Confidentiality Requested:
☐ Yes ☑ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1238869

Form ACO-1
August 2013
Form must be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 33964
Name: Prolific Resources LLC
Address 1: 2725 DRY CREEK RD
Address 2:
City: GREAT BEND State: KS Zip: 67530 + 6621
Contact Person: Darrell Willinger
Phone: (620) 792-7561
CONTRACTOR: License # 30606
Name: Murfin Drilling Co., Inc.
Wellsite Geologist: Bob Stozle
Purchaser: SemGas

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
☐ Plug Back ☐ Conv. to GSW ☐ Conv. to Producer

☐ Commingled Permit #:
☐ Dual Completion Permit #:
☐ SWD Permit #:
☐ ENHR Permit #:
☐ GSW Permit #:

9/17/2014	9/25/2014	01/06/2015
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-145-21788-00-00
Spot Description:
_ NW NW NE Sec. 11 Twp. 22 S. R. 18 ☐ East ☑ West
330 Feet from ☑ North / ☐ South Line of Section
2310 Feet from ☑ East / ☐ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☑ NE ☐ NW ☐ SE ☐ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Pawnee
Lease Name: Froetschner Well #: 1
Field Name: Wildcat
Producing Formation: Viola
Elevation: Ground: 2041 Kelly Bushing: 2046
Total Vertical Depth: 4343 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 1111 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: 67100 ppm Fluid volume: 775 bbls
Dewatering method used: Hauled to Disposal

Location of fluid disposal if hauled offsite:
Operator Name: Paul's Oilfield Service
Lease Name: Dipman SWD License #: 31085
Quarter SW Sec. 11 Twp. 22 S. R. 18 ☐ East ☑ West
County: Pawnee Permit #: 03589

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**
☑ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** NAOMI JAMES **Date:** 03/17/2015

1238869

Operator Name: Prolific Resources LLC Lease Name: Froetschner Well #: 1

Sec. 11 Twp. 22 S. R. 18 ☐ East ☑ West County: Pawnee

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 ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

List All E. Logs Run:
Attached

☑ 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	12.250	8.875	24	1111	60/40 Poxmix	400	3% cc, 2% gel
Production	7.875	4.500	11.60	4340	AA2	175	5#/sx gil, 10% salt

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	-			
	-			

Did you perform a hydraulic fracturing treatment on this well? ☑ Yes ☐ No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? ☐ Yes ☑ No *(If No, skip question 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)*

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	4068-72	Acidized w/ 1000 gal 7.5% MCA	4068-4072

TUBING RECORD: Size: 2.375 Set At: 4081' Packer At: None Liner Run: ☐ Yes ☑ No

Date of First, Resumed Production, SWD or ENHR. 01/06/2015

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

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
		330	10		

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:
4068
4072

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

Form	ACO1 - Well Completion
Operator	Prolific Resources LLC
Well Name	Froetschner 1
Doc ID	1238869

All Electric Logs Run

CNL/CDL
Dual Induction
Micro
Sonic

Form	ACO1 - Well Completion
Operator	Prolific Resources LLC
Well Name	Froetschner 1
Doc ID	1238869

Tops

Name	Top	Datum
Anhydrite	1118	+928
Base Anhydrite	1139	+907
Heebner Shale	3539	-1493
Lansing	3633	-1587
Stark Shale	3856	-1810
Base KC	3923	-1877
Pawnee LS	4021	-1975
Cherokee Sh.	4057	-2011
Miss. Osage	4124	-2078
Viola	4161	-2115
Simpson Sh.	4226	-2180
Arbuckle	4276	-2230
Total Depth	4341	-2295

BASIC ENERGY SERVICES

COPY

PAGE	CUST NO	YARD #	INVOICE DATE
1 of 1	1003327	1718	09/23/2014

INVOICE NUMBER

91600975

Pratt (620) 672-1201

BILL TO
PROLIFIC RESOURCES LLC
2725 DRY CREEK RD
GREAT BEND
KS US 67530
ATTN: DARRELL WILLINGER

JOB SITE
LEASE NAME: Froetschner 1
LOCATION:
COUNTY: Pawnee
STATE: KS
JOB DESCRIPTION: Cement-New Well Casing/Pi
JOB CONTACT:

JOB #	EQUIPMENT #	PURCHASE ORDER NO.	TERMS	DUE DATE
40768125	27463		Net - 30 days	10/23/2014

	QTY	U of M	UNIT PRICE	INVOICE AMOUNT
For Service Dates: 09/18/2014 to 09/18/2014				
0040768125				
171811249A Cement-New Well Casing/Pi 09/18/2014				
Cement 8 5/8 Surface				
A-Con Blend Common	200.00	EA	13.86	2,772.01 T
Common Cement	200.00	EA	12.32	2,464.00 T
Celloflake	100.00	EA	2.85	284.90 T
Calcium Chloride	940.00	EA	0.81	759.99 T
"Top Rubber Cmt Plug, 8 5/8"""	1.00	EA	173.25	173.25
"Baffle Plate Alum., 8 5/8"" (Blue)"	1.00	EA	130.90	130.90
"Centralizer, 8 5/8"" (Blue)"	3.00	EA	69.30	207.90
"Unit Mileage Chg (PU, cars one way)"	45.00	MI	3.27	147.26
Heavy Equipment Mileage	90.00	MI	5.39	485.10
"Proppant & Bulk Del. Chgs., per ton mil	846.00	EA	1.69	1,433.12
Depth Charge; 501'-1000'	1.00	EA	924.00	924.00
Blending & Mixing Service Charge	400.00	BAG	1.08	431.20
Plug Container Util. Chg.	1.00	EA	192.50	192.50
"Service Supervisor, first 8 hrs on loc.	1.00	EA	134.75	134.75

PAID
9-30-14
Ck# 5496

PLEASE REMIT TO:
BASIC ENERGY SERVICES,LP
PO BOX 841903
DALLAS,TX 75284-1903

SEND OTHER CORRESPONDENCE TO:
BASIC ENERGY SERVICES,LP
801 CHERRY ST, STE 2100
FORT WORTH, TX 76102

SUB TOTAL	10,540.88
TAX	511.89
INVOICE TOTAL	11,052.77

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 11249 A

DATE TICKET NO.

DATE OF JOB 9/15/14	DISTRICT ARNT KS	NEW WELL ☒ OLD WELL ☐ PROD ☐ INJ ☐ WDW ☐	CUSTOMER ORDER NO.:
CUSTOMER Prolific Resources		LEASE Froetscher	1 WELL NO.
ADDRESS		COUNTY PAWNEE	STATE KS
CITY	STATE	SERVICE CREW Sullivan, Eric	
AUTHORIZED BY		JOB TYPE: CNW	

EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS
~~[illegible]~~ 27963	1½				
19960 - 21010	1½				
37200					

	DATE	AM/PM	TIME
TRUCK CALLED	9/15/14	AM	[illegible]
ARRIVED AT JOB		AM/PM	[illegible]
START OPERATION		AM/PM	2:15
FINISH OPERATION		AM/PM	3:00
RELEASED		AM/PM	3:30
MILES FROM STATION TO WELL			45

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: [signature]
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	$ AMOUNT
CP 101	A-Con) Blend cmt	SK	200		3,600 00
CP 100	Common cmt	SK	200		3,200 00
CC 102	CelFlake	lb	100		320 00
CC 109	Calcium Chloride	lb	940		987 00
CF 105	Top Rubber Plug 4½	EA	1		225 00
CF 153	Latch down	EA	1		170 00
CF 1753	Centralizer	EA	3		270 00
E 100	Mileage cmt	mi	45		191 25
E 101	Heavy Equipment	mi	90		630 00
E 113	Bulk Delivery	Ton	946		1,861 30
CE 201	Depth charge	EA	1		1,200 00
CE 240	Blending & Mixing	SK	400		560 00
CE 504	Plug Container Rental	EA	1		250 00
S003	Service Supervisor	EA	1		175 00

CHEMICAL / ACID DATA:			

SUB TOTAL		10,540 86
SERVICE & EQUIPMENT	%TAX ON $	
MATERIALS	%TAX ON $	
TOTAL		

THANK YOU

SERVICE REPRESENTATIVE [signature]

FIELD SERVICE ORDER NO.

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

CLOUD LITHO - Abilene, TX

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 **11243** A

DATE ______ TICKET NO. ______

DATE OF JOB [illegible] DISTRICT [illegible]	NEW WELL ☒ OLD WELL ☐ PROD ☐ INJ ☐ WDW ☐ CUSTOMER ORDER NO.:
CUSTOMER [illegible]	LEASE [illegible] 1 WELL NO.
ADDRESS	COUNTY [illegible] STATE [illegible]
CITY STATE	SERVICE CREW [illegible]
AUTHORIZED BY	JOB TYPE: [illegible]

EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS		DATE	AM/PM	TIME
[illegible]	1½					TRUCK CALLED	[illegible]		
19960 – 21110	1½					ARRIVED AT JOB		AM/PM	
2700						START OPERATION		AM/PM	[illegible]
						FINISH OPERATION		AM/PM	[illegible]
						RELEASED		AM/PM	[illegible]
						MILES FROM STATION TO WELL			[illegible]

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).
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SIGNED: [illegible]
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE		$ AMOUNT	
[illegible]	[illegible]	[illegible]	[illegible]			3,600	00
[illegible]	[illegible]	[illegible]	200			3,200	00
[illegible]	[illegible]	lb	100			370	00
[illegible]	[illegible]	lb	940			987	00
[illegible]	[illegible]	[illegible]	[illegible]			225	00
[illegible]	[illegible]		1			170	00
[illegible]	[illegible]	[illegible]	5			270	00
[illegible]	[illegible]	[illegible]	4			191	25
[illegible]	[illegible]	[illegible]	[illegible]			130	00
[illegible]	[illegible]	[illegible]	441			1,861	72
[illegible]	[illegible]	[illegible]	1			1,500	00
[illegible]	[illegible]	[illegible]	400			260	00
[illegible]	[illegible]	[illegible]	1			350	00
5002	[illegible]	[illegible]	1			175	00

CHEMICAL / ACID DATA:			

		SUB TOTAL	[illegible]
SERVICE & EQUIPMENT	%TAX ON $		
MATERIALS	%TAX ON $		
		TOTAL	

SERVICE REPRESENTATIVE [signature]

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

FIELD SERVICE ORDER NO.

BASiC energy services, L.P.

TREATMENT REPORT

Customer	Lease No.	Date
Prolific Resources		02-18-14
Lease Froetschner	**Well #** 1	

Field Order #	Station	Casing	Depth	County	State
11249	Pratt KS	8 5/8	1111	Pawnee	KS

Type Job	Formation	Legal Description
CNW 8 5/8 Surface		11-22-18

PIPE DATA		PERFORATING DATA		FLUID USED	TREATMENT RESUME		
Casing Size 8 5/8	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP
Depth 1111	Depth	From	To	Pre Pad	Max		5 Min.
Volume 121	Volume	From	To	Pad	Min		10 Min.
Max Press 500	Max Press	From	To	Frac	Avg		15 Min.
Well Connection P.C.	Annulus Vol.	From	To		HHP Used		Annulus Pressure
Plug Depth 1086	Packer Depth	From	To	Flush	Gas Volume		Total Load

Customer Representative	Station Manager	Treater
	Dave Scott	Robert Sullivan

Service Units	37900	~~33708~~ 27463 ~~19920~~	19960	21010					
Driver Names	Sullivan	~~Sullivan~~ Hefton	Gibson						

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
12:05					on loc
					Run 8 5/8 csg.
1:20					CASING ON Bottom
1:30					Hook up circ.
2:15			3	4.5	H2O Spacer
			88		mix 200 sk A-Con cmt @ 12 ppg 3% cc 1/4#
			42		mix 200 sk Common 2% cc 1/4 CF
					cmt mixed
				4.5	Release Plug AND ST Disp
3:00	350		67		plug down
					CIRC 18 BBL cmt PIT
					JOB Complete
					THANK you

BASIC ENERGY SERVICES

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PAGE	CUST NO	YARD #	INVOICE DATE
1 of 1	1003327	1718	09/29/2014

INVOICE NUMBER

91608061

Pratt (620) 672-1201

BILL TO
PROLIFIC RESOURCES LLC
2725 DRY CREEK RD
GREAT BEND
KS US 67530
ATTN: DARRELL WILLINGER

JOB SITE
LEASE NAME: Froetschner 1
LOCATION:
COUNTY: Pawnee
STATE: KS
JOB DESCRIPTION: Cement-New Well Casing/Pi
JOB CONTACT:

JOB #	EQUIPMENT #	PURCHASE ORDER NO.	TERMS	DUE DATE
40770443	19843		Net - 30 days	10/29/2014

For Service Dates: 09/25/2014 to 09/25/2014

0040770443

171811260A Cement-New Well Casing/Pi 09/25/2014
Cement 4 1/2" Longstring

	QTY	U of M	UNIT PRICE	INVOICE AMOUNT
AA2 Cement	175.00	EA	13.09	2,290.75 T
60/40 POZ	50.00	EA	9.24	462.00 T
Celloflake	44.00	EA	2.85	125.36 T
C-41P	42.00	EA	3.08	129.36 T
Salt	797.00	EA	0.38	306.84 T
Cement Friction Reducer	50.00	EA	4.62	231.00 T
C-44	165.00	EA	3.97	654.31 T
FLA-322	83.00	EA	5.77	479.32 T
Gilsonite	875.00	EA	0.52	451.41 T
Claymax KCL Substitute	7.00	EA	26.95	188.65 T
"Latch Down Plug & Baffle, 4 1/2"" (Blu	1.00	EA	284.90	284.90
"Auto Fill Float Shoe 4 1/2"" (Blue)"	1.00	EA	254.10	254.10
"Turbolizer, 4 1/2"" (Blue)"	10.00	EA	65.45	654.50
4 1/2" Basket(Blue)	1.00	EA	207.90	207.90
"Unit Mileage Chg (PU, cars one way)"	80.00	MI	3.27	261.80
Heavy Equipment Mileage	160.00	MI	5.39	862.40
"Proppant & Bulk Del. Chgs., per ton mil	832.00	EA	1.69	1,409.41
Depth Charge; 4001'-5000'	1.00	EA	1,940.40	1,940.40
Blending & Mixing Service Charge	225.00	BAG	1.08	242.55
Plug Container Util. Chg.	1.00	EA	192.50	192.50
"Service Supervisor, first 8 hrs on loc.	1.00	EA	134.75	134.75

PLEASE REMIT TO:
BASIC ENERGY SERVICES,LP
PO BOX 841903
DALLAS,TX 75284-1903

SEND OTHER CORRESPONDENCE TO:
BASIC ENERGY SERVICES,LP
801 CHERRY ST, STE 2100
FORT WORTH, TX 76102

SUB TOTAL	**11,764.21**
TAX	**433.50**
INVOICE TOTAL	**12,197.71**

BASIC ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

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

COPY

FIELD SERVICE TICKET
1718 11260 A

11-22S-18W

DATE TICKET NO.

DATE OF JOB 9-25-2014 DISTRICT Pratt, KS	NEW WELL ☒ OLD WELL ☐ PROD ☐ INJ ☐ WDW ☐ CUSTOMER ORDER NO.:
CUSTOMER Prolific Resources, LLC	LEASE Froetschner WELL NO. 1
ADDRESS	COUNTY Rawnee STATE KS
CITY STATE	SERVICE CREW Dean, Ed, Dave
AUTHORIZED BY	JOB TYPE: CNW/ 4½ Long String

EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS
27283	½				
19885	½				
19843	½				
20955	½				
19918	½				

	DATE	TIME
TRUCK CALLED	9-25 AM/PM	12 00
ARRIVED AT JOB	9-25 AM/PM	4 30
START OPERATION	9-25 AM/PM	5 30
FINISH OPERATION	9-25 AM/PM	10 00
RELEASED	9-25 AM/PM	11 00
MILES FROM STATION TO WELL		74

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
CP105	AA2 Cement	SK	175		2,975 00
CP103	60/40 POZ	SK	50		600 00
CC102	Cellaflake	Lb	44		162 80
CC105	C-41P	Lb	42		168 00
CC111	SSA-1	Lb	797		358 50
CC112	Cement Friction Reducer	Lb	~~1650~~		300 00
CC115	C-44	Lb	165		849 75
CC129	FLA-322	Lb	83		622 50
CC201	Gilsonite	Lb	875		586 25
CF606	Latch Down Plug & Baffle, 4½ (Blue)	Ea	1		330 00
CF1250	Duo Fill Float Shoe 4½ (Blue)	Ea	1		330 00
CF1650	Turbolizer, 4½ (Blue)	Ea	10		850 00
CF1900	4½ Basket	Ea	1		270 00
C704	Claymax KCL Substitute	Gal	7		245 00
E100	Unit Mileage Charge - Pickup	mi	80		340 00
E101	Heavy Equipment Mileage	mi	160		1,120 00
E113	Bulk Delivery	Tm	832		1,830 40
CE205	Depth Charge 4001-5000	this	1		2,520 00
CE240	Blending & Mixing Service Charge	SK	225		315 00

SUB TOTAL KG

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

CHEMICAL / ACID DATA:			

SERVICE REPRESENTATIVE Dave Frank

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

COPY

FIELD SERVICE TICKET

1718 11260 A

DATE OF JOB: 7-25-2014 DISTRICT: Pratt, KS

CUSTOMER: Pioneer Resources LLC

ADDRESS

CITY STATE

AUTHORIZED BY

LEASE: Freelsen WELL NO. 1

COUNTY: Pawnee STATE: KS

SERVICE CREW: Dean, Fay, Dave

JOB TYPE: Cmt 4½ Longstring

EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS
[illegible]					
19853					
19643					
70955					
15518					

	DATE	AM/PM	TIME
TRUCK CALLED	[illegible]		[illegible]
ARRIVED AT JOB	[illegible]		[illegible]
START OPERATION	[illegible]		[illegible]
FINISH OPERATION	[illegible]		[illegible]
RELEASED	[illegible]		[illegible]
MILES FROM STATION TO WELL			70

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 these 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: [signature]

(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	$ AMOUNT
CP105	AA2 Cement	sk	175		2,975.00
CP103	60/40 Poz	sk	50		600.00
CC102	Cello Flake	lb	44		162.80
CC105	C-41P	lb	42		168.00
CC111	Salt	lb	797		398.50
CC112	Cement Friction Reducer	lb	165		900.00
CC115	C-44	lb	165		893.75
CC129	FLA-322	lb	83		622.50
CC201	Gilsonite	lb	875		586.25
CF606	[illegible] (Blue)	ea	1		390.00
CF1250	[illegible] (Blue)	ea	1		310.00
CF1650	Turbolizer 4½ (Blue)	ea	10		850.00
CF1600	4½ Basket	ea	1		270.00
C204	Cement Pump Services	ea	7		245.00
E100	Unit Mileage Charge [illegible]	mi	80		340.00
E101	Heavy Equipment Mileage	mi	160		1,120.00
E113	Bulk Delivery		512		1,536.00
CE205	Depth Charge [illegible]		1		2,520.00
CE240	Blending & Mixing Service Charge	sk	225		315.00

SUB TOTAL

CHEMICAL / ACID DATA:

SERVICE & EQUIPMENT %TAX ON $

MATERIALS %TAX ON $

TOTAL

SERVICE REPRESENTATIVE: Darin Franke

THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: [signature]

(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

COPY

FIELD SERVICE TICKET

~~1718 11261 A~~
Continuation of

DATE | TICKET NO. 11260 A

DATE OF JOB 9-25-2014 DISTRICT Pratt, KS	NEW WELL ☒ OLD WELL ☐ PROD ☐ INJ ☐ WDW ☐ CUSTOMER ORDER NO.:
CUSTOMER Palomino Resources, LLC	LEASE Froetschner WELL NO. 1
ADDRESS	COUNTY Pawnee STATE KS
CITY STATE	SERVICE CREW Darin, Ed, Dave
AUTHORIZED BY	JOB TYPE: CNW/4½ Longstring

EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS		DATE	AM PM	TIME
						TRUCK CALLED		AM PM	
						ARRIVED AT JOB		AM PM	
						START OPERATION		AM PM	
						FINISH OPERATION		AM PM	
						RELEASED		AM PM	
						MILES FROM STATION TO WELL			

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: [signature]
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	$ AMOUNT
CE 504	Plug Container Utilization Charge	Job	1		250 00
S003	Service Supervisor, first 8 hrs on loc	Ea	1		175 00
				SUB TOTAL	11,764 21

CHEMICAL / ACID DATA:			

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

SERVICE REPRESENTATIVE [signature]

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

FIELD SERVICE ORDER NO.

CLOUD LITHO - Abilene, TX

BASIC energy services, L.P.

COPY

TREATMENT REPORT

Customer: Prol. Pic Resources LLC	Lease No.	Date: 9-25-2014	
Lease: Froetschner	Well #: 1		
Field Order #: 11260	Station: Pratt, KS	Casing: 4½	Depth: 4343
County: Pawnee	State: KS		
Type Job: CNU/4½ Longstring	Formation: TD 4343	Legal Description: 11-22S-18W	

PIPE DATA		PERFORATING DATA		FLUID USED	TREATMENT RESUME		
Casing Size: 4½	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP
Depth: 4343	Depth	From	To	Pre Pad	Max		5 Min.
Volume: 69	Volume	From	To	Pad	Min		10 Min.
Max Press	Max Press	From	To	Frac	Avg		15 Min.
Well Connection	Annulus Vol.	From	To		HHP Used		Annulus Pressure
Plug Depth: 4301	Packer Depth	From	To	Flush	Gas Volume		Total Load

Customer Representative: Rick	Station Manager: Kevin Gordley			Treater: Darin Franklin						
Service Units	27263	[redacted]	70555	19918		19889	19843			
Driver Names	Darin	[redacted]	Phyr	Phye			ED			

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
4:30 AM					On Location / Safety Meeting
					Run 4343' 4½ Casing
					Turbolizers 1, 4, 5, 6, 7, 55 Basket #5
					175 sx AA2 Cement 15.3 PPG
					1.36 yield, 5.44 Wash Rec.
9:30	200		5	6	Pump 5 bbls water
	200		42	6	Mix 175 sk cement
					Shut down
					Wash Pump Lines
					Release Plug
	100		0	6	Start displacement - KCL water
	300		46	6	Lift Pressure
	500		58	3	Slow Rate
10:00	1500		68	3	Bump Plug
					Release - Held
					Plug Rat & Mouse holes
11:00					Job Complete / Darin & Crew
					Thank you!!!

Taylor Printing, Inc. 620-672-3656

DIAMOND TESTING, LLC
P.O. Box 157
HOISINGTON, KANSAS 67544
(620) 653-7550 • (800) 542-7313
STC/Froetschner1dst1

Company Prolific Resources, LLC Lease & Well No. Froetschner No. 1

Elevation 2046 KB Formation Cherokee Sandstone Effective Pay -- Ft. Ticket No. J3292

Date 9-22-14 Sec. 11 Twp. 22S Range 18W County Pawnee State Kansas

Test Approved By Robert T. (Bob) Stolzle Diamond Representative John C. Riedl

Formation Test No. 1 Interval Tested from 4,054 ft. to 4,080 ft. Total Depth 4,080 ft

Packer Depth 4,049 ft. Size 6 3/4 in. Packer Depth -- ft. Size -- in.

Packer Depth 4,054 ft. Size 6 3/4 in. Packer Depth -- ft. Size -- in.

Depth of Selective Zone Set ft.

Top Recorder Depth (Inside) 4,057 ft. Recorder Number 30046 Cap. 6,000 psi.

Bottom Recorder Depth (Outside) 4,077 ft. Recorder Number 13498 Cap. 6,000 psi.

Below Straddle Recorder Depth ft. Recorder Number Cap. psi.

Drilling Contractor Murfin Drilling Company, Inc. - Rig 16

Mud Type Chemical Viscosity 52

Weight 9.1 Water Loss 8.0 cc.

Chlorides 4,300 P.P.M.

Jars: Make Sterling Serial Number 1

Did Well Flow? No Reversed Out No

Drill Collar Length 30 ft I.D. 2 1/4 in.

Weight Pipe Length -- ft I.D. -- in.

Drill Pipe Length 3,998 ft I.D. 3 1/2 in.

Test Tool Length 26 ft Tool Size 3 1/2-IF in.

Anchor Length 26 ft. Size 4 1/2-FH in.

Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2-XH in.

Blow: 1st Open: Strong blow. Gas to surface in 2 mins. Gauged 754 MCF/D up to 907 MCF/D at end. No blow back during shut-in.

2nd Open: Strong blow. Gas to surface throughout. Gauged 907 MCF/D up to 1012 MCF/D at end. No blow back during shut-in.

Recovered 1 ft. of drilling mud = .004920 bbls.

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks Tool Sample Grind Out: 100%-mud

Gas sample taken on 2nd flow.

Time Set Packer(s) 1:30 P.M. Time Started off Bottom 3:45 P.M. Maximum Temperature 99°

Initial Hydrostatic Pressure		(A)	1979 P.S.I.	
Initial Flow Period Minutes	15	(B)	188 P.S.I.	to (C) 196 P.S.I.
Initial Closed In Period Minutes	30	(D)	1297 P.S.I.	
Final Flow Period Minutes	30	(E)	198 P.S.I	to (F) 201 P.S.I.
Final Closed In Period Minutes	60	(G)	1271 P.S.I.	
Final Hydrostatic Pressure		(H)	1941 P.S.I.	

Diamond Testing General Report

John Riedl
TESTER
CELL: 620-793-0550

General Information

Company Name	PROLIFIC RESOURCES LLC	Job Number	J3292
Contact	DOUG PANNING	Representative	JOHN RIEDL
Well Name	FROETSCHNER #1	Well Operator	PROLIFIC RESOURCES LLC
Unique Well ID		Report Date	2014/09/22
Surface Location	S11/22S/18W	Prepared By	JOHN RIEDL
Field		Qualified By	BOB STOLZLE

Test Information

Test Type	DST #1 CONVENTIONAL
Formation	CHEROKEE SANDSTONE
Well Fluid Type	
Test Purpose	

Start Test Date	2014/09/22	Start Test Time	11:30:00
Final Test Date	2014/09/22	Final Test Time	17:10:00

Test Recovery

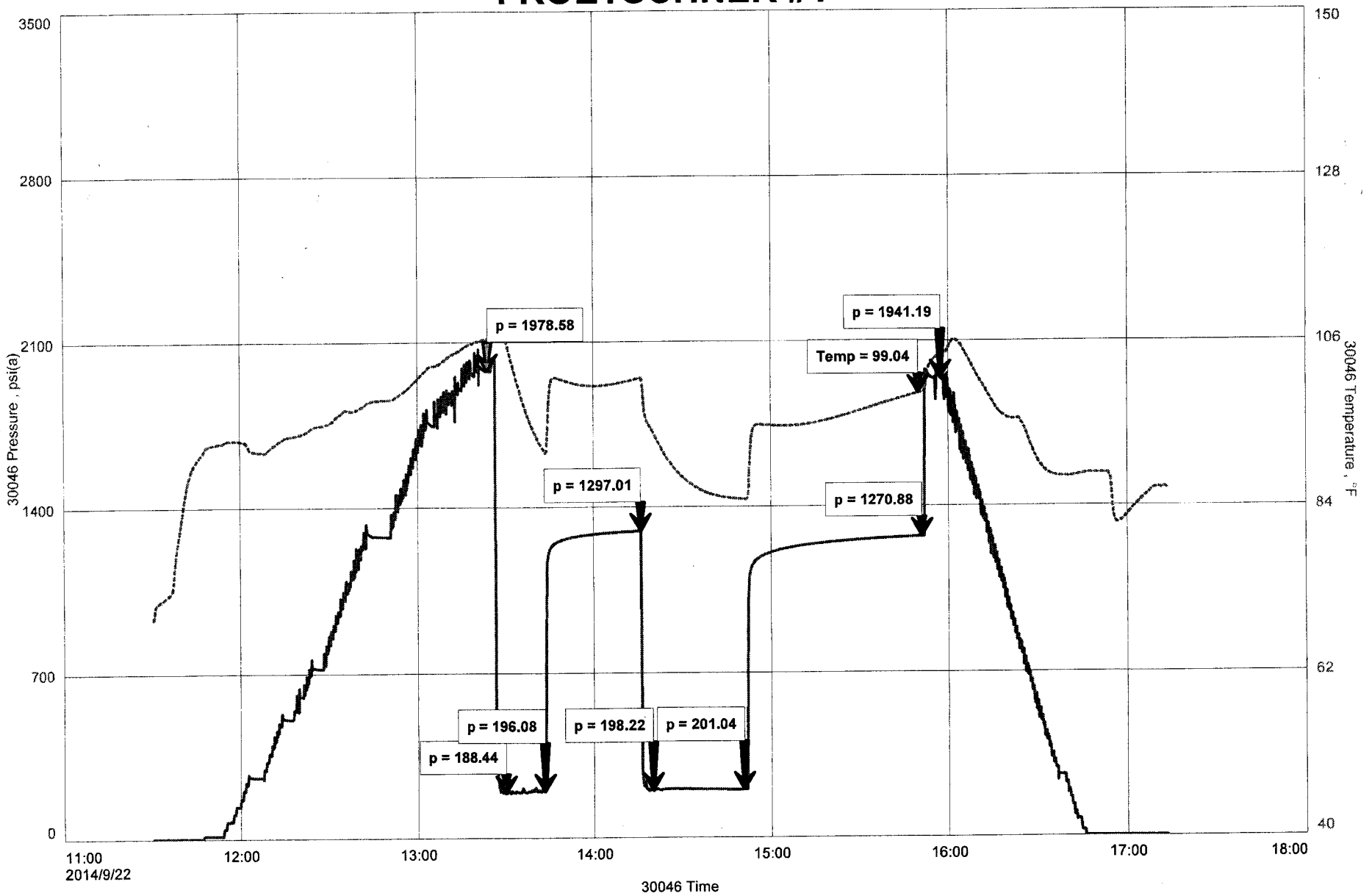
RECOVERY: 1' DRILLING MUD

GAS TO SURFACE. GAUGED 1012 MCF/D

PROLIFIC RESOURCES LLC
DST #1 CHEROKEE SANDSTONE 4054-4080
Start Test Date: 2014/09/22
Final Test Date: 2014/09/22

FROETSCHNER #1

FROETSCHNER #1
Formation: CHEROKEE SANDSTONE
Job Number: J3292



DIAMOND TESTING, LLC
P.O. Box 157
HOISINGTON, KANSAS 67544
(620) 653-7550 • (800) 542-7313
STC/Froetschner1dst2

Company Prolific Resources, LLC Lease & Well No. Froetschner No. 1

Elevation 2046 KB Formation Mississippi Osage Chert Effective Pay -- Ft. Ticket No. J3293

Date 9-23-14 Sec. 11 Twp. 22S Range 18W County Pawnee State Kansas

Test Approved By Robert T. (Bob) Stolzle Diamond Representative John C. Riedl

Formation Test No. 2 Interval Tested from 4,104 ft. to 4,140 ft. Total Depth 4,140 ft

Packer Depth 4,099 ft. Size 6 3/4 in. Packer Depth -- ft. Size -- in.

Packer Depth 4,104 ft. Size 6 3/4 in. Packer Depth -- ft. Size -- in.

Depth of Selective Zone Set ft.

Top Recorder Depth (Inside) 4,107 ft. Recorder Number 30046 Cap. 6,000 psi.

Bottom Recorder Depth (Outside) 4,137 ft. Recorder Number 13498 Cap. 6,000 psi.

Below Straddle Recorder Depth ft. Recorder Number Cap. psi.

Drilling Contractor Murfin Drilling Company, Inc. - Rig 16

Mud Type Chemical Viscosity 52

Weight 9.1 Water Loss 8.0 cc.

Chlorides 4,300 P.P.M.

Jars: Make Sterling Serial Number 1

Did Well Flow? No Reversed Out No

Drill Collar Length 30 ft I.D. 2 1/4 in.

Weight Pipe Length -- ft I.D. -- in.

Drill Pipe Length 4,048 ft I.D. 3 1/2 in.

Test Tool Length 26 ft Tool Size 3 1/2-IF in.

Anchor Length 36 ft. Size 4 1/2-FH in.

Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2-XH in.

Blow: 1st Open: Fair, 5 in. blow. No blow back during shut-in.

2nd Open: Weak, 3 1/2 in. blow. No blow back during shut-in.

Recovered 40 ft. of slightly gas cut drilling mud w/a few oil specks = .289900 bbls. (Grind out: 5%-gas; 95%-mud)

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks Tool Sample Grind Out: 100%-mud

Time Set Packer(s) 5:30 A.M. Time Started off Bottom 9:30 A.M. Maximum Temperature 109°

Initial Hydrostatic Pressure.....(A) 2004 P.S.I.

Initial Flow Period.....Minutes 30 (B) 28 P.S.I. to (C) 25 P.S.I.

Initial Closed In Period.....Minutes 60 (D) 103 P.S.I.

Final Flow Period.....Minutes 60 (E) 24 P.S.I to (F) 29 P.S.I.

Final Closed In Period.....Minutes 90 (G) 102 P.S.I.

Final Hydrostatic Pressure.....(H) 1976 P.S.I.

Diamond Testing General Report

John Riedl
TESTER
CELL: 620-793-0550

General Information

Company Name	PROLIFIC RESOURCES LLC	Job Number	J3293
Contact	DOUG PANNING	Representative	JOHN RIEDL
Well Name	FROETSCHNER #1	Well Operator	PROLIFIC RESOURCES LLC
Unique Well ID		Report Date	2014/09/23
Surface Location	S11/22S/18W	Prepared By	JOHN RIEDL
Field		Qualified By	BOB STOLZLE

Test Information

Test Type	DST #2 CONVENTIONAL
Formation	MISS OSAGE CHERT
Well Fluid Type	
Test Purpose	

Start Test Date	2014/09/23	Start Test Time	04:00:00
Final Test Date	2014/09/23	Final Test Time	11:15:00

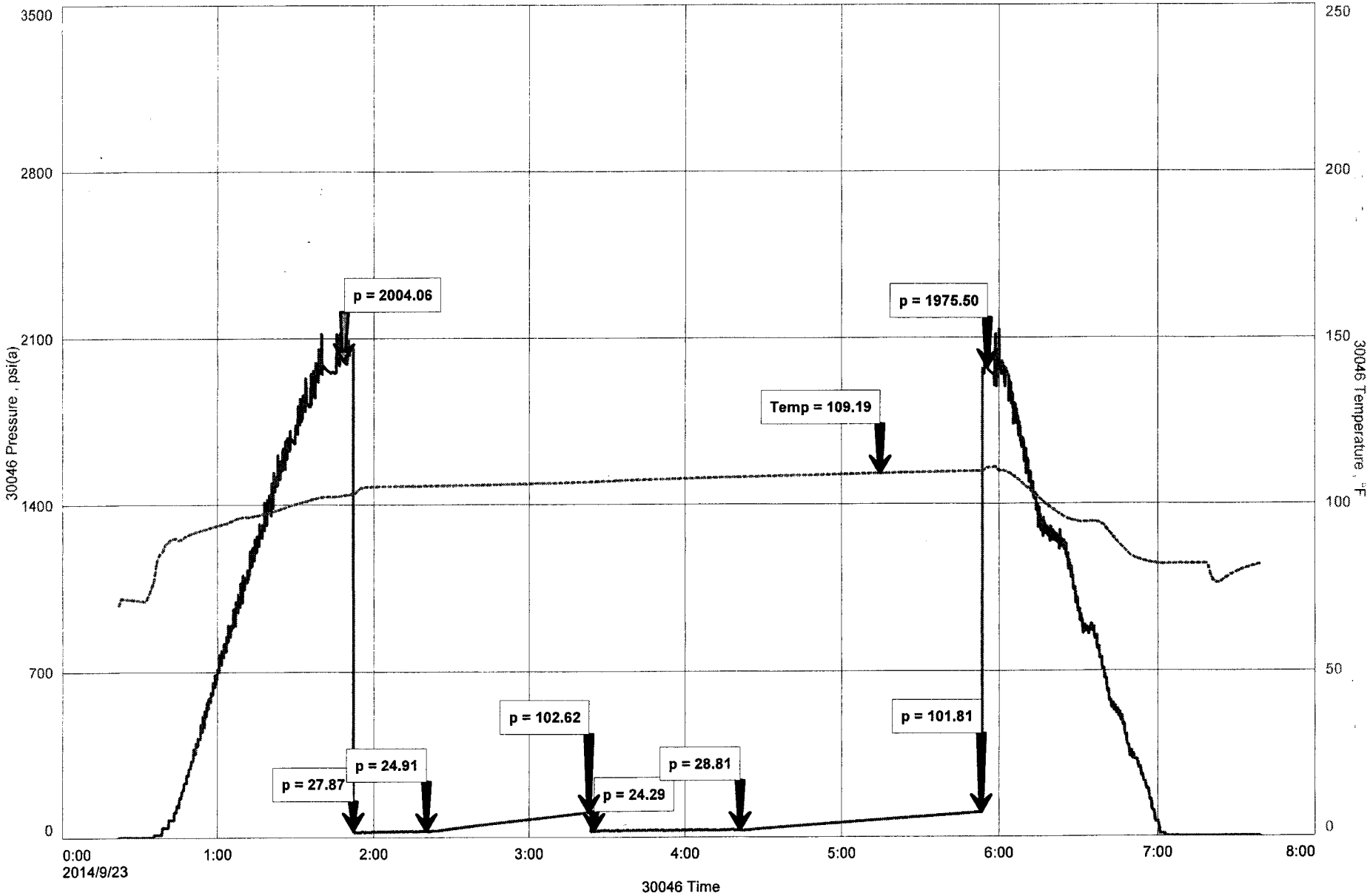
Test Recovery

RECOVERY: 40' SLIGHTLY GAS CUT DRILLING MUD WITH A FEW OIL SPECKS

PROLIFIC RESOURCES LLC
DST #2 MISS OSAGE CHERT 4104-4140
Start Test Date: 2014/09/23
Final Test Date: 2014/09/23

FROETSCHNER #1

FROETSCHNER #1
Formation: MISS OSAGE CHERT
Job Number: J3293



DIAMOND TESTING, LLC
P.O. Box 157
HOISINGTON, KANSAS 67544
(620) 653-7550 • (800) 542-7313
STC/Froetschner1dst3

Company Prolific Resources, LLC Lease & Well No. Froetschner No. 1

Elevation 2046 KB Formation Viola Effective Pay -- Ft. Ticket No. J3294

Date 9-23-14 Sec. 11 Twp. 22S Range 18W County Pawnee State Kansas

Test Approved By Robert T. (Bob) Stolzle Diamond Representative John C. Riedl

Formation Test No. 3 Interval Tested from 4,141 ft. to 4,180 ft. Total Depth 4,180 ft

Packer Depth 4,136 ft. Size 6 3/4 in. Packer Depth -- ft. Size -- in.

Packer Depth 4,141 ft. Size 6 3/4 in. Packer Depth -- ft. Size -- in.

Depth of Selective Zone Set ft.

Top Recorder Depth (Inside) 4,144 ft. Recorder Number 30046 Cap. 6,000 psi.

Bottom Recorder Depth (Outside) 4,177 ft. Recorder Number 13498 Cap. 6,000 psi.

Below Straddle Recorder Depth ft. Recorder Number Cap. psi.

Drilling Contractor Murfin Drilling Company, Inc. - Rig 16

Mud Type Chemical Viscosity 49

Weight 9.1 Water Loss 9.2 cc.

Chlorides 5,000 P.P.M.

Jars: Make Sterling Serial Number 1

Did Well Flow? No Reversed Out No

Drill Collar Length 30 ft I.D. 2 1/4 in.

Weight Pipe Length -- ft I.D. -- in.

Drill Pipe Length 4,085 ft I.D. 3 1/2 in.

Test Tool Length 26 ft Tool Size 3 1/2-IF in.

Anchor Length 39 ft. Size 4 1/2-FH in.

Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2-XH in.

Blow: 1st Open: Strong blow increasing. Off bottom of bucket in 5 mins. Weak blow back during shut-in.

2nd Open: Strong blow increasing. Off bottom of bucket in 17 mins. No blow back during shut-in.

Recovered 560 ft. of gas in pipe

Recovered 50 ft. of gas & oil cut watery mud = .711500 bbls. (Grind out: 15%-gas; 5%-oil; 80%-mud)

Recovered 60 ft. of mud cut water = .574500 bbls. (Grind out: 80%-water; 20%-mud) Chlorides: 65,000 Ppm

Recovered 110 ft. of TOTAL FLUID = 1.286000 bbls.

Recovered ft. of

Recovered ft. of

Remarks Tool Sample Grind Out: 100%-water

Time Set Packer(s) 6:40 P.M. Time Started off Bottom 10:40 P.M. Maximum Temperature 116°

Initial Hydrostatic Pressure		(A)	2023 P.S.I.	
Initial Flow Period	Minutes 30	(B)	31 P.S.I.	to (C) 40 P.S.I.
Initial Closed In Period	Minutes 60	(D)	1140 P.S.I.	
Final Flow Period	Minutes 60	(E)	43 P.S.I	to (F) 71 P.S.I.
Final Closed In Period	Minutes 90	(G)	1129 P.S.I.	
Final Hydrostatic Pressure		(H)	1984 P.S.I.	

Diamond Testing General Report

John Riedl
TESTER
CELL: 620-793-0550

General Information

Company Name	PROLIFIC RESOURCES LLC	Job Number	J3294
Contact	DOUG PANNING	Representative	JOHN RIEDL
Well Name	FROETSCHNER #1	Well Operator	PROLIFIC RESOURCES LLC
Unique Well ID		Report Date	2014/09/24
Surface Location	S11/22S/18W	Prepared By	JOHN RIEDL
Field		Qualified By	BOB STOLZLE

Test Information

Test Type	DST #3 CONVENTIONAL
Formation	VIOLA
Well Fluid Type	
Test Purpose	

Start Test Date	2014/09/23	Start Test Time	17:30:00
Final Test Date	2014/09/24	Final Test Time	01:00:00

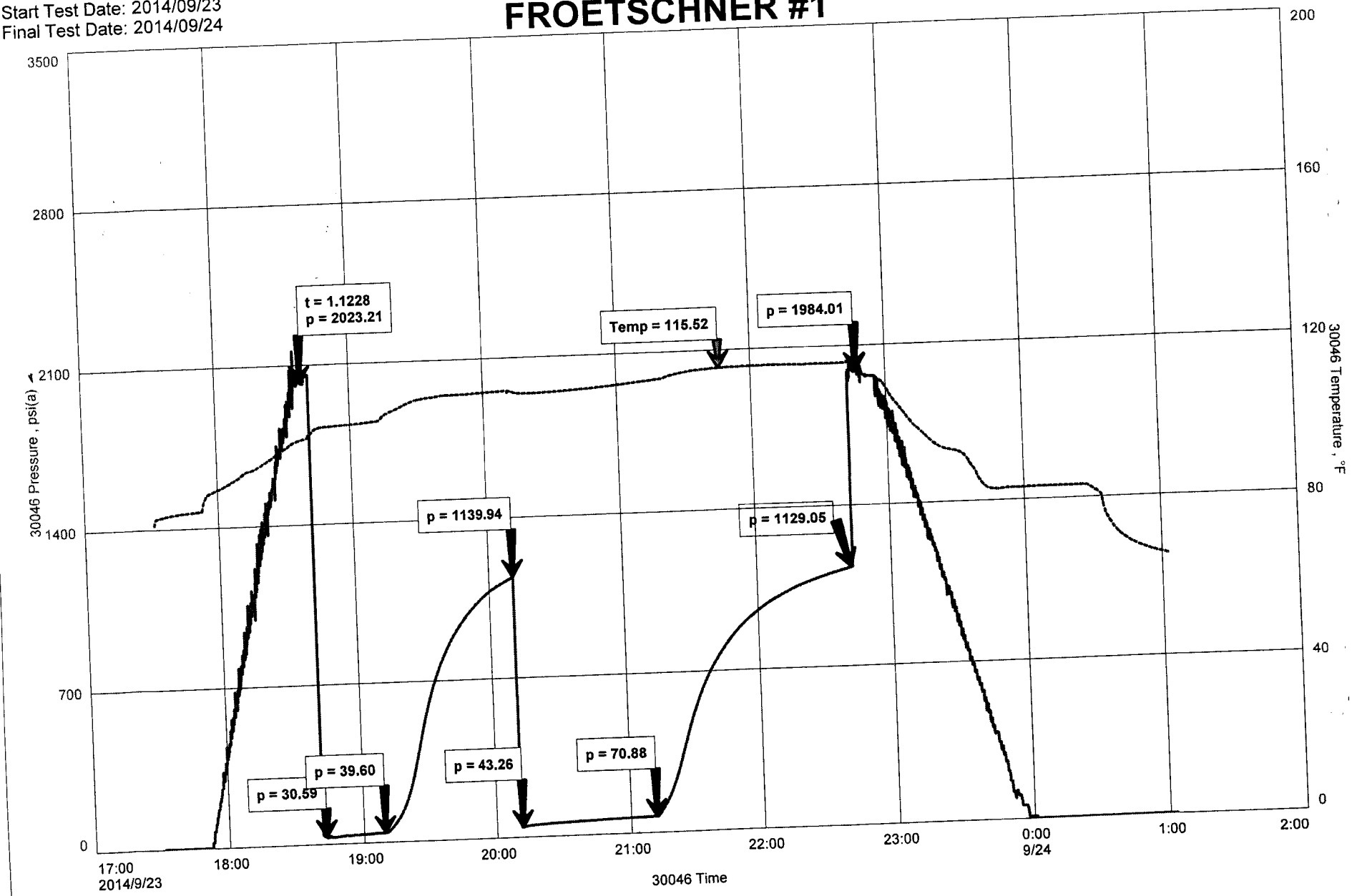
Test Recovery

RECOVERY: 560' GAS IN PIPE
50' GAS AND OIL CUT WATERY MUD
60' MUD CUT WATER CHLORIDES: 65,000 PPM
110' TOTAL FLUID

PROLIFIC RESOURCES LLC
DST #3 VIOLA 4141-4180
Start Test Date: 2014/09/23
Final Test Date: 2014/09/24

FROETSCHNER #1

FROETSCHNER #1
Formation: VIOLA
Job Number: J3294



ROBERT STOLZLE

CONSULTING PETROLEUM GEOLOGIST
AAPG Cert. # 3244
6211 S. 231st ST,W. Goddard, KS 67052-9240 (316) 794-8400

DRILLING TIME AND SAMPLE LOG

OPERATOR: Prolific Resources LLC
LEASE: Froetschner WELL NO.: 1
FIELD:
LOCATION: NW1/4 NW1/4 NE1/4
SEC.: 11 TWP: 22S RANGE: 18W
COUNTY: Pawnee STATE: KS
API NO.: 15-145-21788

CONTRACTOR: Murfin Drilling Co., Rig 16
COMMENCED: Sept. 17, 2014, 5pm. COMPLETED: 9/25/14
ROTARY TOTAL DEPTH: 4343' LOG TOTAL DEPTH: 4341'
GEOLOGICAL SUPERVISION FROM: 3500' to: T.D.
MUD-UP DEPTH: 3213' MUD TYPE: Chemical Polymer

ELEVATIONS
KB 2046'
GL 2041'
Measurements are all from KB

CASING RECORD
SURFACE: 8 5/8" @ 1111'
Circ.
PRODUCTION: 4 1/2" 5-55 @ 4340' w/175 sx AA-2

WIRELINE SURVEYS
Nabors - Comp. Neu. - Den., Sonic, Dual Ind. and Microlog were run.

FORMATION	SAMPLE TOP	SAMPLE SUBSEA	LOG TOP	LOG SUBSEA	STRUCTURAL COMPARISON
Stone Corral Anhy.	1119	(+927)	1118	(+928)	-16'
Base of Anhydrite	1138	(+908)	1139	(+907)	-17'
Heebner Shale	3538	(-1492)	3539	(-1493)	-17'
Lansing Group	3633	(-1587)	3633	(-1587)	-17'
Stark Shale	3853	(-1807)	3856	(-1810)	-25'
Base KS. City Gp.	3924	(-1878)	3923	(-1877)	-20'
Pawnee Ls.	4020	(-1974)	4021	(-1975)	-26'
Cherokee Shale	4059	(-2013)	4057	(-2011)	-23'
Miss. Osage Fm.?	4126	(-2080)	4124	(-2078)	-26'
Viola Fm.	4162	(-2116)	4161	(-2115)	-20'
Simpson Shale	4225	(-2179)	4226	(-2180)	-29'
Arbuckle Fm.	4277	(-2231)	4276	(-2230)	-44'
Total Depth	4343		4341		

LOCATION MAP
o location #1 Froetschner
11

Reference Well for Structural Comparison: Prolific #1 Roesler 1133' FSL, 530' FWL Sec. 2
Comments and Recommendations: Recommended completion for gas production.

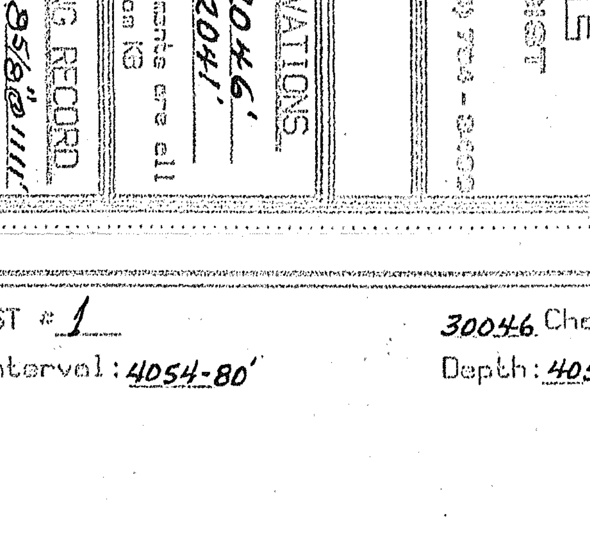
DST # 1 ZONE: Cherokee Sandstone
INTERVAL: 4054'-4080'

Pressures:	Time	Press.	RECOVERY
1. Initial Hydrostatic		1979 psi	GTS-1,012 MCFD
2. Initial Flow: Start	0	188 psi	1' Drilling Mud
3. Initial Flow: End	15	196 psi	
4. Initial Shut-in: End	30	1297 psi	Blow Desc:
5. Final Flow: Start	0	198 psi	I.F.-GTS-2 min.
6. Final Flow: End	30	201 psi	I.S.I.-No blow
7. Final Shut-in: End	60	1271 psi	F.F.-GTS-MAX. 1,012 M.
8. Final Hydrostatic		1941 psi	F.S.I.-No blow

BHT: 106°F
Rw:

Gas Sample taken during F.F.

DST # 1 30046 Chart
Interval: 4054-80' Depth: 4057'



DST # 2 ZONE: Miss. Osage
INTERVAL: 4104'-4140'

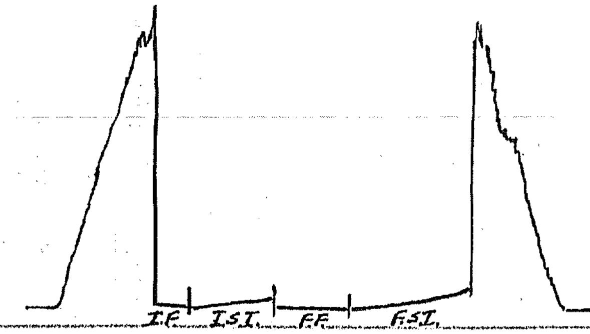
DST # 2 30046 Chart
Interval: 4104-40' Depth: 4107'

Pressures: Time Press. RECOVERY

Pressures:	Time	Press.	RECOVERY
1. Initial Hydrostatic		2004 psi	40' Mud-Sli.
2. Initial Flow: Start	0	28 psi	gascut, Oilspecks
3. Initial Flow: End	30	26 psi	
4. Initial Shut-in: End	30	103 psi	Blow Desc:
5. Final Flow: Start	0	24 psi	I.F.-built to 5"
6. Final Flow: End	60	27 psi	I.S.I.-No blow
7. Final Shut-in: End	90	102 psi	F.F.-built to 3½"
8. Final Hydrostatic		1976 psi	F.S.I.-No blow

BHT: 109°F

Rw: ______



DST # 3 ZONE: Viola Fm.

INTERVAL: 4141'-4180'

Pressures:	Time	Press.	RECOVERY
1. Initial Hydrostatic		2023 psi	560' Gas in Pipe
2. Initial Flow: Start	0	30 psi	50' Gas/Oilcut Mud
3. Initial Flow: End	30	40 psi	(15% gas, 5% oil)
4. Initial Shut-in: End	60	1140 psi	60' Mudcut water
5. Final Flow: Start	0	43 psi	(20% Mud)
6. Final Flow: End	60	71 psi	Blow Desc:
7. Final Shut-in: End	90	1129 psi	I.F.-BOB 5 Min.
8. Final Hydrostatic		1984 psi	I.S.I.-Surf. blow
			F.F.-BOB 17 Min.
			F.S.I.-No blow

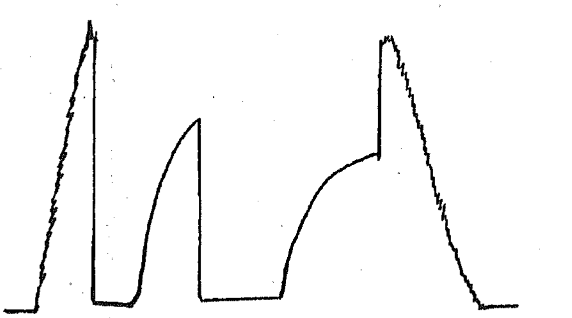
BHT: 116°F

Rw: ______

Chlorides 65,000 ppm (filtrate 5,600 ppm)

DST # 3 — 30046 Chart

Interval: 4141'-4180' — Depth: 4144'



ABBREVIATIONS USED

ROCK TYPES:

Ls - Limestone
Sh - Shale
Ss - Sandstone
Slts - Siltstone
Cg - Conglomerate
Cht - Chert
Qtz - Quartzite
Gran - Granite
Dol - Dolomite
Chlk - chalky

COLOR:

Wh - White
Crm - Cream
Clr - Clear
Rd - Red
Grn - Green
Gry - Grey
Blk - Black
Mot - Mottled

HARDNESS:

Sft - Soft
M.Sft - Moderately soft
Hrd - Hard
V.Hrd - Very hard

FABRIC:

Fn.grn - finegrained
VFG - Very fine grained
Med - Medium
Crs - Coarse
Dst - Detrital
Foss - Fossilliferous
Xln - Crystalline
Mxln - Microcrystalline
Ool - Oolitic
Oom - Oomoldic
Mat - Matrix

OTHER TERMS:

fl - Fluorescence (of oil)
min fl - mineral fluorescence
pyr - pyritic
glau - glauconitic
carb - carbonaceous
stn - stain (of oil)
cut - oil cut
AA - as above
Ø - porosity
NSFOC - no stain, fluorescence, odor, or cut (of oil)
cmpl - comple
perm - permeability
F.O. - Free oil
vug - vugular
tr - trace
w/ - with

MODIFIERS:

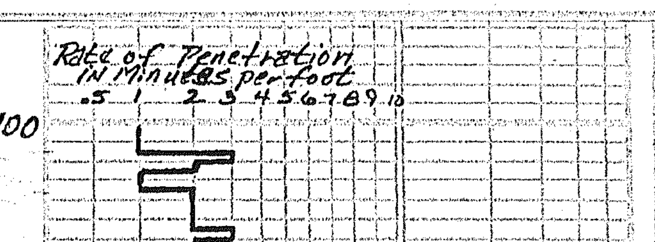
gd - Good
fr - Fair
pr - Poor
ex - excellent
v - very
w - well
tr - trace
occ - occasional
vis - visible
N - no
gran - granular
intgran - intergranular
pp - pinpoint
dd - dead
gsy - gassy

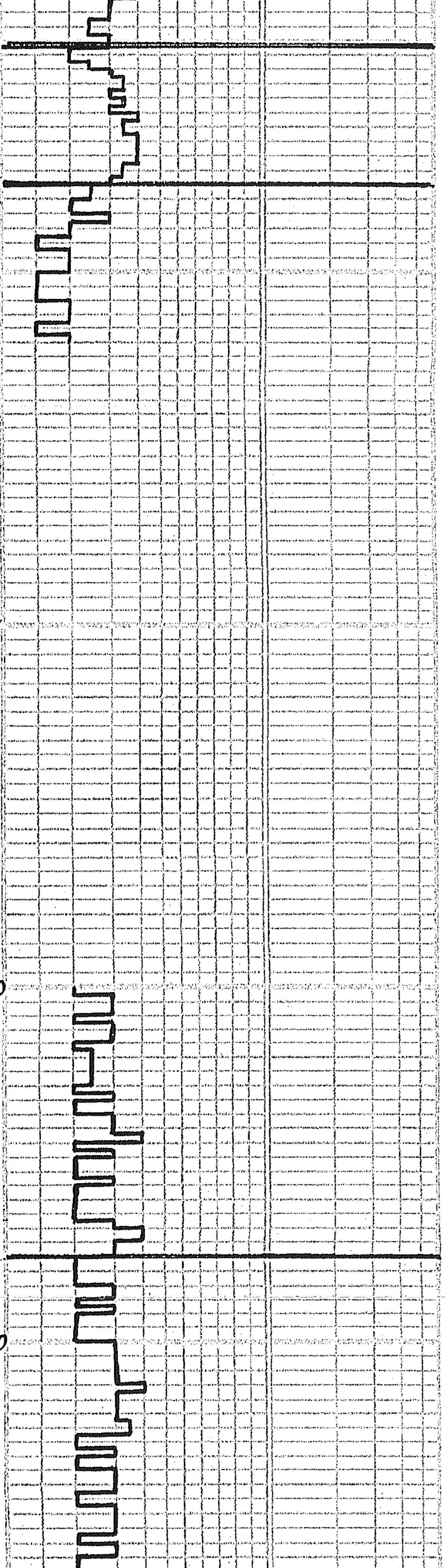
TEXTURE:

Dns - Dense
Cly - Clayey
Fri - Friable
Earth - Earthy
Sach - Hackly
Fiss - Fissile
Vit - Vitreous
Vug - Vugular
Mic - Micritic

OIL SHOWS

○ Weak Oil Show
◔ Fair Oil Show
◑ Good Oil Show
● Excellent Oil Show





Stone Corral Anhydrite (+927)(logtop)

Base of Anhydrite (+908)

1150

1200

Displace Native Mud with Drilling Mud at 3213'

Mud Check @ 3456'
M.W. 8.8 lb./gal.
V.S. 55 sec./qt.
W.L. 7.6 ml./30 min.
Chl. 2,800 ppm
Solids 3.5%
LCM 2 lbs./bbl.

Start 1' drilling time and 10' wet and dry samples at 3500'.

3500

Ls: crm., m. hrd.-m. sft., VFG xln., v. foss. + ool.-detrital, tr. chlky. occ. fr.-pr. moldic Φ NSFOC
occ. sh. stnd.

Ls: crm.-tan, m. sft.-m. hrd., VFG xln., v. foss. + ool.-detrital, occ. chlky., occ. sh. stnd., tr. pr. pp. Φ + v. vug. moldic Φ NSFOC

Ls: crm.-tan, m. sft.-m. hrd., occ. chlky., tr. cht., foss.-v. foss. Sh. stnd.-resembles oil stn., pr. pp. Φ NSFOC

Ls: A.A. NSFOC

Sh: blk., m. sft.-m. hrd., carb., earthy

Sh: blk., A.A.-gry., sft., clayey.

Ls: crm.-gry., hrd., dns., VFG-mxln. occ. foss., tr. sndy. NΦ NSFOC

Heebner Sh. (-1492)

3550

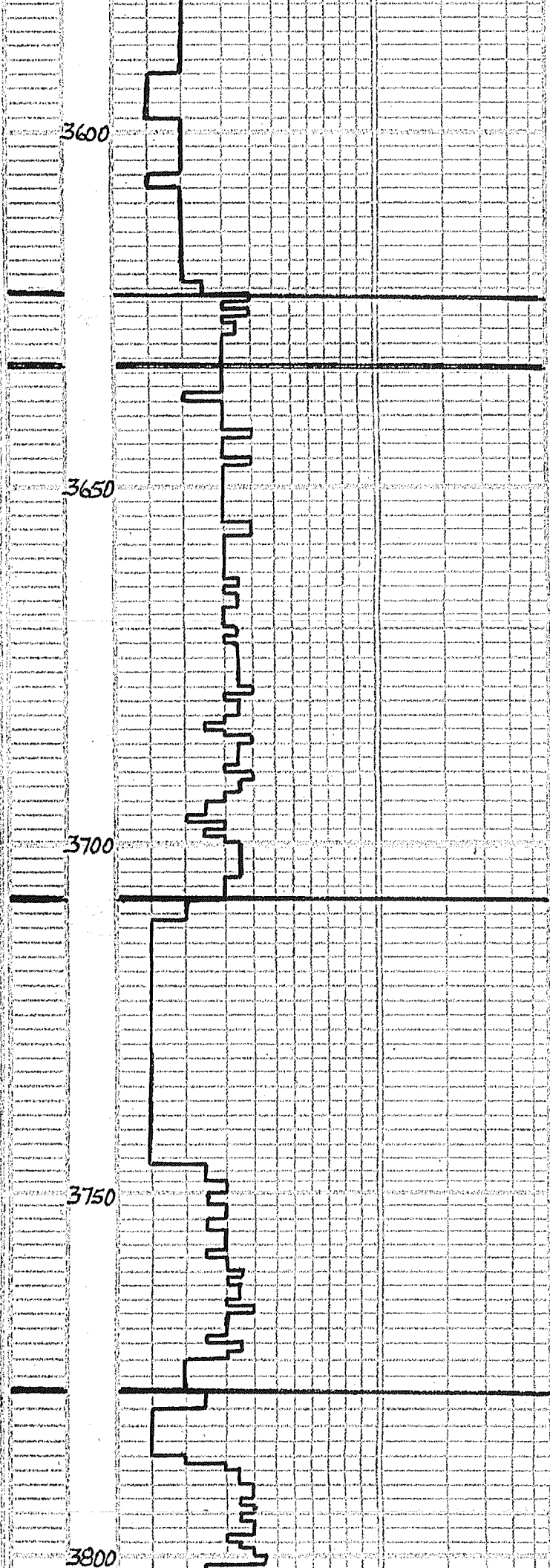
Ls: crm.-gry., hrd., dns., VFG-mxln. fr. rexlzd., foss. + sndy. NΦ NSFOC

Sh: lt. gry.-gry., m. sft.-clayey-earthy

Sh: lt. gry.-gry., sft.-v. sft. + clay. tr. slty., earthy
occ. Ls: A.A. NΦ NSFOC

Sh: lt. gry.-gry.-grn., sft. earthy-v. sft. + clayey, tr. slty., tr. mica.

Sh: A.A.



Sh. A.A.
occ. Ss: gry., m. sft.-hrd., dNS., fr.-fn. A., VFG., mod. srtd., Rnd.-Sgb Rng., W. Cmtd., MICA. ? ØNSFOC

Sh.-Slts: gry., sft.-V. sft., occ. Sndy., MICA., earthy-clayey

fr. Ss: A.A. NØNSFOC

Sh.-Slts: gry.-dk. gry., m. sft.-V. sft., fr. clAyey., MICA., Earthy

fr. Ss: gry., m. sft., VFG., W. Cmtd. pr. srtd., MICA., NØNSFOC

Sh: gry.-dk. gry., m. sft.-m. hrd., dNS., occ. sft. Y Slty., Earthy.-hackly.

Sh. A.A.

Ls: crm.-tAN., hrd., dNS., VFG-mXLN., MIC.-fr. foss. NØNSFOC

Haskell LS (Brown Lime) (-1577')

Ls: crm.-bRN., hrd., dNS., fnXLN-mXLN. Y MIC., occ. foss., fr. sh. stnd., fr. Chiky. NØNSFOC

Lansing Group (-1587') 109 top

Ls: crm.-tAN., sft.-Chiky.-hrd., dNS., MIC., VFG-mXLN., fr. Cht. occ. foss. NØNSFOC

Ls: crm., lt. d.-m. hrd., dNS., VFG-mXLN., fr. MIC., fr. Cht., occ. foss., fr. Sndy. NØNSFOC

Sh: dk. gry.-blk., m. hrd., dNS., fr. Carb., HACKLY-EARTHY

Ls: crm.-tAN, hrd., dNS., VFG-mXLN., Shty., rare foss. NØNSFOC

Ls: crm.-tAN, hrd., dNS., VFG-mXLN., MIC., occ. Cht., occ. Chiky. fr. foss. NØNSFOC

Sh: dk. gry., m. sft.-m. hrd., hACKY.

Ls: A.A., Abun. Cht. NØNSFOC

Sh: dk. gry.-blk., m. hrd., dNS., hACKLY-fissile

Ls: crm.-bRN, hrd., dNS., fnXLN-mXLN., MIC., Cht., foss.-V. foss. fr. Chiky NØNSFOC

Sh: gry.-dk. gry., m. hrd., hACKLY

Ls: crm.-brn., hrd., dNS., fnXLN-mXLN. Y MIC., fr. Chiky., occ. Cht. occ. foss.-V. foss., fr. ool. sh. stnd. NØNSFOC

Lansing 'G' Zone Porosity (-1662')

Ls: crm., m. sft.-m. hrd., VFGXLN., ool. Wl gd.-ex. oom. ØNSFOC

Ls: crm., m. sft., VFGXLN., fr. Chiky., ool. wl ex. oom. Ø NSFOC

Ls: crm., m. sft., VFGXLN., fr. Chiky., ool. wl ex. oom. Ø NSFOC

Ls: A.A. w/ Ls: crm., hrd., dNS., VFG-mXLN., MIC., fr. ool. NØNSFOC

Ls: crm., hrd., dNS., VFG-mXLN. MIC., fr. Cht., rare foss. Y ool. NØNSFOC

Ls: crm.-tAN., hrd., dNS., VFG-mXLN., MIC., fr. foss., fr. sh. stnd. NØNSFOC

Sh: dk. gry.-blk., m. hrd., hACK.-fiss.

Sh: A.A.

Ls: crm., hrd.-sft., VFG-mXLN., Chiky., occ. ool. wl pr.-fr. oom Ø NSFOC

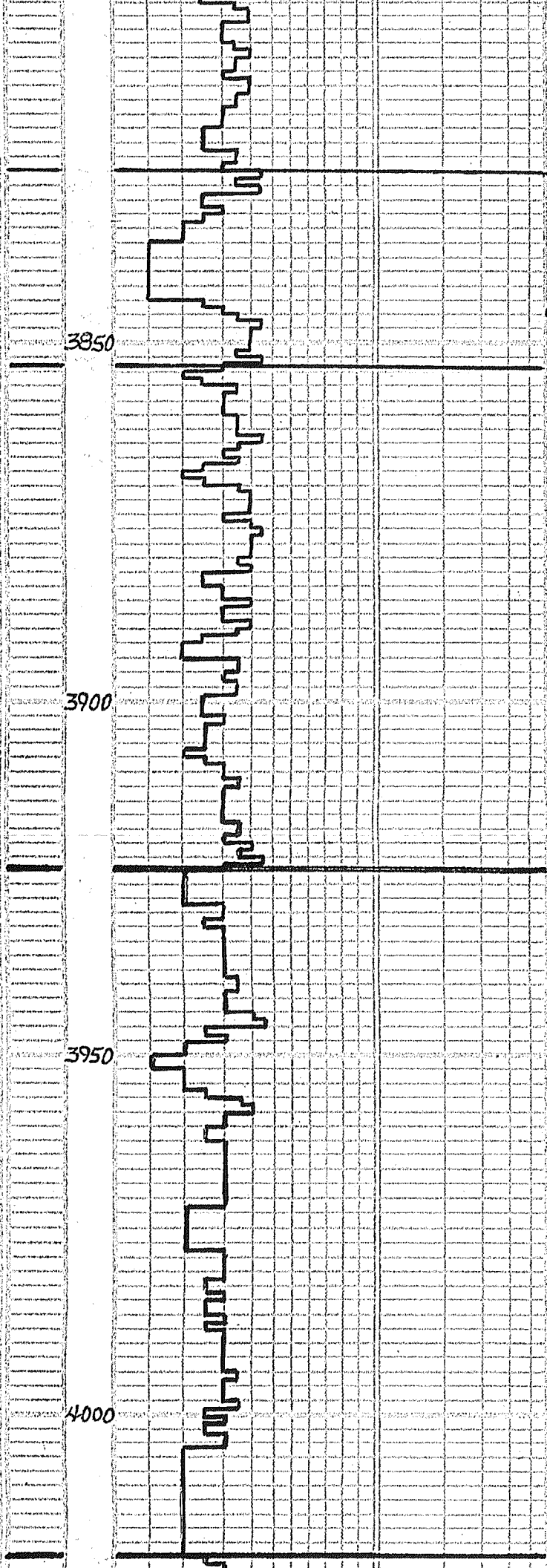
Sh: dk. gry., m. sft., hACKLY

Ls: crm., m. sft.-m. hrd., VFGXLN. ool. Wl gd.-ex. oom. ØNSFOC

LKC 'J' Zone (-1732')

Ls: crm., hrd., dNS., VFG-mXLN., MIC., occ. Cht., fr. ool. Y foss. NØNSFOC

Sh: dk. gry., m. hrd., dNS., fiss.-hack.



Ls: crm.-lt. gry., hrd.-sft.+ chky., VFG-mxln., mic., chty., occ. foss. NØNSFOC

Ls: A.A. occ. ool. w/pr.-fr. oom. Ø, sh. stnd. NSFOC

Sh: dk. gry.-rd. brn., m. sft.-m. hrd. dns., earthy-hackly

Sh: A.A.

Ls: crm., hrd., dns., VFG-mxln., fr. rexld., occ. ool., fr. mic. NØNSFOC

LKC "J" Zone (-1780')

Ls: crm.-lt. gry., m. hrd.-m. sft., VFG xln., occ. ool. w/pr.-fr. oom. Ø fa. chiky. NSFOC

Ls: crm., m. sft.-m. hrd., VFG xln., ool. w/pr.-ev. oom. Ø NSFOC

CFS

Ls: crm.-tan, hrd., dns., VFG-mxln., mic., occ. foss. + ool. NØNSFOC

Sh: gry.-blk., m. sft., occ. carb., earthy-hackly

Ls: crm.-lt. gry., hrd., dns., VFG-mxln., occ. chiky., rare foss. NØNSFOC

Stark Shale (-1810)

Sh: A.A.

Ls: crm.-lt. gry., hrd.-sft. + chiky., VFG-mxln., fr. foss. + ool., fr. sh. stnd. NØNSFOC

Ls: crm.-lt. gry., hrd., dns., VFG-mxln., occ. sft. + chiky., fr. mic. occ. foss. + sh. stnd. NØNSFOC

Ls: crm.-lt. gry., hrd.-sft. + chiky. VFG-mxln., occ. foss. NØNSFOC

Sh: blk.-dk. gry., m. sft., carb., earthy.

Ls: crm.-tan, hrd.-m. sft., chiky. fr. foss. NØNSFOC

Ls: crm.-tan-lt. gry., hrd.-m. sft. + chiky., VFG-mxln., occ. foss. NØNSFOC

Ls: crm., hrd.-m. sft., VFG-mxln., mic., fr. cht., occ. chiky. occ. ool. w/pr. oom. Ø NSFOC

abun. sh. cavings

Ls: crm.-lt. gry., hrd.-sft. + chiky., VFG-mxln., fr. foss. + sh. stnd. NØNSFOC

Sh: gry.-blk., m. sft., earthy., fr. carb.

Base of Kansas City Group (-1878')

Sh: gry. grn.-blk.-rd. brn., m. sft. earthy

Ls: crm.-lt. gry., hrd.-m. sft., VFG-mxln., fr. chk., fr. cht., occ. foss. + sh. stnd. NØNSFOC

Sh: A.A.

Ls: crm.-brn., hrd.-m. sft., dns., fn. xln.-mxln., fr. mic., fr. chk. occ. foss. NØNSFOC

Sh: gry. grn.-rd. brn., sft.-m. sft. earthy., occ. peb.

Ls: crm.-brn., hrd., dns., fn. xln.-mxln., occ. cht., occ. foss. NØNSFOC

Ls: A.A., occ. sh. stnd. NØNSFOC

Sh: gry.-rd. brn., m. sft.-sft., occ. sndy., earthy-clayey

Sh: rd. brn.-gry. grn.-dk. gry., m. sft.-sft., occ. sndy., earth-clayey

Ls: crm., hrd.-m. sft., VFG-mxln., occ. chk., fr. foss. NØNSFOC

Sh: A.A., occ. pebble

Ls: crm.-lt. gry., m. sft.-hrd., dns., VFG-mxln., mic., fr. chk., rare foss., occ. sh. stnd. NØNSFOC

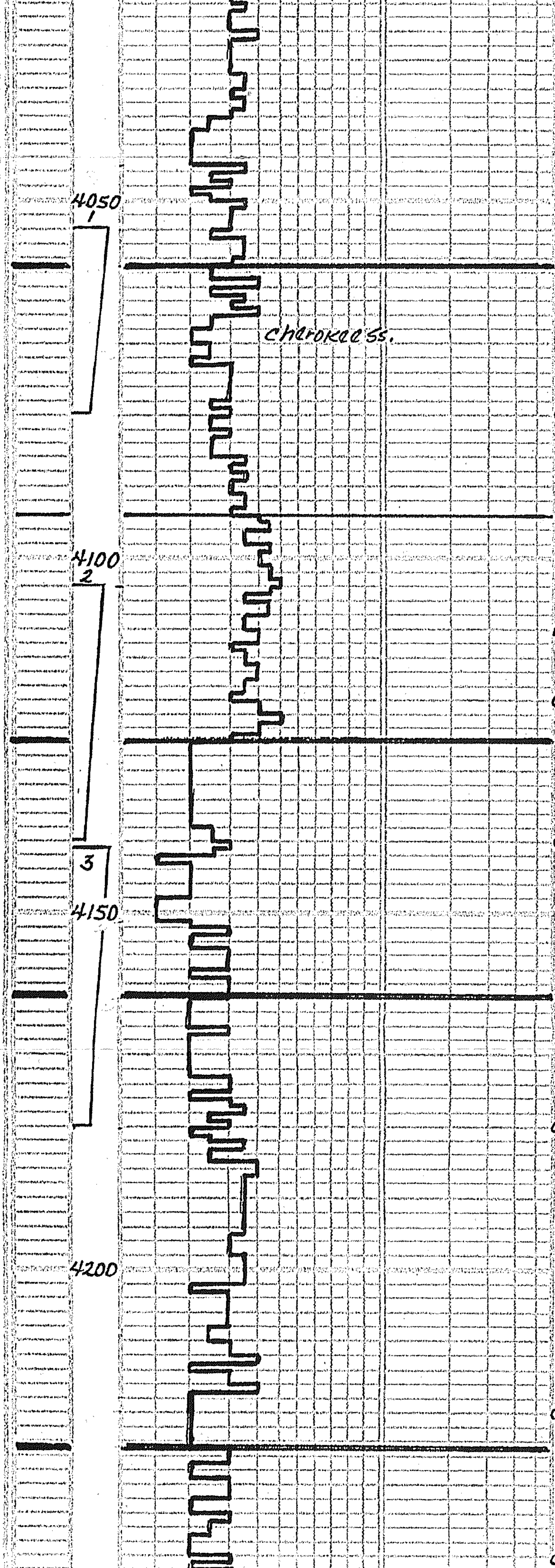
Sh: gry.-gry. grn.-rd. brn., m. sft. fr. sndy., earthy

Ls: crm., hrd.-m. sft., dns., VFG-mxln., mic., fr. chk. NØNSFOC

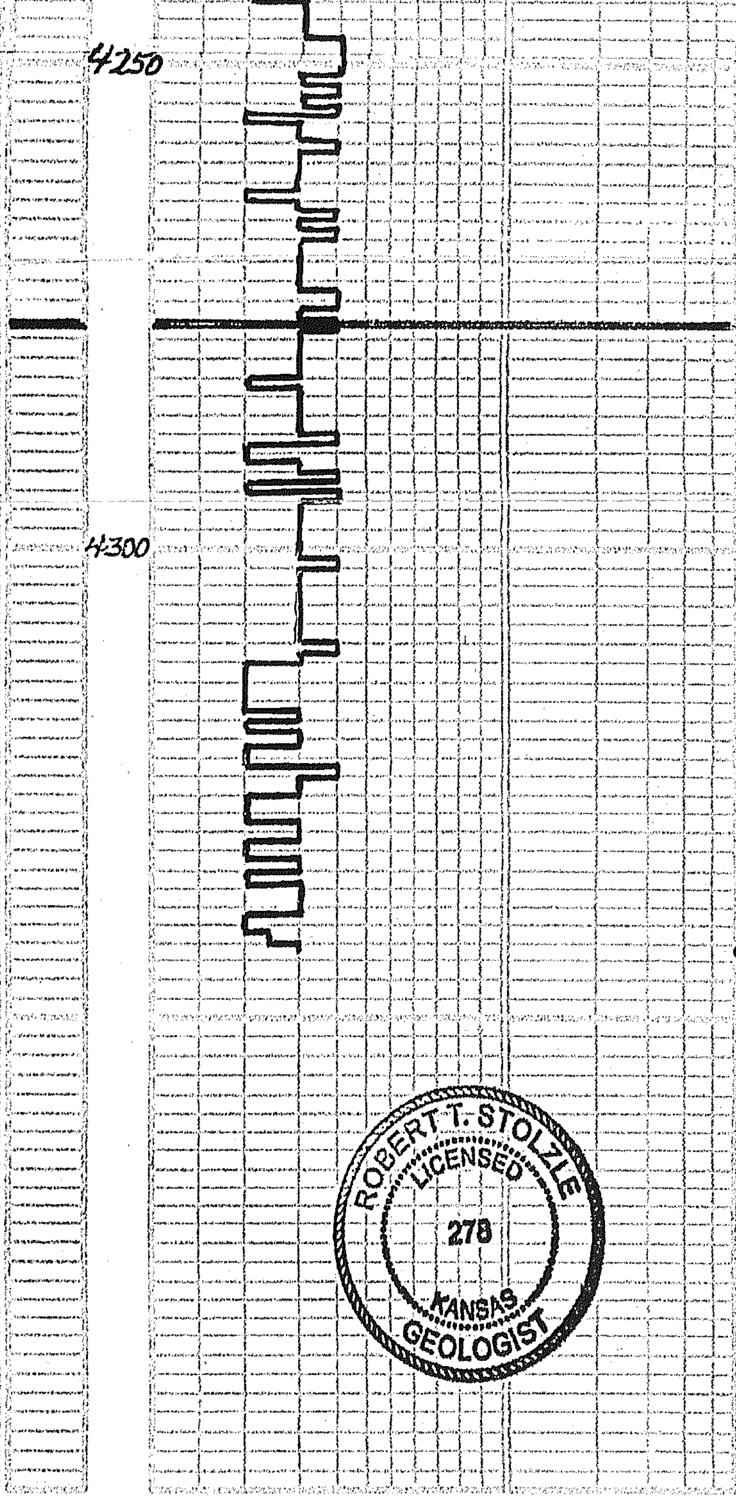
Ls: A.A. occ. sh. stnd. NØNSFOC

Sh: gry.-rd. brn., m. sft., dns., earthy

Sh: gry. grn.-gry.-rd. brn., m. sft.-sft., occ. slty., clay-earthy



Description	Remarks
Sh: A.A.	Pawnee Ls. (-1974')
Ls: Crm., hrd., dns., VFG-mxln., mic., rare foss., tr. pebb. surf. NØNSFOC	
Ls: crm-tan-lt. gry., hrd., dns., tr. sft. + chiky., VFG-mxln., mic., rare foss., tr. sh. stnd. NØNSFOC	DST #1 4054'-80' Rec: 1.012 MMCFG/D
Sh: dk. gry.-rd. brn., m. hrd.-m. sft., dns., earthy.	
Ls: crm., sft. + chiky.-hrd., dns., mic., VFG-mxln., rare foss. NØNSFOC	
Ls: crm-tan-brn., VFG-mxln., hrd., dns., mic., occ. foss., sh. stnd., occ. sft. + chiky NØNSFOC	Dev. 3/4° Strap 1.13 short
Sh: dk. gry.-blk.-rd. brn., m. sft.-m. hrd., dns., occ. sft. + clay., tr. slty	Cherokee Sh. (-2013')
Ss: wh.-clr., m. hrd.-sft. + fri. A., mod.-w. srtd., subang.-subrnd., well-pr. cmtd., lt. brn.-blk. stn., No odor, No F.O., tr. cut + fl., tr. Φ, tr. F.O. on brk.	Fair Show
Cg: Sh: gry.-rd. brn.-blu. grn., m. sft., occ. sndy., occ. pebb., tr. Ss: wh., sh. stnd., fn. grnd., w. cmtd., mod. srtd., sub. ang. NØNSFOC	Mud Check @ 4080' M.W. 9.1 Solids 5.5% Vis. 52 LCM 2# W.L. 8.0 Chl. 4,300
Cg: Sh: rd. brn.-gry.-blu. grn., m. sft.-m. hrd., dns., tr. sft. + sndy., tr. pebbles	Conglomerate Shale
Cg: Sh: dk. gry.-rd. brn.-blu. grn., m. sft.-m. hrd., dns., occ. sndy., occ. ls. pebble. No ss., No loose sd.	
Cg: Sh: dk. gry.-rd. brn.-blu. grn.-ylw., m. sft., earthy, tr. sndy., tr. ls. + cht. pebb., rare pc. Ss: VFG, pr. srtd., shly.-clayey, sft. NØNSFOC	DST #2 4104'-4140' Rec: 40' Mud Sli. Gas cut
Cg: Sh: A.A., tr. Ss: wh., clr., fri. A.	
Cht: wh., hrd., v.t.-m. sft., trip., occ. VFG p.p. Φ, uni. f. tan. stn., tr. F.O. on break, wk. odor, gd. cut + fl., few pc.	Miss. Osage Fm. Weak Show (poss. reworked)
Cht: wh., hrd., dns., occ. v. wea.-m. hrd., tr. VFG pp Φ w/ brn. stn.-3-4 pc. tray, tr. F.O. on brk., wk. gas. odor, gd.-ex. cut + fl., ? perm., thin zone.	Weak Show
Sh: Cg: gry.-rd. brn.-blu. grn. earthy	Mud Check @ 4140' M.W. 9.4 Chl. 5,200 W.L. 9.2 Solids 7.5% Vis. 46 LCM 1#
Cht: wh., hrd.-m. hrd., dns., v.t.-sli. trip. No vis. Φ, lt. brn. mott. stn., wk. cut + fl. v. wk. show	
Cht. + Dol: wh.-crm., hrd., VFGxln., occ. pr.-fr. p.p. vug. Φ, uni. + lt. brn. stn., FSFO, wk. odor, gd. cut + fl. ? perm.	Good Show
Cht. + Dol. A.A., fn xln., gd. vug. Φ, occ. fr. Φ in cht., mott.-uni. stn., fr. odor, tr. F.O., gd.-ex. cut + fl.	Viola Fm. (-2116
tr. Dol. w/ shows A.A. Cht: wh.-crm., hrd.-m. hrd., sli. trip.-v.t., occ. pr.-fr. vug. Φ, mott. brn. stn., No F.O., wk. odor, fr. cut + fl., ? perm.	Weak Show
Cht. wh.-crm., hrd., dns., v.t.-sli. trip. NØNSFOC	
Sh: dk. gry.-gry. grn.-rd. brn., m. hrd., dns., occ. sndy., earthy-hackly	DST #3 4141'-4180' Rec: 560' GIP 50' G+OCM 60' MCW
Sh: A.A.	
Cht.-wh.-lt. gry., hrd., dns., v.t.	
Ls: crm., hrd., VFGxln.-mxln., mic. NØNSFOC	
Sh: dk. gry.-rd. brn., poss. cavings	
Ls: crm., hrd., dns.-sft. + chiky., VFG-mxln. Not foss. NØNSFOC	
Ls: sft. + chik.-hrd., dns., mic., VFG-mxln., occ. foss. NØNSFOC	
tr. Cht: wh.-crm., hrd., dns., v.t.	
Sh: dk. gry.-rd. brn.-cavings?, tr. grn. gry., m. hrd., earth.-hack.	
Sh: A.A.	
Ss: clr.-wh., m. sft., med.-fn. grnd., hrd.-fri. A., pr.-w. cmtd., pr. Φ, w. srtd. NSFOC	Simpson Sh. (-2179')
Ss: A.A. pr. Φ NSFOC w/ Ss: tan, hrd.-sft., VFG, w. cmtd., subang.-ang., calc. cmt. NØNSFOC	
Sh: gry. grn., m. sft., hack.-waxy	



Sh:dk.gry.-rd.brn.most.cavings
tr. Dol: crm-tan, hrd., dns., fn-vfg xln., rare tr. vug. Φ NSFOC

Sh: dk. gry.-gry. grn.-rd. brn., dns., m. hrd.-m. sft., tr. sndy., earthy-hackly.
tr. Dol: A.A. NØNSFOC

Mud Check @ 4268'
M.W. 9.2
Vis. 49 Solids 6.1%
W.L. 8.4 LCM 2#
Chl. 5,600

Sh: dk. gry.-rd. brn., mott., m. hrd.-m. sft., tr. sndy., tr ls. pebb., hack-fissile
Sh: A.A
Dol: crm, hrd., dns., VFG xln., No vis. Φ NSFOC
+90% cavings

Arbuckle Fm. (-2231')

Dol: crm, hrd., dns., fn. grnd., tr. cht. NØNSFOC
90% cavings

Dol: wh.-crm., hrd., fn-med. grnd., occ. pr.-fr. intxln. Φ
80% cavings NSFOC

Dol: wh.-crm., hrd., fn-med. xln., occ. intxln. Φ, occ. chlk. filled Φ 50% cavings. NSFOC

Dol: wh.-crm., tr. pink, fn.-med. xln., hrd.-m. hrd., occ. gd.-ex. vug. + intxln Φ 10% cavings NSFOC

Dol: wh.-crm., tr. pink, fn-med grnd. xln., hrd., dns., tr. pr. intxln Φ
10% cavings NSFOC

Dol: crm-tan, hrd., dns., fn-med xln. tr. fr. vug. Φ, tr. cht., tr. wht chlky. 5% cavings. NSFOC
CFS Dol: A.A., tr. mxln., mic. NSFOC

D.T.D. 4343'
L.T.D. 4341'
Deviation 1°

Robert Stolzle
9/25/14