



Scale: 5" / 100'
Measured Depth Log

Well Name Janssen 8

Location Sec.8-T06N-R65W

State Colorado

County Weld

Country USA

Rig Number Patterson UTI 346

API Number 05-123-42357-00

AFE # na

Geographic Region DJ Basin

Field Wattenberg

Spud Date 11/19/2016

Drilling Completed TBD

Surface Coordinates TBD

Bottom Hole Coordinates TBD

Ground Elevation 4,777'

K.B. Elevation 4,801.5

Logged Interval 5,000' **To** TBD

Total Depth TBD

Formation Codell

Type of Drilling Fluid Oil Based - invert

Operator

Company Extaction Oil & Gas

Address 1888 Sherman St., Suite 200
Denver, CO 80203


Geologist

Name Vivian Spiess / Jared Rouse

Company Extraction Oil & Gas

Address 1888 Sherman St., Suite 200
Denver, CO 80203

Zone Color Coding

 Oil	 Condensate	 Gas
 Note	 Core	 Pressure
 Error	 Water	 Seal

Other

Equipment ML-113

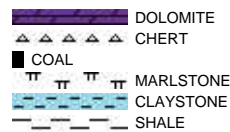
Comments Start: 11-20-15
Standby: 11-19-15
TD: TBD

Services Provided 2-man Logging
On Site Geosteering

Logger Names Dominic Pitre / Nicholas Watkiins

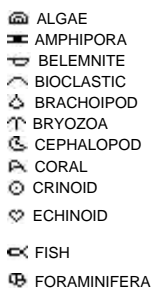
Address Empirica, LLC.
6360 W Sam Houston Pkwy N
Suite 100
Houston, TX 77041

Rock Types



Accessories

Fossils



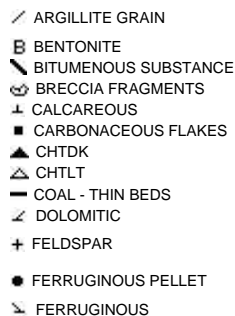
FOSSIL



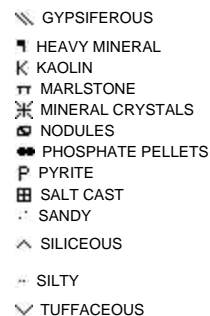
Minerals



ARGILLACEOUS



GLAUCONITE

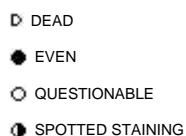


Stringer

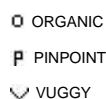
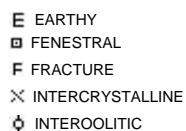


Other Symbols

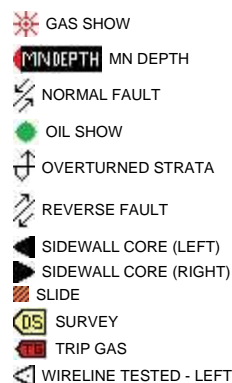
Oil Show



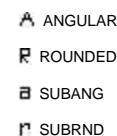
Porosity



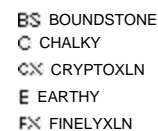
Engineering



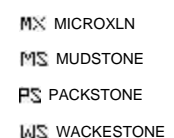
Rounding



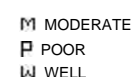
Textures



LITHOGRAPHIC



Sorting



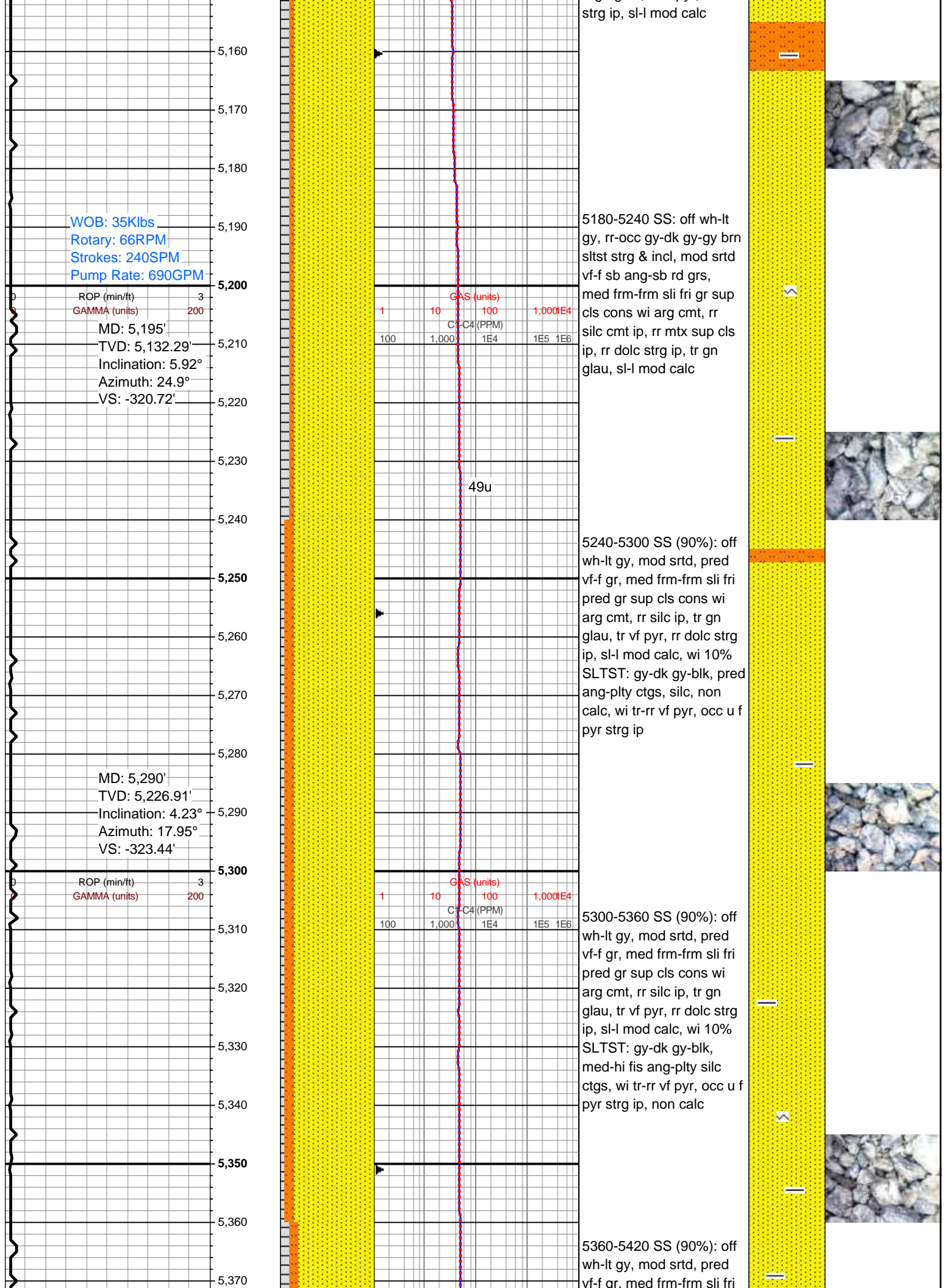
MOLDIC

FAULT

WIRELINE TESTED - RT

GRAINSTONE

<div> <div>ROP</div> <div>ROP</div> <div>GAMMA</div> </div>		Depth Labels	% Lith	<div>Total Gas & Chromatograph</div> <div> <div>GAS</div> <div>C1</div> <div>C2</div> <div>C3</div> <div>C4</div> </div>	Lithology Descriptions	Interp Lith	Images
<div> <div>Extraction OG</div> <div>Annul Janssen #8</div> </div>							
<div> <div>Weld County, Colorado</div> <div>Spud Date: 11-19-15</div> <div>Surface Casing @ 1,543'</div> <div>2-man Logging / Geosteering</div> <div>Began: 11-19-15</div> </div>		4,960					
<div> <div>100 units = 10% methane</div> </div>		4,970					
		4,980					
		4,990					
<div> <div>Depths Correspond to</div> <div>Driller's Pipe Tally</div> </div>		5,000		<div>Logaritmic Scale 1- 10,000</div> <div>units</div>			
<div> <div>ROP (min/ft)</div> <div>MD: 5,005'</div> <div>TVD: 4,943.57'</div> <div>Inclination: 7.33°</div> <div>Azimuth: 28.03°</div> <div>VS: -311.48'</div> </div>		5,010		<div> <div>GAS (units)</div> <div>C1-C4 (PPM)</div> <div>MW 8.5</div> </div>	5000-5060 SS: off wh-lt gy, rr lt brn ip, occ dk gy sltst strg & incl, mod srtd, pred vf-f gr, med frm-frm sli fri pred gr sup cls cons wi arg cmt, rr dolc strg ip, tr gn glau, sl-l mod calc		
		5,020					
		5,030					
		5,040					
		5,050					
		5,060					
		5,070					
		5,080		26u		5060-5120 SS: off wh-lt gy, rr-occ gy-dk gy-gy brn sltst strg & incl, mod srtd vf-f sb ang-sb rd grs, med frm-frm sli fri gr sup cls cons wi arg cmt, rr silc cmt ip, rr mtx sup cls ip, rr dolc strg ip, tr gn glau, sl-l mod calc	
		5,090					
<div> <div>MD: 5,100'</div> <div>TVD: 5,037.86'</div> <div>Inclination: 6.7°</div> <div>Azimuth: 29.05°</div> <div>VS: -316.47'</div> </div>		5,100		<div> <div>GAS (units)</div> <div>C1-C4 (PPM)</div> </div>			
		5,110					
		5,120					
		5,130					
		5,140				5120-5180 SS: off wh-lt gy, rr lt brn ip, occ dk gy sltst strg & incl, mod srtd, pred vf-f gr, med frm-frm sli fri pred gr sup cls cons wi arg cmt, rr silc ip, tr gn glau, tr vf pyr, rr dolc	
		5,150					



WOB: 35Klbs
Rotary: 66RPM
Strokes: 240SPM
Pump Rate: 690GPM

ROP (min/ft) 3
GAMMA (units) 200
MD: 5,195'
TVD: 5,132.29'
Inclination: 5.92°
Azimuth: 24.9°
VS: -320.72'

MD: 5,290'
TVD: 5,226.91'
Inclination: 4.23°
Azimuth: 17.95°
VS: -323.44'

ROP (min/ft) 3
GAMMA (units) 200

GAS (units)
C-FC4 (PPM)
1 10 100 1,000E4
100 1,000 1E4 1E5 1E6

49u

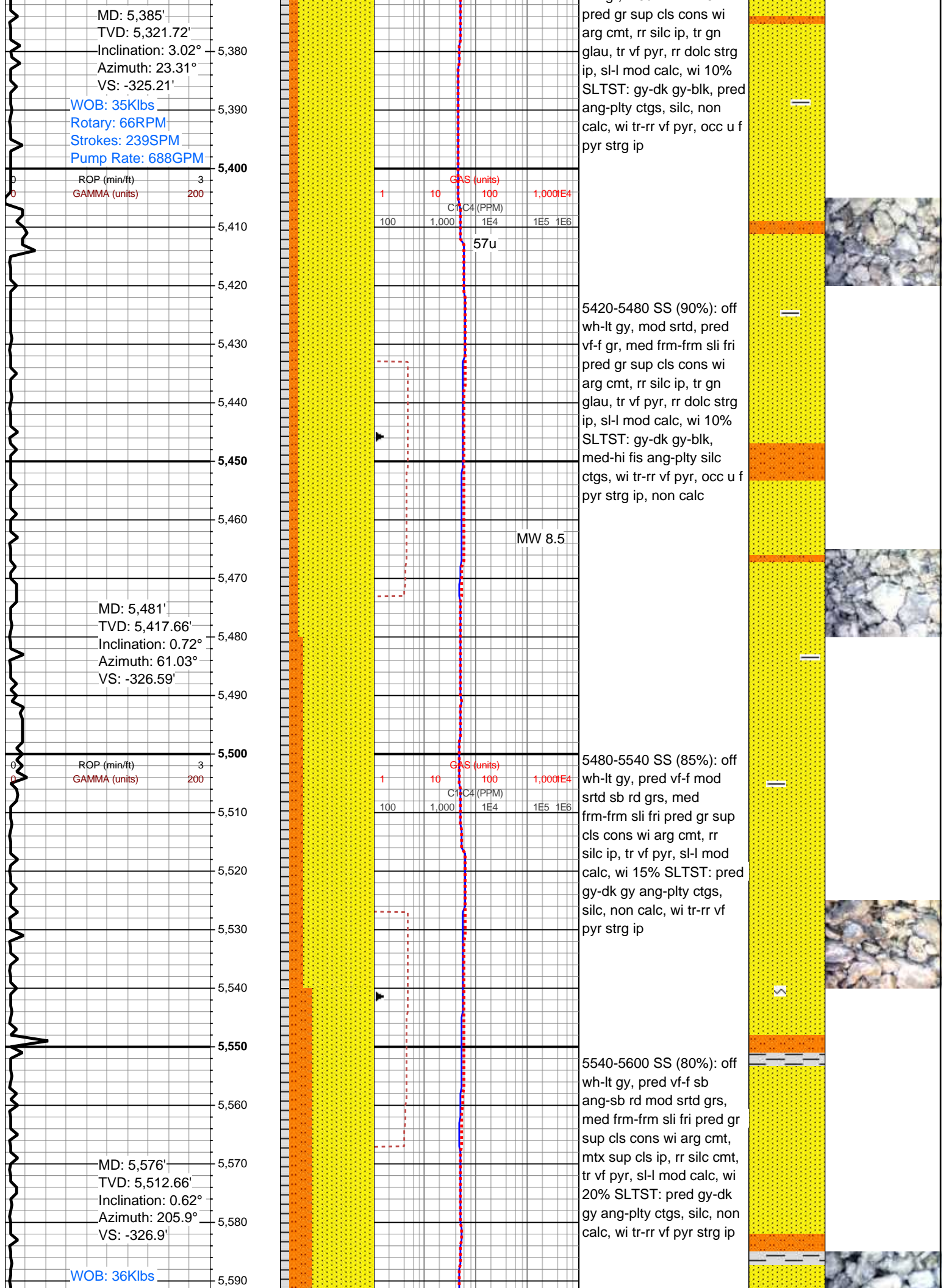
strg ip, sl-l mod calc

5180-5240 SS: off wh-lt gy, rr-occ gy-dk gy-gy brn sltst strg & incl, mod srtd vf-f sb ang-sb rd grs, med frm-frm sli fri gr sup cls cons wi arg cmt, rr silc cmt ip, rr mtx sup cls ip, rr dolc strg ip, tr gn glau, sl-l mod calc

5240-5300 SS (90%): off wh-lt gy, mod srtd, pred vf-f gr, med frm-frm sli fri pred gr sup cls cons wi arg cmt, rr silc ip, tr gn glau, tr vf pyr, rr dolc strg ip, sl-l mod calc, wi 10% SLTST: gy-dk gy-blk, pred ang-plty ctgs, silc, non calc, wi tr-rr vf pyr, occ u f pyr strg ip

5300-5360 SS (90%): off wh-lt gy, mod srtd, pred vf-f gr, med frm-frm sli fri pred gr sup cls cons wi arg cmt, rr silc ip, tr gn glau, tr vf pyr, rr dolc strg ip, sl-l mod calc, wi 10% SLTST: gy-dk gy-blk, med-hi fis ang-plty silc ctgs, wi tr-rr vf pyr, occ u f pyr strg ip, non calc

5360-5420 SS (90%): off wh-lt gy, mod srtd, pred vf-f gr, med frm-frm sli fri



Rotary: 66RPM
Strokes: 240SPM
Pump Rate: 689GPM

ROP (min/ft) 3
GAMMA (units) 200

5,600

5,610

5,620

5,630

5,640

5,650

MD: 5,672'
TVD: 5,608.65'
Inclination: 1.38°
Azimuth: 236.95°
VS: -325.76'

5,670

5,680

5,690

5,700

ROP (min/ft) 3
GAMMA (units) 200

5,710

5,720

5,730

5,740

5,750

MD: 5,767'
TVD: 5,703.62'
Inclination: 1.15°
Azimuth: 213.14°
VS: -324.36'

5,760

5,770

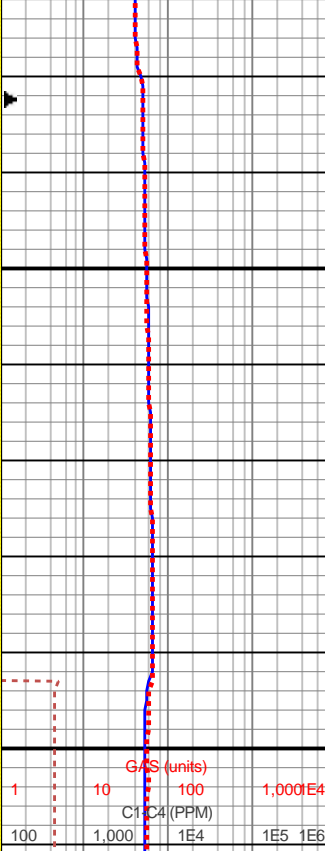
5,780

WOB: 36Klbs
Rotary: 66RPM
Strokes: 240SPM
Pump Rate: 689GPM

ROP (min/ft) 3
GAMMA (units) 200

5,800

5,810



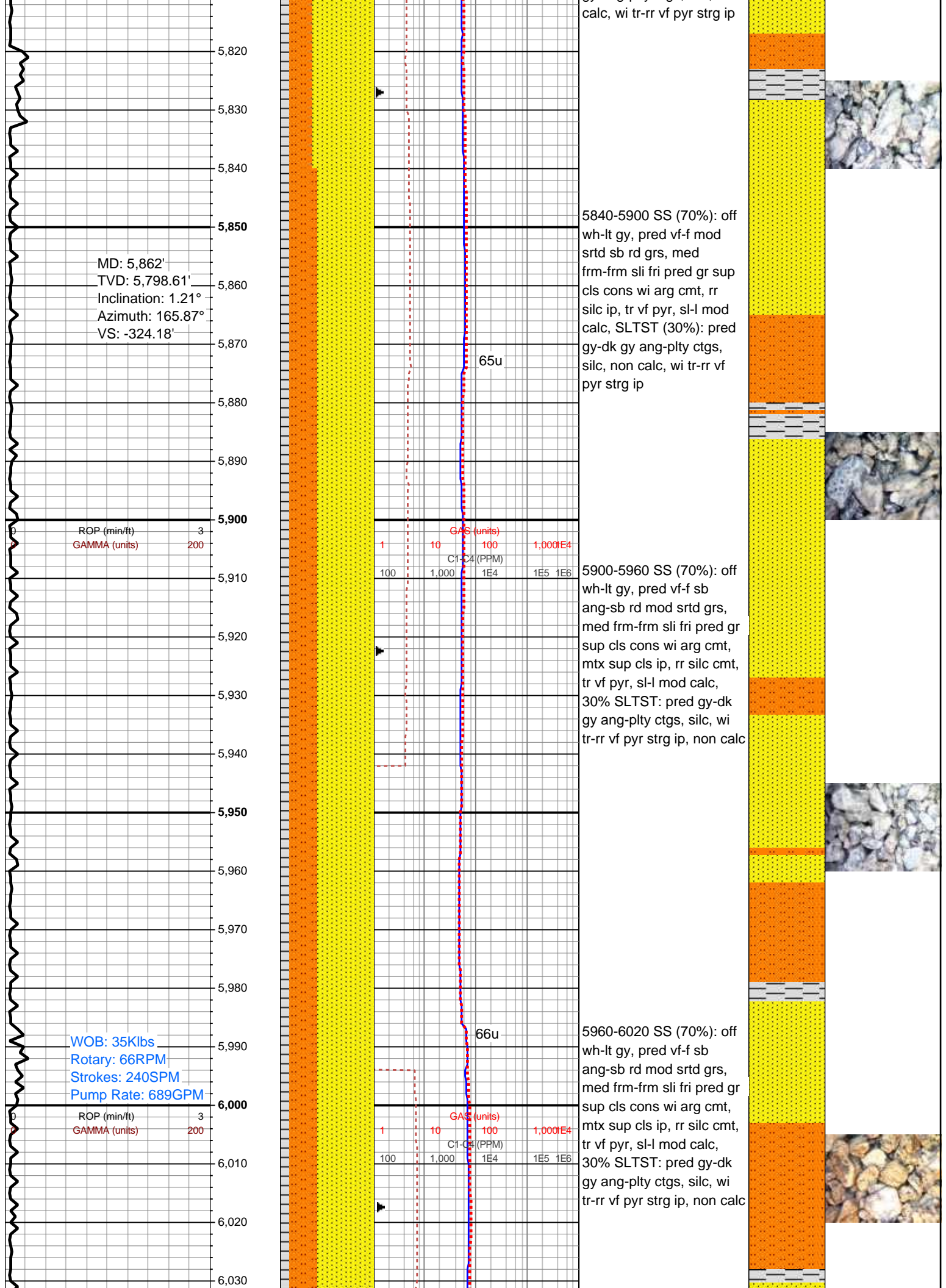
5600-5660 SS (75%): off
wh-lt gy, pred vf-f mod
srtd sb rd grs, med
frm-frm sli fri pred gr sup
cls cons wi arg cmt, rr
silc ip, tr vf pyr, sl-l mod
calc, wi 25% SLTST: pred
gy-dk gy ang-pty ctgs,
silc, non calc, wi tr-rr vf
pyr strg ip

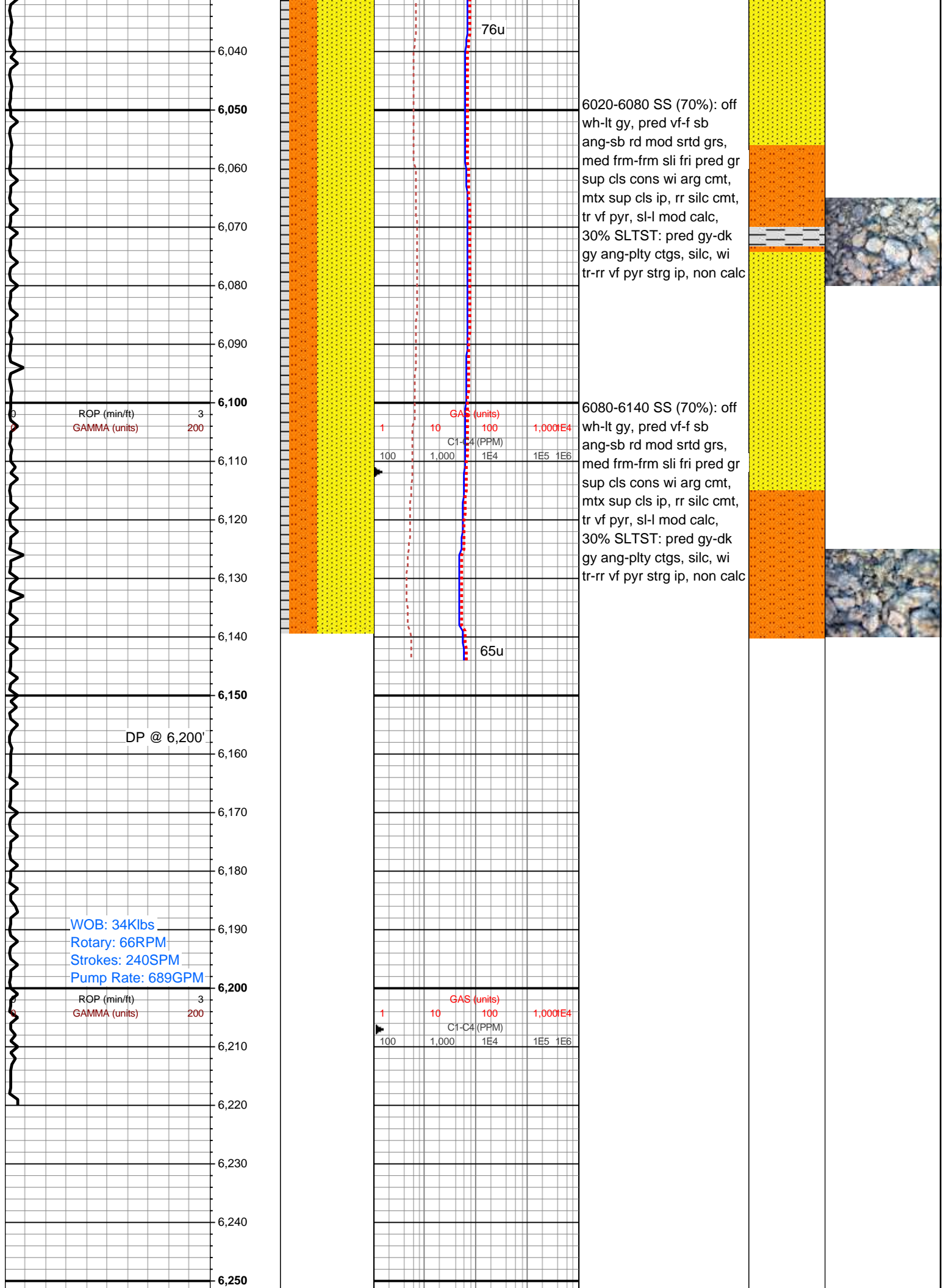
5660-5720 SS (75%): off
wh-lt gy, pred vf-f sb
ang-sb rd mod srtd grs,
med frm-frm sli fri pred gr
sup cls cons wi arg cmt,
mtx sup cls ip, rr silc cmt,
tr vf pyr, sl-l mod calc, wi
25% SLTST: pred gy-dk
gy ang-pty ctgs, silc, non
calc, wi tr-rr vf pyr strg ip

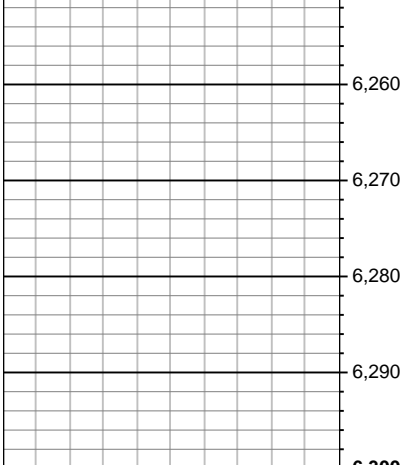
5720-5780 SS (75%): off
wh-lt gy, pred vf-f mod
srtd sb rd grs, med
frm-frm sli fri pred gr sup
cls cons wi arg cmt, rr
silc ip, tr vf pyr, sl-l mod
calc, wi 25% SLTST: pred
gy-dk gy ang-pty ctgs,
silc, wi tr-rr vf pyr strg ip,
non calc

5780-5840 SS (75%): off
wh-lt gy, pred vf-f sb
ang-sb rd mod srtd grs,
med frm-frm sli fri pred gr
sup cls cons wi arg cmt,
mtx sup cls ip, rr silc cmt,
tr vf pyr, sl-l mod calc, wi
25% SLTST: pred gy-dk
gy ang-pty ctgs, silc, non

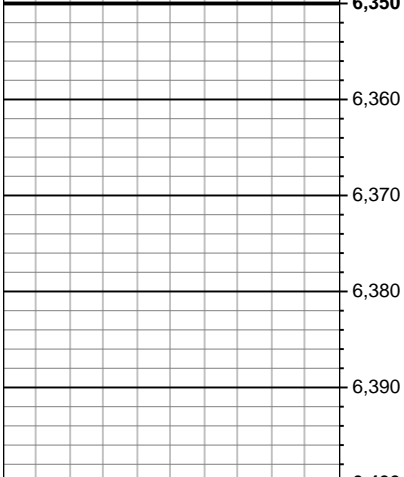
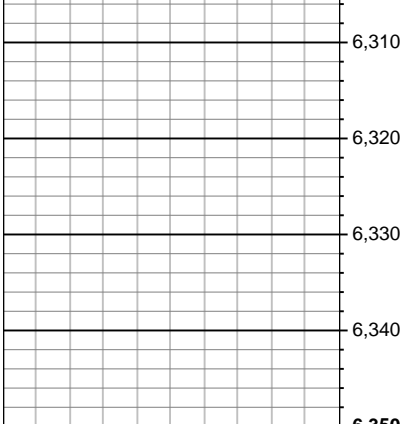




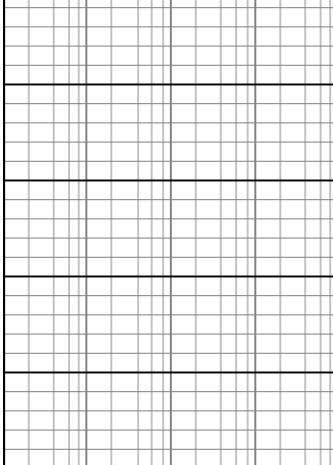
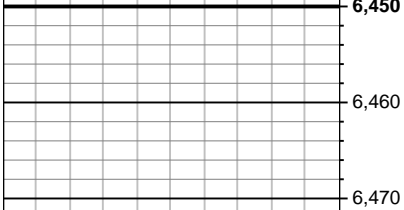
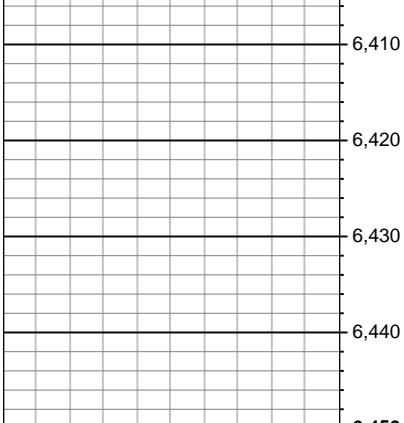




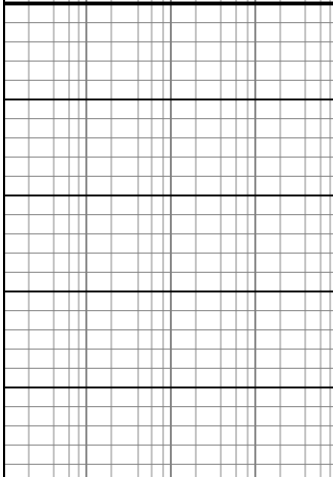
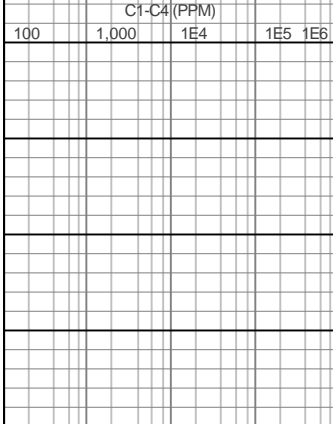
ROP (min/ft) 3
GAMMA (units) 200



ROP (min/ft) 3
GAMMA (units) 200



GAS (units) 1 10 100 1,000
C1-C4 (PPM) 100 1,000 1E4 1E5 1E6



GAS (units) 1 10 100 1,000
C1-C4 (PPM) 100 1,000 1E4 1E5 1E6

