Century WIRELINE SERVICES

# GAMMA - NEUTRON

## DHGH-14-28

| | |
|---|---|
| COMPANY | ATRUM COAL |
| WELL | DHGH-14-28 |
| FIELD | GROUNDHOG |
| COUNTRY | CANADA |
| PROVINCE | BRITISH COLUMBIA |
| LSD | N/A |
| SECTION | N/A |
| TOWNSHIP | N/A |
| RANGE | N/A |
| LICENSE NO. | N/A |
| UNIQUE WELL ID. | N/A |
| PERMANENT DATUM | GL |
| LOG MEASURED FROM GL | |
| DRL MEASURED FROM GL | |
| DATE | 07/22/14 |
| DRILLER TD | 326.82 |
| BIT SIZE | 97.00 |
| LOG TOP | 0.00 |
| LOG BOTTOM | 326.51 |
| LOGGER CASING | 2.79 |
| DRILLER CASING | 3.05 |
| CASING TYPE | SURFACE |
| BOREHOLE FLUID | H2O |
| RM TEMPERATURE | N/A |
| MUD RES | N/A |
| MUD WEIGHT | 1.01 |
| WITNESSED BY | H.MCKENZIE |
| RECORDED BY | JSTAPELEBRG |
| REMARKS 1 | : |
| REMARKS 2 | : |

| | |
|---|---|
| ELEVATION KB | N/A |
| ELEVATION DF | N/A |
| ELEVATION GL | N/A |
| RIG NUMBER | 2 |
| LOGGER TD | 326.82 |
| ARRIVAL TIME | 16:20 |
| DEPARTURE TIME | 07:00 |
| CIRC STOPPED | 16:00 |

OTHER SERVICES: DEN DIP

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS

NEUTRON TP 1:1200 DHGH-14-28 07/22/14

LOG PARAMETERS

MATRIX DENSITY : 2.65 NEUTRON MATRIX : SANDSTONE MATRIX DELTA T : 177
MAGNETIC DECL : 19.50 ELECT. CUTOFF : 99999 BIT SIZE : 97.00
PRESENTATION NAME/DATE = Atrum_9058_(IN-PIPE)_(200 scale).0 06/13/2014 VERSION = 3.64LH




NEUTRON TP 1:1200 DHGH-14-28 07/22/14

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TOOL CALIBRATION DHGH-14-28 07/23/14 05:37
TOOL 9239C TM VERSION 2025
SERIAL NUMBER 2477

| | DATE | TIME | SENSOR | STANDARD | | RESPONSE | |
|---|---|---|---|---|---|---|---|
| 1 | Mar21,14 | 15:16:58 | GAMMA | 0.100 | [API-GR ] | 4.000 | [CPS] |
| | Mar21,14 | 15:16:58 | GAMMA | 545.000 | [API-GR ] | 589.000 | [CPS] |
| 2 | Jun14,13 | 09:36:44 | VOLTAGE | 26.400 | [MV ] | 8050.000 | [CPS] |
| | Jun14,13 | 09:36:44 | VOLTAGE | 229.200 | [MV ] | 35258.000 | [CPS] |
| 3 | Mar21,14 | 14:07:48 | CALIPER | 100.000 | [MM ] | 168300.000 | [CPS] |
| | Mar21,14 | 14:07:48 | CALIPER | 200.000 | [MM ] | 423180.000 | [CPS] |
| 4 | Mar21,14 | 14:58:29 | DEN(LS) | 1.620 | [G/CC ] | 8686.000 | [CPS] |
| | Mar21,14 | 14:58:29 | DEN(LS) | 2.612 | [G/CC ] | 1205.000 | [CPS] |
| 5 | Mar21,14 | 14:59:03 | DEN(SS) | 1.590 | [G/CC ] | 31905.000 | [CPS] |
| | Mar21,14 | 14:59:03 | DEN(SS) | 2.580 | [G/CC ] | 14021.000 | [CPS] |
| 6 | Jun14,13 | 08:59:07 | CALIPERL | Default | [CPS] | Default | [CPS] |
| | Jun14,13 | 08:59:07 | CALIPERL | Default | [CPS] | Default | [CPS] |
| 7 | Mar21,14 | 14:27:18 | CURRENT | 26.400 | [UA ] | 6623.000 | [CPS] |
| | Mar21,14 | 14:27:18 | CURRENT | 229.200 | [UA ] | 23884.000 | [CPS] |
| 8 | Jun14,13 | 08:59:07 | F | Default | [CPS] | | |
| 9 | Jun14,13 | 08:59:07 | X | Default | [CPS] | | |