

CORE LOG

U. S. GEOLOGICAL SURVEY

DRILL HOLE Superior Oil Co. No. 16 LOCATION 1050' FEL- 450' FSL- Sec. 13, T. 1 N., R. 97 W. ELEVATION SUR6570 PAGE 1 OF 7
 DATE BEGUN _____ DATE COMPLETED _____ DRILLER John R. Donnell TOTAL DEPTH 1197'
 CASING _____ REMARKS: _____ LOGGED BY _____

FROM	TO	THICK- NESS	LITHOLOGIC DESCRIPTION
0.0	48.9		Most of the first 12' is white tuff w/small amount of gray siltstone. Mostly siltstone gray w/some thin banded marlstone 1' tuff at 25.0. Thin sandstone at 37.0
48.9	57.5		Banded brown to gray oil shale.
57.5	57.8		Tuff and another at 58.5.
57.8	66.8		Banded brown to gray oil shale.
66.8	76.1		Same as above w/gray sandstone interbedded in upper 2'
76.1	81.6		Same as above - a little lower grade.
81.6	91.0		Same as above w/sandstone or tuff 6" thick at 84.5, 87.9 and 90.9 (biotite).
91.0	100.3		1/2 sandstone down to 93.6. Siltstone or barren marlstone down to 101.0.
100.3	109.5		Banded oil shale mostly low grade. Gray siltstone starting at 109.0.
109.5	119.1		Siltstone to 110. - then medium grade brown oil shale to 121.0.
119.1	128.6		Fair to good banded oil shale to 136.
136.0	142.0		Gray to tan oil shale.
142.0	150.0		Tan to brown oil shale.
150.0	157.0		Tan to medium brown oil shale.
157.0	162.0		Tan to medium brown normal fault w/2" displacement at 158.0.
162.0	165.0		Oil shale breccia.
165.0	186.0		Tan to brown banded oil shale.
186.0	192.0		Tan oil shale w/60° fracturing.
192.0	203.5		Medium brown oil shale.
203.5	205.0		Dark brown oil shale.
205.0	206.0		Light brown oil shale.

Drill hole

CORE LOG

U. S. GEOLOGICAL SURVEY

DRILL HOLE Superior Oil Co. No. 16

PAGE 2 OF 7

LOCATION Sec. 13, T. 1 N., R. 97. W.

ELEVATION _____

DATE BEGUN _____

DRILLER _____

LOGGED BY _____

TOTAL DEPTH _____

CASING _____

REMARKS: _____

FROM	TO	THICK- NESS	LITHOLOGIC DESCRIPTION
206.0	210.0		Light brown oil shale 60° fractures.
210.0	220.0		Light brown oil shale.
220.0	223.1		Light brown oil shale 60° fractures.
223.1	235.2		Some marlstone light brown but mostly siltstone w/60° fracture.
235.2	240.5		Medium brown oil shale.
240.5	250.0		Light brown oil shale.
250.0	256		Tan marlstone to gray siltstone.
256.0	264.0		Tan marlstone to gray siltstone w/60° fractures.
264.0	266.5		Tan marlstone to gray siltstone.
266.5	281.0		Tan to medium brown oil shale. 0.1 tuff at 276.0.
281.0	283.0		Dark brown oil shale w/tuff stringer.
283.0	305.0		Light brown to medium brown oil shale.
305.0	306.0		Black shale w/slickensided tgg.
306.0	313.0		
313.0	313.2		Tuff.
313.2	331.0		Brown to dark brown oil shale.
331.0	340.0		Tan to black oil shale.
340.0	372.2		Tan to medium brown oil shale.
372.2	372.7		Analcitized tuff.
372.7	389.3		Oil shale tan to brown.
389.3	389.5		Analcite.
389.5	390.5		Oil shale tan to brown.

Drill hole

CORE LOG

U. S. GEOLOGICAL SURVEY

DRILL HOLE Superior Oil Co. No. 16

PAGE 3 OF 7

LOCATION Sec. 13, T. 1 N., R. 97 W. ELEVATION _____ TOTAL DEPTH _____

DATE BEGUN _____ DATE COMPLETED _____ DRILLER _____ LOGGED BY _____

CASING _____ REMARKS: _____

FROM	TO	THICK- NESS	LITHOLOGIC DESCRIPTION
390.5	391.0		Analcite.
391.0	399.5		Tan to light brown oil shale.
399.5	400.0		Small .01 nahcolite vugs.
400.0	432.5		Light brown to medium brown oil shale w/0.1 tuffs at 408.8 and 411.8. Some small < .01 nahcolite vugs between 420-422.
432.5	442.5		Light gray to light tan marlstone. Vertical fractures at 460-462.2. Vugs at 437.5.
442.5	445.5		Dark brown to light brown oil shale.
445.5	483.5		Light brown oil shale. Nahcolite vugs at 448.5 - 5' tuffs at 450.5. Vugs
			459.0-462.0 - 0.1' vug at 464.0.
483.5	486.0		Analcite.
486.0	490.1		Tan to brown oil shale.
490.1	490.3		Nahcolite vug.
490.3	507.5		Tan to light brown oil shale.
507.5	507.6		0.1 tuff.
507.6	516.5		Dark brown oil shale (rich).
516.5	522.3		Tan to light brown oil shale.
522.3	524		Dark brown rich oil shale.
524.0	529.0		Light brown to dark brown oil shale.
529.0	529.2		Nahcolite vug w/secondary calcite.
531.0	532.5		Dark brown rich oil shale.
532.5	550.3 ³		Light brown to medium brown banded oil shale.
550.3	552		Tan to light brown oil shale.

Drill hole

CORE LOG

U. S. GEOLOGICAL SURVEY

DRILL HOLE Superior Oil Co. No. 16

PAGE 4 OF 7

LOCATION Sec. 13, T. 1 N., R. 97 W. ELEVATION _____ TOTAL DEPTH _____

DATE BEGUN _____ DATE COMPLETED _____ DRILLER _____ LOGGED BY _____

CASING _____ REMARKS: _____

FROM	TO	THICK- NESS	LITHOLOGIC DESCRIPTION
552.0	559.5		Medium brown to dark brown oil shale.
559.5	559.9		Tuff.
559.9	571.0		Medium brown to dark brown oil shale (rich?).
571.0	599.0		Tan to light brown banded oil shale.
599.0	603.0		White to tan marlstone.
603.0	623.0		Banded tan to light brown oil shale. 0.1 tuff at 622.5.
623.0	633.0		Medium brown oil shale.
633.0	645.0		Tan to light brown banded oil shale.
645.0	647.0		Medium brown oil shale.
647.0	647.3		Tuff?
647.3	653.3		Light brown to medium brown oil shale.
653.3	653.6		Tuff.
653.6	657.5		Light brown oil shale.
657.5	661.5		Medium brown oil shale.
661.5	670.2		Light brown to medium brown oil shale.
670.2	670.7		Breccia.
670.7	675.5		Light brown to medium brown oil shale.
675.5	690.0		Light brown to medium brown banded oil shale some dark gray bands.
690.0	690.5		Tuff.
690.5	706.0		Light brown to medium brown banded oil shale w/dark gray bands.
706.0	720.0		Medium brown oil shale - about 0.2' containing vugs and breccia - vugs filled with asphalt - 0.1' tuff at 719.0 and 720.0.

Drill hole

CORE LOG

U. S. GEOLOGICAL SURVEY

DRILL HOLE Superior Oil Co. No. 16

PAGE 5 OF 7

LOCATION Sec. 13, T. 1 N., R. 97 W.

ELEVATION _____

TOTAL DEPTH _____

DATE BEGUN _____ DATE COMPLETED _____

DRILLER _____ LOGGED BY _____

CASING _____ REMARKS: _____

FROM	TO	THICK- NESS	LITHOLOGIC DESCRIPTION
720.0	735.0		Gray to light brown oil shale.
735.0	739.2		Tan to light brown oil shale. Contains numerous tuffs? 0.1' and less impregnated w/asphalt.
739.2	746.8		Light brown to medium brown oil shale.
746.8	747.0		Tuff.
747.0	756.5		Dark grayish brown silty oil shale.
756.5	756.6		Interbedded tuff and oil shale w/small vugs at top.
756.6	760.8		Tan to medium brown oil shale.
760.8	760.9		Tuff.
760.9	766.5		Mostly dark brown (rich?) oil shale.
766.5	775.0		Mostly light brown oil shale.
775.0	778.0		Dark brown oil shale.
778.5	783.8		Light brown to medium brown oil shale.
783.8	784.1		Tuff.
784.1	794.6		Light brown to medium brown oil shale w/ <0.1 tuff at 792.7'.
794.6	800.9		Tan to light brown oil shale.
800.9	801.2		Tuff.
801.2	807.6		Tan to light brown oil shale.
807.6	811.5		Dark brown oil shale (rich?).
811.5	838.6		Tan to light brown oil shale - 0.1' tuff at 818.5, 0.1' at 829.0.
838.6	838.8		Tuff.
838.8	850.0		Medium brown oil shale.
850.0	859.0		Medium brown to dark brown oil shale.

Drill hole

CORE LOG

U. S. GEOLOGICAL SURVEY

DRILL HOLE Superior Oil Co. No. 16 PAGE 6 OF 7
 LOCATION Sec. 13, T. 1 N., R. 97 W. ELEVATION _____ TOTAL DEPTH _____
 DATE BEGUN _____ DATE COMPLETED _____ DRILLER _____ LOGGED BY _____
 CASING _____ REMARKS: _____

FROM	TO	THICK- NESS	LITHOLOGIC DESCRIPTION
859.0	927.0		Light brown to tan oil shale with 0.1' tuff at 886.0 (sample). 0.1' tuff at 901.6'.
927.0	949.0		Varys from tan to dark brown (good oil shale?).
949.0	955.5		Light brown to medium brown oil shale.
955.5	965.2		Medium brown to dark brown oil shale.
965.2	995.5		Dark gray to dark brown oil shale in part waxy (clay) starting at 981.0 is banded w/extremely thin tan layers in marked contrast to the medium dark brown.
995.5	999.5		Black waxy shale (garden gulch).
999.5	1005.0		Dark gray to brown oil shale 0.1' tuff at 1000.7.
1005.0	1013.5		dark gray broken core.
1013.5	1026.3		Dark gray to dark brown oil shale.
1026.3	1029.0		Badly broken dark gray clay shale.
1029.0	1039.8		Mostly dark gray to black clay shale w/some brown oil shale.
1039.8	1040.8		Badly broken clay shale.
1040.8	1044.5		Interbedded dark gray shale and brown oil shale.
1044.5	1057.0		Dark gray to black clay shale in biscuits 4.2'.
1057.0	1063.0		Interbedded dark gray to black clay shale and light brown oil shale.
1063.0	1093.0		Tan to light brown oil shale to medium brown oil shale.
1093.0	1113.0		Mostly dark gray claystone w/minor amount of light brown to medium brown oil shale.
1113.0	1115.0		Badly broken core (greenish gray shale).

Drill hole

