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COLORADO OIL & GAS CONS. COMM.

GEOLOGICAL WELL REPORT

DYCO PETROLEUM CORPORATION

#1 LOUSBERG

NW SW SEC. 18 - T9N - R56W

WELD COUNTY, COLORADO

| | |
|-----|-------------------------------------|
| DVR | |
| FJP | |
| HHM | |
| JAM | <input checked="" type="checkbox"/> |
| JJD | |

C. PLEAS STRINGER, JR.
PETROLEUM GEOLOGIST
406 C.A. Johnson Building
Denver, Colorado 80202

December 13, 1973



SAMPLE DESCRIPTION: Depth adjusted to the Induction Log

5800-5828 Shale: black, firm, fissile.

"D" SAND 5828

5828-5846 Sandstone: light gray, very fine grained, fairly well sorted, angular, firm, clay filled, scattered black minerals, scattered mica, occasional glauconite, tight, no shows.

5846-5890 Shale: black, hard, fissile.

5890-5912 Siltstone: black, hard, tight, no shows.

"J" SAND 5912

5912-5916 Sandstone: gray, very fine grained, fairly well sorted, angular, firm, clay filled, scattered black minerals, dirty, tight, no staining, even bright yellow fluorescence, good cut.

5916-5924 Sandstone: light gray, very fine-medium grained, poorly sorted, angular, firm-friable, 10% clay filled, scattered black minerals, occasional glauconite, tight-fair porosity and permeability, uneven staining, even dull blue white fluorescence, weak cut;

Sandstone: gray, very fine-fine grained, poorly sorted, angular, hard-firm, clay filled, scattered black minerals, occasional glauconite, tight, no shows.

5924-5932 Sandstone: light gray, very fine-medium grained, poorly sorted, angular, hard-friable, 10% clay filled, occasional carbonaceous laminations, scattered black minerals, occasional glauconite, tight-fair porosity and permeability, uneven staining, even dull-bright blue white fluorescence, weak cut.

5932-5978 Sandstone: as above, except no carbonaceous laminations, no shows.

5978-5985 Sandstone: gray, fine grained, fairly well sorted, angular, friable, 0-20% clay filled, good porosity and permeability, no shows.

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DYCO PETROLEUM CORPORATION

#1 LOUSBERG

NW SW SEC. 18 - T9N - R56W

WELD COUNTY, COLORADO

CONTRACTOR: Gear Drilling Co., Rig #2

TOOL PUSHER: Bob Adams

GEOLOGIST: Pleas Stringer

ELEVATIONS: 4521' Ground, 4528' KB

LOCATION: 1920' FSL, 660' FWL

SPUD DATE: December 2, 1973

SURFACE CASING: Set 8-5/8" at 92' KB with 80 sacks of cement

CORES: None

TESTS: DST #1 5916-28' in the "J" Sand.

MUD: Chemical Gel with no oil added

LOG SURVEYS: Dresser Atlas Induction Electrolog from 92-5980'
Dresser Atlas Gamma Ray Densilog from 5700-5984'

INDUCTION LOG TOPS:

| <u>Formation</u> | <u>Depth</u> |
|------------------|--------------|
| Niobrara | 5020 |
| Ft. Hays | 5322 |
| Codell | 5358 |
| Carlile | 5364 |
| Greenhorn | 5510 |
| Bentonite Marker | 5722 |
| "D" Sand | 5828 |
| "J" Sand | 5912 |

TOTAL DEPTH 5988' by Driller, 5986' by Logger

STATUS: Set 4-1/2" production casing at 5987' with 175 sacks of cement



LOG ANALYSIS: Interpreted by the Dresser Atlas field representative,
Errol Becher

| <u>Depth</u> | <u>% Porosity</u> | <u>Rw</u> | <u>% Water Saturation</u> |
|--------------|-------------------|-----------|---------------------------|
| 5918-22 | 14 | .35 | 54 |
| 5922-28 | 15 | .35 | 64 |
| 5935-38 | 11 | .35 | 100 |
| 5938-50 | 18 | .35 | 94 |
| 5950-62 | 21 | .35 | 89 |
| 5962-70 | 18 | .35 | 88 |
| 5970-74 | 16 | .35 | 85 |
| 5974-78 | 18 | .35 | 94 |

DRILL STEM TEST DATA: Depths adjusted to the Induction Log

DST #1 5916-28 (Straddle Test) Open 10', SI 30', open 90', SI 90'
Strong steady blow throughout test. Gas to surface
in 3' gauged as follows on 1-1/4" orifice:

| <u>MCFPD</u> | <u>Time (2nd FP)</u> |
|---------------|----------------------|
| 1023 | 5 |
| 1980 | 10 |
| 2485 | 15 |
| 2702 | 20 |
| 2810 | 25 |
| Unloading mud | 30 |
| Unloading mud | 35 |
| 2883 | 40 |
| 2991 | 45 |
| 3063 | 50 |
| 3099 | 55 |
| 3099 | 60 |
| 3099 | 65 |
| 3099 | 70 |
| 3099 | 75 |
| 3099 | 80 |
| 3099 | 85 |
| 3099 | 90 |



Recovery: 65' clean oil
80' oil and gas cut mud
225' water

Bottom Hole Sampler: 20 cc. oil, 20 cc. water, and
4.8 cu. ft. gas under 1200 ppsi.
BHT 1540

Resistivity of recovery water: 2.8 ohms at 65° (2400 PPM)

| | | |
|------------|--------|------------|
| Pressures: | 1st FP | 817-841# |
| | 2nd FP | 838-1027# |
| | SIP | 1502-1493# |
| | HP | 3182-3162# |

Pressure below the bottom packer bled off to 1634#

DRILLING TIME: Minutes per 5'

| | |
|-----------|--|
| 5300-5400 | 4-4-4-6-8-10-10-11-12-11-11-14-8-7-9-12-11-11-10-10 |
| 5400-5500 | 8-10-11-12-18-18-18-22-14-14-16-15-15-14-13-16-20-16-16-16 |
| 5500-5600 | 15-16-12-12-11-13-15-15-NB-13-11-9-7-6-6-7-9-9-7-8-6 |
| 5600-5700 | 7-7-8-7-7-6-7-7-8-7-6-7-8-7-7-6-6-7-6-5 |
| 5700-5800 | 8-7-6-7-7-6-8-9-7-7-8-7-8-11-8-7-8-9-8-7 |
| 5800-5900 | 8-7-7-7-7-9-12-12-24-NB-46-57-47-40-30-48-53-44-46-52-69 |
| 5900-5988 | 72-52-70-48-80-98-52-44-51-109-63-46-49-36-42-46-8-6 (3') |

CHRONOLOGICAL HISTORY:

| | |
|----------|--------------------------------------|
| 12-2-73 | Spudded 5:00 P.M. Set surface casing |
| 12-3-73 | φ 1218' |
| 12-4-73 | φ 3460' |
| 12-5-73 | φ 4635' |
| 12-6-73 | φ 5420 |
| 12-7-73 | Trip 5844' |
| 12-8-73 | TD 5988'. Ran logs |
| 12-9-73 | Ran DST #1 |
| 12-10-73 | Waiting on casing |
| 12-11-73 | Set production casing |



BIT RECORD:

| <u>Bit No.</u> | <u>Make</u> | <u>Size</u> | <u>Type</u> | <u>Depth Out</u> | <u>Feet</u> | <u>Hours</u> |
|----------------|-------------|-------------|-------------|------------------|-------------|--------------|
| 1 | Smith | 7-7/8" | DSJ | 2795 | 2700 | 19-1/4 |
| 2 | Smith | 7-7/8" | DTJ | 3882 | 1087 | 11-1/2 |
| 3 | Smith | 7-7/8" | DTJ | 5195 | 1313 | 19-1/4 |
| 4 | Smith | 7-7/8" | DTJ | 5540 | 345 | 13 |
| 5 | Smith | 7-7/8" | DTJ | 5844 | 304 | 9-1/2 |
| 6 | Smith | 7-7/8" | F5 | 5988 | 144 | 27 |

Respectfully submitted,

C. Pleas Stringer Jr.

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