G00937 Permit # 20024

# MIDWEST SURVEYS

LOGGING • PERFORATING • CONSULTING SERVICES

| | |
|---|---|
| FILE NO. | |
| COMPANY | PROTAAL RESOURCES, INC. |
| WELL | NO. 35-20 |
| FIELD | GREEN LEASE |
| COUNTY | RAY COUNTY, MO |
| LOCATION: 2458' FSL & 1927' FEL | |
| SEC 20 TWP. 54N RGE 28W | |
| OTHER SERVICES: CCL | |

| | |
|---|---|
| PERMANENT DATUM | G.L. ELEV. NA |
| LOG MEASURED FROM | G.L. 5 FT ABOVE PERM. DATUM |
| DRILLING MEASURED FROM | G.L. |
| ELEV. K.B. | NA |
| D.F. | NA |
| G.L. | NA |

| | |
|---|---|
| DATE | 5-6-81 |
| RUN NO. | 1 NR |
| TYPE LOG | GAMMA RAY |
| DEPTH-DRILLER | |
| DEPTH-LOGGER | 316.2 |
| BOTTOM LOGGED INTERVAL | 309.2 |
| TOP LOGGED INTERVAL | 50.0 |
| TYPE FLUID IN HOLE | WATER |
| SALINITY-PPM CL | |
| DENSITY | |
| LEVEL | NONE |
| MAX. REC. TEMP. DEG F | |
| OPERATING RIG TIME | |
| RECORDED BY | PRATT |
| WITNESSED BY | PETTERLY |

RECEIVED
AUG 12 1982
MO. OIL & GAS COUNCIL

| BORE-HOLE RECORD | | | | CASING RECORD | | | |
|---|---|---|---|---|---|---|---|
| RUN NO. | BIT | FROM | TO | SIZE | WGT | FROM | TO |
| | | | | 4 1/2 | | 0.0 | T.D. |

## EQUIPMENT DATA

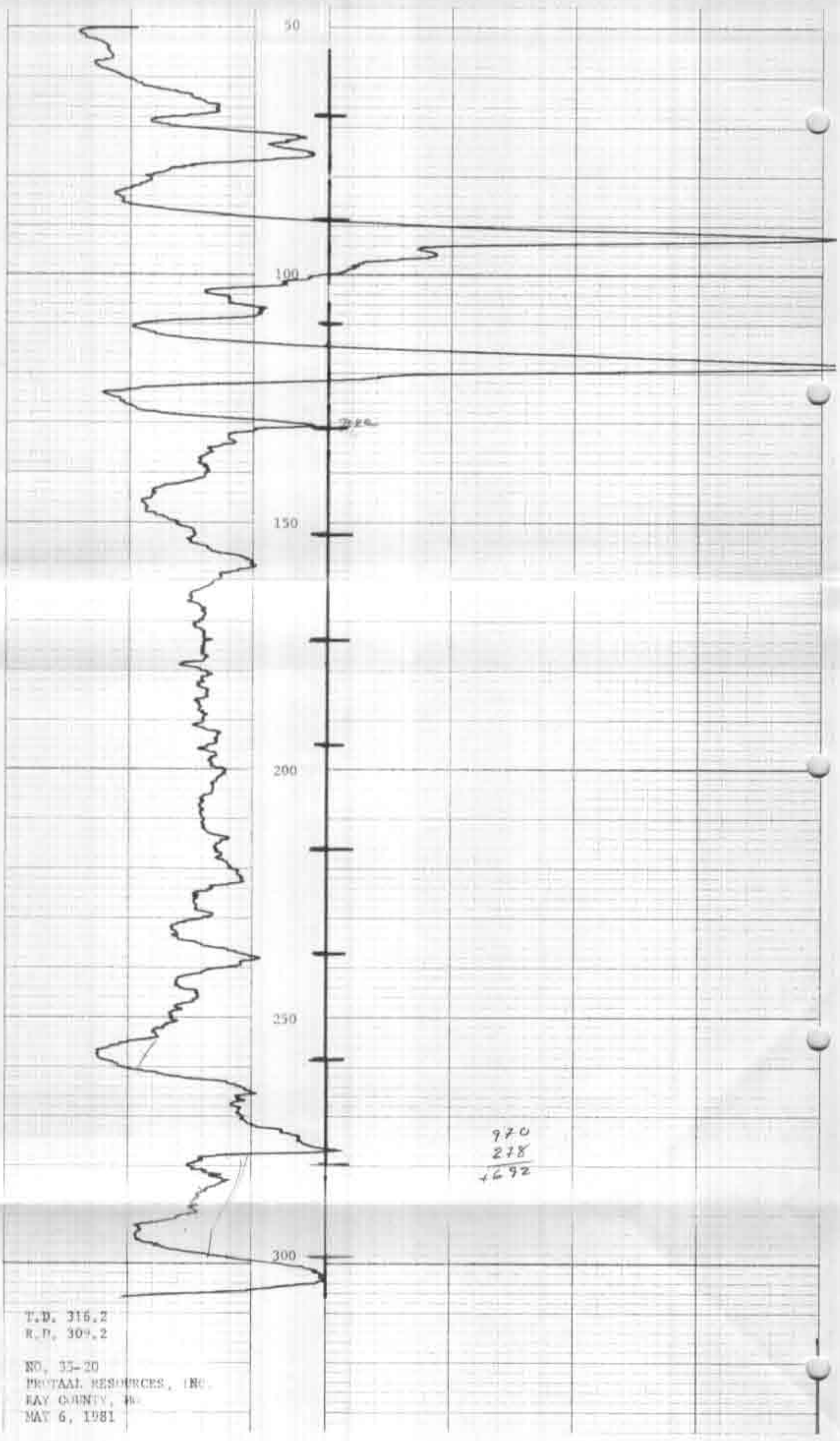
| GAMMA RAY | | | NEUTRON | | |
|---|---|---|---|---|---|
| RUN NO. | 1 NR | | RUN NO. | | |
| TOOL MODEL NO. | 102 | | LOG TYPE | | |
| DIAMETER | 1 13/16" | | TOOL MODEL NO. | | |
| DETECTOR MODEL NO. | Em1037 | | DIAMETER | | |
| TYPE | SCINT. | | DETECTOR MODEL NO. | | |
| LENGTH | 1" x 4" | | TYPE | | |
| DISTANCE TO N. SOURCE | | | LENGTH | | |
| | | | SOURCE MODEL NO. | | |
| GENERAL | | | SERIAL NO. | | |
| HOIST TRUCK NO. | NA | | SPACING | | |
| INSTRUMENT TRUCK NO. | 102 | | TYPE | | |
| TOOL SERIAL NO. | NS-0001 | | STRENGTH | | |

## LOGGING DATA

| GENERAL | | | | GAMMA RAY | | | | NEUTRON | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| RUN NO. | DEPTHS FROM | DEPTHS TO | SPEED FT./MIN. | T.C. SEC. | SENS. SETTINGS | ZERO DIV. L OR R | API G.R. UNITS PER LOG DIV. | T.C. SEC. | SENS. SETTINGS | ZERO DIV. L OR R | API N. UNITS PER LOG DIV. |
| 1 | 50.0 | 309.2 | 20 | 4.0 | 600/100 | 21 | 10 | | | | |

REFERENCE LITERATURE: 4 1/2" - NOT CEMENTED

REMARKS: D.C. - COMPANY TOOLS

GAMMA RAY DEPTH NEUTRON

CASING
COLLARS