

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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Form	ACO1 - Well Completion
Operator	Palomino Petroleum, Inc.
Well Name	BIG SPENDER 1
Doc ID	1461645

Tops

Name	Top	Datum
Anhy.	1590	(+ 716)
Base Anhy.	1624	(+ 682)
Heebner	3704	(-1398)
Lansing	3746	(-1440)
BKC	4045	(-1739)
Marmaton	4089	(-1783)
Pawnee	4160	(-1854)
Ft. Scott	4243	(-1937)
Cherokee Sh.	4266	(-1960)
Miss.	4335	(-2029)
LTD	4447	(-2141)

GLOBAL OIL FIELD SERVICES, LLC
 24 S. Lincoln
 RUSSELL, KS 67665



Invoice

Date	Invoice #
3/4/2019	0013387

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

P.O. No.	Terms	Project
BIG SPENDER#1	Due on receipt	

Quantity	Description	Rate	Amount
250	60/40 POZMIX CEMENT	13.75	3,437.50
9	BENTONITE GEL	30.00	270.00
62.5	FLO-SEAL	2.00	125.00
259	HANDLING	1.90	492.10
	BULK MILEAGE	950.00	950.00
1	TRI-PLEX PUMP CHARGE FOR PLUG	850.00	850.00
45	HEAVY EQUIPMENT. ONE WAY	6.50	292.50
45	LMV- ONE WAY	2.75	123.75
1	DRY HOLE PLUG	62.50	62.50
	15% DISCOUNT IF PAID WITHIN 15 DAYS OF INVOICE		0.00
	BARTON CO SALES TAX	7.50%	0.00

Thank you for your business.

Phone #	Fax #
785-445-3525	785-445-3526

Total \$6,603.35

GLOBAL OIL FIELD SERVICES, LLC

0013387

REMIT TO 24 S. Lincoln
Russell, KS 67665

SERVICE POINT: Russell KS

DATE <u>2-20-19</u>	SEC. <u>15</u>	TWP. <u>15S</u>	RANGE <u>24W</u>	CALLED OUT	ON LOCATION <u>7:00 PM</u>	JOB START	JOB FINISH <u>12:00 PM</u>
LEASE <u>Big Spender</u>	WELL # <u>1</u>	LOCATION <u>N of Mesquite Rd 160 3w 15</u>			COUNTY <u>Mess</u>	STATE <u>KS</u>	
OLD OR NEW (CIRCLE ONE)			<u>East End</u>				

CONTRACTOR W W Drilling Rig # 22
 TYPE OF JOB Retain Plug
 HOLE SIZE 7 1/2 T.D. 4450'
 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 Palomina Petroleum
 CEMENT AMOUNT ORDERED 250 sks 60/140 Pz
1262 29" x 1105 gal

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

EQUIPMENT
 PUMP TRUCK CEMENTER Cody
 # 417 HELPER Jason
 BULK TRUCK
 # 411 DRIVER Tom
 BULK TRUCK
 # DRIVER

REMARKS:
1620' 50 sks
850' 80 sks
270' 50 sks
60' 20 sks
RW 30 sks Mouse 20 sks

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

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

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.

PLUG & FLOAT EQUIPMENT
 @ _____
 @ _____
 @ _____
 @ _____
 @ _____
 TOTAL _____

PRINTED NAME _____
 SIGNATURE [Signature]

SALES TAX (If Any) _____
 TOTAL CHARGES _____
 DISCOUNT _____ IF PAID IN 30 DAYS

GLOBAL OIL FIELD SERVICES, LLC

24 S. Lincoln
RUSSELL, KS 67665

RECEIVED
FEB 19 2019

Invoice

Date	Invoice #
2/14/2019	0013384

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

P.O. No.	Terms	Project
BIG SPENDER#1	Due on receipt	

Quantity	Description	Rate	Amount
160	COMMON CEMENT	16.50	2,640.00
5	CALCIUM-CHLORIDE	80.00	400.00
3	BENTONITE GEL	30.00	90.00
168	HANDLING	1.90	319.20
	BULK MILEAGE	500.00	500.00
1	TRI-PLEX PUMP CHARGE FOR SURFACE	850.00	850.00
45	HEAVY EQUIPMENT. ONE WAY	6.50	292.50
45	LMV- ONE WAY	2.75	123.75
	15% DISCOUNT IF PAID WITHIN 15 DAYS OF INVOICE		0.00
	NESS CO SALES TAX	7.50%	0.00

Thank you for your business.		Total	\$5,215.45
Phone #	Fax #		

785-445-3525	785-445-3526
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GLOBAL OIL FIELD SERVICES, LLC

0013384

REMIT TO 24 S. Lincoln
Russell, KS 67665

SERVICE POINT: Russell KS

DATE <u>2-13-19</u>	SEC. <u>15</u>	TWP. <u>18N</u>	RANGE <u>24S</u>	CALLED OUT	ON LOCATION <u>4:00am</u>	JOB START	JOB FINISH <u>7:45am</u>
LEASE <u>Big Spender</u>	WELL# <u>1</u>	LOCATION <u>N of Neosho Rd to Rd 160 3W</u>			COUNTY <u>Neos</u>	STATE <u>KS</u>	
OLD OR NEW (CIRCLE ONE)			1 South End				

CONTRACTOR WW Drilling Rig #22
 TYPE OF JOB Surface
 HOLE SIZE 12 1/2 T.D.
 CASING SIZE 5 5/8 DEPTH 223'
 TUBING SIZE DEPTH
 DRILL PIPE DEPTH
 TOOL DEPTH
 PRES. MAX MINIMUM
 MEAS. LINE SHOE JOINT
 CEMENT LEFT IN CSG. 25'
 PERFS
 DISPLACEMENT

OWNER Palomino Petroleum
 CEMENT AMOUNT ORDERED 1605x Con 3% CC
2 1/2 csel
 COMMON @
 POZMIX @
 GEL @
 CHLORIDE @
 ASC @

EQUIPMENT
 PUMP TRUCK CEMENTER Cody
 # 409 HELPER Tony
 BULK TRUCK
 # 410 DRIVER Tam
 BULK TRUCK
 # DRIVER

HANDLING @
 MILEAGE @
 TOTAL

REMARKS:

Run 5 1/2 of 5 5/8 casing + Lj + Hooked to rig + Brake circulation Hooked to Truck + Pumped 1605x of cement + displaced 1234 bbls of 420 + shut in.
Cement did circulate surface

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

CHARGE TO: Palomino Petroleum
 STREET
 CITY STATE ZIP

TOTAL

PLUG & FLOAT EQUIPMENT

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.

@
 @
 @
 @
 @
 TOTAL

PRINTED NAME
 SIGNATURE [Signature]

SALES TAX (If Any)
 TOTAL CHARGES
 DISCOUNT IF PAID IN 30 DAYS



Home
(785) 798-3400

Andrew Stenzel Geologist

Ness City, Kansas



Cell
(785) 798-5977

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

Well Name: Big Spender #1

API: 15-135-26045-00-00

Location: SW-SW-SW-SW Sec. 15-18S-24W (Ness County)

License Number: 30742

Spud Date: 2/13/19

Surface Coordinates: 789' FSL & 439'FWL

Region: KANSAS

Drilling Completed: 2/21/19

Bottom Hole

Coordinates:

Ground Elevation (ft): 2296

K.B. Elevation (ft): 2306

Logged Interval (ft): 3500 To: TD

Total Depth (ft): 4450

Formation: MISSISSIPPI

Type of Drilling Fluid: Mud-Co Chemical

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: Andrew Stenzel

Company: Petroleum Geologist

Address: 501 S. Franklin

Ness City, KS 67560

Drilling Report

DAILY DRILLING REPORT:

2/13/19 MIRU, ran surface casing

2/14/19 Drilling @ 1090'

2/15/19 Drilling @ 2609'

2/16/19 Bit trip @ 3496'

2/17/19 Drilling @ 3870'

2/18/19 Drilling @ 4260', DST #1

2/19/19 Drilling @ 4308', DST #2

2/20/19 Circulating @ 4450', ran electric logs

2/21/19 Plugged & Abandoned

Services

RIG: WW Drilling, Rig #22

MUD: MUDCO

LOGS: Gemini Wireline; CNDL, PE, ML, DIL

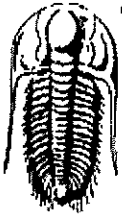
Casing Record

SURFACE Casing: Ran 5 jts new 8 5/8", 24# casing @ 223'

PRODUCTION Casing: None

Formation Tops

Sample Tops		LogTops	
Anhy.	1591 (+715)	Anhy.	1590 (+716)
Base Anhy.	1610 (+696)	Base Anhy.	1624 (+682)
Heebner	3707 (-1401)	Heebner	3704 (-1398)
Lansing	3749 (-1443)	Lansing	3746 (-1440)
BKC	4049 (-1743)	BKC	4045 (-1739)
Marmaton	4096 (-1790)	Marmaton	4089 (-1783)
Pawnee	4159 (-1853)	Pawnee	4160 (-1854)
Ft. Scott	4244 (-1938)	Ft. Scott	4243 (-1937)
Cher. Sh.	4267 (-1961)	Cher. Sh.	4266 (-1960)
Miss.	4351 (-2045)	Miss.	4335 (-2029)
RTD	4450 (-2144)	LTD	4447 (-2141)



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Palomino Petroleum

15-18s-24w Ness,KS

4924 SE 84th St
Newton, KS 67114

Big Spender #1

Job Ticket: 65154

DST#: 1

ATTN: Andrew Stenzel

Test Start: 2019.02.18 @ 15:50:03

GENERAL INFORMATION:

Formation: **Ft Scott**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:38:33

Time Test Ended: 00:43:03

Test Type: Conventional Bottom Hole (Initial)

Tester: Brandon Turley

Unit No: 79

Interval: 4237.00 ft (KB) To 4280.00 ft (KB) (TVD)

Total Depth: 4280.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2306.00 ft (KB)

2296.00 ft (CF)

KB to GRVCF: 10.00 ft

Serial #: 8166 Outside

Press@RunDepth: 70.07 psig @ 4238.00 ft (KB)

Start Date: 2019.02.18

End Date:

2019.02.19

Capacity: 8000.00 psig

Last Callb.:

2019.02.19

Start Time: 15:50:08

End Time:

00:43:03

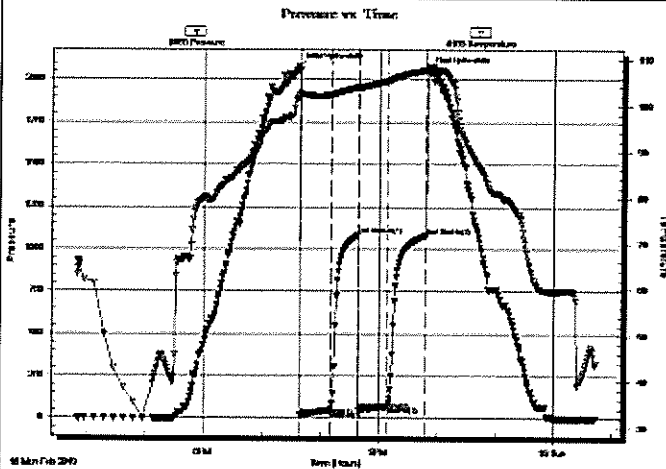
Time On Btm:

2019.02.18 @ 19:36:33

Time Off Btm:

2019.02.18 @ 21:49:03

TEST COMMENT: IF: 1/2" blow built to 4"
IS: 1/2"
FF: Surface blow built to 1 3/4"
FS: No return.



PRESSURE SUMMARY

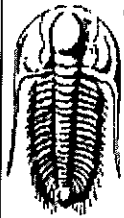
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2078.47	101.63	Initial Hydro-static
2	18.69	102.46	Open To Flow (1)
33	46.53	102.30	Shut-In(1)
61	1084.38	104.05	End Shut-In(1)
62	49.80	103.78	Open To Flow (2)
92	70.07	105.39	Shut-In(2)
132	1082.22	107.76	End Shut-In(2)
133	2058.43	108.40	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
116.00	wcm 5%w 95%m	1.63

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Palomino Petroleum

15-18s-24w Ness,KS

4924 SE 84th St
Newton, KS 67114

Big Spender #1

Job Ticket: 65155

DST#: 2

ATTN: Andrew Stenzel

Test Start: 2019.02.19 @ 14:07:01

GENERAL INFORMATION:

Formation: **Miss**

Deviated: **No** Whipstock: **ft (KB)**

Time Tool Opened: 16:37:31

Time Test Ended: 22:58:01

Test Type: **Conventional Bottom Hole (Reset)**

Tester: **Brandon Turley**

Unit No: **79**

Interval: **4289.00 ft (KB) To 4364.00 ft (KB) (TVD)**

Total Depth: **4364.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Good**

Reference Elevations: **2306.00 ft (KB)**

2296.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8166 **Outside**

Press@RunDepth: **395.14 psig @ 4290.00 ft (KB)**

Start Date: **2019.02.19**

End Date: **2019.02.19**

Capacity: **8000.00 psig**

Last Callb.: **2019.02.19**

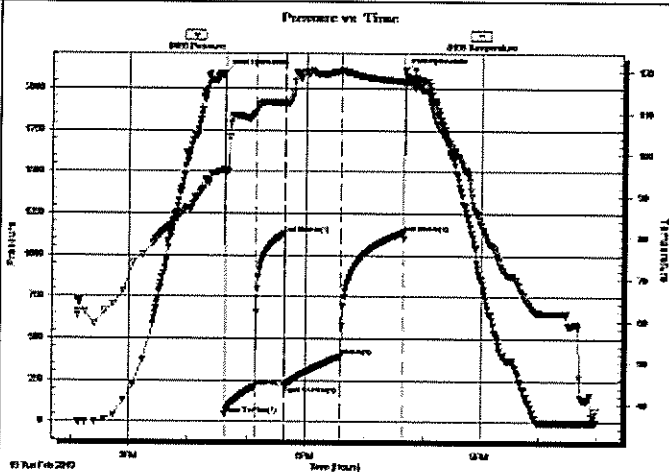
Start Time: **14:07:06**

End Time: **22:58:01**

Time On Btm: **2019.02.19 @ 16:37:01**

Time Off Btm: **2019.02.19 @ 19:41:01**

TEST COMMENT: IF: BOB in 6 min. 32"
IS: No return.
FF: BOB in 10 min. 44 3/4"
FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2093.39	96.21	Initial Hydro-static
1	44.20	95.59	Open To Flow (1)
31	211.59	109.95	Shut-in(1)
61	1131.00	112.35	End Shut-in(1)
62	216.44	112.06	Open To Flow (2)
120	395.14	120.18	Shut-in(2)
183	1136.92	117.61	End Shut-in(2)
184	2106.24	117.78	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbt)
315.00	mcw 95%w 5%m	2.61
252.00	w cm 40%w 60%m	1.24
283.00	w cm oil spots 10%w 90%m	1.39

* Recovery from multiple tests

Gas Rates

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



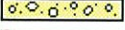

TriLOBITE Testing, Inc


Ref. No: 65155

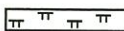

Printed: 2019.02.20 @ 14:33:16





ROCK TYPES

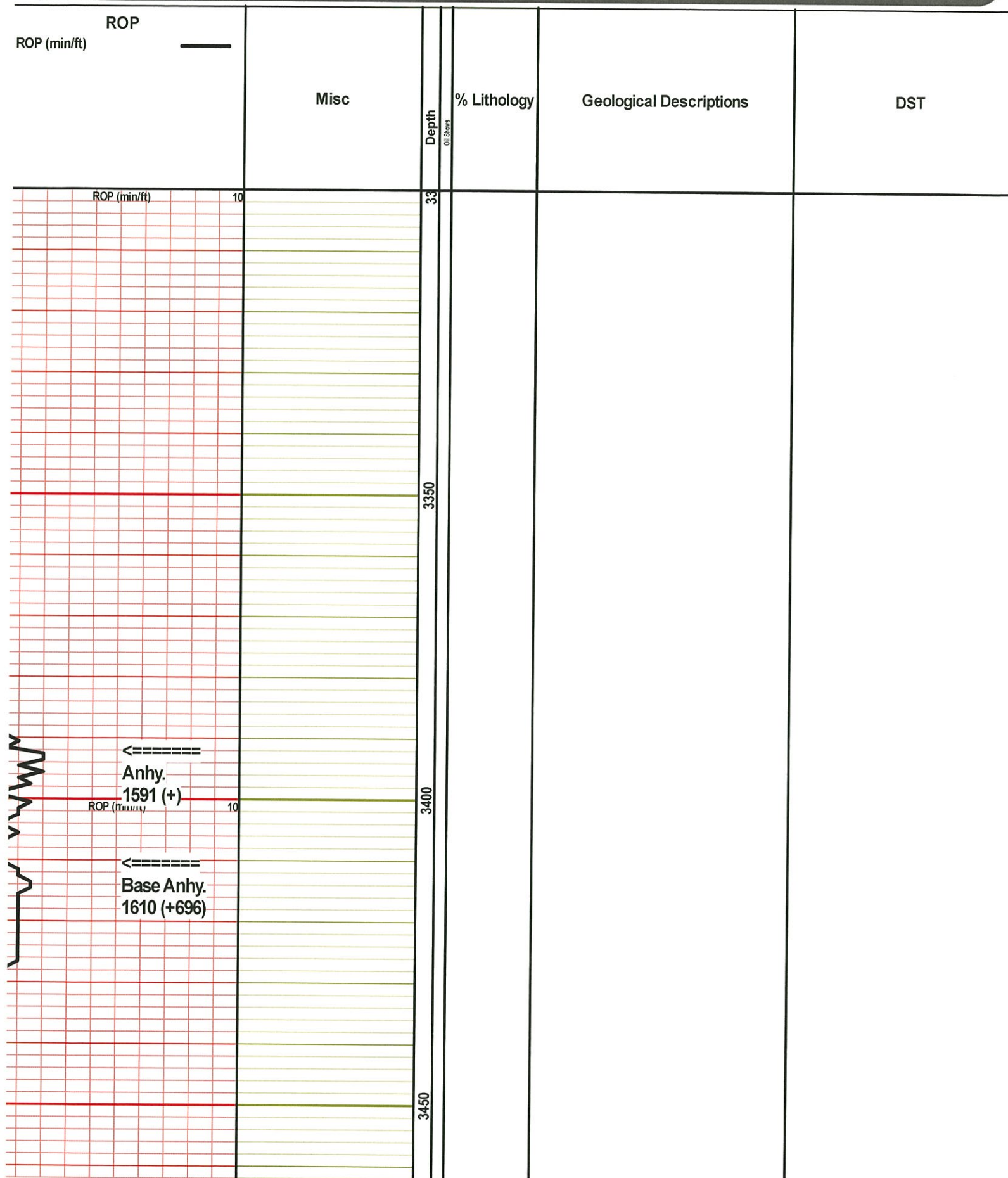
-  Anhy
-  Bent
-  Brec
-  Cht

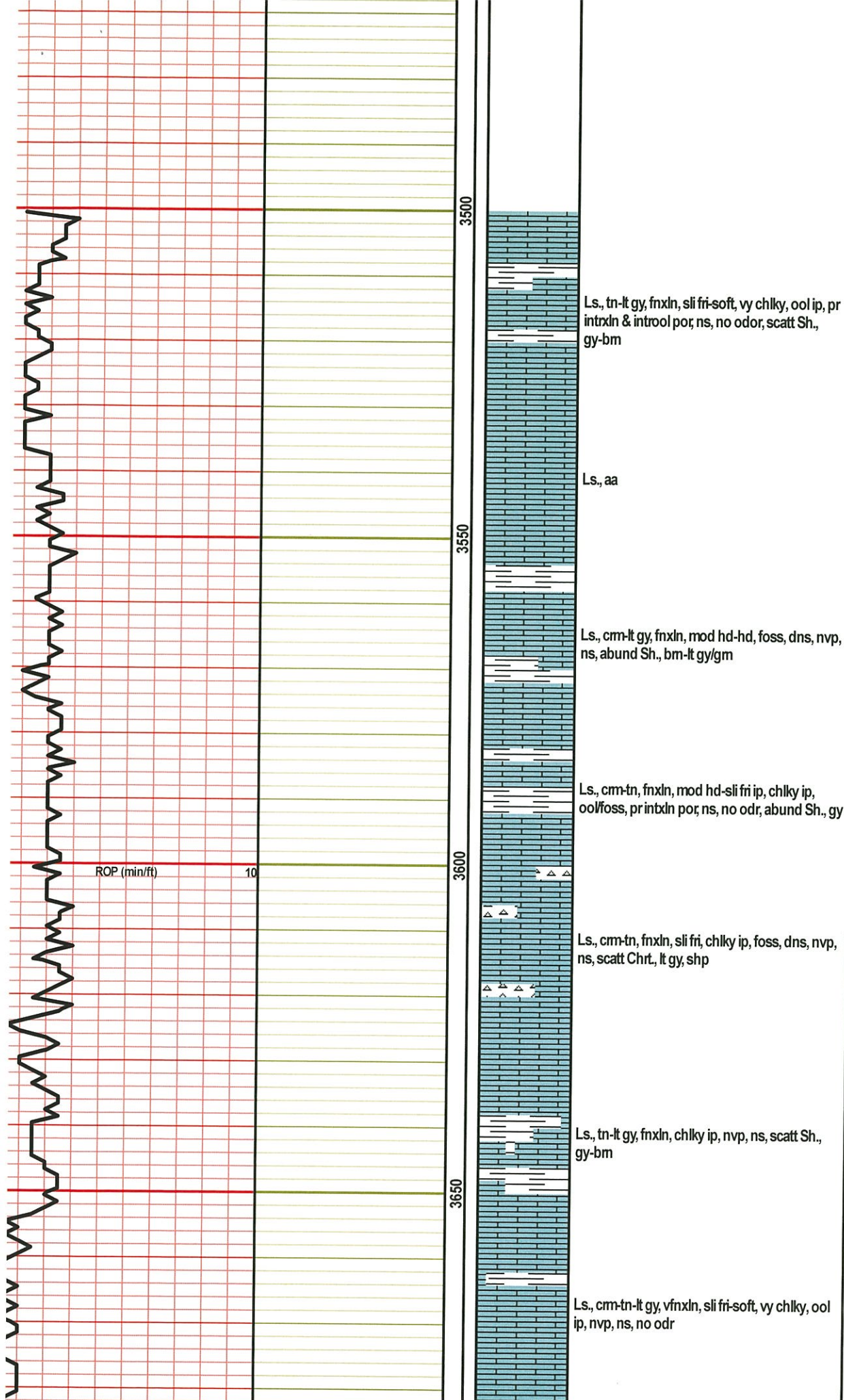
-  Clyst
-  Carb shale
-  Congl
-  Dol

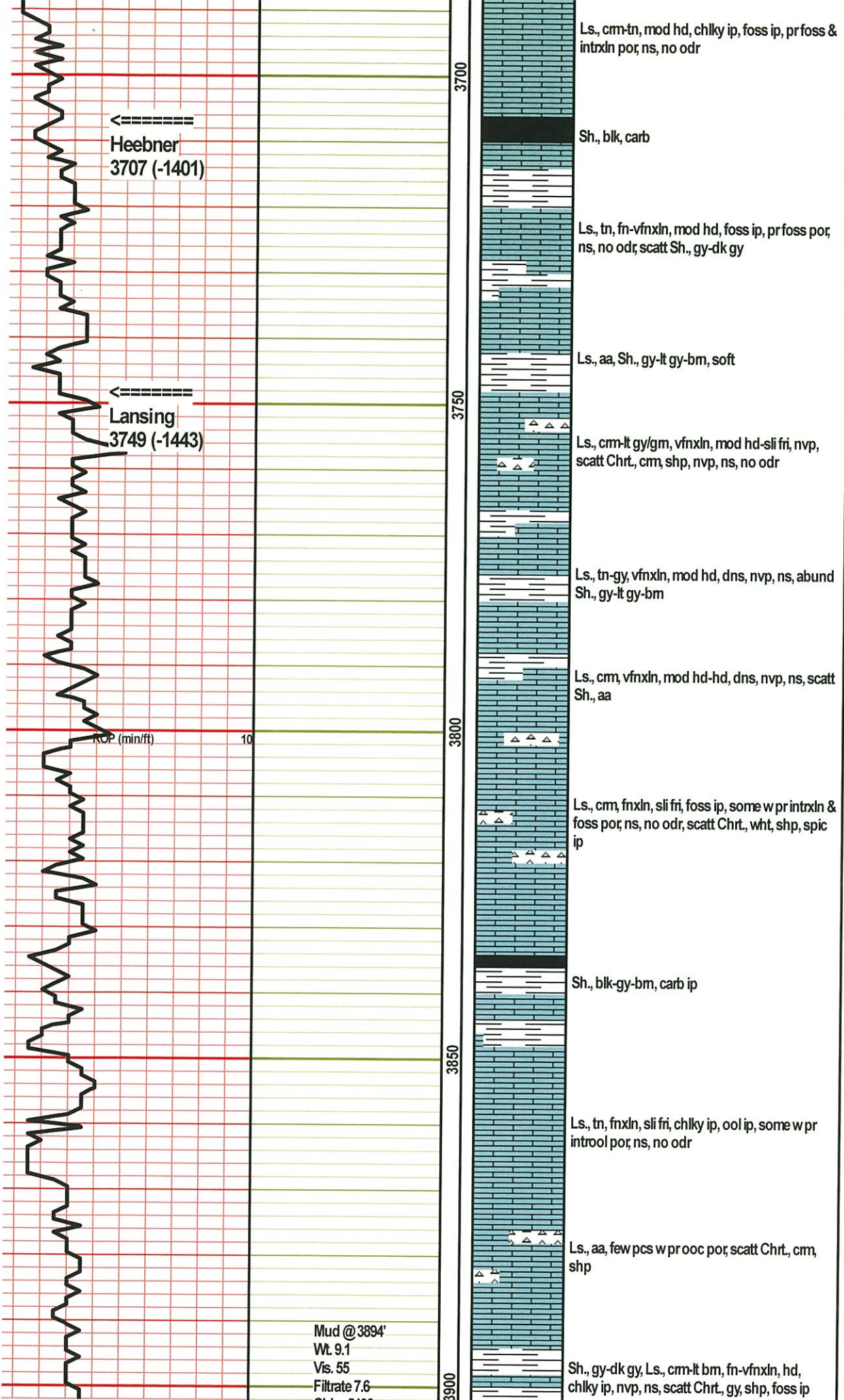
-  Gyp
-  Igne
-  Lmst
-  Meta

-  Mrlst
-  Salt
-  Shale
-  Shcol

-  Shgy
-  Sltst
-  Ss
-  Till

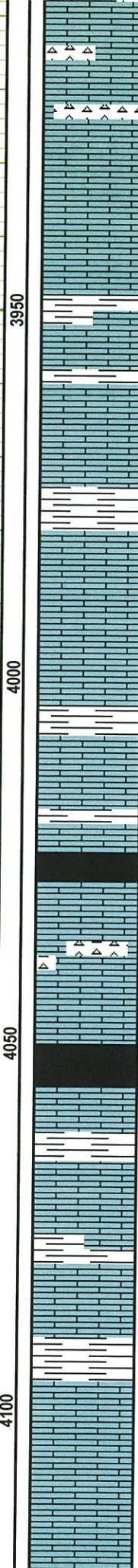
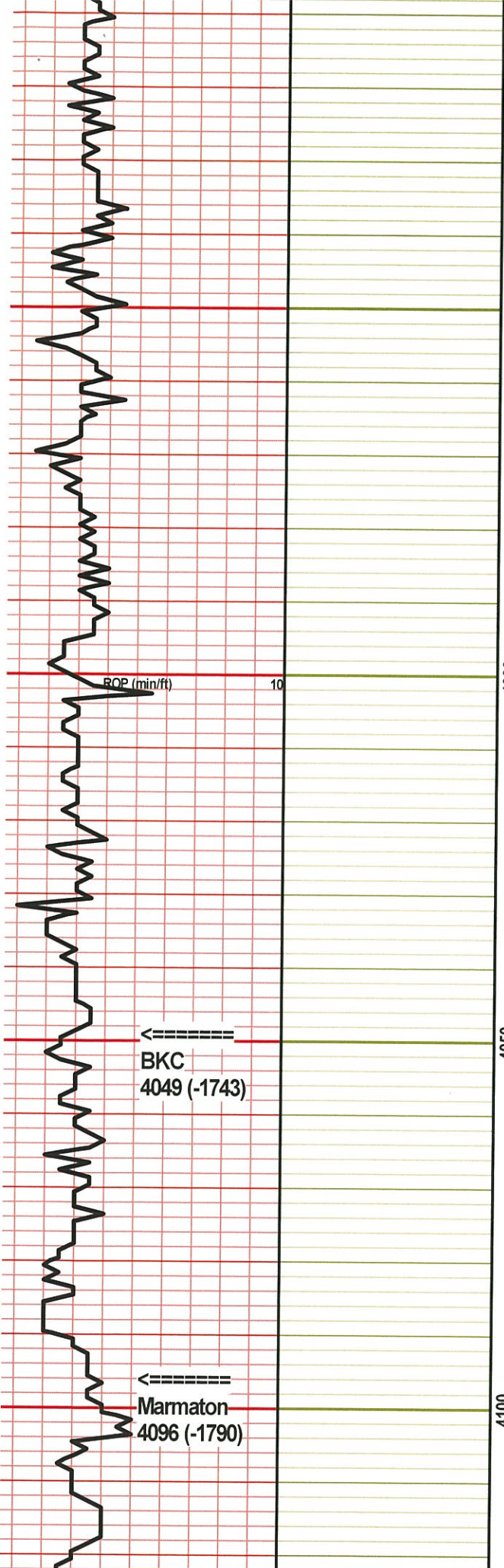






Ls., cm-tn, mod hd, chlky ip, foss ip, prfoss & intrxn por; ns, no odr
 Sh., blk, carb
 Ls., tn, fn-vfnxn, mod hd, foss ip, prfoss por; ns, no odr; scatt Sh., gy-dk gy
 Ls., aa, Sh., gy-lt gy-bm, soft
 Ls., cm-lt gy/gm, vfnxn, mod hd-sli fri, nvp, scatt Chr., cm, shp, nvp, ns, no odr
 Ls., tn-gy, vfnxn, mod hd, dns, nvp, ns, abund Sh., gy-lt gy-bm
 Ls., cm, vfnxn, mod hd-hd, dns, nvp, ns, scatt Sh., aa
 Ls., cm, fnxn, sli fri, foss ip, some w pr intrxn & foss por; ns, no odr, scatt Chr., wht, shp, spic ip
 Sh., blk-gy-bm, carb ip
 Ls., tn, fnxn, sli fri, chlky ip, ool ip, some w pr introol por; ns, no odr
 Ls., aa, few pcs w prooc por, scatt Chr., cm, shp
 Sh., gy-dk gy, Ls., cm-lt bm, fn-vfnxn, hd, chlky ip, nvp, ns, scatt Chr., gy, shp, foss ip

3700
 3750
 3800
 3850
 3900



Ls., cm-tn, fn-vfnxn, mod hd-sli fri, brittle, chlky ip, vy few pcs w vy pr intrxn por; ns, no odr; abund Chrt., cm-gy, opq, weath ip

Ls., cm-lt gy, vfnxn, mod hd, brittle, dns, nvp, ns, scatt Sh., gy-bm

Ls., cm-tn, fnxn, mod hd-sli fri, chlky, few pcs w vy pr intrxn por; ns, no odr; abund Sh., gy-bm, soft

Ls., cm-tn, fnxn, mod hd-sli fri, chlky ip, few pcs w pr intrxn por; ns, no odr; scatt Sh., gy-bm

Ls., tn, fn-vfnxn, mod hd, ool ip, nvp, ns, scatt Sh., aa

Sh., blk, carb

Ls., tn-lt bm, fnxn, sli fri, ool, some w pr introol por; ns, no odr; scatt Chrt., tn, sli weath

Sh., blk, carb

Ls., tn-lt bm, vfnxn, mod hd-hd, chlky ip, ool ip, nvp, ns, abund Sh., dk gy-gy

Ls., cm-lt gy, vfnxn, mod hd, chlky ip, nvp, ns, abund Sh., lt gy-bm

Ls., cm-lt gy, vfnxn, hd, dns, nvp, ns

3950

4000

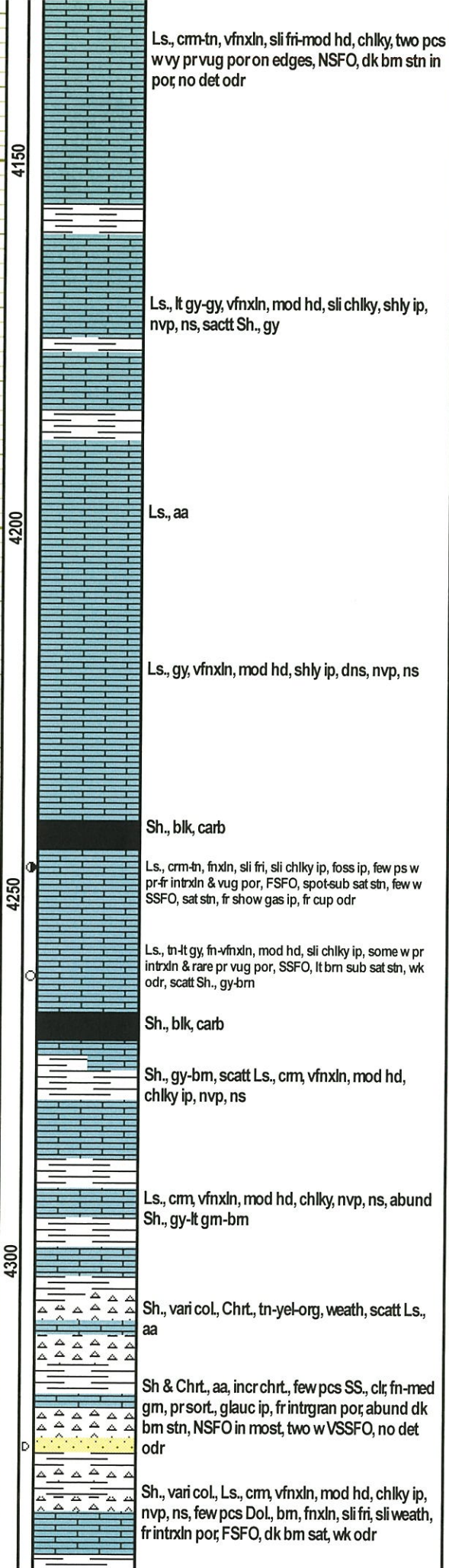
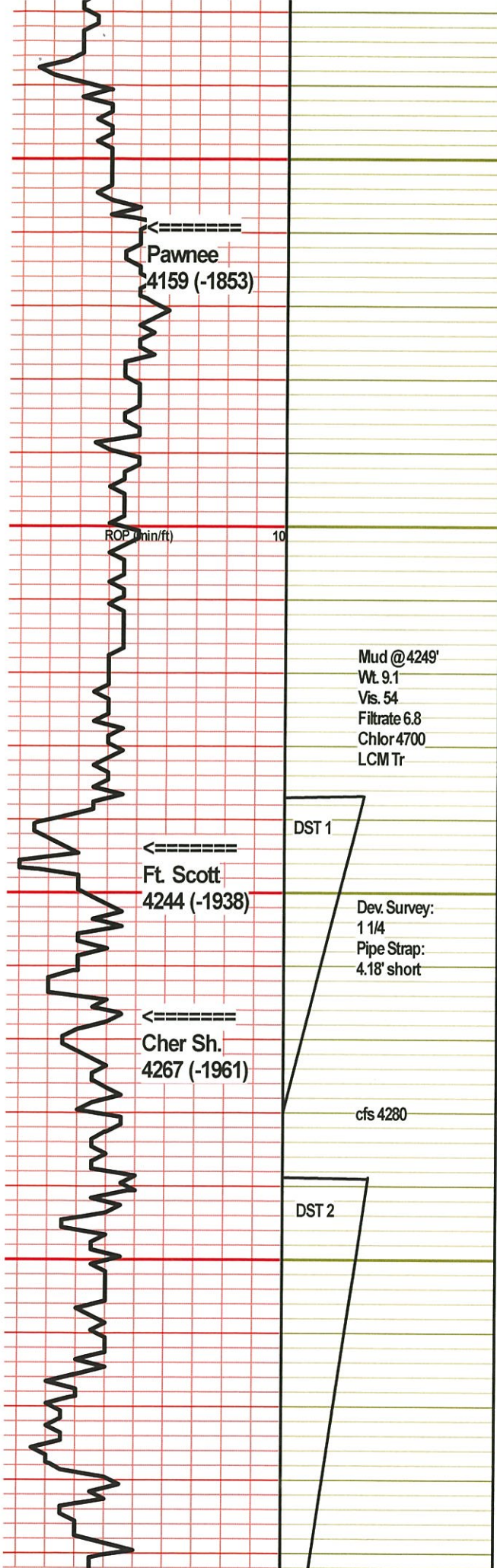
4050

4100

ROP (min/ft) 10

BKC 4049 (-1743)

Marmaton 4096 (-1790)



DST #1 4237-4280 (Ft. Scott)

30-30-30-30
 IF: 1/2", built to 4"
 IS: Built to 1/2"
 FF: SB, built to 1 3/4"
 FS: No blow

Recovery:
 116' WCM (5%W, 95%M)

FP: 18-46; 49-70
 SIP: 1084-1082
 HP: 2078-2058

BHT: 107
 Gravity: -
 Chlor: —

Miss.
4351 (-2045)

cfs 4364

Mud @ 4364'
Wt. 9.2
Vis. 53
Filtrate 8.0
Chlor 5700
LCM 1#

ROP (min/ft) 10

RTD
4450 (-2144)

Mud @ 4450'
Wt. 9.4
Vis. 50
Filtrate 10.8
Chlor 6700
LCM Tr

cfs 4450

4350
4400
4450
00

sat-sat str, gd odr, scatt Sh., gy-bm

Dol, aa, some dns w nvp, some chlky, rest w fr
intrxn & rare prvug por; FSFO, dk bm sub sat
str, fr odr

Dol, tn, fnxln, mod hd, some w nvp, pr intrxn
por in most, few pcs w SSFO, bm spot str, wk
odr; abund Sh., gy

Dol, cm-tn, fnxln, sli fri, chlky ip, fr intrxn por;
ns, no odr; scatt Chrt, clr, broken/weath ip, ns

Dol. & Chrt, aa

Chrt., wht-clr; broken ip, Dol, tn, fnxln, sli fri, fr
intrxn por; ns

(Mississippi)

30-30-60-60

IF: BOB in 6 min, built to 32"

IS: no blow

FF: BOB in 10 min, built to 44 3/4"

FS: No blow

Recovery:

283' WCM w oil spots (10%W, 90%M)

252' WCM (40%W, 60%M)

315' MCW (95%W, 5%M)

850' TF

FP: 44-211; 216-395

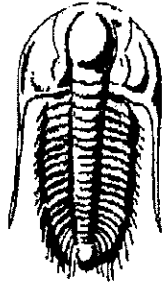
SIP: 1131-1136

HP: 2095-2106

BHT: 117

Gravity: -

Chlor: 25000



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Palomino Petroleum**

4924 SE 84th St
Newton, KS 67114

ATTN: Andrew Stenzel

Big Spender #1

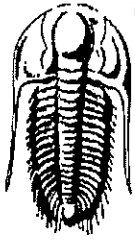
15-18s-24w Ness,KS

Start Date: 2019.02.18 @ 15:50:03

End Date: 2019.02.19 @ 00:43:03

Job Ticket #: 65154 DST #: 1

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Palomino Petroleum

15-18s-24w Ness, KS

4924 SE 84th St
New ton, KS 67114

Big Spender #1

Job Ticket: 65154

DST#: 1

ATTN: Andrew Stenzel

Test Start: 2019.02.18 @ 15:50:03

GENERAL INFORMATION:

Formation: **Ft Scott**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:38:33

Time Test Ended: 00:43:03

Test Type: Conventional Bottom Hole (Initial)

Tester: Brandon Turley

Unit No: 79

Interval: **4237.00 ft (KB) To 4280.00 ft (KB) (TVD)**

Reference Elevations: 2306.00 ft (KB)

Total Depth: 4280.00 ft (KB) (TVD)

2296.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: **8166**

Outside

Press@RunDepth: 70.07 psig @ 4238.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.02.18

End Date:

2019.02.19

Last Calib.:

2019.02.19

Start Time: 15:50:08

End Time:

00:43:03

Time On Btm:

2019.02.18 @ 19:36:33

Time Off Btm:

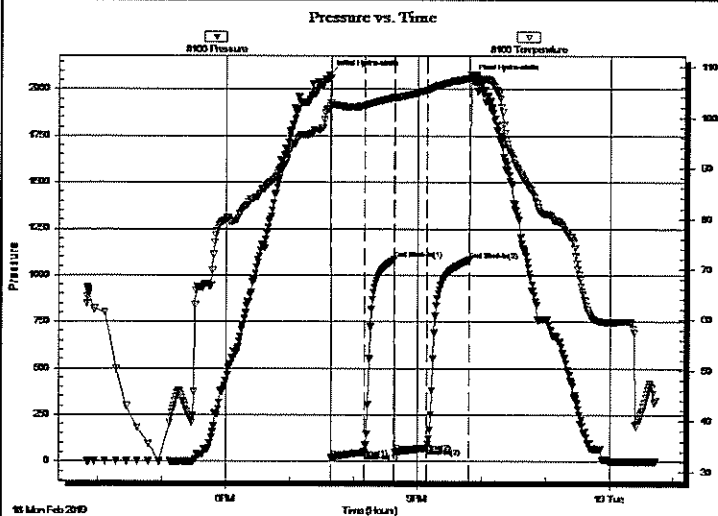
2019.02.18 @ 21:49:03

TEST COMMENT: IF: 1/2" blow built to 4"

IS: 1/2"

FF: Surface blow built to 1 3/4"

FS: No return.



PRESSURE SUMMARY

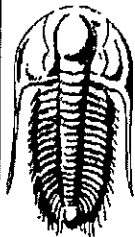
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2078.47	101.63	Initial Hydro-static
2	18.69	102.46	Open To Flow (1)
33	46.53	102.30	Shut-In(1)
61	1084.38	104.05	End Shut-In(1)
62	49.80	103.78	Open To Flow (2)
92	70.07	105.39	Shut-In(2)
132	1082.22	107.76	End Shut-In(2)
133	2058.43	108.40	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
116.00	w cm 5%w 95%m	1.63

Gas Rates

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



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Palomino Petroleum

15-18s-24w Ness,KS

4924 SE 84th St
New ton, KS 67114

Big Spender #1

Job Ticket: 65154

DST#: 1

ATTN: Andrew Stenzel

Test Start: 2019.02.18 @ 15:50:03

Tool Information

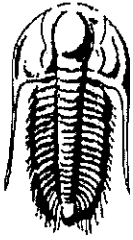
Drill Pipe:	Length: 4114.00 ft	Diameter: 2.25 inches	Volume: 20.23 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 116.00 ft	Diameter: 3.80 inches	Volume: 1.63 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 21.86 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4237.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	43.00 ft			
Tool Length:	70.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Stubb	1.00			4211.00	
Shut In Tool	5.00			4216.00	
Hydraulic tool	5.00			4221.00	
Jars	5.00			4226.00	
Safety Joint	2.00			4228.00	
Packer	5.00			4233.00	27.00 Bottom Of Top Packer
Packer	4.00			4237.00	
Stubb	1.00			4238.00	
Recorder	0.00	6651	Inside	4238.00	
Recorder	0.00	8166	Outside	4238.00	
Perforations	4.00			4242.00	
Change Over Sub	1.00			4243.00	
Drill Pipe	31.00			4274.00	
Change Over Sub	1.00			4275.00	
Bullnose	5.00			4280.00	43.00 Bottom Packers & Anchor

Total Tool Length: 70.00



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Palomino Petroleum

15-18s-24w Ness,KS

4924 SE 84th St
New ton, KS 67114

Big Spender #1

Job Ticket: 65154

DST#: 1

ATTN: Andrew Stenzel

Test Start: 2019.02.18 @ 15:50:03

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbl

Water Loss: 6.80 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4700.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
116.00	w cm 5%w 95%m	1.627

Total Length: 116.00 ft

Total Volume: 1.627 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

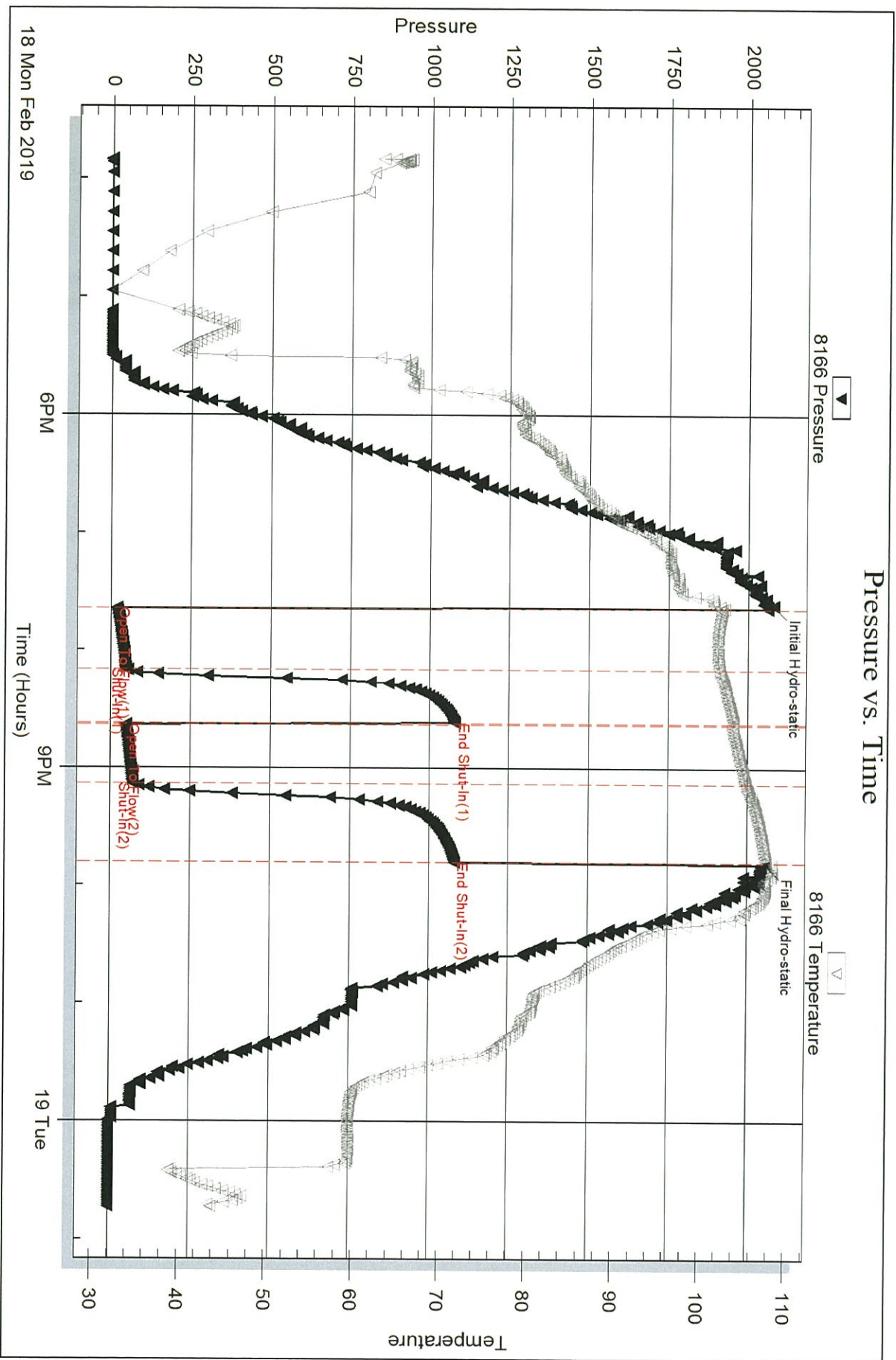
Recovery Comments:

Serial #: 8166

Outside Palomino Petroleum

Big Spender #1

DST Test Number: 1



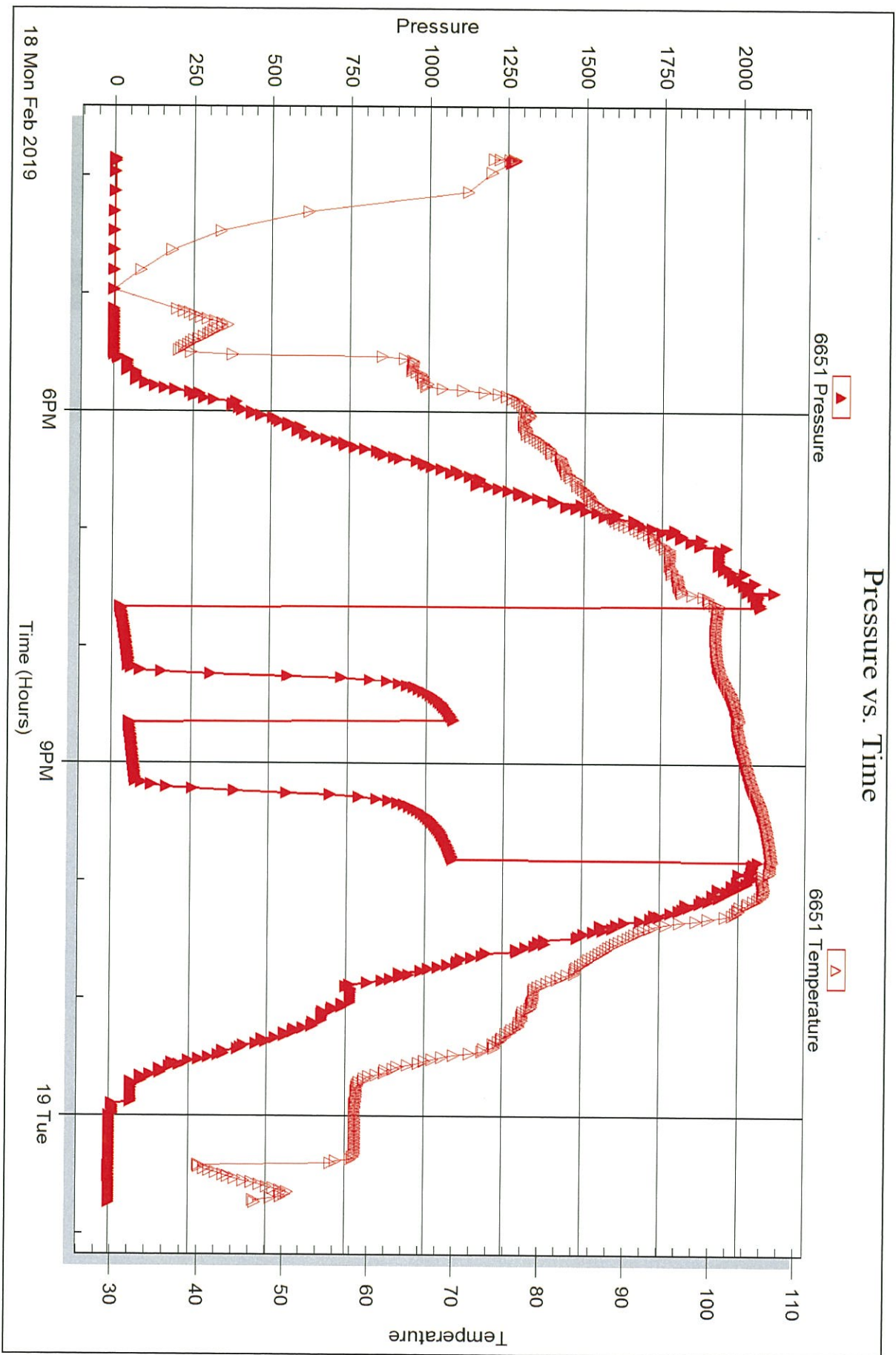
Serial #: 6651

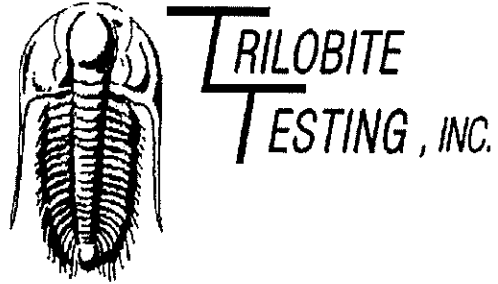
Inside

Palomino Petroleum

Big Spender #1

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Palomino Petroleum**

4924 SE 84th St
Newton, KS 67114

ATTN: Andrew Stenzel

Big Spender #1

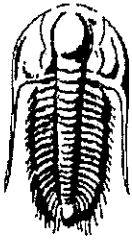
15-18s-24w Ness,KS

Start Date: 2019.02.19 @ 14:07:01

End Date: 2019.02.19 @ 22:58:01

Job Ticket #: 65155 DST #: 2

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Palomino Petroleum

15-18s-24w Ness,KS

4924 SE 84th St
New ton, KS 67114

Big Spender #1

Job Ticket: 65155

DST#: 2

ATTN: Andrew Stenzel

Test Start: 2019.02.19 @ 14:07:01

GENERAL INFORMATION:

Formation: **Miss**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:37:31

Time Test Ended: 22:58:01

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 79

Interval: **4289.00 ft (KB) To 4364.00 ft (KB) (TVD)**

Total Depth: 4364.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2306.00 ft (KB)

2296.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8166

Outside

Press@RunDepth: 395.14 psig @ 4290.00 ft (KB)

Start Date: 2019.02.19

End Date: 2019.02.19

Start Time: 14:07:06

End Time: 22:58:01

Capacity: 8000.00 psig

Last Calib.: 2019.02.19

Time On Btm: 2019.02.19 @ 16:37:01

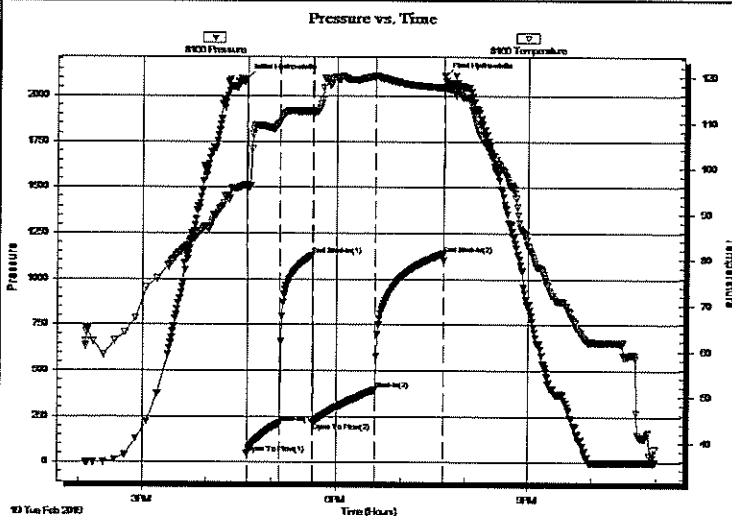
Time Off Btm: 2019.02.19 @ 19:41:01

TEST COMMENT: IF: BOB in 6 min. 32"

IS: No return.

FF: BOB in 10 min. 44 3/4"

FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2093.39	96.21	Initial Hydro-static
1	44.20	95.59	Open To Flow (1)
31	211.59	109.95	Shut-In(1)
61	1131.00	112.35	End Shut-In(1)
62	216.44	112.06	Open To Flow (2)
120	395.14	120.18	Shut-In(2)
183	1136.92	117.61	End Shut-In(2)
184	2106.24	117.78	Final Hydro-static

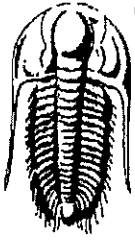
Recovery

Length (ft)	Description	Volume (bbl)
315.00	mcw 95%w 5%m	2.61
252.00	w cm 40%w 60%m	1.24
283.00	w cm oil spots 10%w 90%m	1.39

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Palomino Petroleum

15-18s-24w Ness,KS

4924 SE 84th St
New ton, KS 67114

Big Spender #1

Job Ticket: 65155

DST#: 2

ATTN: Andrew Stenzel

Test Start: 2019.02.19 @ 14:07:01

Tool Information

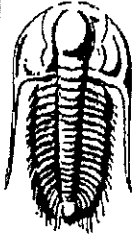
Drill Pipe:	Length: 4177.00 ft	Diameter: 2.25 inches	Volume: 20.54 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	30000.00 lb
Drill Collar:	Length: 116.00 ft	Diameter: 3.80 inches	Volume: 1.63 bbl	Weight to Pull Loose:	75000.00 lb
			<u>Total Volume: 22.17 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial	60000.00 lb
Depth to Top Packer:	4289.00 ft			Final	65000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	75.00 ft				
Tool Length:	102.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Stubb	1.00			4263.00	
Shut In Tool	5.00			4268.00	
Hydraulic tool	5.00			4273.00	
Jars	5.00			4278.00	
Safety Joint	2.00			4280.00	
Packer	5.00			4285.00	27.00 Bottom Of Top Packer
Packer	4.00			4289.00	
Stubb	1.00			4290.00	
Recorder	0.00	6651	Inside	4290.00	
Recorder	0.00	8166	Outside	4290.00	
Perforations	4.00			4294.00	
Change Over Sub	1.00			4295.00	
Drill Pipe	63.00			4358.00	
Change Over Sub	1.00			4359.00	
Bullnose	5.00			4364.00	75.00 Bottom Packers & Anchor

Total Tool Length: 102.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Palomino Petroleum

15-18s-24w Ness,KS

4924 SE 84th St
New ton, KS 67114

Big Spender #1

Job Ticket: 65155

DST#: 2

ATTN: Andrew Stenzel

Test Start: 2019.02.19 @ 14:07:01

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

25000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbf

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5700.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
315.00	mcw 95%w 5%m	2.606
252.00	w cm 40%w 60%m	1.239
283.00	w cm oil spots 10%w 90%m	1.392

Total Length: 850.00 ft

Total Volume: 5.237 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

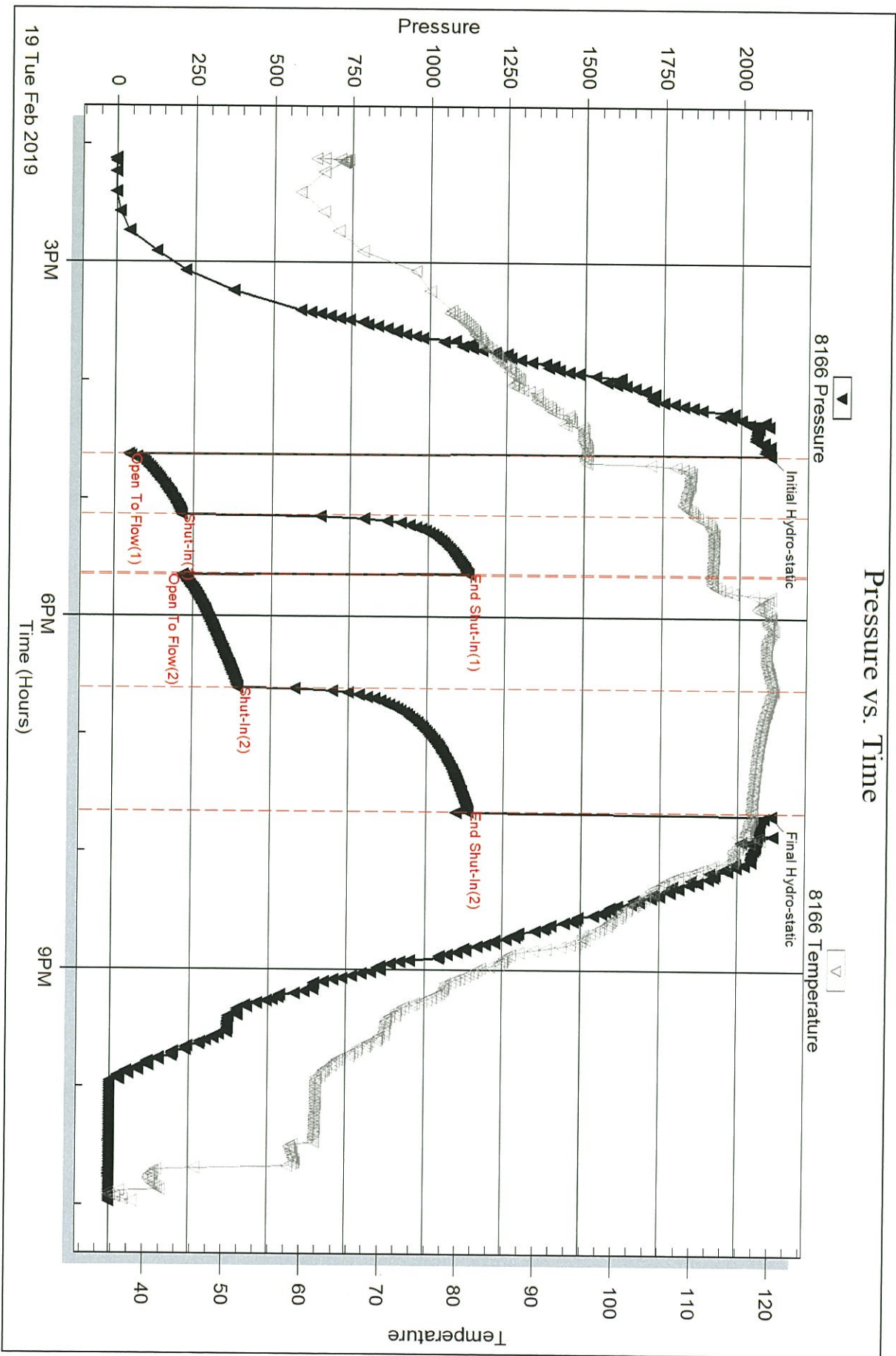
Recovery Comments: .48@40=25000

Serial #: 8166

Outside Palomino Petroleum

Big Spender #1

DST Test Number: 2



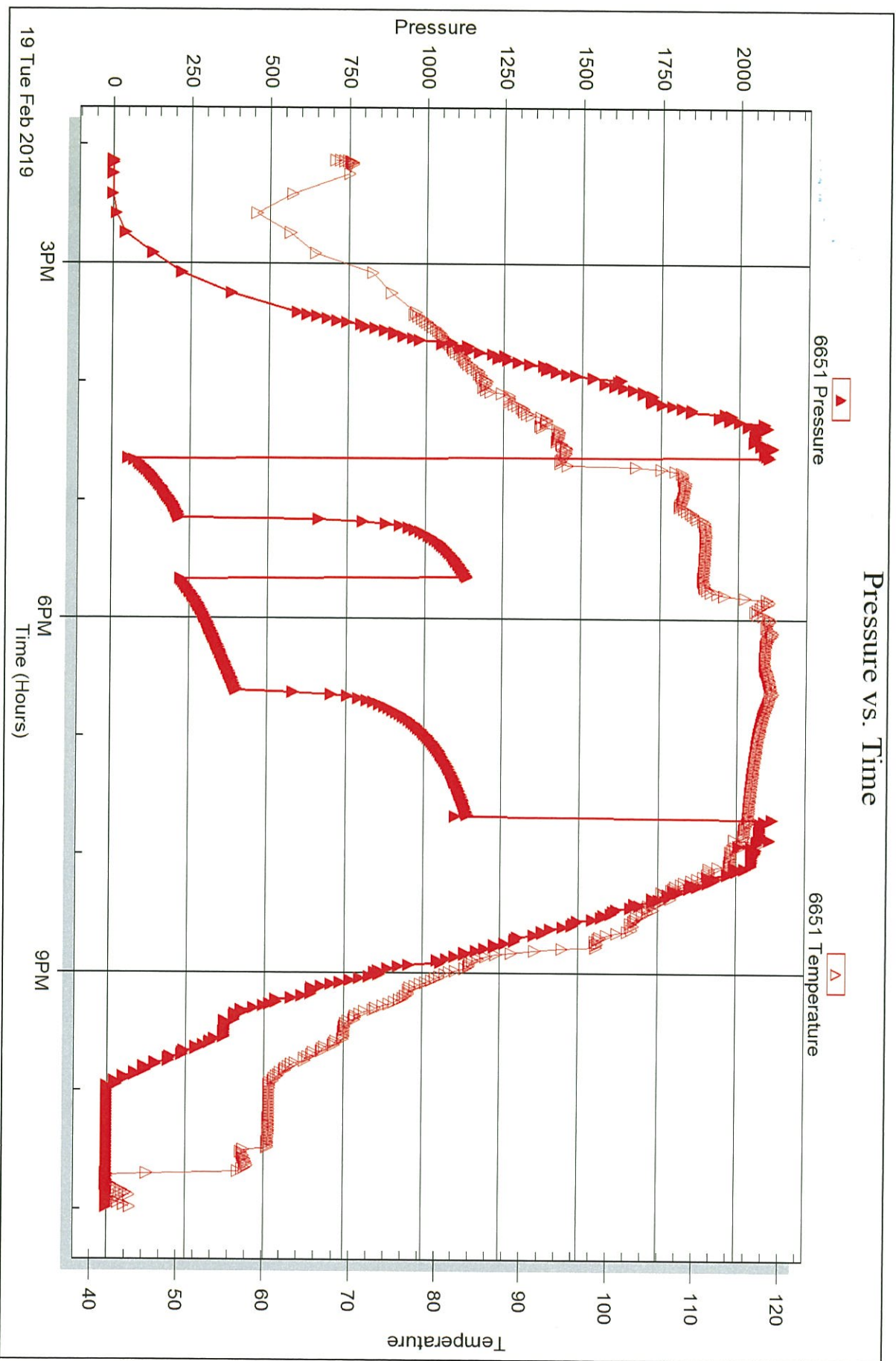
Serial #: 6651

Inside

Palomino Petroleum

Big Spender #1

DST Test Number: 2





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 65154

Well Name & No. Big spender #1 Test No. 1 Date 2-18-19
 Company Perlomino Elevation 2306 KB 2296 GL
 Address 4924 SE 84th St Newton, KS 67114
 Co. Rep / Geo. Andrew Stenzel Rig WW#22
 Location: Sec. 15 Twp 18S Rge. 24W Co. Ness State KS

Interval Tested 4237 4280 Zone Tested Ft. Scott
 Anchor Length 43 Drill Pipe Run 4114 Mud Wt. 9.1
 Top Packer Depth 4232 Drill Collars Run 116 Vis 54
 Bottom Packer Depth 4237 Wt. Pipe Run — WL 6.8
 Total Depth 4280 Chlorides 4700 ppm System LCM 0

Blow Description IF: 1/2 blow built to 4,
IS: 1/2 inch.
FF: surface blow built to 1 3/4.
FS: No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>116</u>	<u>wcm</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	Feet of	%gas	%oil	%water	%mud

Rec Total 116 BHT 107 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2078 Test 1300 T-On Location 15:00
 (B) First Initial Flow 18 Jars 250 T-Started 15:50
 (C) First Final Flow 46 Safety Joint 75 T-Open 19:38
 (D) Initial Shut-In 1084 Circ Sub NIL T-Pulled 21:38
 (E) Second Initial Flow 49 Hourly Standby T-Out 00:45
 (F) Second Final Flow 70 Mileage 116- 116 Comments
 (G) Final Shut-In 1082 Sampler
 (H) Final Hydrostatic 2058 Straddle EM Tool
 Shale Packer Ruined Shale Packer
 Extra Packer Ruined Packer
 Extra Recorder Extra Copies
 Day Standby Sub Total 0
 Accessibility Total 1741
 Sub Total 1741 MP/DST Disc't

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.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 65155

Well Name & No. Big spender #1 Test No. 2 Date 2-19-19
 Company Prilomino Elevation 2306 KB 2296 GL
 Address 4924 SE 84th St Newton, KS 67114
 Co. Rep / Geo. Andrew Stenzel Rig ww #22
 Location: Sec. 15 Twp 18S Rge. 24W Co. Ness State KS

Interval Tested 4289 4364 Zone Tested MISS
 Anchor Length 75 Drill Pipe Run 4177 Mud Wt. 9.2
 Top Packer Depth 4284 Drill Collars Run 116 Vis 53
 Bottom Packer Depth 4289 Wt. Pipe Run --- WL 8.0
 Total Depth 4364 Chlorides 5700 ppm System LCM 1

Blow Description EF: BoB in 6 min, 32"
FS: No return.
EF: BoB in 10 min, 44 3/4.
FS: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>283</u>	<u>WCM oil spots</u>		<u>10</u>	<u>90</u>	
<u>252</u>	<u>WCM</u>		<u>40</u>	<u>60</u>	
<u>315</u>	<u>MCW</u>		<u>95</u>	<u>5</u>	

Rec Total 850 BHT 117 Gravity --- API RW 48 @ 40 °F Chlorides 25,000 ppm

(A) Initial Hydrostatic 2093 Test 1300 T-On Location 13:15
 (B) First Initial Flow 44 Jars 250 T-Started 14:07
 (C) First Final Flow 211 Safety Joint 75 T-Open 16:38
 (D) Initial Shut-In 1131 Circ Sub NIL T-Pulled 19:38
 (E) Second Initial Flow 216 Hourly Standby T-Out 23:04
 (F) Second Final Flow 395 Mileage 116 x 2 232 Comments
 (G) Final Shut-In 1136 Sampler loaded tools 2/20 14:00
 (H) Final Hydrostatic 2106 Straddle EM Tool
 Shale Packer Ruined Shale Packer
 Extra Packer Ruined Packer
 Extra Recorder Extra Copies

Initial Open 30
 Initial Shut-In 30
 Final Flow 60
 Final Shut-In 60
 Sub Total 1857 MP/DST Disc't

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.