time On Btm: 2012.12.22 @ 00:44:15
Time Off Btm: 2012.12.22 @ 05:22:00

TEST COMMENT: IF: BOB @ 15 seconds. Gas to surface @ 15 min.
ISI: No return.
FF: BOB immediatly.
FSI: Weak surface return died @ 25 min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2821.39	119.88	Initial Hydro-static
1	87.89	121.86	Open To Flow (1)
35	45.96	109.30	Shut-In(1)
97	1881.49	124.57	End Shut-In(1)
98	62.69	111.21	Open To Flow (2)
157	33.76	86.16	Shut-In(2)
277	1878.31	120.45	End Shut-In(2)
278	2707.65	125.76	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud 100m	0.02

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.50	14.00	189.55
Last Gas Rate	0.50	16.00	203.05
Max. Gas Rate	0.50	17.00	209.79

DRILL STEM TEST REPORT

Raydon Exploration

1601 NW Expressway
STE 1300
Oklahoma City OK 73118
ATTN: Ed Grieves

30-33s-30w Meade,KS

George #1-30

Job Ticket: 51261 **DST#: 2**

Test Start: 2012.12.21 @ 21:00:00

GENERAL INFORMATION:

Formation: **Morrow**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:45:00
Time Test Ended: 08:52:00

Test Type: Conventional Bottom Hole (Reset)
Tester: Sam Esparza
Unit No: 64

Interval: 5713.00 ft (KB) To 5730.00 ft (KB) (TVD)
Total Depth: 5730.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

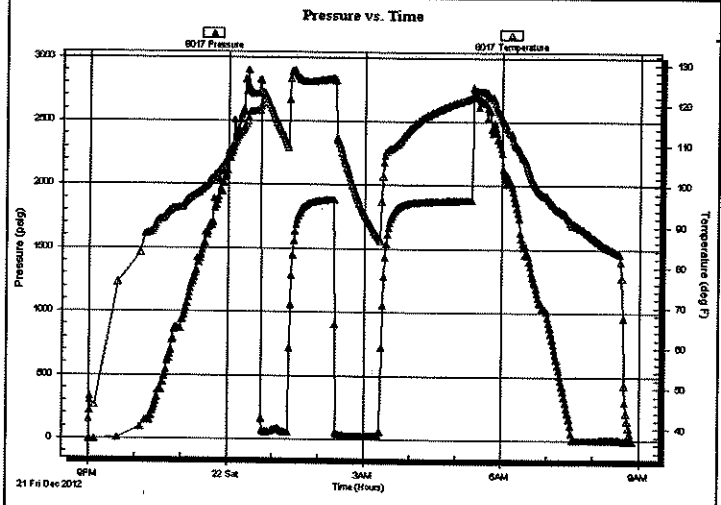
Reference Elevations: 4495.00 ft (KB)
4485.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8017 **Outside**

Press@RunDepth: psig @ 5714.00 ft (KB)
Start Date: 2012.12.21 End Date: 2012.12.22
Start Time: 21:00:05 End Time: 08:52:00

Capacity: 8000.00 psig
Last Calib.: 2012.12.22
Time On Btm:
Time Off Btm:

TEST COMMENT: IF: BOB @ 15 seconds. Gas to surface @ 15 min.
ISI: No return.
FF: BOB immediatly.
FSI: Weak surface return died @ 25 min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud 100m	0.02

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.50	14.00	189.55
Last Gas Rate	0.50	16.00	203.05
Max. Gas Rate	0.50	17.00	209.79

DRILL STEM TEST REPORT

TOOL DIAGRAM

Raydon Exploration

1601 NW Expressway
STE 1300
Oklahoma City OK 73118
ATTN: Ed Grieves

30-33s-30w Meade,KS

George #1-30

Job Ticket: 51261 **DST#: 2**

Test Start: 2012.12.21 @ 21:00:00

Tool Information

Drill Pipe:	Length:	5402.00 ft	Diameter:	3.80 inches	Volume:	75.78 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	297.00 ft	Diameter:	2.25 inches	Volume:	1.46 bbl	
					Total Volume:	77.24 bbl	

Drill Pipe Above KB:	15.00 ft
Depth to Top Packer:	5713.00 ft
Depth to Bottom Packer:	ft
Interval between Packers:	17.00 ft
Tool Length:	46.00 ft
Number of Packers:	2
Diameter:	6.75 inches

Tool Weight:		2000.00 lb
Weight set on Packer:		35000.00 lb
Weight to Pull Loose:		90000.00 lb
Tool Chased		0.00 ft
String Weight:	Initial	83000.00 lb
	Final	83000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			5685.00		
Shut In Tool	5.00			5690.00		
Hydraulic tool	5.00			5695.00		
Jars	5.00			5700.00		
Safety Joint	3.00			5703.00		
Change Over Sub	1.00			5704.00		
Packer	5.00			5709.00	29.00	Bottom Of Top Packer
Packer	4.00			5713.00		
Stubb	1.00			5714.00		
Recorder	0.00	8017	Outside	5714.00		
Recorder	0.00	8845	Outside	5714.00		
Perforations	11.00			5725.00		
Bullnose	5.00			5730.00	17.00	Bottom Packers & Anchor
Total Tool Length:	**46.00**					

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Raydon Exploration

1601 NW Expressway
STE 1300
Oklahoma City OK 73118
ATTN: Ed Grieves

30-33s-30w Meade,KS

George #1-30

Job Ticket: 51261 **DST#: 2**

Test Start: 2012.12.21 @ 21:00:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	55.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.19 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2600.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud 100m	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

GAS RATES

Raydon Exploration

1601 NW Expressway
STE 1300
Oklahoma City OK 73118
ATTN: Ed Grieves

30-33s-30w Meade,KS

George #1-30

Job Ticket: 51261 **DST#: 2**

Test Start: 2012.12.21 @ 21:00:00

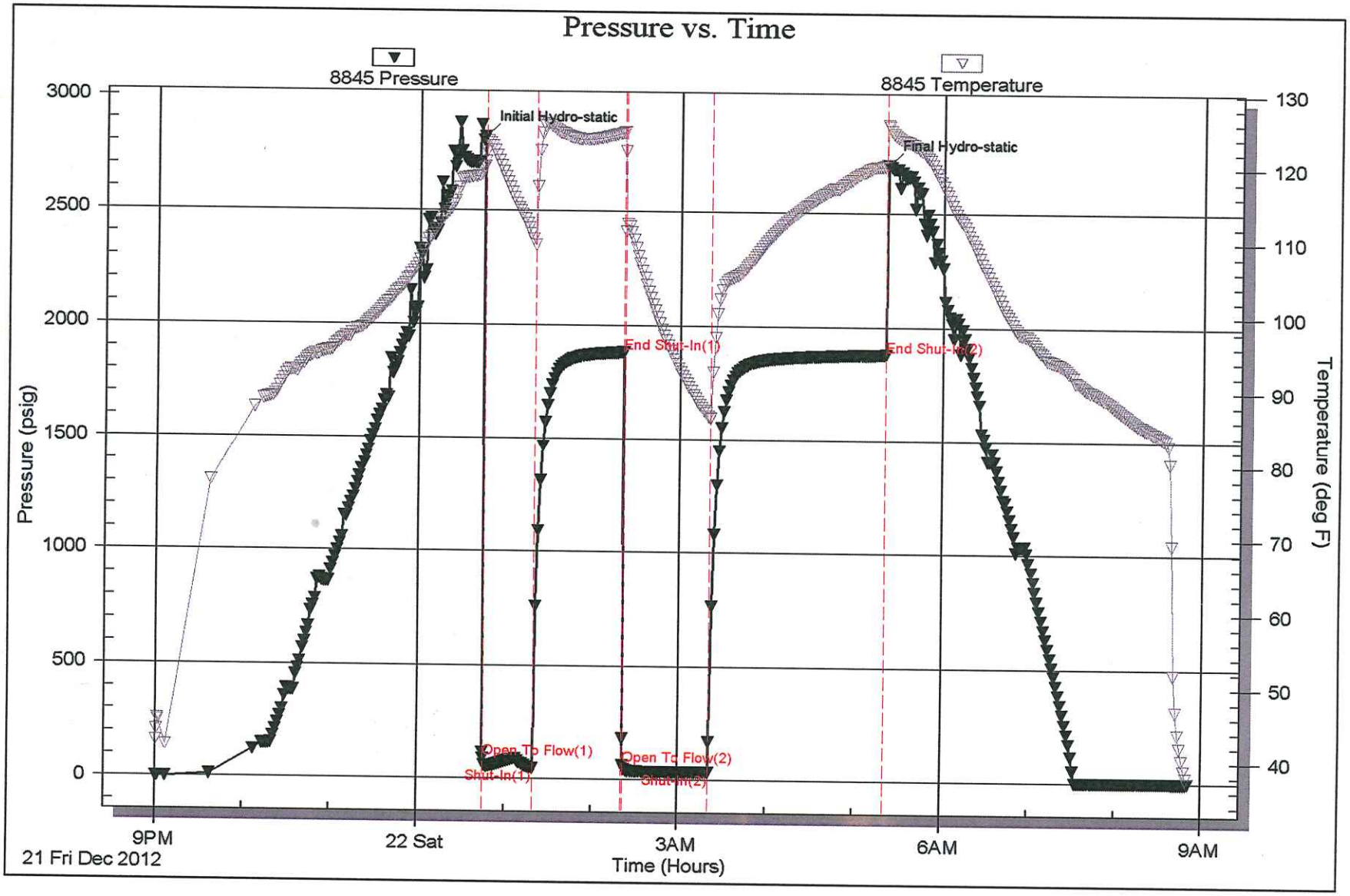
Gas Rates Information

Temperature: 59 (deg F)
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

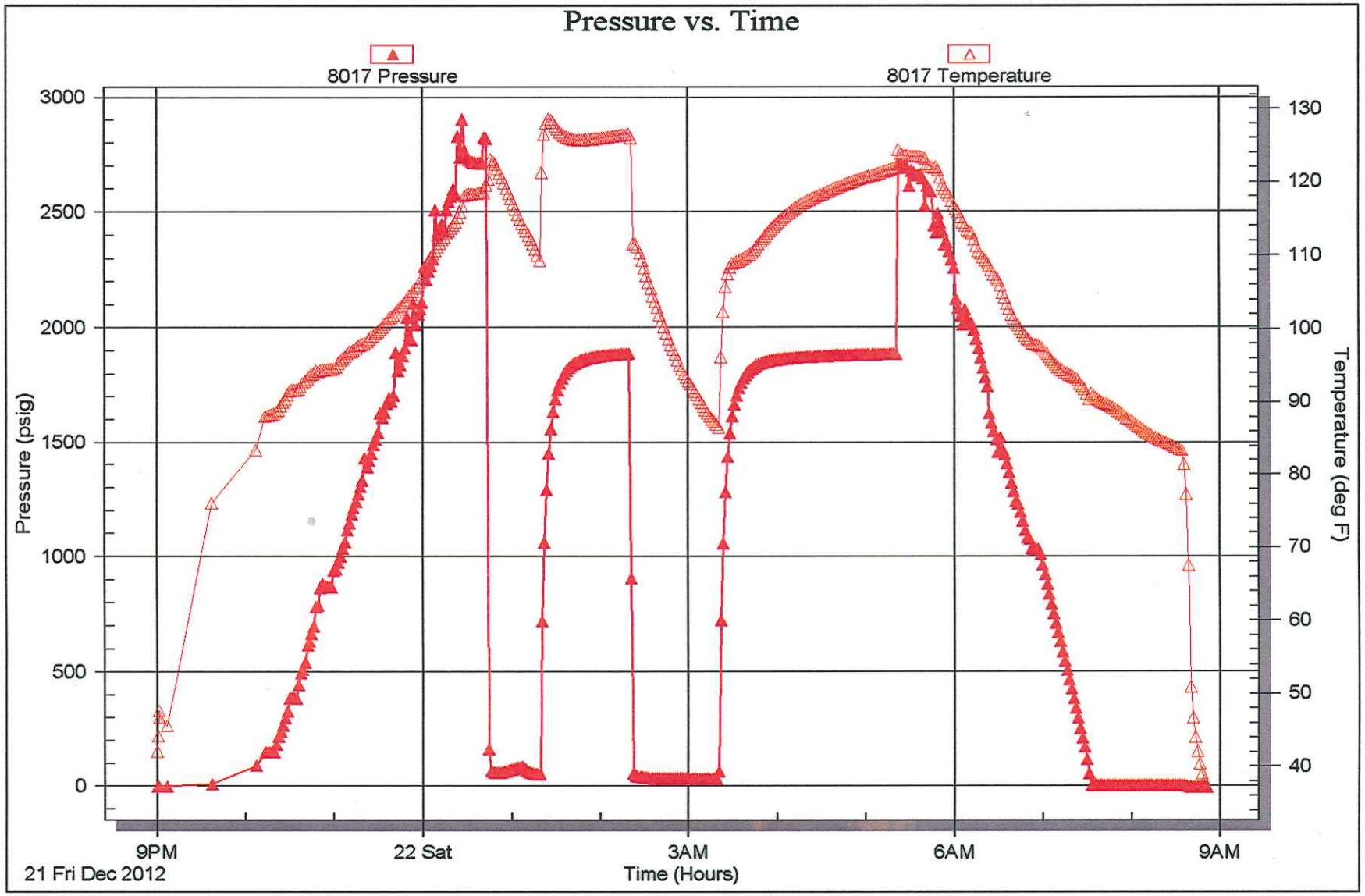
Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
2	1	0.50	14.00	189.55
2	5	0.50	17.00	209.79
2	10	0.50	17.00	209.79
2	20	0.50	16.00	203.05
2	30	0.50	16.00	203.05
2	40	0.50	16.00	203.05
2	50	0.50	16.00	203.05
2	60	0.50	16.00	203.05

Serial #: 8845 **Outside** Raydon Exploration George #1-30 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 51261 Printed: 2012.12.26 @ 09:13:59

Serial #: 8017 **Outside** Raydon Exploration George #1-30 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 51261 Printed: 2012.12.26 @ 09:14:00

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 51319

Well Name & No. Raydon Exploration George #1-30 Test No. 1 Date 12-17-12

Company Elevation 2723 KB 2713 GL

Address 1601 NW Expressway STE 1300 Oklahoma City OK 73118

Co. Rep / Geo. Ed Grieves Rig Tomcat #4

Location: Sec. 30 Twp. 33 Rge. 36 Co. Meade State KS

Interval Tested 4485-4495 Zone Tested "A"

Anchor Length 10 Drill Pipe Run 4195 Mud Wt. 9.0

Top Packer Depth 4481 Drill Collars Run 297 Vis 44

Bottom Packer Depth 4485 Wt. Pipe Run ø WL 8.4

Total Depth 4495 Chlorides 3800 ppm System LCM 10

Blow Description IF: BOB in 4 Min
IS: No Return Blow
FF: BOB in 5 Min
FS: No Return Blow

Rec 2	Feet of Free oil	%gas	%oil	%water	%mud	
Rec 134	Feet of WCM	%gas	%oil 20	%water 80	%mud	
Rec 124	Feet of MCW	%gas	%oil 50	%water 50	%mud	
Rec 979	Feet of SW	%gas	%oil 100	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	

Rec Total 1239 BHT 115 Gravity ~ API RW .275 @ 35.7 °F Chlorides 68,000 ppm

(A) Initial Hydrostatic 2310	☑ Test 1250	T-On Location 15:50	
(B) First Initial Flow 73	☑ Jars 250	T-Started 16:13	
(C) First Final Flow 231	☑ Safety Joint 75	T-Open 18:56	
(D) Initial Shut-In 1089	☑ Circ Sub NC	T-Pulled 23:26	
(E) Second Initial Flow 233	☐ Hourly Standby	T-Out 02:42	
(F) Second Final Flow 395	☑ Mileage ~~RT~~ RT 230 356.50	Comments	
(G) Final Shut-In 1088	☐ Sampler		
(H) Final Hydrostatic 2150	☐ Straddle	☐ Ruined Shale Packer	
	☑ Shale Packer 250	☐ Ruined Packer	
Initial Open 30	☑ Extra Packer Shale 250	☐ Extra Copies	
Initial Shut-In 60	☐ Extra Recorder	Sub Total 0	
Final Flow 60	☐ Day Standby	Total 2431.50	
Final Shut-In 120	☑ Accessibility NO Stairs 150 6in catwalk	MP/DST Disc't	
	Sub Total 2431.50		

Approved By Our Representative Mike Roberts

Trilobite Testing Inc. shall not be liable for damages of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 51261

Well Name & No. George #1-30 Test No. 2 Date 12/21/12

Company Raydon Exploration Elevation 4495 KB 4485 GL

Address 1601 NW Expressway STE 1300 Oklahoma City, OK 73118

Co. Rep / Geo. Ed Grieves Rig Tancost #4

Location: Sec. 30 Twp. 33 Rge. 30 Co. Meade State KS

Interval Tested 5713-5730 Zone Tested Morrow

Anchor Length 17 Drill Pipe Run 5402 Mud Wt. 9.0

Top Packer Depth 5709 Drill Collars Run 297 Vis 55

Bottom Packer Depth 5713 Wt. Pipe Run 0 WL 6.2

Total Depth 5730 Chlorides 2600 ppm System LCM 10

Blow Description BoB @ 15 Seconds. Gas to Surface @ 15 min.
No return.
BoB + Gas to Surface immediatly.
Weak Surface return died @ 25 min.

Rec 5	Feet of Mud	%gas	%oil	%water	100	%mud
Rec	Feet of	%gas	%oil	%water		%mud
Rec	Feet of	%gas	%oil	%water		%mud
Rec	Feet of	%gas	%oil	%water		%mud
Rec	Feet of	%gas	%oil	%water		%mud

Rec Total 5 BHT 121 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic	2821	[X] Test 1350	T-On Location 18:50
(B) First Initial Flow	88	[X] Jars 250	T-Started 21:00
(C) First Final Flow	46	[X] Safety Joint 75	T-Open 00:44
(D) Initial Shut-In	1881	[X] Circ Sub N/C	T-Pulled 5:20
(E) Second Initial Flow	63	[X] Hourly Standby 3h 300 projected time at 19:30	T-Out 8:52
(F) Second Final Flow	34	[X] Mileage 232 R/T 356.50	Comments Loaded to 15
(G) Final Shut-In	1876	[ ] Sampler	
(H) Final Hydrostatic	2708	[ ] Straddle	[X] Ruined Shale Packer 350
		[X] Shale Packer X2 500	[ ] Ruined Packer
Initial Open	30	[ ] Extra Packer	[ ] Extra Copies
Initial Shut-In	60	[ ] Extra Recorder	Sub Total 350
Final Flow	60	[ ] Day Standby	Total 3331.50
Final Shut-In	120	[X] Accessibility 150 No Steps on catwalk	MP/DST Disc't
		Sub Total 2981.50	

Approved By [signature] Our Representative [signature]

Trilobite Testing Inc. shall not be liable for damages of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

12/08

TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Gas Volume Report

Raydon Exploration — Operator

George #1-30 — Well Name and No.

2 — DST No.

Min.	Ins. of Water PSIG	Orifice Size	CF/D	Min.	Ins. of Water PSIG	Orifice Size	CF/D
				1	14	.5000	189,554
				5	17	.5000	209,791
				10	17	.5000	209,791
				20	16	.5000	203,045
				30	16	.5000	203,045
				40	16	.5000	203,045
				50	16	.5000	203,045
				60	16	.5000	203,045
						~~.5000~~	

Remarks:

GEOLOGIST'S REPORT
DRILLING TIME & SAMPLE LOG

COMPANY RAYDON EXPLORATION, INC.
LEASE GEORGE NO. 1-30
LOCATION 1360'FSL & 2304'FEL
SEC 30 TWP. 33S RNG. 30W
COUNTY MEADE STATE KANSAS
FIELD KISMET
CONTRACTOR TOMCAT DRLG. RIG NO. 4
COMM. 12-11-12 COMP. 12-24-12
RTD 5913 LTD 5921
No. of DST'S 2 No. of CORES NONE
SAMPLES SAVED FROM 4200 TO TD
DRILLING TIME KEPT FROM 4200 TO TD
SAMPLES EXAMINED FROM 4200 TO TD
GEOLOGICAL SUPERVISION FROM 4200 TO TD
GEOLOGIST ON WELL EDWIN H. GRIEVES

ELEVATIONS
KB 2722
DF 2721
GL 2713
MEASUREMENTS ARE ALL FROM KB

CASING RECORD
8 5/8 at 1680

EL. LOG AC.RES-SP-GR
DEN-NEUT-GR-CALIPER
ML-SONIC

FORMATION TOPS

	SAMPLE	LOG	SUBSEA
BASE HEEBNER	4352	4358	-1636
TORONTO	4364	4370	-1648
LANSING	4481	4481	-1717
MARMATON	5129	5134	-2412
CHEROKEE	5326	5334	-2612
MORROW	5644	5646	-2924
CHESTER	5739	5728	-3006
TD	5913	5921	

30

API NO. 15-119-21331

REMARKS Earth-Tech had an unmanned gas detection trailer on this well from 4200 to total depth.

Thank you,
Edwin H. Grieves
Geologist

LITHOLOGY: SANDSTONE, LIMESTONE, SHALE, CHERT, SILTSTONE, DOLOMITE, GRANITE WASH, ANHY & GYP

CHROMATOGRAPH: HOT WIRE BY TOTAL GAS VOLUME

C1 = METHANE; C2 = ETHANE; C3 = PROPANE; C4 = ISOBUTANE; C5 = BUTANE; C6 = ISOPENTANE; C7 = PENTANE

DRILL TIME SCALE 5 10 15 | SAMPLE DESCRIPTION | GAS SCALE 10 100 1000

4200

Lms. grayish tan to lt. to med. gray; crypto to v.v. fn. xln.; frly. to v. shly. IP's; sub-chlk &/or shly. IP's; sl. trs. sub-sucro & packstn.; trs with dul. yel. fluor.; No Cut; No Vis. Por.

Interbedded Limestones & Shales
1. Lms. similar 4200-4247
2. Shs. med. to v. drk. gry. - v. to extrly. calc. & v. drk. gray to black-carb.

Sh med. to v. drk. gry. - sl. to frly. calc. IP's

4300

Lms. lt. gray, grayish tan to tan; crypto to v.v. fn. xln.; trs. sub-sucro, packstn. & trs sub-lithog.; dul. yel. fluor. IP's; No Cut; No Vis. Por.

Shs. med. to v. drk. gry. - calc to v. drk. gry. to black - carb.

Lms. similar 4309-4326

Sh v. drk. gry. to black - carb.

Lms. similar 4309-4326
Sh. lt. gray grading to lt. green, silty IP's

Lms. [illegible]

Lms. lt. gray, to tan; crypto to v.v. fn. xln.; trs. sub-sucro, packstn. & trs sub-lithog.; dul. lt. to lt. yel. fluor.; No Cut; No Vis. Por.

4400

Lms. similar 4392-4405

Lms. similar 4364-4392

Lms. similar 4392-4405
Sh med. to drk. gry. - sl. to v. calc. IP's

Lms. similar 4405-4413

Sh lt. to med. gry. - sl. to extrly calc.

Lms. similar 4405-4413
[illegible]

4500

4492-4560 Interbedded Lms. & trs scattered Shs.
1. Lms. [illegible]
2. Lms. [illegible]
3. Trs Chert lt. to drk gry - opque
4. scattered thin Shs med. to drk. gry. - sl. to frly. calc. IP's.

Lms. wht. to crm. - chlk & tan, v.v. fn. [illegible]

Interbedded Limestones w/ scattered thin Shales similar 4493-4560

4600

Lms. trs. wht. to crm. - chlk & tan; crypto to v.v. fn. xln.; trs. sub-chlk, sub-sucro to v. sucro; phantom oolicastic to v. oolicastic [illegible]

4700

Lms. lt. gray to grayish tan; sl. to frly. shly. IP's; crypto to v.v. fn. xln.; trs. sub-sucro, packstn. & trs. sub-lithogr.; dul. yel. fluor. IP's; No Cut; No Vis Por.

Lms. tan, crypto to v.v. fn. xln., very to extrly. oolicastic &/or frly to v. oolitic; matrix sub-sucro to trs sucro and packstn.; dul. yel. fluor.; No Cut; gd. to excel. oolicastic poss. Prob. No Perm.
Lms. similar 4695-4725

Sh med. to v. drk. gry. - calc to v. drk. gry. to blk - carb.
Lms similar 4695-4725

4800

Interbedded Limestones
1. Faster Drlg. Lms. trs. to abn. wht. to crm. chlk & lt. tan to tan; crypto to v.v. fn. xln.; sub-chlk, sub-sucro to trs. sucro, & packstn., trs. sl. to v. oolicastic and/or sl. to v. oolitic; dul. yel. to yel. fluor.; No Cut; trs. pr. to gd. oolicastic & micro-pp. por. w/ poss interxln. por. IP's
2. Slower Drlg. Lms. lt. to med. gry. - sl. to frly. shly. to tan; crypto to v.v. fn. xln.; sub-chlk &/or shly., trs. sub-sucro & packstn., dul. yel. fluor. IP's; No Cut; No Vis Por.

4900

Lms. lt. to med. gry. - sl. to frly. shly. crypto to v.v. fn. xln., packstn. w/ trs. sub-lithographic; dul. lt. yel. fluor. IP's; No Cut; No Vis Por.

Sh med. to v. drk. gry. - calc to v. drk. gry. to black - carb.
Lms. similar 4918-4949
Lms. lt. to med. gry. - mottled IP's & mottled tan IP's; crypto to v.v. fn. xln.; sl. trs. sub-sucro & packstn.; dul. lt. yel. fluor. IP's; No Cut; No Vis. Por.

Lms. trs. to hvy. trs. wht. to crm. - chlk and tan, grayish IP's; v. to extrly oolicastic &/or sl. to v. oolitic; matrix sub-chlk, sub-sucro to trs. sucro & packstn.; dul. lt. to trs. lt. yel. fluor.; No Cut; abn. gd. to excel. oolicastic por. Quest. Perm.

5000

Lms. lt. to med. gry. - shly. grdng. to tan; crypto xln.; packstn. to trs. sub-lithographic; No fluor.; No Cut; No Vis Por.

Lms. similar 4972-5010

Lms. similar 5010-5035

5100

Lms. med. to v. drk. gry. - v. to extrly. shly. grdng to extrly calc. Shs.; crypto, xln.; packstn. & trs. sub-lithographic; No fluor.; No Cut; No Vis Por.

Lms. scattered trs. wht. to crm. - chlk & grayish tan to tan; crypto [illegible]

Lms. scattered trs. wht. to crm. - chlk and grayish tan to tan; crypto to v.v. fn. xln.; sub-chlk, sub-sucro, packstn. & trs. sub-lithographic; scattered trs. foss. & scattered trs. oolitic to trs. phantom oolitic; dul. lt. yel. to dul. yel. fluor.; No Cut; No Vis Por.

5200

Sh. v. drk. gray to black - carb.
Lms. lt. gray to tan, crypto to v.v. fn. xln., trs. sub-chlk, sub-sucro & packstn.; trs. phantom oolitic IP's; dul. lt. yel. to dul. yel. fluor. IP's; No Cut; No Vis Por.
Lms. lt. gray to tan; crypto to v.v. fn. xln.; v. to extrly oolicastic [illegible] por. very Quest. Perm.

Lms. similar 5243-5258 with traces sub-lithographic limestone

5300

Sh. v. drk. gry. to black - carb.

Lms. similar 5243-5258 w/ trs sub-lithogr. & sl. trs. Chert gray to tan; opque

Shs. v. drk. gry to black - carb.

Lms. lt. to med. gry. - sl. to frly. shly. grdng to grayish tan; crypto to v.v. fn. xln.; trs. sub-chlk &/or shly., sub-sucro, packstn. & traces sub-lithographic; trs dul. yel. fluor.; No Cut; No Vis Por. w/ sl. trs. Chert gray to tan, opque

Sh. v. drk. gry to black - carb

Lms. similar 5328-5373 w/ trs phantom oolites to trs. oolites

5400

Interbedded Limestones and Shales
1. Lms. trs. wht. to crm. - chlk & lt. gray to tan; crypto. to v.v. fn. xln.; sub-chlk, sub-sucro. to v. sl. trs. sucro. & packstn. w/ trs. sub-lithogr., trs. w/ trs. phantom oolites to trs. w/ trs oolites; trs. dul. yel. to sl. trs. yel. fluor.; No Cut; No Vis Por.
2. Lms. lt. to med. gry. - sl. to extrly shly. grdng. to calc. Shs. IP's crypto to v.v. fn. xln.; sub-chlk &/or shly., & packstn.; trs. v. dul. yel. fluor.; No Cut; No Vis. Por.

5500

3. Sh med. to v. drk. gry. - sl. to very calc.
4. Sh v. drk. gry. to black - carb.

5600

Interbedded Shs & Lms. similar 5427-5644 w/ v. large incr. in Sh med. to drk. gry. silty IP's grdng to siltstn. lt. to med. gry. & shale filled
[illegible]
5680-5710 Sh. med. to drk. gry. - [illegible]

5700

5710-5739 100% Ss [illegible]
[illegible]

5789-5778 Fragm. Lms. tan, v. fn. to coarse gr. [illegible]
Sh med. gry. w/ matt to earthy texture calc IP's

Fragm. Lms. similar 5789-5779 w/ [illegible]
but w/ less & littler por

5800

Fragm. Lms. interbedded w/ shales
1. Fragm. Lms. lt. gray to tanish gray - shly. [illegible] composed Lms. gas, [illegible] oolites, matrix shale; sub-chlk &/or shly., trs. sub-sucro & packstn.; sl. trs. dul. yel. fluor.; No Cut; No Vis Por. w/ trs Lms w/ show similar 5789-5778 prob. from above
2. Sh med. to drk. gray w/ matt to earthy texture, calc IP's

Interbedded &/or Gradational Shs & Lmsts
1. Fragm. Lms. similar 5810-5842 trs w/ show
2. Lms lt. gray to tan; crypto to v.v. fn. xln.; shly IP's; sub-chlk &/or shly, trs sub-sucro, packstn. & trs sub-lithogr.; sl. trs dul yel. fluor.; No Cut; No Vis Por.
3. Sh med. gray w/ matt to earthy texture - calc IP's; w/ trs olive green, waxy looking

Interbedded &/or Gradational Limestones and Shales similar 5842-5876 w/ hvy trs to very abn verigated Shales greens Reds and purples

5900

TD 5913

7 7/8" Bit Info

		in	out
1. PDC Baker Hughs DP506F		1685	4194
2. New Tricone Button Baker Hughs GX 28C		4194	5913 TD

Cir Points

1. 4495	6. 5690	11. 5790
2. 4730	7. 5710	12. 5810
3. 5630	8. 5730	13. 5913
4. 5650	9. 5750	
5. 5670	10. 5770	

Dev. Surv.

1. 853 3/4°	4. 2389 3/4°	7. 5730 1 1/4°
2. 1685 1°	5. 3200 1°	8. 5913 1 1/2° TD
3. 2358 1.7° Double Strike	6. 4194 3/4°	

Daily Drlg Progress

1.	4194	Bit Trip	12-15-12
2.	4200	At 7:25 PM	12-16-12
3.	4453	At 7:00 AM	12-17-12
4.	4495	At 7:00 AM	12-18-12
5.	4904	At 7:00 AM	12-19-12
6.	5397	At 7:00 AM	12-20-12
7.	5690	At 7:00 AM	12-21-12
8.	5730	At 7:00 AM	12-22-12
9.	5834	At 7:00 AM	12-23-12
10.	5913	At 7:00 AM	12-24-12

DST #1 Lansing "A" 4485-4495
IO BOB 4 min FO BOB 5 min
Rec 2 ft Free Oil 134' OCM 20% O 80% M
124' MCW 50% W 50% M 979' SW
Total Fluid 1239 BHT 115°F
Rw .278 @ 35.7°F Chl 18000 Pit Chl 3800
IHP 2310
IFP 73-231 in 30 min FFP 233-395 in 60 min
ISIP 1089 in 60 min FSIP 1088 in 120 min FHP 2150

DST #2 Morrow 5713-5730
IO BOB 15 sec GTS 15 min will burn
FO BOB Immediately Flowing Gas
Rec 5 ft mud BHT 121°F
IHP 2821 FFP 63-34 in 60 min
IFP 88-46 in 30 min FSIP 1876 in 120 min
ISIP 1881 in 60 min FHP 2708

Final Flow Info

Min	PSI	Ch	MCF
1	14	.5	189.6
5	17	.5	209.8
10	17	.5	209.8
20 thru 60	16	.5	203.0

Mud Info:

Date	12-15 12:AM	12-16 12:00	12-17 12:AM	12-18 12:AM	12-19 12:AM	12-20 12:AM	12-21 8:00A	12-22 12:A	12-23 12:A
Depth	3275	4194	4495	4577	5060	5463	5710	5730	5913
Wt.	9.1	9.3	9.0	9.0	9.0	9.0	9.0	9.0	9.1
Vis	41	44	44	55	50	50	55	54	60
PV	15	14	11	19	16	14	18	22	17
YP	5	6	8	16	9	11	14	15	20
GS	5/8	4/9	6/14	10/17	4/11	5/12	5/12	5/13	4/15
WL	10.4	8.8	8.4	7.2	7.4	6.2	6.3	6.8	6.4
Cake	1/32	1/32	1/32	1/32	1/32	1/32	1/32	1/32	1/32
pH	9.0	9.0	9.5	9.5	10.0	9.5	9.5	9.5	9.5
Chl	6700	3500	3800	4000	3000	2800	2600	3000	2900
Ca	160	100	120	80	80	80	80	80	80
LCM	6.0	6.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0

OPERATOR RAYDON EXPLORATION, INC. LOCATION 1360'FSL & 2304'FEL
LEASE GEORGE NO. 1-30 SEC. 30 TWP. 33S RNG. 30W
ELEVATION KB 2722 RTD 5913 COUNTY MEADE STATE KANSAS