

U.S. Department of the Interior  
Bureau of Land Management  
Uncompahgre Field Office  
2465 South Townsend Avenue  
Montrose, CO 81401

## CATEGORICAL EXCLUSION

NUMBER: DOI-BLM-CO-S050-2011-0033 CX

PROJECT NAME: USGS Adobe Buttes Soil Core Sample Project

PLANNING UNIT: Uncompahgre Basin Resource Management Area

LEGAL DESCRIPTION: T. 14 S., R. 95 W., Sec. 29, NW¼NE¼, 6<sup>th</sup> PM

Topo. map name: North Delta

WGS84 - hddd°mm.mmm'

38°48.688' , -108°02.044'

APPLICANT: United States Geological Survey (USGS)

DESCRIPTION OF PROPOSED ACTION:

USGS proposes to drill a soil core sample in order to determine the lithology, stratigraphic sequence and resource (hydrocarbon) potential of the Mancos shale. They will use a truck mounted rotary drill rig to bore a hole to extract a 500-1300 foot deep core sample. The USGS has proposed a drill site approximately 6 miles northeast of the town of Delta, Colorado. The proposed drill site is within an area designated entirely for Off-highway vehicle (OHV) use known as the North Delta OHV area.

The operation is scheduled for late October 2011, and will continue for 5 days, or until drilling is completed. Drilling is not anticipated to exceed 10 days. Project activities will continue through the weekend if necessary. The surface area necessary to conduct operations is anticipated to be no more than 200 feet by 200 feet in size.

Access to the proposed drill site is shown in Figure 1, and the proposed site is shown in Figure 2, site map. No roads need to be constructed to the drill site because there are existing roads in place. There should be minimal new surface disturbance because the existing surface is highly disturbed by OHV use. Operations will be halted during rain, which would also minimize impact to the surface. The drill rig will be set up just off of the existing dirt road.

Figure 1. Vicinity Map.





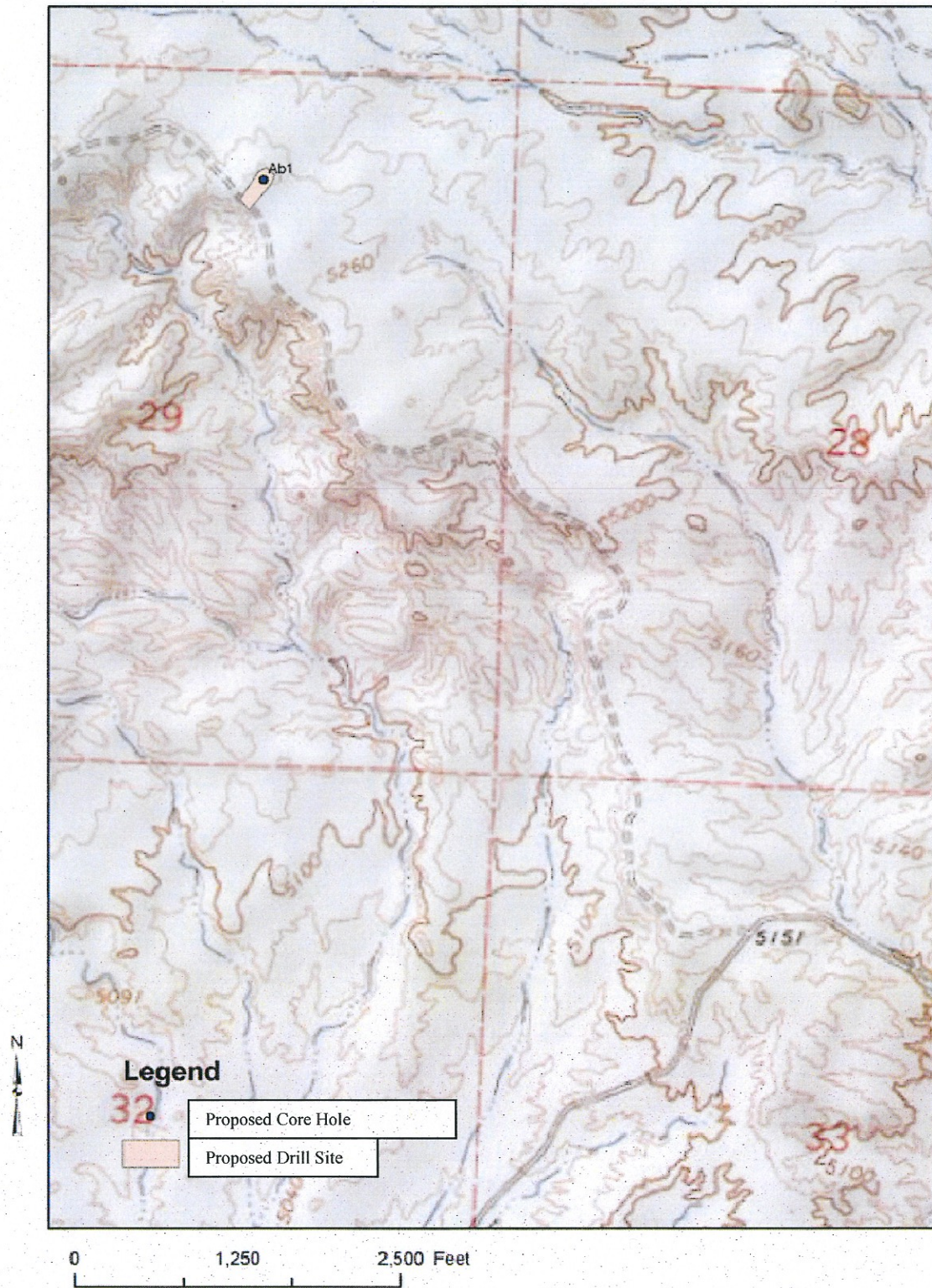
**Figure 2. Site Map**

Figure 3, “proposed Adobe Buttes drill site layout”, shows a plan view of the proposed drilling operation. A porta-john will be located in the northern part of the site. The “pit” is an above ground tank, lined to prevent leakage, large enough to contain drilling material (cuttings and water) and will be taken off-site to an approved disposal facility upon conclusion of drilling.

A USGS drill crew will be in charge of the coring operation. Compressors on the drilling rig will be used to air drill a 6-inch diameter rotary hole to 20 feet. Surface casing (6-inch PVC) will be set at a depth of 20 feet. Dust is collected at the drill point with a “diverter head”, so this is essentially a dust free drilling operation. Coring will begin immediately below the surface casing. The operation will require air, with injection of water to eliminate dust and to lubricate the bit. The water will come from Delta, the site yet to be determined. Potential water sources include pumped from the river, an irrigation ditch, or taken from a municipal stand pipe. Water obtained will be trucked to the site along the dirt access road located next to the drill truck.

The water used in the drilling will be injected at a rate of 2-3 gallon/minute unless formation water is encountered (estimated to be less than 10,000 gallons of drilling water). Formation water is not anticipated because of the low permeability of the lithology of the Mancos shale. No chemical additives will be used during drilling.

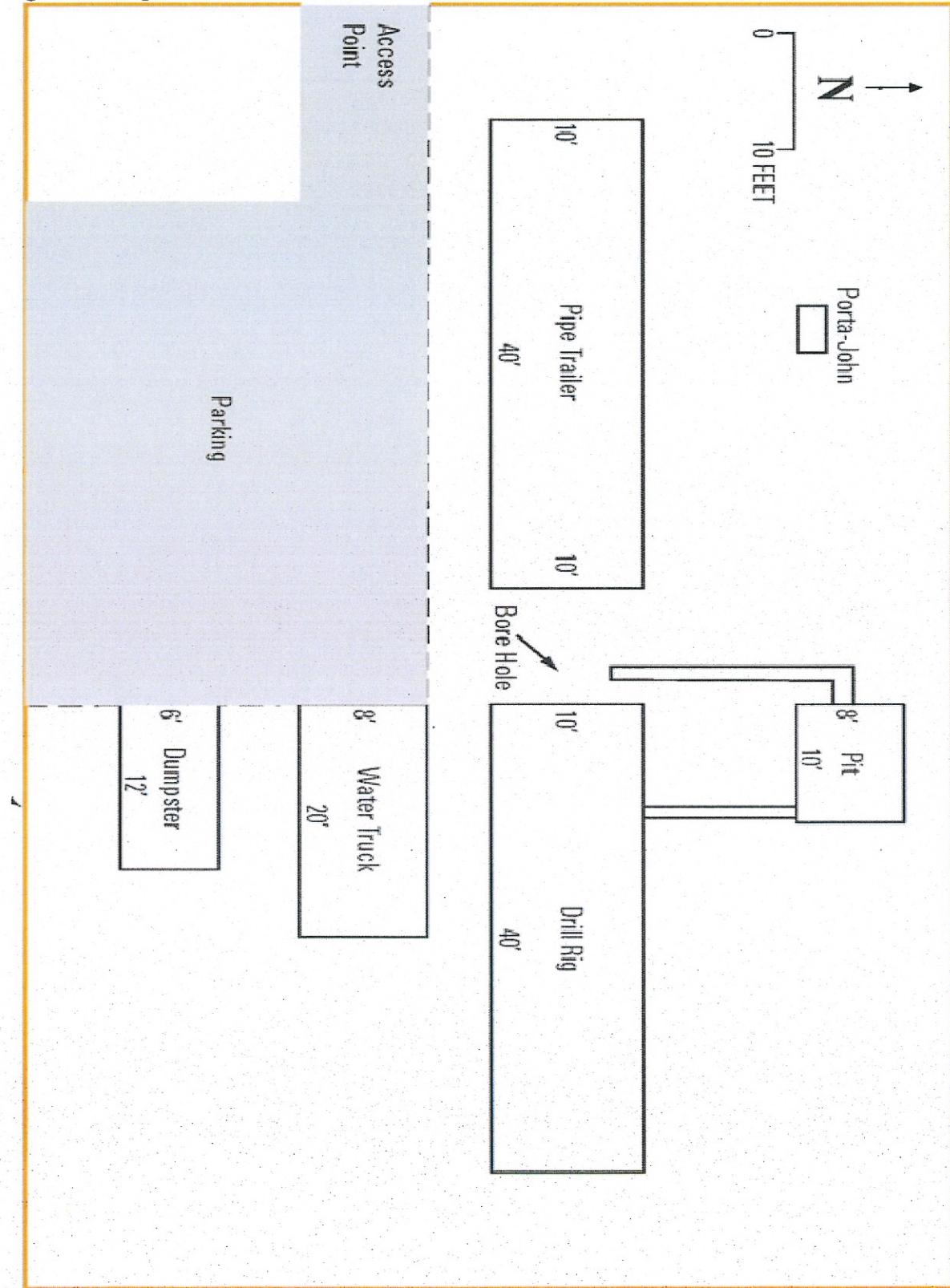
Following coring, the well bore will be logged using geophysical techniques either by the USGS or a contracted company. This will require the logger to set up temporarily over the drill site but will result in no surface or subsurface disturbance unless it is deemed necessary to ream the hole prior to logging using a 5 inch rotary bit to make sure the hole is competent. If needed, this would return a small amount of additional cuttings and water to the surface. The hole will be filled with water to obtain resistivity measurements.

As this is an area frequented by OHV users, the drill site will be completely fenced with a standard 5-foot orange mesh plastic fence that is highly visible. Yellow caution tape and signage will also be employed. The drill site will be staffed from sunrise to sundown, through the weekend, if needed, minimizing the hazards to the OHV users.

The drill hole will be closed immediately following logging. A high-solid, bentonite slurry will be pumped from the bottom of the hole to 20 feet below the land surface. The remaining 20 feet will be filled with cement. Any holes or depressions left by drilling equipment, for example, by hydraulic rams, will be smoothed out by rakes. All trash will be disposed in the rented dumpster and sewage will be contained in the rented porta-john.



**Figure 3.** Proposed Adobe Buttes drill site



PLAN CONFORMANCE REVIEW: The Proposed Action is subject to and has been reviewed for conformance with (43 CFR 1610.5, BLM 1617.3) the following plan:

Name of Plan: Uncompahgre Basin Resource Management Plan, Unit 8

Date Approved: July 1989

Decision Number/Page: Page 22

Decision Language: Management Units 8 is managed as open to OHV use. "A minimum of restrictions will be placed on surface-disturbing activities that do not impede or endanger ORV recreationalists."

CATEGORICAL EXCLUSION REVIEW:

The proposed action qualifies as a categorical exclusion for BLM under 516 DM 11.9, Number J.11, which allows "Actions where the BLM has concurrence or co-approval with another DOI agency and the action is categorically excluded for that DOI agency."

The proposed action qualifies as a categorical exclusion for USGS under 516 DM 9.5, Number G, which allows "Test or exploration drilling and downhole testing, including contracts therefor."

The proposed action also qualifies as a categorical exclusion for USGS under 516 DM 9.5, Number K, which allows "Off-road travel to drilling, data collection or observation sites which does not impact ecologically sensitive areas such as wilderness areas, wetlands, or areas of critical habitat for listed endangered or threatened species."

None of the following exceptions in 516 DM 2, Appendix 2, apply.

Exclusion	YES	NO
1. Have significant adverse effects on public health and safety.	_____	<u>  X  </u>
2. Have adverse effects 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, floodplains; national monuments; migratory birds; and other ecologically significant or critical areas.	_____	<u>  X  </u>
3. Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources.	_____	<u>  X  </u>
4. Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks.	_____	<u>  X  </u>
5. Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects.	_____	<u>  X  </u>

- |   |       |          |
|---|-------|----------|
| 6. Be directly related to other actions with individually insignificant but cumulatively significant environmental effects.   | _____ | <u>X</u> |
| 7. Have significant impacts on properties listed, or eligible for listing, in the National Register of Historic Places.   | _____ | <u>X</u> |
| 8. Have significant impacts on species listed, or proposed to be listed, on the List of Endangered or Threatened Species, or have adverse effects on designated Critical Habitat for these species.   | _____ | <u>X</u> |
| 9. Violate a Federal law, or a State, local or tribal law or requirement imposed for the protection of the environment.   | _____ | <u>X</u> |
| 10. Have disproportionately high and adverse effect on low income or minority populations.  | _____ | <u>X</u> |
| 11. Limit access to and ceremonial use of Indian sacred sites by Indian religious practitioners or adversely affect the physical integrity of such sacred sites.  | _____ | <u>X</u> |
| 12. Significantly, 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. | _____ | <u>X</u> |

#### INTERDISCIPLINARY REVIEW:

<u>Name</u>	<u>Title</u>	<u>Area of Responsibility</u>
Thane Stranathan	Natural Resource Specialist	Lands and Minerals
Glade Hadden	Archaeologist	Cultural Resources/Paleontology
Bob Bavin	Wildlife Biologist	Wildlife Resources
Jedd Sondergard	Hydrologist	Soil and Water Resources
Teresa Pfifer	Staff Supervisor	Lands and Minerals

#### REMARKS:

Threatened and Endangered Species: Colorado hookless cactus is present adjacent to the access road to be used for this project. No cactus were found during a survey conducted at the proposed project site. With the following mitigation measures, there would be no adverse impacts to any threatened or endangered species or their habitats.

#### REQUIRED MITIGATION:

##### TES PLANTS

1. The project area contains potential habitat for Colorado hookless cactus. Should any plants be encountered during the construction of this project, all activities will cease immediately and the BLM biologist will be notified.
2. Project vehicles will remain on the designated access roadway, and travel speed along the access roads should be limited such that it does not produce a plume of trailing dust.



## TES FISH

1. Water pumping from rivers, streams, or other above-ground sources for use during this project should adhere to the following provisions:

- A. Screen all pump intakes with 1/4" or finer mesh material.
- B. If feasible, to avoid entrapment of fish, pump from off-channel sites (e.g., ponds, lakes, and diversion ditches), not directly connected to the mainstem rivers (even if during high spring flows).
- C. If the pump head must be located in the river channel, the following measures will be applied:
  - Do not situate the pump in a low-flow or no-flow area as these habitats tend to concentrate larval fishes. Instead place the pump into fast moving/riffle habitat;
  - Limit the amount of pumping, to the greatest extent possible, during that period of the year when larval fish are most likely present, generally June 1 through August 15.
  - To the extent possible, avoid pumping water during the pre-dawn hours (two hours prior to sunrise) as larval fish drift studies indicate that this is a period of greatest daily activity.

**CULTURAL RESOURCES:** The project area was examined for Cultural Resource presence on September 8, 2011 with negative results. No further work is required.

**NATIVE AMERICAN RELIGIOUS CONCERNS:** There are none known or anticipated for this project.

### ADDITIONAL MITIGATION:

1. Disturbance associated with the drilling operation should be kept to already disturbed roads and road intersections. Biological soil crusts in the area should be left intact to prevent surface runoff and erosion.

**NAME OF PREPARER:** Thane Stranathan

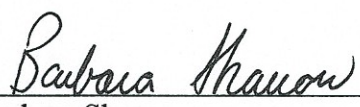
**ENVIRONMENTAL COORDINATOR:** 

**DATE:** 9/26/11

**DECISION AND RATIONALE:** I have reviewed this Categorical Exclusion and have decided to implement the proposed action.

This action is listed in the Department Manual as an action that may be categorically excluded. I have evaluated the action relative to the 12 criteria listed above and have determined that it does not represent an exception and is, therefore, categorically excluded from further environmental analysis.

**SIGNATURE OF AUTHORIZED OFFICIAL:**



Barbara Sharrow,  
Uncompahgre Field Office, Field Manager

**DATE SIGNED:** 10-7-11