Marc A. Downing Consulting Petroleum Geologist	Geologic Report Drilling Time and Sample Log	
Operator **H&C Oil Operating, Inc.**		Elevation 2528 KB / DF / GL 2521
Lease **Rosalie**	No. **17-3**	Casing Record Surface 8 5/8" @ 262' Production 5 1/2" @ 4135'
API # **15-065-24061-0000**		
Field **Hurlbut West**		
Location **2310' FNL & 1650' FWL**		Electrical Surveys CNL/CDL, DIL, MEL
Sec. **17** Twp. **9s** Rge. **24w**		
County **Graham** State **Kansas**		

Formation	Sample tops	Log Tops	Datum	Struct Comp
Top Anhydrite	2192	2196	+332	-1
Base Anhydrite	2233	2229	+299	-1
Topeka	3606	3604	-1076	-1
Heebner	3821	3820	-1292	-4
Toronto	3844	3844	-1316	-5
LKC	3857	3858	-1330	-1
BKC	4085	4085	-1557	-1
Total Depth	4136	4136	-1608	

Reference Well For Structural Comparison **H&C Oil Operating, Inc.**
Rosalie #17-1 **2310' FNL & 660' FWL** **Sec. 17-9s-24w**

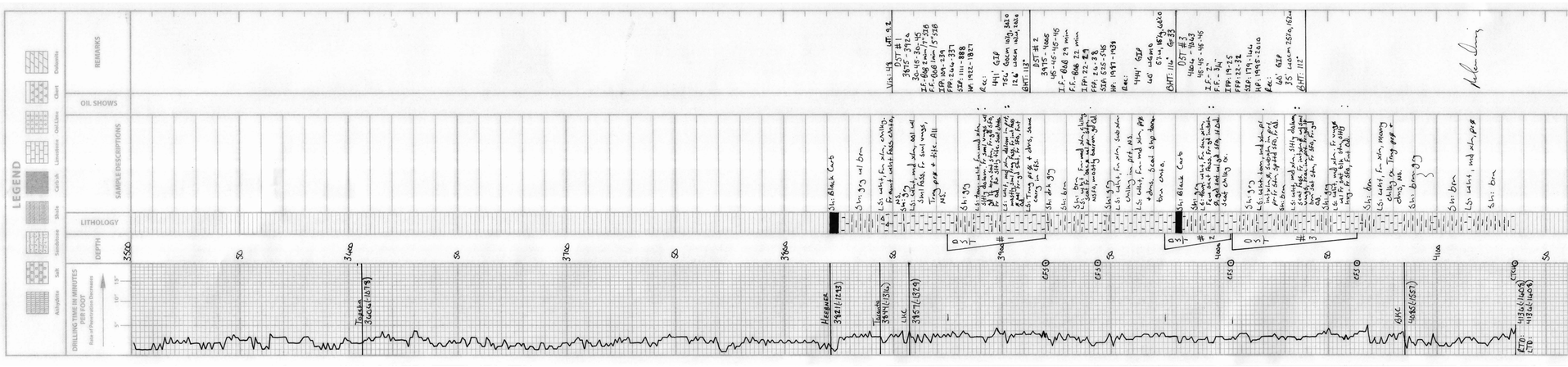
Drilling Contractor	**American Eagle, Rig #2**		
Commenced	**9-4-14**	Completed	**9-12-14**
Samples Saved From	**3800**	To	**RTD**
Drilling Time Kept From	**3500**	To	**RTD**
Samples Examined From	**3800**	To	**RTD**
Geological Supervision From	**3800**	To	**RTD**

Summary and Recommendations

Due to structural position, DST recovery, and log evaluation, it was decided to set 5 1/2" production casing for completion.

Perforate:

LKC J: 4037-4041
LKC I: 4019-4024
LKC H: 3996-4002
LKC D: 3900-3903
LKC C: 3888-3894
LKC F: 3938-3943 (Before Abandonment)

Respectfully Submitted,

Marc A. Downing