

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

Form must be Typed

Form must be Signed

All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

New Well Re-Entry Workover

Oil WSW SWD

Gas DH EOR

OG GSW

CM (Coal Bed Methane)

Cathodic Other (Core, Expl., etc.): _____

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

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

Deepening Re-perf. Conv. to EOR Conv. to SWD
 Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

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

API No.: _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

Confidentiality Requested

Date: _____

Confidential Release Date: _____

Wireline Log Received Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

1. Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____			
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	Merit Energy Company, LLC
Well Name	NORTH REEVE 1-11
Doc ID	1672924

All Electric Logs Run

ANNULAR HOLE VOLUME LOG 5 CASING
ARRAY COMPENSATED TRUE RESISTIVITY LOG 1
ARRAY COMPENSATED TRUE RESISTIVITY LOG 2
ARRAY COMPENSATED TRUE RESISTIVITY LOG 5
BOREHOLE COMPENSATED SONIC ARRAY LOG
DUAL SPACED NEUTRON SPECTRAL DENSITY LOG
MICROLOG
QUAD COMBO LOG

Form	ACO1 - Well Completion
Operator	Merit Energy Company, LLC
Well Name	NORTH REEVE 1-11
Doc ID	1672924

Tops

Name	Top	Datum
Heebner	3901	.
Lansing	3966	.
DENNIS	4262	.
SWOPE	4348	.
HERTHA	4388	.
MARMATON	4495	.
PAWNEE	4576	.
FT SCOTT	4606	.
CHEROKEE	4626	.
ATOKA	4736	.
MORROW	4834	.
CHESTER	4922	.

QUASAR ENERGY SERVICES, INC.



3288 FM 51
Gainesville, Texas 76240
Office: 940-612-3336

Fax: 940-612-3336 | qesi@qeserve.com

Form 185-2J

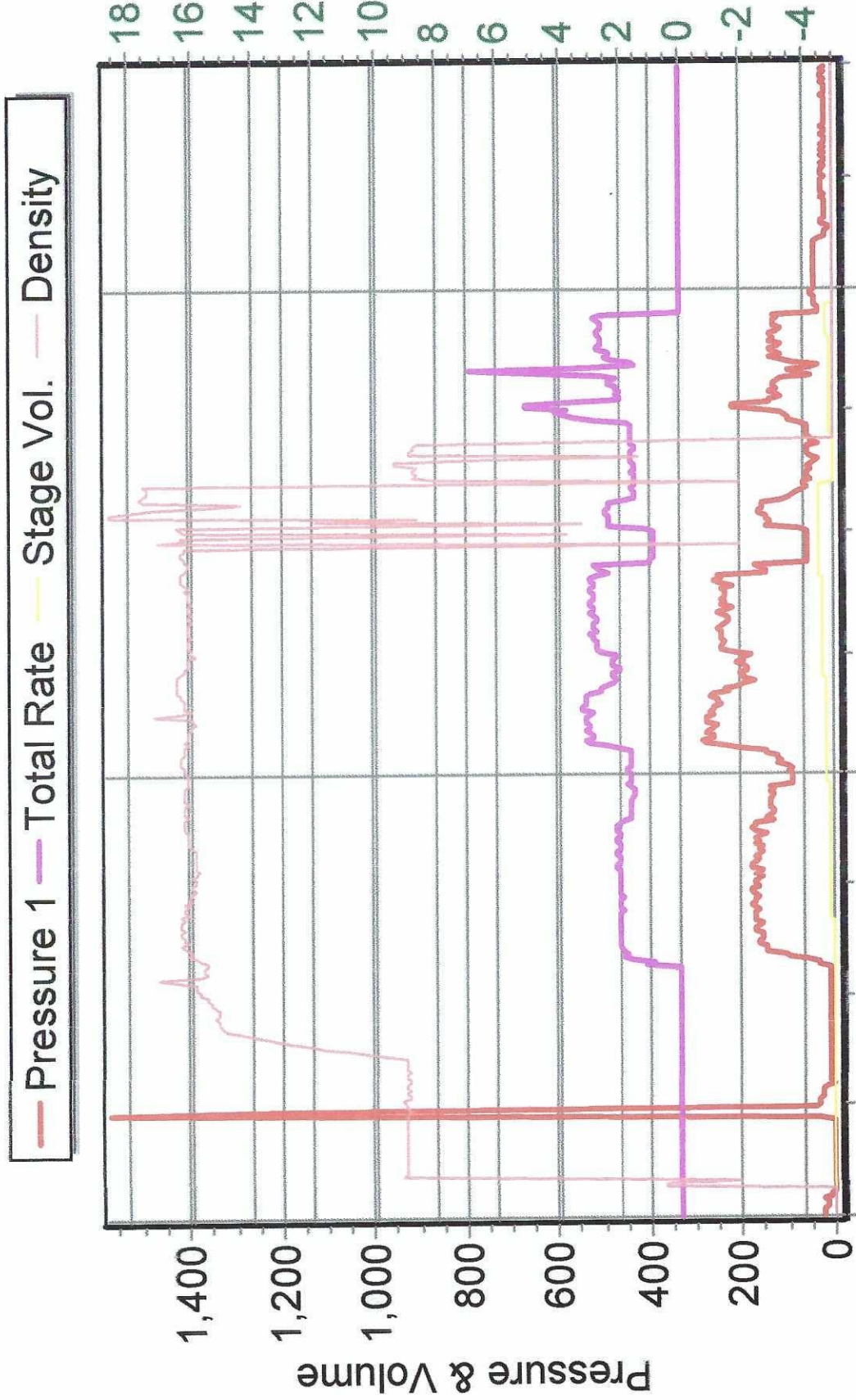
9/29/22

CEMENTING JOB LOG

CEMENTING JOB LOG

Company: Merit Energy Company				Well Name: North Reeve 1-11			
Type Job: CONDUCTOR				AFE #: 70905			
CASING DATA							
Size: 13 3/8		Grade:		Weight: 48			
Casing Depths		Top:		Bottom: 132.25			
Drill Pipe:		Size:		Weight:		Packer:	
Open Hole:		Size: 17 1/2		T.D. (ft): 134		Hole:	
CEMENT DATA							
Spacer Type:							
Amt.	Sks Yield	0	ft³/sk	Density (PPG)			
LEAD:		Excess					
Amt.	Sks Yield	0	ft³/sk	Density (PPG)			
TAIL:		Class A: 3% CC., 1/4# Celloflake				Excess	
Amt.	175	Sks Yield	208.25	ft³/sk	1.19	Density (PPG)	15.72
WATER:							
Lead:	gals/sk:	Tail: 195	gals/sk: 5.2	Total (bbls):		24.1	
Pump Trucks Used:		04, DP03					
Bulk Equipment:		228, 660-20					
Disp. Fluid Type:		Water (Supplied)		Amt. (Bbls.): 16	Weight (PPG):		8.3
COMPANY REPRESENTATIVE: Rodney				CEMENTER: Daniel Beck			
TIME AM/PM	PRESSURES PSI			FLUID PUMPED DATA		REMARKS	
	Casing	Tubing	ANNULUS	TOTAL	RATE		
3:00						ON LOCATION & SAFETY MEETING	
3:15						RIG UP	
5:10						RIG TO CIRCULATE	
5:19						RIG TO PT	
5:20						PRESSURE TEST TO 1500PSI	
5:24	200			41.3slurry	3.4	PUMP 195SX TAIL @ 15.7#	
5:39	200			10	4.0	DISPLACE	
5:45	200			16.0	4.0	SHUTDOWN	
5:46						CLOSE IN	
						10 BBLs Cement + Circ to pit	
22:30	500			75	5.3	SLOW RATE TO 2.0BPM @ 400PSI	
	400			80	2.0		
22:33	450			85.8	2.0	LAND PLUG / PRESSURE UP TO 900PSI	
22:35						RELEASE BACK --- FLOAT HELD	
						JOB COMPLETE	
Company: Merit Energy Company				Well Name: North Reeve 1-11			
Type Job: CONDUCTOR				AFE #: 70905			
Date: 9/29/2022		CEMENTING JOB LOG		QUASAR ENERGY SERVICES, INC. 185-2			

Merit Energy Company North Reeve 1-11



9/29/2022 4:13:08 AM 9/29/2022 4:26:56 AM 9/29/2022 4:41:59 AM



QUASAR ENERGY SERVICES, INC.

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 Gainesville, Texas 76240
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 Fax: 940-612-3336 | qesi@qeserve.com

Form 185-2J

9/30/22
 CEMENTING JOB LOG

CEMENTING JOB LOG

Company: MERIT ENERGY COMPANY **Well Name:** NORTH REEVE 1-11

Type Job: SURFACE **AFE #:** 70905

CASING DATA

Size:	8 5/8	Grade:	0	Weight:	0
Casing Depths	Top: 0	Bottom:	0		
Drill Pipe:	Size: 0	Weight:	0		
Tubing:	Size: 0	Weight:	0	Grade: 0	TD (ft): 0
Open Hole:	Size: 12 1/4	T.D. (ft):	0		
Perforations	From (ft): 0	To: 0	Packer Depth(ft):	0	

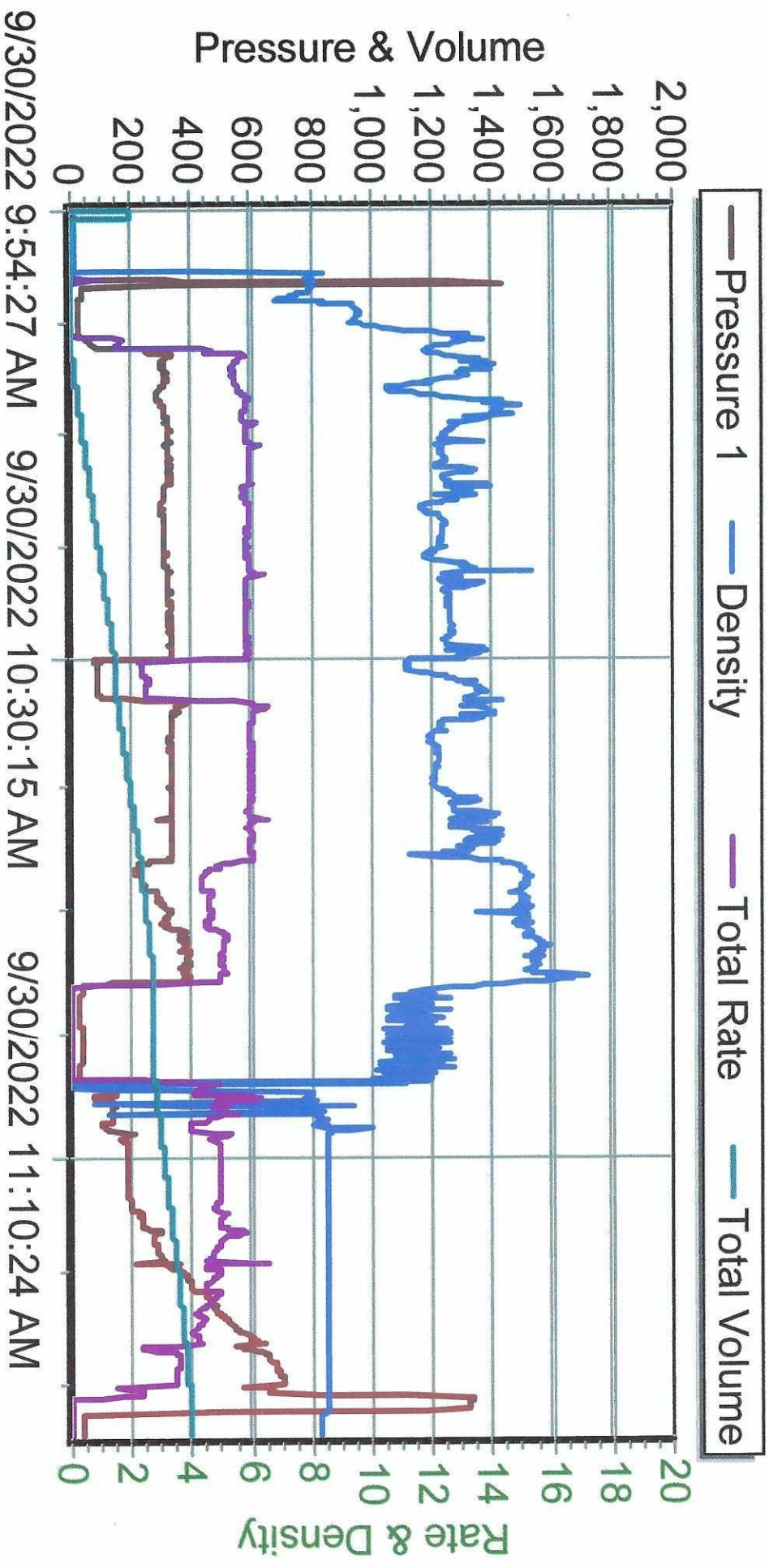
CEMENT DATA

Spacer Type:						
Amt.	Sks Yield		ft ³ /sk		Density (PPG)	
LEAD:	CLASS A -- 2% CC, 2% SMS, 2% GYP, 1/4# CELLFLAKE				Excess	
Amt.	505	Sks Yield	2.39	ft ³ /sk	Density (PPG)	12.1
TAIL:	CLASS A -- 2% CC, 1/4# CELLFLAKE				Excess	
Amt.	190	Sks Yield	1.19	ft ³ /sk	Density (PPG)	15.6
WATER:						
Lead:		gals/sk:	14	Tail:		gals/sk: 5.2
Pump Trucks Used:		110 - DP04				
Bulk Equipment:		230 -- 660-24 -- 229 -- 660-23				
Disp. Fluid Type:	FRESH WATER	Amt. (Bbls.)	111.4	Weight (PPG):	8.33	
Mud Type:				Weight (PPG):		

COMPANY REPRESENTATIVE: RODNEY **CEMENTER:** KIRBY HARPER

TIME AM/PM	PRESSURES PSI			FLUID PUMPED DATA		REMARKS
	Casing	Tubing	ANNULUS	TOTAL	RATE	
0500						ON LOCATION -- SPOT AND RIG UP
0930						CASING ON BOTTOM -- BREAK CIRC
1002	1500					PRESSURE TEST
1007	350			215	5	START MIXING 505 SK LEAD @ 12.1 PPG
1048	250			40	4.5	START MIXING 190 SK TAIL @ 15.6 PPG
1101						SHUT DOWN -- DROP TOP PLUG
1107	150			0	4	START DISPLACING WITH FRESH WATER
1131	650			102	2	SLOW RATE
1132	650-1100			111.4		BUMP PLUG
1133	1100-0					RELEASE PRESSURE -- FLOAT HELD
						CIRCULATE CEMENT TO THE PIT
						<i>80 Bbls Cement to pit</i>

MERIT ENERGY COMPANY
NORTH REEVE #1-11
8.625" SURFACE
09/30/22





QUASAR ENERGY SERVICES, INC.

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Form 185-2J

10/4/22

CEMENTING JOB LOG

CEMENTING JOB LOG

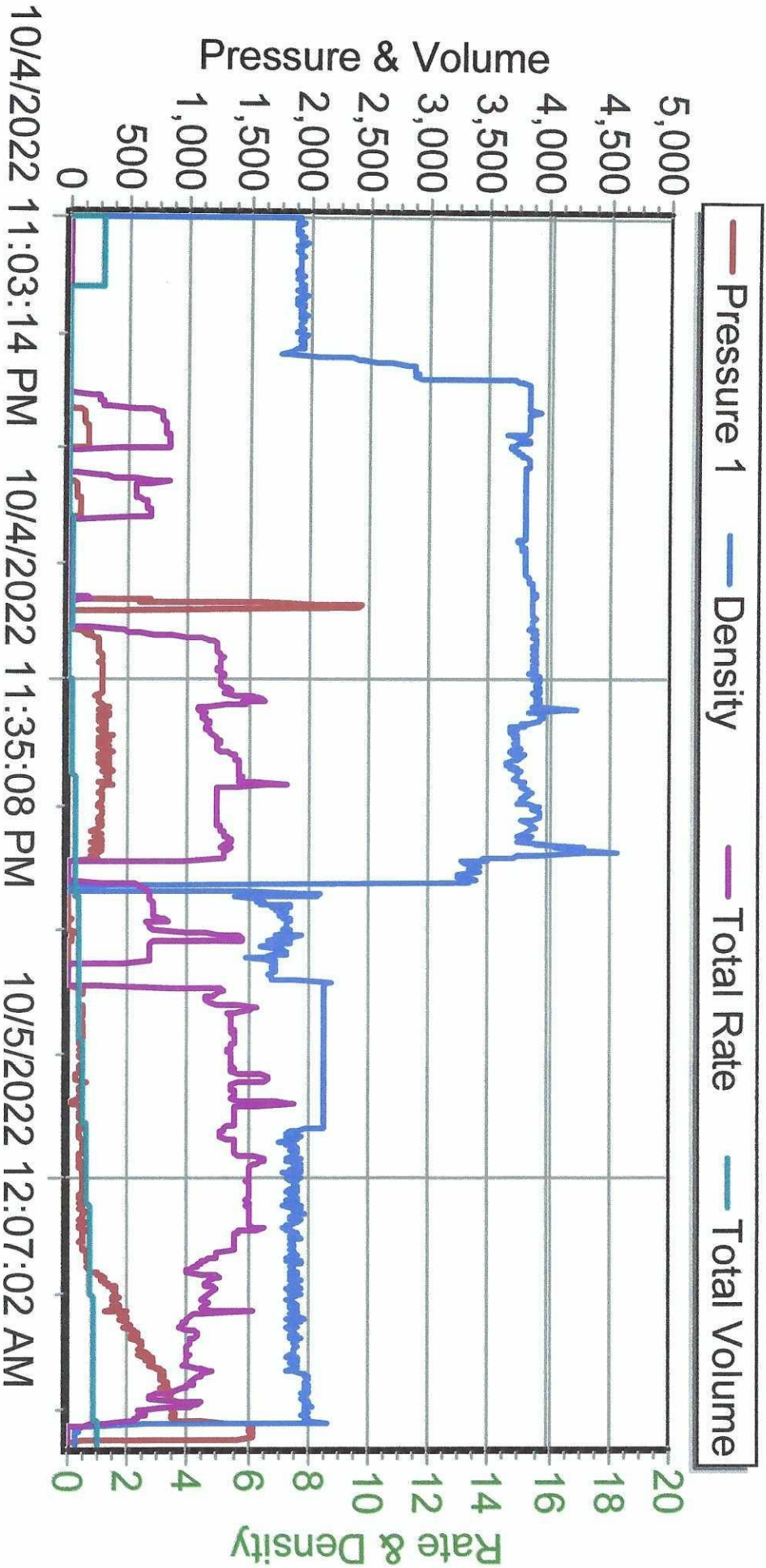
Company: MERIT ENERGY COMPANY				Well Name: NORTH REEVE #1-11									
Type Job: LONG STRING				AFE #: 70905									
CASING DATA													
Size:	5 1/2		Grade:	J55		Weight:	17						
Casing Depths	Top:	42.62		Bottom:	5173								
Drill Pipe:	Size:	0		Weight:	0								
Tubing:	Size:	0		Weight:	0		Grade:	0	TD (ft):	5185			
Open Hole:	Size:	7 7/8		T.D. (ft):	5185								
Perforations	From (ft):	0		To:	0		Packer Depth(ft):	0					
CEMENT DATA													
Spacer Type:		SUPERFLUSH											
Amt.	12 BBL		Sks Yield			ft ³ /sk			Density (PPG)				
LEAD:	CLASS A--2%CC,6%GYP,2#TACT. BLITZ,1/4#CELLFLAKE,10%SALT,.5%C15								Excess				
Amt.	185		Sks Yield	1.51		ft ³ /sk			Density (PPG)	14.8			
TAIL:	CLASS A -- 60/40-4 -- FOR RAT AND MOUSE HOLES								Excess				
Amt.	50		Sks Yield	1.5		ft ³ /sk			Density (PPG)	13.5			
WATER:													
Lead:			gals/sk:	7.1		Tail:			gals/sk:	7.5		Total (bbls):	
Pump Trucks Used:	110 - DP04												
Bulk Equipment:	230 -- 660-24												
Disp. Fluid Type:	4% KCL			Amt. (Bbls.)	119			Weight (PPG):	8.33				
Mud Type:								Weight (PPG):					
COMPANY REPRESENTATIVE:				RODNEY				CEMENTER: KIRBY HARPER					
TIME	PRESSURES PSI			FLUID PUMPED DATA		REMARKS							
	AM/PM	Casing	Tubing	ANNULUS	TOTAL						RATE		
2300							ON LOCATION -- SPOT AND RIG UP						
2245							CASING ON BOTTOM -- BREAK CIRC						
2332	2500						PRESSURE TEST						
2334	250				5	5	START PUMPING WATER SPACER						
2335	250				12	5	START PUMPING SUPER FLUSH						
2338	250				5	5	START PUMPING WATER SPACER						
2316					13	3	PLUG RAT AND MOUSE HOLES						
2339	300				50	5	START MIXING 185 SK LEAD @ 14.8 PPG						
2349							SHUT DOWN -- CLEAN LINES -- DROP PLUG						
2356	100				0	5	START DISPLACING WITH FRESH WATER						
0024	900				109	2	SLOW RATE						
0025	900-1400				119		BUMP PLUG						
0026	1400-0						RELEASE PRESSURE -- FLOAT HELD						

MERIT ENERGY COMPANY

NORTH REEVE 1-11

5.5" LONGSTRING

10/05/2022



LITHOLOGY STRIP LOG

WellSight Systems

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

Well Name: North Reeve No.1-11
API: 15-055-22546
Location: SE NE NE SW Sec.11-T25S-R33W, Finney Co., KS
License Number: _____ Region: Wildcat North of Coyote
Spud Date: 9/28/22 Drilling Completed: 10/4/22
Surface Coordinates: 2157'FNL 2446'FEL
Latitude 37.8937670/ Longitude -100.9113690
Bottom Hole Coordinates: 316'FSL 329'FWL
Ground Elevation (ft): 2897 K.B. Elevation (ft): 2909
Logged Interval (ft): 3800 MD/ 3'To: T5186 MD / Total Depth (ft): 5186 MD / 5146
Formation: Lansing, Marmaton, Cherokee, Morrow, Miss
Type of Drilling Fluid: Chemical

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

OPERATOR

Company: Merit Energy Company
Address: 13727 Noel Road, Ste. 1200
Dallas, TX 75240-7362
Martin Lange

GEOLOGIST

Name: Randy Say
Company: RSay Enterprises
Address: 13524 W. 67th Way
Arvada, CO 80004
303-940-8751

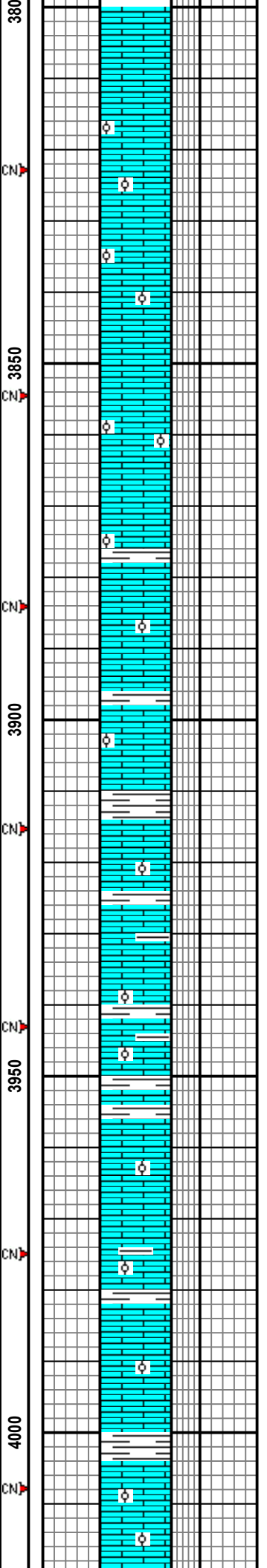
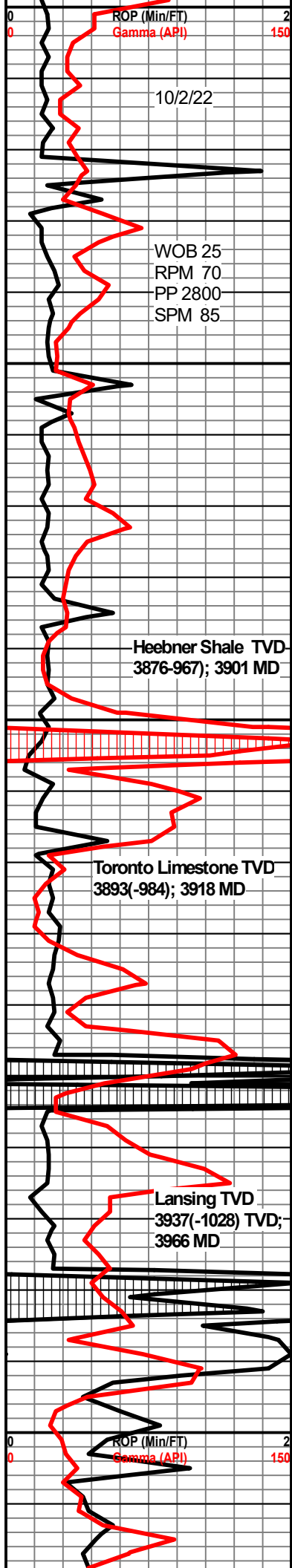
Casing/ Data

Conductor 13.375" set at 132
Surface Casing 8.625" J-55 set at 1795
Production Casing 5.50" set at 5185

Duke Rig No.9
Emigdio Rojoas - Toolpusher
Rodney Ganzales - Company Man
Tony Maestas - Mudco - Mud Engineer

Directional

Stryker Directional
13615 Poplar Cir
Conroe, TX 77304
936-588-5505



LS wh-gy sft vchky ool occ slfos
por-p nsfoc

tr ool

LS wh-crm fri vchky fxl -gran fri tr ool
por-p-tt nsfoc

LS aa incr chky por-p nsfoc

SH gybrn sft pty slcalc

LS crm-wh vs vchky ool slpyr fxl
por-p-tt nsfdoc

LS aa incr ool & occ xfl por-p nsfoc

SH dkgv-bk sft-firm occ hd blkky
vcarb

LS tan-gy xfl litho firm slty slfos

SH strgs bk blkky vcarb occ slty

LS aa incr chky por-p nsfoc

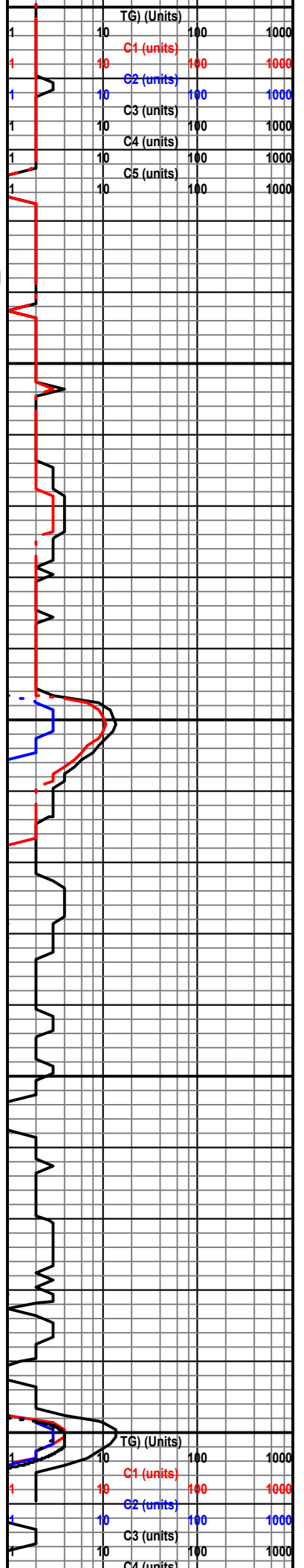
SH bk-gy blkky carb

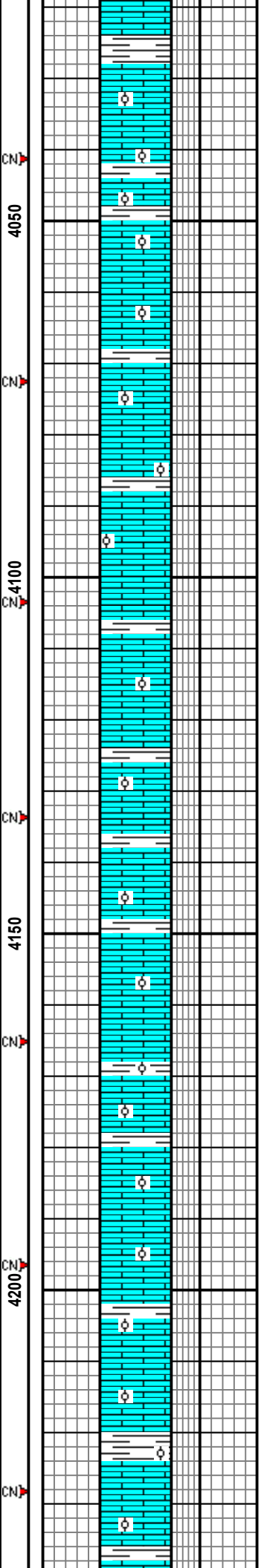
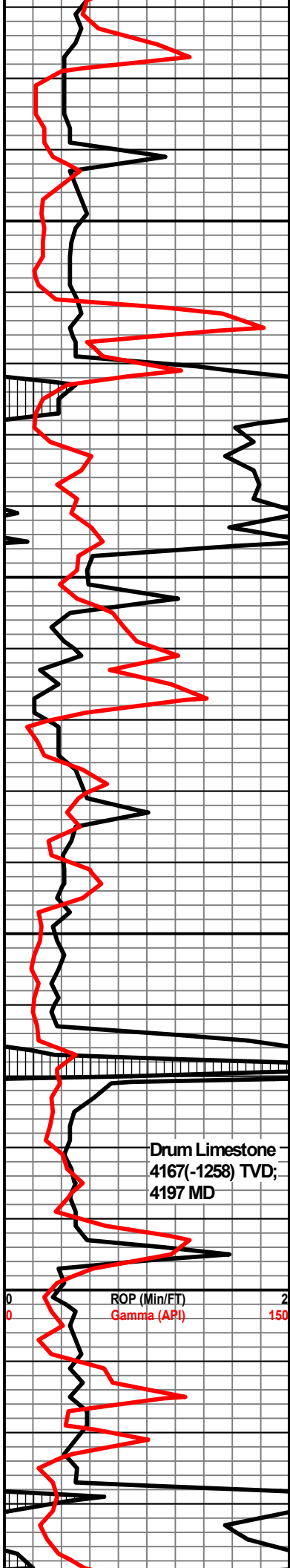
LS wh-ltgy xfl vchky wh sft incr tr
ool por-tt nsfoc

LS gy-wh xfl-gran fri ool & occ fos
w/chk mtrx por-p-tt nsfoc

SH bk-dkgv firm blkky vcarb

LS ltgy-gy fri-firm xfl chky ool fos
w/calc infill slpyr por-p nsfoc





SH aa

LS gy-wh xfxl fri ool calc infill por-p-tt nsfoc

SH dkgy firm blkv vcarb

LS mgy-occ brn xfxl-litho firm mfoc w/chk mtrx tr ool por-p nsfoc

LS aa incr fos por-p-tt nsfoc

SH strgs bk sft plty vcarb

LS tan-mgy xfxl Occ suc firm-fri fos & ool w/calc infill por-p-occ fr nsfoc

LS aa incr fos chk mtrx slool w/ gy sh strgs intbd; por-p nsfoc

LS tan-mgy xfxl hd nds-firm occ fos & ool chky por-p-tt nsfoc

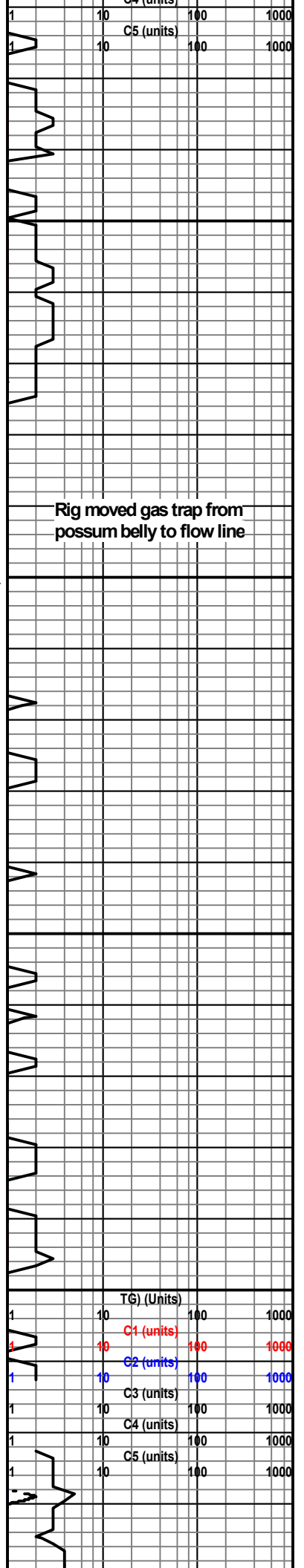
SH bk-dkgy sft plty carb

LS tan-mgy-wh xfxl Olitho fri-firm occ chky ool & fos por-p nsfoc

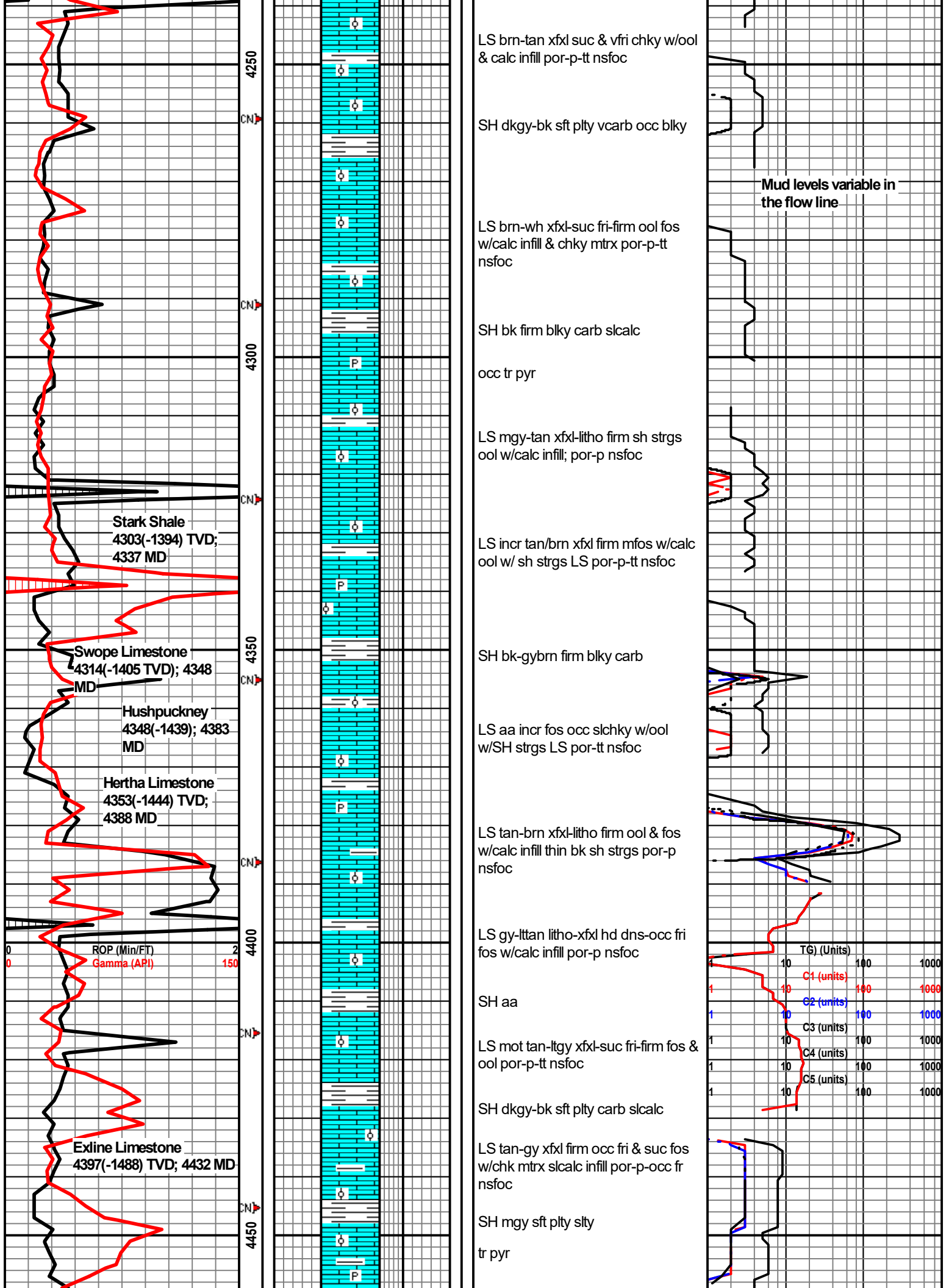
LS aa por-p nsfoc

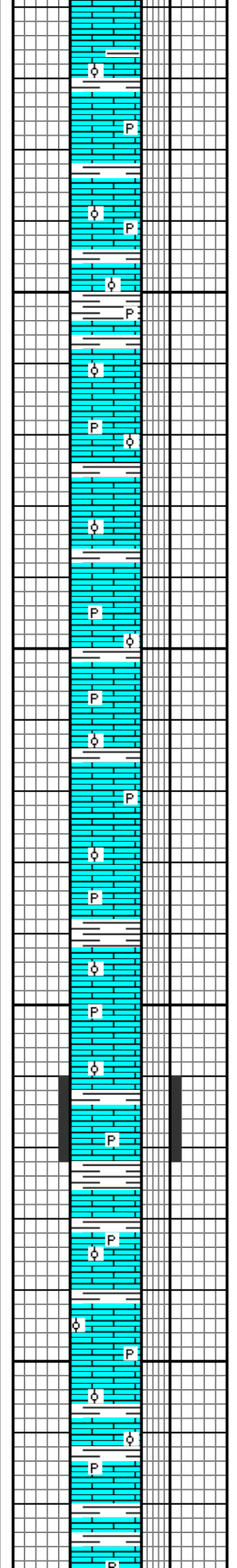
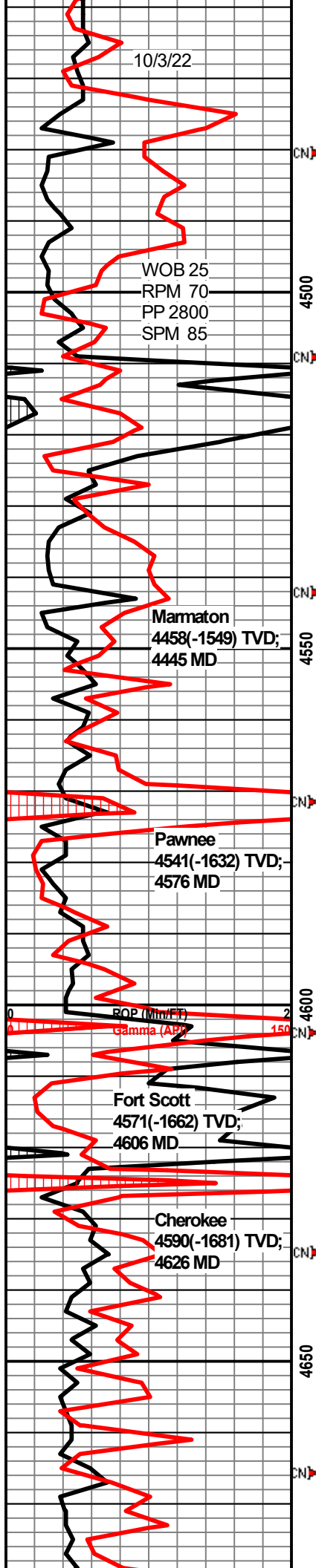
SH bk sft plty caRB

LS ltgy-tan xfxl-litho vfri-firm ool w/calc infill & chky mtrx por-tt nsfoc



Rig moved gas trap from
possum belly to flow line





LS tan-mgy litho-xfxl firm-fri fos fos w/calc infill chky pyr; por-p nsfoc

LS mgy suc & vfri slty fos w/bk sh strgs por-p nsfoc

SH dkgy-bk firm-sft plty vcarb

tr pyr

LS ltan-gy xfxl-suc firm-fri fos ool w/calc infill w/dkgy sh strgs; por-p-occ fr nsfoc

SH dkgy sft plty carb slcalc

LS aa incr fos w/sh strgs dkgy sft slool slichky por-p nsfoc

tr pyr

LS tan-ltgy xfxl suc vfri fos chky incr tr pyr in LS por-p-fr nsfoc

LS aa incr vool suc text por-p-tt nsfoc

SH bk-gybrn sft plty carb pyr no cut in SH

LS brn-gy xfxl firm slool fos w/calc slpyr por-p-tt nsfoc

Show No. 1 4610-4622(12)

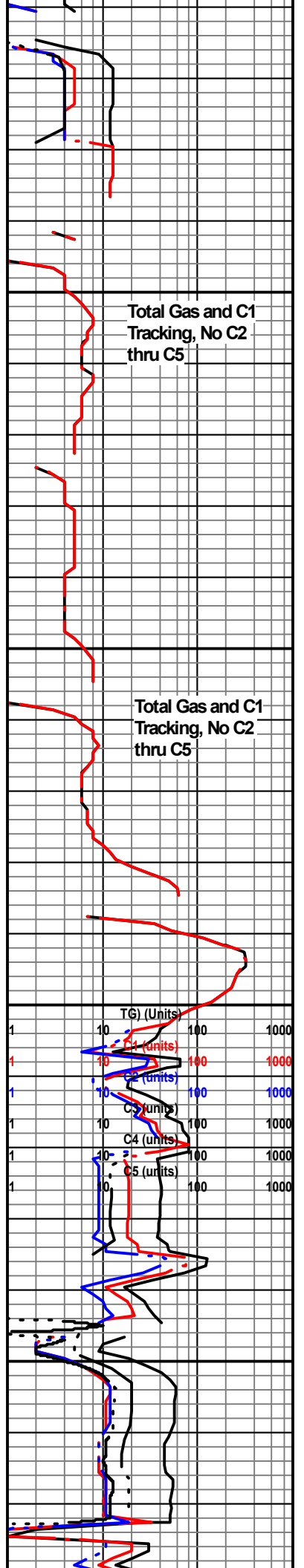
LS ltgy-tan xfxl-gran suc fri ool fos slty; tr pyr; por-p-fr; oilstn-none; flor-10% ltyel; cut-10% mlky crush cut; res-none

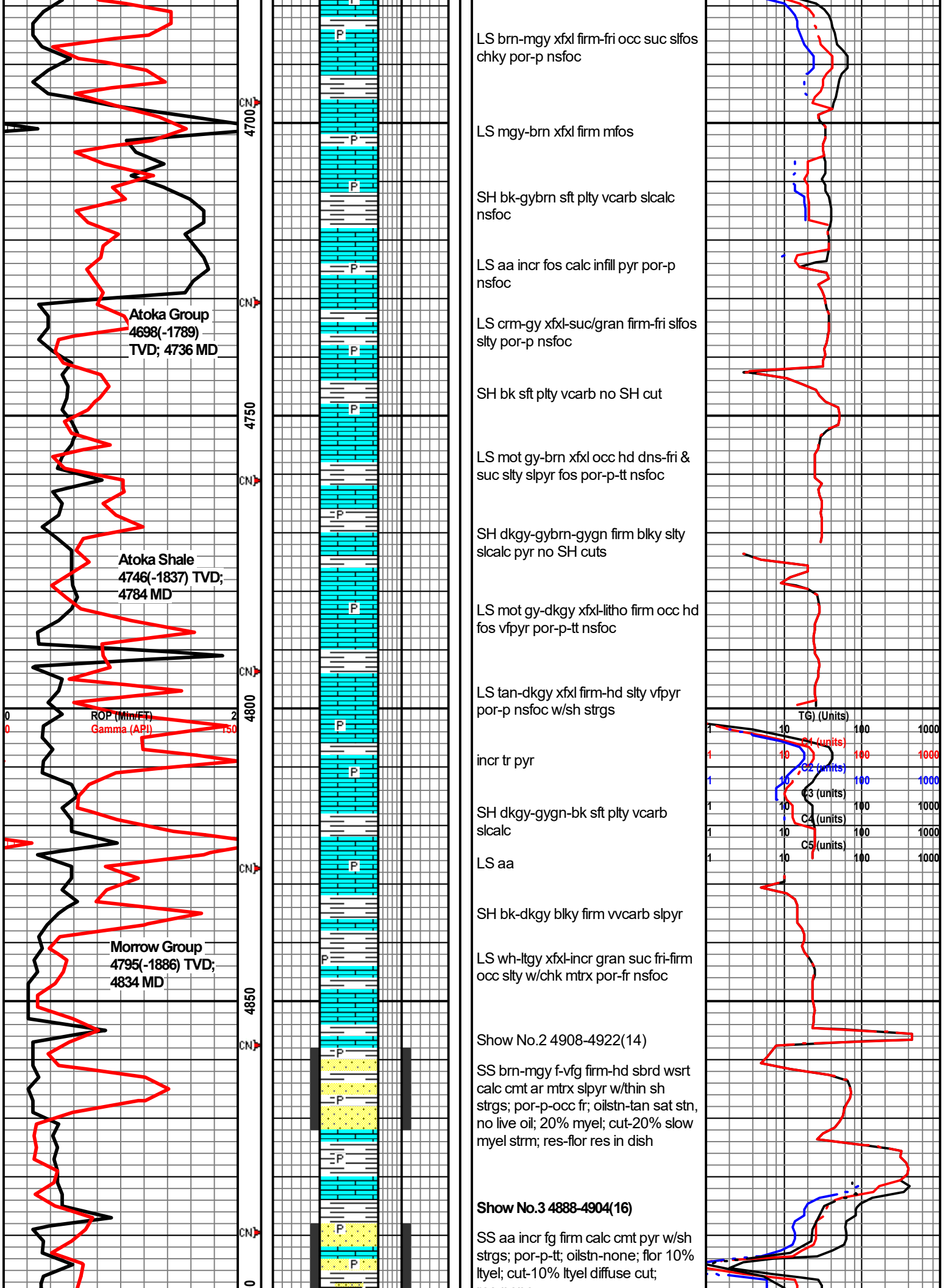
SH dkgy-gybrn sft plty vcarb slcalc no sh cut

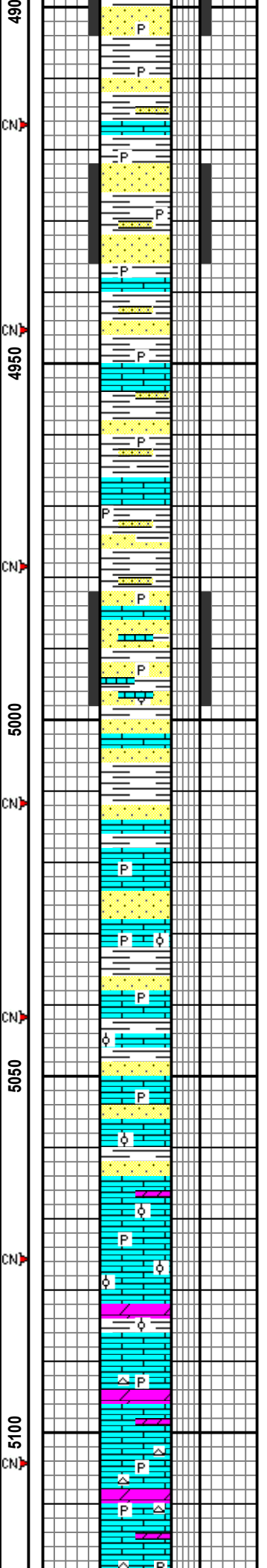
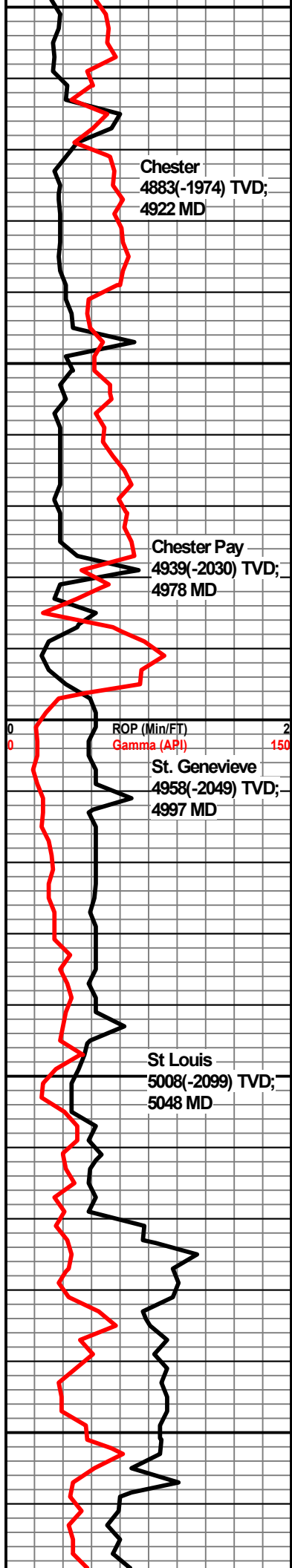
LS mot tan/gy-occ brn xfxl-suc firm-fri fos incr shly bk carb incr pyr; por-p-occ fr; nsfoc

SH aa w/intbd LS strgs por-p-tt

tr pyr







res-none

SH bk-dkgy sft plty vcarb w/strgs ss & ls strgs nsfoc

Show No.4 4922-4936(14)

SS tan-ltgy vfg fri sbrd wsrt calc cmt arg mtrx shly; por-p-occ fr; oilstn-none; flor-10% ltyle; cut- 10% mlky slow cut' res- flor res in dish

SH gybrn sft plty vcarb

LS gy litho fri chky

SS gy vfg fri vsily arg mtrx pot-p nsfoc

SH mot gybrn-mgy sft plty vcarb scalc w/thin ls & ss strgs nsfoc

Show No.5 4982-4998(16)

SS brn-mgy firm fg sbang msrt silcmt slpyr thin strgs sh; por-p-tt; oilstn-tr tan str; flor-tr ltyle; cut-tr slow mlky diffuse cut; res-flor ltyle

SH mot gybrn-dkgy sft plty-blky vcarb w/ss strgs vthin nsfoc

LS mot wh/crm-ltgy fri-firm suc & gran chky mtrx slty por-p-fr nsfoc

SS gy-wh vfg fri slty calc cmt pyr w/ls strgs; por-p nsfoc

LS mgy-crm fri suc gran chky w/ss thin strgs; SS por-p nsfoc

LS wh-mgy fri-firm suc/gran vchky ool text pyrslty por-p nsfoc

LS wh-crm xfl-incr suc fri-firm incr pyr por-p nsfoc occ thin ss strgs

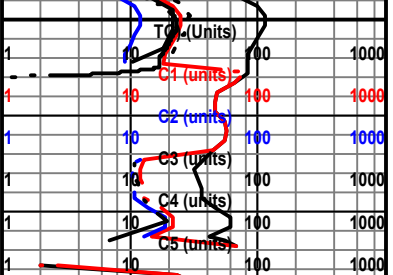
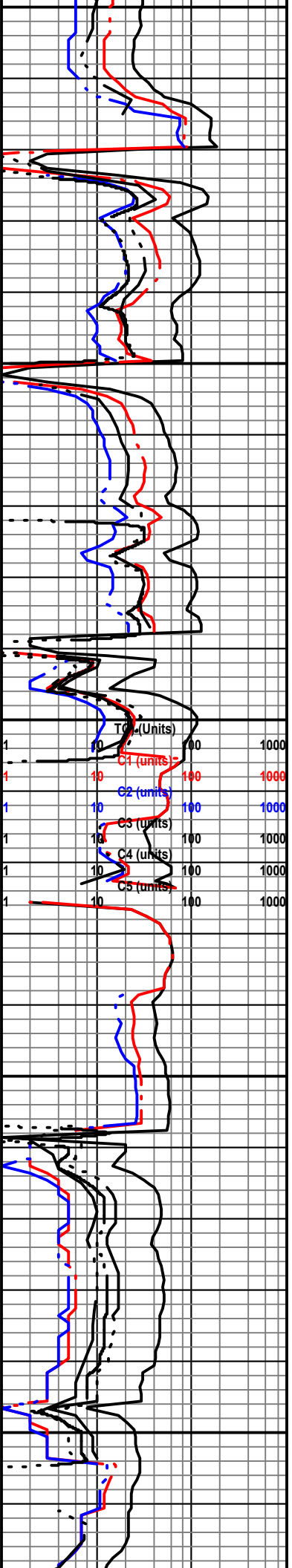
LS vltgy-crm xfl-gran chky ool pyr w/ thin dolo strgs; por-fr-p nsfoc

LS tan-gy xfl-gran fri-firm intbd thin dolo strgs incr pyr & cht; ool ls fri chky; por-p-occ fr nsfoc

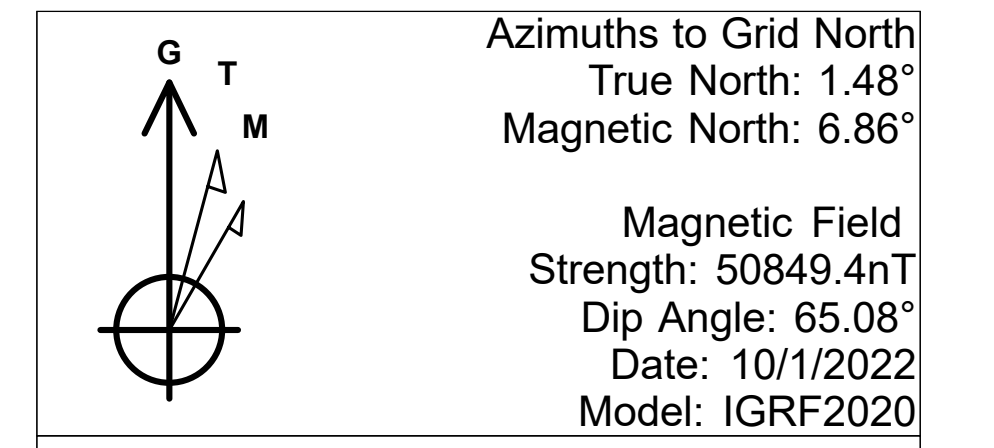
LS tan-brn-occ gy xfl-gran & suc w/ool & sifos w/chk mtrx; incr pyr & chty; sldolo; por-p-occ fr nsfoc

DOL brn microxl hd dns pyr

incr tr cht & pyr



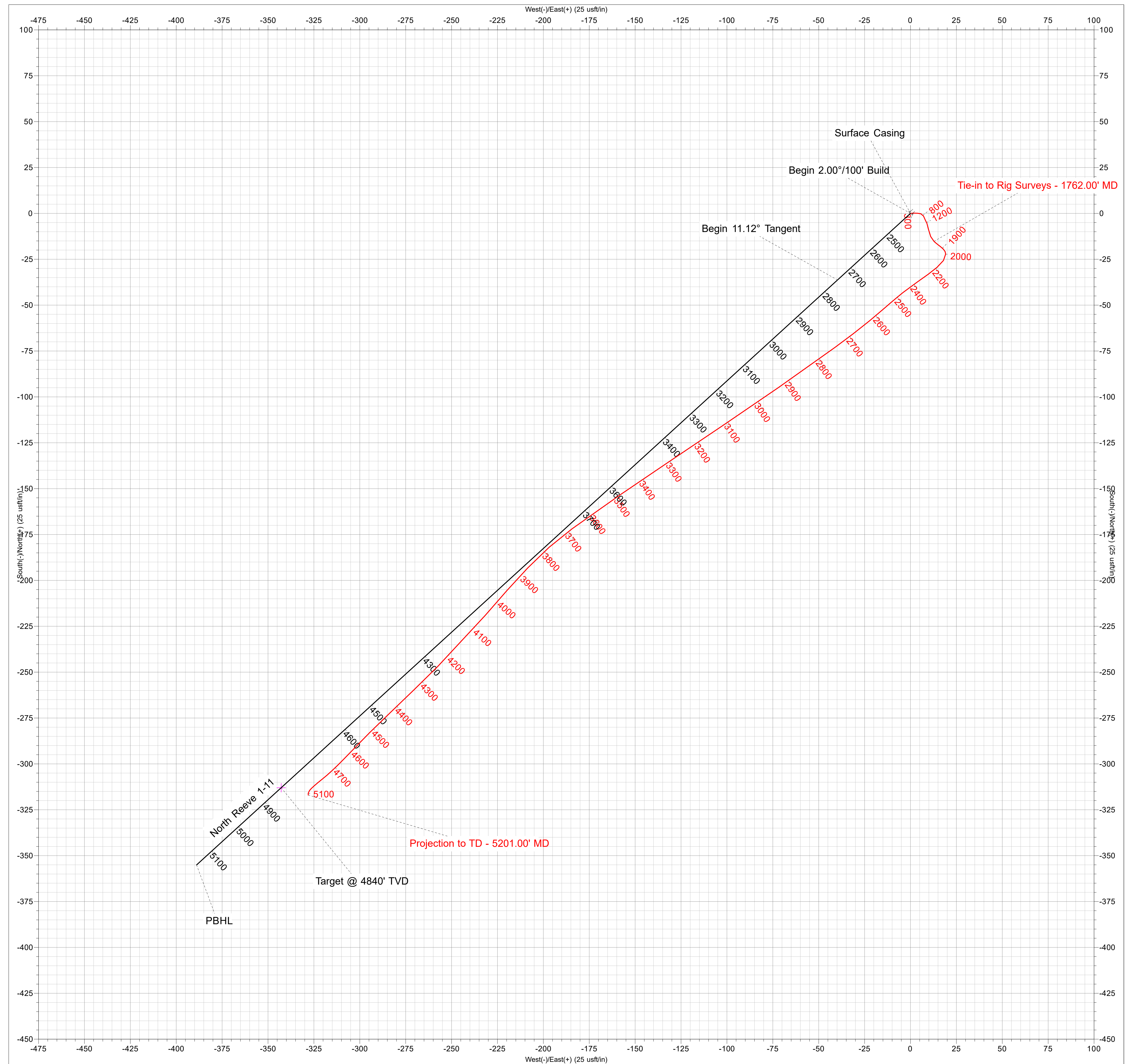
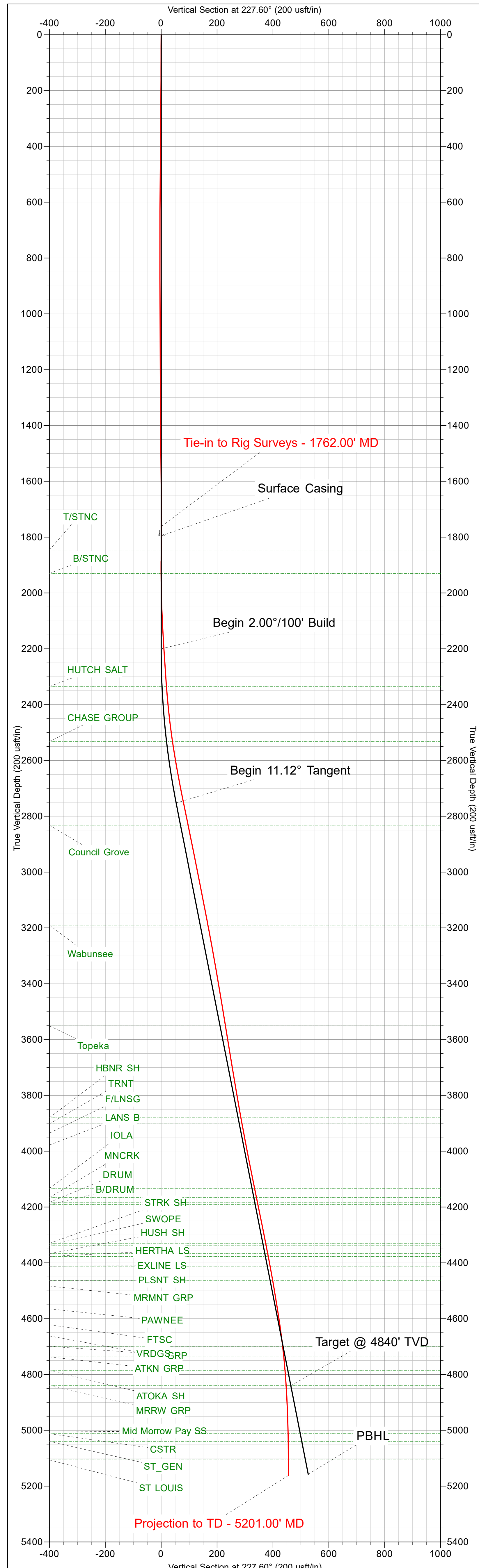
ANNOTATIONS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation	
2200.00	0.00	0.00	2200.00	0.00	0.00	0.00	0.00	Begin 2.00°/100' Build	
2756.12	11.12	227.60	2752.63	-36.28	-39.74	53.81	53.81	Begin 11.12° Tangent	
4883.44	11.12	227.60	4840.00	-312.98	-342.79	464.18	464.18	Target @ 4840' TVD	
5207.00	11.12	227.60	5157.48	-355.06	-388.88	526.59	526.59	PBHL	



US State Plane 1927 (Exact solution)
Kansas South 1502

Created By: HLH
Date: 9/28, October 04 2022
Plan: Design #3

Grid North is 1.48° West of True North (Grid Convergence)
To convert a Magnetic Direction to a Grid Direction, Add 6.86°
To convert a Magnetic Direction to a True Direction, Add 5.38° East





MERIT ENERGY COMPANY

Merit Energy

Finney County, Kansas (NAD27)

North Reeve

North Reeve 1-11

Wellbore #1

Design: Surveys

Standard Survey Report

04 October, 2022



Company:	Merit Energy	Local Co-ordinate Reference:	Well North Reeve 1-11
Project:	Finney County, Kansas (NAD27)	TVD Reference:	GL: 2893' + 12' KB @ 2905.00usft (Duke Rig)
Site:	North Reeve	MD Reference:	GL: 2893' + 12' KB @ 2905.00usft (Duke Rig)
Well:	North Reeve 1-11	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM5000

Project	Finney County, Kansas (NAD27)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Kansas South 1502		

Site	North Reeve				
Site Position:		Northing:	455,802.15 usft	Latitude:	37.893767
From:	Map	Easting:	1,304,234.70 usft	Longitude:	-100.911369
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-1.48 °

Well	North Reeve 1-11					
Well Position	+N/-S	0.00 usft	Northing:	455,819.98 usft	Latitude:	37.893817
	+E/-W	0.00 usft	Easting:	1,304,257.79 usft	Longitude:	-100.911291
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	2,893.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	10/1/2022	5.38	65.08	50,849.44898332

Design	Surveys				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	227.60	

Survey Program	Date	10/4/2022			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
327.00	1,762.00	Rig Survey (Wellbore #1)	MWD	OWSG MWD - Standard	
1,875.00	5,201.00	Stryker MWD (Wellbore #1)	MWD	OWSG MWD - Standard	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
327.00	0.70	86.40	326.99	0.13	1.99	-1.56	0.21	0.21	0.00	
478.00	0.80	96.40	477.98	0.07	3.96	-2.97	0.11	0.07	6.62	
631.00	0.50	104.40	630.97	-0.22	5.67	-4.04	0.20	-0.20	5.23	
873.00	0.50	156.40	872.96	-1.45	7.12	-4.28	0.18	0.00	21.49	
1,063.00	0.80	156.40	1,062.95	-3.42	7.98	-3.58	0.16	0.16	0.00	
1,249.00	0.60	150.40	1,248.93	-5.46	8.98	-2.95	0.11	-0.11	-3.23	
1,437.00	1.30	172.40	1,436.91	-8.43	9.75	-1.51	0.41	0.37	11.70	
1,625.00	1.40	154.40	1,624.86	-12.62	11.02	0.37	0.23	0.05	-9.57	
1,762.00	1.30	135.40	1,761.82	-15.23	12.84	0.79	0.33	-0.07	-13.87	

Company: Merit Energy	Local Co-ordinate Reference: Well North Reeve 1-11
Project: Finney County, Kansas (NAD27)	TVD Reference: GL: 2893' + 12' KB @ 2905.00usft (Duke Rig)
Site: North Reeve	MD Reference: GL: 2893' + 12' KB @ 2905.00usft (Duke Rig)
Well: North Reeve 1-11	North Reference: Grid
Wellbore: Wellbore #1	Survey Calculation Method: Minimum Curvature
Design: Surveys	Database: EDM5000

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
Tie-in to Rig Surveys - 1762.00' MD									
1,875.00	3.30	126.60	1,874.72	-18.08	16.35	0.12	1.79	1.77	-7.79
2,000.00	1.80	182.40	1,999.61	-22.19	19.15	0.82	2.18	-1.20	44.64
2,096.00	2.70	209.10	2,095.54	-25.67	17.99	4.03	1.42	0.94	27.81
2,188.00	3.90	233.10	2,187.39	-29.45	14.44	9.20	1.96	1.30	26.09
2,283.00	3.60	231.20	2,282.19	-33.25	9.53	15.39	0.34	-0.32	-2.00
2,377.00	5.00	236.80	2,375.92	-37.35	3.80	22.38	1.55	1.49	5.96
2,471.00	7.00	231.40	2,469.40	-43.16	-4.11	32.14	2.21	2.13	-5.74
2,566.00	9.10	228.70	2,563.46	-51.73	-14.27	45.43	2.25	2.21	-2.84
2,755.00	11.80	233.80	2,749.31	-73.02	-41.10	79.59	1.51	1.43	2.70
2,943.00	11.40	235.40	2,933.47	-94.92	-71.91	117.11	0.27	-0.21	0.85
3,131.00	11.20	236.00	3,117.83	-115.68	-102.34	153.58	0.12	-0.11	0.32
3,319.00	10.30	236.10	3,302.53	-135.27	-131.43	188.26	0.48	-0.48	0.05
3,508.00	9.20	235.70	3,488.79	-153.20	-157.93	219.93	0.58	-0.58	-0.21
3,708.00	9.50	233.80	3,686.14	-171.96	-184.46	252.17	0.22	0.15	-0.95
3,897.00	10.10	223.50	3,872.39	-193.20	-208.46	284.21	0.98	0.32	-5.45
4,083.00	11.40	220.50	4,055.13	-219.01	-231.62	318.72	0.76	0.70	-1.61
4,272.00	11.70	225.20	4,240.30	-246.71	-257.35	356.40	0.52	0.16	2.49
4,461.00	10.30	226.40	4,425.83	-271.87	-283.19	392.44	0.75	-0.74	0.63
4,648.00	8.60	223.60	4,610.28	-293.53	-304.94	423.11	0.94	-0.91	-1.50
4,836.00	4.40	231.60	4,797.04	-308.19	-320.29	444.33	2.28	-2.23	4.26
5,024.00	1.40	218.00	4,984.77	-314.48	-327.36	453.79	1.63	-1.60	-7.23
5,120.00	0.70	179.70	5,080.76	-315.99	-328.08	455.34	0.99	-0.73	-39.90
5,201.00	0.70	179.70	5,161.75	-316.98	-328.07	456.01	0.00	0.00	0.00
Projection to TD - 5201.00' MD									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,762.00	1,761.82	-15.23	12.84	Tie-in to Rig Surveys - 1762.00' MD
5,201.00	5,161.75	-316.98	-328.07	Projection to TD - 5201.00' MD

Checked By: _____ Approved By: _____ Date: _____