



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

Well Name:	Howard 10N-22HZ		
Location:	Section 27, T1N, R67W, Weld County, CO.		
License Number:	API: 05-123-38230-0000	Region:	Wattenberg
Spud Date:	11 Nov 2013	Drilling Completed:	20 Nov 2013
Surface Coordinates:	531' FSL X 2158' FEL SWSE		
	LAT: 40.016306	LONG:	-104.874931
Bottom Hole Coordinates:	2174' FSL X 1836' FEL NWSE (Proj) Sec 22, T1N, R67W		
Ground Elevation (ft):	5033'	K.B. Elevation (ft):	5049'
Logged Interval (ft):	6900'	To: 14676'	Total Depth (ft): 14676'
Formation:	Niobrara B Chalk		
Type of Drilling Fluid:	Polymer-Gel		

ed by HORIZONTAL.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Kerr-McGee Oil & Gas Onshore LP
Address: Granite Tower - 1099 18th St, Ste 1800
Denver, CO 80202
CO Geologist, Tom Birmingham

ECOLOGIST

Name: Robin Brackman & Tekabe Gedamu
Company: Goolsby Brothers & Assoc. (GBA), Inc. (www.goolsbybrothers.com)
Address: 575 Union Blvd.
Suite 208,
Lakewood CO. 80228

MWD GR 6900' - 14628'





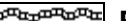



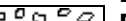















E-logs

Casing

9 5/8" Surface Casing set @ 1228'
7" Intermediate Casing set @ 8003' MD, set on 14 Nov, 2013
run 4 1/2" Production Liner to completion on 21 Nov, 2013.

Comments

1) Drilling Contractor: Xtreme Drilling, Rig # 23
2) Directional Drilling: Weatherford Drilling Services
MWD: Corey Jacobs & Denny Palmer
3) Gas Equipment: Mudlogging Systems Inc.
by Terra Services
Redbox # ML-326 & Ratcliff Agitator

ROCK TYPES			
 Anhy	 Oil sat.	 Meta	 Ss
 Bent	 Congl	 Mrlst	 Sltst
 Brec	 Dol	 Salt	 Ss
 Cht	 Gyp	 Shale	 Chalk
 Clyst	 Igne	 Shcol	 Carb sh
 Coal	 Lmst	 Shgy	 Silty sh

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

ACCESSORIES

Crin

Echin

Fish

Foram

Fossil

Gastro

Oolite

Ostra

Pelec

Pellet

Pisolite

Plant

Strom

STRINGER

Chlkstg

Anhy

Arg

Bent

Coal

Dol

Gyp

Ls

Mrst

Sltstrg

Ssstrg

TEXTURE

Boundst

Chalky

Cryxln

Earthy

Finexln

Grainst

Lithogr

Microxln

Mudst

Packst

Wackest

OIL SHOWS

Even

Spotted

Ques

Dead

Vspotty

near even

POROSITY TYPE

Earthy

Fenest

Fracture

Inter

Moldic

Organic

OTHER SYMBOLS

Pinpoint

Vuggy

ROUNDING

Rounded

Subrnd

Subang

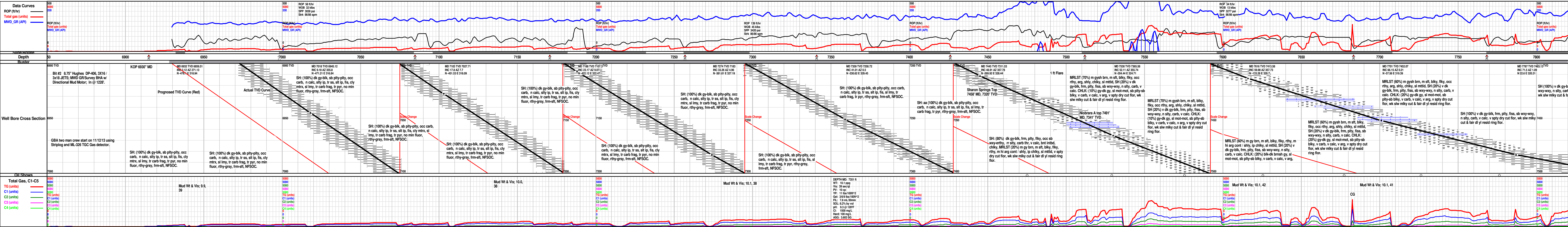
SORTING

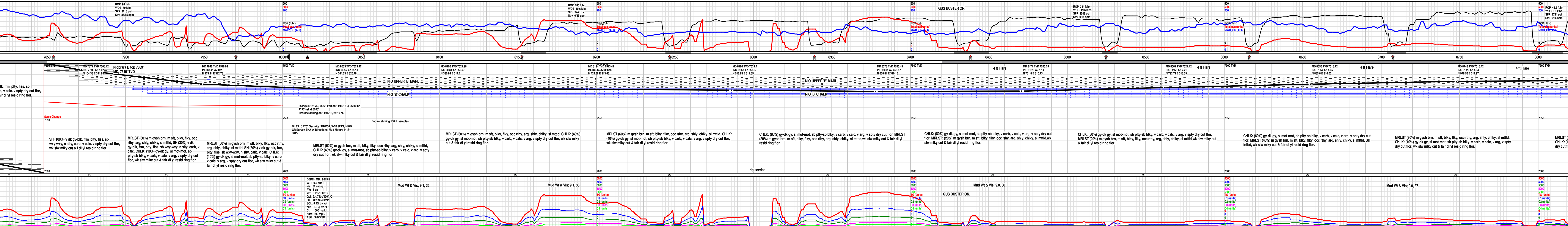
Well

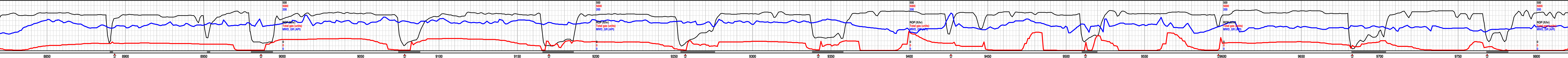
Moderate

Poor

Angular







MD 8841 TVD 7515.53 INC 89.81 AZ 0.78 N 1071.53 E 319.69									
3 ft Flare									
NIO UPPER 'B' MARL									
NIO 'B' CHALK									
MD 8934 TVD 7516.59 INC 88.89 AZ 0.3 N 1164.52 E 320.57									
7500 TVD									
3 ft Flare									
MD 9026 TVD 7518.02 INC 89.32 AZ 358.81 N 1256.5 E 319.85									
3 ft Flare									
MD 9118 TVD 7520.01 INC 88.21 AZ 356.89 N 1348.41 E 316.4									
3 ft Flare									
MD 9204 TVD 7522.46 INC 88.52 AZ 356.13 N 1434.22 E 311.17									
7500 TVD									
3 ft Flare									
MD 9289 TVD 7523.88 INC 89.57 AZ 357.11 N 1519.05 E 306.16									
3 ft Flare									
MD 9374 TVD 7523.42 INC 91.05 AZ 357.77 N 1603.96 E 302.28									
7500 TVD									
3 ft Flare									
MD 9460 TVD 7521.24 INC 91.85 AZ 357.18 N 1689.85 E 298.41									
7500 TVD									
3 ft Flare									
MD 9545 TVD 7519.32 INC 90.74 AZ 356.77 N 1774.7 E 293.93									
7500 TVD									
3 ft Flare									
MD 9630 TVD 7518.64 INC 90.18 AZ 356.11 N 1859.54 E 288.65									
7500 TVD									
3 ft Flare									
MD 9716 TVD 7519.57 INC 89.56 AZ 356.83 N 1945.32 E 282.61									
7500 TVD									
3 ft Flare									
MD 9801 TVD 7520.21 INC 90.56 AZ 356.07 N 2030.1 E 276.6									
7500 TVD									

0%) m gysh brn, m sft, blk, flky, occ rthy, arg, shly, chiky, sl mtld, CHLK: (10%) gy-dk gy, sl mot-mot, sb ply-sb blk, v carb, v calc, v arg, v spty dry cut flr, wk slw mlky cut & fair dl yl resid ring flr.

MRLST (90%) m gysh brn, m sft, blk, flky, occ rthy, arg, shly, chiky, sl mtld, SH (10%) v dk gy-blk, frm, ply, fiss, sb wxy-wxy, n sly, carb, v calc, v arg, v spty dry cut flr, wk slw mlky cut & fair dl yl resid ring flr.

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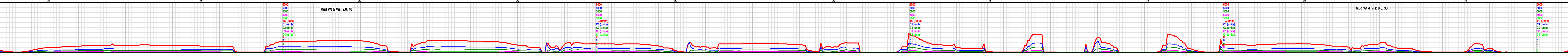
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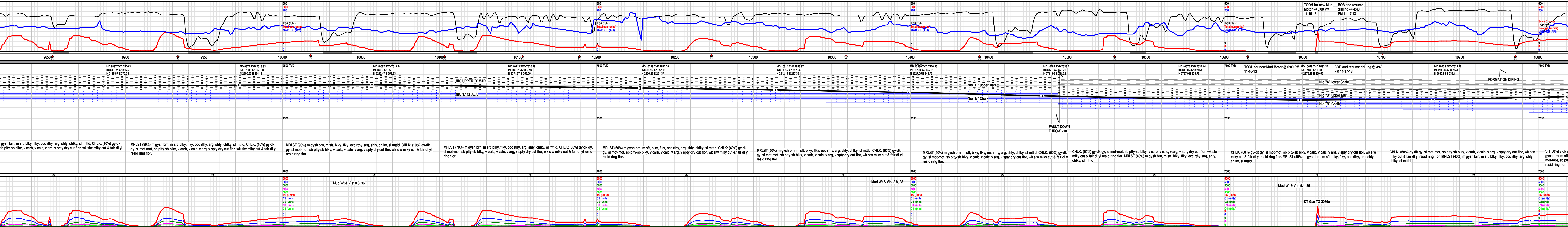
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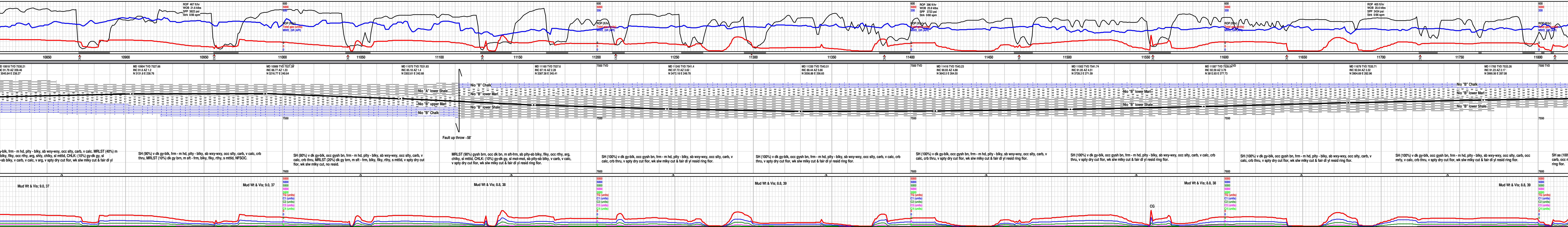
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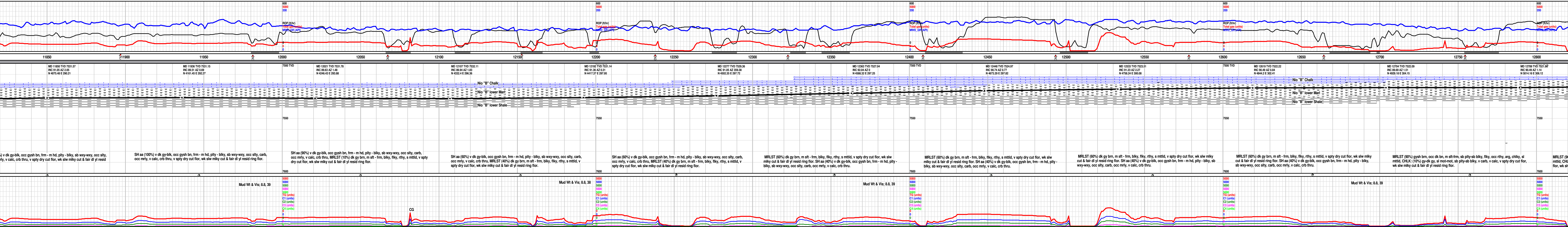
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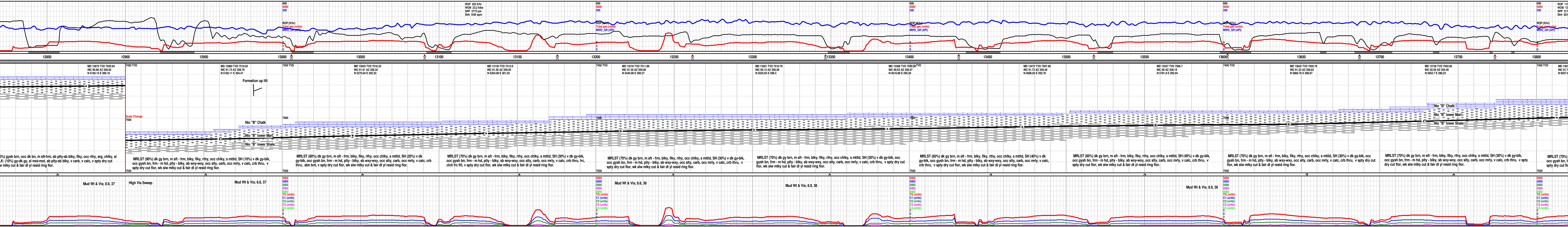
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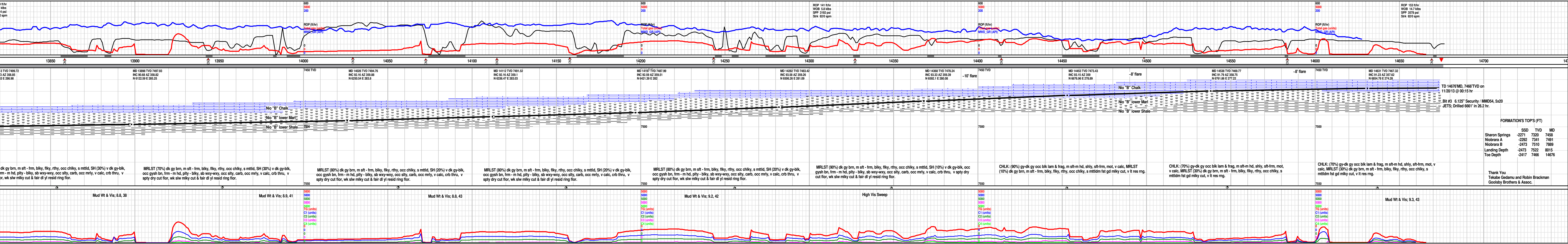












FORMATION'S TOP'S (FT)			
	SSD	TVD	MD
Sharon Springs	-2271	7320	7458
Niobrara A	-2292	7341	7491
Niobrara B	-2473	7510	7889
Landing Depth	-2473	7522	8015
Toe Depth	-2417	7466	14676

Thank You
Tekabe Gedamu and Robin Brackman
Goolsby Brothers & Assoc.