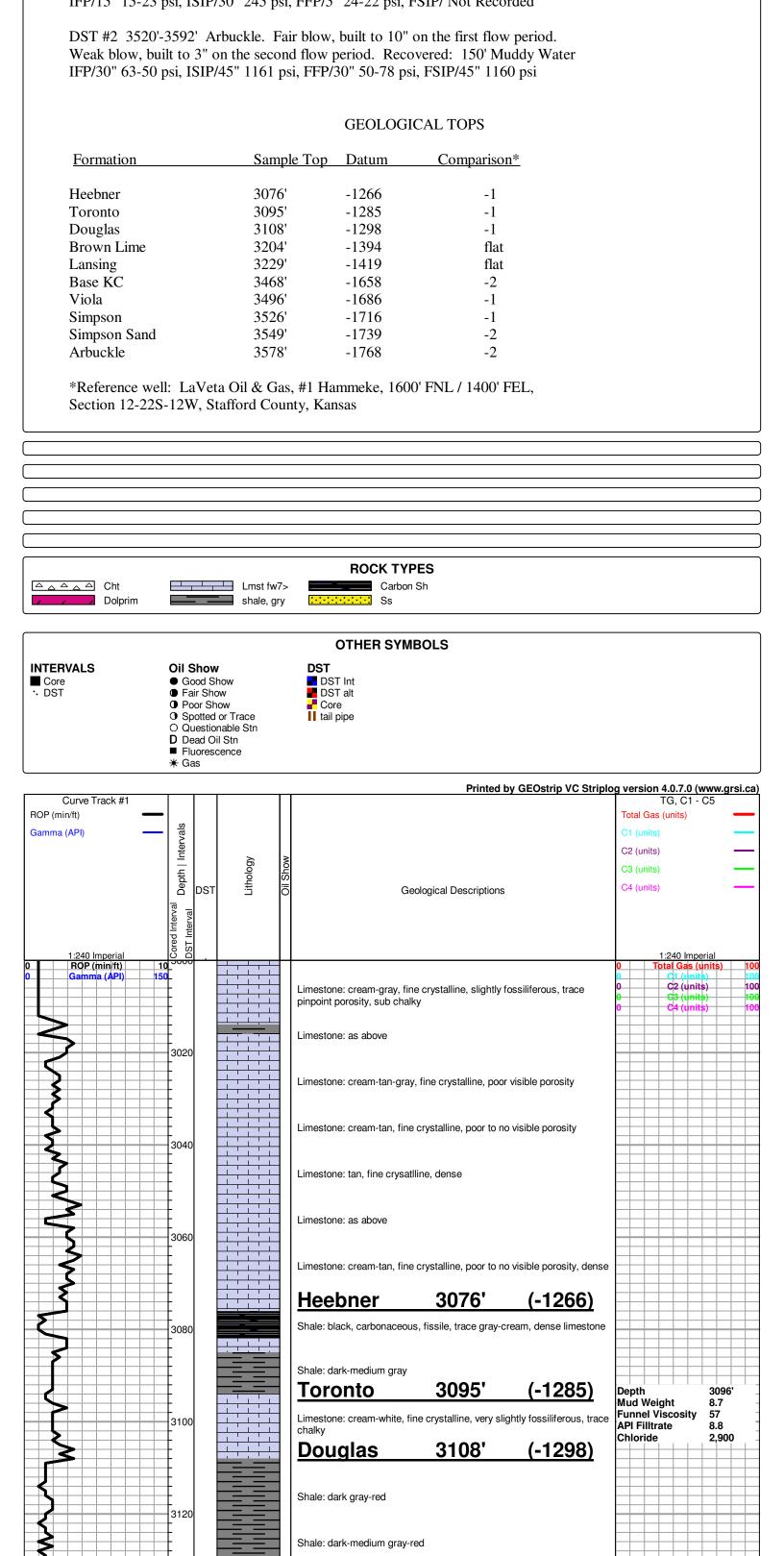
				RATOR		
	Company: Address:	La Veta Oil _ PO Box 780				
		Middleburg,		8-0780		
	Contact Geologist:					
	Contact Phone Nbr: Well Name:	#3 Hammek	е			
	Location: Pool:	Section 12-2	2S-12W		API: Field:	15-185-23945 Max
	State:	Kansas			untry:	USA
1		S	cale 1:24	40 Imperial		
	Well Name:	#3 Hammek		io imponal		
	Surface Location: Bottom Location:	Section 12-2		1		
	API:	15-185-2394	15			
	License Number: Spud Date:	9/25/2015			Time:	8:15 AM
	Region: Drilling Completed:	Stafford 9/30/2015		-	Time:	2:00 PM
	Surface Coordinates: Bottom Hole Coordinates:	1945' FNL &	1775' F			
	Ground Elevation:	1800.00ft				
	K.B. Elevation: Logged Interval:	1810.00ft 3000.00ft			To:	3592.00ft
	Total Depth: Formation:	3592.00ft				
	Drilling Fluid Type:	Chemical (N	ludCo)			
		SURF	ACE CO	D-ORDINATES		
	Well Type: Longitude:	Vertical		l ati	itude:	
	N/S Co-ord:	1945' FNL		Lau		
	E/W Co-ord:	1775' FEL				
			LOGG	ED BY		
	·	ΤΓΠ		ητισ		
		IFK	KI	HIFC	н	
		ILII		11116	н	
		ENERG	Y SP	ERVICE, LL	- -	
	Company:	TerraTech E		-		
	Address:	1632 S. Wes Wichita, KS	st St. Su			
	Phone Nbr: Logged By:	316-617-395 Geologist	59	N	lame:	Bruce Reed
			CONTE	RACTOR)
	Contractor:	Maverick Dr				
	Rig #: Rig Type:	106 mud rotary				
	Spud Date: TD Date:	9/25/2015 9/30/2015			Time: Time:	8:15 AM 2:00 PM
	Rig Release:	10/1/2015			Time:	11:00 AM
			ELEVA	ATIONS		
	K.B. Elevation: K.B. to Ground:	1810.00ft 10.00ft		Ground Eleva	ation:	1800.00ft
		10.001				
	Surface Casing:	8-5/8" at 269'	NO	TES		
	-	None				
	5)9/25/15		@ 8:15 AM		
)9/26/15)9/27/15	785' 2070'			
	(09/28/15	3050'			
)9/29/15)9/30/15	3355' 3440']	RTD @ 2:00 PM		
		10/01/15		Rig released @ 11	:00 AN	Λ
			DRILL	STEM TESTS		
	DST #1 3350'-3370' L/KC "H	I". Weak blox	v that d	ied in 5 minutes or	n the in	itial flow period.
	No blow on the second flow pe	eriod, pulled to	ool. Re	covered: 25' Drilli	ing Mu	1
	IFP/15" 15-23 psi, ISIP/30" 24	5 psi, FFP/5"	24-22 p	osi, FSIP/ Not Rec	orded	



			Geologist on site 3132'
3140		Shale: gray, soft	
2		Shale: gray-some red, soft, very slightly silty	
5			
		Shale: as above	
3160			
3		Shale: as above	
		Shale: gray-green-brown-red, samples wash dirty	
3180			
		Shale: gray-brown-red, samples wash dirty	
\$			
0 POP (min/ft) 10 3200		Shale: gray-brown, samples wash dirty	
0 ROP (min/ft) 10 3200 0 Gamma (API) 150		Brown Lime 3204' (-1394)	0 Total Gas (units) 100 0 Ct (units) 100 0 C2 (units) 100
E		Limestone: brown-tan, microcrystalline, dense	0 C3 (units) 100 0 C4 (units) 100
		Shale: gray-green-some black, very slightly silty	
3220		Shale: gray, soft	
2		Lansing 3229' (-1419)	
		Limestone: cream-gray, fine crystalline, poor to no visible porosity, sub	
3240		chalky, no shows	
E		Limestone: cream-light gray, some tan pieces, fine crystalline, poor to	
$\boldsymbol{\zeta}$		no visible porosity, sub chalky, no shows	
3260		Limestone: cream-white, some gray pieces, fine crystalline to very slightly fissile, poor visible porosity, chalky	
		Limestone: as above	
		Circulated at 3276' Limestone: cream-white, fine crystalline, poor visible porosity, trace fossiliferous pieces with poor inter-fossiliferous porosity,	
3280		porosity, trace tossiliterous pieces with poor inter-tossiliterous porosity, sub shaley, very faint odor, no show free oil	
		Limestone: cream-gray, fine to slightly medium crystalline, poor to no	
		visible porosity, looks tite, trace chalky, no shows	
3300		Shale: dark-medium gray	
	0	Circulated at 3306' Limestone: cream-light tan, fine crystalline to slightly fossiliferous, rare scattered vugular porosity, fair odor, few pieces show free oil and gas bubble	
3320		Limestone: light tan-cream-white, mostly fine crystalline, trace medium crystalline, poor visible porosity, chalky, no shows	
3		Limestone: as above, slightly more fossiliferous and chalky	
3340		Limestone: more cream-white, fine crystalline, poor to no visible porosity, dense, chalky	
3		Limestone: as above, no shows	
<u> </u>		Limestone: light-medium tan-cream, fine crystalline, poor visible	
3360		porosity, sub chalky, no shows	Depth 3370'
	┛ <mark>┛</mark> ┽┽┽┽┽┥	Circulated at 3370' Limestone: tan, fine crystalline, oolicastic, poor to	Mud Weight 9.2 Funnel Viscosity 45
		fair intercolicastic porosity, fair odor, show free oil and gas bubble, 60"	API Filltrate 9.2
3		fair interoolicastic porosity, fair odor, show free oil and gas bubble. 60" sample limestone: more light gray, oolicastic pieces, poor to fair interoolicastic porosity, faint to fair odor with show free oil and gas	API Filltrate 9.2 Chloride 4,900
3380		fair interoolicastic porosity, fair odor, show free oil and gas bubble. 60" sample limestone: more light gray, oolicastic pieces, poor to fair	API Filltrate 9.2
3380		fair interoolicastic porosity, fair odor, show free oil and gas bubble. 60" sample limestone: more light gray, oolicastic pieces, poor to fair interoolicastic porosity, faint to fair odor with show free oil and gas	API Filltrate 9.2
3380		fair interoolicastic porosity, fair odor, show free oil and gas bubble. 60" sample limestone: more light gray, oolicastic pieces, poor to fair interoolicastic porosity, faint to fair odor with show free oil and gas bubble Limestone: cream-light tan-gray, fine to very fine crystalline, very dense, sub shaley, no shows	API Filltrate 9.2
0 ROP (min/ft) 10 3400		fair interoolicastic porosity, fair odor, show free oil and gas bubble. 60" sample limestone: more light gray, oolicastic pieces, poor to fair interoolicastic porosity, faint to fair odor with show free oil and gas bubble Limestone: cream-light tan-gray, fine to very fine crystalline, very dense,	API Filltrate 9.2 Chloride 4,900
		fair interoolicastic porosity, fair odor, show free oil and gas bubble. 60" sample limestone: more light gray, oolicastic pieces, poor to fair interoolicastic porosity, faint to fair odor with show free oil and gas bubble Limestone: cream-light tan-gray, fine to very fine crystalline, very dense, sub shaley, no shows Limestone: cream-white-light gray, fine crystalline, rare oolitic piece, fossiliferous, poor visible proosity, questionable odor, rare piece slight show free oil	API Filltrate 9.2 Chloride 4,900
0 ROP (min/ft) 10 3400		fair interoolicastic porosity, fair odor, show free oil and gas bubble. 60" sample limestone: more light gray, oolicastic pieces, poor to fair interoolicastic porosity, faint to fair odor with show free oil and gas bubble Limestone: cream-light tan-gray, fine to very fine crystalline, very dense, sub shaley, no shows Limestone: cream-white-light gray, fine crystalline, rare oolitic piece, fossiliferous, poor visible proosity, questionable odor, rare piece slight show free oil Circulated at 3404' Limestone: cream-white-light gray, fine crystalline to slightly fossiliferous, rare vugular, poorly developed, good odor, few	API Filltrate 9.2 Chloride 4,900 0 Total Gas (units) 0 C1 (lpits) 0 C2 (units)
0 ROP (min/ft) 10 3400		fair interoolicastic porosity, fair odor, show free oil and gas bubble. 60" sample limestone: more light gray, oolicastic pieces, poor to fair interoolicastic porosity, faint to fair odor with show free oil and gas bubble Limestone: cream-light tan-gray, fine to very fine crystalline, very dense, sub shaley, no shows Limestone: cream-white-light gray, fine crystalline, rare oolitic piece, fossiliferous, poor visible proosity, questionable odor, rare piece slight show free oil Circulated at 3404' Limestone: cream-white-light gray, fine crystalline to slightly fossiliferous, rare vugular, poorly developed, good odor, few pieces show free oil	API Filltrate 9.2 Chloride 4,900 0 Total Gas (units) 0 C1 (lpits) 0 C2 (units)
0 ROP (min/ft) 10 0 Gamma (API) 150		fair interoolicastic porosity, fair odor, show free oil and gas bubble. 60" sample limestone: more light gray, oolicastic pieces, poor to fair interoolicastic porosity, faint to fair odor with show free oil and gas bubble Limestone: cream-light tan-gray, fine to very fine crystalline, very dense, sub shaley, no shows Limestone: cream-white-light gray, fine crystalline, rare oolitic piece, fossiliferous, poor visible proosity, questionable odor, rare piece slight show free oil Circulated at 3404' Limestone: cream-white-light gray, fine crystalline to slightly fossiliferous, rare vugular, poorly developed, good odor, few pieces show free oil Limestone: cream-white, fine crystalline, dense, sub chalky	API Filltrate 9.2 Chloride 4,900 0 Total Gas (units) 0 C1 (lpits) 0 C2 (units)
0 ROP (min/ft) 10 0 Gamma (API) 150		fair interoolicastic porosity, fair odor, show free oil and gas bubble. 60" sample limestone: more light gray, oolicastic pieces, poor to fair interoolicastic porosity, faint to fair odor with show free oil and gas bubble Limestone: cream-light tan-gray, fine to very fine crystalline, very dense, sub shaley, no shows Limestone: cream-white-light gray, fine crystalline, rare oolitic piece, fossiliferous, poor visible proosity, questionable odor, rare piece slight show free oil Circulated at 3404' Limestone: cream-white-light gray, fine crystalline to slightly fossiliferous, rare vugular, poorly developed, good odor, few pieces show free oil	API Filltrate 9.2 Chloride 4,900 0 Total Gas (units) 0 C1 (lpits) 0 C2 (units)
0 ROP (min/ft) 10 3400 0 Gamma (API) 150 3420 3420		fair interoolicastic porosity, fair odor, show free oil and gas bubble. 60" sample limestone: more light gray, oolicastic pieces, poor to fair interoolicastic porosity, faint to fair odor with show free oil and gas bubble Limestone: cream-light tan-gray, fine to very fine crystalline, very dense, sub shaley, no shows Limestone: cream-white-light gray, fine crystalline, rare oolitic piece, fossiliferous, poor visible proosity, questionable odor, rare piece slight show free oil Circulated at 3404' Limestone: cream-white-light gray, fine crystalline to slightly fossiliferous, rare vugular, poorly developed, good odor, few pieces show free oil Limestone: cream-white, fine crystalline, dense, sub chalky Limestone: more cream-gray, fine crystalline, poor to no visible porosity,	API Filltrate 9.2 Chloride 4,900 0 Total Gas (units) 0 C1 (lpits) 0 C2 (units)
0 ROP (min/ft) 10 0 Gamma (API) 150		fair interoolicastic porosity, fair odor, show free oil and gas bubble. 60" sample limestone: more light gray, oolicastic pieces, poor to fair interoolicastic porosity, faint to fair odor with show free oil and gas bubble Limestone: cream-light tan-gray, fine to very fine crystalline, very dense, sub shaley, no shows Limestone: cream-white-light gray, fine crystalline, rare oolitic piece, fossiliferous, poor visible proosity, questionable odor, rare piece slight show free oil Circulated at 3404' Limestone: cream-white-light gray, fine crystalline to slightly fossiliferous, rare vugular, poorly developed, good odor, few pieces show free oil Limestone: cream-white, fine crystalline, dense, sub chalky Limestone: more cream-gray, fine crystalline, poor to no visible porosity, dense, sub shaley in part, very faint odor in fresh, no show free oil Limestone: cream-tan-gray, fine crystalline, no visible porosity, dense	API Filltrate 9.2 Chloride 4,900 0 Total Gas (units) 0 C1 (lpits) 0 C2 (units)
0 0 0 0 0 0 0 0 0 0 0 0 0 0		fair interoolicastic porosity, fair odor, show free oil and gas bubble. 60" sample limestone: more light gray, oolicastic pieces, poor to fair interoolicastic porosity, faint to fair odor with show free oil and gas bubble Limestone: cream-light tan-gray, fine to very fine crystalline, very dense, sub shaley, no shows Limestone: cream-white-light gray, fine crystalline, rare oolitic piece, fossiliferous, poor visible proosity, questionable odor, rare piece slight show free oil Circulated at 3404' Limestone: cream-white-light gray, fine crystalline to slightly fossiliferous, rare vugular, poorly developed, good odor, few pieces show free oil Limestone: cream-white, fine crystalline, dense, sub chalky Limestone: more cream-gray, fine crystalline, poor to no visible porosity, dense, sub shaley in part, very faint odor in fresh, no show free oil Limestone: cream-tan-gray, fine crystalline, no visible porosity, dense Limestone: as above, trace fossiliferous piece, sub chalky, no shows	API Filltrate 9.2 Chloride 4,900 0 Total Gas (units) 0 C1 (lpits) 0 C2 (units)
0 0 0 0 0 0 0 0 0 0 0 0 0 0		fair interoolicastic porosity, fair odor, show free oil and gas bubble. 60" sample limestone: more light gray, oolicastic pieces, poor to fair interoolicastic porosity, faint to fair odor with show free oil and gas bubble Limestone: cream-light tan-gray, fine to very fine crystalline, very dense, sub shaley, no shows Limestone: cream-white-light gray, fine crystalline, rare oolitic piece, fossiliferous, poor visible proosity, questionable odor, rare piece slight show free oil Circulated at 3404' Limestone: cream-white-light gray, fine crystalline to slightly fossiliferous, rare vugular, poorly developed, good odor, few pieces show free oil Limestone: cream-white, fine crystalline, dense, sub chalky Limestone: more cream-gray, fine crystalline, poor to no visible porosity, dense, sub shaley in part, very faint odor in fresh, no show free oil Limestone: cream-tan-gray, fine crystalline, no visible porosity, dense	API Filltrate 9.2 Chloride 4,900 0 Total Gas (units) 0 C1 (lpits) 0 C2 (units)
0 0 0 0 0 0 0 0 0 0 0 0 0 0		fair interoolicastic porosity, fair odor, show free oil and gas bubble. 60" sample limestone: more light gray, oolicastic pieces, poor to fair interoolicastic porosity, faint to fair odor with show free oil and gas bubble Limestone: cream-light tan-gray, fine to very fine crystalline, very dense, sub shaley, no shows Limestone: cream-white-light gray, fine crystalline, rare oolitic piece, fossiliferous, poor visible proosity, questionable odor, rare piece slight show free oil Circulated at 3404' Limestone: cream-white-light gray, fine crystalline to slightly fossiliferous, rare vugular, poorly developed, good odor, few pieces show free oil Limestone: cream-white, fine crystalline, dense, sub chalky Limestone: more cream-gray, fine crystalline, poor to no visible porosity, dense, sub shaley in part, very faint odor in fresh, no show free oil Limestone: cream-tan-gray, fine crystalline, no visible porosity, dense Limestone: as above, trace fossiliferous piece, sub chalky, no shows Limestone: cream-light tan, fine crystalline, trace fossiliferous, tite, very faint odor, few pieces slight show free oil Shaley limestone: cream-gray, dense	API Filltrate 9.2 Chloride 4,900 Api and the second sec
0 ROP (min/ft) 10 0 Gamma (API) 150 3400 0 3400 0 3400 0 3400 0 3400 0 3400 0 3400 0 3400 0 3400 0 3420 3420 3420		fair interoolicastic porosity, fair odor, show free oil and gas bubble. 60" sample limestone: more light gray, oolicastic pieces, poor to fair interoolicastic porosity, faint to fair odor with show free oil and gas bubble Limestone: cream-light tan-gray, fine to very fine crystalline, very dense, sub shaley, no shows Limestone: cream-white-light gray, fine crystalline, rare oolitic piece, fossiliferous, poor visible proosity, questionable odor, rare piece slight show free oil Circulated at 3404' Limestone: cream-white-light gray, fine crystalline to slightly fossiliferous, rare vugular, poorly developed, good odor, few pieces show free oil Limestone: cream-white, fine crystalline, dense, sub chalky Limestone: more cream-gray, fine crystalline, poor to no visible porosity, dense, sub shaley in part, very faint odor in fresh, no show free oil Limestone: cream-tan-gray, fine crystalline, no visible porosity, dense Limestone: as above, trace fossiliferous piece, sub chalky, no shows Limestone: cream-light tan, fine crystalline, trace fossiliferous, tite, very faint odor, few pieces slight show free oil	API Filltrate 9.2 Chloride 4,900 April Chloride 4,900
0 0 0 0 0 0 0 0 0 0 0 0 0 0		fair interoolicastic porosity, fair odor, show free oil and gas bubble. 60" sample limestone: more light gray, oolicastic pieces, poor to fair interoolicastic porosity, faint to fair odor with show free oil and gas bubble Limestone: cream-light tan-gray, fine to very fine crystalline, very dense, sub shaley, no shows Limestone: cream-white-light gray, fine crystalline, rare oolitic piece, fossiliferous, poor visible proosity, questionable odor, rare piece slight show free oil Circulated at 3404' Limestone: cream-white-light gray, fine crystalline to slightly fossiliferous, rare vugular, poorly developed, good odor, few pieces show free oil Limestone: cream-white, fine crystalline, dense, sub chalky Limestone: more cream-gray, fine crystalline, poor to no visible porosity, dense, sub shaley in part, very faint odor in fresh, no show free oil Limestone: cream-tan-gray, fine crystalline, no visible porosity, dense Limestone: as above, trace fossiliferous piece, sub chalky, no shows Limestone: cream-light tan, fine crystalline, trace fossiliferous, tite, very faint odor, few pieces slight show free oil Shaley limestone: cream-gray, dense Base KC 3468' (-1658) Limestone: cream-tan-gray-white, fine crystalline, slightly fossiliferous,	API Filltrate 9.2 Chloride 4,900 April Chloride 4,900
0 0 0 0 0 0 0 0 0 0 0 0 0 0		fair interoolicastic porosity, fair odor, show free oil and gas bubble. 60" sample limestone: more light gray, oolicastic pieces, poor to fair interoolicastic porosity, faint to fair odor with show free oil and gas bubble Limestone: cream-light tan-gray, fine to very fine crystalline, very dense, sub shaley, no shows Limestone: cream-white-light gray, fine crystalline, rare oolitic piece, fossiliferous, poor visible proosity, questionable odor, rare piece slight show free oil Circulated at 3404' Limestone: cream-white-light gray, fine crystalline to slightly fossiliferous, rare vugular, poorly developed, good odor, few pieces show free oil Limestone: cream-white, fine crystalline, dense, sub chalky Limestone: more cream-gray, fine crystalline, poor to no visible porosity, dense, sub shaley in part, very faint odor in fresh, no show free oil Limestone: cream-tan-gray, fine crystalline, no visible porosity, dense Limestone: as above, trace fossiliferous piece, sub chalky, no shows Limestone: cream-light tan, fine crystalline, trace fossiliferous, tite, very faint odor, few pieces slight show free oil Shaley limestone: cream-gray, dense Base KC 3468' (-1658)	API Filltrate 9.2 Chloride 4,900 Api of the second seco
0 0 0 0 0 0 0 0 0 0 0 0 0 0		fair interoolicastic porosity, fair odor, show free oil and gas bubble. 60" sample limestone: more light gray, oolicastic pieces, poor to fair interoolicastic porosity, faint to fair odor with show free oil and gas bubble Limestone: cream-light tan-gray, fine to very fine crystalline, very dense, sub shaley, no shows Limestone: cream-white-light gray, fine crystalline, rare oolitic piece, fossiliferous, poor visible proosity, questionable odor, rare piece slight show free oil Circulated at 3404' Limestone: cream-white-light gray, fine crystalline to slightly fossiliferous, rare vugular, poorly developed, good odor, few pieces show free oil Limestone: cream-white, fine crystalline, dense, sub chalky Limestone: more cream-gray, fine crystalline, poor to no visible porosity, dense, sub shaley in part, very faint odor in fresh, no show free oil Limestone: cream-tan-gray, fine crystalline, no visible porosity, dense Limestone: as above, trace fossiliferous piece, sub chalky, no shows Limestone: cream-light tan, fine crystalline, trace fossiliferous, tite, very faint odor, few pieces slight show free oil Shaley limestone: cream-gray, dense Base KC 3468' (-1658) Limestone: cream-tan-gray-white, fine crystalline, slightly fossiliferous,	API Filltrate 9.2 Chloride 4,900 Api of the second seco
0 0 0 0 0 0 0 0 0 0 0 0 0 0		fair interoolicastic porosity, fair odor, show free oil and gas bubble. 60" sample limestone: more light gray, oolicastic pieces, poor to fair interoolicastic porosity, faint to fair odor with show free oil and gas bubble Limestone: cream-light tan-gray, fine to very fine crystalline, very dense, sub shaley, no shows Limestone: cream-white-light gray, fine crystalline, rare oolitic piece, fossiliferous, poor visible proosity, questionable odor, rare piece slight show free oil Circulated at 3404' Limestone: cream-white-light gray, fine crystalline to slightly fossiliferous, rare vugular, poorly developed, good odor, few pieces show free oil Limestone: cream-white, fine crystalline, dense, sub chalky Limestone: more cream-gray, fine crystalline, poor to no visible porosity, dense, sub shaley in part, very faint odor in fresh, no show free oil Limestone: cream-tan-gray, fine crystalline, no visible porosity, dense Limestone: as above, trace fossiliferous piece, sub chalky, no shows Limestone: cream-light tan, fine crystalline, trace fossiliferous, tite, very faint odor, few pieces slight show free oil Shaley limestone: cream-gray, dense Base KC 3468' (-1658) Limestone: cream-tan-gray-white, fine crystalline, slightly fossiliferous, appears tite and chalky, odor, no show free oil	API Filltrate 9.2 Chloride 4,900 Api of the second seco
0 0 0 0 0 0 0 0 0 0 0 0 0 0		fair interoolicastic porosity, fair odor, show free oil and gas bubble. 60" sample limestone: more light gray, oolicastic pieces, poor to fair interoolicastic porosity, faint to fair odor with show free oil and gas bubble Limestone: cream-light tan-gray, fine to very fine crystalline, very dense, sub shaley, no shows Limestone: cream-white-light gray, fine crystalline, rare oolitic piece, fossiliferous, poor visible proosity, questionable odor, rare piece slight show free oil Circulated at 3404' Limestone: cream-white-light gray, fine crystalline to slightly fossiliferous, rare vugular, poorly developed, good odor, few pieces show free oil Limestone: cream-white, fine crystalline, dense, sub chalky Limestone: more cream-gray, fine crystalline, poor to no visible porosity, dense, sub shaley in part, very faint odor in fresh, no show free oil Limestone: cream-tan-gray, fine crystalline, no visible porosity, dense Limestone: as above, trace fossiliferous piece, sub chalky, no shows Limestone: cream-light tan, fine crystalline, trace fossiliferous, tite, very faint odor, few pieces slight show free oil Shaley limestone: cream-gray, dense Base KC 3468' (-1658) Limestone: cream-tan-gray-white, fine crystalline, slightly fossiliferous, appears tite and chalky, odor, no show free oil Shale: gray-green-black-red, samples wash slightly red	API Filltrate 9.2 Chloride 4,900 Api of the second seco
0 0 0 0 0 0 0 0 0 0 0 0 0 0		fair interoolicastic porosity, fair odor, show free oil and gas bubble. 60° sample limestone: more light gray, oolicastic pieces, poor to fair interoolicastic porosity, faint to fair odor with show free oil and gas bubble Limestone: cream-light tan-gray, fine to very fine crystalline, very dense, sub shaley, no shows Limestone: cream-white-light gray, fine crystalline, rare oolitic piece, fossiliferous, poor visible proosity, questionable odor, rare piece slight show free oil Circulated at 3404' Limestone: cream-white-light gray, fine crystalline to slightly fossiliferous, rare vugular, poorly developed, good odor, few pieces show free oil Limestone: cream-white, fine crystalline, dense, sub chalky Limestone: more cream-gray, fine crystalline, poor to no visible porosity, dense, sub shaley in part, very faint odor in fresh, no show free oil Limestone: cream-tan-gray, fine crystalline, no visible porosity, dense Limestone: as above, trace fossiliferous piece, sub chalky, no shows Limestone: cream-light tan, fine crystalline, trace fossiliferous, tite, very faint odor, few pieces slight show free oil Shaley limestone: cream-gray, dense Base KC 3468' (-1658) Limestone: cream-tan-gray-white, fine crystalline, slightly fossiliferous, appears tite and chalky, odor, no show free oil Shale: gray-green-black-red, samples wash slightly red Viola 3496' (-1686) Circulated at 3510' Chert: off white-white-tan, fresh, sharp and blocky,	API Filltrate 9.2 Chloride 4,900 Api of the second seco
0 0 0 0 0 0 0 0 0 0 0 0 0 0		fair interoolicastic porosity, fair odor, show free oil and gas bubble. 60° sample limestone: more light gray, oolicastic pieces, poor to fair interoolicastic porosity, faint to fair odor with show free oil and gas bubble Limestone: cream-light tan-gray, fine to very fine crystalline, very dense, sub shaley, no shows Limestone: cream-white-light gray, fine crystalline, rare oolitic piece, fossiliferous, poor visible proosity, questionable odor, rare piece slight show free oil Circulated at 3404' Limestone: cream-white-light gray, fine crystalline to slightly fossiliferous, rare vugular, poorly developed, good odor, few pieces show free oil Limestone: cream-white, fine crystalline, dense, sub chalky Limestone: more cream-gray, fine crystalline, poor to no visible porosity, dense, sub shaley in part, very faint odor in fresh, no show free oil Limestone: cream-tan-gray, fine crystalline, no visible porosity, dense Limestone: as above, trace fossiliferous piece, sub chalky, no shows Limestone: cream-light tan, fine crystalline, no visible porosity, dense Limestone: cream-light tan, fine crystalline, trace fossiliferous, tite, very faint odor, few pieces slight show free oil Shaley limestone: cream-gray, dense Base KC 3468' (-1658) Limestone: cream-tan-gray-white, fine crystalline, slightly fossiliferous, appears tite and chalky, odor, no show free oil Shale: gray-green-black-red, samples wash slightly red Viola 3496' (-16866)	API Filltrate 9.2 Chloride 4,900 Api of the second seco
0 ROP (min/ft) 10 Gamma (API) 10 3400 3400 3420 3440 3460 3480 3480		fair intercolicastic porosity, fair odor, show free oil and gas bubble. 60" sample limestone: more light gray, oolicastic pieces, poor to fair intercolicastic porosity, faint to fair odor with show free oil and gas bubble Limestone: cream-light tan-gray, fine to very fine crystalline, very dense, sub shaley, no shows Limestone: cream-white-light gray, fine crystalline, rare oolitic piece, foosiliferous, poor visible proosity, questionable odor, rare piece slight show free oil Circulated at 3404' Limestone: cream-white-light gray, fine crystalline to slightly fossiliferous, rare vugular, poorly developed, good odor, few pieces show free oil Limestone: cream-white, fine crystalline, dense, sub chalky Limestone: more cream-gray, fine crystalline, poor to no visible porosity, dense, sub shaley in part, very faint odor in fresh, no show free oil Limestone: cream-tan-gray, fine crystalline, no visible porosity, dense Limestone: as above, trace fossiliferous piece, sub chalky, no shows Limestone: cream-light tan, fine crystalline, trace fossiliferous, tite, very faint odor, few pieces slight show free oil Shaley limestone: cream-gray, dense Base KC 3468' (-1658) Limestone: cream-tan-gray-white, fine crystalline, slightly fossiliferous, appears tite and chalky, odor, no show free oil Shale: gray-green-black-red, samples wash slightly red Viola 3496' (-1686) Circulated at 3510' Chert: off white-white-tan, fresh, sharp and blocky, very rare piece tripolitic with sponge texture, no odor, scum of oil and	API Filltrate 9.2 Chloride 4,900 Api of the second seco
0 0 0 0 0 0 0 0 0 0 0 0 0 0		fair interoolicastic porosity, faint odor, show free oil and gas bubble. 60° sample limestone: more light gray, oolicastic pieces, poor to fair interoolicastic porosity, faint to fair odor with show free oil and gas bubble Limestone: cream-light tan-gray, fine to very fine crystalline, very dense, sub shaley, no shows Limestone: cream-white-light gray, fine crystalline, rare ooltic piece, fossiliferous, poor visible proosity, questionable odor, rare piece slight show free oil Circulated at 3404' Limestone: cream-white-light gray, fine crystalline to slightly fossiliferous, rare vugular, poorly developed, good odor, few pieces show free oil Limestone: cream-white, fine crystalline, dense, sub chalky Limestone: more cream-gray, fine crystalline, poor to no visible porosity, dense, sub shaley in part, very faint odor in fresh, no show free oil Limestone: cream-tan-gray, fine crystalline, no visible porosity, dense Limestone: cream-light tan, fine crystalline, no visible porosity, dense Limestone: cream-light tan, fine crystalline, trace fossiliferous, tite, very faint odor, few pieces slight show free oil Shaley limestone: cream-tan-gray-white, fine crystalline, slightly fossiliferous, appears tite and chalky, odor, no show free oil Shale: gray-green-black-red, samples wash slightly red Circulated at 3510' Chert: off white-white-tan, fresh, sharp and blocky, very rare piece tripolitic with sponge texture, no odor, scum of oil and gas bubble when broke, sample wash slightly red	API Filltrate 9.2 Chloride 4,900 Api of the second seco
0 ROP (min/ft) 10 Gamma (API) 10 3400 3420 3400 3500 3500 3500		fair interoolicastic porosity, faint odor, show free oil and gas bubble. 60" sample limestone: more light gray, oolicastic pieces, poor to fair interoolicastic porosity, faint to fair odor with show free oil and gas bubble Limestone: cream-light tan-gray, fine to very fine crystalline, very dense, sub shaley, no shows Limestone: cream-white-light gray, fine crystalline, rare oolitic piece, fossiliferous, poor visible proosity, questionable odor, rare piece slight show free oil Circulated at 3404' Limestone: cream-white-light gray, fine crystalline to slightly fossiliferous, rare vugular, poorly developed, good odor, few pieces show free oil Limestone: cream-white, fine crystalline, dense, sub chalky Limestone: more cream-gray, fine crystalline, poor to no visible porosity, dense, sub shaley in part, very faint odor in fresh, no show free oil Limestone: cream-tan-gray, fine crystalline, no visible porosity, dense Limestone: as above, trace fossiliferous piece, sub chalky, no shows Limestone: cream-light tan, fine crystalline, trace fossiliferous, tite, very faint odor, few pieces slight show free oil Shaley limestone: cream-gray, dense Base KC 3468' (-1658) Limestone: cream-tan-gray-white, fine crystalline, slightly fossiliferous, appears tite and chalky, odor, no show free oil Shale: gray-green-black-red, samples wash slightly red Circulated at 3510' Chert: off white-white-tan, fresh, sharp and blocky, very rare piece tripolitic with sponge texture, no odor, scum of oil and gas bubble when broke, sample wash slightly red Chert: white-tan, fresh, opaque to semi-translucent, sharp and blocky, no shows	API Filltrate 9.2 Chloride 4,900 Api of the second seco
0 0 0 0 0 0 0 0 0 0 0 0 0 0		fair intercolicastic porosity, fair odor, show free oil and gas bubble. 60° sample limestone: more light gray, colicastic pieces, poor to fair intercolicastic porosity, faint to fair odor with show free oil and gas bubble. Limestone: cream-light tan-gray, fine to very fine crystalline, very dense, sub shaley, no shows Limestone: cream-white-light gray, fine crystalline, rare oolitic piece, fossiliferous, poor visible proosity, questionable odor, rare piece slight show free oil Circulated at 3404' Limestone: cream-white-light gray, fine crystalline to slightly fossiliferous, rare vugular, poorly developed, good odor, few pieces show free oil Limestone: cream-white, fine crystalline, poor to no visible porosity, dense, sub shaley in part, very faint odor in fresh, no show free oil Limestone: cream-light tan, fine crystalline, no visible porosity, dense, sub shaley in part, very faint odor in fresh, no show free oil Limestone: cream-light tan, fine crystalline, trace fossiliferous, tite, very faint odor, few pieces slight show free oil Shaley limestone: cream-gray, dense Base KC 3468' (-1658) Limestone: cream-lan-gray, oderse Shaley in gaty, odor, no show free oil Shaley ingary-green-black-red, samples wash slightly fossiliferous, appears tite and chalky, odor, no show free oil Shale: gray-green-black-red, samples wash slightly red Circulated at 3510' Chert: off white-white-tan, fresh, sharp and blocky, very rare piece tripolitic with sponge texture, no odor, scum of oil and gas bubble when broke, sample wash slightly red Chert: white-tan, fresh, opaque to semi-translucent, sharp and blocky, ro shows Simspon 3526' (-1716) Shale: pale green-turquiose-blue	API Filltrate 9.2 Chloride 4,900 Api of the second seco
0 0 0 0 0 0 0 0 0 0 0 0 0 0		fair intercolicastic porosity, fair odor, show free oil and gas bubble. 60" sample limestone: more light gray, colicastic pieces, poor to fair intercolicastic porosity, faint to fair odor with show free oil and gas bubble Limestone: cream-light tan-gray, fine to very fine crystalline, very dense, sub shaley, no shows Limestone: cream-white-light gray, fine crystalline, rare oolitic piece, fossiliferous, poor visible proosity, questionable odor, rare piece slight show free oil Circulated at 3404' Limestone: cream-white-light gray, fine crystalline to slightly fossiliferous, rare vugular, poorly developed, good odor, few pieces show free oil Limestone: cream-white, fine crystalline, dense, sub chalky Limestone: more cream-gray, fine crystalline, poor to no visible porosity, dense, sub shaley in part, very faint odor in fresh, no show free oil Limestone: cream-light tan, fine crystalline, no visible porosity, dense Limestone: cream-light tan, fine crystalline, trace fossilferous, tite, very faint odor, few pieces slight show free oil Shaley limestone: cream-gray, dense Base KC 3468' (-1658) Limestone: cream-tan-gray, dense Base i gray-green-black-red, samples wash slightly fossiliferous, appears tite and chalky, odor, no show free oil Shale: gray-green-black-red, samples wash slightly red Limestone: cream-tan-gray-white, fine crystalline, stapt and blocky, very rare piece tripolitic with sponge texture, no odor, scum of oil and gas bubble when broke, sample wash slightly red Chert: white-tan, fresh, opaque to semi-translucent, sharp and blocky, no shows Simspon 3526' (-17716) Shale: pale green-turquiose-blue Shale: as above, brittle	API Filltrate 9.2 Chloride 4,900 Api of the second seco
0 0 0 0 0 0 0 0 0 0 0 0 0 0		fair intercolicastic porosity, fair odor, show free oil and gas bubble. 60" sample limestone: more light gray, olicastic pieces, poor to fair intercolicastic porosity, faint to fair odor with show free oil and gas bubble Limestone: cream-white-light gray, fine crystalline, rare colitic piece, fossiliferous, poor visible proosity, questionable odor, rare piece slight show free oil Circulated at 3404' Limestone: cream-white-light gray, fine crystalline to slightly fossiliferous, rare vugular, poorly developed, good odor, few pieces show free oil Limestone: cream-white, fine crystalline, dense, sub chalky Limestone: more cream-gray, fine crystalline, poor to no visible porosity, dense, sub shaley in part, very faint odor in fresh, no show free oil Limestone: cream-lan-gray, fine crystalline, no visible porosity, dense Limestone: cream-lan-gray, fine crystalline, no visible porosity, dense Limestone: cream-lan-gray, fine crystalline, no visible porosity, dense Limestone: cream-lan-gray, dense Base KC 3468' (-16588) Circulated at 3510' Chert: off white-white-tan, fresh, sharp and blocky, eyr are piece tripolitic with sponge texture, no odor, scum of oil and gas bubble when broke, samples wash slightly red Chert: white-tan, fresh, opaque to semi-translucent, sharp and blocky, eyr are piece tripolite with sponge texture, no odor, scum of oil and gas bubble when broke, sample wash slightly red Shale: gray-green-turquiose-blue Shale: pale green-turquiose-blue	API Filltrate 9.2 Chloride 4,900 Api of the second seco
0 0 0 0 0 0 0 0 0 0 0 0 0 0		fair intercolicastic porosity, fair odor, show free oil and gas bubble. 60" sample limestone: more light gray, colicastic pieces, poor to fair intercolicastic porosity, faint to fair odor with show free oil and gas bubble Limestone: cream-light tan-gray, fine to very fine crystalline, very dense, sub shaley, no shows Limestone: cream-white-light gray, fine crystalline, rare oolitic piece, fossiliferous, poor visible proosity, questionable odor, rare piece slight show free oil Circulated at 3404' Limestone: cream-white-light gray, fine crystalline to slightly fossiliferous, rare vugular, poorly developed, good odor, few pieces show free oil Limestone: cream-white, fine crystalline, dense, sub chalky Limestone: more cream-gray, fine crystalline, poor to no visible porosity, dense, sub shaley in part, very faint odor in fresh, no show free oil Limestone: cream-light tan, fine crystalline, no visible porosity, dense Limestone: cream-light tan, fine crystalline, trace fossilferous, tite, very faint odor, few pieces slight show free oil Shaley limestone: cream-gray, dense Base KC 3468' (-1658) Limestone: cream-tan-gray, dense Base i gray-green-black-red, samples wash slightly fossiliferous, appears tite and chalky, odor, no show free oil Shale: gray-green-black-red, samples wash slightly red Limestone: cream-tan-gray-white, fine crystalline, stapt and blocky, very rare piece tripolitic with sponge texture, no odor, scum of oil and gas bubble when broke, sample wash slightly red Chert: white-tan, fresh, opaque to semi-translucent, sharp and blocky, no shows Simspon 3526' (-17716) Shale: pale green-turquiose-blue Shale: as above, brittle	API Filltrate 9.2 Chloride 4,900 Api of the second seco
0 0 0 0 0 0 0 0 0 0 0 0 0 0		fair intercolicastic porosity, fair odor, show free oil and gas bubble. 60° sample limestone: more light gray, oolicastic pieces, poor to fair intercolicastic porosity, faint to fair odor with show free oil and gas bubble Limestone: cream-white-light gray, fine crystalline, rare oolitic piece, fossiliferous, poor visible proosity, questionable odor, rare piece slight show free oil Circulated at 3404' Limestone: cream-white-light gray, fine crystalline to slightly fossiliferous, rare vugular, poorly developed, good odor, few pieces show free oil Limestone: cream-white, fine crystalline, dense, sub chalky Limestone: more cream-gray, fine crystalline, poor to no visible porosity, dense, sub shaley in part, very faint odor in fresh, no show free oil Limestone: cream-lan-gray, fine crystalline, no visible porosity, dense Limestone: cream-lan-gray, fine crystalline, no visible porosity, dense Limestone: cream-lan-gray, fine crystalline, no visible porosity, dense Limestone: cream-lan-gray, dense Base KC 3468' (-1658) Chaley limestone: cream-gray, dense Limestone: cream-light tan, fine crystalline, slightly fossiliferous, appears the and chalky, odor, no show free oil Shaley gray-green-black-red, samples wash slightly red Viola 3496' (-16866) Circulated at 3510' Chert: off white-white-tan, fresh, sharp and blocky, very rare piece tripolitic with sponge texture, no odor, scum of oil and gas bubble when broke, sample wash slightly red Chert: white-tan, fresh, opaque to semi-translucent, sharp and blocky, rog shows Simspon 3526' (-1716) Shale: pale green-turquiose-blue Shale: as above, brittle Simpson Sand 3549' (-17339) Mostly shale: with some frosted white to clear sandstone grains, sub	API Filltrate 9.2 Chloride 4,900 Api of the second seco
0. ROP (min/ft) 10 Gainma (API) 150 3420 3440 3440 3440 3440 3440 3480 3480 3500 3500		fair intercolicastic porosity, fair odor, show free oil and gas bubble. 60° sample limestone: more light gray, olicastic poros to fair intercolicastic porosity, faint to fair odor with show free oil and gas bubble. So the fair intercolicastic porosity, faint to fair odor with show free oil and gas bubble. So the fair intercolicastic porosity, faint to fair odor with show free oil and gas bubble. So the fair odor with show free oil and gas bubble for the fair odor with show free oil and gas bubble for the fair odor with show free oil and gas bubble for the fair odor with show free oil and gas bubble for the fair odor with show free oil and gas bubble. So the fair odd fai	API Filltrate 9.2 Chloride 4,900 Api of the second seco
0. ROP (min/ft) 10 Gainma (API) 150 3420 3440 3440 3440 3440 3440 3480 3480 3500 3500		fair intercolicastic porosity, fair odor, show free oil and gas bubble. 60° sample limestone: more light gray, olicastic pieces, poor to fair intercolicastic porosity, faint to fair odor with show free oil and gas bubble. Similar out in the fair odor with show free oil and gas bubble. Similar out is the set of the set	API Filltrate 9.2 Chloride 4,900 Api of the second seco
0. ROP (min/ft) 10 Gainma (API) 150 3420 3440 3440 3440 3440 3480 3480 3500 3500		fair intercolicastic porosity, fair odor, show free oil and gas bubble. 60° sample limestone: more light gray, olicastic poros to fair intercolicastic porosity, faint to fair odor with show free oil and gas bubble. So the fair intercolicastic porosity, faint to fair odor with show free oil and gas bubble. So the fair intercolicastic porosity, faint to fair odor with show free oil and gas bubble. So the fair odor with show free oil and gas bubble for the fair odor with show free oil and gas bubble for the fair odor with show free oil and gas bubble for the fair odor with show free oil and gas bubble for the fair odor with show free oil and gas bubble. So the fair odd fai	API Filltrate 9.2 Chloride 4,900 Api of the second seco
0 ROP (min/ft) 10 Gamma (API) 150 3420 3440 3460 3460 3460 3460 3480 3480 3480 3500 3520 3520 3520		<pre>train intercolicastic porosity, fair odor, show free oil and gas bubble. 60° sample limestone: more light gray, oblicastic pieces, poor to fair intercolicastic porosity, faint to fair odor with show free oil and gas bubble Limestone: cream-light tan-gray, fine to very fine crystalline, very dense, sub shaley, no shows Limestone: cream-white-light gray, fine crystalline, rare oolitic piece, fossilferous, poor visible proosity, questionable odor, rare piece slight indersone: cream-white, fine crystalline, dense, sub chalky Limestone: cream-white, fine crystalline, poor to no visible porosity, dense, sub shaley in part, very faint odor in fresh, no show free oil Limestone: cream-tan-gray, fine crystalline, poor to no visible porosity, dense, sub shaley in part, very faint odor in fresh, no show free oil Limestone: cream-tan-gray, fine crystalline, trace fossilferous, tite, very faint door, few pieces slight tan, fine crystalline, trace fossilferous, tite, very faint door, few pieces slight tan, fine crystalline, slightly fossiliferous, appears tite and chalky, odor, no show free oil Shaley limestone: cream-gray, dine crystalline, slightly fossiliferous, tite, very faint door, few pieces slight show free oil Shaley limestone: cream-gray, white, fine crystalline, slightly fossiliferous, appears tite and chalky, odor, no show free oil Shaley limestone: cream-gray, white, fine crystalline, slightly fossiliferous, appears tite and chalky, odor, no show free oil Shaley limestone: cream-gray, dine crystalline, slightly fossiliferous, appears tite and chalky, codor, no show free oil Circulated at 3510° Chert: off white-white-tan, fresh, sharp and blocky, as bubble when broke, sample wash slightly red Chert: white-tan, fresh, opaque to semi-translucent, sharp and blocky, as bubble when broke, sample wash slightly red Shale: male green-turquiose-blue Shale: as above, brittle Singpson Sand Sofay (.17739) Abstly shale: with some frosted white to clear sandstone grains, sub cruded, no show: Shale: vari-colored Shale: vari</pre>	API Filltrate 9.2 Chloride 4,900 Api of the second seco
0 ROP (min/ft) 10 Gamma (API) 150 3420 3440 3460 3460 3460 3460 3460 3480 350		fair intercolicastic porosity, fair odor, show free oil and gas bubble. 60° sample limestone: more light gray, olicastic pieces, poor to fair intercolicastic porosity, faint to fair odor with show free oil and gas bubble. Similar out in the fair odor with show free oil and gas bubble. Similar out is the set of the set	API Filltrate 9.2 Chloride 4,900 Api of the second seco