Marc A. Downing Consulting Petroleum Geologist	Geologic Report Drilling Time and Sample Log	
Operator **H&C Oil Operating, Inc.**		Elevation KB 2098 DF 2096 GL 2091
Lease **Newell**	No. **23-1**	
API # **15-065-23984-0000**		Casing Record Surface 8 5/8" @ 223' Production 5 1/2" @ 3737'
Field **Wildcat**		
Location **330' FSL & 1850' FEL**		Electrical Surveys CNL/CDL, DIL, MEL, Sonic
Sec. **23** Twp. **8s** Rge. **21w**		
County **Graham** State **Kansas**		

Formation	Sample tops	Log Tops	Datum	Struct Comp
Top Anhydrite	1624	1621	+475	+6
Base Anhydrite	1655	1652	+446	+7
Topeka	3077	3076	-978	+7
Heebner	3291	3289	-1191	+9
Toronto	3314	3312	-1214	+9
LKC	3330	3328	-1230	+10
BKC	3548	3546	-1448	+10
Arbuckle	3629	3627	-1529	+27
Total Depth	3738	3737	-1629	

Reference Well For Structural Comparison A&A Production
Berland Trust #1 1180' FNL & 2090' FWL Sec. 26-8s-21w

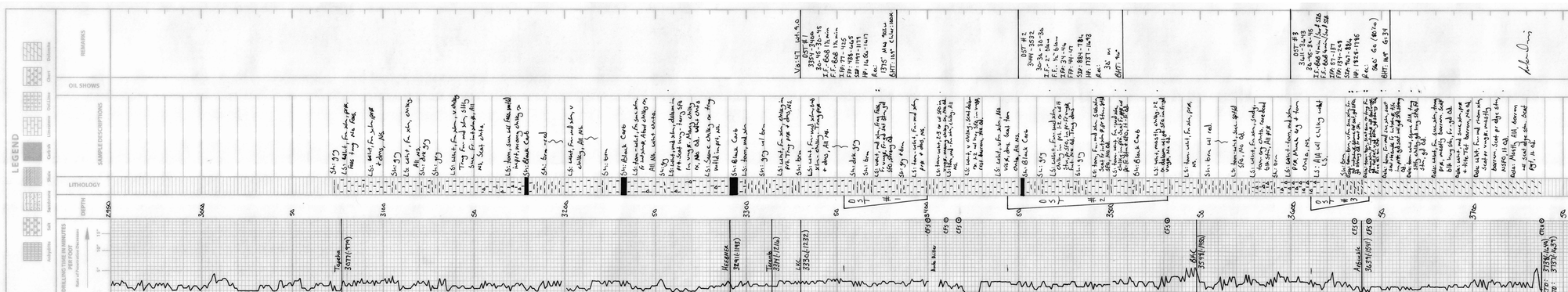
Drilling Contractor	American Eagle, Rig #3		
Commenced 2-1-14	Completed		2-12-14
Samples Saved From	3050	To	RTD
Drilling Time Kept From	2950	To	RTD
Samples Examined From	3050	To	RTD
Geological Supervision From	2950	To	RTD

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:

Arbuckle: 3637-3640

Respectfully Submitted,

Marc A. Downing