**Cleland 15-2HZ**

**Rector**

**Lea Co. NM**

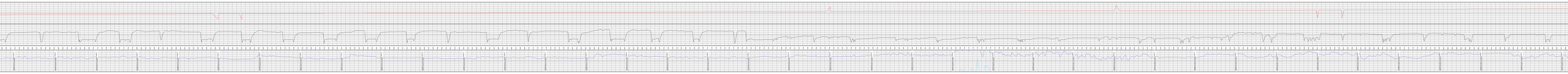
Operator: Cleland Oil & Gas, Inc.
Lease: Cleland 15-2HZ
Field: Rector
County: Lea Co. NM
Surface Location: 1980' FSL & 1980' FEL
Sec. 15 T-19-S R-34-E
Lat: 32.6666 Long: -103.4513
Elevation: 3,600' GL
Spud Date: 10/12/2010
Rig: Nabors 329
Total Depth: 11,000'
Bottom Hole Location: 1980' FSL & 1980' FEL
Sec. 15 T-19-S R-34-E
Directional Drilling Co.: Precision Drilling
Directional Drilling Supervisor: Jim Lewis
Mud Logging Co.: Cleland Oil & Gas, Inc.
Mud Logging Supervisor: Jim Lewis
Mud Logging Equipment: Gas Chromatograph, Gas Trap, Flow Sensor, Pump Stroke Counter

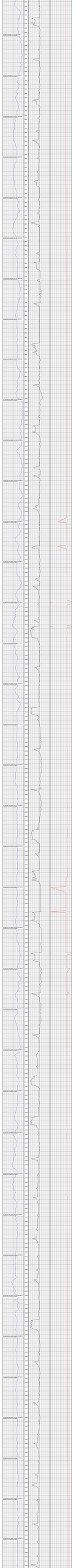
| Mud Properties | | | |
|---|---|---|---|
| Type: | Fresh Water | Viscosity: | 28 - 32 |
| Weight: | 8.3 - 8.4 | Chlorides: | 0 - 1,000 |

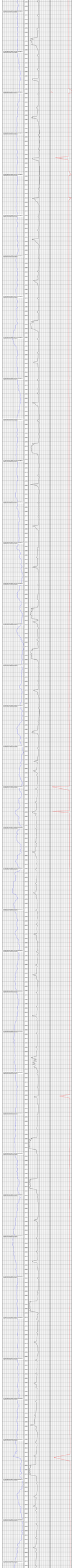
| Bit Data | | | | | | | |
|---|---|---|---|---|---|---|---|
| Bit # | Size | Type | Manufacturer | Jets | In | Out | Footage |
| 1 | 8 3/4" | PDC | Smith | 6 x 18 | 0' | 11,000' | 11,000' |

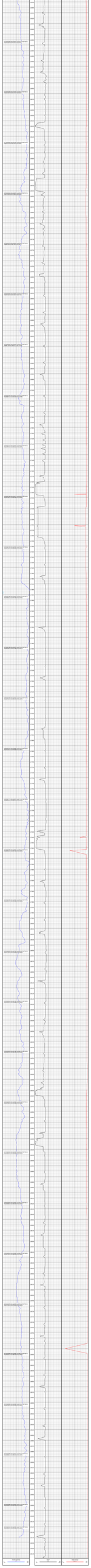
| Hole Data | | | |
|---|---|---|---|
| Total Depth: | 11,000' | Hole Size: | 8 3/4" |
| Last Casing: | 7" @ 10,000' | Open Hole: | 1,000' |

| Bottom Hole Assembly | | | |
|---|---|---|---|
| Component | Length | Component | Length |
| Bit | 1.00' | Drill Collar | 31.00' |
| Bit Sub | 2.50' | Drill Collar | 31.00' |
| Mud Motor | 27.00' | Drill Collar | 31.00' |
| Stabilizer | 6.00' | Drill Collar | 31.00' |
| Drill Collar | 31.00' | Drill Collar | 31.00' |
| Drill Collar | 31.00' | Drill Collar | 31.00' |
| Drill Collar | 31








Depth
Gamma Ray
Caliper
Resistivity
Density
Neutron
Porosity