KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1113440

Form ACO-1
June 2009
Form Must Be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 6039
Name: L. D. Drilling, Inc.
Address 1: 7 SW 26TH AVE
Address 2:
City: GREAT BEND State: KS Zip: 67530 + 6525
Contact Person: L. D. DAVIS
Phone: (620) 793-3051
CONTRACTOR: License # 6039
Name: L. D. Drilling, Inc.
Wellsite Geologist: KIM SHOEMAKER
Purchaser: M V PURCHASING

Designate Type of Completion:

- [x] New Well [ ] Re-Entry [ ] Workover
- [x] 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 #:

11/27/2012	12/08/2012	01/18/2013
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-063-21981-00-00
Spot Description:
N2 - SE - NE - SW Sec. 31 Twp. 14 S. R. 29 [ ] East [x] West
1700 Feet from [ ] North / [x] South Line of Section
2310 Feet from [ ] East / [x] West Line of Section

Footages Calculated from Nearest Outside Section Corner:
[ ] NE [ ] NW [ ] SE [x] SW

County: Gove
Lease Name: DARREL Well #: 2-31
Field Name: LUNDGREN
Producing Formation: MISSISSIPPI
Elevation: Ground: 2654 Kelly Bushing: 2660
Total Depth: 4415 Plug Back Total Depth: 4387
Amount of Surface Pipe Set and Cemented at: 302 Feet
Multiple Stage Cementing Collar Used? [x] Yes [ ] No
If yes, show depth set: 2097 Feet
If Alternate II completion, cement circulated from: 2097
feet depth to: 0 w/ 200 sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)

Chloride content: 2500 ppm Fluid volume: 0 bbls
Dewatering method used: Evaporated

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:**
- [x] **Wireline Log Received**
- [x] **Geologist Report Received**
- [ ] **UIC Distribution**

ALT [ ] I [x] II [ ] III **Approved by:** Deanna Garrison **Date:** 02/15/2013

Side Two

1113440

Operator Name: L. D. Drilling, Inc. Lease Name: DARREL Well #: 2-31

Sec. 31 Twp. 14 S. R. 29 ☐ East ☑ West County: Gove

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 ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☐ Yes ☑ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

Electric Log Submitted Electronically ☑ Yes ☐ No
(If no, Submit Copy)

List All E. Logs Run:

COMPENSATED DENSITY / NEUTRON LOG
DUAL INDUCTION LOG
MICRO LOG

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Attached	Attached	Attached

CASING RECORD ☑ New ☐ 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
SURFACE	12.25	8.625	24	302	60/40 POZMIX	185	3%CC, 1/4# CF
PRODUCTION	7.875	4.5	11.6	4414	COMMON	200	18% SALT
PRODUCTION TOP STAGE	7.875	4.5	11.6	4414	A-CON BLEND	500	3%CC, 1/4# CF

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 *(Amount and Kind of Material Used)*	Depth
4	4324 - 4328'	500 gal 28% HCL Acid	
		2000 gal 15% HCL Acid	

TUBING RECORD: Size: 2.375 Set At: 4103 Packer At:

Liner Run: ☐ Yes ☑ No

Date of First, Resumed Production, SWD or ENHR. 01/18/2013

Producing Method: ☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other *(Explain)*

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS:
☐ Vented ☐ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION:
☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☐ Other *(Specify)*

PRODUCTION INTERVAL:

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	L. D. Drilling, Inc.
Well Name	DARREL 2-31
Doc ID	1113440

Tops

Name	Top	Datum
ANHYDRITE	2057	+603
BASE ANHYDRITE	2085	+575
STOTLER	3292	-632
HEEBNER	3664	-1004
LANSING	3700	-1040
STARK	3950	-1290
MARMATON	4050	-1390
FORT SCOTT	4205	-1545
CHEROKEE	4231	-1571
MISSISSIPPI SPERGEN	4324	-1664

BASIC ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

10244 NE Hwy. 61
P.O. Box 8613
Pratt, Kansas 67124
Phone 620-672-1201

FIELD SERVICE TICKET

1718 07041 A

DATE TICKET NO.

DATE OF JOB 11-27-12 DISTRICT Kansas	NEW WELL ☒ OLD WELL ☐ PROD ☐ INJ ☐ WDW ☐ CUSTOMER ORDER NO.:
CUSTOMER L.D. Drilling INC	LEASE Darrel #2-31 WELL NO.
ADDRESS	COUNTY Gove 31-14-29 STATE Ks
CITY STATE	SERVICE CREW Allen, Ed, Mike L.
AUTHORIZED BY	JOB TYPE: 8 5/8 Surface CNW

EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS
28443 PU	1 1/2				
27463 PT	1 1/2				
19826-19860	1 1/2				

	DATE		TIME
TRUCK CALLED	11-27-12	AM PM	400
ARRIVED AT JOB	11-27-12	AM PM	730
START OPERATION	11-27-12	AM PM	1000
FINISH OPERATION	11-27-12	AM PM	1130
RELEASED	11-27-12	AM PM	1200
MILES FROM STATION TO WELL	100 miles		

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).
The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED: _____
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	$ AMOUNT
CP103	60/40 Poz	SK	185		$ 2200.00
CC102	Cell Flake	lb	47		$ 173.90
CC109	Calcium Chloride	lb	480		$ 504.00
E100	Unit mileage chg.	mi	100		$ 425.00
E101	Heavy Equip mileage	mi	200		$ 1400.00
E113	BLK Del. Chg.	Tm	400		$ 1200.00
CE200	Depth Chg. 0'-500'	4-hr	1		$ 1000.00
CE240	Blending & mixing service chg.	SK	185		$ 259.00
S003	Service Supervisor first 8hrs	En	1		$ 125.00

CHEMICAL / ACID DATA:			

SUB TOTAL $ 5577.68
DLS

SERVICE & EQUIPMENT	%TAX ON $	
MATERIALS	%TAX ON $	
	TOTAL	

SERVICE REPRESENTATIVE Allen Ward

THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY:
(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

FIELD SERVICE ORDER NO.

CLOUD LITHO - Abilene TX

BASIC energy services, L.P.

TREATMENT REPORT

Customer: L.D. Drilling INC.	Lease No.		Date: 11-27-12
Lease: Darrel	Well #: 2-31		
Field Order #: 37041A	Station: Pratt	Casing: 8 5/8"	Depth: 302
County: Gove	State: KS		
Type Job: 8 5/8" Surface CNW	Formation: TD 305	Legal Description: 31-14-29	

PIPE DATA		PERFORATING DATA		FLUID USED	TREATMENT RESUME		
Casing Size: 8 5/8"	Tubing Size	Shots/Ft		Acid: 185 sks 60/40 Poz 3%cc 1/4# C.F @ 14.8#	RATE	PRESS	ISIP
Depth: 302	Depth	From	To	Pre Pad	Max		5 Min.
Volume: 19 BBL	Volume	From	To	Pad	Min		10 Min.
Max Press: 300	Max Press	From	To	Frac	Avg		15 Min.
Well Connection: Swage	Annulus Vol.	From	To		HHP Used		Annulus Pressure
Plug Depth: 280	Packer Depth	From	To	Flush: Disp H2O	Gas Volume		Total Load

Customer Representative: Rick TP	Station Manager: Scott			Treater: Allen	
Service Units	21443	27463	19826	19860	
Driver Names	Allen	Cole Mangelsen	Mike	Lawerence	

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log: L.D. Rig
730					on Loc. Discuss safety, Setup Plan To
					Rig @ 194
830					Hole cut @ 305' - CIR.
930					out of Hole w/ Bit
@					Rig up To Run 8 5/8" Csg. 24#
945					Start 8 5/8 csg.
1015					csg @ 302 CIRC w/ Rig.
1040				4	Start mix cmt 185 sks
					60/40 Poz 3%cc 1/4# C.F @ 14.8#
1105			40		Finish mix
1110				3 1/2	Start Disp.
1115			18	2	Plug down.
					Shut in @ well
					Release PSI
					Washup + Rackup Equip.
1200					Job complete
					cement CIR To Pit
					Thanks
					Allen Ed + Mike C.

Taylor Printing, Inc. 620-672-3656

BASIC ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

10244 NE Hwy. 61
P.O. Box 8613
Pratt, Kansas 67124
Phone 620-672-1201

FIELD SERVICE TICKET

1718 07078 A

DATE TICKET NO.

DATE OF JOB 12-9-12 DISTRICT Kansas	NEW WELL ☒ OLD WELL ☐ PROD ☐ INJ ☐ WDW ☐ CUSTOMER ORDER NO.:
CUSTOMER L.D. Drilling Inc	LEASE Darrel # 2-31 WELL NO.
ADDRESS	COUNTY Lane 31-14-29 STATE Kans.
CITY STATE	SERVICE CREW Allen, mike, Dale, Steve, Kevin
AUTHORIZED BY	JOB TYPE: 4½" - 2 Stage L.S. SNW

EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS
28443 PU	2½				
19903-19905	2½				
70959-19918	2½				
19959-21010	2½				
19907 PU	2½				

	DATE	AM/PM	TIME
TRUCK CALLED	12-8-12	AM PM	930
ARRIVED AT JOB	12-9-12	AM PM	600
START OPERATION	12-9-12	AM PM	1100
FINISH OPERATION	12-9-12	AM PM	130
RELEASED	12-9-12	AM PM	200
MILES FROM STATION TO WELL	100 · miles		

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).
The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED:
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	$ AMOUNT
CP100	Common Cement	SK	200		$ 3200 00
CP101	A-Con Blend Common	SK	440		$ 7920 00
CP101	A-Con Blend Common	SK	60		$ 1080 00
CC102	Cell Flake	lb	125		$ 462 50
CC105	C-41P Defoamer	lb	47		$ 188 00
CC109	Calcium Chloride	lb	1413		$ 1483 65
CC111	Salt	lb	1621		$ 810 50
CC112	Cement Friction Reducer	lb	141		$ 846 00
CC113	Gypsum	lb			$ 705 00
CC201	Bilsonite	lb	1000		$ 670 00
CF400	Two Stage Cement Collar 4½" Red	EA	1		$ 4500 00
CF500	4½" Latch Down Plug Assembly Red	EA	1		$ 720 00
CF1250	Auto Fill Float Shoe 4½" Blue	EA	1		$ 330 00
CF1650	Turbolizer 4½ Blue	EA	7		$ 595 00
CF1900	4½" Basket Blue	EA	1		$ 270 00

CHEMICAL / ACID DATA:			

SUB TOTAL DLS

SERVICE & EQUIPMENT	%TAX ON $	
MATERIALS	%TAX ON $	
	TOTAL	

SERVICE REPRESENTATIVE Allen F. Weath

THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY:
(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

FIELD SERVICE ORDER NO.

BASIC ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

10244 NE Hwy. 61
P.O. Box 8613
Pratt, Kansas 67124
Phone 620-672-1201

FIELD SERVICE TICKET

1718 07077 A

Continuation of

DATE TICKET NO. 070784

DATE OF JOB 12-9-12 DISTRICT KANSAS	NEW WELL ☒ OLD WELL ☐ PROD ☐ INJ ☐ WDW ☐ CUSTOMER ORDER NO.:
CUSTOMER L. D. Drilling Inc.	LEASE Darrel #2-31 WELL NO.
ADDRESS	COUNTY Lane 31-14-29 STATE KS
CITY STATE	SERVICE CREW Allen, Mike, Dale, Steve, Kevin
AUTHORIZED BY	JOB TYPE: 4 1/2" Long String 2-Stage New

EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS
28443 P.U.					
19903-19905					
70959-19918					
19959-21010					
19907 P.U.					

	DATE	AM/PM	TIME
TRUCK CALLED	12-8-12	AM PM	830
ARRIVED AT JOB	12-9-12	AM PM	600
START OPERATION		AM PM	
FINISH OPERATION		AM PM	
RELEASED		AM PM	
MILES FROM STATION TO WELL	100-mile		

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).
The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED: _____
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	$ AMOUNT
E100	Unit mileage Charge P.U.	mi	100		$ 425.00
E101	Heavy Equip. mileage	mi	300		$ 2100.00
E113	Bulk Delivery Charge	tm	3285		$ 2628.00
CE205	Depth Charge 4001-5000'	4-hr	1		$ 2500.00
CE240	Blending & Mixing Service Chg.	sk	700		$ 980.00
CE504	Plug Container Utilization chg.	Job	1		$ 250.00
S003	Service Supervisor first 8 hrs	EA	1		$ 175.00
CE203	Depth Charge 2001-3000'	4-hr	1		$ 16000.00

SUB TOTAL $ 27,976.99

CHEMICAL / ACID DATA:

SERVICE & EQUIPMENT	%TAX ON $	
MATERIALS	%TAX ON $	
	TOTAL	

SERVICE REPRESENTATIVE Allen L. Ward

THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: Robert Wilson
(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

FIELD SERVICE ORDER NO.

CLOUD LITHO - Abilene, TX

BASIC energy services, L.P.

#1 Bottom Stage

TREATMENT REPORT

Customer	Lease No.	Date
L.D. Drilling INC.		12-9-12
Lease Darrel	**Well #** #2-31	

Field Order #	Station	Casing	Depth	County	State
07053RA	Pratt KS	4 1/2"	4418	Lane	KS

Type Job	Formation	Legal Description
4 1/2" Long String 2-Stage CNW	TD 4415' - LTD 4420	31-14-29

PIPE DATA		PERFORATING DATA		FLUID USED	TREATMENT RESUME		
Casing Size 4 1/2	Tubing Size	Shots/Ft		Acid 30 sks AGent 13# Scavenger	RATE	PRESS	ISIP
Depth 4418	Depth	From	To	Pre Pad 200 sks common 15.5#	Max		5 Min.
Volume 68	Volume	From	To	Pad 30 sks AGent	Min	Rat Hole	10 Min.
Max Press 1500#	Max Press	From	To	Frac 340 sks A-Con Top Stage @ 12#	Avg		15 Min.
Well Connection PC	Annulus Vol.	From	To		HHP Used		Annulus Pressure
Plug Depth 4403	Packer Depth	From	To	Flush Disp H20	Gas Volume		Total Load

Customer Representative	Station Manager	Treater
	Scotty	Allen

Service Units	28443	19903	19905	20959	19918	19959	21010	19907			
Driver Names	Allen	Mike	Mathl	Dale	Phye	Steve	Young	Kevin			

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
600 AM					on Loc. Discuss Safety, Setup, Plan Job
					Laying down Drill Pipe
700					out of Hole, Rig up To Run 4 1/2 csg.
					11.6#/Ft "Float Shoe"
900					Start 4 1/2" csg. Shoe Joint 15'
					w/ Latch Down Baffle in Collar
					Cent - 1-3-5-7-9-11-52
					Basket Bottom #53 - DV Top #53
1100					Casing @ 4418 circ w/ Rig
1125	300#		15	5	stmix 30 sks A-con Scavenger 13#
			48	5	stmix 200 sks com. @ 15.5#
					Finish mix, washout Pump + Line
				6 1/2	Drop Plug 4 1/2" Start Disp.
					Pump 40 BBL H20 + 28 BBl mud
	500#				caught Lift
1206	1500#		68	4 1/2	Plug down
					Release PSI - OK
1205					Drop DV opening Dart
1210	800#				open DV
					Pump OFF mud - good circ.

Taylor Printing, Inc. 620-672-3656

BASIC energy services, L.P.

TREATMENT REPORT

Top Stage #2

Customer	Lease No.	Date
L.D. Drilling, INC		12-9-12
Lease	**Well #**	
Darrel # 2-31	2-31	

Field Order #	Station	Casing	Depth	County	State
070764	Pratt	4 1/2"	2097'	Lane	Ks

Type Job	Formation	Legal Description
4 1/2 2-Stage CNW	DV @ 2097	31-14-29

PIPE DATA		PERFORATING DATA		FLUID USED	TREATMENT RESUME		
Casing Size 4 1/2	Tubing Size	Shots/Ft		Acid 440 sks A-Con Blend @	RATE	PRESS	ISIP
Depth 2097	Depth	From	To	Pre Pad	Max		5 Min.
Volume 32 1/2	Volume	From	To	Pad Plug RH w/30 sks.	Min		10 Min.
Max Press 1500	Max Press	From	To	Frac	Avg		15 Min.
Well Connection PC	Annulus Vol.	From	To		HHP Used		Annulus Pressure
Plug Depth 2097	Packer Depth	From	To	Flush Disp H2O	Gas Volume		Total Load

Customer Representative	Station Manager	Treater
Rick TP	Scott	Allen

Service Units	28443	19903	19905	70959	19918	19959	21010	19907			
Driver Names	Allen	Mike	Marhal	Dale	Phye	Steve	Young	Kent			

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
1210	209			6	Start mix 440 sks ACon @ 12#
			194		Finish mix
					wash out Pump & Line
					Drop Closing Plug
				5	Start Disp.
115	1800		32 1/2	4 1/2	Plug down
					Release PSI OK
			7		Plug R.H. w/ 30 sks A-Con
					Wash up & Rack up Equip
					Job complete
					Thanks Allen Mike
					Steve, Dale Kent
					Cmt Cir To Pit

Taylor Printing, Inc. 620-672-3656

DIAMOND TESTING

General Information Report

General Information

Company Name	L.D. DRILLING, INC.	**Representative**	TIM VENTERS
Contact	L.D. DAVIS	**Well Operator**	L.D. DRILLING, INC.
Well Name	DARREL #2-31	**Report Date**	2012/12/03
Unique Well ID	DST #1, LEAV./TOR./LAN., 3663-3704	**Prepared By**	TIM VENTERS
Surface Location	SEC 31-14S-29W, GOVE CO. KS.		
Field	LUNDGREN	**Qualified By**	KIM SHOEMAKER
Well Type	Vertical		
Test Type	CONVENTIONAL		
Formation	DST #1, LEAV./TOR./LAN.. 3663-3704		
Well Fluid Type	01 Oil		
Start Test Date	2012/12/02	**Start Test Time**	17:39:00
Final Test Date	2012/12/03	**Final Test Time**	01:01:00

Test Recovery:

RECOVERED: 40' SOCM, 3% OIL, 97% MUD

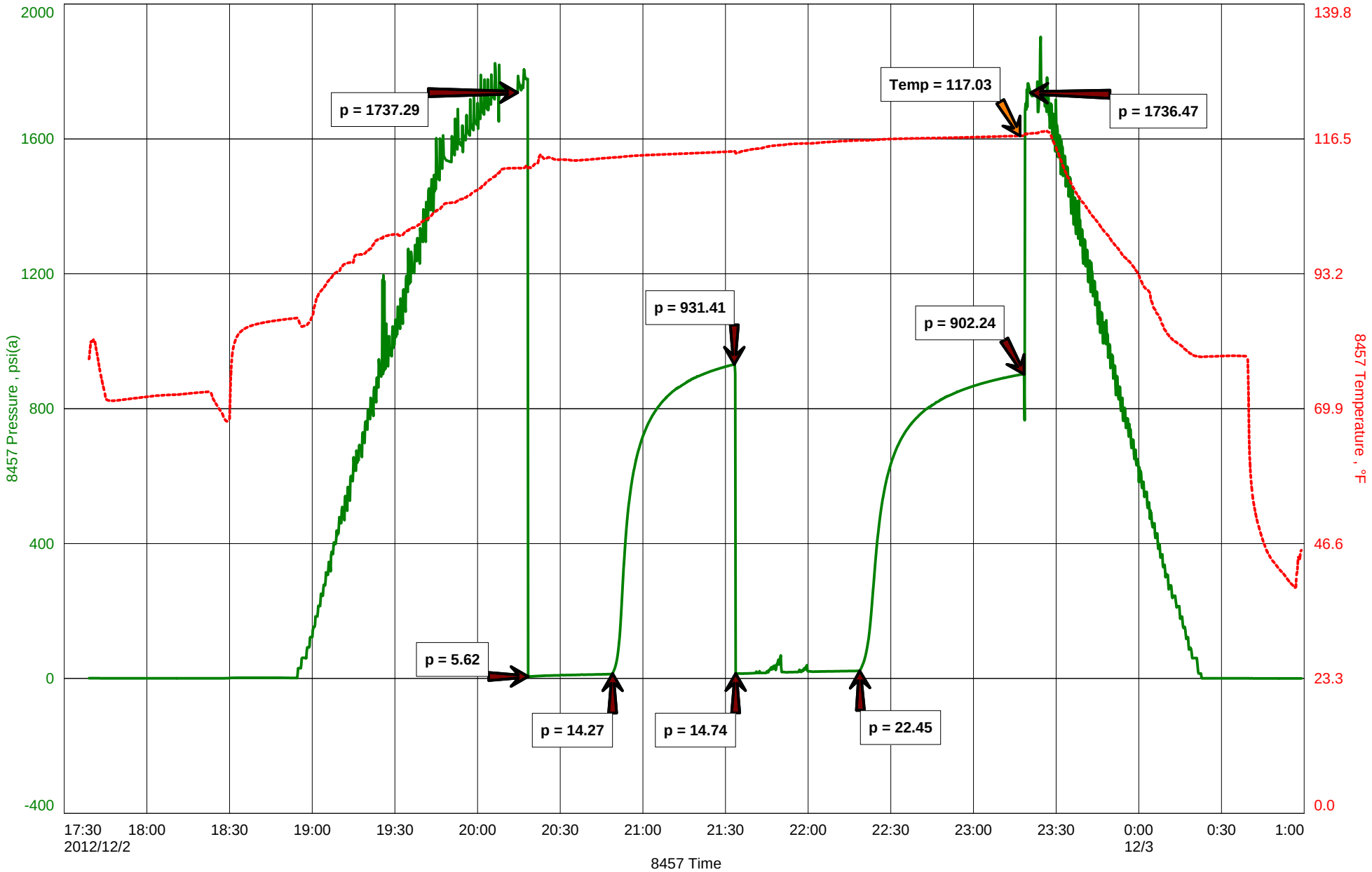
TOOL SAMPLE: 21% OIL, 19% WATER, 60% MUD

CHLORIDES: 23,000 ppm
PH: 6.5
RW: .33 @ 87 deg

L.D. DRILLING, INC.
DST #1, LEAV./TOR./LAN., 3663-3704
Start Test Date: 2012/12/02
Final Test Date: 2012/12/03

DARREL #2-31
Formation: DST #1, LEAV./TOR./LAN.. 3663-3704
Pool: LUNDGREN
Job Number: T129

DARREL #2-31



DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313

DRILL-STEM TEST TICKET
FILE: DARREL2-31DST1

TIME ON: 17:39 12-2-12
TIME OFF: 01:01 12-3-12

Company L.D. DRILLING, INC — Lease & Well No. DARREL #2-31
Contractor L.D. DRILLING, INC. RIG #1 — Charge to L.D. DRILLING, INC.
Elevation 2660 KB — Formation LEAV./TOR./LANS. — Effective Pay ____ Ft. — Ticket No. T129
Date 12-2-12 — Sec. 31 — Twp. 14 S — Range 29 W — County GOVE — State KANSAS
Test Approved By KIM SHOEMAKER — Diamond Representative TIMOTHY T. VENTERS

Formation Test No. 1 — Interval Tested from 3663 ft. to 3704 ft. — Total Depth 3704 ft.
Packer Depth 3658 ft. — Size 6 3/4 in. — Packer depth ____ ft. — Size 6 3/4 in.
Packer Depth 3663 ft. — Size 6 3/4 in. — Packer depth ____ ft. — Size 6 3/4 in.
Depth of Selective Zone Set ____

Top Recorder Depth (Inside) 3644 ft. — Recorder Number 8457 — Cap. 10,000 P.S.I.
Bottom Recorder Depth (Outside) 3701 ft. — Recorder Number 11030 — Cap. 5,025 P.S.I.
Below Straddle Recorder Depth ____ ft. — Recorder Number ____ — Cap. ____ P.S.I.

Mud Type CHEMICAL — Viscosity 51 — Drill Collar Length 0 ft. — I.D. 2 1/4 in.
Weight 9.1 — Water Loss 8.8 cc. — Weight Pipe Length 0 ft. — I.D. 2 7/8 in
Chlorides 2,000 P.P.M. — Drill Pipe Length 3630 ft. — I.D. 3 1/2 in
Jars: Make STERLING — Serial Number 4 — Test Tool Length 33 ft. — Tool Size 3 1/2-IF in
Did Well Flow? NO — Reversed Out NO — Anchor Length 41 ft. — Size 4 1/2-FH in
Main Hole Size 7 7/8 — Tool Joint Size 4 1/2 XH in. — Surface Choke Size 1 in. — Bottom Choke Size 5/8 in

Blow: 1st Open: WEAK SURFACE BLOW, BUILDING TO 2 1/4 INCHES. (NOBB)
2nd Open: VERY WEAK SURFACE BLOW, BUILDING TO 2 1/2 INCHES. (NOBB)

Recovered 40 ft. of SOCM, 3% OIL, 97% MUD
Recovered ____ ft. of ____
Recovered ____ ft. of ____
Recovered ____ ft. of ____
Recovered ____ ft. of CHLORIDES: 23,000 ppm
Recovered ____ ft. of PH: 6.5
Remarks: RW: .33 @ 87 deg.

TOOL SAMPLE: 21% OIL, 19% WATER, 60% MUD

Price Job	
Other Charges	
Insurance	
Total	

Time Set Packer(s) 8:19 PM A.M. P.M. — Time Started Off Bottom 11:19 PM A.M. P.M. — Maximum Temperature 117 deg.

Initial Hydrostatic Pressure ..... (A) 1737 P.S.I.
Initial Flow Period ..... Minutes 30 (B) 6 P.S.I. to (C) 14 P.S.I.
Initial Closed In Period ..... Minutes 45 (D) 931 P.S.I.
Final Flow Period ..... Minutes 45 (E) 15 P.S.I. to (F) 22 P.S.I.
Final Closed In Period ..... Minutes 60 (G) 902 P.S.I.
Final Hydrostatic Pressure ..... (H) 1736 P.S.I.

DIAMOND TESTING

General Information Report

General Information

Company Name	**L.D. DRILLING, INC.**	**Representative**	**TIM VENTERS**
Contact	**L.D. DAVIS**	**Well Operator**	**L.D. DRILLING, INC.**
Well Name	**DARREL #2-31**	**Report Date**	**2012/12/03**
Unique Well ID	**DST #2, LANSING "B", 3720-3742**	**Prepared By**	**TIM VENTERS**
Surface Location	**SEC 31-14S-29W, GOVE CO. KS.**		
Field	**LUNDGREN**	**Qualified By**	**KIM SHOEMAKER**
Well Type	**Vertical**		
Test Type	**CONVENTIONAL**		
Formation	**DST #2, LANSING "B", 3720-3742**		
Well Fluid Type	**01 Oil**		
Start Test Date	**2012/12/03**	**Start Test Time**	**09:19:00**
Final Test Date	**2012/12/03**	**Final Test Time**	**17:52:00**

Test Recovery:

RECOVERED: 515' GAS IN PIPE
100' G,SMCO, 2% GAS, 96% OIL, 2% MUD, GRAVITY: 35
270' G,O&MCW, 7% GAS, 16% OIL, 58% WATER, 19% MUD
630' SO&MCW, 4% OIL, 91% WATER, 5% MUD
125' SO,WCM, 3% OIL, 37% WATER, 60% MUD
1125' TOTAL FLUID

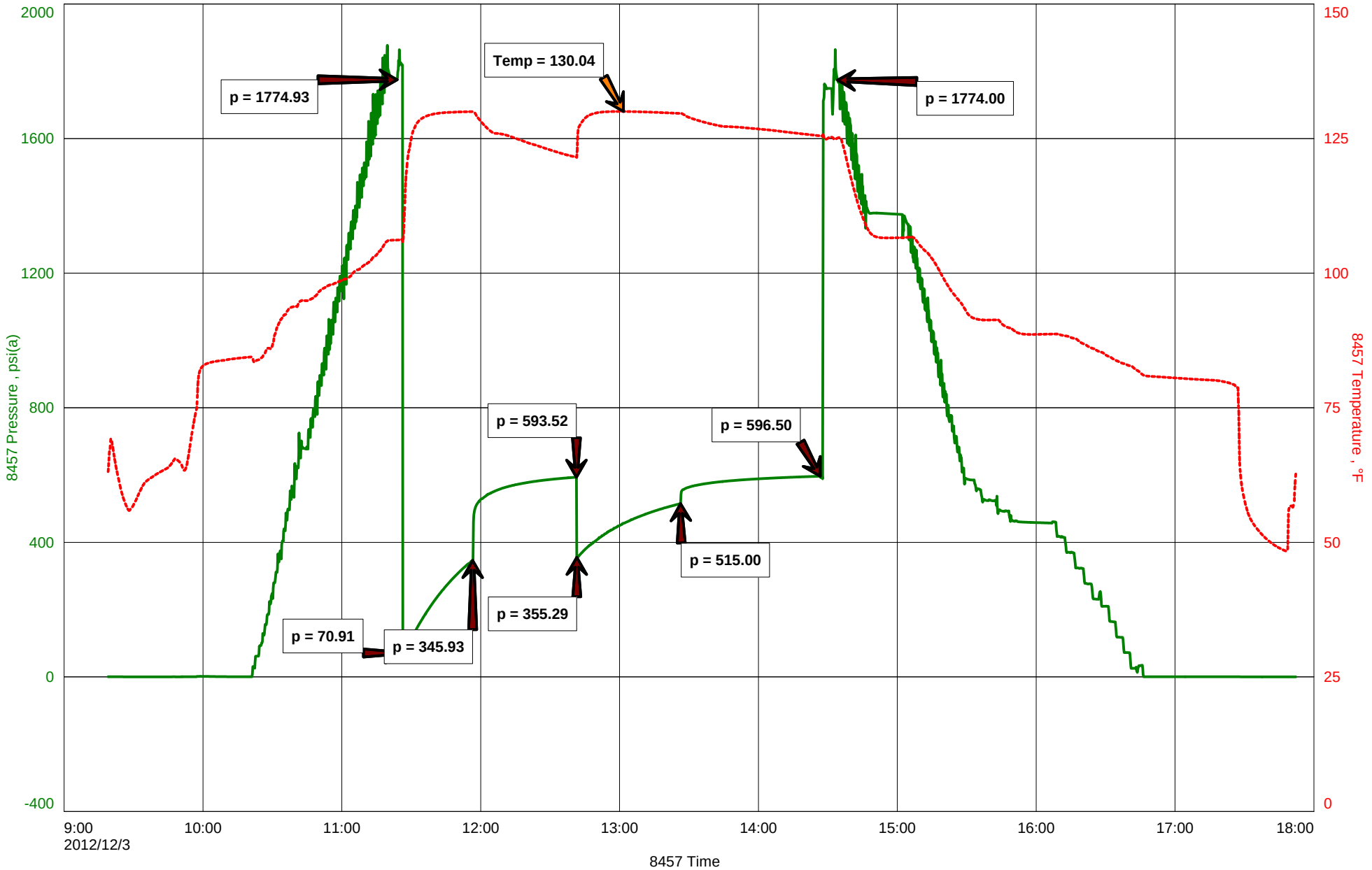
TOOL SAMPLE: 5% OIL, 94% WATER, 1% MUD

CHLORIDES: 95,000 ppm
PH: 7.0
RW: .12 @ 73 deg.

L.D. DRILLING, INC.
DST #2, LANSING "B", 3720-3742
Start Test Date: 2012/12/03
Final Test Date: 2012/12/03

DARREL #2-31
Formation: DST #2, LANSING "B", 3720-3742
Pool: LUNDGREN
Job Number: T130

DARREL #2-31



DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313

DRILL-STEM TEST TICKET
FILE: DARREL2-31DST2

TIME ON: 09:19
TIME OFF: 17:52

Company L.D. DRILLING, INC — Lease & Well No. DARREL #2-31
Contractor L.D. DRILLING, INC. RIG #1 — Charge to L.D. DRILLING, INC.
Elevation 2660 KB — Formation LANSING "B" — Effective Pay ____ Ft. — Ticket No. T130
Date 12-3-12 — Sec. 31 — Twp. 14 S — Range 29 W — County GOVE — State KANSAS
Test Approved By KIM SHOEMAKER — Diamond Representative TIMOTHY T. VENTERS

Formation Test No. 2 — Interval Tested from 3720 ft. to 3742 ft. — Total Depth 3742 ft.
Packer Depth 3715 ft. — Size 6 3/4 in. — Packer depth ____ ft. — Size 6 3/4 in.
Packer Depth 3720 ft. — Size 6 3/4 in. — Packer depth ____ ft. — Size 6 3/4 in.
Depth of Selective Zone Set ____

Top Recorder Depth (Inside) 3701 ft. — Recorder Number 8457 — Cap. 10,000 P.S.I.
Bottom Recorder Depth (Outside) 3739 ft. — Recorder Number 11030 — Cap. 5,025 P.S.I.
Below Straddle Recorder Depth ____ ft. — Recorder Number ____ — Cap. ____ P.S.I.

Mud Type CHEMICAL — Viscosity 52 — Drill Collar Length 0 ft. — I.D. 2 1/4 in.
Weight 9.2 — Water Loss 9.6 cc. — Weight Pipe Length 0 ft. — I.D. 2 7/8 in
Chlorides 1,000 P.P.M. — Drill Pipe Length 3687 ft. — I.D. 3 1/2 in
Jars: Make STERLING — Serial Number 4 — Test Tool Length 33 ft. — Tool Size 3 1/2-IF in
Did Well Flow? NO — Reversed Out NO — Anchor Length 22 ft. — Size 4 1/2-FH in
Main Hole Size 7 7/8 — Tool Joint Size 4 1/2 XH in. — Surface Choke Size 1 in. — Bottom Choke Size 5/8 in

Blow: 1st Open: GOOD 2 INCH BLOW, BUILDING, REACHING BOB 3 MIN. (9"BB)
2nd Open: WEAK 1/2 INCH BLOW, BUILDING, REACHING BOB 6 MIN. (5"BB)

Recovered 515 ft. of GAS IN PIPE
Recovered 100 ft. of G,SMCO, 2% GAS, 96% OIL, 2% MUD GRAVITY: 35
Recovered 270 ft. of G,O&MCW, 7% GAS, 16% OIL, 58% WATER, 19% MUD
Recovered 630 ft. of SO&MCW, 4% OIL, 91% WATER, 5% MUD
Recovered 125 ft. of SO,WCM, 35 OIL, 37% WATER, 60% MUD
Recovered 1125 ft. of TOTAL FLUID
CHLORIDES: 95,000 ppm
PH: 7.0
RW: .12 @ 73 deg.
TOOL SAMPLE: 5% OIL, 94% WATER, 1% MUD

Remarks:

Price Job
Other Charges
Insurance
Total

Time Set Packer(s) 11:26 AM A.M. P.M. — Time Started Off Bottom 2:26 PM A.M. P.M. — Maximum Temperature 130 deg.

Initial Hydrostatic Pressure ..... (A) 1775 P.S.I.
Initial Flow Period ..... Minutes 30 (B) 71 P.S.I. to (C) 346 P.S.I.
Initial Closed In Period ..... Minutes 45 (D) 594 P.S.I.
Final Flow Period ..... Minutes 45 (E) 355 P.S.I. to (F) 515 P.S.I.
Final Closed In Period ..... Minutes 60 (G) 597 P.S.I.
Final Hydrostatic Pressure ..... (H) 1774 P.S.I.

DIAMOND TESTING

General Information Report

General Information

Company Name	L.D. DRILLING, INC.	**Representative**	TIM VENTERS
Contact	L.D. DAVIS	**Well Operator**	L.D. DRILLING, INC.
Well Name	DARREL #2-31	**Report Date**	2012/12/04
Unique Well ID	DST #3, LANSING "D", 3740-3790	**Prepared By**	TIM VENTERS
Surface Location	SEC 31-14S-29W, GOVE CO. KS.		
Field	LUNDGREN	**Qualified By**	KIM SHOEMAKER
Well Type	Vertical		
Test Type	CONVENTIONAL		
Formation	DST #3, LANSING "D", 3740-3790		
Well Fluid Type	01 Oil		
Start Test Date	2012/12/04	**Start Test Time**	02:25:00
Final Test Date	2012/12/04	**Final Test Time**	09:27:00

Test Recovery:

RECOVERED: 80' GAS IN PIPE
20' CLEAN OIL, GRAVITY: 35
470' SO,MW, 3% OIL, 68% WATER, 29% MUD
490' TOTAL FLUID

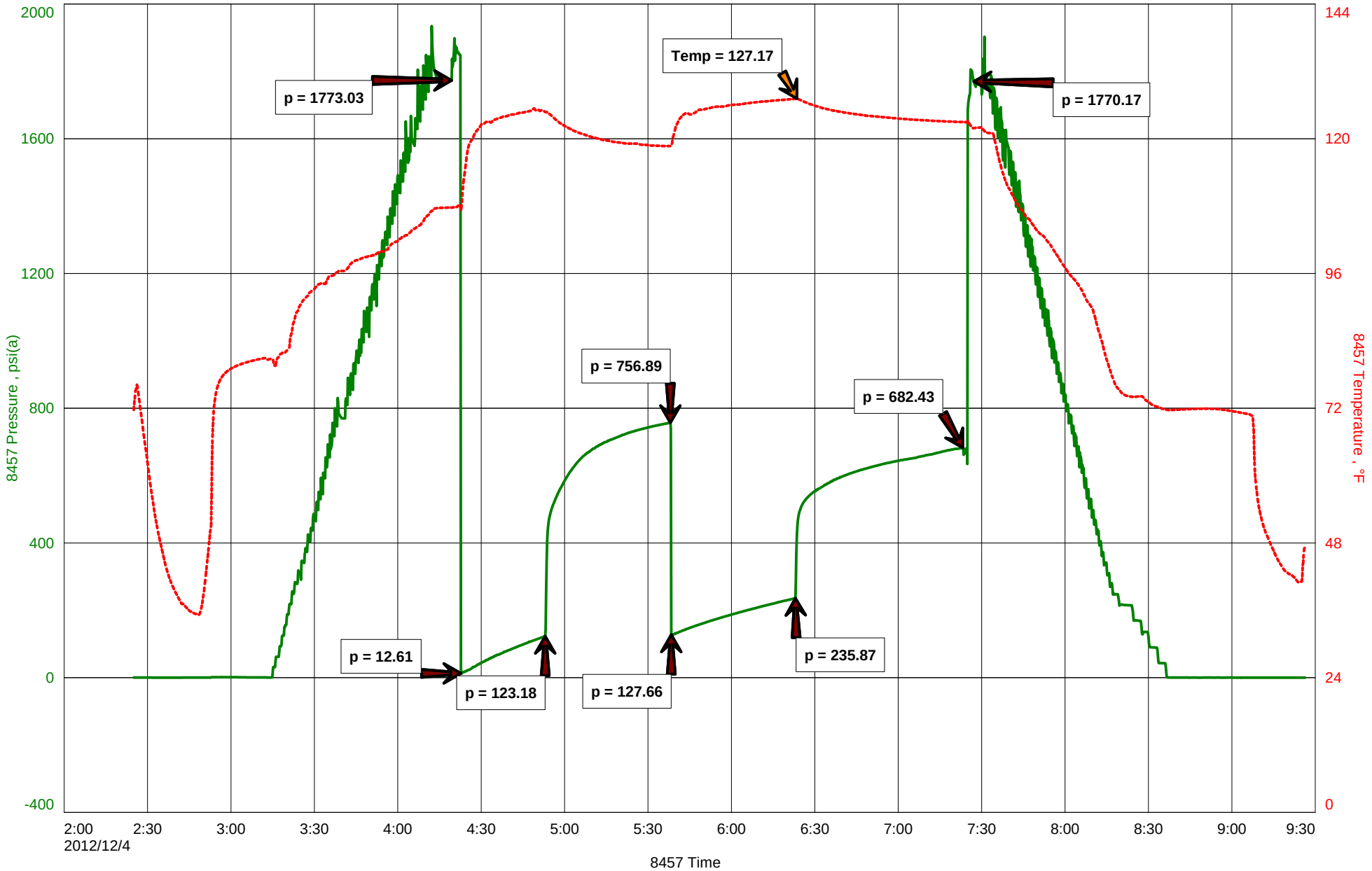
TOOL SAMPLE: TRACE OIL, 100% WATER

CHLORIDES: 88,000 ppm
PH: 7.0
RW: .13 @ 79 deg.

L.D. DRILLING, INC.
DST #3, LANSING "D", 3740-3790
Start Test Date: 2012/12/04
Final Test Date: 2012/12/04

DARREL #2-31
Formation: DST #3, LANSING "D", 3740-3790
Pool: LUNDGREN
Job Number: T131

DARREL #2-31



DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313

DRILL-STEM TEST TICKET
FILE: DARREL2-31DST3

TIME ON: 02:25
TIME OFF: 09:27

Company L.D. DRILLING, INC — Lease & Well No. DARREL #2-31
Contractor L.D. DRILLING, INC. RIG #1 — Charge to L.D. DRILLING, INC.
Elevation 2660 KB — Formation LANSING "D" — Effective Pay ____ Ft. — Ticket No. T131
Date 12-4-12 — Sec. 31 — Twp. 14 S — Range 29 W — County GOVE — State KANSAS
Test Approved By KIM SHOEMAKER — Diamond Representative TIMOTHY T. VENTERS

Formation Test No. 3 — Interval Tested from 3740 ft. to 3790 ft. — Total Depth 3790 ft.
Packer Depth 3735 ft. — Size 6 3/4 in. — Packer depth ____ ft. — Size 6 3/4 in.
Packer Depth 3740 ft. — Size 6 3/4 in. — Packer depth ____ ft. — Size 6 3/4 in.
Depth of Selective Zone Set ____

Top Recorder Depth (Inside) 3726 ft. — Recorder Number 8457 — Cap. 10,000 P.S.I.
Bottom Recorder Depth (Outside) 3787 ft. — Recorder Number 11030 — Cap. 5,025 P.S.I.
Below Straddle Recorder Depth ____ ft. — Recorder Number ____ — Cap. ____ P.S.I.

Mud Type CHEMICAL — Viscosity 52 — Drill Collar Length 0 ft. — I.D. 2 1/4 in.
Weight 9.2 — Water Loss 9.6 cc. — Weight Pipe Length 0 ft. — I.D. 2 7/8 in
Chlorides 1,000 P.P.M. — Drill Pipe Length 3707 ft. — I.D. 3 1/2 in
Jars: Make STERLING — Serial Number 4 — Test Tool Length 33 ft. — Tool Size 3 1/2-IF in
Did Well Flow? NO — Reversed Out NO — Anchor Length 18 ft. — Size 4 1/2-FH in
32' DP IN ANCHOR
Main Hole Size 7 7/8 — Tool Joint Size 4 1/2 XH in. — Surface Choke Size 1 in. — Bottom Choke Size 5/8 in

Blow: 1st Open: WEAK 1/2 INCH BLOW, BULDING, REACHING BOB 10 MIN. (1/4"BB)
2nd Open: WEAK 1 INCH BLOW, BUILDING, REACHING BOB 17 MIN. (WSBB)

Recovered 80 ft. of GAS IN PIPE
Recovered 20 ft. of CLEAN OIL, GRAVITY: 35
Recovered 470 ft. of SO,MW, 3% OIL, 68% WATER, 29% MUD
Recovered 490 ft. of TOTAL FLUID
Recovered ____ ft. of ____
Recovered ____ ft. of ____
Remarks: CHLORIDES: 88,000 ppm; PH: 7.0; RW: .13 @ 79 deg.
TOOL SAMPLE: TRACE OIL, 100% WATER

Price Job	
Other Charges	
Insurance	
Total	

Time Set Packer(s) 4:22 AM A.M. P.M. — Time Started Off Bottom 7:22 AM A.M. P.M. — Maximum Temperature 127 deg.

Initial Hydrostatic Pressure ..... (A) 1773 P.S.I.
Initial Flow Period ..... Minutes 30 (B) 13 P.S.I. to (C) 123 P.S.I.
Initial Closed In Period ..... Minutes 45 (D) 757 P.S.I.
Final Flow Period ..... Minutes 45 (E) 128 P.S.I. to (F) 236 P.S.I.
Final Closed In Period ..... Minutes 60 (G) 682 P.S.I.
Final Hydrostatic Pressure ..... (H) 1770 P.S.I.

DIAMOND TESTING

General Information Report

General Information

Company Name	L.D. DRILLING, INC.	**Representative**	TIM VENTERS
Contact	L.D. DAVIS	**Well Operator**	L.D. DRILLING, INC.
Well Name	DARREL #2-31	**Report Date**	2012/12/05
Unique Well ID	DST #4, LKC "H-I-J", 3857-3940	**Prepared By**	TIM VENTERS
Surface Location	SEC 31-14S-29W, GOVE CO. KS.		
Field	LUNDGREN	**Qualified By**	KIM SHOEMAKER
Well Type	Vertical		
Test Type	CONVENTIONAL		
Formation	DST #4, LKC "H-I-J", 3857-3940		
Well Fluid Type	01 Oil		
Start Test Date	2012/12/05	**Start Test Time**	01:21:00
Final Test Date	2012/12/05	**Final Test Time**	07:05:12

Test Recovery:

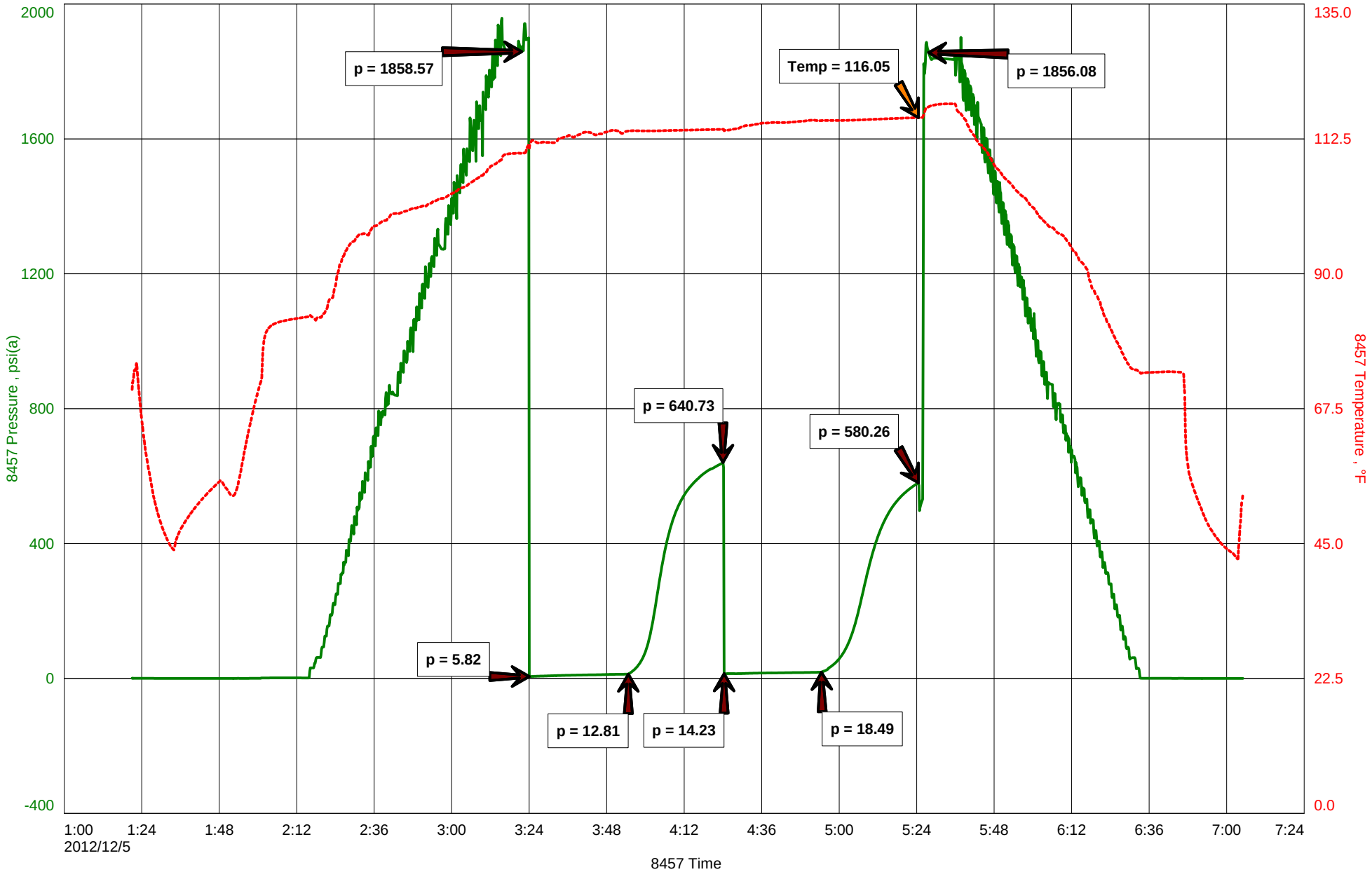
RECOVERED: 30' M W/VSTR. O, VERY SLIGHT TRACE OIL, 100% MUD

TOOL SAMPLE: TRACE OIL, 100% MUD

L.D. DRILLING, INC.
DST #4, LKC "H-I-J", 3857-3940
Start Test Date: 2012/12/05
Final Test Date: 2012/12/05

DARREL #2-31
Formation: DST #4, LKC "H-I-J", 3857-3940
Pool: LUNDGREN
Job Number: T132

DARREL #2-31



DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313

DRILL-STEM TEST TICKET
FILE: DARREL2-31DST4

TIME ON: 01:21
TIME OFF: 07:05

Company L.D. DRILLING, INC — Lease & Well No. DARREL #2-31
Contractor L.D. DRILLING, INC. RIG #1 — Charge to L.D. DRILLING, INC.
Elevation 2660 KB — Formation LKC "H-I-J" — Effective Pay ____ Ft. — Ticket No. T132
Date 12-5-12 — Sec. 31 — Twp. 14 S — Range 29 W — County GOVE — State KANSAS
Test Approved By KIM SHOEMAKER — Diamond Representative TIMOTHY T. VENTERS

Formation Test No. 4 — Interval Tested from 3857 ft. to 3940 ft. — Total Depth 3940 ft.
Packer Depth 3852 ft. — Size 6 3/4 in. — Packer depth ____ ft. — Size 6 3/4 in.
Packer Depth 3857 ft. — Size 6 3/4 in. — Packer depth ____ ft. — Size 6 3/4 in.
Depth of Selective Zone Set ____

Top Recorder Depth (Inside) 3838 ft. — Recorder Number 8457 — Cap. 10,000 P.S.I.
Bottom Recorder Depth (Outside) 3937 ft. — Recorder Number 11030 — Cap. 5,025 P.S.I.
Below Straddle Recorder Depth ____ ft. — Recorder Number ____ — Cap. ____ P.S.I.

Mud Type CHEMICAL — Viscosity 50 — Drill Collar Length 0 ft. — I.D. 2 1/4 in.
Weight 9.2 — Water Loss 9.6 cc. — Weight Pipe Length 0 ft. — I.D. 2 7/8 in
Chlorides 2,000 P.P.M. — Drill Pipe Length 3824 ft. — I.D. 3 1/2 in
Jars: Make STERLING — Serial Number 4 — Test Tool Length 33 ft. — Tool Size 3 1/2-IF in
Did Well Flow? NO — Reversed Out NO — Anchor Length 20 ft. — Size 4 1/2-FH in
63' DP IN ANCHOR
Main Hole Size 7 7/8 — Tool Joint Size 4 1/2 XH in. — Surface Choke Size 1 in. — Bottom Choke Size 5/8 in

Blow: 1st Open: WEAK 1/4 INCH BLOW, BULDING TO 2 INCHES. (NOBB)
2nd Open: WEAK SURFACE BLOW, BUILDING TO 1/2 INCH. (NOBB)

Recovered 30 ft. of M W/VSTR.O, VERY SLIGHT TRACE OIL, 100% MUD
Recovered ____ ft. of ____
Recovered ____ ft. of ____
Recovered ____ ft. of ____
Recovered ____ ft. of ____
Recovered ____ ft. of ____
Recovered ____ ft. of ____
Remarks: ____

TOOL SAMPLE: TRACE OIL, 100% MUD

Price Job	
Other Charges	
Insurance	
Total	

Time Set Packer(s) 3:22 AM A.M. P.M. — Time Started Off Bottom 5:22 AM A.M. P.M. — Maximum Temperature 116 deg.

Initial Hydrostatic Pressure ..... (A) 1859 P.S.I.
Initial Flow Period ..... Minutes 30 (B) 6 P.S.I. to (C) 13 P.S.I.
Initial Closed In Period ..... Minutes 30 (D) 641 P.S.I.
Final Flow Period ..... Minutes 30 (E) 14 P.S.I. to (F) 18 P.S.I.
Final Closed In Period ..... Minutes 30 (G) 580 P.S.I.
Final Hydrostatic Pressure ..... (H) 1856 P.S.I.

DIAMOND TESTING

General Information Report

General Information

Company Name	**L.D. DRILLING, INC.**	**Representative**	**TIM VENTERS**
Contact	**L.D. DAVIS**	**Well Operator**	**L.D. DRILLING, INC.**
Well Name	**DARREL #2-31**	**Report Date**	**2012/12/06**
Unique Well ID	**DST #5, MYR./FT. SCT., 4168-4230**	**Prepared By**	**TIM VENTERS**
Surface Location	**SEC 31-14S-29W, GOVE CO. KS.**		
Field	**LUNDGREN**	**Qualified By**	**KIM SHOEMAKER**
Well Type	**Vertical**		
Test Type	**CONVENTIONAL**		
Formation	**DST #5, MYR./FT. SC., 4168-4230**		
Well Fluid Type	**01 Oil**		
Start Test Date	**2012/12/06**	**Start Test Time**	**13:25:00**
Final Test Date	**2012/12/06**	**Final Test Time**	**20:32:00**

Test Recovery:

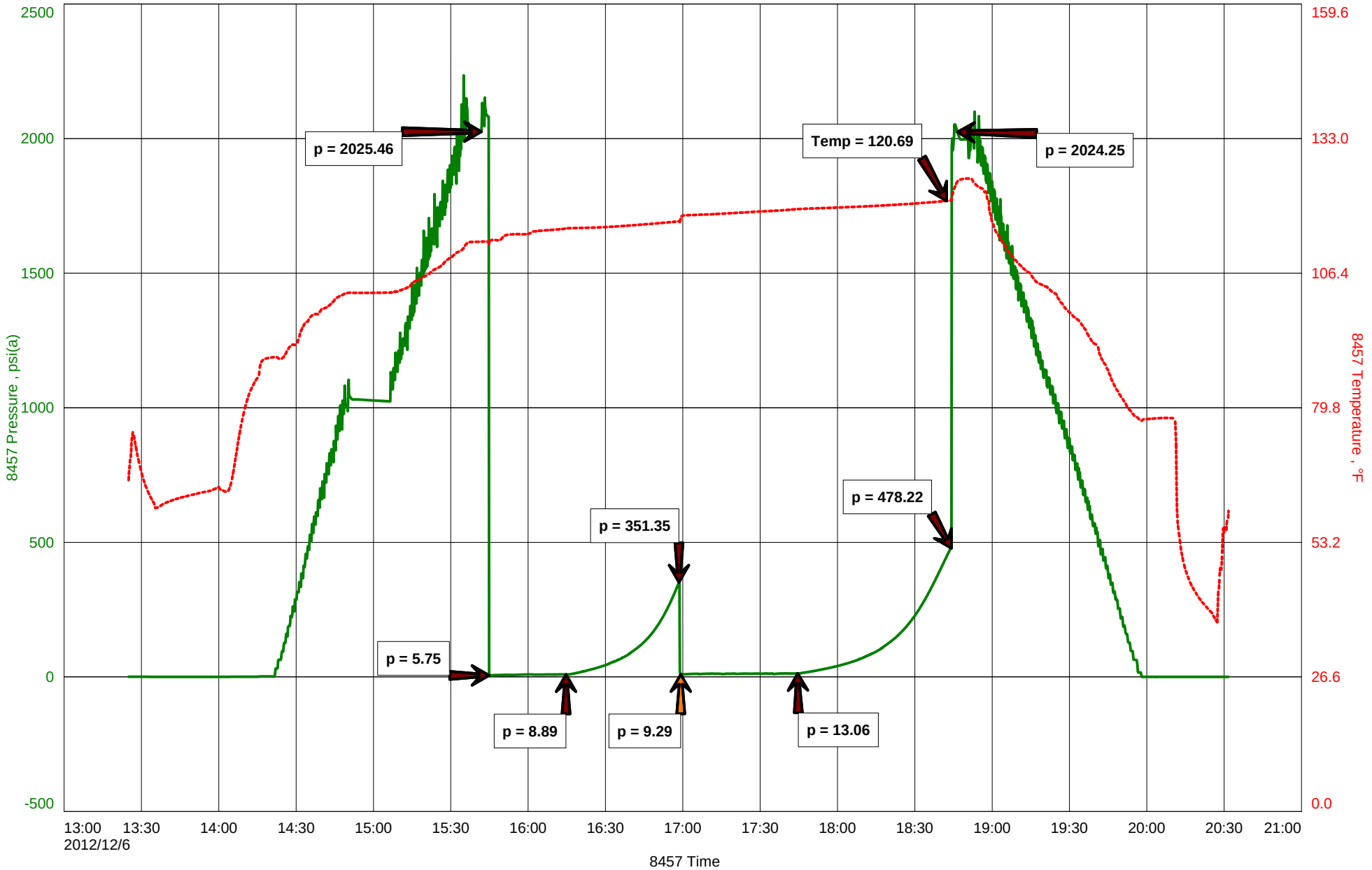
RECOVERED: 15' SOCM, 15% OIL, 85% MUD

TOOL SAMPLE: 48% OIL, 52% MUD

L.D. DRILLING, INC.
DST #5, MYR./FT. SCT., 4168-4230
Start Test Date: 2012/12/06
Final Test Date: 2012/12/06

DARREL #2-31
Formation: DST #5, MYR./FT. SC., 4168-4230
Pool: LUNDGREN
Job Number: T133

DARREL #2-31



DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313

DRILL-STEM TEST TICKET
FILE: DARREL2-31DST5

TIME ON: 13:25
TIME OFF: 20:32

Company L.D. DRILLING, INC — Lease & Well No. DARREL #2-31
Contractor L.D. DRILLING, INC. RIG #1 — Charge to L.D. DRILLING, INC.
Elevation 2660 KB — Formation MYRICK/FT. SCOTT — Effective Pay ____ Ft. — Ticket No. T133
Date 12-6-12 — Sec. 31 — Twp. 14 S — Range 29 W — County GOVE — State KANSAS
Test Approved By KIM SHOEMAKER — Diamond Representative TIMOTHY T. VENTERS

Formation Test No. 5 — Interval Tested from 4168 ft. to 4230 ft. — Total Depth 4230 ft.
Packer Depth 4163 ft. — Size 6 3/4 in. — Packer depth ____ ft. — Size 6 3/4 in.
Packer Depth 4168 ft. — Size 6 3/4 in. — Packer depth ____ ft. — Size 6 3/4 in.
Depth of Selective Zone Set ____

Top Recorder Depth (Inside) 4149 ft. — Recorder Number 8457 — Cap. 10,000 P.S.I.
Bottom Recorder Depth (Outside) 4227 ft. — Recorder Number 11030 — Cap. 5,025 P.S.I.
Below Straddle Recorder Depth ____ ft. — Recorder Number ____ — Cap. ____ P.S.I.

Mud Type CHEMICAL — Viscosity 56 — Drill Collar Length 0 ft. — I.D. 2 1/4 in.
Weight 9.4 — Water Loss 8.0 cc. — Weight Pipe Length 0 ft. — I.D. 2 7/8 in
Chlorides 2,000 P.P.M. — Drill Pipe Length 4135 ft. — I.D. 3 1/2 in
Jars: Make STERLING — Serial Number 4 — Test Tool Length 33 ft. — Tool Size 3 1/2-IF in
Did Well Flow? NO — Reversed Out NO — Anchor Length 30 ft. — Size 4 1/2-FH in
32' DP IN ANCHOR
Main Hole Size 7 7/8 — Tool Joint Size 4 1/2 XH in. — Surface Choke Size 1 in. — Bottom Choke Size 5/8 in

Blow: 1st Open: WEAK SURFACE BLOW, BUILDING TO 1 1/2 INCHES. (NOBB)
2nd Open: WEAK 1/2 INCH BLOW, BUILDING TO 2 INCHES. (NOBB)

Recovered 15 ft. of SOCM, 15% OIL, 85% MUD
Recovered ____ ft. of ____
Recovered ____ ft. of ____
Recovered ____ ft. of ____
Recovered ____ ft. of ____
Recovered ____ ft. of ____
Remarks: ____

TOOL SAMPLE: 48% OIL, 52% MUD

Price Job	
Other Charges	
Insurance	
Total	

Time Set Packer(s) 3:43 PM A.M. P.M. — Time Started Off Bottom 6:43 PM A.M. P.M. — Maximum Temperature 121 deg.

Initial Hydrostatic Pressure ..... (A) 2025 P.S.I.
Initial Flow Period ..... Minutes 30 (B) 6 P.S.I. to (C) 9 P.S.I.
Initial Closed In Period ..... Minutes 45 (D) 351 P.S.I.
Final Flow Period ..... Minutes 45 (E) 9 P.S.I. to (F) 13 P.S.I.
Final Closed In Period ..... Minutes 60 (G) 478 P.S.I.
Final Hydrostatic Pressure ..... (H) 2024 P.S.I.

DIAMOND TESTING

General Information Report

General Information

Company Name	L.D. DRILLING, INC.	**Representative**	TIM VENTERS
Contact	L.D. DAVIS	**Well Operator**	L.D. DRILLING, INC.
Well Name	DARREL #2-31	**Report Date**	2012/12/07
Unique Well ID	DST #6. CHER./JOHNSON, 4227-4295	**Prepared By**	TIM VENTERS
Surface Location	SEC 31-14S-29W, GOVE CO. KS.		
Field	LUNDGREN	**Qualified By**	KIM SHOEMAKER
Well Type	Vertical		
Test Type	CONVENTIONAL		
Formation	DST #6, CHER./JOHNSON, 4227-4295		
Well Fluid Type	01 Oil		
Start Test Date	2012/12/07	**Start Test Time**	07:55:00
Final Test Date	2012/12/07	**Final Test Time**	14:58:00

Test Recovery:

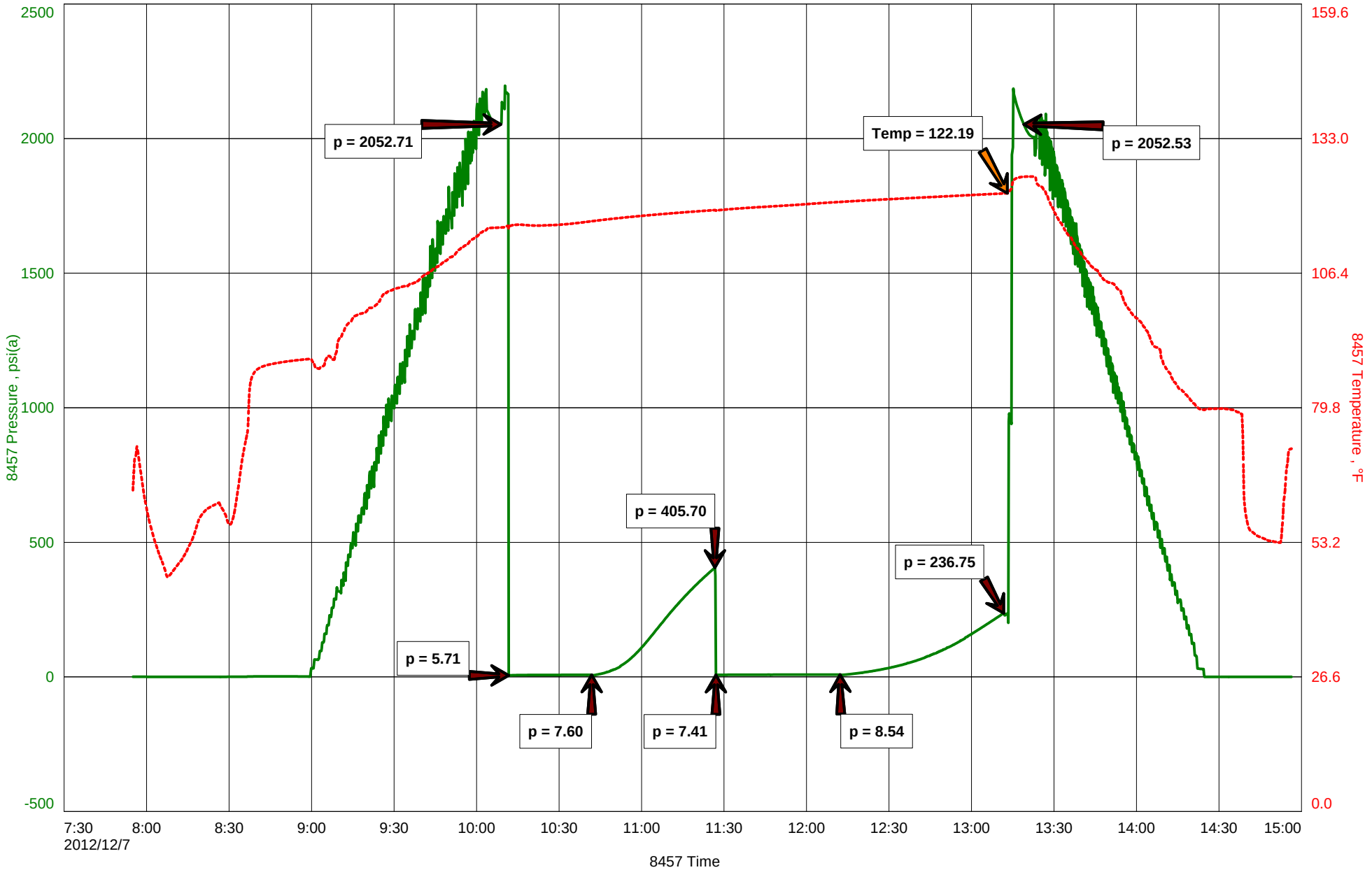
RECOVERED: 5' MUD

TOOL SAMPLE: SPOTTY OIL, 100% MUD

L.D. DRILLING, INC.
DST #6. CHER./JOHNSON, 4227-4295
Start Test Date: 2012/12/07
Final Test Date: 2012/12/07

DARREL #2-31
Formation: DST #6, CHER./JOHNSON, 4227-4295
Pool: LUNDGREN
Job Number: T134

DARREL #2-31



DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313

DRILL-STEM TEST TICKET
FILE: DARREL2-31DST6

TIME ON: 07:55
TIME OFF: 14:58

Company L.D. DRILLING, INC — Lease & Well No. DARREL #2-31
Contractor L.D. DRILLING, INC. RIG #1 — Charge to L.D. DRILLING, INC.
Elevation 2660 KB — Formation CHEROKEE/JOHNSON — Effective Pay ____ Ft. — Ticket No. T134
Date 12-712 — Sec. 31 — Twp. 14 S — Range 29 W — County GOVE — State KANSAS
Test Approved By KIM SHOEMAKER — Diamond Representative TIMOTHY T. VENTERS

Formation Test No. 6 — Interval Tested from 4227 ft. to 4295 ft. — Total Depth 4295 ft.
Packer Depth 4222 ft. — Size 6 3/4 in. — Packer depth ____ ft. — Size 6 3/4 in.
Packer Depth 4227 ft. — Size 6 3/4 in. — Packer depth ____ ft. — Size 6 3/4 in.
Depth of Selective Zone Set ____

Top Recorder Depth (Inside) 4208 ft. — Recorder Number 8457 — Cap. 10,000 P.S.I.
Bottom Recorder Depth (Outside) 4292 ft. — Recorder Number 11030 — Cap. 5,025 P.S.I.
Below Straddle Recorder Depth ____ ft. — Recorder Number ____ — Cap. ____ P.S.I.

Mud Type CHEMICAL — Viscosity 54 — Drill Collar Length 0 ft. — I.D. 2 1/4 in.
Weight 9.4 — Water Loss 8.8 cc. — Weight Pipe Length 0 ft. — I.D. 2 7/8 in
Chlorides 2,500 P.P.M. — Drill Pipe Length 4194 ft. — I.D. 3 1/2 in
Jars: Make STERLING — Serial Number 4 — Test Tool Length 33 ft. — Tool Size 3 1/2-IF in
Did Well Flow? NO — Reversed Out NO — Anchor Length 36 ft. — Size 4 1/2-FH in
32' DP IN ANCHOR
Main Hole Size 7 7/8 — Tool Joint Size 4 1/2 XH in. — Surface Choke Size 1 in. — Bottom Choke Size 5/8 in

Blow: 1st Open: WEAK SURFACE BLOW, BUILDING TO 1 INCHES. (NOBB)
2nd Open: WEAK SURFACE BLOW THROUGHOUT PERIOD. (NOBB)

Recovered 5 ft. of MUD
Recovered ____ ft. of ____
Recovered ____ ft. of ____
Recovered ____ ft. of ____
Recovered ____ ft. of ____
Recovered ____ ft. of ____
Remarks: ____

TOOL SAMPLE: SPOTTY OIL, 100% MUD

Price Job	
Other Charges	
Insurance	
Total	

Time Set Packer(s) 10:11 AM A.M. P.M. — Time Started Off Bottom 1:11 PM A.M. P.M. — Maximum Temperature 122 deg.

Initial Hydrostatic Pressure ..... (A) 2053 P.S.I.
Initial Flow Period ..... Minutes 30 (B) 6 P.S.I. to (C) 8 P.S.I.
Initial Closed In Period ..... Minutes 45 (D) 406 P.S.I.
Final Flow Period ..... Minutes 45 (E) 7 P.S.I. to (F) 9 P.S.I.
Final Closed In Period ..... Minutes 60 (G) 237 P.S.I.
Final Hydrostatic Pressure ..... (H) 2053 P.S.I.

DIAMOND TESTING

General Information Report

General Information

Company Name	**L.D. DRILLING, INC.**	**Representative**	**TIM VENTERS**
Contact	**L.D. DAVIS**	**Well Operator**	**L.D. DRILLING, INC.**
Well Name	**DARREL #2-31**	**Report Date**	**2012/12/08**
Unique Well ID	**DST #7, MISSISSIPPIAN, 4318-4343**	**Prepared By**	**TIM VENTERS**
Surface Location	**SEC 31-14S-29W, GOVE CO. KS.**		
Field	**LUNDGREN**	**Qualified By**	**KIM SHOEMAKER**
Well Type	**Vertical**		
Test Type	**CONVENTIONAL**		
Formation	**DST #7, MISSISSIPPIAN, 4318-4343**		
Well Fluid Type	**01 Oil**		
Start Test Date	**2012/12/07**	**Start Test Time**	**22:47:00**
Final Test Date	**2012/12/08**	**Final Test Time**	**07:06:00**

Test Recovery:

RECOVERED: 135' GAS IN PIPE
10' CLEAN OIL, GRAVITY: 36
65' G,O,SWCM, 7% GAS, 25% OIL, 6% WATER, 62% MUD
120' TOTAL FLUID

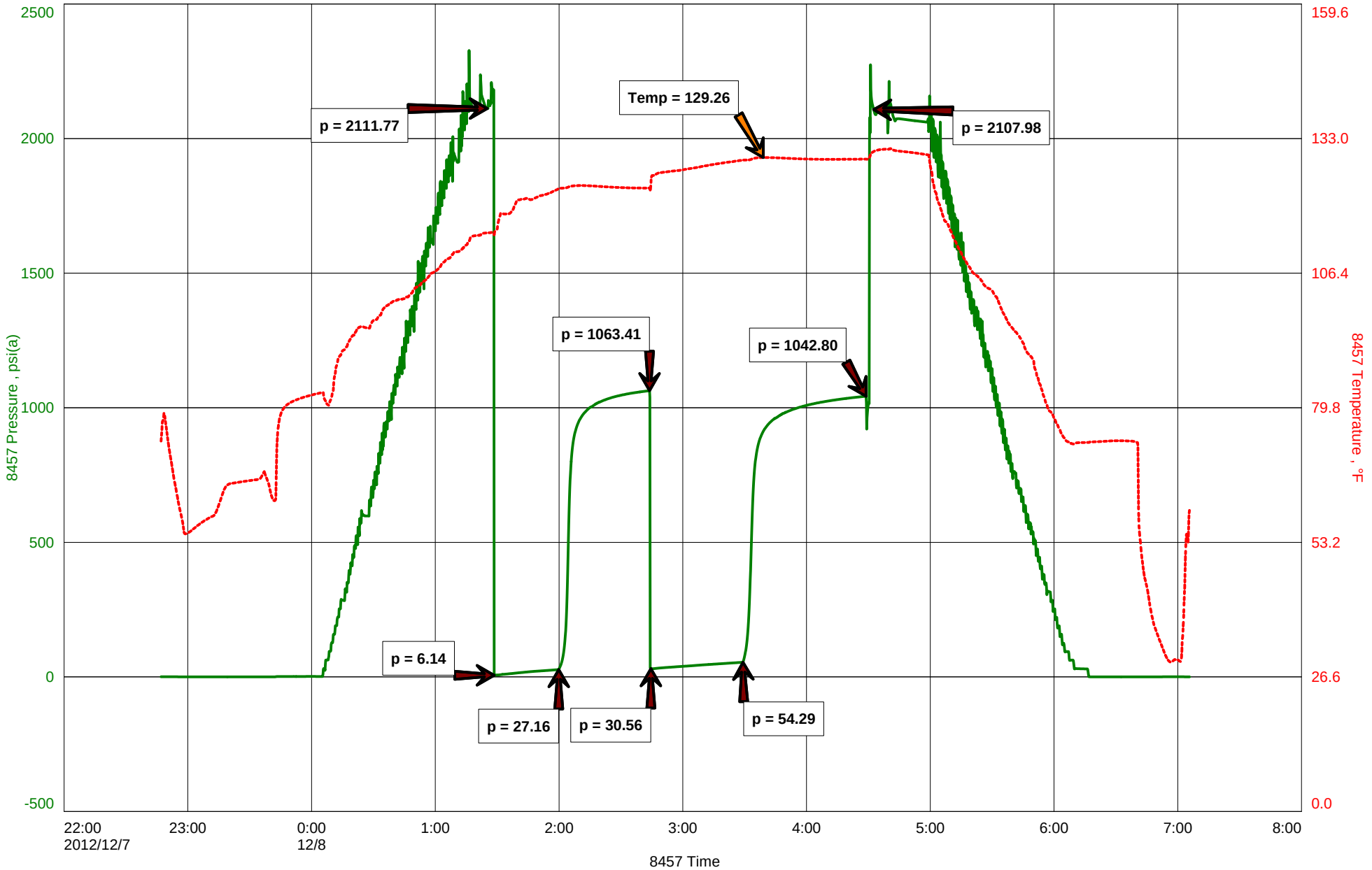
TOOL SAMPLE: 8% GAS, 38% OIL, 2% WATER, 52% MUD

CHLORIDES: 18,000 ppm
PH: 7.0
RW: .52 @ 66 DEG.

L.D. DRILLING, INC.
DST #7, MISSISSIPPIAN, 4318-4343
Start Test Date: 2012/12/07
Final Test Date: 2012/12/08

DARREL #2-31
Formation: DST #7, MISSISSIPPIAN, 4318-4343
Pool: LUNDGREN
Job Number: T135

DARREL #2-31



DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313

DRILL-STEM TEST TICKET
FILE: DARREL2-31DST7

TIME ON: 22:47 12-7-12
TIME OFF: 07:06 12-8-12

Company L.D. DRILLING, INC — Lease & Well No. DARREL #2-31
Contractor L.D. DRILLING, INC. RIG #1 — Charge to L.D. DRILLING, INC.
Elevation 2660 KB — Formation MISSISSIPPIAN — Effective Pay ____ Ft. — Ticket No. T135
Date 12-8-12 — Sec. 31 — Twp. 14 S — Range 29 W — County GOVE — State KANSAS
Test Approved By KIM SHOEMAKER — Diamond Representative TIMOTHY T. VENTERS

Formation Test No. 7 — Interval Tested from 4318 ft. to 4343 ft. — Total Depth 4343 ft.
Packer Depth 4313 ft. — Size 6 3/4 in. — Packer depth ____ ft. — Size 6 3/4 in.
Packer Depth 4318 ft. — Size 6 3/4 in. — Packer depth ____ ft. — Size 6 3/4 in.
Depth of Selective Zone Set ____

Top Recorder Depth (Inside) 4299 ft. — Recorder Number 8457 — Cap. 10,000 P.S.I.
Bottom Recorder Depth (Outside) 4340 ft. — Recorder Number 11030 — Cap. 5,025 P.S.I.
Below Straddle Recorder Depth ____ ft. — Recorder Number ____ — Cap. ____ P.S.I.

Mud Type CHEMICAL — Viscosity 54 — Drill Collar Length 0 ft. — I.D. 2 1/4 in.
Weight 9.4 — Water Loss 8.8 cc. — Weight Pipe Length 0 ft. — I.D. 2 7/8 in
Chlorides 2,500 P.P.M. — Drill Pipe Length 4285 ft. — I.D. 3 1/2 in
Jars: Make STERLING — Serial Number 4 — Test Tool Length 33 ft. — Tool Size 3 1/2-IF in
Did Well Flow? NO — Reversed Out NO — Anchor Length 25 ft. — Size 4 1/2-FH in
Main Hole Size 7 7/8 — Tool Joint Size 4 1/2 XH in. — Surface Choke Size 1 in. — Bottom Choke Size 5/8 in

Blow: 1st Open: WEAK 1/4 INCH BLOW, BUILDING TO 7 1/2 INCHES. (NOBB)
2nd Open: WEAK 1/2 INCH BLOW, BUILDING, REACHING BOB 37 MIN. (NOBB)

Recovered 135 ft. of GAS IN PIPE
Recovered 10 ft. of CLEAN OIL, GRAVITY: 36
Recovered 45 ft. of HOCM, 43% OIL, 57% MUD
Recovered 65 ft. of G,O,SWCM, 7% GAS, 25% OIL, 6% WATER, 62% MUD
Recovered 120 ft. of TOTAL FLUID
Recovered ____ ft. of CHLORIDES: 18,000 ppm
Remarks: PH: 7.0
RW: .52 @ 66 deg.

TOOL SAMPLE: 8% GAS, 38% OIL, 2% WATER, 52% MUD

Price Job	
Other Charges	
Insurance	
Total	

Time Set Packer(s) 1:28 AM A.M. P.M. — Time Started Off Bottom 4;28 AM A.M. P.M. — Maximum Temperature 130 deg.

Initial Hydrostatic Pressure ..... (A) 2112 P.S.I.
Initial Flow Period ..... Minutes 30 (B) 6 P.S.I. to (C) 27 P.S.I.
Initial Closed In Period ..... Minutes 45 (D) 1063 P.S.I.
Final Flow Period ..... Minutes 45 (E) 31 P.S.I. to (F) 54 P.S.I.
Final Closed In Period ..... Minutes 60 (G) 1043 P.S.I.
Final Hydrostatic Pressure ..... (H) 2108 P.S.I.

KIM B. SHOEMAKER

CONSULTING GEOLOGIST

316-684-9709 * WICHITA, KS

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY L.D. DRILLING, INC.

LEASE # 2-31 DARREL

FIELD LUNDGREN

LOCATION 1700' FSL & 2310' FWL

SEC. 31 TWSP. 14s RGE. 29W

COUNTY GOVE STATE KANSAS

CONTRACTOR L.D. DRILLING, INC.

SPUD 11-27-12 COMP. 12-9-12

RTD 4415 LTD 4420

MUD UP 3228 TYPE MUD CHEMICAL

ELEVATIONS

KB 2660

DF

GL 2655

Measurements Are All From 2660 KB

CASING

SURFACE 8 5/8" @ 302'

PRODUCTION 4½" @

ELECTRICAL SURVEYS

Dual Ind. Dens: N., Micro

SAMPLES SAVED FROM 3300 TO 4415

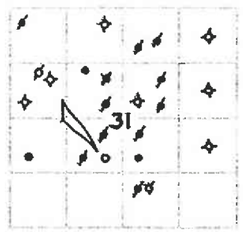
DRILLING TIME KEPT FROM 3200 TO 4415

SAMPLES EXAMINED FROM 3300 TO 4415

GEOLOGICAL SUPERVISION FROM 3400 TO 4415

GEOLOGIST ON WELL Kim B. Shoemaker

FORMATION TOPS	LOG	SAMPLES
ANHYDRITE	2057 + 603	2058 + 602
B/ANH.	2085 + 575	2087 + 573
STOTLER	3292 - 632	3290 - 630
HEEBNER	3664 - 1004	3664 - 1004
LANSING	3700 - 1040	3700 - 1040
STARK	3950 - 1290	3948 - 1288
MARMATON	4050 - 1390	4045 - 1385
FORT SCOTT	4205 - 1545	4202 - 1542
CHEROKEE	4231 - 1571	4228 - 1568
MISS. SPERGEN	4324 - 1664	4320 - 1660



API: 15-063-21981

REMARKS

11-27-12 SPUD
11-28 @ 305'
11-29 @ 1800'
11-30 @ 2410'
12-1 @ 3150'
12-2 @ 3704'
12-3 @ 3742'
12-4 @ 3790'
12-5 @ 3940'
12-6 @ 4208'
12-7 @ 4295'
12-8 @ 4343'
12-9 @ 4415'

LEGEND

Dolomite
Chert
Limestone
Coal/Lime
Shale
Dark sh
Sandstone
Salt
Anhydrite

SHOE01-08

REMARKS

SAMPLE DESCRIPTIONS

ANHYDRITE 2058 + 602

B/ANH. 2087 + 573

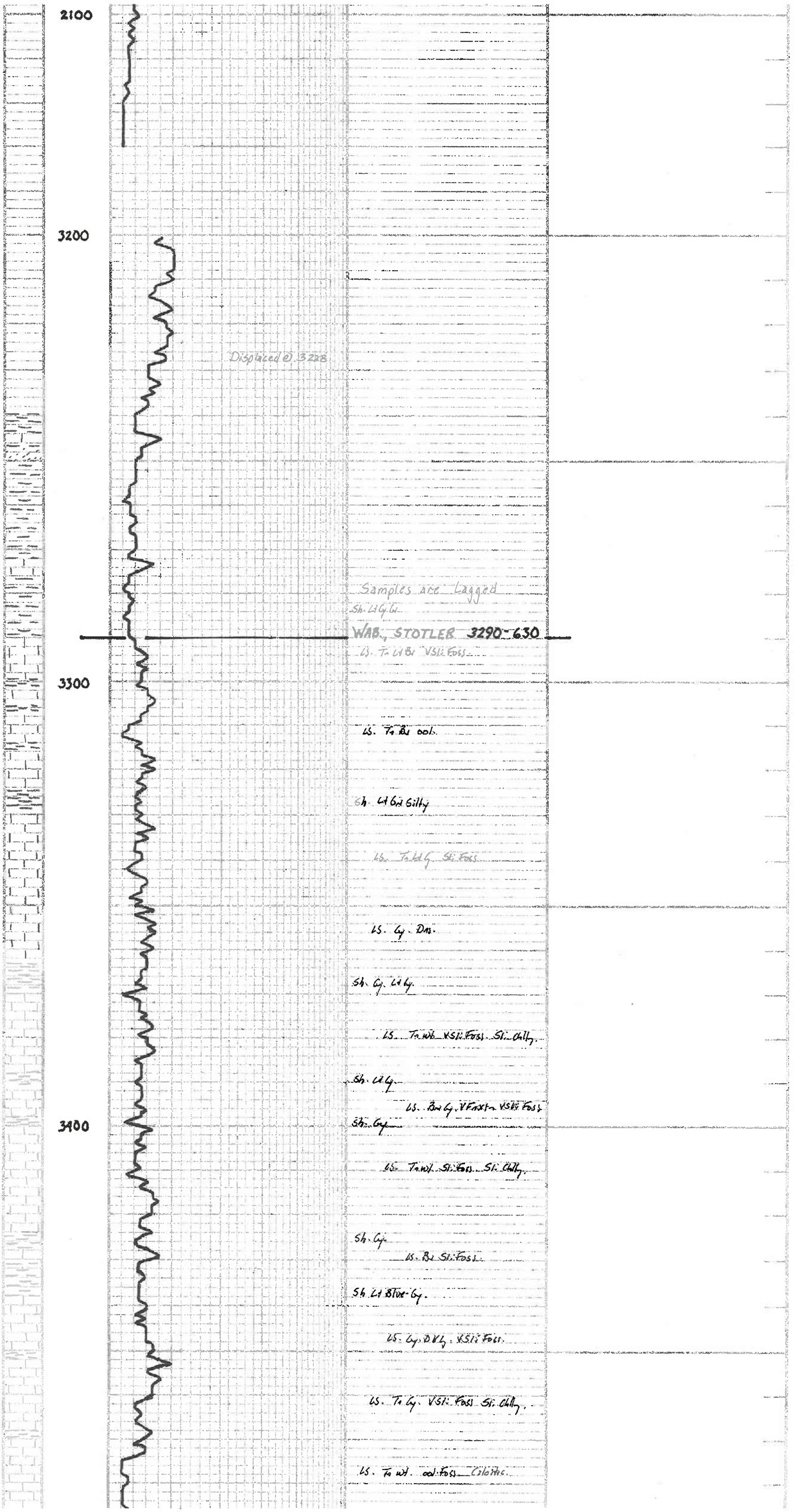
DRILLING TIME IN MINUTES PER FOOT

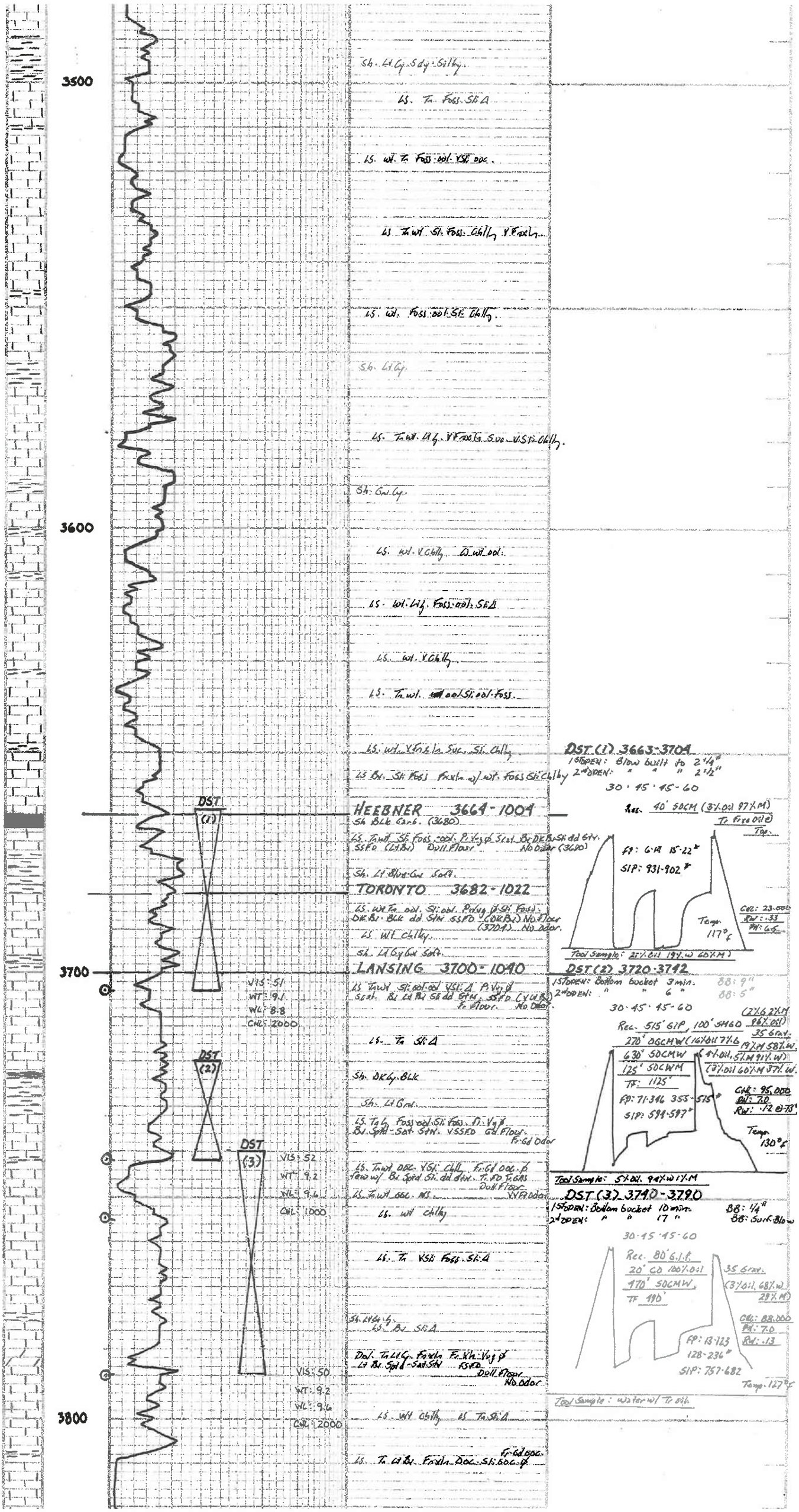
Rate of Penetration Increases

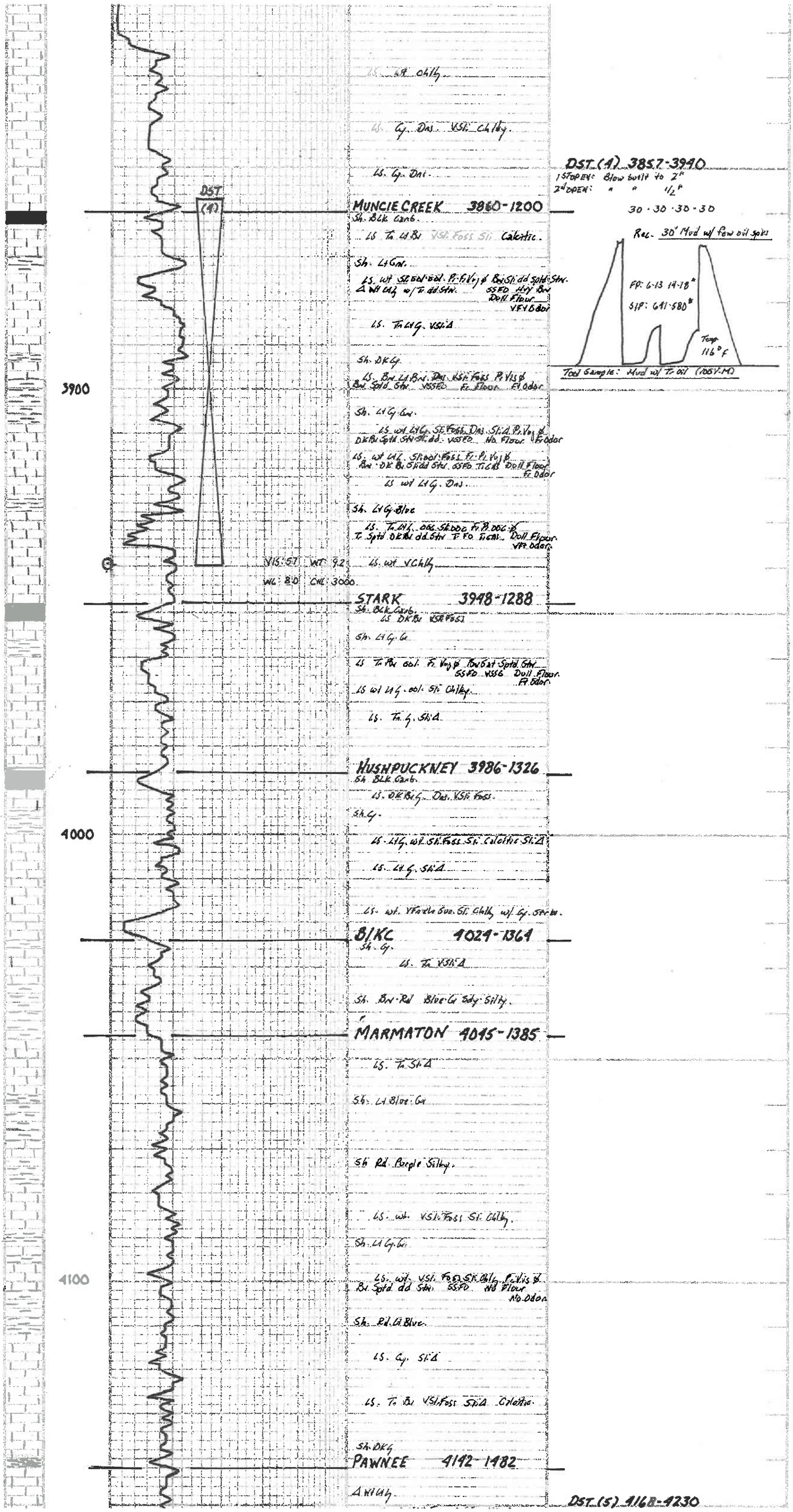
5" 10" 15" 20" 25"

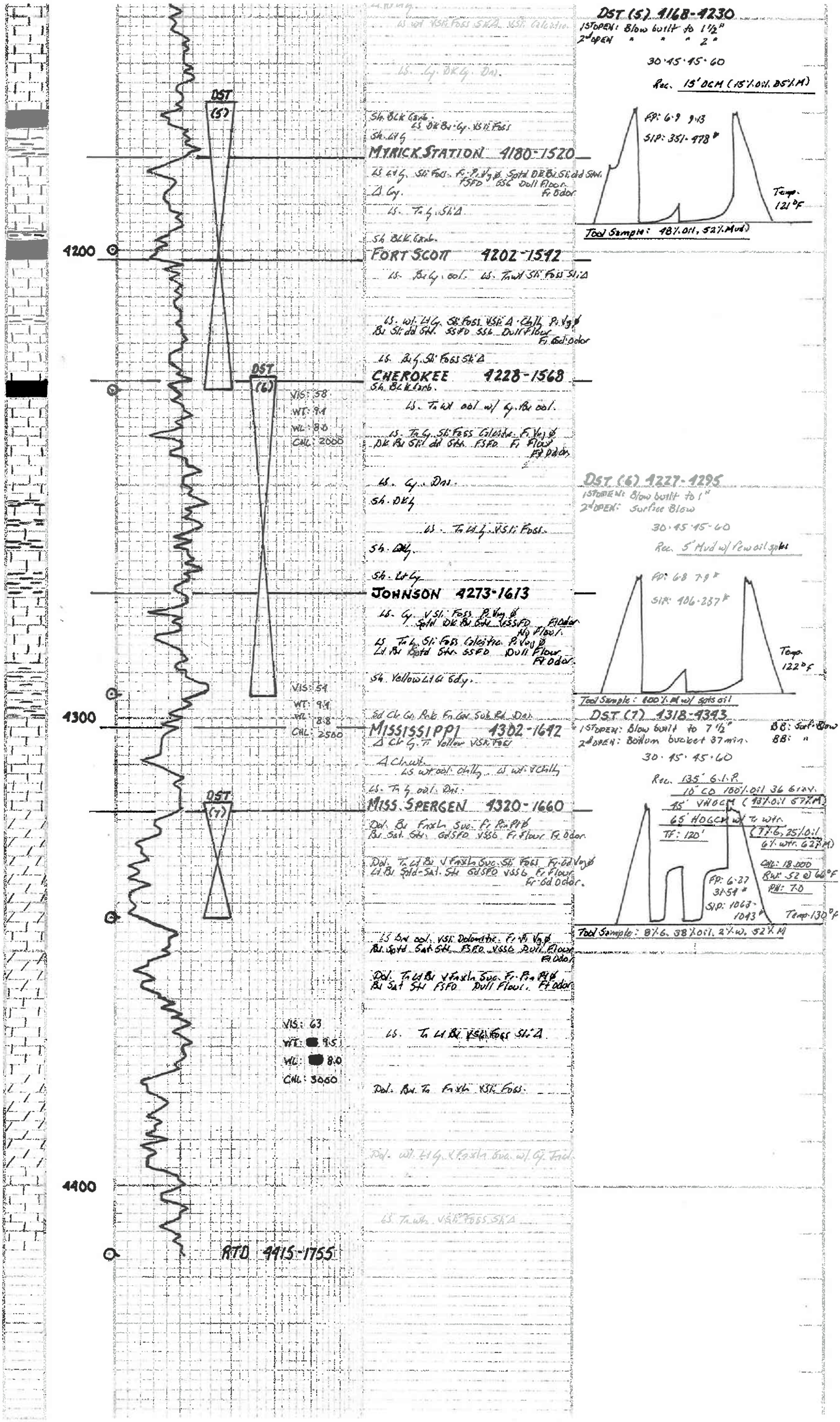
DEPTH 2000 2050 2100

LITHOLOGY


2100
3200
Displaced @ 3228
Samples are Lagged
Sh. Lt Gy. Lw.
WAB., STOTLER 3290-630
Ls. Tn Lt Br VSli Foss.
3300
Ls. Tn Br ool.
Sh. Lt Gn Silty
Ls. Tn Lt Gy. Sli. Foss.
Ls. Gy. Dns.
Sh. Gy. Lt Gy.
Ls. Tn wh. VSli. Foss. Sli. Chlky.
Sh. Lt Gy.
Ls. Bn Gy. V Frost. VSli. Foss.
Sh. Gy.
3400
Ls. Tn wh. Sli. Foss. Sli. Chlky.
Sh. Gy.
Ls. Br Sli. Foss.
Sh. Lt Blue-Gy.
Ls. Gy. Dk Gy. VSli. Foss.
Ls. Tn Gy. VSli. Foss. Sli. Chlky.
Ls. Tn wh. ool. Foss. Oolitic.


3500
3600
3700
3800
Sh. Lt Cy. Sdy: Silty.
Ls. Tn. Foss. Sli Δ
Ls. wt. Tn. Foss: ool. V Sli ool.
Ls. Tn wt. Sl. Foss: Chlky. V Fxtly.
Ls. wt. Foss: ool. Sli Chlky.
Sh. Lt Cy.
Ls. Tn wt. Lt Cy. V Fxtly. Sdy. V Sli Chlky.
Sh. Grn Cy.
Ls. wt. V Chlky. Tn wt. ool.
Ls. wt. Lt Cy. Foss. ool. Sli Δ
Ls. wt. V Chlky.
Ls. Tn wt. ool. Sl. ool. Foss.
Ls. wt. V Fxtly. Sdy. Suc. Sli. Chlky.
Ls Bf. Sli Foss Fxtly. w/ wt. Foss Sli Chlky
DST (1)
HEEBNER 3669 - 1004
Sh Blk Carb. (3680)
Ls. Tn wt. Sli Foss. ool. P. Vug φ Sl ol. Bf. DK Brn Sli dd Stn. SSFD (Lt Brn) Dull Flour No Odor (3680)
Sh. Lt Blue Grn Soft.
TORONTO 3682 - 1022
Ls. Wh Tn ool. Sl. ool. Poorly φ Sli Foss: DK Brn. Blk dd Stn SSFD (DK Brn) No Flour (3704) No odor.
Ls. Wt Chlky.
Sh. Lt Cy Grn Soft.
LANSING 3700 - 1040
Ls. Tn wt Sli ool. ool Vsl. Δ P. Vug φ Scat. Bf Lt Brn Sli dd Stn. SSFD (Lt Brn) Fr Flour. No Odor.
Ls. Tn Sli Δ
Sh. DK Gy. Blk
Sh. Lt Grn.
Ls. Tn Gy Foss ool. Sli Foss. P. Vug φ Bf. Spkd - Sat. Stn. VSSED Gd Flour. Fr Gd Odor
Ls. Tn wt ool. Vsl. Chlky. Fr Gd ool. φ Tan wt/ Bf. Spkd Sli dd Stn. Tr FD Fr Gas Dull Flour
Ls. Tn wt. ool. NS. V Fr Odor
Ls. wt Chlky
Ls. Tn VSli Foss. Sli Δ
Sh. Lt Gy.
Ls. Bf. Sli Δ
Dol. Tn Lt Gy. Fxtln F. Xln. Vug φ Lt Bf. Spkd - Sat Stn FSFD Dull Flour No Odor
Ls. wt Chlky. Ls. Tn Sli Δ
Ls. Tn Lt Bf. Fxtln. Dol. Sli ool. φ Fr Gd ool.
DST (2)
DST (3)
VIS: 51
WT: 9.1
WL: 8.8
CHL: 2000
VIS: 52
WT: 9.2
WL: 9.6
CHL: 1000
VIS: 50
WT: 9.2
WL: 9.6
CHL: 2000
DST (1) 3663-3704
1st OPEN: Blow built to 2 1/4"
2nd OPEN: " " " 2 1/2"
30 · 45 · 45 · 60
Rec. 40' SOCM (3% oil 97% M)
Tr. Free Oil
Top
FP: 6-19 15-22#
SIP: 931-902#
Temp. 117°F
CHL: 23,000
RW: .33
PH: 6.5
Tool Sample: 2% Oil 19% W 60% M
DST (2) 3720-3742
1st OPEN: Bottom bucket 3 min. BB: 9"
2nd OPEN: " " 6 " BB: 5"
30 · 45 · 45 · 60
(2% G 2% M 96% Oil)
Rec. 515' GIP, 100' SMGO 35 Grav.
270' OGCMW (16% Oil 7% G 77% M 58% W)
630' SOCMW (4% Oil, 5% M 91% W)
125' SOCWM (3% Oil 60% M 37% W)
TF: 1125'
FP: 71-396 355-515#
SIP: 594-597#
CHL: 95,000
PH: 7.0
RW: .12 @ 75°
Temp. 130°F
Tool Sample: 5% Oil 94% W 1% M
DST (3) 3740-3790
1st OPEN: Bottom bucket 10 min. BB: 1/4"
2nd OPEN: " " 17 " BB: Surf. Blow
30 · 45 · 45 · 60
Rec. 80' G.I.P.
20' GO 100% Oil
170' SOCMW
TF 190'
35 Grav.
(3% Oil, 68% W 29% M)
CHL: 88,000
PH: 7.0
RW: .13
FP: 13-123
128-236#
SIP: 757-682
Temp. 127°F
Tool Sample: Water w/ Tr Oil.


DST (1)
3900
4000
4100
VIS: 57 WT: 9.2
WL: 80 CHL: 3000
Ls. v.f. chlky.
Ls. Gy. Dns. V.Sl. Chlky.
Ls. Gy. Dns.
MUNCIE CREEK 3860-1200
Sh. Blk Carb.
Ls. Tn Lt Bn V.Sl. Foss Sl. Calcitic.
Sh. Lt Gn.
Ls. wh Sl Bnl Spd. Fr. Vis Vug & Bn Sh dd Spld Stn. Δ wh Chlky w/ Tr dd Stn. SSFD Hvy Bn Dull Flour VFt Odor
Ls. Tn Lt Gy. V.Sl. Δ
Sh. DK Gy.
Ls. Bn Lt Bn. Dns. V.Sl. Foss. Fr. Vis & Bn Spld. Stn. VSSFD. Fr. Flour. Ft. Odor.
Sh. Lt Gy. Gn.
Ls. wh Lt Gy. Sl. Foss. Dns. Sl. Δ. Fr. Vug & DK Bn Spld Stn Sl. dd. VSSFD. No Flour. Ft Odor
Ls wh Lt Gy. Sl. Ool. Foss. Fr. Fl. Vug & Bn. DK Bn. Sl. dd Stn. SSFD. Tr Gas. Dull Flour. Ft. Odor
Ls wh Lt Gy. Dns.
Sh. Lt Gy. Blue
Ls. Tn Lt Gy. occ. Sl. Ool. Fr. Fl. Occ. & Tr Spld DK Bn dd Stn. Tr FO. Tr Gas. Dull Flour. VFt Odor.
Ls. wh V. Chlky.
STARK 3948-1288
Sh. Blk Carb.
Ls. DK Bn V.Sl. Foss.
Sh. Lt Gy. Gn.
Ls. Tn Pk occ. Fr. Vug & Tr Bn Stn Spld Stn. SSFD. VSSG. Dull Flour. Ft Odor.
Ls wh Lt Gy. occ. Sl. Chlky.
Ls. Tn. Gy. Sl. Δ.
HUSHPUCKNEY 3986-1326
Sh. Blk Carb.
Ls. DK Bn Gy. Dns. V.Sl. Foss.
Sh. Gy.
Ls. Lt Gy. wh. Sl. Foss. Sl. Calcitic Sl. Δ
Ls. Lt Gy. Sl. Δ
Ls. wh. V Fr w/ Lt Gn. Sl. Chlky. w/ Gy. Streaks.
B/KC 4024-1364
Sh. Gy.
Ls. Tn V.Sl. Δ
Sh. Bn. Rd Blue Gn Sdy. Silty.
MARMATON 4045-1385
Ls. Tn Sl. Δ
Sh. Lt Blue Gn
Sh Rd. Purple Silty.
Ls. wh. V.Sl. Foss Sl. Chlky.
Sh. Lt Gy. Gn.
Ls. wh. V.Sl. Foss Sl. Chlky. Fr. Vis & Bn Spld dd Stn. SSFD. dd Flour No Odor
Sh. Rd. Gn Blue.
Ls. Gy. Sl. Δ
Ls. Tn Bn V.Sl. Foss Sl. Δ Calcitic.
Sh. DK Gy
PAWNEE 4142-1482
Δ wh Chlky.
DST (1) 3857-3940
1st OPEN: Blow built to 2"
2nd OPEN: " " 1/2"
30 · 30 · 30 · 30
Rec. 30' Mud w/ few oil spks
FP: 6-13 14-18#
SIP: 641-580#
Temp 116°F
Tool Sample: Mud w/ Tr Oil (10%V-M)
DST (5) 4168-4230


DST (5)
DST (6)
DST (7)
4200
4300
4400
VIS: 58
WT: 9.1
WL: 8.0
CHL: 2000
VIS: 54
WT: 9.1
WL: 8.8
CHL: 2500
VIS: 63
WT: 9.5
WL: 8.0
CHL: 3060
RTD 4415-1755
Sh. Blk Calc.
Ls. Dk Br-Gy. VSli Foss
Sh. Lt Gy
MYRICK STATION 4180-1520
Ls Lt Gy. Sli Foss. Fr-P. Vug ø. Sptd DK Bi. Sli dd Stn. FSFD. Dull Flour. Fr Odor
Δ Gy.
Ls. Tn Gy. Sli Δ
Sh Blk Calc.
FORT SCOTT 4202-1542
Ls. Brn Gy. ool. Ls. Tn wh Sli Foss Sli Δ
Ls. wh/ Lt Gy. Sli Foss. VSli Δ. Chalk. P. Vug ø
Bi Sli dd Stn. SSFD. Dull Flour. Fr Gsd Odor
Ls. Brn Gy. Sli Foss Sli Δ
CHEROKEE 4228-1568
Sh. Blk Calc.
Ls. Tn wh ool w/ Gy. Brn ool.
Ls. Tn Gy. Sli Foss Celestite. Fr Vug ø
DK Bi Sli dd Stn. FSFD. Fr Flour. Fr Odor
Ls. Gy. Dns.
Sh. Dk Gy
Ls. Tn Lt Gy. VSli Foss.
Sh. Dk Gy.
Sh. Lt Gy.
JOHNSON 4273-1613
Ls. Gy. VSli Foss. P. Vug ø. Sptd DK Bi Stn. VSSFD. Fr Odor. Mg Flour.
Ls Tn Gy. Sli Foss. Celestite. P. Vug ø. Lt Bi Sptd Stn. SSFD. Dull Flour. Fr Odor.
Sh. Yellow Lt Gy Gdy.
Sd Clr Gy. Rnd. Fr Cor. Sub Rd. Dol.
MISSISSIPPI 4302-1642
Δ Clr Gy. Tr Yellow VSli Foss
Δ Chalk.
Ls wh ool. Chalky. Ls wh/ Chalk
Ls. Tn Gy ool. Dns.
MISS. SPERGEN 4320-1660
Dol. Bi Frskln Suc. Fr Pin Pt ø. Bi Sat Stn. GdSFD. VSSb. Fr Flour. Fr Odor.
Dol. Tn Lt Bi V Frskln Suc. Sli Foss. Fr-Gd Vug ø. Lt Bi Sptd-Sat. Stn. GdSFD. VSSb. Fr Flour. Fr-Gd Odor.
Ls Brn ool. VSli Dolomitic. Fr Vi Vug ø. Bi Sptd. Sat Stn. FSFD. VSSb. Dull Flour. Fr Odor
Dol. Tn Lt Bi V Frskln Suc. Fr. Pin Pt ø. Bi Sat Stn FSFD. Dull Flour. Fr Odor
Ls. Tn Lt Bi. VSli Foss Sli Δ.
Dol. Brn Tn Frskln VSli Foss.
Dol. wh/ Lt Gy. V Frskln Suc. w/ Gy Frac.
Ls. Tn wh. VSli Foss Sli Δ
DST (5) 4168-4230
1ST OPEN: Blow built to 1½"
2nd OPEN " " " 2"
30·45·45·60
Rec. 15' OCM (15% oil, 85% M)
FP: 6-9 9-13
SIP: 351-978 #
Temp. 121°F
Tool Sample: 48% oil, 52% Mud
DST (6) 4227-4295
1ST OPEN: Blow built to 1"
2nd OPEN: Surface Blow
30·45·45·60
Rec. 5' Mud w/ few oil specks
FP: 6-8 7-9 #
SIP: 406-287 #
Temp. 122°F
Tool Sample: 100% M w/ specks oil
DST (7) 1318-4343
1ST OPEN: Blow built to 7½"
2nd OPEN: Bottom bucket 37 min.
30·45·45·60
BB: Surf. Blow
BB: "
Rec. 135' G.I.P.
10' CO 100% oil 36 Grav.
45' VHOCM (93% oil 57% M)
65' HOGCM w/ Tr wtr.
TF: 120'
(7% G, 25% oil, 6% wtr. 62% M)
CHL: 18,000
RW: .52 @ 62°F
PH: 7.0
FP: 6-27 31-54 #
SIP: 1068-1043 #
Temp. 130°F
Tool Sample: 8% G. 38% oil. 2% W. 52% M