

LOG #15-137-20719-00-00  
 GEOLOGICAL REPORT  
 DRILLING TIME AND SAMPLE LOG

COMPANY Black Diamond Oil Co.  
 LEASE Glendon #1

LOCATION 330551 & 12001 E.L.  
 SEC 21 TWP 5 S. RGE 21 W  
 COUNTY Norton STATE Kansas

CONTRACTOR W.H. Drilling Rig #1  
 SPUD 10-24-14 COMP 10-30-14  
 SAMPLES SAVED FROM 3220' TO 3210'

FORMATION TOPS AND STRUCTURAL POSITION

FORMATION	SAMPLE	E. LOG	DATE	A	B	C	D
Alshykrite	1813	1813	403				
Base Alshykrite	1893	1892 + 374					
Topokla	3214	3213	947				
Heebner	3412	3415	1149				
Taranta	3442	3441	1125				
Lansing	3461	3461	1195				
Base Kansas City	3474	3474	1320				
Reagan Sand	3298	3298	1433				
Total Depth	3499	3700	1434				

REFERENCE WELLS  
 A D.D. Dole, Payne, Williams #1, C-S-E-S-W Sec. 21-5-S-21W  
 B Hummer Oil Co., Williams #1, C-N-E-N-E Sec. 28-5-S-21W  
 C Hummer Oil Co., Williams #1, C-N-E-N-E Sec. 28-5-S-21W  
 D

REMARKS  
 This well ran 4 feet higher to 7 feet lower on the casing top than the reference wells. Encouraging results on DST #3 warranted the cementing of production casing to further test the sand.  
 Dickson & Roll  
 5-30-14

LEGEND

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

DEPTH	LITHOLOGY	SAMPLE DESCRIPTIONS	OIL SHOWS	REMARKS
1810				
80				
1900				
3100				
20				
40				
60				Samples are lagged good samples
80		LS: tn-gry sh. ye. fslf dns sh: brn, gry+grn		
3200		LS: tn-gry fslf pr. impart φ N.S.O.		
20		LS: tn-gry fslf dns		
40		LS: wh-tn-gry sh. cky-feln mostly fslf pp φ N.S.O. LS: tn-gry fslf dns sh: gry+brn		
60		LS: wh-tn-gry sh. cky-fslf PP φ N.S.O. Δ tn-brn		
80		LS: gry fslf dns N.S.O. sh: brn+gry		
3300		LS: wh-tn cky-feln-sh fslf pp φ N.S.O. Δ xy kt. gry+tn		
20		LS+Δ aa.		
40		LS: wh-tn cky-feln sh. sl. ool PP φ N.S.O. Ambergris		
60		LS: wh-tn-gry fslf dns		
80		sh: blk Carb LS: gry+brn fslf dns sh: brn+gry Tr. S.S. v. tn-gr. Consol friable ingran φ N.S.O.		
3400		LS: wh-tn cky-feln sh. ool pp φ N.S.O.		
20		sh: brn + gry		
40		LS: wh-tn sh. ye. fslf dns		
60		RT. Soft blk Carb Sh LS: wh-tn slicky-feln sh. ool RT. v. sp. ool. friable pp φ Tr. sh. v. sp. tr. fr. soft 0.5 in No odor Tr. fr. rambad 3.0.		Trilobite Testing
80		LS: wh-tn sh. cky-feln-sh fslf pp φ Tr. Δ wh		DST #1 3414-3470 30-30-30-30 IF: surface blow FF: No blow Recovery: 55' Mud Hyd: 1648-1632# FP: 17-29/32-43# BHP: 1053-1012# BHTemp: 100°F.
3500		LS: wh-tn-gry slicky-feln some fslf pr. pp φ N.S.O.		
20		sh: blk Carb. LS: tn fslf dns		
40		sh: gry stly + brn stly		
60		LS: wh-tn slicky-Tr. sh. suc- feln pp φ Tr. v. sp. tr. fr. setd a sta Tr. pp 5.0. No odor Δ xy wh-tn		
80		LS: wh-tn sh. cky-feln sh. ool pp φ Tr. v. sp. tr. fr. soft 0.5 in N.S.O. No odor		Board 3483.06 Strip 3482.26 Diff. .80 Incline @ 3476' 1 1/4"
3550		sh: brn + gry		
3600		LS: wh-tn sh. cky-feln sh. ool pp φ Tr. v. sp. tr. fr. soft 0.5 in N.S.O. No odor		
20		sh: brn + gry LS: wh-tn sh. cky-feln sh. ool pp φ on edges tr. fr. edge sta Tr. Thick sh. fary sta Δ xy wh-tn LS: wh-tn sh. cky-feln dns N.S.O.		
40		LS: wh-tn cky-feln Tr. sh. ool. pp φ Tr. v. sp. tr. fr. soft 0.5 in N.S.O. No odor		
60		LS: wh-tn sh. cky-feln dns N.S.O. Δ xy wh		
80		sh: blk Carb LS: drk gry mtd fslf dns sh: gry stly + brn		
3650		LS: wh-tn v. cky-feln sect. ool pp φ Tr. v. sp. tr. fr. soft 0.5 in N.S.O. No odor		
20		LS: tn-gry fslf dns		
40		LS: wh-tn sh. brn, ye. fslf dns N.S.O. sh: brn + gry LS: wh-tn cky-fslf tr. pr. pp φ impart φ sect tr. fr. soft 0.5 in RT. floating F.O. No odor		DST #2 3613-3635 30-30-30-30 IF: wk surface blow FF: No blow Recovery: 1' Mud Hyd: 1806-1720# FP: 15-17/16-17# BHP: 152-70# BHTemp: 101°F.
60		sh: gry+brn		
80		LS: wh-tn slicky-fslf pr. pp φ fr. o. sta drk brn floating F.O. No odor sh: gry stly		
3700		LS: wh-tn sh. cky-feln dns Tr. asp. spks		
3750		sh: gry stly + brn shly sh. trace brn v. tn-gr. sh: brn + gry		DST #3 3689-3699 45-45-45-60 IF: B.O.B. in 35 min. IS: No blow FF: wk blow incr. to 10" FST: No blow Recovery: 356' Total 335' G.O. 402.6 402.0 21' OCM 207.0 80% M Hyd: 1829-1793# FP: 30-39/108-129# BHP: 980-969# BHTemp: 106°F. Reagan Sand
3800		LS: wh-tn sh. cky-feln dns sh: brn, gry, grn		
3850		LS: wh-tn slicky-feln dns sh: gry stly + brn + gry		
3900		SS clay faced, mtd, gry+grn ingran drk. 0 sat abund. a band floating F.O. strong odor		

LOG 7710