

NAVAJO NATION

APD

**Tribal Operations on
Tribal Lands**

PERMIT

**ACCEPTED FOR
RECORD ONLY**

way Nation 046 Co
Expires 10/20/2019
Dues 6/14/11 & 6/28/11 w/ BIA
Form 3160-3
(August 2007)

NOS: 0
APOD: 0
MP: 0
SMA: BIA (NN)
BOND: 0
CAPA: 0

RECEIVED

DEC 12 2011

RCVD APR 17 '12
OIL CONS. DIV.
DIST. 3

FORM APPROVED
OMB No. 1004-0137
Expires July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR Bureau of Land Management
BUREAU OF LAND MANAGEMENT Farmington Field Office

Lease Serial No.
NO-G-1008-1773

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		6. If Indian, Allottee or Tribe Name NAVAJO NATION
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No.
2. Name of Operator NNOGC Exploration and Production LLC		8. Lease Name and Well No. CBM A Pod 11 G #1
3a. Address 1675 BROADWAY, SUITE 1100 DENVER, CO 80202	3b. Phone No. (include area code) 303 534 8300	9. API Well No. 30-045-35335
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 2249' FNL & 2052' FEL SWNE At proposed prod. zone SAME		10. Field and Pool, or Exploratory BASIN FRUIT. COAL, WC GALL, & DK
14. Distance in miles and direction from nearest town or post office* 10 AIR MILES SSW OF FARMINGTON, NM		11. Sec., T. R. M. or Blk. and Survey or Area SWNE 11-27N-14W NMPM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 7,332'	16. No. of acres in lease 150,000 ✓	17. Spacing Unit dedicated to this well N2 (Fruit. Coal & Dakota) and SWNE (Gallup)
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 2,078' (11-27-14 #15)	19. Proposed Depth 6,000'	20. BLM/BIA Bond No. on file RLB0006712 ✓
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 5,924' UNGRADED	22. Approximate date work will start* 11/01/2011	23. Estimated duration 1 MONTH

24. Attachments

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

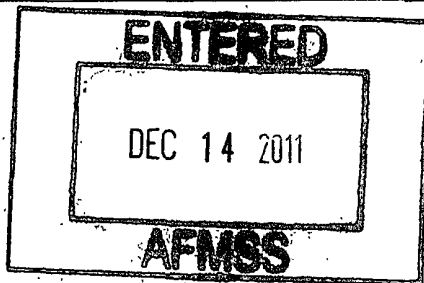
- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the BLM.

25. Signature <u>Brian Wood</u>	Name (Printed/Typed) BRIAN WOOD (505 466-8120)	Date 07/09/2011
Title CONSULTANT (FAX 505 466-9882)		
Approved by (Signature) NAVAJO NATION MINERALS DEPT.	Name (Printed/Typed)	Date JUN 14 2011
Title	Office	

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.

(Continued on page 2)



APPENDIX 1-1

*(Instructions on page 2)

ACCEPTED FOR RECORD

DEC 15 2011

FARMINGTON FIELD OFFICE
BY SW

EXHIBIT "A"

NOTIFY AZTEC OCD 24 HRS
PRIOR TO CASING & CEMENT

NMOCD
ACCEPTED FOR RECORD
A

APR 30 2012 ea

A COMPLETE C-144 MUST BE SUBMITTED TO AND APPROVED BY THE NMOCD FOR: A PIT, CLOSED LOOP SYSTEM, BELOW GRADE TANK, OR PROPOSED ALTERNATIVE METHOD, PURSUANT TO NMOCD PART 19.15.17, PRIOR TO THE USE OR CONSTRUCTION OF THE ABOVE APPLICATIONS.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Mining Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C - 102
Revised July 16, 2010
Submit one copy to appropriate District Office

☐ AMENDED REPORT

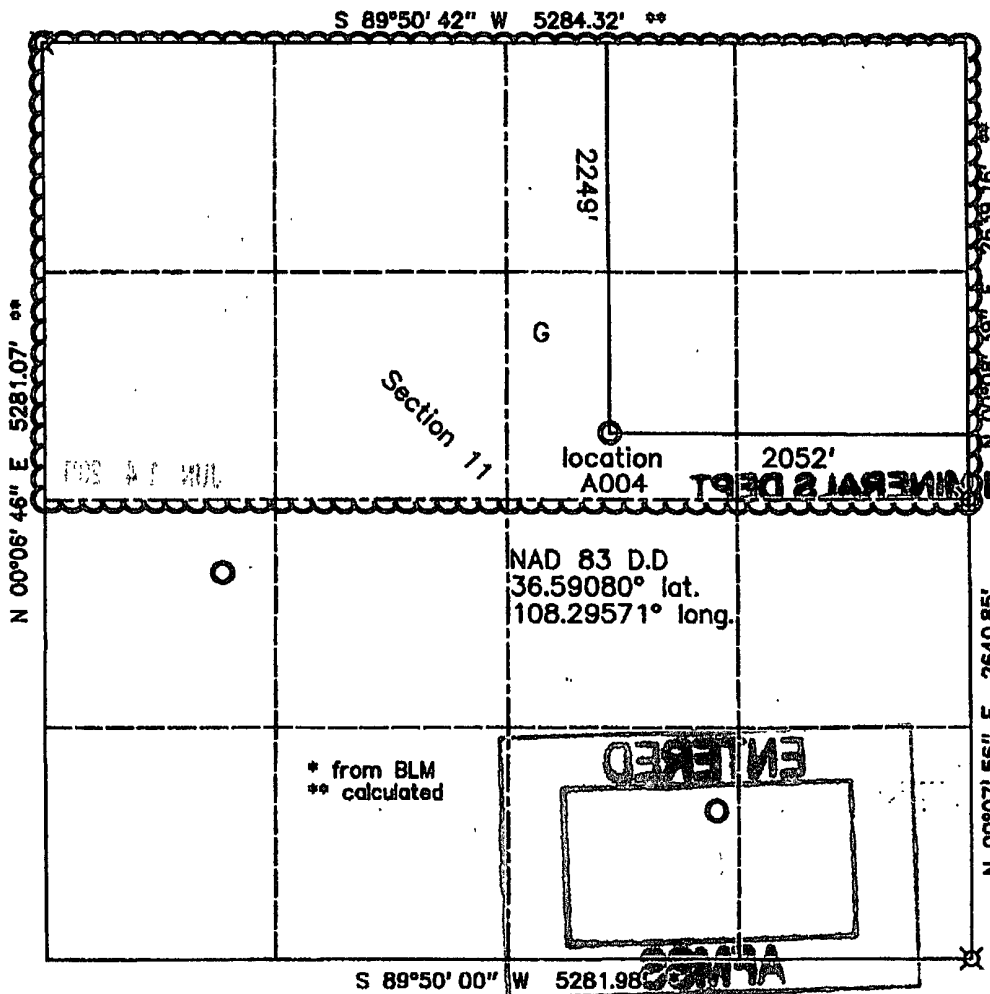
WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045- 35335	² Pool Code 71629	³ Pool Name BASIN FRUITLAND COAL (GAS)
⁴ Property Code 39182	⁵ Property Name CBM A Pod 11G	
⁷ OGRID No. 242841	⁸ Operator Name NNOGC Exploration and Production LLC	
		⁶ Well Number 1
		⁹ Elevation 5924'

¹⁰ Surface Location									
UL or Lot	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County
G	11	27 N.	14 W	400	2249'	NORTH	2052'	EAST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface									
UL or Lot	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County
¹² Dedicated Acres 320		¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order No.			

No allowable will assigned to this completion until all interests have been consolidated or a non standard unit has been approved by the division.



¹⁷ OPERATOR CERTIFICATION	
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that the organization either owns a working interest or unleased mineral interest in the land including the bottom hole location or has the right to drill this well on this location pursuant to a contract with an owner of a mineral interest or working interest, or a temporary pooling agreement or a compulsory pooling order heretofore made by the division.	
Signature <i>Brian Wood</i>	Date 7-9-11
Printed Name BRIAN WOOD	
Email brian@permitswest.com	
SURVEYOR CERTIFICATION	
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.	
Date of Survey 05/24/11	
Signature and Title of Professional Surveyor <i>Gerald D. Hildreth</i> REGISTERED LAND SURVEYOR	
Certificate Number 6844	

APPENDIX 1-2

District I
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WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-35335		² Pool Code 97870		³ Pool Name WC27N14W11; GALLUP OIL	
⁴ Property Code 39182		⁵ Property Name CBM A Pod 11G			⁶ Well Number 1
⁷ OGRID No. 242841		⁸ Operator Name NNOGC Exploration and Production LLC			⁹ Elevation 5924'

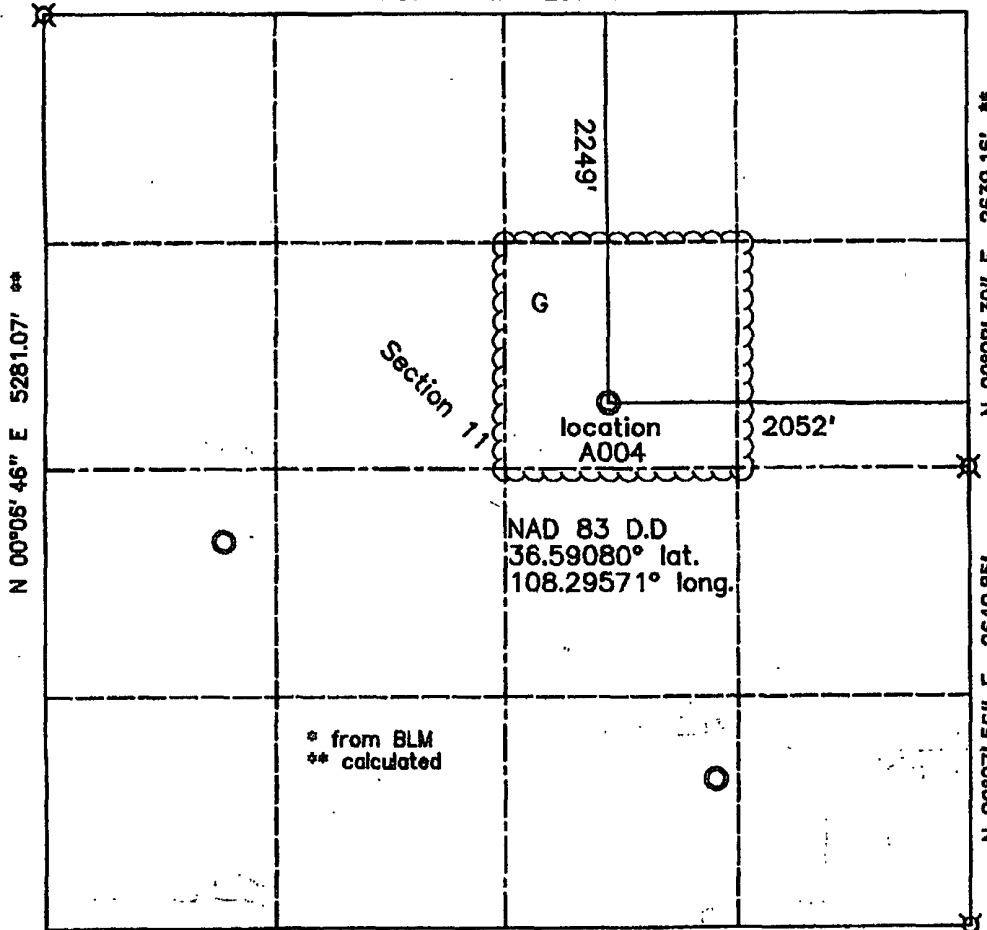
¹⁰ Surface Location									
UL or Lot	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County
G	11	27 N.	14 W.	400	2249'	NORTH	2052'	EAST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface									
UL or Lot	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County

¹² Dedicated Acres 40	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
-------------------------------------	-------------------------------	----------------------------------	-------------------------

No allowable will assigned to this completion until all interests have been consolidated or a non standard unit has been approved by the division.

S 89°50' 42" W 5284.32' **



OPERATOR CERTIFICATION	
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or undivided mineral interest in the land underlying the bottom hole location or has the right to drill this well at this location pursuant to a contract with the owner of a mineral interest or working interest or in a voluntary pool agreement or a compulsory pooling order heretofore entered by the division.	
Signature <i>Brian Wood</i>	Date 7-9-11
Printed Name BRIAN WOOD	
E-mail Address brian@permitswest.com	
SURVEYOR CERTIFICATION	
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.	
Date of Survey 05/24/11	
Signature and Seal of Professional Surveyor <i>Gerald H. Weston</i>	
Certificate Number 6844	

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WELL LOCATION AND ACREAGE DEDICATION PLAT

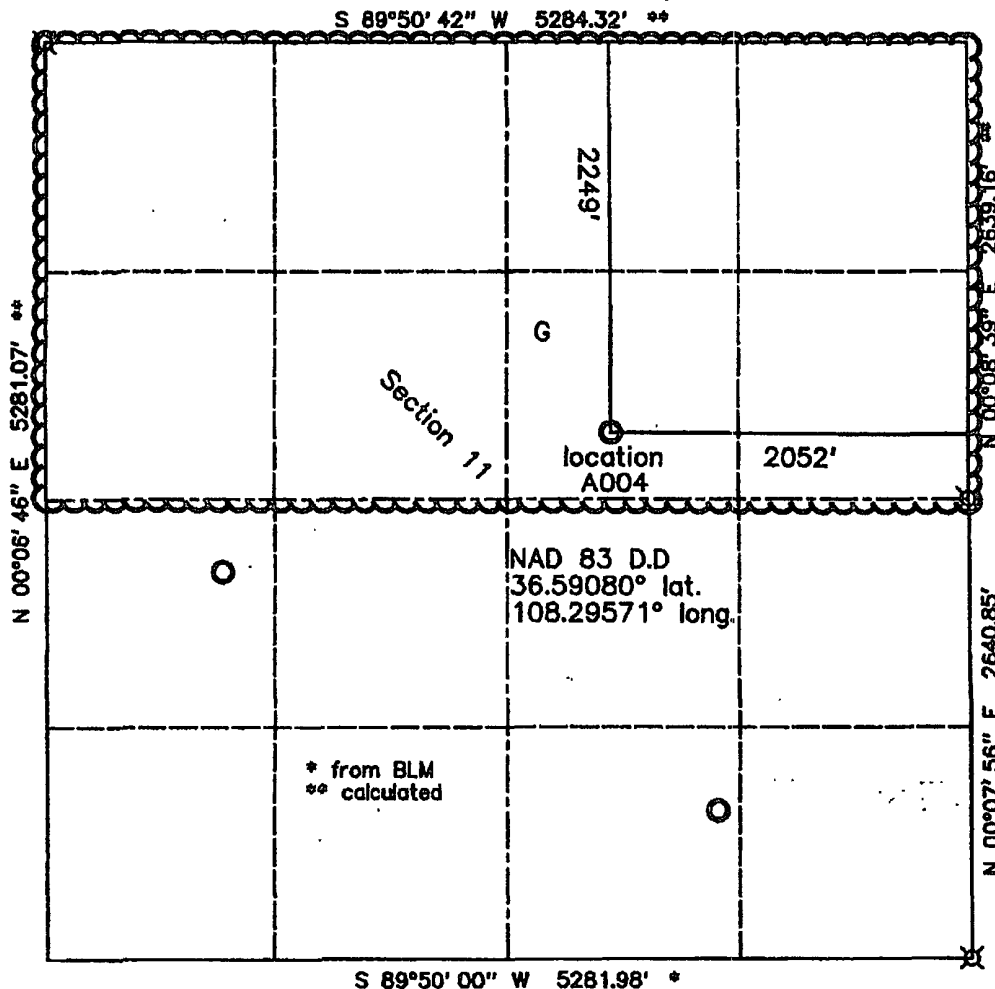
¹ API Number 30-045- 35335		² Pool Code 71599		³ Pool Name BASIN DAKOTA	
⁴ Property Code 39182		⁵ Property Name CBM A Pod 11G			⁶ Well Number 1
⁷ OGRID No. 242841		⁸ Operator Name NNOGC Exploration and Production LLC			⁹ Elevation 5924'

¹⁰ Surface Location									
UL or Lot G	Section 11	Township 27 N.	Range 14 W.	Lot Idn. 400	Feet from the 2249'	North/South line NORTH	Feet from the 2052'	East/West line EAST	County SAN JUAN

¹¹ Bottom Hole Location If Different From Surface									
UL or Lot	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County

¹² Dedicated Acres 320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
--------------------------------------	-------------------------------	----------------------------------	-------------------------

No allowable will assigned to this completion until all interests have been consolidated or a non standard unit has been approved by the division.



OPERATOR CERTIFICATION	
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the bottom hole location or has the right to drill this well at this location pursuant to a contract with the owner of a mineral interest or working interest, or pursuant to a lease agreement or a compulsory pooling order heretofore entered by the division.	
Signature <i>Brian Wood</i>	Date 7-9-11
Printed Name BRIAN WOOD	
E-mail Address brian@permitswest.com	
SURVEYOR CERTIFICATION	
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct in the best of my belief.	
Date of Survey 05/24/11	
Signature and Seal of Professional Surveyor <i>Gerald S. Huddleston</i>	
Certificate Number 6844	

NNOGC Exploration and Production LLC
CBM A Pod 11 G #1
2249' FNL & 2052' FEL
Sec. 11, T. 27 N., R. 14 W.
San Juan County, New Mexico

PAGE 3

3. PRESSURE CONTROL

A double ram type $\geq 2,000$ psi working pressure BOP with a rotating head system will be used. See the preceding page for a diagram of the typical BOP equipment. All ram type preventers and related equipment will be hydraulically tested to $\approx 1,500$ psi at nipple-up and after any use under pressure. A typical diagram is attached.

The blind rams will be hydraulically activated and checked for operational readiness each time the pipe is pulled out of the hole. All checks of the BOP stack and equipment will be noted on the daily drilling report. The BOP equipment will include a kelly cock, floor safety valve, and choke manifold. All will be rated to $\geq 2,000$ psi.

4. CASING & CEMENT

<u>Hole Size</u>	<u>O. D.</u>	<u>Weight</u>	<u>Grade</u>	<u>Age</u>	<u>Coupling</u>	<u>Depth Set</u>
12-1/4"	8-5/8"	24#	J-55	New	ST & C	350'
7-7/8"	4-1/2"	10.5#	J-55	New	✓ T & C S	6,000'

Surface casing will be cemented to the surface with 245 sacks (289 cubic feet) Class B with 3% CaCl_2 . Yield = 1.18 cubic feet per sack. Slurry weight = 15.6 pounds per gallon. Excess = 100%. W.O.C.=12 hours. Pressure test the surface casing to $\approx 1,500$ psi for 30 minutes. A notched collar and 3 centralizers will be used on the bottom 3 collars.

Production casing will be cemented to the surface. A DV tool will be set at $\approx 3,000'$. Hole will first be circulated with $\geq 150\%$ hole volume of mud and ≈ 30 barrels of fresh water. Total cement volume = 2,284 cubic feet ($\approx 65\%$ excess). A 4-1/2" cement guide shoe and self filling float collar will be used. Place the float one joint above the shoe. Place 10 centralizers spaced every



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other joint above the shoe, 2 turbolizers on the collar below the DV tool, and 2 turbolizers above the DV tool. Place 5 turbolizers every third joint from the top of the well.

First Stage: Lead with 570 sacks (1,003 cubic feet) Class B 65/35 poz with 6% gel + 1% CaCl_2 + 4% phenoseal + 1/4 pound per sack cello flake. Yield = 1.76 cubic feet per sack. Slurry weight = 12.8 pounds per gallon.

First Stage: Tail with 100 sacks (146 cubic feet) Class B 50/50 poz with 0.15% dispersant + 1% CaCl_2 + 1/4 pound per sack cello flake. Yield = 1.46 cubic feet per sack. Slurry weight = 13.0 pounds per gallon.

Second Stage: Precede cement with ≈ 20 barrels of water. Cement with ≈ 645 sacks (1,135 cubic feet) Class B 65/35 poz with 6% gel + 1% CaCl_2 + 1/4 pound per sack cello flake. Yield = 1.76 cubic feet per sack. Slurry weight = 12.8 pounds per gallon.

5. MUD PROGRAM

The surface hole will be drilled with a fresh water mud. The production hole will be drilled with a fresh water polymer. Weighting materials will be drill solids or, if conditions dictate, barite. Maximum expected mud weight = 9.5 pounds per gallon.

6. CORES, LOGS, & TESTS

No cores or drill stem tests are currently planned. FDC/CNL/GR/SP and DIL logs will be run from the base of the surface casing to TD.



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San Juan County, New Mexico

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7. DOWN HOLE CONDITIONS

No abnormal temperatures, abnormal pressures, or hydrogen sulfide are expected. Maximum expected bottom hole pressure will be $\approx 2,598$ psi.

8. OTHER INFORMATION

The anticipated spud date is after the crop circle to the north is harvested. It is expected it will take ≈ 10 days to drill and ≈ 2 weeks to complete the well.



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Surface Use Plan

1. DIRECTIONS (See PAGES 11 & 12)

From the NM 371 San Juan River bridge in southwest Farmington
Go South $\approx 6\frac{1}{2}$ miles on NM 371 to the equivalent of Mile Post 99.8
Then turn right and go West 2.3 miles on paved N-3003
Then turn left and go South 4.0 miles on paved N-4055
Then turn right and go West 1.2 miles on paved N-4150
Then turn right and go Northwest 0.2 miles on a dirt road onto the pad

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

2. ROAD WORK

NM One Call (811) and NAPI (505 566-2623 or 505 793-4923) will be called at least 2 working days before construction starts. The pad overlaps an existing road. Upgrade of the existing road will consist of rocking as needed.

3. EXISTING WELLS (See PAGE 13)

There are 2 plugged wells within a mile radius. There are no water, oil, gas, or injection wells within a mile radius.

4. PROPOSED PRODUCTION FACILITIES (See PAGES 12 & 14)

Production facilities will include a gas (propane or well's own gas) powered pump, separator, meter run, and above ground tanks. All of the equipment



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will be painted a flat Carlsbad brown and installed on the pad. All surface equipment will be at least 65' from the edge of NAPI fields.

NNOGC will bury a ≈ 4 " O. D. gas pipeline and a ≈ 4 " O. D. water pipeline in one 2,718.24' long trench to its Raven pipeline system. Maximum pipeline corridor land use width will be 40 feet.

5. WATER SUPPLY

Water will be trucked from Farmington.

6. CONSTRUCTION METHODS & MATERIALS (See PAGES 15 - 17)

The top 6" of soil and brush will be stripped and stockpiled northwest of the pad. The pit subsoil will be piled northwest of the pit and separate from the topsoil. A diversion ditch will be cut around the northeast corner of the pad. A minimum 12 mil plastic liner will be installed in the reserve pit. 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 Farmington.

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.



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Sec. 11, T. 27 N., R. 14 W.
San Juan County, New Mexico

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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 logger.

9. WELL SITE LAYOUT

See PAGES 15 - 17 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 pipeline trench is back filled and the reserve pit is dry, at which point it too will be back filled. Liner top will be folded over contents and covered with $\geq 48"$ of dirt. The reserve pit and any pad areas not needed for producing the well, especially the east corner of the pad, 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, subsoil will be used to fill the reserve pit, all compacted areas will be ripped $\geq 12"$ deep with the contour, topsoil will be spread across all compacted areas and harrowed with the contour. A seed mix will be drilled as prescribed by the Navajo Nation, BIA, or BLM. Weeds will be controlled in accordance with Navajo EPA requirements.



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San Juan County, New Mexico

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11. SURFACE OWNER

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

Land use will be:

Well Site: 205' x 270' = 1.27 acres
Road: N/A (overlaps existing road)
+ Pipeline: 40' x 2,718.24' = 2.49 acres
Total land use = 3.76 acres

12. OTHER INFORMATION

The nearest hospital is a $\approx 1/3$ hour drive away in southwest Farmington.

Greg Yazzie and Mike Freeman (both NAPI), John Hatch (NNOGC), West Hahn (Walsh Engineering), Gerald Huddleston (Huddleston Surveying), and Brian Wood (Permits West) conducted an on site inspection on June 14, 2011. ✓
Bertha Spencer (BIA), Esther Kee (Navajo Land Department), Pam Kyselka (Navajo Fish & Wildlife Department), Greg Yazzie (NAPI), West Hahn (Walsh Engineering), and Charlie Black (Permits West) conducted an on site inspection on June 28, 2011. ✓

13. REPRESENTATION & CERTIFICATION

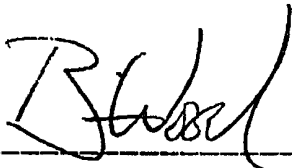
I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in



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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 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 9th day of July, 2011.



Brian Wood, Consultant
Permits West, Inc.

37 Verano Loop, Santa Fe, NM 87508

(505) 466-8120

FAX: (505) 466-9682

Mobile: (505) 699-2276

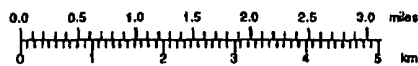
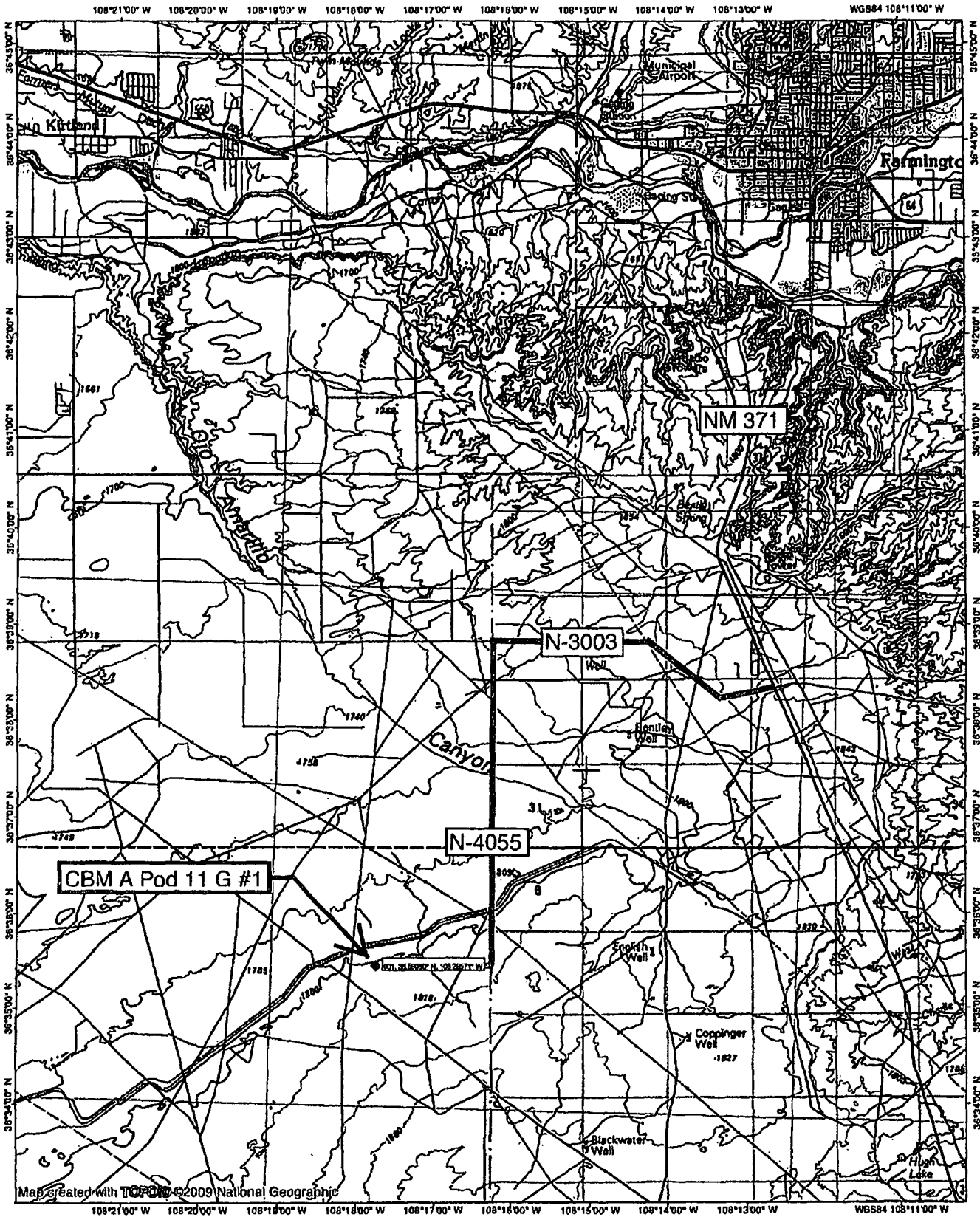
The field representatives will be:

John Hatch
Navajo Nation Oil & Gas Co., Inc.
1675 Broadway, Suite 1100
Denver, CO 80202
(303) 534-8300

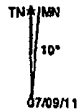
or

Paul Thompson or West Hahn
Walsh Engineering & Production Corp.
7415 East Main St.
Farmington, NM 87402
(505) 327-4892

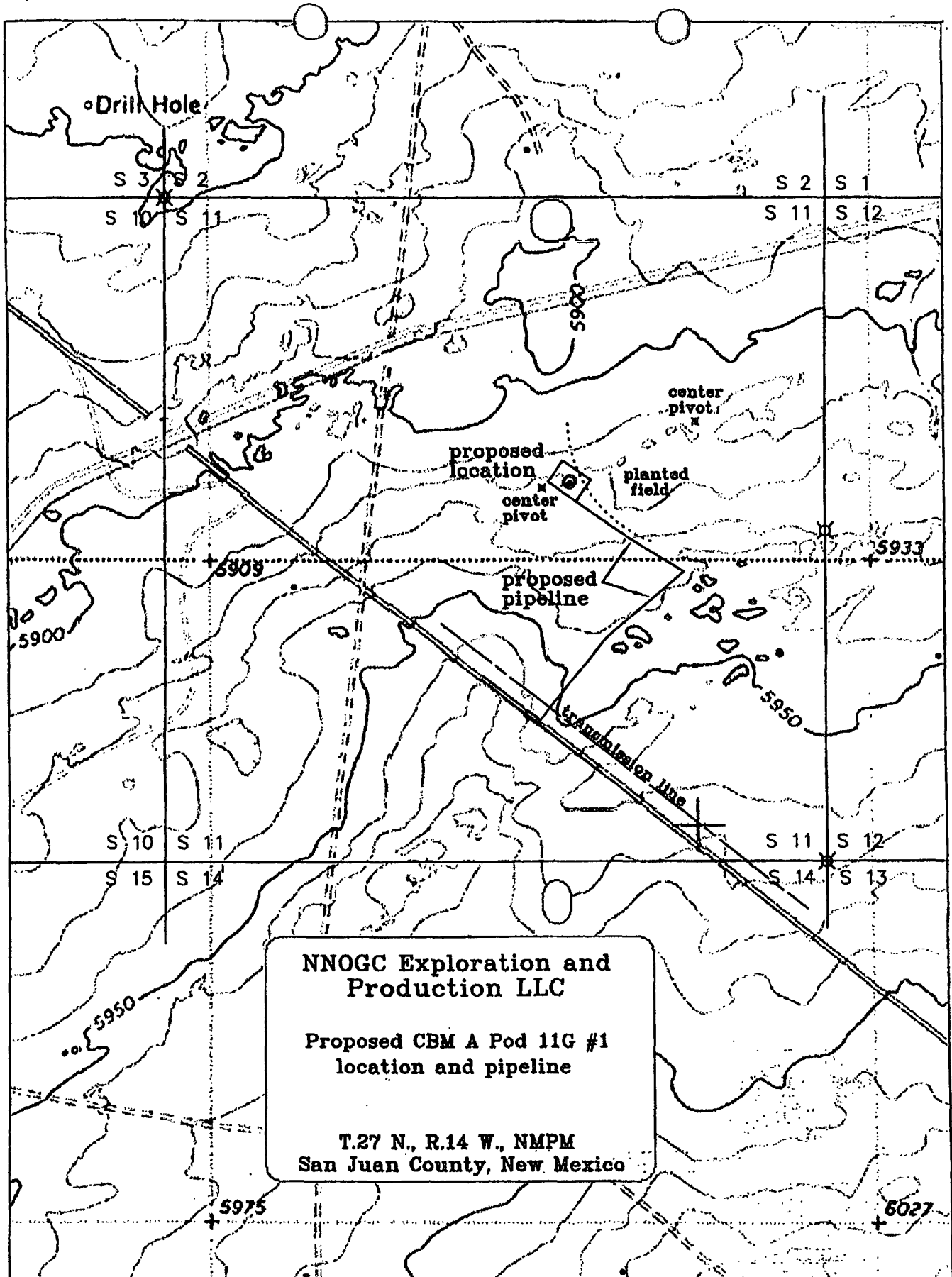




APPENDIX 1-15



07/09/11



APPENDIX 1-16

S 3 S 2
S 10 S 11

S 2 S 1
S 11 S 12

R.14 W.

LINE DESCRIPTION TABLE

L1	N 38°50' 17" E	885.16'	
L2	N 49°49' 25" E	807.07'	
L3	N 58°02' 43" W	608.11'	
L4	N 54°46' 26" W	417.90'	
L5	S 83°30' 43" E	2015.21'	(tie)
L6	N 56°17' 44" E	2784.81'	(tie)

Section 11
2,718.24 L.F.

N 00°06' 46" E 5281.07' **

Proposed
CBM A Pod 11G #1
location & well pad

center pivot extents

center
pivot

27+18.24 = EOL at
proposed well pad

PI 456 23+00.34

L5 (tie)

S 11 S 12
1/4

existing transmission line
Running Horse P/L

PI 459 8+85.16

PI 458 16+92.23

L6 (tie)

N 00°07' 56" E 2640.85'

PI 357 = 0+00 BOL at
existing proposed
pipeline

existing proposed
pipeline

S 10 S 11
S 15 S 14

S 89°50' 00" W 5281.98' *

S 11 S 12
S 14 S 13

T.29 N.

Basis of Bearing:
GPS True North

* from BLM
** calculated



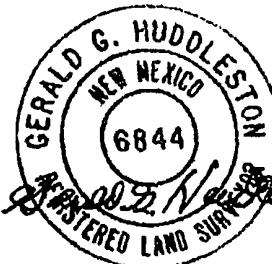
0' 1000'

Scale: 1" = 1000'

✕ fnd. std. BLM monument

◇ calculated corner

□ survey centerline PI



I, Gerald G. Huddleston, a New Mexico registered Professional surveyor certify that I conducted and am responsible for this survey, that this survey is true and correct to the best of my knowledge and belief, and that this survey and plat meet the Minimum Standards for Surveying in New Mexico. I further certify that this survey is not a land division or subdivision as defined in the New Mexico Subdivision Act and that this is a survey of a proposed pipeline.

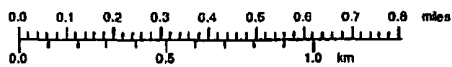
NNOGC Exploration & Production LLC

Proposed CBM A Pod 11G #1 pipeline -
Section 11,
T.27 N., R.14 W., NMPM,
San Juan County, New Mexico

26 May 2011

HUDDLESTON LAND SURVEYING

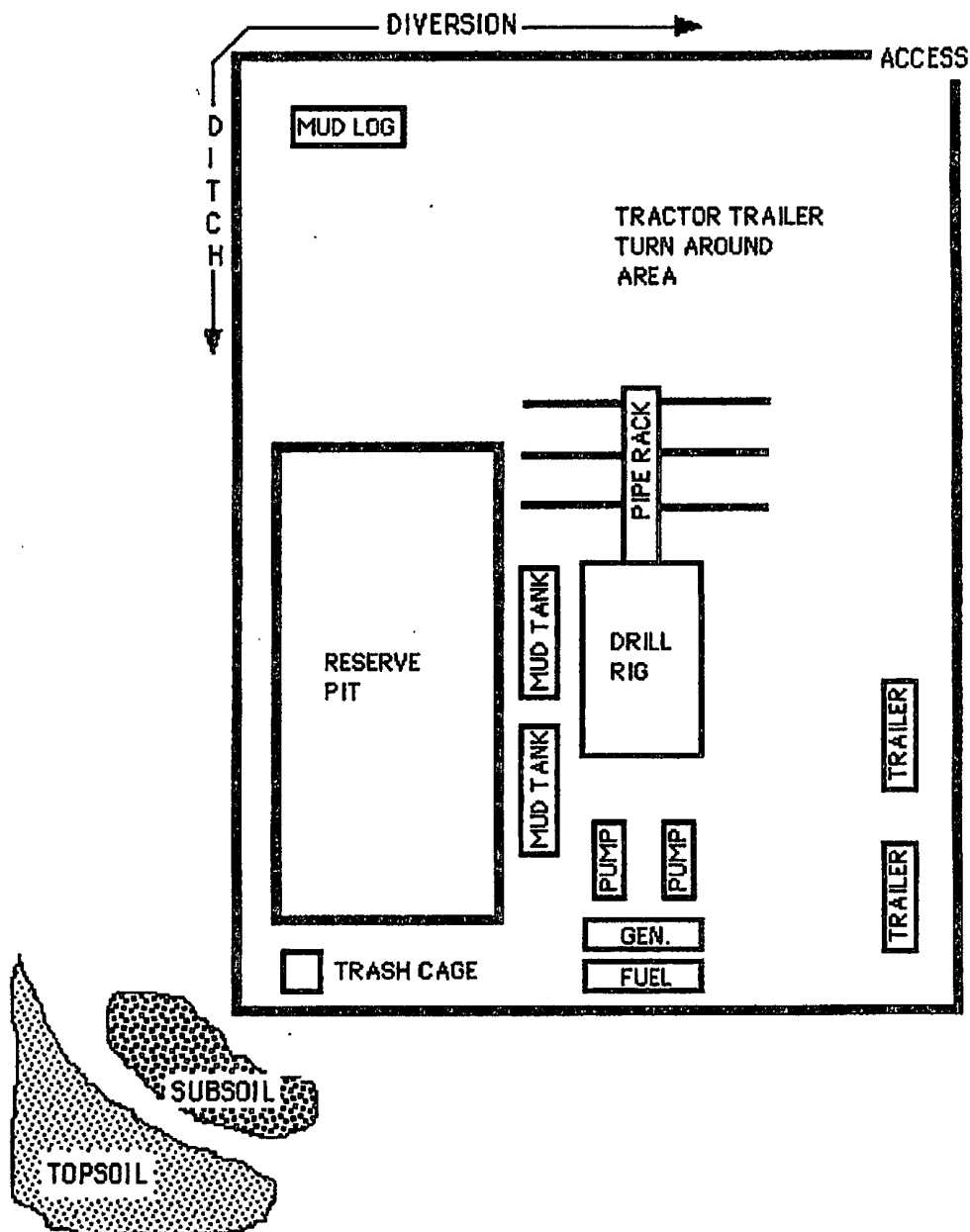
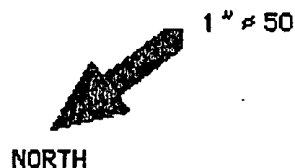
P.O. DRAWER KK / CORTEZ, CO 81321 / 970-565-3330



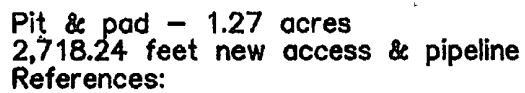
TN*JMN
10°
07/09/11

NNOGC Exploration and Production LLC
CBM A Pod 11 G #1
2249' FNL & 2052' FEL
Sec. 11, T. 27 N., R. 14 W.
San Juan County, New Mexico

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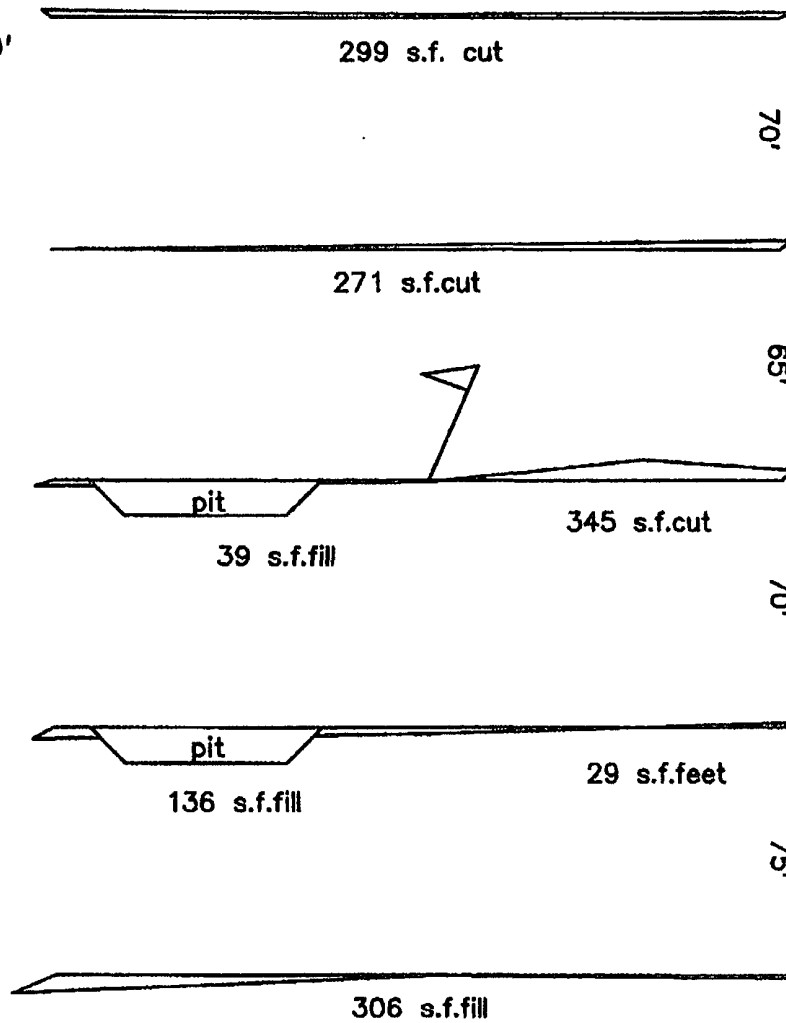
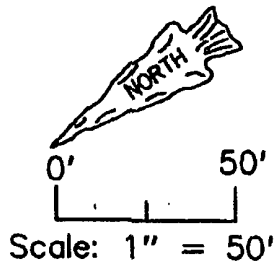


Well pad



APPENDIX 1-20

CBM A Pod 11G#1
Cross sections



Approximate dirt quantities
above reserve pit:
1963 cys. cut
841 cys. fill
1122 cys. excess

NNOGC Exploration and Production LLC
CBM A Pod 11 G #1
2249' FNL & 2052' FEL
Sec. 11, T. 27 N., R. 14 W.
San Juan County, New Mexico

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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>
Kirtland Shale	0'	10'	+5,924'
Fruitland Formation	899'	909'	+5,025'
Pictured Cliffs Sandstone	1,144'	1,154'	+4,780'
Lewis Shale	1,449'	1,459'	+4,475'
Mesa Verde Sandstone	2,014'	2,024'	+3,910'
Point Lookout Sandstone	3,749'	3,759'	+2,175'
Mancos Shale	3,949'	3,959'	+1,975'
Upper Gallup Sandstone	4,849'	4,859'	+1,075'
Lower Gallup Sandstone	5,059'	5,069'	+865'
Sanostee	5,299'	5,309'	+625'
Dakota Sandstone	5,774'	5,784'	+150'
Morrison Formation	5,949'	5,959'	-25'
Total Depth (TD)	6,000'	6,010'	-76'

2. NOTABLE ZONES

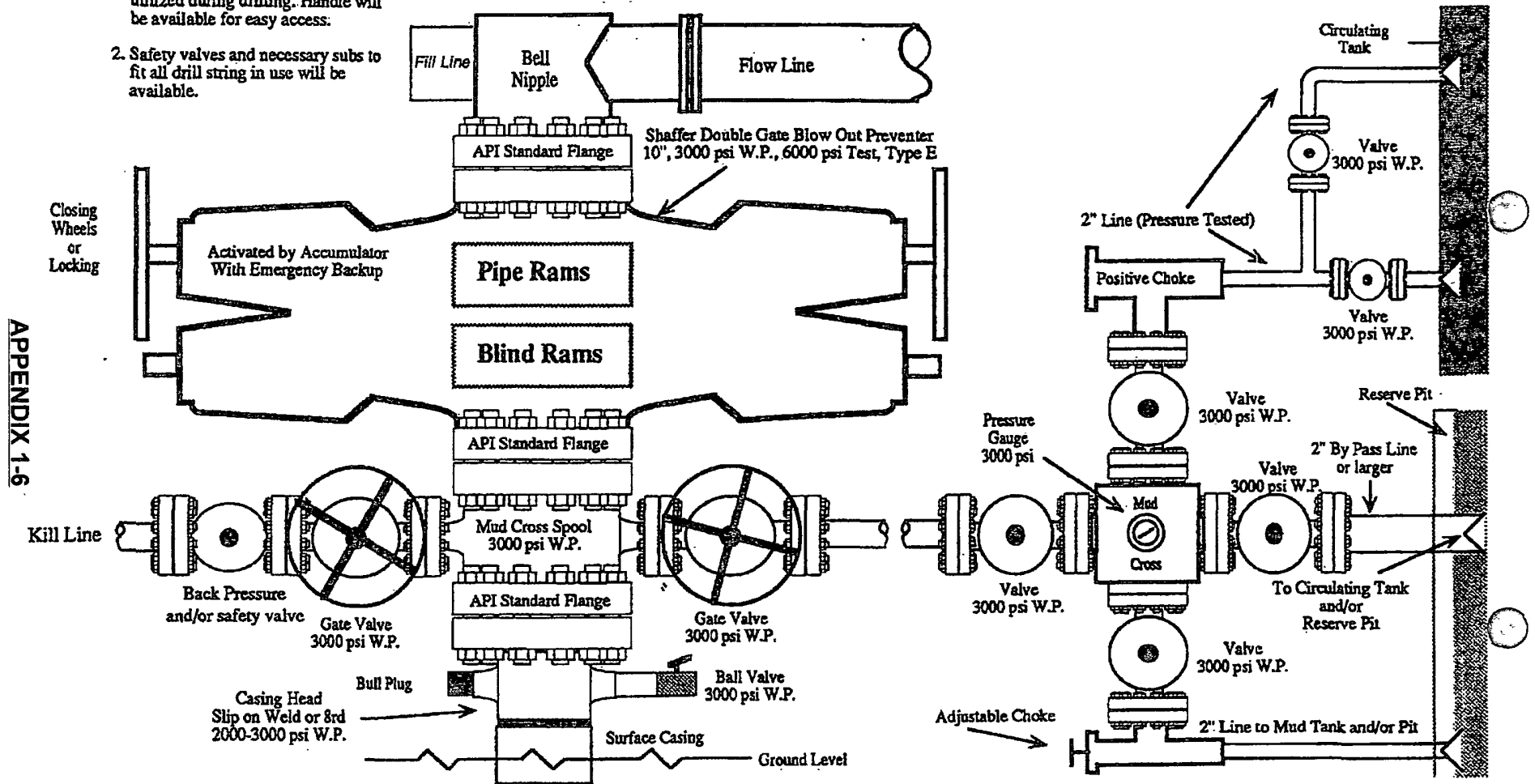
Fruitland coal gas is the primary goal. Gallup and Dakota are the secondary goals. Oil and gas shows which appear to the well geologist to be commercial will be tested. All fresh water and prospectively valuable minerals will be recorded by depth and protected with casing and cement. Water could be found in the Fruitland, Pictured Cliffs, Point Lookout, Gallup, and Dakota formations.



2,000 PSI BOP SYSTEM

Note: 1. An upper Kelly cock valve will be utilized during drilling. Handle will be available for easy access.

2. Safety valves and necessary subs to fit all drill string in use will be available.



Note: This equipment is designed to meet requirements for a 2-M rating standard per 43 CFR part 3160 (amended). Proper operation and testing of equipment will be carried out per standard. 2,000 psi equipment can be substituted in the drawing to meet minimum requirements per standard.