

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒DEEPEN ☐

b. TYPE OF WELL

OIL  
WELL ☒GAS  
WELL ☐OTHER ☐SINGLE  
ZONE ☒MULTIPLE  
ZONE ☐

2. NAME OF OPERATOR

Playa Minerals &amp; Energy, Inc. (281) 931-3800

3. ADDRESS AND TELEPHONE NO.

650 N. Sam Houston Pkwy E., Suite 500, Houston, TX, 77060

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*

At surface

1308' FSL &amp; 2310' FWL

At proposed prod. zone

Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*

5 air miles N of Waterflow, NM

15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest drilg. unit line, if any)

10'

16. NO. OF ACRES IN LEASE

40.0

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

40 SE 1/4 SW 1/4

18. DISTANCE FROM PROPOSED LOCATION\*  
TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

586'

19. PROPOSED DEPTH

2,350'

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

5,427' ungraded ground

22. APPROX. DATE WORK WILL START\*

Upon Approval

23.

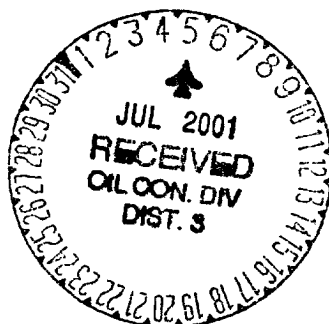
## PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
8-3/4"	7" (J-55)	20#	320'	≈107 cu ft & to surface
6-1/4"	4-1/2" (J-55)	9.5#	2,350'	≈409 cu ft & to surface

THIS SPACE IS FOR THE USE OF THE BUREAU OF LAND MANAGEMENT AND SHOULD BE USED TO DESCRIBE THE PROPOSED PROGRAM AND ANY OTHER INFORMATION THAT MAY BE NECESSARY FOR THE BUREAU TO REVIEW THE PROPOSAL.

ALL INFORMATION AND AUTHORIZED ARE  
TO BE PROVIDED WITH ATTACHED  
"RECORD OF DEEDS"

Well is 10' from closest lease line and 330' from the closest unit line.



cc: BIA, BLM (&amp; OCD), Jackson

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

*Alan Crater*

TITLE

Consultant (505) 466-8120

DATE

9-22-00

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

6/29/01

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:

JUN 29 2001

APPROVED BY

*/s/ Lee Otteri*

TITLE

DATE

\*See Instructions On Reverse Side

This is to certify that the above information was received and willfully to make it a part of the permanent record of the Bureau of Land Management.

/K

DISTRICT I  
P.O. Box 1980, Hobbs, N.M. 88241-1980

DISTRICT II  
P.O. Drawer DD, Artesia, N.M. 88211-0719

DISTRICT III  
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV  
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised February 21, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

P.O. Box 2088  
Santa Fe, NM 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-015-30386	*Pool Code 32870	*Pool Name HORSESHOE GALLUP
*Property Code 016547 25178	*Property Name N.E.H.U.	*Well Number 71
*OGRID No. 171052	*Operator Name PLAYA MINERALS and ENERGY, INC.	*Elevation 5427'

<sup>10</sup> Surface Location

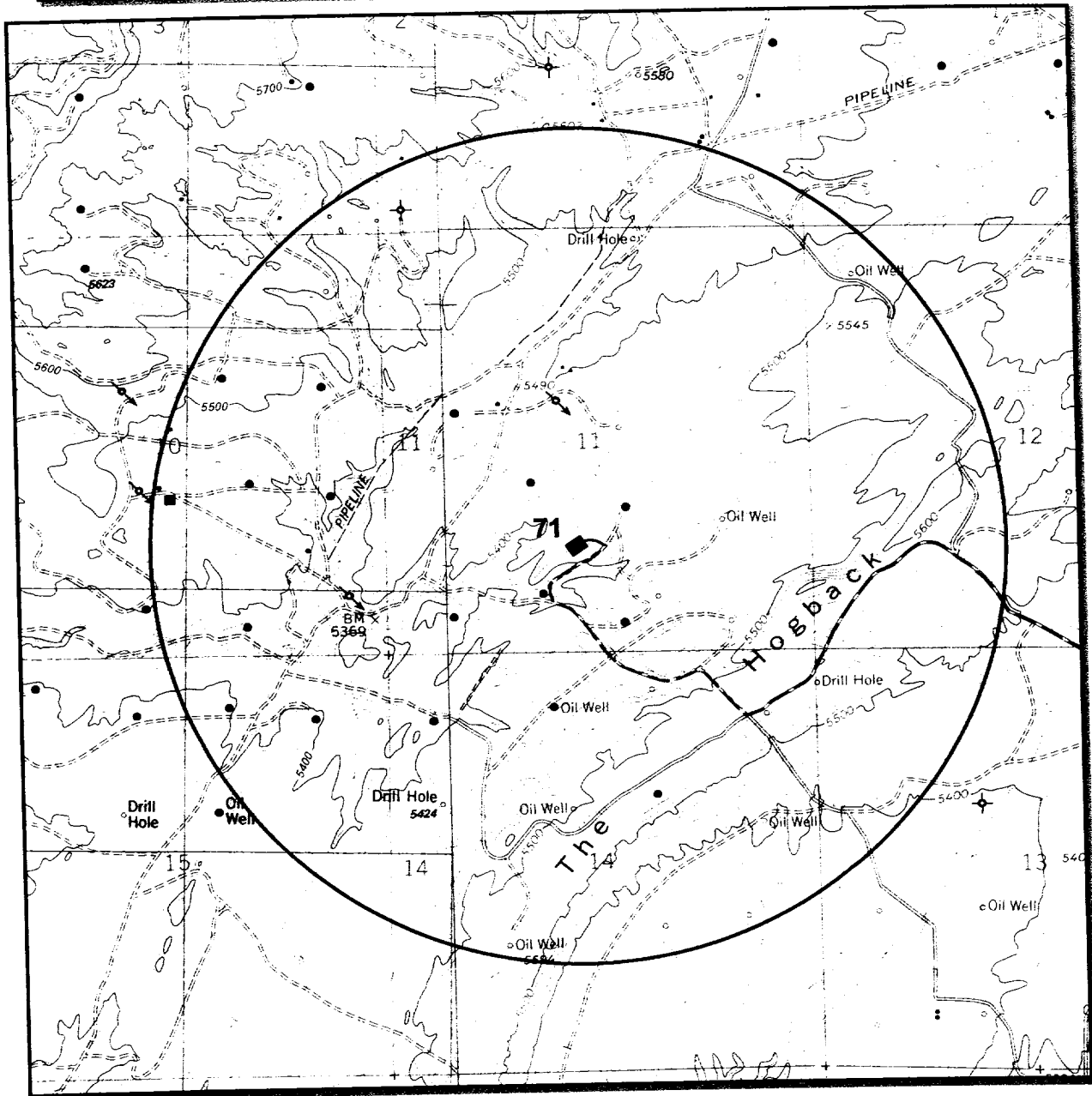
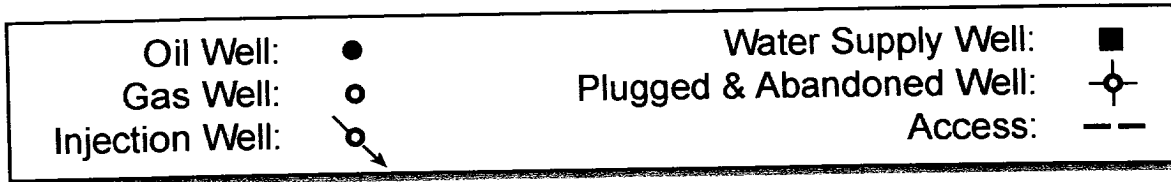
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	11	30-N	16-W		1308	SOUTH	2310	WEST	SAN JUAN


<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<sup>12</sup> Dedicated Acres			<sup>13</sup> Joint or Infill		<sup>14</sup> Consolidation Code		<sup>15</sup> Order No.		

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<p>16</p> <p>SET 1/2" REBAR w/ PLASTIC CAP STAMPED "LS 8894"</p>				<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p><i>Adam Cateau</i></p> <p>Signature ADAM CRATEAU</p> <p>Printed Name CONSULTANT</p> <p>Title 09/22/00</p> <p>Date</p>
<p>5275.95'</p> <p>N 00-08-29 E</p> <p>11</p> <p>2310'</p> <p>LAT. 36°49.5' N. LONG. 108°29.7' W.</p> <p>1208'</p> <p>1208'</p> <p>265.90'</p> <p>FD. U.S.G.L.O. BC. 1926</p>				<p>18 SURVEYOR CERTIFICATION</p> <p>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</p> <p>5-16</p> <p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor: ROBERT A. RUSH REGISTERED PROFESSIONAL SURVEYOR 8894</p> <p>Certificate Number</p>



Central/Playa : NEHU 71		Existing Wells, Access		
Legal: NE SW Sec 11 T30N R16W	County: San Juan	Prepared by: Permits West	1" = 2000'	

**Plava Minerals & Energy, Inc.**  
**Northeast Hogback Unit 71**  
**San Juan County, NM**

**Drilling Program**

1. Formation Tops

The estimated tops of important geologic markers are:

<u>Formation Name</u>	<u>GL Depth</u>	<u>KB Depth</u>	<u>Subsea Elevation</u>
Cliffhouse Ss	000'	000'	+5,420'
Pt Lookout	370'	370'	+5,050'
Upper Mancos Shale	690'	690'	+4,730'
Upper Gallup Ss	2,000'	2,000'	+3,420'
Lower Gallup	2,110'	2,110'	+3,310'
Lower Mancos	2,180'	2,180'	+3,240'
Total Depth (TD)*	2,350'	2,350'	+3,150'

\* all elevations reflect the ungraded ground level of 5,420'.

2. Notable Zones

Oil & Gas Zones

Water Zones

Minerals Zones

Cliffhouse (000')

Upper Gallup (2,000')

Lower Gallup (2,110')

Water Zone will be protected with casing, cement, and weighted mud.

Fresh water encountered during drilling will be recorded by depth, cased, and cemented. Oil and gas shows will be tested for commercial potential based on the well site geologist's recommendations.

3. Pressure Control

BOP systems will follow Onshore Order No. 2 and API RP 53. The drilling contract have not been yet awarded, thus the exact BOP model to be used is not yet known. A typical model is on page 3. Maximum expected pressure is 400 psi. BOP controls will be installed before drilling the surface casing plug and remain in use until the well is completed or abandoned. Once out from under the surface casing, a minimum 2,000 psi BOP and choke manifold system will be used.

All BOP mechanical and pressure tests will be recorded on the driller's log. BOP's will be inspected and operated at least daily to assure good mechanical working order. Inspections will be recorded on the daily drilling report. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place.

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4. Casing & Cement

<u>Hole size</u>	<u>O.D.</u>	<u>Weigh (lb/ft)</u>	<u>Grade</u>	<u>Type</u>	<u>Age</u>	<u>GL Setting Depth</u>
8-3/4"	7"	20	J-55	ST&C	New	320'
6-1/4"	4-1/2"	9.5	J-55	ST&C	New	2,350'

Surface casing will be cemented to the surface as follows:

- Break circulation with water
- Pump  $\approx$  90 sx (107 cu ft) of Class B+ 2%  $\text{CaCl}_2$
- Drop cement wiper plug and displace to 30' above guide shoe
- WOC 12 hours

Production casing will be cemented to the surface as follows:

- Break circulation with water
- Pump  $\approx$  10 bbl of fresh water
- Pump  $\approx$  105sx ( $\approx$  409 cu ft) Class B cement with 3% chemical extender and 1/4#/sx cellophane flakes followed by  $\approx$  80sx (94 cu ft) Class B cement with 2%  $\text{CaCl}_2$  + 1/4#/sx cellophane flakes.
- Drop rubber cement plug and displace to float collar
- Centralizers will be run on the 1<sup>st</sup>, 3<sup>rd</sup>, 5<sup>th</sup>, 9<sup>th</sup> and 11<sup>th</sup> joints.

5. Mud Program

Surface hole will be drilled with Aquagel/lime slurry spud mud mixed to 45-50 sec/qt viscosity.

Production hole will drilled with an air mist system, and foamer as needed.

6. Coring, Testing & Logging

No cores or DST's are planned. Compensated Density-Neutron logs will be run from TD to 7" casing. CCL and cement bond logs will be run if needed.

7. Downhole Conditions

No abnormal temperatures, abnormal pressures, nor hydrogen sulfide are expected. Maximum pressure will be  $\approx$  400psi.

8. Other Information

The anticipated spud date is November 1, 2000. It is expected it will take  $\approx$  5 days to drill and  $\approx$  30 days to complete the well.