

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
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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
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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:	
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Jeff Christian

PETROLEUM GEOLOGIST
Wichita, Kansas

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

OPERATOR **NORTHERN LIGHTS OIL CO.**
LEASE **RHONDA #1**
LOCATION **2310' FSL & 2040' FWL**

SEC. **15** TWP. **17S** R. **20W**
COUNTY **RUSH** STATE **KANSAS**
FIELD **WILDCAT**

API **15-165-22169-00-00**
CONTRACTOR **SOUTHWIND** RIG NO. **3**
DRILLING STARTED **06/06/2019** COMPLETED **06/13/2019**
MUD DISPLACED **3095'** MUD TYPE **CHEMICAL**
DRILLING TIME KEPT FROM **3400'** TO **RTD**
SAMPLES SAVED FROM **3400'** TO **RTD**
SAMPLES EXAMINED FROM **3400'** TO **RTD**
GEOLOGICAL SUPERVISION FROM **3965'** TO **RTD**

FORMATION NAME	TOP	LOG DATUM	TOP	SAMPLE
ANHYDRITE	1382'	(+768)	1383'	(+767)
BASE ANHYDRITE	1415'	(+735)	1418'	(+732)
HEEBNER	3518'	(-1368)	3519'	(-1369)
LANSING	3562'	(-1412)	3564'	(-1414)
BKC	3836'	(-1686)	3836'	(-1686)
PAWNEE	3925'	(-1775)	3918'	(-1768)
LABETTE	3977'	(-1827)	3974'	(-1824)
CHEROKEE SD.	3996'	(-1846)	3996'	(-1846)
TOTAL DEPTH	4064'	(-1914)	4065'	(-1915)

ELEVATIONS
KB **2150'**
GL **2140'**

MEASUREMENTS FROM KB

CASING RECORD
Conductor **NONE**

Surface **8 5/8" @ 253'**
W/ **180 SX**
Production **5 1/2" @ 4065'**
W/ **175 SX**

ELECTRICAL SURVEYS:
Pioneer:
DIL
CML/DL
MEL

DATE	7:00 AM DEPTH	REMARKS
6/6/19	MIRT	SPUD 5:45 pm
6/7/19	266'	WOC
6/8/19	1710'	DRLG.
6/9/19	2717'	DRLG.
6/10/19	3420'	DRLG.
6/11/19	3945'	DRLG.
6/12/19	3997'	CTCH after DST # 1
6/13/19	4065'	Logging RTD 4065' @ 2:45 am dev. 1 deg. Finish Logging @ 9:30 am

Remarks

5 1/2" production casing set to further test the Cherokee sand.

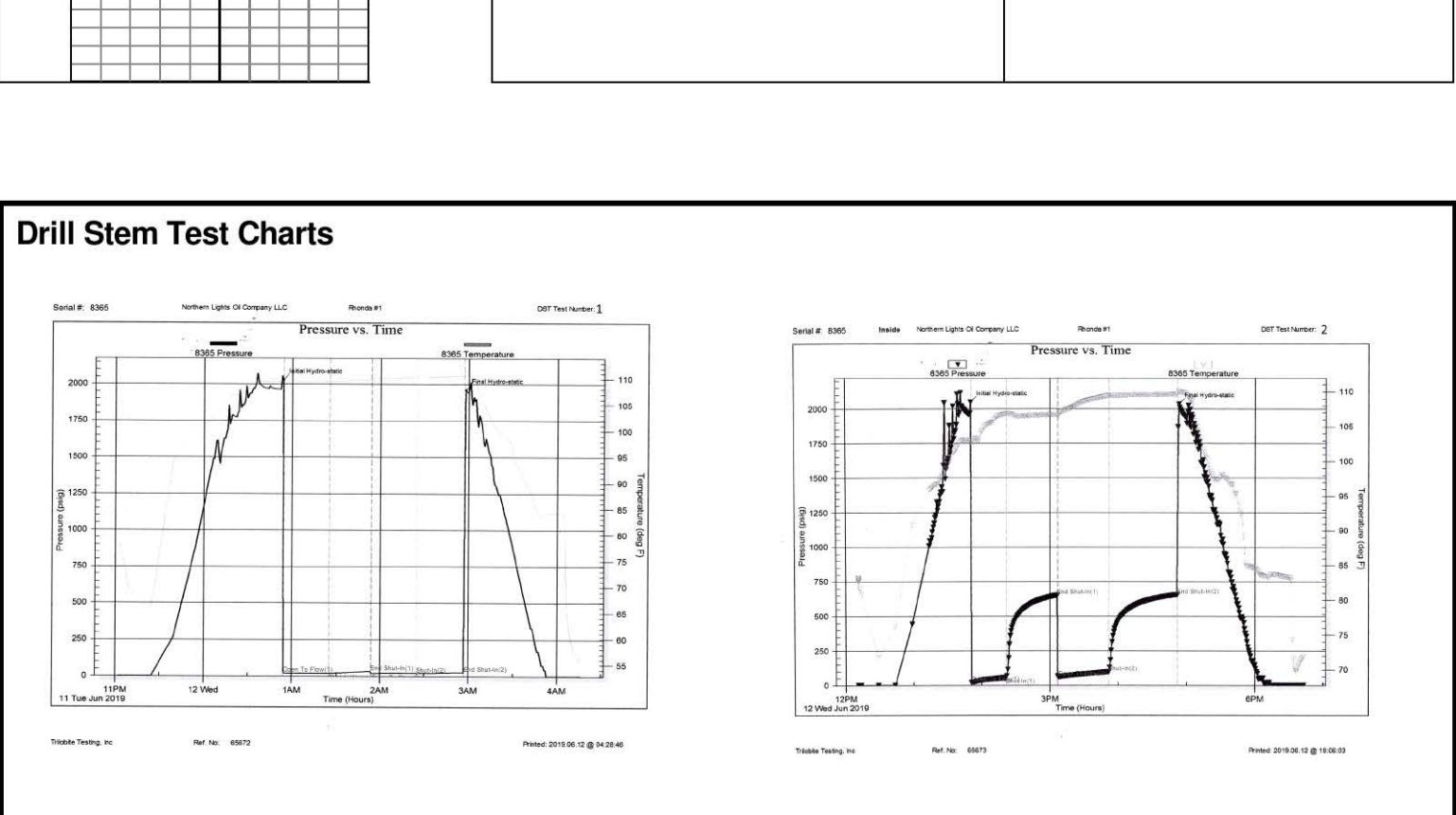
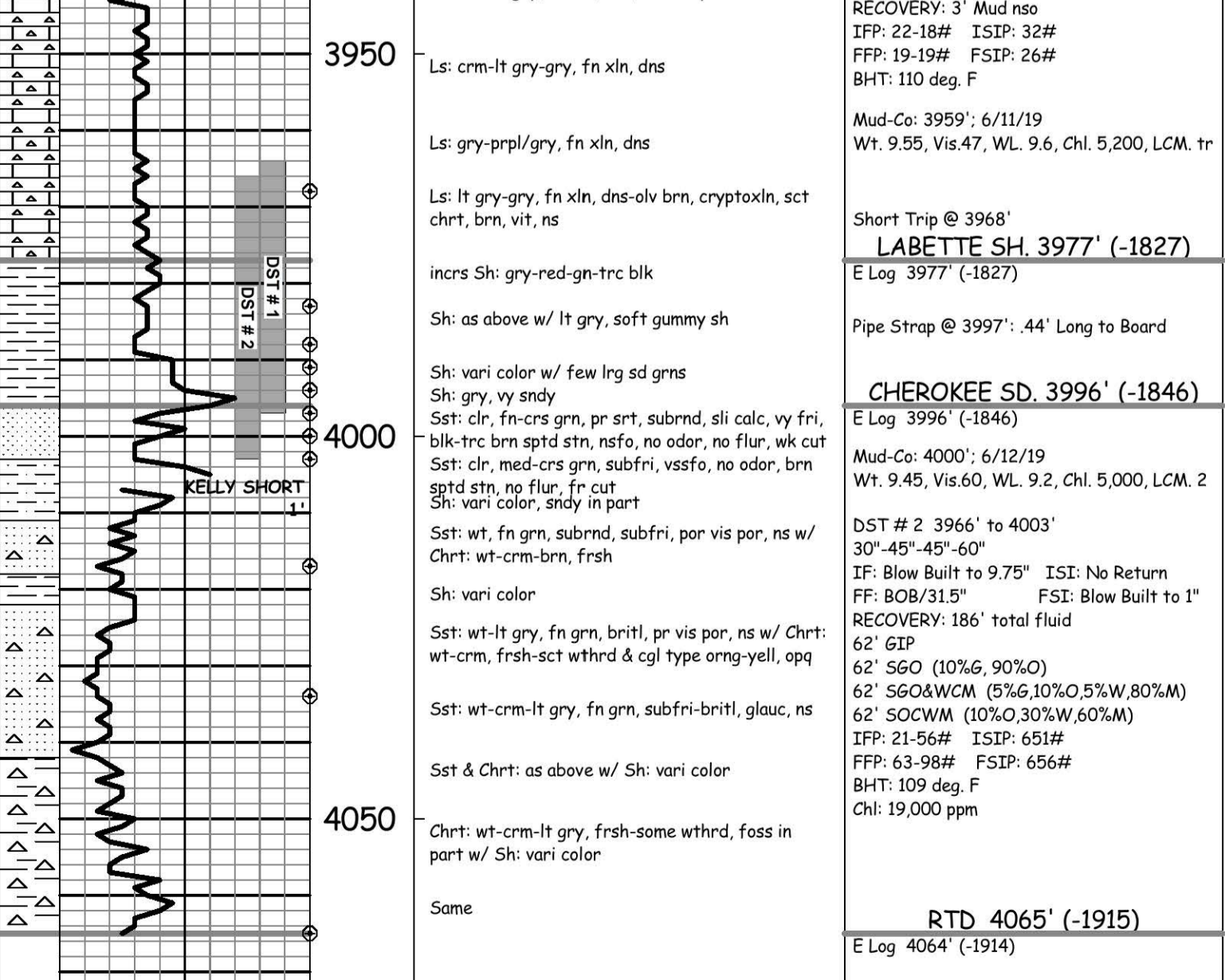
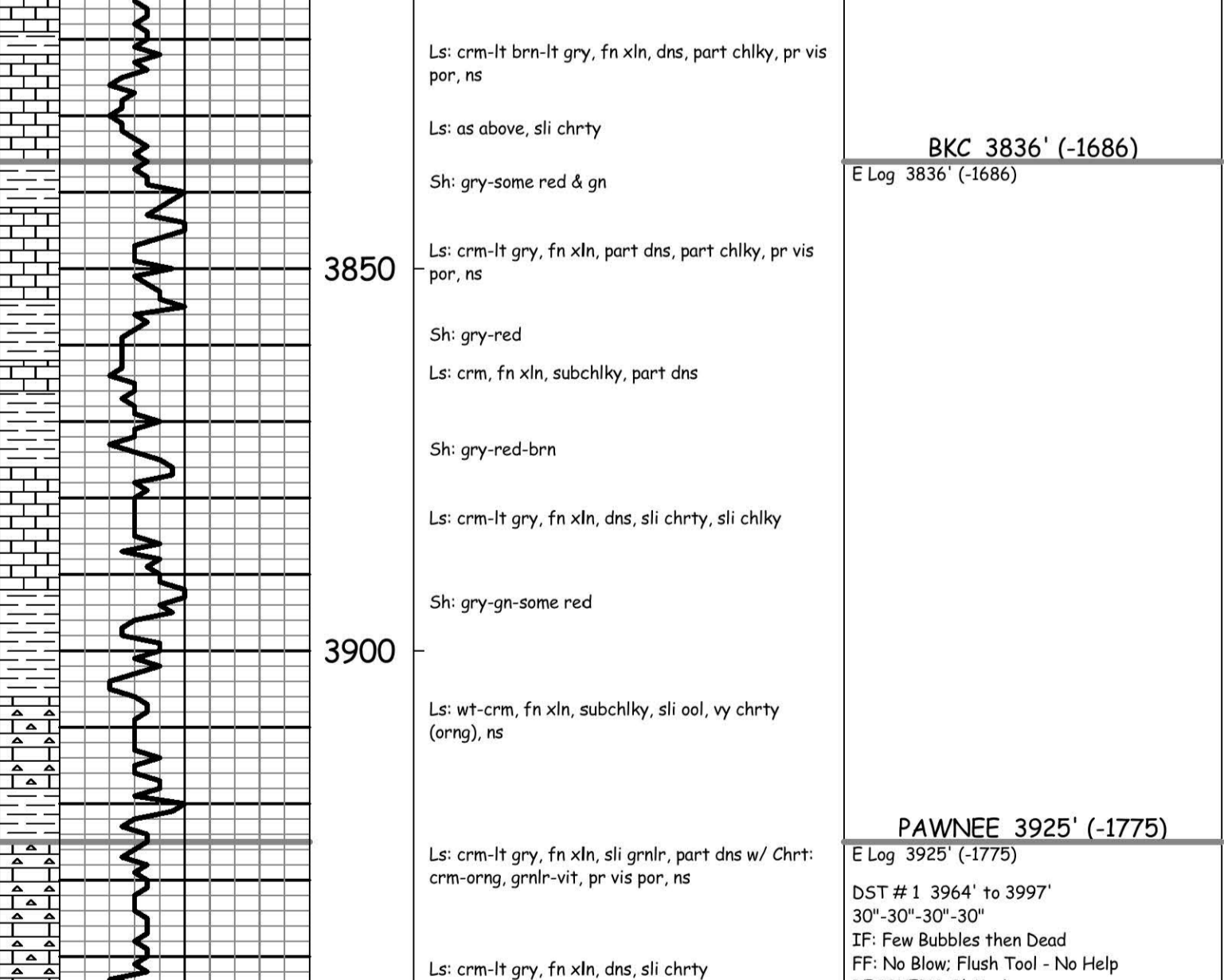
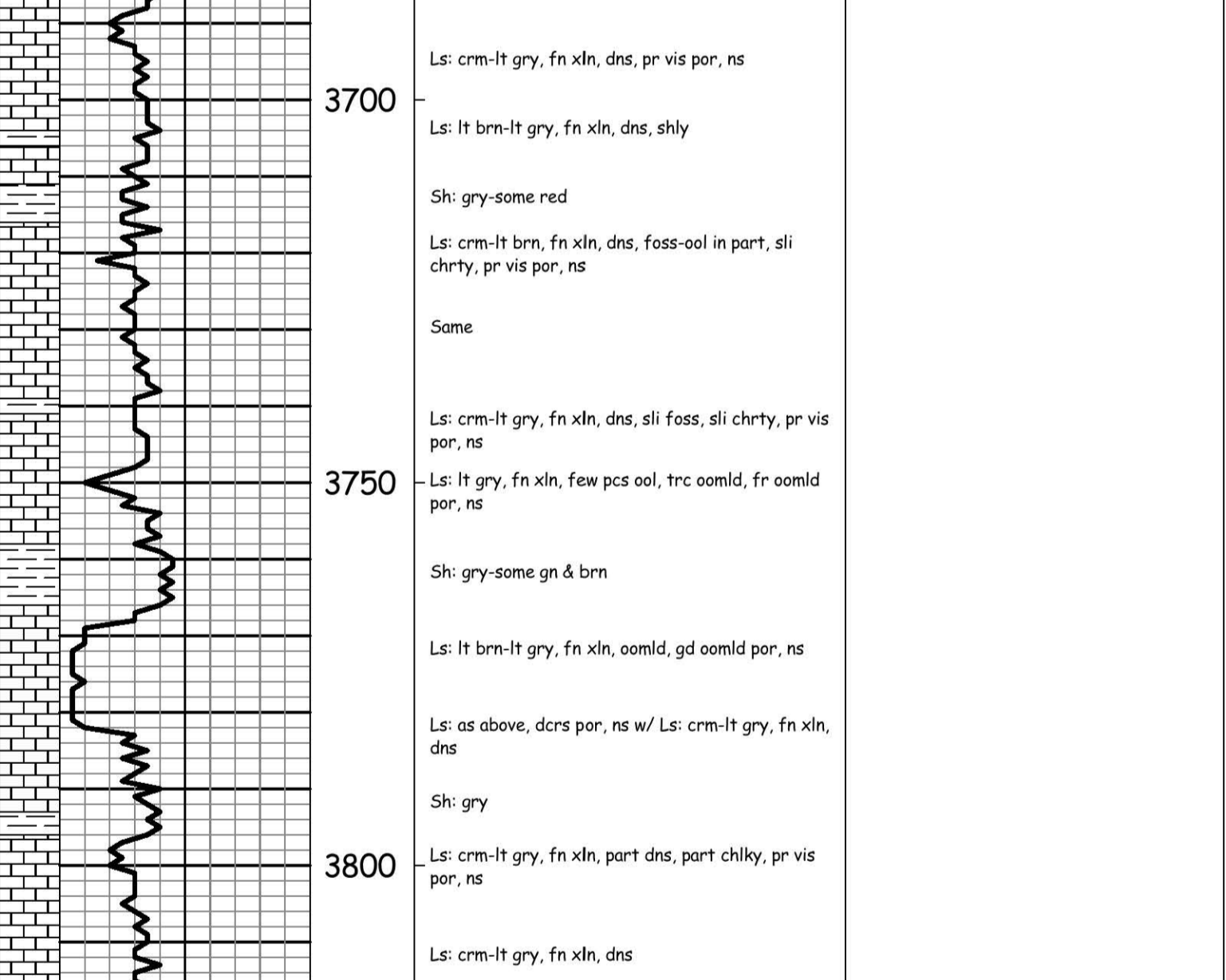
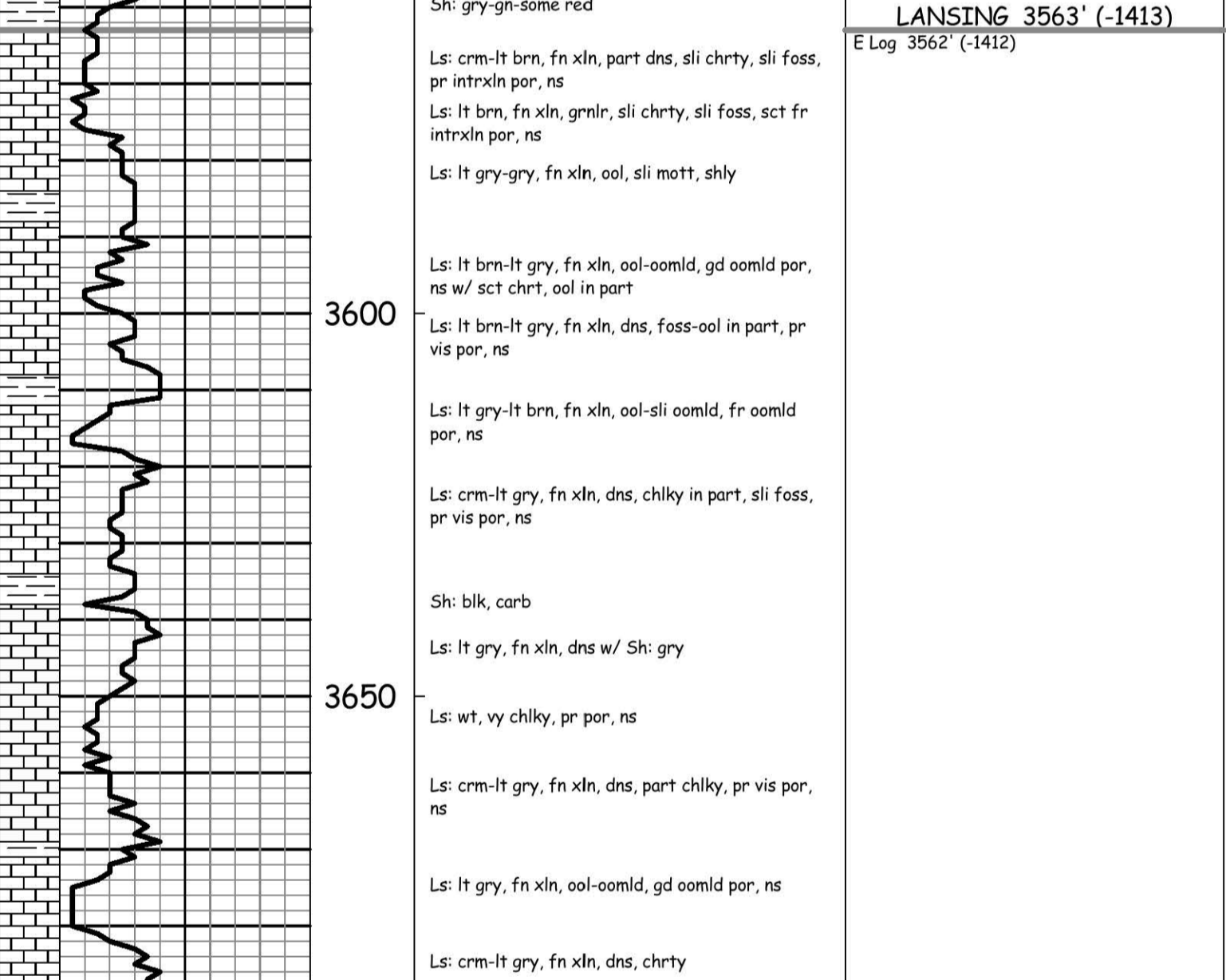
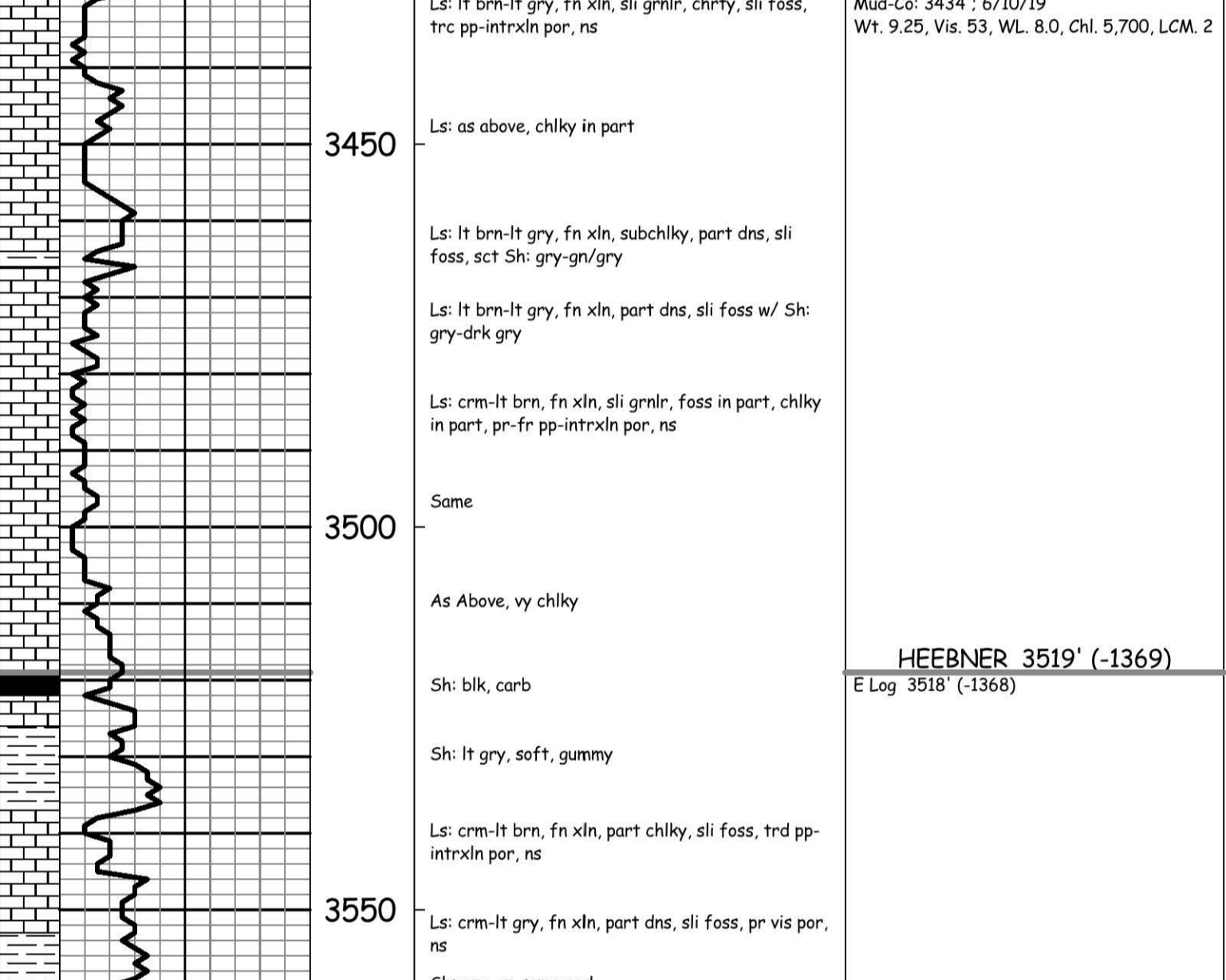
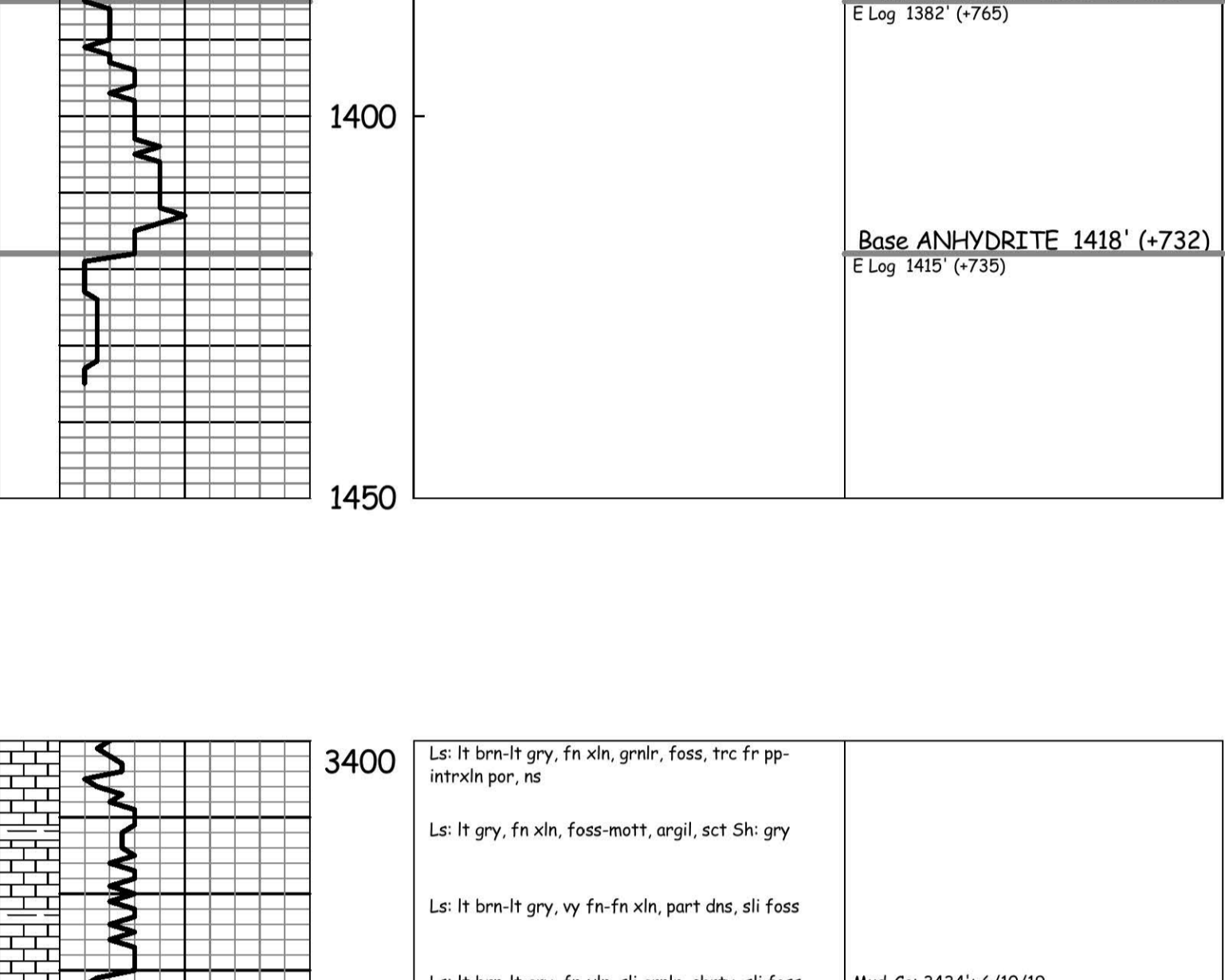
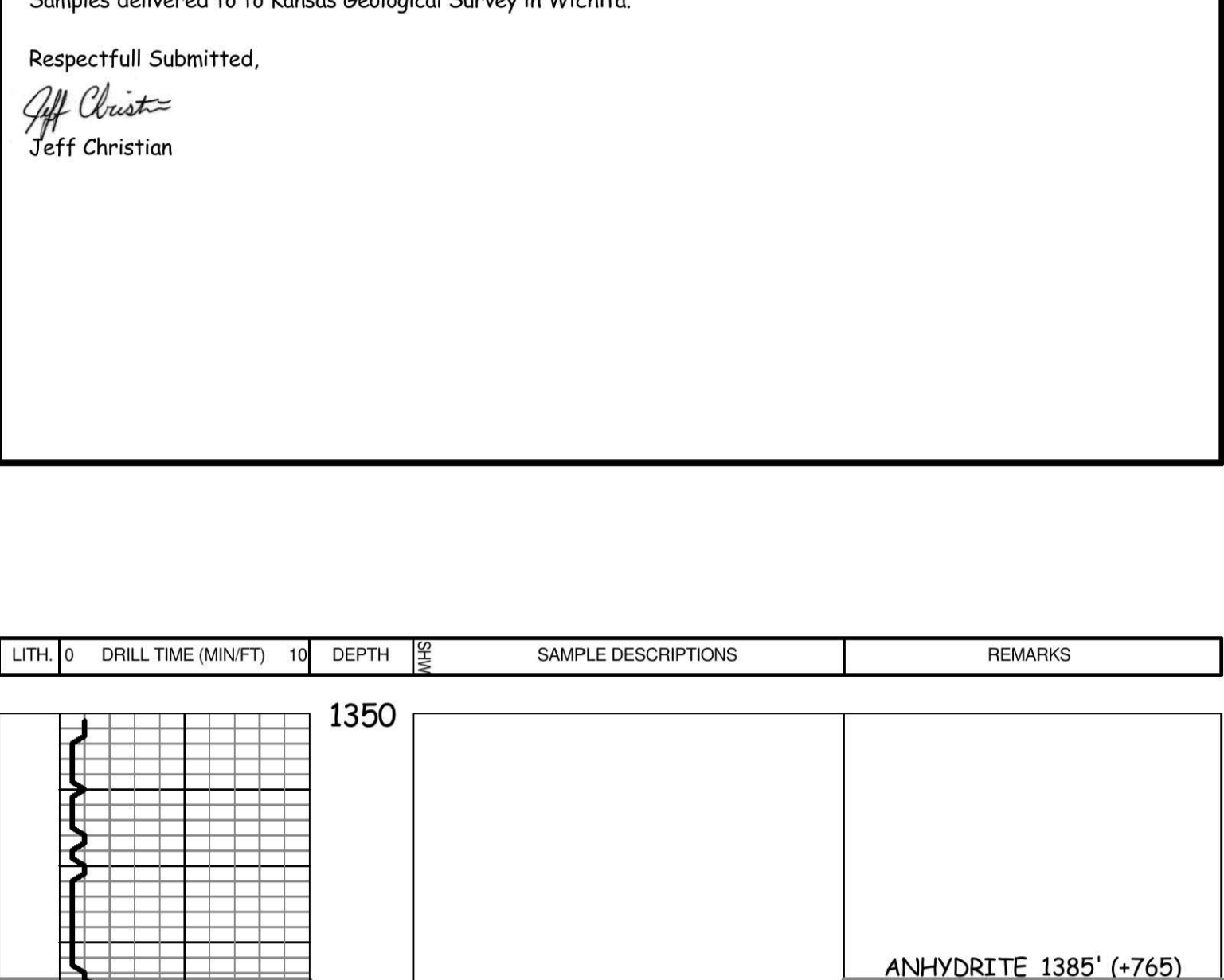
Electric log measurements correlate about even compared to rotary measurements.

Samples delivered to to Kansas Geological Survey in Wichita.

Respectfull Submitted,

Jeff Christian
Jeff Christian

LITH	0	DRILL TIME (MIN/FT)	10	DEPTH	SPM	SAMPLE DESCRIPTIONS	REMARKS
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TRIBOLITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 65672

Well Name & No. Rhonda #1 Test No. 1 Date 11 June 19
 Company Northern Lights Oil Company LLC Elevation _____ KB _____ GL _____
 Address 320 W Central Suite B Andover KS 67002-10164
 Co. Rep / Geo. Jeff Christian Rig Southwind Rig 8
 Location: Sec. 15 Twp 17S Rge. 20W Co. Rush State KS

Interval Tested 3965-3998 Zone Tested Cherokee Sand
 Anchor Length 33 Drill Pipe Run 3971 Mud Wt. 9.55
 Top Packer Depth 3960 Drill Collars Run - Vis 47
 Bottom Packer Depth 3965 Wt. Pipe Run - WL 9.6
 Total Depth 3998 Chlorides 5200 ppm System LCM Tr

Blow Description IF Few bubbles at open then dead

ISI No blowback

FF Dead / Flush tool no help

FSI No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>3</u>	<u>Mud</u>			<u>100</u>	
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 3 BHT 110 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

- (A) Initial Hydrostatic 2027
- (B) First Initial Flow 22
- (C) First Final Flow 18
- (D) Initial Shut-In 32
- (E) Second Initial Flow 19
- (F) Second Final Flow 19
- (G) Final Shut-In 26
- (H) Final Hydrostatic 1961

- Test _____
- Jars _____
- Safety Joint _____
- Circ Sub _____
- Hourly Standby _____
- Mileage 80
- Sampler _____
- Straddle _____
- Shale Packer _____
- Extra Packer _____
- Extra Recorder _____
- Day Standby _____
- Accessibility _____

T-On Location 10:16 pm
 T-Started 11:02 pm
 T-Open 12:54 am
 T-Pulled 2:54 am
 T-Out 4:11 am

Comments _____

 EM Tool _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total _____
 Total _____
 MP/DST Disc't _____

Approved By _____

Our Representative [Signature]

Tribolite 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.



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Northern Lights Oil Company LLC

15/17S/20W/Rush

320 W Central
Suite B
Andover, KS 67002+0164
ATTN: Jeff Christian

Rhonda #1

Job Ticket: 65672

DST#: 1

Test Start: 2019.06.11 @ 23:02:00

GENERAL INFORMATION:

Formation: **Cherokee Sand**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:54:02
Time Test Ended: 04:16:02

Test Type: Conventional Bottom Hole (Initial)
Tester: Ken Swinney
Unit No: 72 Hays 80

Interval: **3965.00 ft (KB) To 3998.00 ft (KB) (TVD)**
Total Depth: 3998.00 ft (KB) (TVD)
Hole Diameter: 7.80 inches Hole Condition: Fair

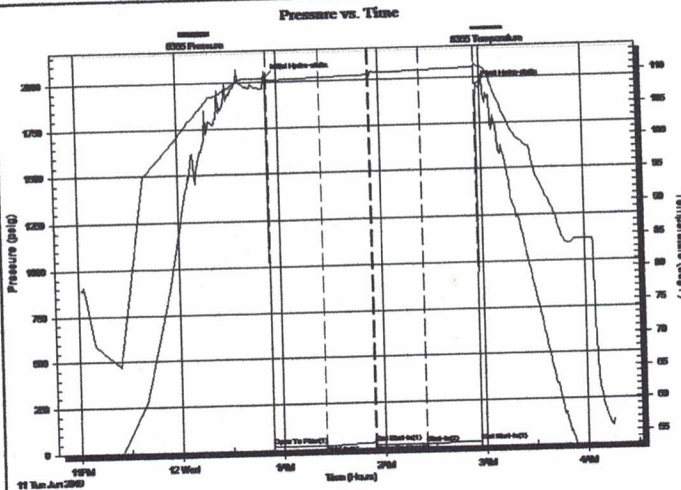
Reference Elevations: 2150.00 ft (KB)
2140.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8365

Press@RunDepth: 19.51 psig @ ft (KB)
Start Date: 2019.06.11 End Date: 2019.06.12
Start Time: 23:02:00 End Time: 04:16:02

Capacity: psig
Last Calib.: 2019.06.12
Time On Btm: 2019.06.12 @ 00:53:32
Time Off Btm: 2019.06.12 @ 02:57:47

TEST COMMENT: F 30 Minutes/ Few bubbles at open then dead
ISI 30 Minutes/ No blow back
FF 30 Minutes/ Dead/ Flush tool no help
FSI 30 Minutes/ No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2027.42	109.65	Initial Hydro-static
1	22.16	109.28	Open To Flow (1)
32	18.05	109.54	Shut-In(1)
61	32.08	109.80	End Shut-In(1)
61	19.21	109.82	Open To Flow (2)
91	19.51	110.29	Shut-In(2)
124	26.40	110.61	End Shut-In(2)
125	1961.09	110.87	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
3.00	Mud 100%	0.04

Gas Rates

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

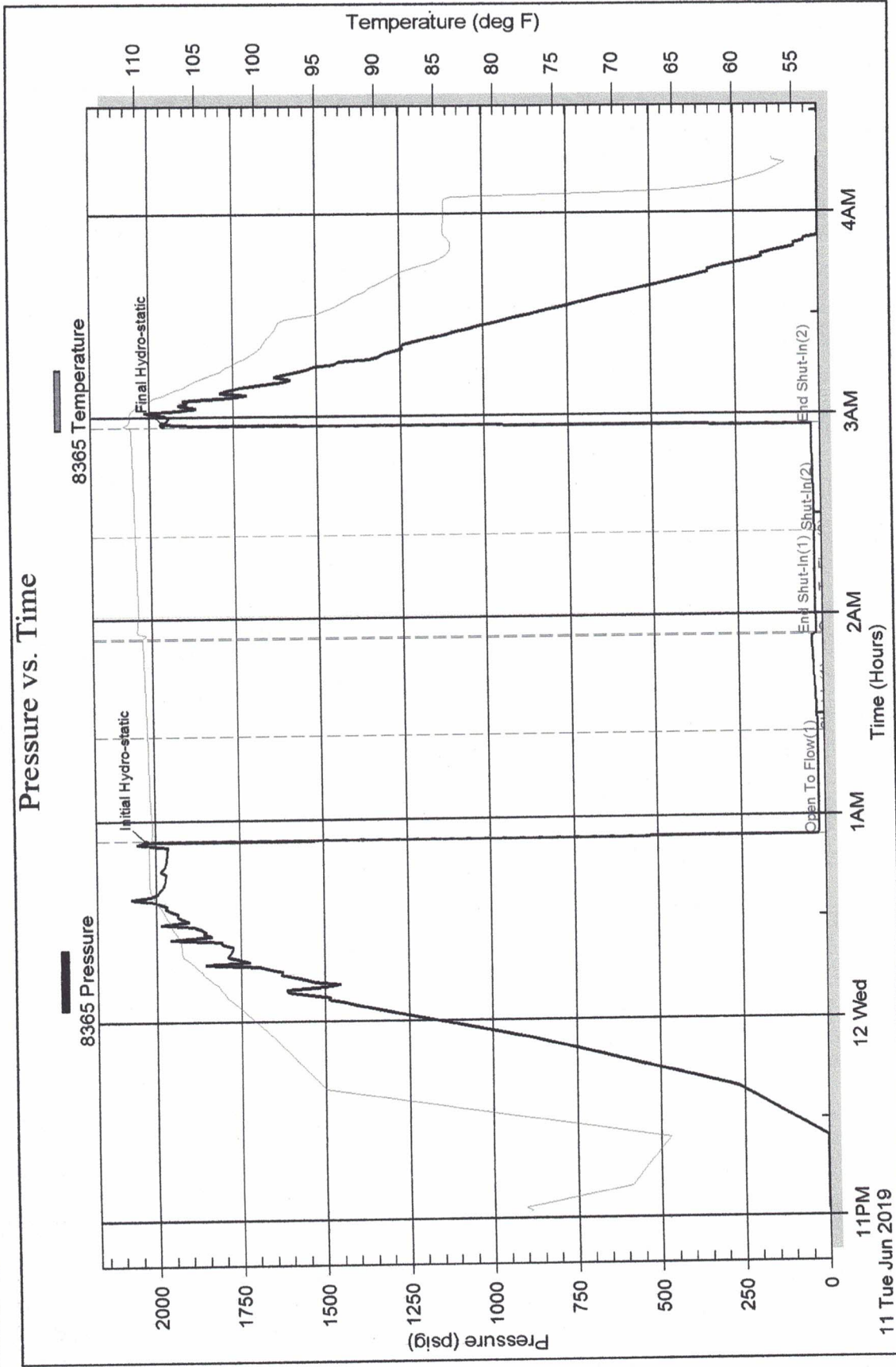
DST Test Number: 1

Rhonda #1

Northern Lights Oil Company LLC

Serial #: 8365

Pressure vs. Time



Printed: 2019.06.12 @ 04:28:46

Ref. No: 65672

Trilobite Testing, Inc

45



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 65673

Well Name & No. Rhonda #1 Test No. 2 Date 12 June 19
 Company Northern Lights O.Y. Company LLC Elevation 2150 KB 2140 GL
 Address 320 W Central Suite B Andover KS 67007+0164
 Co. Rep / Geo. Jeff Christian Rig Southwind Rig 8
 Location: Sec. 15 Twp 17S Rge. 20W Co. Rush State KS

Interval Tested 3966-4003 Zone Tested Cherokee Sand
 Anchor Length 37 Drill Pipe Run 3971 Mud Wt. 9.45
 Top Packer Depth 3961 Drill Collars Run - Vis 60
 Bottom Packer Depth 3966 Wt. Pipe Run - WL 9.2
 Total Depth 4003 Chlorides 5000 ppm System LCM 2#

Blow Description IF Blow built to 9 3/4 inches
ISE No blow back
FF Blow to BOB in 31 1/2 minutes Total build 16 inches
FSI 1 inch blow back

Rec	Feet of	62'	10 %gas	90%oil	%water	%mud
Rec <u>62</u>	Feet of <u>GO</u>	<u>62'</u>	<u>10</u> %gas	<u>90</u> %oil	<u>5</u> %water	<u>80</u> %mud
Rec <u>62</u>	Feet of <u>6WOCM</u>	<u>6.2'</u>	<u>3</u> %gas	<u>10</u> %oil	<u>5</u> %water	<u>80</u> %mud
Rec <u>62</u>	Feet of <u>OCWM</u>	<u>6.2'</u>	<u>10</u> %gas	<u>10</u> %oil	<u>30</u> %water	<u>60</u> %mud
Rec <u>62</u>	Feet of <u>GIP</u>	<u>2'</u>	<u>2</u> %gas	<u>10</u> %oil	<u>30</u> %water	<u>60</u> %mud
Rec _____	Feet of _____		%gas	%oil	%water	%mud

Rec Total 186 BHT 109 Gravity _____ API RW .361 @ 67 °F Chlorides 19000 ppm

- (A) Initial Hydrostatic 2049
- (B) First Initial Flow 21
- (C) First Final Flow 56
- (D) Initial Shut-In 651
- (E) Second Initial Flow 63
- (F) Second Final Flow 98
- (G) Final Shut-In 656
- (H) Final Hydrostatic 2035

- Test _____
- Jars _____
- Safety Joint _____
- Circ Sub _____
- Hourly Standby _____
- Mileage 80
- Sampler _____
- Straddle _____
- Shale Packer _____
- Extra Packer _____
- Extra Recorder _____
- Day Standby _____
- Accessibility _____
- Sub Total _____

T-On Location 11:30
 T-Started 12:11 pm
 T-Open 1:50 pm
 T-Pulled 4:50 pm
 T-Out 6:44 pm

Comments _____

 EM Tool _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total _____
 Total _____
 MP/DST Disc't _____

Initial Open 30
 Initial Shut-In 45
 Final Flow 45
 Final Shut-In 60

Approved By _____ Our Representative [Signature]
 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.



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Northern Lights Oil Company LLC

15/17S/20W/Rush

320 W Central
Suite B
Andover, KS 67002+0164
ATTN: Jeff Christian

Rhonda #1

Job Ticket: 65673

DST#: 2

Test Start: 2019.06.12 @ 12:11:00

GENERAL INFORMATION:

Formation: **Cherokee Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:50:47

Time Test Ended: 18:43:02

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 72 Hays/80

Interval: **3966.00 ft (KB) To 4003.00 ft (KB) (TVD)**

Total Depth: 4003.00 ft (KB) (TVD)

Hole Diameter: 7.80 inches Hole Condition: Fair

Reference Elevations: 2150.00 ft (KB)

2140.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8365

Inside

Press@RunDepth: 98.75 psig @ 3999.00 ft (KB)

Capacity: psig

Start Date: 2019.06.12

End Date:

2019.06.12

Last Calib.: 2019.06.12

Start Time: 12:11:00

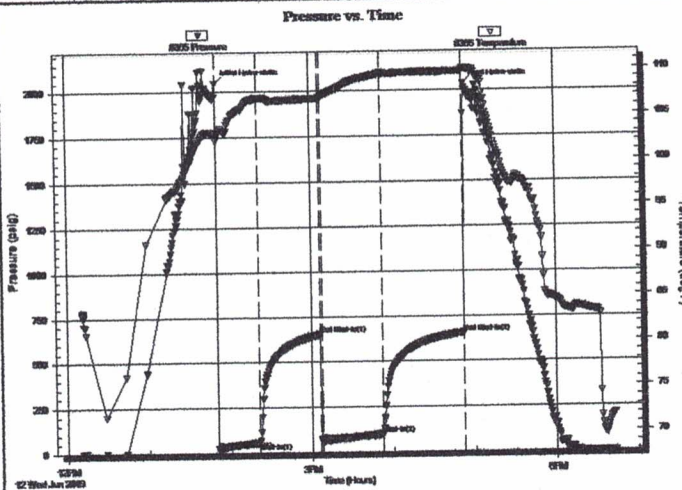
End Time:

18:43:02

Time On Btm: 2019.06.12 @ 13:50:17

Time Off Btm: 2019.06.12 @ 16:53:17

TEST COMMENT: IF 30 Minutes/ Blow built to 9 3/4 inches
ISI 45 Minutes/ No blow back
FF 45 Minutes/ Blow to BOB in 31 1/2 minutes/ Total build 16 inches
FSI 60 Minutes/ 1 inch blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2049.07	103.00	Initial Hydro-static
1	21.64	102.17	Open To Flow (1)
31	56.74	106.84	Shut-In(1)
76	651.95	106.75	End Shut-In(1)
77	63.00	106.77	Open To Flow (2)
122	98.75	109.48	Shut-In(2)
182	656.49	109.70	End Shut-In(2)
183	2035.11	109.97	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	GO /G 10% O 90%	0.87
62.00	GWOCM G 5% W 5% O 10% M 80%	0.87
62.00	OCWM O 10% W 30% M 60%	0.87
0.00	62 feet GIP	0.00

Gas Rates

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

Serial #: 8365

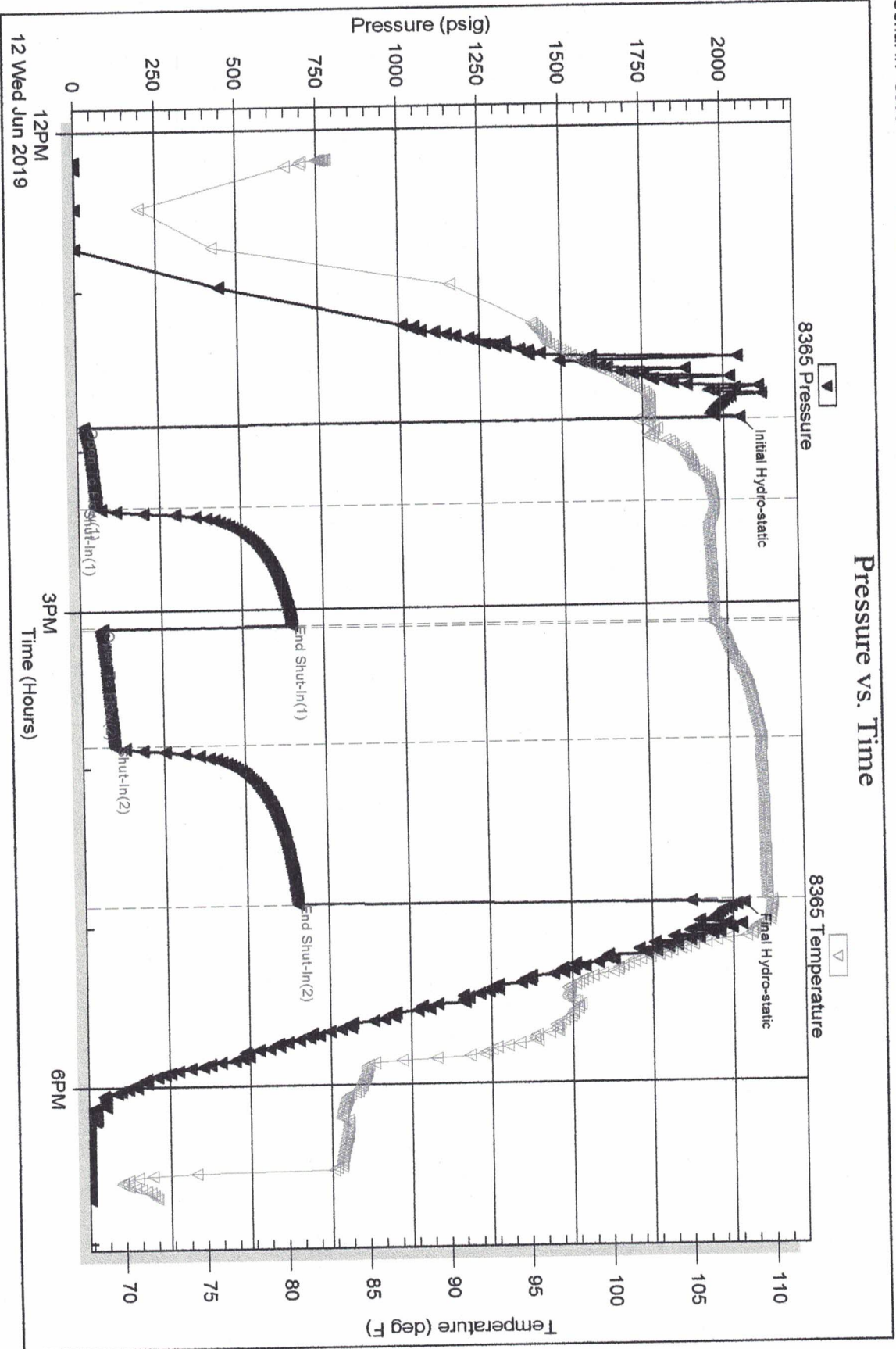
Inside

Northern Lights Oil Company LLC

Rhonda #1

DST Test Number: 2

Pressure vs. Time



QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 1296

Date	Sec.	Twp.	Range	County	State	On Location	Finish
6-7-19	15	17	20	Rush	Ks		12:00 AM

Lease Rhonda
Location McCracken - Southeast of Leola, SE

Well No. 1
Owner 1/2 S E 1 into

Contractor Southwind #8
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 Surface
Charge To Northern Lights

Hole Size 12 1/4" T.D. 266'
Csg. 8 3/8" Depth 266' 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% 3% cc 8% Gel

Meas Line Displace 16 BLS

EQUIPMENT

Pumptrk 17	No.	Cementer		Common
		Helper	David	Poz. Mix
Bulktrk 9	No.	Driver	MIKE	Gel.
		Driver		
Bulktrk pu	No.	Driver	KEK	Calcium
		Driver		

JOB SERVICES & REMARKS

Remarks: Cement did not Circulate	Hulls
Rat Hole in Celler	Salt
Mouse Hole	Flowseal
Centralizers	Kol-Seal
Baskets	Mud CLR 48
D/V or Port Collar	CFL-117 or CD110 CAF 38
	Sand
	Handling
	Mileage

FLOAT EQUIPMENT

	Guide Shoe
	Centralizer
	Baskets
	AFU Inserts
	Float Shoe
	Latch Down

Pumptrk Charge

Mileage

Signature *Debra Polak*

Tax
Discount
Total Charge

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 1299

11:30 PM

Date	6-13-19	Sec.	15	Twp.	17	Range	20	County	Rush	State	Ks	On Location		Finish	12:00 PM
------	---------	------	----	------	----	-------	----	--------	------	-------	----	-------------	--	--------	----------

Location *McCracker - South Side of tracks, 2E*

Lease *Rhonda* Well No. *1* Owner *1/5 E/Tats*

Contractor *Southern* # *5*
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 *Bottom Stage* Charge To *Northern Lights*

Hole Size *7 7/8"* T.D. *4065'* Street

Csg. *5 1/2" 14 1/2 New* Depth *4066.17'* City State

Tbg. Size Depth City State

Tool *DU Tool #62* Depth *1394'* The above was done to satisfaction and supervision of owner agent or contractor.

Cement Left in Csg. *10.50'* Shoe Joint *10.50'* Cement Amount Ordered *175 Cum 10% Salt 5% G. salt*

Meas Line Displace *99 BCS* *Sag gel mud Clean 48, 20 BCS KCL*

EQUIPMENT		Common
Pumptrk No.	Cementer Helper <i>David</i>	Poz. Mix
Bulktrk No.	Driver <i>Darryl</i>	Gel.
Bulktrk No.	Driver <i>Rick</i>	Calcium

JOB SERVICES & REMARKS

Remarks: Halls

Rat Hole Salt

Mouse Hole Flowseal

Centralizers *12 4/6, 9 1/2 16 61* Mud CLR 48

Baskets *17 62 10' from top* CFL-117 or CD110 CAF 38

D/V or Port Collar *#62 @ 1394'* Sand

Pipe on bottom break formation Handling

Pump Sag gel mud Clean 48, pump 20 BCS KCL mix 175 Cum Mileage

FLOAT EQUIPMENT

10% Salt 5% G. salt - Shut down Guide Shoe *DU Tool*

wash pump + lines, Displaced plug Centralizer *8*

Baskets *2 w/ Clamps*

Released + hold AFU Inserts

Deep Dent 6" from top w/ 900 # Float Shoe *1*

Latch Down

Lift pressure 1750 #

Lead plug to 1600 # Pumptrk Charge

Mileage

Tax

Discount

X Signature *[Signature]* Total Charge

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 1800

Date	6-14-19	Sec.	15	Twp.	17	Range	20	County	Rush	State	Ks	On Location		Finish	3:15 AM
Lease								Location		McCracken - South Side of tracks, 2E					
Rhonda								Well No.		1					
Contractor								Owner		To Quality Oilwell Cementing, Inc.					
Southwind #18								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								Charge To		Northern Lights					
Top Stage								Street							
Hole Size								City		State					
775"								Depth		4065'					
Csg.								Cement Amount Ordered		260 80% QMDC 1/4 #E1					
5 1/2" New 14#								Shoe Joint							
Tbg. Size								Displace		34 lbs					
								Saw gel mud clear 48							
Tool								Common							
DU Tool #62								Hulls							
Depth								Salt							
1394'								Flowseal							
Cement Left in Csg.								Kol-Seal							
Shoe Joint								Mud CLR 48							
Meas Line								CFL-117 or CD110 CAF 38							
Displace								Sand							
EQUIPMENT								Handling							
Pumptrk								Mileage							
No. 17								Guide Shoe							
Cementer								Centralizer							
Helper								Baskets							
Bulktrk								AFU Inserts							
No. 14								Float Shoe							
Driver								Latch Down							
Bulktrk								Pumptrk Charge							
No. 9								Mileage							
Driver								Tax							
JOB SERVICES & REMARKS								Discount							
Remarks:								Total Charge							
Rat Hole								Signature							
Mouse Hole															
Centralizers															
Baskets															
D/V or Port Collar															
1394' #62 Pump saw gel															
Break Cementation Plug Ball 10															
+ Moulded Cement 5 1/2" Car															
1-2105 20' - Saw gel 2 1/2"															
Released plug + displaced w/ 34 lbs															
1120 Released + Hold															
Left + pressure 500 #															
Load plug to 1900 #															
Tool closed															
Cement did															