SUMMIT
CONSULTING INC.

029-06086

GUNNISON ENERGY CORPORATION
SPAULDING PEAK 12-94 #3-24
1962' FNL & 1413' FEL
NE/SW SECTION 24, T12S, R94W
DELTA COUNTY, COLORADO

LAWRENCE C. BOUCHER, GEOLOGIST
SUMMIT CONSULTING, INC.
P.O. BOX 367
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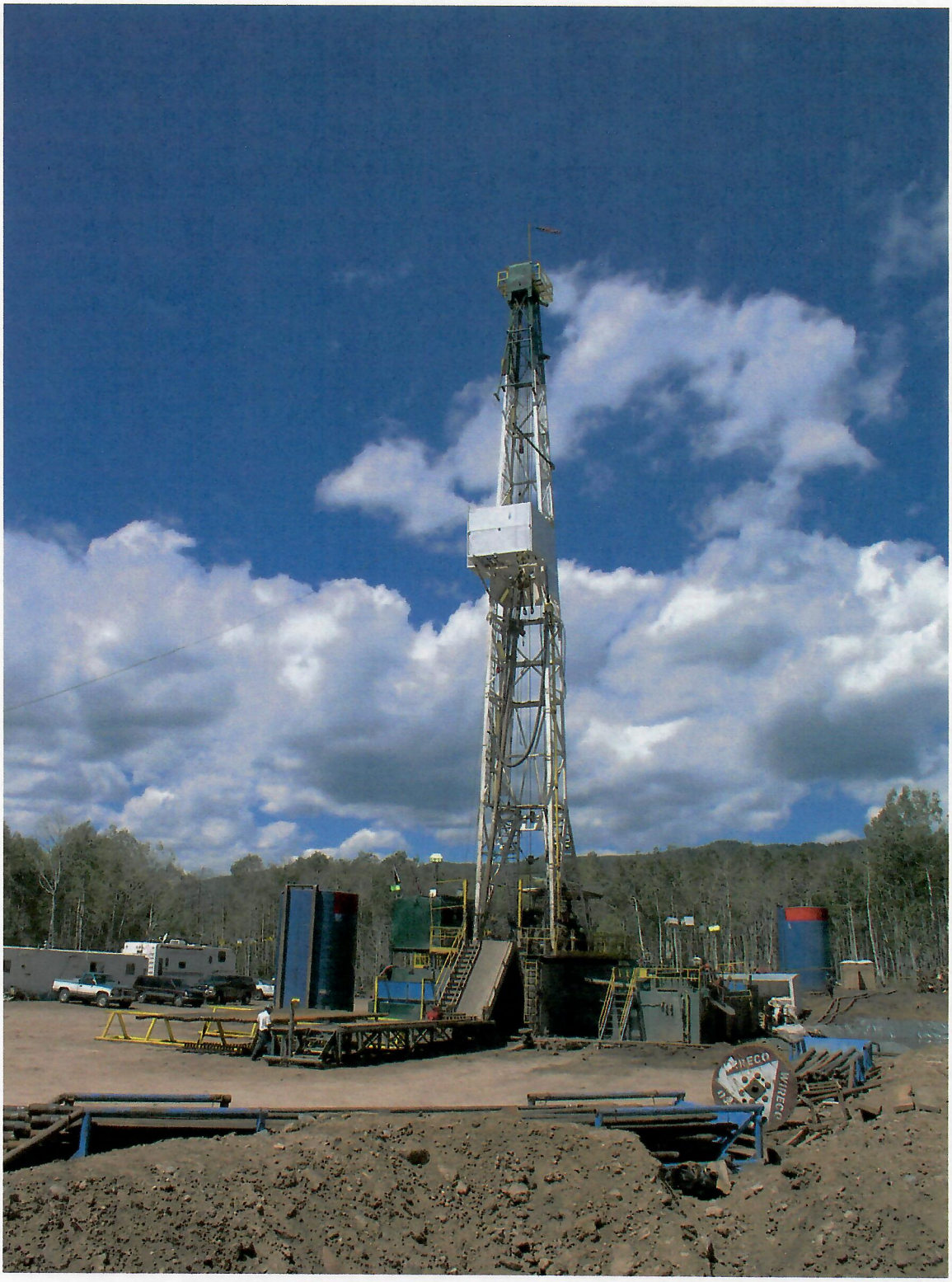
(303) 761-8404

AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS
CERTIFIED PETROLEUM GEOLOGIST
LAWRENCE C. BOUCHER
4817



Spaulding Peak 12-94 #3-24

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RESUME

OPERATOR:	Gunnison Energy Corporation 1801 Broadway Suite 1200 Denver, Colorado 80202 (303) 296-4222
WELL NAME & NUMBER:	Spaulding Peak 12-94 #3-24
LOCATION:	1962' FNL & 1413' FEL Section 24, T12S, R94W
COUNTY & STATE:	Delta County, Colorado
BOTTOM HOLE LOCATION:	Similar to surface location
ELEVATIONS:	8530'-GL, 8543'-KB
API NUMBER:	05-029-06085
ROAD DIRECTIONS:	Travel north of Cedaredge, Colorado on highway 65 for 3.5 miles past mile marker 14 to County Road Ute Trail. Turn right on Ute Trail and travel east for 1.7 miles to Surface Creek. Stay left at the fork and travel northeasterly for 4.0 miles to proposed access road. Turn right to location.
SPUD DATE:	August 21, 2004-1115 hrs
COMPLETION DATE:	August 29, 2004-1300 hrs
TOTAL DEPTH:	3076' – Drillers, '- Loggers
CONTRACTOR:	Grey Wolf - Rig #808
TOOLPUSHER:	Dale Holliday
COMPANY MAN:	Dave Reust, John Sears

GEOLOGIST:	Lawrence C. Boucher Summit Consulting, Inc. P.O. Box 367 Englewood, Colorado 80151 (303) 761-8404
MUD LOGGERS/DESORPTION:	None
CORES:	None
HOLE SIZES:	14 3/4"-353', 9 7/8"–1510', 6 ½ "–3076'
CASING:	9 5/8" – 26# set at 351', 7"- 17# set at 1506', 4 ½"-11.6# set at TD
MUD COMPANY:	Baroid – Jason Rush, Rory Martin
TYPE DRILLING FLUID:	LSND
LOGGING COMPANY:	Schlumberger, Marissa Ebert
SIDEWALL CORES:	Schlumberger, Lorin Lee
TYPE LOGS RUN:	Triple combo
BOTTOM HOLE FORMATION:	Lower Mesa Verde
WELL STATUS:	Run production pipe
OPERATOR REPRESENTATIVES:	Mike Purfield – Operations Manager (303) 296-4222 office (720) 272-5841 cell

SUMMARY AND CONCLUSIONS

The Gunnison Energy Corporation's Spaulding Peak 12-94 #3-24 was drilled to a total depth of 3230' – driller's. The well was spudded on August 21, 2004 at 0800 hrs. and reached total depth after 9 days, finishing at 1300 hrs August 29, 2004.

The well was drilled to 65' at which time the mud was raised to 10.1+ with a viscosity of 50. This was to help control water problems and stabilize the hole. Drilling resumed at 1300 on August 21, 2004. Surface casing point, 353', was reached at 0500 hrs August 22, 2004. Surface casing was set at 351' on August 22, 2004.

Intermediate casing point, 1510', was reached at 0525 hrs 8-25-04 and 7" casing was set at 1506'.

After encountering significant lost circulation problems and after correlation with surrounding wells, the decision was made to stop drilling at 3076'.

The first attempt to run logs hit a bridge at 2162'. After several attempts to break through met with failure, the decision was made to go back in with a bit and condition for another run.

The second attempt reached 3032' from which the well was logged.

To further evaluate the well, 25 sidewall cores were drilled.

The primary objectives were the Mesa Verde Sands and the Cameo Coals. The drilling crews caught samples. The sample quality was fair.

OHIO CREEK (UPPER CRETACEOUS) 508' (+8035')

The Ohio Creek consists of a sequence of interbedded, lenticular sandstones, mudstones and shale. This sequence ranges from 500'-1100' thick. The sandstones, which range from a few feet thick to as much as 200' in short lateral distances, are fine to coarse grained to locally conglomeratic, particularly in the upper part. The sandstones are light gray to light tan; the mudstones and shale are light to medium gray with some shale being red in color.

The pore space among the sand grains is usually filled with clay in the lower part. However, the upper sandstones can be locally porous and thus likely to contain some of the permeable zones in the Mesa Verde Formation. Although the upper sandstones can have local horizontal permeability, there is a low vertical permeability from one sandstone to the next due to intervening shale and mudstone between the sandstones.

Numerous igneous dikes were encountered between 52'-312'. These were primarily black and dark brown basalts with some andesite, phenocrysts and iron oxides.

BARREN MEMBER (UPPER CRETACEOUS) 1316' (+7177')

This unit of the Mesa Verde consists of interbedded, discontinuous sandstone, mudstone, siltstone, shale and local thin coal beds. The sandstones, which are light brown to light gray, are fine to very fine grained. The matrices of the sandstone, siltstone and mudstone are filled with interstitial clay and calcareous material.

Numerous poor to fair oil shows encountered. These consisted of white, fine-grained mostly unconsolidated sands that exhibited various degrees of oil cut. Most notably were the intervals of 1854'-1880', 1908'-1942', 2110'-2122', 2158'-2170', 2284'-2300', 2362'-2376', 2578'-2630' and 2686'-2702'.

CAMEO COALS (UPPER CRETACEOUS)

The Coal-Bearing Member of the Mesa Verde Formation consists of a sequence of interbedded sandstones, mudstones, shales, siltstones and coal seams. This unit includes the Bowie Shale Member in the Cedaredge area and the Paonia Shale Member in the Paonia Reservoir area. This member ranges in thickness from 650 to about 700 feet in the Terror Creek and Grand Mesa areas to approximately 300 feet in the Cedaredge area.

The sandstones, which are as much as 100 feet thick in the Paonia Reservoir area, become thinner and less continuous westward. The sandstones, which are tan to light gray, are fine to very fine-grained, and usually contain a calcareous clay matrix.

The lack of correlation between coal seams over relatively short distances is a reflection of the depositional environment in which these coals formed. The coals originate from intertidal brackish to fresh water swamps near the ancestral ocean's shoreline. The swamps were periodically crisscrossed with braided stream channels carrying sand and silt, only to become quiet, stagnant swamps and collectors of organic materials over extended periods of time.

The 'E' seam was not present.

The 'D' seam was encountered at 2788' (+5755). The seam was in two sections that were 6' thick. The coals were black, brittle and bituminous with conchoidal fracturing and vitreous luster.

The 'C' seam was encountered at 2874' (+5669'). The seam was 7' thick. The coals were black, brittle and bituminous with conchoidal fracturing and vitreous luster.

The 'B' seam was encountered at 2964' (+5579'). This seam was in three main sections totaling 36' thick. The coals were black, brittle with some vitreous luster.

The 'A' seam was encountered at 3046' (+5497'). This seam was in two sections totaling 6' thick. The coals were black, brittle and bituminous.

A number of thin-bedded coals were encountered throughout this entire coal interval.

After reviewing all available data, production pipe was run on the Gunnison Energy Corporation's Spaulding Peak 12-94 #3-24.

DAILY CHRONOLOGY

Date	6:00am depth	24 hr Footage	Activity
8/21/04	57'	0'	Rigging up
8/22/04	353'	296'	Conditioning hole for surface casing, reached casing point at 0500 hrs.
8/23/04	353'	0'	Nippling up, ran 351' of surface casing
8/24/04	390'	37'	Drilling, tested BOP, waited on rams, drilled cement
8/25/04	1510'	1120'	Preparing to trip for intermediate casing run survey
8/26/04	1510'	0'	Nippling up; ran 1506' intermediate casing, casing to bottom
8/27/04	1542'	32'	Nipple up and test BOP, ran intermediate casing set at 1560.32'
8/28/04	2300'	758'	Drilling
8/29/04	2910'	610'	Drilling
8/30/04	3076'	166'	Reached TD, 3076', at 1300hrs, 8-29-04. First log run hit a bridge at 2162', TOOH to condition for another run.
8/31/04	3076'	0'	Running casing; cored 25 sidewall cores, 100% recovery

FORMATION TOPS

GL-8530', KB-8543'

FORMATION	DEPTH	SUBSEA
Wasatch	Surface	
Ohio Creek:	508'	+8035'
Upper Mesa Verde:	1366'	+7177'
Cameo Coals:		
'D' Seam	2788'	+5755'
'C' Seam	2874'	+5669'
'B' Seam	2964'	+5579'
'A' Seam	3046'	+5497'

BIT RECORD

#	MAKE	TYPE	SIZE	DEPTH OUT	FOOTAGE	HOURS RUN	REMARKS
1	HTC	EMS51 A	14 ¾"	353'	296'	17	
2	RR	Mill	8 ¾"	413'	60'	6	
3	DPI	CDS1344	8 ½" by 9 7/8"	1510'	1097'	27 1/2	Bi-centered bit
4	Econ	STR-1	6 ½"	1542'	32'	2 ¼	
5	HTC	PDC	6 ½"	3076'	1534'	20 ¼	
6							
7							
8							

MUD RECORD

	DEPTH	WT	VIS	WL	pH	Cl	LCM%
8/22/04	263	10.2	67	8.4	10.0	1000	
8/24/04	413	10.0	64	9.0	9.5	1100	
8/26/04	1510	8.7	40	6.9	10.5	1100	
8/27/04	1670	8.8	37	5.8	10.0	1000	
8/28/04	2435	8.7	38	6.1	10.0	1100	
8/29/04	2910	8.8	42	5.9	10.0	1000	
8/30/04	3076	8.8	40	5.6	10.0	1100	5
8/31/04							

DEVIATION SURVEYS

Depth	Inc.	Depth	Inc.	Depth	Inc.
287	½°	2077	7°		°
899	3°	2616	8°		°
1510	3 3/4°		°		°

SIDEWALL CORES

1. 1859'
2. 1866'
3. 1915'
4. 1926'
5. 1935'
6. 2000'
7. 2060'
8. 2075'
9. 2095'
10. 2112'
11. 2120'
12. 2168'
13. 2272'
14. 2298' – yellow/gold fluorescence in fracture
15. 2316'
16. 2370'
17. 2374'
18. 2482' – yellow/gold fluorescence in fracture
19. 2409'
20. 2525'
21. 2595' – abundant bright yellow/white fluorescence
22. 2600' – abundant bright yellow/white fluorescence
23. 2615' – abundant bright yellow/white fluorescence
24. 2685'
25. 2705'

GUNNISON ENERGY CORPORATION
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1962' FNL, 1413' FEL
SECTION 24, T12S, R94W
DELTA COUNTY, COLORADO
GL – 8503', KB – 8526'

GEOLOGIST'S MORNING REPORT (6:00am)

DATE: 8-22-04 **DEPTH:** 353' **FOOTAGE:** 296'

ACTIVITY: Conditioning for surface casing, run survey

FORMATION: Wasatch

LITHOLOGY: Basalt: black, dark gray, hard
Sandstone: white, frosty, fine grained

GAS READINGS: No gas detection on surface hole

COMMENTS: Spud 1115 hrs, 8-21-04

REPORTED BY: Larry Boucher

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DELTA COUNTY, COLORADO
GL – 8503', KB – 8526'

GEOLOGIST'S MORNING REPORT (6:00am)

DATE: 8-23-04 **DEPTH:** 353' **FOOTAGE:** 0'

ACTIVITY: Nippling up

FORMATION: Ohio Creek

LITHOLOGY:

GAS READINGS: No gas detection on surface hole

COMMENTS: Surface casing set at 351'

REPORTED BY: Larry Boucher

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SECTION 24, T12S, R94W
DELTA COUNTY, COLORADO
GL – 8503', KB – 8526'

GEOLOGIST'S MORNING REPORT (6:00am)

DATE: 8-24-04 **DEPTH:** 390' **FOOTAGE:** 37'

ACTIVITY: Drilling

FORMATION: Ohio Creek

LITHOLOGY: Sandstone: white, clear, fine-grained, medium cement, calcareous
Shale: medium gray, grayish brown, firm, occasionally clay rich

GAS READINGS: 3-5 units

COMMENTS: Reached surface casing point, 353'

REPORTED BY: Larry Boucher

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DELTA COUNTY, COLORADO
GL – 8503', KB – 8526'

GEOLOGIST'S MORNING REPORT (6:00am)

DATE: 8-25-04 **DEPTH:** 1510' **FOOTAGE:** 1120'

ACTIVITY: Conditioning hole for trip for intermediate casing

FORMATION: Mesa Verde

LITHOLOGY: Sandstone: white, clear, fine-grained, medium cement, calcareous
Shale: medium gray, grayish brown, firm, occasionally clay rich

GAS READINGS: 8-12 units

COMMENTS: Reached intermediate casing point, 1510', at 0525 hrs, 8-25-04.

REPORTED BY: Larry Boucher

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DELTA COUNTY, COLORADO
GL – 8503', KB – 8526'

GEOLOGIST'S MORNING REPORT (6:00am)

DATE: 8-26-04 **DEPTH:** 1510' **FOOTAGE:** 0'

ACTIVITY: Nippling up

FORMATION: Mesa Verde

LITHOLOGY:

GAS READINGS:

COMMENTS: Ran 1506' intermediate casing, casing went to bottom

REPORTED BY: Larry Boucher

GUNNISON ENERGY CORPORATION
SPAULDING PEAK 12-94 #3-24
1962' FNL, 1413' FEL
SECTION 24, T12S, R94W
DELTA COUNTY, COLORADO
GL – 8503', KB – 8526'

GEOLOGIST'S MORNING REPORT (6:00am)

DATE: 8-27-04 **DEPTH:** 1542' **FOOTAGE:** 32'

ACTIVITY: Tripping for PDC bit

FORMATION: Mesa Verde

LITHOLOGY: Mostly cement: Sandstone- white, light gray, fine grained
Shale- light to medium gray

GAS READINGS: 5-10 units

COMMENTS: The agitator motor bearing went out at 0300 hrs. The motor noise could be heard over the rig noise. I took the motor apart and sprayed WD40 on the shaft and bearings. That seemed to quite it down. I hope it makes the rest of the well.

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SECTION 24, T12S, R94W
DELTA COUNTY, COLORADO
GL – 8530', KB – 8543'

GEOLOGIST'S MORNING REPORT (6:00am)

DATE: 8-28-04 **DEPTH:** 2300' **FOOTAGE:** 758'

ACTIVITY: Drilling

FORMATION: Mesa Verde

LITHOLOGY: Sandstone: clear, white, predominately unconsolidated
Shale: greenish gray, medium gray, tan, soft to firm
Coal: mostly stringers, black, brittle, pyrite laminations

GAS READINGS: 5-10 units

COMMENTS: Oil shows were noted at these intervals: 1876'-1892', 1924'-1930', 1940'-1962', 2110'-2122' and 2130'-2144'. Although these shows were fair, they occurred in unconsolidated sands. They may have been flushed and further evaluation should be considered.

REPORTED BY: Larry Boucher

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SPAULDING PEAK 12-94 #3-24
1962' FNL, 1413' FEL
SECTION 24, T12S, R94W
DELTA COUNTY, COLORADO
GL – 8530', KB – 8543'

GEOLOGIST'S MORNING REPORT (6:00am)

DATE: 8-29-04 **DEPTH:** 2910' **FOOTAGE:** 610'

ACTIVITY: Drilling

FORMATION: Mesa Verde

LITHOLOGY: Sandstone: clear, white, fine-grained, some staining and fair oil shows were noted
Shale: greenish gray, medium to dark gray, tan, soft to firm
Coal: black, bituminous, vitreous luster

GAS READINGS: 10-20 units, 363 units in coal

COMMENTS: Oil shows were noted at these intervals: 2272'-2300', 2368'-2392', 2570'-2594' and 2686'-2702'. These shows were poor to fair and further evaluation should be considered.

REPORTED BY: Larry Boucher

GUNNISON ENERGY CORPORATION
SPAULDING PEAK 12-94 #3-24
1962' FNL, 1413' FEL
SECTION 24, T12S, R94W
DELTA COUNTY, COLORADO
GL – 8530', KB – 8543'

GEOLOGIST'S MORNING REPORT (6:00am)

DATE: 8-30-04 **DEPTH:** 3076' **FOOTAGE:** 166'

ACTIVITY: Trip out of hole for logs

FORMATION: Mesa Verde

LITHOLOGY: Sandstone: clear, white, fine-grained, some staining and fair oil shows were noted
Shale: greenish gray, medium to dark gray, tan, soft to firm
Coal: black, bituminous, vitreous luster

GAS READINGS: 10-20 units, 363 units in coal

COMMENTS: Reached TD, 3076', at 1300 hrs 8-29-04, after I determined we were not in a coal but in a shale below the 'A' coal seam. We lost circulation at 2972', 3004' and 3048'.
The first log run hit a bridge at 2162'. After many attempts to penetrate the bridge, the decision was made to go in and condition the hole.

REPORTED BY: Larry Boucher

SUMMIT

CONSULTING INC.

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

Well Name:	SPAULDING PEAK 12-94 #3-24		
Location:	SECTION 24, T12S, R94W, DELTA CO., COLORADO		
Licence Number:	05-029-06076-00	Region:	PICEANCE
Spud Date:	AUGUST 21, 2004	Drilling Completed:	AUG. 29, 2004
Surface Coordinates:	1962' FNL & 1413' FWL (NESW)		
Bottom Hole Coordinates:	SIMILAR TO SURFACE		
Ground Elevation (ft):	8530'	K.B. Elevation (ft):	8543'
Logged Interval (ft):	100' To: 3076'	Total Depth (ft):	3076'
Formation:	LOWER MESA VERDE		
Type of Drilling Fluid:	LSND		

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

OPERATOR

Company: GUNNISON ENERGY CORPORATION
Address: 1801 BROADWAY, SUITE 1200
DENVER, COLORADO 80202
(303) 296-4222

GEOLOGIST

Name: LAWRENCE C. BOUCHER
Company: SUMMIT CONSULTING, INC.
Address: P.O. BOX 367
ENGLEWOOD, CO 80151
(303) 761-8404

Cores

1859', 1866', 1915', 1926', 1935', 2000', 2060', 2075', 2095', 2112', 2120', 2168', 2272', 2298', 2316', 2370', 2374', 2482', 2409', 2525', 2595', 2600', 2615', 2685', 2705'

DSTs

Comments

NOTE: LITHOLOGY ADJUSTED TO MATCH ELOGS BELOW INTERMEDIATE CASING.

ROCK TYPES

Anhy
Bent
Brec
Cht
Clyst
Coal
Congl
Dol
Gyp
Igne
Lmst
Meta
Mrlst
Salt
Shale
Shcol
Shgy
Sltst
Ss
Till

ACCESSORIES

MINERAL

Anhy
Arggrn
Arg
Bent
Bit
Brecfrag
Calc
Carb
Chtdk
Chtlt
Dol
Feldspar
Ferrpel
Ferr
Glau
Gyp
Hvymin
Kaol
Marl
Minxl
Nodule
Phos
Pyr
Salt
Sandy
Silt
Sil
Sulphur
Tuff

FOSSIL

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

STRINGER

Anhy
Arg
Bent
Coal
Dol
Gyp
Ls
Mrst
Slta1
Sltstrg
Ssstrg

TEXTURE

Boundst
Chalky
Cryxln
Earthy
Finexln
Grainst
Lithogr
Microxln
Mudst
Packst
Wackest

OTHER SYMBOLS

POROSITY

Earthy
Fenest
Fracture
Inter
Moldic
Organic
Pinpoint
Vuggy

SORTING

Well
Moderate
Poor

ROUNDING

Rounded
Subrnd
Subang
Angular

OIL SHOW

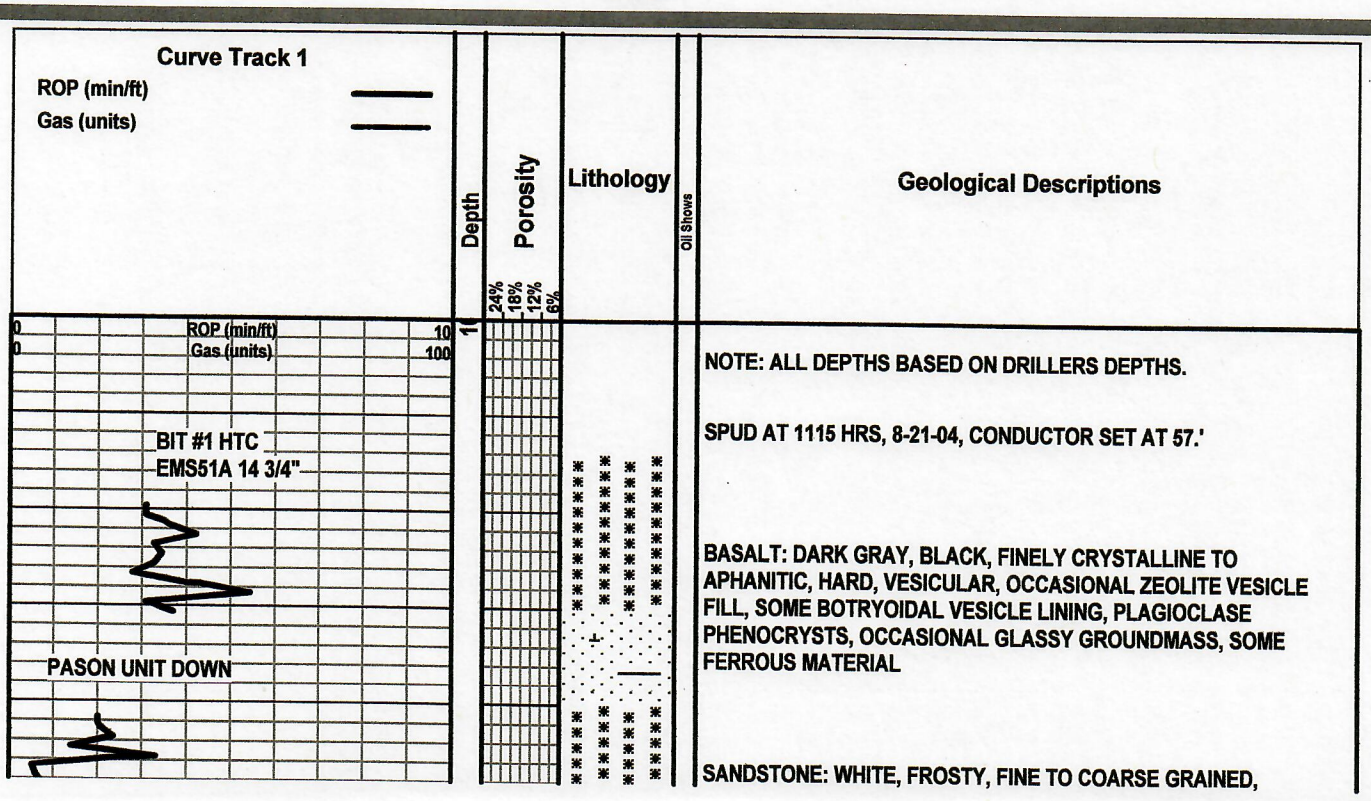
Even
Spotted
Ques
Dead

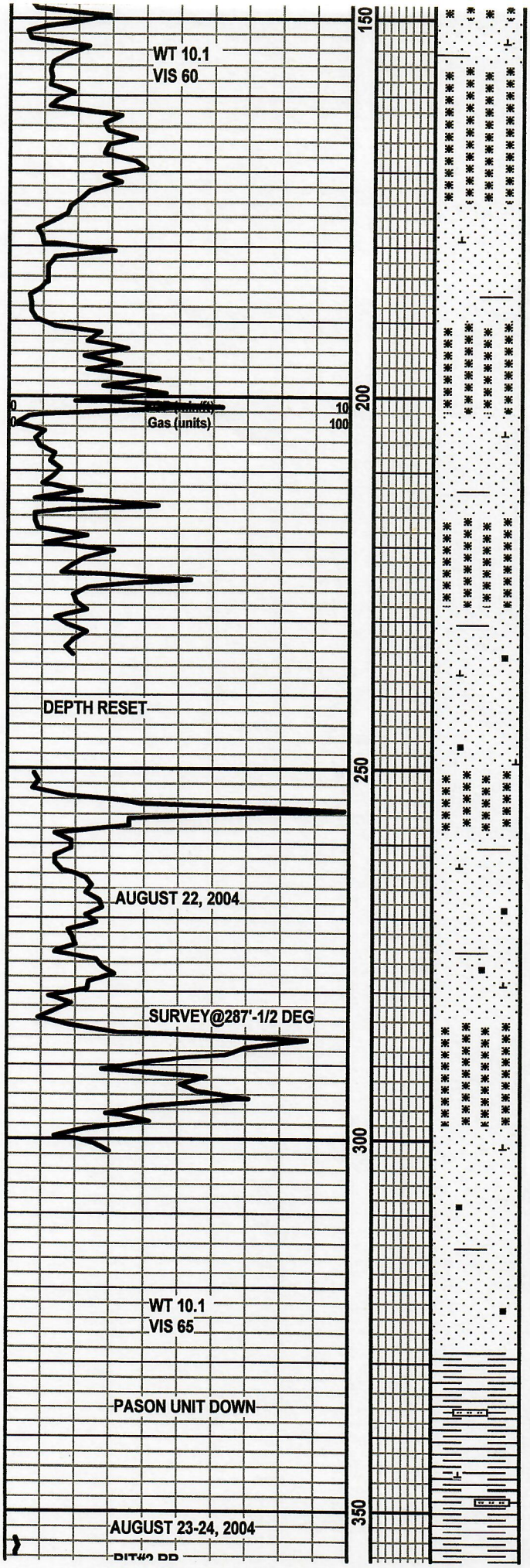
INTERVAL

Core
Dst

EVENT

Rft
Sidewall





SUBANGULAR, MEDIUM CEMENT, CALCAREOUS, SOME DARK MINERALS, GOOD VISIBLE POROSITY, NFSOC

BASALT: DARK GRAY, BLACK, FINELY CRYSTALLINE TO APHANITIC, HARD, VESICULAR, OCCASIONAL ZEOLITE VESICLE FILL, SOME BOTRYOIDAL VESICLE LINING, PHENOCRYSTS, OCCASIONAL GLASSY GROUNDMASS

SANDSTONE: LIGHT GREEN, WHITE, FROSTY, FINE TO COARSE GRAINED, SUBANGULAR, MEDIUM CEMENT, CALCAREOUS, SOME DARK MINERALS, POOR VISIBLE POROSITY, CLAY FILL, NFSOC

SANDSTONE: LIGHT GREEN, WHITE, FROSTY, FINE TO COARSE GRAINED, SUBANGULAR, MEDIUM CEMENT, CALCAREOUS, SOME DARK MINERALS, POOR VISIBLE POROSITY, CLAY FILL, NFSOC

BASALT: DARK GRAY, BLACK, FINELY CRYSTALLINE TO APHANITIC, HARD, VESICULAR, OCCASIONAL ZEOLITE VESICLE FILL, SOME BOTRYOIDAL VESICLE LINING, PHENOCRYSTS, OCCASIONAL GLASSY GROUNDMASS

SANDSTONE: WHITE, FROSTY, LIGHT BROWN, FINE GRAINED, SUBROUND, PREDOMINATELY UNCONSOLIDATED, SOME CARBONACEOUS MATERIAL

BASALT: DARK GRAY, BLACK, FINELY CRYSTALLINE TO APHANITIC, HARD, VESICULAR, OCCASIONAL ZEOLITE VESICLE FILL, SOME BOTRYOIDAL VESICLE LINING, PHENOCRYSTS, OCCASIONAL GLASSY GROUNDMASS

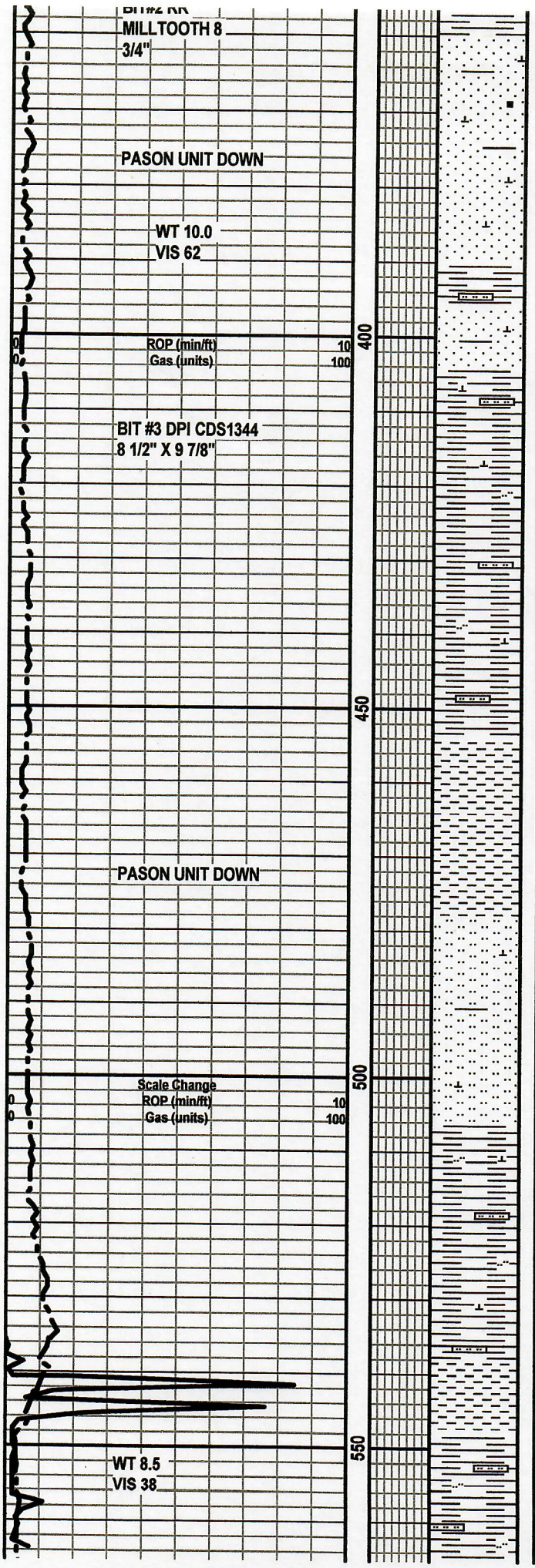
SANDSTONE: WHITE, FROSTY, LIGHT BROWN, FINE GRAINED, SUBROUND, PREDOMINATELY UNCONSOLIDATED, SOME CARBONACEOUS MATERIAL

BASALT: DARK GRAY, BLACK, FINELY CRYSTALLINE TO APHANITIC, HARD, VESICULAR, OCCASIONAL ZEOLITE VESICLE FILL, SOME BOTRYOIDAL VESICLE LINING, PHENOCRYSTS, OCCASIONAL GLASSY GROUNDMASS

SANDSTONE: LIGHT GREEN, WHITE, FROSTY, FINE TO COARSE GRAINED, SUBANGULAR, MEDIUM CEMENT, CALCAREOUS, SOME DARK MINERALS, POOR VISIBLE POROSITY, CLAY FILL, NFSOC

SHALE: RED, REDDISH BROWN, DARK GRAY, SUBPLATY, SOFT TO MODERATELY FIRM, VERY SILTY, CLAY RICH

REACHED SURFACE CASING POINT AT 353', 0415 HRS, 8-22-04. SURFACE CASING WAS SET AT 351'.



SANDSTONE: LIGHT GREEN, WHITE, FROSTY, FINE TO COARSE GRAINED, SUBANGULAR, MEDIUM CEMENT, CALCAREOUS, SOME DARK MINERALS, POOR VISIBLE POROSITY, CLAY FILL, NFSOC

SHALE: RED, REDDISH BROWN, DARK GRAY, SUBPLATY, SOFT TO MODERATELY FIRM, VERY SILTY, CLAY RICH

SHALE: RED, REDDISH BROWN, DARK GRAY, SUBPLATY, SOFT TO MODERATELY FIRM, VERY SILTY, CLAY RICH

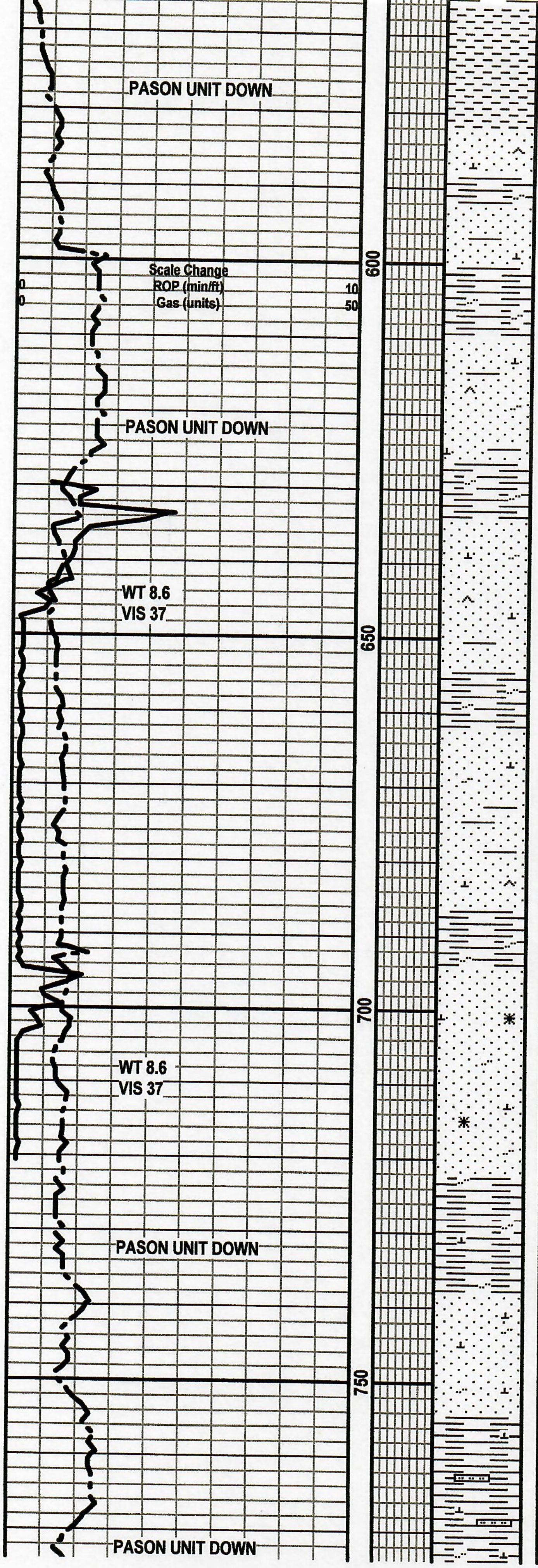
CLAYSTONE: GREEN, WHITE, TAN, MEDIUM GRAY, SOFT TO FIRM, INTERFLOW ASH LAYERS ALTERED TO CLAYSTONE

SILTSTONE: REDDISH BROWN, LIGHT TO MEDIUM GRAY, GRAYISH GREEN, OCCASIONAL DARK GRAY, SUBPLATY, SOFT TO MODERATELY FIRM, CALCAREOUS, ARGILLACEOUS

SHALE: RED, REDDISH BROWN, DARK GRAY, SUBPLATY, SOFT TO MODERATELY FIRM, VERY SILTY, CLAY RICH

CLAYSTONE: GRAYISH BROWN, GREEN, WHITE, TAN, SOFT TO FIRM, AMORPHOUS

SHALE: RED, REDDISH BROWN, DARK GRAY, SUBPLATY, SOFT TO MODERATELY FIRM, VERY SILTY, CLAY RICH



CLAYSTONE: GRAYISH BROWN, GREEN, WHITE, TAN, SOFT TO FIRM, AMORPHOUS

SHALE: REDDISH BROWN, MEDIUM BROWN, DARK GRAY, SUBPLATY, SOFT TO MODERATELY FIRM, SLIGHTLY SILTY, CLAY RICH

SANDSTONE: WHITE, FROSTY, VERY FINE TO FINE GRAINED, SUBANGULAR TO ANGULAR, MEDIUM CEMENT, CALCAREOUS, LOOSE GRAINS, SILICEOUS, SOME DARK MINERALS, SLIGHTLY ARGILLACEOUS, CLAY FILL, MEDIUM TO WELL SORTING, POOR VISIBLE POROSITY, NFSOC

SANDSTONE: WHITE, FROSTY, VERY FINE TO FINE GRAINED, SUBANGULAR TO ANGULAR, MEDIUM CEMENT, CALCAREOUS, LOOSE GRAINS, SILICEOUS, SOME DARK MINERALS, SLIGHTLY ARGILLACEOUS, CLAY FILL, MEDIUM TO WELL SORTING, POOR VISIBLE POROSITY, NFSOC

SANDSTONE: WHITE, FROSTY, VERY FINE TO FINE GRAINED, SUBANGULAR TO ANGULAR, MEDIUM CEMENT, CALCAREOUS, LOOSE GRAINS, SILICEOUS, SOME DARK MINERALS, SLIGHTLY ARGILLACEOUS, CLAY FILL, MEDIUM TO WELL SORTING, POOR VISIBLE POROSITY, NFSOC

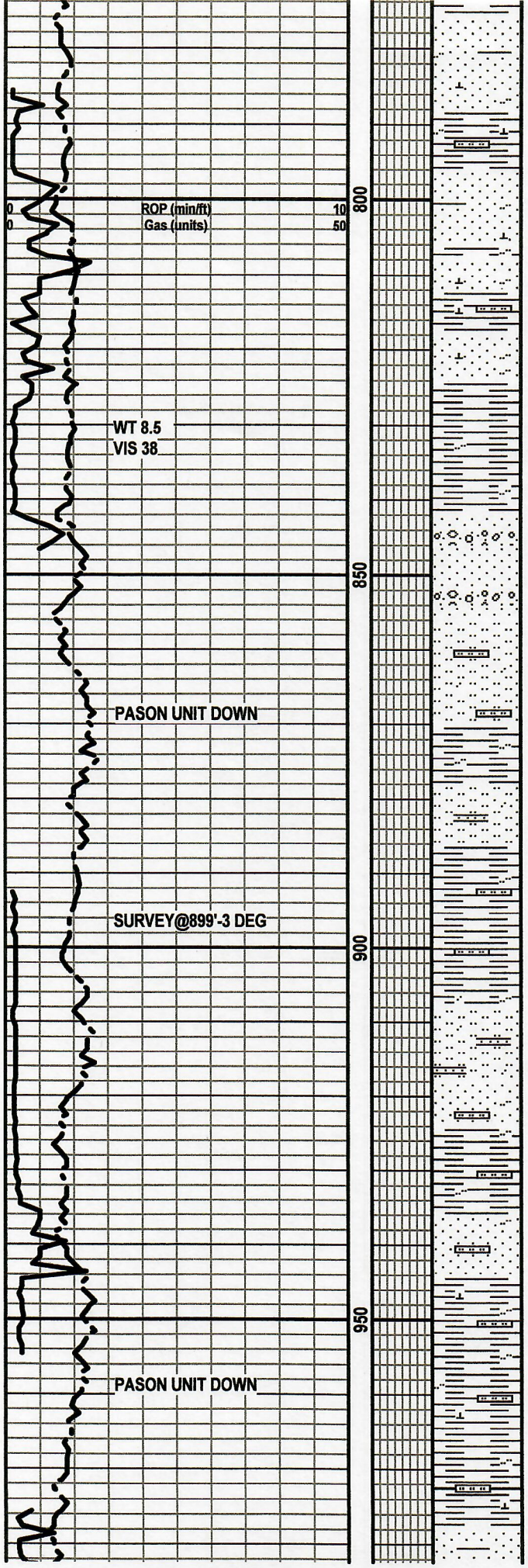
SHALE: REDDISH BROWN, MEDIUM BROWN, DARK GRAY, SUBPLATY, SOFT TO MODERATELY FIRM, SLIGHTLY SILTY, CLAY RICH

SANDSTONE: WHITE, FROSTY, LIGHT BROWN, FINE GRAINED, SUBANGULAR TO ANGULAR, MEDIUM CEMENT, CALCAREOUS, LOOSE GRAINS, SOME DARK MINERALS, CLAY FILL, MEDIUM TO WELL SORTING, POOR VISIBLE POROSITY, NFSOC

SHALE: REDDISH BROWN, MEDIUM BROWN, DARK GRAY, SUBPLATY, SOFT TO MODERATELY FIRM, SLIGHTLY SILTY, CLAY RICH

SANDSTONE: WHITE, FROSTY, LIGHT BROWN, FINE GRAINED, SUBANGULAR TO ANGULAR, MEDIUM CEMENT, CALCAREOUS, LOOSE GRAINS, SOME DARK MINERALS, CLAY FILL, MEDIUM TO WELL SORTING, POOR VISIBLE POROSITY, NFSOC

SHALE: RED, REDDISH BROWN, SUBPLATY, SOFT TO MODERATELY FIRM, VERY SILTY, CLAY RICH



SANDSTONE: WHITE, FROSTY, LIGHT BROWN, FINE TO COARSE GRAINED, SUBANGULAR TO ANGULAR, MEDIUM CEMENT, CALCAREOUS, LOOSE GRAINS, SOME DARK MINERALS, SLIGHTLY ARGILLACEOUS, CLAY FILL, MEDIUM TO WELL SORTING, POOR VISIBLE POROSITY, NFSOC

SHALE: RED, REDDISH BROWN, SUBPLATY, SOFT TO MODERATELY FIRM, VERY SILTY, CLAY RICH

SANDSTONE: WHITE, FROSTY, LIGHT BROWN, FINE TO COARSE GRAINED, SUBANGULAR TO ANGULAR, MEDIUM CEMENT, CALCAREOUS, LOOSE GRAINS, SOME DARK MINERALS, SLIGHTLY ARGILLACEOUS, CLAY FILL, MEDIUM TO WELL SORTING, POOR VISIBLE POROSITY, NFSOC

SHALE: LIGHT TO MEDIUM GRAY, REDDISH BROWN, SUBPLATY, SOFT TO MODERATELY FIRM, VERY SILTY, CLAY RICH

CONGLOMERATE: FROSTY, LIGHT BROWN, GREEN, PINK, CLEAR TO TRANSLUCENT INTERBEDDED WITH MEDIUM TO COARSE GRAINED SANDSTONE

SILTSTONE: LIGHT TO MEDIUM GRAY, GRAYISH GREEN, OCCASIONAL DARK GRAY, OCCASIONALLY WHITE, FIRM TO MODERATELY HARD, ARENACEOUS

SILTSTONE: LIGHT TO MEDIUM GRAY, GRAYISH GREEN, OCCASIONAL DARK GRAY, OCCASIONALLY WHITE, FIRM TO MODERATELY HARD, ARENACEOUS

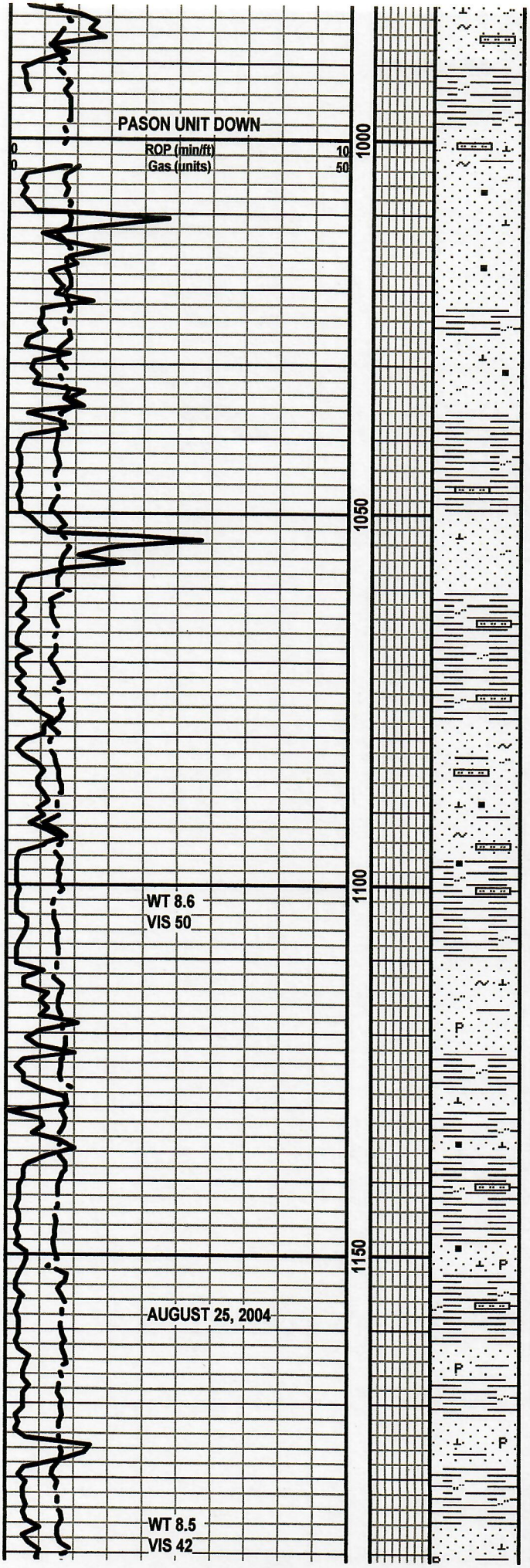
SHALE: LIGHT TO MEDIUM GRAY, SUBPLATY, SOFT TO MODERATELY FIRM, VERY SILTY, CLAY RICH

SILTSTONE: LIGHT TO MEDIUM GRAY, GRAYISH GREEN, OCCASIONAL DARK GRAY, FIRM TO MODERATELY HARD, ARENACEOUS WITH SANDSTONE STRINGERS, DARK MINERALS

SHALE: LIGHT TO MEDIUM GRAY, REDDISH BROWN, SUBPLATY, SOFT TO MODERATELY FIRM, VERY SILTY, CLAY RICH

SHALE: LIGHT TO MEDIUM GRAY, REDDISH BROWN, SUBPLATY, SOFT TO MODERATELY FIRM, VERY SILTY, CLAY RICH

SANDSTONE: WHITE, VERY FINE GRAINED, SUBANGULAR TO



ANGULAR, MEDIUM CEMENT, CALCAREOUS, LOOSE GRAINS, SOME DARK MINERALS, GLAUCONITE, SILTY, SOME CARBONACEOUS MATERIAL, CLAY FILL, MEDIUM TO WELL SORTING, POOR VISIBLE POROSITY, NFSOC

SANDSTONE: FROSTY, CLEAR, YELLOW, LIGHT GREEN, VERY FINE TO FINE GRAINED, SUBROUND TO ANGULAR, CLEAN, POORLY CEMENTED, CALCAREOUS, SILICEOUS, DARK MINERALS, OCCASIONAL CARBONACEOUS MATERIAL, MEDIUM TO WELL SORTED, SOME CLAY FILL, NO VISIBLE POROSITY, NFSOC

SHALE: LIGHT TO MEDIUM GRAY, GRAYISH GREEN, SUBPLATY, SOFT TO MODERATELY FIRM, VERY SILTY GRADING TO SILTSTONE STRINGERS, VERY CLAY RICH

SHALE: LIGHT TO MEDIUM GRAY, GRAYISH GREEN, SUBPLATY, SOFT TO MODERATELY FIRM, VERY SILTY GRADING TO SILTSTONE STRINGERS, VERY CLAY RICH

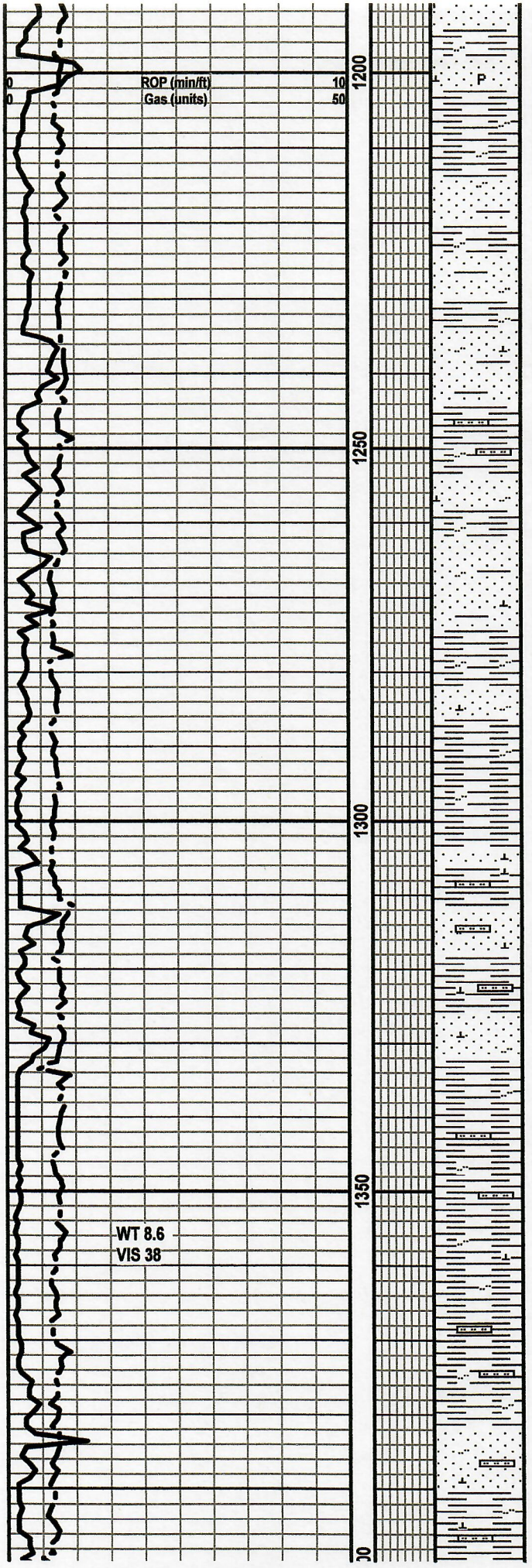
SANDSTONE: FROSTY, CLEAR, YELLOW, LIGHT GREEN, VERY FINE TO FINE GRAINED, SUBROUND TO ANGULAR, CLEAN, POORLY CEMENTED, CALCAREOUS, SILICEOUS, DARK MINERALS, OCCASIONAL CARBONACEOUS MATERIAL, MEDIUM TO WELL SORTED, SOME CLAY FILL, NO VISIBLE POROSITY, NFSOC

SHALE: LIGHT TO MEDIUM GRAY, GRAYISH GREEN, SUBPLATY, SOFT TO MODERATELY FIRM, VERY SILTY GRADING TO SILTSTONE STRINGERS, VERY CLAY RICH

SANDSTONE: FROSTY, CLEAR, LIGHT GRAY, FINE TO MEDIUM GRAINED, SUBROUND TO ANGULAR, UNCONSOLIDATED, POORLY CEMENTED, CALCAREOUS, MEDIUM TO WELL SORTED, OCCASIONAL PYRITE, SLIGHTLY ARGILLACEOUS, POOR VISIBLE POROSITY, SOME CLAY FILL, NFSOC

SHALE: LIGHT TO MEDIUM GRAY, GRAYISH GREEN, SUBPLATY, SOFT TO MODERATELY FIRM, VERY SILTY GRADING TO SILTSTONE STRINGERS, VERY CLAY RICH

SANDSTONE: FROSTY, CLEAR, LIGHT GRAY, FINE TO MEDIUM GRAINED, SUBROUND TO ANGULAR, UNCONSOLIDATED, POORLY CEMENTED, CALCAREOUS, MEDIUM TO WELL SORTED, OCCASIONAL PYRITE, SLIGHTLY ARGILLACEOUS, POOR VISIBLE



POROSITY, SOME CLAY FILL, NFSOC

SHALE: LIGHT TO MEDIUM GRAY, BLOCKY, SUBPLATY, SOFT TO MODERATELY FIRM, SILTY, CLAY RICH

SANDSTONE: FROSTY, CLEAR, LIGHT GRAY, FINE TO MEDIUM GRAINED, SUBROUND TO ANGULAR, UNCONSOLIDATED, POORLY CEMENTED, CALCAREOUS, MEDIUM TO WELL SORTED, OCCASIONAL PYRITE, SLIGHTLY ARGILLACEOUS, POOR VISIBLE POROSITY, SOME CLAY FILL, NFSOC

SHALE: LIGHT TO MEDIUM GRAY, BLOCKY, SUBPLATY, SOFT TO MODERATELY FIRM, SILTY, CLAY RICH

SANDSTONE: FROSTY, CLEAR, LIGHT GRAY, FINE TO MEDIUM GRAINED, SUBROUND TO ANGULAR, UNCONSOLIDATED, POORLY CEMENTED, CALCAREOUS, MEDIUM TO WELL SORTED, SLIGHTLY ARGILLACEOUS, POOR VISIBLE POROSITY, SOME CLAY FILL, NFSOC

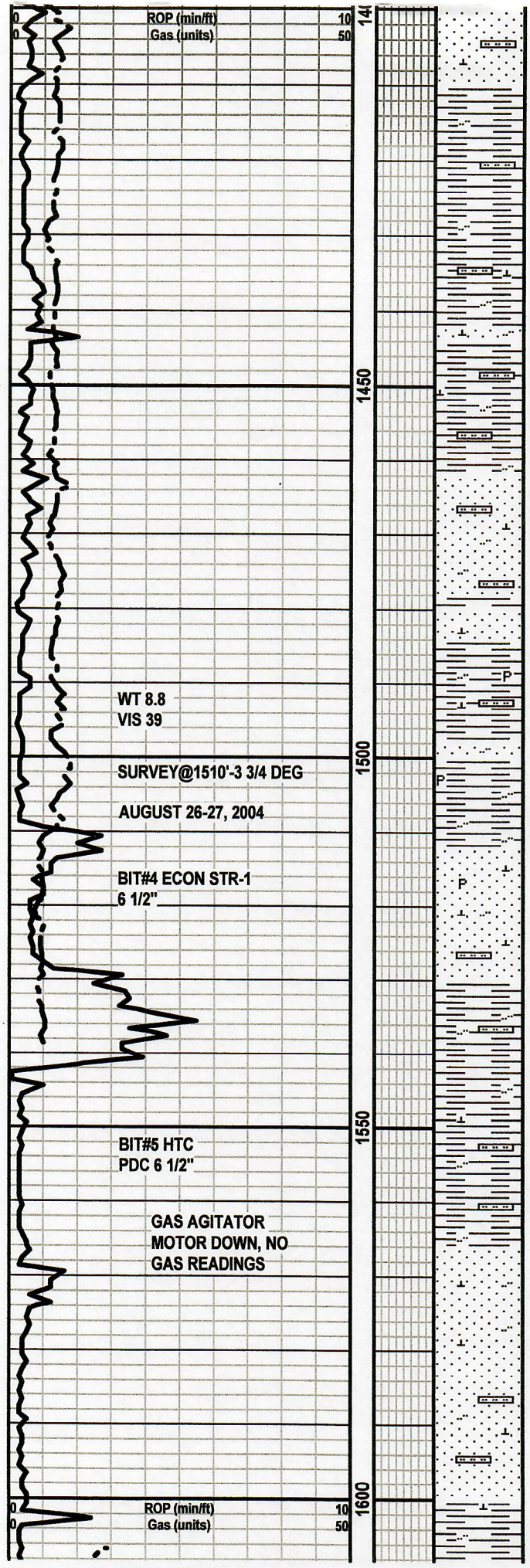
SHALE: LIGHT TO MEDIUM GRAY, BLOCKY, FIRM, SILTY IN PART, SLIGHTLY CALCAREOUS, OCCASIONAL CLAY RICH

SANDSTONE: CLEAR, WHITE, GREEN, MEDIUM BROWN, FINE GRAINED, SUBANGULAR TO SUBROUND, POORLY CEMENTED, CALCAREOUS, SILTY, CLAY FILL, MEDIUM TO WELL SORTED, POOR VISIBLE POROSITY, NFSOC

SHALE: LIGHT TO MEDIUM GRAY, BLOCKY, FIRM, SILTY IN PART, SLIGHTLY CALCAREOUS, OCCASIONAL CLAY RICH

SHALE: LIGHT TO MEDIUM GRAY, BLOCKY, FIRM, SILTY IN PART, SLIGHTLY CALCAREOUS, OCCASIONAL CLAY RICH

SANDSTONE: CLEAR, WHITE, GREEN, MEDIUM BROWN, FINE GRAINED, SUBANGULAR TO SUBROUND, POORLY CEMENTED, CALCAREOUS, SILTY, CLAY FILL, MEDIUM TO WELL SORTED, POOR VISIBLE POROSITY, NFSOC



SANDSTONE: CLEAR, WHITE, GREEN, MEDIUM BROWN, FINE GRAINED, SUBANGULAR TO SUBROUND, POORLY CEMENTED, CALCAREOUS, SILTY, CLAY FILL, MEDIUM TO WELL SORTED, POOR VISIBLE POROSITY, NFSOC

SHALE: LIGHT TO MEDIUM GRAY, BLOCKY, FIRM, SILTY IN PART, SLIGHTLY CALCAREOUS, OCCASIONAL CLAY RICH

SHALE: LIGHT TO MEDIUM GRAY, BLOCKY, FIRM, SILTY IN PART, SLIGHTLY CALCAREOUS, OCCASIONAL CLAY RICH

SANDSTONE: CLEAR, WHITE, LIGHT GRAY, MEDIUM BROWN, FINE GRAINED, SUBANGULAR TO SUBROUND, POORLY CEMENTED, CALCAREOUS, SILTY, CLAY FILL, MEDIUM TO WELL SORTED, POOR VISIBLE POROSITY, NFSOC

SHALE: LIGHT TO MEDIUM GRAY, BLOCKY, FIRM, SILTY IN PART, SLIGHTLY CALCAREOUS, OCCASIONAL CLAY RICH, PYRITE

REACHED INTERMEDIATE CASING POINT, 1510', AT 0525 HRS, 8-25-04

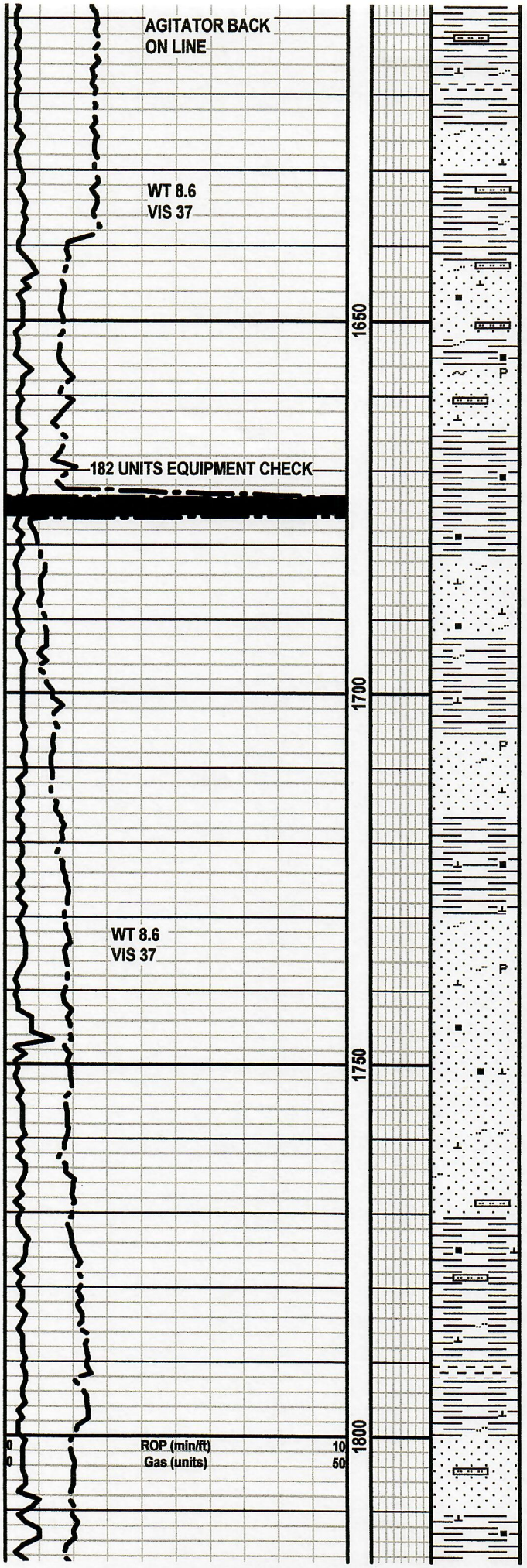
SANDSTONE: CLEAR, WHITE, LIGHT GRAY, MEDIUM BROWN, FINE GRAINED, SUBANGULAR TO SUBROUND, POORLY CEMENTED, CALCAREOUS, SILTY, CLAY FILL, MEDIUM TO WELL SORTED, POOR VISIBLE POROSITY, NFSOC

SHALE: LIGHT TO MEDIUM GRAY, BLOCKY, FIRM, SILTY IN PART, SLIGHTLY CALCAREOUS, OCCASIONAL CLAY RICH

SHALE: LIGHT TO MEDIUM GRAY, BLOCKY, FIRM, SILTY IN PART, SLIGHTLY CALCAREOUS, OCCASIONAL CLAY RICH

SANDSTONE: CLEAR, WHITE, LIGHT GRAY, MEDIUM BROWN, FINE GRAINED, SUBANGULAR TO SUBROUND, POORLY CEMENTED, CALCAREOUS, SILTY, CLAY FILL, MEDIUM TO WELL SORTED, POOR VISIBLE POROSITY, NFSOC

SHALE: LIGHT TO MEDIUM GRAY, BLOCKY, FIRM, SILTY IN PART WITH SILTSTONE STRINGERS, SLIGHTLY CALCAREOUS, PYRITE, CLAY RICH GRADING TO CLAYSTONE



SHALE: LIGHT TO MEDIUM GRAY, BLOCKY, FIRM, SILTY IN PART WITH SILTSTONE STRINGERS, SLIGHTLY CALCAREOUS, PYRITE, CLAY RICH

SANDSTONE: PREDOMINATELY CLEAR, WHITE, LIGHT GRAY, FROSTY, CLEAR, VERY FINE TO FINE GRAINED, SUBROUND TO ANGULAR, POORLY CEMENTED, CALCAREOUS, ABUNDANT UNCONSOLIDATED GRAINS, SUCROSIC, MEDIUM TO WELL SORTED, OCCASIONAL PYRITE, SOME CARBONACEOUS MATERIAL, SOME GLAUCONITE, SILTY, POOR VISIBLE POROSITY, SOME CLAY FILL, SOME MINERAL FLUORESCENCE, NO CUT

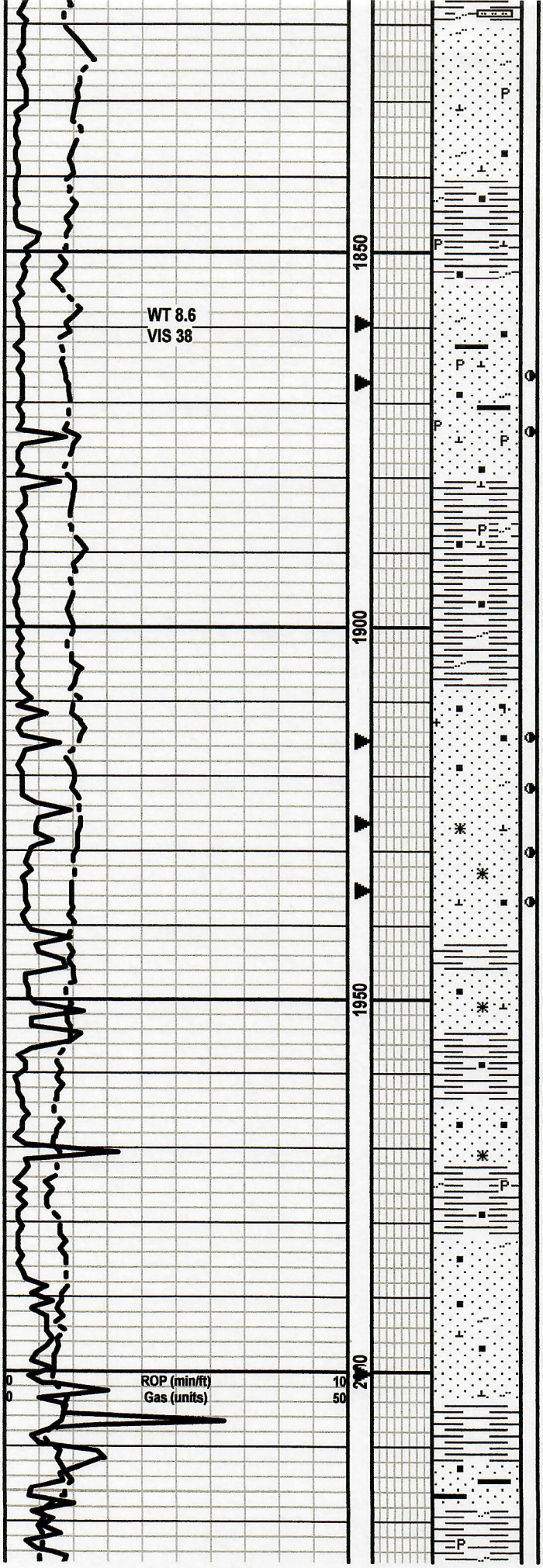
SANDSTONE: PREDOMINATELY WHITE, CLEAR, FROSTY, VERY FINE TO FINE GRAINED, SUBROUND TO ANGULAR, POORLY CEMENTED, CALCAREOUS, SMALL CLUSTERS, SOME UNCONSOLIDATED GRAINS, WELL SORTED, OCCASIONAL PYRITE, SIGNIFICANT CARBONACEOUS MATERIAL, SOME GLAUCONITE, POOR VISIBLE POROSITY, NFSOC

SHALE: LIGHT TO MEDIUM GRAY, BLOCKY, FIRM, SILTY IN PART WITH SILTSTONE STRINGERS, SLIGHTLY CALCAREOUS, PYRITE, CLAY RICH

SANDSTONE: WHITE, LIGHT GRAY, FROSTY, CLEAR, VERY FINE TO FINE GRAINED, SUBROUND TO SUBANGULAR, POORLY CEMENTED, PREDOMINATELY UNCONSOLIDATED, CALCAREOUS, SOME CARBONACEOUS MATERIAL, MEDIUM TO WELL SORTED, POOR VISIBLE POROSITY, RARE MINERAL FLUORESCENCE, NO CUT

SHALE: LIGHT TO MEDIUM GRAY, GRAYISH GREEN, BLOCKY, SOFT TO MODERATELY FIRM, SILTY IN PART WITH SILTSTONE STRINGERS, SLIGHTLY CALCAREOUS, CLAY RICH GRADING TO CLAYSTONE

SHALE: LIGHT TO MEDIUM GRAY, BLOCKY, FIRM, SILTY IN PART,



SLIGHTLY CALCAREOUS, SOME CARBONACEOUS MATERIAL

SANDSTONE: PREDOMINATELY WHITE, FROSTY, TRANSLUCENT, FINE GRAINED, ANGULAR TO SUBROUND, POOR TO MEDIUM CEMENT, SMALL CLUSTERS, CALCAREOUS, CLAY FILL, SOME DARK MINERALS, BIO MATERIAL, MEDIUM TO WELL SORTED, NO VISIBLE POROSITY, NFSOC

SHALE: LIGHT TO MEDIUM GRAY, DARK GRAY, GRAYISH GREEN, REDDISH BROWN, BLOCKY, FIRM, SILTY IN PART, SLIGHTLY CALCAREOUS, SOME CARBONACEOUS MATERIAL, SOME PYRITE, COALY STRINGERS

SANDSTONE: PREDOMINATELY WHITE, FROSTY, TRANSLUCENT, FINE GRAINED, SUBANGULAR TO SUBROUND, POOR TO MEDIUM CEMENT, CALCAREOUS, SOME CLAY FILL, SOME DARK MINERALS, PYRITE, MEDIUM TO WELL SORTED, POOR VISIBLE POROSITY, MEDIUM TO DARK BROWN OIL STAIN, DULL YELLOW SPOTTY FLUORESCENCE, WHITE STREAMING TO MILKY CUT

SHALE: LIGHT TO MEDIUM GRAY, TAN BLOCKY, FIRM, SILTY IN PART, SLIGHTLY CALCAREOUS, SOME CARBONACEOUS MATERIAL, SOME PYRITE, CLAY RICH

SANDSTONE: PREDOMINATELY WHITE, FROSTY, TRANSLUCENT, FINE GRAINED, ANGULAR TO SUBROUND, POOR TO MEDIUM CEMENT, SLIGHTLY CALCAREOUS, SOME CLAY FILL, SOME DARK MINERALS, PYRITE, MEDIUM TO WELL SORTED, POOR VISIBLE POROSITY, MEDIUM TO DARK BROWN OIL STAIN, DULL YELLOW SPOTTY FLUORESCENCE, WHITE STREAMING TO MILKY CUT

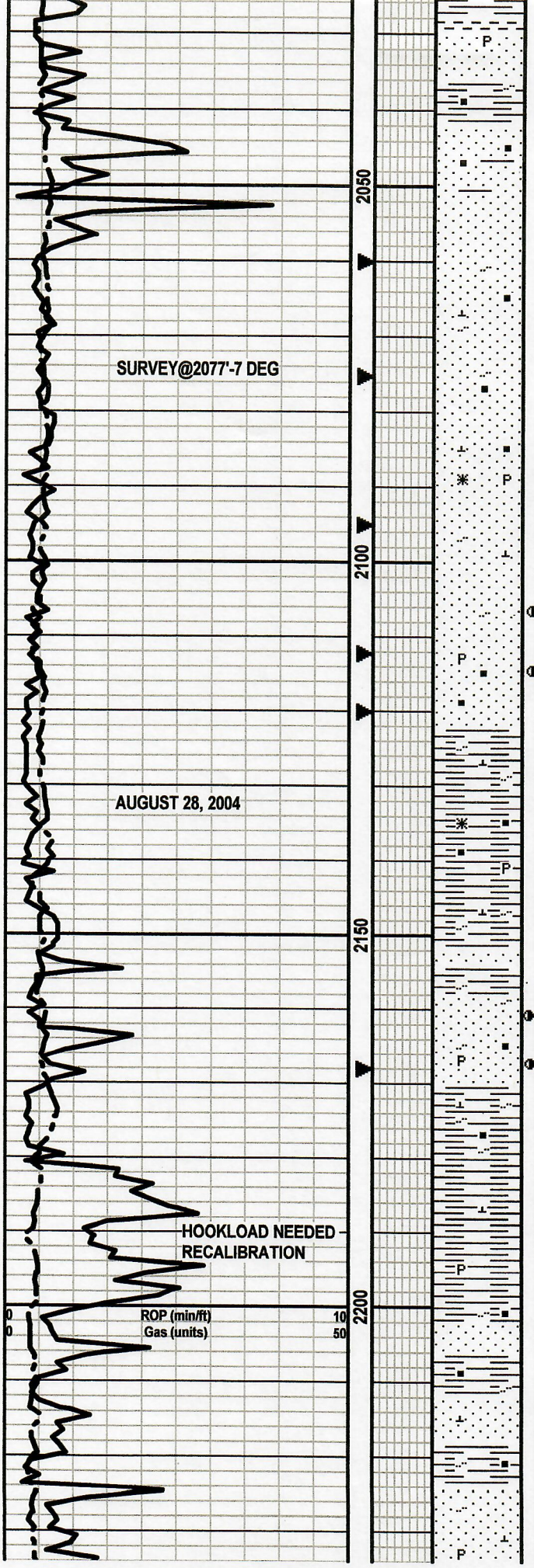
SANDSTONE: PREDOMINATELY CLEAR, FINE GRAINED, UNCONSOLIDATED, ABUNDANT CARBONACEOUS MATERIAL, DARK MINERALS, FELDSPARS, WELL SORTED, NFSOC, BEACH SAND

SANDSTONE: PREDOMINATELY FINE GRAINED, CLEAR, UNCONSOLIDATED BEACH SAND, SUBROUND, CARBONACEOUS MATERIAL, DARK MINERALS, WELL SORTED, NO FLUORESCENCE, LIGHT BROWN STAINING, WHITE MILKY CUT

SHALE: LIGHT TO MEDIUM GRAY, TAN BLOCKY, FIRM, SILTY IN PART, SLIGHTLY CALCAREOUS, SOME CARBONACEOUS MATERIAL, SOME PYRITE, CLAY RICH

SANDSTONE: CLEAR, WHITE, FINE GRAINED, SUBROUND, MEDIUM CEMENTED, CALCAREOUS, CLAY FILLED, TIGHT, DARK MINERALS, WELL SORTED, NO VISIBLE POROSITY, NFSOC

SANDSTONE: PREDOMINATELY WHITE, FROSTY, TRANSLUCENT, FINE GRAINED, ANGULAR TO SUBROUND, POOR TO MEDIUM CEMENT, SLIGHTLY CALCAREOUS, SOME CLAY FILL, SOME DARK MINERALS, MEDIUM TO WELL SORTED, POOR VISIBLE POROSITY, NFSOC, COAL STRINGERS: BLACK, CONCHOIDAL FRACTURES, PYRITE LAMINATIONS



SHALE: LIGHT TO MEDIUM GRAY, TAN BLOCKY, FIRM, SILTY IN PART, SLIGHTLY CALCAREOUS, SOME CARBONACEOUS MATERIAL, SOME PYRITE, CLAY RICH GRADING TO CLAYSTONE

SANDSTONE: PREDOMINATELY WHITE, OCCASIONAL GRAY, VERY FINE TO FINE GRAINED, SUBANGULAR TO SUBROUND, MEDUIM CEMENTED, CALCAREOUS, DARK MINERALS, SOME CARBONACEOUS MATERIAL, OCCASIONAL PYRITE, WELL SORTED, NO VISIBLE POROSITY, NFSOC

SANDSTONE: PREDOMINATELY WHITE, OCCASIONAL GRAY, VERY FINE TO FINE GRAINED, SUBANGULAR TO SUBROUND, MEDUIM CEMENTED, CALCAREOUS, DARK MINERALS, SOME CARBONACEOUS MATERIAL, OCCASIONAL PYRITE, WELL SORTED, NO VISIBLE POROSITY, NFSOC

SANDSTONE: PREDOMINATELY CLEAR, FINE GRAINED, SUBROUND, UNCONSOLIDATED, CARBONACEOUS MATERIAL, WELL SORTED, NO FLUORESCENCE, OFF WHITE MILKY CUT

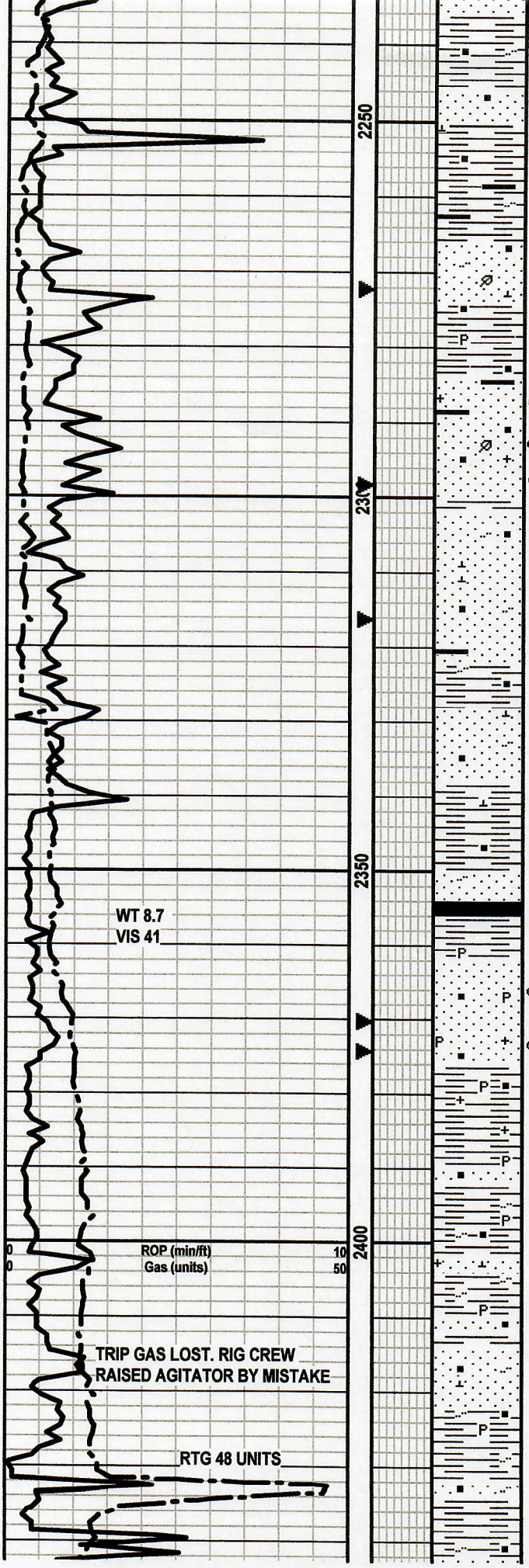
SHALE: LIGHT TO MEDIUM GRAY, GRAYISH BROWN, GRAYISH GREEN, BLOCKY, FIRM, SILTY IN PART, SLIGHTLY CALCAREOUS, SOME CARBONACEOUS MATERIAL

SHALE: LIGHT TO MEDIUM GRAY, GRAYISH BROWN, TAN, BLOCKY, FIRM, SILTY IN PART, SLIGHTLY CALCAREOUS, SOME CARBONACEOUS MATERIAL

SANDSTONE: WHITE, CLEAR, FINE GRAINED, SUBROUND, POORLY CEMENTED, CARBONACEOUS MATERIAL, CLAY FILL, DARK MINERALS, PYRITE, FAINT BROWN STAINING, WELL SORTED, NO VISIBLE POROSITY, DULL FLUORESCENCE, OFF WHITE MILKY CUT

SHALE: LIGHT TO MEDIUM GRAY, GRAYISH BROWN, BLOCKY, FIRM, SILTY IN PART, SLIGHTLY CALCAREOUS, SOME CARBONACEOUS MATERIAL

SANDSTONE: TRANSLUCENT, CLEAR, VERY FINE TO FINE GRAINED, SUBROUND TO SUBANGULAR, MEDIUM CEMENTED, PREDOMINATELY UNCONSOLIDATED, CALCAREOUS, MEDIUM TO WELL SORTED, PYRITE, POOR VISIBLE POROSITY, NFSOC



SANDSTONE: TRANSLUCENT, CLEAR, VERY FINE TO FINE GRAINED, SUBROUND TO SUBANGULAR, MEDIUM CEMENTED, PREDOMINATELY UNCONSOLIDATED, CALCAREOUS, MEDIUM TO WELL SORTED, PYRITE, POOR VISIBLE POROSITY, NFSOC

SHALE: MEDIUM GRAYISH GREEN, TAN, MEDIUM GRAY, MODERATELY FIRM TO FIRM, CLAY RICH, SILTY, POORLY DEVELOPED DARK BROWN COAL PARTINGS AND CARBONACEOUS MATERIAL

SANDSTONE: WHITE, CLEAR, VERY FINE TO FINE GRAINED, ANGULAR TO SUBROUND, POORLY CEMENTED, SLIGHTLY CALCAREOUS, DARK MINERALS, ABUNDANT COAL PARTINGS, CARBONACEOUS PLANT MATERIAL, DEAD OIL STAIN, DARK BROWN OIL STAIN IN PART, SOME CLAY FILL, FELDSPARS, FREE PYRITE, MEDIUM TO WELL SORTED, POOR VISIBLE POROSITY, NO TO VERY DULL FLUORESCENCE, WHITE STREAMING TO MILKY CUT

NOTE: SIDEWALL CORE HAD YELLOW/GOLD FLUORESCENCE IN FRACTURES

SANDSTONE: PREDOMINATELY WHITE, FINE GRAINED, SUBROUND, MEDIUM CEMENT, CALCAREOUS, SOME CLAY FILL, DARK MINERALS, SOME CARBONACEOUS MATERIAL, WELL SORTED, POOR VISIBLE POROSITY, BRIGHT WHITE FLUORESCENCE, NO CUT

SHALE: GRAYISH TAN, GREENISH GRAY, MEDIUM BROWN, SUBPLATEY, SOFT TO MODERATELY FIRM, CARBONACEOUS MATERIAL, SOME CLAY, SLIGHTLY SILTY, BLACK COAL PARTINGS

SHALE: PREDOMINATELY GRAYISH GREEN, TAN, SOME DARK GRAY, FIRM, ABUNDANT FREE PYRITE, SILTY, SOME CARBONACEOUS MATERIAL

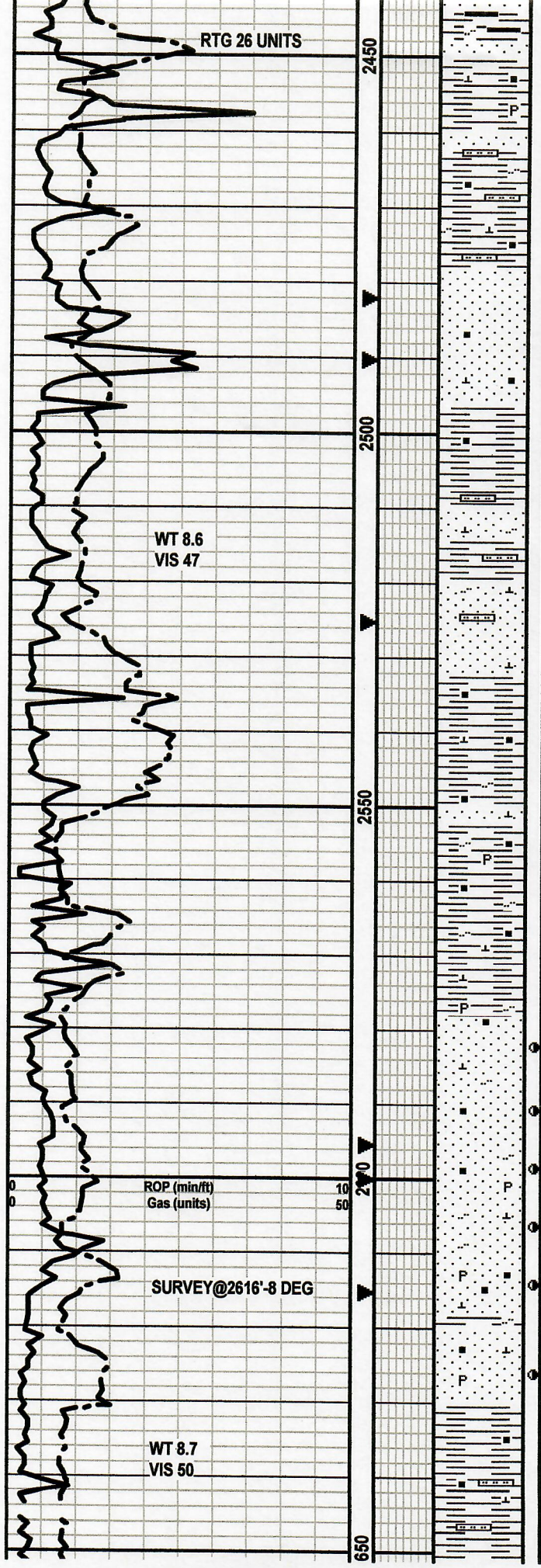
COAL: BLACK, HARD, VITREOUS LUSTER, SOME CONCHOIDAL FRACTURING. THE 2360' SAMPLE WAS FULL OF THIS

SANDSTONE: CLEAR, WHITE, VARICOLORED, VERY FINE GRAINED, SUBROUND, UNCONSOLIDATED, ABUNDANT PYRITE, ABUNDANT CARBONACEOUS MATERIAL, FELDSPARS, DARK MINERALS, WELL SORTED BEACH SAND, NO FLUORESCENCE, ORANGE/GOLD MILKY CUT

SHALE: MEDIUM GRAY, REDDISH BROWN, GRAYISH BROWN, BLOCKY, SPLINTERY, FIRM, SILTY IN PART, SLIGHTLY CALCAREOUS, SOME CARBONACEOUS MATERIAL, FREE PYRITE, SOME CLAY

SANDSTONE: CLEAR, WHITE, VARICOLORED, VERY FINE TO FINE GRAINED, SUBROUND, UNCONSOLIDATED IS A SOFT CLAY MATRIX, PYRITE, ABUNDANT CARBONACEOUS MATERIAL, FELDSPARS, DARK MINERALS, WELL SORTED, NO FLUORESCENCE, NO VISIBLE CUT

SHALE: MEDIUM GRAY, REDDISH BROWN, GRAYISH BROWN, BLOCKY, SPLINTERY, FIRM, SILTY IN PART, SLIGHTLY



CALCAREOUS, SOME CARBONACEOUS MATERIAL, ABUNDANT COAL PARTINGS

SHALE: DARK TO MEDIUM GRAY, REDDISH BROWN, GRAYISH BROWN, BLOCKY, SPLINTERY, FIRM, SILTY IN PART GRADING TO SILTSTONE STRINGERS, SLIGHTLY CALCAREOUS, SOME CARBONACEOUS MATERIAL

SANDSTONE: WHITE, TRANSLUCENT, CLEAR, VERY FINE TO FINE GRAINED, SUBROUND TO SUBANGULAR, MEDIUM CEMENTED, SOME UNCONSOLIDATED GRAINS, CALCAREOUS, MEDIUM TO WELL SORTED, CARBONACEOUS MATERIAL, POOR TO FAIR VISIBLE POROSITY, SOME CLAY, WELL SORTED, NFSOC

NOTE: THE SIDEWALL CORE HAD YELLOW/GOLD FLUORESCENCE IN FRACTURES

SHALE: DARK TO MEDIUM GRAY, REDDISH BROWN, GRAYISH BROWN, TAN, BLOCKY, SPLINTERY, FIRM, SILTY IN PART GRADING TO SILTSTONE STRINGERS, SLIGHTLY CALCAREOUS, SOME CARBONACEOUS MATERIAL

SANDSTONE: PREDOMINATELY WHITE, CLEAR, LIGHT BROWN, VERY FINE TO FINE GRAINED, SUBROUND TO ROUND, POOR TO MEDIUM CEMENT, CALCAREOUS, CARBONACEOUS MATERIAL, SOME CLAY MATRIX, DARK MINERALS, PYRITE, WELL SORTED, NO VISIBLE POROSITY, NFSOC

SANDSTONE: TRANSLUCENT, CLEAR, VERY FINE TO FINE GRAINED, ROUND TO SUBANGULAR, POORLY CEMENTED, ABUNDANT UNCONSOLIDATED GRAINS, SOFT CLAY MATRIX, CALCAREOUS, MEDIUM TO WELL SORTED, POOR VISIBLE POROSITY, WELL SORTED, NFSOC

SHALE: MEDIUM TO DARK GRAY, BLOCKY, FIRM, SILTY IN PART, SLIGHTLY CALCAREOUS, SOME CARBONACEOUS MATERIAL, SOME PYRITE

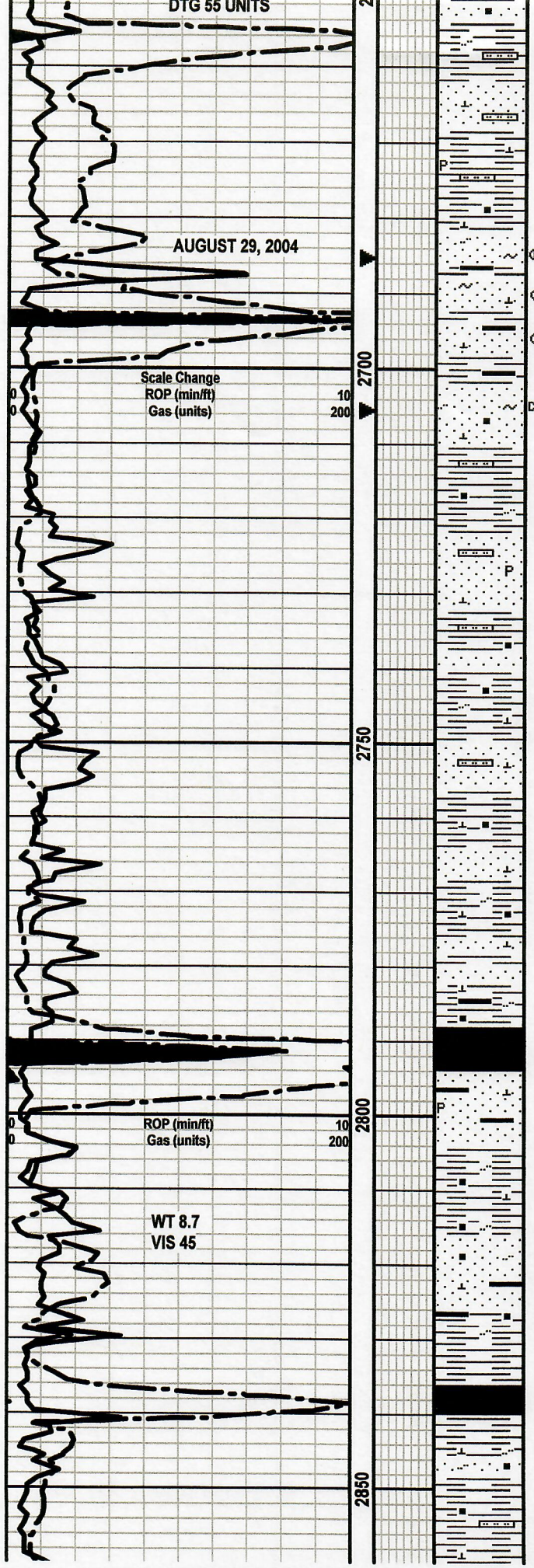
SHALE: MEDIUM TO DARK GRAY, BLOCKY, FIRM, SILTY IN PART, SLIGHTLY CALCAREOUS, SOME CARBONACEOUS MATERIAL, SOME PYRITE

SANDSTONE: PREDOMINATELY WHITE, CLEAR, LIGHT BROWN, VERY FINE TO FINE GRAINED, ROUND TO SUBANGULAR, MEDIUM CEMENTED, CALCAREOUS, DARK INCLUSIONS, MEDIUM TO WELL SORTED, SOME PYRITE, FAINT BROWN STAINING, POOR VISIBLE POROSITY, NO FLUORESCENCE, YELLOW STREAMING/MILKY CUT

NOTE: THE SIDEWALL CORES THROUGHOUT THIS INTERVAL HAD A BRIGHT YELLOW/WHITE FLUORESCENCE

SANDSTONE: PREDOMINATELY WHITE, CLEAR, LIGHT BROWN, VERY FINE TO FINE GRAINED, ROUND TO SUBANGULAR, MEDIUM CEMENTED, CALCAREOUS, DARK INCLUSIONS, MEDIUM TO WELL SORTED, SOME PYRITE, FAINT BROWN STAINING, POOR VISIBLE POROSITY, NO FLUORESCENCE, YELLOW STREAMING/MILKY CUT

SHALE: MEDIUM TO DARK GRAY, GRAYISH BROWN, BLOCKY, FIRM, SILTY IN PART WITH SILTSTONE STRINGERS, SLIGHTLY CALCAREOUS, SOME CARBONACEOUS MATERIAL



SANDSTONE: WHITE, CLEAR, LIGHT BROWN, VERY FINE TO FINE GRAINED, ROUND TO SUBANGULAR, MEDIUM CEMENTED, CALCAREOUS, MEDIUM TO WELL SORTED, SOME PYRITE, POOR VISIBLE POROSITY, SOME CLAY, NFSOC, SILTSTONE STRINGERS

SANDSTONE: WHITE, FINE GRAINED, SUBROUND, MEDIUM CEMENT, CALCAREOUS, SOME GLAUCONITE, DARK MINERALS, WELL SORTED, COAL STRINGERS, DEAD OIL STAIN, OCCASIONAL DARK BROWN STAIN, VERY DULL FLUORESCENCE, SLOW DULL YELLOW MILKY CUT

SHALE: MEDIUM TO DARK GRAY, GRAYISH BROWN, BLOCKY, FIRM, SILTY IN PART WITH SILTSTONE STRINGERS, SLIGHTLY CALCAREOUS, SOME CARBONACEOUS MATERIAL

SANDSTONE: LIGHT GRAY, GRAYISH GREEN, VERY FINE TO FINE GRAINED, ROUND TO SUBANGULAR, MEDIUM CEMENTED, CALCAREOUS, MEDIUM TO WELL SORTED, PYRITE, POOR VISIBLE POROSITY, SOME CLAY, NFSOC

SHALE: MEDIUM TO DARK GRAY, GRAYISH BROWN, BLOCKY, FIRM, SILTY IN PART WITH SILTSTONE STRINGERS, SLIGHTLY CALCAREOUS, SOME CARBONACEOUS MATERIAL, COAL STRINGERS

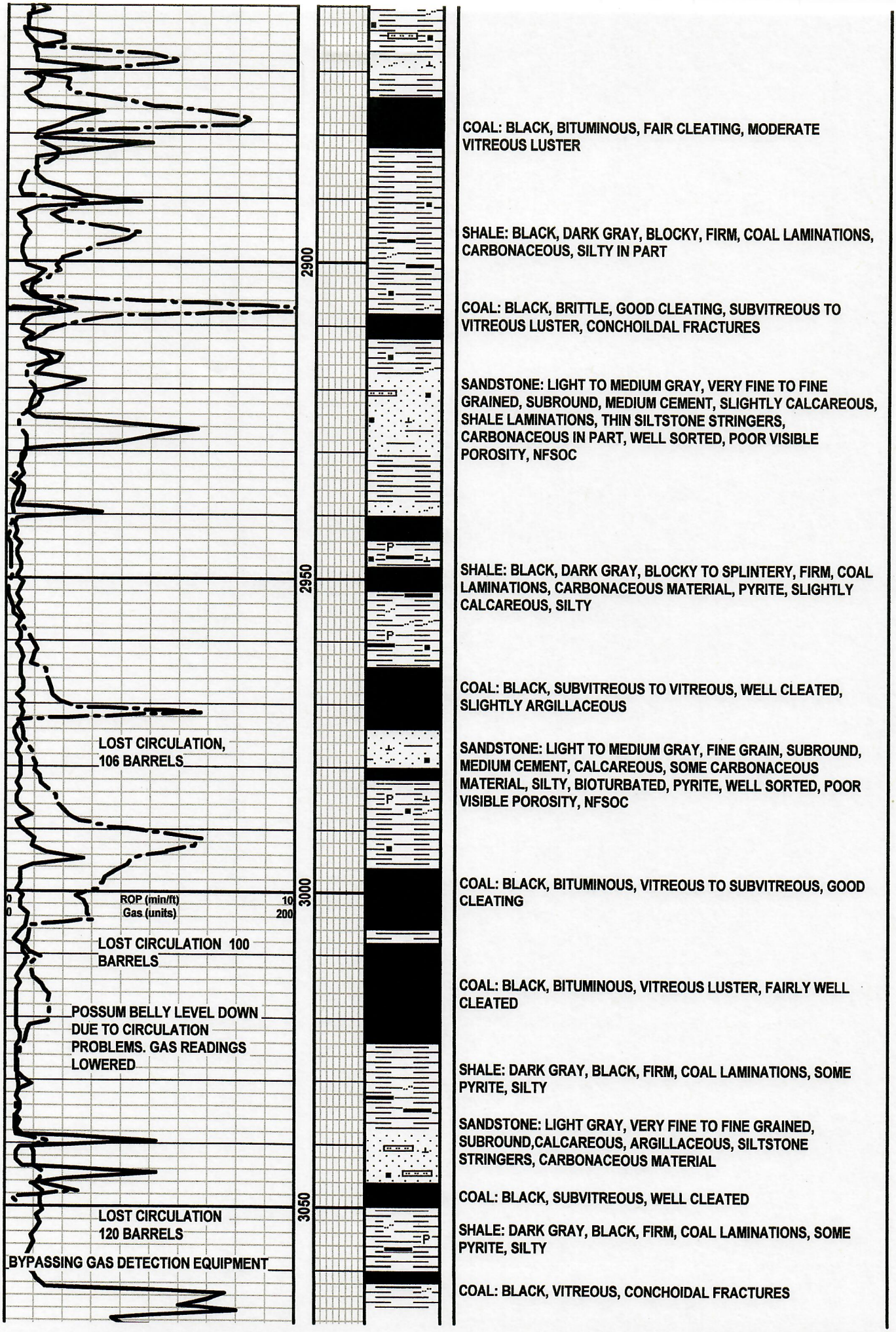
COAL: BLACK, BITUMINOUS, GOOD TO FAIR CLEATED, BRITTTLE, SUBVITREOUS LUSTER, CONCHOIDAL FRACTURES

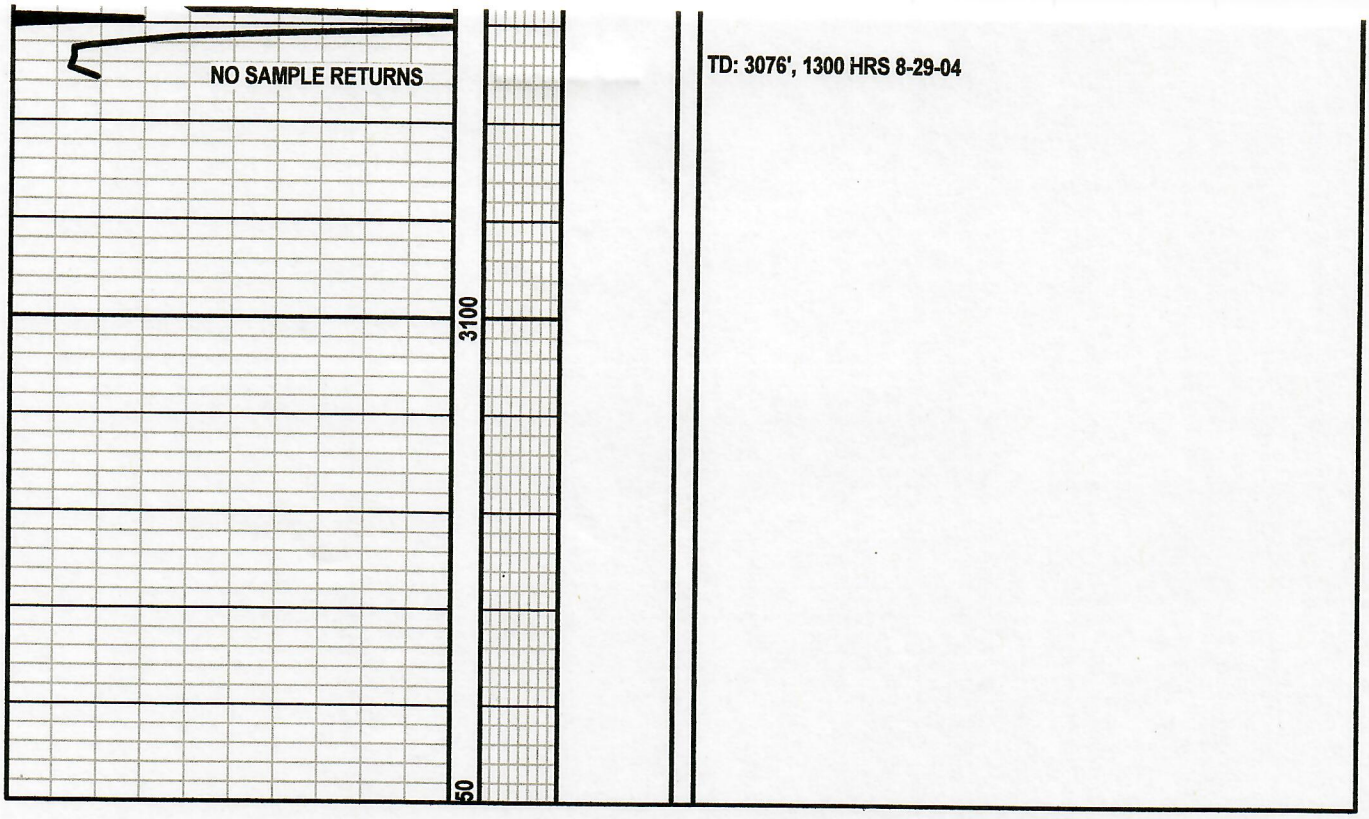
SANDSTONE: WHITE, LIGHT GRAY, GRAYISH GREEN, VERY FINE TO FINE GRAINED, ROUND TO SUBANGULAR, MEDIUM CEMENTED, CALCAREOUS, MEDIUM TO WELL SORTED, PYRITE, POOR VISIBLE POROSITY, COAL STRINGERS, NFSOC

SANDSTONE: LIGHT GRAY, WHITE, FINE GRAINED, SUBANGULAR TO SUBROUND, MEDIUM TO WELL CEMENTED, CALCAREOUS, SOME CARBONACEOUS MATERIAL, SILTY IN PART, MEDIUM TO WELL SORTED, POOR TO FAIR VISIBLE POROSITY, NFSOC, COAL STRINGERS

COAL: BLACK, BITUMINOUS, GOOD CLEATING, VITREOUS LUSTER

SHALE: MEDIUM TO DARK GRAY, GRAYISH BROWN, BLOCKY, FIRM, DARK MINERALS, SILTY IN PART WITH SILTSTONE STRINGERS, SLIGHTLY CALCAREOUS, ABUNDANT CARBONACEOUS MATERIAL


2900
2950
3000
3050
ROP (min/ft)
Gas (units)
0
0
10
200
LOST CIRCULATION, 106 BARRELS
LOST CIRCULATION 100 BARRELS
POSSUM BELLY LEVEL DOWN DUE TO CIRCULATION PROBLEMS. GAS READINGS LOWERED
LOST CIRCULATION 120 BARRELS
BYPASSING GAS DETECTION EQUIPMENT
P
COAL: BLACK, BITUMINOUS, FAIR CLEATING, MODERATE VITREOUS LUSTER
SHALE: BLACK, DARK GRAY, BLOCKY, FIRM, COAL LAMINATIONS, CARBONACEOUS, SILTY IN PART
COAL: BLACK, BRITTLE, GOOD CLEATING, SUBVITREOUS TO VITREOUS LUSTER, CONCHOILDAL FRACTURES
SANDSTONE: LIGHT TO MEDIUM GRAY, VERY FINE TO FINE GRAINED, SUBROUND, MEDIUM CEMENT, SLIGHTLY CALCAREOUS, SHALE LAMINATIONS, THIN SILTSTONE STRINGERS, CARBONACEOUS IN PART, WELL SORTED, POOR VISIBLE POROSITY, NFSOC
SHALE: BLACK, DARK GRAY, BLOCKY TO SPLINTERY, FIRM, COAL LAMINATIONS, CARBONACEOUS MATERIAL, PYRITE, SLIGHTLY CALCAREOUS, SILTY
COAL: BLACK, SUBVITREOUS TO VITREOUS, WELL CLEATED, SLIGHTLY ARGILLACEOUS
SANDSTONE: LIGHT TO MEDIUM GRAY, FINE GRAIN, SUBROUND, MEDIUM CEMENT, CALCAREOUS, SOME CARBONACEOUS MATERIAL, SILTY, BIOTURBATED, PYRITE, WELL SORTED, POOR VISIBLE POROSITY, NFSOC
COAL: BLACK, BITUMINOUS, VITREOUS TO SUBVITREOUS, GOOD CLEATING
COAL: BLACK, BITUMINOUS, VITREOUS LUSTER, FAIRLY WELL CLEATED
SHALE: DARK GRAY, BLACK, FIRM, COAL LAMINATIONS, SOME PYRITE, SILTY
SANDSTONE: LIGHT GRAY, VERY FINE TO FINE GRAINED, SUBROUND,CALCAREOUS, ARGILLACEOUS, SILTSTONE STRINGERS, CARBONACEOUS MATERIAL
COAL: BLACK, SUBVITREOUS, WELL CLEATED
SHALE: DARK GRAY, BLACK, FIRM, COAL LAMINATIONS, SOME PYRITE, SILTY
COAL: BLACK, VITREOUS, CONCHOIDAL FRACTURES


NO SAMPLE RETURNS
3100
50
TD: 3076', 1300 HRS 8-29-04