



AP1 #15-109-21493

**GEOLOGIST'S REPORT**  
**DRILLING TIME AND SAMPLE LOG**

Geologist on Well Bryce Bidleman		ELEVATIONS KB 2,734 DF _____ GL 2,227	
LEASE Cheri A 1-35		MEASUREMENTS ARE ALL From Kelly Blushing	
FIELD Smoky Hill		CONTRACTOR Duke Rig #2	
LOCATION 484 FNL 2225 FWL		SPUD 04/12/2017 COMP 04/19/2017	
SEC 3.5 TMSF 14S ROE 32W		CONDUCTOR NA	
COUNTRY Logan STATE Kansas		MUD UP 4475 TYPE MUD Fresh	
RD 4475 LTD 4467		SURFACE 8.5" @ 261'	
SAMPLER 3650' TO RTD		PRODUCTION 5.12 @ 4455'	
DRILLING TIME KEPT FROM 3350' TO RTD		ELECTRICAL SURVEYS	
SAMPLER EXAMINED FROM 3650' TO RTD		DILL, DUCP, ML, PE	
GEOLOGICAL SUPERVISION FROM 3575'		SONIC HALIBURTON	
REFERENCE WELL Krebs X #4 26-453-32W		STRUCT _____	
FORMATION		Sample Tops	
Formation	Sample Tops	E-log Tops	Struct
Anhydrite	2176 (-558)	2174 (-560)	-2
Heebner	3713 (-979)	3706 (-972)	-2
Lansing	3751 (-1071)	3744 (-1010)	-2
Marmaton	4109 (-1375)	3997 (-1265)	-5
Stark	4005 (-1271)	4249 (-1515)	-3
Fort Scott	4259 (-1525)	4250 (-1516)	-4
Base Johnson	4385 (-1651)	4348 (-1614)	-4
Mississippi	4395 (-1661)	4386 (-1652)	+9

**REMARKS** The seismic indicated the structural position would be very close to that in the reference well, the Krebs 'X' #4, which produces from a well developed Morrow sand. The Johnson came in about four feet low and the Morrow sand two feet high. Due to good structural position, positive drill stem test results, it was decided to set production casing to respect the Morrow sand and Johnson zone.

Respectfully Submitted,

W. Bryce Bidleman

**LEGEND**

	Anhydrite		Sandstone		Limestone		Shale		Carb Sh		Cherty LS		Chert		Dolomite
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