



James C. Musgrove  
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# GEOLOGIST'S REPORT

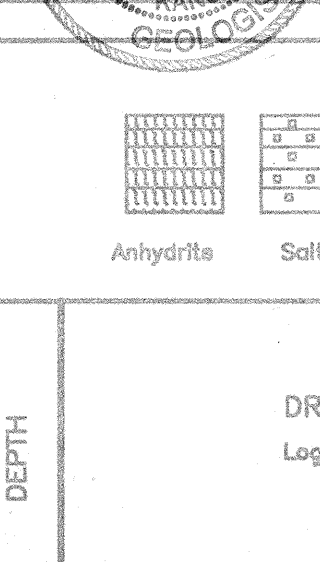
DRILLING TIME AND SAMPLE LOG

COMPANY: **Burbridge Refraction Corp.**  
 LEASE: **Cheyenne 5-9**  
 FIELD: **Quismacke**  
 LOCATION: **SE 21W NW 5E (2217 F&I)**  
 SEC: **9** TNSP: **27 S** R0E: **24 W**  
 COUNTY: **Ford** STATE: **Kansas**  
 CONTRACTOR: **Southward Drilling Co. (Rt 10)**  
 SPUD: **3/27/2012** COMP: **4/1/12**

RTD: **5125** LTD: **5130**  
 MUD UP: **3800** TYPE MUD: **Chemical**  
 SAMPLES SAVED FROM: **4000**  
 DRILLING TIME KEPT FROM: **1000**  
 SAMPLES EXAMINED FROM: **4000**  
 GEOLOGICAL SUPERVISION FROM: **F150**  
 GEOLOGIST ON WELL: **Jim Musgrove**

FORMATION TOPS	LOG	SAMPLES
Gambelle	5223	Miss 4999-2509
Pricklypear	5267	Miss 5023-2523
Heebner	4167 - 1677	Miss 5023-2523
Heebner	4282 - 1792	Miss 5023-2523
Heebner	4595 - 1109	Miss 5128-2635
Stark	4733 - 2242	Miss 5130-2640
Stark	4762	
Marmaton	4815	
Fort Scott	4845 - 2345	
Morrow Shale	4899 - 2469	
Narrow Sand	4981 - 2491	

REMARKS: The Cheyenne #5-9 was plugged and abandoned at the RTD 5125. Perfectly submitted. James C. Musgrove, Petroleum Geologist.



## LEGEND

	Anhydrite		Salt		Sandstone		Shale		Carb sh		Limestone		Ool. Lime		Chert		Dolomite
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