

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

Well Name: #2-27 Janova
 Location: 2420' FNL, 753' FEL, Section 27-12S-32W, SE SW SE NE
 License Number: API: 15-109-21183 Region: Logan County
 Spud Date: 5/22/2013 Drilling Completed: 5/31/2013
 Surface Coordinates: Lat: 38.9825422
 Long: -100.8532268
 Bottom Hole Coordinates: Vertical hole
 Ground Elevation (ft): 3015' K.B. Elevation (ft): 3024'
 Logged Interval (ft): 3600' To: RTD Total Depth (ft): 4715
 Formation: Mississippian at RTD
 Type of Drilling Fluid: Chemical
 Printed by WellSight Log Viewer from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Grand Mesa Operating Company
 Address: 1700 N. Waterfront Parkway
 Bldg. 600
 Wichita, KS 67206-5514

GEOLOGIST

Name: John Goldsmith
 Company: John Goldsmith WellSite Service
 Address: 427 Roosevelt St.
 Cheney, KS 67025
 (316) 640-0236

COMMENTS

Contractor: Duke Drilling #4
 Pusher: Rich Wheeler
 Surface Casing: 8 5/8" set at 216' w/165sx
 Production Casing: 5 1/2" set at 4710',
 Mud by: MudCo
 DST's by: Diamond Testing
 Logs by: Weatherford Wireline (DIL, CN-CD, ML)
 RTD=4715'
 LTD=4710'

FORMATION TOPS	SAMPLE TOPS	LOG TOPS
FORMATION	Depth Datum	Depth Datum
Stone Corral	2533' -491	2533' -491
B/Stone Corral	2555' -469	2555' -469
Heebner Shale	3994' -970	3994' -970
Lansing	4033' -1009	4033' -1009
Muncie Creek Shale	4184' -1160	4184' -1160
Stark Shale	4268' -1244	4268' -1244
Hushpuckney Shale	4302' -1278	4302' -1278
Marmaton	4362' -1338	4362' -1338
Upper Fort Scott	4465' -1441	4465' -1441
Little Osage Shale	4487' -1463	4487' -1462
Excello Shale	4512' -1488	4510' -1486
Johnson Zone	4588' -1564	4586' -1562
Morrow	4614' -1590	4608' -1584
Mississippian	4643' -1619	4628' -1604
RTD	4715' -1691	
LTD		4710' -1686

DSTs

DST #1 "E/F Zone" 4106-4143' 5/27/2013 30-45-45-60
 1st Open = 1/4" Blw, blt to 1.25" (No BB)
 2nd Open = VWSB blt to 1.25" (No BB)
 IFP-6-12# ISP=1231# FFP=13-21# FSP=1241#
 HYDP=1954-1954#
 30' Mud

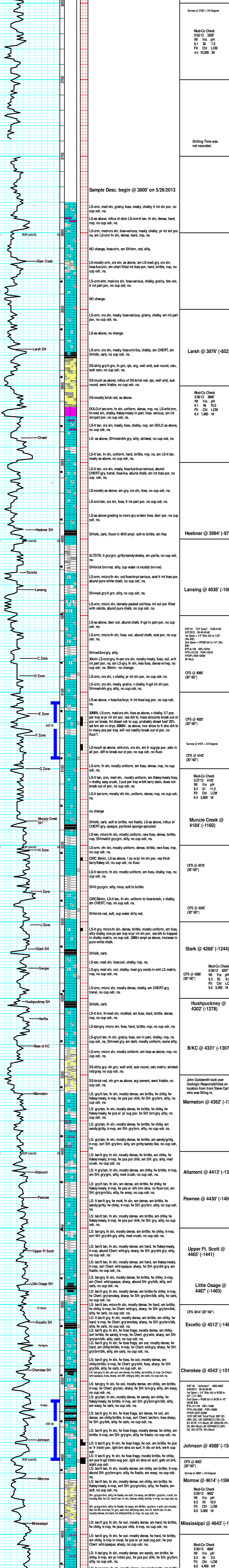
DST #2 "Johnson" 4563-4602' 5/29/2013 30-45-60-90
 1st Open = 1/4" Blw, blt to BOB in 8.5" (1.5" BB)
 2nd Open = WSB blt to BOB in 10" (BOB BB)
 IFP-12-111# ISP=1100# FFP=104-229# FSP=1099#
 HYDP=2227-2226#
 1315' GIP, 545' Total Fluid, 300' GO (98% Oil), 125' GSWMCO (78% Oil, 8% WTR, 11% Mud), 60' GSOCM (4% Oil, 86% Mud), 60' GHWMCO (39% Oil, 19% WTR, 18% Mud)

ROCK TYPES

Anhy	Salt	Dol	Siltysh
Cht	Shale	Dtd	Sdy dolo
Coal	Shcol	Gry sh	Silty dolo
Congl	Shgy	Sandylms	Shy dolo
Dol	Slst	Shale	Shaly ls
Gyp	Ss	Slstn	
Lmst	Carb sh	Shlyslts	

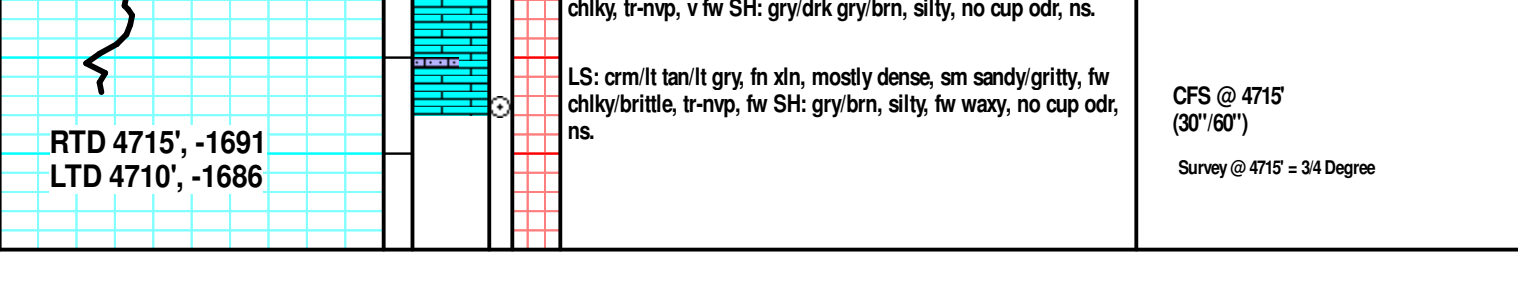
ACCESSORIES

FOSSIL	Plant	Glaup	STRINGER
Algae	Strom	Gyp	Anhy
Amph	Fuss	Hvymim	Arg
Belm	Oomold	Kaol	Bent
Bioclst		Marl	Coal
Brach	MINERAL	Minxl	Dol
Bryozoa	Argbrn	Nodus	Gyp
Cephal	Arg	Phos	Ls
Coral	Bent	Pyr	Mrst
Crin	Bit	Salt	Slstrg
Echin	Brcfrag	Sandy	Ssstrg
Fish	Calc	Silt	Carbsh
Foram	Carb	Sul	Clstn
Gastro	Chtdk	Sulphur	Dol
Oolite	Chltl	Tuff	Gryslt
Ostra	Dol	Chlorite	Lms
Pelec	Feldspar	Dol	Sandylms
Pellet	Ferrpel	Sand	Sh
Pisolite	Ferr	Sity	Slstn



John Goldsmith took over Geologic Responsibilities on location from Steve Carl who was filling in.

Bit went bad to trip out and replace.



RTD 4715', -1691
LTD 4710', -1686

chiky, tr-nvp, v fw SH: gry/drk gry/brn, silty, no cup odr, ns.
LS: crn/lt tan/lt gry, fw xln, mostly dense, sm sandy/gritty, fw
chiky/brittle, tr-nvp, fw SH: gry/brn, silty, fw wazy, no cup odr,
ns.

CFS @ 4715
(30' SW)
Survey @ 4715 = 34 Degree