

LITHOLOGY STRIP LOG**WellSight Systems**Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: Klaus No.1-33
 Location: 1257 'FNL & 2310' FEL of Sec 33 T13S R31W Gove County, KS
 License Number: API: 15-063-21903 Region: Wildcat
 Spud Date: 4-8-11 Drilling Completed: 4-17-11
 Surface Coordinates:

Bottom Hole Vertical hole
 Coordinates:
 Ground Elevation (ft): 2854 K.B. Elevation (ft): 2859
 Logged Interval (ft): 3600' To: RTD Total Depth (ft): 4650
 Formation: Mississippian at RTD
 Type of Drilling Fluid: Chemical

Printed by MUD.LOG 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: Macklin M. Armstrong, P.G.
 Company:
 Address: 5140 North Valentine Road
 Wichita, Kansas 67219
 316-209-5047

COMMENTS

Morning Report Depth/Activity at 7 a.m.

4-08-11 Spud
 4-09-11 Drilling at 340'
 4-10-11 Drilling at 2440'
 4-11-11 Drilling at 3612'
 4-12-11 DST No. 1 at 3968'
 4-13-11 Drilling at 3985'
 4-14-11 Drilling at 4245'
 4-15-11 Cr due to high wind at 4489'
 4-16-11 DST No. 3 at 4510'
 4-17-11 Logging at 4650'
 4-18-11

Contractor: Murfin Drilling Company Rig #24
 Pusher: Tony Martin

Surface Casing: 8 5/8" 23# set at 222'
 Production Casing:

Mud by: MudCo/Service Mud, Inc.
 Engineer: Reid Atkins

DST's by: Eagle Testers
 Tester: David Nichols

Logs by: Weatherford (DIL, CN-CD, ML, Sonic)

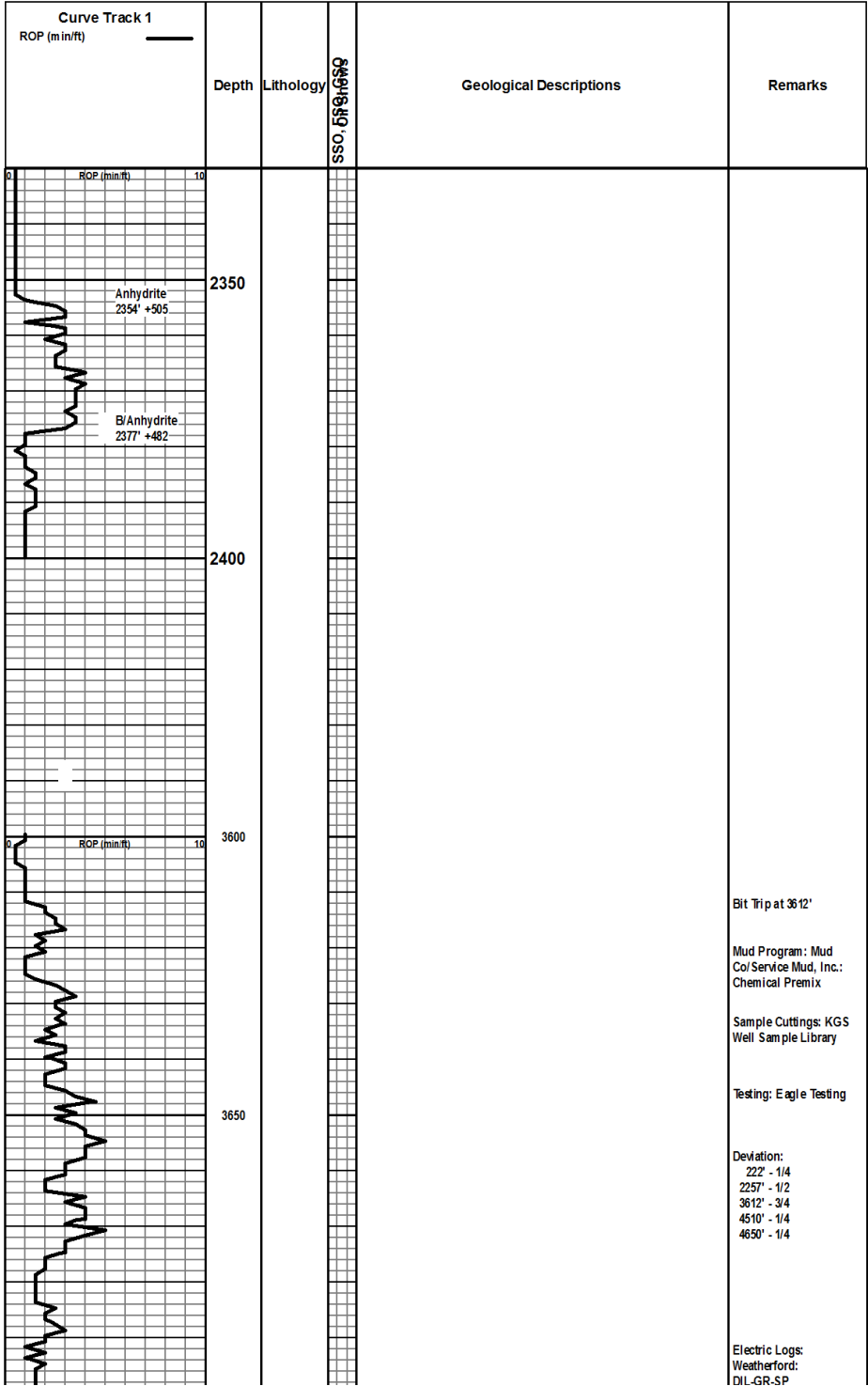
Deviation Surveys: 1/4deg. at 222'; 1/2 deg. at 2457'; 3/4 deg. at 3612', 1/4 deg. at 4510', 1/4 deg at 4650'

Bit Record: 12 1/4" Smith RDS 0 to 222' 2 1/5 hours
 7 7/8" Smith M1519 222' to 3612' 41 3/4 hours
 7 7/8" Smith F271 3612' to 4510' 58 hours
 7 7/8" HTC GX225 4510' to 4650' 10 1/4 hours

FORMATION TOPS AND STRUCTURAL COMPARISON

FORMATION	SAMPLE TOPS		LOG TOPS		Grand Mesa Klaus-Hess No. 1-33
	Depth	Datum	Depth	Datum	
Anhydrite	2354'	+505	2504'	+493	-3
B/Anhydrite	2377'	+482	2528'	+469	-4
Heebner	3882'	-1023	3971'	-974	-14
Toronto	3908'	-1049	3910'	-1048	-16
Lansing	3924'	-1065	4010'	-1013	-14
Muncie Creek	4079'	-1220	4158'	-1161	-17
Stark	4165'	-1306	4241'	-1244	-16
Hushpuckney	4200'	-1341	4278'	-1281	-15
B/Kansas City	4237'	-1378	4338'	-1341	-20
Marmaton	4270'	-1411	4448'	-1451	
...	

Lawnee	4333	-1474	4470	-1473
Fort Scott	4371'	-1512	4368'	-1509
Little Oshage	4393'	-1534	4388'	-1529
Cherokee Shale	4448'	-1589	4446'	-1587
Johnson Zone	4492'	-1633	4490'	-1631
Morrow	4513'	-1654	4512'	-1653
Mississippian	4550'	-1691	4548'	-1698
Total Depth	4650'	-1791	4648'	-1789



Geologist on loc at 3793'
at 4:33 p.m. on 4-11-11

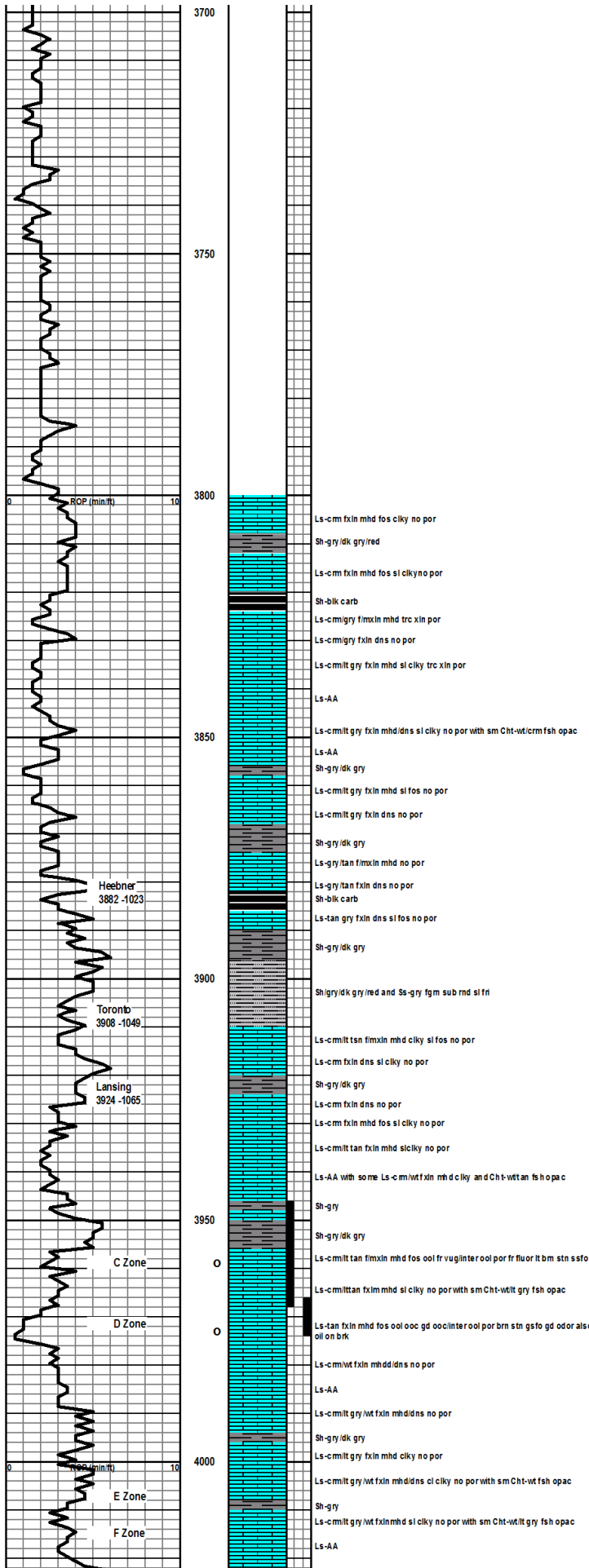
Mud Data at 3968' at 7
a.m. on 4-12-11
Wt 8.9 Vis 52 WL 6.4
pH 10.5 Chlor 1200
YP 16

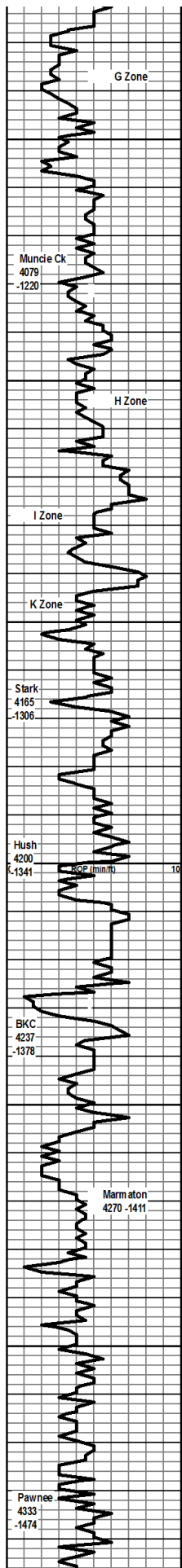
DST No. 1
3946' to 3968'

DST No. 2
3967' to 3975'
CFS at 3968' - 45"

CFS at 4975' - 60"
Pipe Strap at 4975'
Short 0.05'

CFS at 4010' - 45"
Mud Data at 4010' at 9:30
a.m. on 4-13-11 Wt 9.2 Vis
71 WL 6.8 pH 10 Chlor
2000



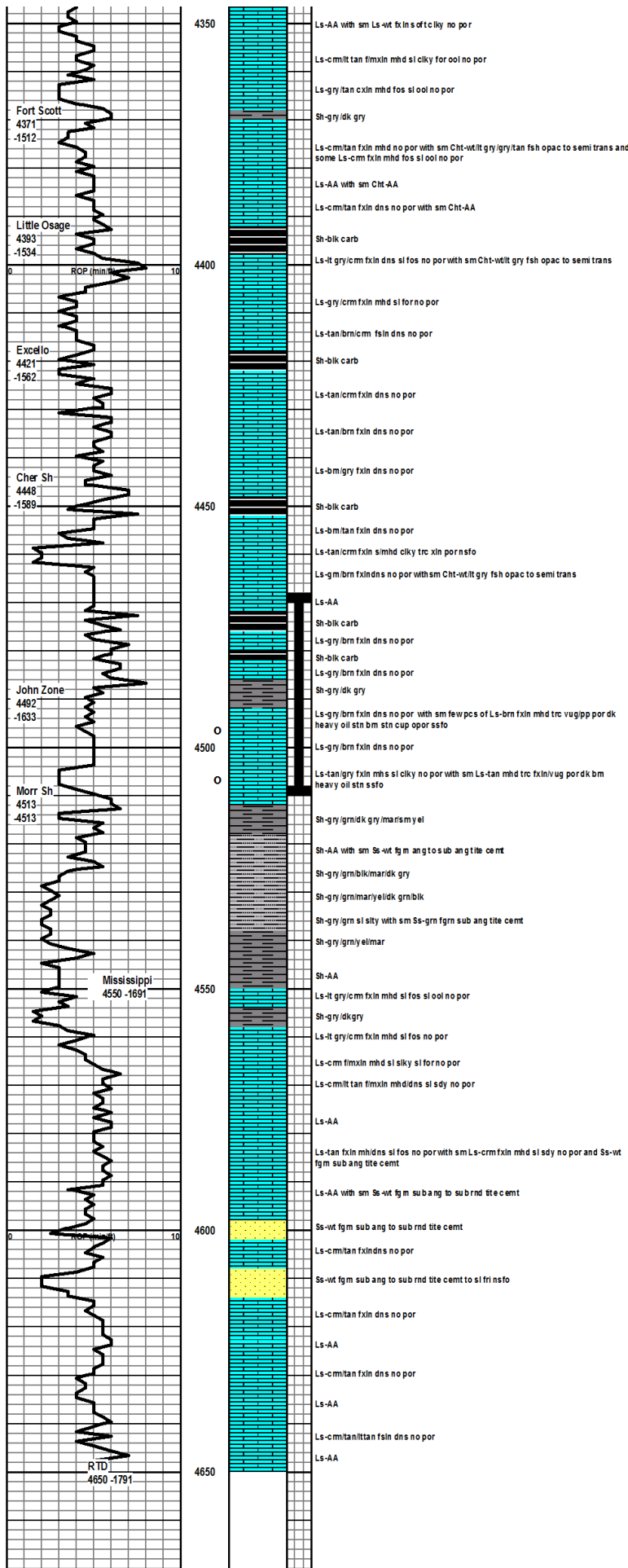


YP 22

CRS at 4110' - 30"

CFS at 4140' - 45"

Mud Data at 4268' at 9 a.m. on 4-14-11
 Wit 9.3 Vis 56 WL 7.2 pH
 10.5 Chlor 2800
 YP 17



DST No. 3
4468 to 4510

Lost cir at 4489' at 1:57 a.m. on 4-15-11
Drilling Again at 8 p.m on 4-15-11

Mud Data at 4510' at 3 a.m. on 4-15-11
Wt 9.2 Vis 52 WL 6.8 pH 10 Chlor 2200 YP 16

Finished Drilling at 2:02 a.m. on 4-16-11

Finished Logging at 9:15 a.m. on 4-16-11

