

HORIZON

WELL LOGGING

| ABBREVIATIONS | | SYMBOLS | |
|---------------------------|---------------------|--------------|---|
| CO | Circulate Out | PEBBLES >2mm | |
| LAT | Logged After Trip | SAND | □ |
| LAS | Logged After Survey | SANDSTONE | □ |
| CG | Connection Gas | SILT | □ |
| KC | Kelly Cut gas | MUDSTONE | □ |
| NG | Niper Gas | SHALE | □ |
| TG | Trip Gas | MARL | □ |
| SG | Survey Gas | CLAY | □ |
| WR | Wiper Run | CHERT | □ |
| CORE INTERVAL | | DOLOSTONE | □ |
| WOB (100,000# full scale) | | LIMESTONE | □ |
| TRIP | | VOLCANICS | □ |
| | | UFF | □ |
| | | BASALT | □ |

100K (100,000# full scale)

TRIP

COMPANY: NAHAMA & WEAGANT ENERGY CO.
FIRM: "COMPI" Johnston 1B2B-19-65
LOCATION: 1821 S and 1214 E from the NW corner
of Sec 19, Twp 18N, Rsr 3W, W. Va.
ELEVATION: 937' G.L. 947' K.B.
FIELD: MIST
COUNTY: Columbia, Oregon
API NUMBER: 36-009-00306
SPUD DATE: 7-12-93
LOGGING DATES: 7-12-93 to 7-19-93
LOGGING DEPTHS: 40' to 2940' (K.B.)
GEOLOGIST: Jeff Vaughan
COMPANY MAN: Rob Lucas
CONTRACTOR: Taylor Drilling Inc.
RIG: /
LOGGING GEOLOGISTS: Jim Eastes
Dan Cross
BIT SIZE: 12.25" to 507'
7.875" to 2940'
CASING: 8.625" to 506'
4.5" to 2940'
CALIBRATION: 25 methane = 100 units

| DRILL RATE | LITHOLOGY | MINERAL | GASES | CHROMATOGRAPH | REMARKS |
|------------|-----------|---------|--------------|---------------|---------------|
| ROP | | | DITCH GAS | METHANE | DESCRIPTIONS |
| WOB | | | OFFSCALE | ETHANE | SURVEYS |
| 100K | | | CUTTINGS GAS | PROPANE | MUD CHECKS |
| | | | OFFSCALE | BUTANE | MISCELLANEOUS |
| | | | | PENTANE | |

