

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

30-095-23055  
5. LEASE DESIGNATION AND SERIAL NO.

14-20-5248

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

Navajo

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Ka Na Pah

9. WELL NO.

1

10. FIELD AND POOL, OR WILDCAT

Wildcat *PC*

11. SEC., T., R., M., OR BLK.  
AND SURVEY OR AREA

22-25N-11W

12. COUNTY OR PARISH 13. STATE

San Juan NM

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

PLUG BACK ☐

b. TYPE OF WELL

OIL  
WELL ☐

GAS  
WELL ☒

OTHER

SINGLE  
ZONE ☐

MULTIPLE  
ZONE ☐

2. NAME OF OPERATOR

Ludwick Exploration Company

3. ADDRESS OF OPERATOR

P.O. Box 2614, Farmington, NM 87401

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

At surface

840' FNL, 1850' FWL, Section 22-T25N-R11W

At proposed prod. zone

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

28 miles from Farmington

15. DISTANCE FROM PROPOSED\*

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

16. NO. OF ACRES IN LEASE

160

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

160

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

19. PROPOSED DEPTH

1500'

20. ROTARY OR CABLE TOOLS

rotary

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

6401' GL

22. APPROX. DATE WORK WILL START\*

July 15, 1978

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
7-7/8"	5-1/2"	14#	85'	50 sacks
4-3/4"	2-7/8"	6.5#	1500	200 sacks

We propose to test the Pictured Cliffs formation at this location by drilling a 4-3/4" slimhole to a TD of 1500' using a portable rotary rig and mud. Low bottom hole pressure is anticipated and a BOP will not be used. The well will be completed on the basis of open hole resistivity and porosity logs and a master casing valve and stripper head will be used during completion.

RECEIVED

MAY 30 1978

U. S. GEOLOGICAL SURVEY  
FARMINGTON, N. M.

*Gas not dedicated*

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, 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 *Mildred Liknes Kuchera*

TITLE Chemical Engineer

DATE

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

*OK*

\*See Instructions On Reverse Side

**NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102  
Supersedes C-128  
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

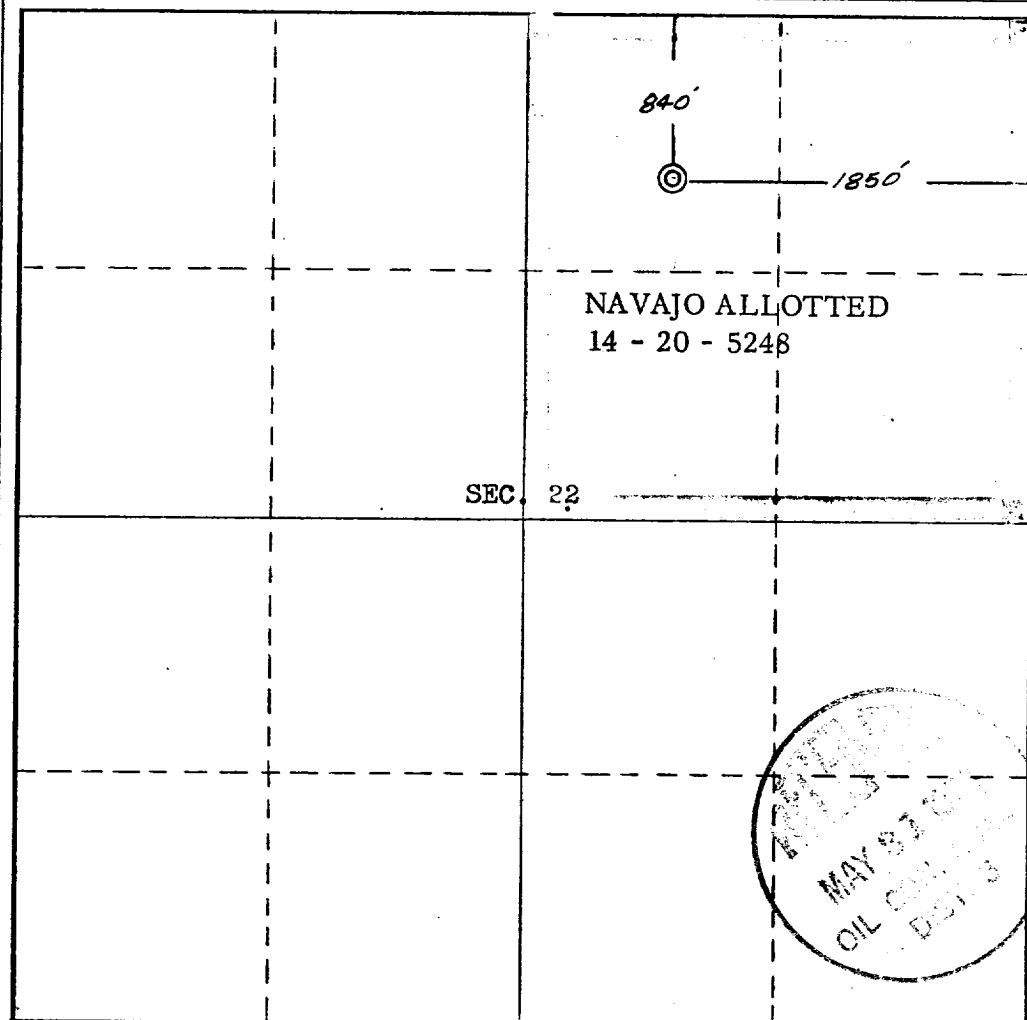
Operator <b>Ludwick Exploration Company</b>			Lease <b>KA NA PAH</b>		Well No. <b>1</b>
Unit Letter <b>B</b>	Section <b>22</b>	Township <b>25 North</b>	Range <b>11 West</b>	County <b>San Juan</b>	
Actual Footage Location of Well:					
<b>840</b> feet from the <b>North</b> line and		<b>1850</b> feet from the <b>East</b> line			
Ground Level Elev. <b>6401</b>	Producing Formation <b>PICTURED CLIFFS</b>	Pool <b>WILDCAT</b>		Dedicated Acreage: <b>160</b> Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☒ No If answer is "yes," type of consolidation 1 - owner lease

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) \_\_\_\_\_

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



**CERTIFICATION**

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

*Mildred Liknes Kuchera*

Name  
**Mildred Liknes Kuchera**

Position  
**Chemical Engineer**

Company  
**Ludwick Exploration Co.**

Date  
**May 15, 1978**

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 knowledge and belief.

Date Surveyed  
**May 13, 1978**

Registered Professional Engineer and/or Land Surveyor

*Edgar L. Risenhoover*

Certificate No. **5979**

**Edgar L. Risenhoover, L.S.**

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0

LUDWICK EXPLORATION COMPANY

P. O. Box 2614

FARMINGTON, NEW MEXICO 87401

May 24, 1978

Mr. P.T. McGrath  
District Engineer  
U.S. Geological Survey  
P.O. Box 959  
Farmington, New Mexico 87401

Subject: Surface Use Development Plan  
Ka Na Pah No. 1  
Wildcat Pictured Cliffs Test  
NE /4 Section 22-T25N-R11W  
San Juan County, New Mexico

Dear Mr. McGrath:

The subject development plan for the proposed Ludwick Exploration Company Ka Na Pah No. 1 is as follows:

1. Per the attached plat, there is an existing road leading to this well.
2. No new access roads will be necessary.
3. A map is attached showing offset existing wells.
4. Location of tank batteries and production facilities are shown on the attached plat. The well is located in East Bisti Unit with extensive surrounding production facilities.
5. Water for drilling and completion work will be hauled in from Bloomfield.
6. Materials necessary for the construction of a drilling pad will be obtained from the location.
7. Waste materials will be collected in the unlined earthen drilling mud pit. These materials will be buried upon completion of the well.
8. No permanent campsites or airstrips are anticipated.
9. Refer to the attached Well Site Layout plat. No major earth cuts are anticipated.

10. The proposed wellsite is located in a sandy, sparsely vegetated desert type area. There are no Indian habitations or artifacts in the immediate vicinity.
11. Please refer to the Archeological Report to be submitted to your office.
12. Ludwick Exploration Company's representative is:  
James Ludwick                      Telephone    505 325-1079  
Mildred L. Kuchera              Telephone    505 325-3448

I, hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Ludwick Exploration Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which is is approved.

May 24, 1978

Mildred L. Kuchera  
Mildred L. Kuchera  
Chemical Engineer

## SUPPLEMENT TO FORM 9-331C

WELL: Ka Na Pah No. 1

SURFACE FORMATION OF DRILL SITE: Animas Sandstone

ESTIMATED FORMATION TOPS:

Ojo Alamo	420'
Fruitland Coal	1320'
Pictured Cliffs	1365'

WATER AND HYDROCARBON BEARING FORMATIONS:

Fresh Water	42'-560'
Gas	1335'-1450'

MUD PROGRAM:

Surface-85' Water-85'-1500' Gel-Chemical Mud, 15cc water loss or less, 8.7#/gallon to 9.2#/gallon mud weight. Bottom hole pressure gradient in this area is about 0.148 psi/ft or 2.84/gallon. We do not foresee any drilling hazards based on extensive offset drilling data.

CASING AND CEMENT PROGRAM:

New 5-1/2" 15.5# K-55 and 2-7/8" 6.5# K-55 casing will be used and pressure tested to 500 psi for 30 minutes prior drilling out and perforating. Regular cement will be used to cement surface casing. A light 50-50 Pozmix cement slurry followed by a neat cement w/2% CaCl will be used for production casing.

LOGGING PROGRAM:

CNL-FDC	- TD to surface
IES	- TD to surface

PRESSURE CONTROLS:

Because of low bottom hole pressure, a BOP stack will not be used while drilling. A stripper head and master casing valve will be utilized for well control.

**EAST BISTI UNIT**

**T 25 N**

**R 11 W**

ACCESS ROAD

KA NA PAH NO. 1

BISTI

OIL

Well 6494

Well 6521

BR 6521

Oil Well

6316

6352

6400

6450

6500

6550

6600

6627

6699

6722

6746

6752

6755

6775

6800

6850

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