



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 SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

- Deepening Re-perf. Conv. to ENHR Conv. to SWD
- Conv. to GSW
- Plug Back: _____ Plug Back Total Depth _____
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date Date Reached TD Completion Date or Recompletion Date

API No. 15 - _____

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

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total 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

- Letter of Confidentiality Received
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report 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 and base 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. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

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 Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i> 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
_____ Perforate _____ Protect Casing _____ Plug Back TD _____ Plug Off Zone				

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

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

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

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
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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> <input type="checkbox"/> Other <i>(Specify)</i> _____ <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: _____ _____
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QUALITY WELL SERVICE, INC.

5885

Federal Tax I.D. # 481187368

OFFICE

Home Office 324 Simpson St., Pratt, KS 67124

Heath's Cell 620-727-3410

Office / Fax 620-672-3663

Rich's Cell 620-727-3409

Brady's Cell 620-727-6964

Date	5-14-13	Sec.	26	Twp.	12	Range	20	County	Ellis	State	Ks	On Location	6:00 PM	Finish	9:00 AM				
Lease	Armbriester	Well No.	1-27			Location						Ellis Ks 2 N - 12 C 02 E							
Contractor	W W Duls #8				Owner						D E S W 1110								
Type Job	Surface				To Quality Well Service, Inc.						You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.								
Hole Size	12 1/4		T.D.		208		Charge To						DEUTSHEK OIL						
Csg.	8 5/8 23		Depth		207		Street												
Tbg. Size			Depth				City						State						
Tool			Depth				City						State						
Cement Left in Csg.			Shoe Joint		20'		The above was done to satisfaction and supervision of owner agent or contractor.												
Meas Line			Displace		12.3 Bbls		Cement Amount Ordered						170 SC Common						
EQUIPMENT												2 1/2 GAL 3% LC							
Pumptrk	8	No.	MIKE		Common						170								
Bulktrk	4	No.	DEREK		Poz. Mix														
Bulktrk		No.			Gel.						3								
Pickup		No.	TODD		Calcium						6								
JOB SERVICES & REMARKS												Hulls							
Rat Hole												Salt							
Mouse Hole												Flowseal							
Centralizers												Kol-Seal							
Baskets												Mud CLR 48							
D/V or Port Collar												CFL-117 or CD110 CAF 38							
Run 5 Hls 8 5/8 23' CSG												Sand							
SET @ 207'												Handling 175							
												Mileage							
MIX & PUMP 170 SC Common												FLOAT EQUIPMENT							
2 1/2 GAL 3% LC @ 15 P/GAL												Guide Shoe							
												Centralizer							
Dispo 12.3 Bbls												Baskets							
												AFU Inserts							
SHUT DOWN												Float Shoe							
Close in Valve on CSG. 8:30 PM												Latch Down							
6:00 Circle thru JO3																			
Circle CMT to Pit												Pumptrk Charge				Surface			
thanks												Mileage							
TODD MIKE DEREK																Tax			
PLEASE CALL AGAIN																Discount			
Signature																Total Charge			



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Deutscher Oil Operations

27-12s-20w Ellis KS

130 Ave
Ellis KS, 67637

Armbrister 1-27

Job Ticket: 52195

DST#: 1

ATTN: Richard Bell

Test Start: 2013.05.19 @ 03:27:00

GENERAL INFORMATION:

Formation: **Lansing "C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:27:30

Time Test Ended: 10:09:39

Test Type: Conventional Bottom Hole (Initial)

Tester: Cody Bloedorn

Unit No: 41

Interval: **3551.00 ft (KB) To 3584.00 ft (KB) (TVD)**

Reference Elevations: 2215.00 ft (KB)

Total Depth: 3584.00 ft (KB) (TVD)

2210.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8734 Outside

Press @ RunDepth: 89.49 psig @ 3552.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.05.19

End Date: 2013.05.19

Last Calib.: 2013.05.19

Start Time: 03:27:01

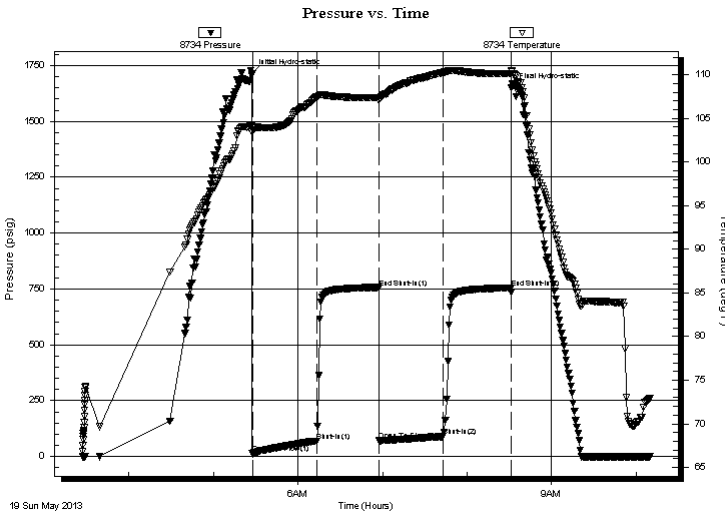
End Time: 10:09:40

Time On Btm: 2013.05.19 @ 05:27:20

Time Off Btm: 2013.05.19 @ 08:31:39

TEST COMMENT: 45 - IF- 5 1/4" blow
45 - IS- Surface blow , died in 27 minutes
45 - FF- 3/4" blow
45 - FS- No return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1713.44	104.19	Initial Hydro-static
1	12.84	103.50	Open To Flow (1)
46	69.04	107.44	Shut-In(1)
90	755.02	107.39	End Shut-In(1)
91	71.59	107.05	Open To Flow (2)
136	89.49	110.28	Shut-In(2)
184	754.48	110.12	End Shut-In(2)
185	1652.53	110.47	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	WM, 40%W, 60%M	0.30
62.00	MW, 20%M, 80%W	0.30
45.00	VSCOMW, 5%O, 40%M, 55%W	0.63
2.00	Free Oil, 100%O	0.03

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Deutscher Oil Operations

27-12s-20w Ellis KS

130 Ave
Ellis KS, 67637

Armbrister 1-27

Job Ticket: 52195

DST#: 1

ATTN: Richard Bell

Test Start: 2013.05.19 @ 03:27:00

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: 65.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.60 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2600.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
62.00	WM, 40%W, 60%M	0.305
62.00	MW, 20%M, 80%W	0.305
45.00	VSCOMW, 5%O, 40%M, 55%W	0.631
2.00	Free Oil, 100%O	0.028

Total Length: 171.00 ft

Total Volume: 1.269 bbl

Num Fluid Samples: 0

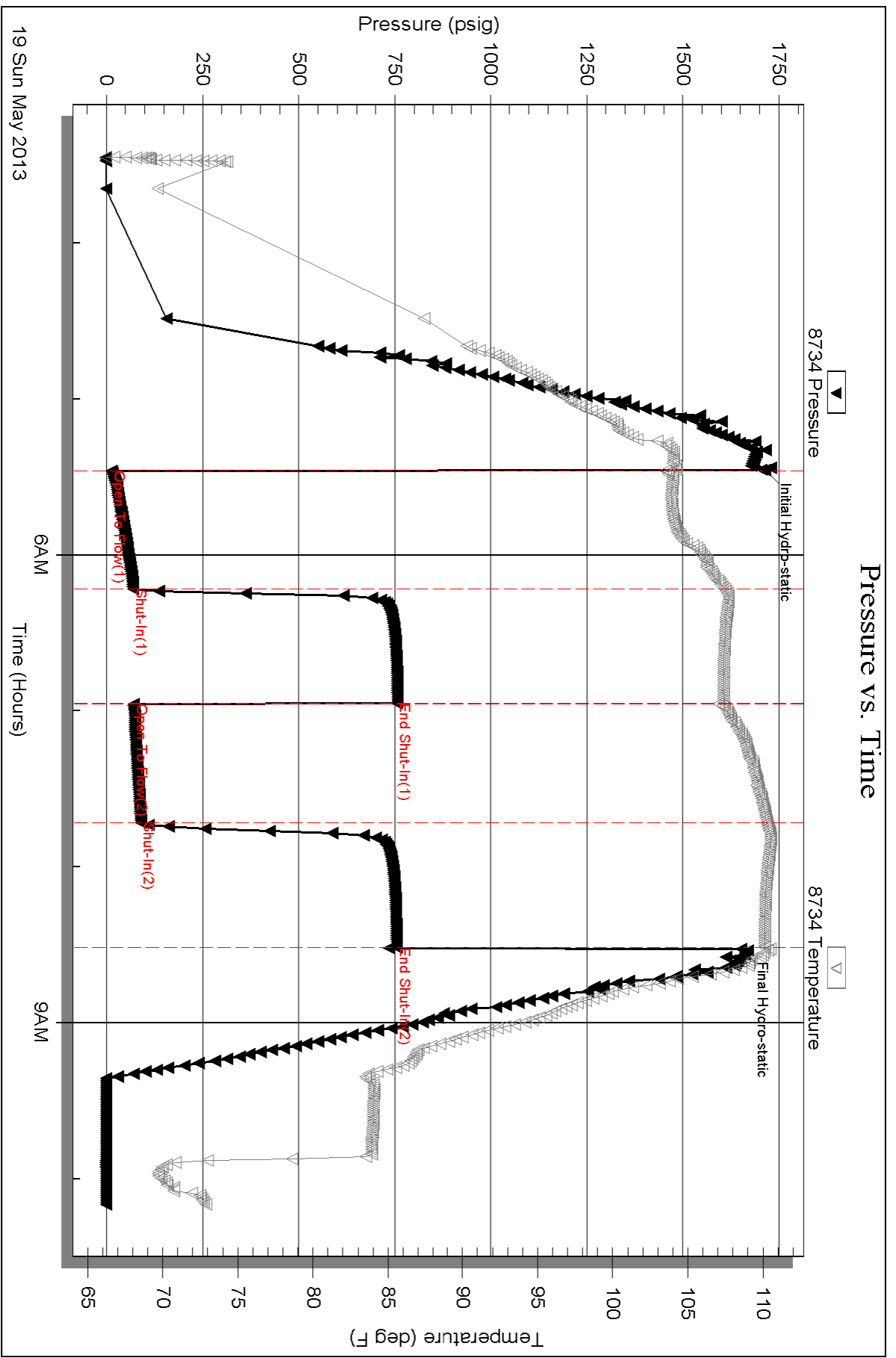
Num Gas Bombs: 0

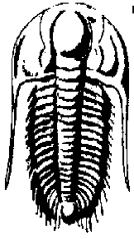
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Deutscher Oil Operations

27-12s-20w Ellis KS

130 Ave
Ellis KS, 67637

Armbrister 1-27

ATTN: Richard Bell

Job Ticket: 53625

DST#: 2

Test Start: 2013.05.19 @ 17:04:00

GENERAL INFORMATION:

Formation: **LKC " D "**

Deviated: No Whipstock: 2215.00 ft (KB)

Time Tool Opened: 18:37:20

Time Test Ended: 23:18:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 41

Interval: 3583.00 ft (KB) To 3602.00 ft (KB) (TVD)

Reference Elevations: 2215.00 ft (KB)

Total Depth: 3602.00 ft (KB) (TVD)

2210.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8734

Inside

Press @ Run Depth: 168.36 psig @ 3584.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.05.19

End Date: 2013.05.19

Last Calib.: 2013.05.19

Start Time: 17:04:01

End Time: 23:17:30

Time On Btm: 2013.05.19 @ 18:37:10

Time Off Btm: 2013.05.19 @ 21:37:30

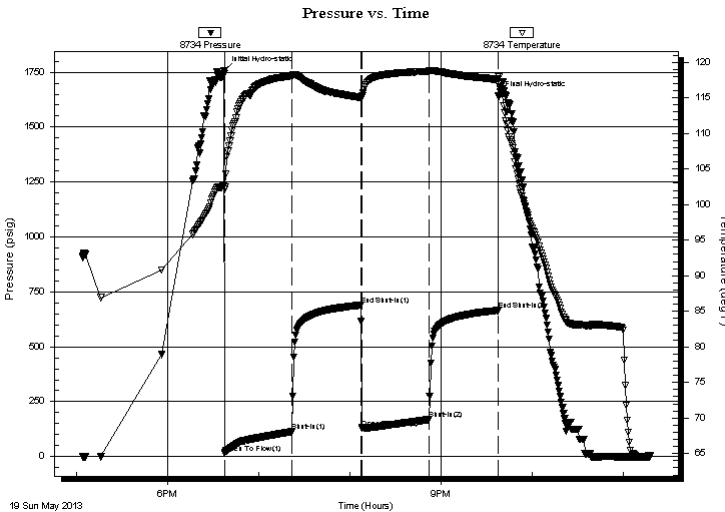
TEST COMMENT: 45-IFP- Surface Blow in 2 min. Surging Building to BOB in 35 min.

45-ISIP- No Blow

45-FFP- Surface Blow in 3 min. Surging Building to 8 in.

45-FSIP- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1757.93	102.85	Initial Hydro-static
1	14.95	102.14	Open To Flow (1)
45	113.59	118.12	Shut-In(1)
90	689.38	115.05	End Shut-In(1)
91	129.90	115.37	Open To Flow (2)
135	168.36	118.75	Shut-In(2)
181	665.28	117.61	End Shut-In(2)
181	1643.97	118.08	Final Hydro-static

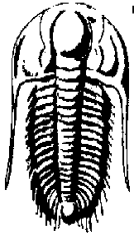
Recovery

Length (ft)	Description	Volume (bbl)
317.00	MCW 5%w 95%w Show of Oil	3.32

* Recovery from multiple tests

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Deutscher Oil Operations

27-12s-20w Ellis KS

130 Ave
Ellis KS, 67637

Armbrister 1-27

Job Ticket: 53625

DST#: 2

ATTN: Richard Bell

Test Start: 2013.05.19 @ 17:04:00

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:

45000 ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.97 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3100.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
317.00	MCW 5% _m 95% _w Show of Oil	3.317

Total Length: 317.00 ft Total Volume: 3.317 bbl

Num Fluid Samples: 0

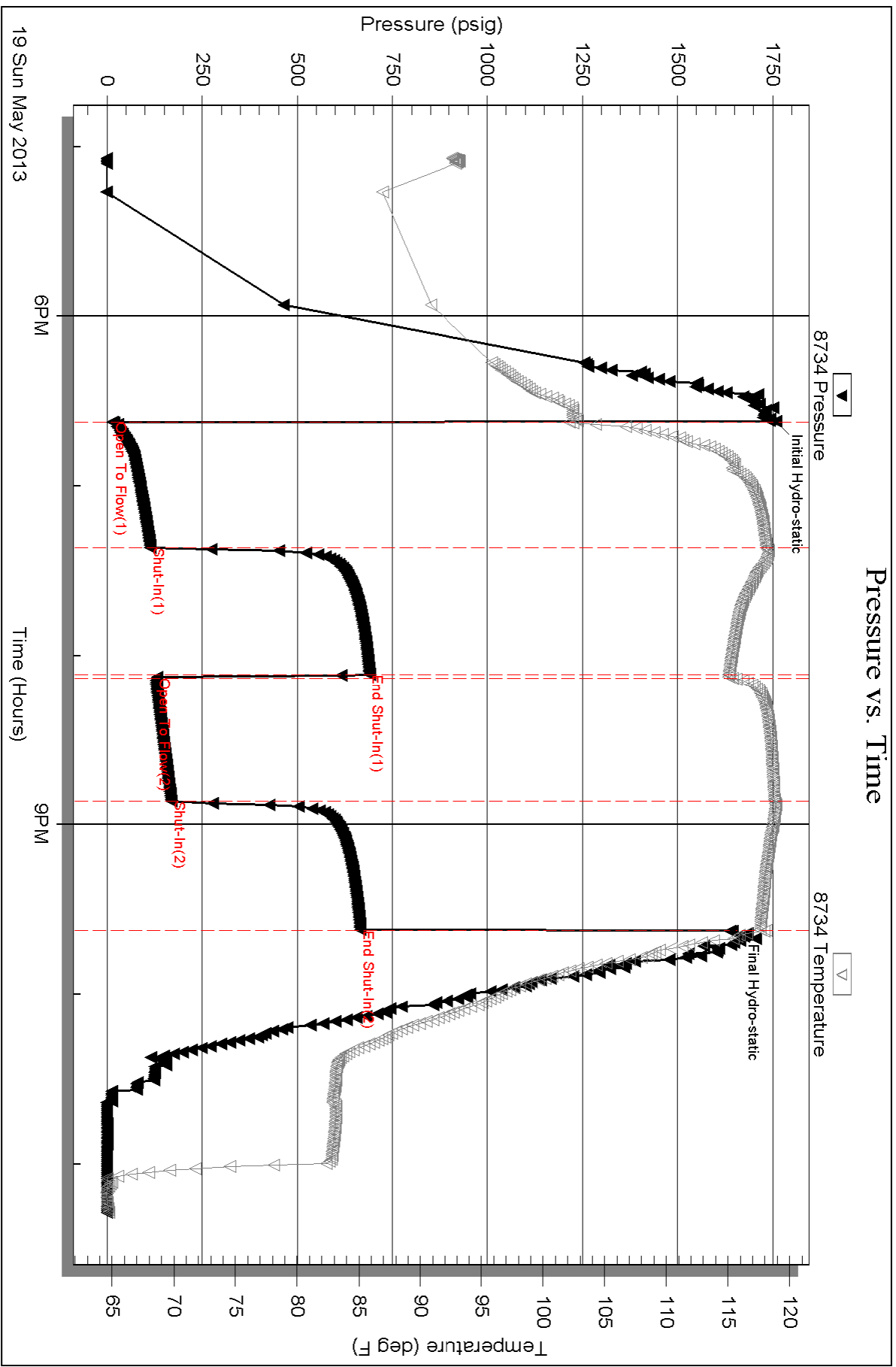
Num Gas Bombs: 0

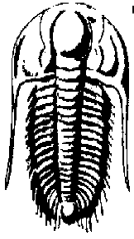
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .191 @ 61





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Deutscher Oil Operations

27-12s-20w Ellis KS

130 Ave
Ellis KS, 67637

Armbrister 1-27

ATTN: Richard Bell

Job Ticket: 53801

DST#: 3

Test Start: 2013.05.20 @ 13:40:00

GENERAL INFORMATION:

Formation: **LKC " I & J "**

Deviated: No Whipstock: 2215.00 ft (KB)

Time Tool Opened: 15:14:30

Time Test Ended: 19:55:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 41

Interval: 3685.00 ft (KB) To 3735.00 ft (KB) (TVD)

Reference Elevations: 2215.00 ft (KB)

Total Depth: 3735.00 ft (KB) (TVD)

2210.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8322 Outside

Press @ Run Depth: 162.35 psig @ 3700.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.05.20 End Date: 2013.05.20

Last Calib.: 2013.05.20

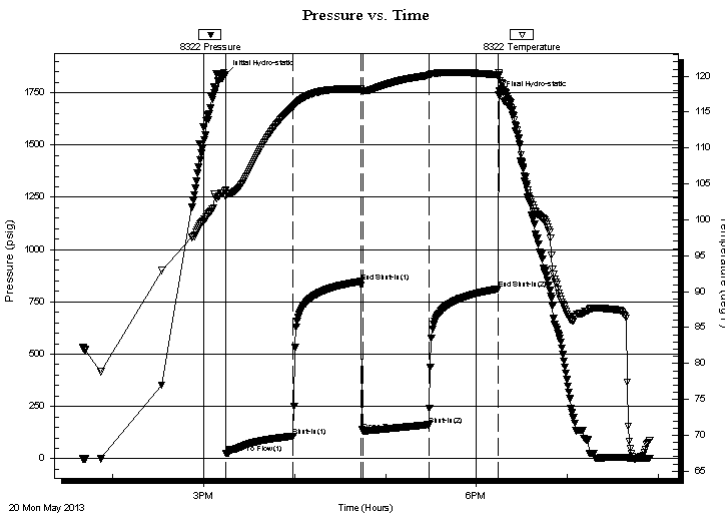
Start Time: 13:40:01 End Time: 19:54:20

Time On Btm: 2013.05.20 @ 15:14:20

Time Off Btm: 2013.05.20 @ 18:14:40

TEST COMMENT: 45-IFP- Surface Blow in 4 min. Surging Building to 7 1/2 in.
45-ISIP- No Blow
45-FFP- Surface Blow in 3 min. Building to 7 in.
45-FSIP- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1834.91	104.12	Initial Hydro-static
1	24.77	103.23	Open To Flow (1)
45	108.79	115.72	Shut-In(1)
90	847.60	118.22	End Shut-In(1)
91	133.70	117.97	Open To Flow (2)
134	162.35	120.10	Shut-In(2)
180	811.74	120.19	End Shut-In(2)
181	1737.41	120.45	Final Hydro-static

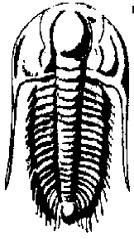
Recovery

Length (ft)	Description	Volume (bbl)
262.00	MCW 25% m 75% w	2.55

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Deutscher Oil Operations

27-12s-20w Ellis KS

130 Ave
Ellis KS, 67637

Armbrister 1-27

Job Ticket: 53801

DST#: 3

ATTN: Richard Bell

Test Start: 2013.05.20 @ 13:40:00

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:

41000 ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6300.00 ppm

Filter Cake: 0.50 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
262.00	MCW 25% _m 75% _w	2.546

Total Length: 262.00 ft Total Volume: 2.546 bbl

Num Fluid Samples: 0

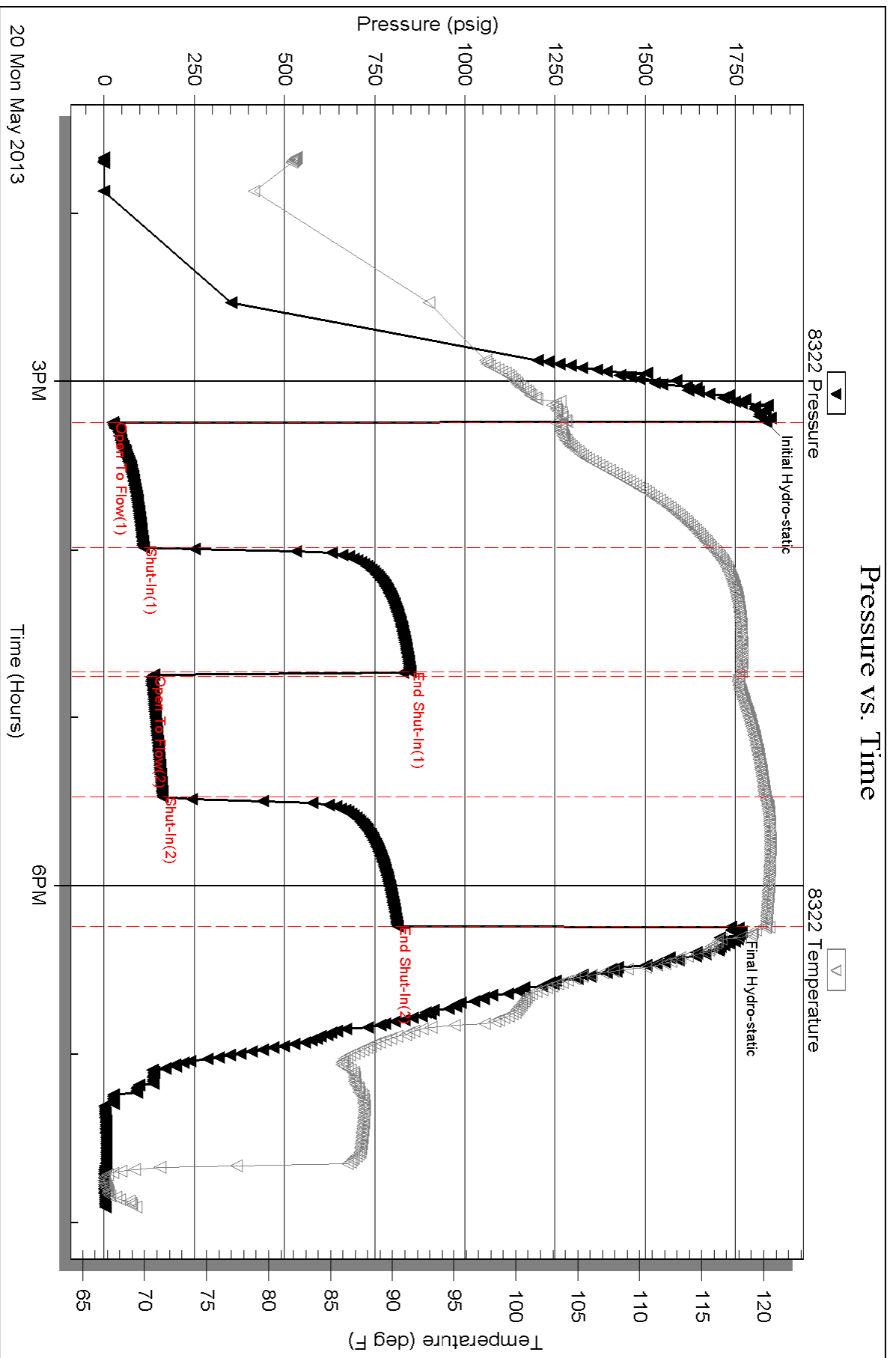
Num Gas Bombs: 0

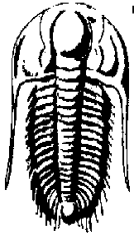
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .180 @ 69





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Deutscher Oil Operations

27-12s-20w Ellis KS

130 Ave
Ellis KS, 67637

Armbrister 1-27

ATTN: Richard Bell

Job Ticket: 53802

DST#: 4

Test Start: 2013.05.21 @ 09:45:00

GENERAL INFORMATION:

Formation: **Marmaton - Pawnee**

Deviated: No Whipstock: 2215.00 ft (KB)

Time Tool Opened: 11:52:10

Time Test Ended: 16:58:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 41

Interval: 3836.00 ft (KB) To 3855.00 ft (KB) (TVD)

Reference Elevations: 2215.00 ft (KB)

Total Depth: 3855.00 ft (KB) (TVD)

2210.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8322 Outside

Press @ RunDepth: 448.26 psig @ 3837.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.05.21

End Date: 2013.05.21

Last Calib.: 2013.05.21

Start Time: 09:45:01

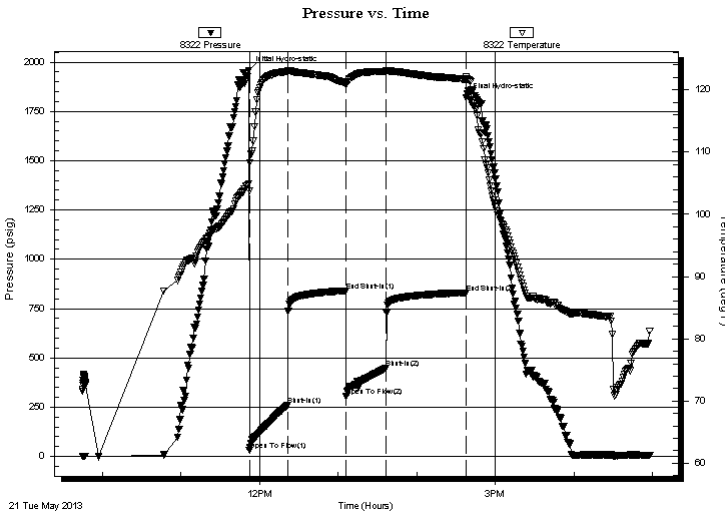
End Time: 16:57:50

Time On Btm: 2013.05.21 @ 11:52:00

Time Off Btm: 2013.05.21 @ 14:37:50

TEST COMMENT: 30-IFP- BOB in 5 1/4 min.
45-ISIP- Weak Surface Blow in 3 min.
30-FFP- BOB in 7 min.
60-FSIP- Surface Blow in 1 min. Died Back in 30 min.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1957.61	104.91	Initial Hydro-static
1	31.24	103.73	Open To Flow (1)
30	260.16	122.94	Shut-In(1)
74	839.24	121.12	End Shut-In(1)
75	304.22	120.88	Open To Flow (2)
105	448.26	122.98	Shut-In(2)
166	829.91	121.70	End Shut-In(2)
166	1821.25	122.05	Final Hydro-static

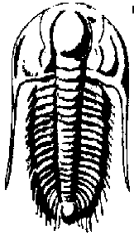
Recovery

Length (ft)	Description	Volume (bbl)
567.00	MCW 5% <i>m</i> 95% <i>w</i> Show of Oil	6.82
126.00	OMCW 2% <i>o</i> 5% <i>m</i> 93% <i>w</i>	1.77
126.00	GOMCW 10% <i>g</i> 12% <i>o</i> 15% <i>m</i> 63% <i>w</i>	1.77
50.00	GOMCW 5% <i>g</i> 10% <i>o</i> 40% <i>m</i> 45% <i>w</i>	0.70
20.00	CO 100% <i>o</i>	0.28
0.00	100 GIP	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Deutscher Oil Operations

27-12s-20w Ellis KS

130 Ave
Ellis KS, 67637

Armbrister 1-27

Job Ticket: 53802

DST#: 4

ATTN: Richard Bell

Test Start: 2013.05.21 @ 09:45:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

35 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

38000 ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7000.00 ppm

Filter Cake: 0.50 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
567.00	MCW 5% _m 95% _w Show of Oil	6.824
126.00	OMCW 2% _o 5% _m 93% _w	1.767
126.00	GOMCW 10% _g 12% _o 15% _m 63% _w	1.767
50.00	GOMCW 5% _g 10% _o 40% _m 45% _w	0.701
20.00	CO 100% _o	0.281
0.00	100 GIP	0.000

Total Length: 889.00 ft

Total Volume: 11.340 bbl

Num Fluid Samples: 0

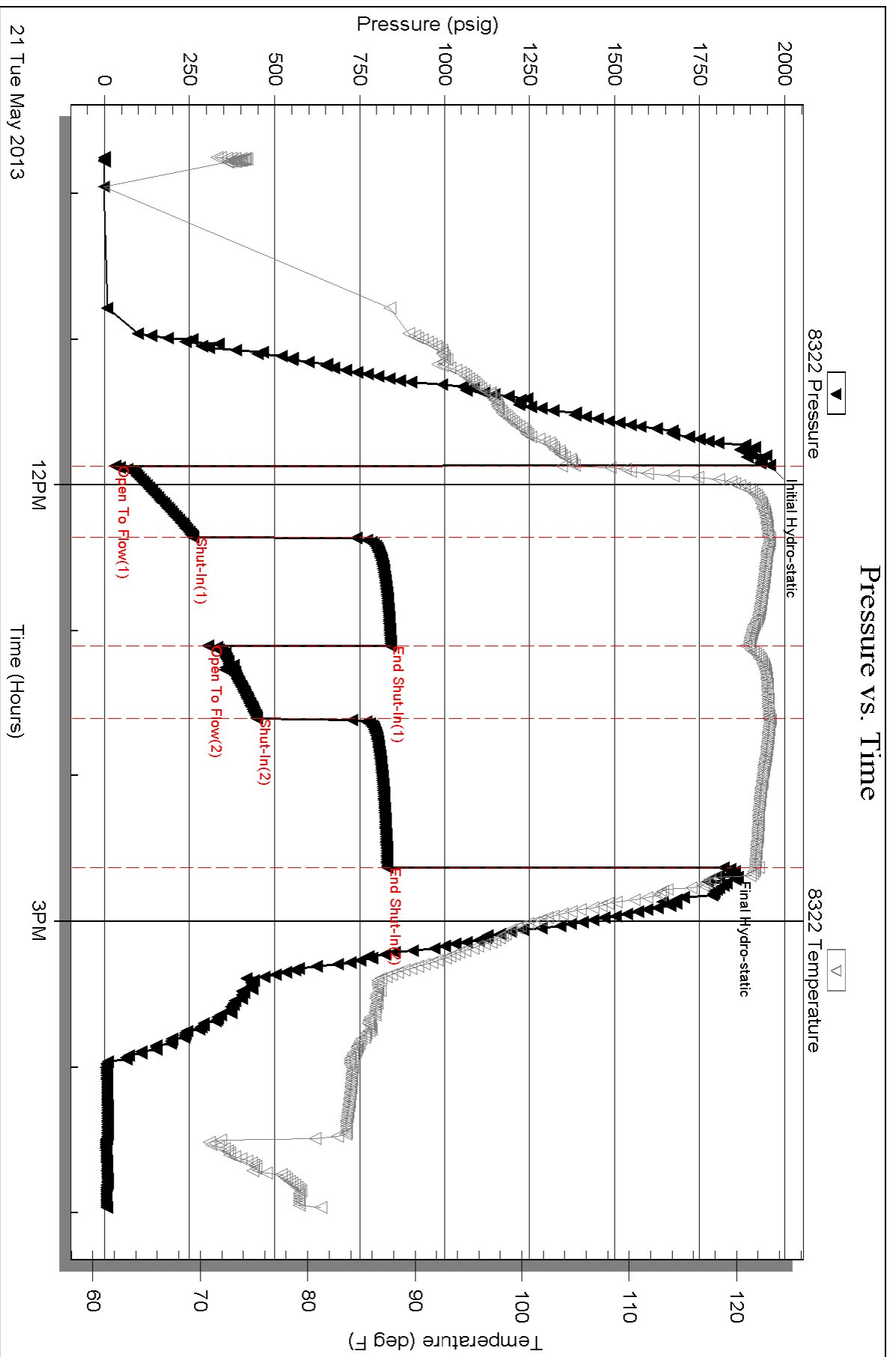
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .190 @ 70



21 Tue May 2013

COMPANY: **Dentscher Oil Operations**
 LEASE: **Ambschler #1-27**
 FIELD: **Willard**
 LOCATION: **815 ENL+390' EEL**
 SEC: **27** TWP: **12S** RGE: **20W**
 COUNTY: **Ellis** STATE: **Kansas**
 CONTRACTOR: **W.H. Drilling Rig #8**
 SPUD: **5-14-13** COMP: **5-22-13**
 SAMPLES SAVED FROM: **3250' TO R.T.D.**

FORMATION	DEPTH	THICKNESS	PERCENTAGE	POSITION
Hydrite	1588	1588-1623	6.23	A
Base Anhydrite	1634	1634-1635	5.75	B
Topoka	3268	3268-1054	1054-1054	C
Hebecker	3478	3478-1283	1283-1285	D
Toronto	3518	3518-1323	1323-1323	E
Kansing	3538	3538-1323	1323-1323	F
Base Kansas Grit	3285	3285-1570	1570-1570	G
Marion (Assumed)	3831	3831-1414	1414-1414	H
Arbuckle	3932	3932-1714	1714-1714	I
Total Depth	3978	3978-1714	1714-1714	J

FORMATION TOPS AND STRUCTURAL POSITION

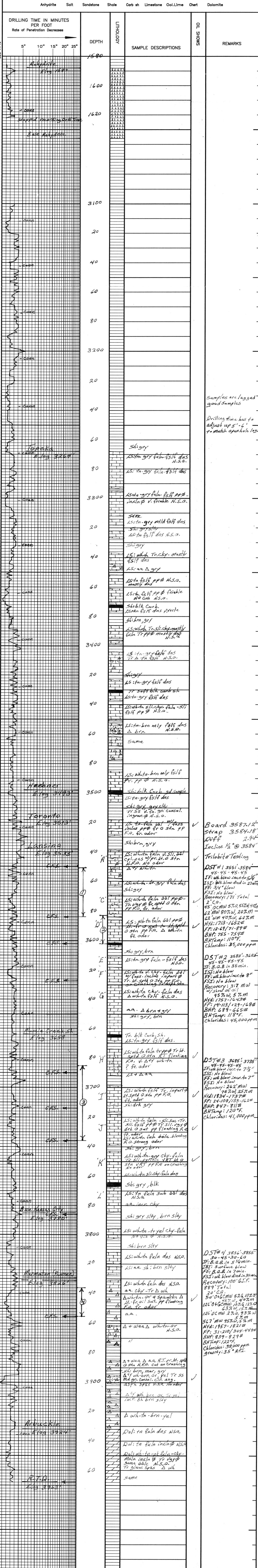
FORMATION	DEPTH	THICKNESS	PERCENTAGE	POSITION
Hydrite	1588	1588-1623	6.23	A
Base Anhydrite	1634	1634-1635	5.75	B
Topoka	3268	3268-1054	1054-1054	C
Hebecker	3478	3478-1283	1283-1285	D
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Marion (Assumed)	3831	3831-1414	1414-1414	H
Arbuckle	3932	3932-1714	1714-1714	I
Total Depth	3978	3978-1714	1714-1714	J

REMARKS: This well ran 2 to 12 feet higher on the Kansing top and 5 feet lower on the Arbuckle top than the reference wells. After reviewing pertinent information it was decided 5" casing would be cemented to the Anhydrite for saltwater disposal.

Richard R. Bell
5/22/13

LEGEND

Anhydrite	Salt	Sandstone	Shale	Carb sh	Limestone	C.Lime	Chert	Dolomite



QUALITY WELL SERVICE, INC.

5898

Federal Tax I.D. # 481187368

Home Office 324 Simpson St., Pratt, KS 67124

Heath's Cell 620-727-3410

Office / Fax 620-672-3663

Rich's Cell 620-727-3409

Brady's Cell 620-727-6964

Date	5-22-13	Sec.	27	Twp.	12	Range	20	County	Ellis	State	Ks	On Location		Finish	3:45 P.
Lease	Aambrister		Well No.	1-27		Location Ellis Ks 2N to 2E									
Contractor	WW Dels #9					Owner ZUE S.W. into									
Type Job	5 1/2 Longstring					To Quality Well Service, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.									
Hole Size	7 7/8					T.D.									
Csg.	5 1/2 14"					Depth 1621.88					Charge To DEUTSCH OIL OPERATION				
Tbg. Size						Depth					Street				
Tool						Depth					City State				
Cement Left in Csg.						Shoe Joint 22.60					The above was done to satisfaction and supervision of owner agent or contractor.				
Meas Line						Displace 39 bbl.					Cement Amount Ordered 350 1/2 MDC				
EQUIPMENT															
Pumptrk	3	No.	BRADY							Common 350					
Bulktrk	7	No.	DEUCE							Poz. Mix					
Bulktrk		No.								Gel.					
Pickup		No.								Calcium 12.5					
JOB SERVICES & REMARKS															
Rat Hole											Hulls				
Mouse Hole											Salt				
Centralizers	34-5-23-24-25										Flowseal 27.5'				
Baskets	3-23										Kol-Seal				
D/V or Port Collar											Mud CLR 48				
Hole 2 to csg Break pipe 2 1/2 hrs													CFL-117 or CD110 CAF 38		
Run 38 3/4 5 1/2 14" csg													Sand		
Set 5 1/2 1621.88 SS-22.60 1 FS-60													Handling 366		
													Mileage		
													FLOAT EQUIPMENT		
Mix Pump 505K @ 11.5" / gal													Guide Shoe		
Mix Pump 22.5 @ 12" / gal													Centralizer 6 EA		
Mix Pump 75 @ 14.5" / gal													Baskets 2 EA		
SHUT DOWN Wash up job													AFU Inserts		
Release LD Plug													Float Shoe 1 EA		
Disg 39 bbl total													Latch Down 1 EA		
c/c to collar															
Plug down 2 3/4 1700"															
Release HEAD													Pumptrk Charge		
Thank YOU BRADY MKE - DEUCE													Mileage		
PLEASE call again															
Signature													Tax		
													Discount		
													Total Charge		

QUALITY WELL SERVICE, INC.

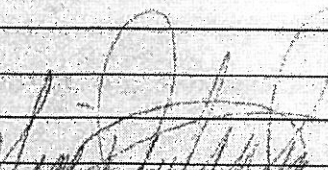
5897

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Rich's Cell 620-727-3409
Brady's Cell 620-727-6964

Date	5-22-13	Sec.	27	Twp.	12	Range	20	County	Ellis	State	Ks	On Location	2:15	Finish		
Lease	Ambarstor	Well No.	1-27	Location		Ellis Ks 2W 40 WIDE										
Contractor	WW Dels	F 9						Owner	2 1/2 E S W 11 1/2							
Type Job	PTA							To Quality Well Service, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.								
Hole Size	7 7/8	T.D.	3904													
Csg.		Depth														
Tbg. Size		Depth														
Tool		Depth														
Cement Left in Csg.		Shoe Joint														
Meas Line		Displace	The above was done to satisfaction and supervision of owner agent or contractor.													
Cement Amount Ordered													AS 6 1/2 40 Poz 4 1/2 ccl			
EQUIPMENT																
Pumptrk	8	No.	BROAD													Common
Bulktrk	10	No.	MILKE													Poz. Mix
Bulktrk		No.														Gel.
Pickup		No.														Calcium
JOB SERVICES & REMARKS																
Rat Hole																
Mouse Hole																
Centralizers																
Baskets																
D/V or Port Collar																
	Sand															
	Handling															
	Mileage															
FLOAT EQUIPMENT																
	Guide Shoe															
	Centralizer															
	Baskets															
	AFU Inserts															
	Float Shoe															
	Latch Down															
	LMJ 70															
	Pumptrk Charge PTA															
	Mileage 20															
Signature 													Tax			
													Discount			
													Total Charge			