

HALLIBURTON

1015 W. Bois D'Arc • Post Office Drawer 1431
Duncan, OK 73536-0103
Office: 580-251-3936 • Fax: 580-251-4050 • Cell: 580-618-0791

May 5, 2010

U.S. Nuclear Regulatory Commission - Region IV
Texas Health Resources Tower
612 E. Lamar Blvd., Suite 400
Arlington, TX 76011-4125

Attn: Division Director - DNMS

Re: **Notification of Source Abandonment**
Halliburton Energy Services, Inc.
USNRC License # 42-01068-07

RECEIVED
MAY 06 2010
DNMS

This letter comprises the required 30-day written notification of source abandonment as per 10 CFR 39.77(d). This is a follow-up to the telephone conversation between Steve Woods (Halliburton) and Mr. Charles Cain (NRC Region IV) on April 5, 2010 in which permission to proceed with the abandonment was granted.

Date of Occurrence: April 8, 2010

Company Name: BP Exploration (Alaska) Inc.
PO Box 196612
Anchorage, AK 99519-6612

Well Name & Registration No: P2-22A 50-029-22850-01

Well Location: P2 Pad
Prudhoe Bay
North Slope Borough
Alaska
USA

Source(s) Abandoned: One 8.0 Curie Am-241/Be doubly-encapsulated special form radioactive source. QSA Global, Inc. Model AMN.CY17. Source Serial Number 2594NN/2595NN.

One 2.0 Curie Cs-137 doubly-encapsulated special form radioactive source. QSA Global, Inc. Model CDC.CY13. Source Serial Number 12051B.

Logging sources held within source ports contained in the sidewalls of heavy pipe wall Measurement While Drilling (MWD) logging tools. Sources threaded into place and torqued down.

Two energy compensation sources contained within detector assembly installed in density tool collar serial number 10859715. One 230 nanocurie Cs-137 sealed source, IPL Model A3888, serial number E6-948. One 135 nanocurie Cs-137 sealed source, IPL Model A3888, serial number E7-697.

| | |
|--|---|
| Depth of Well: | 18129 ft. MD (9099 ft. TVD) |
| Depth of Bottom of Fish: | 16637 ft. MD (9106 ft. TVD) |
| Depth of 2.0 Ci Cs-137 source: | 16567 ft. MD (9108 ft. TVD) |
| Depth of 8.0 Ci Am-241/Be source: | 16552 ft. MD (9108ft. TVD) |
| Depth of Top of Fish: (<i>Top of Abandoned Drillstring</i>) | 16335 ft. MD (9107 ft. TVD) |
| Length of Abandoned Drillstring located above sources: | 217 feet of drill pipe above abandoned sources |
| Depth of Bottom of Cement Plug: | 16335 ft. MD (9107 ft. TVD) |
| Depth of Top of Cement Plug: | 16061 ft. MD (9106 ft. TVD) (<i>274 ft. cement plug</i>) |
| Sequence of Events: | <p>11:00 03-APR-10 Begin trip for bit. Pumping out of hole 12:45 Began pulling tight. Attempts to circulate and rotate unsuccessful 13:15 Jarring attempted. No pipe movement. Currently waiting on fishing hand. Bit depth 16,637' Density source 16,567' Neutron source 16,552' 20:00 Continue jarring in an attempt to get tools free. 06:55 4-APR-10 Perform derrick inspection 08:00 Continue jarring operation 16:00 Perform formation integrity test 20:00 Wireline arrives on location. Decision made to trip in hole with perf charges to establish circulation above BHA 23:30 Run in hole with perf gun 01:00 5-APR-10 Wireline gun could not get past 13,500'MD 02:30 POOH with wireline to reconfigure. 04:00 Run in hole with wireline. Still unable to get down to BHA depth. POOH 09:00 Laying down perf guns and reconfiguring wireline tools for another attempt to get down to BHA 10:45 Abandonment proposal submitted to Sperry by drilling engineer Phil Smith. Continue attempts to jar tools free 02:30 06-APR-10 Arm severing tool on surface. Run in hole to cut pipe to abandon wellbore. 6:00 06Apr10 - Severing tool could not pass 15,630' - wait on orders 8:30 06Apr10 - Increased flow - tool passed 15,630' 10:30 06Apr10 - Fired Severing</p> |

tool @ 16,381' 13:30 06Apr10 - Dislodged Severing tool -
POOH - Dragged at each connection 21:00 06Apr10 - L/D
Severing tool / RD Wireline / Continue jarring 4:30 06Apr10 -
R/U Wireline - new severing tool.
11:00 03-APR-10 Begin trip for bit. Pumping out of hole
12:45 Began pulling tight. Attempts to circulate and rotate
unsuccessful 13:15 Jarring attempted. No pipe movement.
Currently waiting on fishing hand. Bit depth 16,637' Density
source 16,567' Neutron source 16,552' 20:00 Continue jarring
in an attempt to get tools free. 06:55 4-APR-10 Perform
derrick inspection 08:00 Continue jarring operation 16:00
Perform formation integrity test 20:00 Wireline arrives on
location. Decision made to trip in hole with perf charges to
establish circulation above BHA 23:30 Run in hole with perf
gun 01:00 5-APR-10 Wireline gun could not get past
13,500' MD 02:30 POOH with wireline to reconfigure. 04:00
Run in hole with wireline. Still unable to get down to BHA
depth. POOH 09:00 Laying down perf guns and reconfiguring
wireline tools for another attempt to get down to BHA 10:45
Abandonment proposal submitted to Sperry by drilling
engineer Phil Smith. Continue attempts to jar tools free 02:30
06-APR-10 Arm severing tool on surface. Run in hole to cut
pipe to abandon wellbore. 6:00 06Apr10 - Severing tool could
not pass 15,630' - wait on orders 8:30 06Apr10 - Increased
flow - tool passed 15,630' 10:30 06Apr10 - Fired Severing
tool @ 16,381' 13:30 06Apr10 - Dislodged Severing tool -
POOH - Dragged at each connection 21:00 06Apr10 - L/D
Severing tool / RD Wireline / Continue jarring 4:30 06Apr10 -
R/U Wireline - new severing tool. 4/7/2010 11:30 Fired
Severing Tool @ 16335' 4/7/2010 12:00 Began POOH with
Wireline 4/7/2010 15:30 L/D Wireline 4/7/2010 17:30 Work
Pipe to separate BHA, resumed circulation 4/8/2010 0:00
Began Cementing 4/8/2010 2:30 Completed Cementing

Results of Efforts to Immobilize
and Seal the Source in Place:

On April 8, 2010 the BHA with radioactive sources
and the drill string above the BHA were
immobilized by placement of a cement plug.

Warning Statement:

A warning plaque will be made and provided to BP
Exploration (Alaska) Inc. for mounting on the
wellhead. See attachment for template of warning
plaque.

Regards,



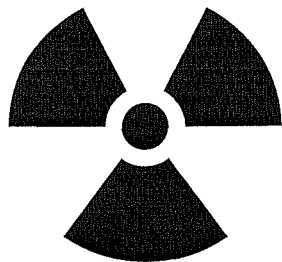
Steve Woods
Radiation Safety Officer
Halliburton Energy Services

Attachments: Warning Statement

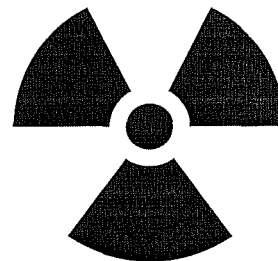
cc: Alaska Oil & Gas
Conservation Commission
333 W. 7th Ave., Ste 100
Anchorage, AK 99501

ABANDONMENT PLAQUE

BP Exploration (Alaska) Inc.
P2-22A
50-029-22850-01



CAUTION



ONE 8.0 CURIE Am-241Be RADIOACTIVE SOURCE, AND ONE 2.0
CURIE Cs-137 RADIOACTIVE SOURCE ABANDONED 8 APRIL
2010 AT 16,567FT. MD (9,108FT. TVD), AND AT 16,552FT MD
(9,108 FT. TVD). PLUG BACK DEPTH 16,061FT. MD (9,106FT.
TVD) AVOID BORE BELOW PLUG BACK, AND DO NOT RE-
ENTER THIS WELL BELOW PLUG BACK BEFORE CONTACTING
U.S. NUCLEAR REGULATORY COMMISSION