BASIN WELL LOGGING
PERFORATING - WIRELINE SERVICES

Company BP AMERICA
Well TAICHERT 31-01 4
Field IGNACIO BLANCO
County LA PLATA
State CO

# CASED HOLE COMPENSATED NEUTRON CASING COLLARS

Company BP AMERICA
Well TAICHERT 31-01 4
Field IGNACIO BLANCO
County LA PLATA State CO
Location: API #: 05-067-09938
1315 FEET FNL/1463 FEET FWL
SEC 31 TWP 33N RGE 06W

Other Services
RCBL

Permanent Datum GROUND LEVEL Elevation 6600.87
Log Measured From KB 11.0FT
Drilling Measured From KELLY BUSHING

Elevation
K.B. 6611.87
D.F. 6610.87
G.L. 6600.87

| | |
|---|---|
| Date | 9-21-15 |
| Run Number | 1 |
| Depth Driller | 3776 |
| Depth Logger | 3750 |
| Bottom Logged Interval | 3749' |
| Top Log Interval | 450' |
| Open Hole Size | 7.875 |
| Type Fluid | WATER |
| Density / Viscosity | 8.4 |
| Max. Recorded Temp. | N/A |
| Estimated Cement Top | SEE LOG |
| Time Well Ready | 11:00AM |
| Time Logger on Bottom | 11:45 AM |
| Equipment Number | 115 |
| Location | FARMINGTON |
| Recorded By | SWEAT |
| Witnessed By | LASSTER |

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

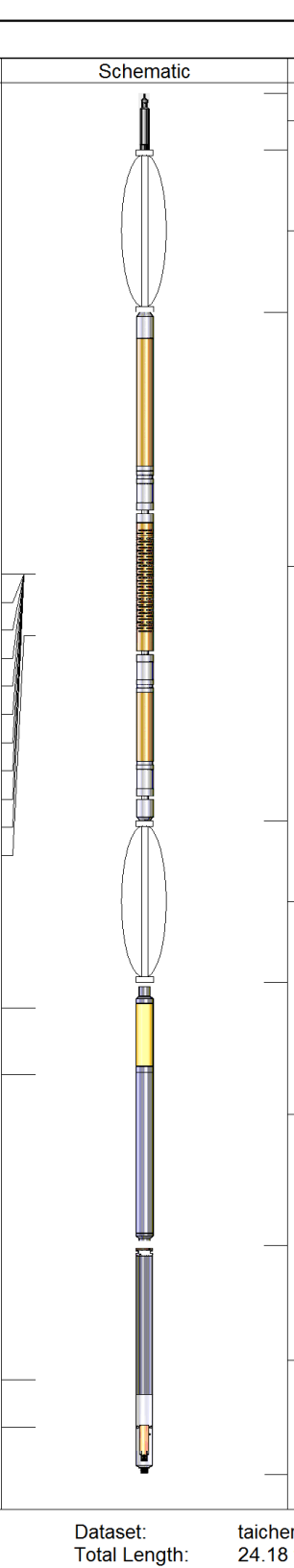
| Casing Record | Size | Wgt/Ft | Top | Bottom |
|---|---|---|---|---|
| Surface String | 8.625 | 24 | SURFACE | 469 |
| Prot. String | | | | |
| Production String | 5.5 | 15.5 | SURFACE | 3776 |
| Liner | | | | |

<<< Fold Here >>>

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 WAS CORRECTED -15' TO BOTTOM MARKER JT.
THANK YOU FOR USING BASIN WIRELINE



| Sensor | Offset (ft) | Description | Len (ft) | OD (in) | Wt (lb) |
|---|---|---|---|---|---|
| | | STNDRD<br>Standard Cable Head | 1.00 | 1.69 | 10.00 |
| | | PTS275 | 2.83 | 2.75 | |
| WVF3FT<br>WVFCAL<br>WVFS1<br>WVFS2<br>WVFS3<br>WVFS4<br>WVFS5<br>WVFS6<br>WVFS7<br>WVFS8<br>WVF5FT | 15.77<br>15.77<br>15.77<br>15.77<br>15.77<br>15.77<br>15.77<br>15.77<br>15.77<br>15.77<br>14.68 | RBT-Probe (1308-02)<br>Probe Radii Bond Tool with Digital Telemetry | 8.92 | 2.75 | 90.00 |
| | | PTS275 | 2.83 | 2.75 | |
| CCL<br>GR | 8.17<br>7.00 | GR-Probe (275)<br>Probe 2.75" 4 Channel Pulse | 4.60 | 2.75 | 30.00 |
| CNLSC<br>CNSSC | 1.67<br>0.83 | CNT-Probe_B (090117) | 4.00 | 2.75 | 40.00 |

Dataset: taichert 31-1 4 sweat.db: field/well/run1/pass3.2
Total Length: 24.18 ft
Total Weight: 170.00 lb
O.D. 2.75 in

Database File: taichert 31-1 4 sweat.db
Dataset Pathname: pass3.2
Presentation Format: cntfruit
Dataset Creation: Mon Sep 21 13:27:09 2015 by Calc SCH 120126
Charted by: Depth in Feet scaled 1:240

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | GR (GAPI) | 200 | LTEN | 60 | NEUTRON POROSITY (pu) | 0 |
| -9 | CCL | 1 | 0 (lb 1450 | | NEURTON LONG SPACE | |
| | | | | | -480 (cps) | 750 |
| | | | | | NEUTRON SHORT SPACE | |
| | | | | | -275 (cps) | 2900 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | GR (GAPI) | 200 | LTEN | 60 | NEUTRON POROSITY (pu) | 0 |
| -9 | CCL | 1 | 0 (lb 1450 | | NEURTON LONG SPACE | |
| | | | | | -480 (cps) | 750 |
| | | | | | NEUTRON SHORT SPACE | |
| | | | | | -275 (cps) | 2900 |

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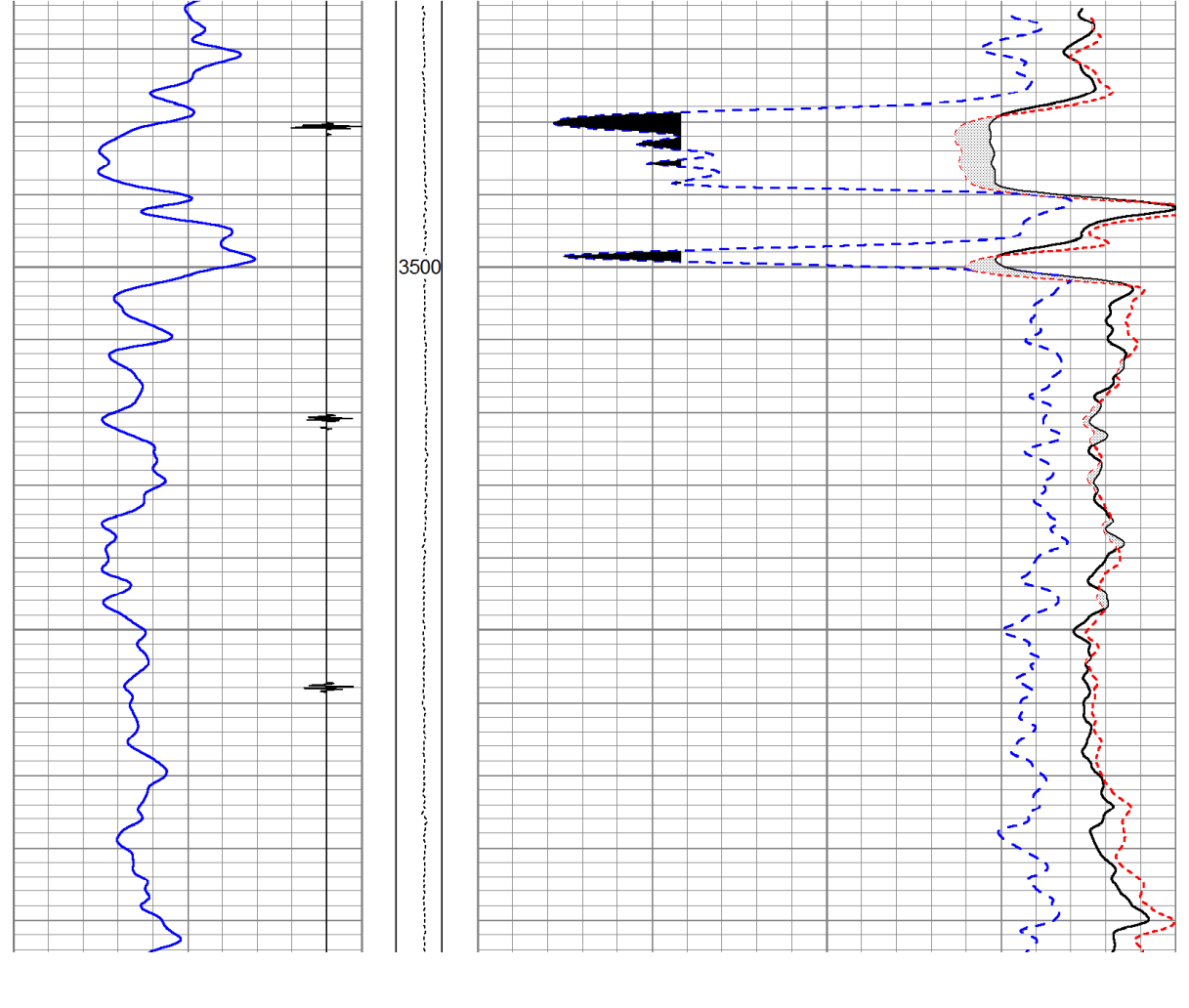
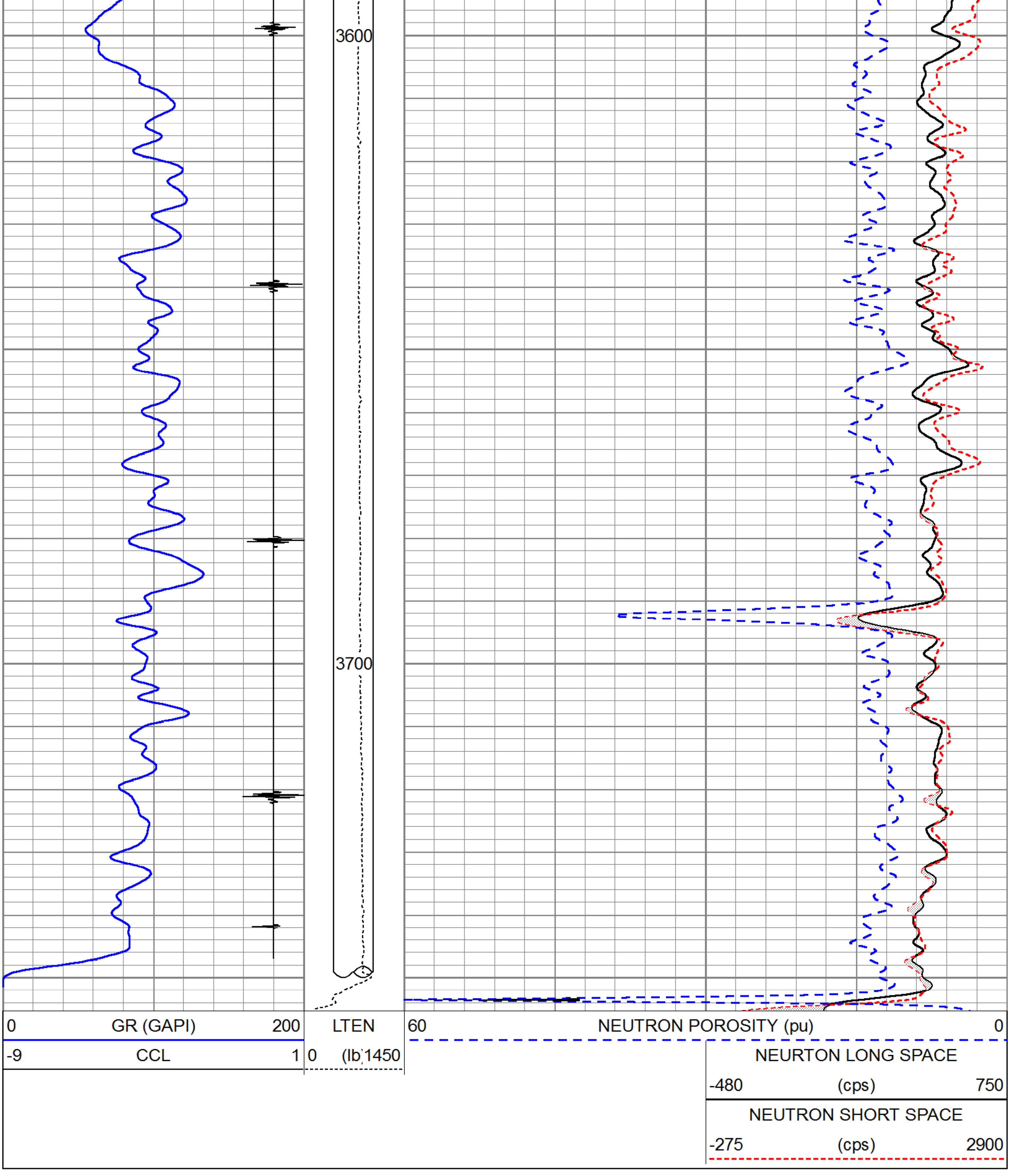
## REPEAT PASS

Database File: taichert 31-1 4 sweat.db
Dataset Pathname: pass2
Presentation Format: cntfruit
Dataset Creation: Mon Sep 21 12:09:17 2015 by Log SCH 120126
Charted by: Depth in Feet scaled 1:240

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | GR (GAPI) | 200 | LTEN | 60 | NEUTRON POROSITY (pu) | 0 |
| -9 | CCL | 1 | 0 (lb 1450 | | NEURTON LONG SPACE | |
| | | | | | -480 (cps) | 750 |
| | | | | | NEUTRON SHORT SPACE | |
| | | | | | -275 (cps) | 2900 |





### Calibration Report

Database File: taichert 31-1 4 sweat.db
Dataset Pathname: pass3.2
Dataset Creation: Mon Sep 21 13:27:09 2015 by Calc SCH 120126

### Compensated Neutron Calibration Report

Type / Serial: Probe_B / 090117
Source / Verifier: /
Temperature:

**SHOP CALIBRATION** Fri Jan 30 17:39:55 2009

| | Cal Tube | Units |
|---|---|---|
| Tank Ratio | | SS/LS |
| Tank Porosity | | pu |
| LS Detector | | cps |
| SS Detector | | cps |
| Tool Ratio | | SS/LS |
| Tool Porosity | | pu |

Tool Constant =

| Field Verifier | SS Detector | LS Detector | Ratio | Porosity |
|---|---|---|---|---|

**PRE-SURVEY VERIFICATION**

| SS Detector | LS Detector | Ratio | Porosity |
|---|---|---|---|

**POST-SURVEY VERIFICATION**

| SS Detector | LS Detector | Ratio | Porosity |
|---|---|---|---|

### Gamma Ray Calibration Report

Serial Number: 275
Tool Model: Probe
Performed: Tue May 13 18:16:34 2014

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.8500 GAPI/cps

### Segmented Cement Bond Log Calibration Report

Serial Number: 1308-02
Tool Model: Probe

Calibration Casing Diameter: 5.500 in
Calibration Depth: 55.633 ft

Master Calibration, performed Mon Sep 21 11:50:48 2015:

| | Raw (v) | | Calibrated (mv) | | Results | |
|---|---|---|---|---|---|---|
| | Zero | Cal | Zero | Cal | Gain | Offset |
| 3' | 0.011 | 1.515 | 0.000 | 71.921 | 47.816 | -0.520 |
| CAL | 0.009 | 1.605 | | | | |
| 5' | 0.010 | 1.226 | 0.000 | 71.921 | 59.145 | -0.587 |
| SUM | | | | | | |
| S1 | 0.005 | 1.510 | 0.000 | 100.000 | 66.429 | -0.328 |
| S2 | 0.010 | 1.504 | 0.000 | 100.000 | 66.945 | -0.651 |
| S3 | 0.010 | 1.503 | 0.000 | 100.000 | 66.973 | -0.641 |
| S4 | 0.010 | 1.502 | 0.000 | 100.000 | 67.037 | -0.655 |
| S5 | 0.011 | 1.501 | 0.000 | 100.000 | 67.084 | -0.713 |
| S6 | 0.011 | 1.501 | 0.000 | 100.000 | 67.088 | -0.720 |
| S7 | 0.011 | 1.502 | 0.000 | 100.000 | 67.064 | -0.711 |
| S8 | 0.010 | 1.501 | 0.000 | 100.000 | 67.052 | -0.671 |

Internal Reference Calibration, performed Fri Sep 04 12:49:21 2015:

| | Raw (v) | | Calibrated (v) | | Results | |
|---|---|---|---|---|---|---|
| | Zero | Cal | Zero | Cal | Gain | Offset |
| CAL | 0.000 | 0.000 | 0.009 | 1.605 | 1.000 | 0.000 |

Air Zero Calibration, performed Mon Sep 21 11:47:15 2015:

| | Raw (v) | Calibrated (v) | Results |
|---|---|---|---|
| | Zero | Zero | Offset |
| 3' | 0.000 | 0.000 | 0.000 |
| 5' | 0.000 | 0.000 | 0.000 |
| SUM | | | |
| S1 | 0.000 | 0.000 | 0.000 |
| S2 | 0.000 | 0.000 | 0.000 |
| S3 | 0.000 | 0.000 | 0.000 |
| S4 | 0.000 | 0.000 | 0.000 |
| S5 | 0.000 | 0.000 | 0.000 |
| S6 | 0.000 | 0.000 | 0.000 |
| S7 | 0.000 | 0.000 | 0.000 |
| S8 | 0.000 | 0.000 | 0.000 |