J-W WIRELINE COMPANY

# CEMENT BOND
# GAMMA RAY
# COLLAR CORRELATION LOG

Company SUNDANCE ENERGY INC.
Well HFE 22SE
Field WATTENBERG
County WELD
State COLORADO

Company SUNDANCE ENERGY INC.
Well HFE 22SE
Field WATTENBERG
County WELD State COLORADO
Location: API #: 05-123-36134-00
SHL: 1120' FSL & 2226' FEL SW SE
BHL: 1348' FSL & 1323' FEL C SE
SEC. 22 TWP. 4N RGE. 68W
SEC TWP RGE

Other Services
NONE

Permanent Datum GROUND LEVEL Elevation 4944
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING

Elevation
K.B. 4960
D.F. 4959
G.L. 4944

| | |
|---|---|
| Date | 14-NOVEMBER-2012 |
| Run Number | ONE |
| Depth Driller | 7547 |
| Depth Logger | 7385 |
| Bottom Logged Interval | 7378 |
| Top Log Interval | 3572 |
| Open Hole Size | 7 7/8 |
| Type Fluid | WATER |
| Density / Viscosity | -- |
| Max. Recorded Temp. | NOT RECORDED |
| Estimated Cement Top | 3654 |
| Time Well Ready | -- |
| Time Logger on Bottom | -- |
| Equipment Number | 2405/WHITE |
| Location | BRIGHTON |
| Recorded By | HAYES |
| Witnessed By | MR. DEAN ROGERS |

| Borehole Record | | | | Tubing Record | | | |
|---|---|---|---|---|---|---|---|
| Run Number | Bit | From | To | Size | Weight | From | To |
| | | | | | | | |

| Casing Record | Size | Wgt/Ft | Top | Bottom |
|---|---|---|---|---|
| Surface String | 8 5/8 | -- | SURFACE | 570 |
| Prot. String | | | | |
| Production String | 4.5 | 11.6# | SURFACE | TOTAL DEPTH |
| Liner | | | | |

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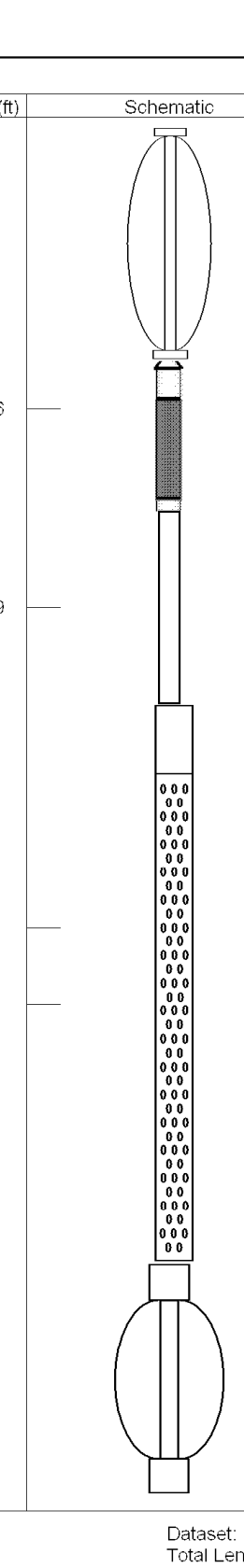
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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

LOG CORRELATED TO HRI CD CN LOG
DATED 03-NOVEMBER-2012

LOG SPLIT FOR CORRELATION PURPOSES



| Sensor | Offset (ft) | Description | Len (ft) | OD (in) | Wt (lb) |
|---|---|---|---|---|---|
| | | CENT-A (1) | 3.00 | 1.69 | 10.00 |
| CCL | 14.06 | CCL-275tekco (2.75TEKCO)<br>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<br>WVF3 | 7.34<br>6.34 | CBL-3_5 (001) | 7.23 | 2.44 | 127.00 |
| | | CENT-B (2) | 3.00 | 1.69 | 10.00 |

Dataset: hfe 22SE.db: field/well/run1/pass4
Total Length: 17.71 ft
Total Weight: 197.00 lb
O.D. 2.75 in

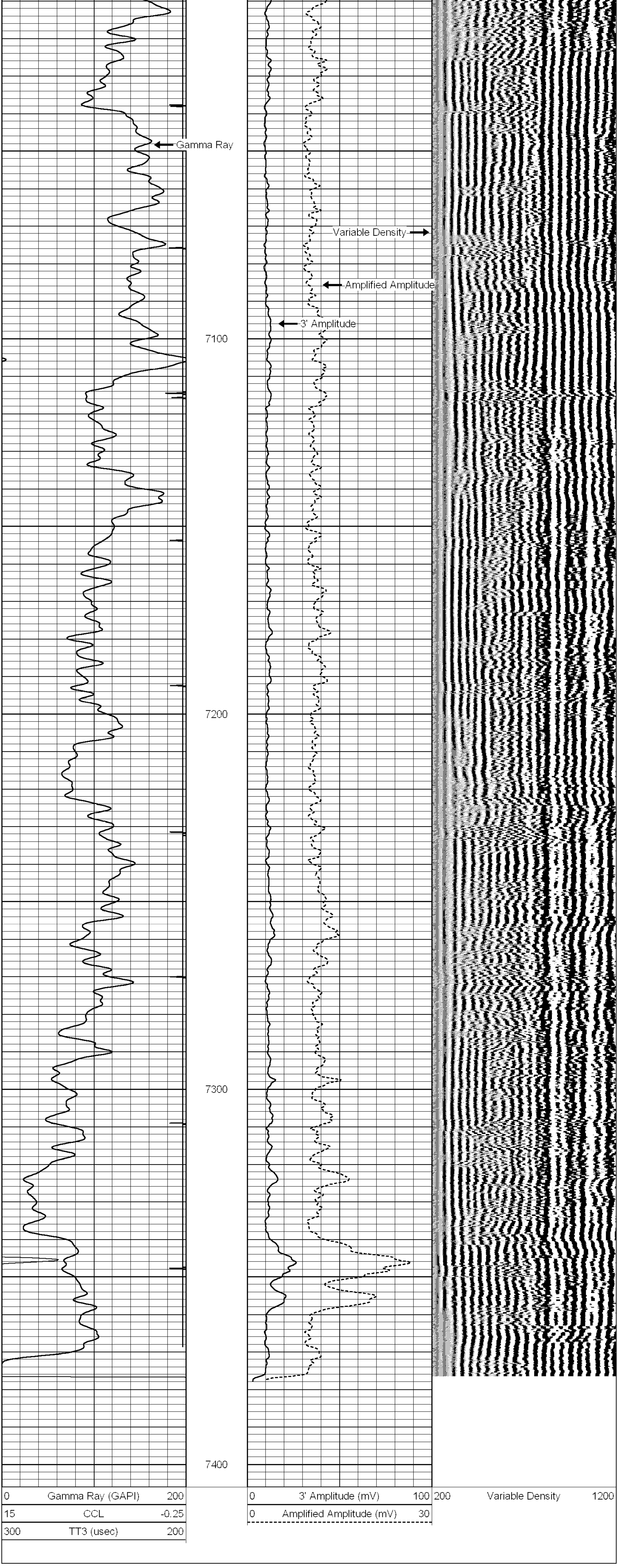
Database File: hfe 22se.db
Dataset Pathname: pass4
Presentation Format: cblx
Dataset Creation: Sat Nov 17 19:23:40 2012 by Log SCH 111116
Charted by: Depth in Feet scaled 1:240

| | | | | | |
|---|---|---|---|---|---|
| 30 Gamma Ray (GAPI) 130 | 0 3' Amplitude (mV) 100 | 200 Variable Density 1200 |
| 15 CCL -0.25 | 0 Amplified Amplitude (mV) 30 | |
| 300 TT3 (usec) 200 | | |

| | | | | | |
|---|---|---|---|---|---|
| 30 Gamma Ray (GAPI) 130 | 0 3' Amplitude (mV) 100 | 200 Variable Density 1200 |
| 15 CCL -0.25 | 0 Amplified Amplitude (mV) 30 | |
| 300 TT3 (usec) 200 | | |

Database File: hfe 22se.db
Dataset Pathname: pass3
Presentation Format: cblx
Dataset Creation: Sat Nov 17 18:55:46 2012 by Log SCH 111116
Charted by: Depth in Feet scaled 1:240

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



## Calibration Report

Database File: hfe 22SE.db
Dataset Pathname: pass4
Dataset Creation: Sat Nov 17 19:23:40 2012 by Log SCH 111116

### Cement Bond Log Calibration Report

Serial Number: 001
Tool Model: 3_5
Performed: Sat Nov 17 18:35:01 2012

Depth: 3726.35 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 | 2.31843 | V |
| Gain: | 31.2784 | 33.728 | |
| 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