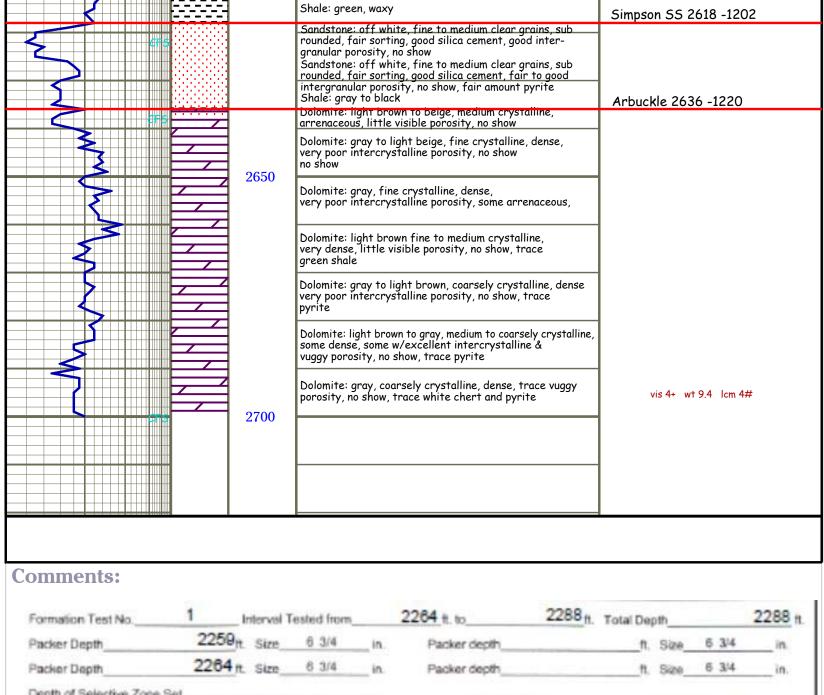
Mississi Kinderh Hunton Viola Simpson Arbuckl A. C SE Ni B. C SW S C. 80' N N	Uread Heebne Brown Lansing Stark Hushpu BKC Marmat	COMF LEAS FIELC LOCA SEC_ COUT SPUT SAMF	
Mississippian 2274 2874 -858 Kinderhook 2331 2332 -916 Hunton 2450 2450 -1034 Viola 2480 2480 -1064 Simpson 2600 2599 -1183 Arbuckle 2635 2637 -1221 A. C SE NE SE 35-21S-4E Range Oil, #1 Savage Viele Vele B. C SW SE SW 2-22S-4E Kansas Crude, #1 Preheim Vele Vele C. 80' N N/2 N/2 NW NW 36-21S-4E Oil Properties, #1 Davis Slocombe Vele	Oread Heebner Douglas Brown Brown Lansing Stark Stark Hushpuckney BKC BKC	NTY NTY NTION	Noble Petroleum, Inc Beological Report Drilling Time & Sample Log Report Prepared by Frank S. Mize/Geologist
2274 2331 2450 2600 2635 E Range Oil, # 4E Kansas Cruc 4E Kansas Cruc	1508 1536 1727 1772 1772 2074 2103 2131 2131 2184	Noble 650' F WSP_ WSP_ MSP_ C& C& C& C <tr< th=""><th>I Petroleum, Inc. SEOLOGICAL REPORT DRILLING TIME & SAMPLE LOG REPORT PREPARED BY FRANK S. MIZE/GEOLOGIST</th></tr<>	I Petroleum, Inc. SEOLOGICAL REPORT DRILLING TIME & SAMPLE LOG REPORT PREPARED BY FRANK S. MIZE/GEOLOGIST
2274 2332 2450 2480 2599 2637 ≈EFERI 1 Savage *1 Savage *1 Preheim de, #1 Preheim	1471 1507 1536 1728 1773 2075 2103 2103 2131 2184	Petroleum, Harvey #1 WC SL & 1,892' I SL & 1,892' I 21S RGE Drilling, Rig GOM 1700' TO 2700 LTD 2702	HOLLU HE & SA
-858 -916 -1034 -1064 -1183 -1221 -1221 FNCE ∨ #1 Davis Slocon	-33 -120 -312 -357 -659 -687 -715 -768	n, Inc. 1 2' FEL 2' FEL E 4E Kansas Kansas 7-30-12 2702 ₽ ₽ ₽ ₽	REPO
-853 -1121 *-???	-290 -345 -651 -705 -705	A-GeoR	
= Scout Top	-01 -116 -142 -318 -369 -369 -677 -705 -705 -733 -787	ELE\ 14 14 14 14 14 14 14 14 14 5 1/2" 5 1/2" 1/2" 1/2"	API#: 15-115-21,4
-853 *-1029	-352 -658 -684 -712 -764	HCS	6.111 6.1111 6.11111 6.11111 6.11111 6.11111 6.11111 6.111111 6.111111 6.11111111
		Shale: gray, slightly arrenaceous, some siltstone Shale: gray, slightly arrenaceous, some siltstone	Brown Lime 1727 -311
		Limestone: light brown to gray, medium to coarsely crystalline, no visible porosity, no show Shale: gray	
	1750	Shale: gray	
		Shale: gray Limestone: mottled off white to gray, medium crystalline, some shale inclusions, little visible porosity, no show	Lansing 1772 -356
DRILLING TIME MINUTES/FOOT		Limestone: beige to light brown, medium to coarsely crystalline, dense, no visible porosity, no show, trace pyrite Limestone: off white to gray, medium to coarsely crystalline, no visible porosity, no show, fair amount gray to black	
		shale Limestone: off white to gray, medium to coarsely crystalline, no visible porosity, no show, fair amount gray to green shale Limestone: gray, coarsely crystalline, no porosity, no show	
		Limestone: gray, coarsely crystalline, no porosity, no show Shale: black, carbonaceous Limestone: mottled off white to brown to gray, medium crystalline, poor intercrystalline porosity, no show, slightly fossiliferous	
		Limestone: off white to beige, medium to coarsely crystalline, some slightly chalky, no visible porosity, no show Limestone: off white to beige, medium to coarsely crystalline, some slightly chalky, no visible porosity,	
		no show, fair amount light gray to green shale Limestone: gray to light brown, coarsely crystalline, no porosity, no show Siltstone: gray, very fine grained, well sorted, calcareous cement, poor intergranular porosity, no show	
		Limestone: beige to gray, medium crystalline, poor intercrystalline porosity, no show, fossiliferous with crinoids Limestone: off white, medium to coarsely crystalline, no visible porosity, no show, trace white to gray chert	
		Limestone: off whit to light brown, medium to coarsely crystalline, no visible porosity, no show Limestone: off whit to light brown, medium to coarsely	
		crystalline, no visible porosity, no show, fair amount red to gray to green shale Limestone: off white to gray, medium to coarsely crystalline, no visible porosity no show	
		Limestone: off white to light beige, most medium crystalline, trace chalky, no visble porosity, no show fair amount dark gray shale Limestone: off white to gray, medium crystalline, dense, no visible porosity, no show	
		Limestone: tan to gray, micritic, no porosity, no show, trace gray chert Limestone: tan to gray, micritic, no porosity, no show,	
		Limestone: beige to light brown, coarsely crystalline, no porosity, no show, trace gray chert	
		Limestone: gray to light brown, coarsely crystalline, no porosity, no show, trace gray chert Limestone: gray to light brown, coarsely crystalline, no porosity, no show, trace gray chert and pyrite	
		Shale: gray Limestone: gray to beige, coarsely crystalline, dense, trace chalky, poor intercrystalline porosity, no show Shale: gray	
		Limestone: gray to beige, coarsely crystalline, dense, poor intercrystalline porosity, no show, trace pyrite Limestone: light brown, coarsely crystalline, dense, no porosity, no show	vis 37 wt 9.35 lcm 1.5# wl 10.4
		Shale: gray to black to green Limestone: off white to light brown, medium to coarsely crystalline, dense, no show Shale: greenish gray to red	
		Limestone: off white to light brown, medium to coarsely crystalline, dense, no visible porosity, no show Limestone: off white, medium to coarsely crystalline, no visible porosity, no show, fossiliferous w/fusulinids Shale: gray	
	2050	Limestone: beige to brown, medium to coarsely crystalline, dense, poor intercrystalline porosity, no show, much gray shale Shale: gray to reddish brown to grayish green	
		Limestone: off white, medium crystalline, little visible porosity, no show, much gray to greenish gray shale	Stark 2074 -658
		Shale: black, carbonaceous Limestone: off white to gray, medium to coarsely crystalline, most dense, trace chalky, no visible porosity, no show, fossiliferous w/crinoids	
		Limestone: gray, medium to coarsely crystalline, no porosity, no show Shale: black, carbonaceous	Hushpuckney 2103 -687
		Limestone: off white to gray, medium to coarsely crystalline, poor intercrystalline porosity, no show Shale: gray to greenish gry Limestone: gray to light brown, coarsely crystalline, no porosity Shale: gray to greenish gry Limestone: gray to light brown, medium to coarsely crystalline, no visible porosity, no show	
		Shale: black, carbonaceous Limestone: gray, medium crystalline, poor inter- crystalline porosity, no show Shale: gray	BKC 2131 -715
	2150	Shale: gray Shale: gray	
		Limestone: gray, fine to medium crystalline, some argillaceous, little visible porosity, no show Shale: gray	
		Limestone: gray, fine to medium crystalline, some argillaceous, little visible porosity, no show Shale: gray	Marmaton 2184 -768
		Limestone: off white to gray, fine to medium crytsalline, poor intercrystalline porosity, most dense, no show Shale: grayish green to gray	
		Shale: grayish green to gray vis 37 wt 9.2 lcm 1# Limestone: gray to brown, medium crystalline, re- crystallized, no visible porosity, no show, trace pyrite	
		Shale: grayish green to gray Limestone: gray, micritic, dense, no visible porosity no show	2285' 15" x8
		Shale: grayish green to gray Limestone: gray, micritic, dense, no visible porosity no show Shale: gray to dark gray	and the second s
		Limestone: gray to beige, medium to coarsely crystalline, dense, no visible porosity, trace pyrite Shale: black, carbonaceus Chert: dull gray, opague, fresh, no visible porosity,	2288' 30" x18 Mississippian 2274 -858 2288' samples
	$ \begin{array}{c} \Delta & \Delta & \Delta \\ A & \Delta & \Delta \\ A & A & A $	Chert: dull gray, opaque, fresh, no visible porosity, no stain, no odor, no fluorescence, no cut in 2285' drilling sample, slight show free oil, scattered spotted stain in 15" & 30" sample. 15" & 30" samples had 30% & 50% tripolitic chert respectively, with 50% of the tripolitic chert w/no show. Pale gold fluorescence in 30% of the circulating samples, extremely faint odor in the 30" sample	2288' samples Chert: off white to blue green, about 80% is tripolitic, scattered spotted stain, slight show free oil, extremely fiant odor, fluor- escence in 10% of 15" sample, only 5% of the 30" sample, no gas bubbles in any of the Miss samples, most chert barren
	ΔΔΔΔ ΔΔΔ ΔΔΔ ΔΔΔ ΔΔΔ ΔΔΔ ΔΔΔ ΔΔΔ	Sample Chert: off white to musstard yellow, fresh, trace poor vuggy porosity, no show free oil, pale gold fluorescence in 10% of 15" & 3% of 30" sample., trace pyrite Chert: off white to musstard yellow, fresh, trace poor vuggy porosity, no show free oil, pale gold fluorescence in 2% sample, fair amount Fe2 staining.	Miss Lime 2310 -884
		Limestone: gray, coarsely crystalline dense, no porosity no show, trace pyrite Limestone: gray to dark grayish brown, coarsely crystalline dense, no porosity, no show, trace pyrite	
		Crystalline dense, no porosity, no show, trace pyrite Limestone: off white, coarsely crystalline dense, no porosity, no show, some dark gray to red shale	Kinderhook 2347 -931
	2350	Shale: dark gray, fair amount pyrite Shale: gray to dark gray, trace pyritic red	
		Shale: gray to dark gray, trace pyritic red	
	2400	Shale: gray to dark gray, trace pyritic red vis 43 wt 9.5 lcm 1.5#	2452' 30" x15
		Shale: gray to dark gray, trace pyritic red Shale: gray to light gray	
	#2	Shale: gray to light gray Shale: gray to reddish brown	2462' 30" x16
	2450	Dolomite: upermost cherty, fresh, white, w/3-5% dolomite in 15" sample/85% dolomite in 30" sample Dolomite: brown with oil stain, fine crystalline, fair to good intercrystalline porosity, excellent show free oil, saturated stain, excellent odor, bright fluorescence in 85% of 30" sample. Dolomite: light brown with oil stain, fine crystalline,	Hunton 2450 -1054 2462' 30" sample had slight increase in porosity, more sucrosic, few pieces
Viola 2480-1064		fair to good intercrystalline porosity, oil saturated, good show free oil, good odor, fluorescence in 95% of 15" and 30" 2462' sample Dolomite: light brown with oil stain, fine crystalline, some sucrosic, good show free oil, good odor, saturated stain, all dolomite fluoresces in the 15" 2472' sample, some barren sucrosic porosity in the 30" sample, coarsely crystalline near	without stain, excellent odor Dolomite: gray, coarsely crystalline, dense, very hard, no porosity, no show, fair amount gray shale in 2480' sample Maquoketa 2470 -1054 vis 47 wt 9.5 lcm 1.5# Dolomite: gray, medium to coarsely
	#3	sucrosic porosity in the 30" sample, coarsely crystalline near 24/0 w/no porosity Dolomite: off white, medium to coarsly crystalline, hard, fair to good intercrystalline porosity, fair vuggy porosity, good show free oil, good odor, light oil sheen throughout the tray, no staining	Dolomite: gray, medium to coarsely crystalline, hard, fair to good inter- crystalline and vuggy porosity, good show free oil, strong odor, gold flu in 45% of 15" & 30" 2494.5' sample, all samples 2490 & 2494.5' carry very light oil sheen
	2500 Note: DST # 2979,5-2994.		
		crystalline porosity, no show, trace gray chert Dolomite: beige, fine to medium crystalline, very good intercrystalline porosity, no show, trace gray chert	
		Dolomite: beige to off white to gray, fine to medium crystalline, very good intercrystalline porosity, no show, much white to gray chert Dolomite: beige to off white to light brown, fine to coarsely crystalline, fair intercrystalline porosity,	2490' x11
	2550	coarsely crystalline, fair intercrystalline porosity, no show, trace off white to amber chert Dolomite: brown to light gray, fine to coarsely crystalline, some fair to good intercrystalline porosity, most dense w/no porosity, no show fair amount gray chert	
		Dolomite: brown to light brown, coarsely crystalline, very dense, trace sucrosic w/good intercrystalline porosity, no show, trace chert Dolomite: gray to light brown, coarsely crystalline, very dense, no show, trace Sandstone: amber, medium grained, well sorted, fair silica cement, good intergranular porosity, no show, much chert	2494' 30" x18
DRUING TIME MINOTES/FOOT		Dolomite: gray, fine crystalline, poor intercrystalline porosity, no show, much gray chert Dolomite: gray, fine crystalline, poor intercrystalline porosity, no show, much gray chert, trace Sandstone: off white, fine to medium grained, sub-ang,	
		Sandstone: off white, fine to medium grained, sub-ang, fair sorting, good cement, poor intergranular porosity, ns Dolomite: gray, fine crystalline, poor intercrystalline porosity, no show, much gray chert and pyrite Shale: reddish brown to gray to green, arrenaceous	dolomitic cement Simpson 2600 -1184
		Shale: green, waxy Sandstone: off white, fine to medium clear grains, sub rounded, fair sorting, good silica cement, good inter-	Simpson 55 2618 -1202



Packer Depth 2259	t Size 6 3/4 in.	Packer depth		
Packer Depth 2264		Packer depth		
Depth of Selective Zone Set	terior and a large state of the second			
Top Recorder Depth (Inside)	2245 m	Recorder Number	30035 Cap	10,000 P.S.I.
Bottom Recorder Depth (Outside)	2285 m	Recorder Number	3851 Ca	P5,700 P.S.I.
	t.	Recorder Number		
Mud Type Chem Visco	and the second			
Weight 9.3 Water Lo				
Chlorides Jars: Make STERLING Serial M				
Did Well Flow? NO R				
Main Hole Size 7 7/8 To				
Blow: 1st Open: 1/4" Blow- D	the second s		OBB	
2nd Open: No Blow- No		N	OBB	
Recovered 1 n. or CO	100% CO			
Recovered 31 ft of OS Mud		% MUD		
Recovered 32 ft. of TOTAL	FLUID			
Recoveredft_of			_	
Recoveredft_of			Prior	a jop
Recoveredft_of			Othe	er Charges
Remarks:			Insu	rance
TOOL SAMPLE: 2% OIL 98%	MUD		Tota	1
0.05 01		10:05 PM P.M.		90
				n Temperature 30
Initial Hydrostatic Pressure	20	(A) <u>1117</u> P	.S.I. to (C)_	18 P.S.I.
Initial Flow Period	20	(B) 8 P (D) 629 P		10 P.31.
Final Flow Period	20	and a second sec	S.I. to (F)_	22 _{P.S.L}
Final Closed In Period	20	(G) 566 p		0.020
Final Hydrostatic Pressure		(H) 1116 P	S.I.	
Final Test Date: 2012/07/27	Harve	p = 566.10 p = 566.10 2.23 21:36 22:00 22:24 22:48	23:12	Job Number: S0188
Formation Test No. 2	24	34		2452 -
	Interval Tested from 24		20 1.080249004988	
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Packer depth		
Depth of Selective Zone Set				
Top Recorder Depth (Inside)	2415 _{ft}	Recorder Number	30035 Cap	10,000 P.S.I.
Bottom Recorder Depth (Outside)	2449 ft.	Recorder Number	3851 Ca	p5,700 P.S.I.
Below Straddle Recorder Depth	ft.	Recorder Number	Cap	pP.S.I.
	sity50	Drill Collar Length		
Weight 9.5 Water Los		Weight Pipe Length	and the second	I.D2 7/8 ir
Chlorides	1,100 P.P.M.	Drill Pipe Length	and the second sec	Dist washing
	lumber 3	Test Tool Length		Tool Size 3 1/2-IF in
	eversed Out NO	Anchor Length		Size 4 1/2-FH ir
Main Hole Size 7 7/8 To			in.	Bottom Choke Size_5/8_ir
Blow: 1st Open: 3" BIOW- Built			IOBB	
2nd Open: 2" Blow- Built	to BB in 2 min	N	OBB	

Recovered	1008 ft. of	CO	100	% CO		GRAV	ITY:	30.5 @	60 de	grees l	F			
	194 ft. of	Muddy Oil	5	52% OIL	48%	MUD								
	1202 ft. of	TOTAL F	LUID											
Recovered	ft. of													
Recovered	ft. of										Price Jo	b		
Recovered	ft. of										Other C	harges		_
Remarks:											Insurance	28		
TOOL SAMP	PLE: 1009	% CO									Total			-
Time Set Packe	r(s) 9	:32 PM	A.M. P.M.	Time Sta	arted Of	f Bottom	1	1:32 P	M P.		laximum Te	mperature	, 10	12
Initial Hydrostati	c Pressure					(A)		119	7 P.S.I.				
Initial Flow Perio	b		Minu	ites	3	30 (B)		3	8 P.S.I.	to (C)	3	49 P.S.I	

