



**GEOLOGIST'S REPORT**

OPERATOR **MURFIN DRILLING COMPANY, INC.**  
LEASE **BECKMAN "A" # 1-16**

LOCATION **1903 FSL & 1340 FWL**  
SEC. **16** TWPSP **7S** RGE **29W**  
COUNTY **SHERIDAN** STATE **KANSAS**

FIELD **WILDCAT**

CONTRACTOR **Murfin Drilling Company** RIG NO. **24**  
COMMENCED **1 Nov. 2013** COMPLETED **8 Nov. 2013**  
MUD DISPLACED **3372** MUD TYPE **Chemical**  
DRILLING TIME KEPT FROM **3600** TO **4580**  
SAMPLES SAVED FROM **3670** TO **4580**  
SAMPLES EXAMINED FROM **3670** TO **4580**

GEOLOGICAL SUPERVISION FROM **3652** TO **4580**  
GEOLOGIST ON WELL **Paul Gunzelman**

FORMATION NAME LOG TOP DATUM TOP DATUM

STONE CORRAL 2540 +336 2542 +334  
Base/Anhydrite 2578 +300 2577 +299  
Topeka 3738 -862 3738 -862  
Heebner Shale 3834 -1058 3833 -1057  
Lansing 3974 -1098 3974 -1098  
Base/Kansas City 4194 -1318 4194 -1318  
Pawnee 4306 -1430 4302 -1426  
Cherokee 4409 -1533 4408 -1532  
Mississippian 4504 -1628 4506 -2630  
Mississippian Total Depth 4580 -1704 4580 -1704

ELEVATIONS  
KB **2876 Ft.**  
GL **2871 Ft.**

CASING RECORD  
CONDUCTOR **None**  
SURFACE **8 5/8" @ 351'**  
PRODUCTION **None**

ALL MEASUREMENTS FROM K.B.

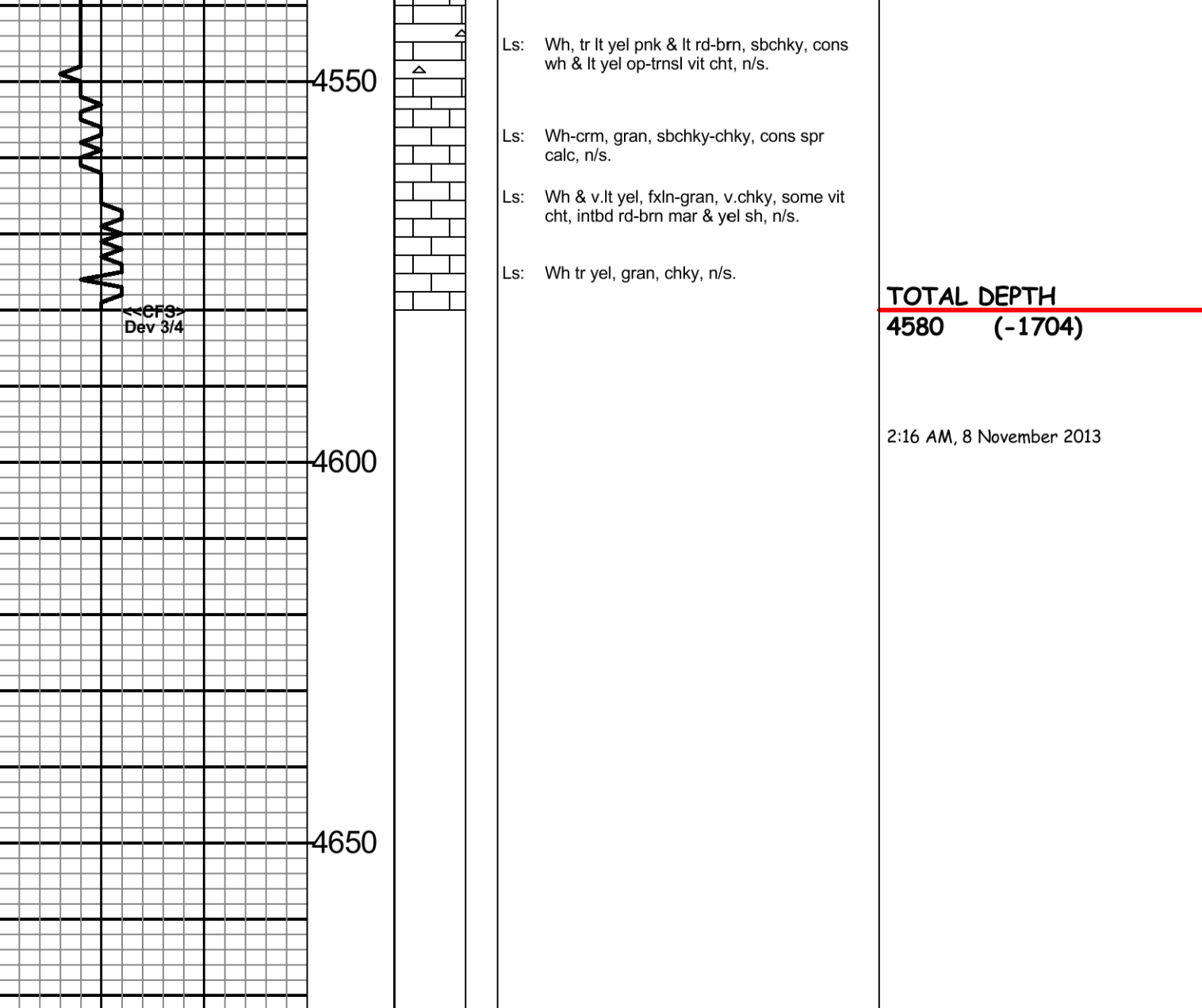
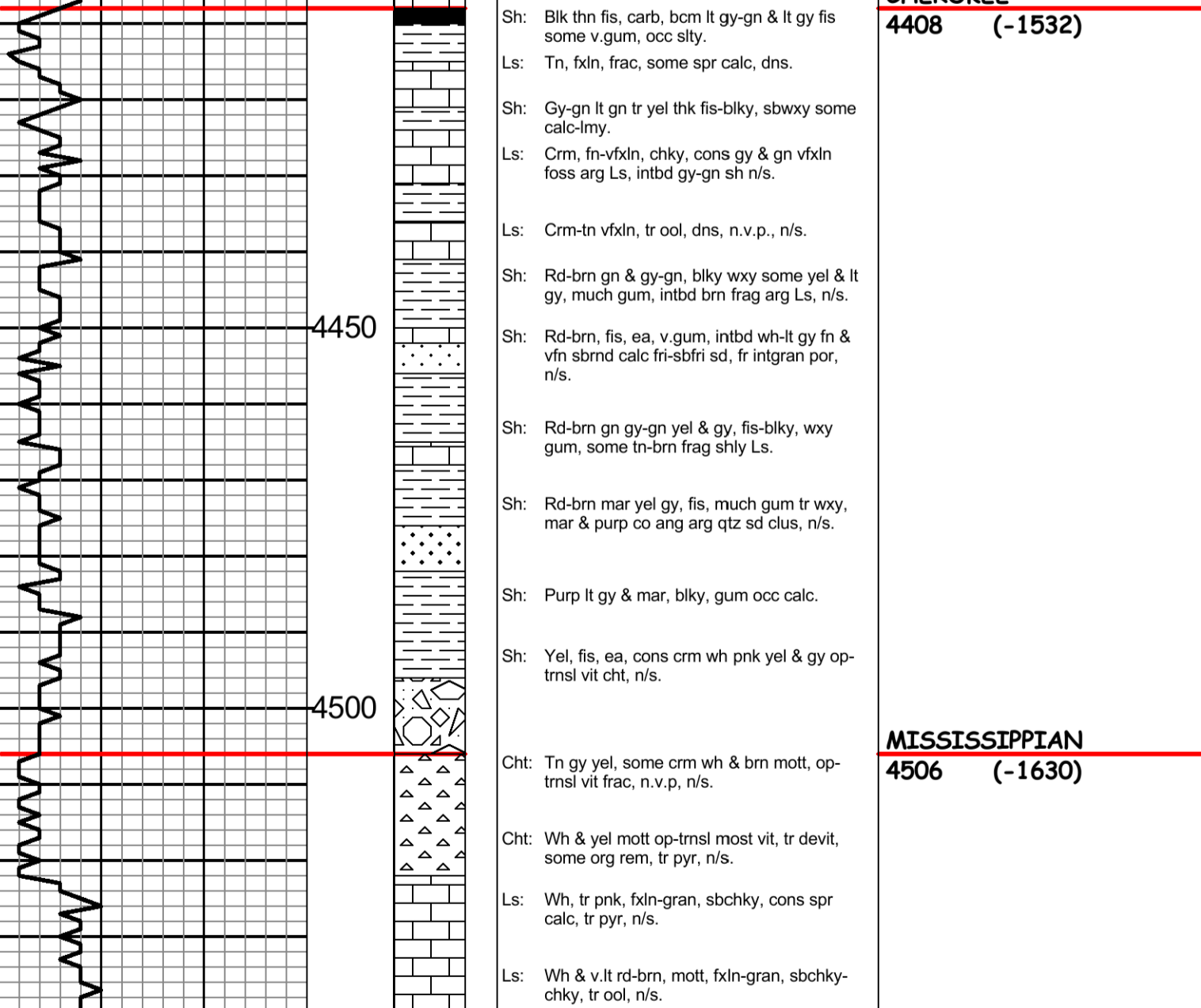
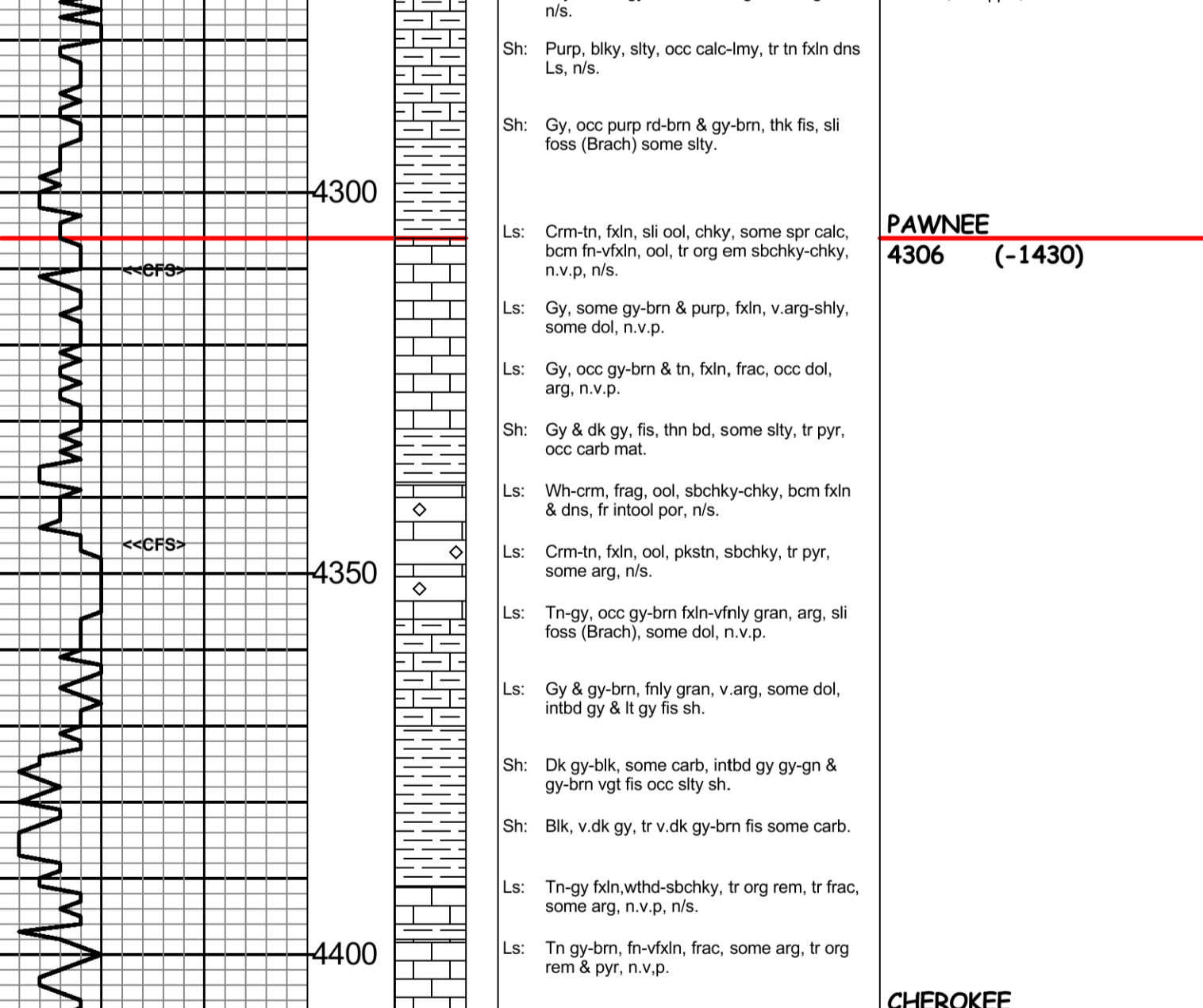
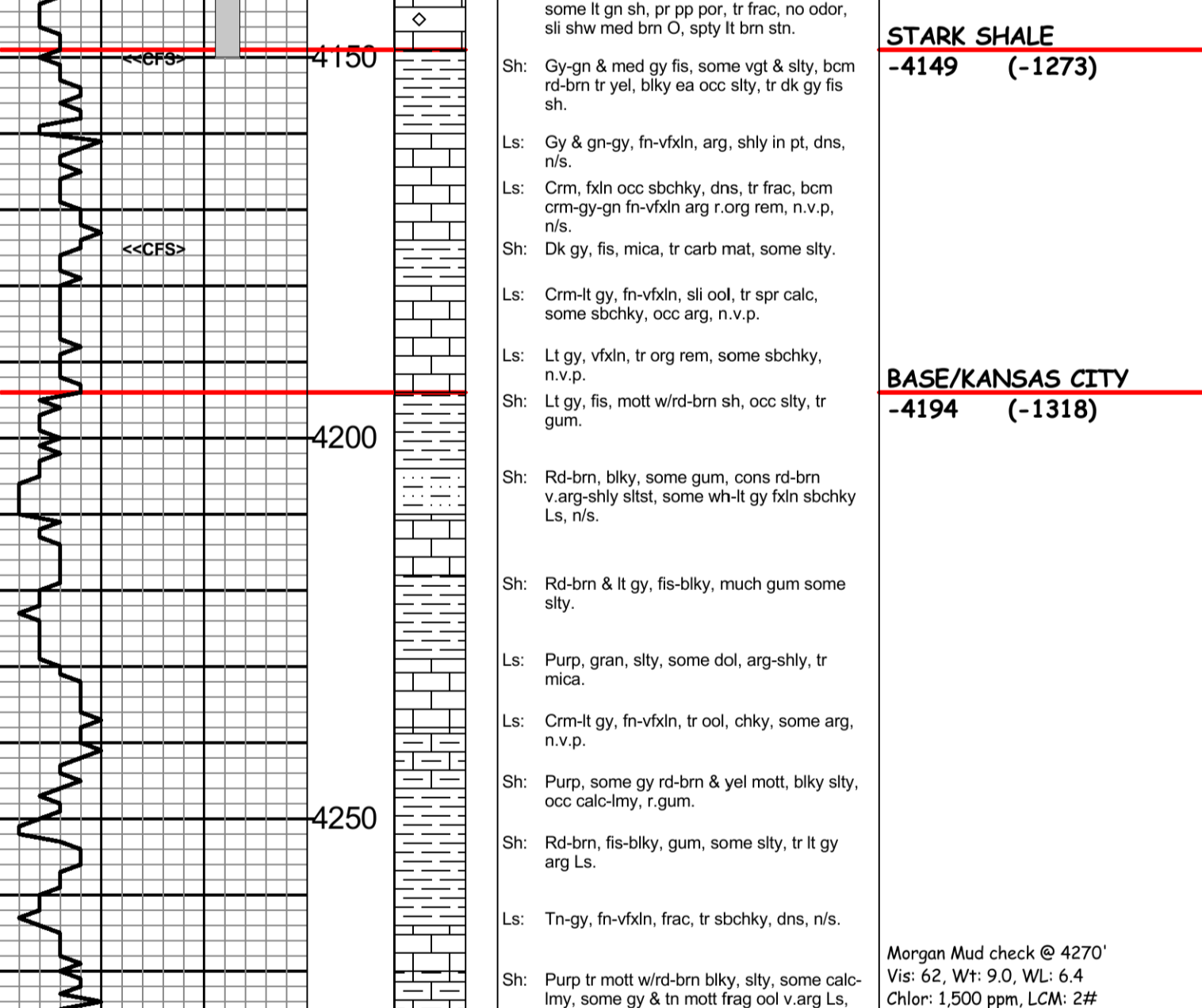
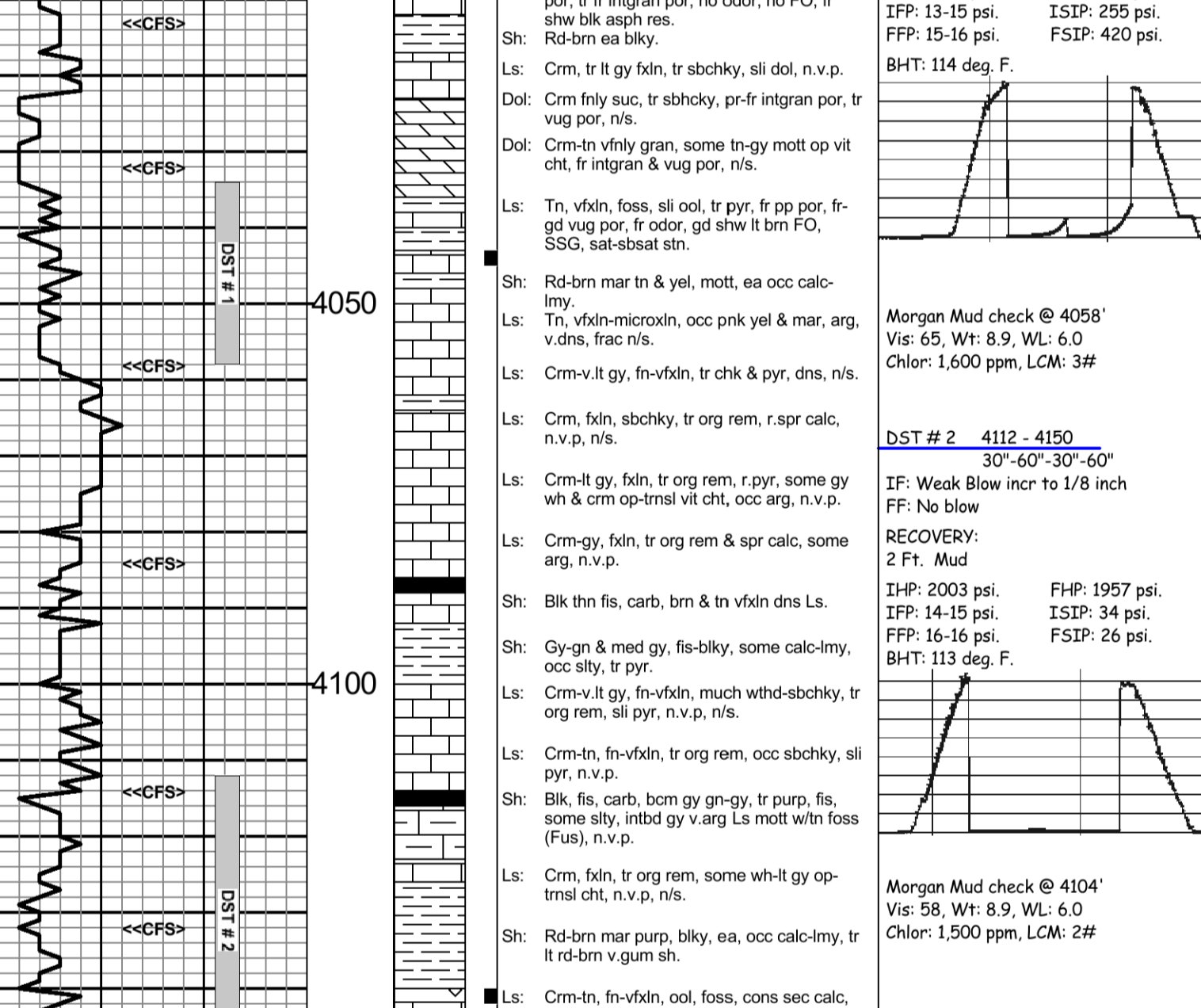
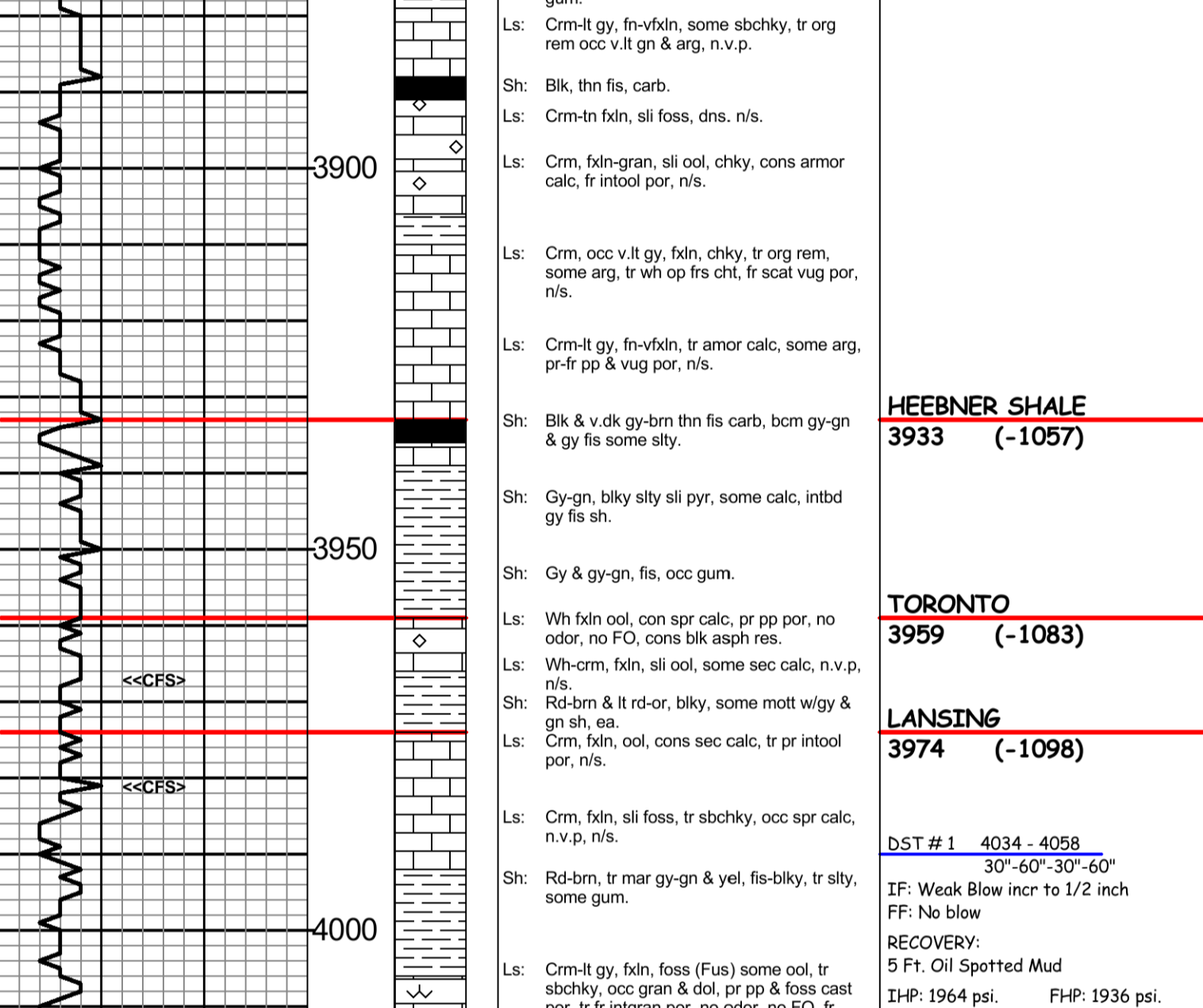
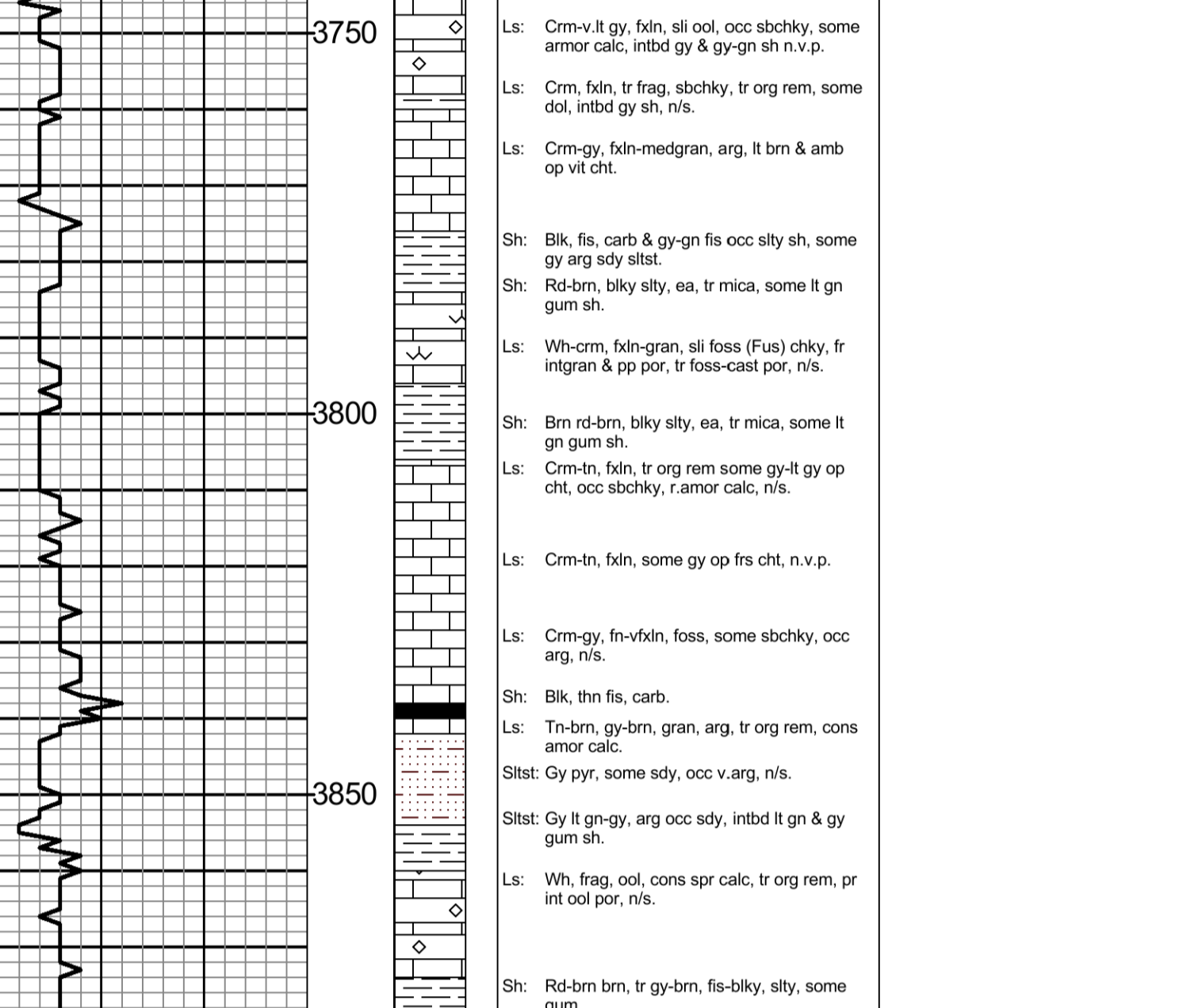
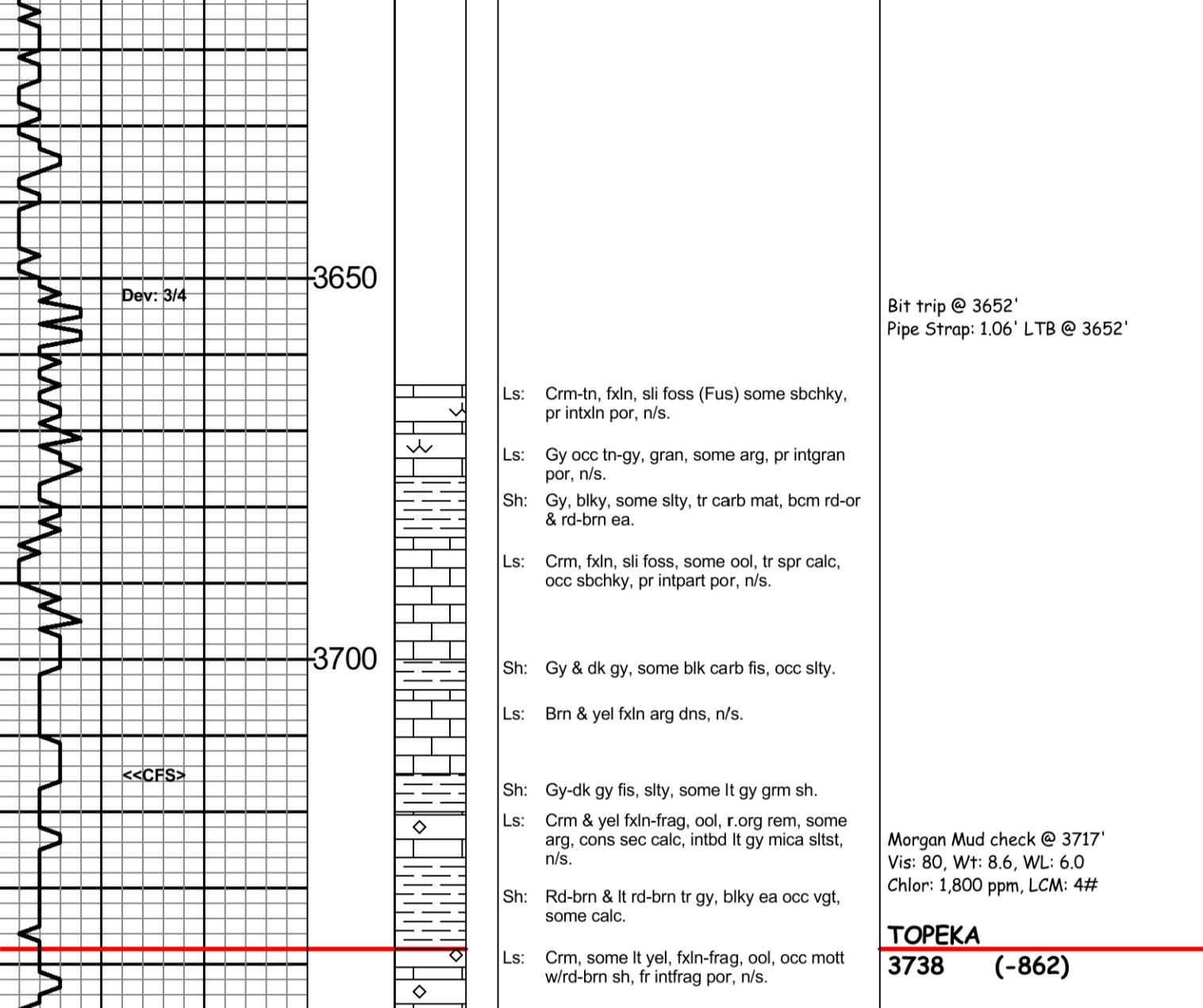
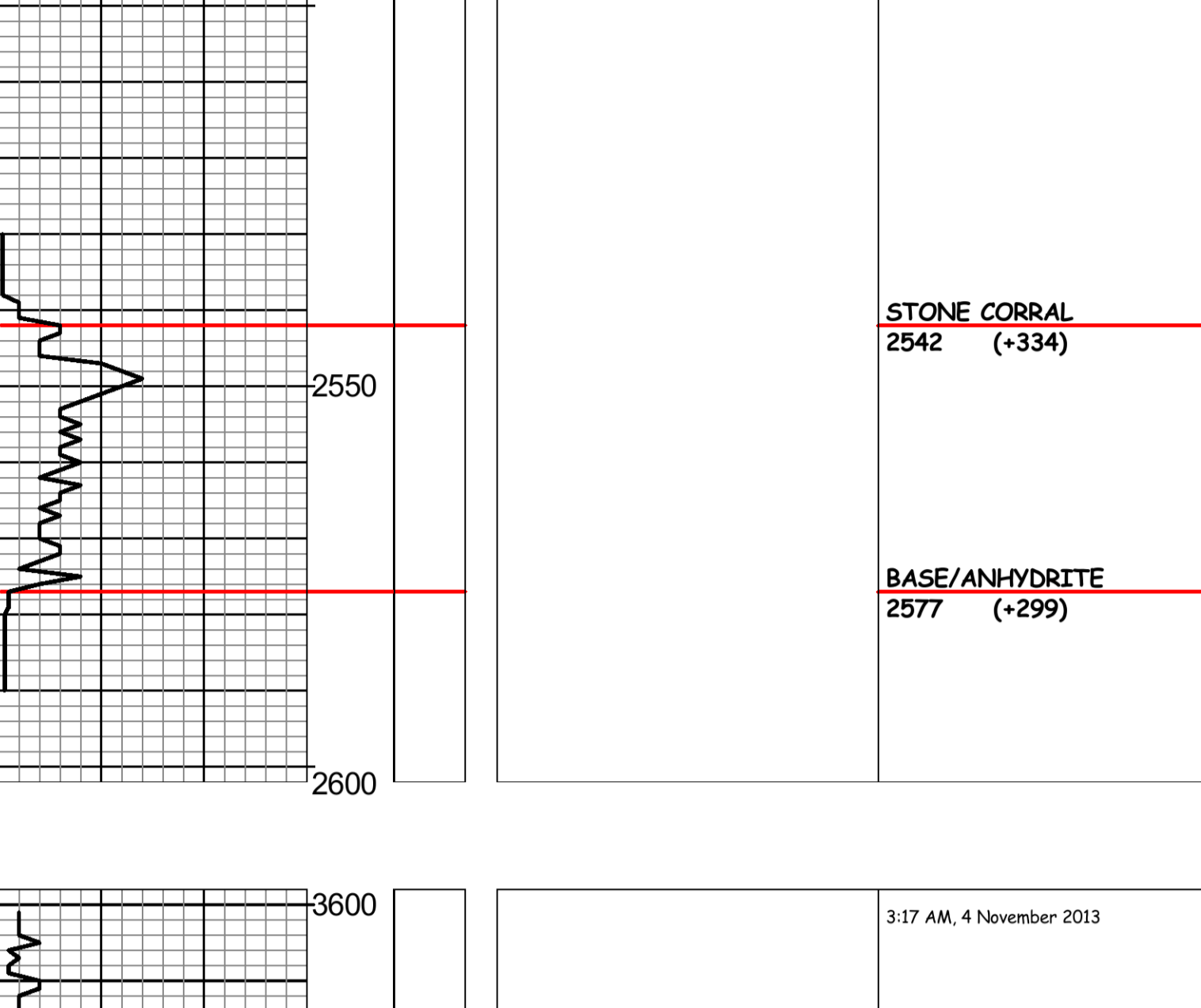
DIAGRAM  
Dial Induction  
Micro-resistivity  
Comp. Sonic

ELCTRICAL SURVEYS:  
**Pioneer Energy Services**  
Comp. Neutron Density

Table with 4 columns: FORMATION NAME, LOG TOP, DATUM, TOP, DATUM. Lists geological formations and their elevations.

REMARKS  
API **15-179-21345-00-00**  
Drilling Fluids: **Morgan Mud, Inc. (Cade Lines, engineer)**  
Drill Stem Testing: **Trilobite Testing, Inc. (Kevin Mack, tester)**  
Gas Trailer: **No Gas Trailer**  
Reserve Pit Chlorides: **1,800 PPM**

Table with 4 columns: DRILL TIME (MIN/FT), DEPTH, SAMPLE DESCRIPTIONS, REMARKS.



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2:16 AM, 8 November 2013