

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
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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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Form	ACO1 - Well Completion
Operator	Palomino Petroleum, Inc.
Well Name	HARPER-RUDE 1
Doc ID	1461248

All Electric Logs Run

Micro
Dual Induction
Borehole Compensated Sonic
Litho Density Neutron

Form	ACO1 - Well Completion
Operator	Palomino Petroleum, Inc.
Well Name	HARPER-RUDE 1
Doc ID	1461248

Tops

Name	Top	Datum
Anhy.	837	(+1069)
Base Anhy.	866	(+1040)
Howard	2680	(- 774)
Topeka	2748	(- 842)
Heebner	2984	(-1078)
Toronto	3002	(-1096)
Douglas	3017	(-1111)
Brown Lime	3070	(-1164)
Lansing	3080	(-1174)
BKC	3319	(-1413)
Quartzite	3328	(-1422)
LTD	3445	(-1539)

GLOBAL OIL FIELD SERVICES, LLC

24 S. Lincoln
RUSSELL, KS 67665

RECEIVED
FEB 11 2019

Invoice

Date	Invoice #
2/7/2019	0013380

Bill To
PALOMINO PETROLEUM INC 4924 SE 84TH ST NEWTON,KS 67114

P.O. No.	Terms	Project
HARPER #1 HARPER-RODE	Due on receipt	

Quantity	Description	Rate	Amount
190	60/40 POZMIX CEMENT	13.75	2,612.50
6	CALCIUM-CHLORIDE	80.00	480.00
4	BENTONITE GEL	30.00	120.00
200	HANDLING	1.90	380.00
	BULK MILEAGE	500.00	500.00
1	TRI-PLEX PUMP CHARGE FOR SURFACE	850.00	850.00
15	HEAVY EQUIPMENT. ONE WAY	6.50	97.50
15	LMV- ONE WAY	2.75	41.25
1	15% DISCOUNT IF PAID WITHIN 15 DAYS OF INVOICE		0.00
	BARTON CO SALES TAX	7.50%	0.00

Cement for surface plugging

1/31

Thank you for your business.		Total	\$5,081.25 4162.18 4319.07 ✓
Phone #	Fax #		
785-445-3525	785-445-3526		

GLOBAL OIL FIELD SERVICES, LLC

00133880

REMIT TO 24 S. Lincoln
Russell, KS 67665

SERVICE POINT: August 11/22

DATE <u>2-19-19</u>	SEC. <u>1</u>	TWP. <u>11S</u>	RANGE <u>13W</u>	CALLED OUT	ON LOCATION	JOB START	JOB FINISH <u>2/15/19</u>
LEASE <u>H-12, -Rude</u>	WELL # <u>1</u>	LOCATION <u>24 S. Lincoln</u>			COUNTY <u>Dillon</u>	STATE <u>KS</u>	
OLD OR NEW (CIRCLE ONE)							

CONTRACTOR W W Nailing Co 14
 TYPE OF JOB Neodym Plug
 HOLE SIZE 7 7/8 T.D. 3995
 CASING SIZE _____ DEPTH _____
 TUBING SIZE _____ DEPTH _____
 DRILL PIPE _____ DEPTH _____
 TOOL _____ DEPTH _____
 PRES. MAX _____ MINIMUM _____
 MEAS. LINE _____ SHOE JOINT _____
 CEMENT LEFT IN CSG. _____
 PERFS _____
 DISPLACEMENT _____

OWNER Pulsone Petroleum
 CEMENT AMOUNT ORDERED 2 1/2 bags to do plug

COMMON _____ @ _____
 POZMIX _____ @ _____
 GEL _____ @ _____
 CHLORIDE _____ @ _____
 ASC _____ @ _____
 _____ @ _____
 _____ @ _____
 _____ @ _____
 _____ @ _____
 _____ @ _____
 HANDLING _____ @ _____
 MILEAGE _____ @ _____

TOTAL _____

REMARKS:

Done 2-19-19
Done 2-19-19
Done 2-19-19
Done 2-19-19
Done 2-19-19

SERVICE

DEPTH OF JOB _____
 PUMP TRUCK CHARGE _____
 EXTRA FOOTAGE _____ @ _____
 MILEAGE _____ @ _____
 MANIFOLD _____ @ _____
 _____ @ _____
 _____ @ _____

TOTAL _____

PLUG & FLOAT EQUIPMENT

_____ @ _____
 _____ @ _____
 _____ @ _____
 _____ @ _____
 _____ @ _____

TOTAL _____

CHARGE TO: Pulsone Petroleum
 STREET _____
 CITY _____ STATE _____ ZIP _____

Global Oil Field Services, LLC

You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME Joshua Shary

SIGNATURE [Signature]

SALES TAX (If Any) _____

TOTAL CHARGES _____

DISCOUNT _____ IF PAID IN 30 DAYS



RECEIVED
FEB 04 2018

QUALITY OILWELL CEMENTING, INC.
 PO Box 32 - 740 WEST WICHITA AVE, RUSSELL KS 67665
 PHONE:785-324-1041 FAX:785-483-1087
 EMAIL: cementing@ruraltel.net

Date: 1/31/2019
Invoice # 1214

P.O.#:
Due Date: 3/2/2019
Division: *Russell*

Invoice

Contact:
 Palomino Petroleum Inc
Address/Job Location:

4924 SE 84th
 Newton Ks 67114

Reference:
 HARPER RUDE 1 SEC 1-16-13

Description of Work:
 SURFACE JOB

Services / Items Included:	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 657.71	No				
Common-Class A	160	\$ 2,429.74	Yes				
Calcium Chloride	7	\$ 288.97	Yes				
POZ Mix-Standard	40	\$ 206.41	Yes				
Bulk Truck Matl-Material Service Charge	211	\$ 155.54	No				
Premium Gel (Bentonite)	4	\$ 85.51	Yes				
Pump Truck Mileage-Job to Nearest Camp	23	\$ 76.30	No				
Bulk Truck Mileage-Job to Nearest Bulk Plant	23	\$ 59.34	No				

Invoice Terms:

Net 30

SubTotal: \$ 3,959.54
Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice: \$ (98.99)

	SubTotal for Taxable Items:	\$ 2,935.38
	SubTotal for Non-Taxable Items:	\$ 925.18
		Total: \$ 3,860.55
		Tax: \$ 220.15

7.50% Barton County Sales Tax

Thank You For Your Business!

Amount Due: \$ 4,080.70
Applied Payments:
Balance Due: \$ 4,080.70

Past Due Invoices are subject to a service charge (annual rate of 24%)
 This does not include any applicable taxes unless it is listed.
 ©2008-2013 Straker Investments, LLC. All rights reserved.

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. 1214

Date	1-31-19	Sec.	1	Twp.	16	Range	13	County	Barton	State	KS	On Location		Finish	11:30 AM
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Location *Beaver 2nd 3 1/2 N W 1/4*

Lease	<i>Harper Ride</i>	Well No.	<i>1</i>	Owner	
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Contractor	<i>Wuz #14</i>			To Quality Oilwell Cementing, Inc.	
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Type Job	<i>Surface</i>			You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.	
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Hole Size	<i>12 1/4</i>	T.D.	<i>476</i>	Charge To	<i>Kalamino Petroleum</i>
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Csg.	<i>8 5/8</i>	Depth	<i>447</i>	Street	
------	--------------	-------	------------	--------	--

Tbg. Size		Depth		City	State
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Tool		Depth		The above was done to satisfaction and supervision of owner agent or contractor.	
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Cement Left in Csg.	<i>15'</i>	Shoe Joint		Cement Amount Ordered	<i>200 8 5/8 20 3 1/4 2 1/2 GEL</i>
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Meas Line		Displace	<i>273L</i>		
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EQUIPMENT

Pumptrk	<i>20</i>	No.		Cementer	<i>Co's</i>	Common	<i>160</i>
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				Helper	<i>Tony</i>	Poz. Mix	<i>40</i>
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Bulktrk		No.		Driver		Gel.	<i>34</i>
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Bulktrk	<i>14</i>	No.		Driver	<i>Doug</i>	Calcium	<i>7</i>
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JOB SERVICES & REMARKS

Remarks:		Hulls	
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Rat Hole		Salt	
----------	--	------	--

Mouse Hole		Flowseal	
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Centralizers		Kol-Seal	
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Baskets		Mud CLR 48	
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D/V or Port Collar		CFL-117 or CD110 CAF 38	
--------------------	--	-------------------------	--

		Sand	
--	--	------	--

		Handling	<i>21</i>
--	--	----------	-----------

		Mileage	
--	--	---------	--

FLOAT EQUIPMENT

			<i>8 5/8 Swage</i>
--	--	--	--------------------

		Guide Shoe	
--	--	------------	--

		Centralizer	
--	--	-------------	--

		Baskets	
--	--	---------	--

		AFU Inserts	
--	--	-------------	--

		Float Shoe	
--	--	------------	--

		Latch Down	
--	--	------------	--

--	--	--	--

--	--	--	--

		Pumptrk Charge	<i>Surface</i>
--	--	----------------	----------------

		Mileage	<i>23</i>
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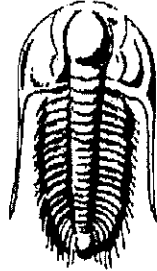
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X Signature	<i>John</i>		
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Tax	
Discount	
Total Charge	

Thanks

*8 5/8 on bottom. Est. Circulation.
mix 200K & Displace.
Cement Circulated.*



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Palomino Petroleum Inc**

4924 SE 84th St
Newton KS 67114-8827

ATTN: Eli Felts

Harper-Rude #1

1-16s-13e Barton,KS

Start Date: 2019.02.03 @ 02:51:00

End Date: 2019.02.03 @ 09:22:20

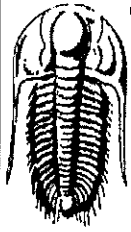
Job Ticket #: 64983 DST #: 1

Trilobite Testing, Inc

1515 Commerce Parkway Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2019.02.07 @ 09:04:25



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Palomino Petroleum Inc
4924 SE 84th St
New ton KS 67114-8827
ATTN: Eli Felts

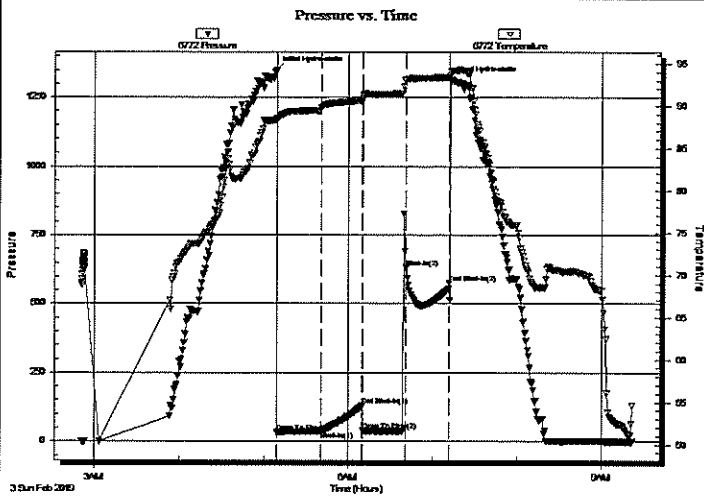
1-16s-13e Barton,KS
Harper-Rude #1
Job Ticket: 64983 **DST#: 1**
Test Start: 2019.02.03 @ 02:51:00

GENERAL INFORMATION:

Formation: **Topeka**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 05:09:10
Time Test Ended: 09:22:20
Interval: **2851.00 ft (KB) To 2873.00 ft (KB) (TVD)**
Total Depth: **2873.00 ft (KB) (TVD)**
Hole Diameter: **7.88 inches** Hole Condition: Fair
Test Type: Conventional Bottom Hole (Initial)
Tester: Benny Mulligan
Unit No: 66
Reference Elevations: 1906.00 ft (KB)
1895.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 6772 Inside
Press@RunDepth: 630.95 psig @ 2852.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2019.02.03 End Date: 2019.02.03 Last Calib.: 2019.02.03
Start Time: 02:51:01 End Time: 09:22:20 Time On Btm: 2019.02.03 @ 05:08:30
Time Off Btm: 2019.02.03 @ 07:12:30

TEST COMMENT: I.F.-30- built to 3"
I.S.I.-30- very weak blow back
F.F.-30-built to 1/2"
F.S.I.-30- no blow back



PRESSURE SUMMARY

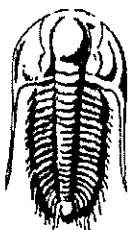
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1349.19	88.35	Initial Hydro-static
1	33.55	88.33	Open To Flow (1)
32	37.34	89.73	Shut-In(1)
62	130.08	90.63	End Shut-In(1)
62	37.82	90.92	Open To Flow (2)
93	630.95	93.10	Shut-In(2)
124	574.51	93.40	End Shut-In(2)
124	1311.88	93.59	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	WCM w / Oil spots. 5%W 95% M	0.30

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Palomino Petroleum Inc
4924 SE 84th St
New ton KS 67114-8827

1-16s-13e Barton,KS

Harper-Rude #1

Job Ticket: 64983 DST#: 1

ATTN: Eli Felts

Test Start: 2019.02.03 @ 02:51:00

GENERAL INFORMATION:

Formation:	Topeka	Test Type:	Conventional Bottom Hole (Initial)
Deviated:	No Whipstock:	ft (KB)	
Time Tool Opened:	05:09:10	Tester:	Benny Mulligan
Time Test Ended:	09:22:20	Unit No:	66
Interval:	2851.00 ft (KB) To 2873.00 ft (KB) (TVD)	Reference Elevations:	1906.00 ft (KB)
Total Depth:	2873.00 ft (KB) (TVD)		1895.00 ft (CF)
Hole Diameter:	7.88 inches	Hole Condition:	Fair
		KB to GR/CF:	11.00 ft

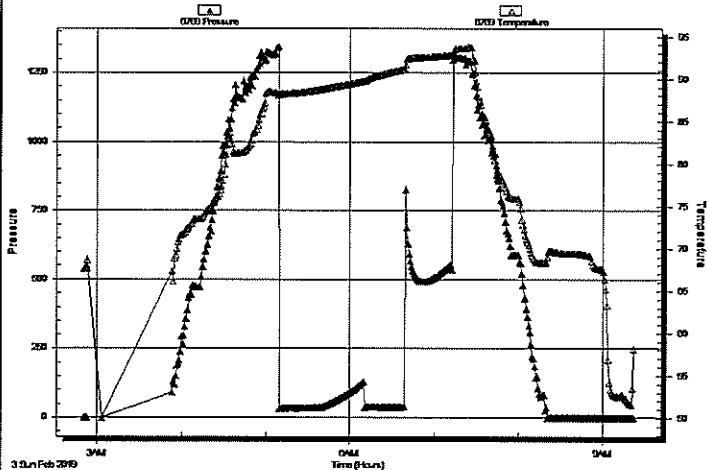
Serial #: 6769

Outside

Press@RunDepth:	psig @	2852.00 ft (KB)	Capacity:	8000.00 psig	
Start Date:	2019.02.03	End Date:	2019.02.03	Last Calib.:	1899.12.30
Start Time:	02:51:01	End Time:	09:22:20	Time On Btm:	
				Time Off Btm:	

TEST COMMENT: I.F.-30- built to 3"
I.S.I.-30- very weak blow back
F.F.-30-built to 1/2"
F.S.I.-30- no blow back

Pressure vs. Time



PRESSURE SUMMARY

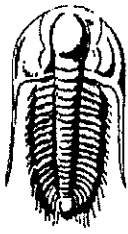
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
60.00	WCM w / Oil spots. 5%W 95% M	0.30

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Palomino Petroleum Inc
4924 SE 84th St
New ton KS 67114-8827
ATTN: Eli Felts

1-16s-13e Barton,KS
Harper-Rude #1
Job Ticket: 64983 **DST#: 1**
Test Start: 2019.02.03 @ 02:51:00

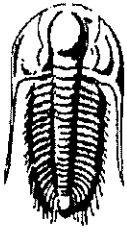
Tool Information

Drill Pipe:	Length: 2730.00 ft	Diameter: 3.80 inches	Volume: 38.29 bbl	Tool Weight: 2500.00 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: 114.00 ft	Diameter: 2.25 inches	Volume: 0.56 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 38.85 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	2851.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	22.00 ft			
Tool Length:	49.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			2825.00	
Shut In Tool	5.00			2830.00	
Hydraulic tool	5.00			2835.00	
Jars	5.00			2840.00	
Safety Joint	2.00			2842.00	
Packer	5.00			2847.00	27.00 Bottom Of Top Packer
Packer	4.00			2851.00	
Stubb	1.00			2852.00	
Recorder	0.00	6772	Inside	2852.00	
Recorder	0.00	6769	Outside	2852.00	
Perforations	18.00			2870.00	
Bullnose	3.00			2873.00	22.00 Bottom Packers & Anchor

Total Tool Length: 49.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Palomino Petroleum Inc
4924 SE 84th St
New ton KS 67114-8827
ATTN: Eli Felts

1-16s-13e Barton,KS
Harper-Rude #1
Job Ticket: 64983 DST#: 1
Test Start: 2019.02.03 @ 02:51:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 61.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.98 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 5300.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	WCM w/ Oil spots. 5%W 95% M	0.295

Total Length: 60.00 ft Total Volume: 0.295 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Serial #: 6772

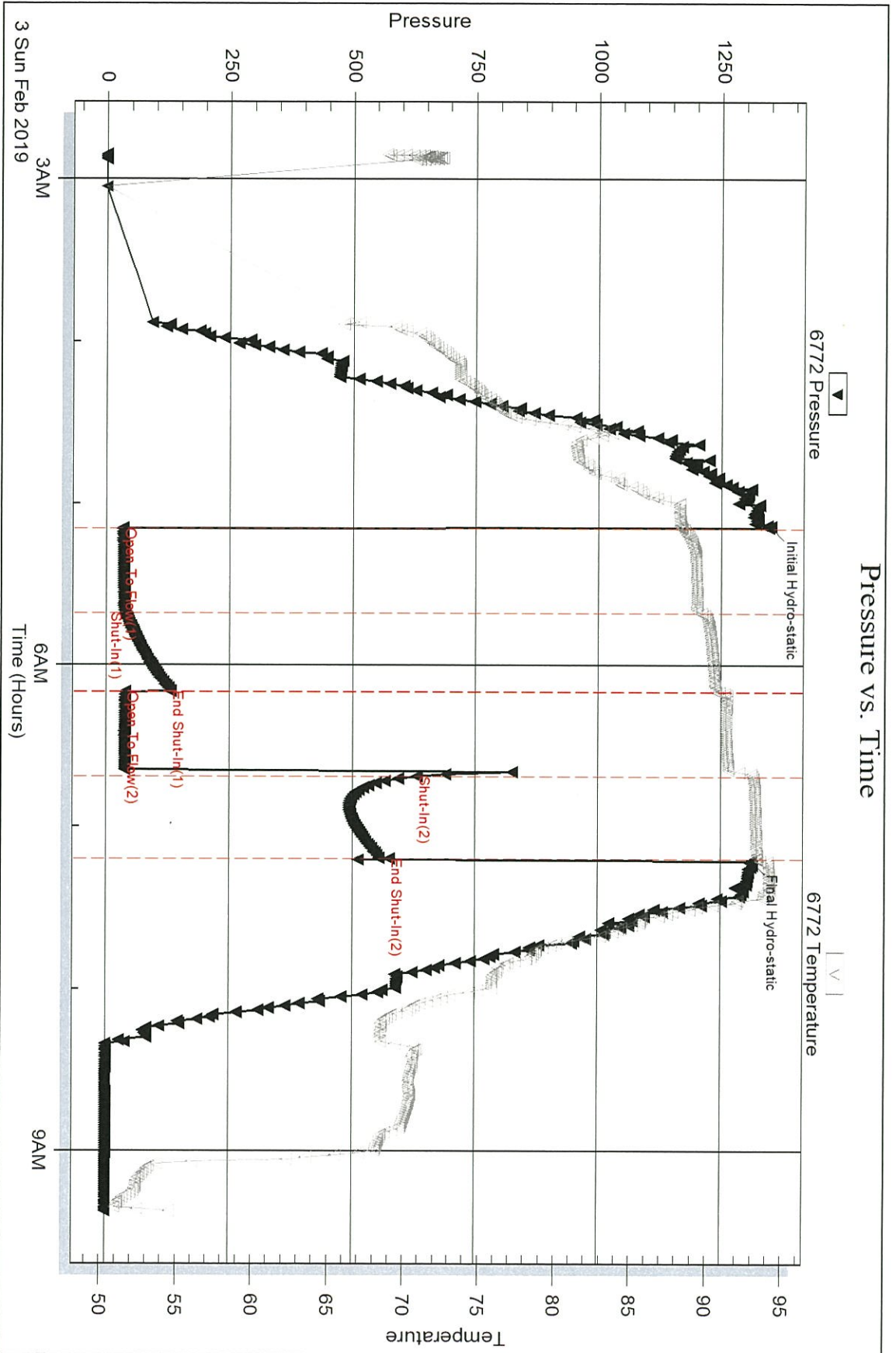
Inside

Palomino Petroleum Inc

Harper-Rude #1

DST Test Number: 1

Pressure vs. Time



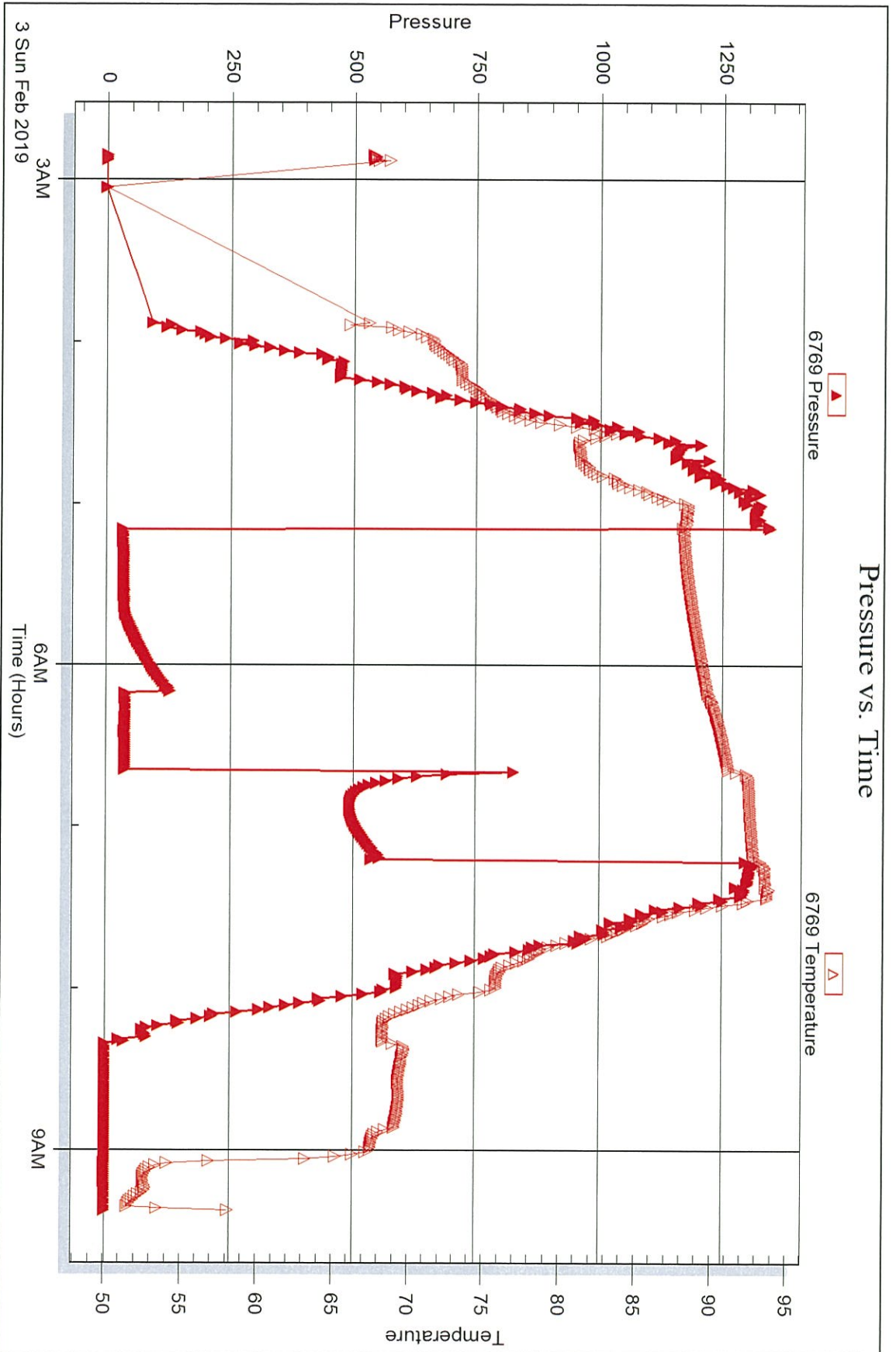
Serial #: 6769

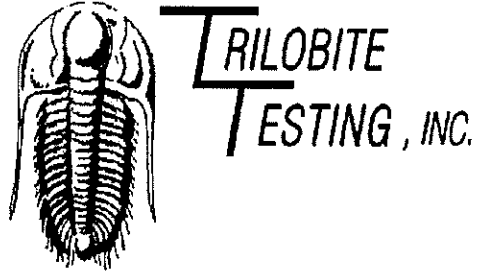
Outside

Palorino Petroleum Inc

Harper-Rude #1

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Palomino Petroleum Inc**

4924 SE 84th St
Newton KS 67114-8827

ATTN: Eli Felts

Harper-Rude #1

1-16s-13e Barton,KS

Start Date: 2019.02.03 @ 18:30:00

End Date: 2019.02.03 @ 23:58:20

Job Ticket #: 64984 DST #: 2

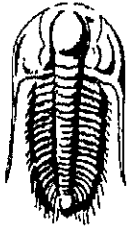
Trilobite Testing, Inc

1515 Commerce Parkway Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2019.02.07 @ 09:03:19

Palomino Petroleum Inc 1-16s-13e Barton,KS Harper-Rude #1 DST # 2 Topeka 2019.02.03



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Palomino Petroleum Inc
 4924 SE 84th St
 Newton KS 67114-8827
 ATTN: Eli Felts

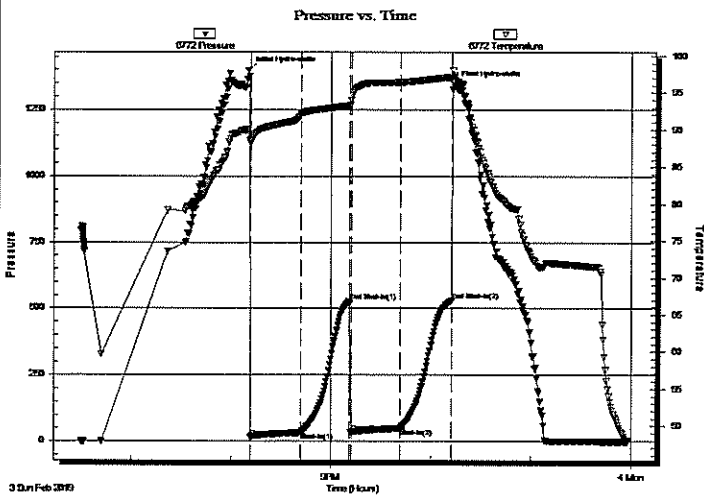
1-16s-13e Barton,KS
Harper-Rude #1
 Job Ticket: 64984 **DST#: 2**
 Test Start: 2019.02.03 @ 18:30:00

GENERAL INFORMATION:

Formation: **Topeka**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 20:11:50
 Time Test Ended: 23:58:20
 Interval: **2896.00 ft (KB) To 2942.00 ft (KB) (TVD)**
 Total Depth: **2942.00 ft (KB) (TVD)**
 Hole Diameter: **7.88 inches** Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Benny Mulligan
 Unit No: 66
 Reference Elevations: 1906.00 ft (KB)
 1895.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 6772 Inside
 Press@RunDepth: 48.25 psig @ 2897.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2019.02.03 End Date: 2019.02.03 Last Calib.: 2019.02.04
 Start Time: 18:30:01 End Time: 23:58:20 Time On Btm: 2019.02.03 @ 20:10:30
 Time Off Btm: 2019.02.03 @ 22:14:00

TEST COMMENT: I.F.-30- built to 8"
 I.S.I.-30- no blow back
 F.F.-30- built to 8 1/2"
 F.S.I.-30- no blow back



PRESSURE SUMMARY

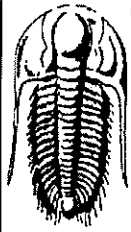
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1398.79	89.19	Initial Hydro-static
2	16.18	88.08	Open To Flow (1)
32	34.16	92.01	Shut-In(1)
61	526.86	93.28	End Shut-In(1)
62	32.43	93.98	Open To Flow (2)
91	48.25	96.41	Shut-In(2)
122	529.87	97.10	End Shut-In(2)
124	1344.20	97.05	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbt)
65.00	GOCWM 15%G 10%O 15%W 60%M	0.32

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Palomino Petroleum Inc
4924 SE 84th St
New ton KS 67114-8827
ATTN: Eli Felts

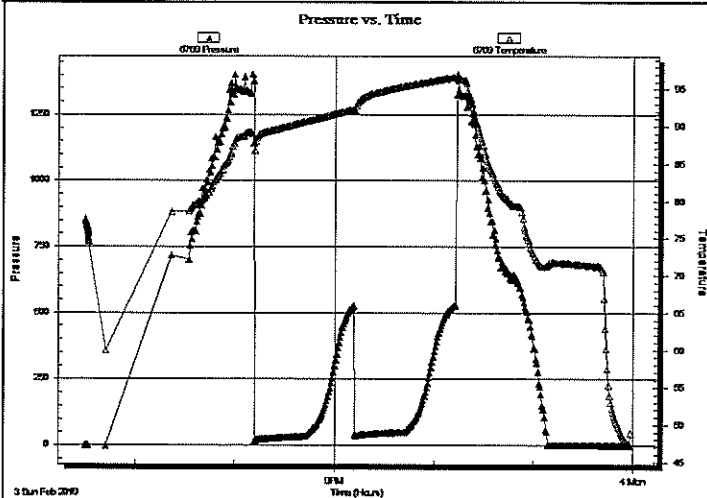
1-16s-13e Barton, KS
Harper-Rude #1
Job Ticket: 64984 **DST#: 2**
Test Start: 2019.02.03 @ 18:30:00

GENERAL INFORMATION:

Formation: **Topeka**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 20:11:50
Time Test Ended: 23:58:20
Interval: **2896.00 ft (KB) To 2942.00 ft (KB) (TVD)**
Total Depth: **2942.00 ft (KB) (TVD)**
Hole Diameter: **7.88 inches** Hole Condition: Fair
Reference Elevations: **1906.00 ft (KB)**
1895.00 ft (CF)
KB to GR/CF: **11.00 ft**
Test Type: Conventional Bottom Hole (Initial)
Tester: Benny Mulligan
Unit No: 66

Serial #: 6769 Outside
Press@RunDepth: psig @ 2897.00 ft (KB)
Start Date: 2019.02.03 End Date: 2019.02.03 Capacity: 8000.00 psig
Start Time: 18:30:01 End Time: 23:58:40 Last Calib.: 2019.02.04
Time On Btm:
Time Off Btm:

TEST COMMENT: I.F.-30- built to 8"
I.S.I.-30- no blow back
F.F.-30- built to 8 1/2"
F.S.I.-30- no blow back



PRESSURE SUMMARY

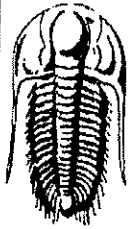
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
65.00	GOCWM 15%G 10%O 15%W 60%M	0.32

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Palomino Petroleum Inc
4924 SE 84th St
New ton KS 67114-8827
ATTN: Eli Felts

1-16s-13e Barton,KS
Harper-Rude #1
Job Ticket: 64984 DST#: 2
Test Start: 2019.02.03 @ 18:30:00

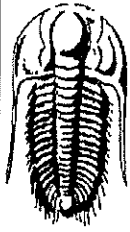
Tool Information

Drill Pipe:	Length: 2764.00 ft	Diameter: 3.88 inches	Volume: 40.42 bbl	Tool Weight: 2500.00 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: 114.00 ft	Diameter: 2.25 inches	Volume: 0.56 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 40.98 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	2896.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	46.00 ft			
Tool Length:	73.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			2870.00	
Shut In Tool	5.00			2875.00	
Hydraulic tool	5.00			2880.00	
Jars	5.00			2885.00	
Safety Joint	2.00			2887.00	
Packer	5.00			2892.00	27.00 Bottom Of Top Packer
Packer	4.00			2896.00	
Stubb	1.00			2897.00	
Recorder	0.00	6772	Inside	2897.00	
Recorder	0.00	6769	Outside	2897.00	
Perforations	8.00			2905.00	
Change Over Sub	1.00			2906.00	
Drill Pipe	32.00			2938.00	
Change Over Sub	1.00			2939.00	
Bullnose	3.00			2942.00	46.00 Bottom Packers & Anchor

Total Tool Length: 73.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Palomino Petroleum Inc
4924 SE 84th St
New ton KS 67114-8827
ATTN: Eli Felts

1-16s-13e Barton,KS
Harper-Rude #1
Job Ticket: 64984 **DST#: 2**
Test Start: 2019.02.03 @ 18:30:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 45.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.99 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 7100.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
65.00	GOCVM 15%G 10%O 15%W 60%M	0.320

Total Length: 65.00 ft Total Volume: 0.320 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 6772

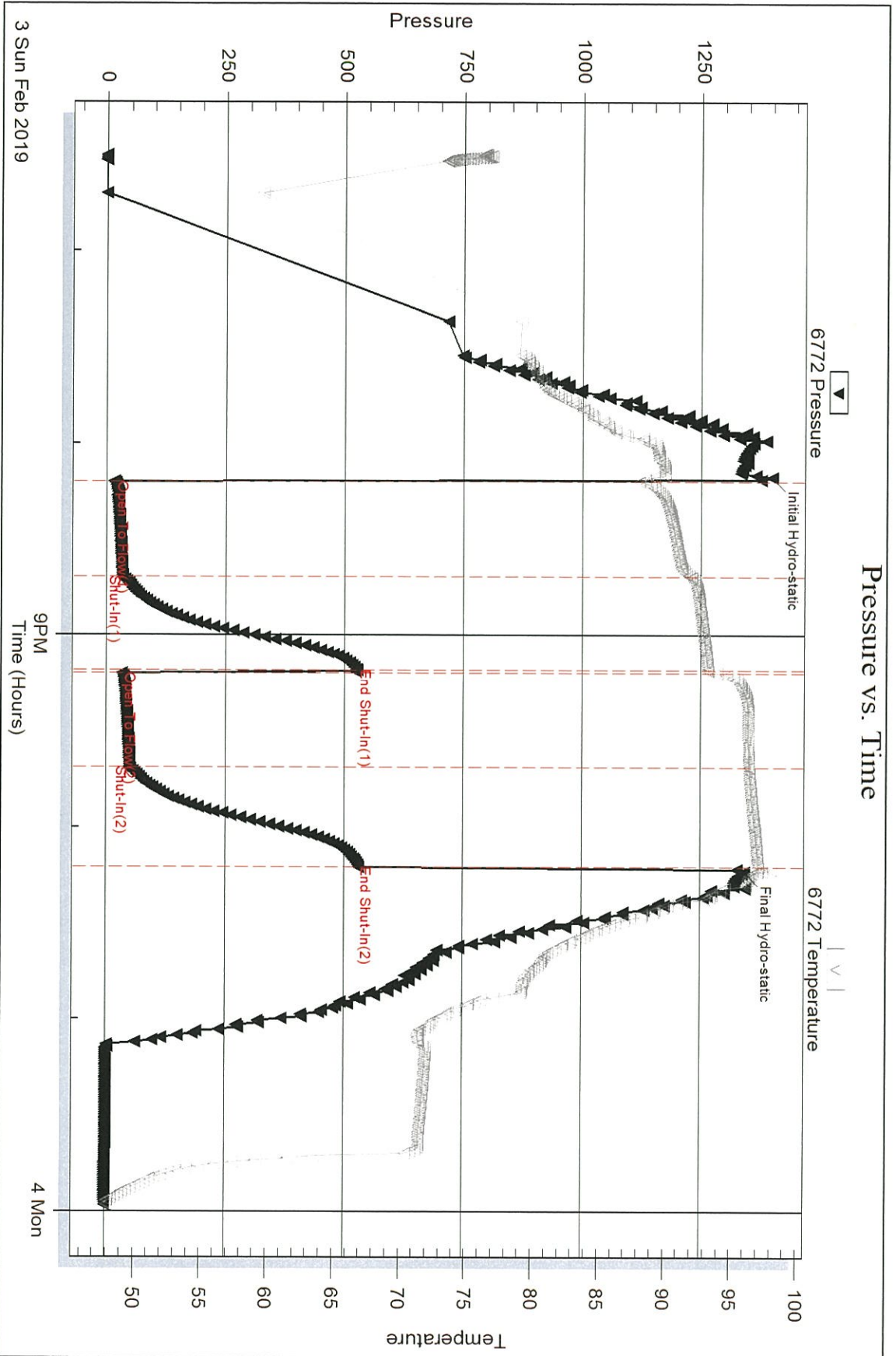
Inside

Palomino Petroleum Inc

Harper-Rude #1

DST Test Number: 2

Pressure vs. Time



Serial #: 6769

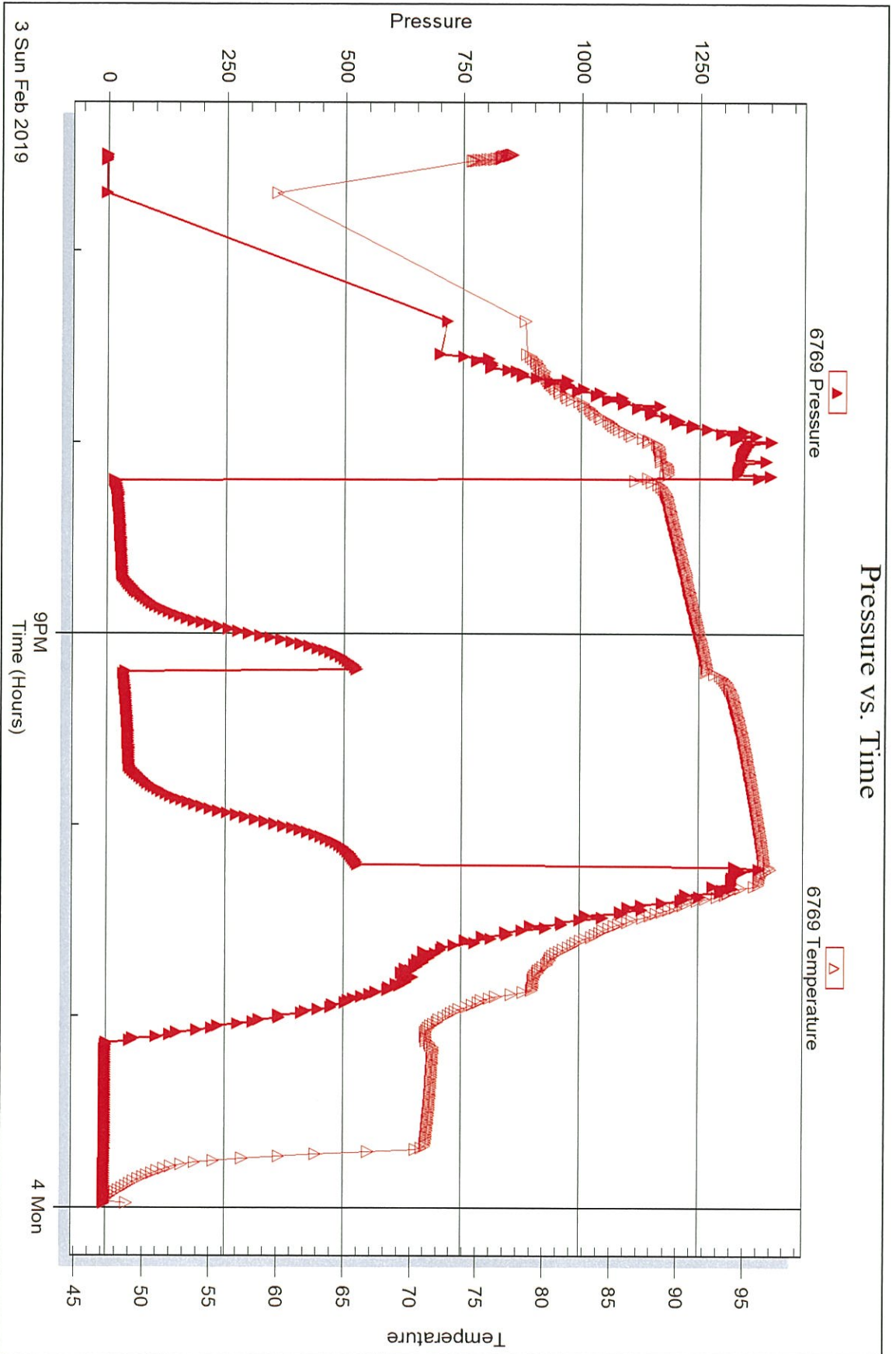
Outside

Palorino Petroleum Inc

Harper-Rude #1

DST Test Number: 2

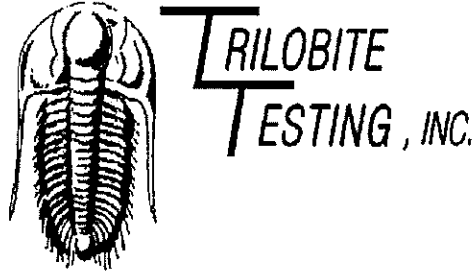
Pressure vs. Time



Triobite Testing, Inc

Ref. No: 64984

Printed: 2019.02.07 @ 09:03:20



DRILL STEM TEST REPORT

Prepared For: **Palomino Petroleum Inc**

4924 SE 84th St
Newton KS 67114-8827

ATTN: Eli Felts

Harper-Rude #1

1-16s-13e Barton,KS

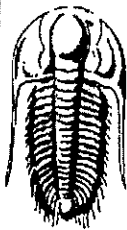
Start Date: 2019.02.04 @ 13:17:00

End Date: 2019.02.04 @ 20:40:00

Job Ticket #: 64985 DST #: 3

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2019.02.07 @ 09:02:49



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Palomino Petroleum Inc
4924 SE 84th St
New ton KS 67114-8827
ATTN: Eli Felts

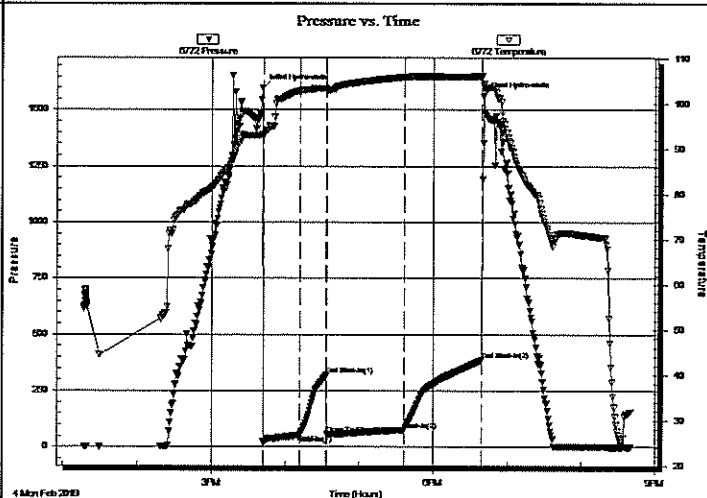
1-16s-13e Barton, KS
Harper-Rude #1
Job Ticket: 64985 **DST#: 3**
Test Start: 2019.02.04 @ 13:17:00

GENERAL INFORMATION:

Formation: **LKC A-B**
Deviated: **No** Whipstock: **ft (KB)**
Time Tool Opened: 15:42:00
Time Test Ended: 20:40:00
Interval: **3077.00 ft (KB) To 3135.00 ft (KB) (TVD)**
Total Depth: **3135.00 ft (KB) (TVD)**
Hole Diameter: **7.88 inches** Hole Condition: **Fair**
Test Type: **Conventional Bottom Hole (Initial)**
Tester: **Benny Mulligan**
Unit No: **66**
Reference Elevations: **1906.00 ft (KB)**
1895.00 ft (CF)
KB to GR/CF: **11.00 ft**

Serial #: 6772 **Inside**
Press@RunDepth: **74.26 psig @ 3078.00 ft (KB)** Capacity: **8000.00 psig**
Start Date: **2019.02.04** End Date: **2019.02.04** Last Calib.: **2019.02.04**
Start Time: **13:17:01** End Time: **20:40:00** Time On Btm: **2019.02.04 @ 15:41:30**
Time Off Btm: **2019.02.04 @ 18:40:50**

TEST COMMENT: I.F.-30 Bob 25 mins total build 15 1/2 "
I.S.I.-30- no blow back
F.F.-60- BOB 17 mins total build 36"
F.S.I.-60- weak blow back



PRESSURE SUMMARY

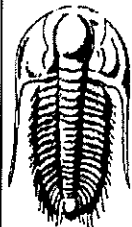
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1595.64	93.30	Initial Hydro-static
1	19.62	93.10	Open To Flow (1)
31	53.00	102.92	Shut-In(1)
52	316.24	103.43	End Shut-In(1)
53	54.99	103.21	Open To Flow (2)
115	74.26	105.97	Shut-In(2)
178	386.17	106.09	End Shut-In(2)
180	1560.71	104.13	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GOCMW. 10%G 10%O 20%M 60%W	0.30
90.00	GOCWM 10%G 10%O 20%W 60%M	0.79
0.00	150' GIP	0.00

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Palomino Petroleum Inc
 4924 SE 84th St
 Newton KS 67114-8827
 ATTN: Eli Felts

1-16s-13e Barton, KS
Harper-Rude #1
 Job Ticket: 64985 **DST#: 3**
 Test Start: 2019.02.04 @ 13:17:00

GENERAL INFORMATION:

Formation: **LKC A-B**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 15:42:00
 Time Test Ended: 20:40:00
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Benny Mulligan
 Unit No: 66
 Interval: **3077.00 ft (KB) To 3135.00 ft (KB) (TVD)**
 Total Depth: 3135.00 ft (KB) (TVD)
 Reference Elevations: 1906.00 ft (KB)
 1895.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 KB to GR/CF: 11.00 ft

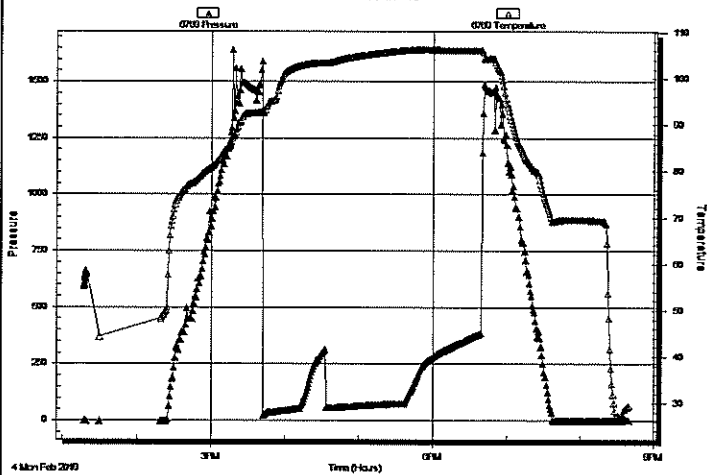
Serial #: 6769

Outside

Press@RunDepth: psig @ 3078.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2019.02.04 End Date: 2019.02.04 Last Calib.: 2019.02.04
 Start Time: 13:17:01 End Time: 20:40:00 Time On Btm:
 Time Off Btm:

TEST COMMENT: I.F.-30 Bob 25 mins total build 15 1/2 "
 I.S.I.-30- no blow back
 F.F.-60- BOB 17 mins total build 36"
 F.S.I.-60- weak blow back

Pressure vs. Time



PRESSURE SUMMARY

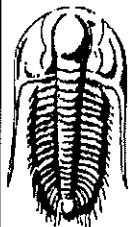
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GOCMV. 10%G 10%O 20%M 60%W	0.30
90.00	GOCVM 10%G 10%O 20%W 60%M	0.79
0.00	150' GIP	0.00

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Palomino Petroleum Inc
4924 SE 84th St
New ton KS 67114-8827
ATTN: Eli Felts

1-16s-13e Barton, KS
Harper-Rude #1
Job Ticket: 64985 DST#: 3
Test Start: 2019.02.04 @ 13:17:00

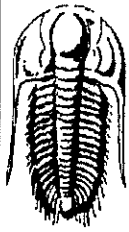
Tool Information

Drill Pipe:	Length: 2956.00 ft	Diameter: 3.88 inches	Volume: 43.23 bbl	Tool Weight: 2500.00 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: 114.00 ft	Diameter: 2.25 inches	Volume: 0.56 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 43.79 bbl</u>	Tool Chased 10.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3077.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	58.00 ft			
Tool Length:	85.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3051.00	
Shut In Tool	5.00			3056.00	
Hydraulic tool	5.00			3061.00	
Jars	5.00			3066.00	
Safety Joint	2.00			3068.00	
Packer	5.00			3073.00	27.00 Bottom Of Top Packer
Packer	4.00			3077.00	
Stubb	1.00			3078.00	
Recorder	0.00	6772	Inside	3078.00	
Recorder	0.00	6769	Outside	3078.00	
Perforations	20.00			3098.00	
Change Over Sub	1.00			3099.00	
Drill Pipe	32.00			3131.00	
Change Over Sub	1.00			3132.00	
Bullnose	3.00			3135.00	58.00 Bottom Packers & Anchor

Total Tool Length: 85.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Palomino Petroleum Inc
4924 SE 84th St
New ton KS 67114-8827
ATTN: E| Felts

1-16s-13e Barton,KS
Harper-Rude #1
Job Ticket: 64985 **DST#: 3**
Test Start: 2019.02.04 @ 13:17:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 46.00 sec/qt	Cushion Volume: bbl		
Water Loss: 10.38 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 9300.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	GOCMW. 10%G 10%O 20%M 60%W	0.295
90.00	GOCWM 10%G 10%O 20%W 60%M	0.792
0.00	150' GIP	0.000

Total Length: 150.00 ft Total Volume: 1.087 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: Gip 150'

Serial #: 6772

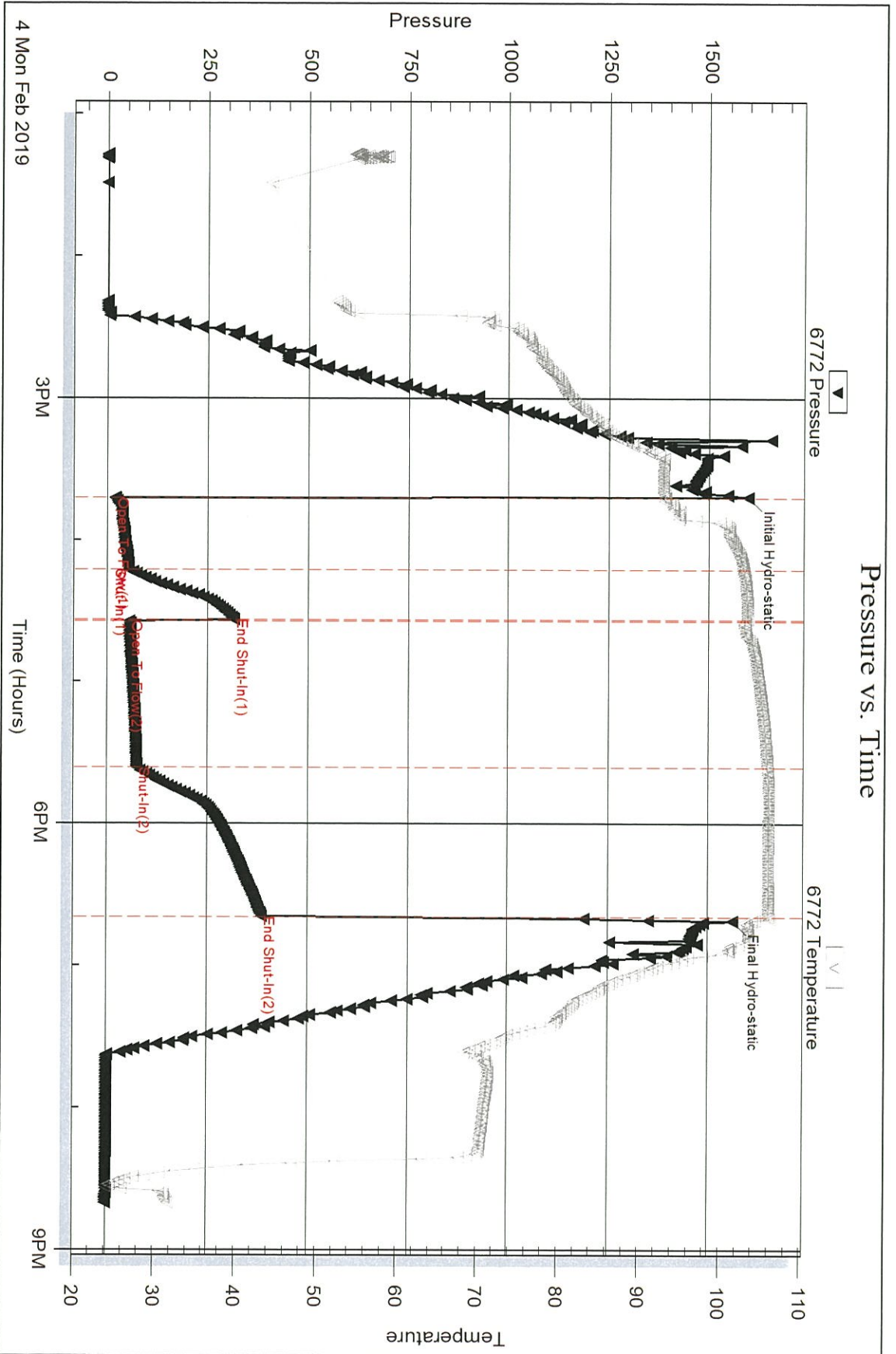
Inside

Palomino Petroleum Inc

Harper-Rude #1

DST Test Number: 3

Pressure vs. Time



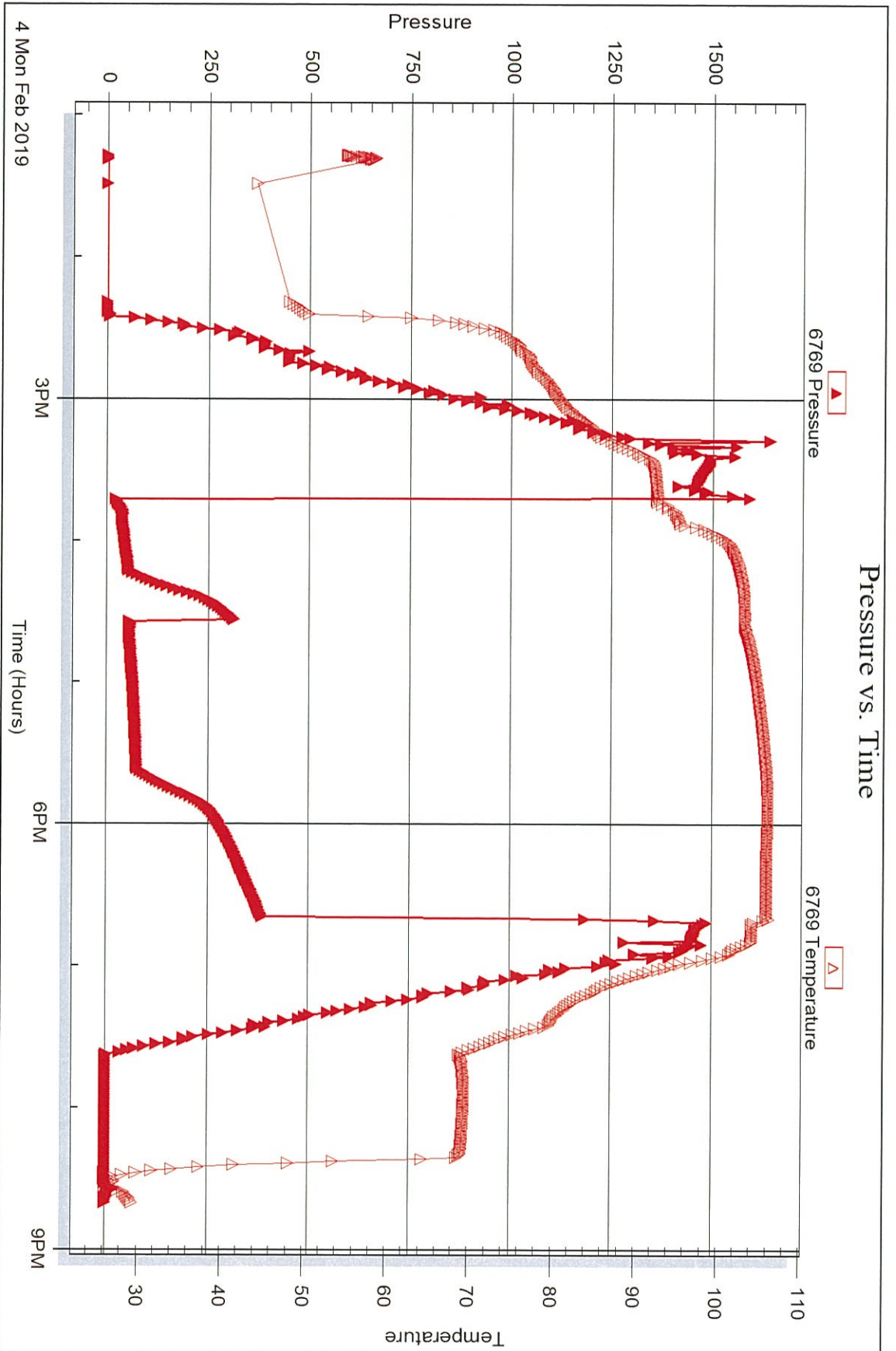
Serial #: 6769

Outside

Palomino Petroleum Inc

Harper-Rude #1

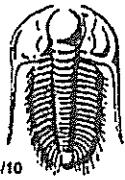
DST Test Number: 3



Triobite Testing, Inc

Ref. No: 64985

Printed: 2019.02.07 @ 09:02:50



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 64983

Well Name & No. Harper-Rude #1 Test No. 1 Date 2-3-2019
 Company Palomina Petroleum Inc Elevation 1908 KB 1895 GL
 Address 4974 SE 84th st Newton KS 67114+8827
 Co. Rep / Geo. Eli felts Rig ww14
 Location: Sec. 1 Twp 16S Rge. 13E Co. Barton State KS

Interval Tested 2851-2873 Zone Tested Topoka
 Anchor Length 22' Drill Pipe Run 2730 Mud Wt. 8.6
 Top Packer Depth 2846 Drill Collars Run 144 Vis 61
 Bottom Packer Depth 2851 Wt. Pipe Run --- WL 8.0
 Total Depth 2873 Chlorides 5300 ppm System LCM 2#

Blow Description I.F. - Built to 3"
I.S.I. - very weak blow back
F.F. - Built to 1/2"
F.S.I. - no blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>60</u>	<u>O.S.W.C.M.</u>			<u>5</u>	<u>95</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

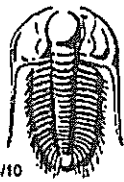
Rec Total 60' BHT 93° Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1349 Test 1050 T-On Location 1:15
 (B) First Initial Flow 33 Jars 250 T-Started 2:51
 (C) First Final Flow 37 Safety Joint 75 T-Open 5:10
 (D) Initial Shut-In 130 Circ Sub _____ T-Pulled 7:10
 (E) Second Initial Flow 37 Hourly Standby _____ T-Out 9:25
 (F) Second Final Flow 630 Mileage 54 RT 54 Comments _____
 (G) Final Shut-In 574 Sampler _____
 (H) Final Hydrostatic 1311 Straddle _____

Initial Open 30 Shale Packer _____
 Initial Shut-In 30 Extra Packer _____
 Final Flow 30 Extra Recorder _____
 Final Shut-In 30 Day Standby _____
 Sub Total 1429 Accessibility _____
 Total 1429 EM Tool _____
 MP/DST Disc't _____ Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1429

Approved By _____ Our Representative _____

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 64984

Well Name & No. Harper-Rude #1 Test No. 2 Date 2-3-2019
 Company Palomino Petroleum Inc Elevation 1906 KB 1895 GL
 Address 4924 SE 84th St Newton KS 67114 + 8827
 Co. Rep / Geo. Elifelts Rig WV14
 Location: Sec. 1 Twp 16S Rge. 13E Co. Barton State KS

Interval Tested 2896-2942 Zone Tested Tapeka
 Anchor Length 46' Drill Pipe Run 2764 Mud Wt. 8.7
 Top Packer Depth 2891 Drill Collars Run 114 Vis 45
 Bottom Packer Depth 2896 Wt. Pipe Run — WL 10.0
 Total Depth 2942 Chlorides 7100 ppm System LCM 1#

Blow Description IF - Built to 8"
ISI - no blow back
FE - Built to 8 1/2"
F.S.I. - no blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>65</u>	<u>G.O.C. w. m-</u>	<u>15</u>	<u>10</u>	<u>15</u>	<u>60</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 65 BHT 97° Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1398</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>6:10</u>
(B) First Initial Flow <u>16</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>6:30</u>
(C) First Final Flow <u>34</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>8:12</u>
(D) Initial Shut-In <u>526</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>10:12</u>
(E) Second Initial Flow <u>32</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>11:59</u>
(F) Second Final Flow <u>48</u>	<input checked="" type="checkbox"/> Mileage <u>54RT</u> 54	Comments _____
(G) Final Shut-In <u>529</u>	<input type="checkbox"/> Sampler _____	_____
(H) Final Hydrostatic <u>1344</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> EM Tool _____
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Shale Packer _____
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Ruined Packer _____
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder _____	<input type="checkbox"/> Extra Copies _____
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby _____	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility _____	Total <u>1429</u>
	Sub Total <u>1429</u>	MP/DST Disc't _____

Approved By _____ Our Representative Benny Mulligan
 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.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 64985

Well Name & No. Harper-Runde #1 Test No. 3 Date 2-4-2019
 Company Palomino Petroleum Inc Elevation 1906 KB 1895 GL
 Address 4924 SE 84th St Newton KS 67114+8827
 Co. Rep / Geo. Eli Felts Rig WV14
 Location: Sec. 1 Twp 16S Rge. 13E Co. Barber State KS

Interval Tested 3077-3135' Zone Tested A-B Lansing KC
 Anchor Length 58' Drill Pipe Run 2956 Mud Wt. 8.9
 Top Packer Depth 3072 Drill Collars Run 114 Vls 46
 Bottom Packer Depth 3077 Wt. Pipe Run --- WL 10.4
 Total Depth 3135 Chlorides 9300 ppm System LCM 1#

Blow Description IF - BOB 25 mins total build of 15 1/2"
ISF - no blow back
FE - BOB 17 mins total build of 36"
FST - weak blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>90</u>	<u>G.O.C.M.M.</u>	<u>10</u>	<u>10</u>	<u>20</u>	<u>60</u>
<u>60</u>	<u>60 C M W</u>	<u>10</u>	<u>10</u>	<u>60</u>	<u>20</u>
<u>---</u>	<u>GIP 150'</u>	<u>---</u>	<u>---</u>	<u>---</u>	<u>---</u>
<u>---</u>	<u>---</u>	<u>---</u>	<u>---</u>	<u>---</u>	<u>---</u>
<u>---</u>	<u>---</u>	<u>---</u>	<u>---</u>	<u>---</u>	<u>---</u>

Rec Total 150 BHT 1040 Gravity --- API RW --- @ --- °F Chlorides --- ppm

(A) Initial Hydrostatic 1595 Test 1050 T-On Location 12:10
 (B) First Initial Flow 19 Jars 250 T-Started 13:17
 (C) First Final Flow 53 Safety Joint 75 T-Open 15:43
 (D) Initial Shut-In 316 Circ Sub --- T-Pulled 18:43
 (E) Second Initial Flow 54 Hourly Standby --- T-Out 20:40
 (F) Second Final Flow 74 Mileage SHIRT XZ 108 Comments Loaded to oil
 (G) Final Shut-In 386 Sampler --- 2-6-2019 9:45 AM
 (H) Final Hydrostatic 1560 Straddle --- EM Tool ---

Initial Open 30 Shale Packer --- Ruined Shale Packer ---
 Initial Shut-In 30 Extra Packer --- Ruined Packer ---
 Final Flow 60 Extra Recorder --- Extra Copies ---
 Final Shut-In 60 Day Standby --- Sub Total 0
 Accessibility --- Total 1483
 Sub Total 1483 MP/DST Disc't ---

Approved By --- Our Representative Benny Mulligan

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PALOMINO PETROLEUM, INC.

Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: Harper-Rude #1

API: 15-009-26251

Location: NW - NE - NE - SE of Sec. 1 16s 13w

License Number: 30742

Spud Date: 1/31/2019

Surface Coordinates: 2371' FSL & 510' FEL

Region: Barton County, KS

Drilling Completed: 2/05/2019

Bottom Hole Coordinates: Same as surface coordinates

Ground Elevation (ft): 1895'

K.B. Elevation (ft): 1906'

Logged Interval (ft): 2600'

Total Depth (ft): 3445'

Formation: Precambrian Quartzite/Granite @ Total Depth

Type of Drilling Fluid: Chemical Drispac

Printed by MudLog from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Palomino Petroleum, Inc.

Address: 4924 SE 84th St.

Newton, KS 67114

GEOLOGIST

Name: Eli J. Felts

Company: Gravity Oil, LLC

Address: 954 Prairie Park Road

Wichita, KS 67218

E: ejfelts47@gmail.com, C: 316.204.5059

Formation Tops

SAMPLE TOPS	LOG TOPS
ANHY	ANHY
844 (+1062)	837 (+1069)
BASE ANHY	BASE ANHY
870 (+1036)	866 (+1040)
HOWARD	HOWARD
2678 (-772)	2680 (-774)
TOPEKA	TOPEKA
2749 (-843)	2748 (-842)
HEEBNER	HEEBNER
2987 (-1081)	2984 (-1078)
TORONTO	TORONTO
3004 (-1098)	3002 (-1096)
BROWN LIME	BROWN LIME
3072 (-1166)	3070 (-1164)
LANSING	LANSING
3082 (-1176)	3080 (-1174)
B/KC	B/KC
3319 (-1413)	3319 (-1413)
QUARTZITE	QUARTZITE
3330 (-1424)	3328 (-1422)
RTD	LTD
	3445 (-1539)

Drilling Report

1/31/19 Moved in WW Drilling, L.L.C. rotary tools (Rig#14). Spudded at 1:00 a.m.

2/1/19 Drilling at 1136'.

2/2/19 Drilling at 2376'.

Geologist on Location 4am. Displace Mud @ 2592-2620'.

2/3/19 DST #1 (see results above) 2851'-2873'

DST #2 (see results above) 2896'-2942'

2/4/19 Circulating for samples @ 3100'

DST #3 (see results above) 3077'-3135'

2/5/19 Drilling @ 3290'

2/6/19 Logging @ 3445'

Plugged well. D&A

2/5/19 Drilling @ 3290'

2/6/19 Logging @ 3445'
Plugged well. D&A

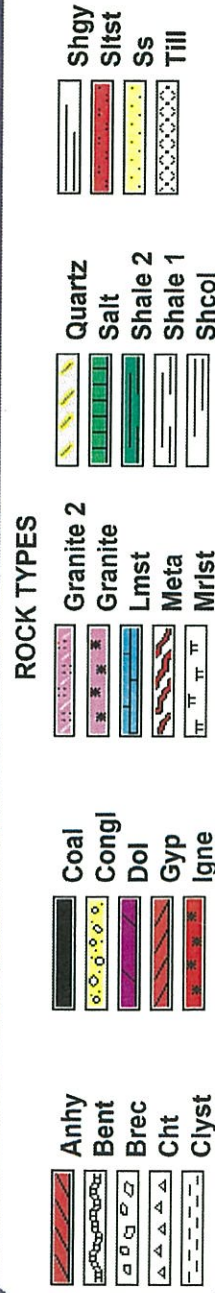
Drill Stem Tests

DST #1 Topeka	DST #2 LeCompton	DST #3 Lansing A-B
Interval: 2851-2873' (22') Anchor 30-30-30-30 IF: built to 3" ISI: no return FF: built to 1/2" FSI: no return SIP: 130-574# IF: 33-37# FF: 37-630# Hydrostatic: 1349-1311# BHT: 93 F CHL: NA Recovery: 60' OSWCM 95% M 5%W trc oil	Interval: 2896'-2942' (46') Anchor 30-30-30-30 IF: built to 8" ISI: no return FF: built to 8.5" FSI: no return SIP: 526-529# IF: 16-34# FF: 32-48# Hydrostatic: 1398-1344# BHT: 97 F CHL: NA Recovery: 65' GOCWM (10%O) (15%G) (15%W) (60%M)	Interval: 3077'-3135' (58') Anchor 30-30-60-60 IF: built to BOB in 25" ISI: no return FF: built to BOB in 17" FSI: wk surface blow - sustained SIP: 316-386# IF: 19-53# FF: 54-74# Hydrostatic: 1595-1560# BHT: 104 F CHL: NA Recovery: 300' TF & G 150' GIP (poss condens) 90' GOCWM (10%O) (10%G) (20%W) (60%M) 60' GOCMW (10%O) (10%G) (60%W) (20%M)

Pipe Setting

1/31/19 Moved in VW Drilling, L.L.C. rotary tools (Rig #14). Ran 10 jts. new 8 5/8" 20# surface pipe set at 447' and cemented with 200 sacks 80/20, 2% gel, 3% c.c. Cement did circulate. Plug down at 11:30 a.m.

2/6/19 Production Casing was not run. Plugged per state requirements.



Curve Track 1

ROP (min/ft)

Gamma (API)

Cutting Slips

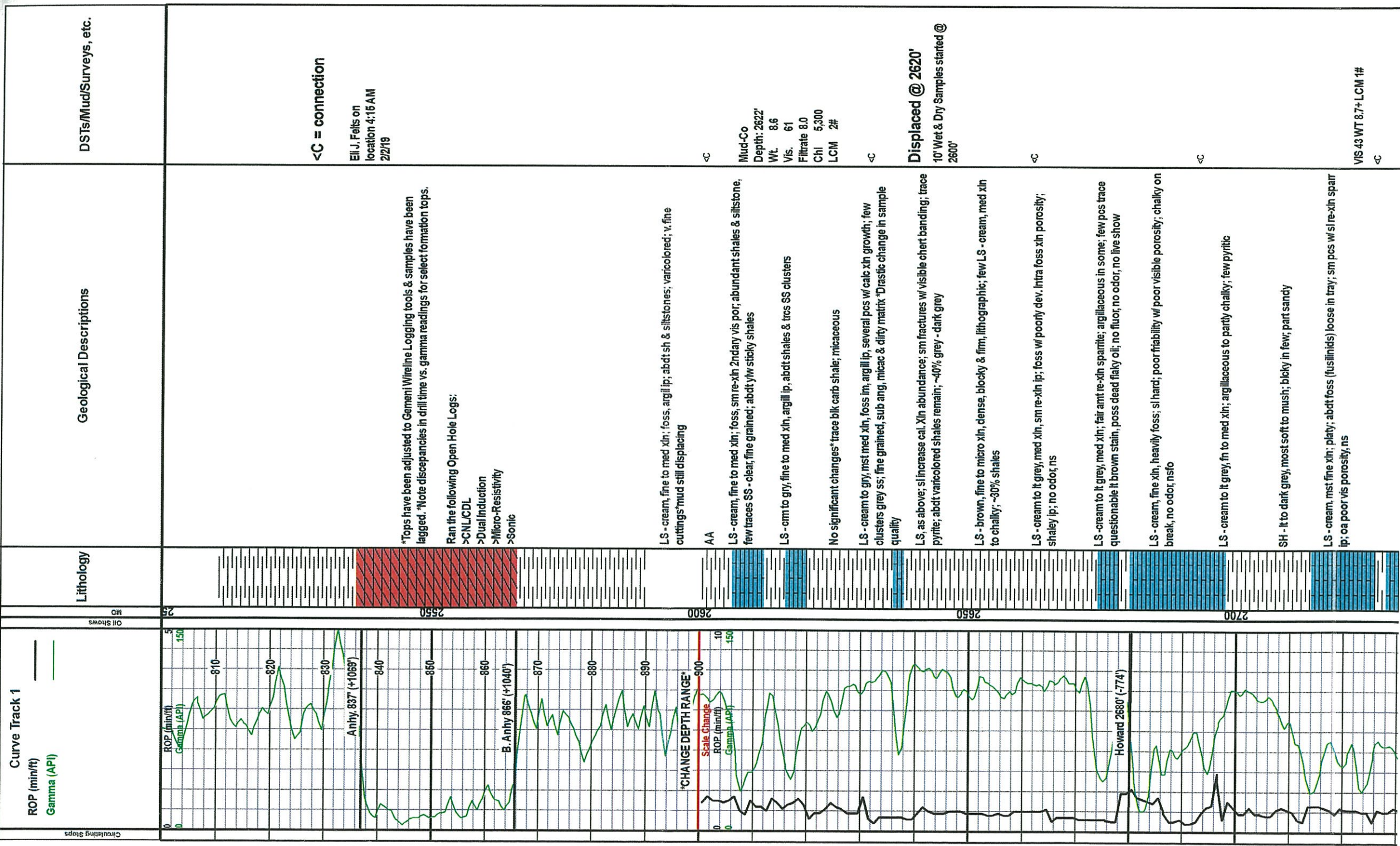
Shows

Lithology

Geological Descriptions

DSTs/Mud/Surveys, etc.

Breccia (Brec), Chert (Cht), Claystone (Clyst), Dolomite (Dol), Gypsum (Gyp), Igneous (Igne), Limestone (Lmst), Meta-sediment (Meta), Muds (Mrst), Shale 2, Shale 1, Shale (Shcol), Sandstone (Ss), Till



DSTs/Mud/Surveys, etc.

<C = connection

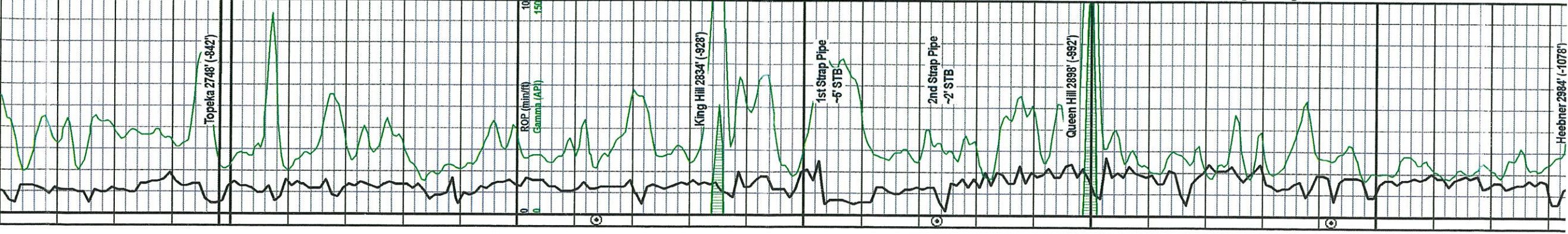
Eli J. Felts on
 location 4:15 AM
 2/2/19

Mud-Co
 Depth: 2622'
 Wt. 8.6
 Vis. 61
 Filtrate 8.0
 Chl 5,300
 LCM 2#

Displaced @ 2620'

10' Wet & Dry Samples started @ 2600'

VIS 43 WT 8.7+ LCM 1#



LS - cream, mst fine xln; platy; abdt foss (fusulinids) loose in tray; sm pcs w/ sl re-xln sparr ip; oa poor vis porosity, ns

LS - cream to tan, brown; fine to microxln; few foss, trace replacement pyrite ip; oa dse

LS - cream to tan, brown; fine to micro xln; foss ip, argil ip w/ few chalky; ques staining ip w/ no fluor, no odor, ns

LS - cream to brown, fine to crypto xln, blocky & dense; few pcs appear cherty w/ conchoidal fracturing

LS - cream to tan, brown, fine to micro xln; abundant foss, sm re-xln fractures w/ poor visible porosity; mst blocky, dens

LS - cream to tan, brown, mst med xln; chalky; trans to fine, micro ip; foss, few scatd re-xln sparr, poor vis por ~25% shaley

LS - cream to grey, tan, med to fine xln; sm foss; abundant grey shale & argillaceous LS

LS - cream, med xln; mostly v. chalky w/ few lt brown stain & banded mineral stn; ques flakey dead show on break; poor to no vis porosity; no fluor, no odor

LS - cream, mst med xln; heavy chalk w/ lt brown staining ip

LS - cream to lt grey, v. chalky; sl sandy ip; several pcs w/ brown fractures; flakey residual oil on break; no odor/fluor; no live show

LS - mostly cream, med xln & heavily chalky, aa, sl increase in vis porosity (re-xln sparr & intra foss) fw brown, micro-xln & foss; dense

LS - cream to lt gry, mst fine xln, argillaceous, abt foss; chalky ip; scatd soft grey shales; trace pcs black shale

LS - cream to lt grey, tan, med xln, med xln, foss & abdt chalky txture; few re-xln sparrite veins in fractures; no odor, nsfo

LS - cream to grey, fine to micro-xln, cherty app, foss; blocky & dense

SH - greys to green, soft to med, silty; few sl sandy; fair odor in cup

LS - cream, fine to med xln; chalky in most; sl granular/scrature in few w/ fair xln & pp porosity; fair to moderate cup odor; few pcs w/ ylw-orange spots free oil & scatd sm drops float in tray; increase on break w/ ssg; fair yellow fluor w/ inst milky streaming cut

v. shaley; adding mud; LS - cream to grey, med xln, sm re-xln w/ vis calc xln dev, foss ip; chalky to med hard; poor vis porosity; lt brown stn in sm, no odor, nsfo

LS - cream to grey, mst fine xln, foss ip, sm re-xln; banding; overall dse & tile; poor vis por, no odor, ns

LS - as above; platy, blocky in most; few sandy app; flood shale - grey to green, soft to med

LS - cream to lt grey, fine to med xln; sl sandy, chalky; foss ip; sm re-xln porosity; med hard; few trace black carb sh w/ chalky res.

LS - cream, mst fine xln; foss to chalky, argillaceous in few; sm pcs w/ fair xln sparr dev; sl staining ip; no odor; nf, ns

LS - cream to white, fine to med xln; foss ip, fair vis frac w/ re-xln sparr dev, rc, pp to sm vuggy porosity; vssfo on break w/ trace gas bubbles; faint odor; spotty dull yellow fluor

LS - cream, med xln; foss w/ fair to good intralacc xln dev, oom to ooc porosity in part; moderate to fair std stn; ssfo in tray; increase on break w/ ssg; fair odor in cup; inst streaming cut in pcs w/ fluor

Increase visible ooc & xln porosity w/ 30-45' samples; increase in abundance w/ skt stain & cup odor; fair to good show lt bn-org fo; inst cut

LS - cream, fine to med xln; chalky in most; (1) pc w/ sm vuggy porosity w/ re-xln & fair partial staining (epp carving?); few re-xln & some fractured w/ dark mineral stain; ques show in (1) pc; faint cup odor

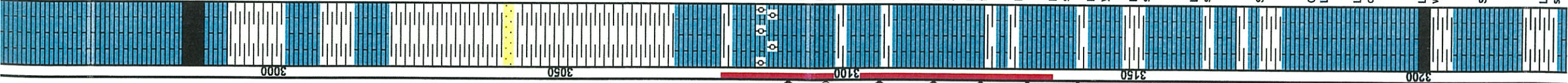
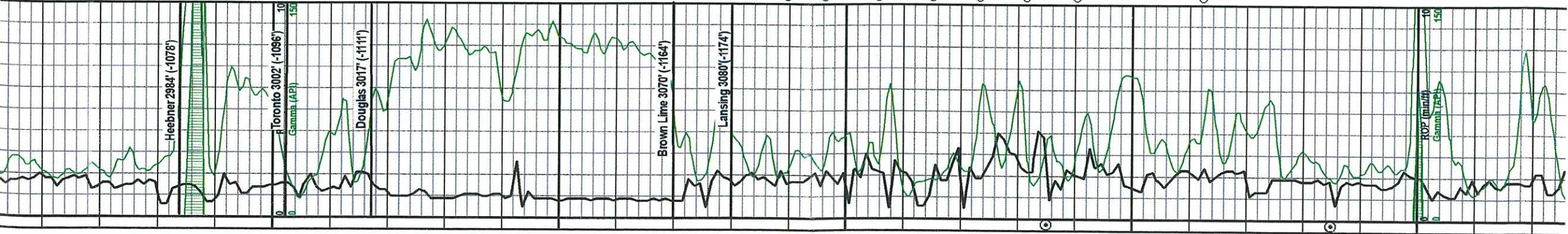
LS - cream to white, fine to med xln; heavy chalk; lt to dark brown mineral staining; few pcs fine xln w/ pp to sm vgy porosity; partial stain & ss "cliny", ylw-orange oil; (3) cuttings total - possible carvings)

LS - cream to lt tan, med to fine xln; most pcs w/ heavy chalk aa, trans to fine xln; blocky & lithographic; dense

LS - tan, fine xln; mst dense & blocky w/ partial edge mineral staining (dark) chalky ip; overall dense & lithographic

LS - most aa; transition to white to cream; chalky lime w/ abundant med to dark mineral staining, v. chalky

VIS 43 WT 8.7+ LCM 1#	<C
WT-8.7 / VIS-46 / LCM-1#	<C
Mud-Co	<C
Depth: 2879'	
Wt. 8.7	
Vis. 45	
Filtrate 10.0	
Chi 7,100	
LCM 1#	
DST #1 Topeka	
Interval: 2851-2873'	
(22') Anchor	
30-30-30-30	
IF: built to 3"	
ISI: no return	
FF: built to 12"	
FSt: no return	
SIP: 130-874#	
IF: 33-37#	
FF: 37-630#	
Hydrostatic: 1348-1311#	
BHT: 93 F	
CHL: NA	
Recovery: 60' OSWCM	
95% M 5'AW trc oil	
VIS 55 WT 8.9 LCM 1	
DST #2 LeCompton	
Interval: 2886'-2942'	
(46') Anchor	
30-30-30-30	
IF: built to 8"	
ISI: no return	
FF: built to 8.5"	
FSt: no return	
SIP: 526-525#	
IF: 16-34#	
FF: 32-48#	
Hydrostatic: 1398-1344#	
BHT: 97 F	
CHL: NA	
Recovery: 65' GOC-WM	
(10%O) (15%G) (15%W) (60%M)	
WT-9.0 / VIS-45 / LCM-1#	<C



LS - cream to lt tan, med to fine xln; most pos w/ heavy chalk aa, trans to fine xln; blocky & lithographic; dense

LS - tan, fine xln; mst dense & blocky w/ partial edge mineral staining (dark) chalky ip; overall dense & lithographic

LS - most aa; transition to white to cream; chalky lime w/ abundant med to dark mineral staining; v. chalky

SH - black, fissile, carb; glimmers w/ micaceous flecks

CH - white to lt grey, vitreous, sharp & fresh; abundant grey shale

LS - cream to lt grey, tan, fine to micro xln; boss ip, re-xln in some w/ moderate friability; chalky ip; poor visible porosity; quest sstn in few; no odor, ns

LS - cream to tan, lt brown; fine to micro xln, boss ip, sm re-xln; visible fracturing w/ lt to dark staining; no show; decr. Friability; no odor

SH - grey to lt green, soft to mushy

SH - greys, some lt green, most soft to med; mushy ip; few clusters SS - app lt grey, v. fine grained; clear to frosted w/ dark specks

SH - varicolored greys, soft to mushy, few brick red, silty; med to sl firm; abdt lt grey sticky globs

LS - cream to lt tan, brown; fine to micro xln; boss ip, few w/ re-xln banding; overall dense & tight

LS - cream to white, mst fine xln; heavily boss w/ abdt ooids (med) tight calc. matrix w/ v. poor visible intrafoss porosity; no show

LS - cream to white, mst fine xln; abdt boss; (1) pc w/ fair to moderate re-xln & partial std stain; ssg & bo on break; lt ylw fluor is spotty

LS - cream, fine to micro xln matrix, boss, mst ooids w/ poor intrafoss por; sl increase re-xln in sm w/ lt staining; ques str; faint odor in cup

LS - cream, med to fine xln, oolitic to oom ip; some re-xln porosity w/ lt gld stain; trace free oil; increase on break; lt yellow-orange, spotty fluor; faint odor

LS - as above; sl increase abundance of re-xln porosity & stain; v. lt brown, translucent oil drops in tray, scattered v. small drops to w/ br/yw fluor

LS - cream, fine xln matrix, boss w/ abund ooids (sm-med); poor intra-ool porosity w/ sm fine-med intra-ool xln dev; as lt gld fo; increase break w/ ssg

LS - cream, fine to med xln; oom to ooc ip; w/ fair interxln & pp to sm yggy porosity; wk to fair show lt br fo; moderate friability; show increase on break; faint cup odor

LS - aa; increase xln size & abundance of std samples; fair odor remains in cup; oa moderate show fo

LS - cream to grey, med xln; boss, poor intrafoss poros; (2) pcs w/ show dark, heavy-sticky oil; flood shales, grey & pyrite

LS - cream, fine xln; sl re-xln ip w/ edge pp porosity; fw vuggy on break; show dark, larry oil; clingy w/ dull ylw flour; abundant shales & pyrite dominates sample

LS - cream to grey, brown; boss ip, highly argillaceous/trans to LS - lt tan, micro xln, translucent ip w/ sharp conchoidal edges; appears chly; HCL detects calcite; sticky grey shales

LS - white, fine xln, lithographic, brittle, trans to flood chalk; (1) pc w/ partial xln dev & edge staining; trace sfo on edges (pinhead) w/ vsso on break; no other shows were noted in this sample

SH - black carb; abdt chalk, aa, scattered CH - white to lt grey, vitreous to partly fractured (brittle) sharp, fresh

CH - varicolored; cream-white-grey, orange, partly fractured w/ re-xln cal; mostly blocky, sharp, fresh; abdt

LS - cream tan, fine to micro xln; brittle ip

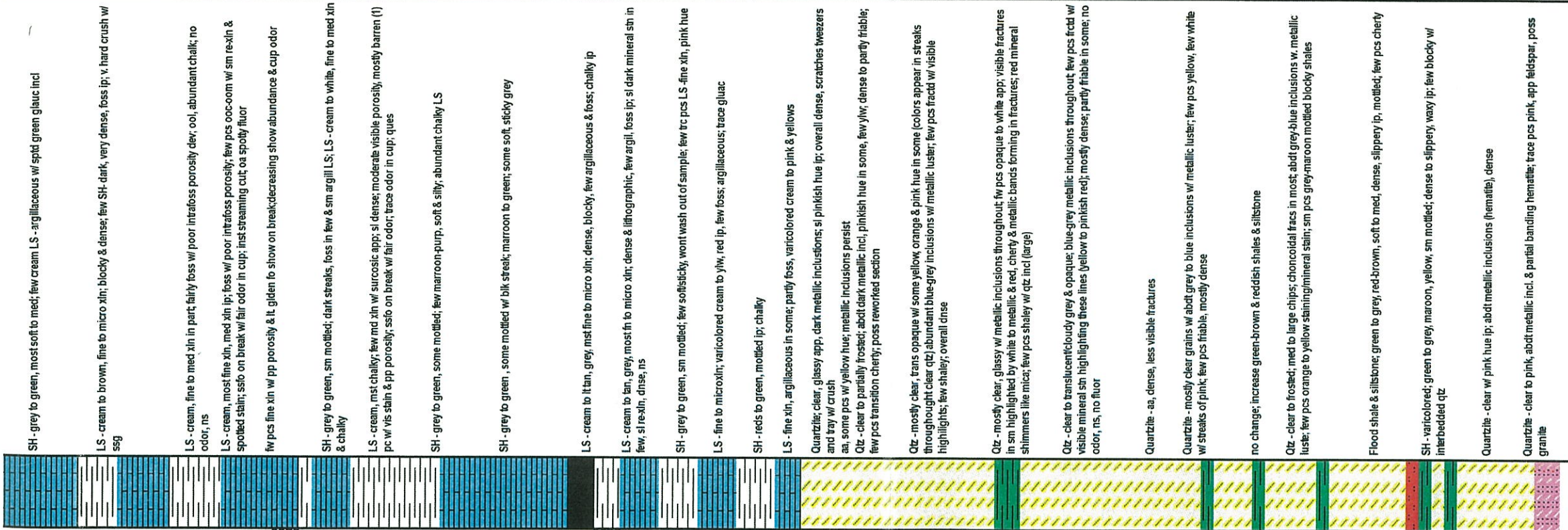
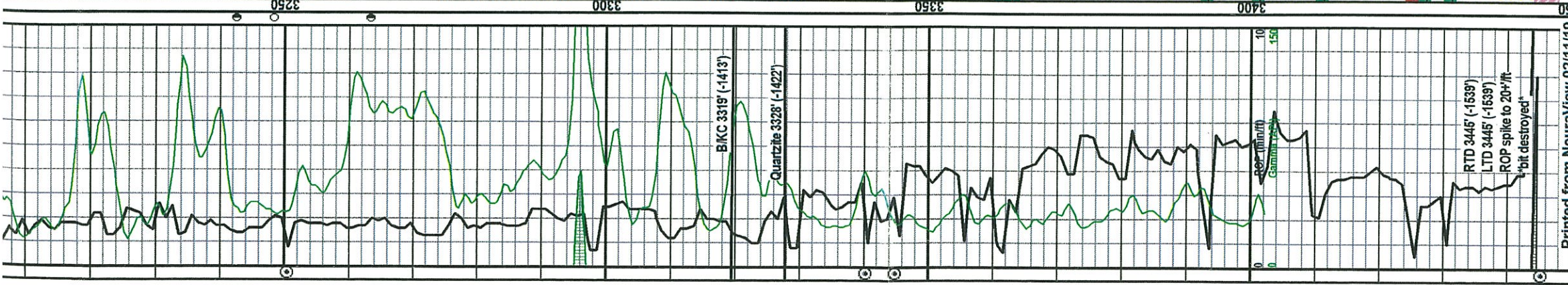
LS - tan to caramel, fine to micro xln; speckled ip, few fractured w/ re-xln calc; sm trans to med xln, cream, chalky

LS - tan to caramel, fine to micro xln, aa, LS - cream, med xln; sl re-xln porosity in few; boss ip; traces CH - varicolored, cream/black, sl boss; trace SH - dark brown to black

SH - grey to green, most soft to med; few cream LS - argillaceous w/ spid green glauc incl

LS - cream to brown, fine to micro xln; blocky & dense; few SH - dark, very dense, boss ip; v. hard crush w/ ssg

WT-9.0 / VIS-45 / LCM-1#	<C	WT-9.0 / VIS-46 / LCM-1#	<C	WT-9.0+ / VIS-43 / LCM-1#	<C	WT-9.0+ / VIS-44 / LCM-1#	<C	WT-9.1 / VIS-44 / LCM-1#													
Mud-Co	DST #3 Lansing A-B	Depth: 3122'	Interval: 3077'-3135'	(68') Anchor	30-30-60-60	IF: built to BOB in 25"	IS: no return	FF: built to BOB in 17"	FSI: wk surface blow -sustained	SIP: 316-386#	IF: 19-53#	FF: 64-7#	Hydrostatic: 1696-1660#	BHT: 104 F	CHL: NA	Recovery: 300' TF & G	150' GP (poss condens)	90' GOCNW (10%O) (10%G)	(20%W) (60%M)	60' GOCNW (10%O) (10%G)	(60%W) (20%M)



SH - grey to green, most soft to med; few cream LS - argillaceous w/ sptd green glauc incl

LS - cream to brown, fine to micro xln; blocky & dense; few SH-dark, very dense, foss ip; v. hard crush w/ ssg

LS - cream, fine to med xln in part; fairly foss w/ poor intratoss porosity dev; ool, abundant chalk; no odor, ns

LS - cream, most fine xln, med xln ip; foss w/ poor intratoss porosity; few pcs ooc-oom w/ sm re-xln & spotted stain; sso on break w/ fair odor in cup; first streaming cut; oa spotty fluor

few pcs fine xln w/ pp porosity & lt. glden to show on break; decreasing show abundance & cup odor

SH - grey to green, sm mottled; dark streaks, foss in few & sm argill LS; LS - cream to white, fine to med xln & chalky

LS - cream, mst chalky; few md xln w/ surcosic app; si dense; moderate visible porosity, mostly barren (f) pc w/ vis stain & pp porosity; sso on break w/ fair odor; trace odor in cup; qucs

SH - grey to green, some mottled; few maroon-purp, soft & silty; abundant chalky LS

SH - grey to green, some mottled w/ blk streak; maroon to green; some soft, sticky grey odor, ns

LS - cream to lt tan, grey, mst fine to micro xln; dense, blocky, few argillaceous & foss; chalky ip

LS - cream to tan, grey; most fn to micro xln; dense & lithographic, few argil, foss ip; si dark mineral stn in few, si re-xln, dnse, ns

SH - grey to green, sm mottled; few soft sticky; wont wash out of sample; few trc pcs LS - fine xln, pink hue

LS - fine to microxln; varicolored cream to y/w, red ip, few foss; argillaceous; trace glauc

SH - reds to green, mottled ip; chalky

LS - fine xln, argillaceous in some; partly foss, varicolored cream to pink & yellows

Quartzite - clear, glassy app, dark metallic inclusions; si pinkish hue ip; overall dense, scratches tweezers and tray w/ crush

aa, some pcs w/ yellow hue; metallic inclusions persist

Qtz - clear to partially frosted; abdt dark metallic incl; pinkish hue in some, few y/w, dense to partly friable; few pcs transition cherty; poss reworked section

Qtz - mostly clear, trans opaque w/ some yellow, orange & pink hue in some [colors appear in streaks throughout clear qtz] abundant blue-grey inclusions w/ metallic luster; few pcs fractd w/ visible highlights; few shaley; overall dnse

Qtz - mostly clear, glassy w/ metallic inclusions throughout; fw pcs opaque to white app; visible fractures in sm highlighted by white to metallic & red, cherty & metallic bands forming in fractures; red mineral shimmers like mica; few pcs shaley w/ qtz incl (large)

Qtz - clear to translucently cloudy grey & opaque; blue-grey metallic inclusions throughout; few pcs fractd w/ visible mineral stn highlighting these lines yellow to pinkish red; mostly dense; partly friable in some; no odor, ns, no fluor

Quartzite - aa, dense, less visible fractures

Quartzite - mostly clear grains w/ abdt grey to blue inclusions w/ metallic luster; few pcs yellow, few white w/ streaks of pink; few pcs friable, mostly dense

no change; increase green-brown & reddish shales & siltstone

Qtz - clear to frosted; med to large chips; chonocoidal fracs in most; abdt grey-blue inclusions w. metallic luster; few pcs orange to yellow staining/mineral stain; sm pcs grey-maroon mottled blocky shales

Flood shale & siltstone; green to grey, red-brown, soft to med, dense, slippery ip, mottled; few pcs cherty

SH - varicolored; green to grey, maroon, yellow, sm mottled; dense to slippery, waxy ip; few blocky w/ interbedded qtz

Quartzite - clear w/ pink hue ip; abdt metallic inclusions (hematite), dense

Quartzite - clear to pink, abdt metallic incl. & partial banding hematite; trace pcs pink, app feldspar, poss granite

Mud-Co
Depth: 3340'
Wt. 9.1
Vis. 44
Filtrate 11.2
Chl 9,600
LCM 1#

VIS 41 WT 9.1+ LCM 12#

ROTARY TOTAL DEPTH
3445' 9:16 PM 2/5/19
LOG DEPTH SAME