Confidentiality Requested:
☐ Yes ☑ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1362995

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 # 34975
Name: StrataKan Exploration, LLC
Address 1: 100 S MAIN
Address 2:
City: PLAINVILLE State: KS Zip: 67663 + _ _ _ _
Contact Person: Justin R. Prater
Phone: (785) 688-4241
CONTRACTOR: License # 33575
Name: WW Drilling, LLC
Wellsite Geologist: Justin R. Prater
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 #:

1/25/2017	1/31/2017	2/10/2017
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-159-22837-00-00
Spot Description:
SE - NW - SW - NE Sec. 18 Twp. 18 S. R. 9 ☐ East ☑ West
1800 Feet from ☑ North / ☐ South Line of Section
2200 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: Rice
Lease Name: HABIGER Well #: 18-1
Field Name:
Producing Formation: Arbuckle
Elevation: Ground: 1732 Kelly Bushing: 1743
Total Vertical Depth: 3330 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 355 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: 1800 ppm Fluid volume: 3000 bbls
Dewatering method used: Evaporated
Location of fluid disposal if hauled offsite:
Operator Name:
Lease Name: License #:
Quarter Sec. Twp. S. R. ☐ East ☐ West
County: Permit #:

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:
☐ **Confidential Release Date:**
☑ **Wireline Log Received**
☑ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** Karen Ritter **Date:** 08/11/2017

[redacted]

1362995

Operator Name: StrataKan Exploration, LLC Lease Name: HABIGER Well #: 18-1

Sec. 18 Twp. 18 S. R. 9 ☐ East ☑ West County: Rice

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
Lansing	2889	-1146
Arbuckle	3221	-1478

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	32	355	common	180	3%CC2%Gel
Production	7.875	5.5	15.5	3327	QPRO-Common	130	10% Salt 5% Gilsonite

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

TUBING RECORD: Size: Set At: Packer At: Liner Run: ☐ Yes ☐ No

Date of First, Resumed Production, SWD or ENHR. Producing Method: ☐ Flowing ☐ Pumping ☐ Gas Lift ☐ Other *(Explain)* _____

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

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:
_____
_____

Form	ACO1 - Well Completion
Operator	StrataKan Exploration, LLC
Well Name	HABIGER 18-1
Doc ID	1362995

All Electric Logs Run

DUCP
MEL
DIL
BHCS

Form	ACO1 - Well Completion
Operator	StrataKan Exploration, LLC
Well Name	HABIGER 18-1
Doc ID	1362995

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	32	355	common	180	3%CC2% Gel
Production	7.875	5.5	15.5	3327	QPRO-Common	130	10% Salt 5% Gilsonite

HABIGER 18-1

API # 15-159-22837-00-00
Operator: StrataKan Exploration, LLC Well Name & No: Habiger #18-1
Location: 1800 FNL & 2200 FEL, Section 18-18s-9w County: Rice State: Kansas
Rig No.: 14 Contractor: WW Drilling, LLC Tool Pusher: Noel Perez 620-271-4957
Drill Collars: 16 Size 6.25 x 2.25 Rig Phone: 785-259-6941
Make Pump: Ideco MM 550 Liner & Stroke: 6 x 15 Spud 1/25/2017 @ 4:00 PM
Approx. TD: 3300 Elevation: 1,732 G.L. 1743 KB Hole Complete: 1/30/2017 @ 3:30 AM
Mud Co.: Andy's Mud Mud Engineer: Dennis Water Hauled

Date	01/25/17	01/26/17	01/27/17	01/28/17	01/29/17	01/30/17	01/31/17			
Days	1-spud	2-WOC	3-Drlg	4-Drlg	5-Drlg	6-Log	7-Done			
Depth		355	1655	2760	3215	3330	3330			
Ft. Cut		355	1300	1105	455	115				
D.T.										
D.T.										
C.T.		5.5	2.5		7	19	18.75			
Bit Wt.	all	all	38,000	38,000	38,000	38,000				
RPM	100	100	80	80	80	80				
Pressure	450	850	1000	1000	1000	1000				
SPM	60	60	60	60	60	60				
Mud Cost				6817	6996	6996	6996			
Mud Wt.		9.4	9.4	9.1	9.1	9.2				
Viscosity		34	31	53	59	58				
Water Loss					8	8				
Chlorides					4000	4000				
L.C.M.		1#			3#	3#				
Dev. Sur		1/2°-355				1°-3240				
Dev. Sur										
Fuel	1843	1539	4455	3726	3321	3078	2780			
Water-Pit		2'	3'	3'	3'	3'				
ACC Bit Hrs.		5.75	20.75	43	57.25	61.5				
Formation	sd-sh	sd-sh	sd-	sh-lm	sh-lm	sh-lm				
Weather	clear	p/cloudy	clear	clear	clear	clear				

No.	Size	Type	Out	Ft.	Hrs.	Cum Hrs.	Bit Cond	Serial #	Tops
1	12 1/4	Sm-tooth	355	355	5.75	5.75	RR	3563	
2	7 7/8	jz-Button		2975	61.5	67.25	new	537657	
3									
4									

DEPTH	SIZE	SACKS	CEMENT MATERIAL	PLUG DOWN	DRILLED OUT	REMARKS
355	8 5/8	180	Common, 3% cc & 2% gel	1:30 AM	9:30 AM	Quality Did circ
set 3324'	76jts	130	QproC	9:45 PM	1:45 AM	
	5 1/2"			1/30/2017	1/31/2017	Quality

NO	INTERVAL	OPEN	SHUT	OPEN	SHUT	RECOVERY
1	3206'-3240'	45	45	45	45	352' CO 120' MCO
2						
3						
4						
5						
6						
7						
8						
9						

Surface Casing Furnished by: Smith Supply: WW delivered 8 joints of 8 5/8 32# tally 340.89' set @ 355'

Remarks: Strap & weld surface by WW Nate. Anhydrite @ 423'-438'. Displaced @ 2309' (550 bbls). Short trip @ 3200' (41 stands) 3.5 hrs. Pipe strap .04 long. Logging w/Pioneer (LTD 3327') 3.75 hrs. Ran 76 joints of 5 1/2" casing plug down @ 9:45 pm 1/30/2017. Released rig @ 1:45 am 1/31/2017.

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **StrataKan Exploration**

204 W Mill St
Plainville, KS 67663

ATTN: Justin Prater

Habiger #18-1

18-18S-9W Rice,KS

Start Date: 2017.01.29 @ 14:36:51
End Date: 2017.01.29 @ 21:40:51
Job Ticket #: 63560 DST #: 1

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

Printed: 2017.01.31 @ 09:27:03

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC

StrataKan Exploration
204 W Mill St
Plainville, KS 67663

ATTN: Justin Prater

18-18S-9W Rice,KS

Habiger #18-1

Job Ticket: 63560 **DST#: 1**

Test Start: 2017.01.29 @ 14:36:51

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:18:51
Time Test Ended: 21:40:51

Test Type: Conventional Bottom Hole (Initial)
Tester: Leal Cason
Unit No: 74

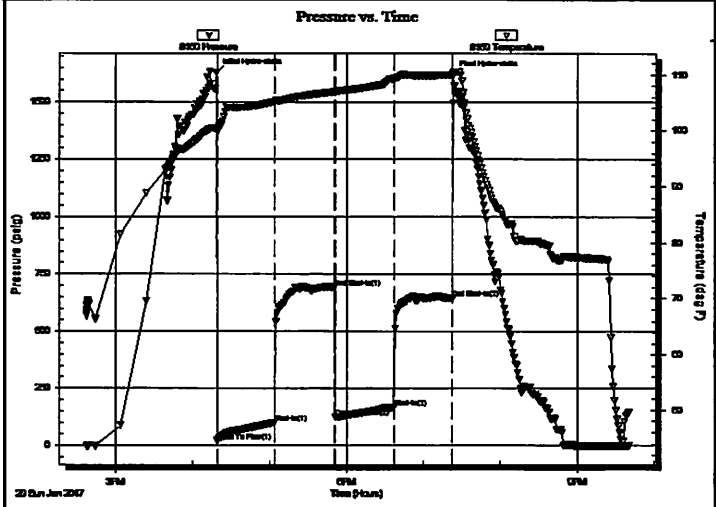
Interval: 3208.00 ft (KB) To 3240.00 ft (KB) (TVD)
Total Depth: 3240.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1743.00 ft (KB)
1732.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8159 **Inside**

Press@RunDepth:	165.84 psig @	3209.00 ft (KB)		Capacity:	8000.00 psig
Start Date:	2017.01.29	End Date:	2017.01.29	Last Calib.:	2017.01.29
Start Time:	14:36:52	End Time:	21:40:51	Time On Btm:	2017.01.29 @ 16:18:06
				Time Off Btm:	2017.01.29 @ 19:23:21

TEST COMMENT: IF: Fair Blow ,Built to 7 1/2"
ISI: No Blow Back
FF: Fair Blow , Built to 5"
FSI: Weak Surface Blow Back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1628.23	100.42	Initial Hydro-static
1	19.40	99.83	Open To Flow (1)
47	98.78	105.16	Shut-In(1)
92	693.31	106.91	End Shut-In(1)
93	122.52	106.83	Open To Flow (2)
140	165.84	109.32	Shut-In(2)
185	645.04	110.01	End Shut-In(2)
186	1619.76	110.41	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	90 GIP	0.00
120.00	GOCM 10%G 10%O 90%M	0.61
352.00	GCO 10%G 90%O	4.94

Gas Rates

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

DRILL STEM TEST REPORT

StrataKan Exploration	**18-18S-9W Rice,KS**
204 W Mill St Plainville, KS 67663	**Habiger #18-1**
	Job Ticket: 63560 **DST#: 1**
ATTN: Justin Prater	Test Start: 2017.01.29 @ 14:36:51

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:18:51
Time Test Ended: 21:40:51

Test Type: Conventional Bottom Hole (Initial)
Tester: Leal Cason
Unit No: 74

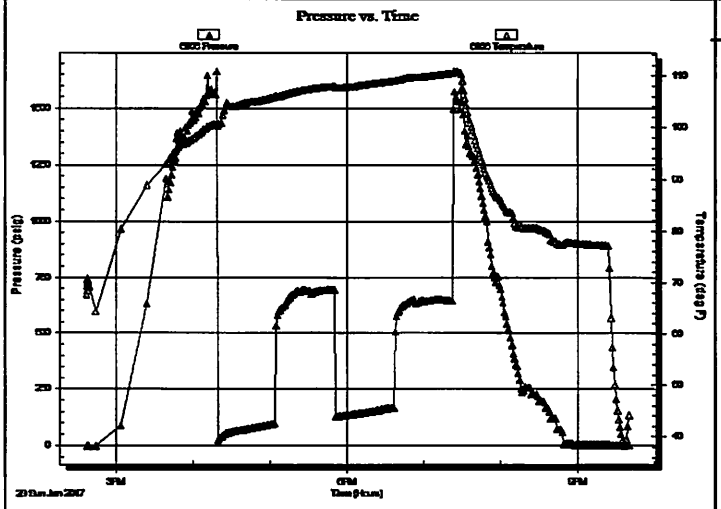
Interval: 3208.00 ft (KB) To 3240.00 ft (KB) (TVD)
Total Depth: 3240.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1743.00 ft (KB)
1732.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 6806 **Outside**

Press@RunDepth:	psig @	3209.00 ft (KB)		Capacity:	8000.00 psig
Start Date:	2017.01.29	End Date:	2017.01.29	Last Calib.:	2017.01.29
Start Time:	14:36:52	End Time:	21:40:36	Time On Btm:	
				Time Off Btm:	

TEST COMMENT: IF: Fair Blow ,Built to 7 1/2"
ISI: No Blow Back
FF: Fair Blow , Built to 5"
FSI: Weak Surface Blow Back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
0.00	90 GIP	0.00
120.00	GOCM 10%G 10%O 90%M	0.61
352.00	GCO 10%G 90%O	4.94

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

TRILOBITE TESTING, INC

StrataKan Exploration	**18-18S-9W Rice,KS**
204 W Mill St Plainville, KS 67663	**Habiger #18-1**
	Job Ticket: 63560 **DST#: 1**
ATTN: Justin Prater	Test Start: 2017.01.29 @ 14:36:51

Tool Information

Drill Pipe:	Length:	3079.00 ft	Diameter:	3.80 inches	Volume:	43.19 bbl	Tool Weight:		2100.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:		25000.00 lb
Drill Collar:	Length:	118.00 ft	Diameter:	2.25 inches	Volume:	0.58 bbl	Weight to Pull Loose:		60000.00 lb
					Total Volume:	43.77 bbl	Tool Chased		ft
Drill Pipe Above KB:		15.00 ft					String Weight:	Initial	48000.00 lb
Depth to Top Packer:		3208.00 ft						Final	48000.00 lb
Depth to Bottom Packer:		ft							
Interval between Packers:		32.00 ft							
Tool Length:		58.00 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			3187.00		
Hydraulic tool	5.00			3192.00		
Jars	5.00			3197.00		
Safety Joint	2.00			3199.00		
Packer	5.00			3204.00	26.00	Bottom Of Top Packer
Packer	4.00			3208.00		
Stubb	1.00			3209.00		
Recorder	0.00	8159	Inside	3209.00		
Recorder	0.00	6806	Outside	3209.00		
Perforations	28.00			3237.00		
Bullnose	3.00			3240.00	32.00	Bottom Packers & Anchor
Total Tool Length:	**58.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

TRILOBITE TESTING, INC

StrataKan Exploration	**18-18S-9W Rice,KS**
204 W Mill St Plainville, KS 67663	**Habiger #18-1**
	Job Ticket: 63560 **DST#: 1**
ATTN: Justin Prater	Test Start: 2017.01.29 @ 14:36:51

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	50 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	55.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.59 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	3000.00 ppm				
Filter Cake:	0.02 inches				

Recovery Information

Recovery Table

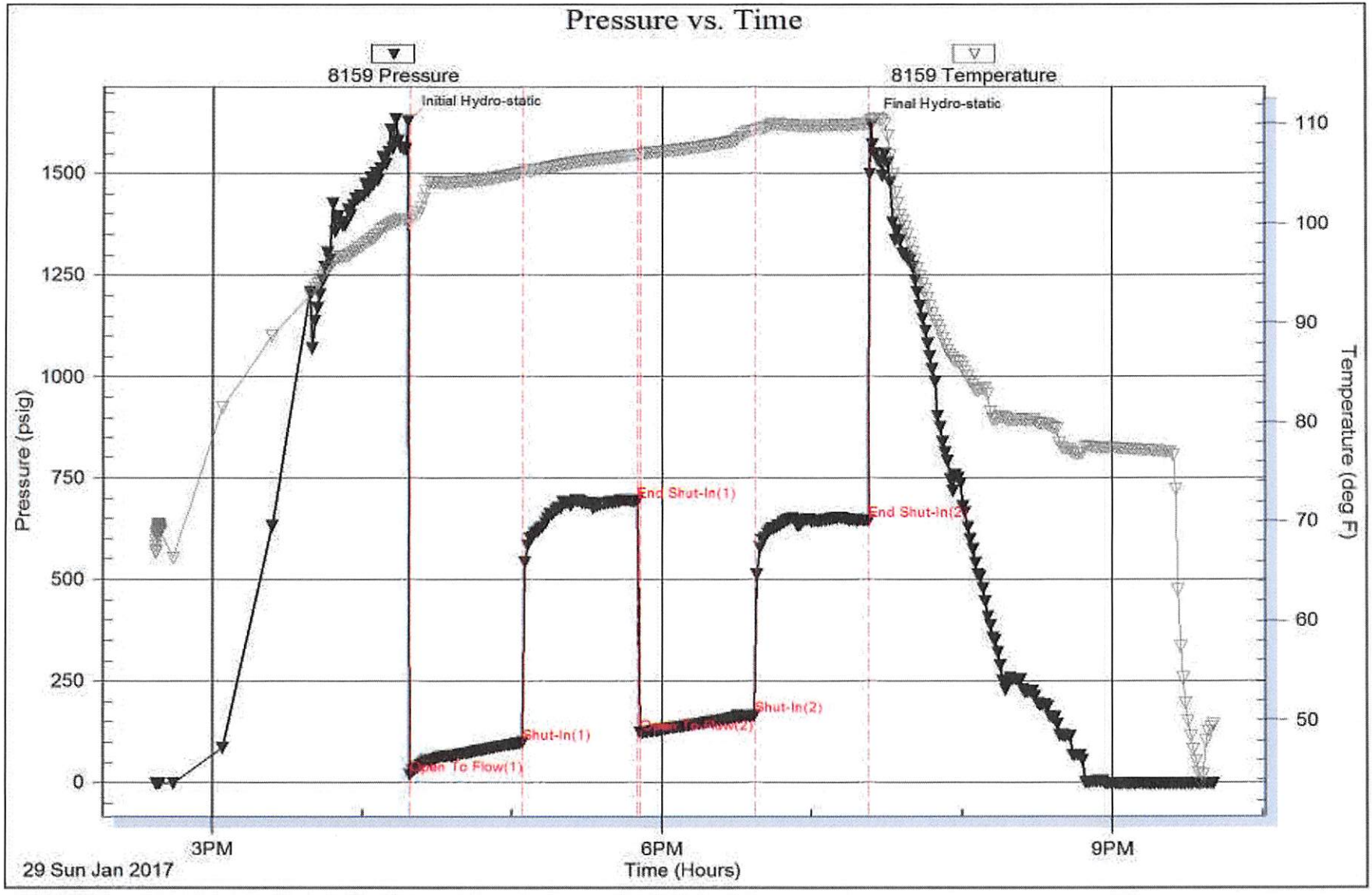
Length ft	Description	Volume bbl
0.00	90 GIP	0.000
120.00	GOCM 10%G 10%O 90%M	0.608
352.00	GCO 10%G 90%O	4.938

Total Length: 472.00 ft Total Volume: 5.546 bbl

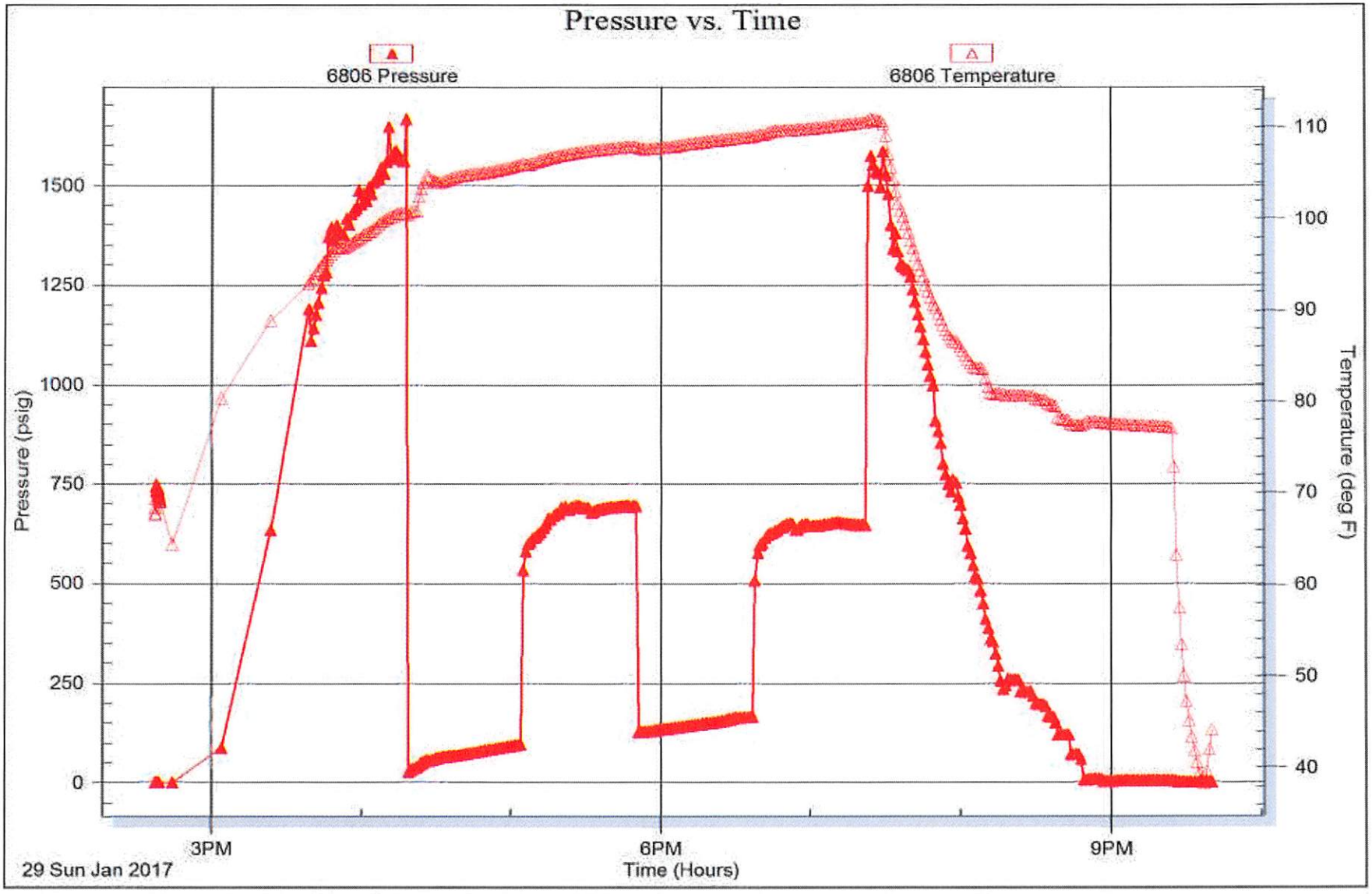
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: Gravity w as 48.8 @ 48 degrees


Pressure vs. Time
8159 Pressure
8159 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Shut-In(1)
Shut-In(2)
Open To Flow(1)
Open To Flow(2)
Pressure (psig)
Temperature (deg F)
1500
1250
1000
750
500
250
0
110
100
90
80
70
60
50
3PM
6PM
9PM
Time (Hours)
29 Sun Jan 2017

Serial #: 6806 **Outside** StrataKan Exploration Habiger #18-1 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 63560 Printed: 2017.01.31 @ 09:27:04

TRILOBITE TESTING INC.
1515 Commerce Parkway • Hays, Kansas 67601
4/10

Test Ticket

NO. 63560

Well Name & No. Habiger 19-1 Test No. 1 Date 01/29/17
Company StrataKan Exploration Elevation 1743 KB 1733 GL
Address 204 W Mill ST Plainville 67663
Co. Rep / Geo. Justin Prater Rig WW 14
Location: Sec. 18 Twp. 18S Rge. 9W Co. Rice State KS

Interval Tested 3208 – 3240 Zone Tested Arbuckle
Anchor Length 32 Drill Pipe Run 3079 Mud Wt. 9.3
Top Packer Depth 3203 Drill Collars Run 118 Vis 55
Bottom Packer Depth 3208 Wt. Pipe Run 0 WL 7.6
Total Depth 3240 Chlorides 3000 ppm System LCM 2.5

Blow Description IF: Fair Blow, Built to 7 1/2 inches
ISI: No Blow Back
FF: Fair Blow, Built to 5 inches
FSI: Weak Surface Blow Back

Rec 90	Feet of GIP	%gas	%oil	%water	%mud
Rec 352	Feet of GCO	10 %gas	90 %oil	%water	%mud
Rec 120	Feet of GOCM	10 %gas	10 %oil	%water 80	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 472 BHT 110 Gravity 50 API RW NC @ NC °F Chlorides NC ppm

(A) Initial Hydrostatic	1628	☑ Test	1050	T-On Location	13:45
(B) First Initial Flow	19	☑ Jars	250	T-Started	14:36
(C) First Final Flow	99	☑ Safety Joint	75	T-Open	16:18
(D) Initial Shut-In	693	☐ Circ Sub		T-Pulled	19:22
(E) Second Initial Flow	122	☐ Hourly Standby		T-Out	21:40
(F) Second Final Flow	166	☑ Mileage	(150) 112.50	Comments	
(G) Final Shut-In	654	☐ Sampler			
(H) Final Hydrostatic	1620	☐ Straddle		☐ Ruined Shale Packer	
		☐ Shale Packer		☐ Ruined Packer	
Initial Open	45	☐ Extra Packer		☐ Extra Copies	
Initial Shut-In	45	☐ Extra Recorder		Sub Total	0
Final Flow		☐ Day Standby		Total	1487.50
Final Shut-In		☐ Accessibility		MP/DST Disc't	
		Sub Total	1487.50		

Approved By Our Representative

Trilobite Testing Inc. shall not be liable for damaged 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.

STRATAKAN EXPLORATION, LLC
Habiger #18-1
1800' FNL & 2200' FEL Sec 18-18S-9W
Rice Co., Kansas

1732' GL
1743' KB

Completion Report - Run production csg

01-31-17 7:00 am – Wait on completion rig, Cut 3330' of 7-7/8" hole. RU Pioneer Energy Svc, ran Dual Compensated Porosity, Dual Induction, Sonic & Microresisitivity Logs, LTD – 3327'. TIH w/ bit, CTCH, LDDP & ND. Ran 76 jts of New Hyundai 5 ½" 8rd 15.5# J-55 R-3 LTC csg. Tallied 3327.39', set @ 3324', 3' off bottom. Shoe jt 38.75' w/ latch down @ 3284'. Ran turobilizer/centrilizers @ 3285', 3271', 3226', 3092', 3047' & 2958'. RU Quality Oilwell Cementing & cemented w/ 12 bbl mud flush, 20 bbl 2% KCL followed w/ 130 sx Q PRO C cement. Had good circulation throughout. Landed plug @ 9:45 pm 1/30/17 w/ 1500# - latch down held. Plug rat hole w/ 30 sx cement & mouse hole w/ 20 sx cement. Set slips & release rig @ 11:45 pm 1/30/17. Equipment left on location, 1 jt csg = 38.66' threads off.

STRATAKAN EXPLORATION, LLC
Habiger #18-1
1800' FNL & 2200' FEL Sec 18-18S-9W
Rice Co., Kansas

1732' GL
1743' KB

Report: Complete in Arb

02-03-17 MIRU DS&W Well Svc DD. RIH w/ sandpump, CO to PBTD @ 3285'. RU Pioneer Energy Svc, ran CBL w/ excellent cement bond throughout. PBTD 3285' & TOC @ 2085'. Swab csg down to 2200', 1000' FIH, perf Arb 3238-44'(6') w/ 4" Expendable gun 4 spf. Let set 30 min, RIH w/ swab, FL @ 1700', 500' fluid entry, made 150' pull(3 bbl) pulling from 1850' w/ show of oil. Swab test as follows:

Time	bbl	cum	%	comments
1st hr	10.40	10.40	18	FL 1550', 2-150' pulls
2nd hr	8.40	18.80	35	FL 1350', 2-150' pulls
3rd hr	10.10	28.90	25	FL 1300', 2-150' pulls
4th hr	10.40	39.30	18	FL 1300', 2-150' pulls
5th hr	10.40	49.70	22	FL 1300', 2-150' pulls
SDFN & Weekend				

DS&W	$ 2000.00		
Smith Supply	$ 9650.00		
Honas	$ 850.00		
Scheck	$ 1200.00		
Liebel Weld	$ 350.00		
Pioneer	$ 3150.00		
Popp	$ 600.00		
Total	$17800.00	Cum	$17800.00

02-06-17 FL @ 500', 2730' FIH w/ 200' oil(7%). TIH w/ Tool Tech pkr & tbg. Set pkr @ 3224', swab test as follows:

1st hr	11.00	60.70	wtr	FL 1050', 4-500' pulls
2nd hr	24.30	85.00	18	FL 2100', 4-1000' pulls
3rd hr	22.00	107.00	18	FL 2300', 4-1000' pulls
4th hr	19.70	126.70	18	FL 2400', 4-1000' pulls
5th hr	19.10	145.80	18	FL 2350', 4-1000' pulls
6th hr	21.40	167.20	18	FL 2400', 4-1000' pulls
SDFN				

DS&W	$ 2090.00		
Tool Tech	$ 1350.00		
Brackeen	$ 170.00		
Popp	$ 600.00		
Total	$ 4210.00	Cum	$22010.00

02-07-17 FL @ 500', 2730' FIH w/ 500' oil(18%). TOH w/ tbg & pkr. RU Pioneer Energy Svc, perf Arb 3229-30'(1') w/ 4" Expendable gun 4 spf. TIH w/ plug, pkr & tbg, set plug @ 3235' & pkr @ 3198' then swab test natural Arb 3229-30'. Swabbed fluid down to SN, let set 30 min w/ no fluid entry. RU RPM Svc, acidize Arb 3229-30' w/ 200 gal 15% MCA, max press – 700#, min – 50#, avg treat – staging, avg treat – staging. With 1.50 bbl acid out in formation, release pkr then balance the rest of the acid on bottom to let it soak out in the formation overnight. SDFN

DS&W	$ 2290.00		
Pioneer	$ 1500.00		
RPM	$ 1430.00		
Tool Tech	$ 1400.00		
Popp	$ 600.00		
Total	$ 7220.00	Cum	$29230.00

02-08-17 FL @ surface, acid didn't go out in the formation. Pulled pkr up to 2974' & set, RU RPM Svc & start pressuring up & staging on acid left in csg. After 2.5 hrs, had pressure up to 1200" w/ pressure drop. Let set 15 min w/ pressure down to 0#. Pressure back to 1200# then let set 15 min w/ pressure down to 0#. Let water gravity out of tank & loaded w/ 5 bbl out, acid displaced. Release pkr, move back down & set @ 3198'. Toal load – 26 bbl, FL @ 300', made 1st pull recovering 6 bbl, swab test as follows:

1st hr	14.80	20.80	GS	FL 1300', 4-500' pulls, good acid kick
2nd hr	14.50	35.30	11	FL 900', 4-500' pulls, gas on each pull
3rd hr	20.50	55.80	11	FL 1150', 4-1000' pulls, " " "
4th hr	22.60	78.40	16	FL 1300', 4-1000' pulls, " " "

SDFN

DS&W	$ 2090.00		
RPM	$ 570.00		
Tool Tech	$ 375.00		
Brackeen	$ 170.00		
Popp	$ 600.00		
Total	$ 3805.00	Cum	$33035.00

02-09-17 FL @ 550', 2680' FIH w/ 250' oil(9%). Release tools, set plug @ 3260' & pkr @ 3198' to swab test both Arbuckle zones 3238-44' & 3229-30' as follows w/ FL @ 500':

1st hr	22.60	22.60	SH	FL 950', 4-1000' pulls
2nd hr	24.90	47.50	13	FL 1200', 4-1000' pulls
3rd hr	24.60	72.10	13	FL 1350', 4-1000' pulls
4th hr	24.30	96.40	13	FL 1350', 4-1000' pulls
5th hr	24.60	121.00	14	FL 1350', 4-1000' pulls
6th hr	25.10	146.10	13	FL 1350', 4-1000' pulls
7th hr	23.40	169.50	13	FL 1350', 4-1000' pulls
8th hr	24.30	193.80	14	FL 1350', 4-1000' pulls
SDFN				

DS&W	$ 2090.00		
Tool Tech	$ 375.00		
Brackeen	$ 340.00		
Popp	$ 600.00		
Total	$ 3405.00	Cum	$36440.00

02-10-17 FL @ 550', 2650' FIH w/ 350' oil(13%). TOH w/ tbg & tools, TIH w/ tbg as follows:

			Set @
2-7/8" 8rd EUE TP MA	1jt	14.95'	3274.08'
2-7/8" 8rd EUE tbg	19jts	598.87'	3259.13'
2 ½"x 2 ¾"x 16'x 19' bbl	2jts	20.90'	2660.26'
2-7/8" 8rd eue tbg	1jt	31.15'	2639.36'
5 ½"x 2-7/8" anchor catcher	1jt	3.00'	2608.21'
2-7/8" 8rd EUE tbg	82jts	2578.21'	2605.21'
2-7/8" 8rd EUE tbg subs	3jts	18.00'	27.00'
Below KB		9.00'	

Landed tbg 13' off bottom w/ 14" stretch on anchor catcher. Put 5 gal bactericide via tbg then swab fluid from tbg down csg swabbing 30 bbls. Put 3 gal corrosion inhibitor via tbg then swab fluid from tbg down csg swabbing 30 bbl. Put 2 gal via tbg then TIH w/ rods as follows:

2 ¾" on/off tool
5 – 1 ½"x 25' sinker bar
40 – ¾"x 25' sucker rods
60 – 7/8"x 25' sucker rods
7/8"x 4' pony rods
1 ¼"x 22' PR w/ 10' PRL

Habiger #18-1

Longstroke well w/ well pumping up. RDMO DD.

DS&W	$ 2190.00		
Brackeen	$ 340.00		
Tool Tech	$ 375.00		
Wildcat	$14750.00		
Popp	$ 600.00		
Total	$18255.00	Cum	$54695.00

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025 Home Office P.O. Box 32 Russell, KS 67665 No. 3131
Cell 785-324-1041

Date	Sec.	Twp.	Range	County	State	On Location	Finish
1-30-17	18	18	9	Rice	Ks		

Location Claflin, Ks - E to 8th Rd, 1 3/4 S

Lease Habiger Well No. 18-1 Owner w/Into

Contractor WW #14

To Quality Oilwell Cementing, Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Type Job Longstring

Hole Size 7 7/8" T.D. 3330'

Csg. 5 1/2" 15.50# Depth 3327.39'

Charge To Stratakan Explocation

Tbg. Size Depth

Street

City State

Tool Depth

The above was done to satisfaction and supervision of owner agent or contractor.

Cement Left in Csg. 38.75' Shoe Joint 38.75'

Meas Line Displace 78 1/4 BLS

Cement Amount Ordered 180 @ Pro-C 10% Salt 5% Gilsonite - 500 gal mud Clear 48

EQUIPMENT

Pumptrk 18	No.	Cementer / Helper	Nick
Bulktrk 9	No.	Driver / Driver	Jason
~~Bulktrk~~ P.U.	No.	Driver / Driver	Rick

JOB SERVICES & REMARKS

Remarks:

Rat Hole 30 SX

Mouse Hole 20 SX

Centralizers 1,2,3,6,7,9

Baskets pipe on bottom break Circulation

D/V or Port Collar pump 500 gal mud Clear 48 pump 20 BLS KCL plug Rathole w/ 30 SX plug mousehole w/ 20 SX Cement 5 1/2" Casing w/ 130 SX shut down wash pump + lines Displaced plug w/ 78 1/4 BLS of H2O. Released + held

Lift pressure 600 #

Land plug to 1500 #

Common	180
Poz. Mix	
Gel.	
Calcium	
~~Hulls~~	100 BLS KCL 10 gal
Salt	~~13~~ 13
Flowseal	
Kol-Seal	750 #
Mud CLR 48	500 gal
CFL-117 or CD110 CAF 38	
Sand	
Handling	200
Mileage	

FLOAT EQUIPMENT

Guide Shoe	
Centralizer	6
Baskets	
AFU Inserts	
Float Shoe	1
Latch Down	1

Pumptrk Charge	prod string
Mileage	38
Tax	
Discount	
Total Charge	

X Signature Noel Perez

GENERAL TERMS AND CONDITIONS

DEFINITIONS: In these terms and conditions, "Quality" shall mean Quality Oilwell Cementing, Inc., and "Customer" shall refer to the party identified by that term on the front of this contract. As applicable, "Job" relates to the services described on the front side of this contract, "merchandise" refers to the material described on the front of this contract and to any other materials, products, or supplies used, sold, or furnished under the requirements of this contract.

– TERMS: Unless satisfactory credit has been established, "CUSTOMER" must tender full cash payment to "QUALITY" before the job is undertaken or merchandise is delivered. If satisfactory credit has been established, the terms of payment for the job and/or merchandise, including bulk cement, are net cash, payable in 30 days from the completion of the job and/or delivery of the merchandise. For all past due invoices, "CUSTOMER" agrees to pay interest on amounts invoiced at a rate of 18 percent per annum until paid. Notwithstanding the foregoing in no event shall this Contract provide for interest exceeding the maximum rate of interest that "CUSTOMER" may agree to pay under applicable law. If any such interest should be provided for, it shall be and hereby is deemed to be a mistake, and this contract shall be automatically reformed to lower the rate of interest to the maximum legal contract rate, any amounts previously paid as excess interest shall be deducted from the amounts owing from the "CUSTOMER" or at the option of "QUALITY," refunded directly to "CUSTOMER." For purposes of this paragraph, QUALITY and CUSTOMER agree that KANSAS law shall apply. Any discounts granted with this contract are null and void if the charges are not paid when due.

– ATTORNEY FEES: In any legal action or proceeding between the parties to enforce any of the terms of this Service Contract, or in any way pertaining to the term of this Contract, the prevailing party shall be entitled to recover all expenses, including, but not limit to, a reasonable sum as and attorney's fees.

– PRICES AND TAXES: All merchandise listed in "QUALITY'S" current price shall schedule are F.O.B. QUALITY'S local station and are subject to change without notice. All prices are exclusive of any federal, state, local, or special taxes for the sale or use of the merchandise or services listed. The amount of taxes required to be paid by QUALITY shall be added to the quoted prices charged to CUSTOMER.

– TOWING CHARGES: QUALITY will make a reasonable attempt to get to and from each job site using its own equipment. Should QUALITY be unable to do so because of poor or inadequate road conditions, and should it become necessary to employ a tractor or other pulling equipment to get to or from the job site, the tractor or pulling equipment will be supplied by CUSTOMER or, if furnished by QUALITY, will be charged to and paid by CUSTOMER.

– PREPARATION CHARGES: If a job and/or merchandise is ordered and CUSTOMER cancels the order after preparation of a chemical solution or other material, CUSTOMER will pay QUALITY for the expenses incurred by QUALITY as a result of the cancellation.

– DEADHAUL, CHARGES: Unless otherwise specified on the front of this Contract, a deadhaul charges as set forth in QUALITY'S current price book will be charged each way for each service unit which is ordered by CUSTOMER but not used.

– SERVICE CONDITIONS AND LIABILITIES: 1. QUALITY carries public liability and property damage insurance, but since there are so many uncertain and unknown conditions beyond QUALITY'S control, QUALITY shall not be liable for injuries to property or persons or for loss or damage arising from the performance of the job or delivery of the merchandise. Customer shall be responsible for and indemnify, defend, and hold harmless QUALITY, its officers, agents and employees, from and against any and all claims or suits for:

(A) Damage to property or for bodily injury, sickness, disease, or death, brought by any person, including CUSTOMER and/or the well owner; and:

(B) Oil spills, pollution, surface or sub-surface damage, injury to the well, reservoir loss, or damage arising from a well blowout arising out of or in connection with QUALITY'S performance of the job or furnishing of merchandise in accordance with this contract, unless such loss or damage is caused by the willful misconduct or gross negligence of QUALITY or its employees.

2. With respect to any of QUALITY'S tools, equipment, or instruments which are lost in the well or damaged when performing or attempting to perform the job or, in the case of marine operations, are lost or damaged at any time after delivery to the landing for CUSTOMER and before return to QUALITY at the landing, CUSTOMER shall either recover the lost item without cost to QUALITY or reimburse QUALITY the current replacement cost of the item unless the loss or damage results from the sole negligence of QUALITY or its employees.

3. QUALITY does not assume any liability or responsibility for damages or conditions resulting from chemical action in cements caused by contamination of water or other fluids.

WARRANTIES: 1. QUALITY warrants all merchandise manufactured or furnished by it to be free from defects in material and workmanship under normal use and service when installed, and used, and/or serviced in the manner provided and intended. QUALITY'S obligation under this warranty is expressly limited to repair replacement, or allowance for credit, at its option, for any merchandise which is determined by QUALITY to be defective. THIS IS THE SOLE WARRANTY OF QUALITY AND NO OTHER WARRANTY IS APPLICABLE, EITHER EXPRESS OR OTHERWISE IMPLIED, IN FACT OR IN LAW, INCLUDING ANY WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE, CUSTOMER'S sole and only remedy with regard to any defective merchandise shall be the repair or replacement thereof or allowance for credit as herein provided, and QUALITY shall not be liable for any consequential, special, incidental, or punitive damages resulting from or caused by defective materials, products or supplies.

2. More specifically:

(A) Nothing in this contract shall be constructed as a warranty by QUALITY of the success or the effectiveness of the result of any work done or merchandise used, sold, or furnished under this contract.

(B) Nothing in this contract shall be construed as a warranty of the accuracy or correctness of any facts, information, or data furnished by QUALITY or any interpretation of test, meter readings, chart information, analysis or research, or recommendations made by QUALITY, unless the inaccuracy or incorrectness is caused by the willful misconduct or gross negligence of QUALITY or its employees in the preparation or furnishing of such facts, information or data. (C) Work done by QUALITY shall be under the direct supervision and control of the CUSTOMER or his agent and QUALITY will accomplish the job as an independent contractor and not as an employee or agent of the CUSTOMER.

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025 Home Office P.O. Box 32 Russell, KS 67665 No. 3124
Cell 785-324-1041

Date	Sec.	Twp.	Range	County	State	On Location	Finish
1-26-17	18	18	9	Rice	KS		1:30 AM

Location Claflin - E to 8th Rd, 1 3/4 S

Lease Habiger Well No. 18-1 Owner W/ Into on south side of tree Row

Contractor WW #4

Type Job Surface

To Quality Oilwell Cementing, Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Hole Size 12 1/4" T.D. 355'

Charge To Stratakan Exploration

Csg. 8 5/8" Depth 355'

Street

Tbg. Size Depth

City State

Tool Depth

The above was done to satisfaction and supervision of owner agent or contractor.

Cement Left in Csg. 15' Shoe Joint 15'

Cement Amount Ordered 180 80/20 3% cc 2% gel

Meas Line Displace 21 1/2 BLS

EQUIPMENT

Pumptrk 18 No.	Cementer		
	Helper	Dave	
Bulktrk 15 No.	Driver		
	Driver	Jason	
~~Bulktrk~~ P.U. No.	Driver		
	Driver	Rick	

JOB SERVICES & REMARKS

Remarks: Cement did Circulate

Rat Hole

Mouse Hole

Centralizers

Baskets

D/V or Port Collar

Common	145
Poz. Mix	35
Gel.	3
Calcium	7
Hulls	
Salt	
Flowseal	
Kol-Seal	
Mud CLR 48	
CFL-117 or CD110 CAF 38	
Sand	
Handling	190
Mileage	

FLOAT EQUIPMENT

Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	
Pumptrk Charge	Surface
Mileage	38
Tax	
Discount	
Total Charge	

X Signature Noel Perez

Quality Oilwell Cementing

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(A) Damage to property or for bodily injury, sickness, disease, or death, brought by any person, including CUSTOMER and/or the well owner; and:

(B) Oil spills, pollution, surface or sub-surface damage, injury to the well, reservoir loss, or damage arising from a well blowout arising out of or in connection with QUALITY'S performance of the job or furnishing of merchandise in accordance with this contract, unless such loss or damage is caused by the willful misconduct or gross negligence of QUALITY or its employees.

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WARRANTIES: 1. QUALITY warrants all merchandise manufactured or furnished by it to be free from defects in material and workmanship under normal use and service when installed, and used, and/or serviced in the manner provided and intended. QUALITY'S obligation under this warranty is expressly limited to repair replacement, or allowance for credit, at its option, for any merchandise which is determined by QUALITY to be defective. THIS IS THE SOLE WARRANTY OF QUALITY AND NO OTHER WARRANTY IS APPLICABLE, EITHER EXPRESS OR OTHERWISE IMPLIED, IN FACT OR IN LAW, INCLUDING ANY WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE, CUSTOMER'S sole and only remedy with regard to any defective merchandise shall be the repair or replacement thereof or allowance for credit as herein provided, and QUALITY shall not be liable for any consequential, special, incidental, or punitive damages resulting from or caused by defective materials, products or supplies.

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StrataKan EXPLORATION

COMPANY	**StrataKan Exploration, LLC.**
LEASE	**Habiger 15-1**
FIELD	**Unnamed**
LOCATION	**1800' FNL 2200' FEL**
SEC 15	TWSP 18s	RGE **9w**
COUNTY	**Rice**	STATE **Kansas**

ELEVATIONS	
KB	**1747**
DF	
GL	**1732'**

Measurements are all from **KB**

CONTRACTOR **WW Drilling, LLC**		CASING	
SPUD **10/25/2017**	COMP **1/30/2017**	SURFACE	**8 5/8 32# @355' W/ 180**
RTD **3330**	LTD **3327**	PRODUCTION	**5 1/2 15.5# @3324' W/1**
MUD UP **2350**	TYPE MUD **Chemical Fresh**		

SAMPLES SAVED FROM	**2350'**	TO **RTD**
DRILLING TIME KEPT FROM	**2350'**	TO **RTD**
SAMPLES EXAMINED FROM	**2350'**	TO **RTD**
GEOLOGICAL SUPERVISION FROM	**2350'**	TO **RTD**
GEOLOGIST ON WELL	**Justin R. Prater**	

ELECTRICAL SURVEYS
CDNL, DIL, MEL, Sonic

FORMATION TOPS	LOG
HOWARD	**2392 -639**
Severy	**2441 -688**
TOPEKA	**2475 -722**
LECOMPTON	**2604 -851**
HEEBNER SHALE	**2745 -1002**
DOUGLAS SHALE	**2780 -1037**
BROWN LIME	**2863 -1120**
LANSING	**2889 -1146**
STARK SHALE	**3130 -1387**
BASE KANSAS CITY	**3162 -1419**
ARBUCKLE	**3221 -1478**
RTD/LTD	**3327 -1584**

SAMPLES
2391 -644
2447 -704
2483 -740
2608 -865
2750 -1007
2782 -1039
2869 -1126
2895 -1152
3106 -1363
3168 -1425
3228 -1485
3330 -1587

FAVORABLE STRUCTURAL POSITION: DST, SHOWS, AND LOG CALCULATIONS.

5.5" PRODUCTION CASING WAS SET TO FURTHER TEST THE ARBUCKLE DOLOMITE.

RECOMMEND PERFORATIONS:

3238-46 ARBUCKLE LOWER
3231-34 ARBUCKLE UPPER

BEFORE ABANDONMENT:

"J" 3082-86 (LOG CALC)
"H" 3005-60 (LOG CALC)
"G" 2970-73 (LOG CALC)
"C" 2868-2910 (LOG CALC)
OREAD 2890-94 (OIL SHOW)

Justin R. Prater

Curve Track #1
ROP (min/ft) 10
Gamma (API) 150
Cal (in) 6 16

DEPTH | DST | LITHOLOGY | % Shale

Geological Descriptions

TG, C1 - C5
Total Gas (units) 100
C1 (units) 100
C2 (units) 100
C3 (units) 100
C4 (units) 100
C5 (units) 100

2350
-610
-620
-630
-640
-650
-660
-670
-680
-690
-700
-710
-720
-730
-740
-750
-760
-770
-780
-790
-800
-810
-820
-830
-840
-850
-860
-870
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-1540
-1550
-1560
-1570
-1580
-1590
-1600

Howard 2391' -644

Severy 2447' -704

Topeka 2483' -740

Lecompton 2608' -865

Heebner 2750' -1007

Douglas 2782' -1039

Brown Lime 2869' -1126

Lansing 2895' -1152

Stark Shale 3106' -1363

BKC 3168' -1425

Arbuckle 3228' -1485

RTD 3330' -1587

LS: CRM GRY, HRD DNS, VF-XLN, PYR, NO VIS POR, NS

LS: CRM BRN GRY, HRD DNS, SPT WHT CHLK, NO VIS POR, NS

AS ABOVE W SOME FOSS FRAG, NS

LS: GRY HRD DNS, VF-XLN, RE-XLN TO CRM CHLK IN PT, NO VIS POR

LS: CRM GRY, MSTLY HARD DNS, NO VIS POR, NS

LS: AS ABOVE W INCREASING DK GRY SH, NS

SH: DK GRY SILTY THRU

SH: GRY, SILTY THRU

SLT AND SH DK GRY, LOOSE SILT IN PT

LS: BFF CRM, HRD DNS, NS, STILL TRACE SLT

LS:BFF CRM, HRD DNS, VF-XLN, NO POR, NS

LS: BFF, CRM, FRI, CHLK IN PT, NS

LS:CRM, MSTLY DNS, RARE POOR XLN POR, NS

LS: CRM, DNS, PYRITE INCLUSIONS, NS

LS:CRM, OFF WHT, DNS, NS

LS: CRM, MSTLY DNS, FEW WHT CHLK, NS

LS: CRM BFF, MSTLY DNS, SI CHLK, NS

LS: BFF CRM, DNS HRD, OCC WHT CHLK, NO VIS POR, NS

LS: CRM, HRD, F-XLN, TR VUGS, NO STN, NO SHOW

LS:CRM, HRD DNS, NVP, W SC FOSS FRAG, NS

LS:BFF CRM, HRD DNS, VF-XLN, NS

LS:BFF CRM, OCC SPLITRY BLK SH, DNS, VF-XLN, NS

LS: CRM TN, DNS HRD, NO VIS POR, NS

LS: CRM, SM WHT CHLK, SOME FRI, MOSTLY HRD DNS W NO VIS POR

LS:CRM TN, DNS, VF-XLN, WHT CHLK, NS

LS:BFF CRM TN, HRD, SCT BF XLN, W SOME CHLKY, NO SHOW

LS: CRM, HRD, NO POR, NS

LS:CRM BFF, DNS HRD, VF-XLN, FOSS FRAG, NS

LS: CRM, DNS, HRD, RE-XLN, NS

LS: CRM, DNS, BRT, SM CHLKY, NS

LS: CRM GRY, F-XLN, DNS BRITT., RARE DK BRN DEAD STN, NO VIS POR, NO SHOW

LS:CRM, BRITT., NVP, CHLKY, MORE ODOUR?, NO SHOW

LS: CRM, HRD, DNS, V RARE DK BRN STN, NO FLOR, NO SHOW

LS:CRM, TN, MSTLY DNS, RARE MF-F XLN, SLT CHLKY, NO SHOW FREE OIL IN ONE PIECE DNS, NO ODOR, NO GAS KICK, POOR VRY SLOW STRONG

LS: CRM TN, HRD DNS, NVP, NO SHOW

SH: BLK CARB

LS:CRM TN, HRD DNS, NO POR, NO SHOW

LS:CRM TN, SLT CHLKY, NVP, INCREASING GRY SH

SH: GRY SILTY THRU

SH: GRY SILTY THRU, SOME CRM LS, FOSS FRAG

SH: GRY, SILTY THRU

SH: GRY, SILTY, GUMMY

SH: GRY, SILTY THRU, TRC PYRITE

SH: GRY, SLTY1 THRU BUT DECREASING, SOME TN LS, NS

SH: GRY, LOTS SILT, NS

SH:GRY, SILTY THRU, NS

LS: TN BRN, HRD DNS, NS

LS: TN BRN, HRD DNS, NS

LS: CRM, HRD DNS, VF-XLN, NO SHOW

LS: CRM, HRD BRITT., VF-XLN, W RE-XLN

LS: CRM, HRD DNS, VF-XLN, W SOME CHLK, RE-XLN, NO SHOW

LS:CRM BFF, DNS, PYR INC, NO VIS POR, NO SHOW

LS:CRM BFF, VRY DNS, VF-XLN, RE-XLN, NS

LS:CRM BFF, HRD DNS, SCAT OOMOLDIC POR, NO SHOW

LS:CRM, HRD DNS, RE-XLN, RARE M-XLN POR, NO SHOW, NO ODOR

LS: CRM, BRITT., OCC MF XLN, RARE VUG, NS, VISS, ODR

LS:CRM, DNS, NO SHOW

LS:CRM, BRITT., NO VIS POR IN MOST, RARE F-VF XLN, NO SHOW

LS CP3 "30" "80" 2984, LS: CRM TN, GOOD INTER MOLD POR THRU OOLCAST, SLT ODR, NO SHOW FREE OIL, 30 UNIT GAS INCREASE

LS: AS ABOVE W BETTER INTER MOLD POR, OOLCST, NS

LS: CRM TN, HRD DNS, OOLCAST THRU, GOOD INTER MOLD POR, RARE BLK STN, NO CUT, NO SHOW

LS: CRM TN, HRD DNS, OOLCAST, SOME INTER MOLD, SLIGHT OIL SMELL, NO STN, NO SHOW

LS: CRM TN, HRD DNS, SCAT OOLCAST, RARE INT MOLD POR, NO ODOR, NO SHOW

LS: CRM, HRD DNS, SCAT OOLCAST, SOME INT MOLD POR, VF-XLN, SLT ODOR, NO SHOW

LS: CRM, HRD DNS, SCATTERED MF-F XLN POR, RARE INTER MOLD POR, NO SHOW

LS: CRM, HRD DNS, VF-XLN RE-XLN, NO SHOW

LS: CRM, HR DNS, SC P-P POR, DEAD BLK STN IN ONE PIECE, NO SHOW

LS: CRM TN, HRD DNS, SOME BRITT., NO VIS POR, NO SHOW

LS:CRM TN, HRD DNS, SCT OOOD INT MOLD POR, BARREN, NO SHOW, NO ODOR

LS: CRM TN, HRD, SOME FRI, SCT FAIR P-P POR, COMPLETELY BARREN, NO SHOW

SH: BLK CARB

SH: BLK CARB

LS: CRM TN, BRITT., NO VIS POR, RARE BLK OO STN, SLT ODOR, NO SHOW

LS: CRM TN, HRD, VF-XLN, NO SHOW

LS:CRM, HRD, DNS, NVP, NO SHOW

LS: CRM BFF, FRI- XLN, RARE INTR MOLD, NO SHOW

LS: CRM TN, VF-XLN TO NO VIS POR, NO SHOW

LS:CRM, F-VF XLN, RARE OOCAST, BRITT., NO SHOW, NO ODOR

SH:

LS:CRM, NVP, SH: GRN RD, BRN

LS: CRM, VF XLN, RE-XLN, NO SHOW

LS:CRM, W GRY RD GRN SH, NO SHOW

LS: CRM TN, VRY DNS, W SH: DK GRY SPLINTRY, NS

SH: GRY RD BRN, RARE CRT ORANGE, NS

SH: MUCH RD BRN GRN Y GLAUNY

DSC: CRM, VID DNS, MEDIUN XLN, STRONG OIL ODOR, SLT LT BRN STN, NO VIS OIL SHW, FLUSH CUT BLU FLOR, 20 UNIT GAS SHOW

DSC: CRM, NO BRITL, MEDIUN XLN, HEAVY LT BRN STN THRU, STRONG OIL ODOR, SCT PYR, EXC FLUSH CUT, 30 UNIT GAS SHOW

DSC: CRM TN, VID BRITTL, MED-FN XLN, SOME INTR VUG POR, LT BRN OIL STAIN, EXCELLENT FLUSH CUT, STRONG ODOR, GAS READING HIGH FROM OIL IN MUD AFTER BOTTOMS UP

DSC: CRM TN, OO XLN POR, SCC SHT VUG, GOOD SHOW LT BRN OIL, INSTANT CUT, VERY STRONG ODOR, GAS BUBBLES.

DSC: CRM TN, MED-XLN, SCT VUG, GOOD SHOW LT BRN OIL, INSTANT CUT, VERY STRONG ODOR, GAS BUBBLES.

DSC: CRM TN, OO XLN POR, SCC SHT VUG, GOOD SHOW LT BRN OIL, INSTANT CUT, VERY STRONG ODOR, GAS BUBBLES.

DSC: CRM TN, SCC, MEDIUN XLN, TRC VUG W SLT SHOW DK BRN OIL, STRONG ODOR.

DSC: CRM TN, SCC, MED-VF XLN, OCC VUG W LT BRN OIL, GOOD ODOR

DSC: CRM TN, SCC, MED XLN, CRS XLN, HEAVY STN, GOOD OIL ODR.

DSC: CRM TN, SCC, MED-CRS XLN, SCT VUG, STN, OIL ODOR

DSC: CRM WHT, F-VF XLN, SCT CRS XLN, RARE VUG, LESS STN, GOOD ODOR BUT NOT AS STRONG

DSC: AS ABOVE RTD 3.30 A.M. 1/30/17

DST #1 3208-3240 ARBUCKLE 45-45-45-45

IF: FAIR BLOW BUILT TO 7.5"
ISI: 90 MIN
FF: FAIR BLOW BUILT TO 6"
FSI: WEAK SURFACE BK

RECOVERY:
30' SW
252' OBC 10% GAS 90% OIL
120' OCCM 10% GAS 70% OIL 20% MUD

%HOT IN B.: 93-94C

FLOW P.: 16-48
ISI: 94C

API 50 GRAVITY

DEV SURVEY @3240 1 DEG