



00264428

GEOLOGICAL WELL REPORT

Tipperary Oil and Gas, #1 Davis
NENE Section 29, T9N - R53W
Logan County, Colorado
Elevation: 4196 Ground, 4204 KB

| | |
|-----|-------------------------------------|
| DVR | <input checked="" type="checkbox"/> |
| FJP | <input type="checkbox"/> |
| RHM | <input checked="" type="checkbox"/> |
| JAM | <input checked="" type="checkbox"/> |
| JJD | <input checked="" type="checkbox"/> |
| BLS | <input type="checkbox"/> |
| OGM | <input type="checkbox"/> |

Melody A. Ulen
Nov. 5, 1980

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GENERAL INFORMATION

Well: Tipperary Oil and Gas, #1 Davis

Location: NENE Section 29, T9N-R53W, Logan County, Colorado,
660'FNL, 660'FEL

Elevation: 4196 Ground, 4204 KB

Contractor: Allison Drilling Company Rig #3

Tool Pusher: Ralph Roads

Spud Date: October 22, 1980

Surface Casing: 8-5/8" set at 126'

Drill Stem Tests: DST #1 - 5224-5242; DST #2 - 5270-5288

Logs: Induction-SFL, Compensated Neutron-Formation, Density-Gamma Ray

Status: Completing as oil well

CHRONOLOGICAL HISTORY

- 10-22-80 Spud well at 12:30PM. Ran 3 joints 8-5/8" surface casing, set at 126'KB with 120 sacks of cement. Plug down at 3PM, drilled to 1175'. Deviation 3/4° at 135'.
- 10-23-80 Drilling with water at 1175'.
- 10-24-80 Drilling with water at 3580'.
- 10-25-80 Drilling at 4730'.
- 10-26-80 Drilling at 5075'. Bit #3 on at 4197'. Drilled through "D" Sand, no shows. Drilled through "J" Sand, very weak show, no drilling break, no test. Bit #4 on at 4965'.
- 10-27-80 PTD 5242'. DST #1 5224-5242', "O" Sand. Bit #5 on at 5088'.
- 10-28-80 PTD 5288'. DST #2 5270-5288', "R" Sand. Bit #6 on at 5242'. Lost circulation at 5292', conditioned mud, drill to TD. Bit #7 on at 5288'.
- 10-29-80 TD 5330'. Logging. Ran ISFL, FDC-CNL-GR.
- 10-30-80 TD 5330'. Ran production casing, 5½" to 5330'. Released rig.
- 11-01-80 WOCR.

BIT RECORD

| <u>Run</u> | <u>Size</u> | <u>Make</u> | <u>Type</u> | <u>Depth Out</u> | <u>Feet</u> | <u>Hours</u> |
|------------|-------------|-------------|-------------|------------------|-------------|------------------|
| 2 | 7-7/8 | Smith | DS-T | 4197 | 4062 | 31 $\frac{1}{4}$ |
| 3 | 7-7/8 | Smith | DT-J | 4965 | 768 | 15 $\frac{1}{2}$ |
| 4 | 7-7/8 | Hughes | OSC1G | 5088 | 123 | 10-3/4 |
| 5 | 7-7/8 | Smith | DGT-3 | 5242 | 154 | 9 $\frac{1}{2}$ |
| 6 | 7-7/8 | Hughes | OW4-J | 5288 | 46 | 4 $\frac{1}{2}$ |
| 7 | 7-7/8 | Smith | V2-H | 5330 | 42 | 2 $\frac{1}{2}$ |

DRILL STEM TESTS

DST #1 5224-5242 (18') (Mile-Hi Testers). Open 15 minutes, shut-in 30 minutes, open 60 minutes, shut-in 60 minutes. Opened tool with weak blow, increased to 10" blow by end of flow period. No gas to surface. Shut-in tool for 30 minutes. Opened tool for final flow with weak blow, increased to 8", decreased to 5" at 46 minutes, steady for remainder of test. Shut-in tool for 60 minutes.

RECOVERED: 1' Heavy black oil (very low gravity), 966' water with specks of oil throughout. Total 10.18bbl fluid.

SAMPLE CHAMBER: Capacity - 2150cc Pressure - 80psi
Recovered - 1600cc Water w/trace of oil

PRESSURES: IHP 2736
IFP 107-210
ISIP 964
FFP 245-476
FSIP 960
FHP 2699

Rw = .8 at 70°F Rm = 2.0 at 70°F Rmf = 1.85 at 70°F BHT = 141°F

DST #2 5270-5288 (18') (Mile-Hi Testers). Open 45 minutes, shut-in 30 minutes, open 60 minutes, shut-in 60 minutes. Opened tool with very weak blow, increased to ½" blow, began to decrease after 18 minutes, died at end of flow period. Shut-in tool for 30 minutes. Opened tool for final flow with very weak blow, died in 51 minutes, remained dead for duration of flow period. Shut-in tool for 60 minutes.

RECOVERED: 100' heavy black oil (very low gravity) (.61 bbl), 80' slightly water and oil cut mud (.49 bbl). Total 1.1 bbl fluid.

SAMPLE CHAMBER: Capacity - 2150cc Pressure - 0 psi
Recovered - 1150 cc oil stained water

PRESSURES: IHP 2732
IFP 68-70
ISIP 385
FFP 102-112
FSIP 483
FHP 2680

Rw = 1.8 at 70°F Rm = 2.0 at 70°F BHT = 142°F

FORMATION TOPS

| <u>FORMATION</u> | <u>DEPTH</u> | <u>SUB-SEA DEPTH</u> |
|------------------|--------------|----------------------|
| Niobrara | 4100 | +104 |
| Greenhorn Lime | 4618 | -414 |
| "D" Sand | 4854 | -650 |
| "J" Silt | 4956 | -752 |
| "J" Sand | 4964 | -760 |
| "O" Sand | 5231 | -1027 |
| "R" Sand | 5274 | -1070 |
| TOTAL DEPTH | 5330 | |

SAMPLE DESCRIPTIONS

Sample quality: Fair to poor throughout

| | |
|-----------------------|--|
| 4000-4120 | Shale, gray-black, fissile-blocky, slightly micaceous, trace of pyrite. |
| 4120-4360 | Shale as above; siltstone, light gray-tan, well-cemented, very calcareous, micaceous. |
| 4360-4440 | Shale as above; siltstone as above; limestone, white-light gray, hard, dense, crystalline. |
| 4440-4470 | Shale as above; siltstone as above; limestone as above; trace of sand, light gray, very fine-grained, well-sorted, hard, very slightly calcareous, pyritic, no show. |
| 4470-4530 | Sample as above, trace of limestone, trace of siltstone. |
| 4530-4590 | Sample as above; trace of dolomite, tan, hard, dense, crystalline. |
| 4590-4880 | Sample as above, predominantly shale, fair amount of free pyrite. |
| "D" SAND 4880-4890 | Shale as above, trace of sand, white, very fine to fine-grained, well-sorted, well-cemented, siliceous, poor porosity and permeability, no show. |

Circulated samples 1 hour. Samples as above, sand was slightly pyritic and slightly glauconitic.

- 4890-4980 Shale, gray-black, slightly fissile to blocky, trace of sand, limestone, and siltstone (cavings)
- "J" SAND
4980-4990 Sand, white-tan, fine-grained, well-sorted, rounded to sub-rounded, moderately well-cemented, siliceous, trace of glauconite, slightly pyritic, black accessory minerals. Fair porosity, no fluorescence, very weak cut. Shale as above (cavings).
- 4990-5000 Sample as above, poor quality.
- Circulate samples 1 hour. Samples as above, no show in sand.
- 5000-5040 Shale, dark gray, fissile-blocky.
- 5040-5070 Shale as above, sand as above, very pyritic, some siltstone, dark brown, hard, pyritic, no show.
- 5070-5080 Shale and sand as above, abundant loose very fine quartz sand grains, round to sub-round, trace of siltstone.
- 5080-5110 Shale, sand, and siltstone as above.
- 5110-5150 Shale, light-dark gray, fissile, soft, micaceous, sand, gray, very fine-fine-grained, sub-rounded, well-sorted, well-cemented, siliceous, black accessory minerals, pyritic, no show. Also fair amount of free pyrite.
- 5150-5160 Sample as above, sand very glauconitic.
- 5160-5240 Shale as above, trace of sand, trace of siltstone, white, hard, siliceous, slightly pyritic.
- "O" SAND
Circulate samples 1 hour. Shale as above, trace white sandy siltstone, trace sand, light gray, fine-grained, rounded to sub-rounded, well-sorted, friable, flecks of dark brown oil, streaming cut, no fluorescence from sand, cut had milky yellow fluorescence.
- 5240-5280 Samples as above, sand has no cut, no fluorescence.
- "R" SAND
5280-5286 Sand, light gray-tan, fine-grained, rounded to sub-rounded, well-sorted, well-cemented, siliceous, hard, fair porosity and permeability, slightly pyritic, even dark brown-black oil stain, faint fluorescence, streaming cut (milky yellow fluorescence).
- Circulate samples 1 hour. Sand as above, free dark brown-black oil globules associated with "R" Sand pieces.

5286-5310 Sand as above, shale dark gray, hard, fissile.

5310-5330 Shale as above, sand cavings.

Circulate samples 1 hour. Shale as above.

TD 5330

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