

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

Form must be Typed

Form must be Signed

All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

New Well Re-Entry Workover

Oil WSW SWD

Gas DH EOR

OG GSW

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 EOR Conv. to SWD
 Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ 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: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

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 Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

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 <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
--	---

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> 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

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> 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: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
---	---	------------------------------------

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
----------------	-------	---------	------------	--



**Company: Hartman Oil
Company, Inc.
Lease: Walters #1-5**

SEC: 5 TWN: 1S RNG: 35W
County: RAWLINS
State: Kansas
Drilling Contractor: WW Drilling, LLC -
Rig 8
Elevation: 3147 EGL
Field Name: Wildcat
Pool: WILDCAT
Job Number: 186

Operation:
Uploading recovery &
pressures

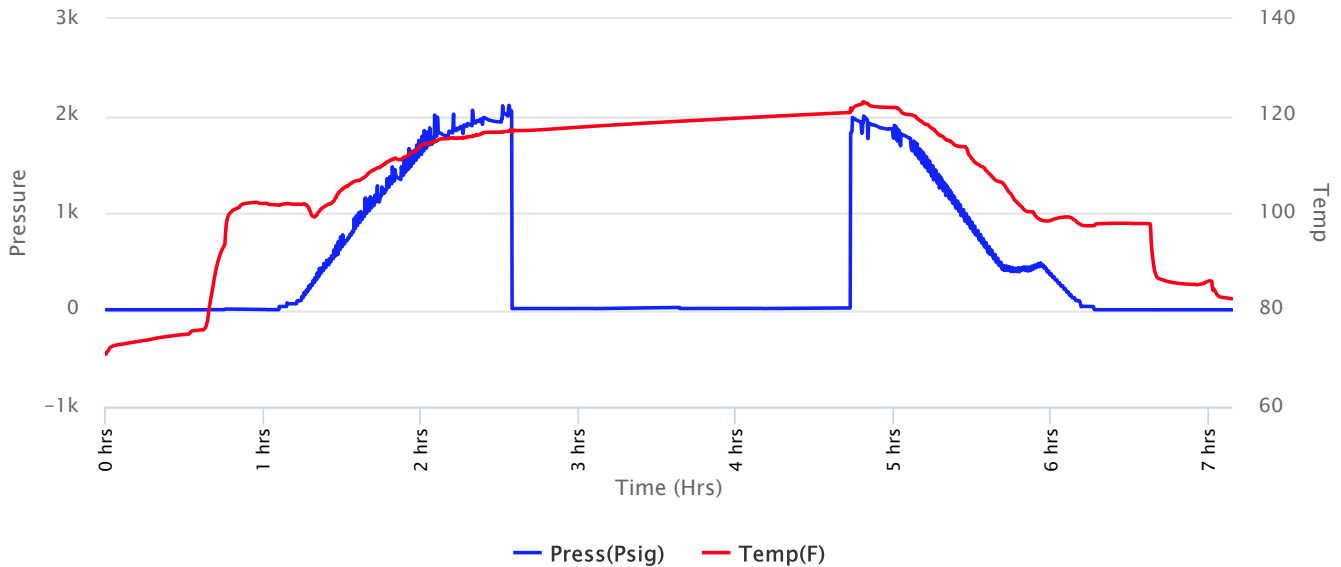
DATE
July
26
2018

DST #1 Formation: Lans A Test Interval: 4064 - Total Depth: 4104'
4104'
Time On: 10:07 07/26 Time Off: 17:04 07/26
Time On Bottom: 12:40 07/26 Time Off Bottom: 14:40 07/26

Electronic Volume
Estimate:
8'

<u>1st Open</u>	1st Close	<u>2nd Open</u>	2nd Close
Minutes: 30	Minutes: 30	Minutes: 30	Minutes: 30
Current Reading: .25" at 30 min	Current Reading: 0" at 30 min	Current Reading: 0" at 30 min	Current Reading: 0" at 30 min
Max Reading: .25"	Max Reading: 0"	Max Reading: 0"	Max Reading: 0"

Inside Recorder





Company: Hartman Oil Company, Inc.

Lease: Walters #1-5

SEC: 5 TWN: 1S RNG: 35W
County: RAWLINS
State: Kansas
Drilling Contractor: WW Drilling, LLC - Rig 8
Elevation: 3147 EGL
Field Name: Wildcat
Pool: WILDCAT
Job Number: 186

Operation:
Uploading recovery & pressures

DATE
July
26
2018

DST #1 **Formation: Lans A** **Test Interval: 4064 - 4104'** **Total Depth: 4104'**
Time On: 10:07 07/26 Time Off: 17:04 07/26
Time On Bottom: 12:40 07/26 Time Off Bottom: 14:40 07/26

Recovered

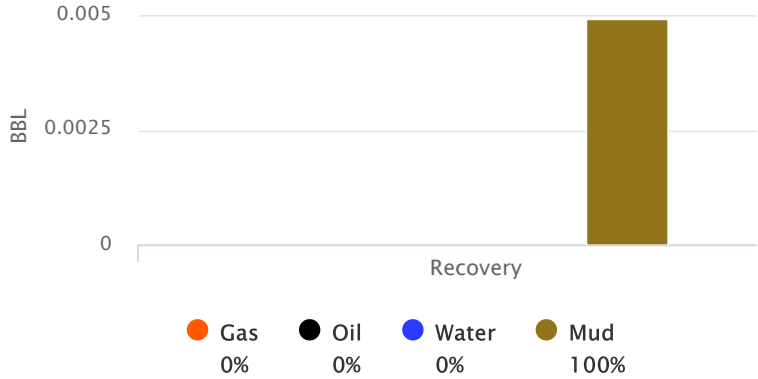
Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
1	0.00492	M	0	0	0	100

Total Recovered: 1 ft
Total Barrels Recovered: 0.00492

Reversed Out
NO

Initial Hydrostatic Pressure	1936	PSI
Initial Flow	12 to 14	PSI
Initial Closed in Pressure	24	PSI
Final Flow Pressure	13 to 14	PSI
Final Closed in Pressure	19	PSI
Final Hydrostatic Pressure	1938	PSI
Temperature	121	°F
Pressure Change Initial Close / Final Close	22.9	%

Recovery at a glance





**Company: Hartman Oil
Company, Inc.**

Lease: Walters #1-5

SEC: 5 TWN: 1S RNG: 35W
County: RAWLINS
State: Kansas
Drilling Contractor: WW Drilling, LLC -
Rig 8
Elevation: 3147 EGL
Field Name: Wildcat
Pool: WILDCAT
Job Number: 186

Operation:
Uploading recovery &
pressures

DATE
July
26
2018

DST #1 Formation: Lans A Test Interval: 4064 - Total Depth: 4104'
4104'
Time On: 10:07 07/26 Time Off: 17:04 07/26
Time On Bottom: 12:40 07/26 Time Off Bottom: 14:40 07/26

BUCKET MEASUREMENT:

1st Open: 1/4
1st Close: 0
2nd Open: 0
2nd Close: 0



**Company: Hartman Oil
Company, Inc.**

Lease: Walters #1-5

SEC: 5 TWN: 1S RNG: 35W
County: RAWLINS
State: Kansas
Drilling Contractor: WW Drilling, LLC -
Rig 8
Elevation: 3147 EGL
Field Name: Wildcat
Pool: WILDCAT
Job Number: 186

Operation:
Uploading recovery &
pressures

DATE
July
26
2018

DST #1 Formation: Lans A Test Interval: 4064 - Total Depth: 4104'
4104'
Time On: 10:07 07/26 Time Off: 17:04 07/26
Time On Bottom: 12:40 07/26 Time Off Bottom: 14:40 07/26

Down Hole Makeup

Heads Up: 12.76 FT	Packer 1: 4058.5 FT
Drill Pipe: 3926.23 FT <i>ID-3 1/2</i>	Packer 2: 4064 FT
Weight Pipe: 0 FT <i>ID-2 7/8</i>	Top Recorder: 4047.42 FT
Collars: 116.96 FT <i>ID-2 1/4</i>	Bottom Recorder: 4069 FT
Test Tool: 34.57 FT <i>ID-3 1/2-FH</i> <i>Jars</i> <i>Safety Joint</i>	Well Bore Size: 7 7/8
Total Anchor: 40	Surface Choke: 1"
Anchor Makeup	Bottom Choke: 5/8"
Packer Sub: 1 FT	
Perforations: (top): 3 FT <i>4 1/2-FH</i>	
Change Over: 0 FT	
Drill Pipe: (in anchor): 0 FT <i>ID-3 1/2</i>	
Change Over: 0 FT	
Perforations: (below): 36 FT <i>4 1/2-FH</i>	



**Company: Hartman Oil
Company, Inc.**

Lease: Walters #1-5

SEC: 5 TWN: 1S RNG: 35W
County: RAWLINS
State: Kansas
Drilling Contractor: WW Drilling, LLC -
Rig 8
Elevation: 3147 EGL
Field Name: Wildcat
Pool: WILDCAT
Job Number: 186

Operation:
Uploading recovery &
pressures

DATE
July
26
2018

DST #1 Formation: Lans A Test Interval: 4064 - Total Depth: 4104'
4104'
Time On: 10:07 07/26 Time Off: 17:04 07/26
Time On Bottom: 12:40 07/26 Time Off Bottom: 14:40 07/26

Mud Properties

Mud Type: Chem **Weight:** 9.1 **Viscosity:** 58 **Filtrate:** 7.2 **Chlorides:** 2000 ppm



**Company: Hartman Oil
Company, Inc.**

Lease: Walters #1-5

SEC: 5 TWN: 1S RNG: 35W
County: RAWLINS
State: Kansas
Drilling Contractor: WW Drilling, LLC -
Rig 8
Elevation: 3147 EGL
Field Name: Wildcat
Pool: WILDCAT
Job Number: 186

Operation:
Uploading recovery &
pressures

DATE
July
26
2018

DST #1 Formation: Lans A Test Interval: 4064 - Total Depth: 4104'
4104'
Time On: 10:07 07/26 Time Off: 17:04 07/26
Time On Bottom: 12:40 07/26 Time Off Bottom: 14:40 07/26

Gas Volume Report

1st Open

2nd Open

Time	Orifice	PSI	MCF/D
------	---------	-----	-------

Time	Orifice	PSI	MCF/D
------	---------	-----	-------



Company: Hartman Oil Company, Inc.

Lease: Walter #1-5

SEC: 5 TWN: 1S RNG: 35W
County: RAWLINS
State: Kansas
Drilling Contractor: WW Drilling, LLC - Rig 8
Elevation: 3147 EGL
Field Name: Wildcat
Pool: WILDCAT
Job Number: 186

Operation:
Uploading recovery & pressures

DATE
July
27
2018

DST #2 **Formation: Lans B,C,D** **Test Interval: 4098 - 4156'** **Total Depth: 4156'**
Time On: 03:13 07/27 Time Off: 10:56 07/27
Time On Bottom: 05:55 07/27 Time Off Bottom: 08:55 07/27

Electronic Volume Estimate:
54'

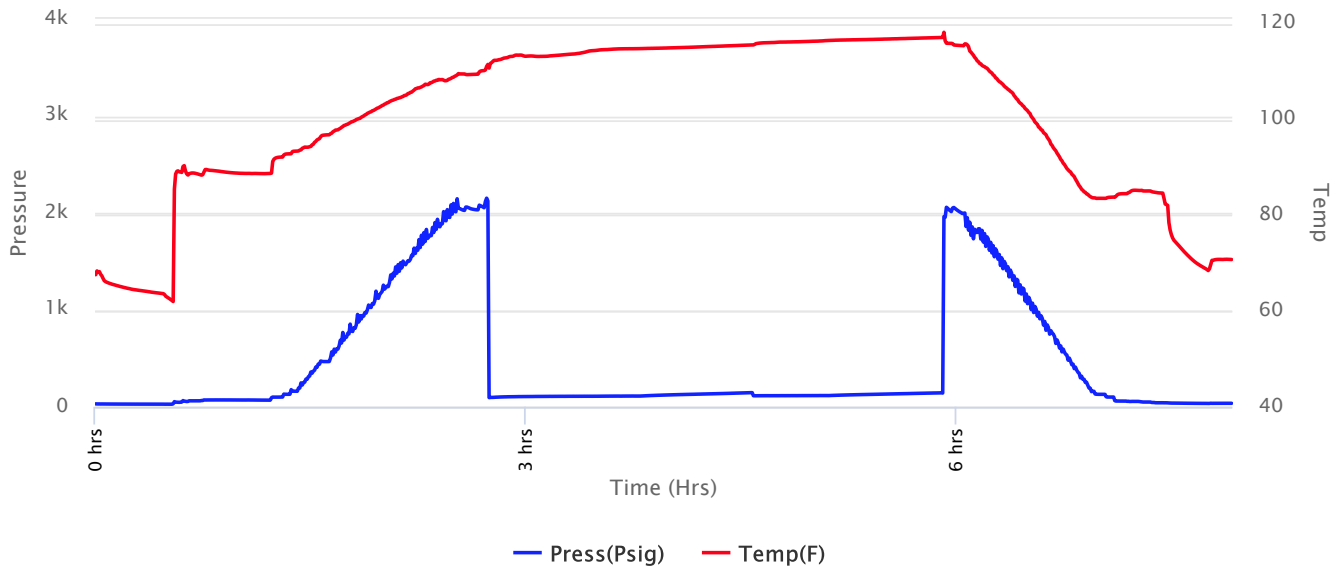
1st Open
Minutes: 60
Current Reading: 1.5" at 60 min
Max Reading: 1.7"

1st Close
Minutes: 45
Current Reading: 0" at 45 min
Max Reading: 0"

2nd Open
Minutes: 30
Current Reading: 0" at 30 min
Max Reading: 0"

2nd Close
Minutes: 45
Current Reading: 0" at 45 min
Max Reading: 0"

Inside Recorder





Company: Hartman Oil Company, Inc.

Lease: Walter #1-5

SEC: 5 TWN: 1S RNG: 35W
 County: RAWLINS
 State: Kansas
 Drilling Contractor: WW Drilling, LLC - Rig 8
 Elevation: 3147 EGL
 Field Name: Wildcat
 Pool: WILDCAT
 Job Number: 186

Operation:
 Uploading recovery & pressures

DATE
 July
27
 2018

DST #2 **Formation: Lans B,C,D** **Test Interval: 4098 - 4156'** **Total Depth: 4156'**
 Time On: 03:13 07/27 Time Off: 10:56 07/27
 Time On Bottom: 05:55 07/27 Time Off Bottom: 08:55 07/27

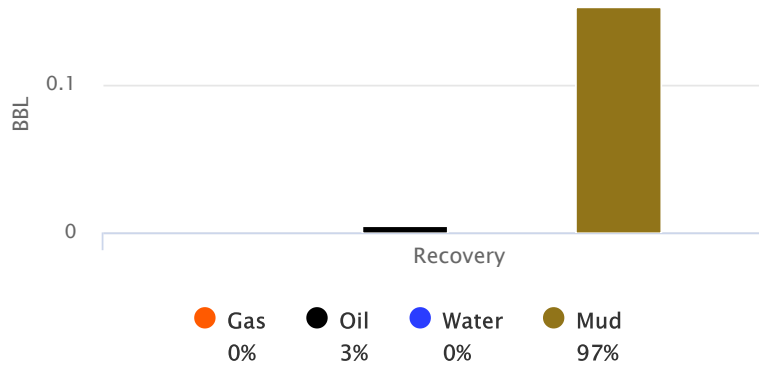
Recovered

Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
32	0.15744	SLOCM	0	3	0	97

Total Recovered: 32 ft
 Total Barrels Recovered: 0.15744

Reversed Out
 NO

Recovery at a glance



Initial Hydrostatic Pressure	2025	PSI
Initial Flow	94 to 110	PSI
Initial Closed in Pressure	146	PSI
Final Flow Pressure	114 to 115	PSI
Final Closed in Pressure	142	PSI
Final Hydrostatic Pressure	2033	PSI
Temperature	117	°F
Pressure Change Initial Close / Final Close	2.9	%



**Company: Hartman Oil
Company, Inc.**

Lease: Walter #1-5

SEC: 5 TWN: 1S RNG: 35W
County: RAWLINS
State: Kansas
Drilling Contractor: WW Drilling, LLC -
Rig 8
Elevation: 3147 EGL
Field Name: Wildcat
Pool: WILDCAT
Job Number: 186

Operation:
Uploading recovery &
pressures

DATE
July
27
2018

DST #2	Formation: Lans B,C,D	Test Interval: 4098 - 4156'	Total Depth: 4156'
	Time On: 03:13 07/27	Time Off: 10:56 07/27	
	Time On Bottom: 05:55 07/27	Time Off Bottom: 08:55 07/27	

BUCKET MEASUREMENT:

1st Open: 1 3/4 inch
1st Close: 0
2nd Open: 0
2nd Close: 0

REMARKS:

Tool Sample: 0% Gas 3% Oil 0% Water 97% Mud



Company: Hartman Oil Company, Inc.

Lease: Walter #1-5

SEC: 5 TWN: 1S RNG: 35W
County: RAWLINS
State: Kansas
Drilling Contractor: WW Drilling, LLC - Rig 8
Elevation: 3147 EGL
Field Name: Wildcat
Pool: WILDCAT
Job Number: 186

Operation:
Uploading recovery & pressures

DATE
July
27
2018

DST #2 **Formation: Lans B,C,D** **Test Interval: 4098 - 4156'** **Total Depth: 4156'**
Time On: 03:13 07/27 Time Off: 10:56 07/27
Time On Bottom: 05:55 07/27 Time Off Bottom: 08:55 07/27

Down Hole Makeup

Heads Up:	9.88999999999999 FT	Packer 1:	4092.5 FT
Drill Pipe:	3957.86 FT	Packer 2:	4098 FT
	<i>ID-3 1/2</i>	Top Recorder:	4081.92 FT
Weight Pipe:	FT	Bottom Recorder:	4136 FT
	<i>ID-2 7/8</i>	Well Bore Size:	7 7/8
Collars:	116.96 FT	Surface Choke:	1"
	<i>ID-2 1/4</i>	Bottom Choke:	5/8"
Test Tool:	34.07 FT		
	<i>ID-3 1/2-FH</i>		
	<i>Jars</i>		
	<i>Safety Joint</i>		
Total Anchor:	58		
	<u>Anchor Makeup</u>		
Packer Sub:	1 FT		
Perforations: (top):	3 FT		
	<i>4 1/2-FH</i>		
Change Over:	1 FT		
Drill Pipe: (in anchor):	31 31 FT		
	<i>ID-3 1/2</i>		
Change Over:	1 FT		
Perforations: (below):	21 FT		
	<i>4 1/2-FH</i>		



**Company: Hartman Oil
Company, Inc.**

Lease: Walter #1-5

SEC: 5 TWN: 1S RNG: 35W
County: RAWLINS
State: Kansas
Drilling Contractor: WW Drilling, LLC -
Rig 8
Elevation: 3147 EGL
Field Name: Wildcat
Pool: WILDCAT
Job Number: 186

Operation:

Uploading recovery &
pressures

DATE

July
27
2018

DST #2	Formation: Lans B,C,D	Test Interval: 4098 - 4156'	Total Depth: 4156'
	Time On: 03:13 07/27	Time Off: 10:56 07/27	
	Time On Bottom: 05:55 07/27	Time Off Bottom: 08:55 07/27	

Mud Properties

Mud Type: Chem	Weight: 9.1	Viscosity: 58	Filtrate: 7.2	Chlorides: 2000 ppm
-----------------------	--------------------	----------------------	----------------------	----------------------------



Company: Hartman Oil Company, Inc.

Lease: Walter #1-5

SEC: 5 TWN: 1S RNG: 35W
County: RAWLINS
State: Kansas
Drilling Contractor: WW Drilling, LLC - Rig 8
Elevation: 3147 EGL
Field Name: Wildcat
Pool: WILDCAT
Job Number: 186

Operation:
Uploading recovery & pressures

DATE
July
27
2018

DST #2 **Formation: Lans** **Test Interval: 4098 -** **Total Depth: 4156'**
 B,C,D **4156'**
Time On: 03:13 07/27 Time Off: 10:56 07/27
Time On Bottom: 05:55 07/27 Time Off Bottom: 08:55 07/27

Gas Volume Report

1st Open

2nd Open

Time	Orifice	PSI	MCF/D
------	---------	-----	-------

Time	Orifice	PSI	MCF/D
------	---------	-----	-------

Hartman Oil Company, Inc.
Walter No.1-5
1649' FNL and 946' FEL
Sec 5 T1S R35W
Rawlins County, Kansas

Geological Report
by

Macklin M. Armstrong
Geologist

Scale 1:240 Imperial

Well Name:	Walter No. 1-5	
Surface Location:	Sec 5 T1S R35W	
Bottom Location:	1649' FNL and 946' FEL	
API:	15-153-21210	
License Number:	30535	
Spud Date:	7/21/2018	Time: 5:45 PM
Region:	Rawlins County, Kansas	
Drilling Completed:	7/29/2018	Time: 3:22 PM
Surface Coordinates:	10805296 & 622822	
Bottom Hole Coordinates:		
Ground Elevation:	3140.00ft	
K.B. Elevation:	3145.00ft	
Logged Interval:	3600.00ft	To: 4462.00ft
Total Depth:	4460.00ft	
Formation:	Lansing	
Drilling Fluid Type:	Chemical/Fresh Water Gel	

OPERATOR

Company:	Hartman Oil Company, Inc.	
Address:	10500 East Berkeley Square Parkway Wichita, Kansas 67206	
Contact Geologist:	Chris Peters	
Contact Phone Nbr:	316-636-2090	
Well Name:	Walter No. 1-5	
Location:	Sec 5 T1S R35W	API: 15-153-21210
Pool:	Oil	Field: Wildcat
State:	Kansas	Country: USA

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude: 101.265730192 Latitude: 39.998045185
 N/S Co-ord: 10805296
 E/W Co-ord: 622822

CONTRACTOR

Contractor: WW Drilling, LLC
 Rig #: 8
 Rig Type: mud rotary
 Spud Date: 7/21/2018 Time: 5:45 PM
 TD Date: 7/29/2018 Time: 3:22 PM
 Rig Release: 7/30/2018 Time: 3:45 PM

ELEVATIONS

K.B. Elevation: 3145.00ft Ground Elevation: 3140.00ft
 K.B. to Ground: 5.00ft

NOTES

Date	Depth at 7 am	Activity
7-21-18	MIRU	Spud at 5:45 pm
7-22-18	303	WOC
7-22-18	2240	Drilling
7-24-18	3330	Drilling
7-25-18	3842	CFS
7-26-18	4104	TIH after 2nd Short Trip
7-27-18	4156	OB with DST No. 2
7-28-18	4256	OB with DST No. 3
7-29-18	4336	CFS
7-30-18	4460	P & A

Surface Casing: 8 5/8" 23# at 303'
 Production Casing: None set

Deviation: 355' - 1/2°
 4104' - 0°
 4256' - 1/2°
 4460' - 1°

Bit Record:	Make	Size	Type	Depth In	Depth Out	Hours
	Smith	121/4"	RR	Surface	303	3 1/4
	Smith	7 7/8"	F18Y	303	4460	98

Drill Stem Tests:

DST No. 1 4064 to 4104 Lansing A Zone

30-30-30-30

Recovery: 1' Mud

IHP 1936 FHP 1938

IFP 12-14 FFP 13-14

ISIP 24 FSIP 19

Temp 121°

DST No. 2 4098 to 4156 Lansing B, C, and D Zones

60-45-30-45

Recovery: 32' SOCM (3%O, 97%M)

IHP 2025 FHP 2033

IFP 94-110 FFP 114-115

ISIP 146 FSIP 142

Temp 117°

DST No. 3 4148 to 4256 Lansing E, F, G, and H Zones

DST No. 3 1116 to 1200 Lansing E, F, G, and H Zones
 45-45-30-45
 Recovery: 1' Oil
 19' SOCM (3%O, 97%M)
 IHP 2016 FHP 2017
 IFP 15-18 FFP 19-20
 ISIP 86 FSIP 66
 Temp 121

DST No. 4 4254 to 4306 Lansing I and J Zones
 30-45-45-60
 Recovery: 15' GIP
 3' Oil
 44' SOCM (3%O, 97% M)
 IHP 2080 FHP 2071
 IFP 14-26 FFP 30-31
 ISIP 110 FSIP 69
 Temp 123







Formation	Sample	E-Log	Datum	Well 1	Well 2
Anhydrite	3062	3060	+85		
Base/Anhydrite	3090	3094	+51		
Foraker	3664	3664	-519	+11	0
Stotler	3814	3812	-667	+11	+2
Topeka	3875	3873	-728	+13	+4
Oread	3980	3980	-835	+13	+11
Lansing	4085	4086	-941	+16	+14
B Zone	4104	4105	-960	+14	+15
D Zone	4139	4140	-995	+15	+12
E Zone	4164	4166	-1021	+11	+5
G Zone	4189	4191	-1046	+14	+14
H Zone	4241	4242	-1097	+19	+18
I Zone	4258	4260	-1115	+15	+12
J Zone	4286	4288	-1143	+12	+6
Stark	4302	4306	-1161	+15	+4
K Zone	4323	4328	-1183	+16	+8
L Zone	4343	4348	-1203	+15	+14
Base/Kansas City	4350	4355	-1210	+15	+13
Total Depth	4460	4462	-1317		

Well 1: Reeder Operating, LLC Walter No. 10-5 1418' FSL and 1405' FEL Sec 5 T1S R35W
 Well 2: Murfin Drilling Company, Inc. Verna Poore No. 1-7 660' FNL and 1980' FEL Sec 7 T1S R35W



Due to the results of the Drill Stem Tests and the electric log calculations, it was decided to plug this test well.

Respectfully submitted,
 Macklin M. Armstrong

ROCK TYPES

 Lmst fw7>	 shale, gry	 shale, red
 shale, grn	 Carbon Sh	 Ss

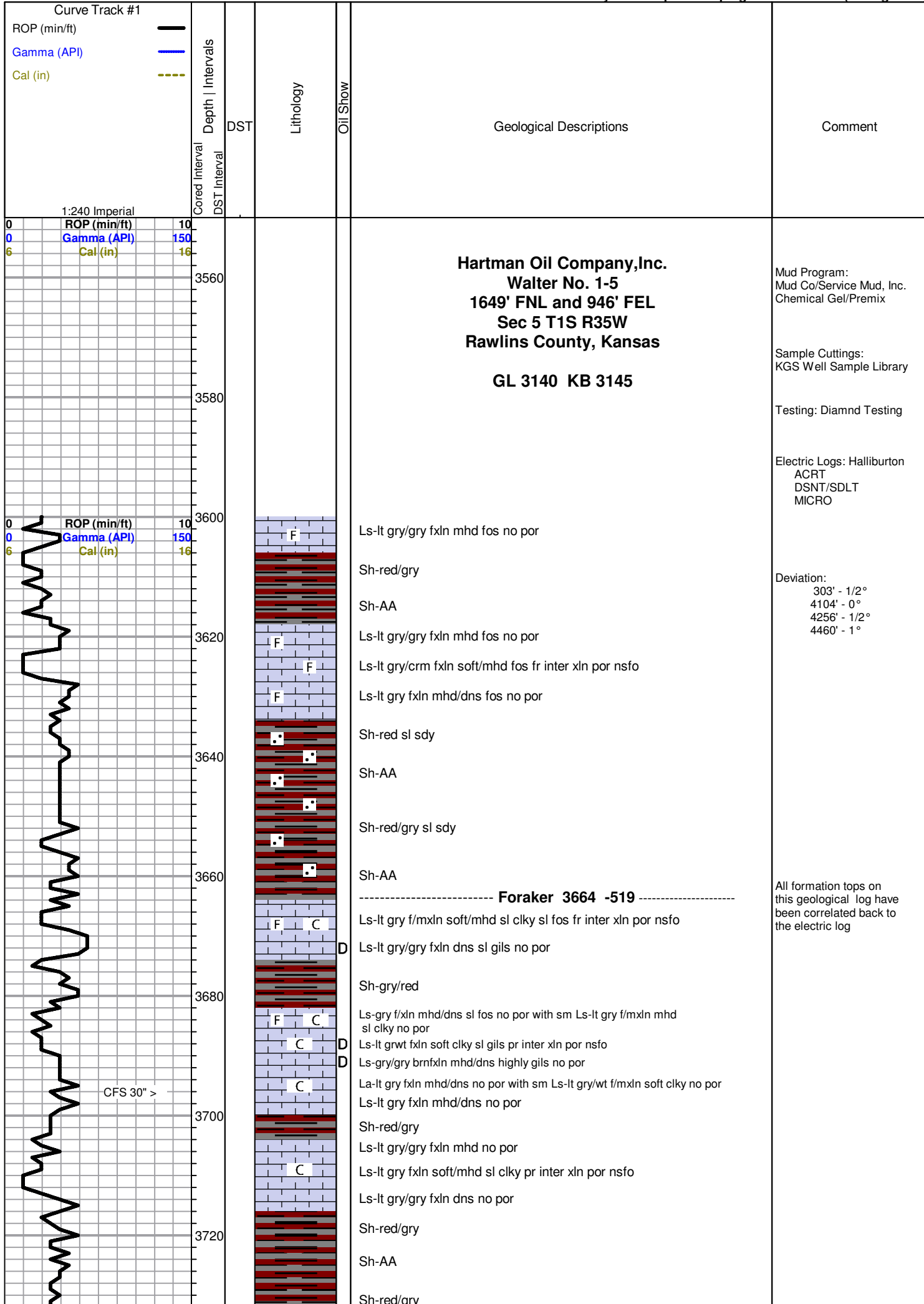
ACCESSORIES

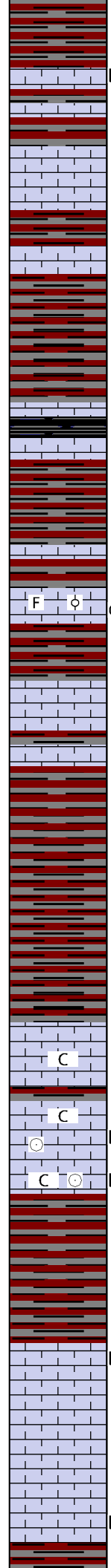
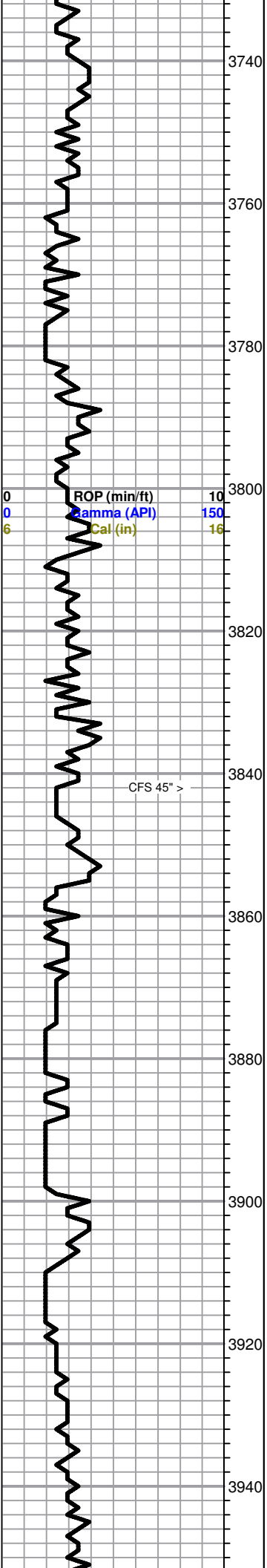
MINERAL	FOSSIL	STRINGER	TEXTURE
∩ Glauconite	○ Crinoids	 Limestone	C Chalky
P Pyrite	F Fossils < 20%	 Siltstone	
• Sandy	⊕ Oolite		

OTHER SYMBOLS

DST

 DST Int
 DST alt
 Core





Sh-red/gry

Sh-AA

D Ls-lt gry/crm fxln mhd/dns sl gils no por
 Sh-red/gry
 Ls-lt gry/crm fxln mhd/dns no por
 Sh-red/gry

Ls-gry/tan fxln dns no por

Sh-red/gry
 Ls-tan fxln mhd no por
 Sh-red/gry

Sh-AA

Ls-tan/lt gry fxln mhd/dns no por
 Sh-blk carb
 Ls-tan/lt gry fxln mhd/dns no por

Sh-red/gry

Ls-tan/lt gry fxln dns no por

----- **Stotler 3814 -669** -----

F ϕ **Q**
 Ls-tan/lt gry fxln mhd fos ool gd inter ool/vug por dk brn/blk spt stn
 gd cut ssfo on brk no odor

Sh-red/gry

Ls-tan fxln mhd/dns no por

Sh-red/gry
 Ls-tan/t gry fxln mhd/dns no por

Sh-red/gry/dk gry

Sh-AA

Sh-AA

Sh-red/gry/dk gry

Sh-AA

----- **Topeka 3875 -730** -----

C
 Ls-lt gry f/mxln mhd no por sm Ls-lt gry/crm fxln soft clky no por

Sh-red/gry/dk gry

C
 Ls-lt gry/crm fxln mhd sl clky no por

D Ls-lt gry/crm fxln mhd sm free crin no por

C ϕ **D**
 Ls-lt gry f/mxln mhd highly gils sm free crin no por with sm Ls-lt gry
 fxln soft clky gils no por

Sh-red/gry/dk gry

Sh-AA

Sh-AA

D Ls-lt gry fxln dns no por sm Ls-lt gry fxln mhd gils no por

Ls-lt gry fxln dns no por

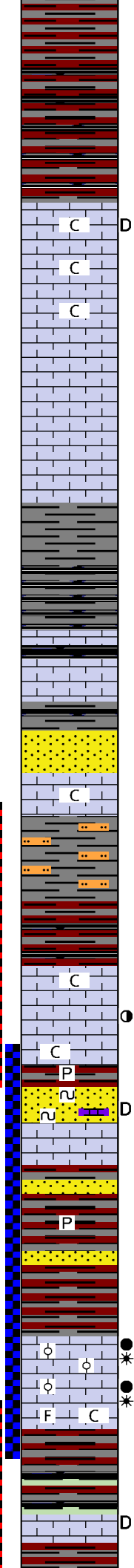
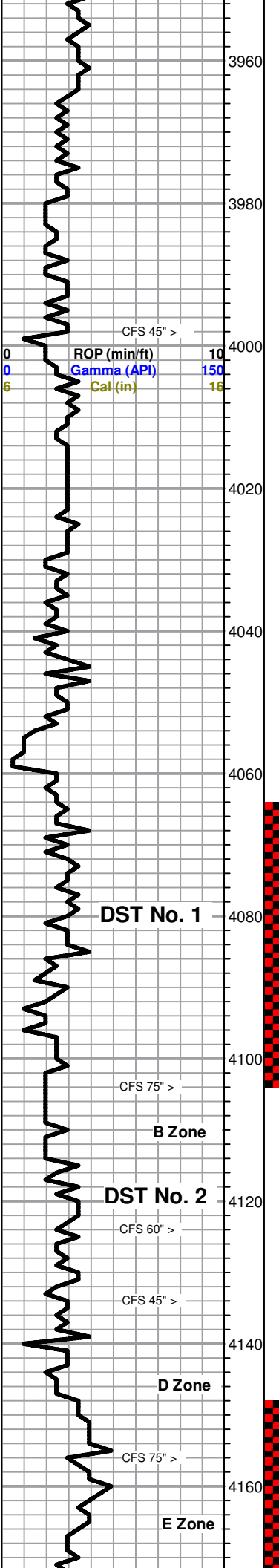
Ls-AA

Ls-lt gry gry fxln mhd/dns no por

D Ls-lt gry/gry fxln mhd/dns gils no por

Sh-red/gry/mar

Mud Data at 3917'
 11:15 am on 7-25-18
 Wt 8.9 Vis 56 WL 6.8
 pH 11 Chi 1800 Sol 4.8%
 YP 14 LCM 4#



Sh-AA

Sh-red/gry/mar/blk

Sh-AA

Sh-AA

----- Oread 3980 -835 -----

C Ls-lt gry fxln dns no por sm Ls-wt fxln soft clkly sl gils no por

C Ls-lt gry fxln mhd/dns no por sm Ls-wt fxln soft clkly no por

C Ls-AA

Ls-lt gry fxln mhd no por

Ls-lt gry/gry fxln dns no por

Ls-AA

Ls-AA

Sh-gry

Sh-dk gry/blk

Sh-AA

Ls-lt gry/gry fxln dns sl shly no por

Sh-blk carb

Ls-lt gry/gry fxln dns sl shly no por

Sh-gry/dk gry/blk

Ss-gry/lt gry vfgrn sub ang to ang poorly sorted tite cement nsfo with sm Ss-gry vgrn sub ang well sorted sl fri nsfo

C Ls-lt gry/tan fxln mhd/dns sl clkly no por

Sh-gry/dk gry sm Siltstone-lt gry

Sh-AA with sm Siltstone-lt gry

Sh-red/gry/blk

----- Lansing 4085 -940 -----

C Ls-lt gry/crm fxln mhd sl clkly no por

Q Ls-tan fxln mhd gd vug/inter xln por dk brn sct stn fr fluor gd cut ssfo on brk no odor

C Ls-tan/crm fxln mhd/dns sl clkly no por

P Sh-gry/dk gry/sm pyrite

n Ss-lt gry/gry fgrr ang to sub ang tite cement sl glau nsfo with Sh stringers

D Ss-AA with 2 pcs Ls-tan mxln mhd sl gils dk brn/blk spt stn pr xln por nsfo

Ls-tan/lt gry fxln mhd/dns no por

Sh-red/gry

Ss-lt grygry fgrr ang to sub ang tite cement nsfo

P Sh-red/gry/dk gry sm pyrite

Ss-gry vfgrn sub ang tite cement nsfo

Sh-red/gry/dk gry

Sh-AA

Ls-tan/brn fxln mhd fos ool gd inter ool por brn sat stn gd fluor gd cut gsfo sm pcs with bleeding oil and gas faint odor

Ls-AA

Ls-tan/crm fxln mhd/dns fos no por sm Ls-crm/wt fxln soft clkly no por

Sh-red/gry

Sh-red/gry/gry grn sm blk

D Ls-tan f/mxln mhd/dns no por sl gils blk dead oil stn nsfo

Sh-red/gry

DST No. 1
 4064 to 4104
30-30-30-30
 1st Open: Weak 1/4' blow
 2nd Open: No blow
 Recpvery: 1' Mud
 IHP 1936 FHP 1938
 IFP 12-14 FFP 13-14
 ISIP 24 FSIP 19
 Temp 121°

DST No. 2
 4098 to 4156
 60-45-30-45
 1st Open: Weak 1 1/2" blow
 2nd Open: No blow
 Recpvery:
 32' SOCM (3% O, 97%M)
 IHP 2025 FHP 2033
 IFP 94-110 FFP 114-115
 ISIP 146 FSIP 142
 Temp 117°

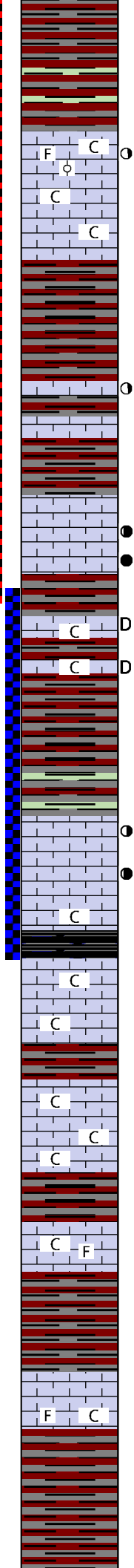
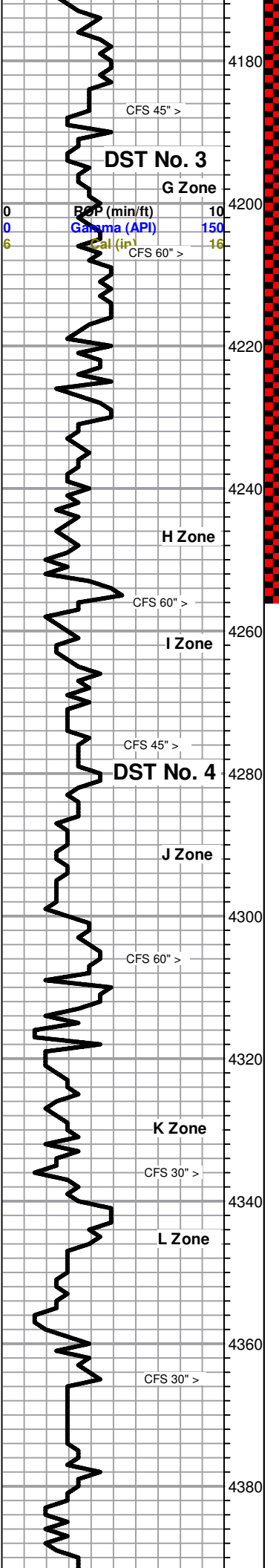
Pulled 20 stand short trip at 4104' then cir for test 90"

Coming out of hole for test, stands 31 to 48 pulled tight. Made 2nd short trip to collars (57 stands). After 2nd short trip, circulated 60" to condition hole.

Pipe strap at 4104' Long 2.63'

Mud Data at 4104'
 10:20 am on 7-26-18
 Wt 9.1 Vis 58 WL 7.2
 pH 10.5 Chl 2000 Sol 5.4%
 YP 16 LCM 4#

Mud Data at 4156'
 11:30 am on 7-27-18
 Wt 9.1 Vis 55 WL 8.0
 pH 10 Chl 2500 Sol 5.3%
 YP 14 LCM 3#



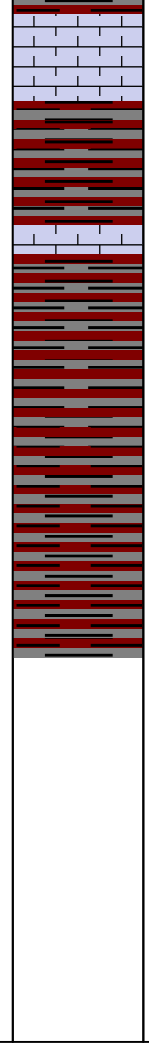
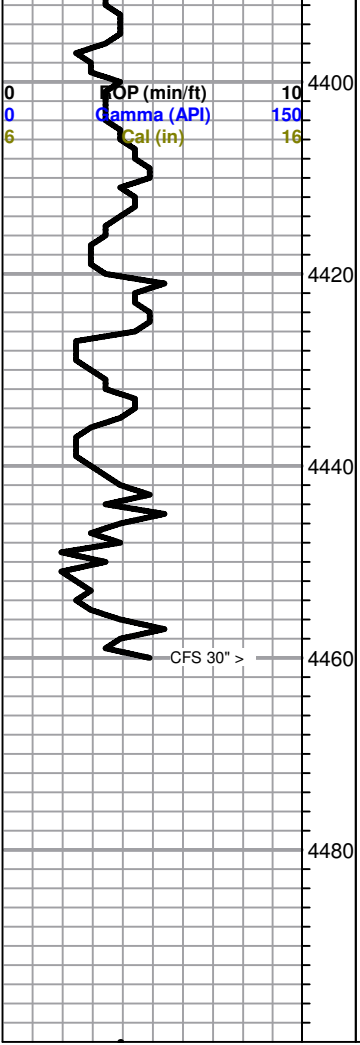
Sh-AA
Sh-red/gry/gry grn
Sh-red/gry
Ls-lt gry fxln mhd fos ool pr inter ool/xln por sub clky brn/dk bn spt stn ssfo on brk fr cut no odor
Ls-lt gry fxln dns no por sm Ls-wt fxln soft clky no por
Ls-AA
Sh-red/gry
Sh-AA
Sh-AA
Ls-tan/lt gry fxln mhd/dns pr xln por dk brn sct stn sl cut ssfo on brk no odor
Sh-red/gry
Ls-lt gry/gry fxln dns no por
Sh-red/gry
Ls-tan/lt gry fxln mhd/dns no por
Ls-tan fxln mhd sl fos gd vug por brn sct stn fr fluor gd cut fsfo on brk pcs with bleeding oil faint odor
Ls-tan fxln mhd gd vug por brn sat stn gd fluor gd cut fgsfo fr odor
Sh-red/gry
Ls-wt/lt gry fxln mhd sub clky sl gils pr xln por blk dead oil sct stn nsfo
Sh-red/gry
Ls-lt gry fxln mhd sub clky sl gild pr xln por blk dead oil stn nsfo
Sh-red/gry
ShAA
Sh-red/gry/gry grn/mar
Ls-lt gry/wt fxln mhd pr xln por brn sct stn ssfo and bleeding gss bub on brk fr cut no odor
Ls-crm/tan fxln mhd fr vug por brn sct stn fsfo and bleeding gas bub on brk fr cut trc odor
Ls-crm/lt tan/wt fxln mhd/dns sl clky no por
----- **Stark 4302 -1157** -----
Sh-blk carb
Ls-lt gry/crm fxln mhd sl clky no por
Ls-lt gry/crm fxln sl clky no por with sm Ls-wt fxln soft clky no por
Sh-red/gry
Ls-lt gry/crm fxln sl clky no por
Ls-AA with Ls-wt fxln soft clky no por
Ls-lt gry/crm fxln sl clky no por
Sh-red/gry
Ls-lg gry/tan fxln mhd sl fos sl clky no por
----- **Base/Kansas City 4350 -1205** -----
Sh-red/gry
Sh-AA
Ls-gry/fxln mhd dns no por
Ls-lt gry/gry fxln mhd/dns sl fos sl clky no por
Sh-red/gry
Sh-AA
Sh-AA

DST No. 3
4180 to 4256
45-45-30-45
1st Open: Weak 1/2" blow
2nd Open: No blow
Recovery:
1' Oil
19' SOCM (3%O, 97% M)
IHP 2016 FHP 2017
IFP 15-18 FFP 19-20
ISIP 86 FSIP 66
Temp 121°

Mud Data at 4256'
11:30 am on 7-28-18
Wt 9.2 Vis 58 WL 8.8
pH 10.5 Chl 3300 Sol 5.8%
YP 15 LCM 3#

DST No. 4
4254 to 4306
30-45-45-60
1st Open: Weak 1/2" blow
2nd Open: Weak 3/4" blow
Recovery:
15' GIP
3' Oil
44' SOCM (3%O 97%M)
IHP 2080 FHP 2071
IFP 14-26 FFP 30-31
ISIP 110 FSIP 69
Temp 123°

Mud Data at 4392'



Ls-lt gry/gry/tan fxln mhd/dns no por

Sh-red/gry/mar

Ls-lt gry.gry/tan fxln mhd/dnd no por

Sh-red/gry

Sh-AA

Sh-AA

Sh-red/gry/mar

Sh-AA

----- **RTD 4460 -1315** -----

Finished drilling at 3:22 pm on 7-29-18. Pulled 10 stand short trip then circulated for log 90 minutes.

Finished logging at 1:55 am on 7-00-18



PRESSURE PUMPING LLC
 PO Box 884, Chanute, KS 66720
 620-431-9210 or 800-467-8676

11187
 11076

TICKET NUMBER 55242
 LOCATION Oakley KS
 FOREMAN Walt Dinkel

FIELD TICKET & TREATMENT REPORT
 CEMENT

Invoice # 813709

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
7-21-18	3613	Walter 1-5	5	13	35W	Rawlins
CUSTOMER Hartman Oil Co, Inc			Beardsley			
MAILING ADDRESS 10500 E. Berkley Square Pkwy, Ste. 100			North to			
CITY Wichita			EE Rd			
STATE Ks			1 1/2 W			
ZIP CODE 67206			S+E into			
TRUCK #	DRIVER	TRUCK #	DRIVER			
731	Cory Davis					
566	Arren M					
697	Walt Dinkel					

JOB TYPE SURFACE HOLE SIZE 12 1/4 HOLE DEPTH 303' CASING SIZE & WEIGHT 8 5/8 - 24#
 CASING DEPTH 303' DRILL PIPE _____ TUBING _____ OTHER _____
 SLURRY WEIGHT 15.2 SLURRY VOL _____ WATER gal/sk _____ CEMENT LEFT in CASING 15 to 20'
 DISPLACEMENT 18 DISPLACEMENT PSI _____ MIX PSI _____ RATE 4 BPM

REMARKS: Safety Meeting, Rig up on WW #8, Circ casing on bottom, mix 250 sls com, 3% acc. 2% vol, Displace 18 BBL, Shut in.

Thank You
 Walt & crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
Ceo 471	1	PUMP CHARGE	1,150.00	1,150.00
Ce0002	40	MILEAGE	7.15	286.00
Ceo 710	11.75	Tan Mileage Delivery	1.75	206.40
CC58710	250 sls	Surface Blend TC	24.00	6,000.00
				8,258.40
		Less 30%		2,477.52
				5,780.88
			SALES TAX	315.00
			ESTIMATED TOTAL	6,095.88

AUTHORIZATION Jim P. [Signature] TITLE _____ DATE _____

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.



PRESSURE PUMPING LLC
 PO Box 884, Chanute, KS 66720
 620-431-9210 or 800-467-8676

11227
 11117

TICKET NUMBER 55228
 LOCATION Corkley R5
 FOREMAN Jerry Y

FIELD TICKET & TREATMENT REPORT
 CEMENT

Invoice # 813758 KS

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
7-30-18	3613	Walter 1-5	5	15	35W	Rawlins
CUSTOMER Hartman Oil			Beardsley 1/4 to 6/8 1 1/2 W 50' Ento			
MAILING ADDRESS 10500 E. Berkeley Square Parkway, Ste 100			TRUCK #	DRIVER	TRUCK #	DRIVER
CITY Wichita			731	Cory D		
STATE KS			693	Neil W		
ZIP CODE 67206			535	Jerry Y		

JOB TYPE Plug HOLE SIZE 7 7/8 HOLE DEPTH 4503 CASING SIZE & WEIGHT _____
 CASING DEPTH _____ DRILL PIPE 4 1/2 TUBING _____ OTHER _____
 SLURRY WEIGHT 13.8 SLURRY VOL 1.42 WATER gal/sk _____ CEMENT LEFT in CASING _____
 DISPLACEMENT _____ DISPLACEMENT PSI _____ MIX PSI _____ RATE _____

REMARKS: Softly meeting string upon W 8 plug as ordered with 240 sk
60/40 48 gal 1/4" flt seal
50 sks @ 3075'
100 sks @ 2290'
50 sks @ 350'
10 sks @ 40' with 8 5/8 wiper plug
30 sks Rat hole

Thank you
 Jerry & crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CE0451	1	PUMP CHARGE	1900.00	1900.00
CE0002	40	MILEAGE	7.15	286.00
CE0710	10.32	ten mileage delivery	1.75	722.40
CC5829	240 sks	liteblend II	16.00	3840.00
CC6075	60 #	flt seal	3.00	180.00
CP8228	1	8 5/8 wiper plug	165.00	165.00
			Subtotal	7093.40
			-308	2128.02
			Subtotal	4965.38
			SALES TAX	219.72
			ESTIMATED TOTAL	5185.10

RAVIN 3737 AUTHORIZATION [Signature] TITLE _____ DATE 7/30/18

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.



Company: Hartman Oil Company, Inc.

Lease: Walter #1-5

SEC: 5 TWN: 1S RNG: 35W
County: RAWLINS
State: Kansas
Drilling Contractor: WW Drilling, LLC - Rig 8
Elevation: 3147 EGL
Field Name: Wildcat
Pool: WILDCAT
Job Number: 186

Operation:
Uploading recovery & pressures

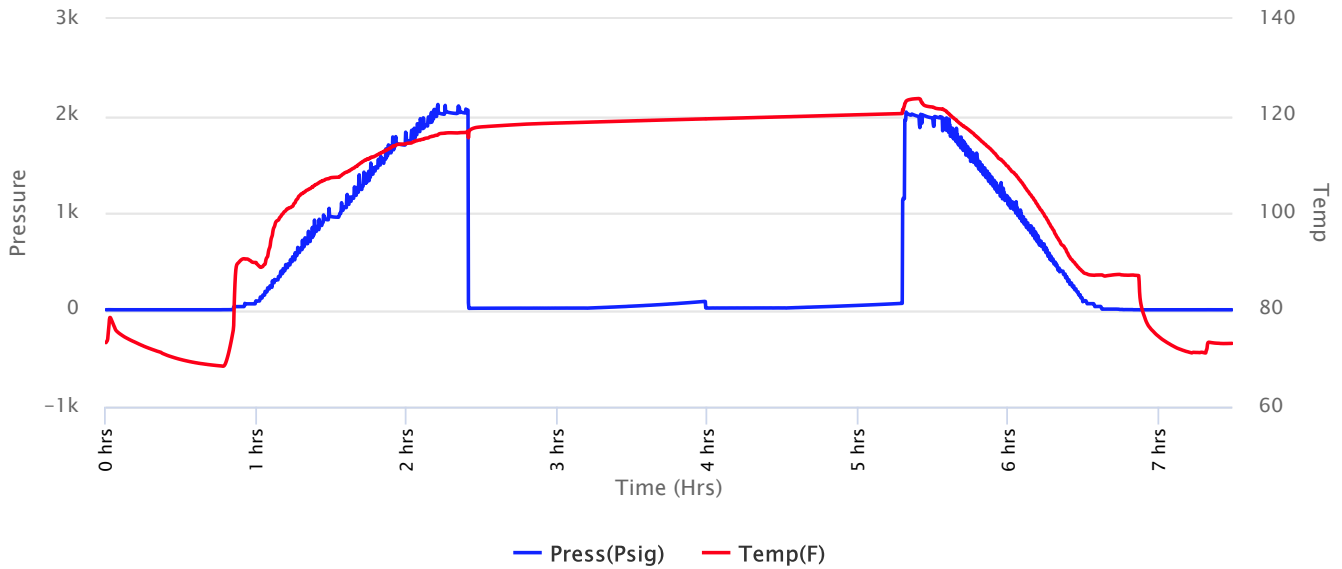
DATE
July
28
2018

DST #3 **Formation: Lans E,F,G,H** **Test Interval: 4148 - 4256'** **Total Depth: 4256'**
Time On: 02:13 07/28 Time Off: 09:30 07/28
Time On Bottom: 04:35 07/28 Time Off Bottom: 07:20 07/28

Electronic Volume Estimate:
16'

<u>1st Open</u>	<u>1st Close</u>	<u>2nd Open</u>	<u>2nd Close</u>
Minutes: 45	Minutes: 45	Minutes: 30	Minutes: 45
Current Reading: .5" at 45 min	Current Reading: 0" at 45 min	Current Reading: 0" at 30 min	Current Reading: 0" at 45 min
Max Reading: .5"	Max Reading: 0"	Max Reading: 0"	Max Reading: 0"

Inside Recorder





Company: Hartman Oil Company, Inc.

Lease: Walter #1-5

SEC: 5 TWN: 1S RNG: 35W
 County: RAWLINS
 State: Kansas
 Drilling Contractor: WW Drilling, LLC - Rig 8
 Elevation: 3147 EGL
 Field Name: Wildcat
 Pool: WILDCAT
 Job Number: 186

Operation:
 Uploading recovery & pressures

DATE
 July
28
 2018

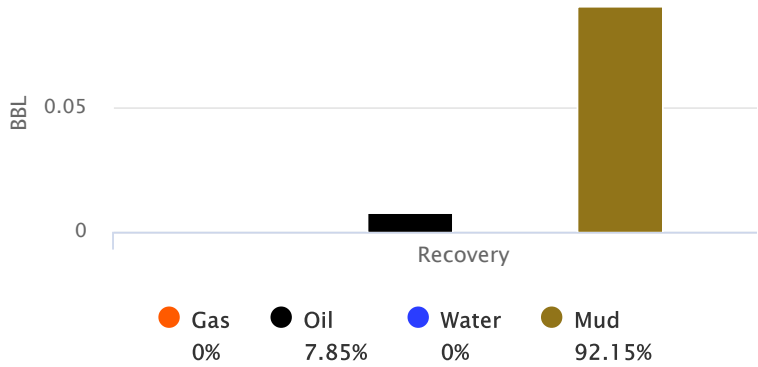
DST #3 **Formation: Lans E,F,G,H** **Test Interval: 4148 - 4256'** **Total Depth: 4256'**
 Time On: 02:13 07/28 Time Off: 09:30 07/28
 Time On Bottom: 04:35 07/28 Time Off Bottom: 07:20 07/28

Recovered		Description of Fluid	Gas %	Oil %	Water %	Mud %
Foot	BBLs					
1	0.00492	O	0	100	0	0
19	0.09348	SLOCM	0	3	0	97

Total Recovered: 20 ft
 Total Barrels Recovered: 0.0984

Reversed Out
 NO

Recovery at a glance



Initial Hydrostatic Pressure	2016	PSI
Initial Flow	15 to 18	PSI
Initial Closed in Pressure	86	PSI
Final Flow Pressure	19 to 20	PSI
Final Closed in Pressure	66	PSI
Final Hydrostatic Pressure	2017	PSI
Temperature	121	°F
Pressure Change Initial Close / Final Close	22.9	%



**Company: Hartman Oil
Company, Inc.**

Lease: Walter #1-5

SEC: 5 TWN: 1S RNG: 35W
County: RAWLINS
State: Kansas
Drilling Contractor: WW Drilling, LLC -
Rig 8
Elevation: 3147 EGL
Field Name: Wildcat
Pool: WILDCAT
Job Number: 186

Operation:
Uploading recovery &
pressures

DATE
July
28
2018

DST #3	Formation: Lans E,F,G,H	Test Interval: 4148 - 4256'	Total Depth: 4256'
	Time On: 02:13 07/28	Time Off: 09:30 07/28	
	Time On Bottom: 04:35 07/28	Time Off Bottom: 07:20 07/28	

BUCKET MEASUREMENT:

1st Open: 1/2 inch
1st Close: 0
2nd Open: 0
2nd Close: 0

REMARKS:

Tool Sample: 0% Gas 2% Oil 0% Water 98% Mud



Company: Hartman Oil Company, Inc.

Lease: Walter #1-5

SEC: 5 TWN: 1S RNG: 35W
 County: RAWLINS
 State: Kansas
 Drilling Contractor: WW Drilling, LLC - Rig 8
 Elevation: 3147 EGL
 Field Name: Wildcat
 Pool: WILDCAT
 Job Number: 186

Operation:
 Uploading recovery & pressures

DATE
 July
28
 2018

DST #3	Formation: Lans E,F,G,H	Test Interval: 4148 - 4256'	Total Depth: 4256'
	Time On: 02:13 07/28	Time Off: 09:30 07/28	
	Time On Bottom: 04:35 07/28	Time Off Bottom: 07:20 07/28	

Down Hole Makeup

Heads Up: 24.16 FT	Packer 1: 4142.22 FT
Drill Pipe: 4021.85 FT ID-3 1/2	Packer 2: 4147.72 FT
Weight Pipe: FT ID-2 7/8	Top Recorder: 4131.64 FT
Collars: 116.96 FT ID-2 1/4	Bottom Recorder: 4248 FT
Test Tool: 34.07 FT ID-3 1/2-FH Jars Safety Joint	Well Bore Size: 7 7/8
Total Anchor: 108.28	Surface Choke: 1"
<u>Anchor Makeup</u>	Bottom Choke: 5/8"
Packer Sub: 1 FT	
Perforations: (top): 3 FT 4 1/2-FH	
Change Over: 1 FT	
Drill Pipe: (in anchor): 93.28 FT ID-3 1/2	
Change Over: 1 FT	
Perforations: (below): 9 FT 4 1/2-FH	



**Company: Hartman Oil
Company, Inc.**

Lease: Walter #1-5

SEC: 5 TWN: 1S RNG: 35W
County: RAWLINS
State: Kansas
Drilling Contractor: WW Drilling, LLC -
Rig 8
Elevation: 3147 EGL
Field Name: Wildcat
Pool: WILDCAT
Job Number: 186

Operation:
Uploading recovery &
pressures

DATE
July
28
2018

DST #3 Formation: Lans E,F,G,H Test Interval: 4148 - 4256' Total Depth: 4256'
Time On: 02:13 07/28 Time Off: 09:30 07/28
Time On Bottom: 04:35 07/28 Time Off Bottom: 07:20 07/28

Gas Volume Report

1st Open

Time	Orifice	PSI	MCF/D
------	---------	-----	-------

2nd Open

Time	Orifice	PSI	MCF/D
------	---------	-----	-------



**Company: Hartman Oil
Company, Inc.
Lease: Walter #1-5**

SEC: 5 TWN: 1S RNG: 35W
County: RAWLINS
State: Kansas
Drilling Contractor: WW Drilling, LLC -
Rig 8
Elevation: 3147 EGL
Field Name: Wildcat
Pool: WILDCAT
Job Number: 186

Operation:
Tripping out of hole with
test tool

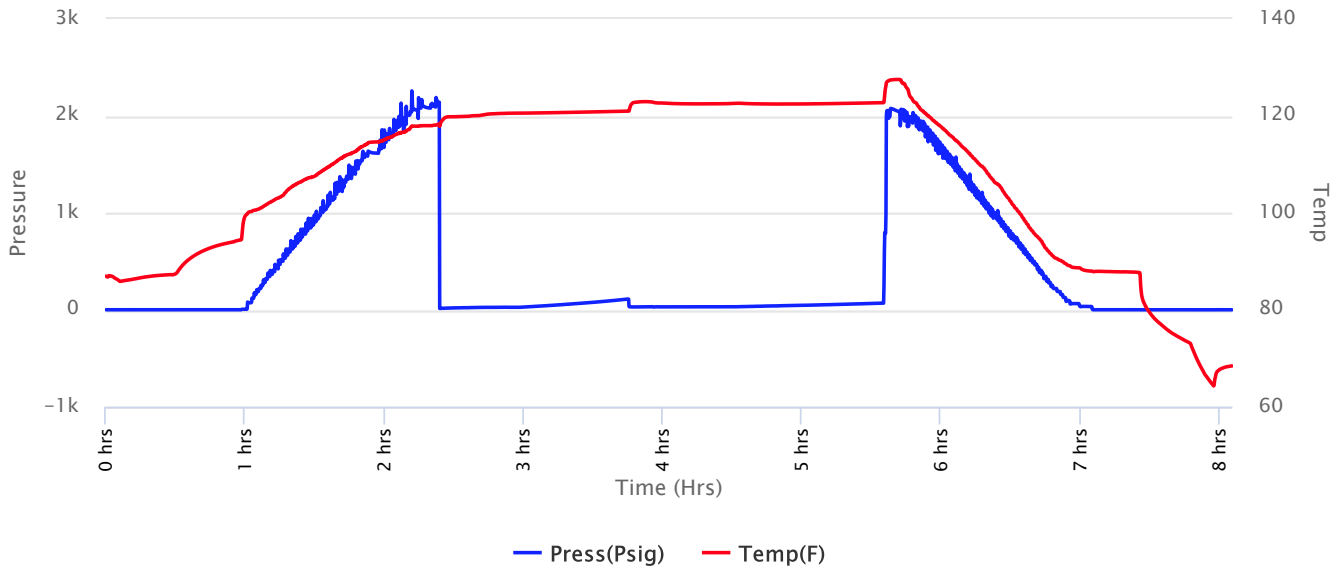
DATE
July
28
2018

DST #4 Formation: Lans I, J Test Interval: 4254 - 4306' Total Depth: 4306'
Time On: 18:20 07/28 Time Off: 00:00 01/01
Time On Bottom: 20:40 07/28 Time Off Bottom: 02:12 07/29

Electronic Volume
Estimate:
41'

<u>1st Open</u>	1st Close	<u>2nd Open</u>	2nd Close
Minutes: 30	Minutes: 45	Minutes: 45	Minutes: 60
Current Reading: .5" at 30 min	Current Reading: 0" at 45 min	Current Reading: .75" at 45 min	Current Reading: 0" at 60 min
Max Reading: .5"	Max Reading: 0"	Max Reading: .75"	Max Reading: 0"

Inside Recorder





Company: Hartman Oil Company, Inc.

Lease: Walter #1-5

SEC: 5 TWN: 1S RNG: 35W
 County: RAWLINS
 State: Kansas
 Drilling Contractor: WW Drilling, LLC - Rig 8
 Elevation: 3147 EGL
 Field Name: Wildcat
 Pool: WILDCAT
 Job Number: 186

Operation:
 Tripping out of hole with test tool

DATE
 July
28
 2018

DST #4 **Formation: Lans I, J** **Test Interval: 4254 - 4306'** **Total Depth: 4306'**
 Time On: 18:20 07/28 Time Off: 00:00 01/01
 Time On Bottom: 20:40 07/28 Time Off Bottom: 02:12 07/29

Recovered

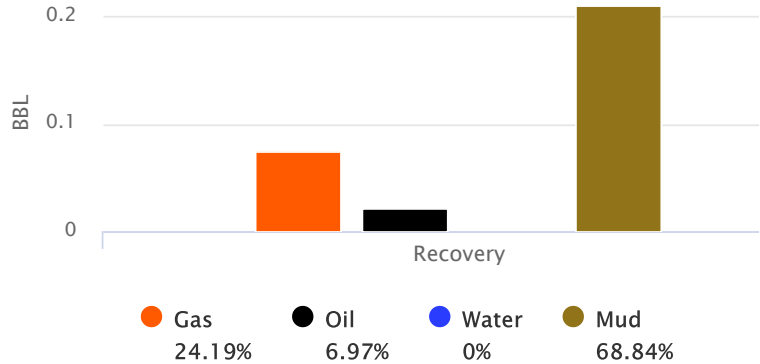
Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
15	0.0738	G	100	0	0	0
3	0.01476	O	0	100	0	0
44	0.21648	SLOCM	0	3	0	97

Total Recovered: 62 ft
 Total Barrels Recovered: 0.30504

Reversed Out
 NO

Initial Hydrostatic Pressure	2080	PSI
Initial Flow	14 to 26	PSI
Initial Closed in Pressure	110	PSI
Final Flow Pressure	30 to 31	PSI
Final Closed in Pressure	69	PSI
Final Hydrostatic Pressure	2071	PSI
Temperature	123	°F
Pressure Change Initial Close / Final Close	37.4	%

Recovery at a glance





**Company: Hartman Oil
Company, Inc.**

Lease: Walter #1-5

SEC: 5 TWN: 1S RNG: 35W
County: RAWLINS
State: Kansas
Drilling Contractor: WW Drilling, LLC -
Rig 8
Elevation: 3147 EGL
Field Name: Wildcat
Pool: WILDCAT
Job Number: 186

Operation:

Tripping out of hole with
test tool

DATE

July
28
2018

DST #4 Formation: Lans I, J Test Interval: 4254 - Total Depth: 4306'
4306'

Time On: 18:20 07/28

Time Off: 00:00 01/01

Time On Bottom: 20:40 07/28

Time Off Bottom: 02:12 07/29

BUCKET MEASUREMENT:

1st Open: 1/2 Blow

1st Close: 0

2nd Open: 3/4 inch

2nd Close: 0

REMARKS:

Tool Sample: 0% Gas 15% Oil 0% Water 85% Mud



**Company: Hartman Oil
Company, Inc.**

Lease: Walter #1-5

SEC: 5 TWN: 1S RNG: 35W
County: RAWLINS
State: Kansas
Drilling Contractor: WW Drilling, LLC -
Rig 8
Elevation: 3147 EGL
Field Name: Wildcat
Pool: WILDCAT
Job Number: 186

Operation:
Tripping out of hole with
test tool

DATE
July
28
2018

DST #4 Formation: Lans I, J Test Interval: 4254 - Total Depth: 4306'
4306'
Time On: 18:20 07/28 Time Off: 00:00 01/01
Time On Bottom: 20:40 07/28 Time Off Bottom: 02:12 07/29

Down Hole Makeup

Heads Up: 11.03 FT	Packer 1: 4248.48 FT
Drill Pipe: 4114.98 FT <i>ID-3 1/2</i>	Packer 2: 4253.98 FT
Weight Pipe: FT <i>ID-2 7/8</i>	Top Recorder: 4237.9 FT
Collars: 116.96 FT <i>ID-2 1/4</i>	Bottom Recorder: 4291 FT
Test Tool: 34.07 FT <i>ID-3 1/2-FH</i> <i>Jars</i> <i>Safety Joint</i>	Well Bore Size: 7 7/8
Total Anchor: 52.02	Surface Choke: 1"
Anchor Makeup	Bottom Choke: 5/8"
Packer Sub: 1 FT	
Perforations: (top): 3 FT <i>4 1/2-FH</i>	
Change Over: .5 FT	
Drill Pipe: (in anchor): 30.52 FT <i>ID-3 1/2</i>	
Change Over: 1 FT	
Perforations: (below): 16 FT <i>4 1/2-FH</i>	



**Company: Hartman Oil
Company, Inc.**

Lease: Walter #1-5

SEC: 5 TWN: 1S RNG: 35W
County: RAWLINS
State: Kansas
Drilling Contractor: WW Drilling, LLC -
Rig 8
Elevation: 3147 EGL
Field Name: Wildcat
Pool: WILDCAT
Job Number: 186

Operation:
Tripping out of hole with
test tool

DATE
July
28
2018

DST #4 Formation: Lans I, J Test Interval: 4254 - Total Depth: 4306'
4306'

Time On: 18:20 07/28 Time Off: 00:00 01/01
Time On Bottom: 20:40 07/28 Time Off Bottom: 02:12 07/29

Mud Properties

Mud Type: Chem **Weight:** 9.2 **Viscosity:** 58 **Filtrate:** 8.8 **Chlorides:** 3300 ppm



**Company: Hartman Oil
Company, Inc.**

Lease: Walter #1-5

SEC: 5 TWN: 1S RNG: 35W
County: RAWLINS
State: Kansas
Drilling Contractor: WW Drilling, LLC -
Rig 8
Elevation: 3147 EGL
Field Name: Wildcat
Pool: WILDCAT
Job Number: 186

Operation:
Tripping out of hole with
test tool

DATE
July
28
2018

DST #4 Formation: Lans I, J Test Interval: 4254 - Total Depth: 4306'
4306'
Time On: 18:20 07/28 Time Off: 00:00 01/01
Time On Bottom: 20:40 07/28 Time Off Bottom: 02:12 07/29

Gas Volume Report

1st Open

2nd Open

Time	Orifice	PSI	MCF/D
------	---------	-----	-------

Time	Orifice	PSI	MCF/D
------	---------	-----	-------