OPERATOR

Company: Younger Energy Company

Address: 9415 E. Harry St.

Ste. 403, Bldg. 400 Wichita, KS 67207

Contact Geologist:

316-681-2542 Contact Phone Nbr:

Well Name: Parker Estate #5 Location: Sec. 18 - T15S - R12W

API: 15-167-24039-0000

Pool: Field: Parker South State: Kansas Country: **USA**



Scale 1:240 Imperial

Well Name: Parker Estate #5 Sec. 18 - T15S - R12W Surface Location:

Bottom Location:

15-167-24039-0000 API:

License Number: 30705

Spud Date: 10/15/2015 Time: 2:45 PM

Region: Russell

Drilling Completed: 2/2/2011 Time: 5:50 PM

Surface Coordinates: 330' FSL & 2192' FWL

Bottom Hole Coordinates:

Ground Elevation: 1839.00ft K.B. Elevation: 1847.00ft

Logged Interval: 2600.00ft To: 3370.00ft

Total Depth: 3370.00ft Formation: Arbuckle

Drilling Fluid Type: Chemical/Fresh Water Gel

SURFACE CO-ORDINATES

Well Type: Vertical

Longitude:

Latitude:

330' FSL N/S Co-ord: E/W Co-ord: 2192' FWL

LOGGED BY

Keith Reavis

Consulting Geologist

Keith Reavis, Inc. Company: Address: 3420 22nd Street Great Bend, KS 67530

Phone Nbr: 620-617-4091

Logged By: KLG #136 Name: Keith Reavis

CONTRACTOR

Contractor: **Duke Drilling Company**

> Rig #: 2

Rig Type: mud rotary

Spud Date: 10/15/2015 Time: 2:45 PM TD Date: 2/2/2011 Time: 5:50 PM

Rig Release: Time:

ELEVATIONS

K.B. Elevation: 1847.00ft K.B. to Ground: 8.00ft Ground Elevation: 1839.00ft

NOTES

Due to recovery results of DST #3 and electrical log analysis, it was determined that 5 1/2" production casing would be set and cemented to total depth and the Arbuckle formation would be further tested through perforations and stimulation.

A Bloodhound gas detection system operated by Bluestem Labs was employed on this well. ROP and gas data were imported into this mudlog.

Samples were saved and will be available for review at the Kansas Geological Survey Well Sample Library located in Wichita, KS.

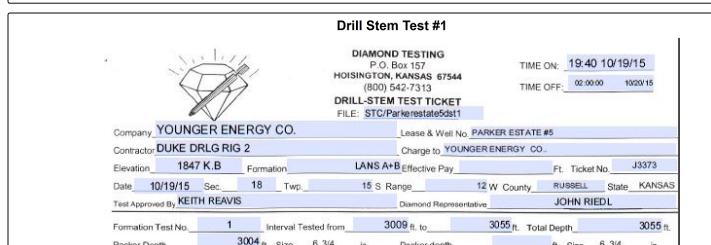
Respectfully submitted, Keith Reavis

Younger Energy Company daily drilling report

DATE	7:00 AM DEPTH	REMARKS
10/18/2015		Geologist Keith Reavis on location @ 1915 hrs, 2653 ft, drilling ahead Howard, Topeka
10/19/2015	2913	drilling ahead Topeka, Queen Hill, Heebner, Toronto, Lansing, show and gas kick in A and B warrant test, short trip, ctch, TOH for DST #1, conduct DST #1
10/20/2015	3090	complete DST #1, successful test, TIH w/bit, resume drilling, show and gas kick in G zone warrants test, conduct and complete DST #2, TIH w/bit, resume drilling lower LKC
10/21/2015	3236	drilling ahead, lower LKC, base KC, Arbuckle, show in Arbuckle warrants test, TOH w/bit, conduct and complete DST #3, successful test, TIH w/bit, rathole ahead to TD
10/22/2015	3370	TD well @ 0200 hrs, ctch, condition mud from rains, TOH for logs, conduct and complete logging operations, geologist off location @ 1000 hrs

Younger Energy Company well comparison sheet

DRILLING WELL Parker Estate #1 330' FSL & 2192' FWL Sec 18-T15S-R12W					COMPARISON WELL Parker Estate #1 NE SE SW Sec 18-T15S-R12W Structural				COMPARISON WELL Parker Estate #3 SE NE SW Sec 18-T15S-R12W Structural			
									Relationship			
Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log	Log	Sub-Sea	Sample	Log	
2649	-802	2656	-809	2662	-809	7	0	2656	-805	3	-4	
2836	-989	2843	-996	2848	-995	6	-1	2845	-994	5	-2	
2922	-1075	2927	-1080	2933	-1080	5	0	2928	-1077	2	-3	
2940	-1093	2945	-1098	2951	-1098	5	0	2945	-1094	1	-4	
2956	-1109	2962	-1115	2967	-1114	5	-1	2962	-1111	2	-4	
3005	-1158	3009	-1162	3018	-1165	7	3	3012	-1161	3	-1	
3023	-1176	3023	-1176	3034	-1181	5	5	3029	-1178	2	2	
3243	-1396	3247	-1400	3255	-1402	6	2	3253	-1402	6	2	
3280	-1433	3280	-1433	3290	-1437	4	4	3337	-1486	53	53	
3370	-1523	3374	-1527	3310	-1457	-66	-70	3344	-1493	-30	-34	
	Sample 2649 2836 2922 2940 2956 3005 3023 3243 3280	Parker Es 330' FSL 4 Sec 18-T1! 1847 KB Sample Sub-Sea 2649 -802 2836 -989 2922 -1075 2940 -1093 2956 -1109 3005 -1158 3023 -1176 3243 -1396 3280 -1433	Parker Estate #1 330' FSL & 2192' Sec 18-T15S-R12W 1847 KB Sample Sub-Sea Log 2649 -802 2656 2836 -989 2843 2922 -1075 2927 2940 -1093 2945 2956 -1109 2962 3005 -1158 3009 3023 -1176 3023 3243 -1396 3247 3280 -1433 3280	Parker Estate #1 330' FSL & 2192' FWL Sec 18-T15S-R12W 1847 KB Sample Sub-Sea Log Sub-Sea 2649 -802 2656 -809 2836 -989 2843 -996 2922 -1075 2927 -1080 2940 -1093 2945 -1098 2956 -1109 2962 -1115 3005 -1158 3009 -1162 3023 -1176 3023 -1176 3243 -1396 3247 -1400 3280 -1433 3280 -1433	Parker Estate #1 330' FSL & 2192' FWL Sec 18-T15S-R12W 1847 KB Sample Sub-Sea Log Sub-Sea Log 2649 -802 2656 -809 2662 2836 -989 2843 -996 2848 2922 -1075 2927 -1080 2933 2940 -1093 2945 -1098 2951 2956 -1109 2962 -1115 2967 3005 -1158 3009 -1162 3018 3023 -1176 3023 -1176 3034 3243 -1396 3247 -1400 3255 3280 -1433 3280 -1433 3290	Parker Estate #1 330' FSL & 2192' FWL Sec 18-T15S-R12W Sec 18-T15B-R12W Sec 18-T15	Parker Estate #1 330' FSL & 2192' FWL Sec 18-T15S-R12W Sec 18-T15S-R1W Sec 18-T15S-R1W Sec 18-T15S-R1W Sec 18-T15S-R1W Sec 18-T15S-R1W Sec 18-T15S-R1W Sec 18-TISM Sec	Parker Estate #1 330' FSL & 2192' FWL Sec 18-T15S-R12W Structural Relationship Relationshi	Parker Estate #1 330' FSL & 2192' FWL Sec 18-T155-R12W Sec 18-	Parker Estate #1 Parker Esta	Parker Estate #1 Parker Estate #1 Parker Estate #3 SE NE SW Sec 18-T15S-R12W Structural Relationship Relationship	



Packer Depth	300	09 ft. Size_	6 3/4	in.	Packe	or depth		ft	Size	6 3/4	n.
Depth of Selective Zo	ne Set										
Top Recorder Depth (nside)			3012 ft.	Recor	der Number	30	0046 Ca	р.	6000 P.	S.I.
Bottom Recorder Dep	h (Outside)			3052 ft.	Recor	der Number	- 1	3498 C	эр.	6000 P	S.I.
Below Straddle Recon	der Depth			ft.	Recor	der Number		Ca			S.I.
Mud Type CHE	MICAL VI	scosity	62		Drill C	ollar Length		0 ft	I.D.	2 1/4	
Weight 8	6 Wate	rLoss	7.2		cc. Weigh	nt Pipe Length		0 ft.	I.D.	2 7/8	
Chlorides			5000	P.P.M.		ipe Length	2	983 ft	1.D.	3 1/2	
Jars: Make STERI	.ING Ser	ial Number	#	# 1	Test T	ool Length		26 ft.	Tool Siz	e 3 1/2-IF	- 3
Did Well Flow?	NO	Reversed O	lut	NO		or Length		46 ft.	Size	4 1/2-Fi	
Main Hole Size 7 7	/8	— Tool Joint S	(A) 1	2 XH i	n. Surfac	e Choke Size	1	in.	Bottom	Choke Size_5	VB.
Blow 1st Open STF	RONG 10	y"								NO E	
						NO					
Recovered	ft. of SLMCV			R WITH A	STRONG	3 SULFUR OD	OR) CHLC	RIDES	30,000 P	'pm	
Recovered 420 Recovered Recovered	ft. of SLMCV			R WITH A	STRONG	3 SULFUR OD	OR) CHLC	ORIDES	30,000 P	pm	
Recovered 420 Recovered Recovered Recovered	ft. of SLMCV			R WITH A	STRONG	3 SULFUR ODG	OR) CHLC		30,000 P	pm	
Recovered 420 Recovered Recovered Recovered Recovered Recovered Recovered	ft. of SLMCV ft. of ft. of ft. of ft. of ft. of ft. of	W (5%MUD 9	5%WATE			3 SULFUR OD	OR) CHLC	Pric			
Recovered 420 Recovered Remarks: TOTAL FL	ft. of SLMCV ft. of ft. of ft. of ft. of ft. of	0 (5%MUD 9	5%WATEI	LL PIPE		3 SULFUR ODG	OR) CHLC	Pric	e Job		
Recovered 420 Recovered Recovered Recovered Recovered	ft. of SLMCV ft. of ft. of ft. of ft. of ft. of	0 (5%MUD 9	5%WATEI	LL PIPE		3 SULFUR ODG	OR) CHLC	Pric Oth Insu	e Job er Charge urance		
Recovered 420 Recovered Recovered Recovered Recovered Recovered Recovered Recovered Recovered Recovered Remarks: TOTAL FL	ft. of SLMCV ft. of ft. of ft. of ft. of ft. of	OVERY: 420 GRINDOUT	5%WATE	LL PIPE		3 SULFUR ODG	A.M.	Price Oth Inst	e Job er Charge urance	is 44	
Recovered 420 Recovered Recovered Recovered Recovered Recovered Remarks: TOTAL FL SHUT-IN TOOL RI	ft. of SLMCV ft. of SCOVERY	OVERY: 420 GRINDOUT .M A.M. P.M.	0° IN DRIII 100% W	LL PIPE /ATER	Bottom_	12:15 A.M	A.M. P.M. 1437 P.S	Oth Inst	e Job er Charge urance	is 44	
Recovered 420 Recovered Recovered Recovered Recovered Recovered Recovered Remarks: TOTAL FL SHUT-IN TOOL RI	ft. of SLMCV ft. of ft. of ft. of ft. of ft. of UID RECC	OVERY: 421 GRINDOUT .M A.M. P.M.	0° IN DRIII 100% W	LL PIPE /ATER	Bottom(A)	12:15 A.M	A.M. P.M. 1437 p.s 24p.s	Oth Inst	e Job er Charge urance	is 44	05
Recovered 420 Recovered Recovered Recovered Recovered Recovered Recovered Remarks: TOTAL FL SHUT-IN TOOL RI	ft. of SLMCV ft. of ft. of ft. of ft. of UID RECO	OVERY: 420 GRINDOUT .M A.M. P.M.	0' IN DRII 1: 100% W	LL PIPE /ATER	Bottom(A),	12:15 A.M	A.M. P.M. 1437 P.S 24 P.S 825 P.S	Oth Inst	e Job er Charge urance	ature 10	95
Recovered 420 Recovered Recovered Recovered Recovered Remarks: TOTAL FL SHUT-IN TOOL RI Time Set Packer(s) nitial Hydrostatic Presinitial Flow Period Interior	ft. of SLMCV ft. of ft.	OVERY: 420 GRINDOUT .M A.M. P.M.	0' IN DRIII : 100% W Time St	LL PIPE /ATER tarted Off	Bottom(A)_ 0 (B)_ 5 (D)	12:15 A.M	A.M. P.M. 1437 P.S 24P.S 825 P.S 61 P.S	Price Oth Inst Tot Maximus I. I. to (C) I. I. to (F)	e Job er Charge urance	s ature10	95
Recovered 420 Recovered Remarks: TOTAL FL	ft. of SLMCV ft. of ft. of ft. of ft. of ft. of UID RECC	OVERY: 420 GRINDOUT .M A.M. P.M.	0° IN DRIII : 100% W Time Si nutes_ inutes_ inutes_	LL PIPE /ATER tarted Off	Bottom(A)_ 0 (B)_ 5 (D) 5 (E)	12:15 A.M	A.M. P.M. 1437 P.S 24 P.S 825 P.S	Price Oth Install Inst	e Job er Charge urance	ature 10	95

Drill Stem Test #2



DIAMOND TESTING P.O. Box 157 HOISINGTON, KANSAS 67544 (800) 542-7313

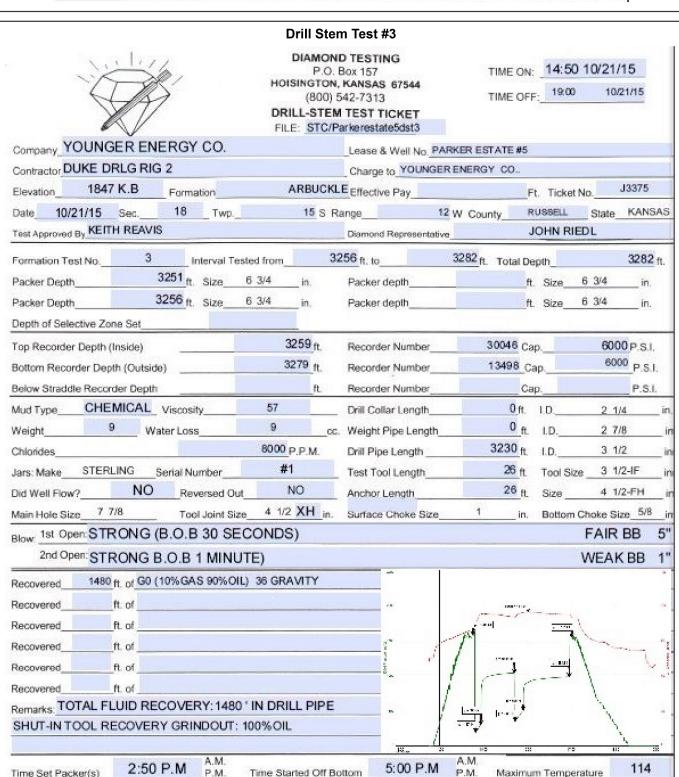
DRILL-STEM TEST TICKET

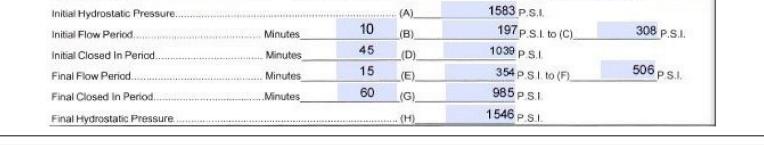
TIME ON: 11:10 10/20/15

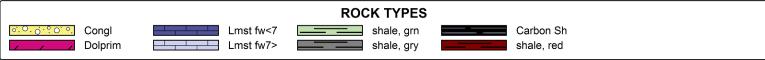
TIME OFF: 17:00 10/20/15

FILE: STC/Parkerestate5dst21 Company YOUNGER ENERGY CO. Lease & Well No. PARKER ESTATE #5 Contractor DUKE DRLG RIG 2 Charge to YOUNGER ENERGY CO. LANS "G" Effective Pay___ J3374 1847 K.B Elevation Formation Ft. Ticket No. 18 _ Twp.__ Date 10/20/15 Sec. 15 S Range___ 12 W County RUSSELL State KANSAS Test Approved By KEITH REAVIS JOHN RIEDL Diamond Representative 3091 ft. to 3105 ft. Total Depth_ Interval Tested from 3105 ft. Formation Test No. 3086 ft. Size 6 3/4 Packer Depth Packer depth ft. Size 6 3/4 3091 ft. Size 6 3/4 ft. Size 6 3/4 Packer Depth_ Packer depth, Depth of Selective Zone Set_ 3094 ft. 30046 Cap. 6000 P.S.I. Top Recorder Depth (Inside) Recorder Number 6000 P.S.I. 3102 ft Bottom Recorder Depth (Outside) 13498 Cap. Recorder Number Below Straddle Recorder Depth Recorder Number Cap. P.S.I. Mud Type_ CHEMICAL Viscosity 50 Drill Collar Length Of I.D. 2 1/4 0 ft. I.D. Water Loss 2 7/8 Weight cc. Weight Pipe Length 3065 ft. I.D. 5000 P.P.M. 3 1/2 Drill Pipe Length Chlorides STERLING 26 ft. Tool Size 3 1/2-IF Jars: Make Serial Number Test Tool Length NO Reversed Out_ NO 14 ft. Size Did Well Flow? 4 1/2-FH Anchor Length Main Hole Size___7 7/8 Tool Joint Size 4 1/2 XH in. in. Bottom Choke Size 5/8 Surface Choke Size Blow: 1st Open:WEAK (1/4") 2nd Open: WEAK (1/4") 40 ft. of DRILLING MUD

Recovered	ft. of						
Recovered	ft. of		100				
Recovered	ft. of						
Recovered	ft. of					Price Job	
Recovered	ft. of					Other Char	ges
Remarks: TOTA	L FLUID RECOV	ERY: 40' IN DRILL	PIPE			Insurance	
SHUT-IN TOO	L RECOVERY GF	RINDOUT: 10%OIL	90%MUD)				
						Total	
Time Set Packer	(s) 12:25 p.n	A.M. P.M. Time Sta	arted Off Bot	tom	4:20 p.m A.M. P.M. Ma	aximum Temp	erature 105
Initial Hydrostatic	Pressure			(A)_	1470 P.S.I.		
Initial Flow Period	d	Minutes	10	(B)_	16 _{P.S.I.}	to (C)	24 P.S.I.
Initial Closed In F	Period	Minutes	45	(D)	425 P.S.I.		
		Minutes	60	(E)_	26 p.s.l.	o (F)	35 _{P.S.I.}
Final Flow Period	L						
	eriod		60	(G)_	425 P.S.I.		







ACCESSORIES

MINERAL

▲ Chert, dark

FOSSIL

Oolite

Pellets

DST

DST Int DST alt

II tail pipe

Core

♠ Oomoldic

○ Bioclastic or Fragmenta

F Fossils < 20%

- Glauconite
- P Pyrite
- · Silty
- △ Chert White
- м∘ Міса

STRINGER

- --- Sandstone ····· Siltstone
- Shale green shale

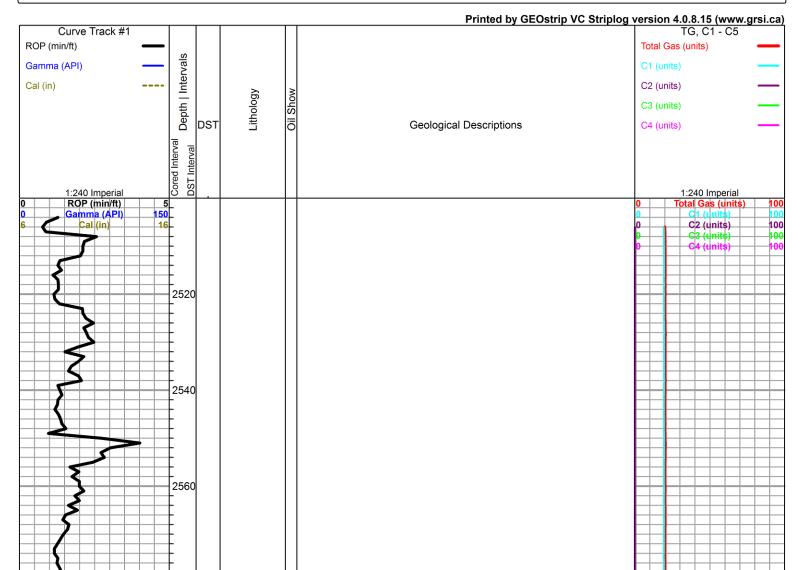
TEXTURE

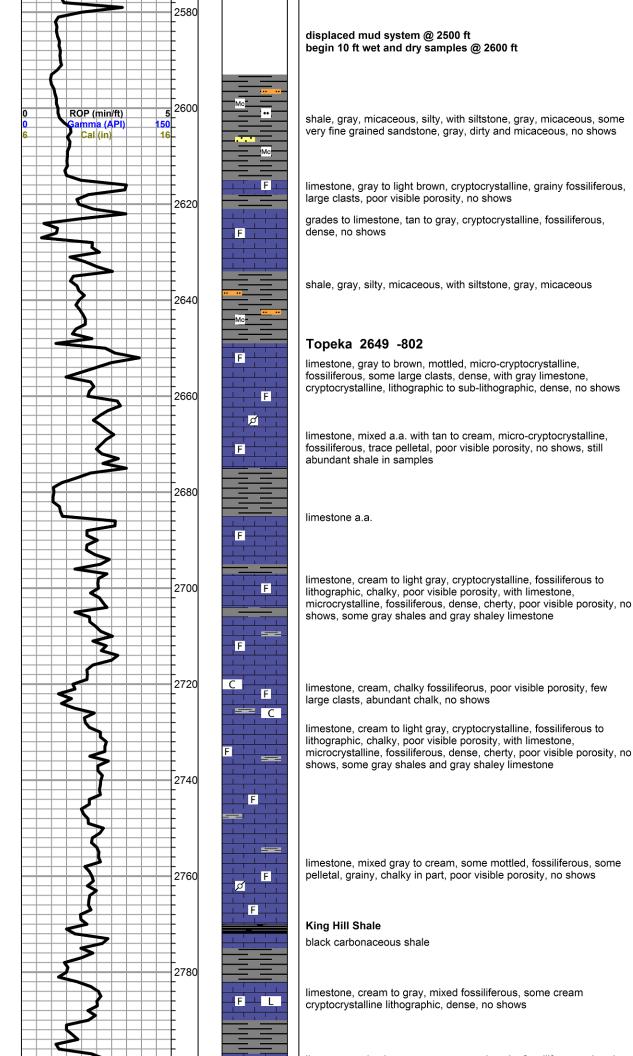
- C Chalky
- CX Cryptocrystalline
- L Lithogr

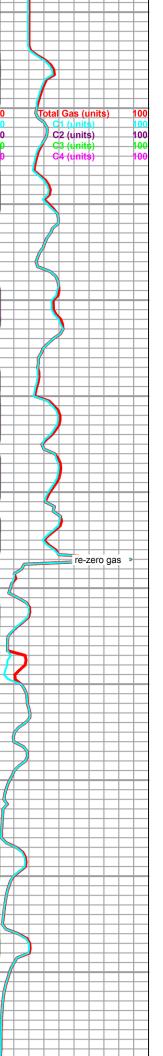
OTHER SYMBOLS

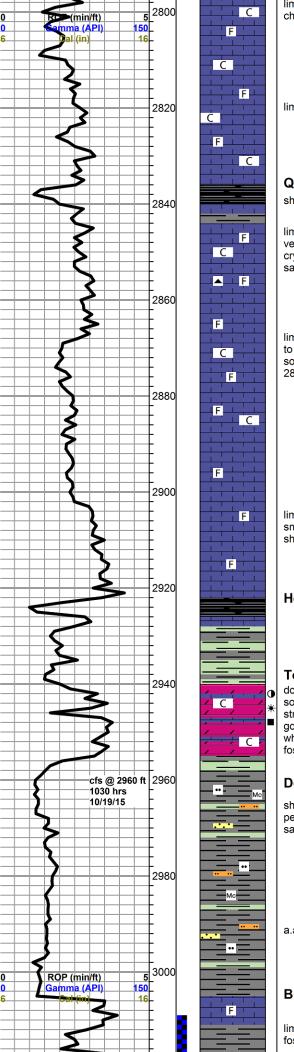
Oil Show

- Good Show
- Fair Show
- Poor Show
- O Spotted or Trace
- O Questionable Stn
- D Dead Oil Stn
- Fluorescence
- * Gas









limestone, mixed gray to cream, non-descript fossiliferous, abundant chalk, poor visible porosity, no shows, abundant gray shales

limestone, a.a.

Queen Hill 2836 -989

shale, black carbonaceous

limestone, cream to gray and tan, some mottled, microcrystalline, very chalky to partly chalky, fossiliferous, with: limestone, cream, cryptocrytalline, lithographic, dense, no shows, abundant chalk in samples, trace tan and gray fossiliferous chert

limestone, cream to light gray, microcrystalline, fossiliferous, grainy to chalky, some scattered intercrystalline porosity, some friable, some weathered to chalky, no visible shows, fleeting briney odor in 2880, no shows or fluoresence

limestone, cream, cryptocrystalline, sub-lithographic, chalky to smooth/dense, some scattered slightly fossiliferous, chalky, no shows, moderate chalk in samples

Heebner 2922 -1075

Toronto 2940 -1093

dolomite, tan to cream, micro-fine crystalline mix, sub-rhombic, some fair intercrystalline porosity, light golden brown saturated stain, streamin sheen in tray, gassy, slight show oil droplets on break, good odor, bright white fluoresence, good to fair cut, with: some white smooth lithographic chalky limestone, some brown and gray fossiliferous limestone, trace chert, moderate chalk

Douglas 2956 -1109

shale, gray and some green, silty, micaceous, with gray salt and pepper siltstone and some scattered very fine micaceous shaley sandstone, no shows, heavy gray wash

a.a.

Brown Lime3005 -1158

limestone, brown to dark gray, cryptocrystalline, lithographic to fossliferous, dense no shows

