FIELD	Wildcat	STATE New Mexico COUNTY San Juan	SEC28	T. 30 N R. 14 W
COMPANY_	Mountain	Fuel Supply FARM Fruitland	WELL NO	1
		LOCATION 890' FNL, 790' FEL ELEV.	KB 5588.70'	GR 5572'
		DRILLING COMMENCEDCOMPLE	TED	
	0	RIG RELEASEDTOTAL	DEPTH 12,	448! SLM
	28	CASING RECORD_		
		TUBING RECORD_	·	
		PERFORATIONS		
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I. P.	GAS	oir	· · · · · · · · · · · · · · · · · · ·	-
			·	
SHUT-IN	SURFACE PRE	SSURES		
				•
REMARKS_				1977
			\$	t for the first section of the secti
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			FRO	OMTO
:	uncons	conglomeratic, green, subangular to rounded, solidated, friable to well cemented, with chertanular.	some 3	5 50'
	Sandstone, Sandstone,	as above, some yellow and pyritiferous. conglomeratic, as above, with Siltstone, gray h brown, green in part, sandy.	to 5	0 62 ' 2 68 '
	Sandstone, Shale, ligh Sandstone, Shale, as a Sandstone,	conglomeratic, fine to coarse grained, gray, of t green, gray green, purple mottled. very fine to medium grain, green, pink, granulove, pyritic. white, salt and pepper, medium grain, micaceou	7 lar. 9 10	
	Sandstone, 1	ritic. n and gray green. white, salt and pepper, medium grain, subangul nded, pyritic, friable, clay filled.	12 lar to 12	
	Sandstone, I Sandstone, I Siltstone, I Shale, gray	medium grain, angular, green, pyritic. as above, with an increase in pyrite. gray green. green, silty, micaceous. green, subangular, micaceous with occasional p	14 15 16 17 oink 18	0 160 ¹ 0 178 ¹ 8 188 ¹
	Shale, gray	, green, silty, micaceous. brown, medium grain, angular, carbonaceous par	19 rting, 22	
	Shale, ligh Siltstone, Sandstone,	t gray, silty. light gray, sandy. green, fine grain, micaceous, pyritic, with	24 26 28	8 280 '
(Shale, green Siltstone, pyritio		28 caceous, 30	
9	Shale, green Sandstone, v grains	n and brown mottled, silty, micaceous. white and green, subangular, with occasional p	300 oink 320	
S	Sandstone, v friable	n, sandy to silty. white, slightly salt and pepper, fine grained, e, some unconsolidated.	•	
5	Sandstone, v	white, salt and pepper, medium grain, clay fil	led. 374	4 382 '

FIELD	SEC	T•	R	

PAGE 2

FARM_____WELL NO.____

COMPANY

FROM TO Shale, light gray, silty, micaceous. 382 410' Siltstone, gray, sandy. 410 420' 420 Shale, light gray and green, silty. 490' Sandstone, white, slight salt and pepper, medium grain, few carbonaceous partins. 490 5001 Siltstone, light gray to tan, carbonaceous to coaly streaks, 500 5201 pyritic. Siltstone, tan, light gray, coaly in part. 520 540' Shale, green, sandy. 550' 540 5641 Sandstone, white, fine medium grain, subangular. 550 Shale, green and gray, slight carbonaceous with coal inclusion. Sandstone, white to brown, fine medium grain, calcareous. 564 596' 596 6041 616' Shale, light gray, with coal partings. 604 Shale, light gray with thin coal streaks. 616 650' Shale, gray to light gray with coal partings. 686' 650 Shale, light gray to gray, carbonaceous. Sandstone, white, very fine grain. 686 7021 706' 702 Shale, light gray to gray, with thin streaks of Sandstone, 724 706 white, very fine grain. Shale, as above, with thin carbonaceous streaks. 724 732' 780' Shale, as above, becoming increasingly sandy and silty; also 732 trace coal. Sandstone, white to light gray, very fine grain, salt and pepper, 780 802 calcareous, white clay infil, trace Calcite.

Sandstone, white, salt and pepper, fine medium grain, calcareous, clay filled, pyritic. 802 806 Siltstone, light gray, sandy. 806 824 Shale, green, light gray, some calcareous, carbonaceous, with 824 834' coal thin seams. Sandstone, white, salt and pepper, fine grain, calcareous, clay 834 876' filled with coal partings. Sandstone, white, salt and pepper, fine grain, calcareous, clay 876 884' filled. 884 9001 Coal, gaseous. Siltstone, light gray, very carbonaceous; Shale, green, sandy. Sandstone, white, salt and pepper, fine grain, calcareous, 900 920' 920 952' slight glauconitic. Sandstone, white, salt and pepper, fine medium grain, calcareous 952 970' with carbonaceous partings. 970 980' Coal, black. Siltstone, gray, carbonaceous, with some thin laminations of 980 1020 coal. Coal, gaseous. 1020 1040' Shale, green, sandy; Siltstone, gray, carbonaceous; Sandstone, 1040 1058' white, salt and pepper, fine medium grain. Shale, gray, with coal partings and streak of coal. 1058 1086 Shale, gray to tan. 1086 1110' Siltstone, gray, sandy, calcareous.
Sandstone, white, salt and pepper, fine medium grain, subangular, glauconite, clay filled, with occasional pink 1142 1110 1142 1168' grains. Sandstone, white, salt and pepper, medium grain, subangular, 1168 1174' glauconitic, clay filled. 1174 Sandstone, as above, tan to white, micaceous, with occasional 1204' pink grains, also some tan clay inclusion. Sandstone, salt and pepper, tan to white, micaceous, clay filled, 1204 1208' with occasional pink grains. Sandstone, as above, fine grain. 1208 12321 Shale, gray, pyritic, micro micaceous, slightly calcareous. 1232 1240' Siltstone, light gray, salt and pepper, calcareous. Shale, gray, with coal partings, micro micaceous. 1240 1262' 1300' 1262 Shale, gray, micro micaceous. 1300 1326 1326 1340' Sandstone, light gray, salt and pepper, very fine grained, slight calcareous, with carbonaceous partings. 1340 13661 Siltstone, light to medium gray, micro micaceous, carbonaceous in part.

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	FROM	TO
Shale, medium gray, calcareous, micro micaceous.	1366	1380'
Shale, medium gray, calcareous, micro micaceous, silty.	1380	1422'
Siltstone, light to medium gray, sandy, calcareous, micro	1422	1456'
micaceous.		
Siltstone, medium gray to light gray, sandy, calcareous.	1456	1484'
Shale, gray, calcareous, silty, micaceous.	1484	1492'
Shale, gray, micro micaceous, silty, calcareous, with some carbonaceous material.	1492	1528'
Shale, gray, calcareous, silty, micaceous, with fossil fragments.	1528	1572'
Shale, gray, slightly calcareous, micro micaceous with occasional	1572	1606'
carbonaceous partings.		1000
Shale, gray, micaceous, slightly calcareous, carbonaceous.	1606	1632'
Shale, gray, micro micaceous, slightly calcareous with occasional	1632	1660'
carbonaceous partings.		
Siltstone, gray, calcareous, shaly with carbonaceous partings.	1660	1670'
Shale, gray, slightly calcareous, silty in part, micro micaceous, carbonaceous.	1670	1710'
Shale, gray, slight calcareous, silty, micro micaceous, with	1710	1766'
thin stringers of Siltstone; light gray, sandy, calcareous.	1710	1700
Shale, gray, slightly calcareous, finely micaceous, carbonaceous,	1766	1824'
with tan Claystone leaf casts.	.,,,,	
Shale, gray, calcareous, micaceous, carbonaceous, silty in part.	1824	1860'
Shale, gray, slightly calcareous, very silty.	1860	1884'
Shale, gray, very silty, grading to shaly Siltstone.	1884	1900'
Shale, as above, micaceous in part, trace Arragonite. Shale, gray, silty, micaceous in part.	1900	1914'
Shale, as above, becoming increasingly silty.	1914 1926	1926' 1948'
Shale, gray, silty, with very thin streaks Siltstone.	1948	1964'
Shale, becoming lighter gray, silty in part, micaceous, with	1964	1982'
trace of Arragonite.		
Shale, as above, with micro lenses of Sandstone, white, salt and	1982	2000'
pepper, very fine grain. Shale, as above; Sandstone, white, salt and pepper, very fine	2000	20041
grain, in thin lenses.	2000	2004 '
Shale, as above, becoming more silty to sandy.	2004	2044'
Shale, gray, very silty grading to shaly; Siltstone, white,	2044	2060'
tan with trace of Calcite.		
Shale, light gray, silty, slightly carbonaceous, slightly calcareous.	2060	2084'
Shale, light gray, slightly silty, slightly micaceous and	2084	2100'
carbonaceous.	2004	2100
Siltstone, light gray, sandy, shaly in part.	2100	2124'
Siltstone, as above, becoming sandy.	2124	2158'
Siltstone, light gray, sandy, grading to silty Shale.	2158	2184'
Sandstone, white, salt and pepper, very fine grain, grading to Siltstone.	2184	2202'
Interbedded Shale; Sandstone and Siltstone, as above.	2202	22241
Interbedded Shale; Siltstone and Sandstone, as above, with	2224	2224' 2242'
carbonaceous plant fragments.		CC7C
Sandstone, white, salt and pepper, very fine grain with	2242	2266'
occasional green grains.		
Siltstone, very light gray, sandy clay filled grading to very fine grain Sandstone.	2266	2300'
Siltstone, very light gray; Shale, light gray, silty, bentonitic.	2300	2322'
Siltstone, light to medium gray, sandy in part, clay filled,	2322	2356'
grading to very fine grained Sandstone.		:
Shale, light gray, with streaks of Bentonite; Siltstone, light	2356	2380'
to medium gray, slightly salt and pepper, clay filled. Siltstone, light gray, sandy to very sandy grading to Sandstone;	2200	24001
Shale, light to medium gray.	2380	2400'
Shale, gray, very silty grading to shaly Siltstone, some	2400	24221
carbonaceous.	, ,	
Siltstone, very light gray, white, sandy.	2422	2444'
Siltstone, grading to very fine grained Sandstone.	2444	2470'
Siltstone, light gray, grading to very fine grained Sandstone.	2470	2500'

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FIELD	200.	^ ^ ^	_^``'		

FARM WELL NO.____

COMPANY

FROM TO 2526' Siltstone, light gray; Shale, light gray, bentonitic in part. 2500 Siltstone, light to medium gray, slightly salt and pepper, 2526 2536' grading to very fine grained Sandstone. 25601 Shale, light gray. 2536 Siltstone, light gray, becoming very fine grained Sandstone; 2584' 2560 Shale, light gray. Siltstone, light gray to brown, grading to very fine grained 2584 26041 Sandstone. Sandstone, white, salt and pepper, subangular, very fine grained; 2604 2632' Siltstone, light to medium gray, grading to very fine grained Sandstone. 26641 Sandstone, white, very fine grained, subrounded, clay filled; 2632 Siltstone, light gray, clay filled. Sandstone, white, slightly salt and pepper, very fine to fine 2664 26861 grained, subangular, clay filled; Shale, gray to brown, carbonaceous in part. Sandstone, white, salt and pepper, fine to medium grain, sub-2686 2704' angular to subrounded, clay filled, with lenses of Coal. Sandstone, white, salt and pepper, fine to medium grain, sub-2704 2724' angular to subrounded, clay filled, carbonaceous. Sandstone, white, salt and pepper, fine grained, subrounded, 2724 2740' non calcareous, clay filled, with occasional Glauconite grains. Sandstone, white, salt and pepper, fine grain, subrounded, 2740 27531 non calcareous, clay filled. Shale, dark brown, very carbonaceous, with thin streaks of 2753 2767' Coal. Sandstone, white, salt and pepper, very fine to fine to medium 2767 2794' grain, clay filled, carbonaceous in part; with Siltstone, white to gray, sandy; Shale, gray, silty. Shale, light to dark gray, dark brown, silty, very carbonaceous, 2794 2824' with thin laminations of Coal. Shale, becoming mostly dark brown, carbonaceous, with plant 2824 28381 fragments. Sandstone, white, salt and pepper, fine grain; Siltstone, gray 2838 28601 sandy, non calcareous; Shale, tan and brown, silty in part. 28781 Shale, as above, very carbonaceous. 2860 2889' Sandstone, white, salt and pepper, very fine to coarse grained, 2878 poorly sorted, clay filled; Siltstone, gray, shaly; Shale, dark brown, carbonaceous. 2889 2920' Shale, dark brown and dark gray, silty in part, very carbonaceous in part. 2920 2943' Siltstone, light gray, very shaly. 2953' Sandstone, white, slightly salt and pepper, fine grained, angular 2943 to subangular, clay filled, with occasional brown grains; Shale, brown, coaly. Sandstone, as above, with some brown iron stain, abundant clay. 2953 2987' Coal, black, gaseous; Shale, medium brown, soft. 2987 3010' 3040' Shale, light to medium gray, silty; Siltstone, light gray, sandy. 3010 3062' Siltstone, light gray, shaly; Shale, gray, sandy. 3040 Sandstone, white, salt and pepper, very fine to fine grained, 30921 3062 subrounded, clay filled; Siltstone, white to very light gray, sandy, clay filled. 3092 3110' Shale, gray and brown, very carbonaceous. Siltstone, light gray, clay filled; Shale, medium gray, argill-3110 3113' aceous sandy grading to Sandstone. 3113 3139' Sandstone, white, slight salt and pepper, very fine to fine grained, clay filled, with occasional brown grains. Sandstone, white, slight salt and pepper, very fine to fine 3139 31431 grained, clay filled, with occasional brown grains. 3169' Shale, light gray to brown, very carbonaceous in part. 3143 31731 3169 Sandstone, white, salt and pepper, fine grained, subangular, clay filled, non calcareous. Shale, brown to dark brown, gray. 3173 3200' 3210' Siltstone, light tan, sandy. 3200

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FARM WELL NO.____

COMPANY

FROM TO Sandstone, white, slightly salt and pepper, very fine grained, 3210 32221 subangular to angular, clay filled Shale, light to dark gray and dark brown, carbonaceous. 3222 3234' Sandstone, white, slightly salt and pepper, very fine grained, 3234 3238' abundant clay fill, with thin streaks Bentonite. Siltstone, brownish gray, very shaly in part, grading to 32581 3238 silty Shale. Siltstone, white, sandy, grading to very fine grained Sandstone. 3266' 3258 Sandstone, white, slightly salt and pepper, medium to fine 3281' 3266 grained, poorly sorted, clay filled. Sandstone, as above, some unconsolidated. 3290' 3281 Siltstone, white to very light tan, sandy, grading to very 3290 33041 fine grain Sandstone. Sandstone, white, salt and pepper, medium grain, subrounded 3304 3311' clay filled, non calcareous. Siltstone, as above; Sandstone, white, very fine grained. 33281 3311 Sandstone, white, salt and pepper, medium to coarse grained, 3360' 3328 angular to subrounded, clay filled, becoming very fine to coarse grained. Sandstone, white, salt and peppr, medium grained, subrounded to 3360 33701 subangular, clay filled, friable in part with thin streaks of Bentonite, white, soft. Sandstone, white, salt and pepper, medium grained, with brown 33851 3370 and pink grains, with occasional Bentonite streaks. Sandstone, as above, becoming fine to medium grain. 3406' 3385 Sandstone, white, salt and pepper, medium grain, subrounded, 3406 34221 clay filled, with streaks of Bentonite, white. Siltstone, light gray, salt and pepper, clay filled; Bentonite, 3422 3430' white, soft. Shale, light gray, soft, argillaceous. 3430 3436' Shale, gray, silty. 3436 3440' Shale, gray to brown, with streak of Coal. 3455' 3440 Sandstone, white, salt and pepper, fine grained, subrounded, 3455 3470' non calcareous, clay filled. Sandstone, as above, subangular. 3470 3482' Siltstone, light gray, salt and pepper, sandy. 3482 3490' Sandstone, white, salt and pepper, fine grained, clay filled; 35041 3490 Shale, gray to brown with very thin laminations of Coal. 3506' Coal, black. 3504 Shale, light to medium gray, silty. 3526' 3506 3542' Shale, light gray; Siltstone, light gray, sandy. 3526 Sandstone, white, salt and pepper, medium grained, subrounded, 3542 3562' slight calcareous, abundant clay filling. Sandstone, as above, subrounded to subangular, abundant uncon-3562 35721 solidated grains. Sandstone, white, salt and pepper, clean, medium grained, sub-36131 3572 angular. Sandstone, white, salt and pepper, medium grained, subangular 3613 3626' to subrounded, slight clay filled. Sandstone, white, salt and pepper, medium grained, subangular, 3626 3640' non calcareous. Sandstone, white, salt and pepper, medium grained, some clay 3640 3660' Sandstone, white, salt and pepper, medium to fine grained, 3680' 3660 subrounded, poorly sorted, clay filled with trace CHLORITE. Sandstone, white, salt and pepper, medium to fine grained, 3680 37001 poorly sorted, clay filled, with occasional glauconitic Sandstone, white, salt and pepper, fine grain, clay filled, 3700 3710' non calcareous. Sandstone, white, salt and pepper, very fine to fine grained, 3722' 3710 angular to subangular, clay filled, with occasional streaks Bentonite, white, soft.

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	FROM	TO
Sandstone, white, salt and pepper, very fine grained, hard, sharp, clay filled.	3722	3742'
Sandstone, white, salt and pepper, very fine grained, very argillaceous.	3742	3760'
Sandstone, as above with thin streaks Bentonite, white, soft. Sandstone, white, salt and pepper, very fine grain, slight	3760 3770	3770' 3790'
glauconitic, with very thin streaks Bentonite.	0700	00041
Siltstone, light gray to white, sandy.	3790	3804'
Siltstone, light gray, salt and pepper, clay filled.	3804	3812'
Siltstone, white, salt and pepper, non calcareous.	3812	3828'
Siltstone, white, salt and pepper, sandy, non calcareous.	3828 3846	3846' 3864'
Shale, light gray to brown, argillaceous. Siltstone, white to light gray; Shale, light gray to gray, with dark spots and inclusion.	3864	3886'
Siltstone, gray, slightly shaly, with Shale as above.	3886	3902'
Siltstone, light gray to gray, with brown spots.	3902	3909'
Shale, light gray, silty.	3909	3926'
Shale, gray, slightly silty, with Siltstone as above, pyritic.	3926	3942'
Siltstone, light to dark gray, sandy, with Shale, gray, spotty.	3942	3960'
Siltstone, light gray, sandy, shaly in part, grading to silty Shale, carbonaceous.	3960	3986'
Shale, gray, silty and dark brown, with carbonaceous fragment.	3986	4010'
Shale, gray, silty, becoming softer and more carbonaceous.	4010	4038'
Shale, gray, silty soft, with some dark brown Shale.	4038	4052'
Shale, light brownish gray, silty, soft.	4052	4062
Shale, as above, moderately hard.	4062	4072'
Shale, dark gray, very silty, non calcareous, some soft.	4072	4090'
Shale, brownish gray, moderately hard, very silty with micro lenses of Siltstone.	4090	4110'
Shale, gray, moderately hard, very silty, with some brown, soft.	4110	4130'
Shale, gray, moderately hard, very silty, with some brown, soft.	4130	4148'
Shale, mostly brownish gray, silty, with some brown, soft with trace Arragonite.	4148 4164	4164' 4176'
Shale, as above, with micro lenses of Siltstone, micaceous. Shale, dark gray, silty, hard with Siltstone streaks, light brown, soft.	4176	4186'
Shale, as above, slight calcareous in part.	4186	4196'
Shale, gray, very silty, slightly carbonaceous.	4196	42041
Shale, light to medium gray, silty, soft.	4204	42121
Shale, gray, becoming soft, silty, carbonaceous.	4212	4228'
Shale, gray, very silty, soft, carbonaceous.	4228	42381
Shale, gray, silty, firm, with carbonaceous spots.	4238	4250'
Shale, gray, firm, very silty.	4250	4260'
Shale, gray to brown, very silty, soft to firm.	4260	4270'
Shale, gray, very silty; with Siltstone, very light gray, sandy.	4270	4284'
Shale, gray, very silty.	4284	4292
Shale, becoming less silty and darker gray with lenses of Siltstone.	4292	4304'
Shale, gray to brownish gray, increasingly silty; with Siltstone, very light brownish gray, sandy.	4304	4324'
Shale, gray, very silty, hard, with trace of Calcite.	4324	43301
Shale, brownish gray, silty, slight calcareous.	4330	4342'
Shale, as above, and some soft; with trace Limestone, brown.	4342	4350'
Shale, brownish gray, very silty, some brown, soft; with trace Bentonite, white, soft.	4350	43661
Shale, dark brownish gray, silty in part, slight calcareous.	4366	4384'
Shale, as above, with trace brown, dense, Dolomite.	4384	4400'
Shale, brownish gray, silty, slightly carbonaceous, slightly calcareous; with trace Dolomite, brown.	4400	4410'
Shale, becoming dark gray, silty, calcareous, with occasional micro lenses of Siltstone.	4410	4430'
Shale, gray, brownish gray, silty, carbonaceous, calcareous.	4430	4444'

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	FROM	TO
Shale, dark brownish gray, some soft, calcareous, micaceous,	4444'	44521
slightly carbonaceous. Shale, gray to brown, silty, with occasional thin streaks of Siltstone.	4452	4462'
Shale, gray, silty, as above.	4462	4472'
Shale, gray to brown, silty, calcareous.	4472	4482'
Shale, gray to dark gray; Siltstone, brown, with Glauconite grains.	4482	4492'
Shale, dark brown gray, very silty, gaseous.	4492	4504'
Shale, brown, silty, calcareous.	4504	4512'
Shale, grayish brown, silty, micro pyritic, with black carbonaceous specks.	4512	4522
Shale, gray to dark brown, silty, carbonaceous, gaseous, with trace Arragonite.	4522	4532'
Shale, gray, silty, carbonaceous, calcareous, gaseous.	4532	4542'
Shale, brown, silty, calcareous; trace Dolomite, brown, hard,	4542	4550'
Shale, dark gray, slightly calcareous.	4550	4562'
Shale, gray, calcareous, carbonaceous, pyritic.	4562	4572'
Shale, brownish gray, slightly silty, calcareous, carbonaceous.	4572	4582'
Shale, brownish gray, calcareous in part, slightly silty.	4582	4592'
Shale, as above, with trace Arragonite.	4592	4602'
Shale, dark brownish gray, slightly silty with black carbonaceous specks and inclusion.	4602	4614'
Shale, as above, with trace Pyrite.	4614	4622'
Shale, brownish gray becoming more silty, calcareous, with black spots and inclusion.	4622	46301
Shale, slightly silty, some light brown, soft.	4630	46421
Shale, as above, with trace Calcite, brown.	4642	4650'
Limestone, dark brown, slightly dolomitic.	4650	
		4660'
Shale, gray to brownish gray, silty, calcareous, carbonaceous. Shale, grayish brown, dense, calcareous, silty in part, with	4660 4682	4682' 4702'
thin streaks Limestone, brown, dolomitic. Shale, brownish gray, calcareous, and silty in part, with thin lenses of Limestone, brown.	4702	4712'
Shale, gray, calcareous, with trace of Siltstone; Limestone, brown, dolomitic.	4712	4730'
Shale, brown to gray, with micro streaks of Siltstone; Limestone, as above.	4730	4744'
Shale, gray, silty; with Bentonite, white.	4744	4764'
Shale, gray, silty; trace Siltstone and Sandstone, calcareous.	4764	4770'
	4770	4770 4782'
Shale, gray, silty, calcareous.	4770	4702 4792'
Shale, dark gray, very silty, calcareous; Siltstone, light to medium gray; trace chert, brown.		
Shale, dark gray, very silty, calcareous, pyritic.	4792	48021
Shale, dark gray, very silty, calcareous; Siltstone, medium gray, calcareous.	4802	48121
Siltstone, light gray, shaly, calcareous; Shale, gray, very silty, grading to Siltstone.	4812	4830'
Shale, light gray to gray, very silty.	4830	48421
Shale, dark brownish gray, silty, with occasional black inclusion.	4842	4852'
Shale, dark grayish brown, slightly silty, very calcareous. grading to shaly Limestone.	4852	4864'
Shale, as above, slightly calcareous.	4864	4870 '
Shale, brownish gray, very calcareous, slightly silty with trace Arragonite and Inoceramus prisms.	4870	48841
Shale, as above, some light brown, soft.	4884	4890'
Shale, dark gray brown, silty, calcareous, carbonaceous, and pyritic.	4890	4908'
Shale, becoming darker brown, more carbonaceous, very calcareous.	4908	4924'
Shale, as above, some light brown, soft.	4924	49481
Shale, dark brown, very carbonaceous, very calcareous.	4948	4962'
Shale, dark brown, carbonaceous, very calcareous, some light brown, soft, argillaceous.	4962	4972'
Shale. as above. trace Arragonite: trace Siltstone. gray.	4972	4986'

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FARM	WELL 1	10.
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FIELD

FROM TO Shale, hard, dark gray brown, carbonaceous, some soft, light 4986 50041 brown. Shale, dark gray to brown, slightly silty. 5004 5010' Shale, gray, very silty, calcareous. 5010 5030' Shale, dark brown, calcareous, carbonaceous, silty, with 5030 50441 trace Coquina. Shale, dark gray to brown, silty, calcareous, carbonaceous. 5044 50541 Shale, gray, brown, hard, with micro lenses of Siltstone. 50641 5054 Shale, gray, brown, carbonaceous, calcareous, with trace 5074' 5064 Coquina. Shale, brown, gray, slightly silty, with trace Arragonite. 5074 50841 Shale, dark gray, silty, calcareous, with trace Arragonite. 5084 50941 Shale, dark gray, very silty, very calcareous with Arragonite. 5094 5104' Shale, dark brown, gray, slightly silty, calcareous, 5104 5112' Shale, dark brown, very carbonaceous, very calcareous, with 5112 5124' micro lenses of Sandstone; also trace Coquina and Arragonite. Shale, as above, with trace Calcite and Pyrite. 5124 5132' 5144' Shale, hard, dark gray, brown, carbonaceous, gaseous, with 5132 some soft, light brown Shale, trace Pyrite. Shale, as above, with micro lenses of Siltstone, trace 5144 5154' Arragonite. Shale, as above; trace Sandstone, white, very fine grained 5154 5164' in micro streaks. Shale, dark brown to gray, hard, carbonaceous, calcareous, 5164 5174' with trace Sandstone, white, very fine grain; Arragonite and Pyrite. Sandstone, white, very fine grained, with occasional Glau-5174 5180' conite grains, abundant Arragonite. Sandstone, as above, some shaly; Shale, dark brown, gray, as 5180 51901 above, with Arragonite. Shale, dark brown, gray, hard, calcareous, carbonaceous; with 5190 5204' lenses and streaks of Sandstone, white, very fine grained with occasional glauconitic grains. 52121 Sandstone, as above, some very light tan, trace Arragonite. 5204 Shale, dark brown, gray, slightly silty, calcareous, carbon-5212 5222' aceous, micro pyritic; Sandstone, as above. Sandstone, white to gray, very fine grained, glauconitic, 5222 5232' calcareous; Shale, dark gray, sandy, glauconitic. 5232 5242' Sandstone, white to tan, very fine to fine grained, glauconitic. Sandstone, gray, very fine to fine grained, glauconitic, very 5242 5280 shaly grading to sandy Shale. Shale, dark gray to brownish gray, silty to sandy, very 5280 52921 calcareous, very carbonaceous. 5292 5304' Siltstone, gray to white, sandy, shaly in part. Shale, brown, gray, carbonaceous, calcareous, with occasional 5304 5312' micro streaks of Sandstone, white, very fine grained. 5312 5322' Shale, dark gray, silty, calcareous. Shale, gray, silty, calcareous, with streaks Sandstone, gray, 5322 5330' medium to fine grained, very shaly, very glauconitic. Shale, gray, very silty, calcareous, with Sandstone, white, 5330 5344' medium grained, subrounded, salt and pepper, glauconitic, some very shaly. Sandstone, as above, increasingly shaly. 5344 53501 Shale, gray, very calcareous; with Sandstone, white to gray, 5350 53621 salt and pepper, coarse to fine grained, very shaly in part, glauconitic. Shale, gray, very calcareous; with Siltstone, light gray, 5362 53721 sandy; Sandstone, as above. 5372 5382' Shale, as above, Clay in streaks, white, firm. 5392' Shale, dark gray, very slightly calcareous, carbonaceous. 5382 5404' Sandstone, gray, medium grained, very shaly; trace Calcite, 5392

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FARM WELL NO.____

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TO FROM_ 5414' Shale, dark gray, non calcareous, slightly silty, slight 5404 pyritic. Siltstone, light gray, sandy; Sandstone, gray, medium grained, shaly, very glauconitic; trace Clay, white. 5432' 5414 5432 5444' Sandstone, white to gray, medium to fine grained, very shaly in part. Shale, gray to brown, sandy, with Arragonite; trace Limestone 5444 54541 brown, shaly. Limestone, brown, shaly in part, with trace Calcite. 5464' 5454 54741 5464 Shale, gray to brown, carbonaceous, calcareous, pyritic. 5474 5492' Shale, dark gray, non calcareous, hard, some calcareous; with lenses of shaly Sandstone, gray, medium grained, glauconitic. 5510' 5492 Shale, dark gray, non calcareous, firm, slight pyritic. Shale, dark gray, slightly silty, non calcareous, firm, with 5510 5524' some light brown, soft. Shale, dark gray, hard, non calcareous, some brown, soft. 5524 55421 55521 5542 Shale, as above, with finely disseminated Pyrite. 5564' 5552 Shale, becoming dark brown to gray, silty, calcareous, with carbonaceous specks. Shale, dark brownish gray, firm, calcareous, some bentonitic, 5564 5584' soft, argillaceous, with trace brown Limestone. 55941 Shale, as above, becoming increasingly soft, argillaceous. 5584 5594 5604' Shale, becoming mostly dark gray, firm, calcareous, carbonaceous, silty, with some soft, brown. 5612' Shale, dark gray, with dark brown inclusion; gaseous. 5604 56301 Shale, as above, with an increase in soft, argillaceous, 5612 brown Shale. Shale, dark gray, hard, calcareous, with some soft, brown. 56381 5630 5638 5650' Shale, as above, with fossil fragments. 56621 Shale, gray to black, very calcareous, soft. 5650 Shale, dark gray, firm, some hard, calcareous, with trace 56701 5662 Limestone, brown. Shale, light to medium gray, calcareous, hard, with Clay 5670 5684' streaks. Shale, light gray, soft, calcareous, with Clay, white; Lime-56921 5684 stone, brown. Shale, gray, hard, calcareous, with some soft, brown, streaks 57021 5692 of Clay white. 5702 5710' Shale, gray to brown, very calcareous. 57261 Shale, gray, calcareous, with white Clay; trace Sandstone, 5710 white, very fine grained, subrounded, clay filled, glauconitic. 5726 5734' Sandstone, white to light tan, very fine grained, subrounded to subangular, clay filled, moderately calcareous, with occasional glauconitic grains. Sandstone, light tan, very fine to fine grained, subrounded, 5746' 5734 clay filled, calcareous, with occasional green and Sandstone, white, very fine grained, subangular, clay filled 5746 5768' calcareous, trace brown stain, slight glauconitic; with thin streaks Limestone, brown. Sandstone, as above, abundant clay filled, very hard, tight. 5780' 5768 Sandstone, white to very light gray, very fine grained grading to Siltstone, clay filled, subrounded, calcareous. 5780 5792' 5792 58021 Siltstone, light gray, shaly. 5802 5810' Siltstone, gray, sandy, shaly. 5822' Siltstone, as above, with black specks. 5810 5822 5825' Siltstone, light gray, glauconitic, argillaceous. 5825 5830' Sandstone, white, very fine grained, clay filled, subrounded. 5830 5832' Shale, gray, silty. 5842' Siltstone, light to medium gray, sandy, shaly in part. 5832 5848' Shale, light gray, silty; Siltstone, light to medium gray; 5842 Sandstone, white, very fine grained, clay filled,

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FROM TO 5848 58621 Sandstone, white, fine to very fine grained, subrounded, clay filled, non calcareous. Sandstone, white, very fine grained, subrounded; Shale, dark 5862 58691 brown to black, carbonaceous, silty. 5878' Shale, light gray to gray, carbonaceous. 5869 Siltstone, brown to gray. 5878 58821 58901 Sandstone, very light tan, very fine to fine grained, sub-5882 rounded, with green and brown grains. 5890 59021 Sandstone, as above, clay filled, non calcareous, pyritic. 5920' Sandstone, light tan to white, fine to very fine grained, 5902 subrounded, non calcareous, clay filled. Sandstone, very light tan, medium to fine grained, clay filled, 5920 5930' tight, subrounded, non calcareous. 59371 5930 Sandstone, as above, poorly sorted. 5950' 5937 Siltstone, very light gray to gray, white, sandy. 5950 5960' Sandstone, white, medium to fine grained, poorly sorted, clay filled, calcareous. Shale, gray, silty in part, with fragment Coal; Siltstone, 5972' 5960 gray, shaly; Sandstone, white, medium to fine grained, with quartz shards. Siltstone, very light greenish gray to gray, slightly calcareous, 5972 5990' hard; Sandstone, white, medium grained, with chert pebbles and quartz shards; Shale, green, dense, non calcareous, hard. Sandstone, pale green to white, fine grained, very shaly in part, hard, tight. 5990 60021 6002 60201 Shale, pale green, hard, dense, some dark green, sandy. 6041' Sandstone, white, medium to coarse grained, subrounded, some 6020 clay filled, mostly unconsolidated. 6041 6062' Shale, gray green to dark gray, sandy in part; with Sandstone white, medium to coarse grained, mostly unconsolidated. 60721 Sandstone, white to green, medium grained, some unconsolidated. 6062 60861 Sandstone, white, medium grained, subrounded; Shale green. 6072 6086 6096' Sandstone, white to green, medium grained, subrounded, clay filled. 6102' 6096 Sandstone, white, becoming fine grained, subangular, clay filled. Shale, gray, very light gray and red, with occasional streaks 6114' 6102 Bentonite, white. Shale, gray, red, tan and white, slightly silty and sandy in 6114 6130' part. 6142' Shale, green, tan, red and white, slightly sandy and silty. 6130 6150' Shale, as above, becoming more sandy and silty. 6142 6162' Shale, increasingly salmon to red, some gray, tan and white. 6150 6182' Shale, salmon, white and green; with Sandstone, white, medium 6162 grained, unconsolidated. 6192' Sandstone, white, fine to medium grained, subangular to 6182 subrounded, clay filled. Shale, green, gray and white, with abundant floating sand 6192 61991 grains. Sandstone, white, medium to coarse grained, subrounded, uncon-6199 6208 solidated. Sandstone, as above, becoming more consolidated. 6214 6208 62241 Shale, green, very light gray and tan, with some floating 6214 sand grains; Sandstone, unconsolidated, medium grained, subrounded. Sandstone, white, medium to coarse grained, mostly unconsoli-62421 6224 dated, rounded to subrounded, frosted. Shale, green, white and pale lavender with Sandstone, uncon-62521 6242 solidated, medium grained, rounded. 6262' 6252 Shale, as above with Clay, white, firm to soft, slight bentonitic. 6272' Shale, green, lavender and white, silty in part; with Sand-6262 stone, white, medium to fine grained, unconsolidated,

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Sandstone, frosted, unconsolidated, subrounded to rounded; with thin streaks Shale, green; Clay, white. Sandstone, as above, with Clay white, in very thin streaks. G282 6302' Sandstone, frosted, unconsolidated, medium grained, subangular to subrounded, with thin laminations of Clay, white. Sandstone, med fun to coarse grained, unconsolidated, subrounded to subangular, with Clay laminations. Sandstone, as above, with occasiona orange and tan grains. Sandstone, as above, with occasiona orange and tan grains. Sandstone, unconsolidated, medium grained, subangular, with clay, and the coarse grained, and subragular inconsolidated, medium grained, subangular, with captured in the sandstone, as above, with Shale green, gray and white. Sandstone, as above, with Shale green, gray and white. Sandstone, white, medium to fine grained, subangular, clay captured, subangular Sandstone, instead of clar, unconsolidated, fine to coarse grained, subangular Shale, gray, with streaks white Clay; Sandstone unconsolidated, Shale, green and brown, slightly sandy; with Sandstone, as above, with Clay, white, firm, in thin clay about the sandstone, white, medium grained, some clay filled, sandstone, white, medium grained, some clay filled, shale, green and brown, slightly sandy; with Sandstone, as above, with Clay, white, firm, in thin clay. Sandstone, white critical shale, green, gray, brown and white, silty to sandy in part, clay clay in the stream of the subrounded, captured,		FROM	
Sandstone, as above, with Clay white, in very thin streaks. 6282 6302° to subrounded, with thin laminations of Clay, white. Sandstone, medium to coarse grained, unconsolidated, sub-rounded to subangular, with Clay laminations. 6326 6336° 6370° 6384° 6384° 6385° 6386° 6370° 6386° 63		6272	6282'
Sandstone, medium to coarse grained, unconsolidated, sub- rounded to subangular, with Clay laminations. Sandstone, as above, with occasional orange and tan grains. Sandstone, unconsolidated, medium to coarse grained, angular to rounded with an increase in orange grains. Sandstone, unconsolidated, medium grained, subangular, with Streaks Clay, white. Sandstone, white, medium to fine grained, subangular, clay filled, mostly unconsolidated. filled, mostly unconsolidated, fine to coarse grained, subangular. Shale, gray, with streaks white Clay; Sandstone unconsolidated, medium to coarse grained, subangular. Shale, gray, with streaks white Clay; Sandstone unconsolidated, medium to coarse grained. Shale, green and brown, slightly sandy; with Sandstone, as above. Shale and Sandstone, as above; with Clay, white, firm, in thin laminations. Sandstone, white, fine to medium grained, some clay filled, some unconsolidated. Shale, prown, green, red and white, silty to sandy in part, with thin laminations Clay, soft. Shale, encoming mostly reddish brown, some green; with Sandstone, very light pink, medium to fine grained, clay filled, subrounded, calcareous. Shale, becoming predominately reddish brown; with Sandstone unconsolidated, Shale and Sandstone, as above, with service with subrounded, calcareous. Shale, becoming predominately reddish brown; with Sandstone unconsolidated, Sandstone, very light pink, medium to fine grained, clay filled, sub- rounded. Sandstone, brown, and speen, fine to medium grained, angular to subrounded, calcareous. Shale, becoming predominately reddish brown; with Sandstone un- consolidated, frosted, medium grained, subrounded, clay filled, with an occasional trace of Limestone, brown, dense. Sandstone, pink, fine grained, subangular, clay filled; with subrounded, calcareous. Shale, red, brown, and green, firm; with Sandstone, pink, fine to medium grained, subrounded, clay filled; with Sandstone, pink, fine grained, subangular, clay filled; with Sandstone, pink, fine grained, subangular, clay fille	Sandstone, as above, with Clay white, in very thin streaks. Sandstone, frosted, unconsolidated, medium grained, subangular		
Sandstone, as above, with occasional orange and tan grains. 6336 6350 6370' angular to rounded with an increase in orange grained. 6360 6370' angular to rounded with an increase in orange grains. Sandstone, unconsolidated, medium grained, subangular, with 5370 6384' streaks Clay, white. 6384 6394' Sandstone, as above, with Shale green, gray and white. 6384 6394' Sandstone, white, medium to fine grained, subangular, clay 6394 6406' filled, mostly unconsolidated. Sandstone, frosted to clear, unconsolidated, fine to coarse grained, subangular, with streaks white Clay; Sandstone unconsolidated, gray, with streaks white Clay; Sandstone unconsolidated, medium to coarse grained. 6420 6430' dated, medium to coarse grained. 6430 6440' above. 644	Sandstone, medium to coarse grained, unconsolidated, sub-	6322	6338'
Sandstone, unconsolidated, medium grained, subangular, with Sandstone, as above, with Shale green, gray and white. Sandstone, white, medium to fine grained, subangular, clay filled, mostly unconsolidated. Sandstone, frosted to clear, unconsolidated, fine to coarse grained, subangular. Shale, gray, with streaks white Clay, Sandstone unconsolidated, medium to coarse grained. Shale, green and brown, slightly sandy; with Sandstone, as above. Shale and Sandstone, as above; with Clay, white, firm, in thin laminations. Sandstone, white, fine to medium grained, some clay filled, some unconsolidated. Shale, brown, green, red and white, silty to sandy in part, with thin laminations clay, soft. Shale, becoming mostly reddish brown, some green; with Sandstone unconsolidated. Shale, green, gray, brown and white, silty in part; with Sandstone unconsolidated. Shale, brown, green, and white, silty in part; with Sandstone unconsolidated. Shale, green, gray, brown and white, silty in part; with Sandstone, very light pink, medium to fine grained, clay filled, subrounded. Sandstone, very light pink, medium to fine grained, clay filled, subrounded, calcareous. Shale, becoming predominately reddish brown; with Sandstone unconsolidated, frosted, medium grained, angular to subrounded, calcareous. Shale, becoming predominately reddish brown; with Sandstone unconsolidated, frosted, medium grained, angular to subrounded, calcareous. Sandstone, white to pink, fine to medium grained, angular to subrounded, calcareous. Sandstone, pink, fine grained, subangular, clay filled; with shale, red, brown, green and white. Sandstone, pink, fine grained, subangular, clay filled; with shale, red, brown, and green. Shale, red, brown, and green, firm; with Sandstone, pink, fine to medium grained, subrounded, clay filled, and Clay, white. Shale, red, brown, green and white. Shale, red, brown, green and white. Shale, as above, with some floating sand grains. Shale, as above, with some floating sand grains. Shale, as above, with som	Sandstone, as above, with occasional orange and tan grains. Sandstone, unconsolidated, medium to coarse grained,		
Sandstone, as above, with Shale green, gray and white. Sandstone, white, medium to fine grained, subangular, clay filled, mostly unconsolidated. Sandstone, frosted to clear, unconsolidated, fine to coarse grained, subangular. Shale, gray, with streaks white Clay; Sandstone unconsoli dated, medium to coarse grained. Shale, green and brown, slightly sandy; with Sandstone, as above. Shale and Sandstone, as above; with Clay, white, firm, in thin laminations. Sandstone, white, fine to medium grained, some clay filled, some unconsolidated. Shale, brown, green, red and white, silty to sandy in part, with thin laminations Clay, soft. Shale, becoming mostly reddish brown, some green; with Sand- stone unconsolidated. Shale, green, gray, brown and white, silty in part; with Sand- stone unconsolidated. Shale, reen, gray, brown and white, silty in part; with Sand- stone unconsolidated. Shale, green, gray, brown and white, silty in part; with Sand- stone white, fine to medium grained, clay filled, sub- rounded. Sandstone, very light pink, medium to fine grained, clay filled, sub- rounded. Sandstone, very light pink, medium to fine grained, clay filled, sub- rounded, calcareous. Shale, becoming predominately reddish brown; with Sandstone un- consolidated, frosted, medium grained. Shale and Sandstone, as above, trace Limestone, brown. Sandstone, white to pink, fine to medium grained, angular to subangular, some clay filled, with an occasional trace of Limestone, brown, dense. Sandstone, pink, fine grained, subangular, clay filled; shale, red, brown, green and white. Sandstone, pink, fine grained, subangular, clay filled; with Shale, red, brown, and green, firm, with Sandstone, pink, fine to medium grained, subrounded, clay filled, with Shale, red, brown, and green, firm, with Sandstone, pink, fine to medium grained, subrounded, clay filled, with Shale, red, brown, green and white. Shale, light green, brown and red, silty in part. Shale, ared, brown, green and white. Shale, ared, brown, green and white. Shale, ared, brown, gree	Sandstone, unconsolidated, medium grained, subangular, with	6370	63841
Sandstone, frosted to clear, unconsolidated, fine to coarse grained, subangular. Shale, gray, with streaks white Clay; Sandstone unconsolidated, medium to coarse grained. Shale, green and brown, slightly sandy; with Sandstone, as above. Shale and Sandstone, as above; with Clay, white, firm, in thin laminations. Sandstone, white, fine to medium grained, some clay filled, some unconsolidated. Shale, brown, green, red and white, silty to sandy in part, with thin laminations Clay, soft. Shale, becoming mostly reddish brown, some green; with Sandstone white, fine to medium grained, clay filled, subrounded. Shale, green, gray, brown and white, silty in part; with Sandstone white, fine to medium grained, clay filled, subrounded. Sandstone, very light pink, medium to fine grained, clay filled, subrounded, calcareous. Shale, becoming predominately reddish brown; with Sandstone unconsolidated. Shale and Sandstone, as above, trace Limestone, brown. Shale and Sandstone, as above, trace Limestone, brown. Shale and Sandstone, as above, trace Limestone, brown. Shale and Sandstone, grien; with an occasional trace of Limestone, pink, fine to medium grained, angular to subangular, some clay filled, with an occasional trace of Limestone, pink, fine grained, subangular, clay filled; with Shale, red, brown, and green. Shale, red, brown, and green and white. Shale, red, brown and green, firm; with Sandstone, pink, fine grained, subangular, clay filled; with Shale, red, brown and green, firm; with Sandstone, pink, fine grained, subrounded, clay filled, and Clay, white. Shale, red, brown, green and white. Shale, red and gray, silty in part with white Clay. Shale, red and gray, silty in part with white Clay. Shale, red and gray, silty in part with white Clay. Shale, red and gray, silty in part with white Clay. Shale, as above, with some floating sand grains. Shale, as above, with some white Clay. Shale, as above, with some white and gray, some sandy; with Limestone, light tan, crypto-crystalline. Shale, dark red	Sandstone, as above, with Shale green, gray and white. Sandstone, white, medium to fine grained, subangular, clay		
Shale, gray, with streaks white Clay; Sandstone unconsolidated, medium to coarse grained. Shale, green and brown, slightly sandy; with Sandstone, as above. Shale and Sandstone, as above; with Clay, white, firm, in thin laminations. Sandstone, white, fine to medium grained, some clay filled, some unconsolidated. Shale, brown, green, red and white, silty to sandy in part, with thin laminations Clay, soft. Shale, becoming mostly reddish brown, some green; with Sandstone, white, fine to medium grained, clay filled, substone white, fine to medium grained, clay filled, subrounded. Sandstone, very light pink, medium to fine grained, clay filled, subrounded, calcareous. Shale, becoming predominately reddish brown; with Sandstone unconsolidated, frosted, medium grained, clay filled, subrounded, calcareous. Shale, becoming predominately reddish brown; with Sandstone unconsolidated, frosted, medium grained, subrounded to subrounded, calcareous. Shale, becoming predominately reddish brown; with Sandstone unconsolidated, frosted, medium grained, angular to subragular, some clay filled, with an occasional trace of Limestone, brown, dense. Sandstone, white to pink, fine to medium grained, angular to some clay filled, with an occasional trace of Limestone, brown, dense. Sandstone, pink, fine grained, subangular, clay filled; Shale, ed, brown, and green. Shale, red, brown and green, firm; with Sandstone, pink, fine to medium grained, subangular, clay filled; with Shale, red, brown and green, firm; with Sandstone, pink, fine folial filled, and Clay, white. Shale, red, brown and green, firm; with Sandstone, pink, fine folial filled, and Clay, white. Shale, red, brown and green, sily with streaks white, folial filled, and clay, white. Shale, red, brown, green and white. Shale, red, brown, green and white. Shale, red, brown, green and white with floating sand grains. Shale, red, brown, green and white with floating sand grains. Shale, as above, with some floating sand grains. Shale, ark red, brown, white and gra	Sandstone, frosted to clear, unconsolidated, fine to coarse	6406	6420'
Shale, green and brown, slightly sandy; with Sandstone, as above. Shale and Sandstone, as above; with Clay, white, firm, in thin laminations. Sandstone, white, fine to medium grained, some clay filled, some unconsolidated. Shale, brown, green, red and white, silty to sandy in part, with thin laminations Clay, soft. Shale, becoming mostly reddish brown, some green; with Sandstone unconsolidated. Shale, green, gray, brown and white, silty in part; with Sandstone white, fine to medium grained, clay filled, subrounded. Sandstone, very light pink, medium to fine grained, clay filled, subrounded, calcareous. Shale, becoming predominately reddish brown; with Sandstone unconsolidated, frosted, medium grained. Shale and Sandstone, as above, trace Limestone, brown. Sandstone, white to pink, fine to medium grained, angular to subangular, some clay filled, with an occasional trace of Limestone, brown, dense. Sandstone, pink, fine grained, subangular, clay filled; Shale, end, brown, green and white. Sandstone, pink, fine grained, subangular, clay filled; with Shale, red, brown and green, firm; with Sandstone, pink, fine to medium grained, subangular, clay filled; with Shale, red, brown and green, firm; with Sandstone, pink, fine to medium grained, subangular, clay filled; with Shale, red, brown, green and white. Shale, red, brown and green, firm; with Sandstone, pink, fine to medium grained, subangular, clay filled; with shale, red, brown, green and white. Shale, red, brown, red, green and white. Shale, red, brown, green and gray, silty with streaks white, 6652 Clay. Shale, red, brown, green and gray, silty with streaks white, 6662 Clay. Shale, red, brown, green and white with floating sand grains. 6662 Shale, dark red, brown, white and gray, some sandy; with Lime-stone, light tan, dense. Shale, dark red and green, slightly calcareous, splintery. Shale, green, gray and dark red, slightly calcareous, splintery. Shale, dark red and green, slightly calcareous, splintery. Shale, dark red, brown, white and	Shale, gray, with streaks white Clay; Sandstone unconsoli-	6420	6430 '
Shale and Sandstone, as above; with Clay, white, firm, in thin laminations. Sandstone, white, fine to medium grained, some clay filled, some unconsolidated. Shale, brown, green, red and white, silty to sandy in part, with thin laminations Clay, soft. Shale, becoming mostly reddish brown, some green; with Sandstone unconsolidated. Shale, green, gray, brown and white, silty in part; with Sandstone white, fine to medium grained, clay filled, subrounded. Sandstone, very light pink, medium to fine grained, clay filled, subrounded, calcareous. Shale, becoming predominately reddish brown; with Sandstone unconsolidated, frosted, medium grained. Shale and Sandstone, as above, trace Limestone, brown. Sandstone, white to pink, fine to medium grained, angular to subangular, some clay filled, with an occasional trace of Limestone, brown, dense. Sandstone, pink, fine grained, subangular, clay filled; Shale, ced, brown, green and white. Sandstone, pink, fine grained, subangular, clay filled; with Shale, red, brown, and green. Shale, red, brown and green, firm; with Sandstone, pink, fine G552 Shale, red, brown and green, firm; with Sandstone, pink, fine G666 Shale, red, brown, green and white. Shale, brown, red, green and white. Shale, very silty. Shale, red, brown, green and gray, silty with streaks white, Clay. Shale, red, brown, green and gray, silty with streaks white, Clay. Shale, red, brown, green and gray, silty with streaks white, G662 Shale, red, brown, green and sray, silty with streaks white, G662 Shale, red, brown, green and white with floating sand grains. Shale, red, brown, green and white with floating sand grains. Shale, red, brown, green and white with floating sand grains. Shale, red, brown, green and white with floating sand grains. Shale, red, brown, white and green, slightly calcareous, splintery. Shale, green, gray and dark red, slightly calcareous, splintery. Shale, dark red, brown, white and gray, some sandy; with Limestone, light tan, cerypto-crystalline. Shale, dark red, bro	Shale, green and brown, slightly sandy; with Sandstone, as	6430	6440'
Sandstone, white, fine to medium grained, some clay filled, some unconsolidated. Shale, brown, green, red and white, silty to sandy in part, with thin laminations Clay, soft. Shale, becoming mostly reddish brown, some green; with Sandstone unconsolidated. Shale, green, gray, brown and white, silty in part; with Sandstone white, fine to medium grained, clay filled, subrounded. Sandstone, very light pink, medium to fine grained, clay filled, subrounded, calcareous. Shale, becoming predominately reddish brown; with Sandstone unconsolidated, frosted, medium grained, subrounded to subrounded, factoreous. Shale, becoming predominately reddish brown; with Sandstone unconsolidated, frosted, medium grained, subrounder to subangular, some clay filled, with an occasional trace of Limestone, brown, dense. Sandstone, white to pink, fine to medium grained, angular to subangular, some clay filled, with an occasional trace of Limestone, brown, dense. Sandstone, pink, fine grained, subangular, clay filled; Shale, fact, brown, green and white. Sandstone, pink, fine grained, subangular, clay filled; with shale, red, brown, and green. Shale, red, brown and green, firm; with Sandstone, pink, fine to medium grained, subrounded, clay filled, and Clay, white. Shale, light green, brown and red, silty in part. Shale, brown, red, green and white. Shale, red, brown, green and gray, silty with streaks white, Clay. Shale, red, brown, green and gray, silty with streaks white, Clay. Shale, red, brown, green and tan with thin streaks Limestone, tan. Shale, red, brown, green and thite with floating sand grains. Shale, as above, with some white Clay. Shale, as above, with some white Clay. Shale, as green, gray and dark red, slightly calcareous, sandy in part. Shale, dark red, brown, white and gray, some sandy; with Limestone, light tan, cerypto-crystalline. Shale, dark red, brown, white and gray, some sandy; with Limestone, light tan, crypto-crystalline. Sandstone, white, fine to coarse grained, poorly sorted, 6724 Founded, some clay filled, non	Shale and Sandstone, as above; with Clay, white, firm, in thin	6440	6450
Shale, brown, green, red and white, silty to sandy in part, with thin laminations Clay, soft. Shale, becoming mostly reddish brown, some green; with Sandstone unconsolidated. Shale, green, gray, brown and white, silty in part; with Sandstone, green, gray, brown and white, silty in part; with Sandstone, very light pink, medium to fine grained, clay filled, subrounded, calcareous. Shale, becoming predominately reddish brown; with Sandstone unconsolidated, frosted, medium grained. Shale and Sandstone, as above, trace Limestone, brown. Shale and Sandstone, as above, trace Limestone, brown. Shale and Sandstone, as above, trace Limestone, brown. Sandstone, white to pink, fine to medium grained, angular to subangular, some clay filled, with an occasional trace of Limestone, brown, dense. Sandstone, pink, fine grained, subangular, clay filled; Shale, follow, green and white. Sandstone, pink, fine grained, subangular, clay filled; with Shale, red, brown and green, firm; with Sandstone, pink, fine to medium grained, subrounded, clay filled, and Clay, white. Shale, red, brown and green, firm; with Sandstone, pink, fine to medium grained, subrounded, clay filled, and Clay, white. Shale, brown, red, green and white. Shale, light green, brown and red, silty in part. Shale, red, brown, green and gray, silty with streaks white, 6622 Shale, red, brown, green and gray, silty with streaks white, 6622 Shale, as above, with some floating sand grains. Shale, red, brown, green and white with floating sand grains. Shale, as above, with some white Clay. Shale, as above, with some white Clay. Shale, red, brown, green and white with floating sand grains. Shale, dark red and green, slightly calcareous, sandy in part. Shale, dark red and green, slightly calcareous, sandy in part. Shale, dark red and green, slightly calcareous, sandy in part. Shale, dark red, brown, white and gray, some sandy; with Limestone, light tan, crypto-crystalline. Sandstone, white, fine to coarse grained, poorly sorted, 6724 Founded, some clay filled, non calcareou	Sandstone, white, fine to medium grained, some clay filled,	6450	6464
Shale, becoming mostly reddish brown, some green; with Sandstone unconsolidated. Shale, green, gray, brown and white, silty in part; with Sandstone white, fine to medium grained, clay filled, subrounded. Sandstone, very light pink, medium to fine grained, clay filled, subrounded, calcareous. Shale, becoming predominately reddish brown; with Sandstone unconsolidated, frosted, medium grained. Shale and Sandstone, as above, trace Limestone, brown. Shale and Sandstone, as above, trace Limestone, brown. Sandstone, white to pink, fine to medium grained, angular to subangular, some clay filled, with an occasional trace of Limestone, brown, dense. Sandstone, pink, fine grained, subangular, clay filled; Shale, 6542 red, brown, green and white. Sandstone, pink, fine grained, subangular, clay filled; with 6552 red, brown and green, firm; with Sandstone, pink, fine fosco firm; with Sandstone, pink, fine grained, subrounded, clay filled, and Clay, white. Shale, red, brown and green, firm; with Sandstone, pink, fine 6566 Shale, light green, brown and red, silty in part. Shale, brown, red, green and white. Shale, very silty. Shale, red, brown, green and gray, silty with streaks white, 6622 Clay. Shale, red, brown, green and gray, silty with streaks white, 6622 Shale, as above, with some white Clay. Shale, red, prown, green and white with floating sand grains. Shale, are dand gray, silty in part with white Clay. Shale, are dand green, slightly calcareous, sandy in part. Shale, green, gray and dark red, slightly calcareous, splintery. Limestone, light tan, crypto-crystalline. Sandstone, white, fine to coarse grained, poorly sorted, 6724 Forunded, some clay filled, non calcareous.	Shale, brown, green, red and white, silty to sandy in part,	6464	6482'
Shale, green, gray, brown and white, silty in part; with Sandstone white, fine to medium grained, clay filled, subrounded. Sandstone, very light pink, medium to fine grained, clay filled, subrounded, calcareous. Shale, becoming predominately reddish brown; with Sandstone unconsolidated, frosted, medium grained. Shale and Sandstone, as above, trace Limestone, brown. Sandstone, white to pink, fine to medium grained, angular to subangular, some clay filled, with an occasional trace of Limestone, brown, dense. Sandstone, pink, fine grained, subangular, clay filled; Shale, fine grained, subangular, clay filled; with shale, red, brown, and green. Shale, red, brown and green, firm; with Sandstone, pink, fine for medium grained, subrounded, clay filled, and Clay, white. Shale, brown, red, green and white. Shale, brown, red, green and white. Shale, brown, red, green and white. Shale, light green, brown and red, silty in part. Shale, very silty. Shale, red, brown, green and gray, silty with streaks white, for form of force of for	Shale, becoming mostly reddish brown, some green; with Sand-	6482	6490'
Sandstone, very light pink, medium to fine grained, clay filled, subrounded, calcareous. Shale, becoming predominately reddish brown; with Sandstone unconsolidated, frosted, medium grained. Shale and Sandstone, as above, trace Limestone, brown. Shale and Sandstone, as above, trace Limestone, brown. Sandstone, white to pink, fine to medium grained, angular to subangular, some clay filled, with an occasional trace of Limestone, brown, dense. Sandstone, pink, fine grained, subangular, clay filled; Shale, force, brown, green and white. Sandstone, pink, fine grained, subangular, clay filled; with force, brown, and green. Shale, red, brown and green, firm; with Sandstone, pink, fine to medium grained, subrounded, clay filled, and Clay, white. Shale, red, green and white. Shale, brown, red, green and white. Shale, brown, red, green and white. Shale, very silty. Shale, red, brown, green and gray, silty in part. Clay. Shale, red, brown, green and gray, silty with streaks white, force forc	Shale, green, gray, brown and white, silty in part; with Sand- stone white, fine to medium grained, clay filled, sub-	6490	6500'
Shale, becoming predominately reddish brown; with Sandstone unconsolidated, frosted, medium grained. Shale and Sandstone, as above, trace Limestone, brown. Sandstone, white to pink, fine to medium grained, angular to subangular, some clay filled, with an occasional trace of Limestone, brown, dense. Sandstone, pink, fine grained, subangular, clay filled; Shale, 6542 6552' red, brown, green and white. Sandstone, pink, fine grained, subangular, clay filled; with 6552 6566' Shale, red, brown, and green. Shale, red, brown and green, firm; with Sandstone, pink, fine to medium grained, subrounded, clay filled, and Clay, white. Shale, brown, red, green and white. Shale, brown, red, green and white. Shale, light green, brown and red, silty in part. Clay. Shale, red, brown, green and gray, silty with streaks white, 6622 6610' 6622' Shale, red, brown, green and gray, silty with streaks white, 6622 6632' Clay. Shale, red and gray, silty in part with white Clay. Shale, red, green and tan with thin streaks Limestone, tan. Shale, red, brown, green and white with floating sand grains. Shale, as above, with some floating sand grains. Shale, as above, with some white Clay. Shale, red, brown, green and white with floating sand grains. Shale, as above, with some white Clay. Shale, as above, with some white Clay. Shale, are brown, green and white with floating sand grains. Shale, dark red and green, slightly calcareous, sandy in part. Shale, green, gray and dark red, slightly calcareous, splintery. Shale, green, gray and dark red, slightly calcareous, splintery. Shale, dark red, brown, white and gray, some sandy; with Limestone, light tan, dense. Shale, dark red, brown, white and gray, some sandy; with Limestone, light tan, crypto-crystalline. Sandstone, white, fine to coarse grained, poorly sorted, forzed forzed forced f	Sandstone, very light pink, medium to fine grained, clay filled,	6500	6510'
Shale and Sandstone, as above, trace Limestone, brown. Sandstone, white to pink, fine to medium grained, angular to subangular, some clay filled, with an occasional trace of Limestone, brown, dense. Sandstone, pink, fine grained, subangular, clay filled; Shale, 6542 6552' red, brown, green and white. Sandstone, pink, fine grained, subangular, clay filled; with 6552 6566' Shale, red, brown, and green. Shale, red, brown and green, firm; with Sandstone, pink, fine 6566 6590' to medium grained, subrounded, clay filled, and Clay, white. Shale, brown, red, green and white. Shale, light green, brown and red, silty in part. 6602 6610' Shale, very silty. 6610 6622' Shale, red, brown, green and gray, silty with streaks white, 6622 6632' Clay. Shale, red and gray, silty in part with white Clay. 6632 6642' Shale, as above, with some floating sand grains. 6642 6650' Shale, red, green and tan with thin streaks Limestone, tan. 6650 6662' Shale, as above, with some white Clay. 6662 6672' Shale, as above, with some white Clay. 6662 6672' Shale, as above, with some white Clay. 6662 6672' Shale, as above, with some white Clay. 6662 6672' Shale, as above, with some white With floating sand grains. 6672 6682' Shale, dark red and green, slightly calcareous, sandy in part. 6682 6692' Shale, green, gray and dark red, slightly calcareous, splintery. 6692 6702' Shale, dark red and green, slightly calcareous, splintery. 6692 6702' G702' Shale, dark red, brown, white and gray, some sandy; with Limestone, light tan, crypto-crystalline. Sandstone, white, fine to coarse grained, poorly sorted, 6724 6734' rounded, some clay filled, non calcareous.	Shale, becoming predominately reddish brown; with Sandstone un-	6510	65221
subangular, some clay filled, with an occasional trace of Limestone, brown, dense. Sandstone, pink, fine grained, subangular, clay filled; Shale, red, brown, green and white. Sandstone, pink, fine grained, subangular, clay filled; with Shale, red, brown, and green. Shale, red, brown and green, firm; with Sandstone, pink, fine to medium grained, subrounded, clay filled, and Clay, white. Shale, brown, red, green and white. Shale, light green, brown and red, silty in part. Shale, very silty. Shale, very silty. Shale, red, brown, green and gray, silty with streaks white, Clay. Shale, red and gray, silty in part with white Clay. Shale, as above, with some floating sand grains. Shale, as above, with some white Clay. Shale, dark red and green, slightly calcareous, sandy in part. Shale, dark red and green, slightly calcareous, splintery. Shale, green, gray and dark red, slightly calcareous, splintery. Shale, dark red, brown, white and gray, some sandy; with Lime- stone, light tan, dense. Shale, dark red, brown, white and gray, some sandy; with Lime- stone, light tan, crypto-crystalline. Sandstone, white, fine to coarse grained, poorly sorted, rounded, some clay filled, non calcareous.	Shale and Sandstone, as above, trace Limestone, brown.		
Sandstone, pink, fine grained, subangular, clay filled; Shale, 6542 6552' red, brown, green and white. Sandstone, pink, fine grained, subangular, clay filled; with 6552 6566' Shale, red, brown, and green. Shale, red, brown and green, firm; with Sandstone, pink, fine 6566 6590' to medium grained, subrounded, clay filled, and Clay, white. Shale, brown, red, green and white. 6590 6602' Shale, light green, brown and red, silty in part. 6602 6610' Shale, very silty. Shale, red, brown, green and gray, silty with streaks white, 6622 6632' Clay. Shale, red and gray, silty in part with white Clay. 6632 6642' Shale, as above, with some floating sand grains. 6642 6650' Shale, red, green and tan with thin streaks Limestone, tan. 6650 6662' Shale, red, brown, green and white Clay. 6662 6672' Shale, red, brown, green and white with floating sand grains. 6672 6682' 6672' Shale, dark red and green, slightly calcareous, sandy in part. 6682 6672' Shale, dark red and green, slightly calcareous, splintery. 6692 6702' Limestone, light tan, dense. 6702 6710' Shale, dark red, brown, white and gray, some sandy; with Lime- 6710 6724' stone, light tan, crypto-crystalline. Sandstone, white, fine to coarse grained, poorly sorted, 6724 6734' rounded, some clay filled, non calcareous.	Sandstone, white to pink, fine to medium grained, angular to subangular, some clay filled, with an occasional trace of	6533	6542'
Sandstone, pink, fine grained, subangular, clay filled; with Shale, red, brown, and green. Shale, red, brown and green, firm; with Sandstone, pink, fine to medium grained, subrounded, clay filled, and Clay, white. Shale, brown, red, green and white. Shale, light green, brown and red, silty in part. Shale, very silty. Shale, red, brown, green and gray, silty with streaks white, Clay. Shale, red and gray, silty in part with white Clay. Shale, as above, with some floating sand grains. Shale, as above, with some white Clay. Shale, green, gray and dark red, slightly calcareous, sandy in part. Shale, green, gray and dark red, slightly calcareous, splintery. Limestone, light tan, dense. Shale, dark red, brown, white and gray, some sandy; with Lime- stone, light tan, crypto-crystalline. Sandstone, white, fine to coarse grained, poorly sorted, rounded, some clay filled, non calcareous.	Sandstone, pink, fine grained, subangular, clay filled; Shale,	6542	6552'
Shale, red, brown and green, firm; with Sandstone, pink, fine to medium grained, subrounded, clay filled, and Clay, white. Shale, brown, red, green and white. Shale, light green, brown and red, silty in part. Shale, very silty. Shale, red, brown, green and gray, silty with streaks white, Clay. Shale, red and gray, silty in part with white Clay. Shale, as above, with some floating sand grains. Shale, red, green and tan with thin streaks Limestone, tan. Shale, as above, with some white Clay. Shale, dark red and green, slightly calcareous, sandy in part. Shale, green, gray and dark red, slightly calcareous, splintery. Limestone, light tan, dense. Shale, dark red, brown, white and gray, some sandy; with Lime- stone, light tan, crypto-crystalline. Sandstone, white, fine to coarse grained, poorly sorted, rounded, some clay filled, non calcareous.	Sandstone, pink, fine grained, subangular, clay filled; with	6552	6566'
Shale, brown, red, green and white. Shale, light green, brown and red, silty in part. Shale, very silty. Shale, red, brown, green and gray, silty with streaks white, Clay. Shale, red and gray, silty in part with white Clay. Shale, as above, with some floating sand grains. Shale, red, green and tan with thin streaks Limestone, tan. Shale, as above, with some white Clay. Shale, ard, brown, green and white with floating sand grains. Shale, dark red and green, slightly calcareous, sandy in part. Shale, green, gray and dark red, slightly calcareous, splintery. Limestone, light tan, dense. Shale, dark red, brown, white and gray, some sandy; with Lime- stone, light tan, crypto-crystalline. Sandstone, white, fine to coarse grained, poorly sorted, rounded, some clay filled, non calcareous.	Shale, red, brown and green, firm; with Sandstone, pink, fine to medium grained, subrounded, clay filled, and Clay,	6566	6590'
Shale, light green, brown and red, silty in part. Shale, very silty. Shale, red, brown, green and gray, silty with streaks white, Clay. Shale, red and gray, silty in part with white Clay. Shale, as above, with some floating sand grains. Shale, red, green and tan with thin streaks Limestone, tan. Shale, as above, with some white Clay. Shale, as above, with some white Clay. Shale, red, brown, green and white with floating sand grains. Shale, dark red and green, slightly calcareous, sandy in part. Shale, green, gray and dark red, slightly calcareous, splintery. Limestone, light tan, dense. Shale, dark red, brown, white and gray, some sandy; with Lime- stone, light tan, crypto-crystalline. Sandstone, white, fine to coarse grained, poorly sorted, rounded, some clay filled, non calcareous.		6590	6602'
Shale, very silty. Shale, red, brown, green and gray, silty with streaks white, Clay. Shale, red and gray, silty in part with white Clay. Shale, as above, with some floating sand grains. Shale, red, green and tan with thin streaks Limestone, tan. Shale, as above, with some white Clay. Shale, as above, with some white Clay. Shale, red, brown, green and white with floating sand grains. Shale, dark red and green, slightly calcareous, sandy in part. Shale, green, gray and dark red, slightly calcareous, splintery. Shale, dark red, brown, white and gray, some sandy; with Lime- stone, light tan, crypto-crystalline. Sandstone, white, fine to coarse grained, poorly sorted, rounded, some clay filled, non calcareous.	Shale, light green, brown and red, silty in part.		
Clay. Shale, red and gray, silty in part with white Clay. Shale, as above, with some floating sand grains. Shale, red, green and tan with thin streaks Limestone, tan. Shale, as above, with some white Clay. Shale, as above, with some white Clay. Shale, red, brown, green and white with floating sand grains. Shale, dark red and green, slightly calcareous, sandy in part. Shale, green, gray and dark red, slightly calcareous, splintery. Shale, dark red, brown, white and gray, some sandy; with Lime- stone, light tan, crypto-crystalline. Sandstone, white, fine to coarse grained, poorly sorted, rounded, some clay filled, non calcareous.	Shale, very silty.		
Shale, as above, with some floating sand grains. Shale, red, green and tan with thin streaks Limestone, tan. Shale, as above, with some white Clay. Shale, red, brown, green and white with floating sand grains. Shale, dark red and green, slightly calcareous, sandy in part. Shale, green, gray and dark red, slightly calcareous, splintery. Shale, dark red, brown, white and gray, some sandy; with Lime- stone, light tan, crypto-crystalline. Sandstone, white, fine to coarse grained, poorly sorted, rounded, some clay filled, non calcareous.	Clay.		
Shale, red, green and tan with thin streaks Limestone, tan. Shale, red, green and tan with thin streaks Limestone, tan. Shale, as above, with some white Clay. Shale, red, brown, green and white with floating sand grains. Shale, dark red and green, slightly calcareous, sandy in part. Shale, green, gray and dark red, slightly calcareous, splintery. Limestone, light tan, dense. Shale, dark red, brown, white and gray, some sandy; with Lime- stone, light tan, crypto-crystalline. Sandstone, white, fine to coarse grained, poorly sorted, rounded, some clay filled, non calcareous.	Shale, red and gray, silty in part with white Clay.		
Shale, as above, with some white Clay. Shale, red, brown, green and white with floating sand grains. Shale, dark red and green, slightly calcareous, sandy in part. Shale, green, gray and dark red, slightly calcareous, splintery. Shale, dark red, brown, white and gray, some sandy; with Lime- stone, light tan, crypto-crystalline. Sandstone, white, fine to coarse grained, poorly sorted, rounded, some clay filled, non calcareous.	Shale, as above, with some floating sand grains.		
Shale, red, brown, green and white with floating sand grains. 6672 6682' Shale, dark red and green, slightly calcareous, sandy in part. 6682 6692' Shale, green, gray and dark red, slightly calcareous, splintery. 6692 6702' Limestone, light tan, dense. 6702 6710' Shale, dark red, brown, white and gray, some sandy; with Lime- 6710 6724' stone, light tan, crypto-crystalline. Sandstone, white, fine to coarse grained, poorly sorted, 6734' rounded, some clay filled, non calcareous.	Shale, rea, green and tan with thin streaks Limestone, tan.		
Shale, dark red and green, slightly calcareous, sandy in part. 6682 6692' Shale, green, gray and dark red, slightly calcareous, splintery. 6692 6702' Limestone, light tan, dense. 6702 6710' Shale, dark red, brown, white and gray, some sandy; with Lime- 6710 6724' stone, light tan, crypto-crystalline. Sandstone, white, fine to coarse grained, poorly sorted, 6734' rounded, some clay filled, non calcareous.	Shale red brown green and white with floating sand grains.		
Shale, green, gray and dark red, slightly calcareous, splintery. 6692 6702' Limestone, light tan, dense. 6702 6710' Shale, dark red, brown, white and gray, some sandy; with Lime- 6710 6724' stone, light tan, crypto-crystalline. Sandstone, white, fine to coarse grained, poorly sorted, rounded, some clay filled, non calcareous.	Shale, dark red and green, slightly calcareous, sandy in part.		
Limestone, light tan, dense. Shale, dark red, brown, white and gray, some sandy; with Lime- stone, light tan, crypto-crystalline. Sandstone, white, fine to coarse grained, poorly sorted, rounded, some clay filled, non calcareous.	Shale, green, gray and dark red, slightly calcareous, splintery,	6692	6702'
Shale, dark red, brown, white and gray, some sandy; with Lime- 6710 6/24' stone, light tan, crypto-crystalline. Sandstone, white, fine to coarse grained, poorly sorted, 6724 6734' rounded, some clay filled, non calcareous.	Limestone, light tan, dense.	6/02	
Sandstone, white, fine to coarse grained, poorly sorted, 6724 6/34' rounded, some clay filled, non calcareous.	Shale, dark red, brown, white and gray, some sandy; with Lime-	6710	6724'
Sandstone, as above, fine to medium grained. 6734 6744'	Sandstone, white, fine to coarse grained, poorly sorted,	6724	6734'
	Sandstone, as above, fine to medium grained.	6734	6744'

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Sandstone, white, fine to medium grained, poorly sorted,	6744	6752'
rounded, clay filled to clean. Sandstone, white, very fine grained, rounded, friable, some	6752	67641
<pre>clay filled. Sandstone, white to pink, fine to medium grained, poorly sorted, rounded.</pre>	6764	6774'
Sandstone, white, fine to medium grained, rounded, with un- consolidated coarse grain.	6774	6794'
Shale, predominately white, sandy, some red; with Sandstone, white, fine to medium grained, rounded.	6794	6806'
Shale, white to light gray, some red, silty to sandy. Sandstone, white, fine to coarse grained, very poorly	6806 6814	6814' 6824'
sorted, rounded. Sandstone, white to salmon, very fine grain, angular, some	6824	6847'
clay filled. Shale, dark red, silty in part; Siltstone, salmon, shaly.	6847	6854'
Shale, dark red, silty; Siltstone, salmon, calcareous.	6854	6866'
Shale, dark red, very silty; Siltstone, as above.	6866	6880'
Shale, dark red, calcareous, silty with trace of Limestone.	6880	6890 '
Shale, red, silty, soft.	6890	6904'
Shale, dark red, soft, sandy in part.	6904	6910'
Shale, as above, some silty grading to Siltstone.	6910	6922'
Shale, dark red, sandy to silty, with streaks Clay, white, soft.	6922	6932'
Limestone, dark brown, dense, crypto-crystalline, some tan, chalky with trace of sandy Limestone.	6932	69441
Limestone, as above, becoming darker and more sandy. Limestone, dark brown, very sandy grading to calcareous	694 4 695 4	6954' 6962'
Sandstone. Sandstone, white, fine grained, slightly calcareous, rounded,	6962	6974'
some clay filled. Sandstone, as above, subrounded.	6974	6984'
Sandstone, as above, subrounded. Sandstone, white, fine grained, subrounded, slightly cal- careous, clean to slight clay filled.	6984	6994'
Sandstone, white, fine grained, rounded, clay filled, with occasional red grains.	6994	7004
Sandstone, white, very fine to fine grained, subrounded, calcareous.	7004	7114'
Sandstone, white, very fine grained, rounded, with occasional green and red grains.	•	7024'
Sandstone, white to very light salmon, very fine grained, abundant clay filled.	7024	7034
Sandstone, as above, becoming mostly very light salmon. Sandstone, salmon to orange, very fine grained, abundant	7034 7044	7044' 7049'
clay filled. Sandstone, salmon, very fine grained, subrounded, with streak	s 7.049	7066'
Anhydrite, white. Sandstone, as above, silty, with Anhydrite, white to light salmon.	7066	7072'
Sandstone, as above, calcareous, with Anhydrite, as above. Sandstone, white to light salmon, very fine grained, rounded	7072 7082	7082 ' 7089 '
trace Anhydrite.	7089	7102'
Sandstone, white to dark salmon, fine grained, shaly.	7102	7112'
Siltstone, orange, sandy, anhydritic.	7112	7124
Siltstone, as above, with thin streaks Anhydrite.	7124	7132'
Siltstone, orange, very shaly.	7124	7146'
Siltstone, as above, anhydritic.		7170'
Shale, dark reddish brown, silty in part, slightly calcareou with thin streaks Siltstone, orange, anhydritic.	- •	7170
Shale, dark brown, firm, with floating Sand grains; Siltston orange, anhydritic. Shale, brown to orange, firm, silty in part; with Siltstone,	7184	7192'
orange, shaly. Shale, dark red, brown, firm; with Siltstone, orange, shaly.	7192	7202'
Shale, dark brown, orange, firm to moderately firm, silty.	7202	7212'

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	FROM	TO
Shale, as above, slightly anhydritic in part, grading to	7212	7224'
Clay. Shale, dark brown and orange, firm; with Siltstone, orange, shaly, calcareous.	7224	7232'
Shale, orange, firm, silty, with some brown.	7232	7244'
Shale, as above, very silty; with trace Siltstone.	7244	7252'
Shale, light orange; with Siltstone, orange, silty.	7252	72621
Shale and Siltstone, as above, with trace Anhydrite.	7262	7270 '
Shale, orange to red, silty.	7270	7270 7282'
Shale, red; with Siltstone orange.	7270	
	7290	7290'
Shale, orange, very silty.		7304'
Shale, orange to brown, silty; Siltstone, orange, shaly.	7304	73221
Shale, dark brown, light orange, firm, argillaceous, with Anhydrite, white, and Siltstone, orange, sandy.	7322	7340'
Shale, dark brown, firm, with floating sand grains, some light orange and Siltstone sandy.	7340	7352'
Siltstone, orange, sandy and shaly.	7352	7364'
Siltstone, orange, sandy, shaly; Shale, dark brown and light orange.	7364	7382'
Siltstone, orange, shaly, sandy, grading to silty Shale.	7382	7392'
Siltstone, orange and brown, shaly.	7392	7402'
Shale, dark orange, silty.	7402	7412'
Siltstone, light orange to orange, shaly; Shale, orange and brown.	7412	7424'
Shale, orange, very silty; Siltstone, orange, shaly.	7424	7432'
Shale, orange to red, with Anhydrite inclusions, white.	7432	7444'
Shale, brick red and orange, very silty.	7444	7452'
Siltstone, pink, white and red with trace Anhydrite, white.	7452	7464'
Shale, red and pink with streaks white; Siltstone; orange to red with some Clay.	7464	7474'
Shale, red, with white and pink Siltstone.	7474	7484'
Shale, red orange, silty, with orange Clay.	7484	7490'
Shale, red to orange, very silty, with orange to red Clay.	7490	7502'
Shale, red silty with red Clay; Siltstone, orange and light red.	7502	7514'
Shale, orange and red with inclusions of Anhydrite, silty in part.	7514	7524'
Siltstone, orange, sandy, shaly; Shale and Anhydrite, as above.	7524	7534'
Shale, salmon and red, silty in part, mottled with white	7534	7544'
Anhydrite inclusions. Shale, becoming red, platy, with Siltstone purple, sandy.	7544	7552'
	7544 7552	7552 7564'
Siltstone, purple to gray, sandy, grading to very fine grained Sandstone.	7552	7304
Sandstone, red, gray, white and lavender, fine grained, argillaceous, with inclusions of Anhydrite, white.	7564	75721
Sandstone, as above, very fine to fine grained, subangular.	7572	75821
Sandstone, white, pink, gray and lavender, very fine grained,	7582	7590'
subangular, with Anhydrite inclusions. Sandstone, mostly white with red Shale inclusions, very fine	7590	7602'
grained, subangular.	7602	7612'
Siltstone, red, very shaly, sandy. Shalo bright mod slightly salearnous slightly silty	7612	7622 '
Shale, bright red, slightly calcareous, slightly silty.	7622	7622 7634'
Anhydrite, white to cream.	7634	7644'
Siltstone, red, very shaly. Shale med silty in pant calcangers slightly aphydnitic	7644	7650 '
Shale, red, silty in part, calcareous, slightly anhydritic. Shale, as above, red to orange.	7644 7650	7662 '
	7662	7670'
Shale, orange, silty with trace Anhydrite.	7670	7670 7684'
Shale, orange, very silty. Siltstone red very shale orange	7670 7684	7692'
Siltstone, red, very shaly; Shale, orange.	7692	7692 7704'
Shale, orange to red, very silty in part.	7692 7704	7704 7710'
Shale, red to orange, silty, calcareous.	7704 7710	7710 7722'
Shale, red, silty, soft. Shale, red to orange, silty in part, with trace Anhydrite	7710 7722	7722°
Shale, red to orange, silty in part, with trace Anhydrite.	7732	7742'
Shale, red to orange, silty, calcareous.	1134	1142

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	FROM	TO
Shale, orange to red, very silty with Anhydrite streaks,	7742	77521
white to pink.	7752	7760'
Shale, red, silty, with Anhydrite, as above.	7760	7772'
Shale, red, very silty, calcareous with some red Clay.	7772	7784'
Shale, red, with Anhydrite, pink and white.	7784	7794
Shale, red, calcareous, with Anhydrite and red Clay.	7794 7794	7794 78041
Shale, red silty, some mottled with Anhydrite, white. Shale, red, orange, very silty, with Anhydrite and trace	7804	7812'
Limestone brown. Shale, mostly orange, some red, silty in part, with streaks and inclusions of Anhydrite.	7812	78221
Siltstone, orange red, sandy, anhydritic.	7822	7832'
Shale, red, silty, with trace Anhydrite, white.	7832	7850'
Shale, red, slightly silty with brown Limestone nodules.	7850	7862'
Shale, red with trace green, trace Limestone, brown.	7862	7 870'
Shale, as above, with Limestone nodules; trace Gypsum.	7870	7882'
Shale, red, silty in part.	7882	7900'
Shale, as above, with some dark reddish brown; some floating	7900	7910'
sand grains. Shale, red to brown, firm, silty in part.	7910	7924'
Shale, predominately red, some brown, firm, silty in part.	7924	7934'
Shale, light to dark red, silty in part.	7934	7946'
Shale, orange to red, with micro inclusions of Anhydrite,	7946	7964'
white.	7064	7972'
Shale, orange, red and purple red, silty in part.	7964	7972 7982'
Shale, as above, slightly anhydritic.	7972	
Shale, red to purple red, silty.	7982	79881
Shale, as above, calcareous.	7988	8002'
Shale, red to purple, with thin streaks Limestone, gray and brown.	8002	8012'
Shale, red, orange and purple, mottled in part, gypsiferous.	8012	80241
Shale, red, orange and brown with Gypsum.	8024	8032'
Shale, becoming predominately purple and red, very silty, gypsiferous.	8032	. 8042 '
Limestone, very light gray to green, sandy with trace Sandstone, white, medium grained.	8042	8052'
Shale, gray, purple, red and orange.	8052	8065'
Shale, as above; Limestone, green and gray, mottled, shaly, grading to calcareous Shale.	8065	8072'
Shale and Limestone as above.	8072	80801
Limestone, brown, dense, crypto-crystalline.	8080	8092'
Limestone, gray and brown, hard, dense.	8092	8102'
Limestone, gray and brown, hard, dense. Limestone, white, light gray, gray and brown, moderately	8102	8112'
hard, mottled in part.	8112	8120'
Limestone, gray and white, mottled, appears reworked, fossiliferous in part.		
Sandstone, white, red and pink, very fine grained, very shaly, angular, clay filled.	8120	8132'
Shale, dark brown, silty, some orange and red; Sandstone, as above, trace Limestone, as above.	8132	8144'
Shale, as above, with Limestone, white, red and brown, some sucrosic, some reworked.	8144	8152'
Shale, gray, green, red, orange and brown, some silty, with Limestone mottled brown, white and red.	8152	8166'
Limestone, gray, white and red, mottled.	8166	8172'
Shale, pale green, gray, red and brown, some sandy.	8172	8182'
Shale, predominately brown, sandy. (Abundant cavings)	8182	8190'
Shale, mostly dark brown, sandy, with trace light brown,	8190	8202
silty. Shale, dark brown, very silty to sandy.	8202	82121
Sandstone, white to light green, fine grained, subrounded,	8212	8222'
clay filled.	8222	8232'
Shale, dark brown, very silty in part. Sandstone, white, very fine to fine grained, subrounded,	8232	82421
clay filled, Siltstone, white, with green and orange	0202	

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FARM COMPANY

	FROM	TO
Shale, dark to light gray, sandy; Sandstone, white to	8242	82521
light gray, very fine grained, subrounded, clay filled. Shale, dark to light brown, sandy in part.	8252	8260'
Sandstone, white, very fine grained, subrounded, clay filled, tight.	8260	8272'
Sandstone, white, coarse grained, subangular to angular, clay filled.	8272	8284'
Shale, purple, orange and brown, silty, non calcareous.	8284	8302'
Shale, red, purple, gray and brown. Shale, as above, trace Sandstone, unconsolidated, red,	8302 8314	8314' 8324'
coarse grained, rounded.		
Shale, brown, purple, pale green with trace Clay, white. Sandstone, white to red, fine grained, rounded, clay filled.	8324 8332	8332' 8344'
Sandstone, red, medium to coarse grained, subrounded, mostly unconsolidated.	8344	8362'
Sandstone, unconsolidated, coarse grained, rounded.	8362	8370'
Sandstone, red, unconsolidated, coarse to very coarse grained, rounded.	8370	8378'
Sandstone, red, fine to coarse grained, poorly sorted, rounded, clay filled.	8378	8390'
Sandstone, unconsolidated, red, fine to very coarse grained, pseudo conglomerate, rounded.	8390	8404'
Sandstone, unconsolidated, fine to very coarse grained, rounded, clay filled.	8404	8413'
Shale, brown and red, some sandy, with Limestone, brown, white and red, mottled, hard.	8413	84231
Sandstone, red, unconsolidated, fine to coarse grained.	8423	84381
Shale, brown and red. Sandstone, red, unconsolidated, medium to coarse grained,	8438 8442	8442' 8450'
rounded.	0442	. 0430
Sandstone, as above, subangular to round.	8450	8457'
Shale, brown and red, firm, with trace Limestone, mottled. Shale, brown, red and purple, firm.	8457 8472	8472' 8482'
Siltstone, brown, shaly; Sandstone, white, very fine grained, trace Limestone, gray.	8482	8510'
Shale, red, purple, brown, calcareous in part.	8510	8524'
Shale, gray, orange and purple with trace carbonaceous matter in gray Shale, trace Chlorite.	8524	8532'
Shale, orange, brown, gray and purple, silty in part.	8532	8544'
Shale, orange, gray and brown, silty; with trace Siltstone. Shale, orange, silty; with Siltstone, orange, shaly.	8544 8552	8552 ' 8568'
Shale, brown, orange, soft, with trace Anhydrite.	8568	8582'
Shale, red, silty, with streaks of Siltstone.	8582	8590'
Shale, red, silty, with trace Anhydrite, white to pink.	8590	8603'
Sandstone, white to orange, very coarse grained, subangular, subrounded, with trace Anhydrite.	8603	8608'
Sandstone, clear, unconsolidated, some unconsolidated coarse to very coarse grained, angular to subangular.	8608	8624'
Shale, predominately orange and red with thin streaks Siltstone, orange, shaly, trace Anhydrite.	8624	8634'
Shale, orange, brown and purple, with trace Gypsum, white.	8634	8644'
Shale, predominately orange, with Siltstone streaks, orange, shaly.	8644	8652'
Shale, orange, brown and purple.	8652	8662'
Shale, orange and brown; Siltstone, orange, silty.	8662	86721
Siltstone, orange, shaly; Shale, orange, slightly silty, with trace Anhydrite.	8672	86821
Shale, orange, silty. Siltstone, orange, very shaly grading to silty Shale.	8682 8692	8692 ' 8704'
Shale, orange, very shary grading to strey share.	8704	8704 8712'
Shale, orange, silty with Glauconite.	8712	8724'
Shale, orange, red and brown, very silty.	8724	8730'
Shale, orange and brown, silty.	8730	8742'
Shale, orange and brown, sandy, with trace Anhydrite.	8742	8762'
Shale, orange to brown, sandy to silty.	8762	8772'

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	FROM	TO
Sandstone, white, salt and pepper, medium to coarse grained,	8772	8781'
<pre>subangular, clay filled. Sandstone, red, medium to very coarse grained, subrounded, mostly unconsolidated, shaly.</pre>	8781	8792'
	8792	88041
Shale, orange red, silty in part, firm to soft.	8804	8825'
Shale, orange to red, some brown, very sandy grading to	0004	0023
shaly Sandstone. Sandstone, red, coarse to very coarse grained, angular to	8825	88331
subrounded, shaly in part, mostly unconsolidated. Sandstone, unconsolidated, coarse grained, subrounded to	8833	8842'
rounded.	8842	88621
Shale, orange red, firm sandy in part.	8862	8870'
Shale, as above, trace Anhydrite, pink.	8870	8882'
Shale, orange, very silty in part, grading to shaly Siltstone.		
Shale, as above, trace Sandstone, coarse grained, uncon- solidated.	8882	88901
Sandstone, red, coarse to very coarse grained, angular,	8890	8902'
shaly in part, mostly unconsolidated.		20101
Sandstone, as above, with trace Anhydrite.	8902	8912'
Sandstone, white, coarse to medium grained, clay filled,	8912	89221
mostly unconsolidated, with Siltstone, orange, shaly.		
Shale, red to orange, silty in part, grading to shaly Siltstone.	8922	8932'
Shale, orange red, silty, with Siltstone, light orange, shal	y. 8932	8944'
Shale light anama and cilty	8944	8950'
Shale, light orange red, silty.	8950	89641
Shale, red orange, silty, some brown, with trace Siltstone.	8964	8972'
Shale, orange, silty.	8972	8984'
Shale, as above, with trace Anhydrite.	8984	8994'
Shale, orange, silty, with Siltstone, brown, argillaceous.		9004
Shale, orange, red, very silty; Siltstone, light orange, with trace Limestone brown.	8994	
Shale, red orange, with trace Anhydrite, pyritic, trace Siltstone.	9004	9012'
Shale, orange red, silty to sandy, with some brown, sandy.	9012	9022'
Shale, red orange, very silty with trace Pyrite.	9022	90321
Shale, red brown, very silty with trace Pyrite.	9032	9042'
Chale change and cilty in part	9042	9050'
Shale, orange red, silty in part.	9050	9055'
Sandstone, white, medium grained, angular, tight; Shale,		5000
orange and red, with trace Anhydrite.	9055	9070'
Shale predominately red, some silty.	9070	90841
Shale, red, orange and brown, with trace Calcite, pink Anhydrite white.		
Shale, orange, with occasional silty to sandy streaks.	9084	9090'
Shale, as above, becoming increasingly sandy in part grading to shaly Sandstone.	g 9090	9102'
Shale, orange red, with streaks orange brown, some silty.	9102	9112'
Limestone, light pink, some chalky.	9112	9122'
Shale, orange red to brown red, silty in part, with trace	9122	9132'
Limestone, pink.		
Shale, as above, very silty grading to shaly Siltstone.	9132	9142'
Shale, mostly orange red, sandy.	9142	9152'
Sandstone, red, medium grained, very shaly; Shale, as above	, 9152	9162'
very sandy in part.		
Shale, red orange, slightly calcareous.	9162	9168'
Shale, brownish red, sandy, slightly micaceous, with streak	s 9168	9182'
Siltstone, orange.		
Siltstone, orange, micaceous, very shaly.	9182	9189'
Sandstone, red, coarse grained, angular to subangular, shal	y, 9189	9200'
mostly unconsolidated, with Gypsum streaks.		
Shale, red orange, silty to sandy in part.	9200	9212'
Shale, orange and red, very silty and micaceous.	9212	9224
Shale, orange red, silty in part, with inclusions of	9224	9234
Anhydrite.		
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COMPANY

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FROM TO 92441 9234 Siltstone, orange to white, very shaly in part. 9250' 9244 Shale, orange to red, firm, sandy in part. 9262' 9250 Shale, orange red, silty to sandy. 9270' 9262 Siltstone, red, very shaly, micaceous. Shale, orange red, and brown red, anhydritic in part. 92841 9270 92901 9284 Siltstone, red, shaly. 93021 Shale, red, brown, firm, silty, micaceous. 9290 9324' Siltstone, orange, shaly grading to silty shale. Shale, orange red, silty, with trace Anhydrite, white and 9302 9332' 9324 Limestone, red and brown. Limestone, red, gray and brown, moderately hard, some 9344' 9332 chalky, trace Anhydrite white. 9350' Shale, red orange; Limestone, red brown, medium hard. 9344 Shale, brown red, very silty; with trace Anhydrite, white. 9364' 9350 9374' Shale, brown red, very silty; with Limestone, brown, 9364 moderately hard. 9374 9384' Shale, brown, red, very silty grading to Siltstone. Shale, as above, trace Limestone, brown and Anhydrite, white. 93921 9384 9402' Siltstone, white, with Shale brown, silty. 9392 9412' Shale, red brown; with Limestone, brown and green, moderately 9402 hard; Siltstone light brown. Shale, brown, red, very silty.
Sandstone, white, very fine grained, subangular; Limestone, 94201 9412 9420 9442' brown and green, anhydritic. 94481 9442 Shale, red, pink and brown, silty, calcareous. 9464' 9448 Shale, mostly brown, some red, calcareous. 94721 Limestone, light gray and red, mottled, hard; Siltstone, 9464 white, sandy; Shale, red and brown. 9472 9484 Shale, becoming more brown, silty and calcareous. Shale, as above, with trace Limestone. 9484 9490' 95021 9490 Shale, brown, slightly silty, micaceous, calcareous. 9512' 9502 Shale, as above; trace Limestone gray. 9522' Limestone, brown and white, slightly mottled, hard, crypto-9512 crystalline. Limestone, brownish gray and white, mottled, as above, with 9522 95301 Siltstone, white, gray. 95441 Shale, mostly brown, some red, with thin streaks Limestone, 9530 white to gray, mottled. 95601 Shale, mostly brown, very micaceous, slightly silty. 9544 Sandstone, white to red, fine to coarse grained, poorly 95721 9560 sorted, angular, shaly in part, gypsiferous in part. 9582' 9572 Sandstone, white, fine grained, angular, shaly, micaceous, with trace Limestone, brown; Shale, brown, very micaceous. 9592' 9582 Shale, brown, micaceous, silty, calcareous; Limestone, brown, hard. 9604 Shale, brown, soft, micaceous; Siltstone, brown, micaceous. 9592 9612' 9604 Shale, brown, soft, silty, micaceous. 9622' 9612 Limestone, brown, hard, in thin laminations. 96301 9622 Shale, brown, calcareous, silty, sandy. 9630 9640' Shale, brown, calcareous, firm, micaceous. Sandstone, white, salt and pepper, fine grained, angular, 9652' 9640 micaceous, with occasional green inclusions. Sandstone, white, green, fine grained, subrounded, micaceous. 9662' 9652 Shale, brown, sandy, non calcareous.
Shale, brown, red, silty; Limestone, brown, green, hard.
Shale, brown, silty to sandy. 96701 9662 9682' 9670 9690' 9682 97021 9690 Shale, brown, slightly silty, calcareous. 97101 9702 Shale, brown, slightly calcareous. 9710 9720' Shale, brown, very micaceous, silty in part. Shale, becoming slightly more reddish brown, with a trace of 97441 9720 9748' 9744 Shale, reddish brown, with a trace of Limestone. 9762' 9748 Shale, brown, micaceous.

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FROM TO Shale, brown, becoming slightly calcareous, micaceous. 97821 9762 Shale, brown, calcareous, micaceous, with a trace of 97921 9782 Limestone. 9792 9802' Sandstone, white to brown, salt and pepper, fine grained, argillaceous with trace Anhydrite. Sandstone, white to slightly pink, fine grained, angular, 9802 98121 some clay filled. Shale, brown, very micaceous with Sandstone, as above. 98221 9812 9829' 9822 Shale, brown, micaceous in part. 98381 Sandstone, white, salt and pepper, very fine grained, 9829 argillaceous, micaceous. Shale, light brown to brown, hard, very micaceous. 9839 98501 9850 98621 Limestone, red, brown and white, dense. 98841 9862 Shale, brown, very silty in part. Shale, brown, very micaceous in part, with Sandstone, white 99001 9884 to red, fine grained, shaly. Shale and Sandstone, as above, becoming more coarsely 9900 9910' micaceous. 99241 Sandstone, white, fine grained, very micaceous; Limestone, 9910 light gray, hard; Shale, brown, micaceous. 9924 99301 Limestone, light to dark gray, dense. 9930 99441 Limestone, mostly light gray. 9944 99521 Siltstone, white to brown, shaly in part. Siltstone, as above, very micaceous (Phlogopite). 9952 99601 Limestone, brown, moderately hard. 9960 9966' 9966 9973' Shale, brown, some soft. 9984' 9973 Limestone, brown, dense. Limestone, brown, crypto-crystalline, with inclusions of 10000' 9984 Anhydrite and Gypsum, white. 10010' 10000 Limestone, brown and gray, with Anhydrite and Gypsum. 10022' 10010 Limestone, mostly gray, some brown, as above. Limestone, light brown to brown, with a trace of Gypsum. 10030' 10022 Limestone, dark brown, hard; with Shale, dark gray to black, 10044' 10030 silty with inclusions of Gypsum, white. 100621 Limestone, light tan, light gray and gray with Anhydrite 10044 and Gypsum. Limestone, light brown and brown, light gray, some white 10062 100721 chalky. 10072 100841 Limestone, as above, becoming increasingly white. Limestone, white to light brown, hard to chalky. 10100' 10084 Siltstone, white, sandy, very micaceous with Limestone light 10112' 10100 gray and dark brown, crypto-crystalline. 101221 Limestone, gray, becoming shaly grading to shaly Limestone. 10112 10122 10132' Shale, brown, hard; Siltstone, brown, sandy, Limestone, brown and gray, dense. Limestone gray, light gray to white, dense to finely 10132 101481 sucrosic, some chalky. Limestone, as above, some sucrosic. Shale, brown, silty in part; with thin streaks Limestone, 10148 10162' 10170' 10162 gray to brown, dense. 10170 101781 Limestone, dark gray, gray to brown, some shaly. Shale, dark gray, calcareous in part, some non calcareous. 10178 101801 Limestone, brown, gray and white, dense to slightly sucrosic, pelletoidal in part. 10180 101921 Shale, dark gray, silty, calcareous, with trace Selenite. Limestone, white, light gray to dark gray, crypto-102021 10192 10202 10212' crystalline; Shale, dark gray, silty. Limestone, white to light gray, micro-crystalline to finely 10212 10222' sucrosic. 10222 10230' Limestone, gray, light gray and white, micro-crystalline to chalky. 10230 10242' Limestone, as above, trace Crinoid Stems. 102591 10242 Limestone, light to dark gray, micro-crystalline, some

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FARM

WELL NO.

COMPANY

TO FROM Sandstone, white, salt and pepper, coarse to fine grained, 10259 102661 poorly sorted, angular to subrounded, clay filled, with occasional green grains, friable. Sandstone, white to green, slightly salt and pepper, as 10266 102781 Sandstone, mostly white, medium to coarse grained, angular, 10278 102821 tight. 10302' Shale, brown and red brown, silty in part. .10282 Limestone, mostly white, some chalky; with Shale, brown. 10302 10315' 10330' Limestone, as above, some brown and white, mottled. 10315 10338' Limestone, white, moderately soft, some chalky, with streaks 10330 of dark gray Shale. Shale, brown, some slightly silty. 10338 10344' 10352' Shale, brown, very micaceous (Phlogopite). 10344 Siltstone, white to brown, very micaceous, sandy in part. 10362' 10352 Limestone, white to light gray, hard to moderately soft; with Siltstone, light gray, calcareous. Limestone, white to light gray, soft. 10370' 10362 10380' 10370 Limestone gray, hard, crypto-crystalline, with Gypsum and 10380 103921 Anhydrite; Shale, dark gray, splintery. Limestone, gray, hard; Shale, gray, very silty; trace 10400' 10392 Anhydrite, white. Shale, gray, calcareous; Limestone gray to light gray, 10400 10410' micro-crystalline. Shale, gray, very silty, calcareous; Limestone, as above. 10410 10421' Limestone, light gray, dark gray, micro-crystalline. Limestone, white to light gray and dark gray, hard, crypto-10426' 10421 10426 10442' crystalline to soft chalky. Limestone, light gray, micro-crystalline to slight sucrosic. Limestone, light gray, hard, with Anhydrite inclusions, 10442 10452' 10452 10462' white. Limestone, white to gray, hard to soft. 10462 10470' Limestone, white to gray, slightly mottled, moderately soft 10470 104821 to crypto-crystalline. Limestone, white to gray and tan, slightly mottled, crypto-105001 10482 crystalline to slightly sucrosic. Limestone, white, gray and brown, micro-crystalline, to 10500 10512' slightly sucrosic. Limestone, white to gray, micro-crystalline, hard to soft. 10512 105241 Limestone, as above, with streaks Shale, light gray, 10524 10542' calcareous. Limestone, white to gray, micro-crystalline. Limestone, light gray and brown; Shale, light gray, 10542 10550' 10564' 10550 calcareous. 105821 Limestone, gray and white, micro-crystalline to chalky. 10564 Limestone, white, gray and brown, crypto-crystalline, 10582 10592' pelletoidal. Limestone, white to gray, crypto-crystalline, becoming more 10592 10602' pelletoidal. 10612' Limestone, mostly light gray, micro-crystalline. 10602 Limestone, gray to light gray to white, as above, 10630' 10612 pelletoidal. 10630 106421 Shale, gray, silty, with Limestone, as above. Limestone, light to dark gray, crypto-crystalline. Limestone, light gray and white, slightly mottled, micro-10660' 10642 10680' 10660 crystalline, some chalky. 10680 106901 Limestone, light gray, dark gray and white, microcrystalline. 107001 10690 Limestone, as above, becoming more dark gray. Limestone, light gray to brown, micro-crystalline; Shale, 10700 10710' dark gray to black. 10724' Limestone, light gray to white, slightly sucrosic. Limestone, light gray to white, micro-crystalline. 10710 10724 10732' 10742' Limestone, white to gray, crypto-crystalline to slightly 10732 sucrosic, some chalky.

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	FROM	TO_
Shale, dark gray, silty with Limestone, white and gray,	10742	10749'
as above. Sandstone, white, medium grained, subrounded, calcareous; with Limestone, white to light gray, crypto-	10749	10755'
crystalline to chalky. Limestone, as above, becoming increasingly white.	10755	10772'
Limestone, as above, becoming increasingly white. Limestone, dark gray to light gray, crypto-crystalline.	10772	10784'
Limestone, as above, micro-crystalline; Shale, dark gray, silty.	10784	10792'
Limestone, dark gray, light gray and white, crypto- crystalline to chalky.	10792	10804'
Limestone, white, gray and brown, as above.	10804	10812'
Limestone, white to gray, crypto-crystalline to slightly sucrosic.	10812	10822'
Limestone, as above, becoming more finely sucrosic.	10822	10832'
Limestone, light gray to white, crypto-crystalline, to very finely sucrosic.	10832	10842'
Limestone, as above, micro-crystalline, to some very finely sucrosic.	10842	10849'
Limestone, light gray to white, crypto-crystalline, finely crystalline to very finely sucrosic.	10849	10862'
Limestone, as above, with trace fragmental and pelletoidal Limestone.	10862	10866'
Limestone gray, light gray to white, crypto-crystalline, some fragmental, some chalky.	10866	10882'
Limestone, white, brown and gray, crypto-crystalline, very finely crystalline, some fragmental, pelletoidal Lime-	10882	10894'
stone and Crinoid fragments. Limestone, gray, tan and white, crypto-crystalline to very	10894	10902'
finely sucrosic. Limestone, gray to white, micro-crystalline to finely	10902	10920'
sucrosic, some fragmental. Limestone, gray and white, micro-crystalline and finely sucrosic.	10920	10932
limestone, white to gray, micro-crystalline, fragmental in	10932	10968'
part, some chalky, scattered micro fossil debris. Limestone, gray to white, micro-crystalline, some black coated, finely sucrosic.	10968	10998'
Limestone, white to light gray, micro-crystalline.	10998	11004'
Limestone, white to light gray, micro-crystalline.	11004	11012'
Limestone, light gray to brown, micro-crystalline.	11012 11022	11022' 11032'
Limestone, light gray and light brown, crypto-crystalline.	11022	11032
Limestone, light gray, light brown and black, as above, some slightly sucrosic.	11042	11052'
Limestone, light gray, very fine crystalline; Shale, light gray.	11052	11064'
Limestone, light gray to white, micro-crystalline, with thin streaks Shale, light gray, calcareous.		
Limestone, as above, becoming brown, crypto-crystalline. Limestone, light brown, crypto-crystalline to white,	11064 11072	11072' 11085'
slightly chalky. Limestone, white, light gray and light brown, crypto-	11085	11094'
crystalline to finely crystalline, some chalky. Limestone, white, light tan and light gray, crypto-	11094	11102'
crystalline to finely sucrosic. Limestone, white, light gray, light tan, crypto-crystalline	11102	11112'
to very finely sucrosic, with trace dark gray Shale. Limestone, white, light gray and tan, crypto-crystalline,	11112	11122'
some chalky, some fractured.	11122	11126'
Shale, dark gray, calcareous. Limestone, white, gray to light gray, crypto-crystalline	11126	11146'
to slightly sucrosic, some chalky. Limestone, white to light gray, chalky to crypto-crystalline.	11146	11154'
Shale, gray to dark gray, silty in part.	11154	11160'

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	FROM	TO
Limestone, white to light gray, crypto-crystalline, some slightly sucrosic, some pelletoidal.	11160	11169'
Limestone, as above, slightly more sucrosic.	11169	11180'
Limestone, white to light gray, micro-crystalline.	11180	11190'
Limestone, white to light gray, crypto-crystalline to slightly sucrosic.	11190	11202'
Limestone, white to light gray, crypto-crystalline, with trace Shale, black, soft.	11202	11212'
Limestone, white, light gray and brown, micro-crystalline, some chalky.	11212	11222'
Limestone, as above, fossil fragments, sucrosic; with Shale, gray, soft.	11222	11230'
Limestone, becoming slightly darker gray and brown, crypto- crystalline, fossil fragment; with Shale, dark gray to black.	11230	11244'
Limestone, light gray and brown, crypto-crystalline to very finely sucrosic, oolitic, with Shale, soft, black.	11244	11250'
Limestone, light brown and white, fine crystalline, with few fossil fragments; Shale, black, gray.	11250	11265'
Limestone, light gray to light brown, fine-crystalline, slightly sucrosic, with fossil fragment.	11265	11271'
Limestone, white to light brown, crypto-crystalline to slightly sucrosic, gaseous.	11271	11310'
Limestone, brown, crypto-crystalline, some oolitic; Shale, gray, calcareous.	11310	11318'
Limestone, brown and gray, crypto-crystalline; with Shale, dark gray to gray.	11318	11325'
Limestone, brown, crypto-crystalline.	11,325	11335'
Limestone, light gray to brown, crypto-crystalline, oolitic.	11335	11342'
Limestone, light gray and brown, crypto-crystalline, slightly sucrosic.	11342	11352'
Limestone, white to light brown, some very fine sucrosic, with trace oolites.	11352	11362'
Limestone, light gray and brown, slight very finely sucrosic.	11362	11369'
Limestone, light to dark brown, crypto-crystalline; Shale, black, calcareous.	11369	11382'
Limestone, light to dark brown, crypto-crystalline, some finely sucrosic; Shale, black, calcareous, soft.	11382	11398'
Limestone, gray, brown and white, crypto-crystalline, some very finely sucrosic.	11398	11407'
Limestone, mostly gray, crypto-crystalline, some very finely sucrosic.	11407	11425'
Limestone, gray and brown, crypto-crystalline, some finely sucrosic, coarse-crystalline, oolites.	11425	11453'
Limestone, gray and dark brown, mostly crypto-crystalline, some finely sucrosic, and oolitic.	11453	11462'
Limestone, light gray and brown, crypto-crystalline; Shale, gray to dark gray, calcareous.	11462	11474'
Limestone, white and brown, some crypto-crystalline and some finely sucrosic.	11474	11484'
Limestone, light brown to brown, as above, some chalky. Limestone, white to light brown, micro-crystalline, some chalky, some finely sucrosic.	11484 11493	11493' 11510'
Limestone, white to light gray, micro-crystalline to very finely sucrosic.	11510	11521'
Limestone, tan, white and gray, micro-crystalline and some very fine sucrosic.	11521	11535'
Limestone, gray, white and brown, as above, some dark gray,	11535	11540'
shaly. Limestone, gray and white, very finely crystalline to finely sucrosic.	11540	11552'
Limestone, gray, dark gray and white, crypto-crystalline, finely crystalline to finely sucrosic.	11552	11562'
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FIELD

COMPANY

	FROM	TO
Limestone, gray to dark gray, crypto-crystalline, some	11562	11568'
fine sucrosic, some coarse-crystalline. Limestone, gray and white, crypto-crystalline, some very fine crystalline, some chalky and some pelletoidal.	11568	11580'
Limestone, gray to white, slightly mottled, as above, some very fine sucrosic.	11580	11612'
Limestone, gray to white, some mottled, crypto-crystalline, some chalky.	11612	11622'
Limestone, as above, some finely sucrosic. Limestone, gray and white, crypto-crystalline, some very finely crystalline.	11622 11630	11630' 11645'
Limestone, gray, crypto-crystalline to white, chalky. Limestone, as above, some coarse-crystalline, some slightly sucrosic.	11645 11652	11652' 11668'
Limestone, white, very light gray to gray, chalky, slightly sucrosic to crypto-crystalline.	11668	11675'
Limestone, gray, light gray and white, crypto-crystalline, some sucrosic, with dead stain, no cut.	11675	11687'
Limestone, gray to light gray, crypto-crystalline, slightly sucrosic.	11687	11692'
Limestone, as above, some chalky; Shale, dark gray, silty. Limestone, light gray, crypto-crystalline, some very fine sucrosic, some chalky.	11692 11702	11702' 11710'
Limestone, light gray, gray and brown, as above. Limestone, light gray and brown, very fine sucrosic, chalky; Shale, gray to dark gray.	11710 11719	11719' 11725'
Limestone, light brown and gray, crypto-crystalline, very fine sucrosic, with dead oil stain, no cut.	11725	11742'
Limestone, brown, light gray and gray, crypto-crystalline, slightly sucrosic, chalky; Shale, gray.	11742	11752'
Limestone, light brown and gray, as above; Shale, gray and dark gray.	11752	11762'
Limestone, gray and white, slightly mottled, crypto- crystalline, chalky, some slightly sucrosic.	11762	11772'
Limestone, gray and white, crypto-crystalline, very finely crystalline, some chalky.	11772	11783'
Limestone, gray to white, mottled in part, very finely crystalline to chalky.	11783	11794'
Limestone, gray to white, very fine crystalline to crypto- crystalline, chalky in part.	11794	11804'
Limestone, gray to light brown, very finely crystalline and chalky.	11804	11812'
Limestone, white, light brown and gray, very fine crystalline to crypto-crystalline, chalky in part with trace Pyrite.	11812	11824'
Limestone, white, light brown and gray, very fine crystalline to chalky.	11824	11832'
Limestone, light brown, gray, very fine crystalline, slightly sucrosic and chalky in part; Shale gray.	11832	11842'
Limestone, white to very light gray, very fine crystalline to coarse-crystalline, some chalky, pelletoidal.	11842	11852'
Limestone, gray, crypto-crystalline to very fine crystalline, with occasional coarse quartz grains, some white, chalky.	11852	11862'
Limestone, gray and white, crypto-crystalline, finely crystalline and finely sucrosic, with some quartz grains and fossil debris.	11862	11872'
Limestone, gray and white, very finely crystalline to chalky, some very finely oolitic, with trace gray Shale.	11872	11884'
Limestone, light gray and light greenish gray, very finely crystalline to white slightly chalky, slightly oolitic.	11884	11892'
Limestone, gray, light gray and brown, very fine crystalline with occasional black Shale inclusions.	11892	11902'
Limestone, mostly gray, very finely crystalline, with thin streaks of Shale, light gray, soft.	11902	11912'

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FROM TO Limestone, light gray and brown, very finely crystalline, 11912 11922' with Shale, light to dark gray. Limestone, light gray, gray, crypto-crystalline, slightly 11922 11932' sucrosic with chalky green streaks; Shale, dark gray, some purple. Limestone, light gray, brown and white, very fine to fine 11932 11942' crystalline, some very fine sucrosic; with trace Sandstone; Shale, gray, soft. Shale, brown, gray and purple. 11942 11950' Limestone, light brown, very fine crystalline, slightly 11950 11960' sucrosic; Shale, gray, purple, light gray and white, Limestone, light brown, light gray and white, very finely 11960 11970' crystalline to coarse crystalline; Shale, gray to Shale, gray, light gray and brown, some lavender, purple 11970 11980' and green. Shale, as above, some red brown, sandy with Limestone, 11980 11990' gray to cream, dense. Shale, light gray, lavender and purple, with black, micro 11990 120021 specks. Shale, lavender, purple, light gray and gray. Shale, light gray and purple, soft. 12002 12012' 12012 12014' Limestone, light gray to white, some sucrosic.
Limestone and Shale, as above; trace Sandstone, tan,
medium grained, salt and pepper. 12014 12020' 12020 120301 Shale, light gray, purple, brown and red. 12030 120381 Limestone, light to cream, fine to medium sucrosic, with 12038 120531 some interfil, some slightly chalky; trace of pellets. Limestone, white to cream, finely sucrosic, with trace of 12053 12061' pellets; Shale as above. Limestone, as above, some pelletoidal, some possible dead 12061 12068' stain. Limestone, white, mostly very fine sucrosic, slightly 12068 120781 chalky, with trace dead stain, no cut. Shale, maroon, purple and gray. 12078 120821 Limestone, white, coarse crystalline, some chalky, 12082 12091' pelletoidal and slightly sucrosic, with some fossil Limestone, white, finely crystalline, sucrosic, some 12091 12104' slightly chalky, abundant fossil debris. Limestone, white, very finely sucrosic, some chalky, with fossil fragments; Limestone, white, very finely 12104 12142' crystalline to finely sucrosic, some chalky with fossils. Limestone, white, crypto-crystalline, slightly sucrosic, 12142 12166' some chalky; with Dolomite, white, dense; Shale, purple, lavender, red and white. Limestone, white, fine to coarse crystalline, some sucrosic, 12166 121831 with trace Dolomite. Limestone, white, finely crystalline, finely sucrosic to 12183 12190' Limestone, as above, some crypto-crystalline. 12190 12198' Limestone, light gray, brown and white, very fine cry-12198 122101 stalline, some sucrosic, with occasional fossil debris. Shale, lavender, purple and white. Limestone, gray to light brown, micro-crystalline to very 12210 122221 finely sucrosic; with Dolomite, brown, dense; Shale, white, lavender and purple, some green. Shale, as above, becoming increasingly white and gray; 12222 122591 Sandstone, clear, coarse to very coarse grained, angular sherds, slight quartzitic, becoming increasingly quartzitic. Quartzite, as above. 12259 12270' Quartzite, white, very coarse grain, very angular. 12270 12278'

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	FROM	TO
Quartzite, white, very coarse to coarse grained, angular to subrounded, mostly unconsolidated.	12278	12290'
Quartzite, white, coarse to medium grained, as above.	12290	12300'
Quartzite, white, coarse grained, angular, unconsolidated; Shale, gray, friable and Limestone brown, dense, (Cavings).	12300	12312'
Limestone, brown, crypto-crystalline; Shale, gray, firm; Quartzite, as above, with trace chert, brown, abundant cavings.	12312	12322'
Quartzite, as above, with trace red Shale on some grains.	12322	12329'
Quartzite, white, very coarse to fine grained, angular to subrounded.	12329	12339'
Quartzite, white to clear, fine to medium to very coarse grained, subrounded to angular, unconsolidated, with Shale red, silty.	12339	12357'
Quartzite, as above, becoming mostly coarse to very coarse grained.	12357	12360'
Quartzite, white, coarse to very coarse grained, some medium grained, mostly unconsolidated, with occasional red Shale, in interspaces.	12360	12382'
Quartzite, as above, trace chert, brown.	12382	12388'
Quartzite, white to clear, medium to very coarse grained; Shale, red, silty.	12388	12402'
Quartzite, as above, trace chert, brown.	12402	12412'
Shale, bright red; Quartzite, white, coarse to very coarse grained, unconsolidated, with red Shale stain on occasional chips.	12412	12420'
Quartzite, white, medium grained, subangular to angular, very coarse grained, abundant unconsolidated grains.	12420	12433'
Quartzite, as above, trace pink Feldspar?	12433	12437'