

| | | | |
|----------------------------------------------------------------|--|---------------------------------------|--|
| <div><div><div>JW</div><div>WIRELINE COMPANY</div></div></div> | | CEMEN BOND GAMMA RAY COLLAR LOG | |
| Company ANADARKO PETROLEUM CORP. | | County WELD State COLORADO | |
| Well SHUTT FEDERAL 16-18A | | Location: SE SE | |
| Field WATTENBERG | | API # : 05-133-2124-00 | |
| County WELD | | Other Services NONE | |
| Date 04-DECEMBER-2013 | | Permanent Datum | |
| Well SHUTT FEDERAL 16-18A | | Log Measured From | |
| County WATTENBERG | | Drilling Measured From | |
| State COLORADO | | K.B. 4870 | |
| SEC 18 T1P 3N RGE 65W | | Elevation 4870 | |
| Field | | G.L. 4870 | |
| Run Number | | ONE | |
| Depth Driller | | 7910 | |
| Depth Logger | | 4893 | |
| Bottom Logged Interval | | 4896 | |
| Open Hole Size | | 7 7/8 | |
| Type Fluid | | WATER | |
| Density/Viscosity | | NOT RECORDED | |
| Max. Recorded Temp. | | --- | |
| Estimated Cement Top | | 4174 | |
| Time Well Ready | | --- | |
| Time Logger on Bottom | | --- | |
| Equipment Number | | 2405714N | |
| Recorded By | | BRIAN HAYES | |
| Witnessed By | | MR. RODRIGO VIERA | |
| Run Number | | Bit From To Size Weight From To | |
| Borehole Record | | --- | |
| Casing Record | | --- | |
| Prod. String | | --- | |
| Production String | | --- | |

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

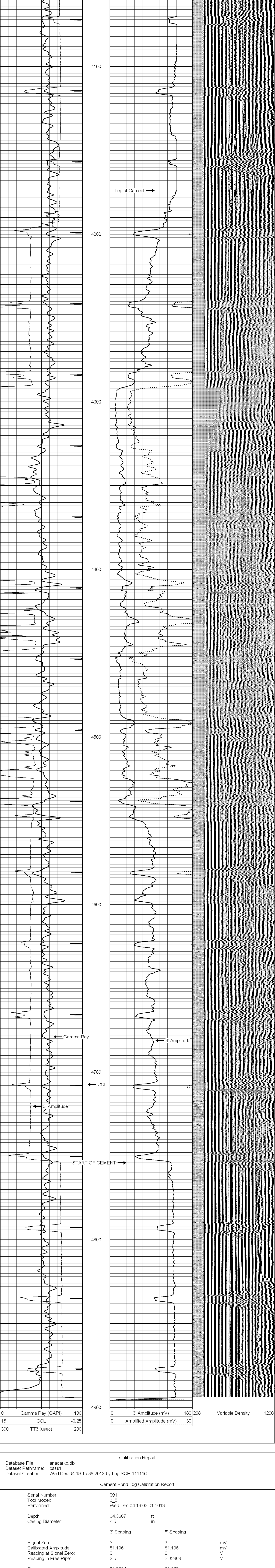
| Comments | | |
|----------|--|--|
| | | |

| Sensor | Offset (ft) | Schematic | Description | Len (ft) | OD (in) | Wt (lb) |
|--------|-------------|-----------|-----------------------------------------------------|----------|---------|---------|
| | | | CENT-A (1) | 3.00 | 1.69 | 10.00 |
| CCL | 14.06 | | CCL-275tekco (2.75TEKCO) 2 3/4 TEK CCL Earth Mag | 1.96 | 2.75 | 20.00 |
| GR | 11.49 | | GR-s_t001 (t001) | 2.52 | 1.69 | 30.00 |
| WVF5 | 7.34 | | CBL-3_5 (001) | 7.23 | 2.44 | 127.00 |
| WVF3 | 6.34 | | | | | |
| | | | CENT-B (2) | 3.00 | 1.69 | 10.00 |

Dataset: anadarko.db: field/well/run1/pass1
Total Length: 17.71 ft
Total Weight: 197.00 lb
O.D.: 2.75 in

Database File: anadarko.db
Dataset Pathname: pass1
Presentation Format: cblx
Dataset Creation: Wed Dec 04 19:15:38 2013 by Log SCH 111116
Charted by: Depth in Feet scaled 1:240

| | | | | | | | | |
|-----|------------------|-------|---|--------------------------|-----|-----|------------------|------|
| 0 | Gamma Ray (GAPI) | 180 | 0 | 3' Amplitude (mV) | 100 | 200 | Variable Density | 1200 |
| 15 | CCL | -0.25 | 0 | Amplified Amplitude (mV) | 30 | | | |
| 300 | TT3 (usec) | 200 | | | | | | |



Database File: anadarko.db
Dataset Pathname: pass1
Dataset Creation: Wed Dec 04 19:15:38 2013 by Log SCH 111116

| Cement Bond Log Calibration Report | | | |
|------------------------------------|--------------------------|------------|----|
| Serial Number: | 001 | | |
| Tool Model: | 3_5 | | |
| Performed: | Wed Dec 04 19:02:01 2013 | | |
| Depth: | 34.3667 | ft | |
| Casing Diameter: | 4.5 | in | |
| 3' Spacing | | 5' Spacing | |
| Signal Zero: | 3 | 3 | mV |
| Calibrated Amplitude: | 81.1961 | 81.1961 | mV |
| Reading at Signal Zero: | 0 | 0 | V |
| Reading in Free Pipe: | 2.5 | 2.32969 | V |
| Gain: | 31.2784 | 33.5651 | |
| Offset: | 3 | 3 | |

| Gamma Ray Calibration Report | | | |
|------------------------------|--------------------------|----------|--|
| Serial Number: | t001 | | |
| Tool Model: | s_t001 | | |
| Performed: | Sun Jun 13 14:33:21 1993 | | |
| Calibrator Value: | 1.0 | GAPI | |
| Background Reading: | 0.0 | cps | |
| Calibrator Reading: | 1.0 | cps | |
| Sensitivity: | 1.0000 | GAPI/cps | |