**MIDWEST SURVEYS**
Wireline Services
Casper, Wyoming
Gillette, Wyoming

PLANT NO.

COMPANY: D.K. Exploration, Inc.
WELL: R-8
FIELD: Nelson Unit
COUNTY: Cass
STATE: Missouri

LOCATION: SEC. 9 TWP. 44N RGE. 33W
4230 FSL - 2485 FEL

PERMANENT datum: G.L.
LOG MEASURED FROM: G.L.
DRILLING MEASURED FROM: G.L.
ELEV.: G.L. 906, K.B. 906, D.F. 906, G.L. 906

OTHER SERVICES: CCL Perforator

DATE: 5-23-2000
RUN NO: 1 BM
TYPE LOG: Gamma Ray
DEPTH-DRILLER: 634.0
DEPTH-LOGGER: 634.0
BOTTOM LOGGED INTERVAL: 634.0
TOP LOGGED INTERVAL: 20.0
CASING-DRILLER: 20.0
CASING-LOGGER: 634.0
BIT SIZE: 6 1/2"
TYPE FLUID IN HOLE: Water
DENSITY: Pre 1
LEVEL: Full
MAX. REC. TEMP. DEG.F: N/A
ESTIMATED CEMENT TOP: N/A
OPERATOR RECORDED BY: S. Mikulich
WITNESSED BY: D. Evans

BORE-HOLE RECORD: BIT NO. 1, FROM 0, TO 634.0
CASING RECORD: NO. 1, SIZE 4 1/2", WGT. 9.5, FROM 0, TO 634.0

FOLD HERE — THIS HEADING AND LOG CONFORMS TO API RP 33

## EQUIPMENT DATA

| GAMMA RAY | | NEUTRON | |
|---|---|---|---|
| RUN NO | 1 BM | RUN NO | 1 BM |
| TOOL MODEL NO | 102 | LOG TYPE | NEU/GRU |
| DIAMETER | 1-11/16" | TOOL MODEL NO | 102 |
| DETECTOR MODEL NO | E-1057 | DIAMETER | 1-11/16" |
| TYPE | 5-GIPT. | DETECTOR MODEL NO. | E-1031 |
| LENGTH | 1" x 4" | TYPE | NE-3 |
| DISTANCE TO W. SOURCE | 8.0 | LENGTH | 1" x 6" |
| GENERAL | | SOURCE MODEL NO | 71-1 |
| MOBIL TRUCK NO | 3A | SERIAL NO | 71-1-3558 |
| INSTRUMENT TRUCK NO | 102 | SPACING | 13" |
| TOOL SERIAL NO | NS-0001 | TYPE | Am241Be |
| | | STRENGTH | 1 Ci |

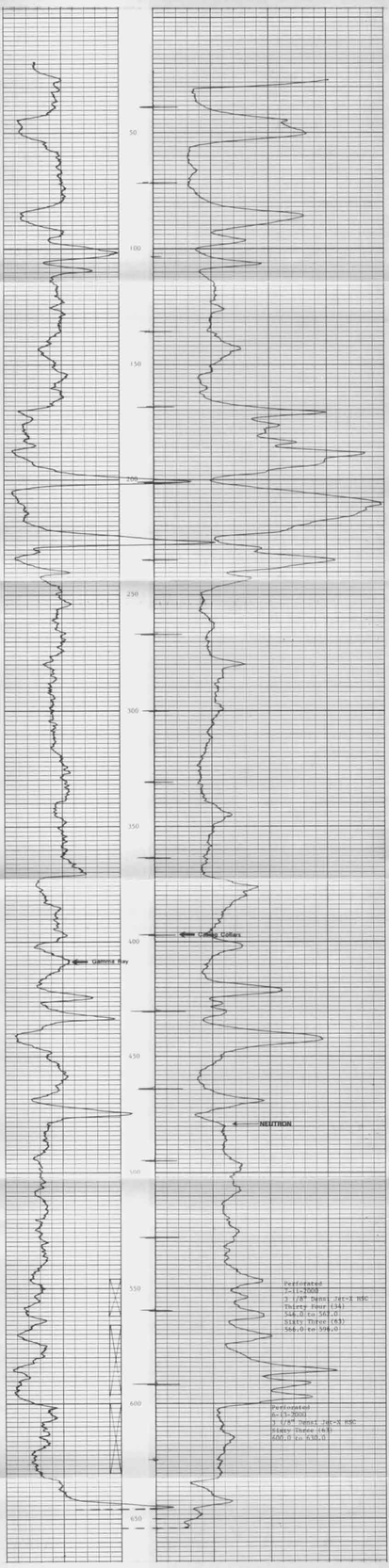
## LOGGING DATA

| GENERAL | | | | GAMMA RAY | | | | NEUTRON | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| RUN NO | DEPTHS FROM | DEPTHS TO | SPEED FT/MIN | T.C. SEC | SENS SETTINGS | ZERO DIV. I. OR V. | API G.R UNITS PER LOG DIV. | T.C. SEC | SENS SETTINGS | ZERO DIV. I. OR V. | API N. UNITS PER LOG DIV. |
| 1 | 20.0 | 634.0 | 20 | 4.0 | 1.85/100 | 0L | 10 | 4.0 | 1.35/100 | 0L | 20 |

REFERENCE LITERATURE: 4 1/2" Cemented

REMARKS: D.K. Evans Energy & Development, Inc.

GAMMA RAY — DEPTH — NEUTRON
CASING
COLLARS




| | | | |
|---|---|---|---|
| COMPANY | D.K. Exploration, Inc. | GAMMA RAY T.D. | 655.0 |
| WELL | R-8 | GAMMA RAY R.D. | 646.0 |
| LEASE | Nelson Unit | NEUTRON T.D. | 653.0 |
| COUNTY | Cass, Missouri | NEUTRON R.D. | 653.0 |
| DATE | 5-23-2000 | CASING SET @ | 4 1/2" - T.D. |