

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
**APPLICATION FOR PERMIT TO DRILL OR REENTER**

FORM APPROVED  
OMB No. 1004-0137  
Expires March 31, 2007

5. Lease Serial No. <b>NO-G-0402-1709</b>	
6. If Indian, Allottee or Tribe Name <b>NAVAJO NATION</b>	
7. If Unit or CA Agreement, Name and No. <b>N/A</b>	
8. Lease Name and Well No. <b>UTE CANYON 23-INDIGO</b>	
9. API Well No. <b>43-037-31911</b>	
10. Field and Pool, or Exploratory <b>WEDCAT PARADOX &amp; LEAD</b> <i>Undesignated</i>	
11. Sec., T. R. M. or Blk. and Survey or Area <b>23-41S-21E.SLM NESE</b>	
12. County or Parish <b>SAN JUAN</b>	13. State <b>UT</b>
14. Distance in miles and direction from nearest town or post office* <b>5 AIR MILES SOUTH OF BLUFF, UT</b>	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) <b>1900'</b>	16. No. of acres in lease <b>3840</b>
17. Spacing Unit dedicated to this well <b>NESE</b>	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. <b>1115' (UTE 23-P)</b>	19. Proposed Depth <b>6850'</b>
20. BLM/BIA Bond No. on file <b>BIA RLB0006712</b>	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) <b>4991' GL</b>	22. Approximate date work will start* <b>07/25/2009</b>
	23. Estimated duration <b>5 WEEKS</b>

**24. Attachments**

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

- |  |  |
|--|--|
| <ol style="list-style-type: none"> <li>1. Well plat certified by a registered surveyor.</li> <li>2. A Drilling Plan.</li> <li>3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).</li> </ol> | <ol style="list-style-type: none"> <li>4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).</li> <li>5. Operator certification</li> <li>6. Such other site specific information and/or plans as may be required by the authorized officer.</li> </ol> |
|--|--|

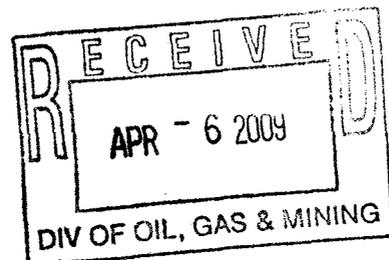
25. Signature <i>S.A. Hines</i>	Name (Printed/Typed) <b>STEPHEN HINES</b>	Date <b>04/02/2009</b>
Title <b>GEOLOGIST</b>		
Approved by (Signature) <i>Bradley G. Hill</i>	Name (Printed/Typed) <b>BRADLEY G. HILL</b>	Date <b>04-07-09</b>
Title <b>ENVIRONMENTAL MANAGER</b>		

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
Conditions of approval, if any, are attached.

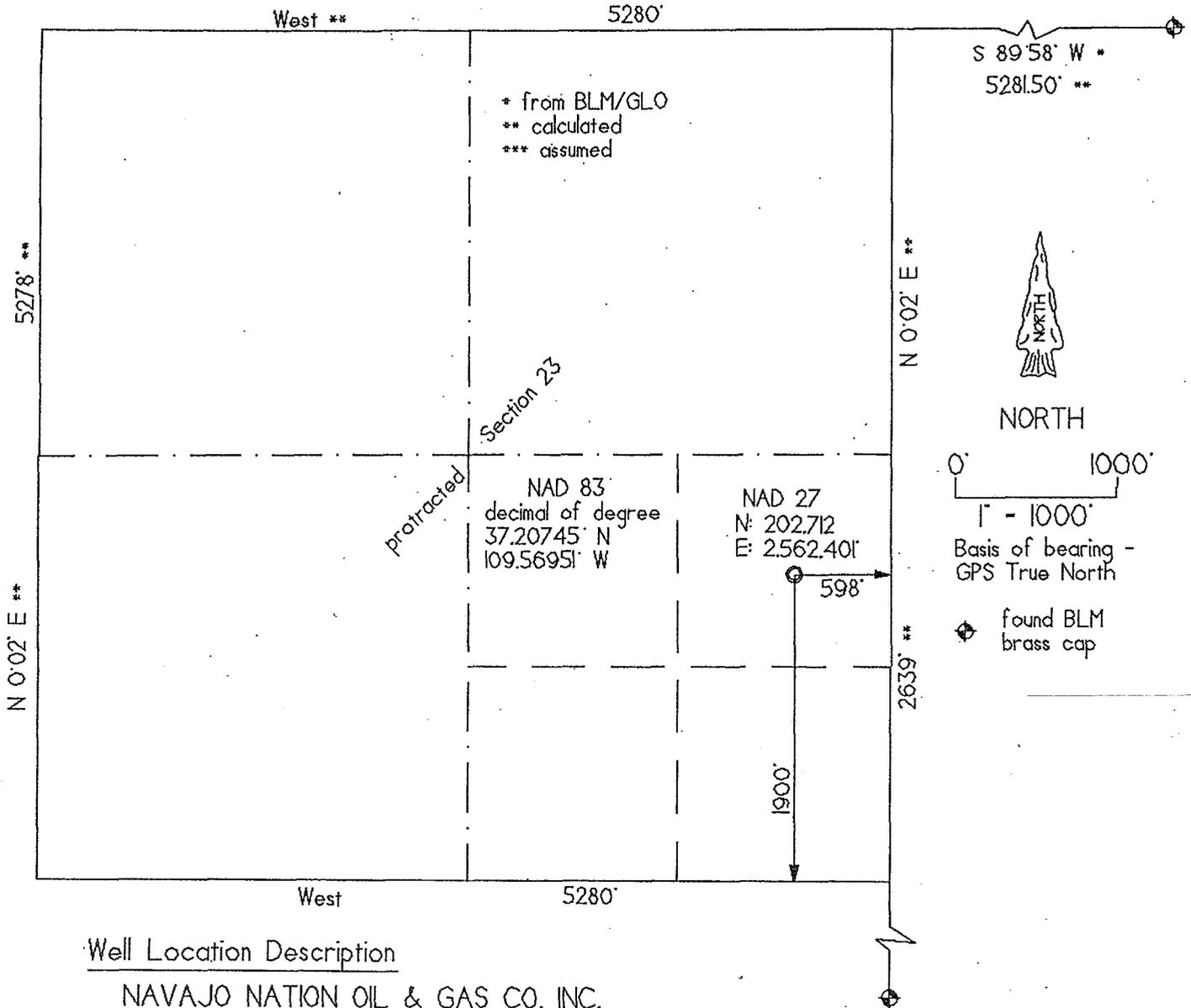
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*(Instructions on page 2)

**Federal Approval of this  
Action is Necessary**



Well Location Plat



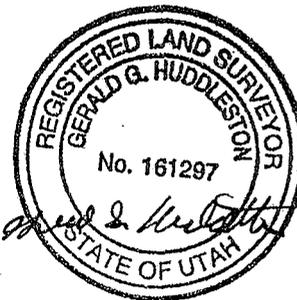
Well Location Description

NAVAJO NATION OIL & GAS CO. INC.  
 UTE CANYON 23-INDIGO  
 1900' FSL & 598' FEL  
 Section 23, T.41 S., R.21 E., SLM  
 San Juan County, UT  
 4991' grd. el. ( from GPS)

**RECEIVED**

DEC 26 2007

Bureau of Land Management  
 Farmington Field Office



rev: 05/06/07

Gerald G. Huddleston, LS

The above is true and correct to my knowledge and belief.

HUDDLESTON LAND SURVEYING - BOX KK - CORTEZ, CO - (970) 565 -3330

Navajo Nation Oil & Gas Co., Inc.  
 Ute Canyon 23-Indigo  
 1900' FSL & 598' FEL  
 Sec. 23, T. 41 S., R. 21 E.  
 San Juan County, Utah

Drilling Program

1. FORMATION TOPS

The estimated tops of important geologic markers are:

<u>Formation</u>	<u>GL Depth</u>	<u>KB Depth</u>	<u>Elevation</u>
Bluff Sandstone	0'	15'	+4,991'
Carmel Sandstone	96'	111'	+4,895'
Navajo Sandstone	666'	681'	+4,325'
Kayenta Sandstone	1,026'	1,041'	+3,965'
Wingate Sandstone	1,066'	1,081'	+3,925'
Chinle Shale	1,531'	1,546'	+3,460'
Shinarump Sandstone	2,116'	2,131'	+2,875'
Moenkopi Sand & Mud Stones	2,221'	2,236'	+2,770'
DeChelly Ss/Mdst/Shale	2,526'	2,541'	+2,465'
Organ Rock Shale/Sltst/Ss	2,611'	2,626'	+2,380'
Lower Cutler Slt/Ss/Shale	3,416'	3,431'	+1,575'
Honaker Trail Ls/Sltst/Shale	4,501'	4,516'	+490'
Paradox Ls/Sltst/Marls/Shale	5,056'	5,071'	-65'
Ismay Ls/Dolo/Marls/Shale	5,304'	5,319'	-313'
Lower Ismay Ls/Dolo/Marls/Shale	5,388'	5,403'	-397'
Desert Creek Ls/Dolo/Marls/Shale	5,453'	5,468'	-462'
Akah Ls/Dolo/Anhy/Shale	5,658'	5,673'	-667'
Barker Creek Ls/Dolo/Anhy/Shale	5,823'	5,838'	-832'
Pinkerton Trail Ls/Dolo/Anhy/Shale	5,997'	6,012'	-1,006'
Molas Mudst/Slt/Ls/Shale	6,151'	6,166'	-1,160'
Leadville Limestone/Dolomite	6,326'	6,341'	-1,335'
Total Depth (TD)	6,850'	6,865'	-1,859'

2. NOTABLE ZONES

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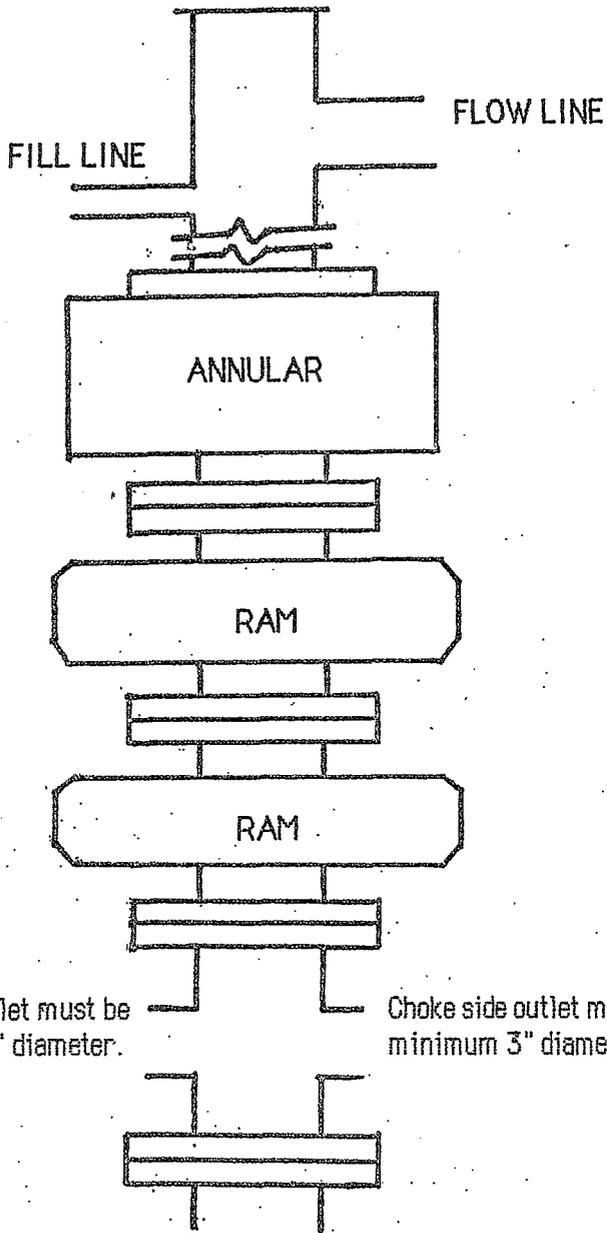
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Desert Creek and Ismay oil production is the primary goal. Upper Leadville oil production is the secondary goal. Oil and gas shows which appear to the well geologist to be commercial will be tested. All fresh water and prospectively valuable minerals will be recorded by depth and protected with casing and cement. Likely fresh water zones are the Glen Canyon group of sandstones.

### 3. PRESSURE CONTROL

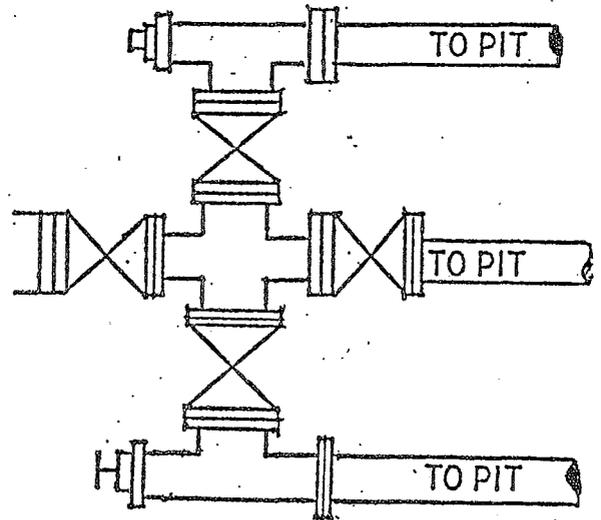
A 13-5/8" 3,000 psi double ram and annular preventer with a 3,000 psi choke manifold will be used. A diagram of a typical BOP is on Page 3. Actual model will not be known until bid is let. Procedures are ...

- Nipple up BOP and all equipment
  - Test to 250 #/3,000#
  - Test Hydril to 2,000 psi
  - Log in I. A. D. C. book
- Drill 1/2 of shoe joint
  - Test to 1,500 psi for 30 minutes
  - Log in I. A. D. C. book
- Activate BOPs every 24 hours or on trips and log in I. A. D. C. book
- Install hand wheels and lay straight flare line before drilling out
- Conduct weekly BOP drills with each crew and log in I. A. D. C. book
- Have floor valve and wrench on floor at all times
  - Floor valve must be in open position
- Before drilling surface casing shoes, blind rams will be closed. BOP and surface casing will be pressure tested to 1,500 psi for a total test time of 30 minutes if not previously tested by Halliburton during cement job.
- Studs on all well head and BOP flanges will be checked for tightness weekly
- Hand wheels for locking screws will be installed and operational
- Entire BOP and well head assembly will be kept clean of mud
- A drill stem safety valve in the open position will be available
- Call BLM at (505 599-8900) and the Utah Division of Oil, Gas, & Mining at (801 538-5340) before testing BOPs



TYPICAL BOP STACK  
& CHOKE MANIFOLD

There will be at least 2 chokes and 2 choke line valves (3" minimum). The choke line will be 3" in diameter. There will be a pressure gauge on the choke manifold.



Kill line will be minimum 2" diameter and have 2 valves, one of which shall be a minimum 2" check valve.

Upper kelly cock will have handle available.  
Safety valve and subs will fit all drill string connections in use.  
All BOPE connections subjected to well pressure will be flanged, welded, or clamped.

4. CASING & CEMENT

<u>Hole Size</u>	<u>O. D.</u>	<u>Weight</u>	<u>Grade</u>	<u>Age</u>	<u>Coupling</u>	<u>Burst/Collapse</u>	<u>Depth Set</u>
20"	16"		Conductor	New			60'
12-1/4"	8-5/8"	24#	J or K-55	New	S T & C	2,950/1,370	1,800'
7-7/8"	5-1/2"	17#	J or K-55	New	L T & C	5,320/4,910	6,850'

Conductor pipe will be cemented to the surface with ready-mix.

Surface casing will be set at least 200' into the Chinle and cemented to the surface with  $\approx 50\%$  excess. Lead with  $\approx 450$  sacks ( $\approx 878$  cubic feet) Halliburton light with 5 pounds per sack gilsonite + 1/4 pound per sack cellophane mixed at 12.4 pounds per gallon and 1.95 cubic feet per sack. Tail with  $\approx 215$  sacks ( $\approx 256$  cubic feet) standard cement + 1%  $\text{CaCl}_2$  + 1/4 pound per sack cellophane mixed at 15.6 pounds per gallon and 1.19 cubic feet per sack. Centralizers will be placed  $\approx 5'$  off the bottom and on the first three joints and the fifth joint.

Production casing will be cemented with  $\approx 40\%$  excess to  $\approx 1,600'$  (i. e., 200' above surface casing shoe). Lead with  $\approx 460$  sacks ( $\approx 897$  cubic feet) Halliburton light with 5 pounds per sack gilsonite + 1/4 pound per sack cellophane mixed at 12.4 pounds per gallon and 1.95 cubic feet per sack. Tail with  $\approx 305$  sacks ( $\approx 384$  cubic feet) premium with 5 pounds per sack gilsonite + 0.6% Halad 9 + 0.25 CFR-3 mixed at 15.2 pounds per gallon and 1.26 cubic feet per sack. Centralizers will be set on the shoe joint, top of the second and third joints, and continue through and above pay zones at  $\approx 90'$  intervals.

5. MUD PROGRAM

<u>Interval</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>	<u>Type</u>
0 -1,800'	8.3 - 8.7	27 - 32	N/C	Fresh H <sub>2</sub> O gel lime spud mud, pH 9
1,800' - TD	8.4 - 10.0	38 - 40	8 cc	Fresh water gel, PHPA, SAPP

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Ute Canyon 23-Indigo  
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San Juan County, Utah

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Cuttings will be collected every  $\approx 30'$  from the surface to  $\approx 5,000'$ . Cuttings will be collected every  $\approx 10'$  from  $\approx 5,000'$  to TD.

#### 6. CORES, LOGS, & TESTS

Side wall cores may be cut depending upon shows. GR - Sonic and DLL-Micro-SFL log suites will be run from TD to the surface. FDC-CNL logs will be run from TD to  $\approx 4,000'$ . No drill stem tests are currently planned.

A geologist or mud logger will be on site from  $\approx 4,000'$  to TD.

#### 7. DOWN HOLE CONDITIONS

No abnormal temperatures or abnormal pressures are expected. Maximum expected bottom hole pressure will be  $\approx 2,945$  psi. While no hydrogen sulfide is expected, a contingency plan is attached.

#### 8. OTHER INFORMATION

The anticipated spud date is January 25, 2008. It is expected it will take  $\approx 3$  weeks to drill and  $\approx 2$  weeks to complete the well.

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## Surface Use Plan

### 1. DIRECTIONS (See PAGES 11 - 14)

From the junction of US 163 and US 191 west of Bluff ....  
Go South  $\approx 7\frac{1}{2}$  miles on US 191 to the equivalent of Mile Post 13.8  
Then turn left and go Northeast  $\approx 2.6$  miles on County Road 441/N-5063  
Then turn left and go N, W, & South  $\approx 3.5$  miles on old roads & jeep trails  
Then continue South 731.44' cross country  
Then turn right and go NW 280.33' cross country to the proposed 23-Indigo

Roads will be maintained to at least equal to their present condition.

### 2. ROAD WORK (See PAGES 12 & 13)

A Tribally approved archaeologist will be called before construction starts to monitor construction. The following precautions will be used:

Site UT-C-52-183: build 250 yard long detour east of current road  
Site UT-C-52-106: build 125 yard long detour west of current road  
Site UT-C-52-182: build 150 yard long detour southeast of current road  
Site UT-C-52-12: 100 yard segment will not be bladed or widened  
Site UT-C-52-181: 100 yard segment will not be bladed or widened

Minimum 36" high dirt berms will be used to block the current road at each end of each detour.

The final  $\approx 3.5$  miles of existing road, jeeps trails, and detours plus the 1,011.77' of all new road will be upgraded or built to BLM Gold Book standards. Road will have a  $\approx 14'$  wide running surface (except at 2 sites) and will be rocked where needed. Two 36" diameter culverts will be installed just downstream of the stock pond in Section 13. Steel fence posts will be set

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upstream of the culverts to catch debris. No vehicle turn out or cattle guard is needed. Maximum disturbed width will be  $\leq 20'$  (except at 2 sites). Maximum cut or fill will be  $\approx 5'$ . Maximum grade will be  $\approx 10\%$ .

### 3. EXISTING WELLS

There are no plugged, oil, gas, injection, or water wells within a mile radius.

### 4. PROPOSED PRODUCTION FACILITIES

A well head, pump, separator, dehydrator, and tank battery will be installed on the pad. All will be painted a flat Carlsbad tan.

### 5. WATER SUPPLY

Water will be trucked from Monument Resources' well on private land in 30-40s-22e near Bluff. Water right number is 09-135.

### 6. CONSTRUCTION METHODS & MATERIALS (See PAGES 15 & 16)

There is no topsoil to save. (All of the well site is exposed sandstone.) Diversion ditch will be cut northeast of the pad. A minimum 12 mil plastic liner will be installed in the reserve pit. Geotextile fabric or sand will be used to pad the liner. The reserve pit will be fenced sheep tight on 3 sides with woven wire fence topped with barbed wire. The fourth side will be fenced once the rig moves off. The fence will be kept in good repair while the pit dries. Once dry, contents of the reserve pit will be buried in place.

Rock will be bought and trucked from private land near Bluff.

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## 7. WASTE DISPOSAL

All trash will be placed in a portable trash cage and hauled to the county landfill. Human waste will be disposed of in chemical toilets. Toilet contents will be hauled to a state approved dump station off the reservation.

## 8. ANCILLARY FACILITIES

There will be no air strip or camp. Camper trailers will be parked on the pad for the company man, tool pusher, and mud loggers.

## 9. WELL SITE LAYOUT

See PAGES 15 and 16 for drawings of the well pad, cross section, cut and fill diagram, reserve pit, trash cage, access onto the location, parking, living facilities, and rig orientation.

## 10. RECLAMATION

Reclamation starts once the reserve pit is dry, at which point it will be back filled. Liner top will be folded over contents and covered with  $\geq 24$ " of dirt. The reserve pit and any pad areas not needed for producing the well will be reclaimed as an interim measure. Once the well is plugged, the remainder of the pad and road will be reclaimed.

All reclamation will leave the terrain with a natural shape, slopes will be no steeper than 3 to 1, all compacted areas will be ripped  $\geq 12$ " deep with the contour. A seed mix will be drilled as prescribed by BLM, BIA, or the Navajo Nation. Weeds will be controlled in accordance with BLM, BIA, or Tribal requirements.

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San Juan County, Utah

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#### 11. SURFACE OWNER

All construction will be on Navajo Tribal surface. Tribal Project Review Office phone is (928) 871-6447. Address is P. O. Box 2249, Window Rock, Arizona, 86515.

#### 12. OTHER INFORMATION

The nearest hospital is a  $\approx 1\text{-}1/4$  hour drive away in Monticello. It is 3 blocks northwest of the intersection of US 491 and US 163/191. Hospital phone number is (435) 587-2116. Or dial 1-800-332-1911 from anywhere in the county. Give the operator the latitude and longitude (see section plat (which is the second page of the APD)) of the well.

#### 13. REPRESENTATION & CERTIFICATION

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Navajo Nation Oil & Gas Co., Inc., and its contractors and subcontractors in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U. S. C. 1001 for the filing of false statements. Executed this 20th day of December, 2007.

Navajo Nation Oil & Gas Co., Inc.  
Ute Canyon 23-Indigo  
1900' FSL & 598' FEL  
Sec. 23, T. 41 S., R. 21 E.  
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Brian Wood, Consultant

Permits West, Inc.

37 Verano Loop, Santa Fe, NM 87508

(505) 466-8120

FAX: (505) 466-9682

Mobile: (505) 699-2276

The field representative will be:

Wilson Groen

Navajo Nation Oil & Gas Co., Inc.

P. O. Box 4439

Window Rock, AZ 86515

(928) 871-4880



NAVAJO NATION OIL & GAS CO., INC.

PROPOSED UTE CANYON 23-P AND 23-INDIGO  
ACCESS ROAD (REALIGNMENT)  
Sections 13, 14, 23, and 24, T.41 S., R. 21 E.

REALIGNMENT ALTERNATIVE  
ADDENDUM A  
to the  
Navajo Nation Oil and Gas  
UTE CANYON 23-P AND 23-INDIGO  
Revised Environmental Assessment (rEA)

Prepared for Permits West, Inc., Santa Fe, New Mexico  
By Marian J. Rohman & Benjamin Yanda  
Permits West, Inc  
September 24, 2008

Addendum A has been added to the Proposed Ute Canyon 23-P and 23-Indigo EA (13 August 2008) at the direction of the Navajo Nation. It is meant to supplement and tier into the Revised Ute Canyon 23-P and 23-Indigo EA (24 September 2008).

During the initial botanical survey, a large population of Cronquist's milkvetch (*Astragalus cronquistii*) was discovered extending across the staked route of the access road. Cronquist's milkvetch is listed as a Group 3 species by the Navajo Natural Heritage Program, indicating that its prospects of survival or recruitment are likely to be in jeopardy in the foreseeable future. (Navajo Nation Division of Natural Resources, 2005) The Navajo Fish and Wildlife Department recommended that the initial route through the population be abandoned and a reroute around the population be found. This report discusses the proposed reroute and its relation to the known Cronquist's milkvetch population.

Cronquist's milkvetch is a medium-sized milkvetch that closely resembles the more common Hopi milkvetch (*Astragalus fucatus*) vegetatively. Cronquist's milkvetch has pink-purple flowers with a pale keel and wing that are dispersed along the flowering stalk when blooming. The pods are uniformly green, narrow, and drooping, with a pronounced furrow separating the pod into two locules. The leaves have sheathing but not truly connate stipules. Hopi milkvetch has uniformly light pink flowers that are clustered near the top of the flowering stalk when first blooming. The stalk elongates as the flowers wilt and go to fruit. The pods are highly mottled, inflated, and unilocular. The leaves have minimally connate stipules. (Utah Native Plant Society, 2003-2007; Roth, 2001; personal observation-) On the Navajo Nation, Cronquist's milkvetch flowers from late April to June and grows at elevations from 4750 to 5800 feet (Roth, 2001) It usually grows in open blackbrush-Bigelow's rabbitbrush communities (*Coleogyne*

Addendum A-1  
NNOG Ute Canyon Proposed Oil Wells

*ramosissima*–*Chrysothamnus nauseosus* var. *bigelovii*) on sandy clay loam soil, frequently in transition areas between clay loam and sandy loam soils, often near rock outcrops. It can be easily identified when in bud, flower, and fruit, and carefully identified when only vegetative or after its growing season of April through August. (Personal observation)

A reroute was identified by surveyor Gerald Huddleston on September 16, 2008, with the assistance of botanist Marian Rohman, archaeologist Larry Hammack of CASA, and Navajo Nation Oil and Gas geologist Stephen Hines. The northern end of the reroute leaves the existing access road near the known population of Cronquist's milkvetch. It follows an abandoned two-track road for almost all of its length. The start of the reroute is in potential habitat for Cronquist's milkvetch; however, this area was surveyed during the initial plant survey in May, 2008, and no plants were found on or near the two-track. The proposed reroute continues west of the initial access route, below the mesa top, and quickly enters an area that does not provide potential habitat for Cronquist's milkvetch. The soil is a sandy loam, occasionally transitioning to a loamy sand, and does not have the clay content matching the soil that the plant grows in on the mesa top. The approximate southern third of the proposed reroute crosses sandstone bedrock. The route occasionally passes near the base of low slopes to the east coming down from the mesa top; however, these slopes are again too sandy to support Cronquist's milkvetch.

## DISCUSSION

The proposed reroute of the access road to the Ute Canyon 23-Indigo and 23-P wells will not impact any Cronquist's milkvetch plants. The small area of potential habitat at the northern end of the proposed reroute was surveyed during the initial visit to the area in May, 2008. The current survey was performed after the species active growing season; however, there are no areas of potential habitat in the remainder of the proposed reroute.

A map of the proposed reroute is attached to Addendum A as Exhibit 1.

The realignment of the proposed access to Ute Canyon 23-P and 23-Indigo proposed wells pads provides for the greater protection of the Cronquist's milkvetch populations present in the vicinity of the Proposed Action. The total realigned proposed road length is 23,208 feet, with the realignment comprising 8,964 feet of the total.

Impacts from the realignment are expected to be comparable to those of the originally proposed access. Access to the sites will predominantly follow existing roads and two tracks. Upgrades and new construction of roads will be limited to those necessary for resource protection, safe access, and efficient operations, and will not exceed a crowned and ditched road with a 14 foot running surface (maximum disturbed width of 20 feet).

### Realignment Surface Disturbance Summary

<i>Surface Ownership</i>	<i>Well Pad 23-Indigo</i>			<i>Access Road*</i>			<i>Total Disturbance (Acres)</i>
	<i>Length (ft.)</i>	<i>Width (ft.)</i>	<i>Acres</i>	<i>Length (ft.)</i>	<i>Width (ft.)</i>	<i>Acres</i>	
Navajo Tribal Surface	270	205	1.27	--	--	--	1.27
<i>Surface Ownership</i>	<i>Well Pad 23-P</i>			<i>Access Road*</i>			<i>Total Disturbance (Acres)</i>
	<i>Length (ft.)</i>	<i>Width (ft.)</i>	<i>Acres</i>	<i>Length (ft.)</i>	<i>Width (ft.)</i>	<i>Acres</i>	
Navajo Tribal Surface	270	200	1.24	--	--	--	1.24
Realigned Roads*				23,208	20	10.66*	10.66
<b>Total Disturbance</b>	--	--	<b>2.51</b>			<b>10.66</b>	<b>13.17</b>

\*Includes existing and new roads as well as existing and new surface disturbance

The Realignment Alternative will increase new surface disturbance. Some of the additional surface disturbance will take place on slick rock. Ute Canyon is a relatively isolated and undisturbed area with few recent or historic impacts. Any surface disturbance that occurs on the slickrock should be considered permanent. Navajo Nation Oil and Gas will limit wherever possible blading or breaking the slickrock.

### REFERENCES

Navajo Nation Division of Natural Resources, Department of Fish and Wildlife. August 9, 2005. *Navajo Endangered Species Lists*. Resources Committee Resolution No. RCAU-103-05. [nnp.nhp.navajofishandwildlife.org/docs\\_reps/nsl\\_update08.pdf](http://nnp.nhp.navajofishandwildlife.org/docs_reps/nsl_update08.pdf). (updated December, 2007)

Roth, Daniela. 2001. Species account for *Astragalus cronquistii*. Navajo Natural Heritage Program. [nnp.nhp.navajofishandwildlife.org/p\\_sname.htm](http://nnp.nhp.navajofishandwildlife.org/p_sname.htm). (revised Feb. 15, 2005).

Utah Native Plant Society. 2003-2007. *Utah Rare Plant Guide*. Salt Lake City, Utah: Utah Rare Plant Guide Home Page. <http://www.utahrareplants.org>.

**Hydrogen Sulfide (H<sub>2</sub>S) Contingency Plan**

**For Navajo Nation Oil & Gas, Inc.**

**Ute Canyon 23-P and Ute Canyon 23-Indigo**

**1900' FSL & 598' FEL**

**791' FSL & 475' FEL**

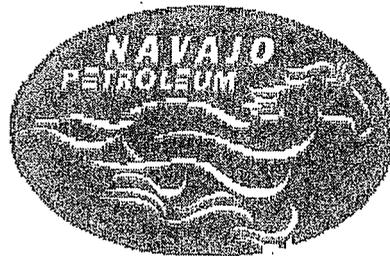
**Section 23, Township 41 South, Range 21 East**

**San Juan County, Utah**

**Navajo Nation Oil & Gas, Inc**

**Post Office Box 4439**

**Window Rock, Arizona 86515**



Prepared By: Permits West, Inc  
37 Verano Loop  
Santa Fe, NM 87508

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## Checklist for Drilling, Workover, and Maintenance in H<sub>2</sub>S Environment

1. Two safety briefing areas at least 100 yards from well head and arranged so that one area will briefing area will always be upwind at all times. These sites should be located uphill whenever possible. (see site plan Appendix 3.4)
2. Identify direction of prevailing winds (see site plan Appendix 3.4)
3. At least two wind socks installed at all times
4. Primary and secondary emergency escape routes (flagged trail minimum)
5. Number, types, and storage location of H<sub>2</sub>S emergency respirators for personnel, and number of personnel to be present onsite at any one time.
6. H<sub>2</sub>S detector locations (3 minimum to include cellar or bell nipple and mud tanks at shale shaker). Type and location of visual and audible alarms to be used.
7. H<sub>2</sub>S evacuation and emergency training procedures and schedule (i.e. Contingency Plan)
8. List of area residents with a two-mile radius, evacuation plan, and contact list (including agencies and individuals)
9. Types and quantities of mud additives and scavengers to be available at location for H<sub>2</sub>S operations
10. Design features and operational procedures to be used to provide safe working environment (including a certification by the operator on the APD that all equipment meets standards for H<sub>2</sub>S service
11. Appropriate warning signs and flags on all access roads
12. Provisions for blocking and monitoring access to location during critical incident
13. Ventilation fan under rig floor
14. In event of uncontrolled blowout, designation of local official has authority to ignite flow
15. Swabbing or drillstream fluids containing H<sub>2</sub>S should be put through a separator to permit flaring of gas. Flare should have a continuous pilot light to ensure ignition of all such gas.

## 1.0 General

### 1.1 Description of Hydrogen Sulfide Gas

Hydrogen Sulfide ( $H_2S$ ) is a colorless, transparent gas with a distinct and characteristic rotten-egg odor at low concentrations and not detectable by odor at high concentrations.  $H_2S$  at higher concentrations and/or over longer periods of exposure paralyzes the sense of smell for that specific smell. The gas is extremely toxic to humans and can easily become dangerous and lethal. Extreme care and caution is needed to prevent injury and/or death.  $H_2S$  has a specific gravity of 1.192 which is heavier than air. It therefore tends to accumulate in low places. This collection of gas can lead to dangerous concentrations in areas such as arroyos and drainages.  $H_2S$  from "downhole" is often warmer than surface air and will therefore tend to rise and therefore affect workers above the escaping source. Hydrogen Sulfide is explosive and water soluble.

### 1.2 Toxicity

American National Standards Institute standard: Z37.2-1972 Acceptable Concentrations of Hydrogen Sulfide describes  $H_2S$  toxicity in this way: Hydrogen Sulfide is an extremely toxic and irritating gas. Free hydrogen sulfide in the blood reduces its oxygen-carrying capacity, thereby depressing the nervous system. Hydrogen sulfide is oxidized quite rapidly to sulfates in the body, therefore no permanent aftereffects occur in cases of recovery from acute exposures unless oxygen deprivation of the nervous system is prolonged. There is no evidence that repeated exposures to hydrogen sulfide result in accumulative or systemic poisoning. Effects such as eye irritation, respiratory tract irritation, slow pulse rate, lassitude, digestive disturbances, and cold sweats may occur but these symptoms disappear in a relatively short time after removal from the exposure. Odors become detectable in concentrations as low as .008 parts per million (ppm) (California studies) but the sense of smell is lost after 2-15 minutes at 100 ppm.

### 1.3 H<sub>2</sub>S First Aid and Treatment Procedures

- Victim should be removed to fresh air immediately\*\*
- If victim is not breathing, rescue breathing or artificial breathing should be started immediately
- Treat for shock; keep victim warm and comfortable
- Call ambulance and/or doctor, take victim immediately to emergency room or other healthcare facility

**\*\*The rescuer(s) should always wear personal protective equipment when attempting to rescue a H<sub>2</sub>S victim. It is important to never increase the number of victims unnecessarily during a H<sub>2</sub>S emergency.**

## 2.0 Hydrogen Sulfide H<sub>2</sub>S Contingency Plan

### 2.1 Introduction

This plan provides required procedures to be followed to adequately provide for a safe H<sub>2</sub>S working environment. These required procedures include safety procedures, precautionary measures, and training for emergency and standard procedures. This document sets forth the responsibilities of the operator and all individuals and entities under employment or contract with the operator working in a sour gas (H<sub>2</sub>S) area.

To make this contingency plan effective and in order to provide a safe working environment, cooperation from all individuals in a necessity, to this end each person onsite must understand normal and emergency operating procedures for this site. Each individual onsite must have adequate information, training, and practice with the specific procedures described in this Contingency Plan. It is the responsibility of both the operator to provide adequate equipment, training, and procedures as well as the individual "worker's" responsibility to participate fully in all H<sub>2</sub>S procedures, to familiarize themselves with the location of all safety equipment and features, and to keep equipment and procedures in working order and up to date.

In order for Navajo Nation Oil & Gas, Inc. to provide a safe working environment for all "workers" and individuals in the vicinity of the well the safeguards are put in place. **Initiative rests with each and every individual for the safety of all. To this end the drilling foreman is required to and will enforce all safety procedures, for the benefit of all involved.**

### 2.2 Purpose

It is Navajo Nation Oil & Gas, Inc.'s intention to provide a safe working environment for all employees, contractors, and others involved with the drilling of its wells. There exists the possibility of encountering toxic H<sub>2</sub>S gas during the construction, completion, and maintenance of this well. To such end, this H<sub>2</sub>S contingency plan will be put into effect after surface casing is drilled or when it is deemed necessary by the BLM in consultation with Navajo Nation Oil & Gas, Inc.'s geologist and management.

Safety procedures are established for each person's safety connected with the operation and for the safety of the residents of the local area.

These procedures will be strictly enforced by Navajo Nation Oil & Gas, Inc.'s foreman. Non compliance may result in loss of pay or dismissal from the sight, job, or employment.

### 2.3 Operating Procedures

**Before this H<sub>2</sub>S contingency plan is operational, all personnel that is to be involved with operation shall be thoroughly trained\* in the proper use of breathing apparatus\*\* (i.e. SCBAs and Escape Units), emergency procedures, and H<sub>2</sub>S first aid and rescue methods. An approved list of trained personnel will be supplied by the safety company and stored with the drilling foreman.**

\*Required training for operation personnel will include, but not be limited to, H<sub>2</sub>S safety course from an approved training company, safety briefing on drill site of all safety equipment use and locations before the start of work for each and every person onsite, safety related training in-place, on-site 1,000 feet before the first H<sub>2</sub>S formation.

\*\*Throughout this contingency plan breathing apparatus shall be understood as

- a) A Self-Contained Breathing Apparatus (SCBA) manufactured such as Scott Industrial c100 or similar.
- b) Or an emergency Escape Unit such as the Scott SCRAM or Elsa (or similar) often referred to as hip packs, hoods, or pony bottles.

The two types of breathing apparatus will be differentiated as a SCBA or an Escape Unit as required.

#### 2.3.1 Safety Equipment

Personal H<sub>2</sub>S monitors- Every person onsite will be required to where a personal H<sub>2</sub>S monitor at all times, while onsite. Monitors will not be worn on hard hats, but should be worn on the waste belt or preferably near the chest in-front.

Breathing Apparatus- all personnel on the drill site will be assigned an individual breathing apparatus unit. This may be either a escape unit or a SCBA unit. A minimum of two SCBA type units will be onsite. These units will be used by the team whose duty it is to serve as the onsite rescue team.

Monitoring and Recording Devices-An experienced safety company (such as DXP Safety Alliance, Farmington, NM) will be responsible for the installation and monitoring of H<sub>2</sub>S detectors placed on site. These units will be tested and recalibrated as the safety company requires. If H<sub>2</sub>S is detected, the monitors will be tested and recalibrated at least every 12 hours. This monitoring system may or may not be integral to the required two stage alarm system on site. This two stage system (visual and audio) will have a minimum of three H<sub>2</sub>S detector locations. Monitors will be located one, in the cellar or on the bell nipple, two, at the mud tanks' shale shaker, and three, to be determined by the safety company. Visual (light) and audio (siren) will activate when H<sub>2</sub>S concentrations reach 10 ppm.

First-Aid and rescue equipment-Stored on-site, but ideally up-hill and up-wind from H<sub>2</sub>S sources a minimum of one "rescue pack" will contain at least:

- 1 backboard, straps, headblocks
- a set of cervical collars (s-xl)
- 1 bag valve mask
- 1 bottle of oxygen
- gauze and other standard first-aid items

suggested 1 AED (automatic external defibrillator).

Gas Monitor-An appropriate monitor should be on-site that can measure for LLE, VOC, and other explosive or hazardous gasses.

### 2.3.2 Safety Procedures

Cascade System- Every person required to perform duties within "safety zones" (see list below) will be provided with breathing equipment attached to a cascade air system. These areas are as follows

- rig floor
- mud pit
- derrick
- shale shaker
- mud hopper and bulk hopper
- all hazardous locations will be accessible by hose and work pack (SCBA)

Escape Routes- Two escape routes will be at a minimum flagged and kept clear at all times.

Safety Briefing Areas-Two safety briefing areas will be located at the end of escape routes (see above). The briefing areas will be clearly marked, up-hill, and located so that one site is always up wind. Please see attached site map for safety briefing areas in Appendix 3.4.

Safety, first-aid, and rescue equipment-will be stored properly onsite using best practices. This will include proper maintenance and scheduled testing, inspection, training/practice.

Service companies- All service companies will be required briefed regarding potential hazards of the well site including the presence (or potential for) H<sub>2</sub>S. These companies will be required to provide breathing apparatus and training to their employees. No service company personnel will be allowed onsite without meeting these requirements. In addition a safety briefing under the direction of the drill foreman regarding site specific H<sub>2</sub>S procedures will be provided to each new personnel member reporting on-site.

Drills and practice- Drills reviewing all and any safety procedures including evacuation, rescue, and proper procedures to shut-in a well, and identify source of H<sub>2</sub>S in instance of a leak will be practiced under the supervision of the safety company representative and company foreman. Proper use of breathing apparatus will be instructed during such drills. Drill schedule will be designed to familiarize new personnel with all safety procedures. Each crew should also be familiar with all operations. Drills should include a short work period in safety equipment.

Warning Signs- Warning signs will be posted at all access roads. "No smoking" signs will be posted at access points as well. Signs will be posted more than 200 feet and no more that 500 from well pad. When H<sub>2</sub>S is present at 10 ppm or greater a red flag shall be displayed on warning sign. Gates, road barricades, and or gate guards will be used if necessary to prevent access during critical or hazardous situations.

Wind Socks- A minimum of two wind socks should be installed at location easily observable from all work areas. If more than two windsocks are needed in order to allow "workers" at all times to easily identify the wind direction; more windsock will be installed.

Vehicle Parking- Vehicles should be parked 200ft from well site with there noses pointing away from the well site. Preferably vehicles will be located up hill and up wind from the well along the escape route.

Testing Fluids- Swabbing and testing fluids containing H<sub>2</sub>S will be pass through a separator to permit flaring of the gas. There will be a pilot light in such instances.

Bug Blowers- Circulation will be provided by explosion proof electric fans to all critical locations when necessary.

Drills reviewing all and any safety procedures including evacuation, rescue, and proper procedures to shut-in a well, and identify source of H<sub>2</sub>S in instance of a leak will be practiced under the supervision of the safety company representative and company foreman. Proper use of breathing apparatus will be instructed during such drills. Drill schedule will be designed to familiarize new personnel with all safety procedures. Each crew should also be familiar with all operations. Drills should include a short work period in safety equipment.

### 2.3.3 Working Conditions

Occupational Safety and Health Administration (OSHA) has set guidelines for Permissible Exposure Limits (PEL) This standard is to be considered the threshold **never to be exceeded** for the health and safety of all workers on this site. Ideally, exposure would never be this high.

#### 2.3.3.1 Exposure Limits

OSHA Permissible Exposure Limit (PEL) for General Industry: 29 CFR 1910.1000 Z-2 Table -- Exposures shall not exceed 20 ppm (ceiling) with the following exception: if no other measurable exposure occurs during the 8-hour work shift, exposures may exceed 20 ppm, but not more than 50 ppm (peak), for a single time period up to 10 minutes.

OSHA Permissible Exposure Limit (PEL) for Construction Industry: 29 CFR 1926.55 Appendix A -- 10 ppm, 15 mg/m<sup>3</sup> TWA (accessed via the internet at: [http://www.osha.gov/dts/chemicalsampling/data/CH\\_246800.html#exposure](http://www.osha.gov/dts/chemicalsampling/data/CH_246800.html#exposure) on 19 July 2007).

The maximum exposure limit for an 8 hour day is less than 10 ppm.

## 2.4 H<sub>2</sub>S Emergency Procedures

### 2.4.1 Incident

H<sub>2</sub>S alarm system activation. Light and siren warnings or personal H<sub>2</sub>S monitor activation for any one "worker."

### 2.4.2 Primary Emergency Procedure

- i. All rig crew personnel and all auxiliary personnel must **DON BREATHING APPARATUS IMMEDIATELY.**
- ii. Rig crew should mask up with SCBA type work packs preferentially
- iii. All auxiliary crew should move to safety briefing area, uphill and upwind.
- iv. All non-essential personal should continue to evacuate site.

### 2.4.3 Secondary Emergency Procedure

#### I. Supervisory Personnel

- i. Company Foreman
  - a. Proceed to cascade trailer and check for safe operation of cascade system
  - b. Proceed to active safety briefing areas and account for all personnel. If all personnel are not accounted for initiate appropriate search.
  - c. Return to drilling floor and supervise operations
- ii. Toolpusher
  - a. Proceed to cascade trailer and check if Company Foreman is operating cascade system safely. If NOT ensure safe operations of the cascade system.
  - b. Proceed to drilling floor and supervise operations. Make sure all crew members are accounted for and institute buddy system. If all personnel are not accounted for, initiate appropriate search.

#### II. Rig Crew

- i. Driller
  - a. if drilling

1. after donning breathing apparatus proceed to console and raise Kelly to slip set position
2. shut down mud pumps
3. monitor well flow, remain at console
4. using hand signals verify all personnel are at stations, verify company man and toolpusher's position, initiate search if well is not flowing

b. If tripping

1. after donning breathing apparatus put pipe in the slip-set position
2. stab safety valve, close safety valve
3. monitor well flow-remain at console
4. watch derrickman descend from derrick, verify all personnel locations, verify company man and toolpusher's position, initiate search if well is not flowing

c. if well is flowing

1. after donning breathing apparatus, shut well in HARD
2. verify all personnel locations, verify company man and toolpusher's position, initiate search if necessary
3. obtain necessary pressures for well control
4. Proceed to safety briefing area with crew, plan well control operations with all personnel

ii. Derrickman

- a. after donning breathing apparatus, go to pit side window on the floor whether drilling or tripping (descend derrick)
- b. maintain visual contact with driller and monitor flow
- c. if mud properties are needed, then proceed to the shaker with "buddy"
- d. monitor other hands on pit side of rig visually
- e. proceed to open manual well-head if necessary (with "buddy")

iii. Motorman

- a. after donning breathing apparatus, go to the cascade system and ensure safe operation
- b. maintain visual contact with chain hand on doghouse side of floor

iv. Chainhand

- a. after donning breathing apparatus, stab safety valve if tripping
- b. go to doghouse/pipe-rack and maintain visual contact with driller and motorman

v. Floorman

- a. after donning breathing apparatus, stab safety valve if tripping
- b. aid driller while maintaining visual contact with driller, derrickman, and chainhand

III. Auxiliary Personnel

- i. Mud engineer and Company man or geologist are to act as wardens. Wardens must account for all other auxiliary crew.
- ii. All auxiliary crew are to remain in safety briefing area unless evacuated by wardens.
- iii. Wardens organize search with notification from company. All searches are to be done with "buddy". Geologist warden should remain in safety briefing area.

2.4.4 Igniting the Well

I. Decision

- i. The Company Foreman holds the responsibility for the decision to ignite a well. In the case where he is incapacitated or absent authority passes to the toolpusher and then the contract driller
- ii. the decision to ignite the well is only to be made as a last resort safety measure when
  - a. there is threat human life and grave threat to

b. there is no alternative way of containing the well given the emergency faced.

c. an attempt was made to contact area office (circumstances permitting)\*

**\*when human life is threatened no delay in decision making can be afforded**

#### I. Instructions for Igniting the Well

- i. Two men are required for ignition
- ii. Both men will wear SCBAs and have 200 foot retrieval cords tied to there wastes
- iii. One man will measure the atmosphere for explosive gasses with appropriate meter.
- iv. The other will remain in the safety briefing area
- v. Others in the briefing area are to remain aware of both men and aid as able. If either tethered man is overcome by gas, he should be pulled to safety.
- vi. The well should be lit with a 25 mm meterotype flare gun when well conditions allow. The safest method of igniting the well should always be used.
- vii. Burning H<sub>2</sub>S will produce sulfur dioxide which is poisonous. The area, therefore is not safe once the well has ignited. Continue to observe all emergency procedures and follow orders from supervisors and the area office. Notice of incident should be reported to all appropriate authorities.

### 3.0 Appendices

#### 3.1 Check List for Safety Equipment (designed for a maximum of 11 people)

- Safety Trailer housing cascade system at least ten 300 cu. ft. bottles of compressed air
- 7 SCBA type breathing apparatus with 45 cu. ft. bottles
- 5 breathing masks connected to the cascade system with 7 cu. ft. pony bottles
- 2 extra 300 cu. ft. bottles able to refill SCBA bottles to be placed at the safety briefing areas
- 2 Wind socks
- 1 Flare gun and flares
- 1 rescue pack (as described in section 2.3.1)
- Warning signs for access (flags for marking conditions)
- "Safety Briefing Area" signs, evacuation route flags
- H<sub>2</sub>S monitors (personnel and stationary)
- Alarm system (audio and visual—explosion proof)
- Gas Monitor

### 3.2 Emergency Phone Numbers

#### Navajo Nation Oil & Gas Company Personnel to be Notified

Wilson Groen	President	Office: (928) 871-4880 Cellular: (505) 879-6483 Direct (928) 871-8501
Rich Ferris	Cell: 303-618-2925	Home: 303-693-9207
Sam Butler	Cell: 303-888-8920	Home: 303-329-9418
Sallie Tippie	Cell: 303-884-8875	Home: 303-331-8695

#### Safety Company Personnel

(Name)	(Position)	(Number work) (Number home)
(Name)	(Position)	(Number work) (Number home)

#### Local Agencies

San Juan County Fire Department	(Monticello)	911 (435) 587-3225
San Juan County Sheriff	(Monticello)	911 (435) 587-2237
San Juan County Emergency Management	(Monticello)	(435)-587-3225
Blanding Medical Center 804 North 400 West, Blanding, UT		(435) 678-2254
San Juan Hospital 364 West 100 North, Monticello, UT		(435) 587-2116
Navajo Nation Police (Montezuma Creek)		(505) 368-1350
(Monument Valley)		(505) 325-0022

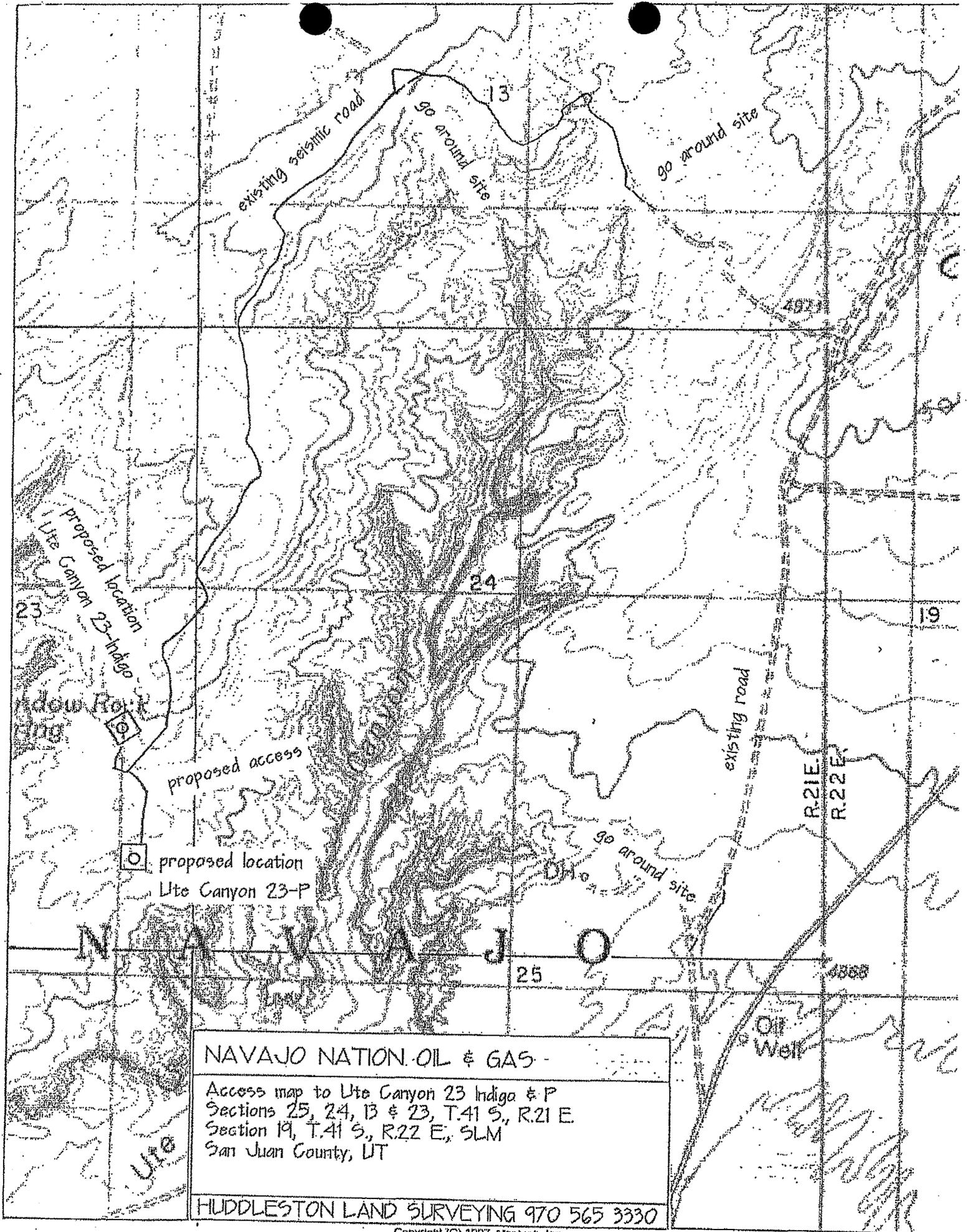
#### Other Government Agencies

National Response Center		800-424-8802
BLM	Monticello Field Office	(435) 587-1500
	Jeff Brown	(435) 587-1525

	Mobile	(435) 459-4886
	Field Manager	(435) 587-1505
BLM	Farmington Field Office	(505) 599-8900
	Emergency line	(505) 599-8907
	Jim Lovato	(505) 599-6367
BIA, Window Rock	Bertha Spencer	(928) 871-5938
Utah Division of Oil, Gas and Mining (SLC)		
	During Office Hours	(801) 538-5340
	After Hours	(801) 243-9466
Utah State Emergency Response Commission		(801) 536-4123
Utah Highway Patrol (Monticello)		(435) 587-2000
Mexican Water Chapter House		(928) 674-3641
Red Mea Chapter House		(928) 656-3655
Utah Health Department (Price)		(435) 637-3671
US EPA Region 8 (Denver)		(800) 227-8917
Navajo Nation Minerals Dept. (Window Rock, AZ)		(928) 871-6587
Veterinarian	Angel Peak Vet. Hospital (Farmington)	(505) 632-3561
Veterinarian	Farmington Veterinary Clinic	(505) 325-7462
Veterinarian	Watkins, Clyde H. DVM	(435) 678-2414
Helicopter	New Air Helicopters (Durango)	(970) 259-6247
Helicopter	Heli NM (Albuquerque)	(866) 995 1058
Blanding Air Ambulance		(800) 742-8787
Classic Aviation		(800)-444-9220 ext 5

### 3.3 Emergency Phone Numbers Local Residents within 2 miles

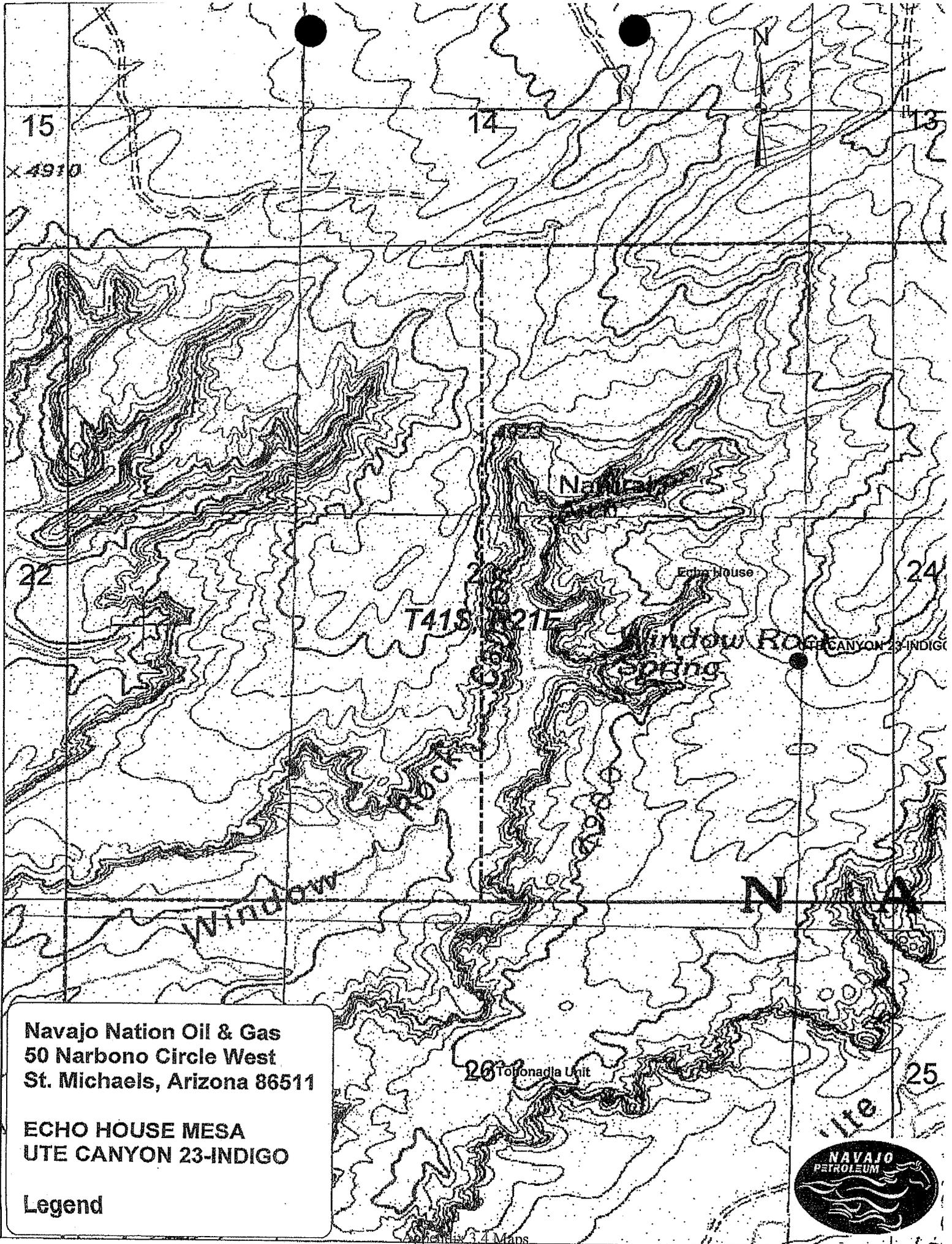
No residences are located within two miles of the proposed location.



NAVAJO NATION OIL & GAS

Access map to Ute Canyon 23 Indigo & P  
 Sections 25, 24, 13 & 23, T.41 S., R.21 E.  
 Section 19, T.41 S., R.22 E., SLM  
 San Juan County, UT

HUDDLESTON LAND SURVEYING 970 565 3330



15  
X 4910

14

13

22

T41S 21E

24

Echo House

Window Rock  
Spring  
UTE CANYON 23-INDIGO

Window

N

Navajo Nation Oil & Gas  
50 Narbano Circle West  
St. Michaels, Arizona 86511

ECHO HOUSE MESA  
UTE CANYON 23-INDIGO

Legend

26 Tollonagla Unit

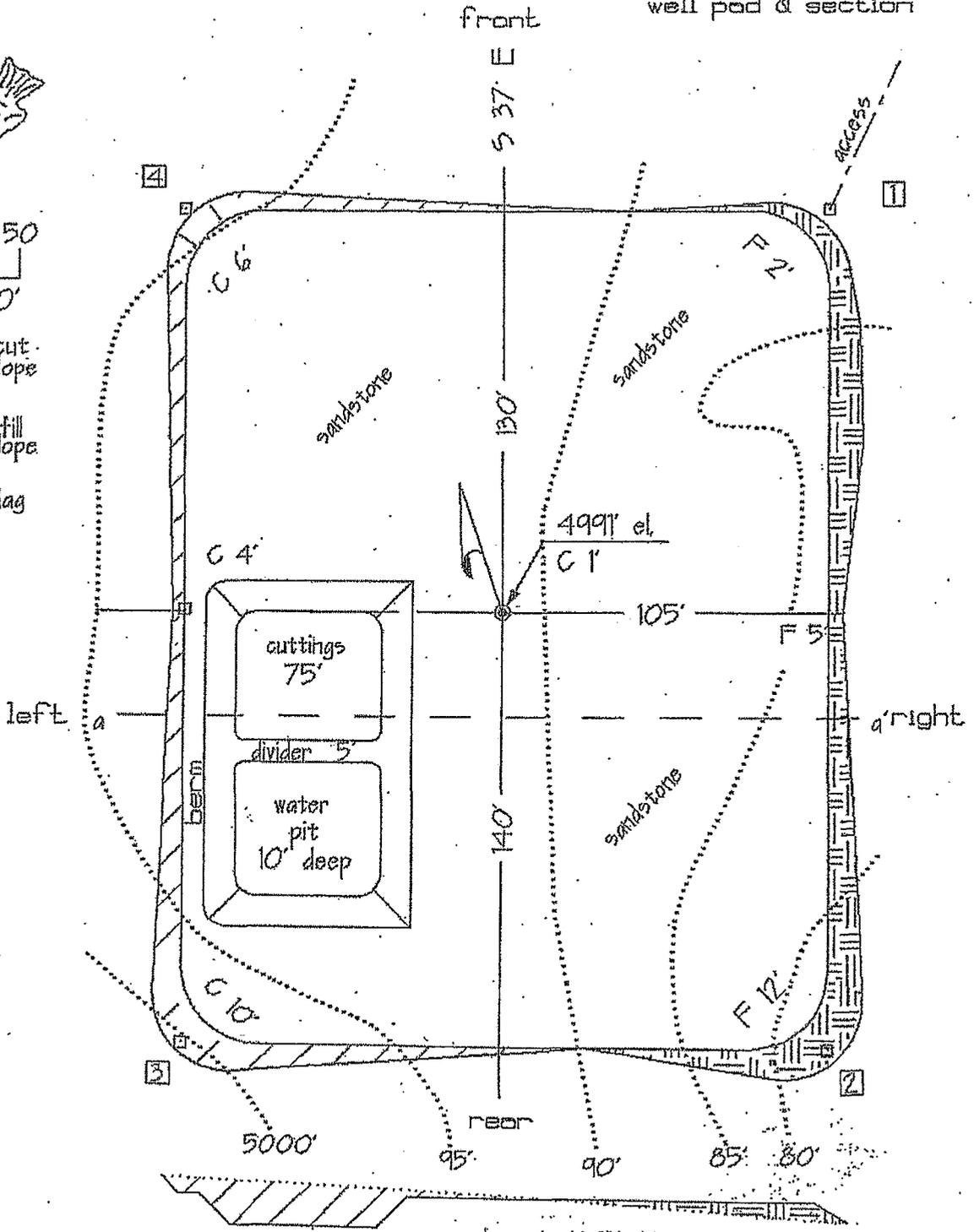
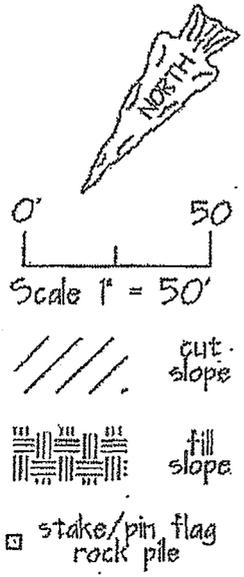
25



SAFETY BRIEFING AREA  
≥100 YARDS FROM PAD

SAFETY BRIEFING AREA  
≥100 YARDS FROM PAD

Ute Canyon 23 Indigo  
well pad & section





# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Farmington Field Office  
1235 La Plata Highway, Suite A  
Farmington, New Mexico 87401

IN REPLY REFER TO:  
3162.3-1(07100)

Navajo Nation Oil & Gas Co., Inc.  
#23 Ute Canyon Indigo  
NO-G-0402-1709  
NE1/4SE1/4 Sec. 23, T. 41 S., R. 21 E.  
San Juan County, Utah

### Above Data Required on Well Sign

## GENERAL REQUIREMENTS FOR OIL AND GAS OPERATIONS ON FEDERAL AND INDIAN LEASES

In addition to those requirements set forth in the laws, regulations and Onshore Orders, these requirements apply generally to all oil and gas operations on Federal and Indian leases. They apply specifically to the above described well. Special requirements that apply and are effective for this well, if any, are check-marked in Section VII of these General Requirements. The failure of the operator to comply with these requirements and the filing of required reports will result in strict enforcement of 43 CFR 3163.1 or 3163.2.

### I. GENERAL

- A. Full compliance with all applicable laws, regulations, and Onshore Orders, with the approved Permit to Drill, and with the approved Surface Use and Operations Plan is required. Lessees and/or operators are fully accountable for the actions of their contractors and subcontractors.
- B. Each well shall have a well sign in legible condition from spud date to final abandonment. The sign should show the operator's name, lease serial number, or unit name, well number, location of the well, and whether lease is Tribal or Allotted, (See 43 CFR 3162.6(b)).
- C. A complete copy of the approved Application for Permit to Drill, along with any conditions of approval, shall be available to authorized personnel at the drill site whenever active drilling operations are under way.
- D. For Wildcat wells only, a drilling operations progress report is to be submitted, to the BLM-Field Office, weekly from the spud date until the well is completed and the Well Completion Report (Form 3160-4) is filed. The report should be on 8 1/2 x 11 inch paper, and each page should identify the well by; operator's name, well number, location and lease number.
- E. As soon as practical, notice is required of all blowouts, fires and accidents involving life-threatening injuries or loss of life. (See NTL-3A).

- F. Prior approval by the BLM-Authorized Office (Drilling and Production Section) is required for variance from the approved drilling program and before commencing plugging operations, plug back work casing repair work, corrective cementing operations, or suspending drilling operations indefinitely. Emergency approval may be obtained orally, but such approval is contingent upon filing of a notice of intent (on a Sundry Notice, Form 3160-5) within three business days (original and three copies of Federal leases and an original and four copies on Indian leases). **Any changes to the approved plan or any questions regarding drilling operations should be directed to BLM during regular business hours at 505-599-8900. Emergency program changes after hours should be directed to Jim Lovato at 505-334-1266, Steve Mason at 505-326-0253, Troy Salyers at 505-360-9815, or Wayne Townsend at 505-327-2186.**
- G. The Field Office Manager, Inspection and Enforcement Section, phone number (505-599-8907) is to be notified at least 24 hours in advance of any spudding, cementing, or plugging operations so that a BLM representative may witness the operations.
- H. Unless drilling operations are commenced within two years, approval of the Application for Permit to Drill well expire. A written request for a two years extension may be granted if submitted prior to expiration.
- I. From the time drilling operations are initiated and until drilling operations are completed, a member of the drilling crew or the tool pusher shall maintain rig surveillance at all time, unless the well is secured with blowout preventers or cement plugs.
- J. If for any reason, drilling operations are suspended for more than 90 days, a written notice must be provided to this office outlining your plans for this well.

## **II. REPORTING REQUIREMENTS**

- A. For reporting purposes, all leases, communitization agreements or unit agreements are to be referenced by the numbers and prefixes affixed to the respective contract documents by the issuing agency at the time of issue.
- B. The following reports shall be filed with the BLM-Authorized Officer within 30 days after the work is completed.
1. Original and three copies on Federal and Original and four copies on Indian leases of Sundry Notice (Form 3160-5), giving complete information concerning.
    - a. Setting of each string of casing. Show size and depth of hole, grade and weight of casing, depth set, depth of any and all cementing tools that are used, amount (in cubic feet) and types of cement used, whether cement circulated to surface and all cement tops in the casing annulus, casing test method and results, and the date work was done. Show spud date on first report submitted.
    - b. Intervals tested, perforated (include; size, number and location of perforations), acidized, or fractured; and results obtained. Show date work was done (a Sundry Notice is not required if a Completion Report is submitted within 30 days of the operation).

- c. Subsequent Report of Abandonment, showing the manner in which the well was plugged, including depths where casing was cut and pulled, intervals (by depths) where cement plugs were replaced, and dates of the operations.
2. Well Completion Report (Form 3160-4) will be submitted with 30 days after well has been completed.
    - a. Initial Bottom Hole Pressure (BHP) for the producing formations. Show the BHP on the completion report. The pressure may be: 1) measured with a bottom hole bomb, or; 2) calculated based on shut in surface pressures (minimum seven day buildup) and fluid level shot.
  3. Submit a cement evaluation log, if cement is not circulated to surface.

### **III. DRILLER'S LOG**

The following shall be entered in the daily driller's log: 1) Blowout preventer pressures tests, including test pressures and results. 2) Blowout preventer tests for proper functioning, 3) Blowout prevention drills conducted, 4) Casing run, including size, grade, weight, and depth set, 5) How pipe was cemented, including amount of cement, type, whether cement circulated to surface, location of cementing tools, etc., 6) Waiting on cement time for each casing string, 7) Casing pressure tests after cementing, including test pressure and results and 8) Estimated amounts of oil and gas recovered and/or produced during drill stem test.

### **IV. GAS FLARING**

Gas produced from this well may not be vented or flared beyond an initial, authorized test period of    \* Days or 50 MMCF following its (completion)(recompletion), whichever first occurs, without the prior, written approval of the authorized officer. Should gas be vented or flared without approval beyond the test period authorized above, you may be directed to shut-in the well until the gas can be captured or approval to continue venting or flaring as uneconomic is granted, and you shall be required to compensate the lessor for the portion of the gas vented or flared without approval which is determined to have been avoidably lost.

\*30 days, unless a longer test period specifically is approved by the authorized officer. The 30-day period begins when the casing is first perforated for cased holes, and when Total Depth (TD) is reached for open hole completion.

### **V. SAFETY**

- A. All rig heating stoves are to be of the explosion-proof type.
- B. Rig safety lines are to be installed.
- C. Hard hats must be utilized.

## VI. CHANGE OF PLANS OR ABANDONMENT

- A. Any changes of plans required in order to mitigate unanticipated conditions encountered during drilling operations, will require approval as set forth in Section 1.F.
- B. If the well is dry it is to be plugged in accord with 43 CFR 3162.3-4, approval of the proposed plugging program is required as set forth in Section 1.F. The report should show the total depth reached, the reason for plugging, and the proposed intervals, by depths, where cement plugs are to be placed, type of plugging mud, etc. A Subsequent Report of Abandonment is required as set forth in Section 11.B.1c.
- C. Unless a well has been properly cased and cemented, or properly plugged, the drilling rig must not be moved from the drill site without prior approval from the BLM-Authorized Officer.

## VII. SPECIAL STIPLATIONS

The following special requirements apply and are effective when checked:

- A.  Communitization Agreement covering the acreage dedicated to the well must be filed for approval with the Bureau of Land Management, Farmington Field Office, Branch of Reservoir Management, 1235 La Plata Highway, Suite A, Farmington, New Mexico 87401. The effective date of the agreement must be Prior to any sales.
- B.  The BLM-Authorized Officer requires testing all components of well control systems at the pressure requirements set forth in Onshore Oil and Gas Order No. 2, Section III. A. 1., plus a 30% safety factor, and does not elect to utilize the discretionary authority for requiring the testing of selected components at the A. P. L. working pressures.
- C.  Note Attachments
- D.  The required wait on cement (WOC) time will be a minimum of 250 psi compressive strength at 60 degrees. Blowout preventor (BOP) nipple-up operations may then be initiated.

## VIII. PHONE NUMBERS

- A. For BOPE tests, cementing, and plugging operations the phone number is 505-599-8907 and must be called 24 hours in advance in order that a BLM representative may witness the operations.
- B. Emergency program changes after hours contact:

**Jim Lovato at (505) 334-1266,  
Steve Mason at (505) 326-0253,  
Troy Salyers at (505) 360-9815 or  
Wayne Townsend at (505) 327-2186**

## Conditions of Approval

Ute Canyon 23 Indigo

Operator: Navajo Nation Oil & Gas Co., Inc.

Well Name: [REDACTED]

Legal Location: [REDACTED]

EA Log Number: [REDACTED]

Inspection Date: [REDACTED]

Lease Number: NOG 0402 [REDACTED]

1709

The following conditions of approval will apply to this well unless a particular Surface Managing Agency or private surface owner has supplied to Bureau of Land Management and the operator a contradictory environmental stipulation. The failure of the operator to comply with these requirements may result in the assessment of liquidated damages or penalties pursuant to 43 CFR 3163.1 or 3163.2. A copy of these conditions of approval shall be present on the location during construction, drilling and reclamation activity.

An agreement between the operator and fee land owner will take precedence over BLM surface stipulations unless (In reference to 43 CFR Part 3160) 1) BLM determines that the operator's actions will affect adjacent Federal or Indian surface, or 2) the operator does not maintain well area and lease premises in a workmanlike manner with due regard for safety, conservation and appearance, or 3) no such agreement exists, or 4) in the event of well abandonment, minimal Federal restoration requirements will be required.

### Conditions of Approval

These conditions of approval stipulations apply to the Navajo Nation Oil & Gas Co., Inc. [REDACTED] [REDACTED], access road and pipeline and other associated facilities. Failure of the operator to comply may result in the assessment of liquidated damages or penalties pursuant to 43 CFR 3163.1 or 3163.2.

### Special Stipulations

A copy of these stipulations, including exhibits and the Plan(s) of Operation (if required), shall be at the project area and available to persons directing equipment operation.

1. **Drainage:** Diversion ditch (es) will be determined and constructed upon final reclamation..
2. **Culverts:** Culvert(s) of sufficient size (minimum 18 inches) will be placed as needed along the access route and at the access take off, well pad entrance and
3. **Cut and Fill Slopes:** The final cut slope shall not exceed a 3:1 ratio grading to as close to the original contour as possible. The final fill slope shall not exceed a 3:1 ratio grading to as near the original contour as possible. To obtain this ratio, pits and slopes shall be back sloped into the pad upon completion of drilling. Construction slopes can be much steeper during drilling, but will be re-contoured to the above ratio during reclamation.
4. **Pits:** Pits will be stepped down into at least 50% cut material. Pits will be lined with an impervious material at least 8 mils thick. Mud and blow pits will be constructed so as not to leak, break or allow discharge of liquids or produced solids. At least half of the capacity of the reserve pit must be in cut. The top of the outside wall of reserve pit should be smoothed-off with a minimum of one blade width. The pit should have adequate capacity to maintain 2 feet of free board. Pits are not to be located in natural drainages. Pit walls are to be "walked down" by a crawler type tractor following construction and prior to usage.

### General Conditions of Approval

The following general stipulations apply to the [REDACTED] well including, but not restricted to the well pad, access road, pipeline and cathodic protection line. Site specific stipulations for the access road and pipeline are presented after these general project stipulations.

1. **Authorized Use:** Activities associated within the construction, use/operation, maintenance, and abandonment or termination of the [REDACTED] limited to areas approved in the APD. All roads on public land must be maintained in good passable condition year round.
2. **Paleontology Specially Designated Area:** Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the Holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. AN evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The Holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the Holder.
3. **Storage Facilities Berms:** Berms or firewalls will be constructed around all storage facilities sufficient in size to contain the storage capacity of tanks, or the combined capacity of tanks if a rupture could drain more than one tank. Berm walls will be compacted with appropriate equipment to assure proper construction.
4. **Unguarded Pit Fencing:** All unguarded pits (reserve/production/blow pits) containing liquids will be fenced with woven wire. Drilling pits will be fenced on three sides and once the rig leaves location, the fourth side will be fenced. All fencing must be a legal fence in accordance with New Mexico State Law.
5. **Pit Closure and Reclamation:** The operator or his contractor will contact the Bureau of Land Management, Farmington Field Office, Environmental Protection Staff, (505) 599-8900, 48 hours prior to any reclamation efforts associated with this project.
  - a. Reserve pits will be closed and rehabilitated 90 days after completion or 120 days from the well spud date. All reserve pits remaining open after the 90 days will need written authorization of the Authorized Officer from the Farmington Field Office. This requirement is addressed in the General Requirements in Onshore Order #7.
  - b. Liquids in pits will be allowed to evaporate, or be properly disposed of, before pits are filled and re-contoured. The AO will be notified 24 hours prior to fluid hauling. Under no circumstances will pits be cut and drained. Aeration of pit fluids must be confined within pit area. Upon completion of the well the reserve pit will be covered with screening or netting and remained covered until the pit is reclaimed.
  - c. Prior to closing the pit, any plastic material used to line the pits will be removed to mud level before the pits are covered. The excess liner will be hauled to a licensed disposal area. The final grade of reserve pit (after reclamation) shall allow for drainage away from pit area.
6. **Hazardous Waste:** All fluids (i.e. scrubber cleaners) used during washing of production equipment, including compressors, will be properly disposed of to avoid ground contamination or hazard to livestock or wildlife.
  - a. Compressor units not equipped with a drip pan for containment of fluids shall be lined with an impervious material at least 8 mils thick and surrounded by a 12 inch berm.
  - b. All open top permanent production or storage tanks regardless of diameter made of fiberglass, steel, or other material used for the containment of oil, condensate, produced water and or other production waste shall be screened, netted or otherwise covered to protect migratory birds and other wildlife from access.
7. **Storage Facility Berms:** Berms or firewalls will be constructed around all storage facilities sufficient in size to contain the storage capacity of tanks, or the combined capacity of tanks if a rupture could drain more than one tank. Berm walls will be compacted with appropriate equipment to assure proper construction.

8. **Visual Resource Management:** [REDACTED] is not located in a VRM Class I or II and therefore will not require additional mitigation.
9. **Noise:** [REDACTED] is not within a special noise designated area.
10. **Air Quality:** This permit is contingent on compliance with the New Mexico Environmental Department, Air Quality Bureau's directive that compressor engines 300 horsepower or less have NOx emissions limited to 2 grams per horsepower hour.
11. **Equipment Placement:** Production equipment [including any facilities associated with pipeline construction] shall be placed on location as not to interfere with reclaiming the cut and fill slopes to their proper ratio. If equipment is found to interfere with the proper reclamation of the slope, the company will be required to move the equipment so proper re-contouring can occur.
12. **Threatened, Endangered or Sensitive Species:** If, in operations the operator/holder discovers any T&E / Sensitive species, then work in the vicinity of the discovery will be suspended and the discovery promptly reported to the BLM T&E specialist @ (505) 599-8900. BLM will then specify what action is to be taken. Failure to notify the BLM about a discovery may result in civil or criminal penalties in accordance with the Endangered Species Act (as amended).
13. **Noxious weeds:** The holder is responsible for weed control and selective control of invasive weeds on areas proposed to be disturbed, areas disturbed during construction or other activities, and reclaimed areas within the limits of the well pad, access road, pipeline right-of-way and other related facilities. Noxious weeds are those listed on the New Mexico Noxious Weed List. The following noxious weeds have been identified as occurring on lands within the boundaries of the Farmington Field Office (FFO).

Knapweed (*Centaurea repens*), Musk Thistle (*Carduus nutans*), Bull Thistle (*Cirsium vulgare*), Canada Thistle (*Cirsium arvense*), Scotch Thistle (*Onopordum acanthium*), Hoary Cress (*Cardaria draba*), Perennial Pepperweed (*Lepidium latifolium*), Halogeton (*Halogeton glomeratus*), Russian Spotted Knapweed (*Centaurea maculosa*), Dalmation Toadflax (*Linaria genistifolia*), Yellow Toadflax (*Linaria vulgaris*), Camelthorn (*Alhagi pseudalhagi*), African Rue (*Peganum harmala*), Saltcedar (*Tamarix spp.*), Diffuse Knapweed (*Centaurea diffusa*) and Leafy Spurge (*Euphorbia esula*)

  - a. Areas within the proposed project will be inventoried for the presence of noxious weeds. Identified weeds will be treated prior to new surface disturbance.
  - b. Construction equipment will be inspected and cleaned prior to coming onto the work site to remove noxious weed plants and seeds. This is especially important on vehicles from out of state or if coming from a weed infested area. If fill dirt or gravel will be required, the source shall to be noxious weed free.
  - c. The well pad, access road, pipeline and related facilities will be monitored for the life of the project for the presence of noxious weeds (includes maintenance and construction activities). If weeds are found, the FFO Weed Coordinator will be notified at (505) 599-8900 and the coordinator will determine the best method for the control of the particular weed species.
14. **Pesticides and Herbicide Use:** Use of pesticides and herbicides will comply with applicable federal/state laws. Pesticides and herbicides will only be used in accordance with their registered uses and within limitations imposed by the Secretary of the Interior. A written plan showing the type and quantity of material to be used, pest(s) to be controlled, method of application, location of storage and disposal of containers, and any other information deemed necessary will be approved by the Authorized Officer(AO) prior to the use of pesticides. Emergency use of pesticides shall be approved in writing by the AO prior to use.
15. **Top Soil:** The top 6 inches of soil material will be stripped and stockpiled in the construction zones approved in the APD [construction zones may be restricted or deleted to provide resource avoidance]. The stockpiled soil will be free of brush and tree limbs, trunks and roots. The

stockpiled soil material will be spread on the reclaimed portion of the pad [including the reserve pit, cut and fill slopes] prior to re-seeding. Spreading shall not be done when the ground or topsoil is frozen or wet.

16. **Storage Facilities Berms:** Berms or firewalls will be constructed around all storage facilities sufficient in size to contain the storage capacity of tanks, or the combined capacity of tanks if a rupture could drain more than one tank. Berm walls will be compacted with appropriate equipment to assure proper construction.
17. **Unguarded Pit Fencing:** All unguarded pits (reserve/production/blow pits) containing liquids will be fenced with woven wire. Drilling pits will be fenced on three sides and once the rig leaves location, the fourth side will be fenced. All fencing must be a legal fence in accordance with New Mexico State Law.
18. **Seeding:** All disturbed areas, except for the access road driving surface and shoulders and well pad inside of the anchors, will be seeded.

Farmington Field Office Seed Mixture			
Common Name	Variety	% for Mix	PLS Lbs/Acre
Western Wheatgrass	Arriba	23%	3.0
Indian ricegrass	Paloma or Rimrock	23%	3.0
Slender Wheatgrass	San Luis	15%	2.0
Crested Wheatgrass	Hy-Crest	22%	3.0
Bottlebrush Squirreltail		15%	2.0
Four-wing saltbrush		2%	0.25

Species shall be planted in pounds of pure live seed per acre: Present Pure Live Seed (PLS) = Purity X Germination/100. Two lots of seed can be compared on the basis of PLS as follows:

Source No. One (poor quality)		Source No. two (better quality)	
Purity	50 percent	Purity	80 percent
Germination	40 percent	Germination	63 percent
Percent PLS	20 percent	Percent PLS	50 percent
5 lb. bulk seed required to make		2 lb. bulk seed required to make	
1 lb. PLS		1 lb. PLS	

Seed mixtures used must be certified. There will be no primary or secondary noxious weeds in seed mixture. Seed labels from each bag will be available for inspection while seed is being sown.

19. **Time Frame:** Disturbed areas will be re-contoured and re-seeded within 120 days of final construction. The timeframe may be extended on a case-by-case basis with AO approval. Seeding will be repeated if a satisfactory stand is not obtained as determined by the AO upon evaluation after the second growing season.
20. **Seeding Techniques:** Before seeding compacted areas will be ripped to a depth of 12" and disked to a depth of six inches. A disk-type drill with two boxes for various seed sizes will be used. The drill rows will be eight to ten inches apart and seed planted one-half inch to one inch deep. A drag, packer or roller will follow the seeder to ensure uniform seed coverage and adequate compaction. Drilling will be done on the contour where possible, not up and down the slope. Where the slope is too steep for contour drilling a "cyclone" hand seeder or similar broadcast seeder will be used. Seed will be covered to the depth described above by whatever means is practical, i.e. hand raked. If the seed is not covered, the prescribed seed mixture amount (pounds/acre/PLS) will be doubled.
21. **Public Access:** Public access will not be restricted without specific written approval being granted by the AO. Gates or cattle-guards on the public land will not be locked or closed to public use unless specifically determined by the AO.

22. **Land Farming:** No excavation, remediation or closure activities will be authorized without prior approval on any federal or Indian mineral estate, federal surface or federal ROW. A Sundry Notice (DOI, BLM Form 3160-5) must be submitted with an explanation of the remediation or closure plan for on-lease actions.
23. **Noise:** The project is not within a special noise designated area.
24. **Reclamation:** The operator or their contractor will contact the Bureau of Land Management, Farmington Field Office, Environmental Protection Staff, (505) 599-8900, 48 hours prior to any reclamation efforts associated with this project.
25. **Site Condition:** Well area and lease premises will be maintained in a workmanlike manner and sanitary condition with due regard to safety, conservation and appearance at all times. A regular maintenance program shall include.
26. **Clean Air Standards:** The holder shall not violate applicable air and water quality standards or related facility citing standards established by or pursuant to applicable Federal and State law.
27. **Waste Disposal:** Waste materials produced during all phases of operation will be disposed of promptly in an approved manner so it will not impact the air, soil, water, vegetation or animals. "Waste" means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, oil drums, petroleum products, ashes and equipment. All liquid waste, completion fluids and drilling products associated with oil and gas operations will be contained and then buried in place, or removed and deposited in an approved disposal site. Portable toilets will remain on site throughout well pad construction, drilling and reclamation.
28. **Weather:** No construction or routine maintenance activities shall be performed during periods when the soil is too wet to adequately support construction equipment. If such equipment creates ruts in excess of 6 inches deep, the soil shall be deemed too wet.
29. **Equipment Placement:** Production equipment [including any facilities associated with pipeline construction] shall be placed on location as not to interfere with reclaiming the cut and fill slopes to their proper ratio. If equipment is found to interfere with the proper reclamation of the slope, the company will be required to move the equipment so proper re-contouring can occur.
30. **Painting:** All above ground structures/facilities not subject to safety requirements will be painted Munsell Soil Color 2.5Y 6/2 (Carlsbad Canyon) to blend with the natural color of the landscape. The paint will be non-glare, non-reflective and non-chalk color. A reflective material may be used to reduce hazards that may occur when structures/facilities are near roads or other vehicle use areas.
31. **Fences and Existing Improvements:** Disturbance to existing fences and other improvements on public land will be minimized and will be promptly repair to at least their former state. Their functional use will be maintained at all times. The owner of any improvement will be contacted prior to disturbing them
  - a. Each fence crossed by will be H-braced and secured on both sides to prevent slacking of the wire, before cutting the wire. The opening thus created will be temporarily closed as necessary during construction to prevent passage of livestock. Upon completion of construction, install a cattle guard with an adjacent 16 foot gate. The cattle guard shall be constructed to Bureau of Land Management specifications. Cattle guards will be kept clean and repaired or replaced when needed.
  - b. A minimum of 10 feet of undisturbed surface will be maintained between fence lines and roads that are constructed parallel to fences.
  - c. Gaps opened in natural barriers used for livestock control during construction will be fenced to prevent drift of livestock, as directed by the AO.
32. **Mineral Materials:** No gravel or other related minerals from new or existing pits on federal land

will be used in construction of roads, well sites, etc., without prior AO approval.

### Cultural Resources

Construction, construction maintenance or any other activity outside the areas permitted by the APD will require additional approval and may require a new cultural survey and clearance.

1. **Employee Education:** All employees of the project will be informed cultural sites are to be avoided by all personnel, personal vehicles and company equipment. They will also be notified it is illegal to collect, damage or disturb cultural resources.
2. **Discovery of Cultural Resources in the Absence of Monitoring:** If, in its operations, operator/holder discovers any previously unidentified historic or prehistoric cultural resources, then work in the vicinity of the discovery will be suspended and the discovery promptly reported to Bureau of Land Management Field Manager. The Bureau of Land Management will then specify what action is to be taken. If there is an approved "discovery plan" in place for the project, then the plan will be executed. In the absence of an approved plan, the Bureau Land Management will evaluate the significance of discovery and consult with the State Historic Preservation Officer in accordance with 36 CFR Section 800.11. Minor recordation, stabilization, or data recovery may be performed by a Bureau of Land Management or permitted cultural resources consultant. If warranted, more extensive treatment by a permitted cultural resources consultant may be required of the operator/holder prior to allowing the project to proceed. Further damage to significant cultural resources will not be allowed until any required treatment is completed. Failure to notify the Bureau of Land Management about a discovery may result in civil or criminal penalties in accordance with the Archeological Resources Protection Act of 1979 (as amended).
3. **Discovery of Cultural Resources during Monitoring:** If monitoring confirms the presence of previously unidentified cultural resources, then work in the vicinity of the discovery will be suspended and the monitor will promptly report the discovery to the Bureau of Land Management Field Manager. The Bureau of Land Management will then specify what action is to be taken. If there is an approved "discovery plan" in place for the project, then the plan will be executed. In the absence of an approved plan, the Bureau of Land Management will evaluate the significance of the discovery and consult with the State Historic Preservation Officer in accordance with 36 CFR Section 800.11. A Bureau of Land Management or permitted cultural resources consultant may perform minor recordation, stabilization, or data recovery. If warranted, more extensive treatment by a permitted cultural resources consultant may be required of the operator/holder prior to allowing the project to proceed. Further damage to significant cultural resources will not be allowed until any required treatment is completed.
4. **Damage to Sites:** If, in its operations, operator/holder damages, or is found to have damaged any previously documented or undocumented historic or prehistoric cultural resources, excluding "discoveries" as noted above, the operator/holder agrees at his/her expense to have a permitted cultural resources consultant prepare and have executed a Bureau of Land Management approved data recovery plan. Damage to cultural resources may result in civil or criminal penalties in accordance with the Archeological Resources Protection Act of 1979 (as amended).

### Access Road Construction

1. **Design:** Unless otherwise approved in writing by the AO the access road will be designed and constructed to conform to the Bureau of Land Management, New Mexico road construction/maintenance policy. A professional engineer shall design those segments of road where the grade is in excess of ten percent for more than 300 feet.
2. **Width:** Right-of-way clearing shall be limited to 15 feet on each side of centerline and a maximum driving surface of 16 feet. There will be a maximum bladed width of 30 feet excluding turnout ditches and turnouts, and a maximum grade of 10 percent.
3. **Crowning and Ditching:** Crowning and ditching on both sides of the road is required. The road cross section will conform to the cross section diagrams available from Bureau of Land Management. The crown shall have a grade of approximately two percent (i.e., two inch crown

on a 16 foot wide road. "Flat blading" will only be permitted where bedrock is exposed at the surface

4. **Drainage and Culverts:** Drainage control shall be ensured over the entire road through the use of borrow ditches, drainage dips, out-sloping, in-sloping, natural rolling topography, and/or turnout (lead-off) ditches. Every drainage dip shall drain water into an adjacent turnout ditch. Culverts (18" minimum) will be placed across access road as necessary.

- a. Unless otherwise approved in writing by the AO, drainage dip location for grades over two (2) percent shall be determined by the formula:

$$\text{Spacing Interval} = \frac{400}{\text{road slope \%}} + 100' =$$

Example: For a road with a four (4) percent slope.  
Spacing Interval  $\frac{400 + 100'}{4\%} = 200$  feet

- b. Unless otherwise approved in writing by the AO, all turnout ditches shall be graded to drain water with a one (1) percent minimum to three (3) percent maximum ditch slope. The spacing interval for turnout ditches shall be determined according to the following table, but may be amended depending upon existing soil types and centerline road grade:

SPACING INTERVAL FOR TURNOUT DITCHES

Percent Slope	Spacing Interval
0 - 4%	150 - 350 feet
4 - 6%	125 - 250 feet
6 - 8%	100 - 200 feet
8 - 10%	75 - 150 feet

- c. Maintain the road so that user traffic remains within right-of-way and erosion is mitigated. Roads and road segments where serious erosion damage is occurring will be handled on a case-by-case basis.
- d. The holder shall construct low-water crossings in a manner that will prevent any blockage or restriction of the existing channel. Material removed shall be stockpiled for use in rehabilitation of the crossing.
5. **Surfacing:** Surfacing material may be applied at the Holder's discretion but is not required at this time. If it becomes evident there is resource damage or it becomes evident the road is receiving excess damage, surfacing will be required.
6. **Maintenance:** Roads will be maintained so that over time a proper road prism and good drainage is achieved. Maintenance will include drainage dips, turnout ditches, crowning and/or out-sloping/in-sloping, low water crossings and vehicle turnouts.
- a. The Holder will furnish and apply water, chemicals, or use other means satisfactory to the Authorized Officer for dust.
- b. Failure to share maintenance costs in dollars, equipment, materials or man-power proportionate to the holder's use with other authorized users may be adequate grounds to terminate the lease. The determination as to whether this has occurred and the decision to terminate shall rest with the AO.
- c. Upon request, the AO shall be provided with copies of any maintenance agreement entered into.

Pipeline Conditions of Approval

Construction of the pipeline or any other surface disturbing activity will not begin until the associated APD is approved. The holder will adhere to the general and pipeline specific stipulations in the APD Condition of Approval.

1. **Staking:** The holder shall mark the exterior boundaries of the right-of-way with stake and/or lath at 100 to 200 foot intervals. The intervals may be varied at the time of staking at the discretion of the AO. The tops of the stakes and/or laths will be painted and the laths flagged in a distinctive color as determined by the holder. The survey station numbers will be marked on the boundary stakes and/or laths at the entrance to and the exit from public land. The holder shall maintain all boundary stakes and/or laths in place until final cleanup and restoration is completed and approved by the AO. The stakes and/or laths will then be removed at the direction of the AO.
2. **Width:** Right-of-way clearing shall be limited to the access road plus 20 feet. Bury the pipeline in the existing well pad or twenty (20) feet from the edge of the traveled surface of the existing road.
3. **Side Cuts:** Side-hill cuts of more than three (3) feet are not permitted. Areas requiring cuts greater than this shall be terraced so none are greater than three (3) feet.
4. **Re-contouring:** All disturbed areas will be re-contoured to establish approximate original contours of right-of-way. This includes obliterating all earthwork by removing embankments, backfilling excavations, and grading to re-establish the approximate original contours of the land in the right-of-way.
5. **Berms:** Construct earthen berms at each end of the right-of-way where it is separated from the road. The berms will be a minimum of four (4) feet high with a one (1) foot cut at the base facing away from the right-of-way, i.e., towards the direction of potential traffic.

#### **Abandonment**

1. Ninety days prior to termination of the right-of-way the holder shall contact the AO to arrange a joint inspection of the ROW. This inspection will be held to agree to an acceptable termination (and rehabilitation) plan. The plan will include, but is not limited to, removal of facilities, drainage structures, or surfacing material, re-contouring, top soiling or seeding. The AO must approve the plan in writing prior to the holder's commencement of any termination actions.

#### **Final Reclamation and Abandonment**

1. If, upon abandonment of wells, the retention of access road is not considered necessary for the management and multiple use of the natural resources, it will be ripped a minimum of 12" in depth. After ripping, water bars will be installed. All ripped surfaces are to be protected from vehicular travel by construction of a dead end ditch and earthen barricade at the entrance to these ripped areas. (Re-seeding of affected areas may be required).



**NAVAJO NATION  
ENVIRONMENTAL PROTECTION AGENCY  
OFFICE OF THE EXECUTIVE DIRECTOR**  
P.O. Box 339, Window Rock, Navajo Nation, (AZ) 86515  
Tel. (928) 871-7692 · Fax. (928) 871-7996  
Website: www.navajonationepa.org

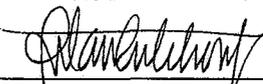


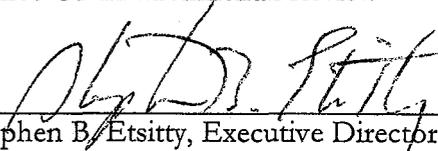
*Dr. Joe Shirley, Jr.*  
PRESIDENT

*Ben Shelly*  
VICE-PRESIDENT

**M E M O R A N D U M**

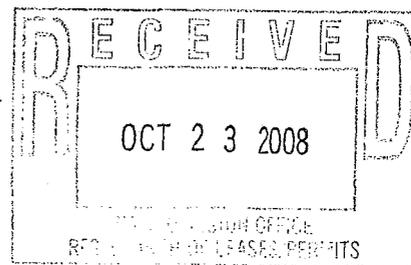
**TO:** Howard Draper, Program & Project Specialist  
Project Review Office  
Navajo Land Department  
Division of Natural Resources

**FROM:**   
Rita Whitehorse-Larsen, Sr. Environmental Specialist  
Office Of Environmental Review

**THROUGH:**   
Stephen B. Etsitty, Executive Director  
Navajo Nation Environmental Protection Agency

**DATE:** October 15, 2008

**SUBJECT:** DNR-12106 Approving an application for permit to drill (APD) to Navajo Nation Oil & Gas Company, Inc., to drill, construct, operate and maintain the Ute Canyon 23-Indigo well, pipeline and ancillary facilities on, over and across Navajo Nation Trust Lands, San Juan County, Utah.



The Navajo Nation Environmental Protection Agency (NNEPA) has reviewed<sup>1</sup> and recommends **conditional approval** due to the migration measures as set forth in the environmental assessment report (EA) and the general requirements.

The Navajo Oil and Gas Company Inc (NNOGC), PO Box 4439, Window Rock, Arizona, 86515, submitted an application to drill an oil well to a proposed depth of 6,850 feet. A fresh water mud system would be used to drill the well. The well pad will be 200 feet by 270 feet. Top six inches of brush and soil will be stockpiled for use in reclamation. Production facilities will be located on the well pad and will include a well head, separator, a dehydrator and a tank battery. No pipeline will be installed as part of this project. No significant natural gas production is expected from this proposed well. No powerline will be installed as part of this project. There will be no surface

<sup>1</sup> Permits West, Inc. Environmental Assessment (EA) for Navajo Nation Oil & Gas Co., Inc. Ute Canyon 23-Indigo and Ute Canyon 23-P Oil Wells and Road on Navajo Tribal Trust Surface Sections 13, 23, 24 & 25 T41S, R21E, and Section 19, T41S, R22E, San Juan County, Utah Lease NO-G-0402-1709. August 2008.

discharge of produced water. A new road total length at 1,681.77 feet will be constructed. The existing upgraded and new roads will be shared by the proposed Ute Canyon 23-P except for the final 208.33 feet of new road. The road will be crowned, ditched and have an approximated fourteen-foot wide running surface.

The EA enclosed with the SAS packet stated that the proposed project will have a direct and indirect effect to air quality, environmental justice, farmlands, floodplains, invasive/non-native species, waste (hazardous and/or solid), water quality (surface and/or ground), topography, geology, soils/watershed/hydrology, vegetation, grazing, visual resources, public health and safety and noise.

If the following mitigation measures as stated in the EA are adhered to, the proposed project will have a low and minimal impact to the environmental resources.

1. Following all the construction activities, the disturbed areas will be re-contoured to as near as possible pre-construction conditions. Reclamation and installation of erosion control devices would also lessen long-term impacts.
2. Establishment of permanent, perennial vegetation, installations of functional erosion control devices and Best Management Practices (BMPs) would decrease long term soil erosion impacts.
3. NNEPA recommends for NNOGC to monitor the re-vegetated disturbed areas to ensure a higher success rate by manually maintaining the areas until vegetation is successfully re-established.
4. Suspended dust from construction could be reduced through applying fresh water to the disturbed areas and heavy traffic areas.
5. It would be NNOGC's responsibility to monitor, control and eradicate all invasive/noxious weeds within the proposed action area during the life of the project. NNEPA recommends for the applicant to contact the NNEPA Pesticide Enforcement & Development, Ms. Glenna Lee at 928/871-7811, or Mr. Dine Nizhoni Hill at 928/871-7892, for a list of applicators.
6. Vehicles would be restricted to the permitted area to minimize impacts.
7. All construction activities would be confined to the permitted area only.
8. All hazards to livestock and wildlife would be fenced or contained.
9. NNOGC will implement Good Housekeeping Practices for hazardous and non-hazardous wastes. Any releases would be contained and disposed of in accordance with federal and Navajo Nation regulations. All hazardous materials would be properly contained on site.
10. The surface equipment will be painted to blend into the surrounding ecosystem however due to safety reasons; some equipment or parts of equipment may be required to be painted with appropriate colors.
11. Pursuant the Navajo Nation Comprehensive Environmental Response, Compensation and Liability Act approved by the Navajo Nation Council, CF-07-08, February 26, 2008, the NN CERCLA includes petroleum (including crude oil or any fraction thereof, natural gas, natural gas liquids, liquefied natural gas or synthetic gas usable for fuel (or mixtures of natural gas and synthetic gas)) unlike the US CERCLA or the Superfund Law and mandates petroleum owner, operator and guarantor to report petroleum release  $\geq 25$  gallons at the site and/or during transport immediately to the Navajo Nation Department of Emergency Management within the Navajo Nation Division of Public Safety.

## GENERAL REQUIREMENTS

### A. CASING AND CEMENTING REQUIREMENTS

1. All shows or flows of fresh or usable water will be reported and protected. Usable water is defined as containing less than 10,000 ppm total dissolved solids (TDS).
2. Surface shall be set at sufficient depth to protect intervals containing fresh water of 3,000 ppm or less TDS, with cement circulated to surface. The production casing shall also be set with cement circulated to surface.
3. Intervals containing usable water shall be protected with cement placed through the entire interval and placed at least 50 feet above and below the interval. At least one centralizer will be placed on each casing joint through the interval to be protected. A cement evaluation log and expert interpretation of the log is required to ensure isolation of all usable water zones not protected by two or more layers of casing and cement. Remedial cementing procedures may be required if zones containing usable water are not adequately protected by primary cement placement.
4. All casing strings shall be pressure tested for 30 minutes, after a sufficient time is allowed for cement to cure but not less than 8 hours. Surface casing shall be tested to not less than 600 psig. Other casing strings will be tested to 1500 psig of a pressure equal to 0.2 psi/ft times depth of casing, which ever is greater. If the pressure declines more than 5 percent in 30 minutes, or there is other indication of leakage, the casing shall be repaired and retested to the same standards.

#### B. REPORTING REQUIREMENTS

Submit the following reports to the NNEPA - Office of Environmental Review, attn: Senior Environmental Specialist, PO Box 339, Window Rock, Arizona 86515 within 30 days of work completion unless noted otherwise.

1. One copy of all Sundry Notices and Subsequent Reports (Form 3160-5) filed with BLM.
2. One copy of BLM Well Completion Report (Form 3160-4) within 30 days of well completion.
3. One copy of all logs run in the well, including the cement evaluation log and temperature survey and any water analyses obtained by the operator.
4. One copy of the BLM Notice of Intent to Abandon (Form 3160-5).
5. One copy of the BLM Subsequent Report of Abandonment (Form 3160-5) within 30 days of plugging the well.

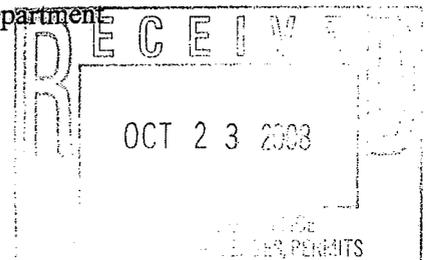
If there are any questions, please contact Rita Whitehorse-Larsen at 928/871-7188. Thank you.

Cc: Navajo Oil and Gas Company Inc (NNOGC), PO Box 4439, Window Rock, Arizona, 86515  
Permits West, Inc., 37 Verano Loop, Santa Fe, NM 87508  
NNEPA chrono file

TERMS AND CONDITIONS  
FOR APPLICATION FOR PERMIT TO DRILL (APD)

Navajo Nation Oil & Gas Company, Inc., (APPLICANT)  
"Ute Canyon 23-Indigo" Well, Pipeline and Ancillary Facilities (Project)

1. The term of the Permit shall not exceed twenty (20) years, beginning on the date the Application for Permit to Drill (APD) is approved by the Secretary of Interior.
2. The Drill Pad shall be limited to an area not to exceed 205 feet by 270 feet (1.27 acres), road corridor shall be 280.33 feet by 20 feet (0.13 acres), and the pipeline corridor shall be 0.0 feet by 20 feet (0.0 acres) final width.
3.
  - a.  Consideration to the Navajo Nation for the grant of the Permit and associated rights-of-way within the lease boundary shall be \_\_\_\_\_, and shall be paid in full to the Controller of the Navajo Nation, in lawful money of the United States, and a copy of the receipt for such payment provided to the Navajo Nation Minerals Department, or its successor, within \_\_\_\_\_ days of approval of and consent to the grant of the Permit by the Navajo Nation.
  - b.  No consideration is assessed because the Applicant has a federal or state lease that was issued prior to March 30, 1990, and the facilities are within the lease area.
  - c.  <sup>B.N.</sup> No consideration is assessed because the lease held by the Applicant was granted by the Navajo Nation.
4. The Applicant may use and occupy the area under the Permit for the purpose(s) of Drilling, Constructing, Operating and Maintaining the well and associated pipeline and ancillary facilities. The Applicant may not develop, use or occupy the area under the Permit for any other purpose without the prior written approval of the Navajo Nation and the Secretary of the Interior; the approval of the Navajo Nation may be granted, granted upon conditions or withheld in the sole discretion of the Navajo Nation. The Applicant may not use or occupy the area under the Permit for any unlawful purpose.
5. The Applicant or its assigns/operator shall provide the Navajo Nation Minerals Department the following technical information as soon as it becomes available:
  - a. Suites of logs including drilling log.
  - b. Results of any drilling stem and pressure test conducted.
  - c. Well completion reports.
  - d. Core analysis if any.
  - e. Copies of any other special tests run on the drill holes.
  - f. Other information that may be requested by the Minerals Department.
6. The Permit shall not cover any use of land off the permitted area.



7. If the Applicant fails to drill within one (1) year after final approval of the APD is given by U.S. Bureau of Land Management (BLM), the Permit shall be deemed to have expired unless extensions have been granted by BLM within the one (1) year time limit.
8. In all activities conducted by the Applicant within the Navajo Nation, the Applicant shall abide by all laws and regulations of the Navajo Nation and of the United States, now in force and effect or as hereinafter may come into force and effect, including but not limited to the following:
  - a. Title 25, Code of Federal Regulations, Part 169;
  - b. All applicable federal and Navajo Nation antiquities laws and regulations, with the following additional condition: In the event of a discovery all operations in the immediate vicinity of the discovery must cease and the Navajo Nation Historic Preservation Department must be notified immediately. As used herein, "discovery" means any previously unidentified or incorrectly identified cultural resources, including but not limited to archeological deposits, human remains, or location reportedly associated with Native American religious/ traditional beliefs or practices;
  - c. The Navajo Preference in Employment Act, 15 N.N.C. §§ 601 et seq., and the Navajo Nation Business Preference Law, 5 N.N.C. §§ 201 et seq.; and
  - d. The Navajo Nation Water Code, 22 N.N.C. §§ 1101 et seq.. Applicant shall apply for and submit all applicable permits and information to the Navajo Nation Water Development Department, or its successor.
9. The Applicant shall ensure that the air quality of the Navajo Nation is not jeopardized due to violation of applicable laws and regulations by its operations pursuant to the Permit.
10. The Applicant shall clear and keep clear the lands within the Permit area to the extent compatible with the purpose of the Permit, and shall dispose of all vegetation and other materials cut, uprooted, or otherwise accumulated during any surface disturbance activities.
11. The Applicant shall reclaim all surface lands disturbed lands related to the Permit, as outlined in a restoration and revegetation plan, which shall be approved by the Navajo Nation Environmental Protection Agency, or its successors (NNEPA) prior to any surface disturbance. The Applicant shall comply with all provisions of such restoration and revegetation plan and shall notify the Director of the NNEPA immediately upon completion of the surface disturbance activities so that a site inspection can be made.
12. The Applicant shall at all times during the term of the Permit and at the Applicant's sole cost and expense, maintain the land subject to the Permit and all improvements located thereon and make all necessary and reasonable repairs.
13. The Applicant shall obtain prior written permission to cross existing rights-of-way area, if any, from the appropriate parties.
14. The Applicant shall be responsible for and promptly pay all damages when they are sustained.
15. The Applicant shall indemnify and hold harmless the Navajo Nation and the Secretary of the Interior and their respective authorized agents, employees, landusers and occupants, against any liability for loss of life, personal injury and property damages arising from the development, use or occupancy or use of the area under the Permit by the Applicant.

16. The Applicant shall not assign, convey or transfer, in any manner whatsoever, the Permit or any interest therein, or in or to any of the improvements on the land subject to the Permit, without the prior written consent of the Navajo Nation and the Secretary of the Interior. Any such attempted assignment, conveyance or transfer without such prior written consent shall be void and of no effect. The consent of the Navajo Nation may be granted, granted upon conditions or withheld in the sole discretion of the Navajo Nation.
17. The Navajo Nation may terminate the Permit for violation of any of the terms and conditions stated herein. In addition, the Permit shall be terminable in whole or part by the Navajo Nation for any of the following causes:
  - a. Failure to comply with any terms and conditions of the Permit or of applicable laws or regulations;
  - b. A non-use of the Permit for the purpose for which it is granted for a consecutive two (2) year period;
  - c. An abandonment of the Permit; and
  - d. The use of the land subject to the Permit for any purpose inconsistent with the purpose for which the Permit is granted.
18. At the termination of the Permit, the Applicant shall peaceably and without legal process deliver up the possession of the premises, in good condition, usual wear and tear excepted. Upon the written request of the Navajo Nation, the Applicant shall provide the Navajo Nation, at the Applicant's sole cost and expense, with an environmental audit assessment of the premises at least sixty (60) days prior to delivery of said premises.
19. Holding over by the Applicant after the termination of the Permit shall not constitute a renewal or extension thereof or give the Applicant any rights hereunder or in to the land subject to the Permit or to any improvements located thereon.
20. The Navajo Nation and the Secretary shall have the right, at any reasonable time during the term of the Permit, to enter upon the premises, or any part thereof, to inspect the same and any improvement located thereon.
21. By acceptance of the grant of Permit, the Applicant consents to the full territorial legislative, executive and judicial jurisdiction of the Navajo Nation, including but not limited to the jurisdiction to levy fines and to enter judgments for compensatory and punitive damages and injunctive relief, in connection with all activities conducted by the Applicant within the Navajo Nation or which have a proximate (legal) effect on persons or property within the Navajo Nation.
22. By acceptance of the grant of the Permit, the Applicant covenants and agrees never to contest or challenge the legislative, executive or judicial jurisdiction of the Navajo Nation on the basis that such jurisdiction is inconsistent with the status of the Navajo Nation as an Indian nation, or that the Navajo Nation government does not possess full police power (i.e., the power to legislate and regulate for the general health and welfare) over all lands, persons and activities within its territorial boundaries, or on any other basis not generally applicable to a similar challenge to the jurisdiction of a state government. Nothing contained in this provision shall be construed to negate or impair federal responsibilities with respect to the land subject to the Permit or to the Navajo Nation.

23. Any action or proceeding brought by the Applicant against the Navajo Nation in connection with or arising out of the terms and conditions of the Permit shall be brought only in the Courts of the Navajo Nation, and no such action or proceeding shall be brought by the Applicant against the Navajo Nation in any court of any state.
24. Nothing contained herein shall be interpreted as constituting a waiver, express or implied, of the sovereign immunity of the Navajo Nation.
25. Except as prohibited by applicable federal law, the law of the Navajo Nation shall govern the construction, performance and enforcement of the terms and conditions contained herein.
26. The terms and conditions contained herein shall extend to and be binding upon the successors, heirs, assigns, executors, administrators, employees and agents, including all contractors and subcontractors, of the Applicant, and the term "Applicant," whenever used herein, shall be deemed to include all such successors, heirs, assigns, executors, administrators, employees and agents.
27. There is expressly reserved to the Navajo Nation full territorial legislative, executive and judicial jurisdiction over the area under the Permit and all lands burdened by the Permit, including without limitation over all persons, including the public, and all activities conducted or otherwise occurring within the area under the Permit; and the area under the Permit and all lands burdened by the Permit shall be and forever remain Navajo Indian Country for purposes of Navajo Nation jurisdiction.
28. Permittee shall comply with Environmental Protection Agency "Specific Terms and Conditions of Approval dated September 19, 2002," attached hereto and incorporated into these terms and conditions.
29. The Grantee shall take practical measures to prevent the injury or death of waterfowl and other birds by the use of settling, evaporation and reserve pits. Measures may include, but are not limited to, covering said pits.

RECEIVED  
NOV 17 2008  
NAVAJO REGION OFFICE  
RES-BRANCH OF LEASING

CULTURAL RESOURCES COMPLIANCE FORM  
HISTORIC PRESERVATION DEPARTMENT  
PO BOX 4950  
WINDOW ROCK, ARIZONA 86515

ROUTING: COPIES TO  
UT SHPO  
XX REAL PROPERTY MGT/330  
NNAD

NNHPD NO. HPD-07-896 - REVISED  
OTHER PROJECT NO.  
GHE-07-018

PROJECT TITLE: A Cultural Resource Survey of Two Proposed Well Pads, 23-I, 23-P, and Access Road for Navajo Nation Oil and Gas Company, San Juan County, Utah

LEAD AGENCY: BIA/NR

SPONSOR: Navajo Nation Oil and Gas Company, Inc P.O. Box 4439 Window Rock, Arizona 86515

PROJECT DESCRIPTION: The proposed undertaking will involve the construction of two (2) well pads each measuring 135 ft by 270 ft and an access road within the 7.42 acre lease area. Ground disturbance will be extensive and intensive.

LAND STATUS: Navajo Tribal Trust  
CHAPTER: Mexican Water  
LOCATION: T.41S, R.21E; Section 23; White Rock Point Quadrangle, San Juan County, Utah; SLPM

PROJECT ARCHAEOLOGIST: Taft Blackhorse  
NAVAJO ANTIQUITIES PERMIT NO.: B07355

DATE INSPECTED: 6/21/07  
DATE OF REPORT: 9/13/07  
TOTAL ACREAGE INSPECTED: 26.6

METHOD OF INVESTIGATION: Class III pedestrian inventory with transects spaced 15 m apart.

LIST OF CULTURAL RESOURCES FOUND: (5) UT-C-51-181, UT-C-52-12, UT-C-51-182, UT-C-52-106, and UT-C-52-183  
LIST OF ELIGIBLE PROPERTIES: (5) UT-C-51-181, UT-C-52-12, UT-C-51-182, UT-C-52-106, and UT-C-52-183  
LIST OF NON-ELIGIBLE PROPERTIES: None  
LIST OF ARCHAEOLOGICAL RESOURCES: (5) UT-C-51-181, UT-C-52-12, UT-C-51-182, UT-C-52-106, and UT-C-52-183

EFFECT/CONDITIONS OF COMPLIANCE: No historic properties affected, with the following conditions:

Sites UT-C-51-181 and UT-C-52-12:  
1) Sites will be flagged by a qualified archaeologist prior to any construction activities.  
2) Sites will be monitored by a qualified archaeologist during all construction activities within 50 ft. of site boundary.

Sites UT-C-51-182, UT-C-52-106, and UT-C-52-183:  
1) The sites will be avoided by re-routing the access roads to prevent any further ground disturbing activities as shown in Figure 1 and on site maps.

In the event of a discovery ["discovery" means any previously unidentified or incorrectly identified cultural resources including but not limited to archaeological deposits, human remains, or locations reportedly associated with Native American religious/traditional beliefs or practices], all operations in the immediate vicinity of the discovery must cease, and the Navajo Nation Historic Preservation Department must be notified at (928) 871-7148.

FORM PREPARED BY: Ettie Anderson  
FINALIZED: November 17, 2008 - REVISED

Notification to Proceed Recommended: Yes XX No       
Conditions: Yes XX No     

[Signature] 11/17/08  
Alan S. Downer  
Navajo Nation Historic Preservation Officer Date

Navajo Region Approval: Yes X No     

[Signature] 11/17/08  
Acting Regional Director Date

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NOV 17 2008  
NAVAJO REGION OFFICE



# THE NAVAJO NATION

JOE SHIRLEY, JR.  
PRESIDENT

BEN SHELLY  
VICE-PRESIDENT

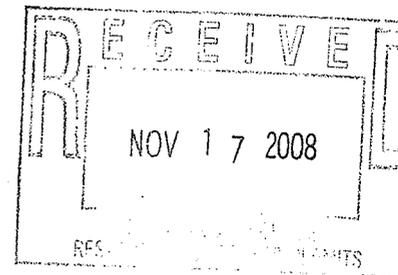
## DIVISION OF NATURAL RESOURCES HISTORIC PRESERVATION DEPARTMENT

### M-E-M-O-R-A-N-D-U-M

TO: ALL CONCERNED

FROM:   
Alan S. Downer, Department Manager III

  
Steven Begay, Assistant Department Manager



RE: STANDING DELEGATION OF AUTHORITY - FISCAL YEAR 2008

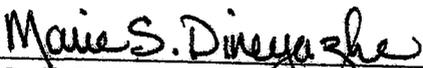
DATE: January 07, 2008

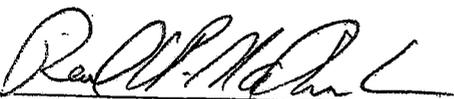
Be advised that hereinafter the succession of Delegation of Authority in my/our absence shall apply. The respected individuals in order listed shall assume the Acting Department Manager and is delegated the authority to oversee activities of the Historic Preservation Department. This delegation includes the responsibility to review, decline and/or approve all documents, including Personnel Action Forms and to direct all routine activities of the department, except those requiring my/our immediate attention.

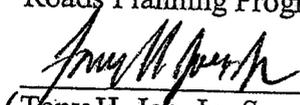
1. Marie S. Dineyazhe, Historic Preservation Program Manager - Roads Planning Program
2. Ronald P. Maldonado, Supervisory Archaeologist - Cultural Resources Compliance Section
3. Tony H. Joe, Jr., Supervisory Anthropologist - Traditional Culture Program

This notice shall become effective immediately and remain in effect unless otherwise noted. Thank you for your full cooperation.

#### ACKNOWLEDGED:

  
Marie S. Dineyazhe, Hist Res Prg Mngr  
Roads Planning Program

  
Ronald P. Maldonado, Supervisory Arch  
Cultural Resources Compliance Section

  
Tony H. Joe, Jr., Supervisory Anthropologist  
Traditional Culture Program

#### DISTRIBUTION

COMPANY: Navajo Nation Oil & Gas Co. LEASE NO: NO-G-0402-1709 WELL NAME Ute Canyon 23 Indigo  
FOOTAGE: 1900' FSL / 598' FEL LOCATION: Section 23, Township 41 South, Range 21 East  
COUNTY: SAN JUAN STATE: UTAH

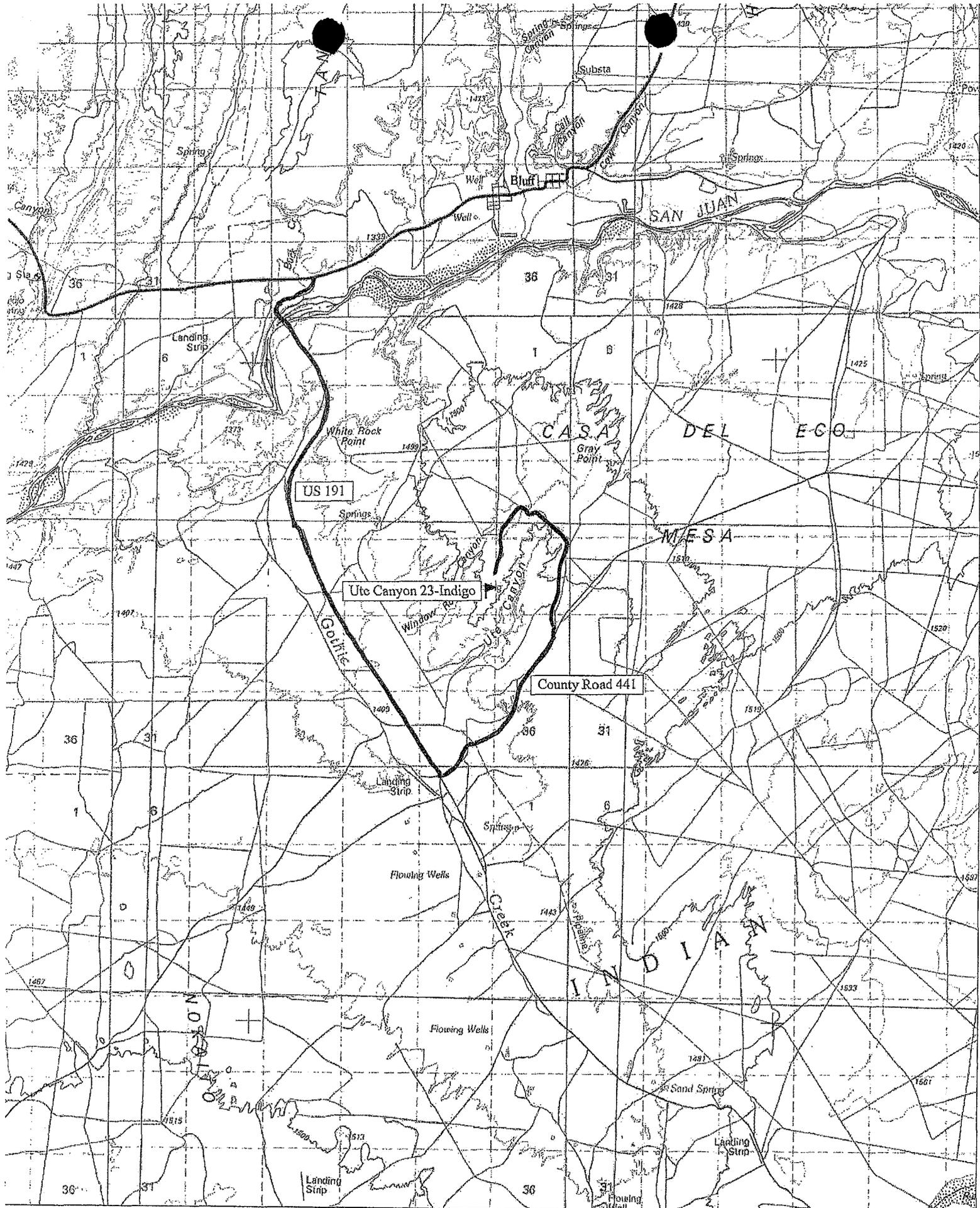
**NAVAJO NATION STIPULATIONS**  
**Surface Management Stipulations**

1. The surface ownership and/or jurisdiction of lands contained in this lease may be all or partly in the Navajo Nation. Site specific rights-of-way clearances and/or inventories may be required prior from the Navajo Nation before entry upon the surface for operation of the lease holdings. Prior contact with an approval of the Navajo Nation will be required before operations beginning. All application laws of the Navajo Nation (including tax laws, water codes, archaeological clearance, requirements of Environmental Protection Administrations, etc.) must be complied with by the Lessee.
2. The Navajo Nation Minerals Department requires a copy of complete exploration and development data (drilling logs, seismic data, etc.) that are obtained by the Lessee on the subject lands be submitted as the information is available, at no cost. Such material and data will be held confidential as described in 43 CFR 3162.8.
3. Navajo grazing rights will be protected, and the Navajo Nation's (e.g., wells, tanks rivers, springs, washes, creeks, stock water reservoirs, etc.), without a water use permit issued by the Navajo Nation Water Code Administration. Lessee will not drill any water wells for its use without a drilling permit from the water Code Administration.
4. Lessee will not use any waters of the Navajo Nation (e.g., wells, tanks, river, springs, washes, creeks, stock water reservoirs, etc.), without a water use permit issued by the Navajo Nation Water Code Administration. Lessee will not drill any water wells for its use without a drilling permit from the Water Code Administration.
5. Lessee will compensate the Navajo Nation and its grazing permittees (if any), for all surface use(s) as well as damages to crops, buildings, and other improvements of a surface landowner, including loss of grazing lands, occasion by the Lessee's operations, except that the Lessee's control. Compensation for surface use will be negotiated by Lessee and the Navajo Nation and will be based upon the area and level of disturbance, and duration of activity on the land.
6. Lessee will not drill any well within 500 feet of any house, structure, or reservoir of water, live stream, or other body of water without the written consent of the Navajo Nation Minerals Department and the Water Code Administration.
7. Lessee will bury, at minimum of four feet, all pipelines crossing tillable lands below plow depth unless other arrangements are made with the Navajo Nation.
8. Upon the request of the Navajo Nation Water Code Administration, or if so required by Navajo Regional Director or his authorized representative, and under the director of the Field Manager, Bureau of Land Management, Lessee will condition any well drilled which does not produce oil or gas in paying quantities, but which is capable of producing water satisfactorily for domestic, agricultural or livestock use by the Navajo Nation. Otherwise, after the expiration or termination of the lease, Lessee will remove all pumping equipment installed by Lessee at any well.

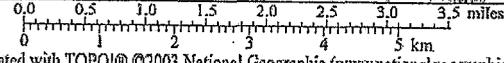
**COMPANY:** Navajo Nation Oil & Gas Co. **LEASE NO:** NOG-0402-1709 **WELL NAME** Ute Canyon 23 Indigo  
**FOOTAGE:** 791' FSL / 475' FEL **LOCATION:** Section 23, Township 41 South, Range 21 East  
**COUNTY:** SAN JUAN **STATE:** UTAH

**BUREAU OF INDIAN AFFAIRS**  
**Surface Management Stipulations**

1. Lessee will carry on all operations in a workmanlike manner in accordance with approved methods and practices.
2. Lessee will abide by and conform to appropriate provisions of Title 25, 36, and 43 Code of Federal Regulations, and any and other applicable regulations and manuals of the Secretary now or hereafter in force relative to surface leasing, rights-of-way and oil and gas leases (including the National Environmental Protection Act, as amended, and archaeological Resources Protection Act, herein after referred to as NEPA, NHPA, ARPA and other applicable laws. 36 CFR 800 42 CFR 7).
  - a. Prior to issuing any cultural clearance, the Bureau of Land Management will consult with the Navajo Nation Historic Preservation Department, P.O. Box 2898, Window Rock, Arizona 86515, and provide copies of all historic preservation and related documents associated with an undertaking. The Navajo Nation contracted the Navajo Area Archaeology Office under Public Law 93-638.
  - b. Prior to entry upon the land or the disturbance of the surface thereof for drilling or other purposes. Lessee will submit a development plan for surface use to the Area Manager, Farmington Resource Area, Bureau of Land Management, 1235 La Plata Highway, Farmington, New Mexico 87401. An environmental Analysis will be made by the Bureau of Land Management in consultation with the Bureau of Indian Affairs Navajo Regional Office for the purpose of ensuring proper protection of the surface, the natural resources, the environment and existing improvements, and for assuring timely reclamation of disturbed lands. Upon completion of said environmental analysis, the Oil and Gas District Manager will notify Lessee of the conditions, Lessee will furnish a copy of its development plan and Bureau of Land Management conditions to the BIA. The Bureau of Indian Affairs reserves the right to require site specific archaeological surveys and environmental reviews on tracts selected for development prior to giving concurrence to proposed action(s). The Bureau of Indian Affairs will consult with the Navajo Nation prior to concurring in such action(s).
3. The Lessee will not use or permit to be used any part of said leased land for any unlawful conduct or purpose whatsoever. Lessee will not use or permit to be used any of said leased land for the manufacture, sale, gift, transportation, or storage of intoxicating liquors, beverages or drugs. In the event any representative of Lessee or its contractor or subcontractor, employed in connection with the operations on the lease premises will be responsible for any of the unlawful acts described in this clause, the Bureau of Land Management will give Lessee information as to such violation(s) with a copy of the notice to Bureau of Indian Affairs and the Navajo Nation. Lessee shall immediately take steps to cure the violations, including the termination or transfer of such employee. (25 CFR 162.604; 18 U.S.C. Sections 1151, 1154 and 1156, as amended).
4. Vehicular access to the well site will be limited to the approved access road. Additional unapproved accesses to the well site materializing during the existence of the well will be processed as trespass.
5. Reserve pits or any other lined or unlined open direct pit(s) will not be used to store produced water. Produced water will be stored in metal tanks or fiber glass enclosures.
6. Erosions forming in the access roads will be corrected. Preventive measures will be the operations discretion. A permanent side road of the erosion is prohibited.
7. Except as otherwise state herein, copies of correspondence and notices will be mailed to the bureau of Indian Affairs in care of the Regional Director, Navajo Region, Attention: RES/Branch of Leases/Permits, Bureau of Indian Affairs, P.O. Box 1060, Gallup, New Mexico 87305-1060.



MN  
11 1/2°



Map created with TOPO! © 2003 National Geographic (www.nationalgeographic.com/topo)

NAVAJO NATION OIL & GAS CO. INC.

Access Map to Ute Canyon 23 Indigo & P  
Sections 25, 24, 13, 14 & 23, T.41 S., R.21 E.  
Section 19, T.41 S., R.22 E., 5LM  
San Juan County, UT

HIDDLESTON LAND SURVEYING 970 565 3330

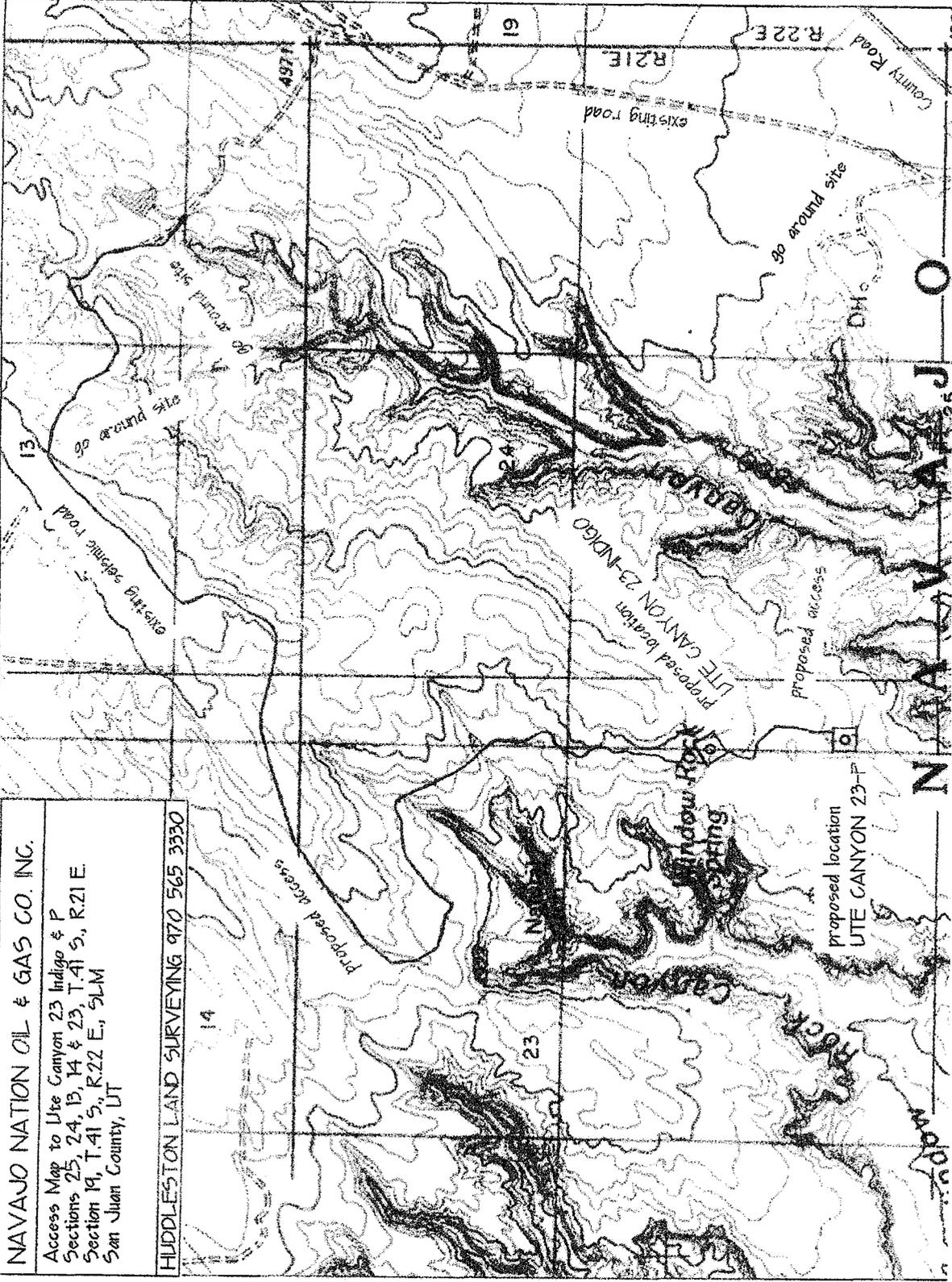
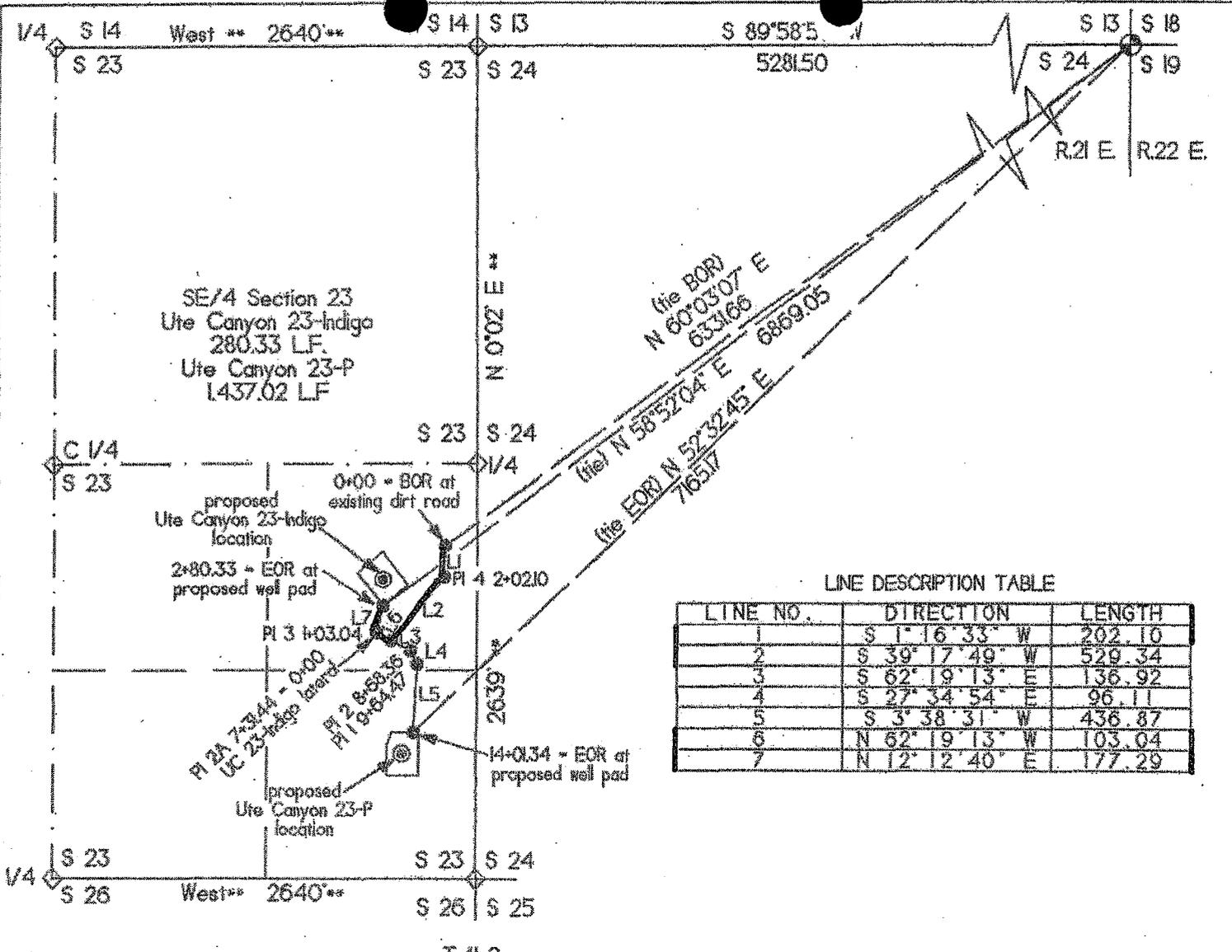


Exhibit 1 Addendum A-4  
NNOG Ute Canyon Proposed Oil Wells



SE/4 Section 23  
 Ute Canyon 23-Indigo  
 280.33 LF.  
 Ute Canyon 23-P  
 1437.02 LF

(the BOR)  
 N 60°03'07" E  
 6331.66  
 (the EOR) N 58°52'04" E  
 6869.05  
 (the EOR) N 52°32'45" E  
 76517

LINE DESCRIPTION TABLE

LINE NO.	DIRECTION	LENGTH
1	S 1° 16' 33" W	202.10
2	S 39° 17' 49" W	529.34
3	S 62° 19' 13" E	136.92
4	S 27° 34' 54" E	96.11
5	S 3° 38' 31" W	436.87
6	N 62° 19' 13" W	103.04
7	N 12° 12' 40" E	177.29

Basis of Bearing:  
 GPS state plane coordinates  
 rotated.

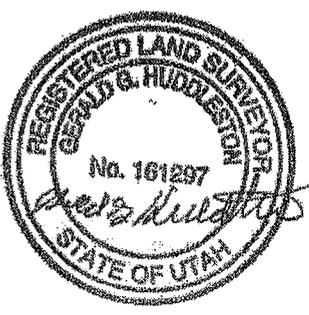


- \* from BLM/GLO
- \*\* calculated
- \*\*\* assumed



Scale: 1" = 1000'

- ⊕ find. std. GLO monument
- ◇ calculated corner
- survey centerline PI



I, Gerald G. Huddleston, do hereby certify that this plat was prepared from field notes of an actual survey made by me or under my supervision and that the same is true and accurate to the best of my knowledge and belief.

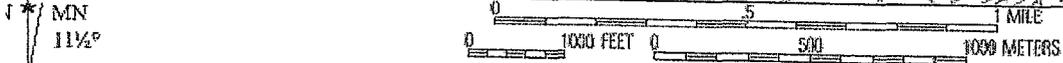
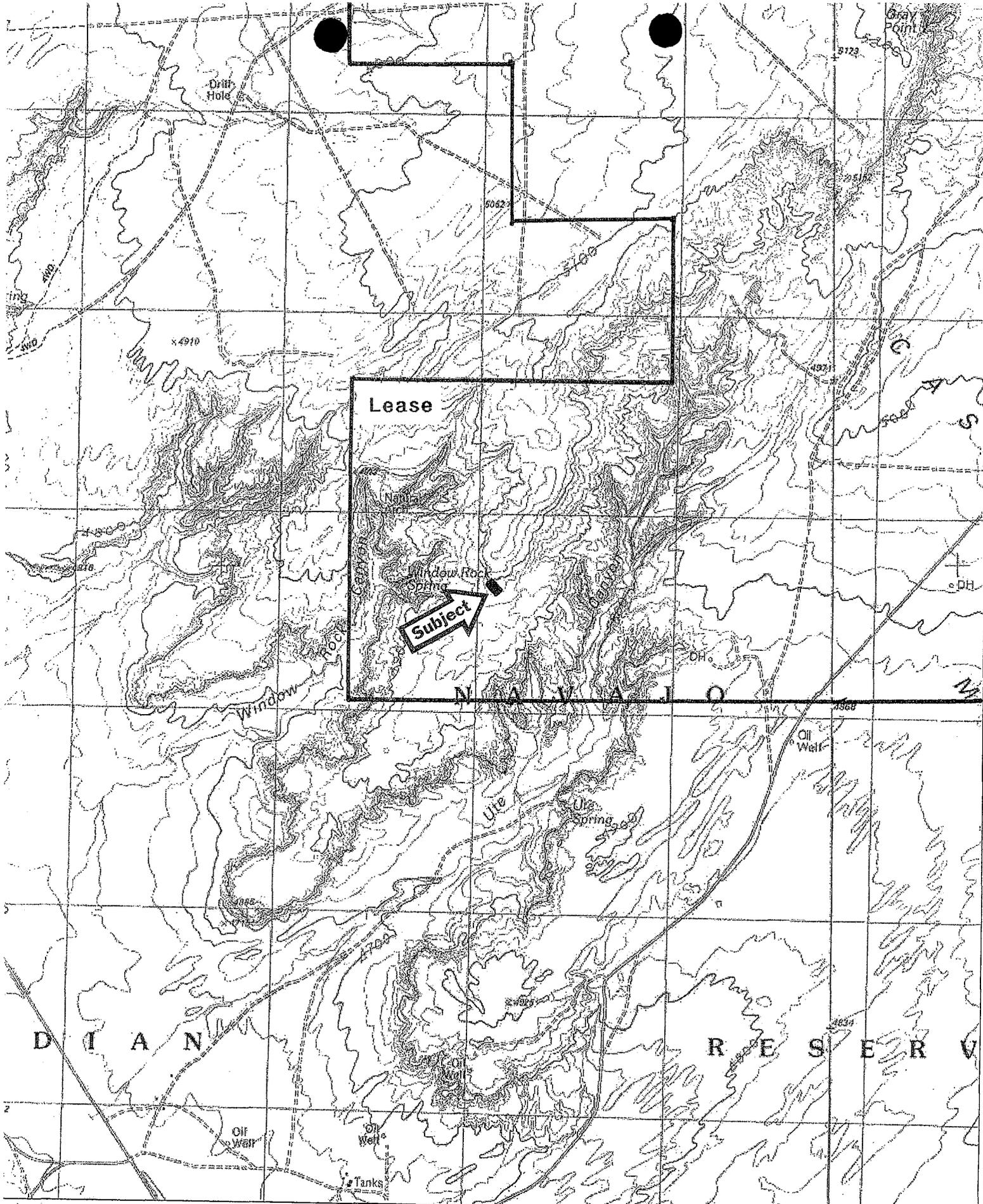
NAVAJO NATION OIL & GAS CO., INC.

Proposed Ute Canyon 23-Indigo and  
 Ute Canyon 23-P access road -

Protracted Section 23,  
 T.41 S. R.21 E. SLM  
 San Juan County, Utah

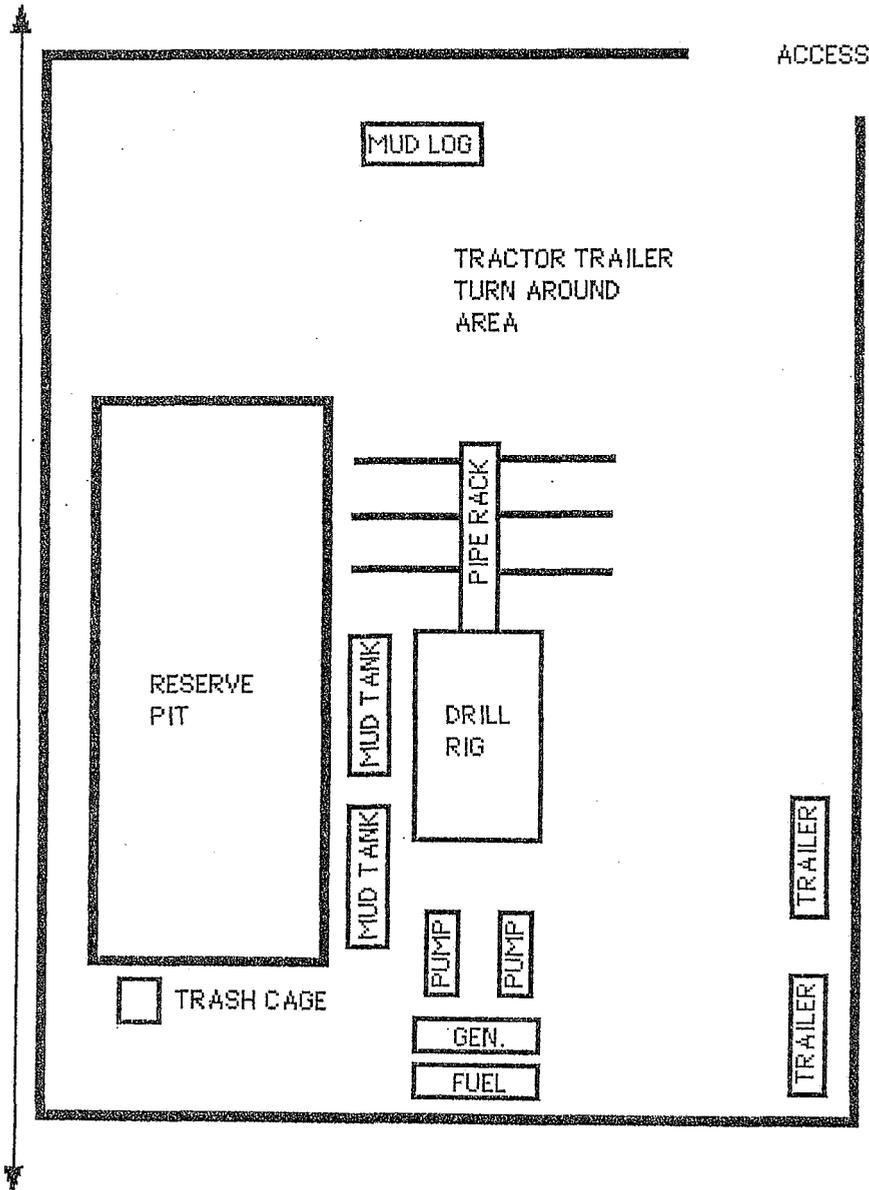
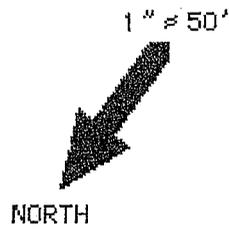
revised July 15, 2007  
 May 6, 2007

HUDDLESTON LAND SURVEYING  
 P.O. DRAWER 100 / CORTEZ, CO 81321 / 970-565-3330



Map created with TOPO!® ©2003 National Geographic (www.nationalgeographic.com/topo)

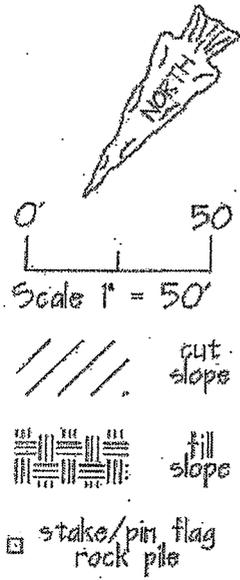
Navajo Nation Oil & Gas Co., Inc.  
Ute Canyon 23-Indigo  
1900' FSL & 598' FEL  
Sec. 23, T. 41 S., R. 21 E.  
San Juan County, Utah



SAFETY BRIEFING AREA,  
≥100 YARDS FROM PAD

SAFETY BRIEFING AREA  
≥100 YARDS FROM PAD

Ute Canyon 23-Indigo  
well pad & section

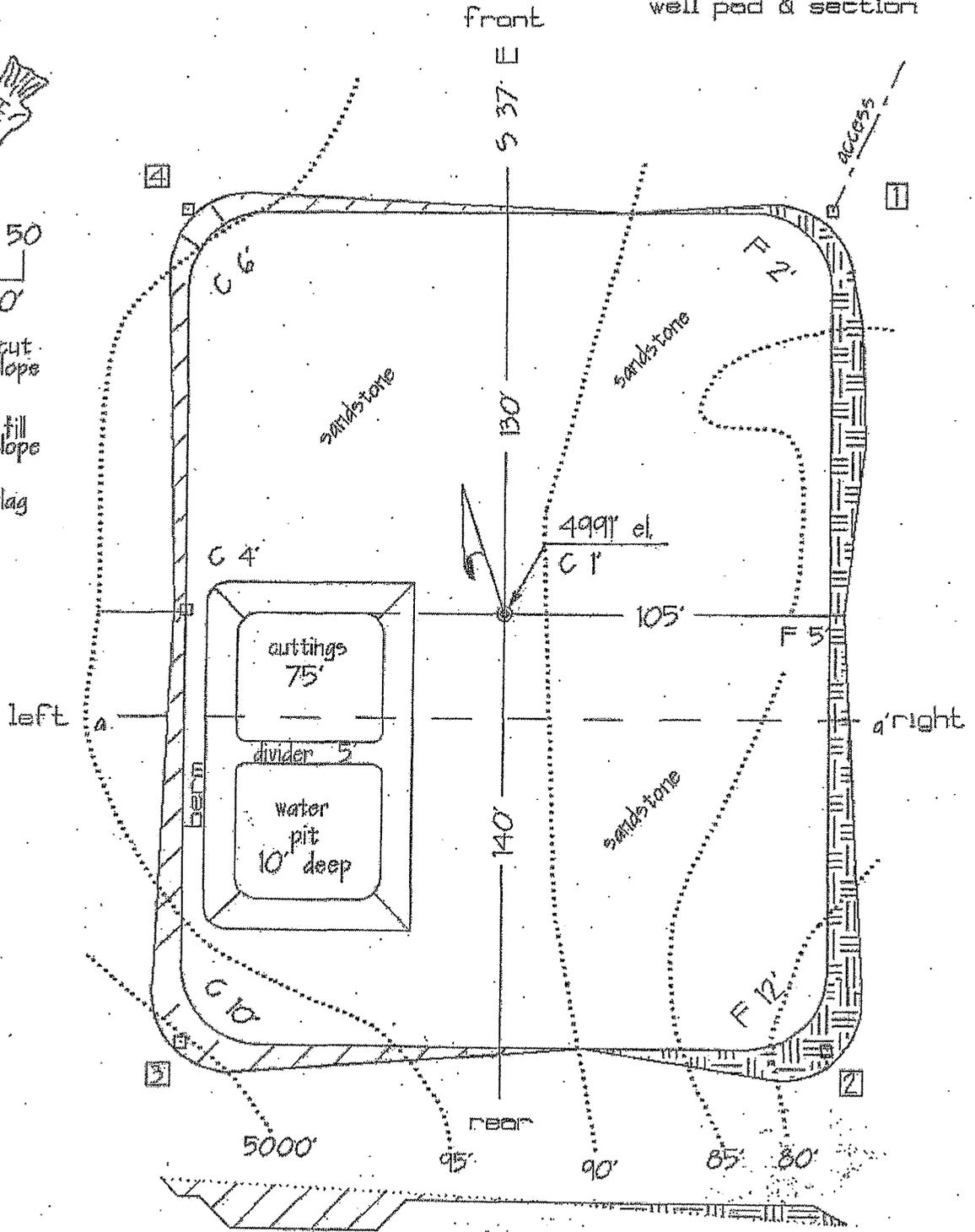


cut slope

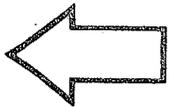


fill slope

□ stake/pin, flag  
rock pile



Cross section



PREVAILING WIND  
FROM SOUTHWEST

**WORKSHEET  
APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 04/06/2009

API NO. ASSIGNED: 43-037-31911

WELL NAME: UTE CYN 23-INDIGO  
 OPERATOR: NAVAJO NATION OIL & GAS ( N2550 )  
 CONTACT: STEPHEN HINES

PHONE NUMBER: 928-871-4880

PROPOSED LOCATION:

NESE 23 410S 210E  
 SURFACE: 1900 FSL 0598 FEL  
 BOTTOM: 1900 FSL 0598 FEL  
 COUNTY: SAN JUAN  
 LATITUDE: 37.20739 LONGITUDE: -109.56882  
 UTM SURF EASTINGS: 627001 NORTHINGS: 4118634  
 FIELD NAME: UNDESIGNATED ( 2 )

INSPECT LOCATN BY: / /		
Tech Review	Initials	Date
Engineering		
Geology		
Surface		

LEASE TYPE: 2 - Indian  
 LEASE NUMBER: NO-G-0402-1709  
 SURFACE OWNER: 2 - Indian

PROPOSED FORMATION: LDLL  
 COALBED METHANE WELL? NO

RECEIVED AND/OR REVIEWED:

- Plat
- Bond: Fed[] Ind[2] Sta[] Fee[]  
(No. RLB0006712 )
- Potash (Y/N)
- Oil Shale 190-5 (B) or 190-3 or 190-13
- Water Permit  
(No. 09-135 )
- RDCC Review (Y/N)  
(Date: \_\_\_\_\_ )
- Fee Surf Agreement (Y/N)
- Intent to Commingle (Y/N)

LOCATION AND SITING:

- R649-2-3.
- Unit: \_\_\_\_\_
- R649-3-2. General  
Siting: 460 From Qtr/Qtr & 920' Between Wells
- R649-3-3. Exception
- Drilling Unit
- Board Cause No: \_\_\_\_\_
- Eff Date: \_\_\_\_\_
- Siting: \_\_\_\_\_
- R649-3-11. Directional Drill

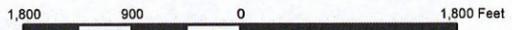
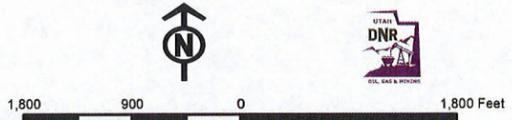
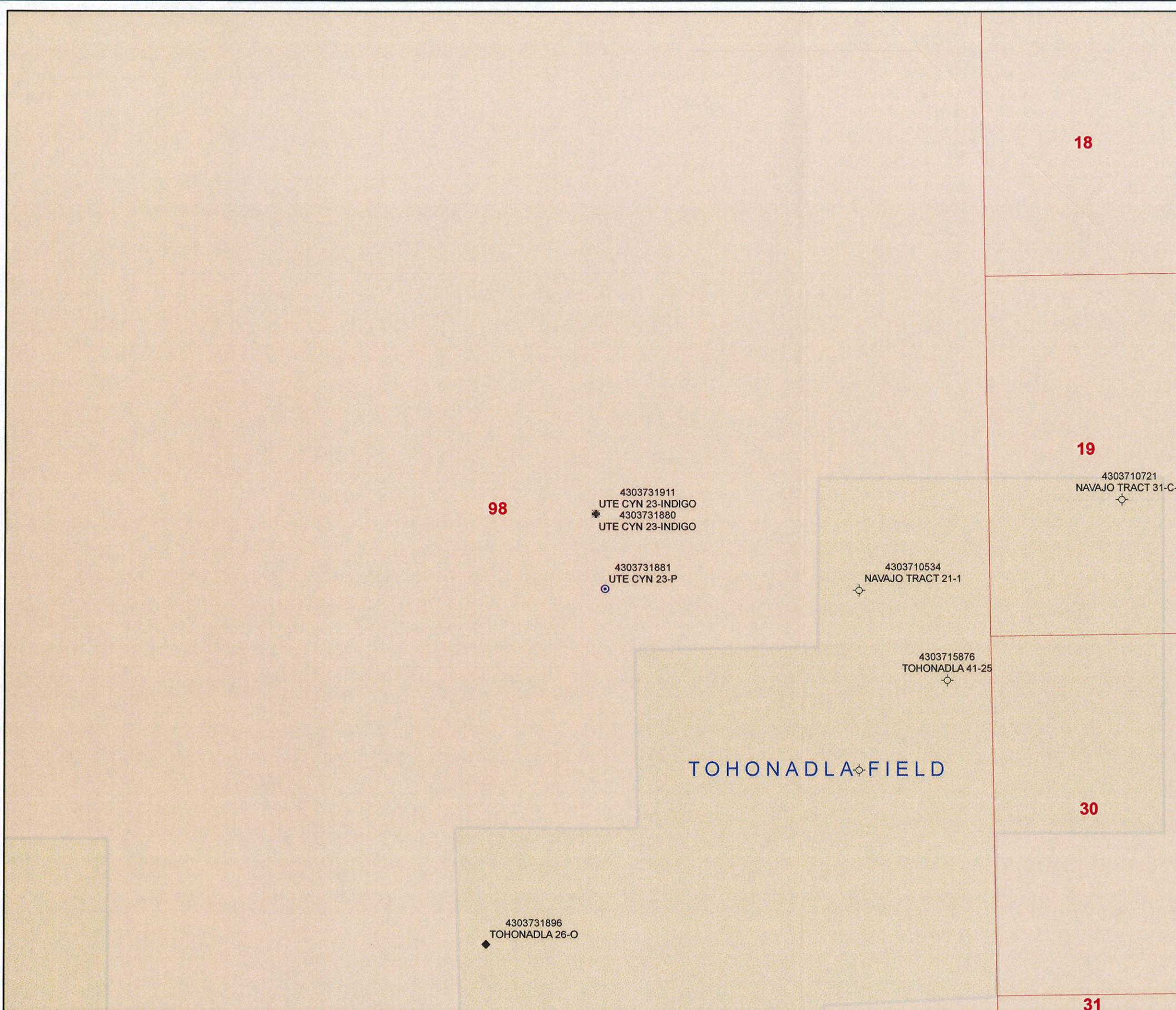
COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

STIPULATIONS: \_\_\_\_\_  
 1- Federal Approval  
 2- Spacing Strip  
 \_\_\_\_\_  
 \_\_\_\_\_

**API Number: 4303731911**  
**Well Name: UTE CYN 23-INDIGO**  
**Township 41.0 S Range 21.0 E Section 23**  
**Meridian: SLBM**  
**Operator: NAVAJO NATION OIL & GAS CO**

Map Prepared:  
 Map Produced by Diana Mason

Units	Wells Query Events
STATUS	✕ <all other values>
ACTIVE	GIS_STAT_TYPE
EXPLORATORY	<Null>
GAS STORAGE	◆ APD
NF PP OIL	⊙ DRL
NF SECONDARY	⊙ GI
PI OIL	⊙ GS
PP GAS	⊙ LA
PP GEOTHERML	⊕ NEW
PP OIL	⊕ OPS
SECONDARY	⊙ PA
TERMINATED	⊙ PGW
Fields	⊙ POW
STATUS	⊙ RET
ACTIVE	⊙ SGW
COMBINED	⊙ SOW
Sections	⊙ TA
	○ TW
	⊙ WD
	⊙ WI
	● WS



1:18,214



JON M. HUNTSMAN, JR.  
Governor

GARY R. HERBERT  
Lieutenant Governor

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

April 7, 2009

Navajo Nation Oil & Gas Company  
P O Box 4439  
Window Rock, AZ 86515

Re: Ute Canyon 23-Indigo Well, 1900' FSL, 598' FEL, NE SE, Sec. 23, T. 41 South,  
R. 21 East, San Juan County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. § 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-037-31911.

Sincerely,

Gil Hunt  
Associate Director

pab  
Enclosures

cc: San Juan County Assessor  
Bureau of Land Management, Moab Office



Operator: Navajo Nation Oil & Gas Company

Well Name & Number Ute Canyon 23-Indigo

API Number: 43-037-31911

Lease: NO-G-0402-1709

Location: NE SE                      Sec. 23                      T. 41 South                      R. 21 East

### Conditions of Approval

1. General

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

2. Notification Requirements

Notify the division within 24 hours of spudding the well.

- Contact Carol Daniels at (801) 538-5284.

Notify the Division prior to commencing operations to plug and abandon the well.

- Contact Dustin Doucet at (801) 538-5281    (801) 733-0983 home

3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. State approval of this well does not supersede the required federal approval, which must be obtained prior to drilling.

5. This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.



GARY R. HERBERT  
Governor

GREGORY S. BELL  
Lieutenant Governor

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

June 8, 2010

Navajo Nation Oil & Gas Company  
PO Box 4439  
Window Rock, AZ 86515

Re: APD Rescinded – Ute Canyon 23-Indigo, Sec. 23, T. 41S, R. 21E  
San Juan County, Utah API No. 43-037-31911

Ladies and Gentlemen:

The Application for Permit to Drill (APD) for the subject well was approved by the Division of Oil, Gas and Mining (Division) on April 7, 2009. No drilling activity at this location has been reported to the division. Therefore, approval to drill the well is hereby rescinded, effective June 8, 2010.

A new APD must be filed with this office for approval prior to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,

  
Diana Mason  
Environmental Scientist

cc: Well File  
Bureau of Land Management, Moab

Division of Oil, Gas and Mining  
**OPERATOR CHANGE WORKSHEET (for state use only)**

**ROUTING**  
 CDW

**X - Change of Operator (Well Sold)**

Operator Name Change/Merger

The operator of the well(s) listed below has changed, effective:

**8/1/2010**

<b>FROM:</b> (Old Operator): N2550- Navajo Oil & Gas Cp. 1625 Broadway, Suite 1100 Denver, CO 80202  Phone: 1 (303) 534-8300	<b>TO:</b> ( New Operator): N3930- NNOGC Exploration & Production, LLC 1625 Broadway, Suite 1000 Denver, CO 80202  Phone: 1 (303)534-8300
---	--

**CA No.** **Unit:** **N/A**

WELL NAME	SEC TWN RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS
See Attached List						

**OPERATOR CHANGES DOCUMENTATION**

Enter date after each listed item is completed

- (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 9/19/2012
- (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 9/19/2012
- The new company was checked on the **Department of Commerce, Division of Corporations Database** on: 12/31/2012
- Is the new operator registered in the State of Utah:            Business Number: 8399948-0165
- (R649-9-2)Waste Management Plan has been received on: Not Yet
- Inspections of LA PA state/fee well sites complete on: 12/31/2102
- Reports current for Production/Disposition & Sundries on: 12/31/2012
- Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: BLM BIA 8/1/2012
- Federal and Indian Units:**  
The BLM or BIA has approved the successor of unit operator for wells listed on: 8/1/2010
- Federal and Indian Communization Agreements ("CA"):**  
The BLM or BIA has approved the operator for all wells listed within a CA on: N/A
- Underground Injection Control ("UIC")** Division has approved UIC Form 5 Transfer of Authority to **Inject**, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: N/A

**DATA ENTRY:**

- Changes entered in the **Oil and Gas Database** on: 12/31/2102
- Changes have been entered on the **Monthly Operator Change Spread Sheet** on: 12/31/2012
- Bond information entered in RBDMS on: 12/31/2012
- Fee/State wells attached to bond in RBDMS on: 12/31/2012
- Injection Projects to new operator in RBDMS on: 12/31/2012
- Receipt of Acceptance of Drilling Procedures for APD/New on: 12/31/2012

**BOND VERIFICATION:**

- Federal well(s) covered by Bond Number: N/A
- Indian well(s) covered by Bond Number: RLB0006712
- (R649-3-1) The **NEW** operator of any state/fee well(s) listed covered by Bond Number N/A
- The **FORMER** operator has requested a release of liability from their bond on: N/A

**LEASE INTEREST OWNER NOTIFICATION:**

- (R649-2-10) The **NEW** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: N/A

**COMMENTS:**

Navajo Nations Oil Gas Co. (N2550) to NNOGC Exploration Production, LLC (N3930)  
Effective 8/1/2012

Well Name	Sec	TWP	RNG	API	Entity	Lease	Well Type	Well Status
TOHONADLA 26-OSCAR	26	410S	210E	4303750022		Indian	OW	APD
TOHONADLA 35-F	35	410S	210E	4303750024		Indian	OW	APD
TOHONADLA 2-G	02	420S	210E	4303750027		Indian	OW	APD
TOHONADLA 2-B	02	420S	210E	4303750028		Indian	OW	APD
TOHONADLA 1-C	01	420S	210E	4303750029		Indian	OW	APD
TOHONADLA 2-BRAVO	02	420S	210E	4303750030		Indian	OW	APD
TOHONADLA 1-F	01	420S	210E	4303750031		Indian	OW	APD
TOHONADLA 2-H	02	420S	210E	4303750032		Indian	OW	APD
TOHONADLA 1-Delta	01	420S	210E	4303750033		Indian	OW	APD
TOHONADLA 35-INDIGO	35	410S	210E	4303750034		Indian	OW	APD
TOHONADLA 35-J	35	410S	210E	4303750035		Indian	OW	APD
UTE CANYON 25G-O	25	410S	210E	4303731913	18823	Indian	OW	DRL
TOHONADLA 35-B	35	410S	210E	4303750023	18824	Indian	OW	DRL
UTE CYN 23-INDIGO	23	410S	210E	4303731880		Indian	OW	LA
TOHONADLA 35-P	35	410S	210E	4303731886		Indian	OW	LA
TOHONADLA 1-E	01	420S	210E	4303731887		Indian	OW	LA
TOHONADLA 1-D	01	420S	210E	4303731888		Indian	OW	LA
TOHONADLA 26-O	26	410S	210E	4303731896		Indian	OW	LA
UTE CYN 23-INDIGO	23	410S	210E	4303731911		Indian	OW	LA
NAVAJO TR 23-1	02	420S	210E	4303715540	6230	Indian	OW	P
DESERT CREEK 2	35	410S	230E	4303715868	6270	Indian	OW	P
TOHONADLA 1	35	410S	210E	4303715872	11202	Indian	OW	P
TOHONADLA 23-35	35	410S	210E	4303715874	11202	Indian	OW	P
NAVAJO TRIBAL 23-13	13	400S	240E	4303730971	9420	Indian	OW	P
NAVAJO TRIBAL 14-10	10	400S	240E	4303730977	10130	Indian	OW	P
SAHGZIE 1	05	420S	240E	4303731472	11032	Indian	OW	P
ANASAZI 1	05	420S	240E	4303731478	11042	Indian	OW	P
CAJON MESA 8D-1	08	400S	250E	4303731497	11074	Indian	OW	P
MONUMENT 8N-2	08	400S	250E	4303731509	11087	Indian	OW	P
RUNWAY 10G-1	10	400S	250E	4303731515	11105	Indian	OW	P
LONE MOUNTAIN CREEK 12F-1	12	420S	240E	4303731545	11148	Indian	OW	P
RUNWAY 10E-2	10	400S	250E	4303731550	11128	Indian	GW	P
BLUE HOGAN 1J-1	01	420S	230E	4303731562	11161	Indian	OW	P
TOHONADLA 2-35	35	410S	210E	4303731568	11202	Indian	OW	P
ANASAZI 5L-3	05	420S	240E	4303731572	11207	Indian	OW	P
BROWN HOGAN 1A-2	01	420S	230E	4303731573	11215	Indian	OW	P
MULE 31K (N)	31	410S	240E	4303731617	11326	Indian	OW	P
BURRO 31I	31	410S	240E	4303731708	11496	Indian	OW	P
MULE 31M	31	410S	240E	4303731710	11498	Indian	OW	P
ANASAZI 6H-1	06	420S	240E	4303731744	11773	Indian	OW	P
TOHONADLA 35-P	35	410S	210E	4303750005	11202	Indian	OW	P
TOHONADLA 1-E	01	420S	210E	4303750006	6230	Indian	OW	P
NAVAJO TRIBAL 41-2	02	420S	240E	4303731041	9437	Indian	OW	PA
MONUMENT 17E-2	17	400S	250E	4303731547	11139	Indian	OW	S
RUNWAY 10C-5A	10	400S	250E	4303731597	11152	Indian	OW	S
UTE CYN 23-P	23	410S	210E	4303731881	17282	Indian	OW	S

**NAVAJO NATION OIL & GAS COMPANY**

**EXPLORATION & PRODUCTION LLC**

1675 Broadway, Suite 1100 • Denver, Colorado • 80202

Telephone (303) 534-8300 • FAX (303) 534-1405



September 18, 2012

Utah Division of Oil, Gas and Mining  
c/o Rachel Medina  
1594 West North Temple, Suite 1210  
Salt Lake City, Utah 84114-5801

RE: Change of Operator Name and Address for Wells

Dear Rachel,

I am including with this letter several original FORM 9 to change the operator on wells. This probably will be done in two steps.

1. (16 wells) Change of Operator from RIM Southwest Corporation to Navajo Nation Oil & Gas Co.
2. (Same 16 wells) Change of Operator from Navajo Nation Oil & Gas Co. to NNOGC Exploration and Production, LLC.

We have recently registered our LLC with the State of Utah. The Utah Entity Number for NNOGC Exploration and Production, LLC is: 8399948-0165. Also, a new DOGM No. has been applied for for the LLC.

The name and address change is as follows:

OLD: Navajo Nation Oil & Gas Co.  
1675 Broadway, Suite 1100  
Denver, CO 80202  
(DOGM Operator No. N2550)

NEW: NNOGC Exploration and Production, LLC  
1625 Broadway, Suite 1000  
Denver, CO 80202

Should you require any additional information please contact me at 303-534-8300.

Sincerely,

A handwritten signature in black ink that reads "Katie Hynes". The signature is written in a cursive, flowing style.

Katie Hynes  
Associate Landman

RECEIVED  
SEP 19 2012  
DIV. OF OIL, GAS & MINING

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 9

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER _____		5. LEASE DESIGNATION AND SERIAL NUMBER: See Attached
2. NAME OF OPERATOR: Navajo Nation Oil & Gas Co.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Navajo Nation
3. ADDRESS OF OPERATOR: 1675 Broadway, Suite 1100 CITY Denver STATE CO ZIP 80202		7. UNIT or CA AGREEMENT NAME:
4. LOCATION OF WELL FOOTAGES AT SURFACE: See Attached List		8. WELL NAME and NUMBER: See Attached
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:		9. API NUMBER: Various
COUNTY: San Juan		10. FIELD AND POOL, OR WILDCAT: Various
STATE: UTAH		

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input checked="" type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The Navajo Nation Oil and Gas Co. has registered its new entity with the State of Utah. The Operator Name and Address change applies to all wells currently operated by DOGM No. N2550 (see attachment).

The Utah Entity Number for the LLC is: 8399948-0165.

The new Entity is:

NNOGC Exploration and Production, LLC  
1625 Broadway, Suite 1000  
Denver, CO 80202

NEW DOGM No. : 3930

Bond No. RLB0006712

Effective: July 10, 2010

NAME (PLEASE PRINT) Lauren Germinario TITLE Land Manager  
SIGNATURE Lauren Germinario DATE 9/14/12  
**APPROVED**

(This space for State use only)

DEC 3 1 2012

RECEIVED

DIV. OIL GAS & MINING  
BY: Rachel Medina

SEP 17 2012

**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 9

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

<b>1. TYPE OF WELL</b> OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER _____		<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> See Attached
<b>2. NAME OF OPERATOR:</b> Navajo Nation Oil & Gas Co		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b> Navajo Nation
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 5069                      CITY Window Rock                      STATE AZ                      ZIP 86515		<b>7. UNIT or CA AGREEMENT NAME:</b>
<b>4. LOCATION OF WELL</b> FOOTAGES AT SURFACE: _____		<b>8. WELL NAME and NUMBER:</b> See Attached
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: _____		<b>9. API NUMBER:</b> Various
COUNTY: San Juan		<b>10. FIELD AND POOL, OR WILDCAT:</b> Various
STATE: UTAH		

**11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> <b>NOTICE OF INTENT</b> (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
<input checked="" type="checkbox"/> <b>SUBSEQUENT REPORT</b> (Submit Original Form Only) Date of work completion: _____	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input checked="" type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

**12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS.** Clearly show all pertinent details including dates, depths, volumes, etc.

The Navajo Nation Oil & Gas Co. has registered its new entity with the State of Utah. The name and address change applies to all the wells that have recently changed from RIM Southwest Corporation to Navajo Nation Oil & Gas Co. (DOGM No. N2550)

The Utah Entity Number for the LLC is: 8399948-0165

Note: A new DOGM No. has been applied for NNOGC Exploration and Production, LLC

Please see the attached list of wells that will now be operated by:

NNOGC Exploration and Production, LLC  
1625 Broadway, Suite 1000  
Denver, CO 80202

All of these wells are covered by Bond No. RLB0006712

Effective: Aug 1, 2012

NAME (PLEASE PRINT) <u>Lauren Germinario</u>	TITLE <u>Land Manager</u>
SIGNATURE <u><i>Lauren Germinario</i></u>	DATE <u>9/18/2012</u>

This space for State use only) **APPROVED**

**DEC 31 2012**

DIV. OIL GAS & MINING

BY: Rachel Medina (See Instructions on Reverse Side)

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