

Scale 1:240 Imperial

Well Name: GUDENKAUF #1
Surface Location: S2 SE SW NE S32 T12S R15W
Bottom Location:
API: 15-167-24010-00-00
License Number: 31385
Spud Date: 10/15/2014 Time: 1:00 PM
Region: RUSSELL COUNTY
Drilling Completed: 10/20/2014 Time: 7:07 PM
Surface Coordinates: 2540 FNL & 1650 FEL
Bottom Hole Coordinates:
Ground Elevation: 1834.00ft
K.B. Elevation: 1841.00ft
Logged Interval: 2700.00ft To: 3400.00ft
Total Depth: 3400.00ft
Formation: LANSING KANSAS CITY
Drilling Fluid Type: CHEMICAL / FRESH WATER GEL

OPERATOR

Company: MG OIL, INC
Address: P.O. BOX 162
RUSSELL, KANSAS
67665-0162
Contact Geologist: CHAD AND CURT COUNTS
Contact Phone Nbr: 785-483-1627
Well Name: GUDENKAUF #1
Location: S2 SE SW NE S32 T12S R15W
API: 15-167-24010-00-00
Pool: State: KANSAS Field: FAIRPORT
Country: USA

SURFACE CO-ORDINATES

Well Type: Vertical
Longitude: -99.0076904
Latitude: 38.9657300
N/S Co-ord: 2540 FNL
E/W Co-ord: 1650 FEL

LOGGED BY



Company: SOLUTIONS CONSULTING, INC.
Address: 108 WEST 35TH
HAYS, KANSAS 67601
Phone Nbr: 785-650-4540 / 785-639-1337
Logged By: Geologist Name: STEVE REED

CONTRACTOR

Contractor: ROYAL DRILLING, INC
Rig #: 2
Rig Type: MUD ROTARY
Spud Date: 10/15/2014 Time: 1:00 PM
TD Date: 10/20/2014 Time: 7:07 PM
Rig Release: 10/22/2014 Time: 6:00 AM

ELEVATIONS

K.B. Elevation: 1841.00ft Ground Elevation: 1834.00ft
K.B. to Ground: 7.00ft

NOTES

BASED ON THE POSITIVE RESULTS OF DST 2 AND 3, ALONG WITH FAVORABLE STRUCTURAL POSITION AND LOG ANALYSIS, DECISION WAS MADE TO SET 5 1/2" PRODUCTION CASING TO FURTHER TEST PRODUCTIVITY OF WELL.

OPEN HOLE LOGGING PROVIDED BY: TUCKER ENERGY SERVICES
 PHASED INDUCTION SHALLOW FOCUS SP LOG, COMPENSATED NEUTRON PEL DENSITY LOG,
 AND MICRORESISTIVITY LOGS WERE PERFORMED

DRILLSTEM TESTING PROVIDED BY: DIAMOND TESTING
 ONE (1) CONVENTIONAL TEST AND TWO (2) STRADDLE TESTS WERE COMPLETED

FORMATION TOPS COMPARISON AND SUMMARY OF DAILY ACTIVITY

FORMATION TOPS COMPARISON

| WELL NAME | DRILLING WELL | | | | COMPARISON WELL | | | | COMPARISON WELL | | | | COMPARISON WELL | | | |
|---------------|-------------------|---------|------|---------|-------------------------|---------|--------|-----|-------------------------|---------|--------|-----|-------------------------|---------|--------|-----|
| | GUDENKAUF #1 | | | | MCCUNE B #1 | | | | MCCUNE 1 | | | | MCCUNE B 3 | | | |
| | 15-167-24010 | | | | 15-167-00094 | | | | 15-167-00304 | | | | 15-167-04325 | | | |
| API # | Sec. 32 T12S R15W | | | | Sec. 32, T12S R15W | | | | Sec. 32, T12S R15W | | | | Sec. 32, T12S R15W | | | |
| | 1841 KB | | | | 1862 KB | | | | 1845 KB | | | | 1828 KB | | | |
| | | | | | Structural Relationship | | | | Structural Relationship | | | | Structural Relationship | | | |
| Formation | Sample | Sub-Sea | Log | Sub-Sea | Log | Sub-Sea | Sample | Log | Log | Sub-Sea | Sample | Log | Log | Sub-Sea | Sample | Log |
| Anhydrite Top | 918 | 923 | 910 | 931 | 921 | 941 | -18 | -10 | 925 | 920 | 3 | 11 | 920 | 908 | 15 | 23 |
| Topeka | 2742 | -901 | 2737 | -896 | 2764 | -902 | 1 | 6 | NA | NA | NA | NA | 2732 | -904 | 3 | 8 |
| Heebner | 2961 | -1120 | 2956 | -1115 | 2984 | -1122 | 2 | 7 | 2969 | -1124 | 4 | 9 | 2951 | -1123 | 3 | 8 |
| LKC | 3011 | -1170 | 3006 | -1165 | 3035 | -1173 | 3 | 8 | 3018 | -1173 | 3 | 8 | 3002 | -1174 | 4 | 9 |
| BKC | 3253 | -1412 | 3246 | -1405 | 3280 | -1418 | 6 | 13 | NA | NA | NA | NA | 3244 | -1416 | 4 | 11 |
| Conglomerate | 3274 | -1433 | 3269 | -1428 | 3302 | -1440 | 7 | 12 | NA | NA | NA | NA | NA | NA | NA | NA |
| Arbuckle | 3293 | -1452 | 3288 | -1447 | NA | NA | NA | NA | 3312 | -1467 | 15 | 20 | 3271 | -1443 | -9 | -4 |
| Total Depth | 3400 | -1559 | 3395 | -1554 | 3350 | -1488 | -71 | -66 | 3360 | -1515 | -44 | -39 | 3283 | -1455 | -104 | -99 |

SUMMARY OF DAILY ACTIVITY

- 10-15-14 R.U., spud @ 1:00pm, 8 5/8" surface casing set at 460' w/210 sxs common, 2% gel, 3%cc, plug down @ 2:00am
- 10-16-14 460', WOC, drill plug @ 11:15am
- 10-17-14 1700', drilling
- 10-18-14 2365', drilling
- 10-19-14 3030', drilling, CFS @ 3050, CFS @ 3070, short trip, CTCH, TOWB for DST #1 2986-3070, survey 1/4°, to windy to strap, CFS @ 3104, CFS @ 3115, CFS @ 3200
- 10-20-14 3201', drilling, CFS @ 3327, TD of 3400 reached @ 7:07pm, CFS, short trip (10 stands), CTCH, TOWB for logging, TIWT for DST #2 3299 to 3314 (Straddle Arbuckle)
- 10-21-14 3400, TOWT from DST #2, Strap in to confirm depth, Strap 1.72' short to board, DST # 3 3152 to 3199 (Straddle KC "I & J"), prepare to set 5 1/2 inch production casing w/ 190 sxs common, 10% salt, 5% gilsonite, 500 gallon mud flush, plug down @ 2:00am
- 10-22-14 release rig

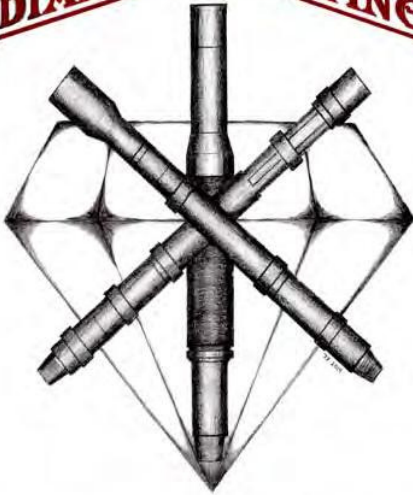
DST #1 SUMMARY

DIAMOND TESTING GENERAL REPORT

Jake Fahrenbruch, Tester

Cell: (620) 282-8977 / Office: (800) 542-7313

DIAMOND TESTING



TEST INFORMATION

| | |
|------------------|-------------------------------|
| Well Name | Gudenkauf #1 |
| Formation | Lansing "A-D" 2986'-3070' |
| Surface Location | Sec 32-12s-15w-Russell Co.-KS |
| Company Name | MG Oil Inc |
| Test Type | |
| Gauge Name | Inside 5951 |
| Start Test Date | 2014/10/19 |
| Start Test Time | 14:44:00 |
| Final Test Date | 2014/10/19 |
| Final Test Time | 20:10:00 |
| Job Number | F333 |
| Contact | Curt Counts |
| Site Contact | Steve Reed |

TEST RESULTS

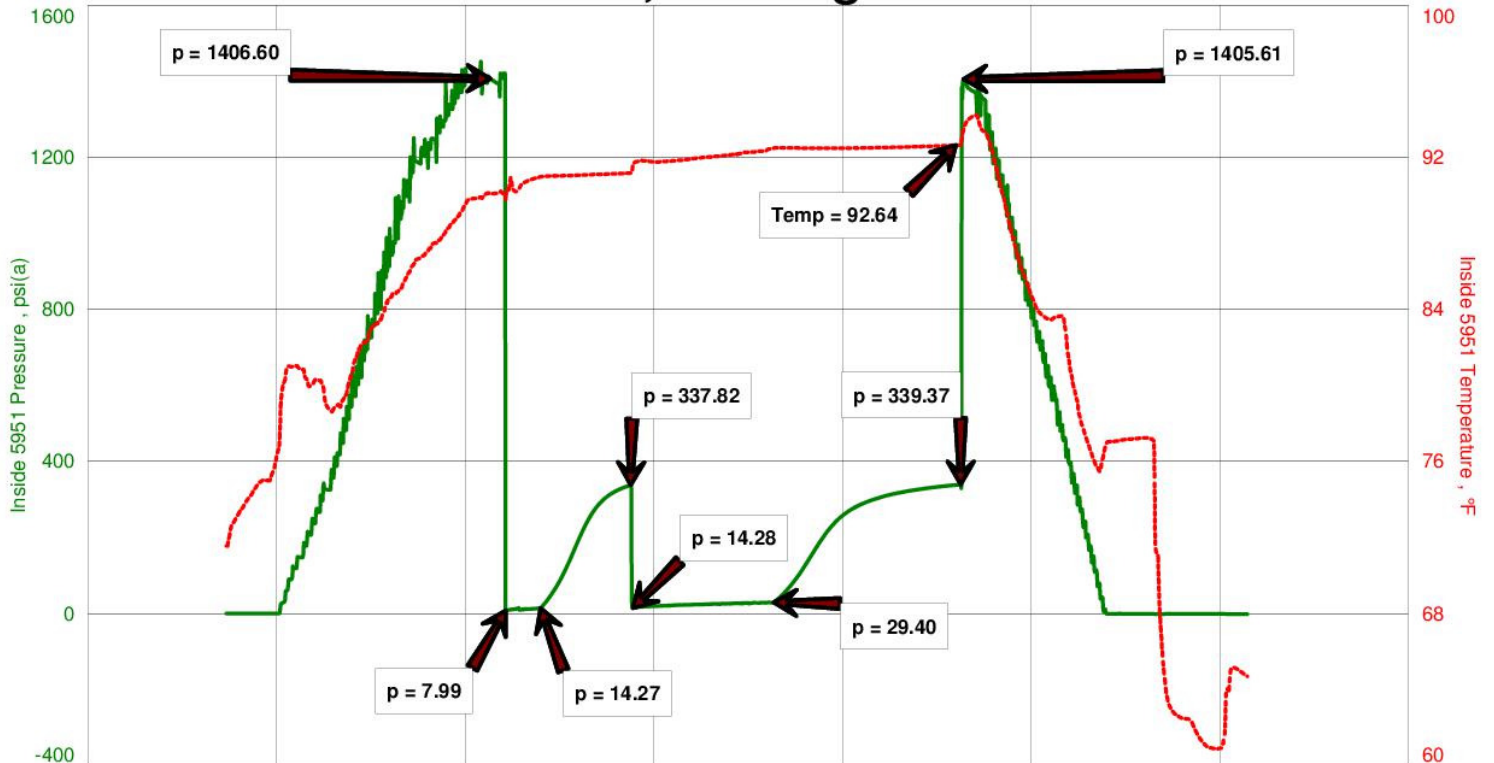
Initial flow, blow increased to 6", no blowback.
 Final flow, blow increased to BOB in 36 minutes, no blowback.

Recovered 45' of SOSM 1% oil 99% mud
 +/- 50' of Gas In Pipe
 Tool Sample: OSM 2% oil, 98% mud

MG Oil Inc
 Start Test Date: 2014/10/19
 Final Test Date: 2014/10/19

Gudenkauf #1
 Formation: Lansing "A-D" 2986'-3070'
 Job Number: F333

DST #1, Lansing "A-D"



DST #2 SUMMARY

DIAMOND TESTING GENERAL REPORT

Jake Fahrenbruch, Tester

Cell: (620) 282-8977 / Office: (800) 542-7313

DIAMOND TESTING



TEST INFORMATION

| | |
|-------------------------|---------------------------------|
| Well Name | Gudenkauf #1 |
| Formation | Arbuckle 3299'-3314' (3400' TD) |
| Surface Location | Sec 32-12s-15w-Russell Co.-KS |
| Company Name | MG Oil Inc |
| Test Type | Tailpipe Straddle |
| Gauge Name | Inside 5951 |
| Start Test Date | 2014/10/21 |
| Start Test Time | 04:14:00 |
| Final Test Date | 2014/10/21 |
| Final Test Time | 10:23:00 |
| Job Number | F334 |
| Contact | Curt Counts |
| Site Contact | Steve Reed |

TEST RESULTS

Initial flow, blow increased to BOB in 20 minutes. No blowback.
Final flow, Blow increased to BOB in 25 minutes. No blowback.

RECOVERED 260' TOTAL FLUID

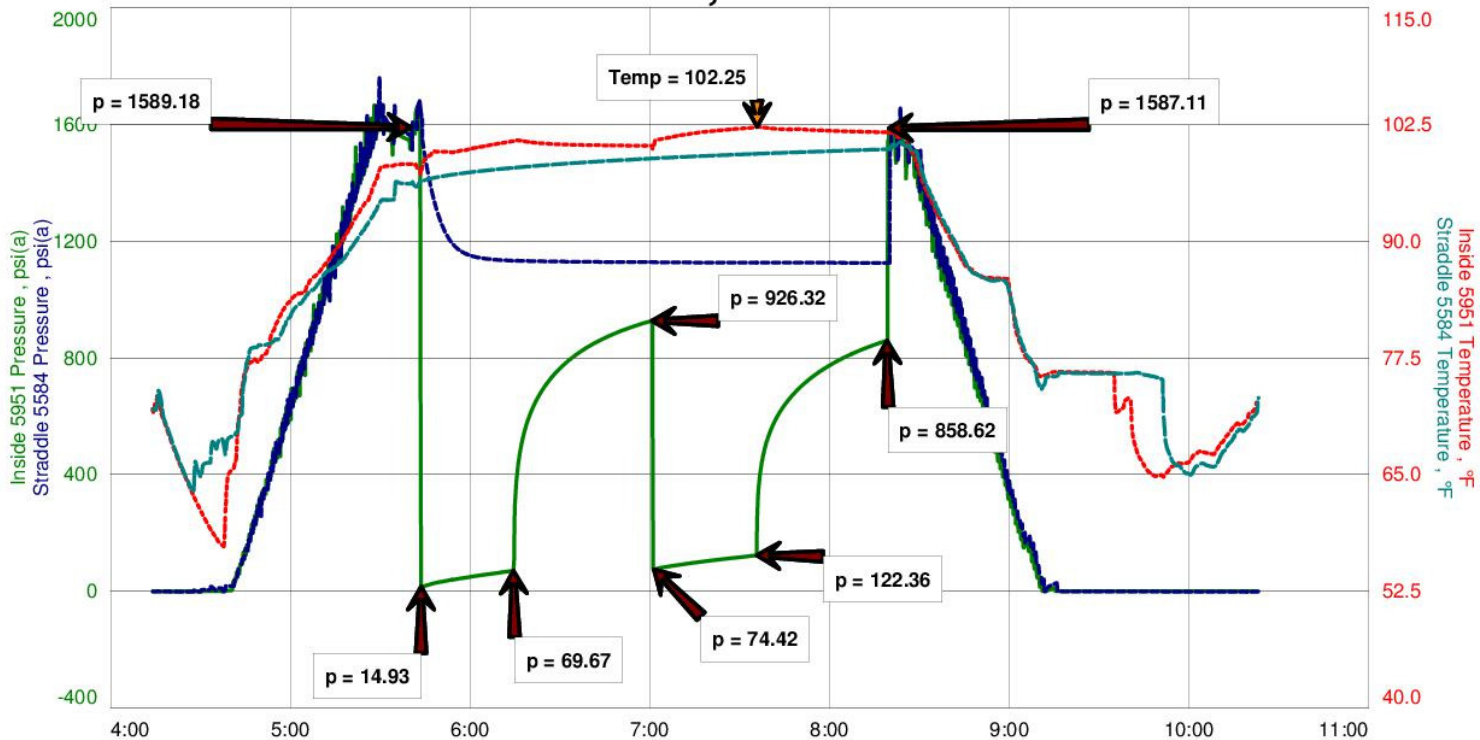
| | | |
|-----|---------|---------------------------|
| 30' | OIL | 100% oil |
| 35' | SWCOM | 40% oil, 10% wtr, 50% mud |
| 65' | OCWM | 10% oil, 25% wtr, 65% mud |
| 65' | OS SMCW | 1% oil, 89% wtr, 10% mud |
| 65' | OSW | 1% oil, 99% wtr |

GRAVITY: 21 @ 60F RW: .37 ohm @ 53F TOOL SAMPLE: OSW CHLORIDES: 18,000 PPM

MG Oil Inc
Start Test Date: 2014/10/21
Final Test Date: 2014/10/21

Gudenkauf #1
Formation: Arbuckle 3299'-3314' (3400' TD)
Job Number: F334

DST #2, Arbuckle

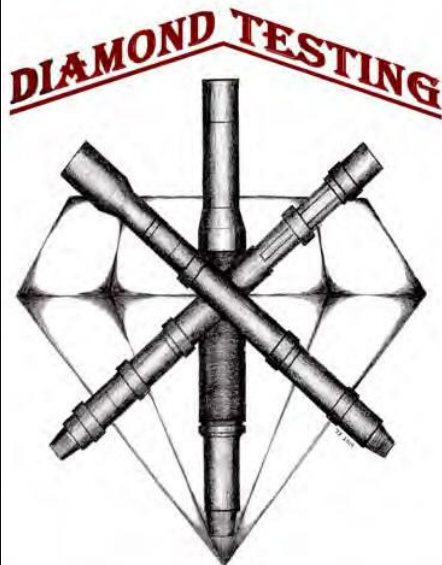


DST #3 SUMMARY

DIAMOND TESTING GENERAL REPORT

Jake Fahrenbruch, Tester

Cell: (620) 282-8977 / Office: (800) 542-7313



TEST INFORMATION

| | |
|-------------------------|-----------------------------------|
| Well Name | Gudenkauf #1 |
| Formation | L,KC "I&J" 3152'-3199' (3400' TD) |
| Surface Location | Sec 32-12s-15w-Russell Co.-KS |
| Company Name | MG Oil Inc |
| Test Type | Tailpipe Straddle |
| Gauge Name | Inside 5951 |
| Start Test Date | 2014/10/21 |
| Start Test Time | 12:01:00 |
| Final Test Date | 2014/10/21 |
| Final Test Time | 18:22:00 |
| Job Number | F335 |
| Contact | Curt Counts |
| Site Contact | Steve Reed |

TEST RESULTS

Initial flow, blow increased to BOB in 9 minutes. Surface blowback.
Final flow, blow increased to BOB in 3.75 minutes. Blowback @ .5".

TOTAL RECOVERED FLUID: 165'

GAS IN PIPE: 640'

| | | |
|-------------------|-----------|---|
| 15' | Clean Oil | 100% oil |
| 110' | HGCOM | 25% gas, 30% oil, 45% mud |
| 40' | GCOSWM | 10% gas, 2% oil, 43% wtr, 45% mud |
| TOOL SAMPLE: MCWO | | 50% oil, 35% wtr, 15% mud |
| GRAVITY: 40 @ 60F | | Chlorides: 23,000 PPM RW: .17 ohm @ 81F |

MG Oil Inc
Start Test Date: 2014/10/21
Final Test Date: 2014/10/21

Gudenkauf #1
Formation: L,KC "I&J" 3152'-3199' (3400' TD)
Job Number: F335

DST #3, LKC "I&J"

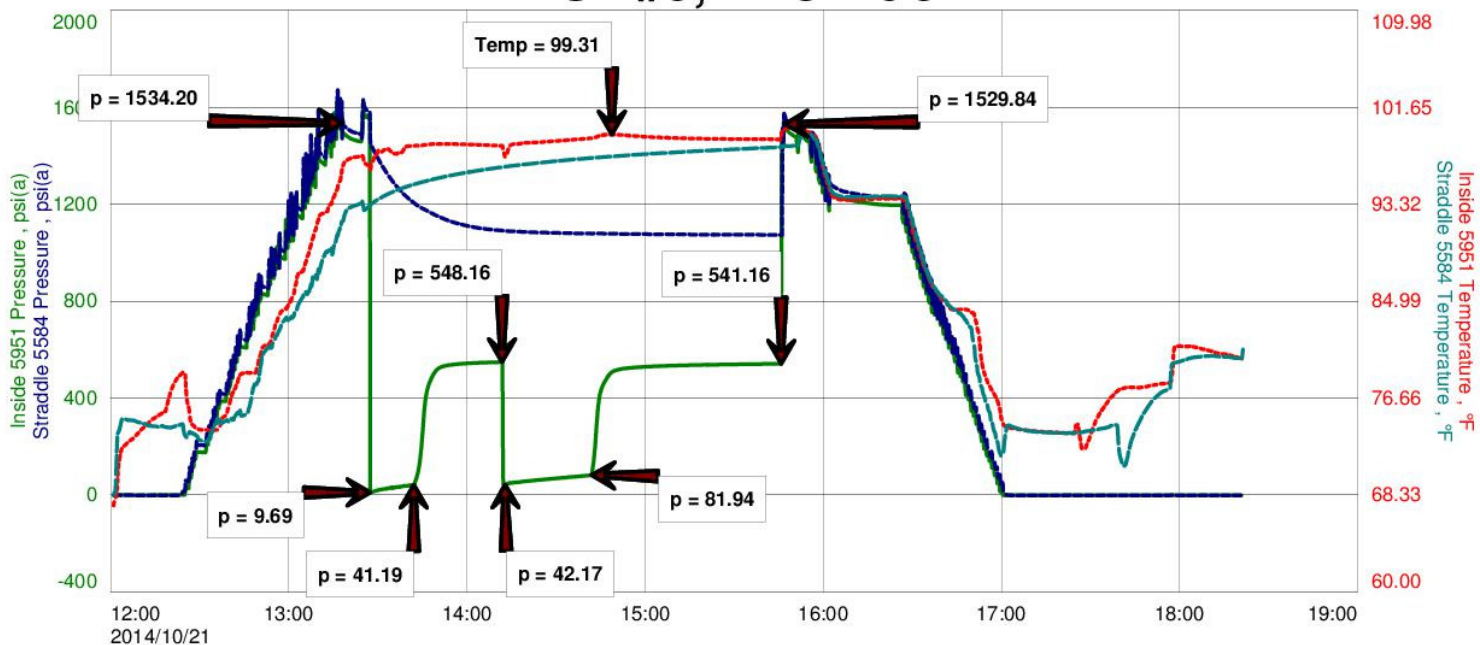


Image Header 05

ROCK TYPES



ACCESSORIES

MINERAL

- ▲ Chert, dark
- P Pyrite

FOSSIL

- F Fossils < 20%
- G Gastropod
- φ Oolite

STRINGER

- ~ Chert
- green shale
- red shale

TEXTURE

- C Chalky
- L Lithogr

OTHER SYMBOLS

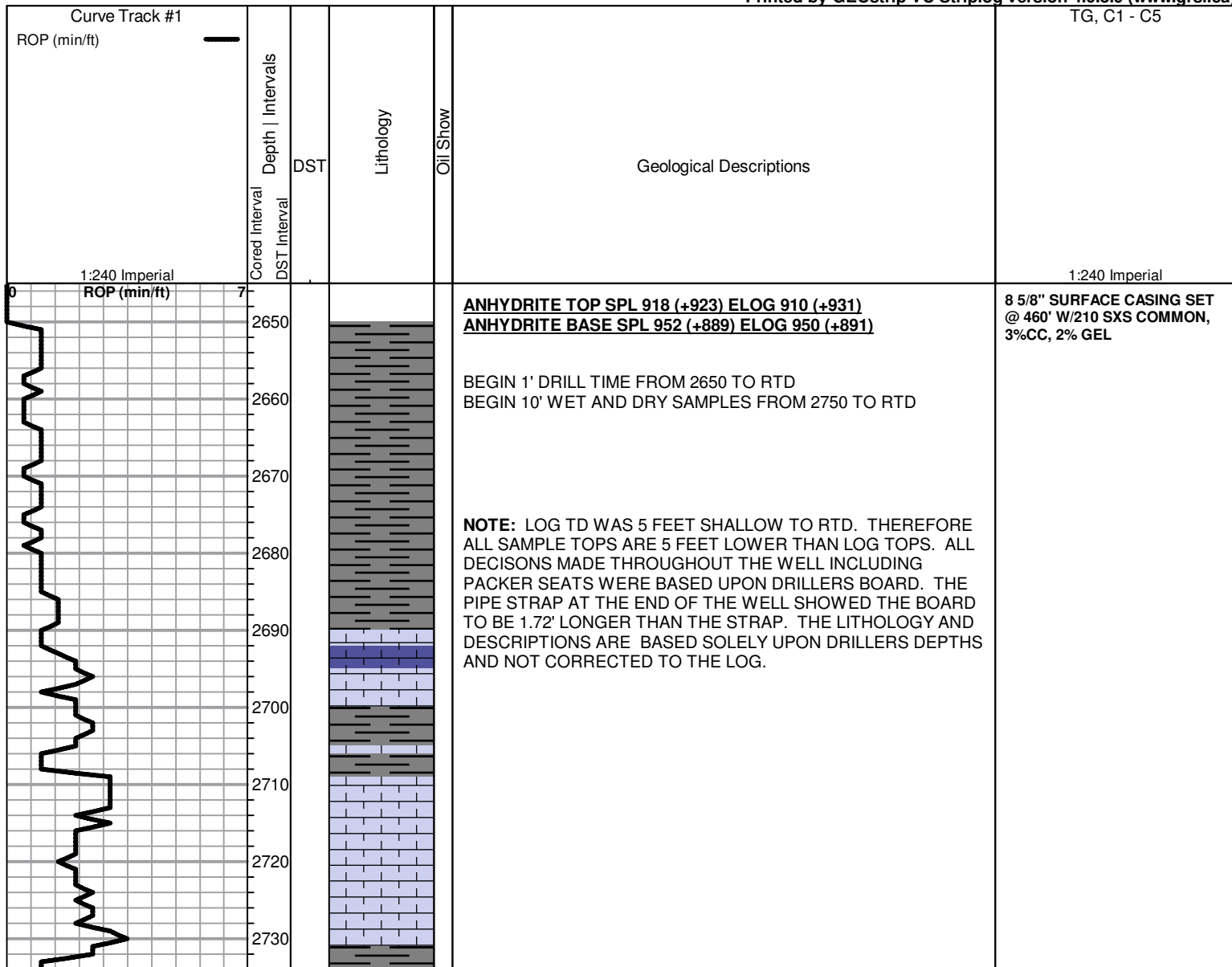
Oil Show

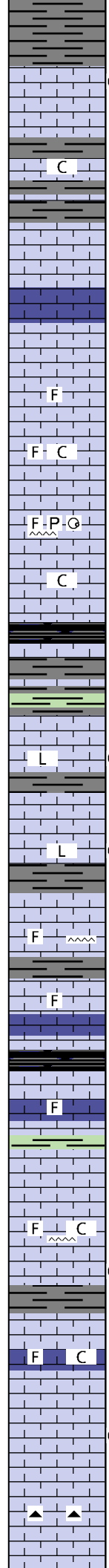
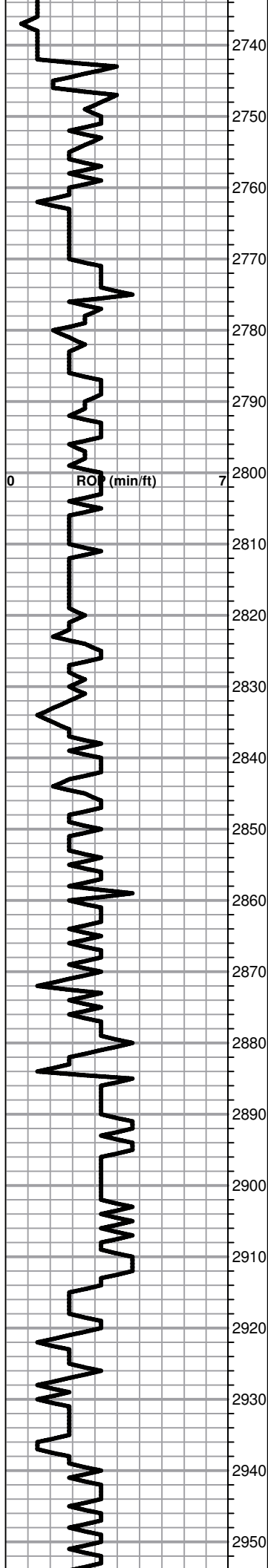
- Good Show
- Fair Show
- Poor Show
- Spotted or Trace
- Questionable Stn
- D Dead Oil Stn
- Fluorescence
- * Gas

DST

- DST Int
- DST alt
- Core
- tail pipe
- DST
- DST
- DST

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Sh - light-medium gray, soft, blocky

TOPEKA SPL 2742 (-901) ELOG 2737 (-896)

Lm - light gray-tan, granular, fine pinpoint porosity, friable, saturated medium brown oil stain, SFO upon crush, fair odor

Lm - cream-tan, fnxn, hard, brittle, slightly chalky

Lm - tan, fnxn, dense, hard

Lm - tan-light gray, fine interxn porosity with dark fossil clasts, well cemented, hard

Lm - light gray, fossiliferous, well cemented, hard, brittle, bedded chalk in part

Lm - cream, fnxn, slightly fossiliferous, hard, brittle, slightly chalky

Lm - cream-light brown, fossiliferous, medxn to granular, crumbly, pyrite gastropod, cherty

Lm - cream-tan, granular, chalky

Sh - black, carbonaceous, waxy, fissile

Sh - light greenish-gray, soft, sticky

Lm - cream, vfxn to lithographic in part, dense, hard, brittle, bedded chalk, one chip with fine pinpoint porosity and slight scattered stain, NSFO, no odor

Lm - cream-light gray, clean and bright, vfxn to lithographic, brittle, one chip as above with fine pinpoint porosity and slight light brown stain, NSFO, no odor

Lm - light gray, slightly fossiliferous, fnxn to granular, bedded chalk in part, cherty

Lm - light gray-tan, slightly fossiliferous, dense, hard, bedded chalk

Sh - black, carbonaceous, firm, waxy, pyrite

Lm - cream-tan, fnxn, slightly fossiliferous, brittle, bedded chalk

Sh - light greenish gray, soft, blocky

Lm - cream-fnxn to granular, hard

Lm - light gray-brown, fnxn, slightly fossiliferous, slightly chalky, cherty

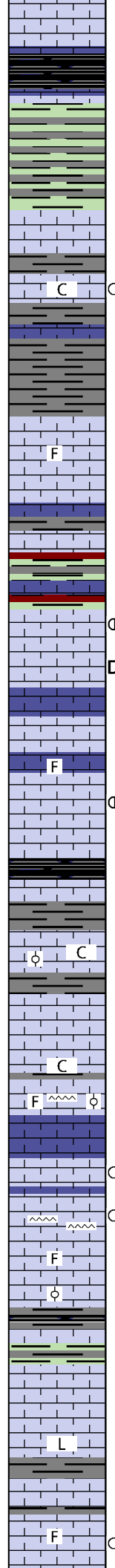
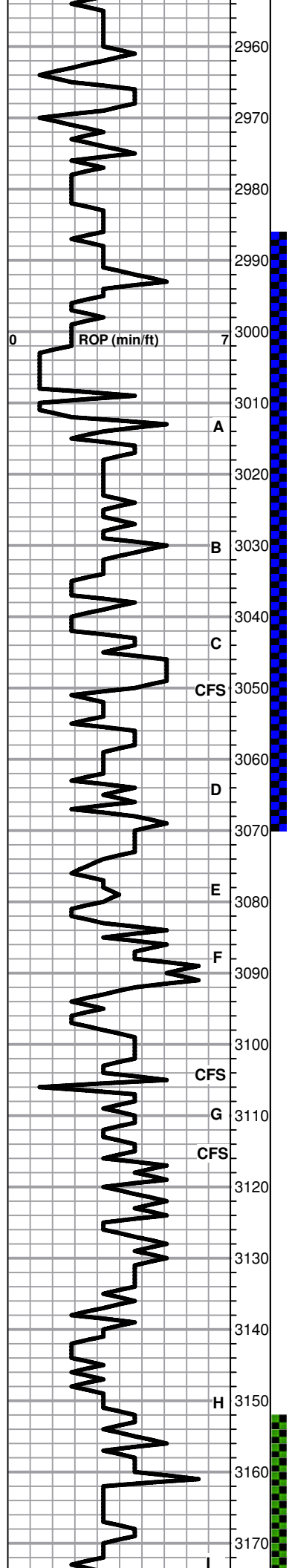
Lm - light gray-tan, fossiliferous, few chips with fine pinpoint porosity, slight scattered light brown stain, NSFO, no odor

Lm - cream-tan, granular, fossiliferous, crumbly, slightly chalky, no shows

Lm - tan-light gray, fnxn with scattered fine pinpoint porosity and slightly scattered to saturated in some light brown stain, few specks of free oil, faint odor

Lm - tan-cream, fnxn, hard, brittle, bedded chalk, dark chert

**MUD WT 8.6
VIS 56**



Lm - cream-tan, fnxn, dense, hard, slightly chalky, no shows

HEEBNER SPL 2961 (-1120) ELOG 2956 (-1115)
 Sh - black, carbonaceous, firm, waxy, fissile

Sh - light green-gray, soft, blocky, forming sticky clumps

TORONTO SPL 2982 (-1141) ELOG 2974 (-1133)
 Lm - cream-offwhite, fnxn, clean and bright, hard, dense

Lm - offwhite, fnxn, dense, hard, some chips with fine pinpoint porosity and spotted light brown stain, NSFO, no odor, chalky

Sh - light-medium gray, soft, blocky

LKC SPL 3011 (-1170) ELOG 3006 (-1165)

Lm - tan, fnxn, slightly fossiliferous with very fine pinpoint porosity, slight scattered light brown stain, faint odor, NSFO

Sh - light greenish gray / maroon, soft, blocky, some sticky

Lm - cream-light gray, fnxn with fine pinpoint porosity, slight scattered light brown stain, few specks free oil, faint odor, slight streaming wet cut under UV light, grading into very chalky with some gilsonitic stain

Lm - tan-cream, fnxn, hard, dense, no shows

Lm - tan-light gray, fossiliferous, well cemented, dense, brittle

Lm - light gray, fnxn with scattered vuggy porosity, light golden brown scattered stain, fair odor, streaming wet cut under UV light, slight show of free gassy oil in a few, limited total porosity

Sh - black, carbonaceous, firm, fissile
 Lm - cream-tan, fnxn, dense, hard
 Sh - medium gray-brown, soft, blocky

Lm - cream, oolitic, very fine interxn porosity, slight scattered light brown stain, NSFO, no odor, chalky in part
 Sh - light gray, soft, sticky

Lm - cream-tan, oolitic with fine interxn porosity, slight scattered light brown stain, NSFO, no odor, brittle, chalky
 Lm - cream, fnxn, dense, hard, brittle, chalky

Lm - cream, fossiliferous, slightly oolitic with secondary recrystallization, dense, hard, cherty, pyrite, slight scattered gilsonitic stain, NSFO, no odor

Lm - cream, bright and clean, slight scattered pinpoint porosity, rare scattered light brown stain, NSFO, no odor

Lm - cream, fnxn, dense, hard, rare scattered vugs, slight stain, NSFO, no odor, cherty

Lm - cream, slightly fossiliferous, slight scattered pinpoint porosity, NSFO, no odor, limited total porosity
 Lm - tan, fnxn, slightly oolitic, poor development, dense, hard

Sh - light greenish gray, soft, sticky

Lm - tan, fine pinpoint porosity with spotted light brown stain, NSFO, no odor

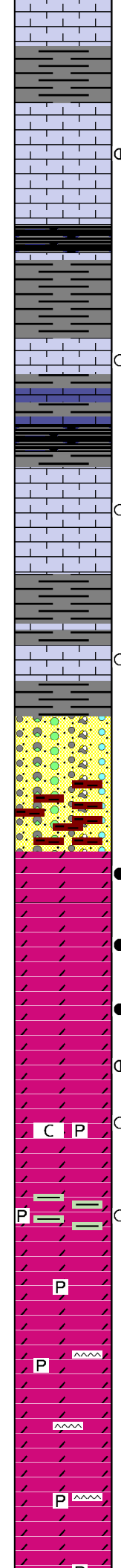
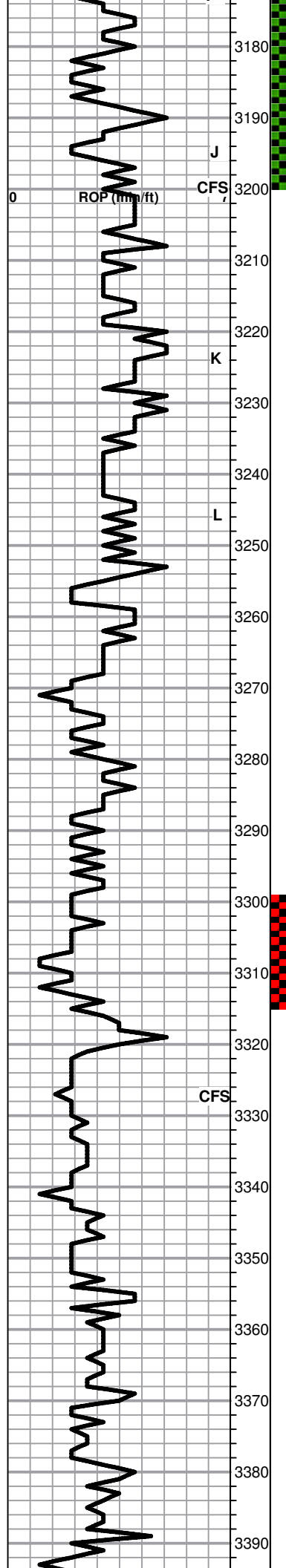
Lm - tan-medium brown, fnxn to lithographic in part, dense, hard

Lm - cream-tan, slightly fossiliferous, fnxn with scattered fine interxn porosity, light golden brown stain, faint odor, NSFO

DST #1 2986 TO 3070
 SEE HEADER FOR SUMMARY

MUD WT 8.6
 VIS 56

DST #3 3152 TO 3199
 STRADDLE
 SEE HEADER FOR SUMMARY



Lm - tan, fnxn, dense, hard, slight bedded chalk, no shows

Sh - light-medium gray, soft, blocky

Lm - tan-light gray, fnxn, very hard, no shows

Lm - cream, fnxn with scattered fine interxn porosity and scattered vugs, with light golden brown stain, slight gassy oil sheen with a couple specks of free oil upon crush, UV fluorescence, few chips with oomoldic porosity with bubbling gassy oil escaping, fair odor

Sh - dark gray/black, carbonaceous, firm, fissile

Sh - light-medium gray, soft, blocky

Lm - cream, fine interxn porosity, spotted light brown stain, NSFO, no odor

Sh - black, carbonaceous, waxy, fissile

Lm - tan, fnxn with fine interxn porosity, slight scattered vugs, few specks of free oil, faint odor

BKC SPL 3253 (-1412) ELOG 3246 (-1405)

Sh - light-medium gray, soft, blocky

Lm - offwhite, scattered fine pinpoint porosity, with spotted light brown oil stain, faint odor

CONGLOMERATE SPL 3274 (-1433) ELOG 3269 (-1428)

Cherty Conglomerate - Lm's varied colors and textures
Sh's varied colors, green, orange, maroon, gray, black
Cherts orange, white, yellow, opaque brown

Cherty Conglomerate - A/A loaded with maroon sticky shales, red wash

ARBUCKLE SPL 3293 (-1452) ELOG 3288 (-1447)

Dolo - cream - offwhite, medxn, well developed rhombic xtals, fine interxn porosity with scattered vugs, good saturated dark oil stain, free oil floating on cup and in tray, strong odor

Dolo - cream, med-coarse xln, easily crushed, good SFO, strong odor, well developed, scattered vugs, Streaming wet cut under UV light, good gassy sheen throughout

Dolo - buff, medxn, well cemented, hard, saturated stain, SFO, good odor

Dolo - buff, medxn, spotted dark oil stain, fair odor, slight free oil upon crush

Dolo - tan-buff, fn-medxn, limited stain, slight SFO, fair odor, slightly chalky, pyrite

Dolo - buff-salmon pink, fnxn, NSFO, fair odor, slight scattered dark oil stain, some light green shale soft and waxy, pyrite

Dolo - offwhite, fnxn, brittle, no shows, fair odor, pyrite

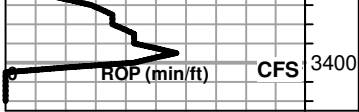
Dolo - cream, fnxn, no shows, cherty, pyrite

Dolo - buff-light gray, fnxn, brittle, hard, no shows, cherty

Dolo - tan, fnxn, hard, slightly chalky, clean and barren, cherty, pyrite

MUD WT 9.2
VIS 49

DST #2 3299 TO 3314
STRADDLE
SEE HEADER FOR SUMMARY



Dolo - tan-buff, fnxn, chlalky, pyrite, cherty, no shows
RTD 3400 (-1559) LTD 3395 (-1554)

MUD WT 9.3
VIS 65