



Scale 1:240 Imperial

Well Name: Ringwald 1-21  
Surface Location: NW SE NW NE 21-28S-21W  
Bottom Location:  
API: 15-057-20969-0000  
License Number: 5004  
Spud Date: 12/7/2015 Time: 3:59 PM  
Region: SW KS  
Drilling Completed: 12/19/2015 Time: 1:41 AM  
Surface Coordinates: 906' FNL & 1792' FEL  
Bottom Hole Coordinates:  
Ground Elevation: 2392.00ft  
K.B. Elevation: 2405.00ft  
Logged Interval: 2500.00ft To: 5400.00ft  
Total Depth: 5400.00ft  
Formation: MISS  
Drilling Fluid Type: Chemical Mud

#### OPERATOR

Company: Vincent Oil Corporation  
Address: 155 N Market  
Ste 700  
Wichita KS 67202  
Contact Geologist: Dick Jordan  
Contact Phone Nbr: 316.262.3573  
Well Name: Ringwald 1-21  
Location: NW SE NW NE 21-28S-21W API: 15-057-20969-0000  
Pool: Wildcat Field: WILDCAT  
State: KS Country: Ford

#### CONTRACTOR

Contractor: Duke Drilling Co., Inc.  
Rig #: 7  
Rig Type: Rotary  
Spud Date: 12/7/2015 Time: 3:59 PM  
TD Date: 12/19/2015 Time: 1:41 AM  
Rig Release: 12/20/2015 Time: 1:45 AM

#### LOGGED BY

Company: Vincent Oil Corporation  
Address: 155 N Market  
Ste 700  
Wichita KS 67202  
Phone Nbr: 316.262.3573  
Logged By: Geologist Name: Tom Dudgeon

#### ELEVATIONS

K.B. Elevation: 2405.00ft Ground Elevation: 2392.00ft  
K.B. to Ground: 13.00ft

**TOTAL DEPTH**

Measurement Type:	Measurement Depth:	TVD:
RTD	5400.00	5400.00
LTD	5400.00	5400.00

**SURFACE CO-ORDINATES**

Well Type:	Vertical	Latitude:	37.5988855
Longitude:	-99.6184819		
N/S Co-ord:	906' FNL		
E/W Co-ord:	1792' FEL		

**DRILLING FLUID SUMMARY**

Type	Date	From Depth	To Depth
Chemical Mud	12/12/2015	3790.00ft	5400.00ft

**CASING SUMMARY**

	Surface	Intermediate	Main		
Bit Size	12.25 in		7.88 in		
Hole Size	12.25 in		7.88 in		
	Size	Set At	Type	# of Joints	Drilled Out At
Surf Casing	8.625 in	628 ft	23#	15	12/8/2015 12:00 AM
Int Casing					
Prod Casing					

**CASING SEQUENCE**

Type	Hole Size	Casing Size	At
Surface	12.25 in	8.63	628.00 ft

**OPEN HOLE LOGS**

Logging Company:	CJ Cased Hole Solutions		
Logging Engineer:	Jeff Luebbbers		
Truck #:	22339		
Logging Date:	12/19/2015	Time Spent:	6
# Logs Run:	4	# Logs Run Successful:	4

**LOGS RUN**

Tool	Logged Interval	Logged Interval	Hours	Remarks	Run #
Dual Induction	0.00ft	5400.00ft	2.00		1
NDE/CDE/PE	2600.00ft	5400.00ft	2.00		1
Micro	2600.00ft	5400.00ft	4.00		2
Sonic	0.00ft	5400.00ft	4.00		2

**LOGGING OPERATION SUMMARY**

Date	From	To	Description Of Operation
12/19/2015	0.00ft	5400.00ft	Logs Ran Successfully

**NOTES**

At 4774', drilling ahead, drilled to 4925', circ for samples in the Pawnee, started out of hole for short trip to condition hole prior to drilling ahead, pulled out six stands and drill pipe stuck, Tried to pull free, but could not. Reconnected Kelly hose back onto drill pipe and re-established circulation. Called out vacuum truck for oil to spot into wellbore

At 4925', spotting oil in hole to free drill pipe, spotted 40 bbls of crude hole and worked pipe, pipe stuck at approximately 7 stands off bottom, called out slam hammer and freed stuck pipe, ran bit back to bottom and circulated hole clear, started to trip back out of the hole. Hole apparently partially bridged off with bit approximately 7 stands off bottom, worked pipe free and pulled tight to 14 or 15 stands out then drill pipe stuck again, used slam hammer to free pipe, pipe pulled tight till approximately 20 stands out, tripped out remainder of drill pipe from hole. Tripped back in hole with drill pipe

### ROCK TYPES

	Cht		Lmst fw<7		Shblk		Chtcongl
	Coal		Lmst fw7>		Cht gy		
	Dolsec		Shgy		Cht vari		

### ACCESSORIES

#### MINERAL

- △ Dolomitic
- △ Chert White

#### STRINGER

- 
- 
- 

### OTHER SYMBOLS

#### POROSITY TYPE

- x Intercrystalline
- φ Interoolitic
- V Vuggy
- P Pinpoint
- ∩ Moldic
- O Organic
- F Fracture
- e Earthy
- Fenestral

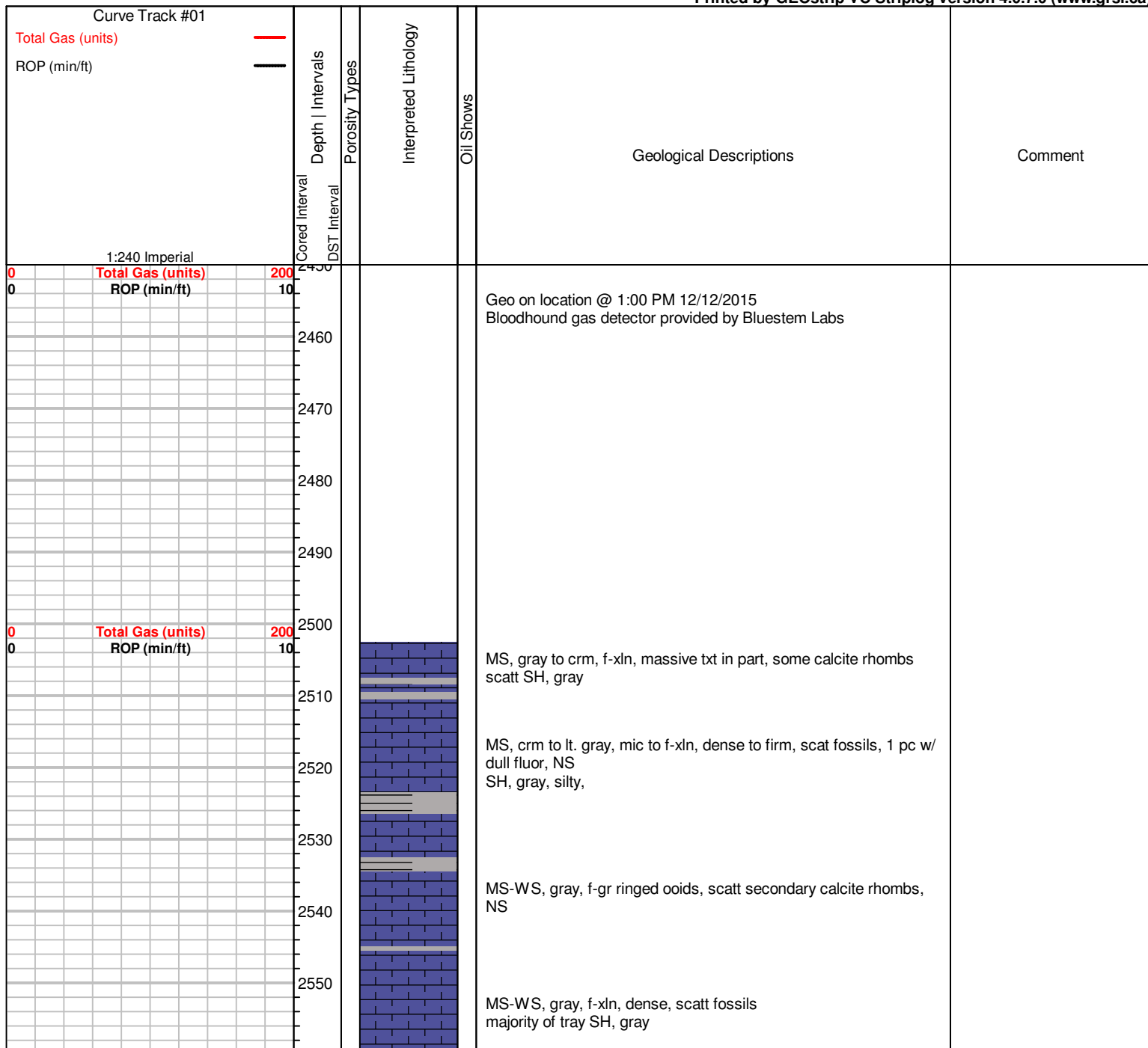
#### OIL SHOWS

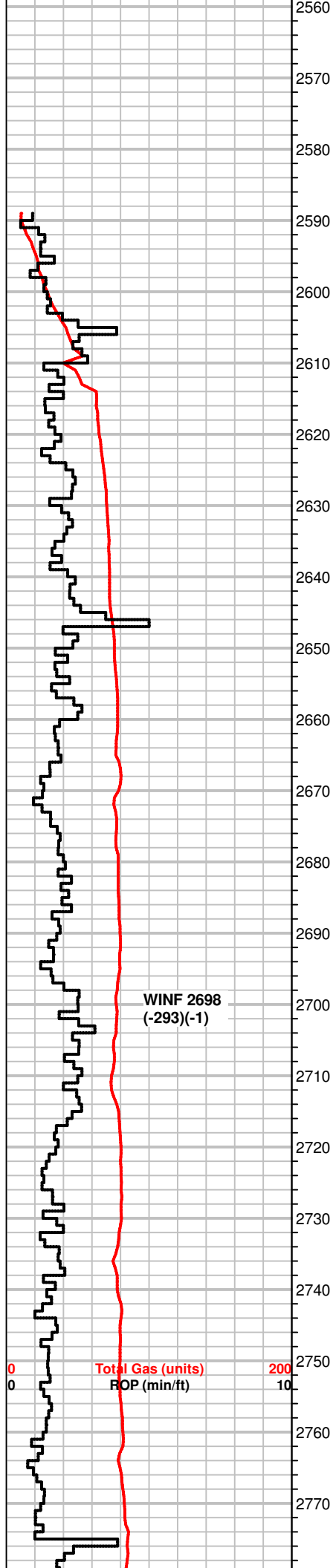
- Even Stn
- Spotted Stn 50 - 75 %
- Spotted Stn 25 - 50 %
- Spotted Stn 1 - 25 %
- Questionable Stn
- D Dead Oil Stn
- Fluorescence

#### INTERVALS

- Core
- DST

Printed by GEOstrip VC Striplog version 4.0.7.0 (www.grsi.ca)





MS-WS, crm to gray, pcs w/ gray ooids in crm matrix, sli. shaly, chalky to calcitic matrix

MS-WS, crm to gray, scatt tan pcs, f-xln to chalky, some pcs massive txt, scatt heavy minerals, calcite rare Chert, blk

MS-WS, gran to tan, f-xln to massive, some pcs dark, f-gr oolitic, scatt SS clusters, opaque to red, f-gr, well sorted, friable, NS

WS, crm to tan, vf-gr oolitic, friable, gray massive txt pcs, dense, Chert, white, opaque, nodular, bluish nodules, inc in SH, red, some gray

MS, tan, grau, f-xln to chalky, some gray shaly pcs, scatt fossils, minerals, calcite, Inc in SH, red(25% of tray)

50% of tray SH, red  
MS, tan to gray, f-xln, silty, possible gas bubbles, NS

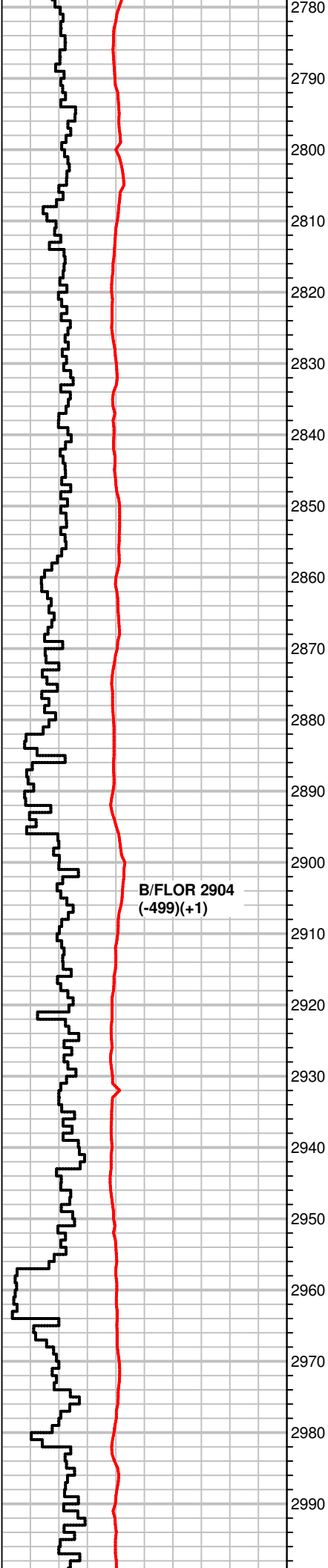
MS, crm to gray, f-xln to massive, some chalky, hard to soft, some oolitic pcs, SH, gary, brn, oolitic in part, sli. sandy

MS-WS, crm to grya, scatt fossilif pcs, firm to hard SH, gray, silty, some pcs limy, mineral inclusions

MS, gray to crm, f-xln, dense, some pcs chalky in part, fossilif (ooids), f-gr, calcite rhombs  
SH, gray, blocky, some pcs striated

MS-WS, crm to gray, m-xln, gritty, vf-gr oolitic, calcite

MS-WS, gray, tan, f-xln, gritty to shaly, mineral inclusions, some pcs fossilif.



B/FLOR 2904  
(-499)(+1)

WS-MS, gray to crm, gritty/sandy txt, scatt heavy minerals, firm, some dense, sli dolomitic  
SH, red, gray

MS-WS, gray to crm, gritty txt, A.A, some soft, chalky matrix, scatt fossils, most pcs silty/sandy  
SH, gray, green

MS, lt. gray to crm, some A.A., f-xln, dense, glauc specs, some pcs silty, micro oolitic in part.  
scatt SH, gray, dsilty/sandy in part

MS, tan to crm, some gray, f-xln to massive txt, dense, glauc specs, SH, gray, green

SH, green, gray  
MS, crm to gray, A.A., dolomitic, tan, sucrosic txt, fossilif, rare tan mottled MS pcs, hard and dense, dark specs,

MS-WS, gray to crm, m-xln, fossilif, firm to soft, sub oolitic in part, some pcs w/ chert inclusions, dense

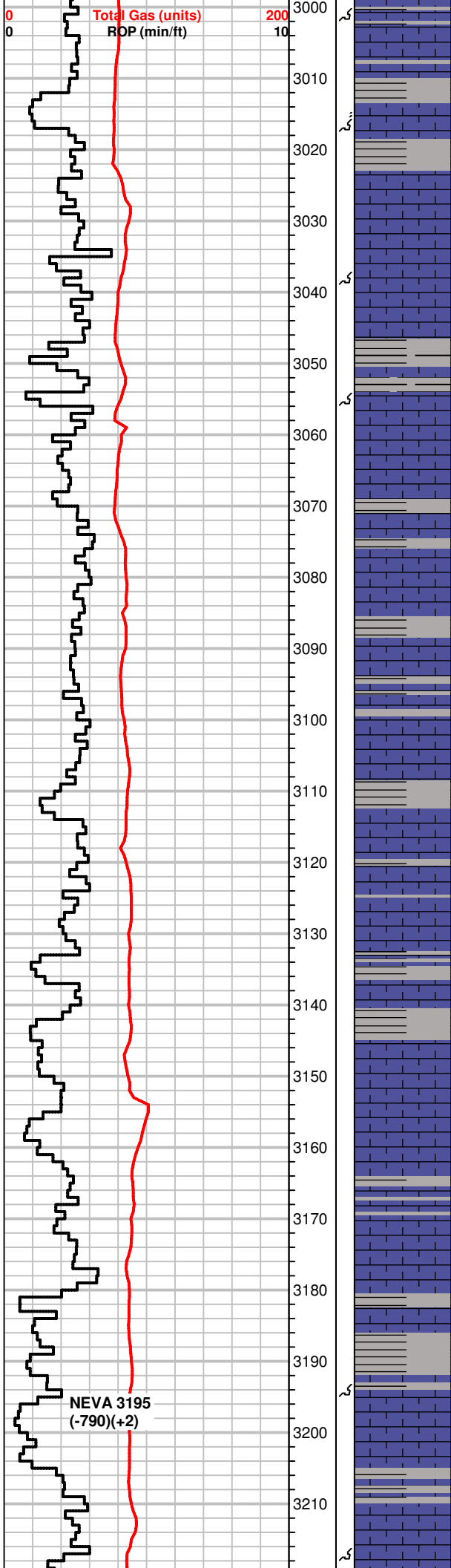
MS, crm to gray, f-xln, silty to fossil frgmnts, mottled, barren in dry samples, NS  
SH, gray, red

MS, lt. gray to gray, rare tan, sub oolitic pcs, some w/ glauc specs, gritty to sandy txt, fossilif pcs, influx SH, green, gray, red

PS, crm to tan, f-gr oolitic, friable, brittle, some mottled pcs, scatt sub oolitic, dense pcs, NS

WS-PS, crm to tan, brn, fossilif(echnoids, ooids), gray silty to sandy pcs, 3 pcs w/ mineral fluor, NS

WS-PS, A.A., calcite rhombs, scatt mineral fluor, NS



WS-PS, A.A., calcite mounds, scatt mineral fluor, NS

SH, gray, 50% of tray

WS-PS, crm to tan, gray, f-xln, f-gr oolitic/oomoldic, some w/ dark ringed ooids, hard, dense, scatt mineral fluor, NS

MS-WS, tan to crm, f-xln, hard, NS  
SH, red, gray, green(waxy)

MS, crm to off white, gray, f-xln, sub oolitic, gray pcs gritty txt, fossilif.

MS, crm to brn, f-xln, dense, mottled pcs, some soft, chalky matrix, sub oolitic, crm pcs  
SH, dk. gray, red

MS, crm to tan, f-xln, dense, fossilif, rare brn, m-gr suboolitic pcs, brittle, shaly in part, lt edge strn in dry  
scatt SH, green

MS-rare WS, crm to tan, lt. brn, f to m-xln, dense, fossilif, mottled, rare pyrite

SH, gray, lt. green, red  
Scatt MS, A.A.

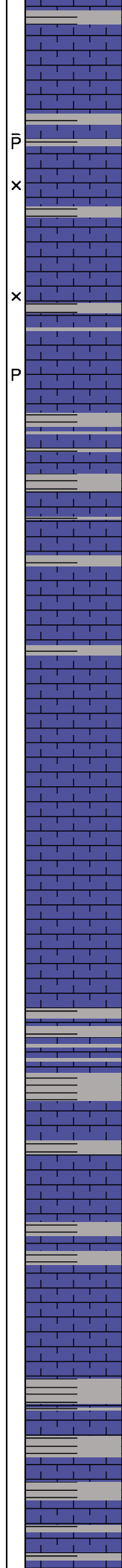
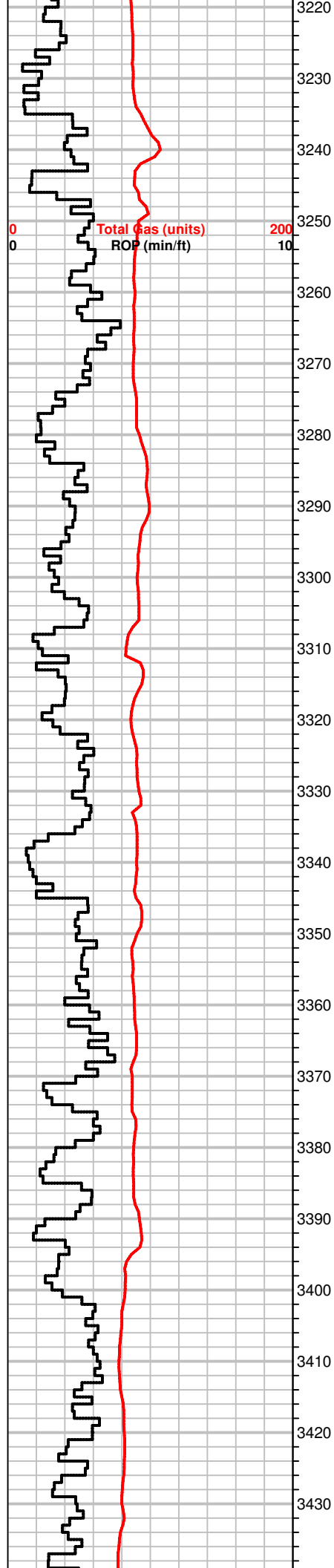
SH, gray, green, red  
MS, crm to lt. tan, gray, f-xln, dense, pcs brittle, some chalky matrix w/ suboolitic/fossilif inclusions,

MS, A.A., some glauc, crm pcs w/ waxy/milky luster, massive txt some SH, gray, green, silty

SH, red, gray  
MS-WS, crm to tan, f-xln, massive txt, dense, moldic por. scatt. fossils, f-m-gr oolitic pcs

MS-WS, crm to gray, gritty/oolitic txt, f-gr, friable, some pcs dense (gray), bright mineral fluor, NS

NEVA 3195  
(-790)(+2)



SH, brn, red, gray, green

MS, crm to off white, platy thin pcs, sub oolitic, dense, bright mineral fluor, pp and int-xln por.  
SH, gray, green, waxy

MS, A.A., fossilif, glauc specs, bright mineral fluor  
Inc in SH, red, green, gray

MS, crm to tan, mic-xln, firm to hard, sub oolitic, brn ,oids, bright mineral fluor  
SH, dk. gray, red

WS-MS, brn to crm, f-xln, fossilif(brachs, oolites, gastropods), glauc specs, mottled, mineral fluor, NS

MS-WS, crm to tan, f-xln, oolitic, gritty txt, vf-gr oolitic to sub oolitic pcs, dark mineral specs  
SH, gray

SH, gray

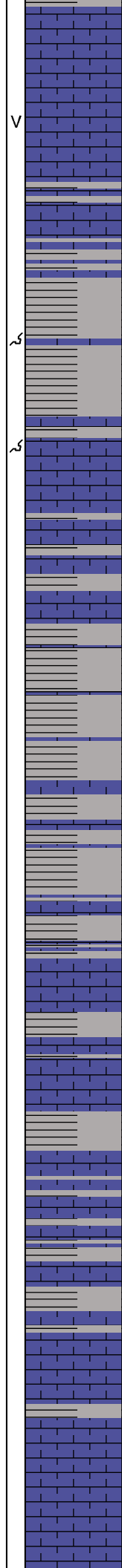
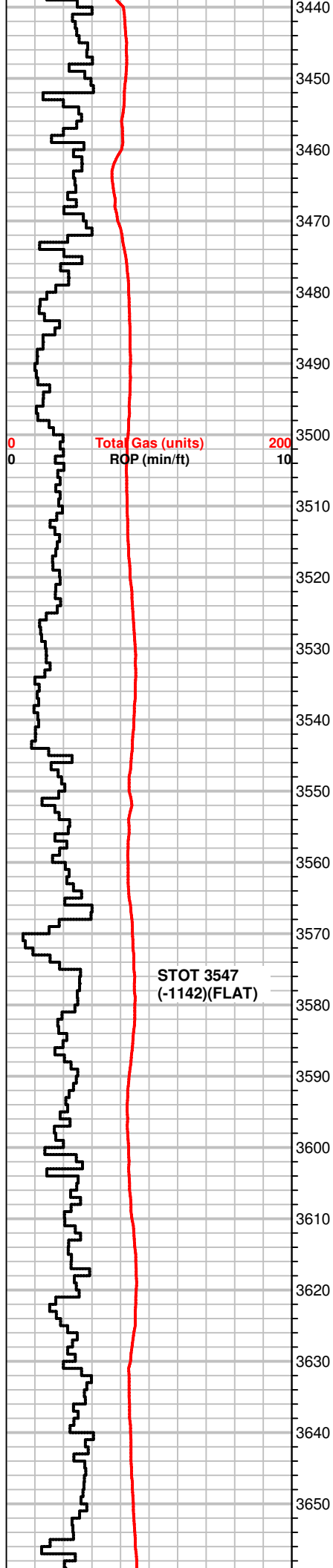
MS, crm to tan, sub oolitic, gritty txt, rare fluor, NS

MS-WS, crm to gray, mic to f-xln, most pcs dense, sub oolitic in part, fossilif.  
SH, gray, red

SH, gray, red, brn  
MS-WS, gray to brn, crm, mottled to oolitic in part, some glauc specs, other heavy minerals, firm, NS

MS, crm to off white, tan, f-xln, some fossilif, most sub oolitic to massive txt, some gritty looking pcs  
SH, gray, green

MS, crm to tan, A.A, chalky pcs scatt, sub oolitic, mineral fluor, SH, grays



SH, gray, green, red  
MS, crm to off white, f-xln, firm, sli. gritty txt.

MS, A.A., some mottled pcs, mineral specs, chalky matrix in some pcs, soft  
SH, gray, green, red

SH, gray, red  
rare MS, crm, chalky, soft, rare moldic por in scatt pcs(caving?)

SH, gray, red  
MS, crm to tan, mic-xln, brittle, fn-gr qtz frmnts in tray, NS

MS, crm to tan, f-xln, firm to hard, sub oolitic, gritty txt, mineral specs  
SH, gray, brn, red

MS, tan to brn, f-xln, silty, firm, rare dark minerals  
SH, red, gray

MS, crm to tan, mic-xln, tite, waxy looking  
SH, gray, red

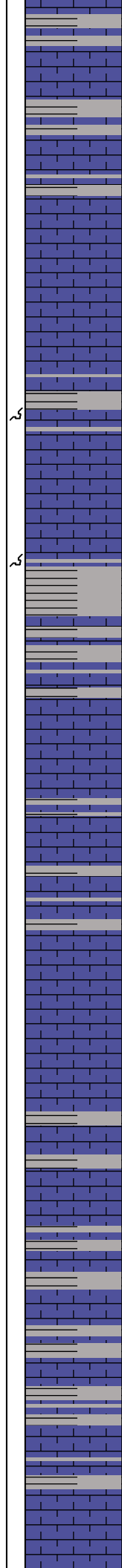
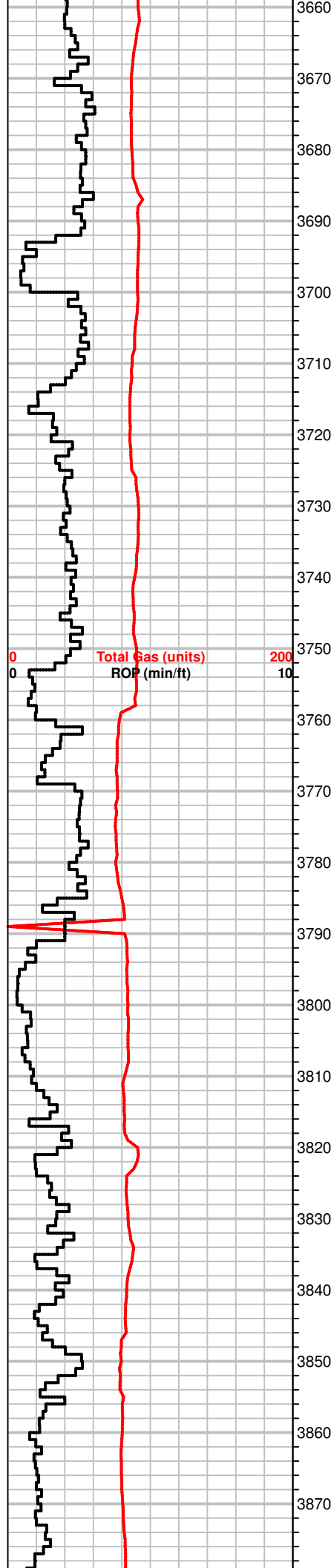
MS, crm to tan, mic-xln, firm to hard, barren, NS  
SH, red, gray

SH, red, gray, brn  
MS, crm to off white, chalky, firm to soft, NS

SH, influx, red, gray

SH, A.A., rare MS, tan, f-xln, fossilif, glauc specs.





MS, tan to crm, f-xln, fossilif, firm, NS, scatt SS clusters, vf-gr, well sorted, NS

SH, red, SS clusters, opaque tan to red, vf-gr, well sorted, friable, NS

SH, red  
MS, crm, f-xln, soft to firm, chalky, scatt fossils, NS

SH, red, gray, brn, silty,  
rare MS, crm, f-xln, fossilif, calcite replacement, SS clusters, red,  
green, f-gr, well sorted

MS, crm, f-xln, sub oolitic to fossilif, NS  
SH, red, gray, green

MS, crm to brn, mottled pcs, mic-xln, some pcs w/ massive txt,  
scatt fossils, NS

SH, dk. gray, gray, red  
scatt MS, crm to brn, f-xln to mic-xln, some vf-oolitic pcs, friable,  
Chert, opaque

influx SH, gray, dk. gray, red  
rare MS, crm to brn, A.A.

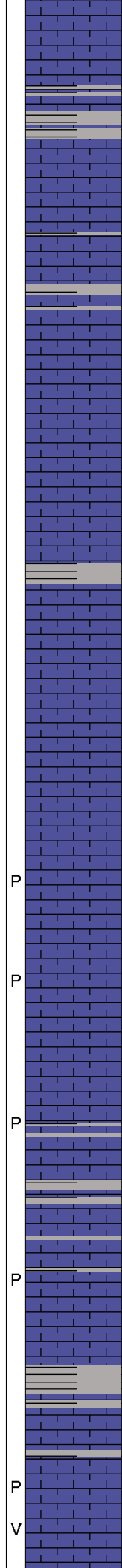
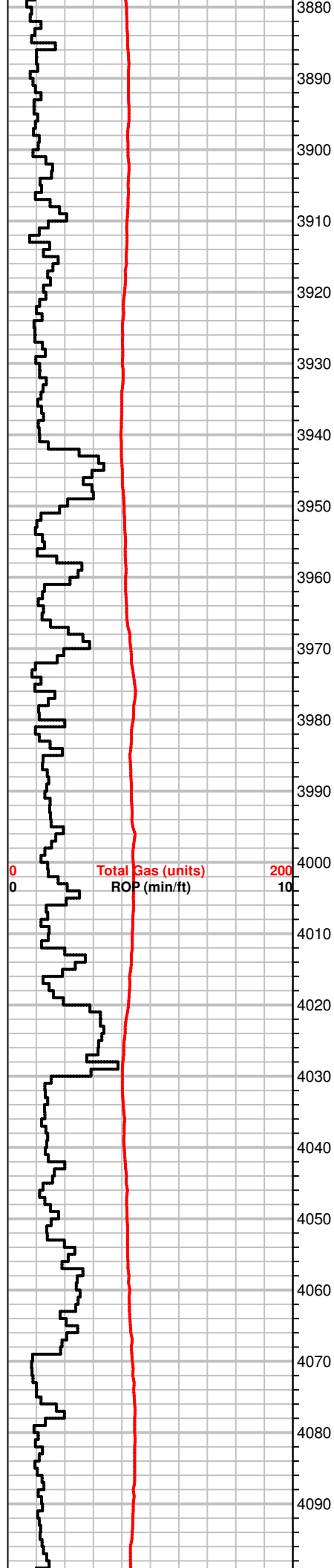
MS, crm to tan, mic to fn-xln, hard to firm, fossilif, chalky in part  
Some SH, red, gray

MS, crm to tan, f-xln, firm to friable pcs, chalky in part  
Chert, white  
some SH, green, gray

MS, crm, f-xln, chalky pcs, scatt fossilif pcs

MS, crm, f-xln, gritty txt, crinoids, rare Chert, white, fossilif

0 Total Gas (units)  
0 ROP (min/ft) 200 10



3880 MS, crm to off white, chalky, some mic-xln, dense to soft, rare pyrite xtals, glauc specs

3890

3900 MS, A.A., sub oolitic pcs, sandy to silty in part, soft, NS

3910

3920

3930

3940 MS, crm to off white, f-xln to chalky txt, fossilif, Chert, white, orange, gray

3950 MS, crm to lt. tan, f-xln, gritty txt, fn-gr oolitic, friable, chalky in part, scatt minerals, Chert, white, fossilif.

3960

3970

3980 MS, crm to tan, f-xln, A.A., scatt m-xln fossilif pcs, rare brn mottled WS, NS  
Chert, milky white

3990

4000 P MS, off white to crm, f-xln to massive txt, scatt chalky off white pcs, some sub oolitic crm pcs, rare PS, fossilif. rare lt. edge stn in dry, pp por.  
Chert, white

4010 P

4020 MS, A.A, some lt. gray, tan MS, Chert, white, pp por.

4030 P MS-WS, crm, mottled brn pcs, f-xln, rare f-gr oolitic pcs, mineral specs, pp por., scatt Chert, opaque  
rare SH, gray

4040

4050 P MS, A.A., inc in fossilif pcs, rare SH, gray, green  
Chert, white

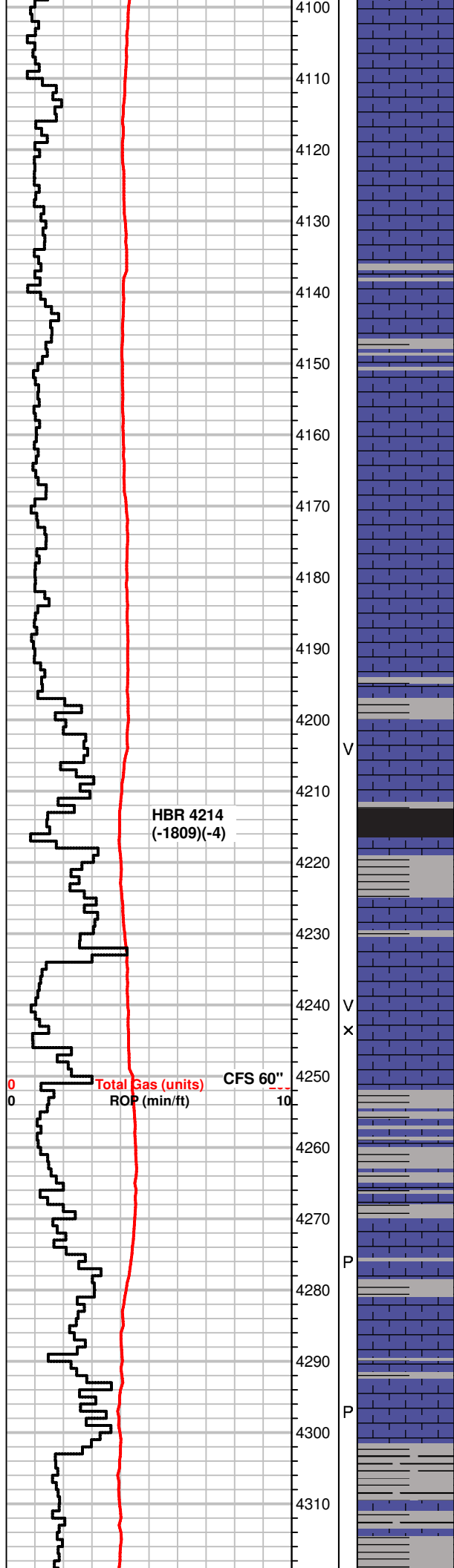
4060

4070 MS, crm to tan, chalky matrix, gritty txt in part, fossilif pcs, lt. edge stn in dry(rare)  
SH, sea green, silty

4080 MS, A.A., scatt lt. gray pcs, f-xln, silty, Chert, white  
SH, green, gray

4090 P  
V WS-MS, tan to crm, f-xln, firm to dense, fossilif to oolitic in part, pp por. Chert, gray

MS-WS, A.A., calcite rhombs



MS, crm to tan, f-xln, scatt cub oolitic pcs, mineral specs, some pcs chalky in part, rare gray pcs w/ m-gr ooids, NS

WS-MS, lt. gray to crm, gritty txt, micro oolitic, fossilif, friable Chert, white, tan, brn

MS-WS, tan, f to m-xln, firm, sub oolitic, fossilif pcs, rare mottled pcs, dense, NS

SH, gray, green  
MS, tan to crm, f-xln, firm to hard, gritty txt, micro oolitic, Chert, white

rare SH, dk. gray, green  
MS-WS A.A.

MS, crm to lt. tan, f-xln, fossilif, chalky matrix in part, scatt micro oolitic pcs, calcite xtals, Chert white

MS-WS, tan to crm, f-xln to chalky matrix, firm, fossilif to sub oolitic pcs scatt, some gray WS w/ co-gr dark ooids, NS

MS-WS, crm to lt. tan, f-xln, gritty txt, some pcs chalky to massive txt, dark mineral specs rare, hard  
SH, dark gray

MS-WS, A.A. fossilif., hard, v. lt edge stn in dry  
SH, dk. gray, gray

SH, blk, gray, gas bubbles

MS, crm to tan, rare brn, f-xln, fossilif, dense  
scatt SH, grays

MS tan to crm, f-xln, barren, dense, some micro oolitic pcs, scatt sub oolitic  
SH, gray, green, silty

MS, crm to off white, f-xln, f-sucrosic, sli dolomitic, mineral fluor lt edge stn in dry, int-xln and vuggy por.  
Chert, white, blk,

MS, crm to tan, f-xln massive txt, dense, sub oolitic, dull fluor, some gritty to silty txt, Chert, white  
SH, blk, gray, red

WS, brn to tan, f-xln, oolitic/fossilif, dense, dead wormy stn in 1 pc, mineral specs, pp por.

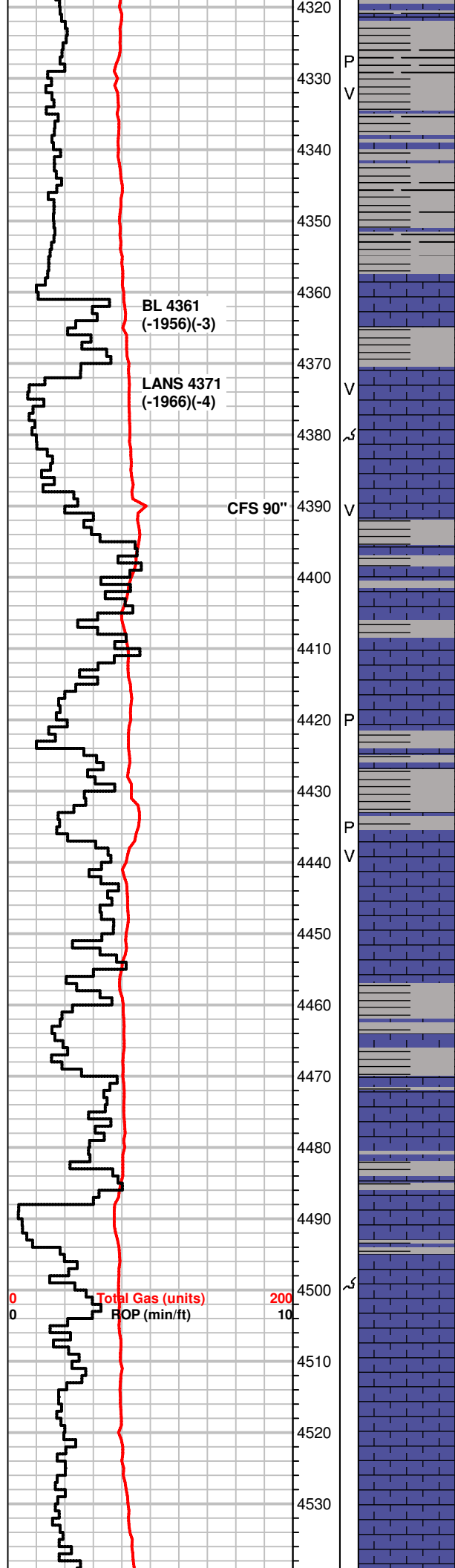
MS-WS, crm to tan, massive to mic-xln txt, gritty, some pcs micro oolitic, chalky matrix in pcs, soft, NS

SH, gray, green, silty, MS, crm to tan, f-xln, dub oolitic pcs, fossilif in part, pp por.

MS, crm, f-xln to mic-xln, dense to firm pcs, glauc specs, sli. dolomitic, fn-sucrosic txt, rare lt. edge stn in dry

MS, A.A., SH, gray

Increase in MS, crm to tan, some gray, f-xln, gritty txt, dense, NS



SH, gray, MS-WS, crm to brn, f-xln, f to m-gr oolitic, fossilif, dense, NS  
rare vuggy & pp por.

WS-MS, crm to brn, f-xln, dense, fossilif(oids, crinoids, brachs), scatt chalky pcs, Chert, lt. gray  
influx SH, grays

SH, gray, dk. gray, some brn, silty, dec amt. MS-WS A.A.

MS-WS, brn, f-xln to massive txt, dense, rare fossil frgmnts, firm to hard, NS, SH, gray, dk. gray

MS-WS, crm to gray, f-xln to massive txt, gritty/silty pcs, f-gr to micro oolitic, some w/ tan chert inclusions, dense, lt. edge stn in dry, vuggy to moldic por.

MS-WS, crm, f-xln, hard to brittle, fossilif pcs, sli. dolomitized, lt edge stn, vuggy por.

MS-WS, crm to tan, some brn, f to m-xln, hard to dense, fossilif, scatt fn-gr oolitic tan pcs, dull fluor, lt. edge stn dry, some SH gray

WS, crm to gray/brn, dense, some pcs firm/brittle, fossil frgmnts, sandy in part, Chert blk, gray

MS, crm, f-xln to massive, sub oolitic, some pcs chalky, NS

MS, A.A., SH, gray, silty

WS, tan to gray, f-xln, micro oolitic pcs, firm to dense, rare glauc, chalky mottled pcs, pp to vuggy por.

MS-WS, crm to tan, mostly f-xln to m-xln in part, fossilif, firm, some pcs hard, dk mineral specs, pyrite, Chert, tan and gray

MS, lt. gray to crm, hard, scatt oolitic PS, tan, lt edge stn dry. rare SH, gray

MS-WS, brn to crm, firm, fossilif pcs throughout, dense, some pcs w/ massive txt, NS wet, lt. edges stn in dry, Chert, brn, white SH, gray, green

MS, crm, f-xln, sli. chalky matrix, firm to hard, Chert, white

MS, A.A., rare brn fossilif WS, lt edge stn in dry

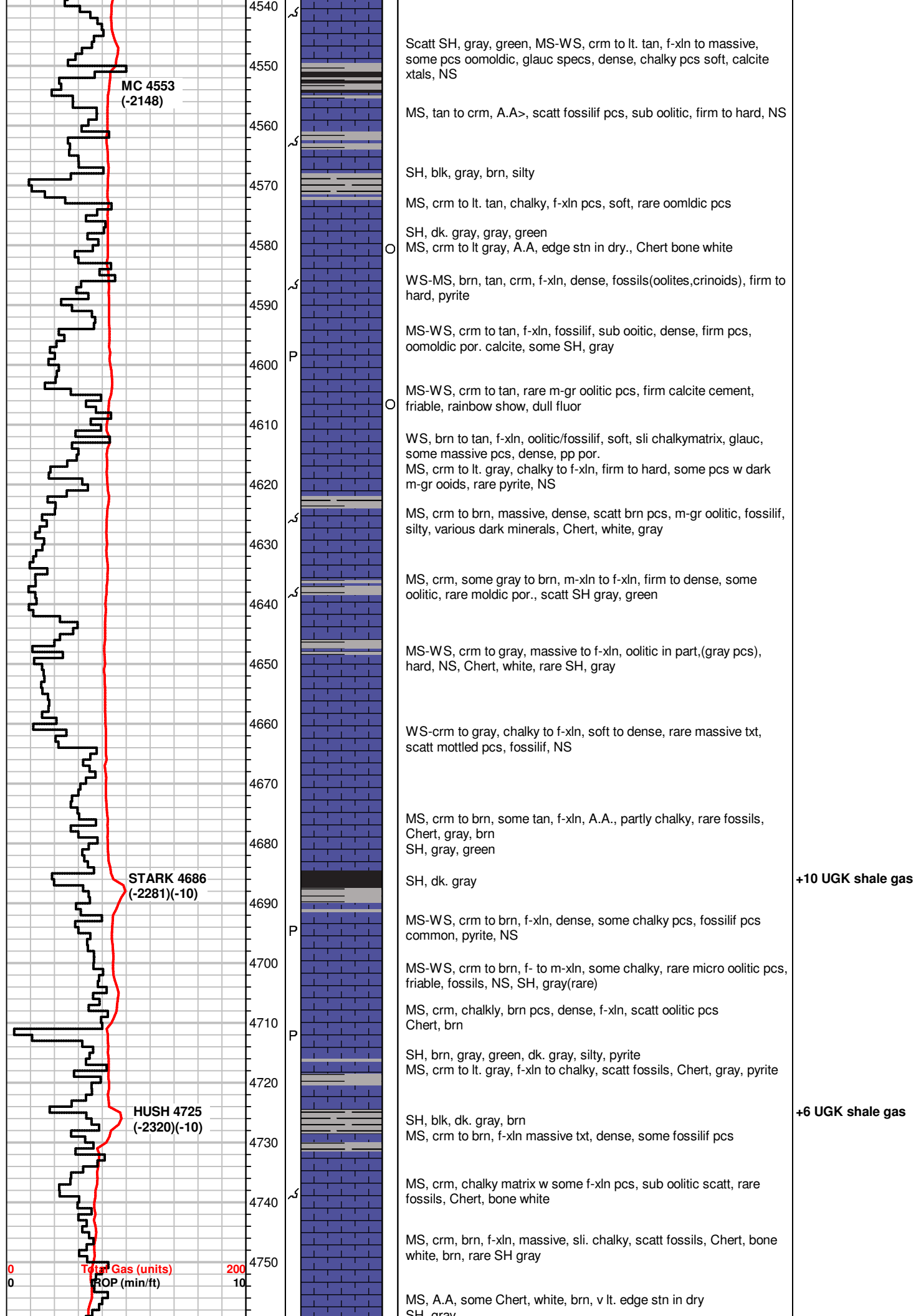
SH, gray

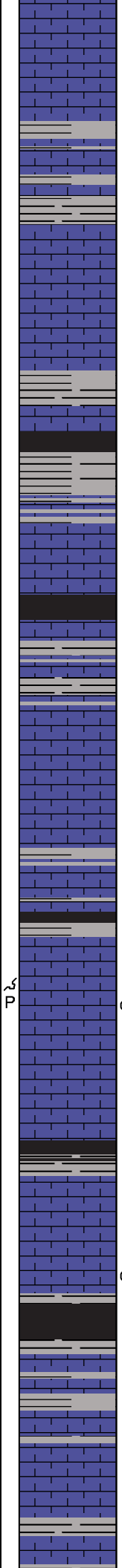
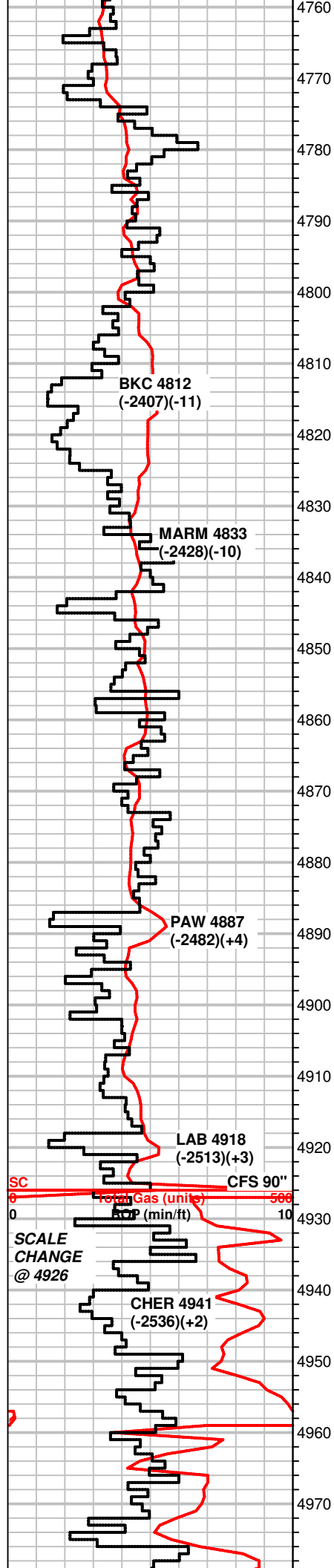
MS-WS, tan, f-xln, fossilif, oolitic/oomoldic, some dense, Chert, white, brn, moldic por.

MS, crm, some A.A., most chalky in part, rare pcs w dark ringed ooids, friable, scatt fossils, rare Chert, opaque,

MS, crm to tan, A.A., scatt gray SH, silty, pyrite, some green

MS-WS, crm to tan, f-xln, dense, oolitic to oomoldic, chalky pcs scatt, soft to dense, Chert inclusions, white, some fossils





SH, gray

WS, brn, f-xln mosttled pcs, fossilif, dense, NS

MS-WS, crm to brn, f-xln, gritty/sandy txt, hard, fossilif  
Chert, white, brn, fossilif.

SH, gray, influx  
MS, gray to crm, some brn pcs, f-xln, fossilif, hard, NS  
Chert, white, brn

MS, gray to brn, f-xln, gritty txt, scatt chslky pcs, dense, most pcs  
hard, rare Sh, gray

MS, A.A., some crm, mineral specs, NS, Chert, brn, fossilif

SH, gray, green, brn  
MS, gray, brn, f-xln, dense, scatt fossils

SH, blk, gray, green  
MS, crm to brn, f-xln, dense, scatt fossils, some calcite veins, rare  
micro oolitic pcs

MS, A.A., brn, tan, fossilif, dense, Chert, white, brn, fossilif.  
scatt SH, blk, gray, striated, silty

MS-WS, crm to gray, f-xln, dense, some pcs sub oolitic, scatt  
fossils, rare Chert, smoky white  
SH, gray, green

MS, crm to tan, f-xln, dense, fractured/friable, sli chalky in part,  
Chert, smoky white, blk  
scatt SH, gray, green, dec in abundance

MS-WS, crm to brn, some gray, f-xln, fossilif pcs, rare micro oolitic  
pcs, some w/ co-gr fossil frgmts, Chert, white(yellowish), orange,  
fossils

MS, crm to tan, f-xln, firm, some fractured looking, friable, scatt  
fossils, sli. rainbow show, influx, Chert, white

SH, blk, gray, elongated pcs, some geen

MS-WS, crm to tan, f-xln to chalky pcs, firm, fossilif, Chert, white,  
tan blk, dull fluor, NS

MS-WS, crm to tan, f-xln, friable, micro oolitic to vf- fossilif frgmts,  
mineral fluor, very spotty bright fluor, 1 pc w/ very faint milky cut  
when crushed, 1 pc w/ stn on edge, pp por./moldic dry

MS-WS, crm to tan, chalky to f-xln, rare micro oolitic pcs, most sub  
oolitic, become dense, mineral fluor, NS, some calcite xtals, assoc  
Chert, white, tan, micro oolitic.

SH blk, green  
MS, crm to brn, f-xln, some chalky, firm, dec amt of fossils, dull  
fluor, NS

MS, tan, some brn, f-xln dense, some pcs sub oolitic in part, rare  
pyrite, NS, Chert, white

MS, crm to tan, f-xln, firm to hard, scatt sub oolitic, chalky pcs, rare  
glauc, 4 pcs even to spty stn, bright fluor, inst. cut, no odor

SH, blk, dk. gray, gray, some pyrite, sli. carb., gassy

SH, A.A., MS, crm, f-xln, firm, some dense, calcite vein, sub oolitic,  
pyrite, 3 pcs w/ bright fluor, no cut, no odor

MS, tan to brn, f-xln to mic-xln, oolitic(micro to f-gr ooids), fossilif  
pcs, calcite, glauc, fractures

MS, tan to crm and brn, f-xln, firm to dense, fossilif., scatt oolites,  
some pcs mottled/gritty looking, scat SH, blk, gray, green, waxy

SH, gray, blk, some fossils, MS, brn to crm, A.A., smooth, brn, f-xln

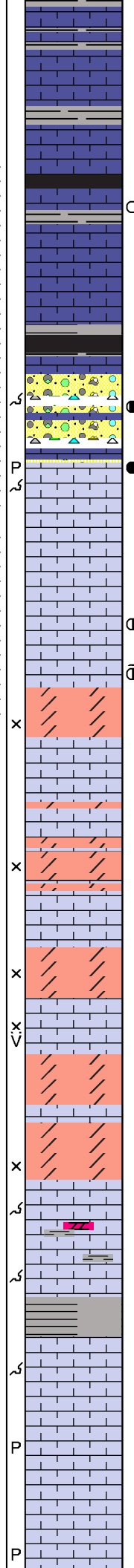
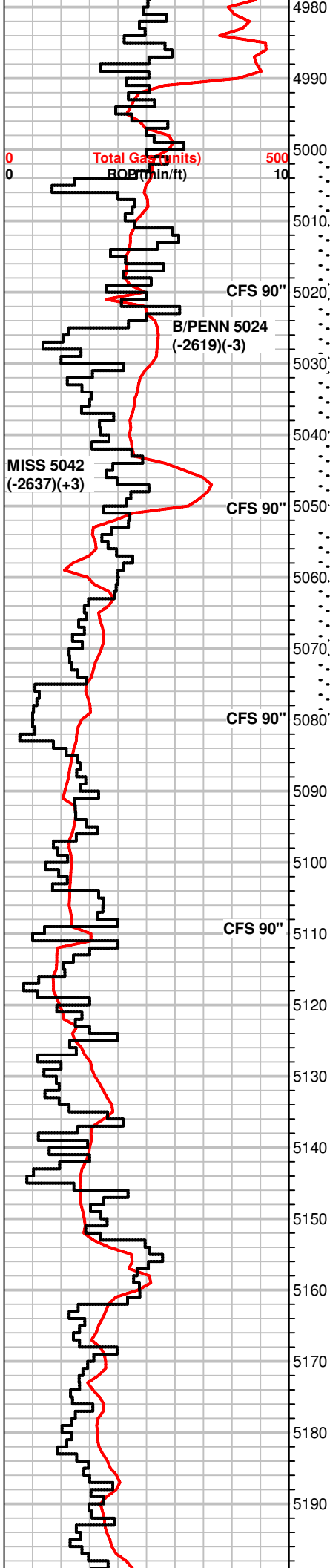
**+20 UGK shale gas**

**+15 UGK shale gas**

Short trip @ 4925, stuck 6  
stands out, worked for 36  
hrs, used slide hammer,  
freed up after 16 stands

**+50 UGK shale gas**

**DST #1 5001-5050  
30-60-45-90  
WB 1.5"**



SH, gray, blk, some fossils, MS, brn to crm, A.A., mostly brn, f-xln, dense, fossilif, dense, NS

MS-WS, brn to crm, f-xln to chalky txt, dense pcs, oolitic to fossilif, mottled pcs scatt., SH, gray, blk

MS-WS, crm to tan, A.A, fossilif, m to co-gr ooids in some pcs, dull fluor, NS  
SH, gray blk

MS, crm, mic-xln, dense, scatt fossils, rare bright fluor, 1 pc inst. cut, Chert, white  
SH, gray

MS-WS, crm to brn, f to mic-xln, dense, some pcs chalky, fossils, dull fluor, NS, Chert white, fossilif., SH, gray, green

MS, lt. brn to crm, mic to massive, dense, rare fossilif pcs, SH, green gray, blk, silty to waxy

SH, gray to blk, green, waxy, MS, crm to brn, f-xln to chalky, fossilif pcs, bleeding oil, moldic por., SS clusters, co t f-gr, poorly sorted, friable(very), live oil droplets, bleeing oil, Chert, yellowish, bone white, fair odor

MS-WS, crm to brn, f-xln to chalky, scatt fossils, some w/ even to spty stn, bleeding oil, live oil in tray, Chert, white, gray, green, oolitic, live and bleeding oil, SS clusters, co to f-gr, poorly sorted, bleeding oil, good odor

60/90" MS, crm to off white, f- to vf-xln, sub oolitic, scatt fossils, most indistinguishable from above, diminishing show

MS-WS, off white to brn, f-xln, some pcs chalky, soft to firm, glauc specs, sub oolitic to m-gr oolitic, fossils, rare Dolo, brn, vf-suc to vf-xln txt, hard, dull fluor

WS-PS, tan to off white, f-xln, oolitic, fossilif A.A.,

WS-PS, A.A., soft to firm, rare pcs w/ spotty stn, live oil when broken, inst cut, scatt Dolo, brn to crm, vf-xln, dull mineral fluor, NS

WS-PS, crm to brn, f-xln to massive, oolitic, dense to soft oolitic pcs, rare mineral fluor, no cut, NS

Rare Dolo, gray, vf-suc, hard to soft(muddy?), dull fluor, NS  
MS-WS, crm to brn, vf-xln, sli. dolomitic, soft, chalky in part, NS

Dolo, crm vf-suc, tite, dull fluor, NS

Dolo, gray, crm, vf-suc to shaly looking, some glauc/mineral specs, PS-WS, crm to brn, oolitic, f-xln, NS

Dolo, crm, f to m-xln, f-sucrosic pcs, sugary txt, firm to hard, bright mineral fluor, no cut, spty stn in dry

WS-PS, A.A, rare dolomitic pcs, MS, brn, f-xln, fossilif, hard Chert, white, fossilif., NS, int-xln, vuggy por.

Dolo, crm to lt. gray, A.A., some MS, brn, f-xln, firm, gritty txt, NS

Dolo, crm, m-xln, f-gr sugary txt, firm to hard, bright mineral, NS, some pcs sli. chalky, int-xln por.

SH, gray, pyrite, Dolo, A.A., some pcs w/ calcite  
WS-PS, crm to off white, m-xln, firm to dense, oolitic, fossilif. chalky pcs scatt.

WS-PS, crm to off white, f-xln, chalky in part, friable, glauc specs, some SH, gray brn, sandy/silty

WS-PS, crm, tan, off white, f to m-xln, scatt fossils, oolitic to sub oolitic, some pcs dense, dull fluor, NS

PS, crm to off white, m-xln, oolitic/fossilif., glauc specs, sli. dolomitic, lt edge stn in dry

PS, gray, m-xln, oolitic, friable, no fluor, some pcs crm, A.A., sli dolomitic, NS

NBB  
WB 3.5"  
NBB  
260' GIP  
Rec: 40' Mud w/oil specs  
IH 2450#  
IF 30-31#  
ISIP 112#  
FF 26-33#  
FSIP 119#  
FH 2440#  
Temp 114°F

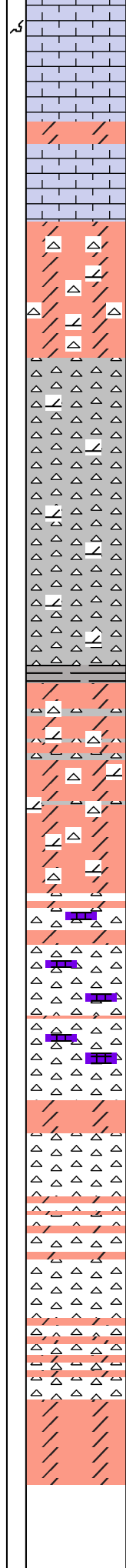
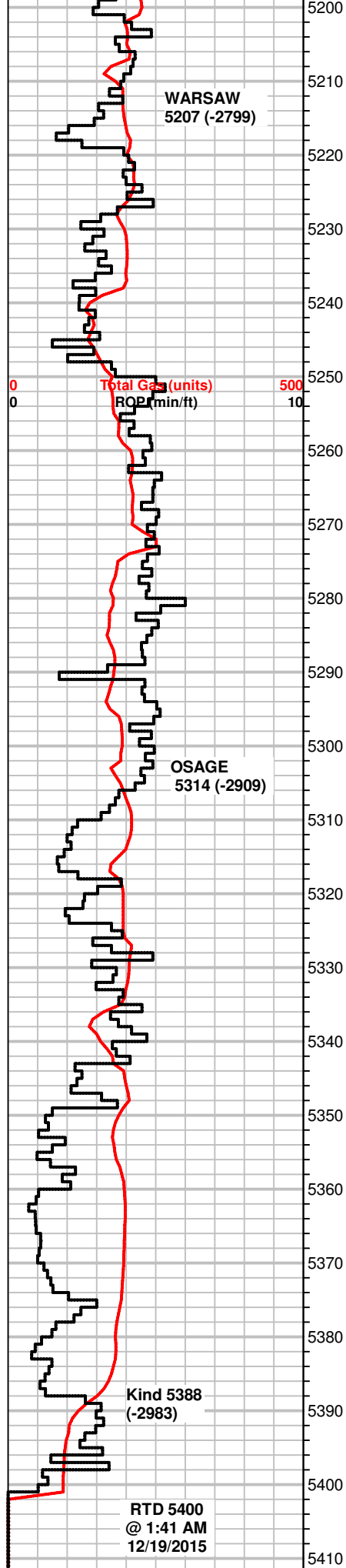
+50 UGK, shale gas?

+163 UGK

+42 UGK, 8 UG recycle

DST #2 5053-5080  
30-60-45-90  
WB 2.5"  
NBB  
WB 1.5"  
NBB  
180' GIP  
Rec: 70' Heavy Mud w/  
trace oil  
IH 2541#  
IF 41-44#  
ISIP 83#  
FF 44-52#  
FSIP 78#  
FH 2411#  
Temp 114°F





5200 PS-WS, gray to crm, f-xln, gritty txt, some pcs sandy, oolitic, fossils, calcite, glauce specs throughout, NS

5210 WARSAW 5207 (-2799)

5220 WS-PS, A.A., scatt Dolo, crm f-xln, vf-sucrosic, hard, dull fluor, NS

5230 PS, A.A., gray to crm, f to m-xln, chalky in part, oolitic, glauc specs, calcite rhombs  
Dolo, crm, f-xln, hard, vf sucrosic txt, NS

5240 Cherty Dolo, gray to crm, some pcs, opaque, vf-xln, dense, hard, spicules, glauc, dull to no fluor, scatt WS-PS, gray to crm, f-xln, oolitic, hard

5250 Chert, white, gray, blocky pcs, spicules, fractured, hard, dolomitic chert in part, A.A.

5260 Chert, gray, white, clear, dolomitic in part, oolitic, some glauc, m-gr ooids in cherty matrix, some pcs gritty, no fluor, NS

5270 Chert, A.A.

5280 Dolomitic Chert, gray, scatt crm, vf-xln, gritty txt, hard, no fluor, some dolomite, gray, vf-suc, hard, scatt white Chert

5290 Dolo, brn to gray, vf-xln, gritty/silty looking, hard to firm pcs, Chert, white

5300 scatt SH, gray, blk, Dolo, gray to brn, vf-xln, silty/gritty, hard to soft pcs, no fluor  
Dolo, grayish brn, some crm, vf-suc to sugary txt, firm to hard, gritty

5310 OSAGE 5314 (-2909)  
Dolo, A.A, limy in pcs., influx of Chert, white to gray, spicules, some limey, blocky oolitic to fossilif  
Dolo, grayish-brn, crm, vf-suc, vf-sugary txt, firm to hard, limy, coarse gritty txt in part, some SH, grays

5320 Influx Chert, white, gray, spicules, some limy, blocky pcs, oolitic/fossilif,

5330 Chert, white to bone white, fresh, fossils, oolitic A.A.

5340 Chert, white, bone white, fresh to weathered, fossilif., spicules, scatt WS-PS, crm to off white, f-xln, oolitic, firm, NS

5350 Dolo, gray, vf-suc txt, soft, some pcs hard, rare PS, crm, f-xln, oolitic, glauc, Chert, white, angular, fossilif, fresh, scatt weathered pcs, some SH, gray, blk

5360 Chert, white, bone white, some orange-ish, fresh to weathered A.A., Dolo, gray to brn, vf-suc, hard to firm, some WS-PS, crm, f-xln, oolitic, NS  
scatt SH, gray

5370 SH, blk, gray, Chert, white, A.A. scatt Dolo, gray to brn, vf-sucrosic, firm, gritty txt, NS

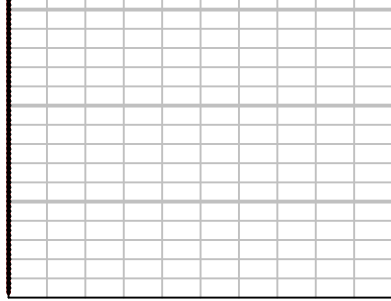
5380 Influx, Chert, white, fresh to wetherd, fossilif, some pcs limy, Dolo, crm, vf-sucrosic, gritty to f-gr sugary txt, mineral fluor, NS

5390 Kind 5388 (-2983)  
Dolo, crm, vf-suc, sugary txt, hard to frim, scatt friable pcs, Chert, A.A., fossilif, fractured

5400 RTD 5400 @ 1:41 AM 12/19/2015

5410



	5420 5430 5440			
--	----------------------	--	--	--