



# Weatherford®

November 1, 2010

Nuclear Regulatory Commission  
Region IV  
611 Ryan Plaza, Suite 400  
Arlington, TX 76011-4005  
Attn: James Thompson

SENT VIA Email: [james.thompson@nrc.gov](mailto:james.thompson@nrc.gov)

RE: Final-Radioactive Material Abandonment Report on Chesapeake Operating Inc., Well Spillman Draw Unit #35-73 17-1H by Weatherford International, Inc., NRC 42-26891-01

Dear Mr. Thompson,

As per our conversation and your verbal approval, on 4-OCT-2010, to abandoned one 1.5 Ci Cs-137 source, please find the following written report pursuant to 10 CFR 39.77 concerning the abandonment of radioactive well logging sources in the above referenced well.

**Date of Occurrence:** September 30, 2010 (initially lost)

Weatherford GR/Density/Neutron Shuttle was logged to TD and upon pulling to surface, parts of the logging tool were found missing. The following parts were found parts missing (i) partial density logging tool pad with one Cesium-137 logging source installed, (ii), bow spring centralizer, (iii) stainless back plate and (iv) fiber glass.

**Description of Recovery Efforts:**

During the first fishing attempt, the fishing tool string reached a depth of 17,158'. The first fishing attempt recovered most of the tool left in hole. However, the density tool pad section containing the Cs-137 source was not recovered. While the fishing tool string was at a depth of 17,158' a gamma ray log was run inside of drill pipe. This log indicated no presents of the Cs-137 source above 17,100'. Therefore, the source is believed to be close to the bottom of the well between 17,100' & 17,197'.

The second fishing attempt did not recover the source. A second gamma ray log was run during this attempt and also indicated no presents of the source above 17,100'

**Description of Abandonment (Finalized):**

The radioactive source and remaining logging tool assembly was immobilized and sealed in place with a (Red Dye) cement plug set from 16,752' to 17,186', approximately 400+'. A "No-Drill Plate" was placed within the casing string at 16,757' to prevent subsequent drilling operations below this depth. Weatherford will have the Identification Plaque constructed and will send to Chesapeake Operating for installation.

**Description of Source Involved:**

1. **Serial Number:** P44261B  
**Isotope:** Cesium 137  
**Description:** Doubly-encapsulated sealed source meeting or exceeding the requirements of IAEA Special Form, NRC well logging source requirements specified in 10 CFR 39.41  
**Activity:** 1.5 Curies (74 Gigabecquerels)

7504 Benbrook Parkway  
Benbrook, TX 76126  
Telephone: 817.249.7013  
Facsimile: 817.409.1722

[sean.perry@weatherford.com](mailto:sean.perry@weatherford.com)



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**Manufacturer and Model Number:** AEA QSA, Inc., Model CDC.CY11

**Depth of Source:** between 17,100' and 17,186'

**Surface Location and Identification of Well:**

API Number: 49-009-28257  
Well Operator: Chesapeake Operating Inc.  
Surface Location: SW NE Sec 17 T35N R73W  
Surface Footages: 2374 FNL 2352 FEL  
Bottom Location: SE NE Sec 20 T35N R73W  
Bottom Footages: 1434 FNL 293 FEL  
Field Name: Purple Sage  
Well Number: #35-73 17-1H  
Lease Name: Spillman Draw Unit  
Lease Number: WYW175918  
County: Converse  
State: Wyoming

**Depth of Deflection Device:** "No-Drill Plate installed at 16,757'

**Top Depth of Cement Plug:** (red dye) 16,752 ft

**Depth of the Original Wellbore:** 17,197 ft

**Information Contained on the permanent Identification Plaque:**

See attached plaque layout.

**Additional Agencies Receiving Copy of Report:**

BLM Contact: Jerry Dickerson  
(307) 328-4243 Office  
Wyoming Bureau of Land Management  
PO Box 2407  
1300 North 3rd St  
Rawlins, WY 82301

If you have any further questions related to this incident, please do not hesitate to contact me. My contact information appears in the footer below.

Regards,

Christopher "Sean" Perry  
US Radiation Safety Officer  
Weatherford International, Inc.

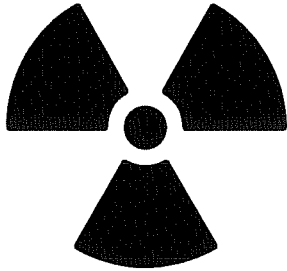
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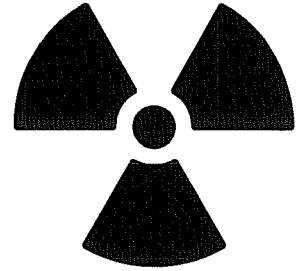


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**Chesapeake Operating, Inc.  
Spillman Draw Unit # 35-73 17-1H  
API # 49-009-28257**



**CAUTION**



**ONE 1.5 Ci Cs-137  
RADIOACTIVE SOURCE**

**ABANDONED OCTOBER 4, 2010  
BETWEEN 17,100' & 17,186' MD FROM RKB  
DEFLECTION DEVICE AT 16,757'**

**DO NOT RE-ENTER ORIGINAL HOLE  
BELOW 16,757'  
BEFORE CONTACTING**

**US NUCLEAR REGULATORY COMMISSION  
AND  
WYOMING BUREAU of LAND MANAGEMENT**