KOLAR Document ID: 1484604

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 # 5003
Name: McCoy Petroleum Corporation
Address 1: 9342 E CENTRAL
Address 2:
City: WICHITA State: KS Zip: 67206 + 2573
Contact Person: Scott Hampel
Phone: (316) 636-2737
CONTRACTOR: License # 35696
Name: Atlas Drilling, LLC
Wellsite Geologist: XGP Mud Logging
Purchaser: CHS Energy

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 #:

9/17/2019	10/2/2019	11/4/2019
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No.: 15-119-21441-01-00
Spot Description: S2 S2 SW
- S2 - S2 - SW Sec. 8 Twp. 30 S. R. 30 ☐ East ☑ West
330 Feet from ☐ North / ☑ South Line of Section
1320 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: Meade
Lease Name: WHITAKER-SCHWAB Well #: #1H-8X
Field Name: Mertilla
Producing Formation: Mississippian
Elevation: Ground: 2814 Kelly Bushing: 2835
Total Vertical Depth: 5287 Plug Back Total Depth: 9690
Amount of Surface Pipe Set and Cemented at: 885 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: 734 ppm Fluid volume: 2200 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

☐ **Confidentiality Requested**
Date: 12/19/2019
☐ **Confidential Release Date:** 12/18/2021
☑ **Wireline Log Received** ☐ **Drill Stem Tests Received**
☑ **Geologist Report / Mud Logs Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** Karen Ritter **Date:** 12/20/2019

Operator Name: McCoy Petroleum Corporation Lease Name: WHITAKER-SCHWAB Well #: #1H-8X

Sec. 8 Twp. 30 S. R. 30 ☐ East ☑ West County: Meade

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 *(Attach Additional Sheets)*	☐ Yes	☑ No	
Samples Sent to Geological Survey	☑ Yes	☐ No	
Cores Taken	☐ Yes	☑ No	
Electric Log Run	☑ Yes	☐ No	
Geologist Report / Mud Logs	☑ Yes	☐ No	

List All E. Logs Run:

CBL

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

Name	Top	Datum
See Attachment	See Attachment	See Attachment

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
Attached	Attached	Attached	Attached	Attached	Attached	Attached	Attached

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	-			
	-			

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:					
11/14/2019	☑ Flowing	☐ Pumping	☐ Gas Lift	☐ Other *(Explain)*		
Estimated Production Per 24 Hours	**Oil Bbls.**	**Gas Mcf**	**Water Bbls.**	**Gas-Oil Ratio**	**Gravity**	
	221	1078	31			

DISPOSITION OF GAS:	METHOD OF COMPLETION:	PRODUCTION INTERVAL:	
		Top	Bottom
☐ Vented ☑ Sold ☐ Used on Lease *(If vented, Submit ACO-18.)*	☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*	5750	9682

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record *(Amount and Kind of Material Used)*
4	5750	9682			Fractured

TUBING RECORD:	Size:	Set At:	Packer At:
	2.875	4705	

Mail to: KCC - Conservation Division, 266 N. Main, Suite 220, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	McCoy Petroleum Corporation
Well Name	WHITAKER-SCHWAB #1H-8X
Doc ID	1484604

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	17.5	13.375	48	885	Class A	780	.25#/sx Poly-e-flake, .2#/sx WellLife
Surface	12.25	9.625	36	1805	Class C	530	.125#/sx Poly-e-Flake
Intermediate	8.75	7	26	5723	Class H	300	.125#/sx Poly-e-Flake, .2#/sx Welllife, .7#/sx Halad 447, .5#/sx CC
Liner	6.125	4.5	13.5	9744	Class A/Poz 50/50	400	.25#/sx Poly-e-flake, 1%Gel

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

Well Name:	WHITAKER-SCHWAB #1H-8X	McCOY PETROLEUM CORP.	
API:	15-119-21441-01		
Location:	SEC. 08-30S-30W	MEADE CO., KS	
License Number:	5003	Region:	MERTILLA
Spud Date:	09/18/2019	Drilling Completed:	10/01/2019
Surface Coordinates:	SHL: 330' FSL & 1320' FWL OF S2 S2 S2 SW OF SEC. 08-30S-30W MEADE CO., KS		
Bottom Hole Coordinates:	REPORT FOR: MR. DAVE CLOTHIER LOGGERS: MR. RON CAMPBELL		
Ground Elevation (ft):	2814'	K.B. Elevation (ft):	2835'
Logged Interval (ft):	4000' To: 9786'	Total Depth (ft):	9786'
Formation:	CHESTER		
Type of Drilling Fluid:	LSND		

OPERATOR

Company:	Mc COY PETROLEUM CORPORATION
Address:	9342 E CENTRAL WICHITA, KS 67206-2573

GEOLOGIST

Name: MR. DAVE CLOTHIER
Company: McCOY PETROLEUM CORPORATION
Address: 9342 E CENTRAL
WICHITA, KS 67206-2573

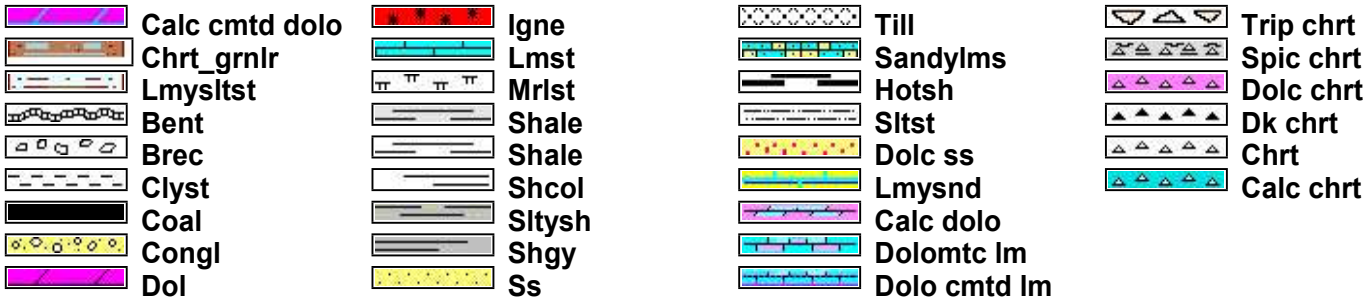
Well Information

DRILLING CO.:: ATLAS DRILLING RIG #7
MUD CO.:: BAROID
DIRECTIONAL CO.:: HALIBURTON
LEAD- KYLE CROOKS
NIGH-GARY OPACHICK
MUDLOGGING:: XGP
LEAD-RON CAMPBELL ron.campbell@xgpmudlogging.com
(405) 584-1444

NIGHT- LEVI CAMPBELL levi.campbell@xgpmudlogging.com
(405) 397-5932

TRAILER: C1 COMP: GS1 HASP: 2 BH: 5236

ROCK TYPES



ACCESSORIES

FOSSIL
- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Echin
- Fish
- Foram
- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom
- Crin

MINERAL
- Arggrn
- Arg
- Bent
- Bit
- Brecfrag
- Carb
- Chtdk
- Chtlt
- Feldspar
- Qrtz
- Hvymin
- Kaol
- Marl
- Minxl
- Phos
- Pyr
- Silt
- Sil
- Calc
- Sand
- Dol
- Sidrte
- Glauc

STRINGER
- Arg
- Bent
- Coal
- Dol
- Ls
- Mrst
- Ssstrg
- Sltstrg

TEXTURE
- Chalky
- Cryxln
- Earthy
- Finexln
- Grainst
- Lithogr
- Microxln
- Mudst
- Packst
- Wackest

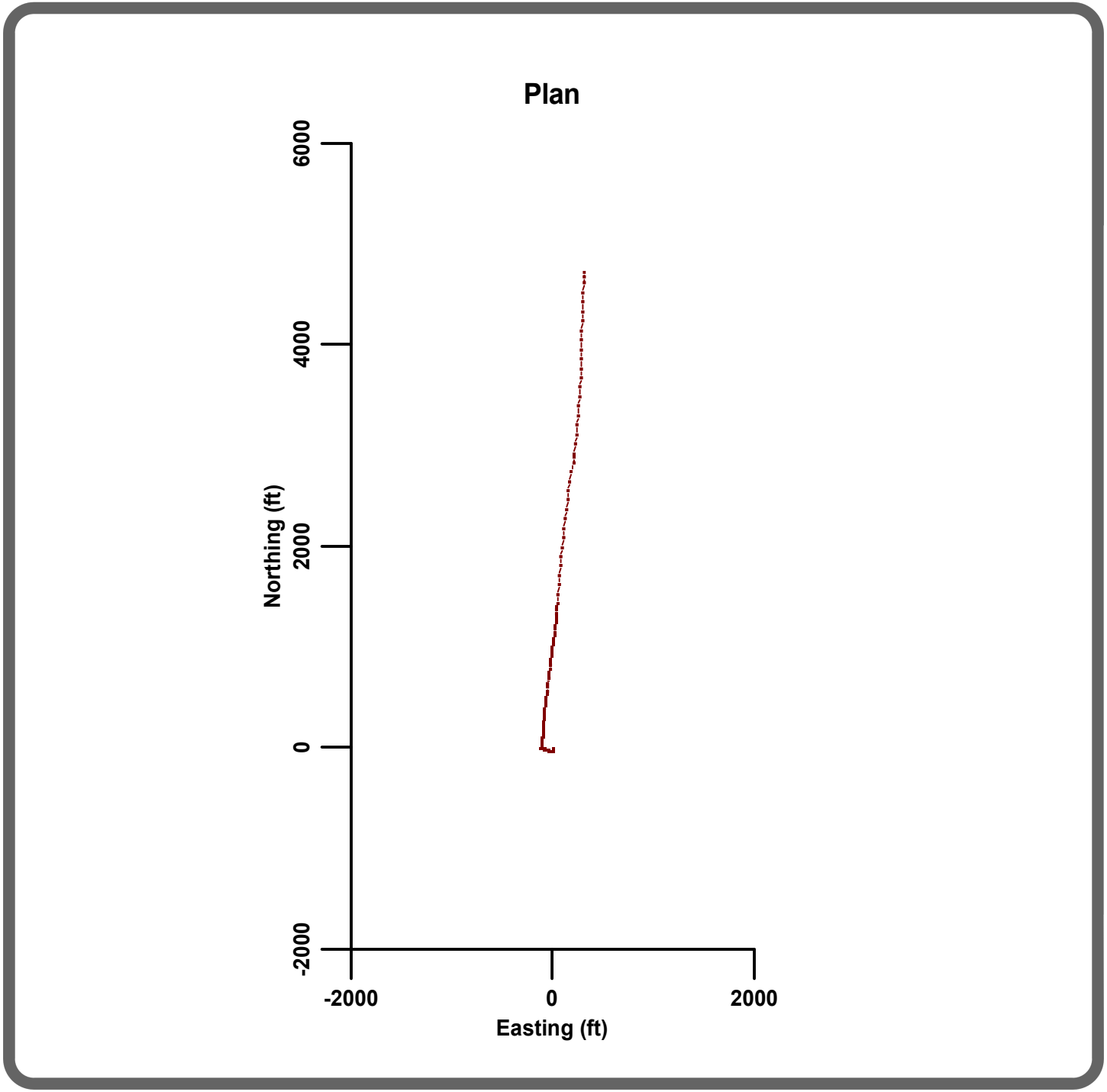
OTHER SYMBOLS

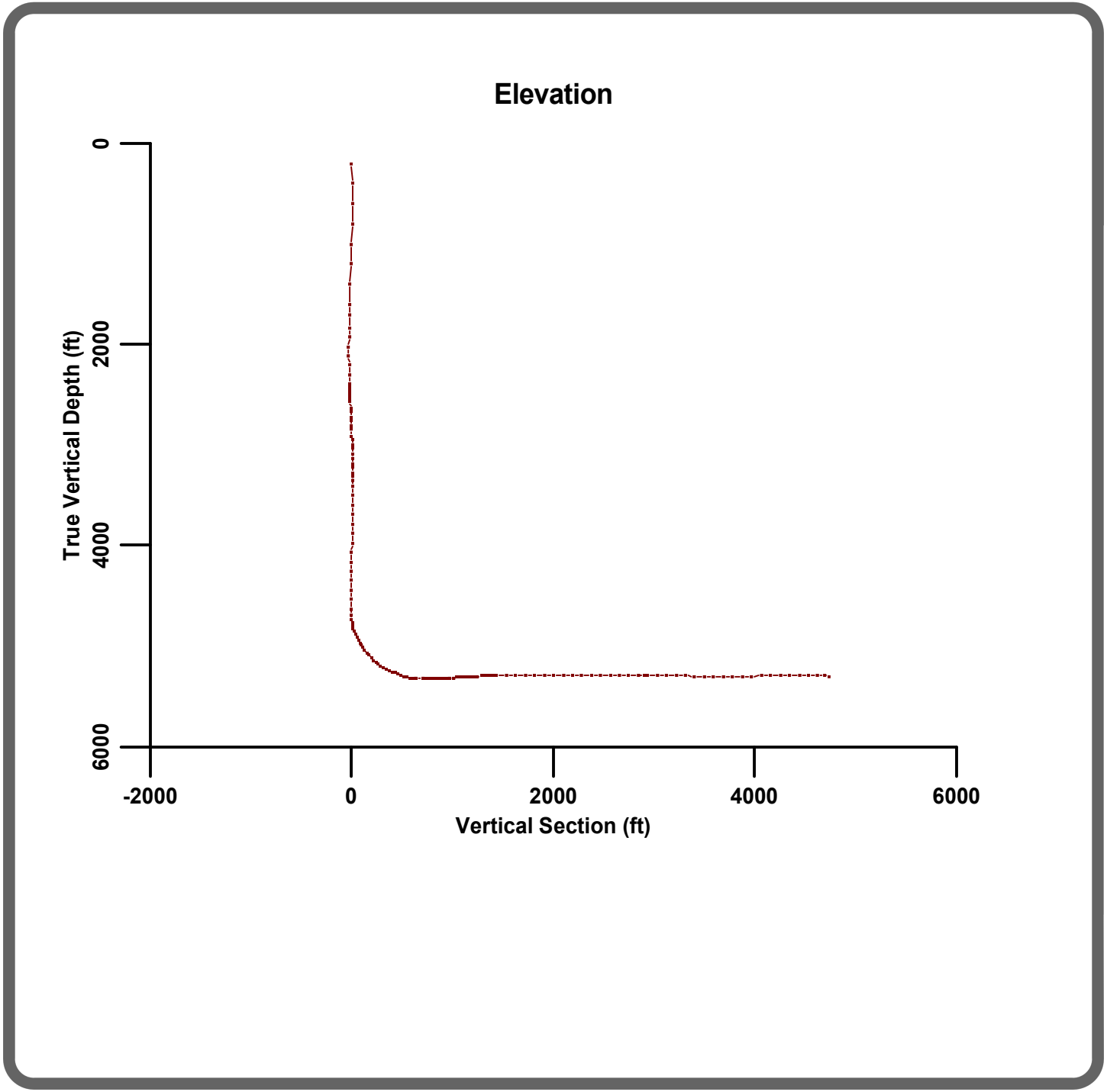
POROSITY
- Earthy
- Fenest
- Fracture
- Inter
- Moldic
- Organic
- Pinpoint
- Vuggy

OIL SHOW
- Even
- Spotted
- Ques
- Dead

INTERVAL
- Core
- Dst

EVENT
- Rft
- Sidewall


Plan
6000
4000
2000
0
-2000
Northing (ft)
-2000
0
2000
Easting (ft)


Elevation
True Vertical Depth (ft)
0
2000
4000
6000
-2000
0
2000
4000
6000
Vertical Section (ft)

ROP (min/ft)

MD

Percentage Lithology

Por GD FR PR

Lithology

FLOR 0% 10% 20% 30% 40% 50%

CUT GD FR PR

Geological Descriptions

TG, C1-C5

TG (Units)
C1 (units)
C2 (units)
C3 (units)
iC4 (units)
nC4 (units)
iC-5

MD 1700 TVD 1699.59
INC 1.32 AZ 176.57
N -22.69 E 12.13
VS -22.67

0 ROP (min/ft) 5

1700

1750

1800

-10 McCOY :: WHITAKER-SCHWAB 1H-8X 90

Natural Gas • Crude Oil Exploration & Production

McCOY PETROLEUM CORPORATION

Wichita, Kansas

McCOY PETROLEUM CORPORATION
WHITAKER-SCHWAB #1H-8X
SEC. 8-30S-30W MEADE CO., KS
GL: 2814' KB: 2835'

API: 15-119-21441-01

SHL: 330' FSL & 1320' FWL OF S2 S2 S2 SW OF SEC. 8-30S-30W MEADE CO., KS

SPUD ON: 09/18/2019

SET 9 5/8" CASING @ 1805'

SET 7" CASING @ 5723'

DRILLING W/ BIT #3 : 8.75" : SECURITY : MM65D ; 12932468 : 6X16'S : IN @ 1805'

BEGIN GAS MONITORING @ 1805' ON 09/20/2019

09/20/2019

DRILLING W/ FRESH WATER

SURVEYS

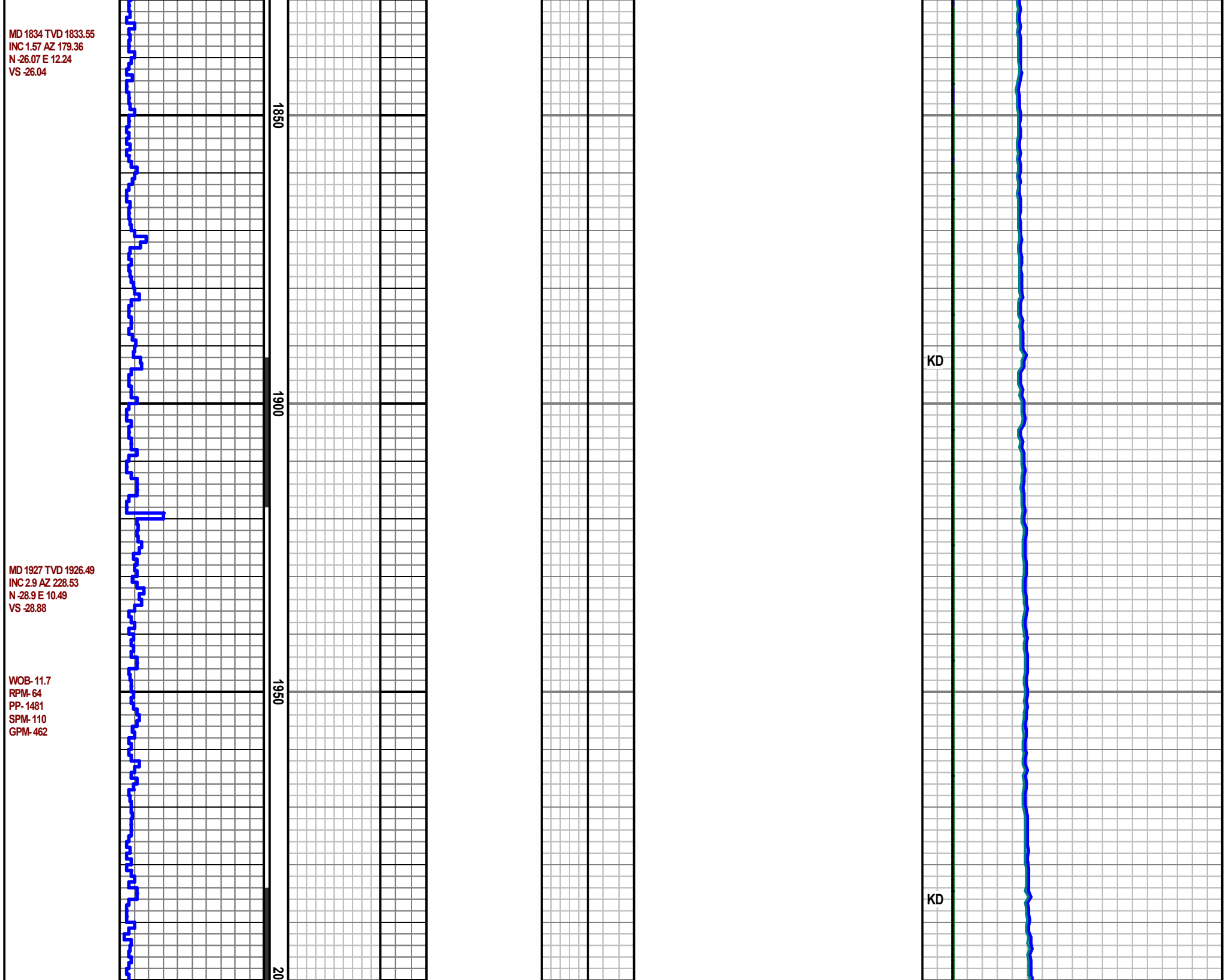
ROP

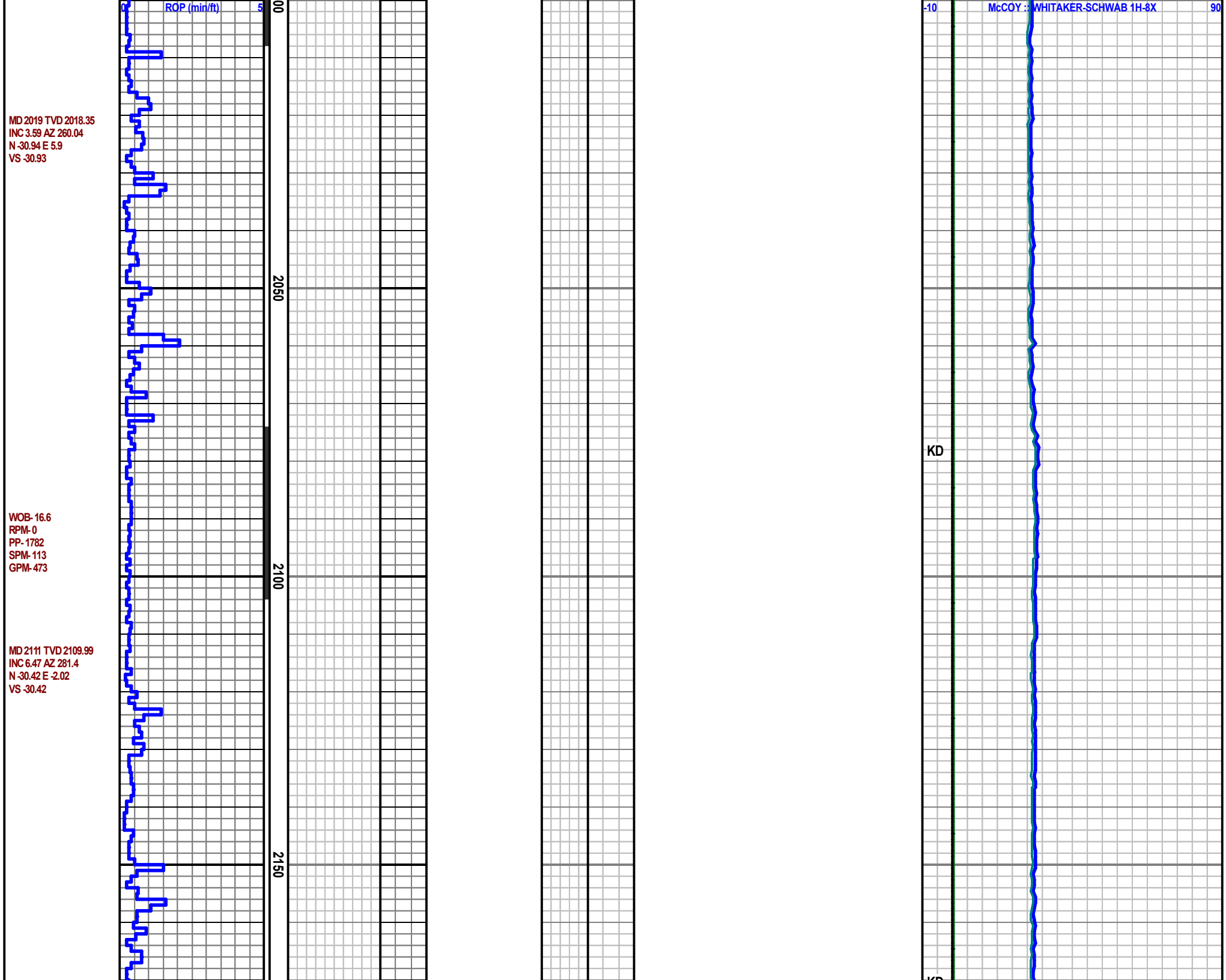
GAS

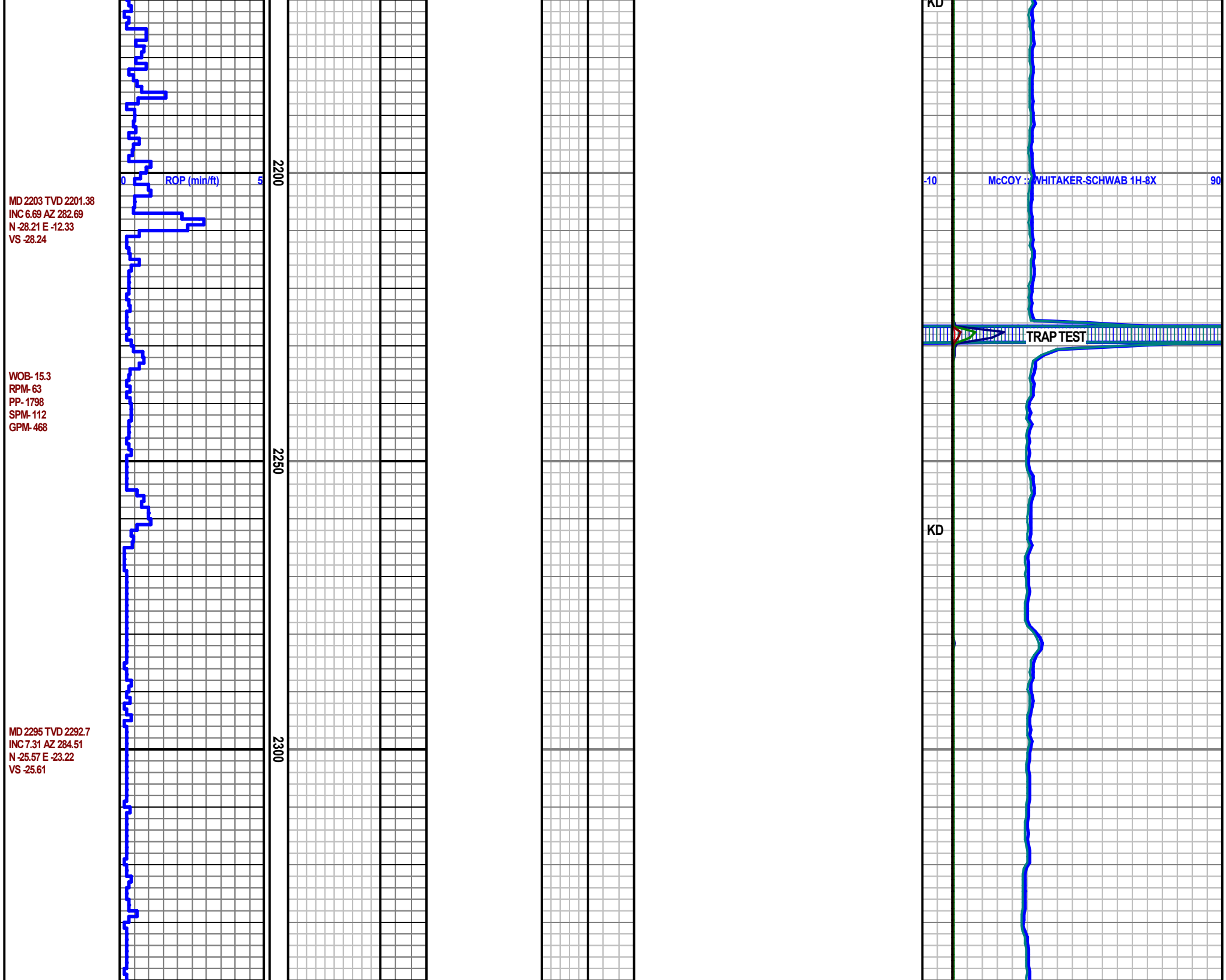
0 ROP (min/ft) 5

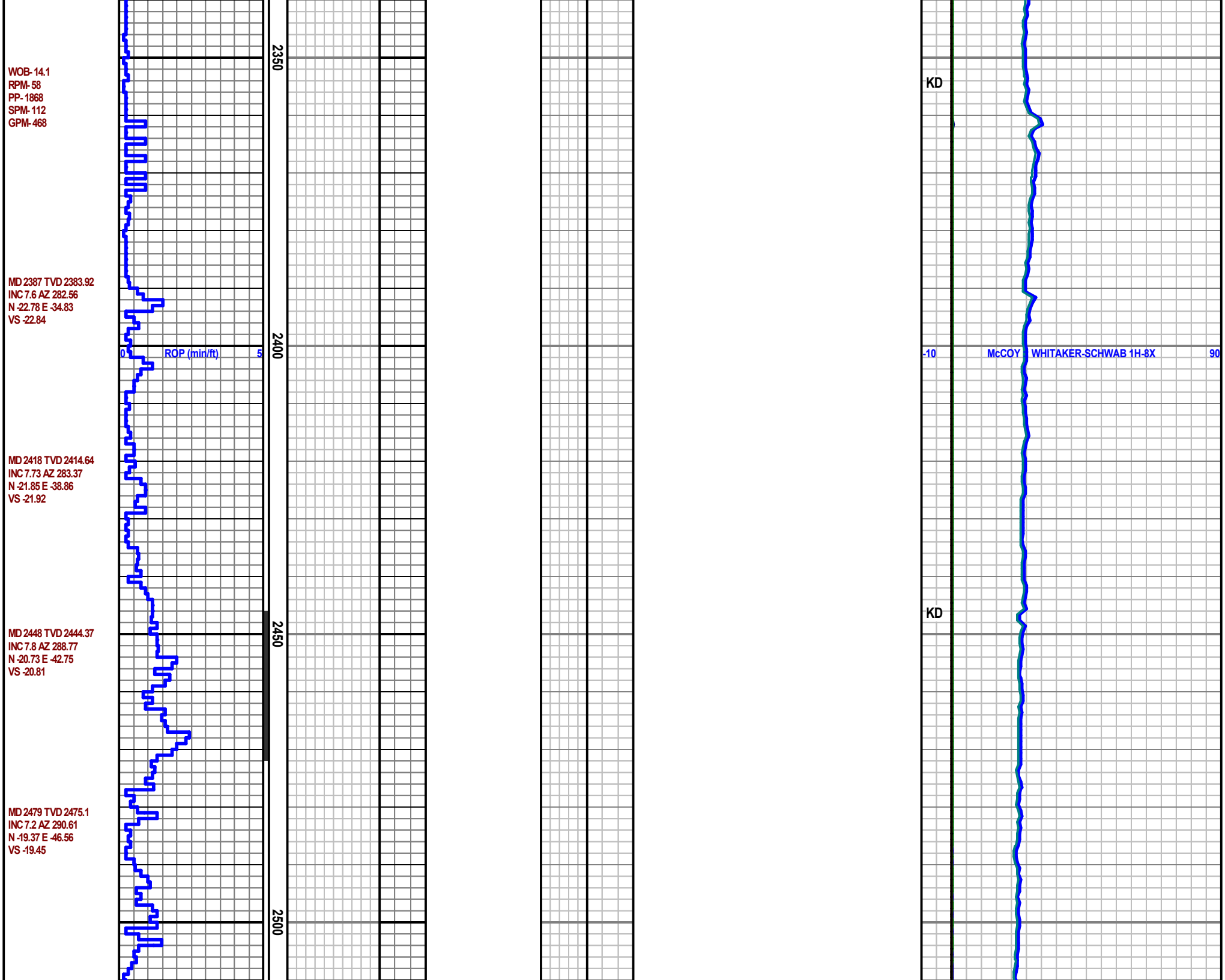
-10 McCOY :: WHITAKER-SCHWAB 1H-8X 90

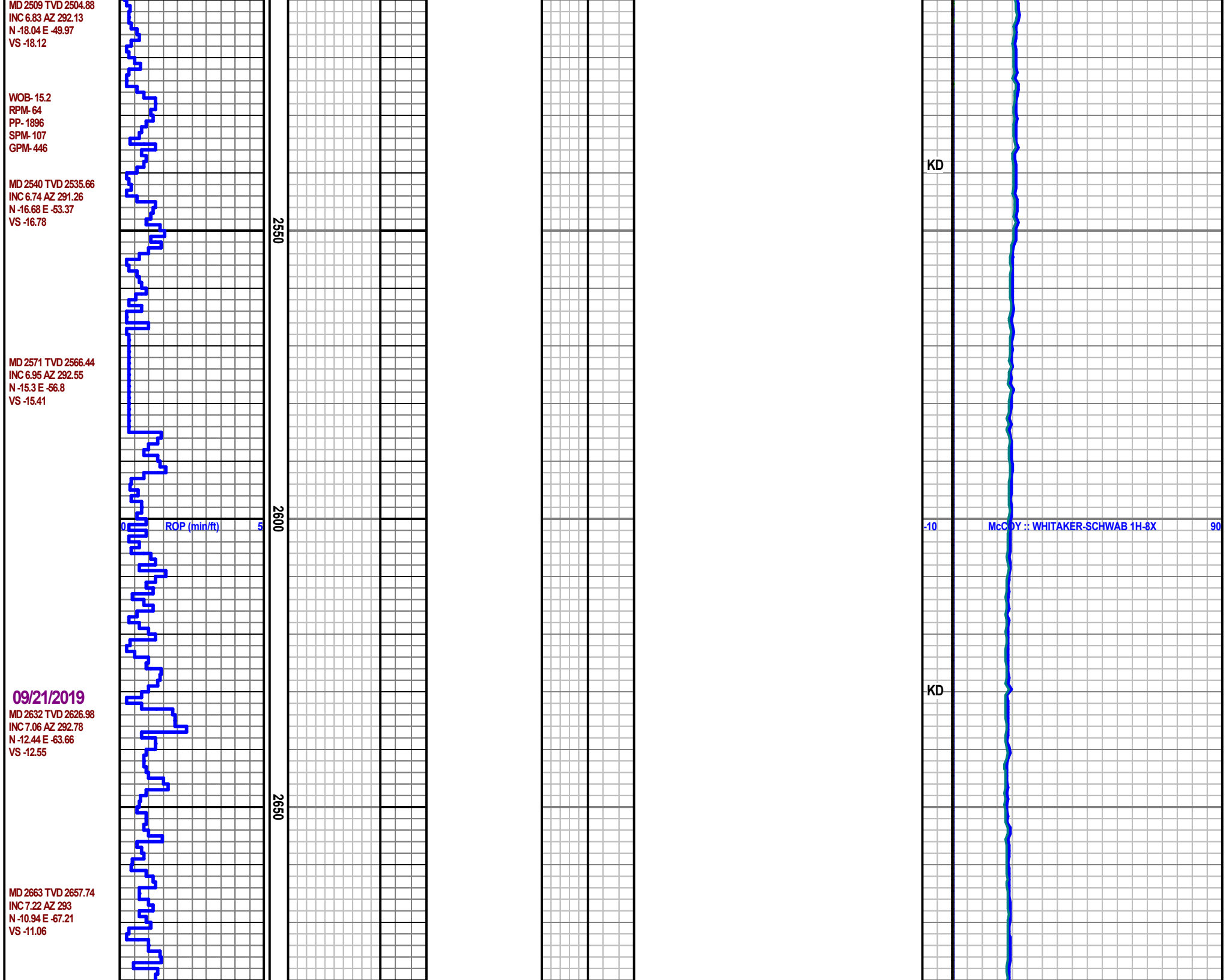
WOB- 12.4
RPM- 63
PP- 1516
SPM- 113
GPM- 473

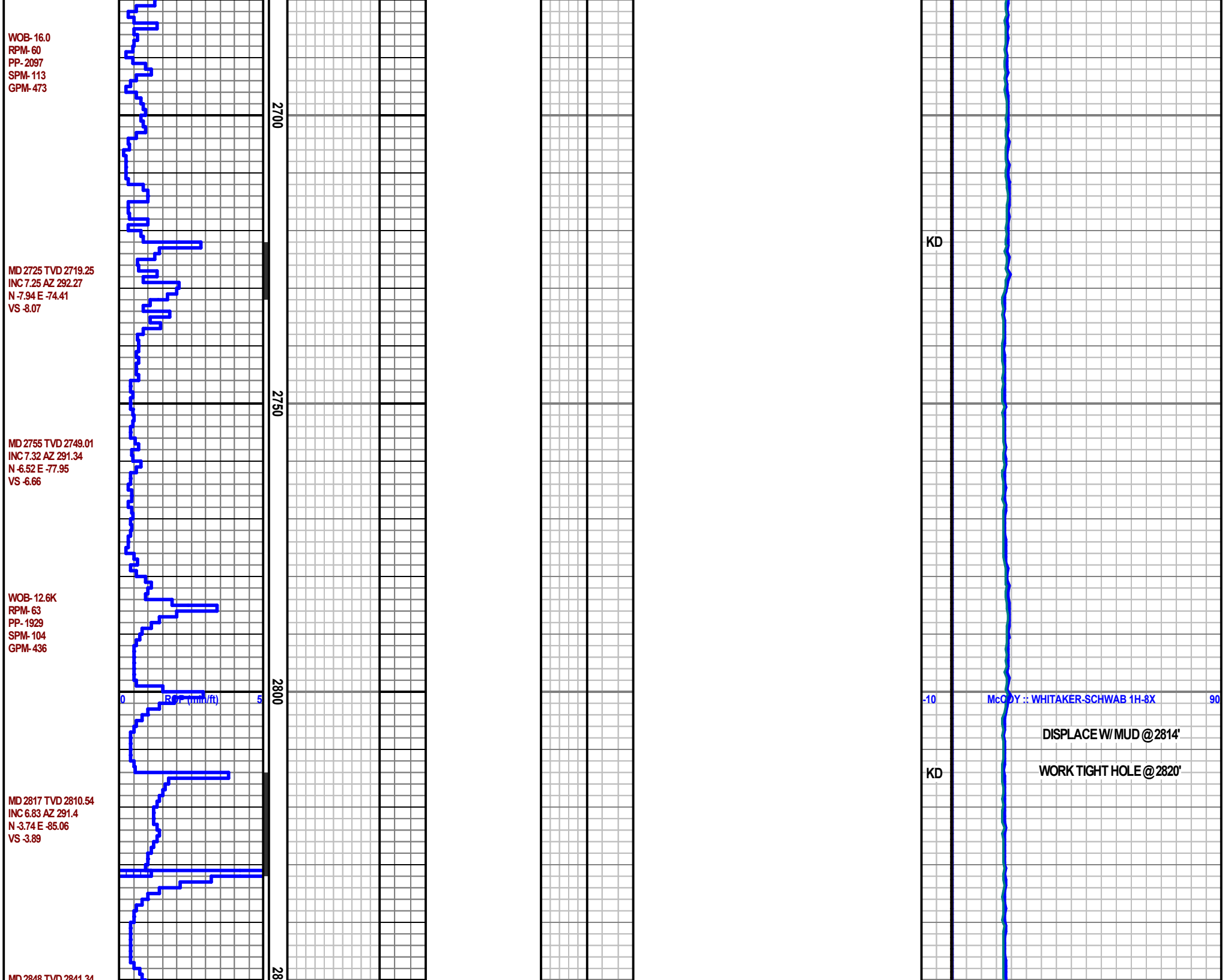

MD 1834 TVD 1833.55
INC 1.57 AZ 179.36
N -26.07 E 12.24
VS -26.04
1850
1900
MD 1927 TVD 1926.49
INC 2.9 AZ 228.53
N -28.9 E 10.49
VS -28.88
1950
WOB- 11.7
RPM- 64
PP- 1481
SPM- 110
GPM- 462
KD
KD

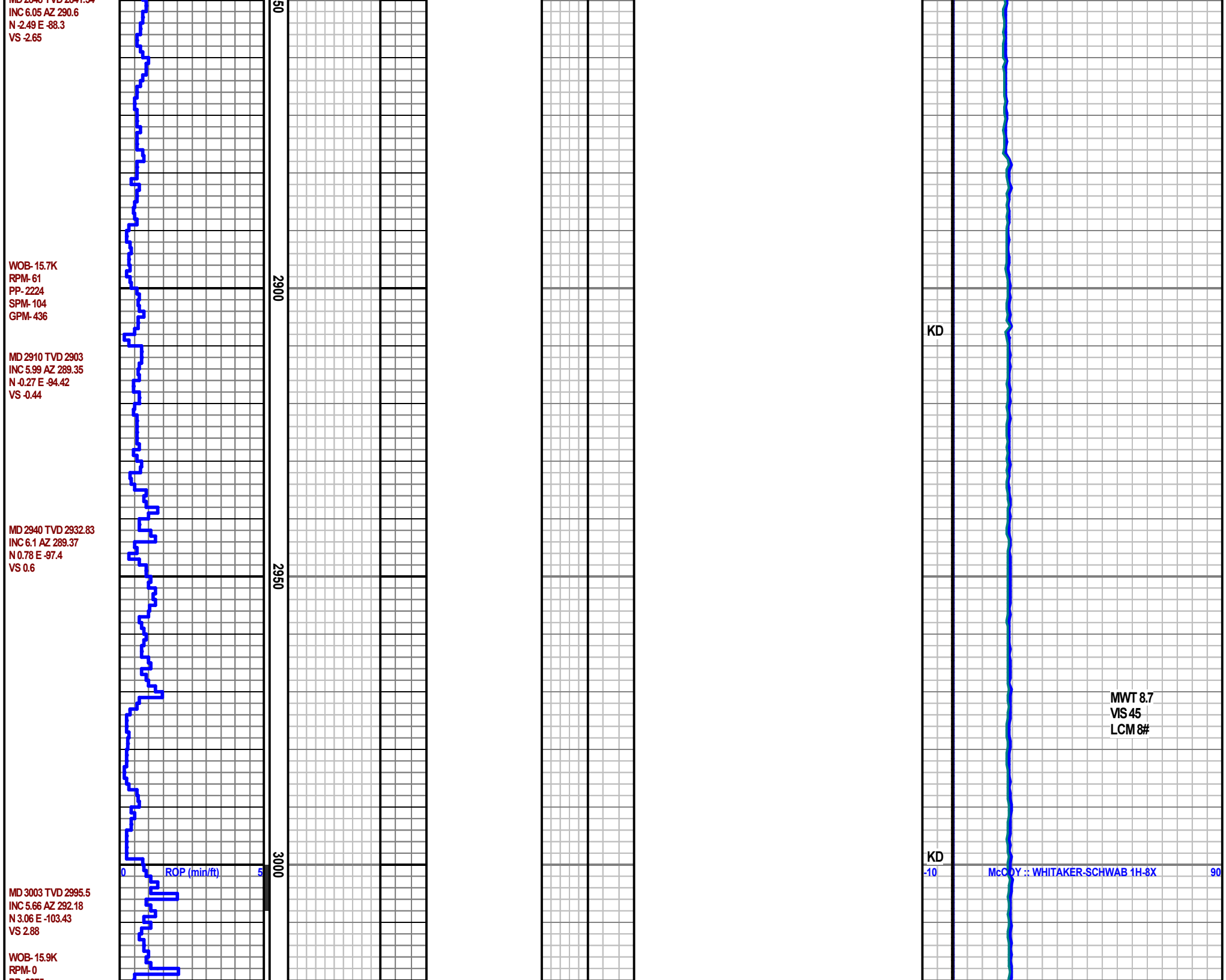

ROP (min/ft)
5
MD 2019 TVD 2018.35
INC 3.59 AZ 260.04
N -30.94 E 5.9
VS -30.93
WOB- 16.6
RPM- 0
PP- 1782
SPM- 113
GPM- 473
MD 2111 TVD 2109.99
INC 6.47 AZ 281.4
N -30.42 E -2.02
VS -30.42
2050
2100
2150
-10
McCOY ::WHITAKER-SCHWAB 1H-8X
90
KD

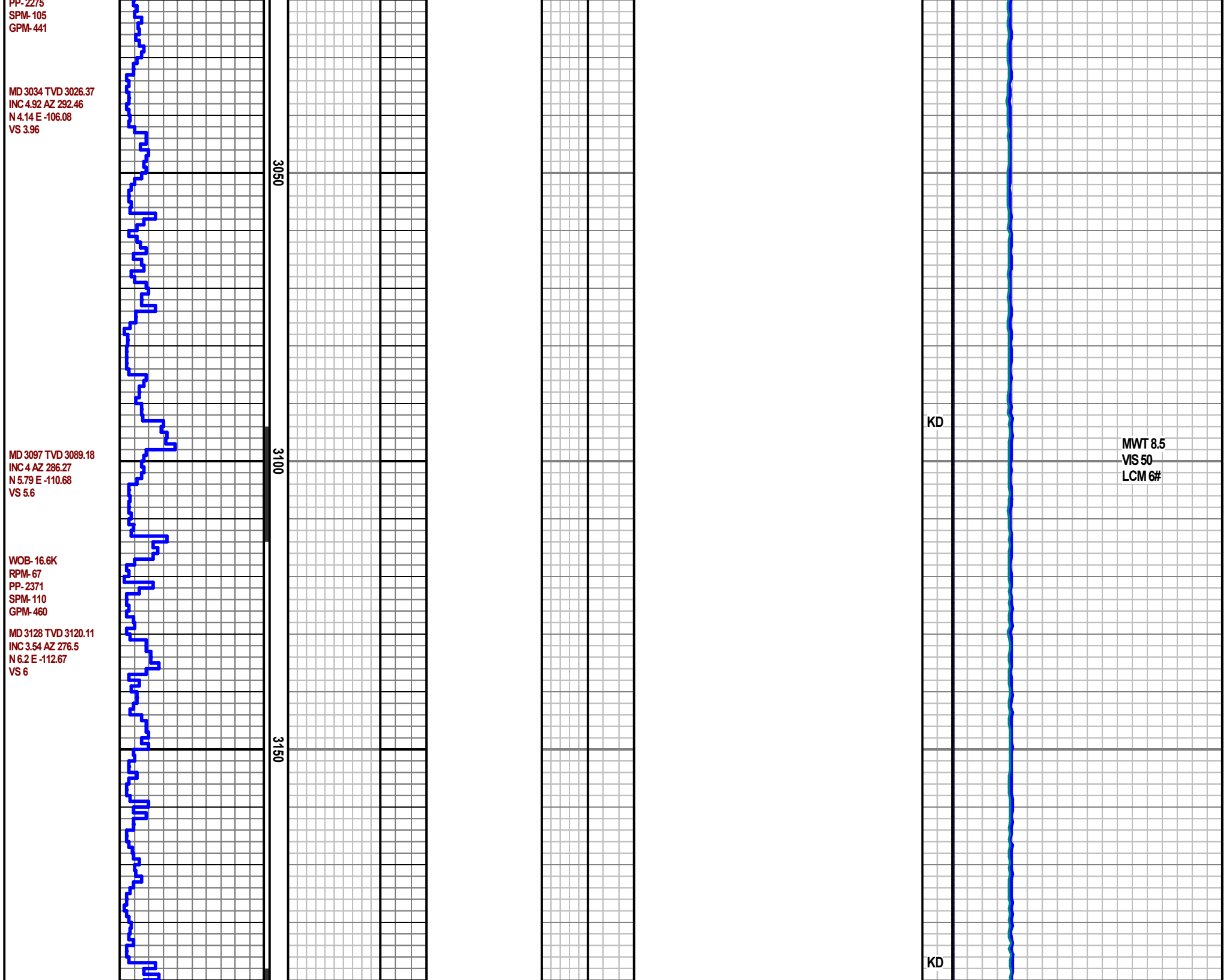

0
ROP (min/ft)
5
2200
2250
2300
MD 2203 TVD 2201.38
INC 6.69 AZ 282.69
N -28.21 E -12.33
VS -28.24
WOB- 15.3
RPM- 63
PP- 1798
SPM- 112
GPM- 468
MD 2295 TVD 2292.7
INC 7.31 AZ 284.51
N -25.57 E -23.22
VS -25.61
KD
-10
McCOY :: WHITAKER-SCHWAB 1H-8X
90
TRAP TEST
KD

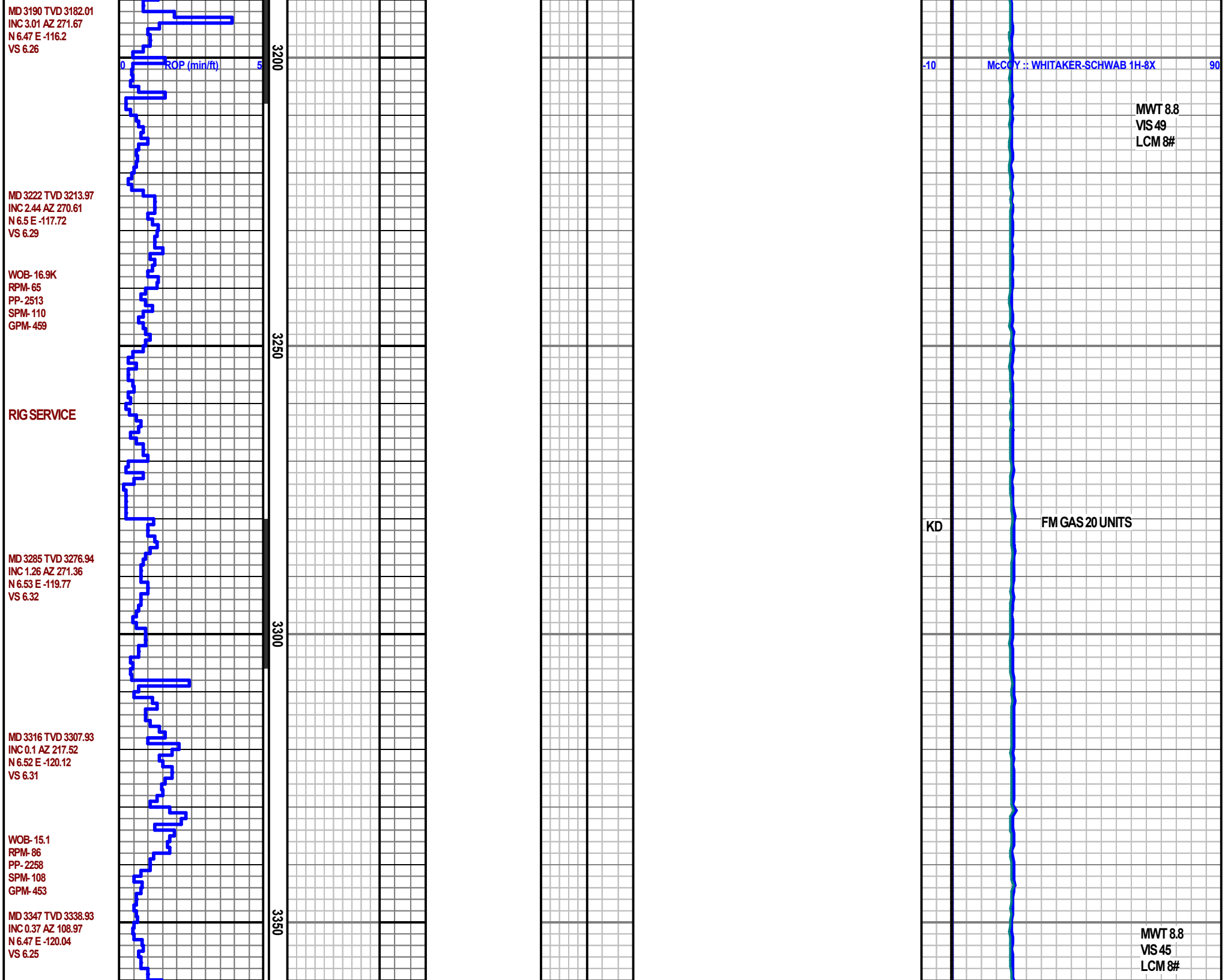

WOB- 14.1
RPM- 58
PP- 1868
SPM- 112
GPM- 468
MD 2387 TVD 2383.92
INC 7.6 AZ 282.56
N -22.78 E -34.83
VS -22.84
MD 2418 TVD 2414.64
INC 7.73 AZ 283.37
N -21.85 E -38.86
VS -21.92
MD 2448 TVD 2444.37
INC 7.8 AZ 288.77
N -20.73 E -42.75
VS -20.81
MD 2479 TVD 2475.1
INC 7.2 AZ 290.61
N -19.37 E -46.56
VS -19.45
0
ROP (min/ft)
5
2350
2400
2450
2500
KD
-10
McCOY 1 WHITAKER-SCHWAB 1H-8X
90
KD

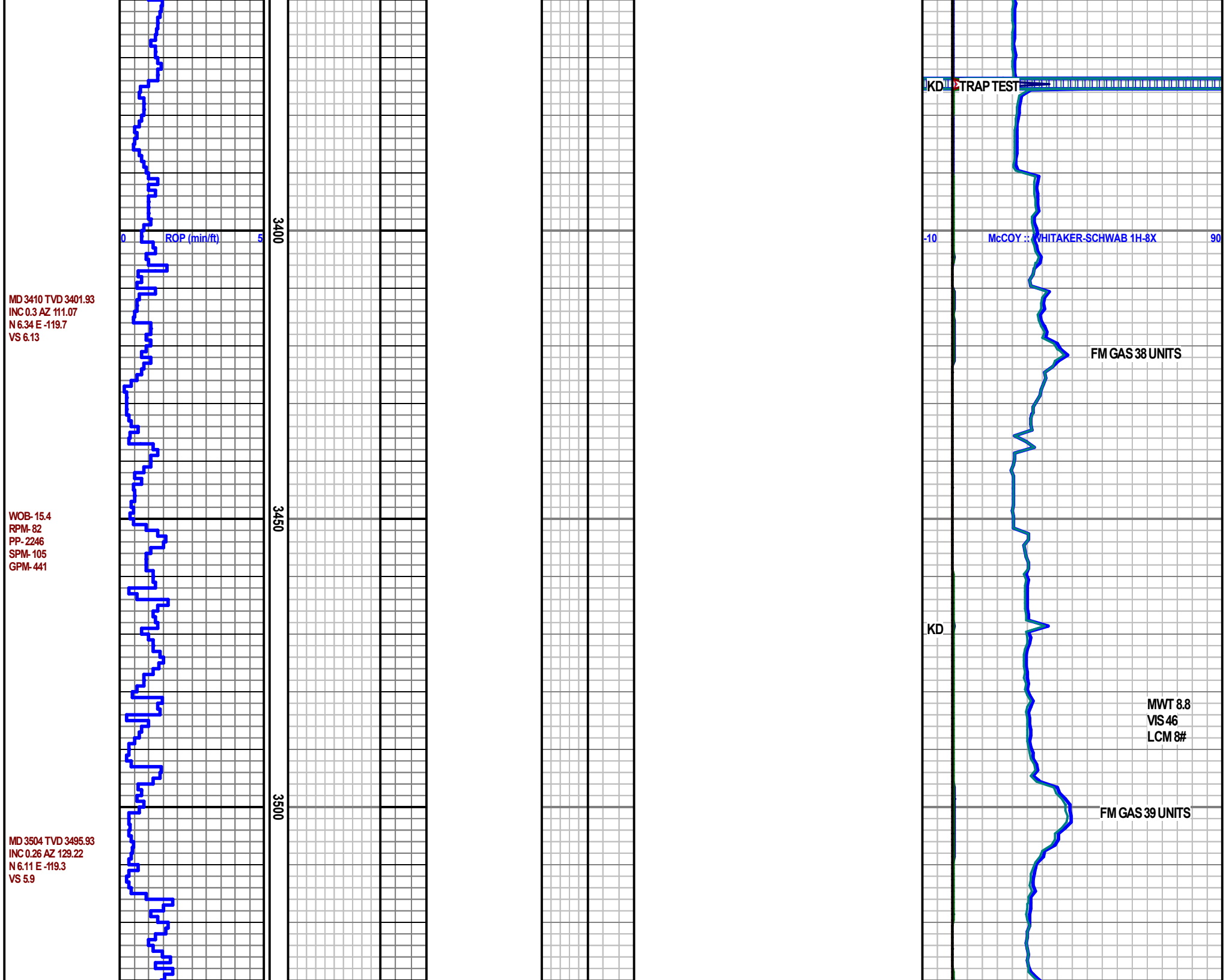

MD 2509 TVD 2504.88
INC 6.83 AZ 292.13
N -18.04 E -49.97
VS -18.12
WOB- 15.2
RPM- 64
PP- 1896
SPM- 107
GPM- 446
MD 2540 TVD 2535.66
INC 6.74 AZ 291.26
N -16.68 E -53.37
VS -16.78
MD 2571 TVD 2566.44
INC 6.95 AZ 292.55
N -15.3 E -56.8
VS -15.41
09/21/2019
MD 2632 TVD 2626.98
INC 7.06 AZ 292.78
N -12.44 E -63.66
VS -12.55
MD 2663 TVD 2657.74
INC 7.22 AZ 293
N -10.94 E -67.21
VS -11.06
2550
2600
2650
0
ROP (min/ft)
5
KD
-10
McCOY :: WHITAKER-SCHWAB 1H-8X
90
KD

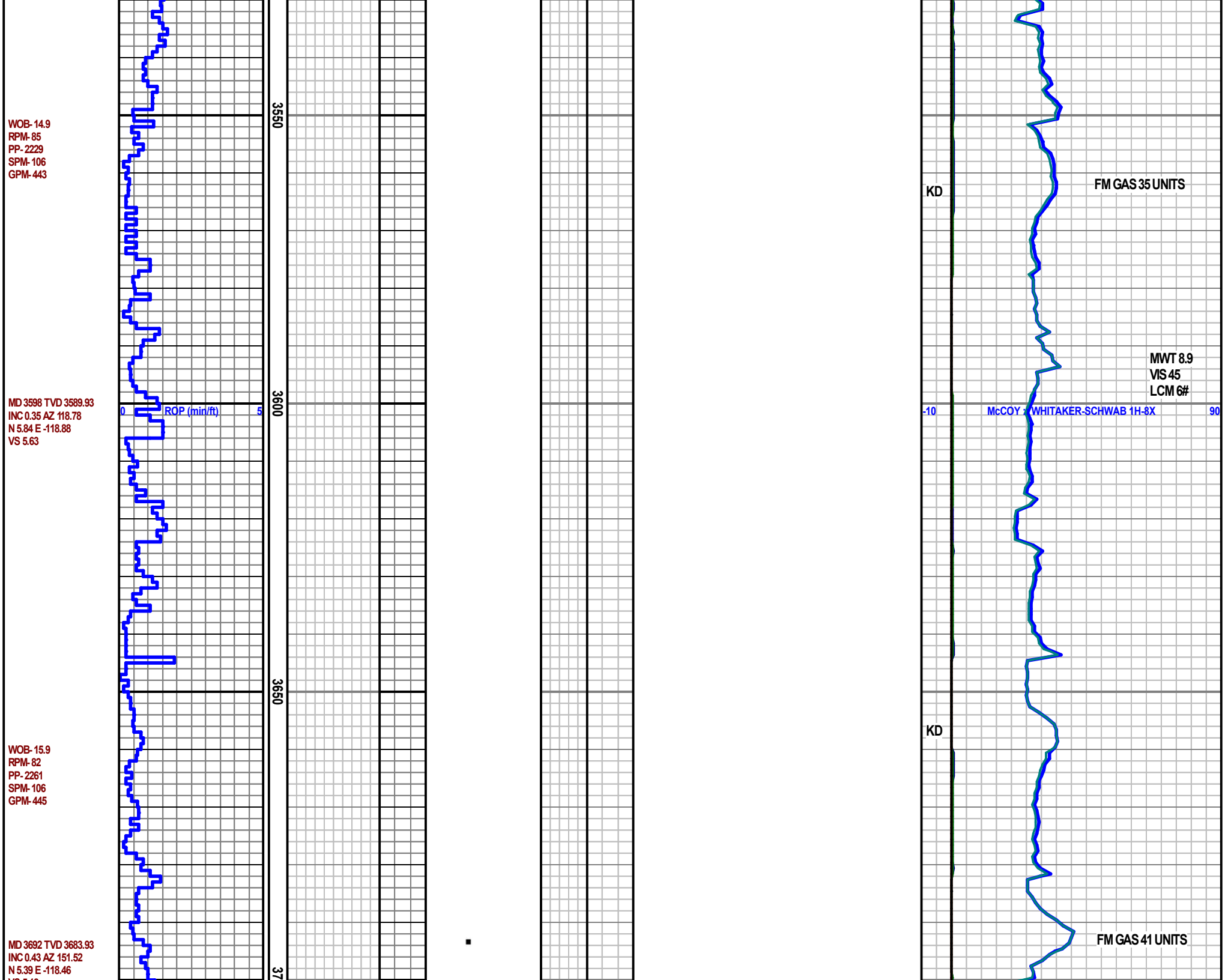

WOB- 16.0
RPM- 60
PP- 2097
SPM- 113
GPM- 473
2700
MD 2725 TVD 2719.25
INC 7.25 AZ 292.27
N -7.94 E -74.41
VS -8.07
2750
MD 2755 TVD 2749.01
INC 7.32 AZ 291.34
N -6.52 E -77.95
VS -6.66
WOB- 12.6K
RPM- 63
PP- 1929
SPM- 104
GPM- 436
2800
0
ROP (min/ft)
5
MD 2817 TVD 2810.54
INC 6.83 AZ 291.4
N -3.74 E -85.06
VS -3.89
KD
-10
McCOY :: WHITAKER-SCHWAB 1H-8X
90
DISPLACE W/ MUD @ 2814'
KD
WORK TIGHT HOLE @ 2820'

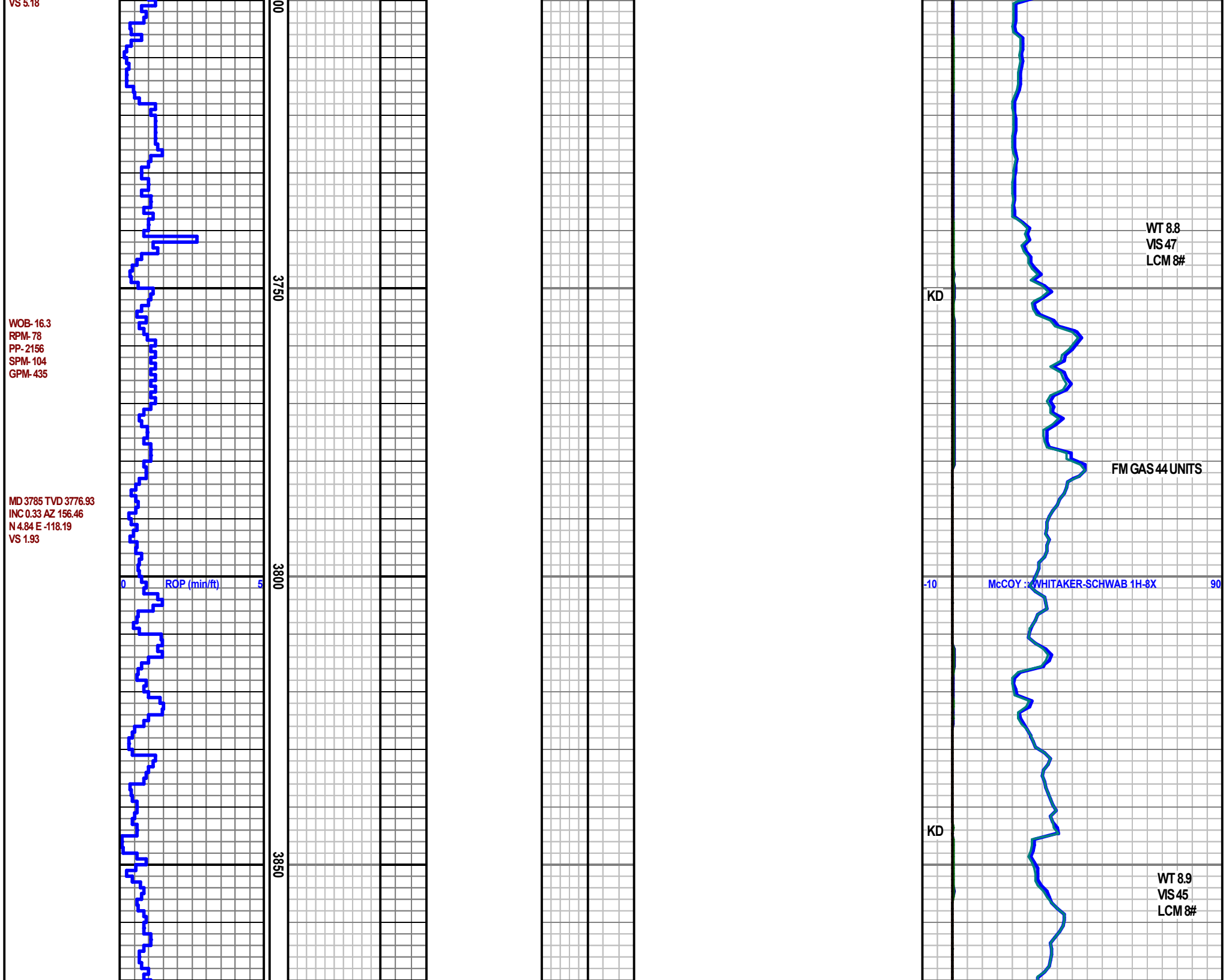

INC 6.05 AZ 290.6
N -2.49 E -88.3
VS -2.65
WOB- 15.7K
RPM- 61
PP- 2224
SPM- 104
GPM- 436
MD 2910 TVD 2903
INC 5.99 AZ 289.35
N -0.27 E -94.42
VS -0.44
MD 2940 TVD 2932.83
INC 6.1 AZ 289.37
N 0.78 E -97.4
VS 0.6
MD 3003 TVD 2995.5
INC 5.66 AZ 292.18
N 3.06 E -103.43
VS 2.88
WOB- 15.9K
RPM- 0
2900
2950
3000
0
ROP (min/ft)
KD
MWT 8.7
VIS 45
LCM 8#
KD
-10
McCOY :: WHITAKER-SCHWAB 1H-8X
90


PP- 2275
SPM- 105
GPM- 441
MD 3034 TVD 3026.37
INC 4.92 AZ 292.46
N 4.14 E -106.08
VS 3.96
3050
MD 3097 TVD 3089.18
INC 4 AZ 286.27
N 5.79 E -110.68
VS 5.6
3100
WOB- 16.6K
RPM- 67
PP- 2371
SPM- 110
GPM- 460
MD 3128 TVD 3120.11
INC 3.54 AZ 276.5
N 6.2 E -112.67
VS 6
3150
KD
MWT 8.5
VIS 50
LCM 6#
KD


MD 3190 TVD 3182.01
INC 3.01 AZ 271.67
N 6.47 E -116.2
VS 6.26
0
ROP (min/ft)
5
3200
MD 3222 TVD 3213.97
INC 2.44 AZ 270.61
N 6.5 E -117.72
VS 6.29
WOB- 16.9K
RPM- 65
PP- 2513
SPM- 110
GPM- 459
3250
RIG SERVICE
MD 3285 TVD 3276.94
INC 1.26 AZ 271.36
N 6.53 E -119.77
VS 6.32
3300
MD 3316 TVD 3307.93
INC 0.1 AZ 217.52
N 6.52 E -120.12
VS 6.31
WOB- 15.1
RPM- 86
PP- 2258
SPM- 108
GPM- 453
MD 3347 TVD 3338.93
INC 0.37 AZ 108.97
N 6.47 E -120.04
VS 6.25
3350
-10
McCOY :: WHITAKER-SCHWAB 1H-8X
90
MWT 8.8
VIS 49
LCM 8#
KD
FM GAS 20 UNITS
MWT 8.8
VIS 45
LCM 8#


0
ROP (min/ft)
5
3400
3450
3500
MD 3410 TVD 3401.93
INC 0.3 AZ 111.07
N 6.34 E -119.7
VS 6.13
WOB- 15.4
RPM- 82
PP- 2246
SPM- 105
GPM- 441
MD 3504 TVD 3495.93
INC 0.26 AZ 129.22
N 6.11 E -119.3
VS 5.9
KD
TRAP TEST
-10
McCOY :: WHITAKER-SCHWAB 1H-8X
90
FM GAS 38 UNITS
KD
MWT 8.8
VIS 46
LCM 8#
FM GAS 39 UNITS


WOB- 14.9
RPM- 85
PP- 2229
SPM- 106
GPM- 443
3550
KD
FM GAS 35 UNITS
MWT 8.9
VIS 45
LCM 6#
MD 3598 TVD 3589.93
INC 0.35 AZ 118.78
N 5.84 E -118.88
VS 5.63
0
ROP (min/ft)
5
3600
-10
McCOY 1 WHITAKER-SCHWAB 1H-8X
90
3650
KD
WOB- 15.9
RPM- 82
PP- 2261
SPM- 106
GPM- 445
MD 3692 TVD 3683.93
INC 0.43 AZ 151.52
N 5.39 E -118.46
FM GAS 41 UNITS


VS 5.18
WOB- 16.3
RPM- 78
PP- 2156
SPM- 104
GPM- 435
MD 3785 TVD 3776.93
INC 0.33 AZ 156.46
N 4.84 E -118.19
VS 1.93
0
ROP (min/ft)
5
3750
3800
3850
WT 8.8
VIS 47
LCM 8#
KD
FM GAS 44 UNITS
-10
McCOY :: WHITAKER-SCHWAB 1H-8X
90
KD
WT 8.9
VIS 45
LCM 8#

MD 3879 TVD 3870.92
INC 0.47 AZ 180.32
N 4.2 E -118.08
VS 1.29

WOB- 16.5
RPM- 91
PP- 2499
SPM- 105
GPM- 442

MD 3973 TVD 3964.92
INC 0.47 AZ 168.06
N 3.44 E -118
VS 0.53

09/22/2019

4010'

0 ROP (min/ft) 5

3900

3950

4000

BEGIN LOGGING @ 4000' ON 09/22/2019

LS: OFF WHT TO CRM, SCAT DK CRM TO LT TAN MOTT, OCC WHT, OCC GYSH/TAN, OCC OPQ TO TRNSP, MSTLY MOD FRM, TR TO OCC SFT, BRTL, V/FN XLN, TR MICRO XLN, OCC MICRITE, PLTY, BLKY, OCC CHNKY, SCAT ARG, OCC MRLY IP, TR DOLC CMT, OCC SIL IP, TR OPQ LRGANHED DRSY GYP, OCC ANHED CALCITE FL, OCC TRNSP TO MLKY WHT SHRP ANG CHRT, OCC FOSS FRAGS W/TR OCCLD, TR FRAC POR, OCC MOLDC POR, SCAT LAM SH: GY TO DK GY, OCC V/DK GY TO BLK, V/FN TO FN TXT, DULL LSTR,

FM GAS 42 UNITS

FM GAS 37 UNITS

KD

MWT 8.9
VIS 45
LCM 8#

FM GAS 46 UNITS

-10 McCOY :: WHITAKER-SCHWAB 1H-8X 90

KD

FM GAS 43 UNITS

WOB- 15K
RPM- 82
PP- 2249
SPM- 106
GPM- 446

MD 4067 TVD 4058.92
INC 0.34 AZ 153.58
N 2.81 E -117.8
VS -0.09

4118'

4154'

MD 4161 TVD 4152.92
INC 0.52 AZ 150.89
N 2.18 E -117.46
VS -0.71

WOB- 16.4K
RPM- 87
PP- 2514
SPM- 105
GPM- 441

0 ROP (min/ft) 5

4050
4100
4150
4200

PYR INC., OCC MIN DULL YEL TO DULL DK YEL FLOR, NO VIS CUT

LS: OFF WHT TO V/LT GY, TR WHT, SCAT LT TO V/LT CRM, OCC TANSH MOTT, SM MOD FRM, SCAT FRM, MSTLY BRTL, MICRO XLN, TR V/FN XLN, INCRSE MICRITE, PLTY, TR CHNKY, OCC FLKY, SM ARG, TR SIL IP, TR LAM MRLY, OCC INTRBD DOLO, TR DOLO CMT, SCAT OPQ TO TRNSL ANHED CALCITE FL, TR MLKY WHT TO DK CRM SHRP ANG CHRT, OCC CRIN FRAGS, OCC BRACH FRAGS W/SM OCCLD W/CALCITE, OCC ASPHLTC STRKS ALONG POR, NO ODOR, SCAT FRAC POR, TR MOLDC POR, OCC XLN POR, SCAT DK YEL TO TR DULL YEL FLOR, NO VIS CUT

LS: CRM TO SCAT DK CRM, SCAT OFF WHT TO TR WHT, OCC GY TO DK GY MOTT, OCC OPQ TO TRNSL, MOD FRM, OCC FRM, BRTL, SCAT TO TR CRMBLY, V/FN XLN, OCC MICRO XLN, PLTY TO CHNKY, SM DOLO CMT, SCAT INTRBD DOLO, OCC TO TR MRLY IP, OCC ARG, TR ANHED CALCITE FL, OCC MIN EUHED IMBDD PYR, OCC OFF WHT TO SMKY SHRP ANG CHRT, NO VIS STAIN, NO ODOR, SCAT XLN POR, TR MOLDC TO PP POR, TR LAM SH: DK GY TO BRNSH/GY, SCAT GY, MOD SFT, SM MOD FRM, BRTL, V/FN TXT, OCC SLTY TXT, DULL LSTR, PLTY, OCC CH NKY, NON CALC, OCC V/DULL YEL FLOR, NO VIS CUT

LS: LT CRM TO SM V/LT CRM, SCAT DK CRM TO LT TAN, OCC GY TO LT GY MOTT, OCC OFF WHT, MOD FRM, OCC FRM, FN TO V/FN XLN, OCC MICRO XLN, PLTY, SM CHNKY, TR SLI SUC TXT, OCC WELL IND, SM DOLC CMT, SCAT TO SM INTRBD /LAM DOLO, TR ANHED DRSY CALCITE, TR LRG ANHED CALCITE FL, OCC MIN PYR INC., NO VIS STAIN, NO ODOR, SCAT XLN POR, TR PP TO VUG POR, OCC FRAC POR W/OCC DISS, TR LAM SH: BLK, DK TO V/DK GY, OCC GY, MOD SFT, OCC MSHY, DULL LSTR, PLTY/CHNKY, NON CALC, TR CARB, OCC PYR INC., TR V/DULL YEL FLOR, NO VIS CUT

FM GAS 36 UNITS

MWT 8.9
VIS 47
LCM 8#

KD

CON GAS 47 UNITS

FM GAS 37 UNITS

MWT 9.0
VIS 47
LCM 8#

-10 McCOMB-WHITAKER-CONWAB 1H 8X 90

FM GAS 212 UNITS

4266'

MD 4255 TVD 4246.91
INC 0.55 AZ 162.78
N 1.37 E -117.12
VS -1.51

WOB- 14.7K
RPM- 85
PP- 2138
SPM- 102
GPM- 428

4308'

4366'

MD 4349 TVD 4340.91
INC 0.44 AZ 172.72
N 0.58 E -116.94
VS -2.3

WOB- 15.7K
RPM- 87
PP- 2295
SPM- 105
GPM- 441

4250

4300

4350

LS: GY TO LT GY, SM OFF WHT, TR CRM TO DK CRM, OCC WHT, FRM TO MOD FRM, BRTL, MICRO TO V/FN XLN, OCC MICRITE, TR ARG, SCAT MRLY IP, TR DOLC CMT, OCC AHNED/PLTY CALCITE FL, OCC MIN PYR INC., NO VIS STAIN, NO ODOR, SCAT FRAC POR W/TR OCCLD, OCC XLN POR, TR DULL TO V/DULL YEL FLOR, NO VIS CUT

HEEBNER @
4237' MD 4228' TVD
(-1393')

TORONTO @
4256' MD 4247' TVD
(-1412')

LS: LT GY TO OFF WHT MOTT, SCAT V/LT TO FAINT CRM, SCAT LT TO V/LT GY STRKS /STRI, MOD SFT, TR MOD FRM, SM BRTL, MICRO XLN, OCC V/FN XLN, PLTY, TR CHNKY, TR BLKY, SM ARG, SCAT DOLC CMT, TR GLAUC, OCC MIN PYR INC., OCC OOLTC, NO VIS STIAN, NO ODOR, SCAT HAIRLINE FRAC, OCC XLN POR, OCC MOLDC POR, SM LAM SH: DK GY TO GY, SCAT BLK, TR V/DK GY, MOD SFT, PLTY, OCC BLKY, NON CALC, TR CARB, SCAT SLTY IP, TR PYRC, OCC DULL YEL FLOR, NO VIS CUT

DOUGLAS @
4287' MD 4278' TVD
(-1443')

LANSING @
4316' MD 4307' TVD
(-1472')

LS: CRM TO LT CRM, SCAT DK CRM, TR OFF WHT, TR LT TAN MOTT, OCC WHT, OCC OPQ TO TRNSL, MOD FRM, TR FRM, MSTLY BRTL, TR CRMBLY, V/FN XLN, SM FN XLN, TR MICRO XLN, TR TO SCAT SLI SUC TXT, SM PLTY, SM CHNKY, OCC BLKY, TR TO OCC ARG, SM DOLC CMT, OCC SIL, TR WELL IND, TR INTRBD DOLO, TR LRG CHNKY /ANHED CALCITE FL, TR DK CRM TO TAN SHRP ANG CHRT, OCC OPQ TO WHT SPIC CHRT, OCC WHT RNDD WEATHERED CHRT, OCC GLAUC, TR CRIN FRAGS, NO VIS STAIN, NO ODOR, SCAT XLN POR, TR MOLDC POR, TR FRAC POR W/OCC DISS, TR LAM SH: GY TO DK GY, TR LT GY, OCC BLK, MOD SFT, OCC MOD FRM, OCC MSHY, V/FN TO OCC SMTH TXT, DULL LSTR, PLTY, TR BLKY, NON CALC, OCC SLTY IP, OCC CARB, SCAT DULL TO TR V/DULL YEL FLOR, NO VIS CUT

KD

CON GAS 57 UNITS

FM GAS 218 UNITS

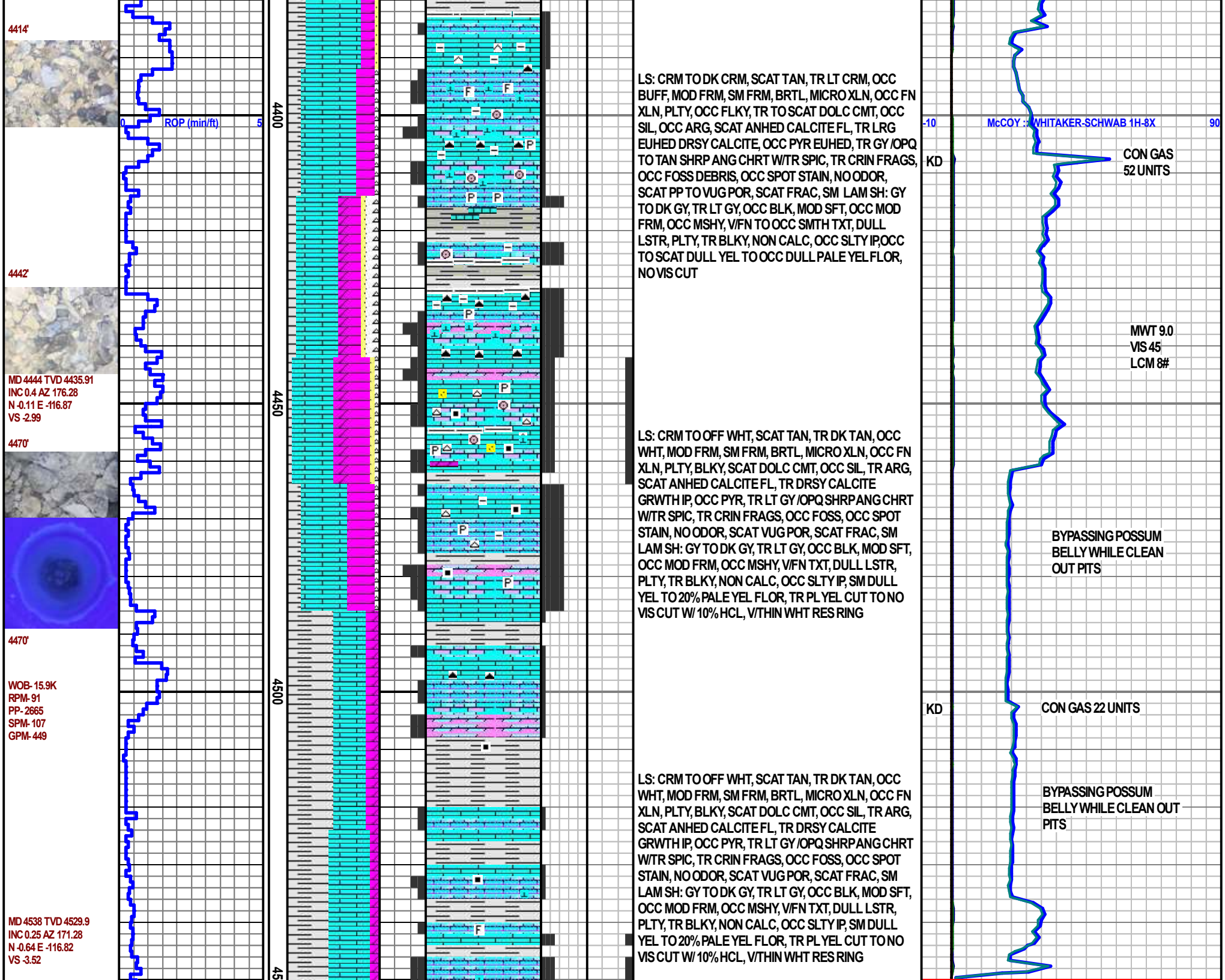
FM GAS 55 UNITS

KD

CON GAS 49 UNITS

MWT 9.0
VIS 45
LCM 8#

BYPASSING POSSUM BELLY WHILE CLEAN OUT PITS

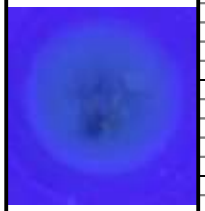

4414'
4442'
MD 4444 TVD 4435.91
INC 0.4 AZ 176.28
N -0.11 E -116.87
VS -2.99
4470'
4470'
WOB- 15.9K
RPM- 91
PP- 2665
SPM- 107
GPM- 449
MD 4538 TVD 4529.9
INC 0.25 AZ 171.28
N -0.64 E -116.82
VS -3.52
0
ROP (min/ft)
5
4400
4450
4500
LS: CRM TO DK CRM, SCAT TAN, TR LT CRM, OCC BUFF, MOD FRM, SM FRM, BRTL, MICRO XLN, OCC FN XLN, PLTY, OCC FLKY, TR TO SCAT DOLC CMT, OCC SIL, OCC ARG, SCAT ANHED CALCITE FL, TR LRG EUHED DRSY CALCITE, OCC PYR EUHED, TR GY /OPQ TO TAN SHRP ANG CHRT W/TR SPIC, TR CRIN FRAGS, OCC FOSS DEBRIS, OCC SPOT STAIN, NO ODOR, SCAT PP TO VUG POR, SCAT FRAC, SM LAM SH: GY TO DK GY, TR LT GY, OCC BLK, MOD SFT, OCC MOD FRM, OCC MSHY, V/FN TO OCC SMTH TXT, DULL LSTR, PLTY, TR BLKY, NON CALC, OCC SLTY IP,OCC TO SCAT DULL YEL TO OCC DULL PALE YEL FLOR, NO VIS CUT
LS: CRM TO OFF WHT, SCAT TAN, TR DK TAN, OCC WHT, MOD FRM, SM FRM, BRTL, MICRO XLN, OCC FN XLN, PLTY, BLKY, SCAT DOLC CMT, OCC SIL, TR ARG, SCAT ANHED CALCITE FL, TR DRSY CALCITE GRWTH IP, OCC PYR, TR LT GY /OPQ SHRP ANG CHRT W/TR SPIC, TR CRIN FRAGS, OCC FOSS, OCC SPOT STAIN, NO ODOR, SCAT VUG POR, SCAT FRAC, SM LAM SH: GY TO DK GY, TR LT GY, OCC BLK, MOD SFT, OCC MOD FRM, OCC MSHY, V/FN TXT, DULL LSTR, PLTY, TR BLKY, NON CALC, OCC SLTY IP, SM DULL YEL TO 20% PALE YEL FLOR, TR PL YEL CUT TO NO VIS CUT W/ 10% HCL, V/THIN WHT RES RING
LS: CRM TO OFF WHT, SCAT TAN, TR DK TAN, OCC WHT, MOD FRM, SM FRM, BRTL, MICRO XLN, OCC FN XLN, PLTY, BLKY, SCAT DOLC CMT, OCC SIL, TR ARG, SCAT ANHED CALCITE FL, TR DRSY CALCITE GRWTH IP, OCC PYR, TR LT GY /OPQ SHRP ANG CHRT W/TR SPIC, TR CRIN FRAGS, OCC FOSS, OCC SPOT STAIN, NO ODOR, SCAT VUG POR, SCAT FRAC, SM LAM SH: GY TO DK GY, TR LT GY, OCC BLK, MOD SFT, OCC MOD FRM, OCC MSHY, V/FN TXT, DULL LSTR, PLTY, TR BLKY, NON CALC, OCC SLTY IP, SM DULL YEL TO 20% PALE YEL FLOR, TR PL YEL CUT TO NO VIS CUT W/ 10% HCL, V/THIN WHT RES RING
-10
McCOY :: WHITAKER-SCHWAB 1H-8X
90
KD
CON GAS
52 UNITS
MWT 9.0
VIS 45
LCM 8#
BYPASSING POSSUM BELLY WHILE CLEAN OUT PITS
KD
CON GAS 22 UNITS
BYPASSING POSSUM BELLY WHILE CLEAN OUT PITS

WOB- 15.8K
RPM- 83
PP- 2499
SPM- 110
GPM- 461

4604'

0 ROP (min/ft) 5

4630'



MD 4633 TVD 4624.9
INC 0.39 AZ 158.03
N -1.15 E -116.66
VS -4.02

4666'

WOB- 16.4K
RPM- 87
PP- 2492
SPM- 110
GPM- 461

09/23/2019
KOP @4692'

MD 4696 TVD 4687.9
INC 0.97 AZ 30.49
N -0.89 E -116.31
VS -3.75

WOB- 18.9K
RPM- 0
PP- 2246
SPM- 102
GPM- 426

4650

4700

LS: LT GY TO OFF WHT, SCAT LT TAN, TR DK TAN, OCC WHT, MOD FRM, SM FRM, BRTL, MICRO XLN, TR FN XLN, PLTY, BLKY, SM BRKN, SCAT DOLC CMT, TR ARG IP, OCC PYR, TR LT GY /OPQ SHRP ANG CHRT, TR CRIN FRAGS, OCC FOSS FRAGS IP, OCC BRN STAIN IP, NO ODOR, SCAT VUG POR, SCAT FRAC'S, SH: GY TO DK GY, TR LT GY, OCC BLK, TR RDSH BRN, MOD SFT, OCC MOD FRM, OCC FRM, V/FN TXT, DULL LSTR, PLTY, TR BLKY, NON CALC, OCC SLTY IP, SM DULL YEL FLOR, NO VIS CUT W/ 10% HCL, NO RES RING

LS: WHT TO OFF WHT, SCAT LT TAN, TR TAN, OCC CRM MOTT, MOD FRM, SM FRM, BRTL, MICRO XLN, SCAT FN XLN, PLTY, BLKY, SM BRKN, SCAT DOLC CMT, SM IMBDD DOLO IP, TR ARG, SCAT CALCITE FL, TR CLR CALCITE IP, OCC PYR, TR LT GY /OPQ SHRP ANG CHRT, TR FOSS FRAGS, OCC DK SPOT STAIN, NO ODOR, SCAT VUG POR, SCAT HL FRAC'S, SM THIN LAM SH: BLK, MOD SFT, OCC MOD FRM, FN TXT, DULL LSTR, PLTY, TR BLKY, NON CALC, OCC SLTY IP, SM DULL YEL FLOR, TR PL YEL CUT TO NO VIS CUT W/ 10% HCL, NO VIS RES RING

TOH FOR BUILD BHA: BIT#4 :: 8.75":: SECURITY:: GTD64DC:: 13075164 :: 6X16'S :: 2.12° MTR :: @4692' MD 4683' TVD

LS: CRM, LT TAN, TR TAN, SM TAN MOTT, OCC OFF WHT, MOD FRM TO FRM, SM MOD SFT, OCC V/FRM, V/FN TO SM FN XLN, OCC MIC XLN, CHNKY, BLKY, SM DOLO CMT IP, SM ARG, OCC GLAUC, OCC PYR INC, TR LT GY TRNSL HRD ANG CHRT, SCT IMBD GY DOLOSTN, OCC IMBD BRN DOLO PCS, OCC FOSS FRAG, NO STAINING, NO ODOR, SM XLN POR, SM HL

Scale Change
-200 McCOY :: WHITAKER-SCHWAB 1H-8X 1800

MWT 9.0
VIS 45
LCM 8#

FM GAS 349 UNITS

ADD 100 BBL OIL TO SYSTEM

KD

CON GAS 1446 UNITS

-200 McCOY :: WHITAKER-SCHWAB 1H-8X 1800

C3
C4
C2

FM GAS 1710 UNITS

MWT 9.0
VIS 47
LCM 8#

KD

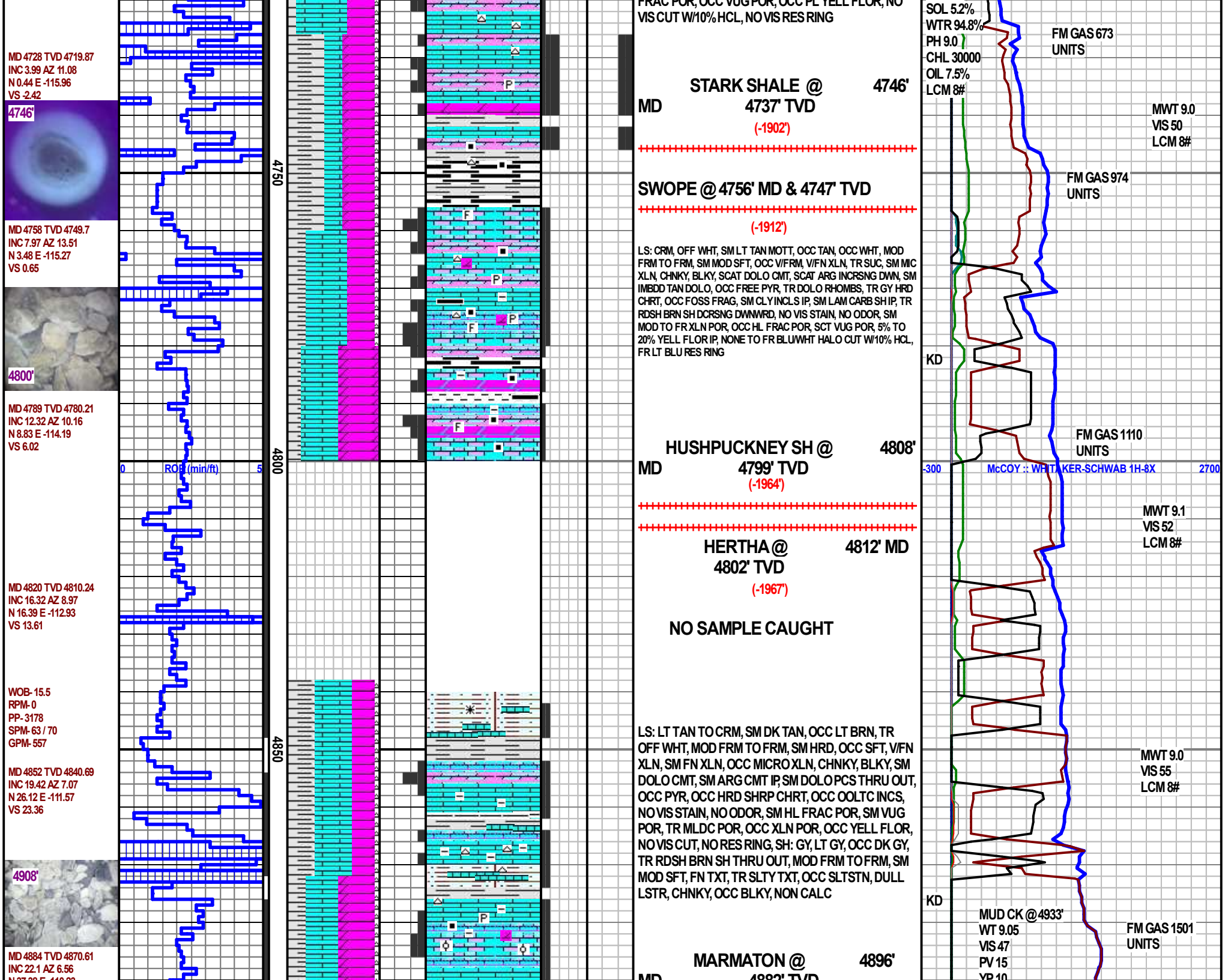
FM GAS 1642 UNITS

MUD CK @4689'
WT 9.0
VIS 52
PV 16
YP 11
GEL 7/31
WL 7.8
CK 2/32

Scale Change
McCOY :: WHITAKER-SCHWAB 1H-8X 2700

FM GAS 460 UNITS

MWT 9.0
VIS 56
LCM 8#


MD 4728 TVD 4719.87
INC 3.99 AZ 11.08
N 0.44 E -115.96
VS -2.42
4746'
MD 4758 TVD 4749.7
INC 7.97 AZ 13.51
N 3.48 E -115.27
VS 0.65
4800'
MD 4789 TVD 4780.21
INC 12.32 AZ 10.16
N 8.83 E -114.19
VS 6.02
0 ROP (min/ft) 5
MD 4820 TVD 4810.24
INC 16.32 AZ 8.97
N 16.39 E -112.93
VS 13.61
WOB- 15.5
RPM- 0
PP- 3178
SPM- 63 / 70
GPM- 557
MD 4852 TVD 4840.69
INC 19.42 AZ 7.07
N 26.12 E -111.57
VS 23.36
4908'
MD 4884 TVD 4870.61
INC 22.1 AZ 6.56
4750
4800
4850
FRAC POR, OCC VUG POR, OCC PL YELL FLOR, NO VIS CUT W/10% HCL, NO VIS RES RING
STARK SHALE @ 4746'
MD 4737' TVD
(-1902')
SWOPE @ 4756' MD & 4747' TVD
(-1912')
LS: CRM, OFF WHT, SM LT TAN MOTT, OCC TAN, OCC WHT, MOD FRM TO FRM, SM MOD SFT, OCC V/FRM, V/FN XLN, TR SUC, SM MIC XLN, CHNKY, BLKY, SCAT DOLO CMT, SCAT ARG INCRSNG DWN, SM IMBDD TAN DOLO, OCC FREE PYR, TR DOLO RHOMBS, TR GY HRD CHRT, OCC FOSS FRAG, SM CLY INCLS IP, SM LAM CARB SH IP, TR RDSH BRN SH DCRSNG DWNWRD, NO VIS STAIN, NO ODOR, SM MOD TO FR XLN POR, OCC HL FRAC POR, SCT VUG POR, 5% TO 20% YELL FLOR IP, NONE TO FR BLU/WHT HALO CUT W/10% HCL, FR LT BLU RES RING
HUSHPUCKNEY SH @ 4808'
MD 4799' TVD
(-1964')
HERTHA @ 4812' MD
4802' TVD
(-1967')
NO SAMPLE CAUGHT
LS: LT TAN TO CRM, SM DK TAN, OCC LT BRN, TR OFF WHT, MOD FRM TO FRM, SM HRD, OCC SFT, V/FN XLN, SM FN XLN, OCC MICRO XLN, CHNKY, BLKY, SM DOLO CMT, SM ARG CMT IP, SM DOLO PCS THRU OUT, OCC PYR, OCC HRD SHRP CHRT, OCC OOLTC INCS, NO VIS STAIN, NO ODOR, SM HL FRAC POR, SM VUG POR, TR MLDC POR, OCC XLN POR, OCC YELL FLOR, NO VIS CUT, NO RES RING, SH: GY, LT GY, OCC DK GY, TR RDSH BRN SH THRU OUT, MOD FRM TO FRM, SM MOD SFT, FN TXT, TR SLTY TXT, OCC SLTSTN, DULL LSTR, CHNKY, OCC BLKY, NON CALC
MARMATON @ 4896'
SOL 5.2%
WTR 94.8%
PH 9.0
CHL 30000
OIL 7.5%
LCM 8#
FM GAS 673 UNITS
MWT 9.0
VIS 50
LCM 8#
FM GAS 974 UNITS
KD
FM GAS 1110 UNITS
-300
McCOY :: WHITTAKER-SCHWAB 1H-8X
2700
MWT 9.1
VIS 52
LCM 8#
MWT 9.0
VIS 55
LCM 8#
KD
MUD CK @4933'
WT 9.05
VIS 47
PV 15
YP 10
FM GAS 1501 UNITS

N 37.38 E -110.23
VS 34.65

MD 4916 TVD 4899.89
INC 25.46 AZ 8.36
N 50.17 E -108.54
VS 34.65

09/24/2019

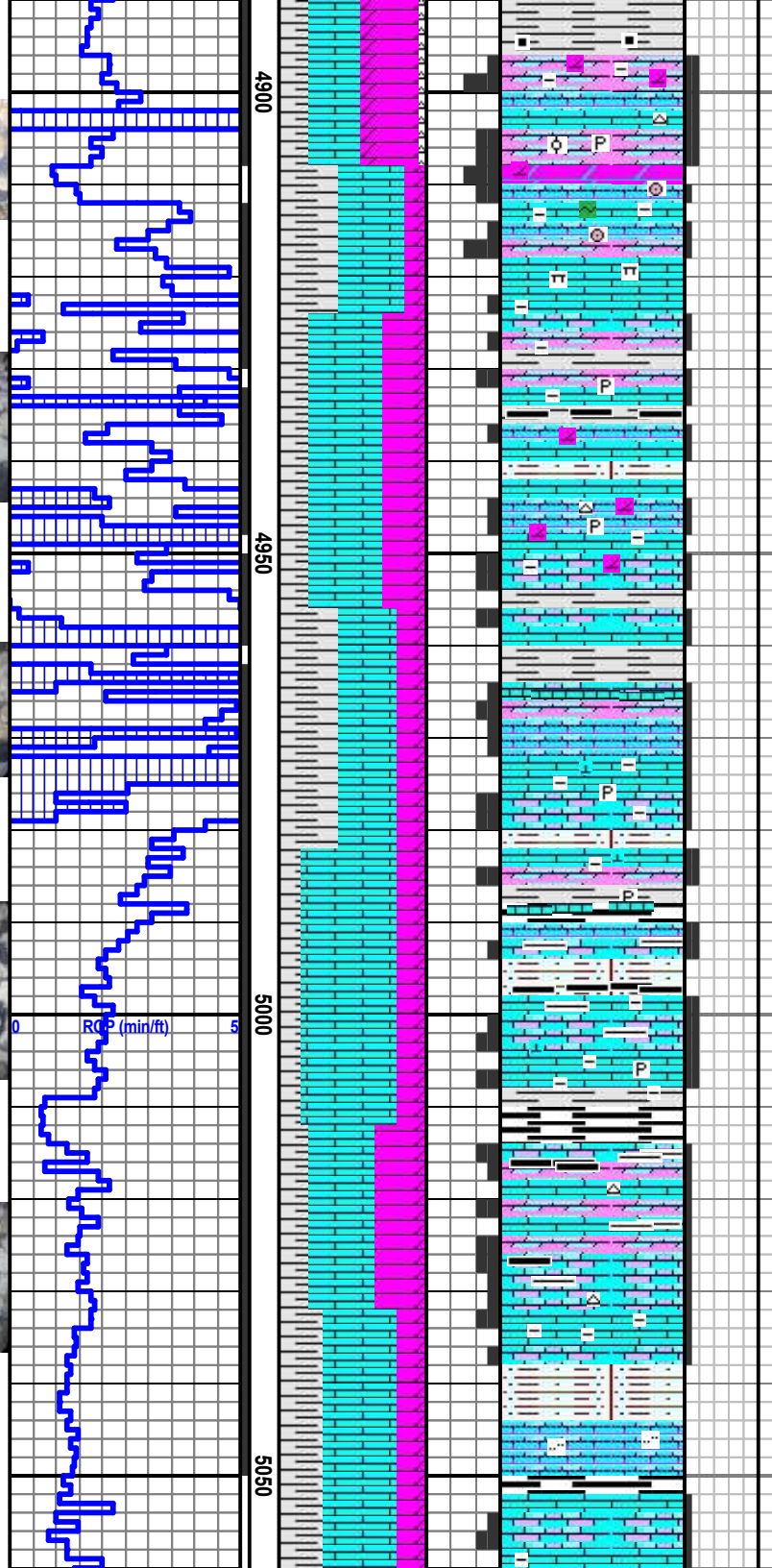
MD 4947 TVD 4927.61
INC 27.72 AZ 8.5
N 63.89 E -106.5
VS 61.25

MD 4978 TVD 4954.75
INC 30.03 AZ 6
N 78.74 E -104.63
VS 76.14

MD 5009 TVD 4981.07
INC 33.75 AZ 7.34
N 95 E -102.72
VS 92.45

MD 5041 TVD 5006.9
INC 38.55 AZ 6.74
N 113.73 E -100.41
VS 111.23

WOB- 25.5K
RPM- 0
PP- 3405



MD 4882 TVD
(-2047')

TOH FOR NEW BIT #5: 8.75" :: HALIBURTON :: GTD64DC :: 13075162 :: 6X16'S :: 2.38° MTR: SER# 12204416:: IN @ 4921' MD

MARMATON "B" @ 4936'
MD (-2081')' TVD

LS: CRM, SM OFF WHT, OCC LT BRN, TR WHT, MOD FRM TO FRM, SM SFT, V/FN XLN, SM FN XLN, OCC MICRO XLN, CHNKY, BLKY, BRKN, SM DOLO CMT, SM ARG CMT, SM ARG, SM IMBDD DOLO PCS THRU OUT, OCC PYR, OCC HRD SHRP CHRT, NO VIS STAIN, NO ODOR, SM HL FRAC POR, TR VUG POR, TR XLN POR, SM DULL YELL FLOR, NO VIS CUT, NO RES RING, SH: GY, LT GY, OCC DK GY, TR RDSH BRN SH THRU OUT, MOD FRM TO FRM, SM MOD SFT, FN TXT, TR SLTY TXT, SM CALC SLTSTN, DULL LSTR, CHNKY, TR FLKY, NON CALC

LS: OFF WHT, SM LT TAN, SM CRM, OCC LT BRN, MOD SFT, MOD FRM, TR FRM, MSHY, V/FN XLN, OCC MICRO XLN, CHNKY, BLKY, FLKY, ARG IP, SM DOLO CMT, ARG CMT, OCC IMBD CRYPTO CHRT, OCC PYR INC, NO VIS STAIN, NO ODOR, SM HL FRAC POR, SM VUG POR, TR XLN POR, SM DULL YELL FLOR, NO VIS CUT, NO RES RING, SH: GY TO DK GY, OCC V/DK GY, BLK, MOD FRM TO FRM, SM MOD SFT, OCC SFT, FN TXT, SCT SLTY TXT, CARB IP, SCAT SLTSTN, DULL LSTR, SCT ERTHY LSTR, CHNKY, OCC BLKY, OCC SLI CALC, OCC PYR INC, OCC CALCITE FL, NO ODOR, OCC PR FRAC POR

BANDERA SH @ 5008'
MD (-2145')' TVD

PAWNEE @ 5014' MD
498(-2151')VD

LS: CRM, LT TAN, SM OFF WHT, OCC LT BRN, MOD FRM, SM MOD SFT, OCC BRTL, TR HD, V/FN TO FN XLN, TR MICRO XLN, BLKY, CHNKY, TR PLTY, SM DOLO CMT, SCAT ARG CMT, OCC HRD SHRP CHRT, SM LMY SLTSTN IP, OCC DK BRN SPOT STAIN, NO ODOR, SM HL FRAC POR, SM VUG POR, TR XLN POR, SH: DRK GY, BLK, OCC LT GY, MOD FRM TO FRM, SM SFT, V/FN TXT, SM SLTY TXT, DULL TO ERTHY LSTR, BLKY, SM PLTY, OCC PYR INC, SM CARB, SM DULL YELL FLOR, NO VIS CUT, NO RES RING

(-2180')

FT SCOTT @ 5052'
MD 5015' TVD

GEL 4/16
WL 6.2
CK 1
SOL 6.0%
WTR 85.7%
OIL 8.0%
CHL 2900
CAL 120
LCM 6#

TRIP GAS 1673 UNITS

KD

MWT 9.0
VIS 53
LCM 7#

FM GAS 1708 UNITS

-300 McCOY :: WHITAKER-SCHWAB 1H-8X 2700

FM GAS 1721 UNITS

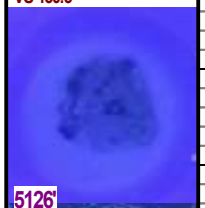
BYPASS SHAKER

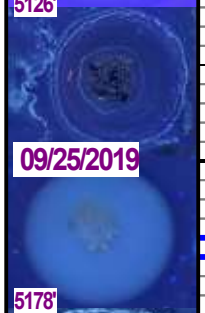
KD

SPM- 68/67
GPM- 564

MD 5072 TVD 5031.07
INC 38.97 AZ 5.14
N 133.03 E -98.4
VS 130.57

MD 5104 TVD 5056.08
INC 38.24 AZ 4.37
N 152.93 E -96.75
VS 150.5





MD 5198 TVD 5127.68
INC 44.79 AZ 4.93
N 213.54 E -92.04

0 ROP (min/ft) 5

5100

5150

5200

(-2192')

CHEROKEE SHALE @
5068' MD 5027' TVD

LS: CRM, LT TAN, SM OFF WHT, SCAT BRN MOTT, MOD FRM, SM MOD SFT, SM BRTL, V/FN TO SM FN XLN, BLKY, CHNKY, TR PLTY, SM DOLO CMT, SCAT ARG CMT, OCC HRD SHRP CHRT, TR BRKN CRIN, INCRSNG LMY SLTSTN IP, NO STAIN, NO ODOR, SM HL FRAC POR, TR VUG POR, TR XLN POR, SH: DRK GY, BLK, SM LT GY, MOD FRM TO FRM, SM SFT, V/FN TXT, SM SLTY TXT, DULL TO ERTHY LSTR, BLKY, SM PLTY, OCC PYR INC, SM CARB, SM DULL YELL FLOR, NONE TO SLO WK YEL CUT AFTER CRSH, THN WK SPTTY PALE YEL RES RING

SECOND CHEROKEE @
5120' MD 5069' TVD

(-2234')

SH: GY TO DK GY, SCAT V/DK GY TO BLK, TR TO OCC LT TO V/LT GY MOTT, MSTLY MOD FRM, OCC FRM, BRTL, V/FN TXT, OCC SMTH TXT, DULL LSTR, PLTY, TR BLKY, OCC TO TR SLTY IP, TR CALC, TR CARB, OCC MIN PYR INC., SM LAM/ INTRBD LS: LT TO V/LT CRM, SCAT CRM, SCAT LT GY MOTT, OCC DK GY TO BLK STRKS/ STRI, OCC BRNSH/GY MOTT, FRM, TR MOD FRM, BRTL, MSTLY MICRO XLN, OCC FN XLN, PLTY, OCC FLKY, SM ARG, OCC CLYST, TR DOLC CMT, OCC OPQ/TANSH SHRP ANG CHRT, OCC OOLTC W/TR DEFORM, OCC FOSUS W/FN CALCITE MTX OCC SLTY, NO VIS STAIN, NO ODOR, OCC MOLDC POR, SCAT HAIRLINE TO FN FRAC, OCC V/DULL YEL FLOR, OCC DULL STRW FLOR, TR WK MLKY WHT CUT W/10% HCL, LRG MOD FR SPTTY PALE YEL RES RING

THIRD CHEROKEE @
5195' MD 5126' TVD

(-2291')

LS: CRM TO DK CRM, TR TANSH, SCAT LT GY TO GY MOTT, OCC BUFF, OCC OFF WHT TO V/LT CRM, OCC DK TAN, MSTLY MOD FRM, OCC V/FRM, BRTL, OCC MSHY, MSTLY MICRO XLN, OCC TO TR V/FN XLN, OCC SLI SUC TXT, PLTY, TR BLKY, OCC CHNKY, SM TO

MWT 9.0
VIS 60
LCM 6#

FM GAS 2070
UNITS

KD

-300 McCOY :: WHITAKER-SCHWAB III 6X 2700

FM GAS 2224
UNITS

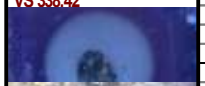
MD 5229 TVD 5148.85
INC 49.02 AZ 4.14
N 236.1 E -90.25
VS 233.81

MD 5260 TVD 5168.27
INC 53.4 AZ 4.97
N 260.18 E -88.33

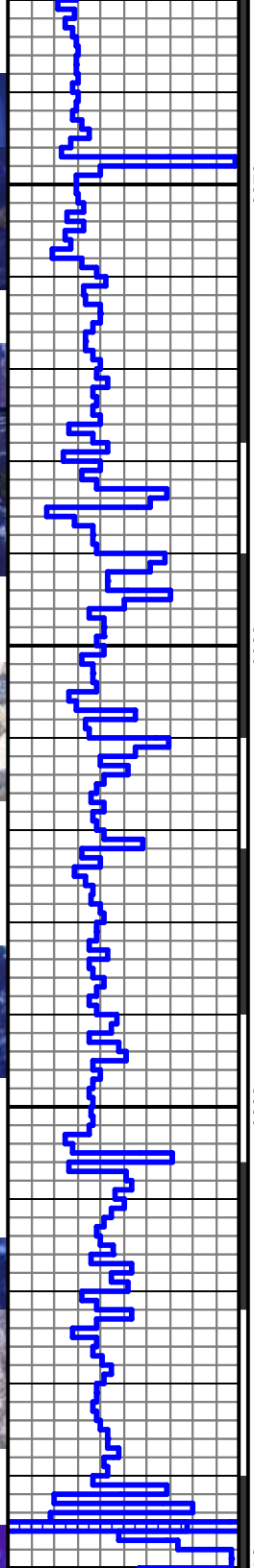
MD 5292 TVD 5186.59
INC 56.75 AZ 5.51
N 286.3 E -85.93
VS 284.1

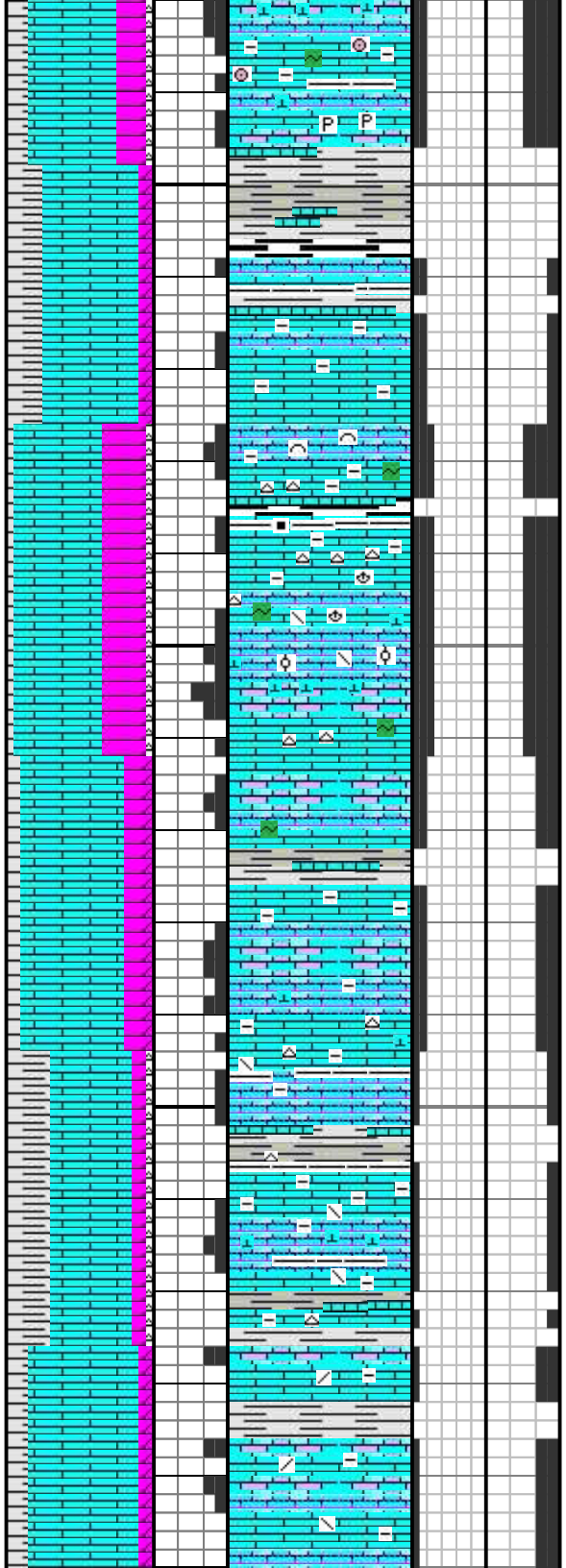
MD 5323 TVD 5202.85
INC 59.96 AZ 6.2
N 312.55 E -83.24
VS 310.41

MD 5355 TVD 5218.14
INC 62.94 AZ 6.16
N 340.49 E -80.21
VS 338.42



MD 5386 TVD 5231.71
INC 65.16 AZ 6.81
N 368.19 E -77.07
VS 366.18

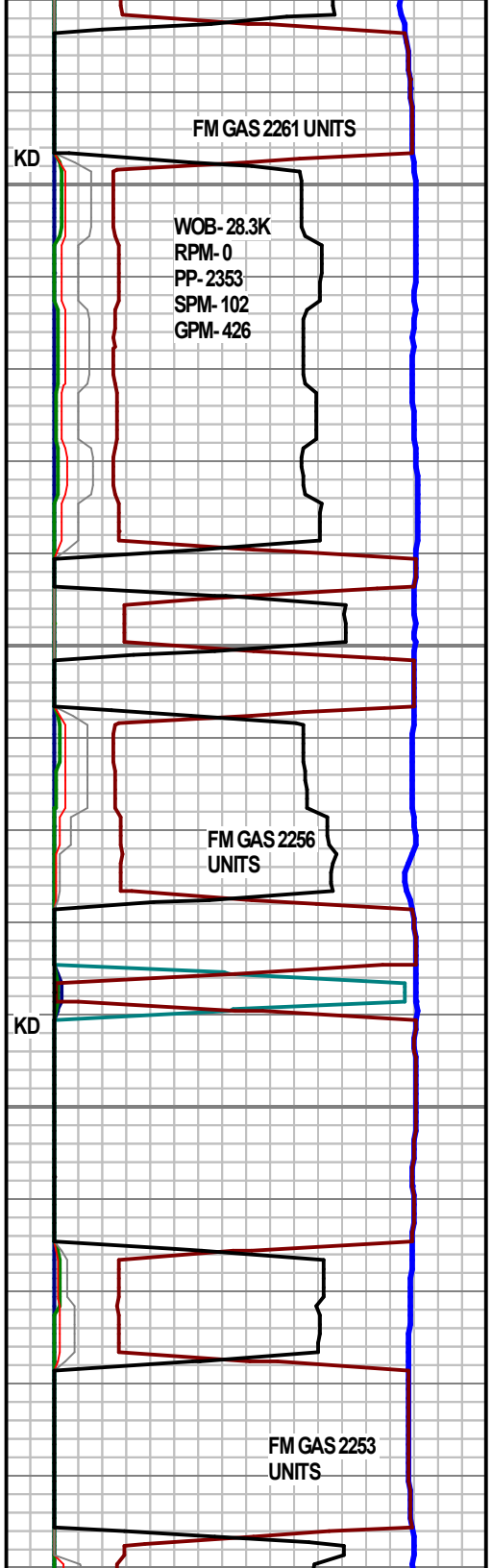




ABNDNT ARG, TR MRLY IP, SCAT DOLC CMT, OCC INTRBD DOLO, TR TANSH/OPQ HRD SHRP ANG CHRT, OCC ANHED CALCITE FL, OCC MIN PYR INC., OCC GLAUC, OCC WSPY SH PRTINGS, TR FOSUS W/CRIN FRAGS IN V/FN ARG MTX, NO VIS STAIN, NO ODOR, OCC PP POR, OCC XLN POR, TR FN FRAC W/OCC DISS, SM LAM SH: LT GY TO GY, SCAT DK GY, TR BLK, MOD FRM, BRTL, V/FN TO SMTH TXT, DULL LSTR, PLTY, NON CALC, TR SLTY IP, SCAT CARB, TR PYR INC., TR DULL YEL TO V/DULL YEL FLOR, OCC DULL STRW FLOR, TR WK TO MOD FR V/SLO STRMNG STRW/WHT CUT, LRG MOD FR SPTTY PALE YEL RES RING

LS: OFF WHT TO V/LT CRM, SCAT LT CRM, SCAT CRM, TR TAN TO DK TAN MOTT, OCC LT TO V/LT GY STRKS, MOD FRM, TR FRM, BRTL, OCC CRMBLY, V/FN TO TR FN XLN, SCAT MICRO XLN, OCC SLI SUC TXT, PLTY, TR CHNKY, OCC BLKY, TR ARG, SM DOLC CMT, SCAT TO TR INTRBD DOLO, OCC CLY INFLL, TR ANHED CALCITE FL W/OCC LRG, OCC GLAUC, OCC SMKY TO WHT SHRP ANG CHRT, TR FOSUS W/BRACH, OCC OOLT, OCC DK BRN SPOT STAIN ALONG FRAC/PP POR, NO ODOR, SCAT HAIRLINE TO FN FRAC, TR XLN POR, OCC PP POR, OCC THN BDD BLK CARB SH, TR DULL PALE YEL TO DULL STRW FLOR, FR MLKY STRW/WHT CUT W/10% HCL, FR HVY THN PALE YEL RES RING

LS: LT TO V/LT GY, OCC GY, TR TO SCAT LT CRM, OCC CRM TO BUFF, MOD FRM, SM MOD SFT, SCAT CRMBLY, V/FN XLN, SM TO SCAT MICRO XLN, PLTY, SCAT BLKY, SM ARG, TR MRLY IP, INCRSE DOLC CMT, OCC ANHED CALCITE FL, TR GILS ALONG FRAC, TR TO SCAT WISPY SH PRTNGS, NO VIS STAIN, NO ODOR, SCAT HAIRLINE FRAC, TR XLN POR, SM LAM SH: GY TO SCAT LT GY, OCC DK TO V/DK GY, MOD SFT, TR MSHY, V/FN TXT, DULL LSTR, PLTY, TR CHNKY, NON CALC, SCAT SLTY IP, OCC MICRO MICA, TR TO OCC DULL YEL TO DULL PALE YEL FLOR, TR WK TO V/WK MLKY STRW/WHT CUT, @ BASE FR STRW W/10% HCL, THIN WHT RES RING

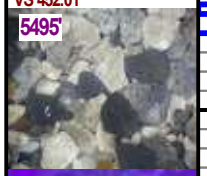


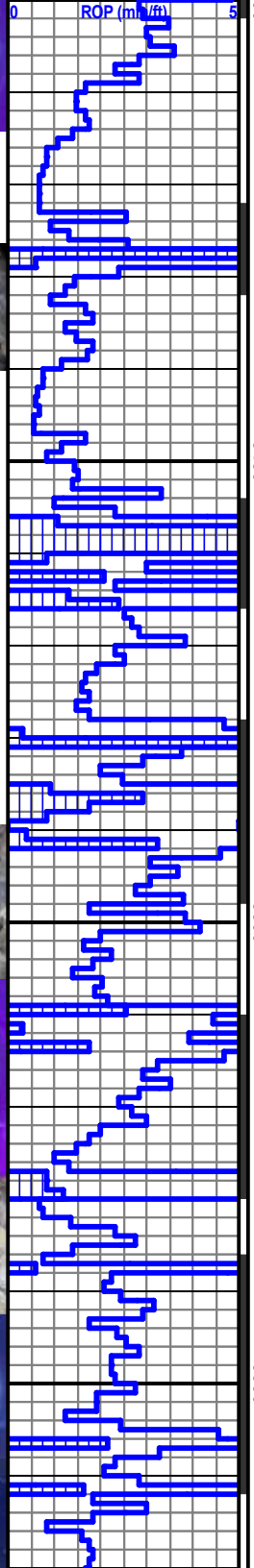
MD 5417 TVD 5244.4
INC 66.49 AZ 6.43
N 396.28 E -73.81
VS 394.34

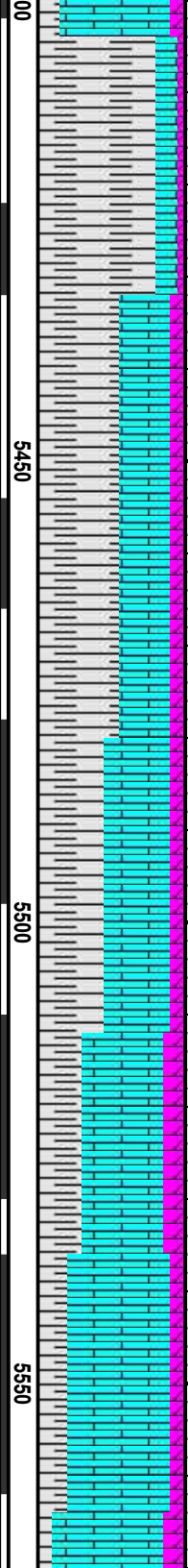
MD 5449 TVD 5257.15
INC 66.55 AZ 6.76
N 425.43 E -70.43
VS 423.57

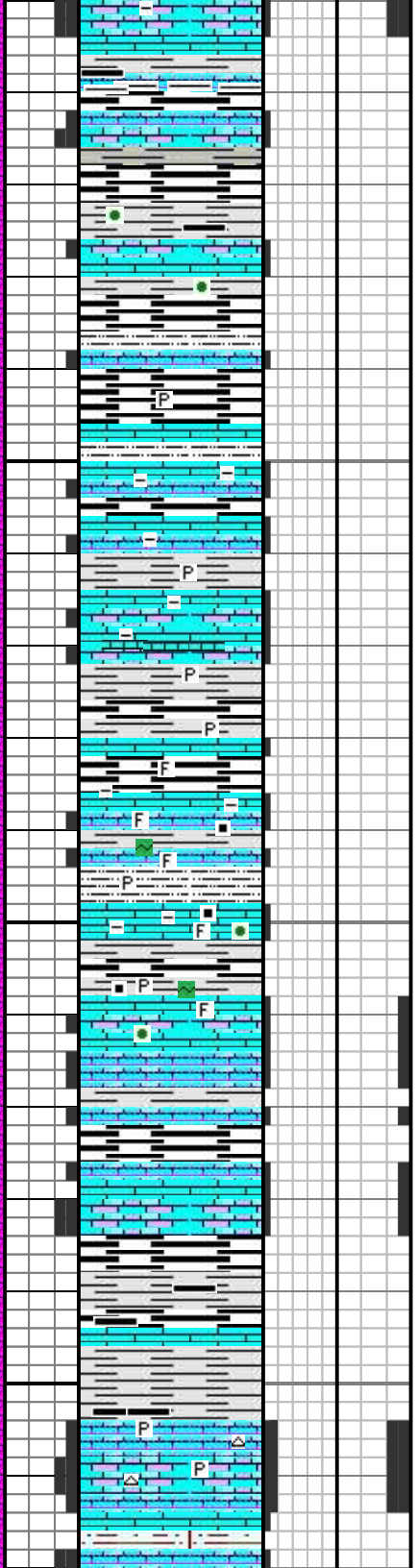
WOB- 21.4K
RPM- 15
PP- 2513
SPM- 102
GPM- 448

MD 5480 TVD 5269.17
INC 67.83 AZ 7.37
N 453.79 E -66.92
VS 452.01









ATOKA @
5415' MD (-2409') 5244' TVD

SH: DK GY, BLK, TR LT GY, MOD FRM, OCC MOD SFT, V/FN TO FN TXT, SM SLTY TXT IP, DULL LSTR, OCC ERTHY LSTR, CHNKY, SM PLTY, OCC PYR INC, SCAT CARB, OCC FN RNDD QRTZ GRNS, NO VIS STAIN, NO ODOR, LS: CRM TO LT TAN, SM OFF WHT, OCC GY, MOD FRM, SM FRM, OCC BRTL, V/FN XLN, BLKY , BRKN, OCC PLTY, SM DOLO CMT, OCC ARG CMT, NO VIS STAIN, NO ODOR, SM HL FRAC POR, SM VUG POR, OCC XLN POR, OCC YEL FLOR, NO VIS CUT, NO RES RING

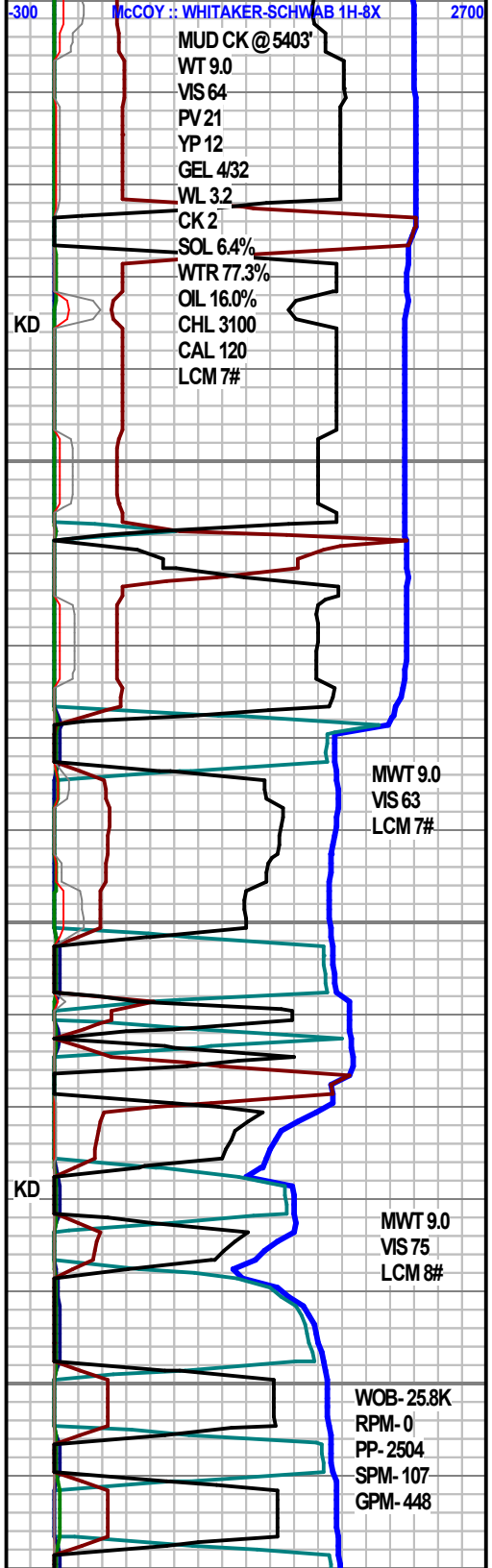
SH: GY, DK GY, BLK, OCC LT GY, MOD FRM TO FRM, SM MOD SFT, V/FN TXT, SM SLTY TXT, DULL TO ERTHY LSTR, CHNKY, SM PLTY, OCC PYR INC, SM CARB, NO VIS STAIN, NO ODOR, LS: CRM, LT TAN, SM OFF WHT, LT GY, MOD FRM, SM FRM, OCC BRTL, V/FN XLN, SM MICRO XLN, BLKY, CHNKY, OCC PLTY, SM DOLO CMT, SM ARG CMT, NO VIS STAIN, NO ODOR, SM HL FRAC POR, SM VUG POR, OCC XLN POR, OCC DULL PALE YEL FLOR, NO VIS CUT, NO RES RING

SH: GY, SM LT GY, BLK, OCC GY, MOD FRM, TR FRM, SM MOD SFT, V/FN TXT, SM SLTY TXT, DULL LSTR, CHNKY, SM PLTY, OCC PYR INC, SM CARB, TR GLAUC, OCC FN RNDD QRTZ GRNS, NO VIS STAIN, NO ODOR, LS: CRM, LT TAN, SM TAN, LT GY, MOD FRM, SM FRM, OCC BRTL, V/FN XLN, SM MICRO XLN, BLKY, CHNKY, OCC PLTY, SM DOLO CMT, SM ARG CMT, NO VIS STAIN, NO ODOR, SM HL FRAC POR, TR VUG POR, OCC XLN POR, SCAT DULL PALE YEL FLOR, SLO WK STRW CUT W/ 10% HCL, THIN STRW RES RING

MORROW SHALE @ 5522' MD
(-2449') TVD

CHESTER @ 5554' MD
5292' (-2457')

LS: CRM, LT TAN, SM LT GY/TAN, OCC LT GY, SM LT BRN MOTT, FRM, SM MOD SFT, MOD HRD, OCC V/FRM, BRTL, V/FN XLN, TR MICRO XLN, BLKY, CHNKY, SM BRKN, OCC PLTY, SM DOLO CMT, TR FN DOLO RHOMBS INCLS, TR SM FOSS FRAGS INCLS, TR LMY



MD 5574 TVD 5297.15
INC 77.29 AZ 5.26
N 542.82 E -56.68
VS 541.26

09/26/2019

5618'

5630'

5644'

5656'

5680'

5702'

5723'

09/27/2019

MD 5734 TVD 5315.17
INC 88.34 AZ 8.26

0 ROP (min/ft) 5

FR STRMNG CUT

5600

5650

5700

SLTSTN, TR GLAUC, SCAT TRANSL SHRP ANG CHRT, SM BRN SPOT STAIN IP, NO ODOR, SM PP POR, SM VUG POR, TR XLN POR, SH: DRK GY TO BLK, SM GRN/GY, OCC LT GY, MOD FRM, SM SFT, V/FN TXT, SM SLTY TXT IP, ERTHY LSTR, CHNKY, SM FISS, OCC PYR INC, SCAT THIN CARB LAM, SCAT DULL YEL FLOR, FR MILKY BLU/WHT CUT, FR YEL RES RING

LS: CRM TO V/LT CRM, SCAT OFF WHT, OCC TAN TO BRN MOTT, TR TO OCC LT GY MOTT, FRM TO MOD FRM, BRTL, V/FN TO SCAT FN XLN, SCAT MICRO XLN, PLTY, TR BLKY, DECRSE ARG, TR TO SCAT DOLC CMT, TR INTRBD DOLO, TR ANHED CALCITE FL, OCC EUHED DRSY CALCITE, OCC GLAUC, OCC MIN PYR INC., TR FOSS FRAGS W/CRIN, TR OOLTC W/OCC FN SUC DOLC MTX, OCC SHRP ANG SPIC CHRT, TR BRN TO V/DK BRN/BLK SPOT STAIN, NO ODOR, SCAT XLN POR, TR MOLDC POR, SCAT HAIRLINE TO STYLC FRAC, TR DULL YEL TO DULL DK YEL FLOR, WK TO MOD FR MLKY STRW/WHT CUT W/10% HCL, FR LRG SPTTY HVY PALE YEL RES RING

SH: GY TO LT GY, SCAT DK TO V/DK GY, OCC BLK, SCAT V/LT GY, MOD FRM, TR MOD SFT, MSTLY BRTL, V/FN TO SLTY TXT, TR AREN, PLTY, SCAT CHNKY, TR CALC, SM SLTY IP, SCAT SLTST W/TR AREN, OCC PYR INC., TR CARB W/OCC FOSS DEBRIS, SM LAM LS: LT CRM TO OFF WHT, SCAT CRM, SM TO SCAT LT GY, TR DK GY MOTT, OCC BRN /BLK MOTT, FRM TO MOD FRM, BRTL, SCAT CRMBLY, FN TO V/FN XLN, OCC SUC TXT, PLTY, SM CHNKY, SCAT ARG, SM DOLC CMT, SCAT INTRBD DOLO, TR EUHED DRSY CALCITE, TR ANHED CALCITE FL, OCC IMBDD FN DOLO RHOMBS, OCC GLAUC, OCC MIN PYR INC., OCC SHRP ANG OPQ TO SMKY CHRT, SM FOSUS W/CRIN W/TR SPRRY CALCITE MTX, SCAT OOLTC, SCAT BRN TO TR V/DK BRN/BLK SPOT STAIN, TR WK ODOR, SM MOLDC POR, TR PP POR, SCAT XLN POR, SCAT TO TR DULL YEL TO DULL DK YEL FLOR, SCAT FR TO GD IMMD STRMNG STRW CUT, FR HVY LRGYEL RES RING

DRILLER'S TD FOR 7" CASING @ 5723' MD 5714' TVD ON 09/26/2019

-300 McCOY :: WHITAKER-SCHWAB 1-H-8X 2700

KD

MUD CK @ 5723'
WT 9.2
VIS 60
PV 18
YP 12
GEL 8/18
WL 4.8
CK 2
SOL 7.5%
WTR 80.2%
OIL 12.0%
PH 10.2
CHL 3200
CAL 120
LCM 6#

KD

Scale Change

WOB- 13.2K
RPM- 41
PP- 1538
SPM- 76
GPM- 221

N 700.59 E -39.36
VS 699.41

MD 5764 TVD 5315.48
INC 90.46 AZ 8.34
N 730.27 E -35.03
VS 729.19

MD 5795 TVD 5314.7
INC 92.43 AZ 7.55
N 760.96 E -30.75
VS 759.97

MD 5826 TVD 5313.26
INC 92.9 AZ 7.2
N 791.67 E -26.77
VS 790.77

MD 5857 TVD 5311.67
INC 92.99 AZ 7.18
N 822.39 E -22.89
VS 821.57

WOB- 18.7K
RPM- 53
PP- 1935
SPM- 85
GPM- 248

MD 5888 TVD 5309.97
INC 93.27 AZ 7.04
N 853.1 E -19.06
VS 852.37

0 ROP (min/ft) 5

5750
5800
5850
5900

DRILLING W/ BIT #6 : 6.125" : HAL : MMD64C ; 12897780 : 3X12'S & 3X20'S: IN @ 5723'

LS: CRM, LT TAN, OCC LT BRN, OCC OFF WHT, TR WHT, OCC TRNSL, MOD FRM TO FRM, OCC V/FRM, OCC BRTL, V/FN TO FN XLN, OCC MICRO XLN, BLKY, CHNKY, OCC PLTY, SM DOLO CMT, OCC ARG CMT, TR GY LMY SLTSTN, OCC CRIN, TR SID, OCC CHRT, SM PYR, SCAT RNDD QRTZ GRNS THRU OUT, SM SCALE IP, TR BRN SPOT STAIN, FNT ODOR, SM HL FRAC POR, SM VUG POR, TR XLN POR, SH: DRK GY TO BLK, OCC LT GY TO GY, MOD FRM, SM SFT, OCC BRTL, V/FN TXT, SM SLTY TXT, DULL TO ERTHY LSTR, CHNKY, SM PLTY, OCC PYR INC, NO VIS STAIN, NO ODOR, SM PALE TO TR BRI YELL FLOR, FR MLKY LT BLUE CUT W/ 10% HCL, LRG LT BLUE RES RING

MWT 9.1
VIS 44
LCM 2#

KD

CONN GAS 439 UNITS

WOB- 11.2K
RPM- 0
PP- 1682
SPM- 87
GPM- 253

-60 McCOY :: WHITAKER-SCHWAB 1H-8X 540

NO SAMPLE CAUGHT

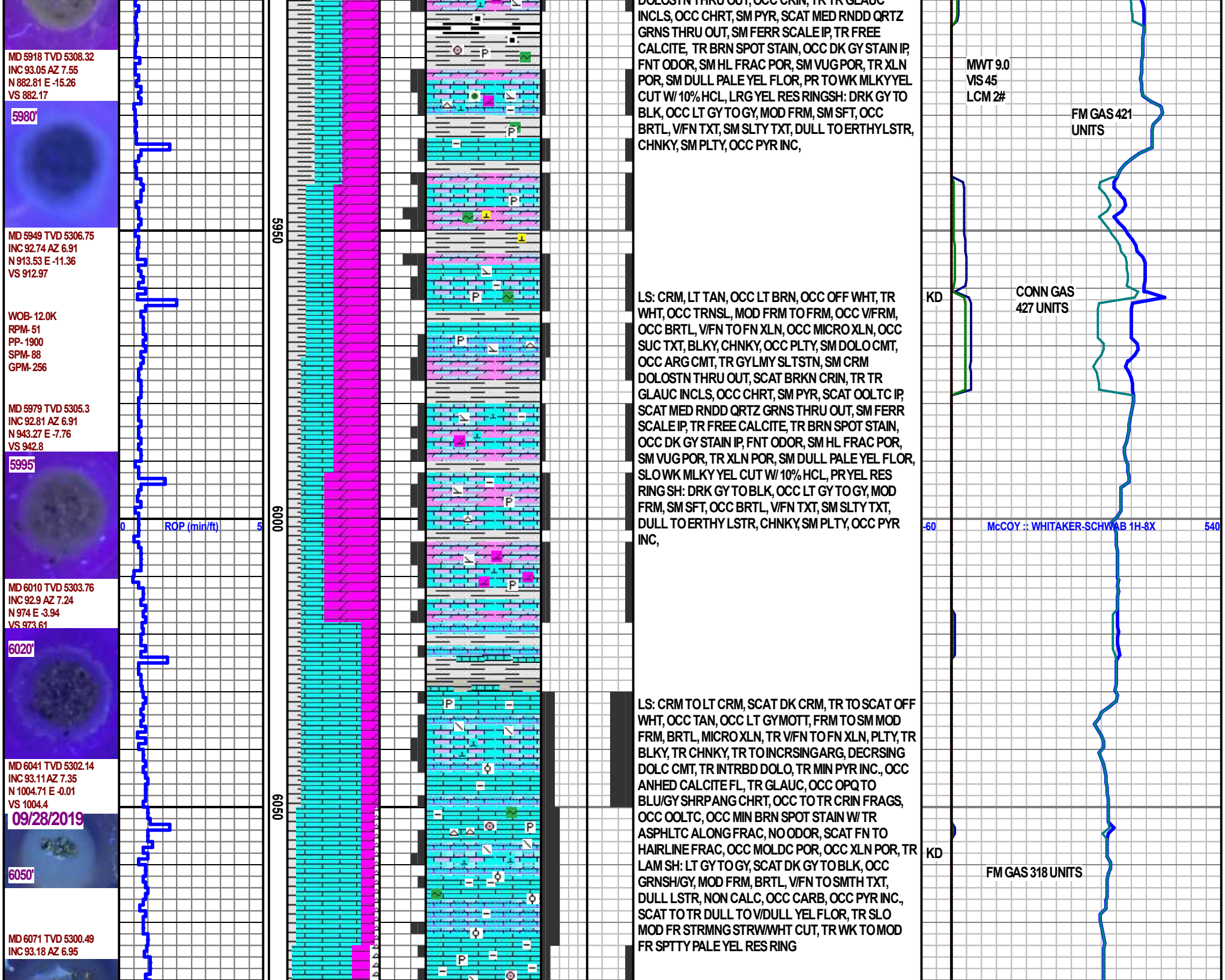
LS: CRM, LT TAN, OCC LT BRN, OCC OFF WHT, TR WHT, OCC TRNSL, MOD FRM TO FRM, OCC V/FRM, OCC BRTL, V/FN TO FN XLN, OCC MICRO XLN, BLKY, CHNKY, OCC PLTY, SM DOLO CMT, OCC ARG CMT, TR GY LMY SLTSTN, OCC CRIN, TR SID, OCC CHRT, SM PYR, SCAT RNDD QRTZ GRNS THRU OUT, SM SCALE IP, TR BRN SPOT STAIN, FNT ODOR, SM HL FRAC POR, SM VUG POR, TR XLN POR, SH: DRK GY TO BLK, OCC LT GY TO GY, MOD FRM, SM SFT, OCC BRTL, V/FN TXT, SM SLTY TXT, DULL TO ERTHY LSTR, CHNKY, SM PLTY, OCC PYR INC, NO VIS STAIN, NO ODOR, SM PALE TO TR BRI YELL FLOR, FR MLKY LT BLUE CUT W/ 10% HCL, LRG LT BLUE RES RING

KD

CONN GAS 450 UNITS

FM GAS 450 UNITS

LS: CRM, LT TAN, OCC LT BRN, OCC OFF WHT, TR WHT, OCC TRNSL, MOD FRM TO FRM, OCC V/FRM, OCC BRTL, V/FN TO FN XLN, OCC MICRO XLN, OCC SUC TXT, BLKY, CHNKY, OCC PLTY, SM DOLO CMT, OCC ARG CMT, TR GY LMY SLTSTN, SM CRM


MD 5918 TVD 5308.32
INC 93.05 AZ 7.55
N 882.81 E -15.26
VS 882.17
5980'
MD 5949 TVD 5306.75
INC 92.74 AZ 6.91
N 913.53 E -11.36
VS 912.97
WOB- 12.0K
RPM- 51
PP- 1900
SPM- 88
GPM- 256
MD 5979 TVD 5305.3
INC 92.81 AZ 6.91
N 943.27 E -7.76
VS 942.8
5995'
0
ROP (min/ft)
5
MD 6010 TVD 5303.76
INC 92.9 AZ 7.24
N 974 E -3.94
VS 973.61
6020'
MD 6041 TVD 5302.14
INC 93.11 AZ 7.35
N 1004.71 E -0.01
VS 1004.4
09/28/2019
6050'
MD 6071 TVD 5300.49
INC 93.18 AZ 6.95
5950
6000
6050
DOLOSTN THRU OUT, OCC CRIN, TR TR GLAUC INCLS, OCC CHRT, SM PYR, SCAT MED RNDD QRTZ GRNS THRU OUT, SM FERR SCALE IP, TR FREE CALCITE, TR BRN SPOT STAIN, OCC DK GY STAIN IP, FNT ODOR, SM HL FRAC POR, SM VUG POR, TR XLN POR, SM DULL PALE YEL FLOR, PR TO WK MLKY YEL CUT W/ 10% HCL, LRG YEL RES RINGSH: DRK GY TO BLK, OCC LT GY TO GY, MOD FRM, SM SFT, OCC BRTL, V/FN TXT, SM SLTY TXT, DULL TO ERTHY LSTR, CHNKY, SM PLTY, OCC PYR INC,
LS: CRM, LT TAN, OCC LT BRN, OCC OFF WHT, TR WHT, OCC TRNSL, MOD FRM TO FRM, OCC V/FRM, OCC BRTL, V/FN TO FN XLN, OCC MICRO XLN, OCC SUC TXT, BLKY, CHNKY, OCC PLTY, SM DOLO CMT, OCC ARG CMT, TR GY LMY SLTSTN, SM CRM DOLOSTN THRU OUT, SCAT BRKN CRIN, TR TR GLAUC INCLS, OCC CHRT, SM PYR, SCAT OOLTC IP, SCAT MED RNDD QRTZ GRNS THRU OUT, SM FERR SCALE IP, TR FREE CALCITE, TR BRN SPOT STAIN, OCC DK GY STAIN IP, FNT ODOR, SM HL FRAC POR, SM VUG POR, TR XLN POR, SM DULL PALE YEL FLOR, SLO WK MLKY YEL CUT W/ 10% HCL, PR YEL RES RING SH: DRK GY TO BLK, OCC LT GY TO GY, MOD FRM, SM SFT, OCC BRTL, V/FN TXT, SM SLTY TXT, DULL TO ERTHY LSTR, CHNKY, SM PLTY, OCC PYR INC,
LS: CRM TO LT CRM, SCAT DK CRM, TR TO SCAT OFF WHT, OCC TAN, OCC LT GY MOTT, FRM TO SM MOD FRM, BRTL, MICRO XLN, TR V/FN TO FN XLN, PLTY, TR BLKY, TR CHNKY, TR TO INCRSING ARG, DECRSING DOLC CMT, TR INTRBD DOLO, TR MIN PYR INC., OCC ANHED CALCITE FL, TR GLAUC, OCC OPQ TO BLU/GY SHRP ANG CHRT, OCC TO TR CRIN FRAGS, OCC OOLTC, OCC MIN BRN SPOT STAIN W/ TR ASPHLTC ALONG FRAC, NO ODOR, SCAT FN TO HAIRLINE FRAC, OCC MOLDC POR, OCC XLN POR, TR LAM SH: LT GY TO GY, SCAT DK GY TO BLK, OCC GRNSH/GY, MOD FRM, BRTL, V/FN TO SMTH TXT, DULL LSTR, NON CALC, OCC CARB, OCC PYR INC., SCAT TO TR DULL TO V/DULL YEL FLOR, TR SLO MOD FR STRMNG STRW/WHT CUT, TR WK TO MOD FR SPTTY PALE YEL RES RING
MWT 9.0
VIS 45
LCM 2#
FM GAS 421 UNITS
KD
CONN GAS 427 UNITS
-60
McCOY :: WHITAKER-SCHWAB 1H-8X
540
KD
FM GAS 318 UNITS

6096'

MD 6102 TVD 5298.65
INC 93.64 AZ 7.71
N 1065.12 E 7.66
VS 1064.99

6144'

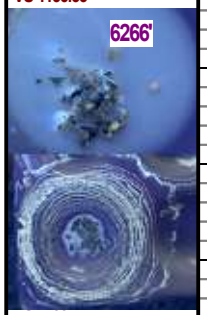
MD 6132 TVD 5296.8
INC 93.42 AZ 7.12
N 1094.81 E 11.53
VS 1094.77

6176'

MD 6164 TVD 5294.85
INC 93.59 AZ 7.29
N 1126.5 E 15.53
VS 1126.54

6176'

MD 6194 TVD 5292.94
INC 93.71 AZ 7.07
N 1156.21 E 19.27
VS 1156.33



6266'

WOB- 18.8K
RPM- 0
PP- 1539

0 ROP (min/ft) 5

6100

6150

6200

LS: CRM TO LT CRM, SM V/LT CRM, TR OFF WHT, OCC WHT, OCC V/LT GYSH, MOD FRM, MSTLY BRTL, SCAT CRMBLY, FN XLN, SCAT MICRO XLN, PLTY, SCAT CHNKY, TR ARG, SM DOLC CMT, INCRSE INTRBD DOLO, TR MED EUHED DRSY CALCITE, TR PYR INC., OCC SMKY SHRP ANG CHRT, TR CRIN FRAGS, OCC FOSS DEBRIS, NO VIS STAIN, NO ODOR, SCAT XLN POR, TR PP TO VUG POR, OCC FRAC, INCRSING SH: LT TO V/LT GY, OCC GRNSH/GY, TR TO OCC DK GY TO BLK, MOD SFT, SCAT MOD FRM, SM BRTL, V/FN TO SM SMTH TXT, TR SLTY IP, DULL LSTR, NON CALC, OCC SLI CARB, OCC FERR SCALE, OCC SLTST, TR TO OCC DULL YEL FLOR, TR DULL DK YEL FLOR, FAINT TO V/FAINT MLKY WHT CUT W/10% HCL, WK LRG SPTTY PALE YEL RES RING

LS: V/LT CRM, SM LT CRM, SCAT CRM, TR OFF WHT, OCC OPQ TO TRNSL, MOD FRM, BRTL, FN TO V/FN XLN, SCAT MICRO XLN, PLTY, OCC BLKY, OCC FLKY, SCAT ARG, SM DOLC CMT, TR TO INCRSING INTRBD DOLO, TR MIN PYR INC., TR OPQ TO SMKY BLU/GY SHRP ANG CHRT, OCC SUB RND FN L TO OCC MED L OPQ QRTZ GRNS W/OCC GIL CTG, OCC CRIN FRAGS, TR FOSS FRAGS W/BRACH, OCC HVY BLK SPOT STAIN, NO ODOR, TR TO SCAT XLN POR, TR HAIRLINE FRAC, OCC MOLDC POR, SCAT LAM SH: LT TO V/LT GY, SM V/PALE GRN, OCC DK GY, MOD SFT, TR MOD FRM, SMTH TXT, OCC V/FN TXT, DULL LSTR, PLTY, OCC SPLTY, OCC CHNKY, OCC PYR INC., SCAT DULL DK YEL FLOR, NO TO FAINT MLKY STRW/WHT CUT, FAINT SPTTY RES RING

LS: CRM TO LT CRM, SCAT DK CRM, TR TO SCAT OFF WHT, OCC TAN, OCC LT GY MOTT, FRM TO SM MOD FRM, BRTL, MICRO XLN, TR V/FN TO FN XLN, PLTY, TR BLKY, TR CHNKY, TR TO INCRSING ARG, SCAT DOLC CMT, TR INTRBD DOLO, TR MIN PYR INC., OCC ANHED CALCITE FL, OCC BLU/GY SHRP ANG CHRT, CRIN FRAGS, OCC OOLTC, OCC MIN BRN SPOT STAIN W/

KD

CON GAS 316 UNITS

-60 McCOY :: WHITAKER-SCHWAB 1H-8X 540

FM GAS 292 UNITS

KD

FM GAS 287 UNITS

6266'

MD 6257 TVD 5289.25
INC 92.16 AZ 6.28
N 1218.65 E 26.75
VS 1218.94

WOB- 21.1K
RPM- 51
PP- 1856
SPM- 85
GPM- 248

MD 6288 TVD 5287.96
INC 92.62 AZ 5.73
N 1249.45 E 29.99
VS 1249.81

6338'

MD 6320 TVD 5286.71
INC 91.85 AZ 5.46
N 1281.27 E 33.11
VS 1281.7

6362'

6362'

MD 6382 TVD 5285.81
INC 90.06 AZ 4.14
N 1343.03 E 38.45

6402'

MD 6414 TVD 5285.73
INC 90.25 AZ 4.34

6250

6300

6350

6400

ROP (min/ft)

TR ASPHLTC ALONG POR, NO ODOR, TR HAIRLINE FRAC, TR TO SCAT MOLDC POR, OCC XLN POR, TR LAM SH: LT GY TO GY, OCC GRNSH/GY, MOD FRM, BRTL, V/FN TO SMTH TXT, DULL LSTR, NON CALC, OCC PYR INC., TR DULL YEL FLOR, IMMD FR STRMNG PALE YEL CUT, WK LRG SPTTY STRW RES RING

NO SAMPLE CAUGHT

LS: LT TO V/LT CRM, SM OFF WHT, OCC V/LT GY, OCC LT GY, MOD SFT TO MOD FRM, SM TO SCAT CRMBLY, FN TO SM V/FN XLN, TR MICRO XLN, PLTY TO CHNKY, TR BLKY, SM DOLO CMT, SM TO SCAT INTRBD DOLO, TR LAM DOLO, TR ANHED CALCITE FL, OCC LRG EUHED DRSY CALCTE, OCC GLAUC, SCAT BIOCLST W/ CEPHL/OOLT/BRACH, TR CRIN FRAGS, OCC MIN PYR INC., SCAT DK BRN TO V/DK BRN SPOT STAIN, WK ODOR, SCAT TO SM XLN POR, SCAT MOLDC POR, OCC VUG POR, TR THN BDD SH: LT GY TO GY, OCC PALE GRN TO PALE GRN/GY, MOD FRM, BRTL, PLTY, NON CALC, OCC MIN PYR INC., SCAT V/DULL DK YEL FLOR, TR YEL FLOR, WK TO TR FR IMMD STRMNG PALE YEL STRMNG CUT, WK SPTTY STRW TO YEL RES RING

LS: CRM TO LT CRM, SCAT DK CRM, TR TO SCAT OFF WHT, OCC TAN, OCC BRN TO LT BRN MOTT, MOD FRM, TR FRM, BRTL, TR CRMBLY, MSTLY V/FN TO FN XLN, TR MICRO XLN, SCAT TO TR SUC TXT, PLTY, TR BLKY, TR CHNKY, TR TO OCC ARG, SM DOLC CMT, SCAT INTRBD DOLO, TR LAM DOLO, TR MED TO LRG EUHED DRSY CALCITE W/TR BRN OIL STAIN, OCC BLU/GY SHRP ANG CHRT W/TR GLAUC, TR CRIN FRAGS, OCC MIN BRN SPOT STAIN, NO ODOR, TR VUG TO FN VUG POR, SCAT MOLDC POR, TR XLN POR, TR LAM SH: LT GY TO GY, OCC GRNSH/GY, MOD FRM, BRTL, V/FN TO SMTH TXT, DULL LSTR, NON CALC, OCC PYR INC., TR SLTY IP, OCC SLTST W/TR AREN, OCC GLAUC, SCAT DULL DK YEL FLOR, TR TO OCC YEL FLOR, FR TO TR GD SLO STRMNG PALE YEL CUT, FR SPTTY YEL LRG RES RING

MWT 9.1
VIS 33

WOB- 21.5K
RPM- 53
PP- 1808
SPM- 85
GPM- 246

KD

-60

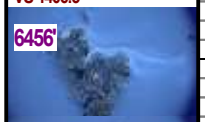
McCOY :: WHITAKER-SCHWAB 1H-8X

540

N 1374.95 E 40.81
VS 1375.53

6424'

MD 6445 TVD 5285.82
INC 89.41 AZ 3.57
N 1405.87 E 42.95
VS 1406.5



6456'

6488'

INC 89.23 AZ 3.81
N 1437.8 E 45.01
VS 1438.48

6488'

6530'

6550'

MD 6571 TVD 5286.75
INC 90.09 AZ 4.62
N 1531.55 E 51.91
VS 1532.36

6450

6500

6550

LS: SM V/LT CRM, SM OFF WHT, OCC BRN MOTT, TR TO OCC LT GY MOTT, FRM TO MOD FRM, BRTL, V/FN TO SM FN XLN, TR TO SCAT MICRO XLN, SCAT SUC TXT, PLTY, TR BLKY, TR ARG, SM TO SCAT DOLC CMT, SM INTRBD DOLO, TR ANHED CALCITE FL, TR EUHED DRSY CALCITE, TRT IMBDD DOLO RHOMBS, SCAT FOSS FRAGS W/CRIN, TR OOLTC W/OCC FN SUC DOLC MTX, TR BRN TO V/DK BRN/BLK SPOT STAIN, NO ODOR, SCAT XLN POR, SCAT MOLDC POR, TR VUG TO PP POR, TR LAM /THN BDD SH: LT TO V/LT GY, TR VPALE GRN, SCAT GY, MOD FRM, MSTLY BRTL, SMTH TXT, TR SLTY TXT, PLTY, TR CHNKY, NON CALC, OCC SLTST W/TR AREN, OCC MICRO MICA, SCAT V/DULL DK YEL TO TR DULL YEL FLOR, FR SLO STRMNG STRW/WHT CUT,

KD

CONN GAS
301 UNITS

MUD CK @6425'
WT 9.15
VIS 35
PV 7
YP 8GEL 3/7
WL 6.0
CK 2
SOL 6.6%
OIL 6.5%
WTR 86.6%
PH 9.6
CHL 2500
CAL 120
LCM 0.03#

MWT 9.2
VIS 34

LS: LT TAN, CRM, SCAT DK CRM, SCAT OFF WHT, OCC TAN, TR BRN TO LT BRN MOTT, MOD FRM, TR FRM, BRTL, TR CRMBLY, MSTLY V/FN TO SM FN XLN, SCAT MICRO XLN, TR SUC TXT, PLTY, TR BLKY, TR CHNKY, SM BRKN, OCC ARG, SM DOLC CMT, SCAT INTRBD DOLO, OCC LAM DOLO, TR MED TO LRG EUHED DRSY CALCITE W/TR BRN OIL STAIN, SCAT CRIN FRAGS, SM BRN SPOT STAIN IP, NO ODOR, TR VUG POR, SCAT MOLDC POR, TR XLN POR, TR LAM SH: LT GY TO GY, OCC GRNSH/GY, MOD FRM, BRTL, V/FN TO SMTH TXT, DULL LSTR, NON CALC, OCC PYR INC., TR SLTY IP, OCC SLTST W/TR AREN, OCC GLAUC, SCAT DULL DK YEL FLOR, TR YEL FLOR, FR TO PR MLKY BLU CUT, FR SPTTYYEL LRG RES RING

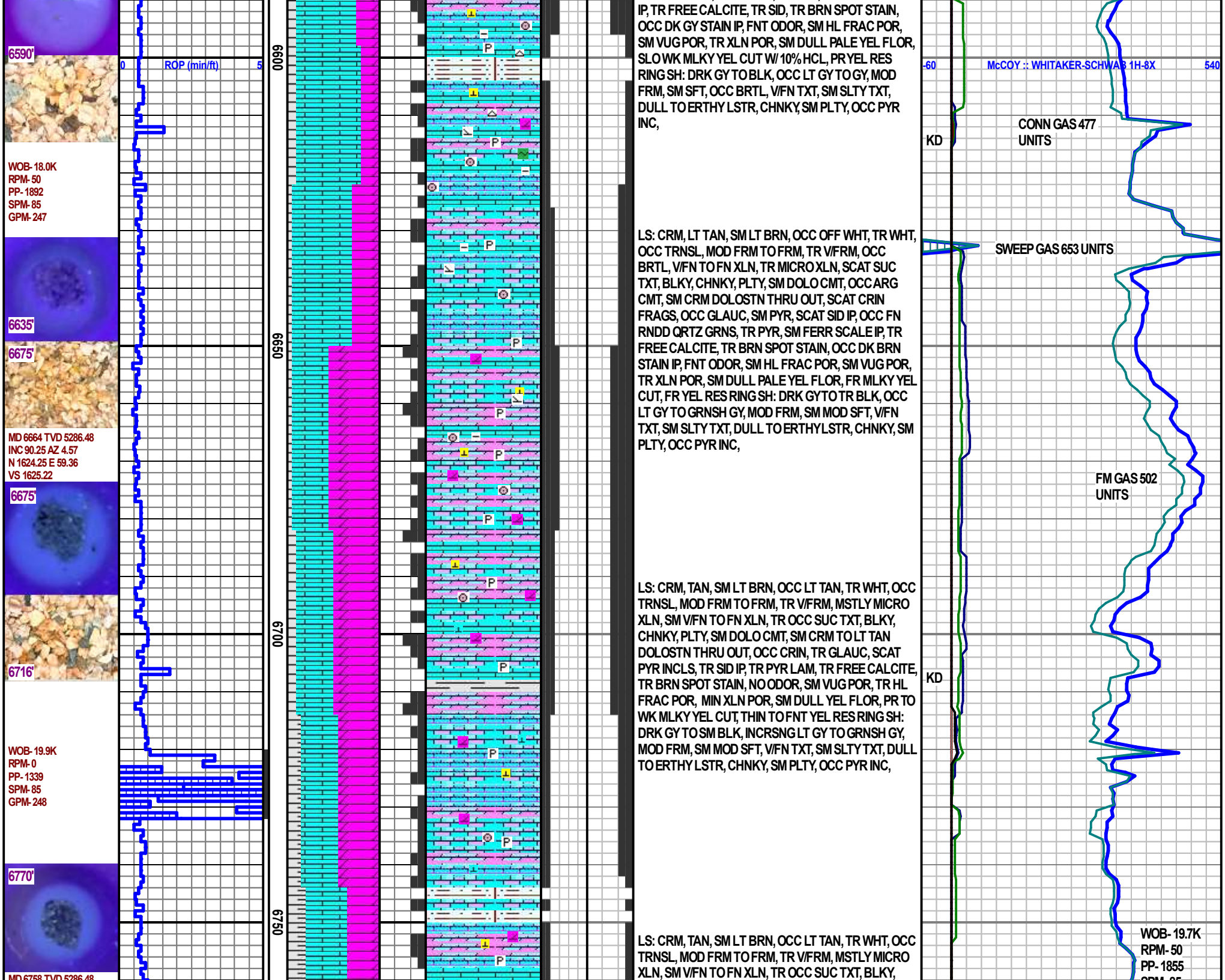
KD

CONN GAS 340 UNITS

WOB- 20.4K
RPM- 51
PP- 1833
SPM- 85
GPM- 248

LS: CRM, LT TAN, OCC LT BRN, OCC OFF WHT, TR WHT, OCC TRNSL, MOD FRM TO FRM, OCC V/FRM, OCC BRTL, V/FN TO FN XLN, OCC MICRO XLN, OCC SUC TXT, BLKY, CHNKY, OCC PLTY, SM DOLO CMT, OCC ARG CMT, TR GYLMY SLTSTN, SM CRM DOLOSTN THRU OUT, SCAT BRKN CRIN, TR TR GLAUC INCLS, OCC CHRT, SM PYR, SM FERR SCALE

MWT 9.1
VIS 34

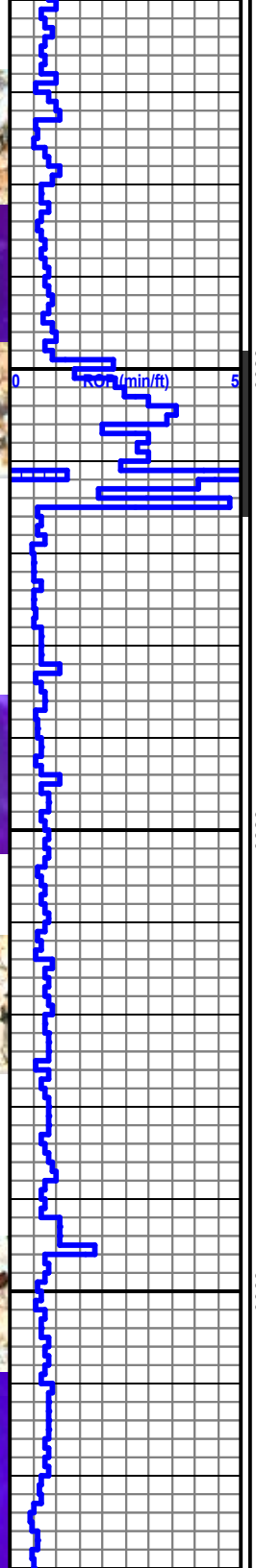

6590'
WOB- 18.0K
RPM- 50
PP- 1892
SPM- 85
GPM- 247
6635'
6675'
MD 6664 TVD 5286.48
INC 90.25 AZ 4.57
N 1624.25 E 59.36
VS 1625.22
6675'
6716'
WOB- 19.9K
RPM- 0
PP- 1339
SPM- 85
GPM- 248
6770'
MD 6758 TVD 5286.48
0
ROP (min/ft)
5
6600
6650
6700
6750
IP, TR FREE CALCITE, TR SID, TR BRN SPOT STAIN, OCC DK GY STAIN IP, FNT ODOR, SM HL FRAC POR, SM VUG POR, TR XLN POR, SM DULL PALE YEL FLOR, SLO WK MLKY YEL CUT W/ 10% HCL, PR YEL RES RING SH: DRK GY TO BLK, OCC LT GY TO GY, MOD FRM, SM SFT, OCC BRTL, V/FN TXT, SM SLTY TXT, DULL TO ERTHY LSTR, CHNKY, SM PLTY, OCC PYR INC,
LS: CRM, LT TAN, SM LT BRN, OCC OFF WHT, TR WHT, OCC TRNSL, MOD FRM TO FRM, TR V/FRM, OCC BRTL, V/FN TO FN XLN, TR MICRO XLN, SCAT SUC TXT, BLKY, CHNKY, PLTY, SM DOLO CMT, OCC ARG CMT, SM CRM DOLOSTN THRU OUT, SCAT CRIN FRAGS, OCC GLAUC, SM PYR, SCAT SID IP, OCC FN RNDD QRTZ GRNS, TR PYR, SM FERR SCALE IP, TR FREE CALCITE, TR BRN SPOT STAIN, OCC DK BRN STAIN IP, FNT ODOR, SM HL FRAC POR, SM VUG POR, TR XLN POR, SM DULL PALE YEL FLOR, FR MLKY YEL CUT, FR YEL RES RING SH: DRK GY TO TR BLK, OCC LT GY TO GRNSH GY, MOD FRM, SM MOD SFT, V/FN TXT, SM SLTY TXT, DULL TO ERTHY LSTR, CHNKY, SM PLTY, OCC PYR INC,
LS: CRM, TAN, SM LT BRN, OCC LT TAN, TR WHT, OCC TRNSL, MOD FRM TO FRM, TR V/FRM, MSTLY MICRO XLN, SM V/FN TO FN XLN, TR OCC SUC TXT, BLKY, CHNKY, PLTY, SM DOLO CMT, SM CRM TO LT TAN DOLOSTN THRU OUT, OCC CRIN, TR GLAUC, SCAT PYR INCLS, TR SID IP, TR PYR LAM, TR FREE CALCITE, TR BRN SPOT STAIN, NO ODOR, SM VUG POR, TR HL FRAC POR, MIN XLN POR, SM DULL YEL FLOR, PR TO WK MLKY YEL CUT, THIN TO FNT YEL RES RING SH: DRK GY TO SM BLK, INCRSNG LT GY TO GRNSH GY, MOD FRM, SM MOD SFT, V/FN TXT, SM SLTY TXT, DULL TO ERTHY LSTR, CHNKY, SM PLTY, OCC PYR INC,
LS: CRM, TAN, SM LT BRN, OCC LT TAN, TR WHT, OCC TRNSL, MOD FRM TO FRM, TR V/FRM, MSTLY MICRO XLN, SM V/FN TO FN XLN, TR OCC SUC TXT, BLKY,
-60
McCOY :: WHITAKER-SCHWAB 1H-8X
540
KD
CONN GAS 477 UNITS
SWEEP GAS 653 UNITS
FM GAS 502 UNITS
KD
WOB- 19.7K
RPM- 50
PP- 1855

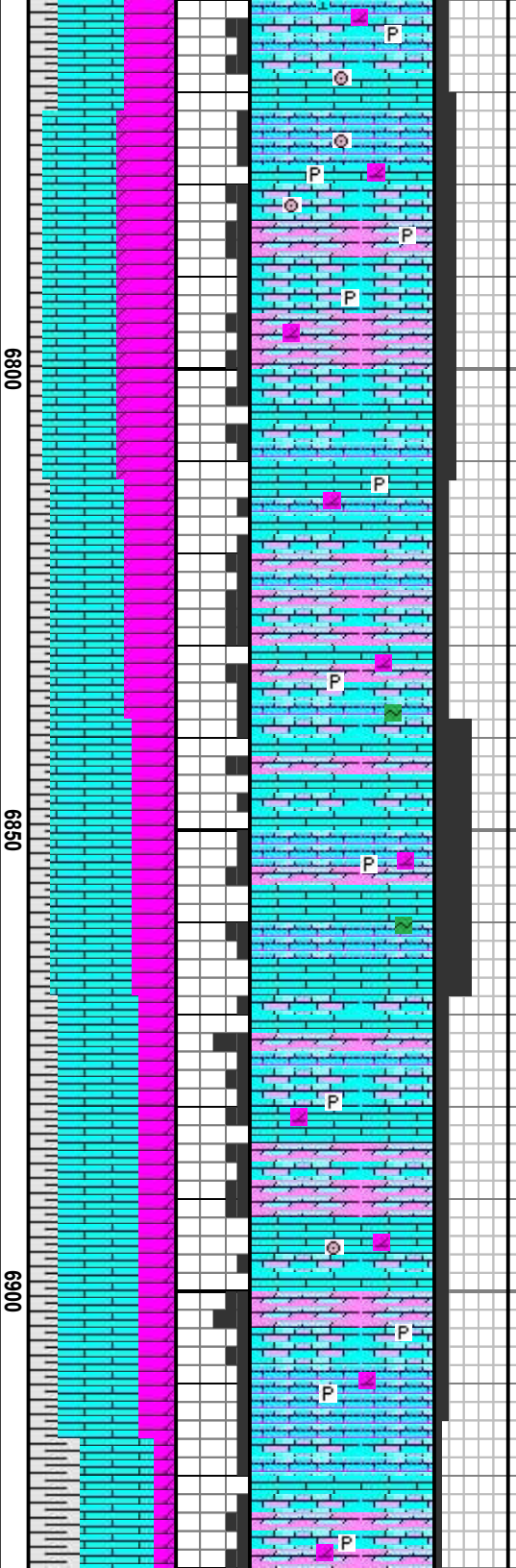
INC 89.75 AZ 5.31
N 1717.9 E 67.45
VS 1719.04

WOB- 20.5K
RPM- 71
PP- 2021
SPM- 95
GPM- 276

MD 6852 TVD 5286.88
INC 89.75 AZ 5.63
N 1811.47 E 76.41
VS 1812.8

WOB- 20.3K
RPM- 71
PP- 2003
SPM- 95
GPM- 276



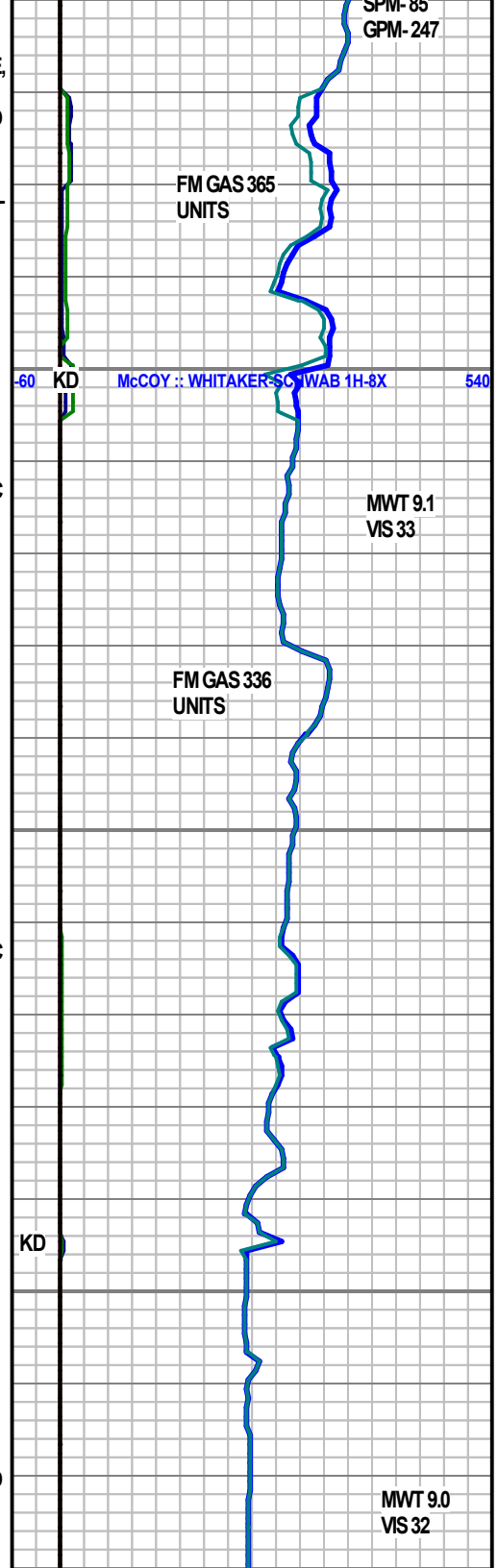


CHNKY, PLTY, SM DOLO CMT, SM CRM TO LT TAN DOLOSTN THRU OUT, OCC CRIN, TR GLAUC, SCAT PYR INCLS, TR SID IP, TR PYR LAM, TR FREE CALCITE, TR BRN SPOT STAIN, NO ODOR, SM VUG POR, TR HL FRAC POR, MIN XLN POR, SM DULL YEL FLOR, PR TO WK MLKY YEL CUT, THIN TO FNT YEL RES RING SH: DRK GY TO SM BLK, INCRSNG LT GY TO GRNSH GY, MOD FRM, SM MOD SFT, V/FN TXT, SM SLTY TXT, DULL TO ERTHY LSTR, CHNKY, SM PLTY, OCC PYR INC,

LS: CRM, TAN, SM LT BRN, OCC LT TAN, TR WHT, OCC TRNSL, MOD FRM TO FRM, TR V/FRM, MSTLY MICRO XLN, SM V/FN TO FN XLN, TR OCC SUC TXT, BLKY, CHNKY, PLTY, SM DOLO CMT, SM CRM TO LT TAN DOLOSTN THRU OUT, TR GLAUC, SCAT PYR INCLS, TR SID IP, TR PYR LAM, TR FREE CALCITE, TR BRN SPOT STAIN, NO ODOR, SM VUG POR, TR HL FRAC POR, MIN XLN POR, SCAT PALE YEL FLOR, FR MLKY WHT CUT, FR YEL RES RING SH: DRK GY TO TR BLK, OCC LT GY TO GRNSH GY, MOD FRM, SM MOD SFT, V/FN TXT, SM SLTY TXT, DULL TO ERTHY LSTR, CHNKY, SM PLTY, OCC PYR INC,

LS: CRM, TAN, SM LT BRN, OCC LT TAN, TR WHT, OCC TRNSL, MOD FRM TO FRM, TR V/FRM, MSTLY MICRO XLN, SM V/FN TO FN XLN, TR OCC SUC TXT, BLKY, CHNKY, PLTY, SM DOLO CMT, SM CRM TO LT TAN DOLOSTN THRU OUT, TR GLAUC, SCAT PYR INCLS, TR SID IP, TR PYR LAM, TR FREE CALCITE, TR BRN SPOT STAIN, NO ODOR, SM VUG POR, TR HL FRAC POR, MIN XLN POR, SCAT PALE YEL FLOR, FR MLKY WHT CUT, FR YEL RES RING SH: DRK GY TO TR BLK, OCC LT GY TO GRNSH GY, MOD FRM, SM MOD SFT, V/FN TXT, SM SLTY TXT, DULL TO ERTHY LSTR, CHNKY, SM PLTY, OCC PYR INC,

LS: LT TAN, CRM, SCAT DK CRM, SCAT OFF WHT, OCC TAN, TR BRN TO LT BRN MOTT, MOD FRM, TR FRM, BRTL, MSTLY V/FN TO SM FN XLN, SCAT MICRO XLN, TR SUC TXT, PLTY, TR BLKY, TR CHNKY, SM BRKN, OCC ARG, SM DOLC CMT, SCAT INTRBD DOLO, OCC LAM DOLO, TR BRN OIL STAIN, SCAT



6950'

MD 6946 TVD 5286.63
INC 90.55 AZ 5.9
N 1904.99 E 85.85
VS 1906.53

WOB- 20.4K
RPM- 68
PP- 1943
SPM- 96
GPM- 278

6980'

7012'

7040'

MD 7041 TVD 5285.46
INC 90.86 AZ 6.08
N 1999.47 E 95.76
VS 2001.22

WOB- 18.8K
RPM- 71
PP- 2015
SPM- 96
GPM- 279

7090'

7090'

0 ROP (min/ft) 5

6950

7000

7050

CRIN FRAGS, SM BRN SPOT STAIN IP, NO ODOR, SM VUG POR, TR MOLDC POR, TR XLN POR, TR LAM SH: LT GY TO GY, OCC GRNSH/GY, MOD FRM, BRTL, V/FN TO SMTH TXT, DULL LSTR, NON CALC, OCC PYR INC., TR SLTY IP, OCC SLTST, OCC GLAUC, SCAT DULL YEL FLOR, TR YEL FLOR, PR MLKY BLU CUT, FR WHT RES RING

LS: CRM, LT CRM, SCAT DK CRM, TR TO SCAT OFF WHT, OCC TAN, OCC BRN TO LT BRN MOTT, MOD FRM, TR FRM, BRTL, SM V/FN TO FN XLN, SM MICRO XLN, TR SUC TXT, PLTY, TR BLKY, TR CHNKY, TR TO OCC ARG, SM DOLC CMT, SCAT INTRBD DOLO, TR LAM DOLO, BRN OIL STAIN, OCC BLU/GY SHRP ANG CHRT, TR GLAUC, TR CRIN FRAGS, NO ODOR, TR VUG POR, SM MOLDC POR, TR XLN POR, TR LAM SH: LT GY TO GY, OCC GRNSH/GY, MOD FRM, BRTL, V/FN TO SMTH TXT, DULL LSTR, NON CALC, OCC PYR INC., TR SLTY IP, OCC SLTST W/TR AREN, OCC GLAUC, SCAT YEL FLOR, PR SLO STRMNG YEL CUT, FR WHT RES RING

LS: CRM, SCAT DK CRM, OCC LT TAN, TR OFF WHT, OCC TRNSL, MOD FRM TO FRM, TR V/FRM, MSTLY MICRO XLN, SM V/FN TO FN XLN, TR OCC SUC TXT, BLKY, CHNKY, PLTY, SM DOLO CMT, SM CRM TO LT TAN DOLOSTN THRU OUT, TR GLAUC, SCAT PYR INCLS, TR SID IP, TR PYR LAM, TR FREE CALCITE, TR BRN SPOT STAIN, NO ODOR, SM VUG POR, TR HL FRAC POR, MIN XLN POR, TR LAM SH: DRK GY TO TR BLK, OCC LT GY TO GRNSH GY, MOD FRM, SM MOD SFT, V/FN TXT, SM SLTY TXT, DULL TO ERTHY LSTR, CHNKY, SM PLTY, OCC PYR INC, SCAT YEL FLOR, PR SLO STRMNG YEL CUT, WK WHT RES RING

KD

-60 McCOY :: WHITAKER-SCHWAB 1H-8X 540

KD

7138'

MD 7135 TVD 5283.38
INC 91.67 AZ 6.22
N 2092.9 E 105.83
VS 2094.87

7184'

09/29/2019

WOB- 20.1K
RPM- 0
PP- 1720
SPM- 96
GPM- 279

7188'

7210'

MD 7229 TVD 5281.49
INC 90.65 AZ 5.95
N 2186.35 E 115.79
VS 2188.54

7210'

7266'

0 ROP (min/ft) 5

7100

7150

7200

7250

LS: CRM TO DK CRM, TR BUFF, SCAT LT CRM, TR OFF WHT, OCC LT TAN, FRM, SCAT MOD FRM, BRTL, MICRO XLN, INCRSING V/FN XLN, TR V/FN SUC TXT, PLTY, SCAT BLKY, OCC CHNKY, TR ARG, SM DOLC CMT, TR INTRBD DOLO, OCC LRG EUHED DRSY CALCITE, TR TO SCAT OPQ TO TANSH SHRP ANG CHRT, OCC GIL, OCC DK BRN HVY OIL SPOT STAIN, NO ODOR, TR VUG POR, TR XLN POR, SCAT HAIRLINE FRAC, TR LAM SH: LT TO V/LT GY, TR GY, TR DK GY TO BLK, MOD FRM, BRTL, SMTH TXT, OCC V/FN TXT, DULL LSTR, PLTY, TR BLKY, NON CALC, OCC MICRO MICA, SCAT DUL YEL FLOR, FAINT SLO STRMNG BLU/WHT CUT, WK SPTTY STRW RES RING

FM GAS 515 UNITS

LS: CRM TO SM DK CRM, SCAT LT CRM, TR BRN TO OCC DK BRN MOTT, TR TAN, TR TO OCC OFF WHT, MOD FRM, SCAT FRM, SCAT CRMBLY, SM BRTL, V/FN XLN, TR FN XLN, TR MICRO XLN, OCC SUC TXT, CHNKY, SM PLTY, OCC BLKY, SCAT ARG, SM DOLO CMT, SCAT TO SM INTRBD DOLO, OCC ANHED CALCITE FL, OCC MIN PYR INC., SCAT BIOCLST W/OOLT /BRYZOA, TR CRIN FRAGS, SM DK TAN TO BRN SPOT STAIN, TR DK BRN/BLK HVY FREE OIL SPOTS, V/WK ODOR, SCAT MOLDC POR, TR XLN POR, OCC PP POR, TR LAM SH: LT GY TO SM V/LT GY, TR DK GY, SCAT GY, OCC V/PALE GRNSH/GY, V/FN TO SMTH TXT, SCAT V/DULL YEL TOYEL FLOR, TR FR SLO STRMNG STRW CUT, FR LRG HVYYEL RES RING

KD

CON GAS 445 UNITS

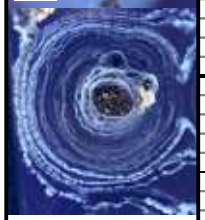
-60 McCOY :: WHITAKER-SCHWAB 1H-8X 540

LS: V/LT CRM TO SM OFF WHT, SCAT CRM, OCC DK CRM, OCC WHT, TR OPQ TO TRNSL, OCC V/LT TAN MOTT, MOD FRM, TR FRM, SM BRTL, SM CRMBLY, FN TO V/FN XLN, TR MICRO XLN, TR FN SUC TXT, CHNKY, SM PLTY, OCC BLKY, SCAT TO SM ARG, SM DOLO CMT, SM TO DECRSING INTRBD DOLO, SCAT TO TR MED TO LRG EUHED DRSY CALCITE, OCC PLTY CALCITE FL W/TR OCCLD FRAC, OCC MED IMBDD DOLO RHOMBS, SCAT CRIN FRAGS, SCAT OOLTC, TR BIOCLST W/OCC BRYZOA, TR TAN TO BRN SPOT STAIN, TR ASPHLTC STRKS, NO ODOR, SM MOLDC POR, TR TO SCAT VUG TO PP POR, TR FN TO HAIRLINE FRAC, TR TO OCC LAM SH: GY TO LT GY, TR DK GY, OCC V/PALE GRNSH/GY, MOD FRM, BRTL, SMTH TXT, DULL LSTR, PLTY, OCC FLKY, NON CALC, OCC SLTY IP, OCC MICRO MICA, SCAT DULL YEL

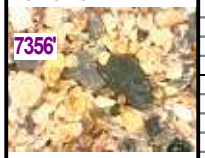
FM GAS 453 UNITS

FM GAS 487 UNITS

7272'



RPM- 70
PP- 2000
SPM- 94
GPM- 274
MD 7323 TVD 5280.45
INC 90.62 AZ 5.55
N 2279.87 E 125.2
VS 2282.26



7356'

7460'

MD 7416 TVD 5279.35
INC 90.74 AZ 6.33
N 2372.37 E 134.82
VS 2374.97

7460'

0 ROP (min/ft) 5

7300

7350

7400

FLOR, OCC DULL STRW FLOR, WK TO OCC MOD FR SLO STRMNG BLU/WHT CUT, MOD FR LRG HVY YEL RES RING

LS: CRM, SM DK CRM, DECRSING LT CRM TO OFF WHT, OCC TAN, SCAT TO TR BRN TO DK BRN MOTT, MOD FRM, SCAT CRMBLY, MSTLY FN XLN, SM V/FN XLN, TR MICRO XLN, OCC SUC TXT, CHNKY, SCAT PLTY, OCC BLKY, SM ARG, DECRSE DOLO CMT, SCAT INTRBD DOLO, OCC ANHED CALCITE FL, TR FN IMBDD DOLO RHOMBS, TR GLAUC, SM CRIN FRAGS, SCAT BIOCLST W/FN XLN SUC DOLC MTX, SCAT DK BRN HVY OIL TO ASPHLTC SPOT STAIN, NO ODOR, SM MOLDC POR, SCAT XLN POR, OCC HAIRLINE FRAC, SCAT LAM SH: DK GY, SM GY, TR LT GY, OCC V/DK GY, PLTY, V/FN TXT, TR SMTH TXT, MSTLY DULL LSTR, PLTY, TR TAB, OCC SPLTRY, FISS, NON CALC, OCC SLI CARB, TR DULL YEL TO SCAT V/DULL DK YEL FLOR, FAINT SLO STRMNG BLU/WHT CUT, WK THN SPTTY STRW RES RING

NO SAMPLES CAUGHT

NO SAMPLES CAUGHT

LS: V/LT CRM TO SM OFF WHT, SCAT V/LT GY TO GYSH/TAN, SCAT LT TAN, TR DK BRN TO BRN MOTT, MOD FRM, SM FRM, BRTL, SM CRMBLY, FN TO V/FN XLN, OCC MICRO XLN, SM SLI SUC TXT, CHNKY, SCAT PLTY, OCC FLKY, TR ARG, SM DOLO CMT, SM INTRBD DOLO, TR V/FN IMBDD DOLO RHOMBS, OCC LRG EUHED DRSY CALCITE, SM CRIN FRAGS W/TR LRG, SCAT OOLTC, TR BIOCLST, SM TO SCAT BRN TO DK

KD

FM GAS 461 UNITS

FM GAS 535 UNITS

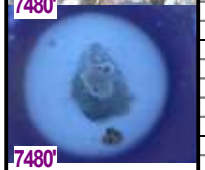
FM GAS 519 UNITS

KD

FM GAS 407 UNITS

-60 McCOY :: WHITAKER-SCHWAB 1H-8X 540

7480'

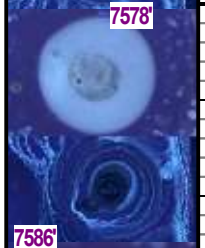


7480'

MD 7511 TVD 5277.23
INC 91.82 AZ 7.84
N 2466.61 E 146.53
VS 2469.47

7538'

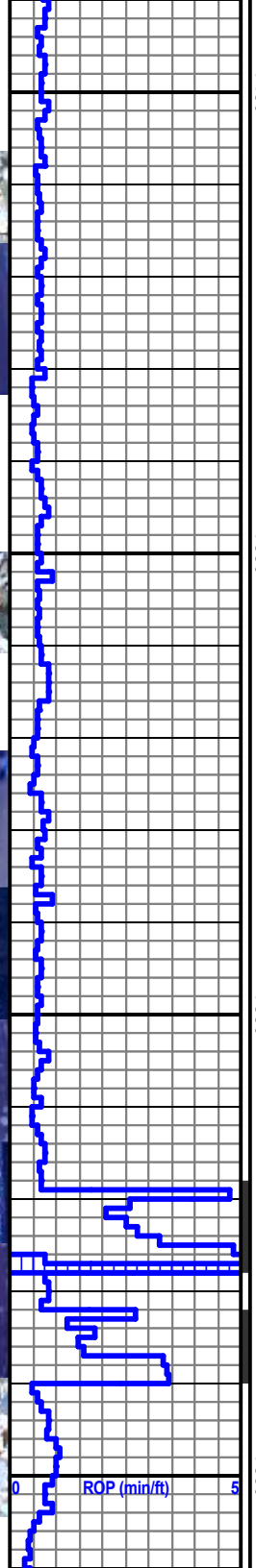
7578'

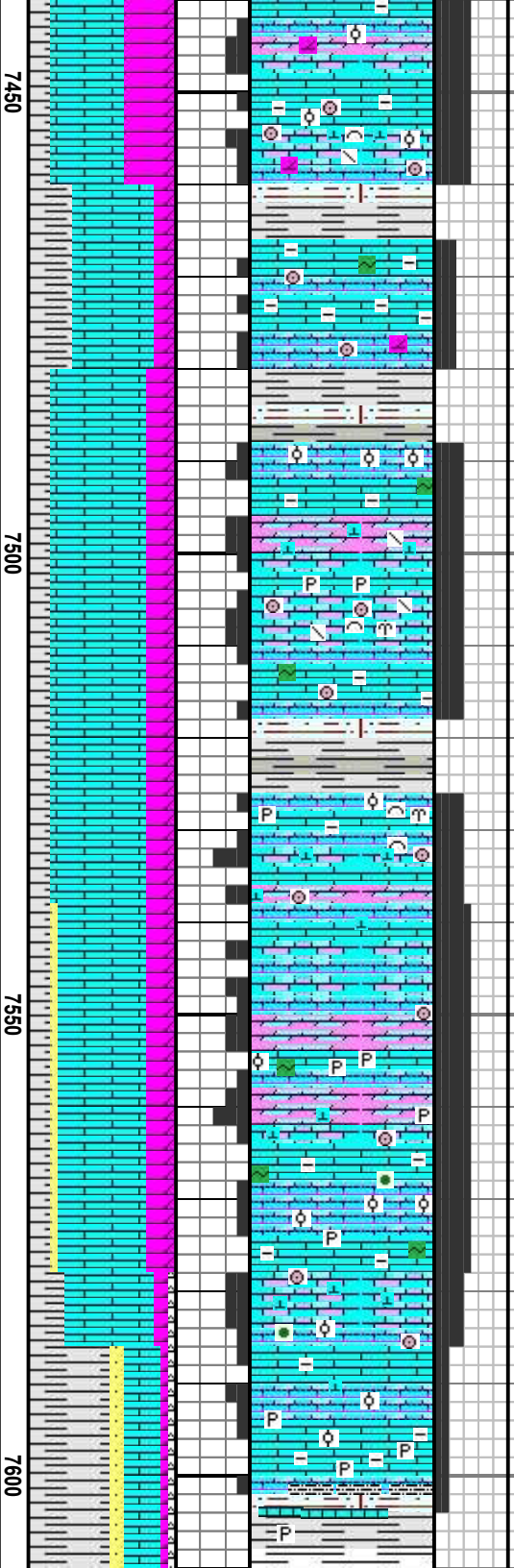


7586'

7586'

MD 7604 TVD 5274.9
INC 91.05 AZ 7.82





BRN SPOT STAIN, NO ODOR, SM MOLDC POR, SCAT TO TR XLN POR, OCC VUG POR, SCAT LAM SH: GY TO DK GY, TR LT GY, TR GRNSH/GY, OCC V/DK GY, MOD FRM, TR MOD SFT, V/FN TO SLTY TXT, TR SMTH TXT, DULL LSTR, NON CALC, OCC SLTST W/TR STAIN, SCAT DULL DK YEL FLOR, OCC DULL YEL FLOR, SLO FR STRMNG STRW/WHT CUT, FR TO WK SPTTY STRW RES RING

LS: OFF WHT, SCAT LT TO V/LT CRM, TR LT TAN, SCAT CRM, TR DK CRM, TR LT GY TO GYSH, MOD FRM, SM CRMBLY, V/FN XLN, INCRSE MICRO XLN, TR SLI SUC TXT, CHNKY/PLTY, TR BLKY, SM ARG, TR MRLY IP, DECRSE DOLC CMT, SCAT INTRBD DOLO, TR ANHED CALCITE FL, OCC GLAUC, OCC MIN PYR INC., DECRSING CRIN FRAGS, SCAT BIOCLST W/BRYZOA / OOLT, SCAT DK BRN TO BRN SPOT STAIN, TR ASPHTLC STRKS, NO ODOR, SCAT MOLDC POR, SCAT PP POR, OCC XLN POR, OCC HAIRLINE FRAC, SCAT LAM SH: GY TO DK GY, TR LT GY, TR GRNSH/GY, OCC V/DK GY, MOD FRM, TR MOD SFT, V/FN TO SLTY TXT, TR SMTH TXT, DULL LSTR, NON CALC, OCC SLTST W/TR STAIN, SCAT V/DULL DK YEL FLOR, OCC YEL FLOR, WK TO OCC V/WK MLKY BLU/WHT CUT W/10% HCL, WK SPTTY RES RING

LS: LT TO V/LT CRM, SCAT TO SM OFF WHT, SCAT LT GY TO GY MOTT, TR DK CRM, OCC TANSH MOTT, OCC WHT, FRM TO SM MOD FRM, MSTLY BRTL, MICRO XLN, DECRSING FN TO V/FN XLN, PLTY, SCAT CHNKY, TR BLKY, OCC FLKY, SM ARG, SCAT DOLO CMT, DECRSING INTRBD DOLO, OCC ANHED CALCITE FL, TR MIN PYR INC., TR OPQ TO DK TAN/BRN SHRP ANG CHRT W/OCC PYR INC., OCC FN U TO MED L SUB RND QRTZ GRNS, OCC GLAUC, TR CRIN FRAGS, TR OOLTC, TR DK SPOT STAIN, SCAT ASPHLT W/SCAT STRKS, NO ODOR, BECOMNG TT, SCAT TO TR MOLDC POR, TR FN TO HAIRLINE FRAC, SCAT THN BDD /LAM SH: GY, SM LT GY, SCAT V/PALE GRN, TR DK GY TO BLK, MOD FRM, BRTL, SMTH TXT, SM V/FN TXT, DULL LSTR, PLTY, TR BLKY, OCC TAB, NON CALC, TR SLTY IP, OCC CARB, OCC PYR INC., TR MICRO MICA, SCAT TO TR DULL YEL TO DK YEL FLOR, TR FR MLKY STRW/WHT CUT W/10% HCL, WK TO OCC MOD FR SPTTY PALE YEL RES RING

KD

FM GAS 430 UNITS

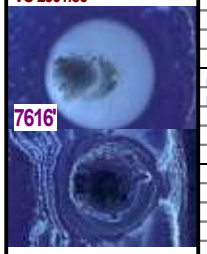
KD

FM GAS 498 UNITS

-60
McCOY :: WHITAKER-SCHWAB 1H-8X
540

MUD CK @7647'
WT 9.05

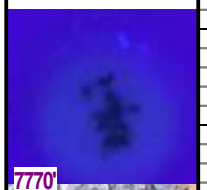
N 2558.72 E 159.2
VS 2561.86



WOB- 19.8K
RPM- 72
PP- 2015
SPM- 96
GPM- 280

MD 7698 TVD 5274.77
INC 89.11 AZ 7.24
N 2651.9 E 171.52
VS 2655.32

WOB-
RPM-
PP-
SPM-
GPM-



7650

7700

7750

SH: GY TO SCAT LT GY, TR V/LT GY, SCAT PALE TO V/PALE GRN, SCAT GRNSH/GY, TR DK GY, MOD SFT, OCC MOD FRM, MSTLY BRTL, SMTH TO V/FN TXT, TR SLTY TXT, DULL LSTR, PLTY, TR FLKY, TR TAB, SCAT FISS, NON CALC, SCAT SLTY IP, TR MIN PYR INC., OCC PYRC, OCC SLI CARB, OCC THN BDD LS: LT TO V/LT CRM, SCAT TO SM OFF WHT, SCAT LT GY TO GY MOTT, TR DK CRM, OCC TANSH MOTT, OCC WHT, FRM TO SM MOD FRM, MSTLY BRTL, MICRO XLN, OCC FN TO V/FN XLN, PLTY, SCAT CHNKY, TR BLKY, OCC FLKY, SM ARG, SCAT DOLO CMT, TR PYR INC., OCC FOSS FRAGS, TR SPOT STIAN,NO ODOR, OCC MOLDC POR, SCAT FN TO HAIRLINE FRAC, OCC DULL TO V/DULL YEL FLOR, V/WK MLKY BLU/WHT CUT W/10% HCL,

SH: GY TO SCAT LT GY, TR V/LT GY, SCAT PALE TO V/PALE GRN, SCAT GRNSH/GY, TR DK GY, MOD SFT, OCC MOD FRM, MSTLY BRTL, SMTH TO V/FN TXT, TR SLTY TXT, DULL LSTR, PLTY, TR FLKY, TR TAB, SCAT FISS, NON CALC, SCAT SLTY IP, TR MIN PYR INC., OCC PYRC, OCC SLI CARB, OCC THN BDD LS: LT TO V/LT CRM, SCAT TO SM OFF WHT, SCAT LT GY TO GY MOTT, TR DK CRM, OCC TANSH MOTT, OCC WHT, FRM TO SM MOD FRM, MSTLY BRTL, MICRO XLN, OCC FN TO V/FN XLN, PLTY, SCAT CHNKY, TR BLKY, OCC FLKY, SM ARG, SCAT DOLO CMT, TR PYR INC., OCC FOSS FRAGS, TR SPOT STIAN,NO ODOR, OCC MOLDC POR, SCAT FN TO HAIRLINE FRAC,

LS: CRM TO DK CRM, TR BUFF, OCC LT CRM, TR OFF WHT, MOD FRM, MSTLY BRTL, V/FN TO MICRO XLN, OCC SLI SUC TXT, PLTY, OCC CHNKY, SM ARG, TR DOLO CMT, OCC GLAUC, OCC FN L TO MED U SUB RND TRNSP QRTZ GRNS, TR PYR INC., OCC OOLTC, OCC FOSS DEBRIS, OCC LT SPOT STAIN, NO ODOR, TR FRAC POR, OCC MOLDC POR, OCC DULL TO YEL FLOR, V/WK MLKY BLU/WHT CUT W/10% HCL, FNT THIN WHT RES RNG

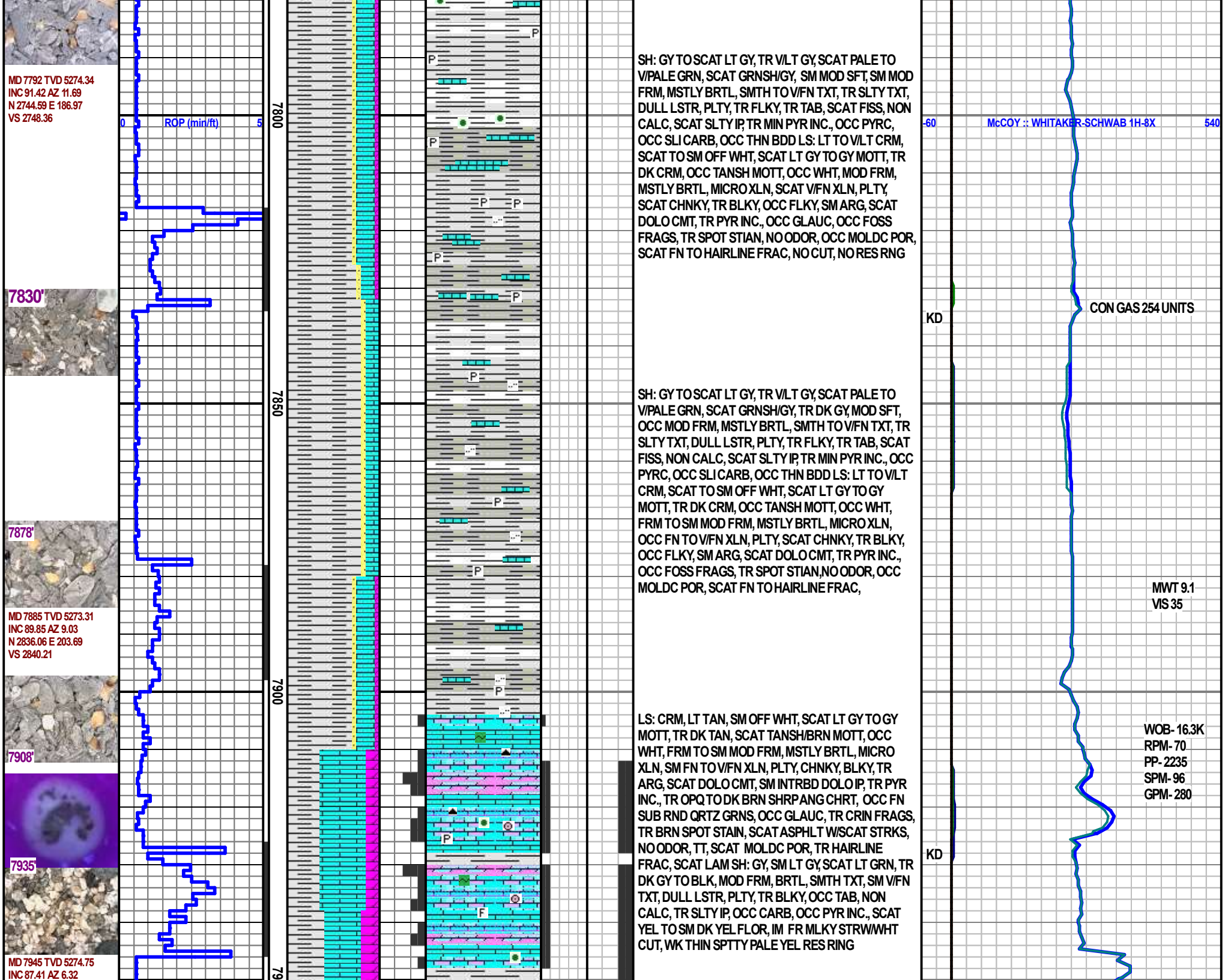
VIS 35
PV 9
YP 9
GEL 3/7
WL 4.0
CK 2
SOL 5.6%
OIL 3.5%
WTR 90..6%
PH 9.3
CHL 2200
CAL 120
LCM 0#

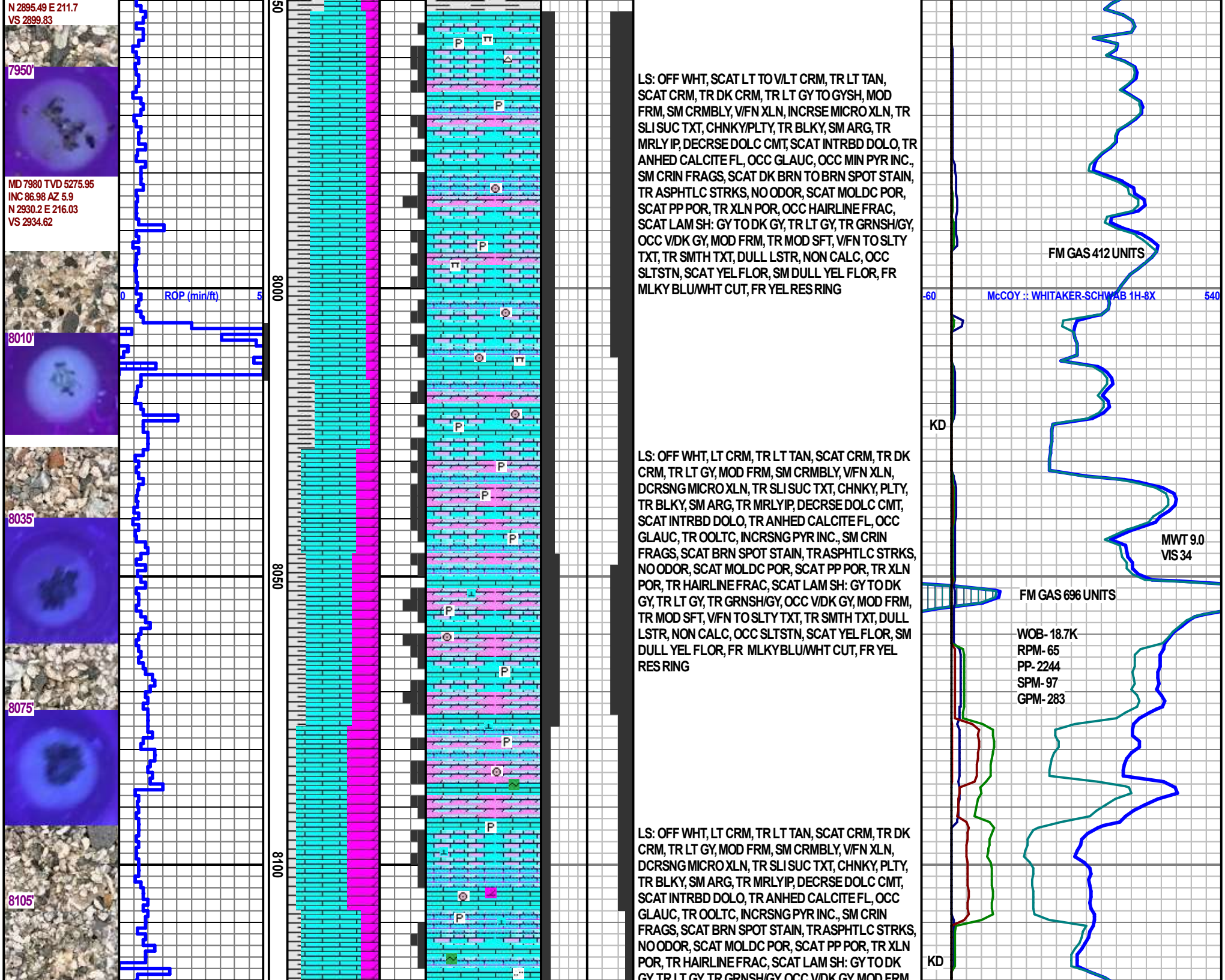
KD

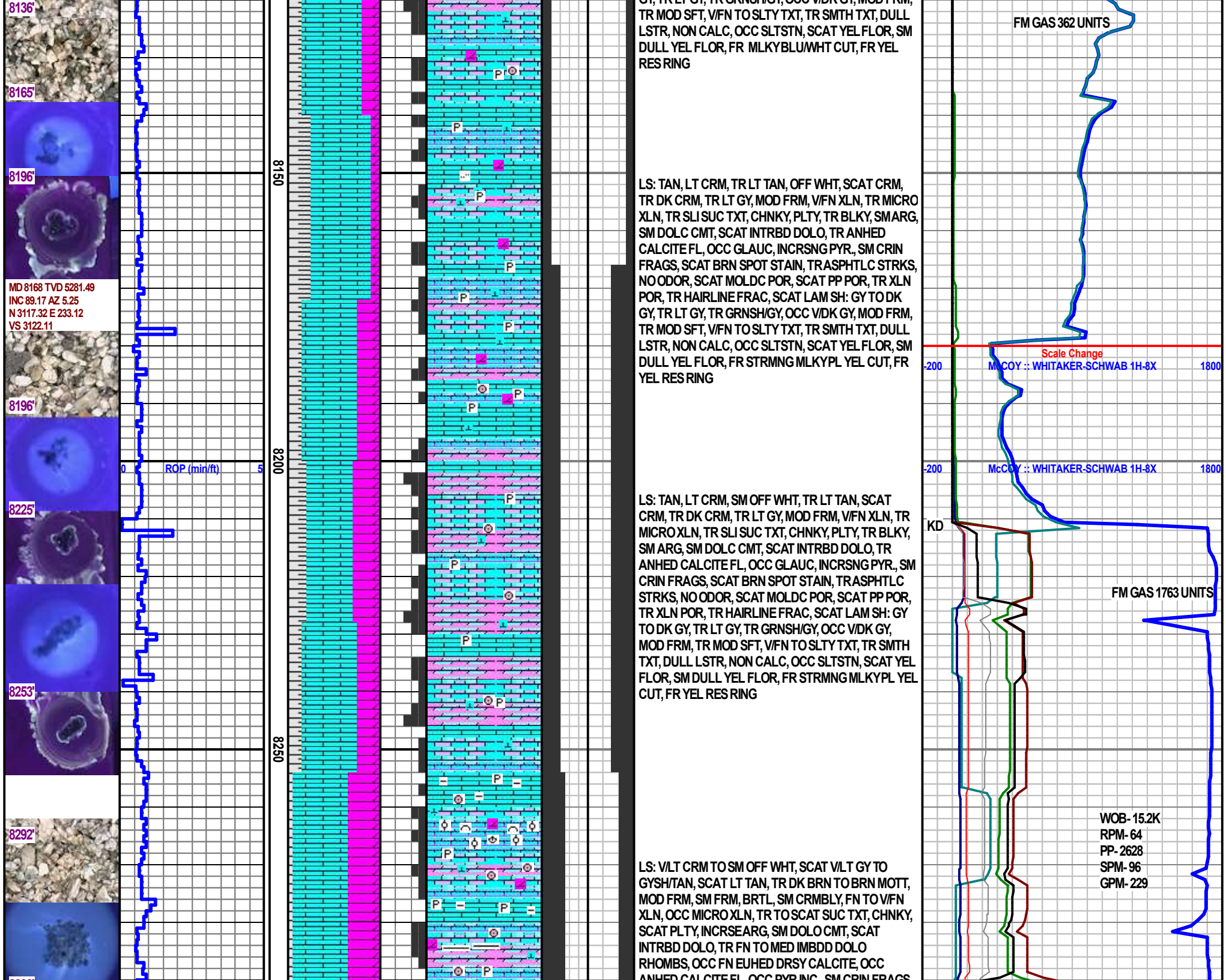
FM GAS 265 UNITS

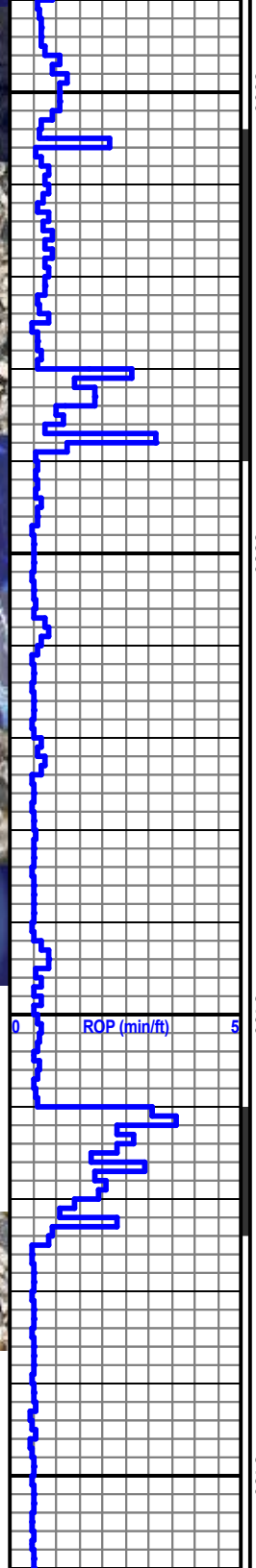
KD

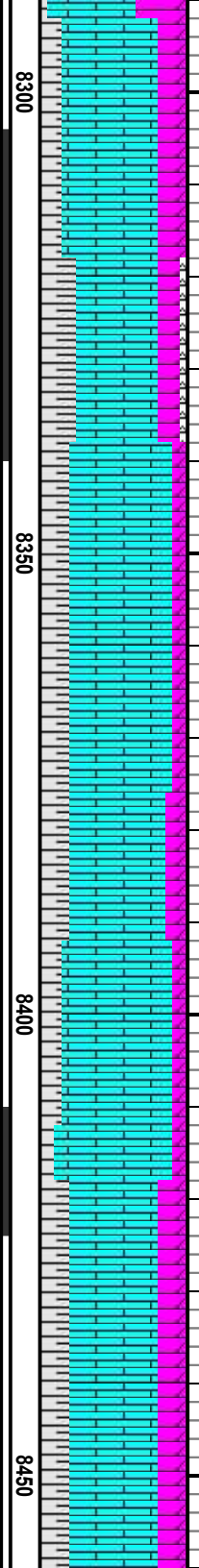
CON GAS 264 UNITS


MD 7792 TVD 5274.34
INC 91.42 AZ 11.69
N 2744.59 E 186.97
VS 2748.36
0
ROP (min/ft)
5
7800
7830'
7850
7878'
MD 7885 TVD 5273.31
INC 89.85 AZ 9.03
N 2836.06 E 203.69
VS 2840.21
7900
7908'
7935'
MD 7945 TVD 5274.75
INC 87.41 AZ 6.32
SH: GY TO SCAT LT GY, TR V/LT GY, SCAT PALE TO V/PALE GRN, SCAT GRNSH/GY, SM MOD SFT, SM MOD FRM, MSTLY BRTL, SMTH TO V/FN TXT, TR SLTY TXT, DULL LSTR, PLTY, TR FLKY, TR TAB, SCAT FISS, NON CALC, SCAT SLTY IP, TR MIN PYR INC., OCC PYRC, OCC SLI CARB, OCC THN BDD LS: LT TO V/LT CRM, SCAT TO SM OFF WHT, SCAT LT GY TO GY MOTT, TR DK CRM, OCC TANSH MOTT, OCC WHT, MOD FRM, MSTLY BRTL, MICRO XLN, SCAT V/FN XLN, PLTY, SCAT CHNKY, TR BLKY, OCC FLKY, SM ARG, SCAT DOLO CMT, TR PYR INC., OCC GLAUC, OCC FOSS FRAGS, TR SPOT STIAN, NO ODOR, OCC MOLDC POR, SCAT FN TO HAIRLINE FRAC, NO CUT, NO RES RNG
SH: GY TO SCAT LT GY, TR V/LT GY, SCAT PALE TO V/PALE GRN, SCAT GRNSH/GY, TR DK GY, MOD SFT, OCC MOD FRM, MSTLY BRTL, SMTH TO V/FN TXT, TR SLTY TXT, DULL LSTR, PLTY, TR FLKY, TR TAB, SCAT FISS, NON CALC, SCAT SLTY IP, TR MIN PYR INC., OCC PYRC, OCC SLI CARB, OCC THN BDD LS: LT TO V/LT CRM, SCAT TO SM OFF WHT, SCAT LT GY TO GY MOTT, TR DK CRM, OCC TANSH MOTT, OCC WHT, FRM TO SM MOD FRM, MSTLY BRTL, MICRO XLN, OCC FN TO V/FN XLN, PLTY, SCAT CHNKY, TR BLKY, OCC FLKY, SM ARG, SCAT DOLO CMT, TR PYR INC., OCC FOSS FRAGS, TR SPOT STIAN,NO ODOR, OCC MOLDC POR, SCAT FN TO HAIRLINE FRAC,
LS: CRM, LT TAN, SM OFF WHT, SCAT LT GY TO GY MOTT, TR DK TAN, SCAT TANSH/BRN MOTT, OCC WHT, FRM TO SM MOD FRM, MSTLY BRTL, MICRO XLN, SM FN TO V/FN XLN, PLTY, CHNKY, BLKY, TR ARG, SCAT DOLO CMT, SM INTRBD DOLO IP, TR PYR INC., TR OPQ TO DK BRN SHRP ANG CHRT, OCC FN SUB RND QRTZ GRNS, OCC GLAUC, TR CRIN FRAGS, TR BRN SPOT STAIN, SCAT ASPHLT W/SCAT STRKS, NO ODOR, TT, SCAT MOLDC POR, TR HAIRLINE FRAC, SCAT LAM SH: GY, SM LT GY, SCAT LT GRN, TR DK GY TO BLK, MOD FRM, BRTL, SMTH TXT, SM V/FN TXT, DULL LSTR, PLTY, TR BLKY, OCC TAB, NON CALC, TR SLTY IP, OCC CARB, OCC PYR INC., SCAT YEL TO SM DK YEL FLOR, IM FR MLKY STRW/WHT CUT, WK THIN SPTTY PALE YEL RES RING
-60
McCOY :: WHITAKER-SCHWAB 1H-8X
540
KD
CON GAS 254 UNITS
MWT 9.1
VIS 35
WOB- 16.3K
RPM- 70
PP- 2235
SPM- 96
GPM- 280
KD


N 2895.49 E 211.7
VS 2899.83
7950'
MD 7980 TVD 5275.95
INC 86.98 AZ 5.9
N 2930.2 E 216.03
VS 2934.62
8010'
8035'
8075'
8105'
0
ROP (min/ft)
5
8000
8050
8100
LS: OFF WHT, SCAT LT TO V/LT CRM, TR LT TAN, SCAT CRM, TR DK CRM, TR LT GY TO GYSH, MOD FRM, SM CRMBLY, V/FN XLN, INCRSE MICRO XLN, TR SLI SUC TXT, CHNKY/PLTY, TR BLKY, SM ARG, TR MRLY IP, DECRSE DOLC CMT, SCAT INTRBD DOLO, TR ANHED CALCITE FL, OCC GLAUC, OCC MIN PYR INC., SM CRIN FRAGS, SCAT DK BRN TO BRN SPOT STAIN, TR ASPHTLC STRKS, NO ODOR, SCAT MOLDC POR, SCAT PP POR, TR XLN POR, OCC HAIRLINE FRAC, SCAT LAM SH: GY TO DK GY, TR LT GY, TR GRNSH/GY, OCC V/DK GY, MOD FRM, TR MOD SFT, V/FN TO SLTY TXT, TR SMTH TXT, DULL LSTR, NON CALC, OCC SLTSTN, SCAT YEL FLOR, SM DULL YEL FLOR, FR MLKY BLU/WHT CUT, FR YEL RES RING
LS: OFF WHT, LT CRM, TR LT TAN, SCAT CRM, TR DK CRM, TR LT GY, MOD FRM, SM CRMBLY, V/FN XLN, DCRSNG MICRO XLN, TR SLI SUC TXT, CHNKY, PLTY, TR BLKY, SM ARG, TR MRLY IP, DECRSE DOLC CMT, SCAT INTRBD DOLO, TR ANHED CALCITE FL, OCC GLAUC, TR OOLTC, INCRSNG PYR INC., SM CRIN FRAGS, SCAT BRN SPOT STAIN, TR ASPHTLC STRKS, NO ODOR, SCAT MOLDC POR, SCAT PP POR, TR XLN POR, TR HAIRLINE FRAC, SCAT LAM SH: GY TO DK GY, TR LT GY, TR GRNSH/GY, OCC V/DK GY, MOD FRM, TR MOD SFT, V/FN TO SLTY TXT, TR SMTH TXT, DULL LSTR, NON CALC, OCC SLTSTN, SCAT YEL FLOR, SM DULL YEL FLOR, FR MLKY BLU/WHT CUT, FR YEL RES RING
LS: OFF WHT, LT CRM, TR LT TAN, SCAT CRM, TR DK CRM, TR LT GY, MOD FRM, SM CRMBLY, V/FN XLN, DCRSNG MICRO XLN, TR SLI SUC TXT, CHNKY, PLTY, TR BLKY, SM ARG, TR MRLY IP, DECRSE DOLC CMT, SCAT INTRBD DOLO, TR ANHED CALCITE FL, OCC GLAUC, TR OOLTC, INCRSNG PYR INC., SM CRIN FRAGS, SCAT BRN SPOT STAIN, TR ASPHTLC STRKS, NO ODOR, SCAT MOLDC POR, SCAT PP POR, TR XLN POR, TR HAIRLINE FRAC, SCAT LAM SH: GY TO DK GY, TR LT GY, TR GRNSH/GY, OCC V/DK GY, MOD FRM
FM GAS 412 UNITS
-60
McCOY :: WHITAKER-SCHWAB 1H-8X
540
KD
MWT 9.0
VIS 34
FM GAS 696 UNITS
WOB- 18.7K
RPM- 65
PP- 2244
SPM- 97
GPM- 283
KD


8136'
8165'
8196'
MD 8168 TVD 5281.49
INC 89.17 AZ 5.25
N 3117.32 E 233.12
VS 3122.11
8196'
8225'
8253'
8292'
0
ROP (min/ft)
5
8150
8200
8250
TR MOD SFT, V/FN TO SLTY TXT, TR SMTH TXT, DULL LSTR, NON CALC, OCC SLTSTN, SCAT YEL FLOR, SM DULL YEL FLOR, FR MLKY BLU/WHT CUT, FR YEL RES RING
LS: TAN, LT CRM, TR LT TAN, OFF WHT, SCAT CRM, TR DK CRM, TR LT GY, MOD FRM, V/FN XLN, TR MICRO XLN, TR SLI SUC TXT, CHNKY, PLTY, TR BLKY, SM ARG, SM DOLC CMT, SCAT INTRBD DOLO, TR ANHED CALCITE FL, OCC GLAUC, INCRSNG PYR., SM CRIN FRAGS, SCAT BRN SPOT STAIN, TR ASPHTLC STRKS, NO ODOR, SCAT MOLDC POR, SCAT PP POR, TR XLN POR, TR HAIRLINE FRAC, SCAT LAM SH: GY TO DK GY, TR LT GY, TR GRNSH/GY, OCC V/DK GY, MOD FRM, TR MOD SFT, V/FN TO SLTY TXT, TR SMTH TXT, DULL LSTR, NON CALC, OCC SLTSTN, SCAT YEL FLOR, SM DULL YEL FLOR, FR STRMNG MLKY PL YEL CUT, FR YEL RES RING
LS: TAN, LT CRM, SM OFF WHT, TR LT TAN, SCAT CRM, TR DK CRM, TR LT GY, MOD FRM, V/FN XLN, TR MICRO XLN, TR SLI SUC TXT, CHNKY, PLTY, TR BLKY, SM ARG, SM DOLC CMT, SCAT INTRBD DOLO, TR ANHED CALCITE FL, OCC GLAUC, INCRSNG PYR., SM CRIN FRAGS, SCAT BRN SPOT STAIN, TR ASPHTLC STRKS, NO ODOR, SCAT MOLDC POR, SCAT PP POR, TR XLN POR, TR HAIRLINE FRAC, SCAT LAM SH: GY TO DK GY, TR LT GY, TR GRNSH/GY, OCC V/DK GY, MOD FRM, TR MOD SFT, V/FN TO SLTY TXT, TR SMTH TXT, DULL LSTR, NON CALC, OCC SLTSTN, SCAT YEL FLOR, SM DULL YEL FLOR, FR STRMNG MLKY PL YEL CUT, FR YEL RES RING
LS: V/LT CRM TO SM OFF WHT, SCAT V/LT GY TO GYSH/TAN, SCAT LT TAN, TR DK BRN TO BRN MOTT, MOD FRM, SM FRM, BRTL, SM CRMBLY, FN TO V/FN XLN, OCC MICRO XLN, TR TO SCAT SUC TXT, CHNKY, SCAT PLTY, INCRSE ARG, SM DOLO CMT, SCAT INTRBD DOLO, TR FN TO MED IMBDD DOLO RHOMBS, OCC FN EUHED DRSY CALCITE, OCC
FM GAS 362 UNITS
Scale Change
-200
McCOY :: WHITAKER-SCHWAB 1H-8X
1800
-200
McCOY :: WHITAKER-SCHWAB 1H-8X
1800
KD
FM GAS 1763 UNITS
WOB- 15.2K
RPM- 64
PP- 2628
SPM- 96
GPM- 229

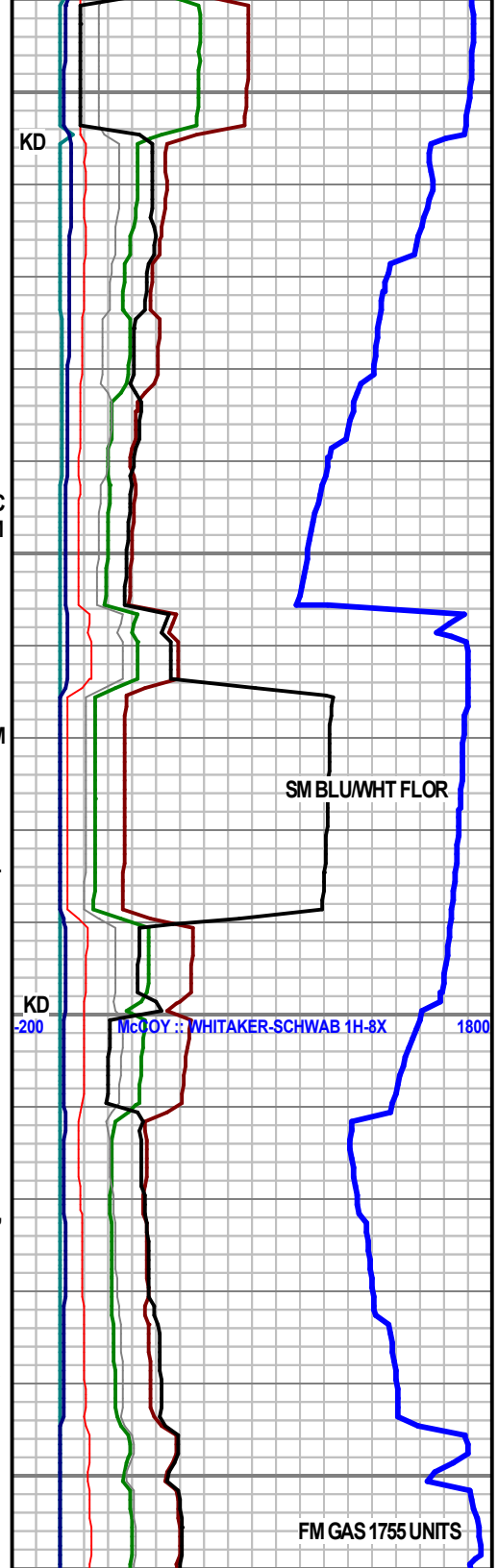




ANHED CALCITE FL, OCC PYR INC., SM CRIN FRAGS, SCAT OOLTC W/SM FN SUC DOLC MTX, TR BIOCLST, SCAT BRN TO DK BRN SPOT STAIN, NO ODOR, SM MOLDC POR, SCAT XLN POR, OCC PP TO VUG POR, SCAT LAM SH: GY TO DK GY, TR LT GY, OCC V/DK GY, MOD FRM, TR MOD SFT, V/FN TO SLTY TXT, TR SMTH TXT, DULL LSTR, NON CALC, SCAT DULL TO V/DULL DK YEL FLOR, TR DULL YEL FLOR, WK TO FR SLO STRMNG BLU/WHT CUT, TR HVY FR SPTTY YEL TO PALE YEL RES RING

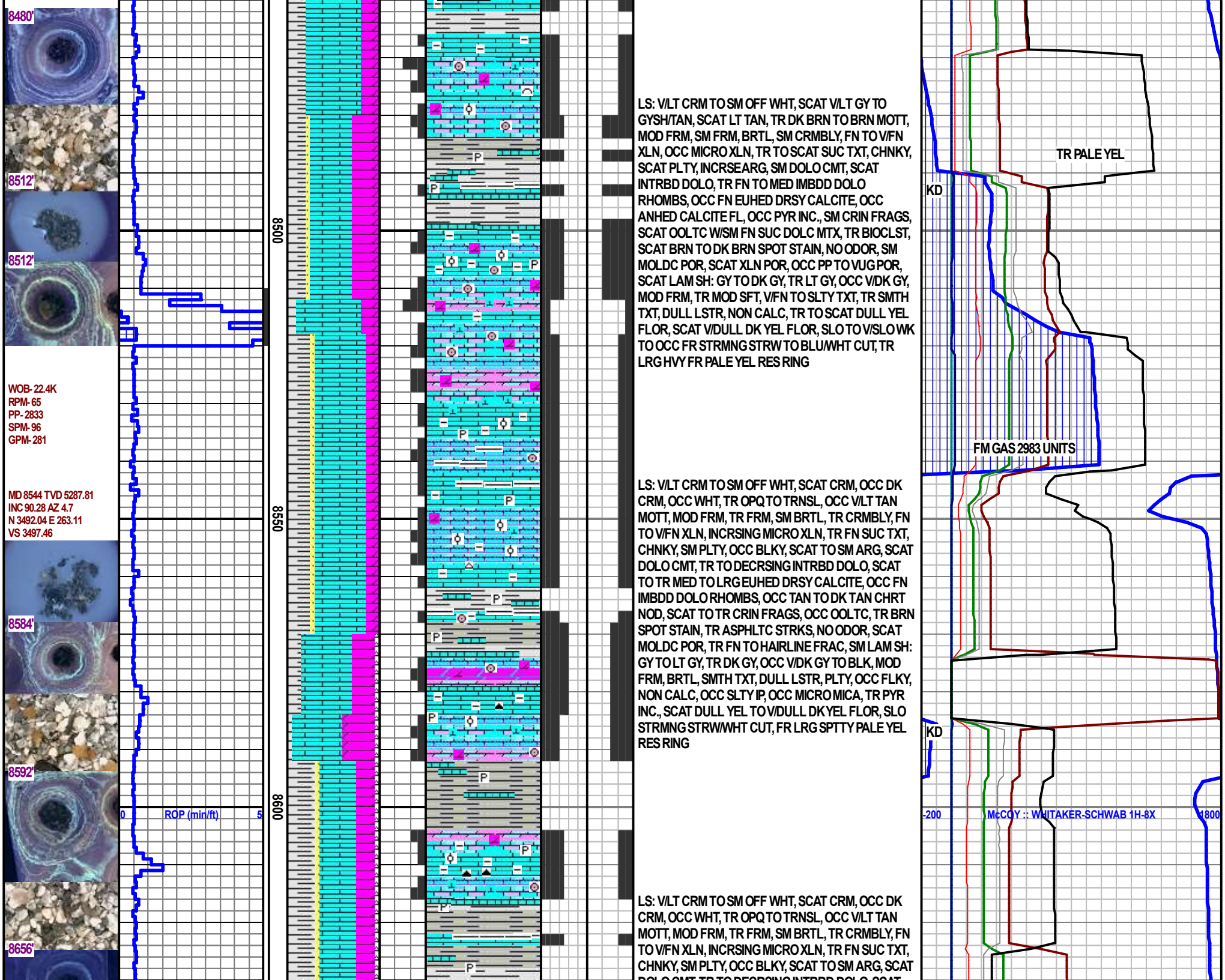
LS: V/LT CRM TO SM OFF WHT, SCAT V/LT GY TO GYSH/TAN, SCAT LT TAN, TR GY TO DK GY MOTT, OCC DK BRN TO BRN MOTT, MOD FRM, SM FRM, BRTL, SM CRMBLY, FN TO V/FN XLN, OCC MICRO XLN, TR TO SCAT SUC TXT, CHNKY, SCAT PLTY, SM ARG, SCAT DOLO CMT, TR INTRBD DOLO, TR FN TO MED IMBDD DOLO RHOMBS, TR MED TO LRG EUHED DRSY CALCITE, OCC PYR INC., SM CRIN FRAGS, SCAT OOLTC W/SM FN SUC DOLC MTX, TR BIOCLST, TR BRN TO DK BRN SPOT STAIN, NO ODOR, SM MOLDC POR, SCAT XLN POR, OCC PP TO VUG POR, SCAT LAM SH: GY TO DK GY, TR LT GY, OCC V/DK GY, MOD FRM, TR MOD SFT, V/FN TO SLTY TXT, TR SMTH TXT, DULL LSTR, NON CALC, TR SLTY IP, OCC CARB, OCC FERR CTG, SM DULL DK YEL TO SCAT BLU/WHT FLOR, FR TO MOD FR SLO STRMNG BLU/WHT CUT, FR HVY YEL RES RING

LS: LT TO V/LT CRM, SCAT OFF WHT, TR DK CRM, TR TO SCAT GY TO DK GY MOTT, TR LT TAN, MOD FRM, SCAT FRM, MSTLY BRTL, MICRO XLN, SM V/FN XLN, SCAT TO TR SLI SUC TXT, PLTY, DECRSE CHNKY, TR FLKY, SM ARG, INCRSE DOLO CMT, TR INTRBD DOLO, TR V/FN IMBDD DOLO RHOMBS, OCC ANHED CALCITE FL, SCAT CRIN FRAGS W/OCC LRG, TR OOLTC, OCC BIOCLST, TR DK BRN TO BRN SPOT STAIN, OCC HVY FREE OIL IN POR, NO ODOR, SCAT MOLDC POR, TR FRAC POR, TR XLN POR, INCRSE LAM /THN BDD SH: GY TO DK GY, TR LT GY, OCC V/DK GY, MOD FRM, TR MOD SFT, V/FN TO SLTY TXT, TR SMTH TXT, DULL LSTR, NON CALC, TR SLTY IP, SCAT DULL DK YEL FLOR, TR DULL YEL FLOR, WK TO TR MOD FR MLKY BLU/WHT CUT W/10% HCL, SCAT V/DULL DK YEL TO DULL YEL FLOR, WK TO V/WK MLKY BLU/WHT CUT W/10% HCL, LRG WK SPTTY STRW RES RING



09/30/2019

MD 8450 TVD 5287.69
INC 89.57 AZ 4.82
N 3398.37 E 255.3
VS 3403.62


8480'
8512'
8512'
WOB- 22.4K
RPM- 65
PP- 2833
SPM- 96
GPM- 281
MD 8544 TVD 5287.81
INC 90.28 AZ 4.7
N 3492.04 E 263.11
VS 3497.46
8584'
8592'
8656'
0
ROP (min/ft)
5
8500
8550
8600
LS: V/LT CRM TO SM OFF WHT, SCAT V/LT GY TO GYSH/TAN, SCAT LT TAN, TR DK BRN TO BRN MOTT, MOD FRM, SM FRM, BRTL, SM CRMBLY, FN TO V/FN XLN, OCC MICRO XLN, TR TO SCAT SUC TXT, CHNKY, SCAT PLTY, INCRSEARG, SM DOLO CMT, SCAT INTRBD DOLO, TR FN TO MED IMBDD DOLO RHOMBS, OCC FN EUHED DRSY CALCITE, OCC ANHED CALCITE FL, OCC PYR INC., SM CRIN FRAGS, SCAT OOLTC W/SM FN SUC DOLC MTX, TR BIOCLST, SCAT BRN TO DK BRN SPOT STAIN, NO ODOR, SM MOLDC POR, SCAT XLN POR, OCC PP TO VUG POR, SCAT LAM SH: GY TO DK GY, TR LT GY, OCC V/DK GY, MOD FRM, TR MOD SFT, V/FN TO SLTY TXT, TR SMTH TXT, DULL LSTR, NON CALC, TR TO SCAT DULL YEL FLOR, SCAT V/DULL DK YEL FLOR, SLO TO V/SLO WK TO OCC FR STRMNG STRW TO BLU/WHT CUT, TR LRG HVY FR PALE YEL RES RING
LS: V/LT CRM TO SM OFF WHT, SCAT CRM, OCC DK CRM, OCC WHT, TR OPQ TO TRNSL, OCC V/LT TAN MOTT, MOD FRM, TR FRM, SM BRTL, TR CRMBLY, FN TO V/FN XLN, INCRSING MICRO XLN, TR FN SUC TXT, CHNKY, SM PLTY, OCC BLKY, SCAT TO SM ARG, SCAT DOLO CMT, TR TO DECRSING INTRBD DOLO, SCAT TO TR MED TO LRG EUHED DRSY CALCITE, OCC FN IMBDD DOLO RHOMBS, OCC TAN TO DK TAN CHRT NOD, SCAT TO TR CRIN FRAGS, OCC OOLTC, TR BRN SPOT STAIN, TR ASPHLTC STRKS, NO ODOR, SCAT MOLDC POR, TR FN TO HAIRLINE FRAC, SM LAM SH: GY TO LT GY, TR DK GY, OCC V/DK GY TO BLK, MOD FRM, BRTL, SMTH TXT, DULL LSTR, PLTY, OCC FLKY, NON CALC, OCC SLTY IP, OCC MICRO MICA, TR PYR INC., SCAT DULL YEL TO V/DULL DK YEL FLOR, SLO STRMNG STRW/WHT CUT, FR LRG SPTTY PALE YEL RES RING
LS: V/LT CRM TO SM OFF WHT, SCAT CRM, OCC DK CRM, OCC WHT, TR OPQ TO TRNSL, OCC V/LT TAN MOTT, MOD FRM, TR FRM, SM BRTL, TR CRMBLY, FN TO V/FN XLN, INCRSING MICRO XLN, TR FN SUC TXT, CHNKY, SM PLTY, OCC BLKY, SCAT TO SM ARG, SCAT
TR PALE YEL
KD
FM GAS 2983 UNITS
KD
-200
McCOY :: WHITAKER-SCHWAB 1H-8X
1800

MD 8638 TVD 5287.56
INC 90.03 AZ 4.43
N 3585.74 E 270.59
VS 3591.32

WOB- 21.8K
RPM- 66
PP- 2760
SPM- 95
GPM- 275

8680'

8736'

8736'

MD 8731 TVD 5288.21
INC 89.17 AZ 5.39
N 3678.4 E 278.55
VS 3684.14

WOB- 8.1K
RPM- 65
PP- 2633
SPM- 96
GPM- 281

8786'

8650

8700

8750

DOLO CMT, TR TO DECRSING INTRBD DOLO, SCAT TO TR MED TO LRG EUHED DRSY CALCITE, OCC FN IMBDD DOLO RHOMBS, OCC TAN TO DK TAN CHRT NOD, SCAT TO TR CRIN FRAGS, OCC OOLTC, TR BRN SPOT STAIN, TR ASPHLTC STRKS, NO ODOR, SCAT MOLDC POR, TR FN TO HAIRLINE FRAC, SM LAM SH: GY TO LT GY, TR DK GY, OCC V/DK GY TO BLK, MOD FRM, BRTL, SMTH TXT, DULL LSTR, PLTY, OCC FLKY, NON CALC, OCC SLTY IP, OCC MICRO MICA, TR PYR INC., SCAT DULL YEL FLOR, TR DULL PALE YEL FLOR, WK TO TR MOD FR MLKY PALE YEL CUT W/10% HCL, FAINT THN RES RING

KD

FM GAS 1886 UNITS

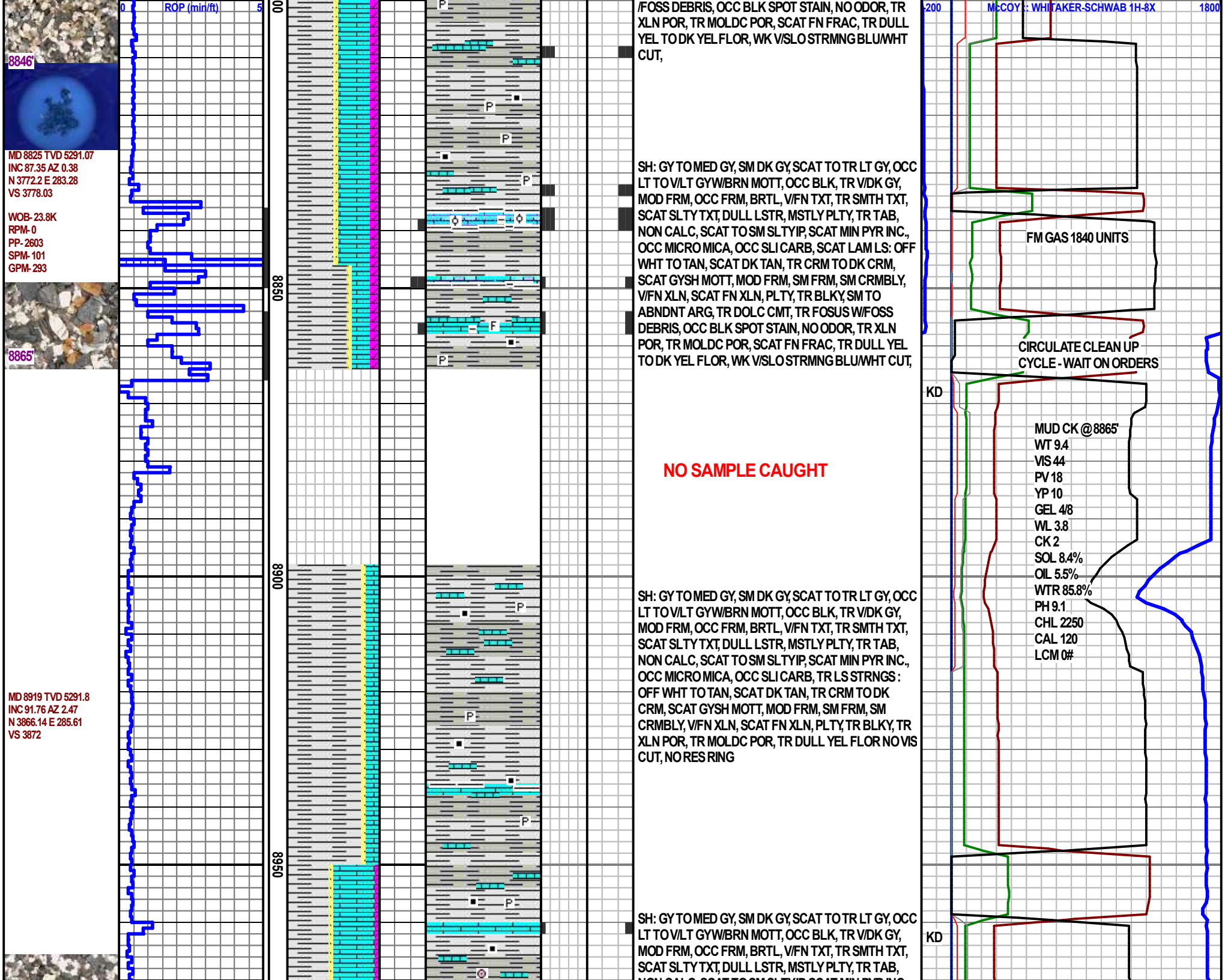
NO SAMPLE CAUGHT

LS: LT TO V/LT CRM, SM OFF WHT, TR WHT, TR TO SCAT LT GY TO GY MOTT, OCC DK CRM TO TAN MOTT, FRM, SM MOD FRM, BRTL, MICRO XLN, SCAT V/FN XLN, PLTY, OCC BLKY, TR CHNKY, SM ARG, SCAT TO TR DOLO CMT, SCAT INTRBD DOLO, OCC MIN PYR INC., OCC PLTY TRNSP CALCITE FL W/TR OCCLD FRAC, OCC IMBDD FN DOLO RHOMBS, TR OOLTC, TR TT, OCC ASPHLTC STRKS, OCC SPOT STAIN, NO ODOR, SCAT FN FRAC, TR HAIRLINE FRAC, TR MOLDC POR, SCAT DULL YEL TO DULL DK YEL FLOR, TR FR /GD SLO STRMNG PALE YEL CUT, WK STRW SPTTY RES RING

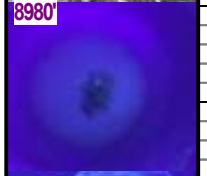
SH: GY TO MED GY, SM DK GY, SCAT TO TR LT GY, OCC LT TO V/LT GYW/BRN MOTT, OCC BLK, TR V/DK GY, MOD FRM, OCC FRM, BRTL, V/FN TXT, TR SMTH TXT, SCAT SLTY TXT, DULL LSTR, MSTLY PLTY, TR TAB, NON CALC, SCAT TO SM SLTY IP, SCAT MIN PYR INC., OCC MICRO MICA, OCC SLI CARB, SM LAM LS: OFF WHT TO TAN, SCAT DK TAN, TR CRM TO DK CRM, SCAT GYSH MOTT, MOD FRM, SM FRM, SM CRMBLY, V/FN XLN, SCAT FN XLN, PLTY, TR BLKY, SM TO ABNDNT ARG, TR DOLC CMT, SCAT FOSUS W/OOLT

KD

FM GAS 1860 UNITS


8846'
MD 8825 TVD 5291.07
INC 87.35 AZ 0.38
N 3772.2 E 283.28
VS 3778.03
WOB- 23.8K
RPM- 0
PP- 2603
SPM- 101
GPM- 293
8865'
MD 8919 TVD 5291.8
INC 91.76 AZ 2.47
N 3866.14 E 285.61
VS 3872
0
ROP (min/ft)
5
8850
8900
8950
/FOSS DEBRIS, OCC BLK SPOT STAIN, NO ODOR, TR XLN POR, TR MOLDC POR, SCAT FN FRAC, TR DULL YEL TO DK YEL FLOR, WK V/SLO STRMNG BLU/WHT CUT,
SH: GY TO MED GY, SM DK GY, SCAT TO TR LT GY, OCC LT TO V/LT GYW/BRN MOTT, OCC BLK, TR V/DK GY, MOD FRM, OCC FRM, BRTL, V/FN TXT, TR SMTH TXT, SCAT SLTY TXT, DULL LSTR, MSTLY PLTY, TR TAB, NON CALC, SCAT TO SM SLTYIP, SCAT MIN PYR INC., OCC MICRO MICA, OCC SLI CARB, SCAT LAM LS: OFF WHT TO TAN, SCAT DK TAN, TR CRM TO DK CRM, SCAT GYSH MOTT, MOD FRM, SM FRM, SM CRMBLY, V/FN XLN, SCAT FN XLN, PLTY, TR BLKY, SM TO ABNDNT ARG, TR DOLC CMT, TR FOSUS W/FOSS DEBRIS, OCC BLK SPOT STAIN, NO ODOR, TR XLN POR, TR MOLDC POR, SCAT FN FRAC, TR DULL YEL TO DK YEL FLOR, WK V/SLO STRMNG BLU/WHT CUT,
NO SAMPLE CAUGHT
SH: GY TO MED GY, SM DK GY, SCAT TO TR LT GY, OCC LT TO V/LT GYW/BRN MOTT, OCC BLK, TR V/DK GY, MOD FRM, OCC FRM, BRTL, V/FN TXT, TR SMTH TXT, SCAT SLTY TXT, DULL LSTR, MSTLY PLTY, TR TAB, NON CALC, SCAT TO SM SLTYIP, SCAT MIN PYR INC., OCC MICRO MICA, OCC SLI CARB, TR LS STRNGS : OFF WHT TO TAN, SCAT DK TAN, TR CRM TO DK CRM, SCAT GYSH MOTT, MOD FRM, SM FRM, SM CRMBLY, V/FN XLN, SCAT FN XLN, PLTY, TR BLKY, TR XLN POR, TR MOLDC POR, TR DULL YEL FLOR NO VIS CUT, NO RES RING
SH: GY TO MED GY, SM DK GY, SCAT TO TR LT GY, OCC LT TO V/LT GYW/BRN MOTT, OCC BLK, TR V/DK GY, MOD FRM, OCC FRM, BRTL, V/FN TXT, TR SMTH TXT, SCAT SLTY TXT, DULL LSTR, MSTLY PLTY, TR TAB,
-200
MCCOY :: WHITAKER-SCHWAB 1H-8X
1800
FM GAS 1840 UNITS
CIRCULATE CLEAN UP CYCLE - WAIT ON ORDERS
KD
MUD CK @8865'
WT 9.4
VIS 44
PV 18
YP 10
GEL 4/8
WL 3.8
CK 2
SOL 8.4%
OIL 5.5%
WTR 85.8%
PH 9.1
CHL 2250
CAL 120
LCM 0#
KD

8980'



9030'

MD 9014 TVD 5289.07
INC 91.54 AZ 1.49
N 3961.04 E 288.89
VS 3966.95

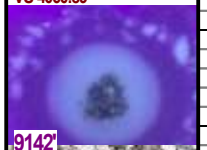
9030'

9045'

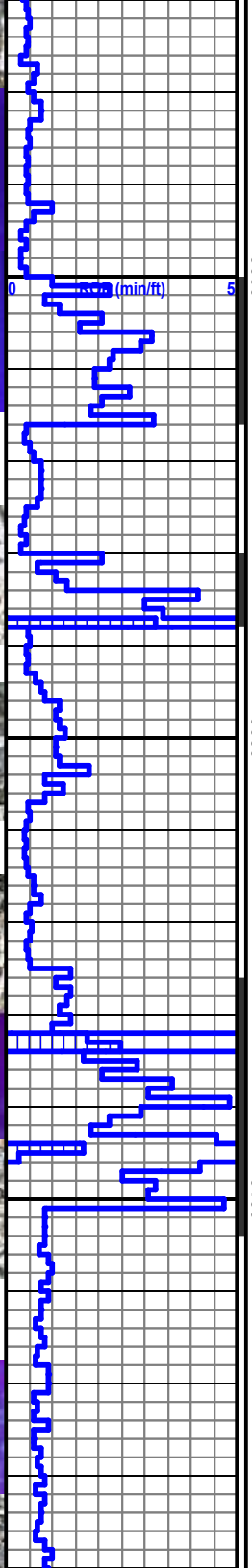
9090'

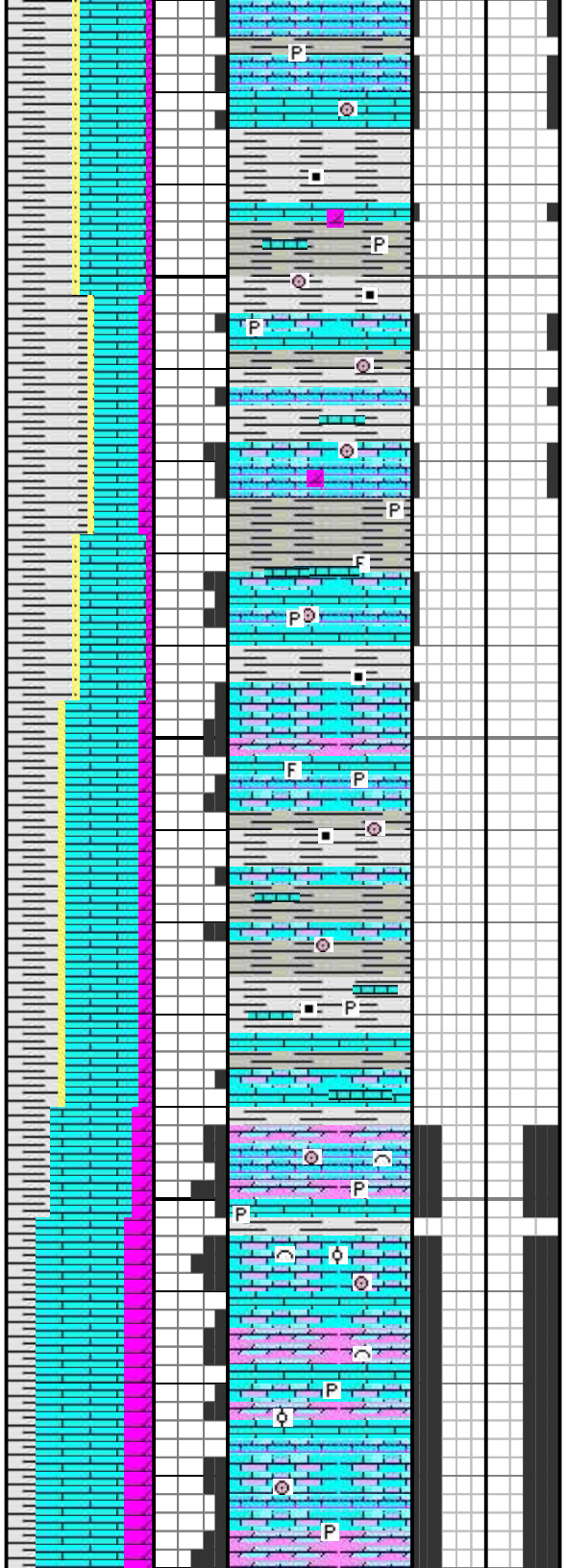
9102'

MD 9108 TVD 5285.74
INC 92.53 AZ 0.54
N 4054.97 E 290.55
VS 4060.89



9142'

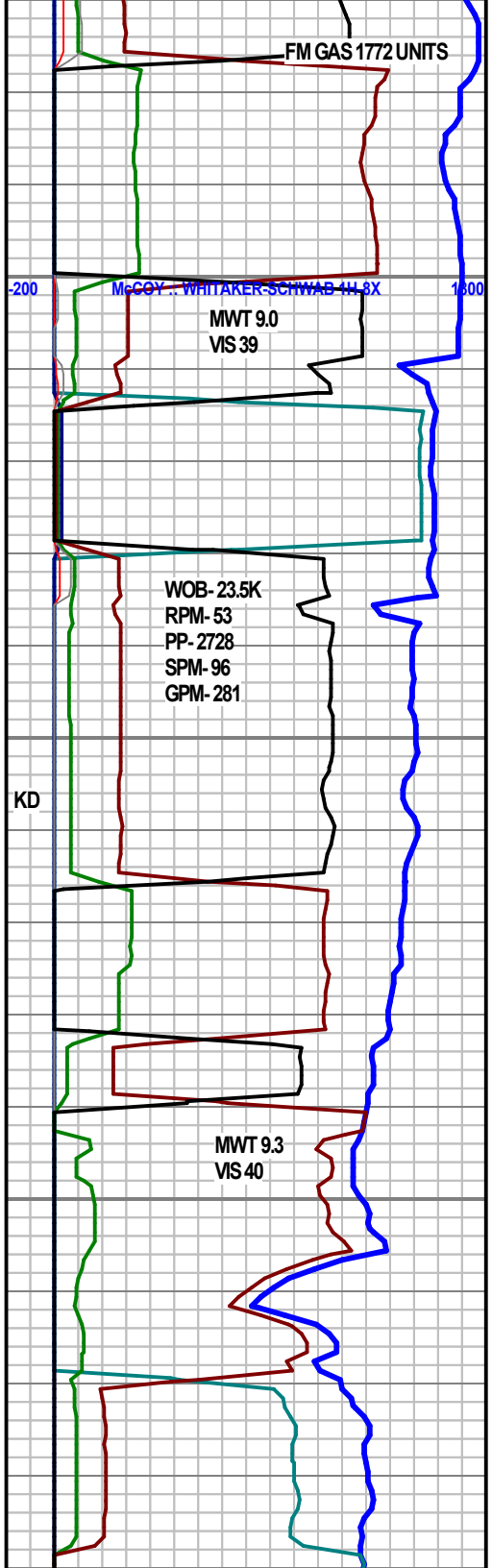


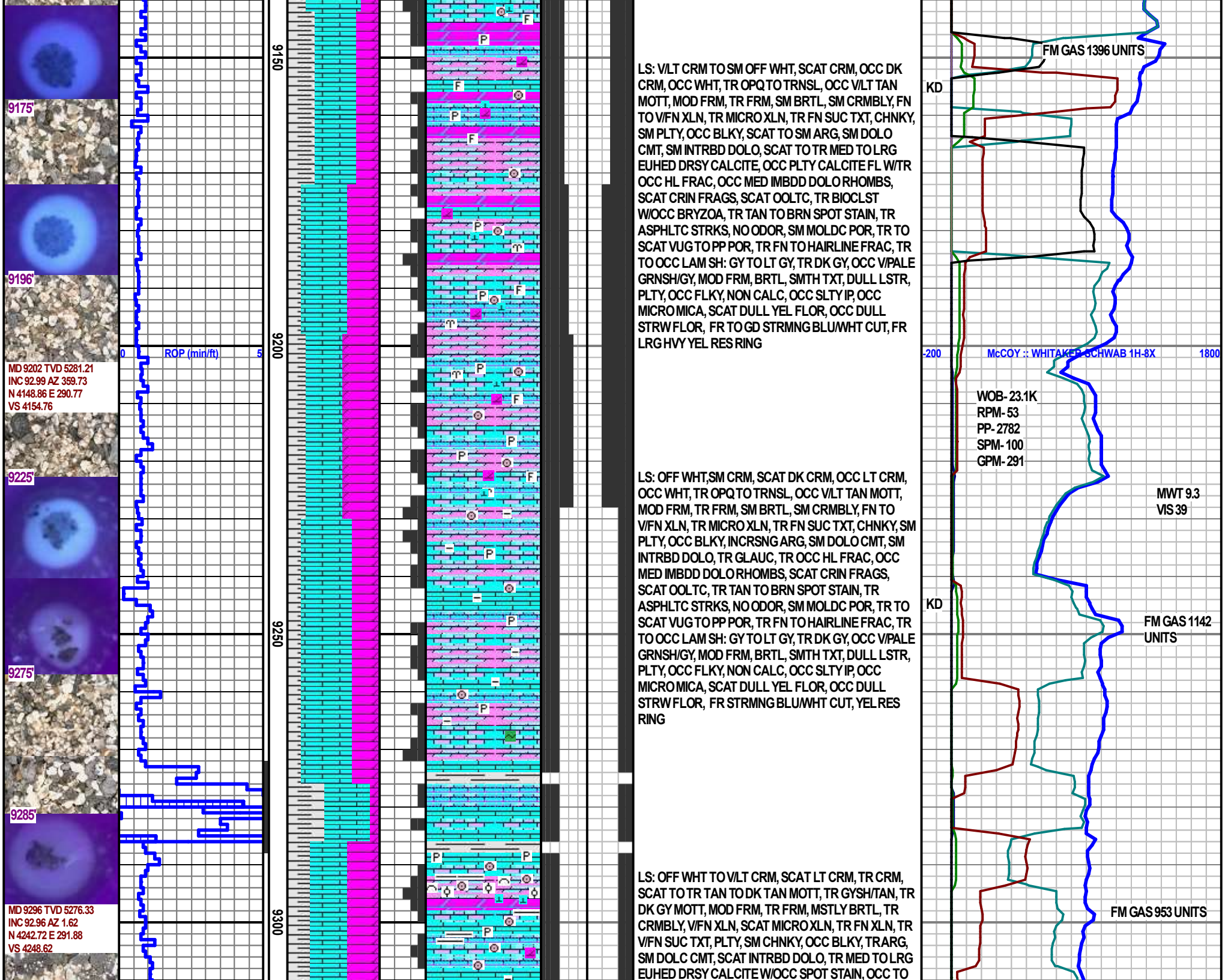


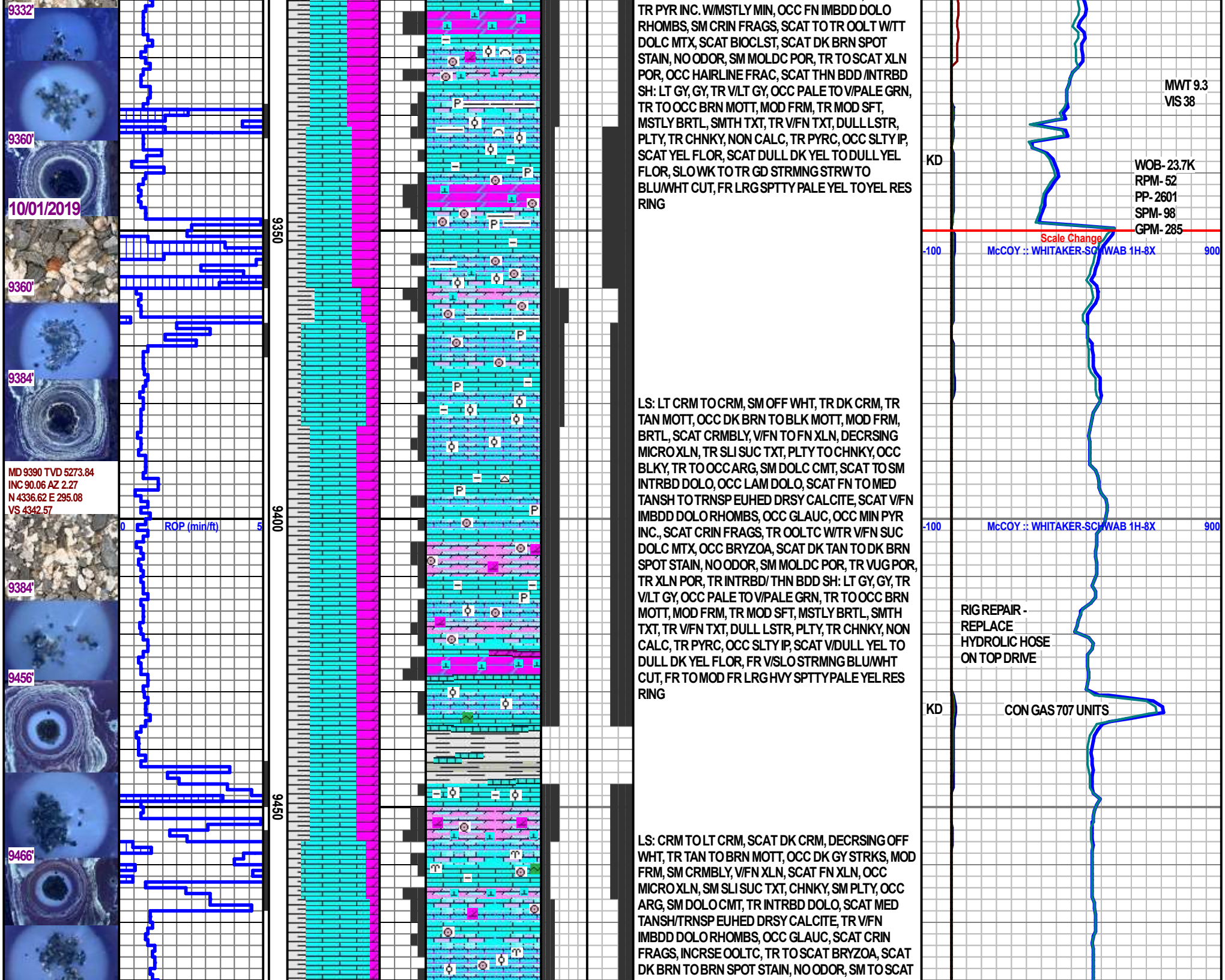
NON CALC, SCAT TO SM SLTYIP, SCAT MIN PYR INC., OCC MICRO MICA, OCC SLI CARB, SCAT LAM LS: OFF WHT TO TAN, SCAT DK TAN, TR CRM TO DK CRM, SCAT GYSH MOTT, MOD FRM, SM FRM, SM CRMBLY, V/FN XLN, SCAT FN XLN, PLTY, TR BLKY, SM TO ABNDNT ARG, TR DOLC CMT, TR CRIN W/ SM FOSS DEBRIS, OCC BLK SPOT STAIN, NO ODOR, TR XLN POR, TR MOLDC POR, SCAT FN FRAC, TR DULL YEL TO DK YEL FLOR, PR STRMNG BLU/WHT CUT, THIN WHT RES RING

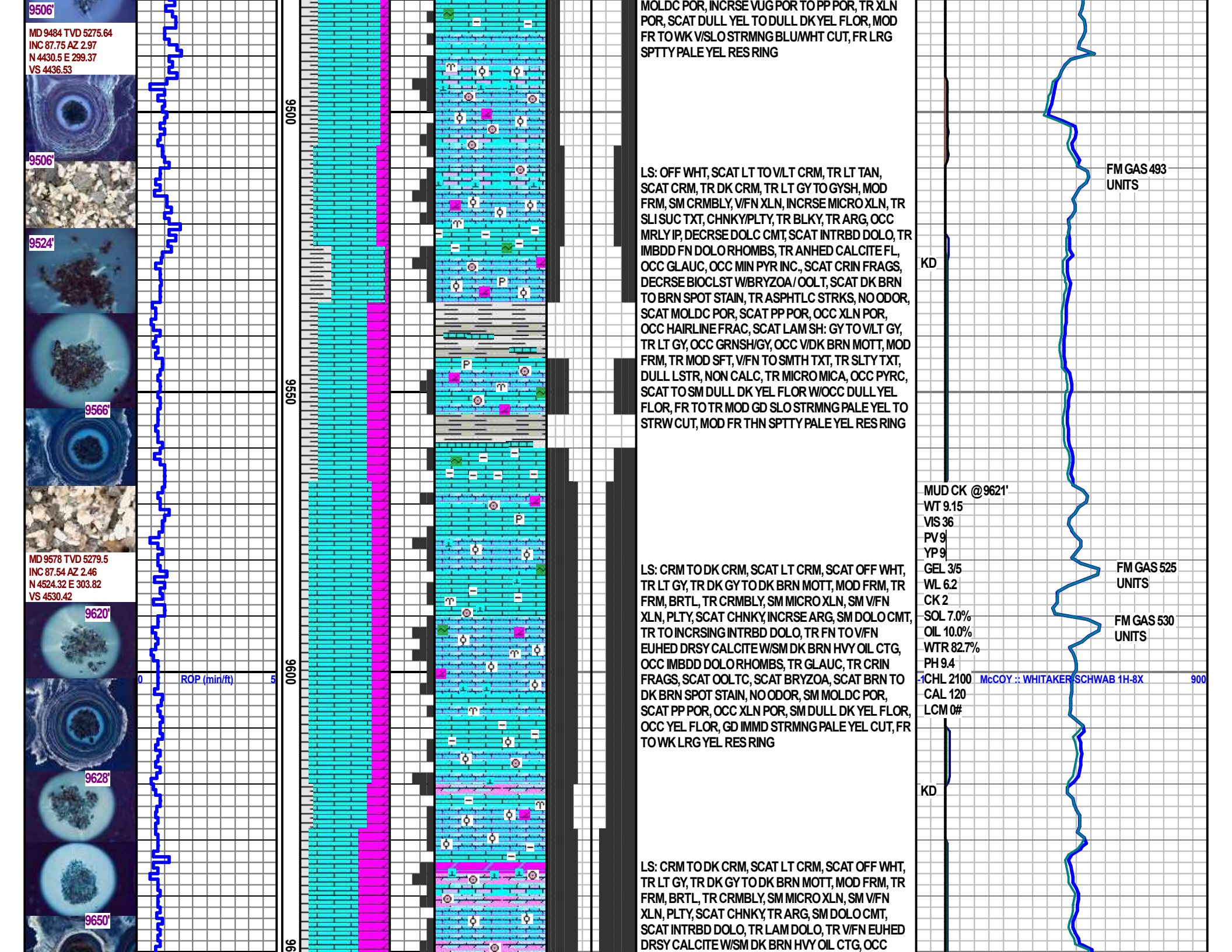
SH: MSTLY GY, SM DK GY, SCAT TO TR LT GY, OCC LT GRN W/GY MOTT, OCC BLK, TR V/DK GY, MOD FRM, OCC FRM, BRTL, SM MOD SFT, V/FN TXT, TR SMTH TXT, SCAT SLTYTXT, DULL LSTR, PLTY, TR TAB, NON CALC, SCAT TO SM SLTYIP, SCAT MIN PYR INC., OCC MICRO MICA, OCC SLI CARB, SCAT LAM LS: OFF WHT TO TAN, SCAT DK TAN, TR CRM TO DK CRM, SCAT GYSH MOTT, MOD FRM, SM FRM, SM CRMBLY, V/FN XLN, SCAT FN XLN, PLTY, TR BLKY, SM ARG, TR DOLC CMT, TR CRIN W/ SM FOSS DEBRIS, OCC BLK SPOT STAIN, NO ODOR, TR XLN POR, TR MOLDC POR, SCAT FN FRAC, TR DULL YEL TO DK YEL FLOR, TR TO PR STRMNG BLU/WHT CUT, THIN WHT RES RING

LS: V/LT CRM TO SM OFF WHT, SCAT V/LT GY TO GYSH/TAN, SCAT LT TAN, TR DK BRN TO BRN MOTT, MOD FRM, SM FRM, BRTL, SM CRMBLY, FN TO V/FN XLN, OCC MICRO XLN, TR TO SCAT SUC TXT, CHNKY, SCAT PLTY, TR ARG, SM DOLO CMT, SCAT INTRBD DOLO, OCC CALCITE, SM CALCITE FL, OCC PYR INC., SM CRIN FRAGS, SCAT OOLTC W/SM FN SUC DOLC MTX, TR BIOCLST, SCAT BRN TO DK BRN SPOT STAIN, NO ODOR, SM MOLDC POR, SCAT XLN POR, OCC PP TO VUG POR, SCAT LAM SH: GY TO DK GY, TR LT GY, OCC V/DK GY, MOD FRM, TR MOD SFT, V/FN TO SLTY TXT, TR SMTH TXT, DULL LSTR, NON CALC, SCAT YEL TO V/DULL DK YEL FLOR, TR DULL YEL FLOR, FR STRMNG MLKY BLU/WHT CUT, TR HVY FR SPTTY PALE YEL RES RING




9175'
9196'
9225'
9275'
9285'
MD 9202 TVD 5281.21
INC 92.99 AZ 359.73
N 4148.86 E 290.77
VS 4154.76
MD 9296 TVD 5276.33
INC 92.96 AZ 1.62
N 4242.72 E 291.88
VS 4248.62
0
ROP (min/ft)
5
9150
9200
9250
9300
LS: V/LT CRM TO SM OFF WHT, SCAT CRM, OCC DK CRM, OCC WHT, TR OPQ TO TRNSL, OCC V/LT TAN MOTT, MOD FRM, TR FRM, SM BRTL, SM CRMBLY, FN TO V/FN XLN, TR MICRO XLN, TR FN SUC TXT, CHNKY, SM PLTY, OCC BLKY, SCAT TO SM ARG, SM DOLO CMT, SM INTRBD DOLO, SCAT TO TR MED TO LRG EUHED DRSY CALCITE, OCC PLTY CALCITE FL W/TR OCC HL FRAC, OCC MED IMBDD DOLO RHOMBS, SCAT CRIN FRAGS, SCAT OOLTC, TR BIOCLST W/OCC BRYZOA, TR TAN TO BRN SPOT STAIN, TR ASPHLTC STRKS, NO ODOR, SM MOLDC POR, TR TO SCAT VUG TO PP POR, TR FN TO HAIRLINE FRAC, TR TO OCC LAM SH: GY TO LT GY, TR DK GY, OCC V/PALE GRNSH/GY, MOD FRM, BRTL, SMTH TXT, DULL LSTR, PLTY, OCC FLKY, NON CALC, OCC SLTY IP, OCC MICRO MICA, SCAT DULL YEL FLOR, OCC DULL STRW FLOR, FR TO GD STRMNG BLU/WHT CUT, FR LRG HVY YEL RES RING
LS: OFF WHT,SM CRM, SCAT DK CRM, OCC LT CRM, OCC WHT, TR OPQ TO TRNSL, OCC V/LT TAN MOTT, MOD FRM, TR FRM, SM BRTL, SM CRMBLY, FN TO V/FN XLN, TR MICRO XLN, TR FN SUC TXT, CHNKY, SM PLTY, OCC BLKY, INCRSNG ARG, SM DOLO CMT, SM INTRBD DOLO, TR GLAUC, TR OCC HL FRAC, OCC MED IMBDD DOLO RHOMBS, SCAT CRIN FRAGS, SCAT OOLTC, TR TAN TO BRN SPOT STAIN, TR ASPHLTC STRKS, NO ODOR, SM MOLDC POR, TR TO SCAT VUG TO PP POR, TR FN TO HAIRLINE FRAC, TR TO OCC LAM SH: GY TO LT GY, TR DK GY, OCC V/PALE GRNSH/GY, MOD FRM, BRTL, SMTH TXT, DULL LSTR, PLTY, OCC FLKY, NON CALC, OCC SLTY IP, OCC MICRO MICA, SCAT DULL YEL FLOR, OCC DULL STRW FLOR, FR STRMNG BLU/WHT CUT, YEL RES RING
LS: OFF WHT TO V/LT CRM, SCAT LT CRM, TR CRM, SCAT TO TR TAN TO DK TAN MOTT, TR GYSH/TAN, TR DK GY MOTT, MOD FRM, TR FRM, MSTLY BRTL, TR CRMBLY, V/FN XLN, SCAT MICRO XLN, TR FN XLN, TR V/FN SUC TXT, PLTY, SM CHNKY, OCC BLKY, TR ARG, SM DOLC CMT, SCAT INTRBD DOLO, TR MED TO LRG EUHED DRSY CALCITE W/OCC SPOT STAIN, OCC TO
FM GAS 1396 UNITS
KD
-200
McCOY :: WHITAKER SCHWAB 1H-8X
1800
WOB- 23.1K
RPM- 53
PP- 2782
SPM- 100
GPM- 291
MWT 9.3
VIS 39
KD
FM GAS 1142 UNITS
FM GAS 953 UNITS

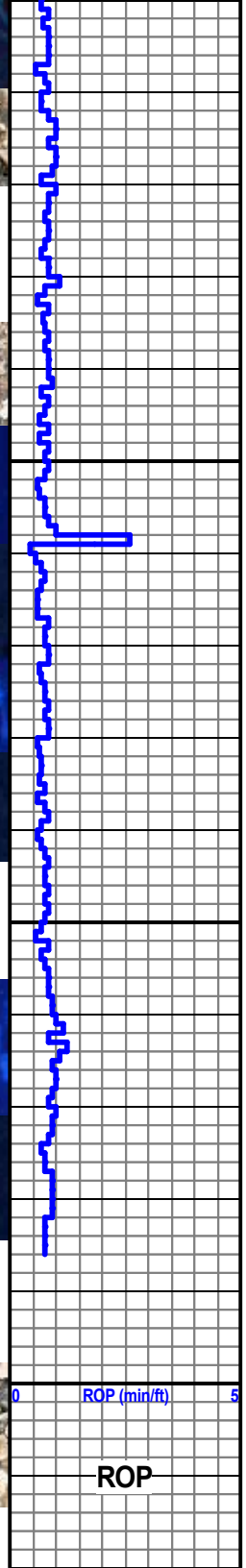

9332'
9360'
10/01/2019
9360'
9384'
MD 9390 TVD 5273.84
INC 90.06 AZ 2.27
N 4336.62 E 295.08
VS 4342.57
0
ROP (min/ft)
5
9384'
9456'
9466'
9350
9400
9450
TR PYR INC. W/MSTLY MIN, OCC FN IMBDD DOLO RHOMBS, SM CRIN FRAGS, SCAT TO TR OOLT W/TT DOLC MTX, SCAT BIOCLST, SCAT DK BRN SPOT STAIN, NO ODOR, SM MOLDC POR, TR TO SCAT XLN POR, OCC HAIRLINE FRAC, SCAT THN BDD /INTRBD SH: LT GY, GY, TR V/LT GY, OCC PALE TO V/PALE GRN, TR TO OCC BRN MOTT, MOD FRM, TR MOD SFT, MSTLY BRTL, SMTH TXT, TR V/FN TXT, DULL LSTR, PLTY, TR CHNKY, NON CALC, TR PYRC, OCC SLTY IP, SCAT YEL FLOR, SCAT DULL DK YEL TO DULL YEL FLOR, SLO WK TO TR GD STRMNG STRW TO BLU/WHT CUT, FR LRG SPTTY PALE YEL TO YEL RES RING
LS: LT CRM TO CRM, SM OFF WHT, TR DK CRM, TR TAN MOTT, OCC DK BRN TO BLK MOTT, MOD FRM, BRTL, SCAT CRMBLY, V/FN TO FN XLN, DECRSING MICRO XLN, TR SLI SUC TXT, PLTY TO CHNKY, OCC BLKY, TR TO OCC ARG, SM DOLC CMT, SCAT TO SM INTRBD DOLO, OCC LAM DOLO, SCAT FN TO MED TANSH TO TRNSP EUHED DRSY CALCITE, SCAT V/FN IMBDD DOLO RHOMBS, OCC GLAUC, OCC MIN PYR INC., SCAT CRIN FRAGS, TR OOLTC W/TR V/FN SUC DOLC MTX, OCC BRYZOA, SCAT DK TAN TO DK BRN SPOT STAIN, NO ODOR, SM MOLDC POR, TR VUG POR, TR XLN POR, TR INTRBD/ THN BDD SH: LT GY, GY, TR V/LT GY, OCC PALE TO V/PALE GRN, TR TO OCC BRN MOTT, MOD FRM, TR MOD SFT, MSTLY BRTL, SMTH TXT, TR V/FN TXT, DULL LSTR, PLTY, TR CHNKY, NON CALC, TR PYRC, OCC SLTY IP, SCAT V/DULL YEL TO DULL DK YEL FLOR, FR V/SLO STRMNG BLU/WHT CUT, FR TO MOD FR LRG HVY SPTTY PALE YEL RES RING
LS: CRM TO LT CRM, SCAT DK CRM, DECRSING OFF WHT, TR TAN TO BRN MOTT, OCC DK GY STRKS, MOD FRM, SM CRMBLY, V/FN XLN, SCAT FN XLN, OCC MICRO XLN, SM SLI SUC TXT, CHNKY, SM PLTY, OCC ARG, SM DOLO CMT, TR INTRBD DOLO, SCAT MED TANSH/TRNSP EUHED DRSY CALCITE, TR V/FN IMBDD DOLO RHOMBS, OCC GLAUC, SCAT CRIN FRAGS, INCRSE OOLTC, TR TO SCAT BRYZOA, SCAT DK BRN TO BRN SPOT STAIN, NO ODOR, SM TO SCAT
MWT 9.3
VIS 38
KD
WOB- 23.7K
RPM- 52
PP- 2601
SPM- 98
GPM- 285
Scale Change
-100
McCOY :: WHITAKER-SCHWAB 1H-8X
900
-100
McCOY :: WHITAKER-SCHWAB 1H-8X
900
RIG REPAIR - REPLACE HYDROLIC HOSE ON TOP DRIVE
KD
CON GAS 707 UNITS

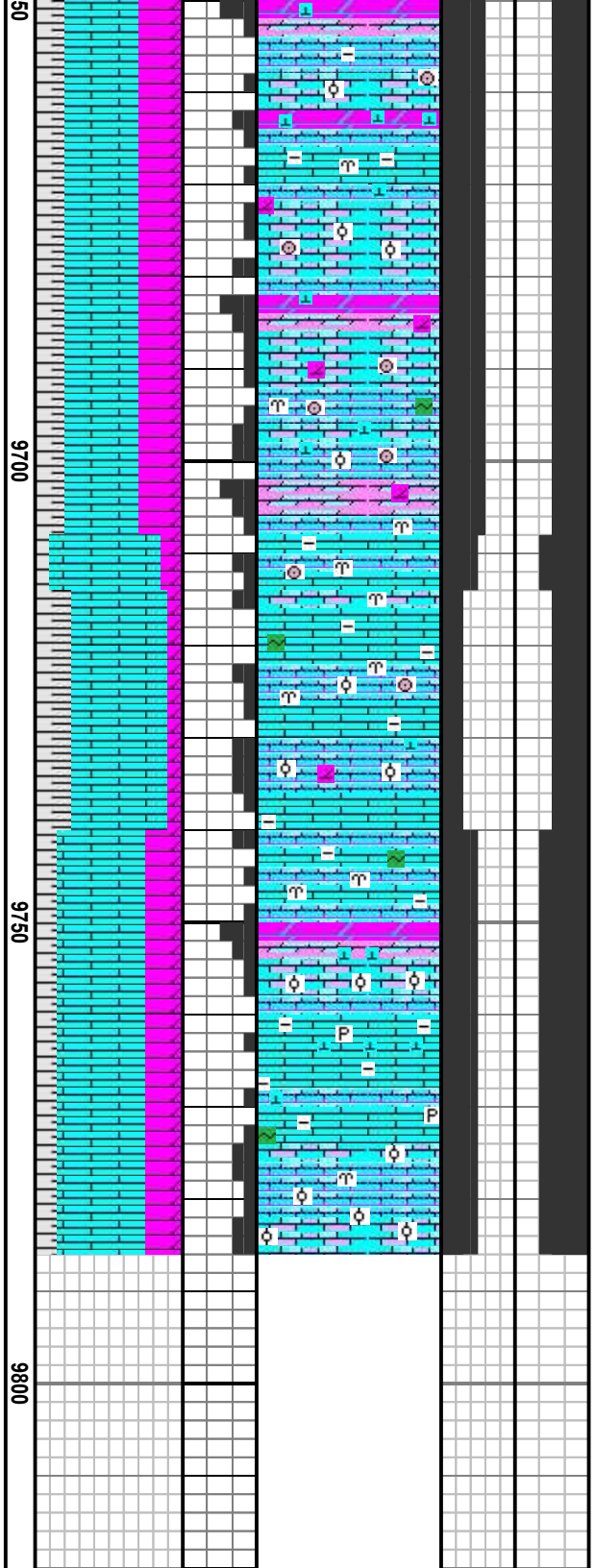

9506'
MD 9484 TVD 5275.64
INC 87.75 AZ 2.97
N 4430.5 E 299.37
VS 4436.53
9506'
9524'
9566'
MD 9578 TVD 5279.5
INC 87.54 AZ 2.46
N 4524.32 E 303.82
VS 4530.42
9620'
9628'
9650'
0
ROP (min/ft)
5
9500
9550
9600
MOLDC POR, INCRSE VUG POR TO PP POR, TR XLN POR, SCAT DULL YEL TO DULL DK YEL FLOR, MOD FR TO WK V/SLO STRMNG BLU/WHT CUT, FR LRG SPTTY PALE YEL RES RING
LS: OFF WHT, SCAT LT TO V/LT CRM, TR LT TAN, SCAT CRM, TR DK CRM, TR LT GY TO GYSH, MOD FRM, SM CRMBLY, V/FN XLN, INCRSE MICRO XLN, TR SLI SUC TXT, CHNKY/PLTY, TR BLKY, TR ARG, OCC MRLY IP, DECRSE DOLC CMT, SCAT INTRBD DOLO, TR IMBDD FN DOLO RHOMBS, TR ANHED CALCITE FL, OCC GLAUC, OCC MIN PYR INC., SCAT CRIN FRAGS, DECRSE BIOCLST W/BRYZOA / OOLT, SCAT DK BRN TO BRN SPOT STAIN, TR ASPHTLC STRKS, NO ODOR, SCAT MOLDC POR, SCAT PP POR, OCC XLN POR, OCC HAIRLINE FRAC, SCAT LAM SH: GY TO V/LT GY, TR LT GY, OCC GRNSH/GY, OCC V/DK BRN MOTT, MOD FRM, TR MOD SFT, V/FN TO SMTH TXT, TR SLTY TXT, DULL LSTR, NON CALC, TR MICRO MICA, OCC PYRC, SCAT TO SM DULL DK YEL FLOR W/OCC DULL YEL FLOR, FR TO TR MOD GD SLO STRMNG PALE YEL TO STRW CUT, MOD FR THN SPTTY PALE YEL RES RING
LS: CRM TO DK CRM, SCAT LT CRM, SCAT OFF WHT, TR LT GY, TR DK GY TO DK BRN MOTT, MOD FRM, TR FRM, BRTL, TR CRMBLY, SM MICRO XLN, SM V/FN XLN, PLTY, SCAT CHNKY, INCRSE ARG, SM DOLO CMT, TR TO INCRSING INTRBD DOLO, TR FN TO V/FN EUHED DRSY CALCITE W/SM DK BRN HVY OIL CTG, OCC IMBDD DOLO RHOMBS, TR GLAUC, TR CRIN FRAGS, SCAT OOLTC, SCAT BRYZOA, SCAT BRN TO DK BRN SPOT STAIN, NO ODOR, SM MOLDC POR, SCAT PP POR, OCC XLN POR, SM DULL DK YEL FLOR, OCC YEL FLOR, GD IMMD STRMNG PALE YEL CUT, FR TO WK LRG YEL RES RING
LS: CRM TO DK CRM, SCAT LT CRM, SCAT OFF WHT, TR LT GY, TR DK GY TO DK BRN MOTT, MOD FRM, TR FRM, BRTL, TR CRMBLY, SM MICRO XLN, SM V/FN XLN, PLTY, SCAT CHNKY, TR ARG, SM DOLO CMT, SCAT INTRBD DOLO, TR LAM DOLO, TR V/FN EUHED DRSY CALCITE W/SM DK BRN HVY OIL CTG, OCC
FM GAS 493 UNITS
KD
MUD CK @9621'
WT 9.15
VIS 36
PV 9
YP 9
GEL 3/5
WL 6.2
CK 2
SOL 7.0%
OIL 10.0%
WTR 82.7%
PH 9.4
-1
CHL 2100
CAL 120
LCM 0#
McCOY :: WHITAKER-SCHWAB 1H-8X
900
FM GAS 525 UNITS
FM GAS 530 UNITS
KD

MD 9673 TVD 5283.27
INC 87.9 AZ 2.5
N 4619.15 E 307.92
VS 4625.33

MD 9743 TVD 5285.95
INC 87.72 AZ 2.25
N 4689.04 E 310.82
VS 4695.27

PROJECTED
MD 9786 TVD 5287.66
INC 87.72 AZ 2.25
N 4731.97 E 312.5
VS 4738.23





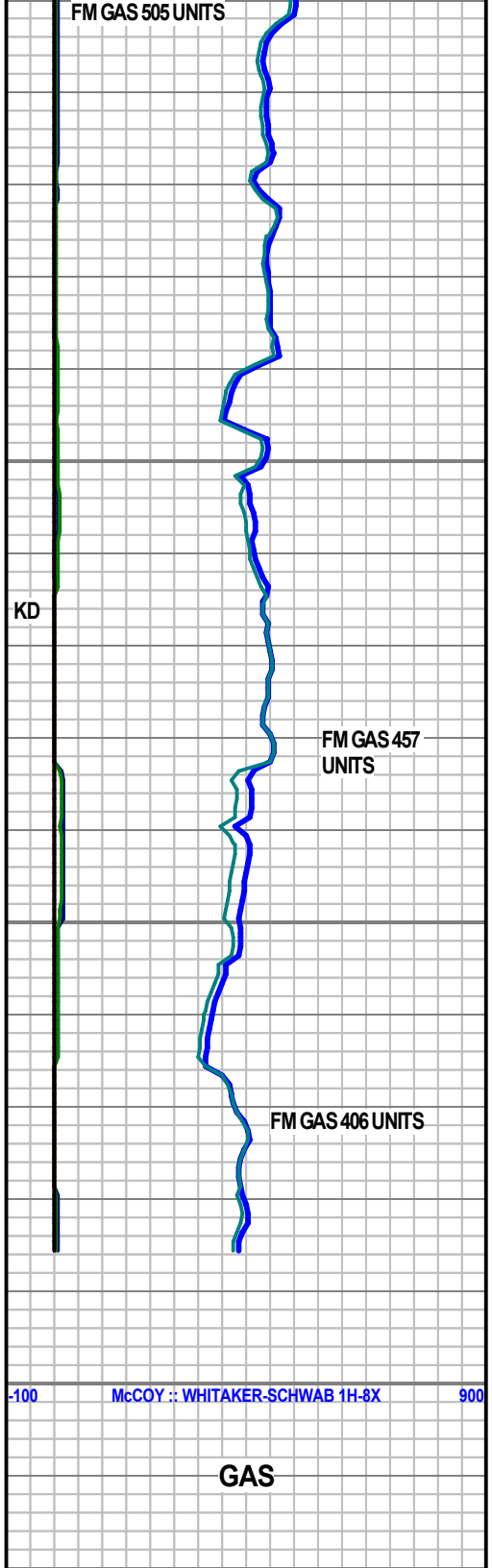
IMBDD DOLO RHOMBS, TR CRIN FRAGS, SCAT OOLTC, SCAT BRYZOA, SCAT BRN TO DK BRN SPOT STAIN, NO ODOR, SM MOLDC POR, SCAT PP POR, OCC XLN POR, SM DULL DK YEL FLOR, TR TO OCC YEL FLOR, V/GD IMMD STRMNG PALE YEL CUT, FR LRG HVY YEL RES RING

LS: V/LT CRM TO SCAT OFF WHT, SM CRM, TR DK CRM, OCC WHT, TR OPQ TO TRNSL, OCC V/LT TAN TO TAN MOTT, MOD FRM, TR FRM, SM BRTL, SM CRMBLY, TR BRN TO DK BRN MOTT, FN TO V/FN XLN, TR MICRO XLN, TR FN SUC TXT, CHNKY, SM PLTY, OCC BLKY, SCAT TO SM ARG, SM DOLO CMT, DECRSING INTRBD DOLO, TR FN EUHED DRSY CALCITE, OCC MED IMBDD DOLO RHOMBS, OCC GLAUC, SCAT CRIN FRAGS, SCAT OOLTC, TR BIOCLST W/OCC BRYZOA, TR TAN TO BRN SPOT STAIN, TR ASPHLTC STRKS, NO ODOR, SM MOLDC POR, TR TO SCAT VUG TO PP POR, TR FN TO HAIRLINE FRAC, SM DULL DK YEL FLOR W/OCC YEL, FR TO TR GD SLO STRMNG PALE YEL CUT, FR TO OCC MOD GD SPTTY YEL RES RING

LS: LT CRM, SM OFF WHT, SM V/LT CRM, TR TAN TO DK TAN MOTT, TR GY MOTT, MOD FRM, TR FRM, BRTL, TR CRMBLY, V/FN TO MICRO XLN, DECRSING FN SUC TXT, PLTY, SM CHNKY, TR BLKY, SCAT ARG, SCAT DOLO CMT, TR TO SCAT INTRBD/LAM DOLO, OCC PYR INC., OCC AHNED CALCITE FL, OCC GLAUC, SCAT OOLTC W/OCC V/FN SUC DOLC MTX, TR BRYZOA, OCC INTRBD SH, TR DK BRN TO BLK SPOT STAIN, NO ODOR, DECRSE MOLDC POR, TR FRAC POR W/SM HAIRLINE, OCC XLN POR,SM DULL DK YEL FLOR, OCC YEL FLOR, SLO MOD GD STRMNG PALE YEL CUT, FR SPTTY YEL RES RING

DRILLER'S TD @ 9786' MD
5287' TVD -2452' SS ON 10/01/2019

McCOY PETROLEUM CORPORATION
WHITAKER-SCHWAB #1H-8X
SEC. 8-30S-30W MEADE CO., KS
GL: 2814' KB: 2835'



9850

API: 15-119-21441-01

SHL: 330' FSL & 1320' FWL OF S2 S2 S2 SW OF SEC. 8-30S-30W MEADE CO., KS

RECEIVED SEP 30 2019

INVOICE

HALLIBURTON

Halliburton Energy Services, Inc.

Remit To: P.O. Box 301341, Dallas, TX 75303-1341

Wire Transfer Information
Account Number: Account 00032969
ABA Routing Number: 021000089

Invoice Date: September 18, 2019

Invoice Number: 9505019390

DIRECT CORRESPONDENCE TO:
6100 E HWY 66
EL RENO, OK 73036
US
Tel: 405-518-3644
Fax: 405-634-0389

TO:
MCCOY PETROLEUM CO
PO BOX 39
SPIVEY KS 67142

13 3/8 Cement

Rig Name:
Well Name: WHITAKER-SCHWAB 1H-8,MEADE 1H-8X
Ship to: PLAINS, KS 67869
MEADE

Job Date:	September 18, 2019
Cust. PO No.:	NA
Payment Terms:	Net 20 days from Invoice date
Quote No.:	22627326
Sales Order No.:	905977158
Manual Ticket No.:	
Shipping Point:	EL RENO SHIPPING POINT
Ultimate Destination Country:	US
Customer Account No.:	303780

Contract No.:
Contract from:
Contract to:

Material	Description	QTY	UOM	Base Amount	Unit Amount	Gross Amount	Discount	Net Amount
7521	CMT SURFACE CASING BOM 7521	1.00	JOB					
1	ZI-MILEAGE FROM NEAREST HES BA Number of Units	490.000 1	MI		9.79	4,797.10	3,885.65-	911.45
2	MILEAGE FOR CEMENTING CREW Number of Units	490.000 1	MI		5.76	2,822.40	2,286.14-	536.26
*16091	ZI - PUMPING CHARGE DEPTH	1.000 870	EA FT		5,290.00	5,290.00	4,284.90-	1,005.10
*100003684	CEM,CLASS A REGULAR/TYPE 1,BUL Standard Cement	500.000	SK		47.04	23,520.00	19,051.20-	4,468.80
*101216940	CHEM, Pol-E-Flake, 25 lb bag Poly-E-Flake	63.000	LB		8.31	523.53	424.06-	99.47
*861890	Chem, WELLLIFE 1094 15 lb bag WellLife 1094 - 15 lb bag	94.000	LB		42.00	3,948.00	3,197.88-	750.12
*100003682	CHEM, BENTONITE (PER 100 LB) Bentonite	19.000	SK		60.21	1,143.99	926.63-	217.36
*100003684	CEM,CLASS A REGULAR/TYPE 1,BUL Standard Cement	280.000	SK		47.04	13,171.20	10,668.67-	2,502.53
*101216940	CHEM, Pol-E-Flake, 25 lb bag Poly-E-Flake	70.000	LB		8.31	581.70	471.18-	110.52
*861890	Chem, WELLLIFE 1094 15 lb bag WellLife 1094 - 15 lb bag	53.000	LB		42.00	2,226.00	1,803.06-	422.94
3965	HANDLE&DUMP SVC CHRG, CMT&ADDI NUMBER OF EACH	844.000 1	CF EA		5.49	4,633.56	3,753.18-	880.38

* - Taxable item

RECEIVED SEP 30 2019

INVOICE

HALLIBURTON

Halliburton Energy Services, Inc.

Remit To: P.O. Box 301341, Dallas, TX 75303-1341

Wire Transfer Information
Account Number: Account 00032969
ABA Routing Number: 021000089

Invoice Date: September 23, 2019 **Invoice Number: 9505028274**

DIRECT CORRESPONDENCE TO:
6100 E HWY 66
EL RENO, OK 73036
US
Tel: 405-518-3644
Fax: 405-634-0389

TO:
MCCOY PETROLEUM CO
PO BOX 39
SPIVEY KS 67142

9 5/8" Cement

Rig Name:
Well Name: WHITAKER-SCHWAB 1H-8X,MEADE
Ship to: PLAINS, KS 67869
MEADE

Job Date:	September 19, 2019
Cust. PO No.:	NA
Payment Terms:	Net 20 days from Invoice date
Quote No.:	22624643
Sales Order No.:	905967393
Manual Ticket No.:	
Shipping Point:	EL RENO SHIPPING POINT
Ultimate Destination Country:	US
Customer Account No.:	303780

Contract No.:
Contract from:
Contract to:

Material	Description	QTY	UOM	Base Amount	Unit Amount	Gross Amount	Discount	Net Amount
7521	CMT SURFACE CASING BOM 7521	1.00	JOB					
1	ZI-MILEAGE FROM NEAREST HES BA Number of Units	490.000 1	MI		9.79	4,797.10	3,885.65-	911.45
2	MILEAGE FOR CEMENTING CREW Number of Units	490.000 1	MI		5.76	2,822.40	2,286.14-	536.26
*16091	ZI - PUMPING CHARGE Includes 6 hrs on location DEPTH	1.000 1800	EA FT		5,290.00	5,290.00	4,284.90-	1,005.10
367969	Circulating Iron Package used Circulating Iron Package used with Halliburton / equipment and/or services	1.000	EA		936.00	936.00	758.16-	177.84
*100003684	CEM,CLASS A REGULAR/TYPE 1,BUL Standard Cement	370.000	SK		47.04	17,404.80	14,097.89-	3,306.91
*100003682	CHEM, BENTONITE (PER 100 LB) Bentonite	14.000	SK		60.21	842.94	682.78-	160.16
*101216940	CHEM, Pol-E-Flake, 25 lb bag Poly-E-Flake	47.000	LB		8.31	390.57	316.36-	74.21
*100003684	CEM,CLASS A REGULAR/TYPE 1,BUL Standard Cement	160.000	SK		47.04	7,526.40	6,096.38-	1,430.02
*101216940	CHEM, Pol-E-Flake, 25 lb bag Poly-E-Flake	20.000	LB		8.31	166.20	134.62-	31.58
3965	HANDLE&DUMP SVC CHRG, CMT&ADDI NUMBER OF EACH	565.000 1	CF EA		5.49	3,101.85	2,512.50-	589.35

* - Taxable item

RECEIVED OCT 0 9 2019

INVOICE

HALLIBURTON

Halliburton Energy Services, Inc.

Remit To: P.O. Box 301341, Dallas, TX 75303-1341

Wire Transfer Information
Account Number: Account 00032969
ABA Routing Number: 021000089

Invoice Date: September 27, 2019 **Invoice Number: 9505040216**

DIRECT CORRESPONDENCE TO:
6100 E HWY 66
EL RENO, OK 73036
US
Tel: 405-518-3644
Fax: 405-634-0389

TO:
MCCOY PETROLEUM CO
PO BOX 39
SPIVEY KS 67142

Rig Name:
Well Name: WHITAKER-SCHWAB 1H-8X,MEADE
Ship to: PLAINS, KS 67869
MEADE

Job Date:	September 27, 2019
Cust. PO No.:	NA
Payment Terms:	Net 20 days from Invoice date
Quote No.:	22631079
Sales Order No.:	905998052
Manual Ticket No.:	
Shipping Point:	EL RENO SHIPPING POINT
Ultimate Destination Country:	US
Customer Account No.:	303780

Contract No.:
Contract from:
Contract to:

Material	Description	QTY	UOM	Base Amount	Unit Amount	Gross Amount	Discount	Net Amount
7522	CMT INTERMEDIATE CASING BOM 7522	1.00	JOB					
1	ZI-MILEAGE FROM NEAREST HES BA Number of Units	490.000 2	MI		9.79	9,594.20	7,483.48-	2,110.72
2	MILEAGE FOR CEMENTING CREW Number of Units	490.000 1	MI		5.76	2,822.40	2,201.47-	620.93
*16091	ZI - PUMPING CHARGE Includes up to 6 hours on location DEPTH	1.000 5700	EA FT		8,708.00	8,708.00	6,792.24-	1,915.76
367969	Circulating Iron Package used	1.000	EA		936.00	936.00	468.00-	468.00
*719269	SBM, CMT CleanSpacer III	30.000	BBL		250.00	7,500.00	7,125.00-	375.00
*452992	CMT, EconoCem (TM) system	200.00	SK		33.92	6,784.10	5,291.60-	1,492.50
100003623	CHEM, WG-17-Gelling Agent, 50 WG-17	27.000	LB		22.00	594.00	463.32-	130.68
*101216940	CHEM, Pol-E-Flake, 25 lb bag Poly-E-Flake	25.000	LB		8.31	207.75	162.05-	45.70
*100003799	CHEM, HALAD 447, 25 KG Halad(R)-447	106.000	LB		18.45	1,955.70	1,525.45-	430.25
*861890	Chem, WELLLIFE 1094 15 lb bag WellLife 1094 - 15 lb bag	36.000	LB		42.00	1,512.00	1,179.36-	332.64
*100003687	CEM,CLASS H / PREMIUM, BULK Premium Cement	100.000	SK		48.19	4,819.00	3,758.82-	1,060.18
*101216940	CHEM, Pol-E-Flake, 25 lb bag Poly-E-Flake	13.000	LB		8.31	108.03	84.26-	23.77

plan 2.0 - 110 SX,
plan 1.0 - 290 SX

* - Taxable item

INVOICE

RECEIVED OCT 16 2019

HALLIBURTON

Halliburton Energy Services, Inc.

Remit To: P.O. Box 301341, Dallas, TX 75303-1341

Wire Transfer Information
Account Number: Account 00032969
ABA Routing Number: 021000089

Invoice Date: October 04, 2019

Invoice Number: 9505056078

DIRECT CORRESPONDENCE TO:
6100 E HWY 66
EL RENO, OK 73036
US
Tel: 405-518-3644
Fax: 405-634-0389

TO:
MCCOY PETROLEUM CO
PO BOX 39
SPIVEY KS 67142

Rig Name:
Well Name: WHITAKER-SCHWAB 1H-8X,MEADE
Ship to: PLAINS, KS 67869
MEADE

Job Date:	October 03, 2019
Cust. PO No.:	NA
Payment Terms:	Net 20 days from Invoice date
Quote No.:	22631080
Sales Order No.:	906009021
Manual Ticket No.:	
Shipping Point:	EL RENO SHIPPING POINT
Ultimate Destination Country:	US
Customer Account No.:	303780

Contract No.:
Contract from:
Contract to:

Material	Description	QTY	UOM	Base Amount	Unit Amount	Gross Amount	Discount	Net Amount
7525	CMT PRODUCTION LINER BOM 7525	1.00	JOB					
1	ZI-MILEAGE FROM NEAREST HES BA Number of Units	490.000 1	MI		9.79	4,797.10	3,357.97-	1,439.13
2	MILEAGE FOR CEMENTING CREW Number of Units	490.000 1	MI		5.76	2,822.40	1,975.68-	846.72
*16100	CMTG LINER/SHORT CSG STRING DEPTH	1.000 9800	EA FT		17,892.00	17,892.00	10,420.30-	7,471.70
*719269	SBM, CMT CleanSpacer III	30.000	BBL		250.00	7,500.00	7,125.00-	375.00
*452992	CMT, EconoCem (TM) system	400.00	SK		44.45	17,779.08	12,445.35-	5,333.73
*101209204	CHEM, Halad-23, 50 lb Halad(R)-23	317.000	LB		30.35	9,620.95	6,734.67-	2,886.28
3965	HANDLE&DUMP SVC CHRG, CMT&ADDI NUMBER OF EACH	450.000 1	CF EA		5.49	2,470.50	1,729.35-	741.15
76400	MILEAGE,CMT MTLS DEL/RET MIN NUMBER OF TONS	245.000 19.055	MI		3.35	15,639.39	10,947.57-	4,691.82
367969	Circulating Iron Package used	1.000	EA		936.00	936.00	468.00-	468.00
802332	CMT STBY UNIT 1ST 8 HR CSG JOB Additional pump charge if 2nd pump requested includes 8 hours on location	1.000	UN		10,000.00	10,000.00	4,000.00-	6,000.00
*100008028	CHEM, SUGAR,GRANULATED, 50LB B	100.000	LB		6.96	696.00	487.20-	208.80
*101577109	CHEM, BARITE 41, BULK Barite 41	20.000	SK		31.07	621.40	434.98-	186.42

* - Taxable item

HALLIBURTON

iCem® Service

MCCOY PETROLEUM CO

El Reno District, kansas

For: John Wadsworth

Date: Thursday, September 19, 2019

Whitaker-Schwab

Meade, Mccoy Whitaker-Schwab 0905967939
Mccoy Whitaker-Schwab 1H-8 0905967939
Job Date: Thursday, September 19, 2019

Sincerely,

Kurtis Pratt

Legal Notice

Disclaimer:

All information in this report is provided subject to the terms and conditions which govern the services provided by Halliburton. Halliburton personnel use their best efforts in gathering information and their best judgment in interpreting it, but any interpretation, research, analysis or recommendation furnished by Halliburton are opinions based upon inferences from measurements and empirical relationships and assumptions, which inferences and empirical relationships and assumptions are not infallible, and with respect to which professionals in the industry may differ. iCem 3D Displacement results are used to understand how fluids intermix during a cement job. Simulation and 3D displacement results are not intended as and should not be used as a replacement for bond logs in determining top of cement. Current 3D model calculations are known to model more volume than the input volume for standard cases due to known calculation improvements required. For rotational cases, the modeled volume will be impacted by the same calculations impacting the standard cases, as well as additional constraints imposed to make the calculation time required operationally feasible. Therefore, until further notice, 3D displacement results should not be used for replacement of a bond log, or used as an identifier of top of cement. HALLIBURTON IS UNABLE TO GUARANTEE THE ACCURACY OF ANY CHART INTERPRETATION, RESEARCH ANALYSIS, OR JOB RECOMMENDATION and any interpretation or recommendation is not for use of or reliance upon by any third party. The customer has full responsibility for any of its decisions which are based on the information provided in this report.

Table of Contents

1.0 Job Summary

The Road to Excellence Starts with Safety

Sold To #: 303780	**Ship To #:** 303780	**Quote #:** 0022624643	**Sales Order #:** 0905967393
Customer: MCCOY PETROLEUM CO		**Customer Rep:** John Wadsworth	
Well Name: Whitaker-Schwab	**Well #:** 1H-8		**API/UWI #:**
Field:	**City (SAP):** Meade	**County/Parish:** MEADE	**State:** KANSAS
Legal Description:			
Contractor:		**Rig/Platform Name/Num:**	
Job BOM: 7521 7521			
Well Type: OIL & GAS WELL			
Sales Person: HALAMERICA\HB80977		**Srvc Supervisor:** Kurtis Pratt	

Job

Formation Name				
Formation Depth (MD)	**Top**		**Bottom**	
Form Type			**BHST**	
Job depth MD	1800ft		**Job Depth TVD**	
Water Depth			**Wk Ht Above Floor**	
Perforation Depth (MD)	From		**To**	

Well Data

Description	New / Used	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Casing		20	19.166	90			0	90		
Casing		9.625	8.921	36	LTC	J-55	0	1800		
Open Hole Section			12.25				90	1800		

Tools and Accessories

Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make
Guide Shoe	9.625			1800		**Top Plug**	9.625		HES
Float Shoe	9.625					**Bottom Plug**	9.625		HES
Float Collar	9.625					**SSR plug set**	9.625		HES
Insert Float	9.625					**Plug Container**	9.625		HES
Stage Tool	9.625					**Centralizers**	9.625		HES

Fluid Data

Stage/Plug #: 1

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	Water Spacer	Water Spacer	30	bbl	8.33				
42 gal/bbl		**FRESH WATER**							

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
2	11.5 ppg Lead Cement	Standard Cement	370	sack	11.5	2.82		3	17.29
0.1250 lbm		**POLY-E-FLAKE (101216940)**							
17.29 Gal		**FRESH WATER**							
4 %		**BENTONITE, BULK (100003682)**							

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
3	14.8 ppg Tail Cement	Standard Cement	160	sack	14.8	1.33		3	6.33
0.1250 lbm		**POLY-E-FLAKE (101216940)**							
6.33 Gal		**FRESH WATER**							

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
4	Displacement	Displacement	135.9	bbl	8.33				

Cement Left In Pipe	**Amount**	42 ft	Reason	**Shoe Joint**	
Mix Water:		**Mix Water Chloride:**		Mix Water Temperature:	
Cement Temperature:		**Plug Displaced by:**	136bbls Water	Disp. Temperature:	
Plug Bumped?	yes	**Bump Pressure:**	880	Floats Held?	**yes**
Cement Returns:	80 bbls	**Returns Density:**		Returns Temperature:	

Comment Job pumped as designed. Circulated 71 bbls CMT to surface. Bumped on calculated. FCP 370 bumped to 885 psi. Floats held 1.5 bbls back to truck. 1500 psi Casing test for 30 min sucessful

HALLIBURTON

Summary Report

Crew: _____

Job Start Date: 09/19/2019 02:00 PM

Sales Order #: 0905967393
WO #: 0905967393
PO #: NA
AFE # :

Customer:	MCCOY PETROLEUM CO	**Field:**		**Job Type:**	CMT SURFACE CASING BOM
UWI / API Number:		**County/Parish:**	MEADE	**Service Supervisor:**	Kurtis Pratt
Well Name:	Whitaker-Schwab	**State:**	KANSAS		
Well No:	1H-8	**Latitude:**			
		Longitude:		**Cust Rep Name:**	John Wadsworth
		Sect / Twn / Rng:	//	**Cust Rep Phone #:**	

Remarks:		
The Information Stated Herein Is Correct	**Customer Representative Signature**	**Date**
	Customer Representative Printed Name	

2.0 Real-Time Job Summary

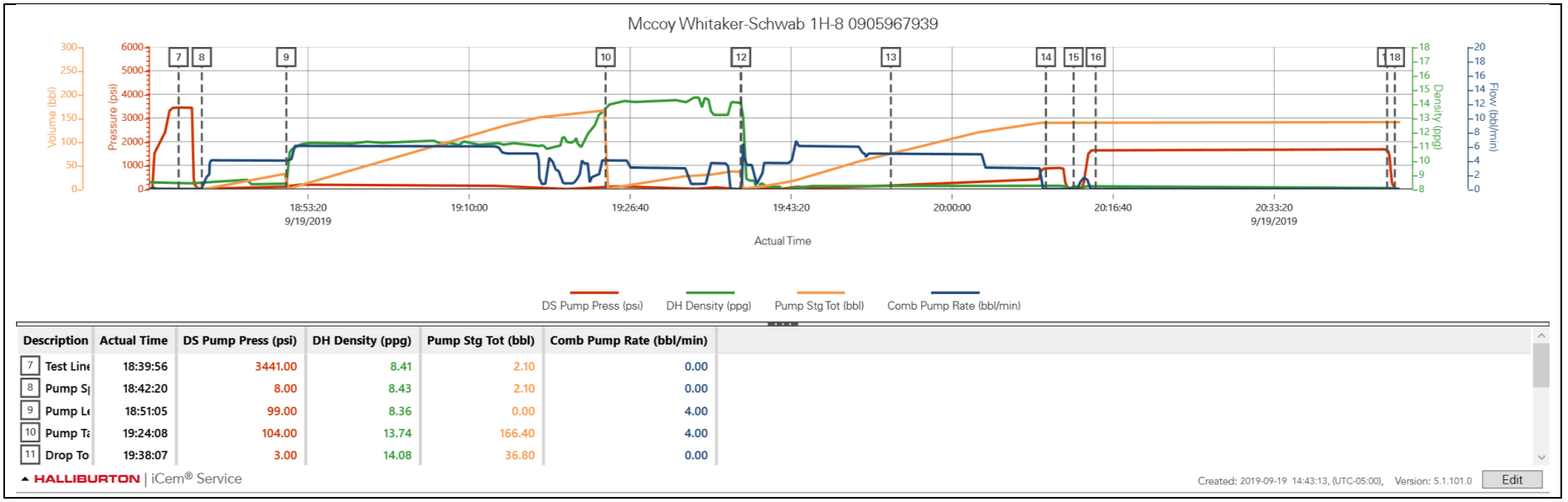
2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	DS Pump Press *(psi)*	DH Density *(ppg)*	Pump Stg Tot *(bbl)*	Comb Pump Rate *(bbl/min)*	Comments
Event	1	Call Out	Call Out	9/19/2019	08:00:00					Arrive at yard collect all equipment. Verify all material load paperwork, complete gate check, complete 401, hold pre-convoy safety meeting.
Event	2	Arrive At Loc	Arrive At Loc	9/19/2019	14:00:00					Rig crew running casing. Sign in with CM, collect numbers and discuss job procedures. Test water and verify all materials loaded location.
Event	3	Safety Meeting - Pre Rig-Up	Safety Meeting - Pre Rig-Up	9/19/2019	16:30:00					Discuss all job specific hazards including pinch points, suspended loads, weather, heat stress plan.
Event	4	Rig-up Lines	Rig-up Lines	9/19/2019	17:00:00					Rig up bulk, iron, and water lines
Event	5	Pre-Job Safety Meeting	Pre-Job Safety Meeting	9/19/2019	18:30:00					Discuss job procedures and hazards with rig crew, review order and location of blends and assign personnel to pour chemicals.
Event	6	Start Job	Start Job	9/19/2019	18:34:49					
Event	7	Test Lines	Test Lines	9/19/2019	18:39:56					
Event	8	Pump Spacer 1	Pump Spacer 1	9/19/2019	18:42:20					
Event	9	Pump Lead Cement	Pump Lead Cement	9/19/2019	18:51:05					
Event	10	Pump Tail Cement	Pump Tail Cement	9/19/2019	19:24:08					160 Sacks @ 4 bpm @ 14.8 ppg @ 120 psi
Event	11	Drop Top Plug	Drop Top Plug	9/19/2019	19:38:07					
Event	12	Pump Displacement	Pump Displacement	9/19/2019	19:38:10					136 bbls Fresh Water @ 5 bpm @ psi range of 50 to 230 psi
Event	13	Other	CMT to Surface	9/19/2019	19:53:40					65 bbls gone CMT to surface. Total of 71 bbls CMT to surface

Event	14	Bump Plug	Bump Plug	9/19/2019	20:09:43					Plug down on calculated. FCP 370 bumped @ 885 psi
Event	15	Other	Check flaots	9/19/2019	20:12:35					Floats held 1.5 bbls back to truck
Event	16	Other	1500 PSI Casing Test	9/19/2019	20:14:52	1658.00	8.18	141.20	0.00	
Event	17	Other	Test Complete	9/19/2019	20:45:02	1675.00	8.04	141.20	0.00	
Event	18	End Job	End Job	9/19/2019	20:45:50					
Event	19	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	9/19/2019	21:00:00					Discuss all hazards such as suspended loads, pinch points, lifting hazards, weather, heat stress.
Event	20	Rig Down Lines	Rig Down Lines	9/19/2019	21:30:00					Rig down and load up all HES equipment
Event	21	Crew Leave Location	Crew Leave Location	9/19/2019	23:00:00					Job complete crew leave location

3.0 Attachments

3.1 Mccoy Whitaker-Schwab 1H-8 0905967939-Custom Results.png



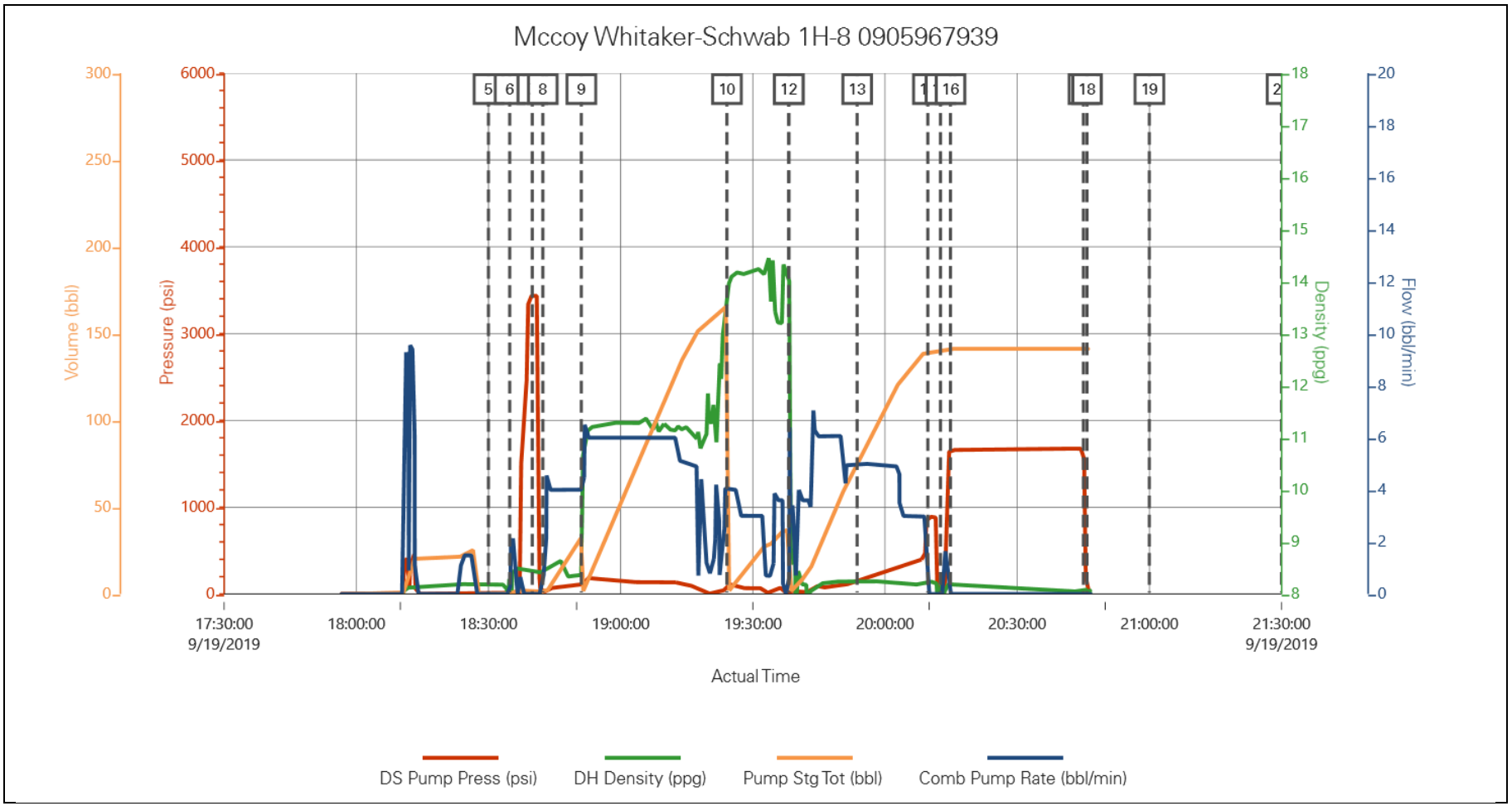
Description	Actual Time	DS Pump Press (psi)	DH Density (ppg)	Pump Stg Tot (bbl)	Comb Pump Rate (bbl/min)
7 Test Line	18:39:56	3441.00	8.41	2.10	0.00
8 Pump S	18:42:20	8.00	8.43	2.10	0.00
9 Pump L	18:51:05	99.00	8.36	0.00	4.00
10 Pump T	19:24:08	104.00	13.74	166.40	4.00
11 Drop To	19:38:07	3.00	14.08	36.80	0.00

HALLIBURTON | iCem® Service

Created: 2019-09-19 14:43:13, (UTC-05:00), Version: 5.1.101.0 Edit

4.0 Custom Graphs

4.1 Custom Graph



HALLIBURTON

iCem® Service

MCCOY PETROLEUM CO

El Reno District, KANSAS

For: MCCOY

Date: Friday, September 27, 2019

MCCOY WHITAKER SCHWAB 1H-8 7 INCH INTERMEDIATE

905998052

Case 1

Job Date: Friday, September 27, 2019

Sincerely,

DAVID HAHN

Legal Notice

Disclaimer:

All information in this report is provided subject to the terms and conditions which govern the services provided by Halliburton. Halliburton personnel use their best efforts in gathering information and their best judgment in interpreting it, but any interpretation, research, analysis or recommendation furnished by Halliburton are opinions based upon inferences from measurements and empirical relationships and assumptions, which inferences and empirical relationships and assumptions are not infallible, and with respect to which professionals in the industry may differ. iCem 3D Displacement results are used to understand how fluids intermix during a cement job. Simulation and 3D displacement results are not intended as and should not be used as a replacement for bond logs in determining top of cement. Current 3D model calculations are known to model more volume than the input volume for standard cases due to known calculation improvements required. For rotational cases, the modeled volume will be impacted by the same calculations impacting the standard cases, as well as additional constraints imposed to make the calculation time required operationally feasible. Therefore, until further notice, 3D displacement results should not be used for replacement of a bond log, or used as an identifier of top of cement. HALLIBURTON IS UNABLE TO GUARANTEE THE ACCURACY OF ANY CHART INTERPRETATION, RESEARCH ANALYSIS, OR JOB RECOMMENDATION and any interpretation or recommendation is not for use of or reliance upon by any third party. The customer has full responsibility for any of its decisions which are based on the information provided in this report.

Table of Contents

HALLIBURTON

Summary Report

Crew:

Job Start Date: 09/26/2019 06:00 PM

Sales Order #: 0905998052
WO #: 0905998052
PO #: NA
AFE # :

1.0 Job Summary report

The Road to Excellence Starts with Safety

Sold To #: 303780	**Ship To #:** 0009000081	**Quote #:** 0022631079	**Sales Order #:** 0905998052
Customer: MCCOY PETROLEUM CO		**Customer Rep:** ELIJIO HERNANDEZ	
Well Name: WHITAKER-SCHWAB	**Well #:** 1H-8X		**API/UWI #:** 15-119-21441-01
Field:	**City (SAP):** PLAINS	**County/Parish:** MEADE	**State:** KANSAS
Legal Description: S2 S2 SW-8-30S-30W-330FSL-1320FWL			
Contractor:		**Rig/Platform Name/Num:**	
Job BOM: 7522 7522			
Well Type: OIL & GAS WELL (HOR)			
Sales Person: HALAMERICA\HB80977		**Srvc Supervisor:** David Hahn	

Job

Formation Name				
Formation Depth (MD)	**Top**		**Bottom**	
Form Type			**BHST**	
Job depth MD	5700ft		**Job Depth TVD**	
Water Depth			**Wk Ht Above Floor**	
Perforation Depth (MD)	From		**To**	

Well Data

Description	New / Used	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Casing		9.625	8.921	36			0	1800		
Casing		7	6.276	26			0	5700		
Open Hole Section			8.75				1800	5700		

Tools and Accessories

Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make
Guide Shoe	7			5700		**Top Plug**	7		HES
Float Shoe	7					**Bottom Plug**	7		HES
Float Collar	7					**SSR plug set**	7		HES
Insert Float	7					**Plug Container**	7		HES
Stage Tool	7					**Centralizers**	7		HES

Fluid Data

Stage/Plug #: 1

HALLIBURTON

Summary Report

Crew:

Job Start Date: 09/26/2019 06:00 PM

Sales Order #: 0905998052
WO #: 0905998052
PO #: NA
AFE # :

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	9.5 LB CLEANSPACER III	CLEANSPACER III	30	bbl	9.5	8.772	62.67	3	
64.0070 lbm/bbl		**BARITE 41, 100 LB SACK (101577109)**							
0 gal/bbl		**FRESH WATER**							

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
2	13.8 ppg LEAD Cement	ECONOCEM (TM) SYSTEM	200	sack	13.8	1.401		5	6.47
0.15 %		**WG-17, 50 LB SK (100003623)**							
0.60 %		**HALAD(R)-447, 25 KG (100003799)**							
6.47 Gal		**FRESH WATER**							
0.1250 lbm		**POLY-E-FLAKE (101216940)**							
0.20 %		**WellLife 1094 - 15 lb bag (861890)**							

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
3	Tail Cement	Premium Cement	100	sack	15.6	1.196		5	5.28
0.20 %		**WellLife 1094 - 15 lb bag (861890)**							
5.28 Gal		**FRESH WATER**							
0.70 %		**HALAD(R)-447, 25 KG (100003799)**							
94 lbm		**CMT - PREMIUM - CLASS H REG OR TYPE V, BULK (100003687)**							
0.50 %		**CALCIUM CHLORIDE, PELLET, 50 LB (101509387)**							
0.1250 lbm		**POLY-E-FLAKE (101216940)**							
0.15 %		**WG-17, 50 LB SK (100003623)**							

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
4	Displacement	Displacement	216	bbl	9.2				

Cement Left In Pipe	**Amount**	43ft	Reason	**Shoe Joint**

Comment

Customer: MCCOY PETROLEUM CO **Field:**

Job Type: CMT
INTERMEDIATE
CASING BOM

HALLIBURTON

Summary Report

		Sales Order #:	0905998052
Crew:		**WO #:**	0905998052
		PO #:	NA
Job Start Date:	09/26/2019 06:00 PM	**AFE # :**	

UWI / API Number:	15-119-21441-01	**County/Parish:**	MEADE	**Service Supervisor:**	David Hahn
Well Name:	WHITAKER-SCHWAB	**State:**	KANSAS		
Well No:	1H-8X	**Latitude:**	37.446631		
		Longitude:	-100.629745	**Cust Rep Name:**	ELIJIO HERNANDEZ
		Sect / Twn / Rng:	8/30/30	**Cust Rep Phone #:**	

Remarks:		
The Information Stated Herein Is Correct	**Customer Representative Signature**	**Date**
	Customer Representative Printed Name	

2.0 Real-Time Job Summary

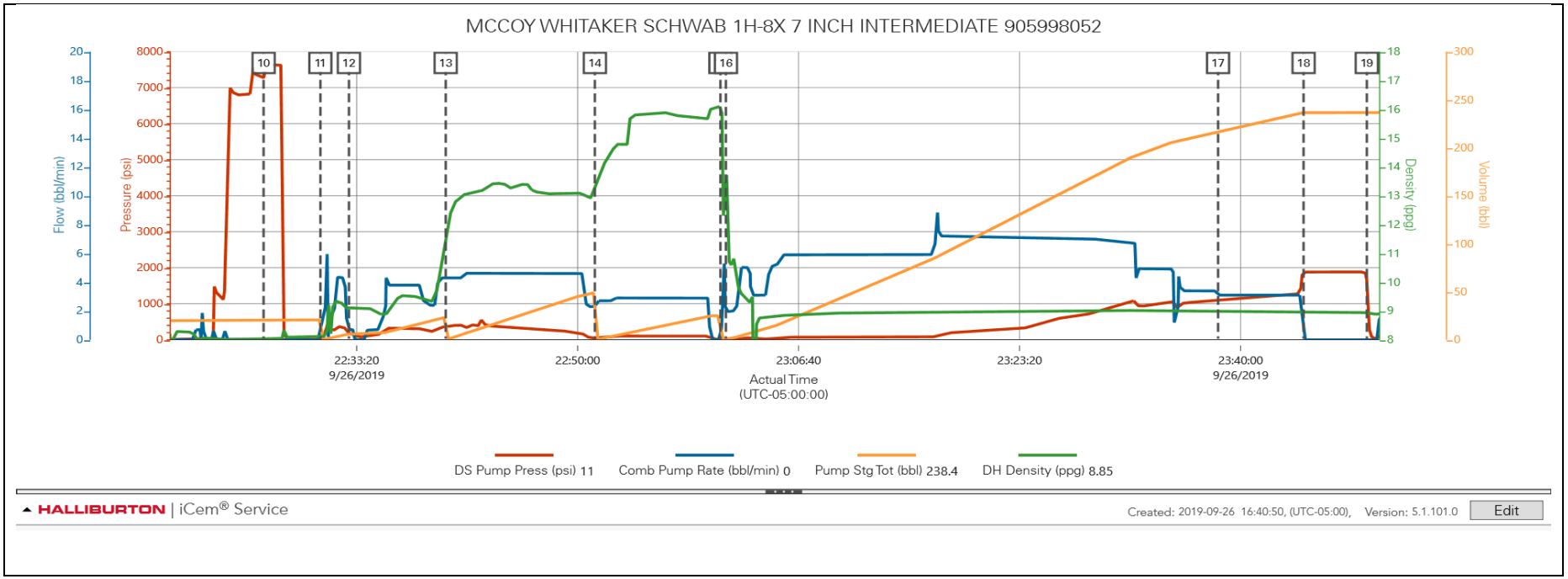
2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	DS Pump Press (psi)	Comb Pump Rate (bbl/min)	Pump Stg Tot (bbl)	DH Density (ppg)	Comments
Event	1	Check Floats	Call Out	9/26/2019	05:30:00					CALL OUT @ 0530 WITH AN ONLOCATION TIME OF 1700
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	9/26/2019	10:30:00					
Event	3	Depart from Service Center or Other Site	Depart from Service Center or Other Site	9/26/2019	10:45:00					
Event	4	Arrive at Location from Service Center	Arrive at Location from Service Center	9/26/2019	16:00:00					ARRIVE AT LOCATION, CHECK IN WITH CUSTOMER, RIG RUNNING CASING
Event	5	Safety Meeting - Pre Rig-Up	Safety Meeting - Pre Rig-Up	9/26/2019	20:30:00					
Event	6	Rig-Up Equipment	Rig-Up Equipment	9/26/2019	20:45:00					
Event	7	Rig-Up Completed	Rig-Up Completed	9/26/2019	21:45:00	413.00	9.10	8.80	8.17	ALL LINES RAN AND STAND PIPE UP TO RIG FLOOR, TRUCK PRIMED UP AND READY TO GO.
Event	8	Pre-Job Safety Meeting	Pre-Job Safety Meeting	9/26/2019	21:45:30	402.00	9.40	12.50	8.20	WITH ALL HES MEMBERS AND RIG CREW, COMPANY MAN
Event	9	Start Job	Start Job	9/26/2019	21:48:23	3.00	0.00	19.90	8.16	7" 26 # P110 SET TO 5718 FT, 43 FT SJ PC @ 1805 9.625 36# P110, 8.75 OH
Event	10	Test Lines	Test Lines	9/26/2019	22:26:19	7270.00	0.00	20.70	8.04	LOW TEST TO 500 HIGH TEST TO 7000 PSI
Event	11	Pump Spacer 1	Pump Spacer 1	9/26/2019	22:30:36	17.00	0.70	0.00	8.12	30 BBL 9.5 PPG 8.772 YEILD 62.67 GAL/SK
Event	12	Other	Other	9/26/2019	22:32:45	177.00	0.70	5.90	9.07	STOPPED GETTING PRODUCT FROM SPACER POT ON BULK TRUCK, LOST ALL AIR TO THAT POT, SHUT DOWN TO GET IT FIGURED OUT. THEN PICKED BACK UP RATE.
Event	13	Pump Lead Cement	Pump Lead Cement	9/26/2019	22:40:03	361.00	4.30	0.00	11.67	50 BBL 200 SK 13.8 PPG 1.401 YEILD 6.47 GAL/SK 4.5 BPM
Event	14	Pump Tail Cement	Pump Tail Cement	9/26/2019	22:51:18	48.00	2.30	49.10	13.21	21 BBL 100 SK 15.6 PPG 1.196 YEILD 5.28 GAL/SK

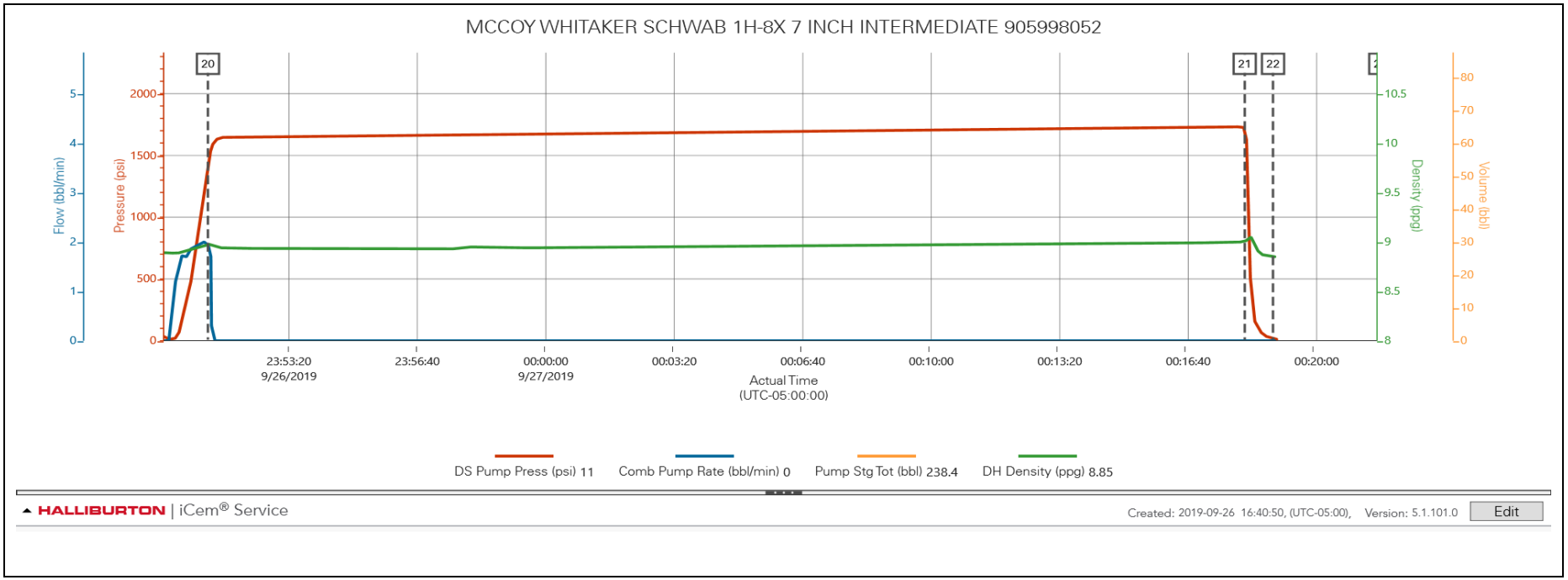
Event	15	Pump Displacement	Pump Displacement	9/26/2019	23:00:46	8.00	0.00	0.00	16.11	216 BBL FRESH WATER DISPLACEMENT 6 BPM FOR FIRST 110 BBL, THEN SLOW RATE TO 5 BPM FOR CEMENT TO TURN THE CORNER.
Event	16	Drop Top Plug	Drop Top Plug	9/26/2019	23:01:11	53.00	1.80	1.10	13.31	DROP HES TOP PLUG, BOTTOM PLUG WILL BE RETURNED TO THE YARD.
Event	17	Other	Other	9/26/2019	23:38:18	1090.00	3.10	217.00	8.99	SLOW RATE TO 3BPM
Event	18	Bump Plug	Bump Plug	9/26/2019	23:44:45	1888.00	0.00	236.60	8.96	BUMP PLUG @ 1260 PSI TAKE TO 1875 PSI HOLD FOR 5 MIN
Event	19	Check Floats	Check Floats	9/26/2019	23:49:31	1622.00	0.00	236.60	8.96	
Event	20	Other	Other	9/26/2019	23:51:14	1368.00	2.00	238.20	8.98	START CASING TEST 1500 PSI 30 MIN PER CUSTOMER REQUEST
Event	21	Check Floats	Check Floats	9/27/2019	00:18:08	1724.00	0.00	238.40	9.00	BLEED OFF PRESSURE FROM CASING TEST, 1.5 BBL BACK TO TRUCK FLOATS STILL HOLDING
Event	22	End Job	End Job	9/27/2019	00:18:52	18.00	0.00	238.40	8.85	
Event	23	Post-Job Safety Meeting (Pre Rig-Down)	Post-Job Safety Meeting (Pre Rig-Down)	9/27/2019	00:21:39					RIGGING DOWN CASING CREW, START RUNNING HOSES, WAITING TO SPOT TRUCKS AND RUN IRON TO RIG,
Event	24	Rig-Down Equipment	Rig-Down Equipment	9/27/2019	00:30:00					
Event	25	Rig-Down Completed	Rig-Down Completed	9/27/2019	01:30:00					
Event	26	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	9/27/2019	01:45:00					
Event	27	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	9/27/2019	02:00:00					

3.0 Attachments

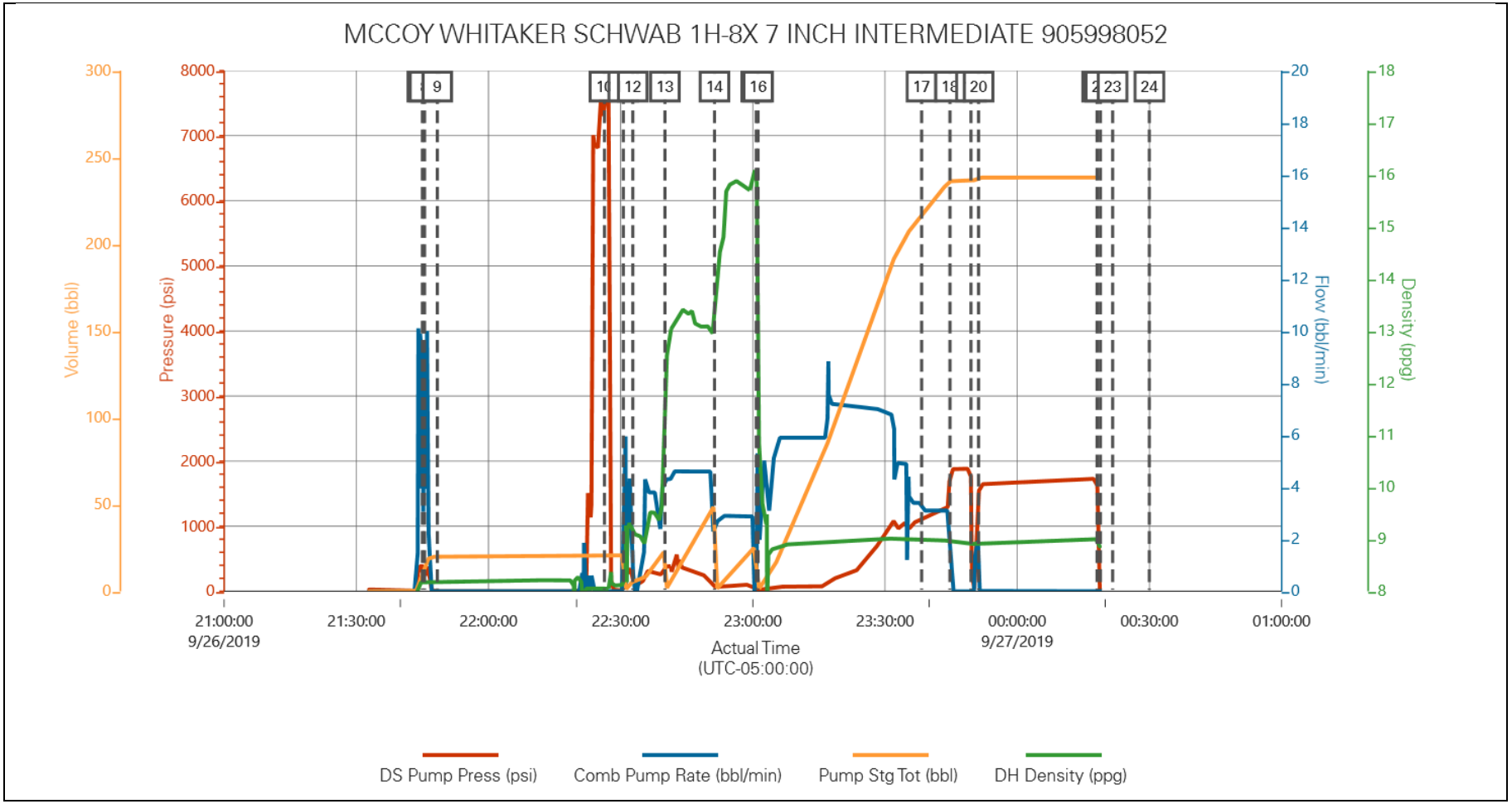
3.1 MAIN JOB



3.2 CASING TEST



3.3 Entire Job



HALLIBURTON

iCem® Service

MCCOY PETROLEUM CO

For: McCoy

Date: Thursday, October 03, 2019

MCCOY WHITAKER SCHWAB 1H-8X 4.5 PRODUCTION LINER

906009021

Production Liner

Job Date: Thursday, October 03, 2019

Sincerely,

David Hahn

Legal Notice

Disclaimer:

All information in this report is provided subject to the terms and conditions which govern the services provided by Halliburton. Halliburton personnel use their best efforts in gathering information and their best judgment in interpreting it, but any interpretation, research, analysis or recommendation furnished by Halliburton are opinions based upon inferences from measurements and empirical relationships and assumptions, which inferences and empirical relationships and assumptions are not infallible, and with respect to which professionals in the industry may differ. iCem 3D Displacement results are used to understand how fluids intermix during a cement job. Simulation and 3D displacement results are not intended as and should not be used as a replacement for bond logs in determining top of cement. Current 3D model calculations are known to model more volume than the input volume for standard cases due to known calculation improvements required. For rotational cases, the modeled volume will be impacted by the same calculations impacting the standard cases, as well as additional constraints imposed to make the calculation time required operationally feasible. Therefore, until further notice, 3D displacement results should not be used for replacement of a bond log, or used as an identifier of top of cement. HALLIBURTON IS UNABLE TO GUARANTEE THE ACCURACY OF ANY CHART INTERPRETATION, RESEARCH ANALYSIS, OR JOB RECOMMENDATION and any interpretation or recommendation is not for use of or reliance upon by any third party. The customer has full responsibility for any of its decisions which are based on the information provided in this report.

Table of Contents

1.0 Real-Time Job Summary

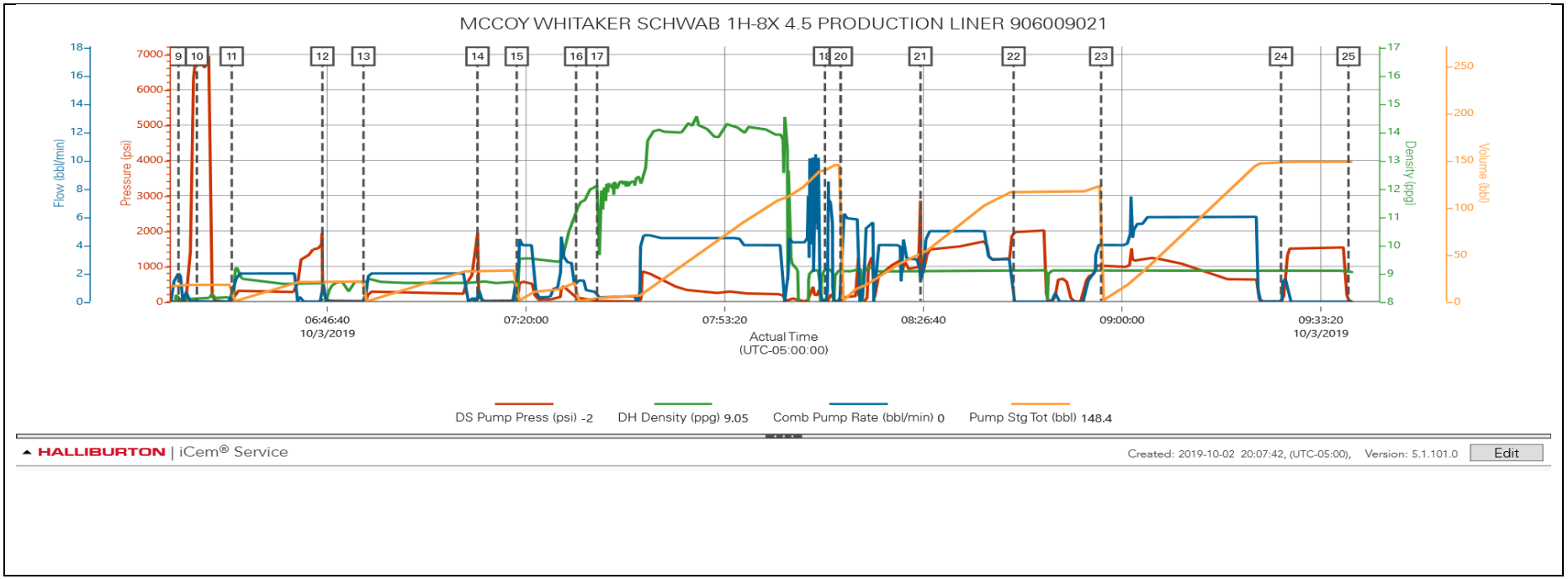
1.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	DS Pump Press (psi)	DH Density (ppg)	Comb Pump Rate (bbl/min)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	Call Out	10/2/2019	19:00:00					
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	10/2/2019	20:00:00					
Event	3	Depart from Service Center or Other Site	Depart from Service Center or Other Site	10/2/2019	20:30:00					
Event	4	Arrive at Location from Service Center	Arrive at Location from Service Center	10/2/2019	23:30:00					ARRIVE ON LOCATION, CHECK IN WITH COMPANY MAN, RIG RUNNING IN HOLE WITH DRILL PIPE AND LINER,
Event	5	Safety Meeting - Pre Rig-Up	Safety Meeting - Pre Rig-Up	10/3/2019	02:30:00					
Event	6	Rig-Up Equipment	Rig-Up Equipment	10/3/2019	02:45:00					
Event	7	Rig-Up Completed	Rig-Up Completed	10/3/2019	04:00:00					TOOL MAN TOLD ME THAT WE WILL BE PUMPING OBM TO PUMP DOWN THE BALL TO SET THE LINER HANGER, THERE WILL BE A MISC PUMP CHARGE AND AN OBM CLEAN UP CHARGE ON THE TICKET.
Event	8	Pre-Job Safety Meeting	Pre-Job Safety Meeting	10/3/2019	06:00:00	-2.00	8.42	0.00	15.30	
Event	9	Start Job	Start Job	10/3/2019	06:21:41	18.00	8.08	2.00	16.80	
Event	10	Test Lines	Test Lines	10/3/2019	06:24:46	6872.00	8.14	0.00	17.90	LOW TEST TO 500 HIGH TEST TO 7000
Event	11	Pump Spacer 1	Pump Spacer 1	10/3/2019	06:30:37	24.00	8.13	0.70	17.90	PUMP 24 BBL OBM TO SEAT BALL TO HANG LINER
Event	12	Other	Other	10/3/2019	06:45:49	459.00	8.74	1.20	21.00	BALL SEATED AND RUPTURED @ 2180 PSI
Event	13	Pump Spacer 2	Pump Spacer 2	10/3/2019	06:52:43	4.00	8.67	0.00	0.00	PUMP 32 BBL OBM TO SEAT SECOND BALL
Event	14	Other	Other	10/3/2019	07:11:51	1920.00	8.71	0.40	32.90	SEAT BURST @ 2003 PSI
Event	15	Pump Spacer 1	Pump Spacer 1	10/3/2019	07:18:26	242.00	8.18	2.20	0.00	30 BBL CLEAN SPACER 9.5 PPG 8.772 YEILD 62.67 GAL/SK

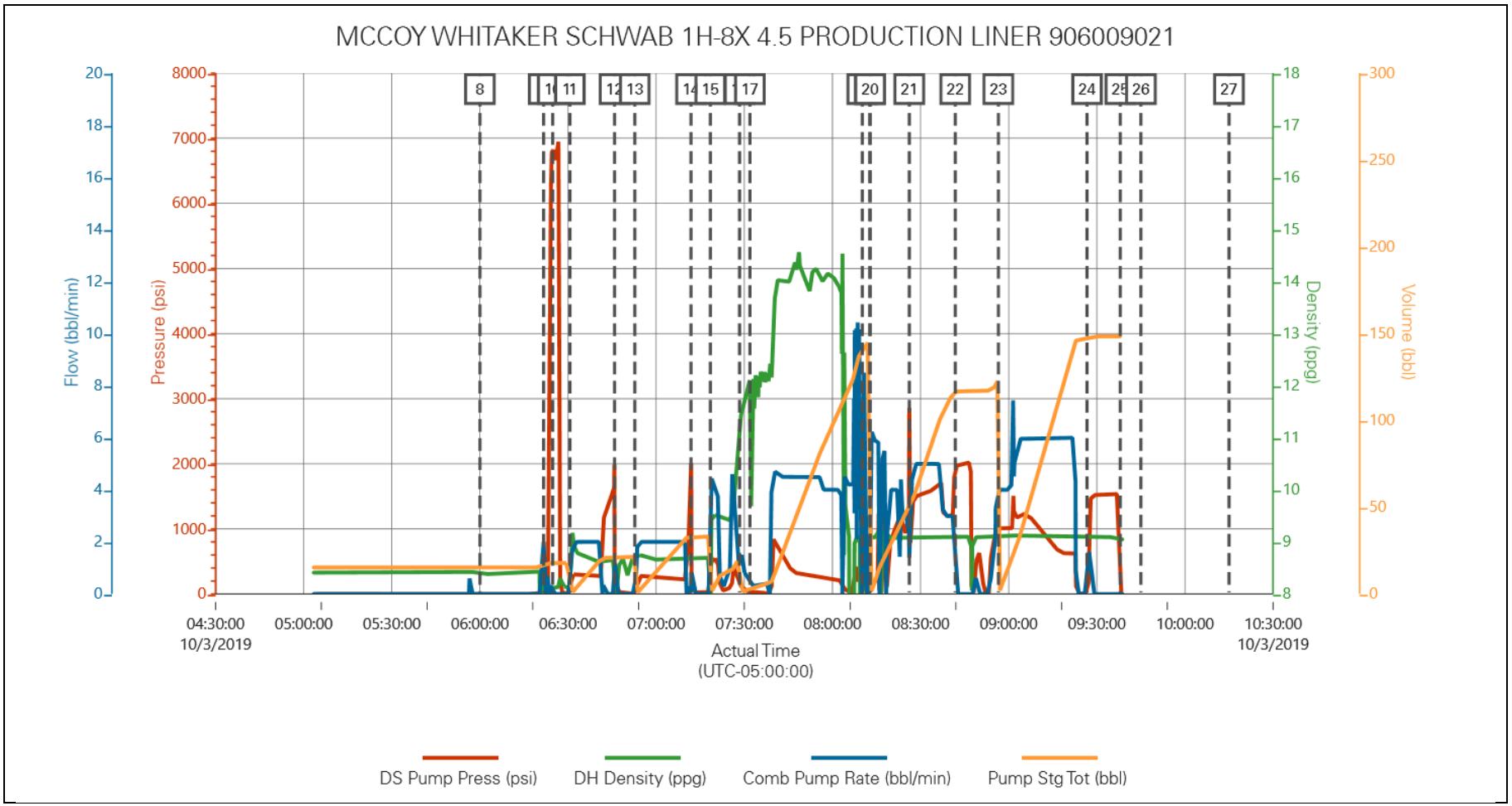
Event	16	Pump Tail Cement	Pump Tail Cement	10/3/2019	07:28:24	123.00	11.10	1.50	20.20	400 SK 103 BBL 13.6 PPG 1.448 YEILD 6.83 GAL/SK
Event	17	Other	Other	10/3/2019	07:31:55	27.00	11.65	0.30	3.70	POUR PRODUCT DELIVERY FROM BULK TRUCK, SHUT DOWN TO FIGURE OUT WAT WAS GOING ON SO WE COULD GET GOOD DENSITY.
Event	18	Other	Other	10/3/2019	08:10:09	-4.00	9.10	0.00	139.30	PER CO MAN PUMP 5 BBL SUGAR WATER BEFORE WE DROP THE PLUG.
Event	19	Drop Top Plug	Drop Top Plug	10/3/2019	08:12:45	34.00	9.08	1.10	144.90	DROP TOP PLUG
Event	20	Pump Displacement	Pump Displacement	10/3/2019	08:12:49	27.00	9.08	1.10	145.00	PUMP 116 BBL FRESH WATER DISPLACEMENT
Event	21	Other	Other	10/3/2019	08:26:11	2860.00	9.08	1.50	50.90	DART LANDS AND SHEARS PICKS UP PLUG FOR CASING
Event	22	Bump Plug	Bump Plug	10/3/2019	08:41:48	1961.00	9.11	0.00	116.80	BUMP PLUG @ 1225 TAKE IT UP TO 1975 PSI
Event	23	Circulate Well	Circulate Well	10/3/2019	08:56:29	1039.00	9.10	4.00	123.60	CIRCULATE WELL WITH 120 BBL FRESH WATER, GOT 30 BBL SPACER AND 30 BBL CEMENT OFF THE LINER TOP
Event	24	Test Lines	Test Lines	10/3/2019	09:26:40					TEST LINER TOP TO 1500 FOR 10 MIN
Event	25	End Job	End Job	10/3/2019	09:37:59					
Event	26	Post-Job Safety Meeting (Pre Rig-Down)	Post-Job Safety Meeting (Pre Rig-Down)	10/3/2019	09:45:00					
Event	27	Rig-Down Equipment	Rig-Down Equipment	10/3/2019	10:15:00					
Event	28	Rig-Down Completed	Rig-Down Completed	10/3/2019	11:15:00					
Event	29	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	10/3/2019	11:30:00					
Event	30	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	10/3/2019	11:45:00					

2.0 Attachments

2.1 Job Graph from test to end



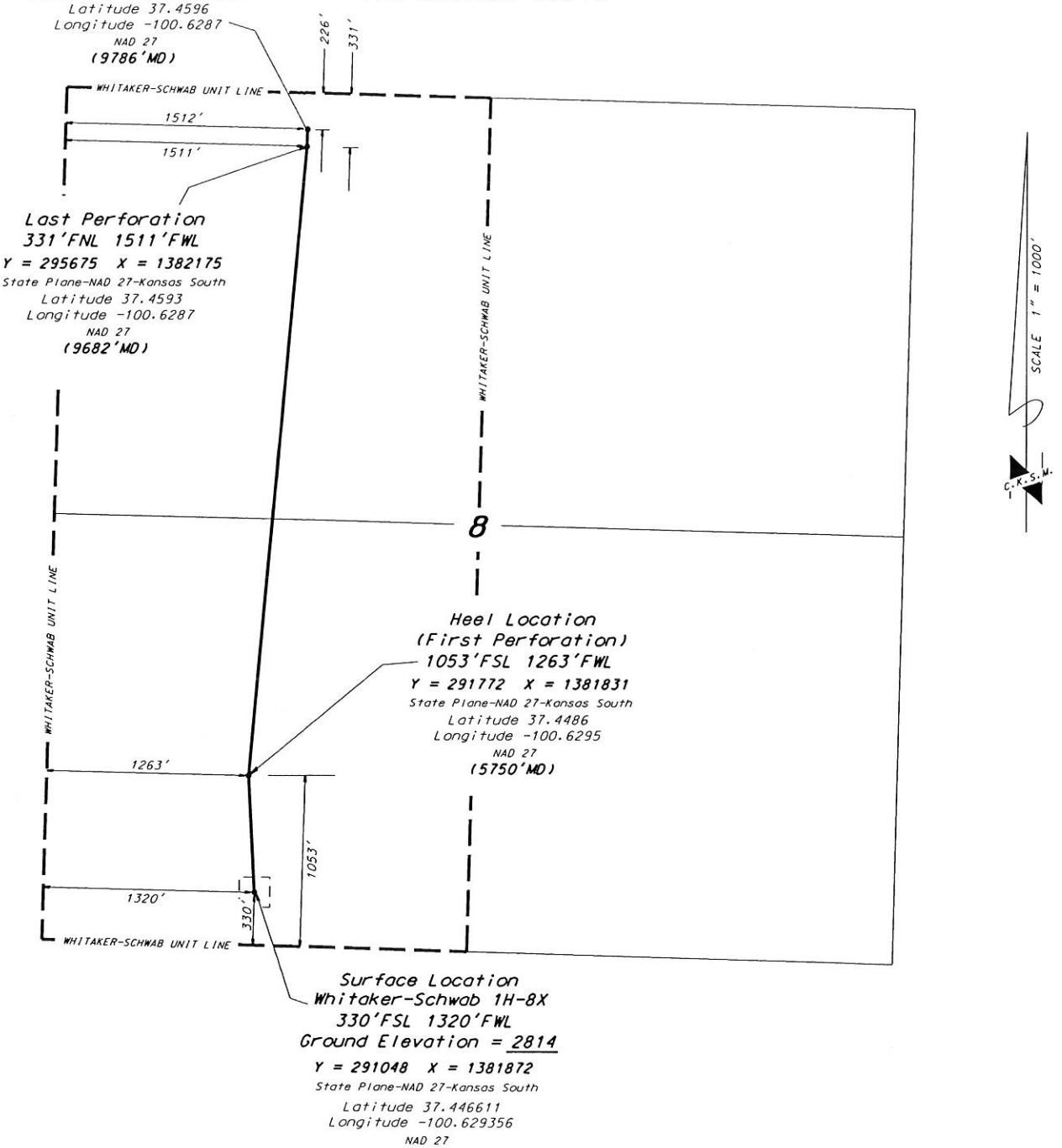
2.2 Rig up to rig down



SAMPLE TOPS
McCoy Petroleum Corp.
Whitaker-Schwab #1H-8X
S2 S2 SW
330'FSL & 1320'FWL
Sec 8-30s-30w
Meade County, KS
API#: 15-119-21441-01-00
KB: 2835’

	Depth	Datum
Heebner	4228	-1393
Toronto	4247	-1412
Lansing	4307	-1472
Stark	4737	-1902
Swope	4747	-1912
Marmaton	4882	-2047
Cherokee	5027	-2192
Atoka	5244	-2409
Chester	5292	-2457
TVD	5287	-2452
TMD	9786	

MCCOY PETROLEUM CORPORATION
WHITAKER-SCHWAB LEASE
W. 1/2, SECTION 8, T30S, R30W
MEADE COUNTY, KANSAS
(AS-DRILLED PLAT)



* Controlling data is based upon the best maps and photographs available to us and upon a regular section of land containing 640 acres.
* Approximate section lines were determined using the normal standard of care of oilfield surveyors practicing in the state of Kansas. The section corners, which establish the precise section lines, were not necessarily located, and the exact location of the drillsite location in the section is not guaranteed. Therefore, the operator securing this service and accepting this plat and all other parties relying thereon agree to hold Central Kansas Oilfield Services, Inc., its officers and employees harmless from all losses, costs and expenses and said entities released from any liability from incidental or consequential damages
* Elevations derived from National Geodetic Vertical Datum.

Date December 12, 2019

CENTRAL KANSAS OILFIELD SERVICES, INC. (620)792-1977