



BUREAU OF LAND MANAGEMENT  
Arctic Field Office  
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In reply refer to:  
3162.2 (AK012)

## PLAN CONFORMANCE/NEPA COMPLIANCE RECORD

DOI-BLM-LLAKF010-2012-34-CX

### Arctic Field Office, Bureau of Land Management

**Applicant:**

Gary Clow  
U.S. Geological Survey  
Institute of Arctic and Alpine Research  
University of Colorado  
Campus Box 450  
Boulder, CO 80309-0450

**Proposed Action:** Temperature Logging (3162.2)

**Description of Proposed Action:** The applicant Gary Clow, with the U.S. Geological Survey (USGS) has requested authorization for access and landing by a helicopter on lands within the National Petroleum Reserve in Alaska (NPR-A). They propose to conduct temperature logging in legacy wells throughout the NPR-A. Legacy wells were drilled by the Navy or Husky Oil Corporation prior to 1983. For long-term climate change research purposes, the wells drilled during the 1974 to 1981 period of exploration under USGS direction were interim plugged in a suspended state. Since 2005, four of those wells were fully plugged and abandoned (P&A'd), thus terminating the long term research at those particular sites. The remaining long-term research wells (Table 1) are now proposed for continuing use by USGS for this project.

USGS proposes to make high-precision temperature measurements in the upper 200-300 m of the well as part of its long-term NPR-A permafrost temperature-monitoring program which was initiated in the 1970s. The temperature measurements would involve slowly lowering a ½" diameter temperature sensor on a steel 4-conductor geophysical logging cable. In conjunction with the measurements, the integrity of the well-head would be examined, the presence of any obstructions within the well determined, and the fluid-level determined. The temperature logging is expected to take a few hours to perform. A cable wiper is attached to the logging cable right at the top of the well-head before pulling the cable back out of the hole. This keeps the diesel in the well while respooling the logging cable occurs. Once the thermistor probe is above the fluid level in the well, but still in the well casing, it is allowed to drip for 15-30 minutes before pulling it out of the well casing. With this procedure, there are no drips from either the logging cable or the probe outside of the well casing in our experience. Every time temperature measurements occur, a measurement of the diesel fluid level in the well is acquired. USGS records show no change in the fluid level in any of the NPR-A long-term research wells since the refueling of the wells approximately 10 years ago. The proposed work

would occur between July 25, 2012 and August 25, 2012 depending on weather and helicopter availability.

The USGS uses the BLM Arctic Field Office site at Inigok for their camp and fuel source. Richard Kemnitz with the BLM Arctic Field Office will be the helicopter manager for their activity.

<b>Name</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Township</b>	<b>Range</b>	<b>Section</b>
Awuna Test Well #1	69 <sup>0</sup> 09.161 N	158 <sup>0</sup> 01.540W	3 South	25 West	30
East Simpson Test Well #1	70 <sup>0</sup> 55.046N	154 <sup>0</sup> 37.286W	18 North	10 West	18
Fish Creek Test Well #1	70 <sup>0</sup> 19.578N	152 <sup>0</sup> 03.827W	11 North	1 West	11
Ikpikpuk Test Well #1	70 <sup>0</sup> 27.305	154 <sup>0</sup> 0.082W	13 North	8 West	29
Kugrua Test Well #1	70 <sup>0</sup> 35.191N	158 <sup>0</sup> 39.923W	14 North	26 West	8
Koluktak Test Well #1	69 <sup>0</sup> 45.118N	154 <sup>0</sup> 36.855W	5 North	11 West	34
Kuyanak Test Well #1	70 <sup>0</sup> 55.869N	156 <sup>0</sup> 04.092W	18 North	16 West	10
Lisburne Test Well #1	68 <sup>0</sup> 29.061N	155 <sup>0</sup> 41.773W	11 South	16 West	17
North Inigok Test Well #1	70 <sup>0</sup> 15.435N	152 <sup>0</sup> 46.139W	11 North	4 West	36
North Kalikpik Test Well #1	70 <sup>0</sup> 30.531N	152 <sup>0</sup> 22.258W	13 North	2 West	3
Peard Test Well #1	70 <sup>0</sup> 42.908N	159 <sup>0</sup> 00.249W	16 North	28 West	25
Seabee Test Well #1	69 <sup>0</sup> 22.786N	152 <sup>0</sup> 10.698W	1 South	1 West	8
South Meade Test Well #1	70 <sup>0</sup> 36.872N	156 <sup>0</sup> 53.601W	15 North	19 West	31
South Harrison Test Well #1	70 <sup>0</sup> 25.466N	151 <sup>0</sup> 44.071W	12 North	2 East	6
Tulageak Test Well #1	71 <sup>0</sup> 11.338N	155 <sup>0</sup> 44.228W	21 North	14 West	7
Tunalik Test Well #1	70 <sup>0</sup> 12.324N	161 <sup>0</sup> 04.340W	10 North	36 West	20
West Dease Test Well #1	71 <sup>0</sup> 09.524N	155 <sup>0</sup> 37.983W	21 North	14 West	21

## Part I: Plan Conformance Review

The proposed action is subject to the following planning documents:

Northeast National Petroleum Reserve in Alaska Supplemental Integrated Activity Plan/Environmental Impact Statement (IAP/EIS) dated July 2008  
Northwest National Petroleum Reserve in Alaska IAP/EIS dated 1/22/2004  
Utility Corridor Resource Management Plan (RMP) approved 1/11/1991  
Utility Corridor Final Environmental Impact Statement approved 9/27/1989  
Final Environmental Impact Statement on Oil and Gas Leasing in the National Petroleum Reserve in Alaska and Record of Decision approved 5/1983

The proposed action is not inconsistent with the purposes of the Naval Petroleum Reserves Production Act of 1976. The applicant would be provided with stipulations entitled "USGS Gary Clow Stipulations Summer 2012."

**Date** July 16, 2012

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/s/Donna L. Wixon  
Natural Resource Specialist, Arctic Field Office

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## Part II: NEPA Review

Categorical Exclusion Review.

This proposed action meets the criteria for a categorical exclusion under 516 DM 11.9, BLM H-1790-1 national Environmental Policy Act Handbook Appendix 3- 1.6. BLM Categorical Exclusions.

**“Nondestructive data collection, inventory (including field, aerial, and satellite surveying and mapping), study, research, and monitoring activities.”**

The proposed action has been reviewed to determine if any extraordinary circumstances described in 43 CFR 46.210 and 46.215, apply.

<b>Extraordinary Circumstances</b>	<b>Yes</b>	<b>No</b>
2.1 Have significant impacts on public health or safety.		<b>X</b>
2.2 Have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (Executive Order 11990); floodplains (Executive Order 11988); national monuments; migratory birds; and other ecologically significant or critical areas.		<b>X</b>
2.3 Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources [NEPA Section 102(2) (E)].		<b>X</b>
2.4 Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks.		<b>X</b>
2.5 Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects.		<b>X</b>
2.6 Have a direct relationship to other actions with individually insignificant but cumulatively significant environmental effects.		<b>X</b>
2.7 Have significant impacts on properties listed, or eligible for listing, on the National Register of Historic Places as determined by either the bureau or office.		<b>X</b>
2.8 Have significant impacts on species listed, or proposed to be listed, on the List of Endangered or Threatened Species, or have significant impacts on designated Critical Habitat for these species.		<b>X</b>
2.9 Violate a Federal law, or a State, local, or tribal law or requirement imposed for the protection of the environment.		<b>X</b>
2.10 Have a disproportionately high and adverse effect on low income or minority populations (Executive Order 12898).		<b>X</b>
2.11 Limit access to and ceremonial use of Indian sacred sites on Federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites (Executive Order 13007).		<b>X</b>
2.12 Contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act and Executive Order 13112).		<b>X</b>

**Date July 16, 2012**

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/s/Donna L. Wixon  
Natural Resource Specialist, Arctic Field Office