

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

30-045-24545-
5. LEASE DESIGNATION AND SERIAL NO.
N00-C-14-20-5249
6. IF INDIAN, ALLOTTEE OR TRIBE NAME
NAVAJO ALLOTTEE
7. UNIT AGREEMENT NAME
8. FARM OR LEASE NAME
KO-SA
9. WELL NO.
215
10. FIELD AND POOL, OR WILDCAT
WILDCAT P.C.
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 23, T25N, R11W
12. COUNTY OR PARISH
San Juan
13. STATE
New Mexico

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 W.C. SINGLE ZONE MULTIPLE ZONE

2. NAME OF OPERATOR

Ludwick Exploration Co.

3. ADDRESS OF OPERATOR

P.O. Box 70
Farmington, New Mexico 87401

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

1800'FWL, 1830'FSL

K At proposed prod. zone

Same

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

29 Miles SE Farmington, New Mexico

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 810'

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. 1080'

19. PROPOSED DEPTH

1400' Pictured Cliffs

20. ROTARY OR CABLE TOOLS

Rotary

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

6475 Gr.

22. APPROX. DATE WORK WILL START*

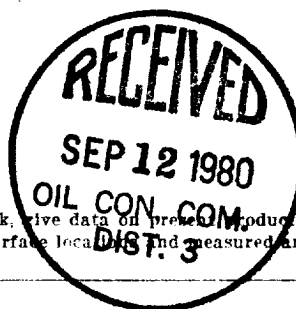
9-6-1980

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
8-3/4	7	24#	90'	50 sx Circ
4-3/4	2-7/8	6.5#	1400'	200 sx Circ

SEE NTL-6 ATTACHMENTS

CAS 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 location and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED [Signature] TITLE Agent DATE 8-20-1980

(This space for Federal or State office use)

PERMIT NO. SEP 14 1980 APPROVAL DATE

APPROVED BY [Signature] TITLE DISTRICT ENGINEER DATE

Wk Zmk

*See Instructions On Reverse Side

WMOCC

OIL CONSERVATION DIVISION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-107
Revised 10-1-78

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

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

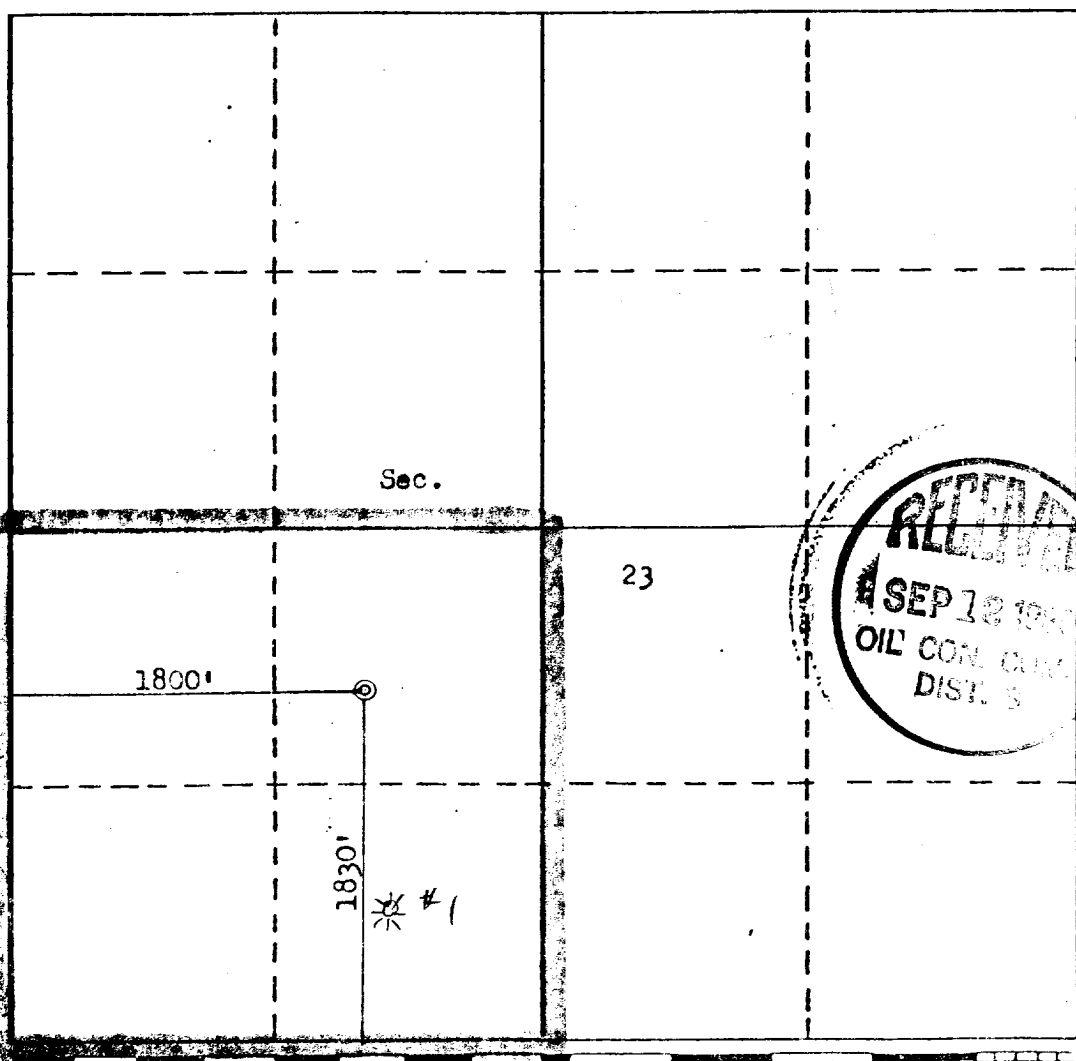
Operator LUDWICK EXPLORATION CO.		Lease No-5A		Well No. 2 LJ
Unit Letter K	Section 23	Township 25N	Range 11W	County San Juan
Actual Footage Location of Well: 1830 feet from the South line and 1800 feet from the West line				
Ground Level Elev. 6475	Producing Formation Pictured Cliffs	Pool Wildcat	Dedicated Acreage: 160 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 _____

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.

Claude C. Kennedy
Name

Claude C. Kennedy

Position Agent

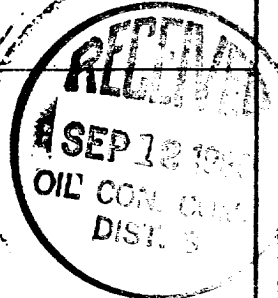
Company Ludwick Exploration Co.

Date 8-20-1980

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
REGISTERED LAND SURVEYOR
Registered Professional Engineer
and/or Land Surveyor

Fred B. Barry, Jr.
Fred B. Barry, Jr.
Certification No. 337



FORMATION INFORMATION & DRILLING PRACTICE

1. Geologic name of surface formation.

ANIMAS SS

2. Estimated tops of important geologic markers.

T/OJO	350
E/OJO	450
FRUITLAND	900
PICTURED CLIFFS	1250

3. Estimated depths at which anticipated water, oil, gas or other mineral-bearing formations are expected.

Water	0-500
Gas	1250

4. Proposed casing program.

Surface: 7", 24#, Used casing to be set @ 90', Cement will be 50 sx Class B, 2% CaCl or adequate to circulate.

Production: 2-7/8", 6.5# K-55, new casing to be set at 1400', cement will be 100 sx 50/50 Poz, plus 100 sx Class E, 2% CaCl or adequate to circulate.

5. Specifications for pressure control equipment.

The attached schematic shows the type of blow out preventer to be used while drilling. The unit will be tested to 200 psi as soon as possible after its installation on the surface pipe. Testing will be done with the rig pump. This is a manual type preventer, and its operation will be manually checked when practical.

6. Drilling fluids.

Depth	Type	Viscosity	Weight	Fluid Loss (cc)
0-100	Gel-lime	35-45	8.6-9.0	N/C
100-1400	Low-solids	29-33	8.4-8.8	15

7. Auxiliary equipment.

- a. bit float
- b. full opening stabbing valve to be used when kelly is not in the string

8. Logging - Coring - Testing.

Logging: Induction Electric Log, Formation Compensated Density, Gamma Ray Caliper

Coring: None

Drill Stem Testing: None

9. Abnormal temperatures, pressure, or hazardous conditions.

None expected

10. Starting Date.

Anticipated starting date is October 1, 1980 Approximately six days will be needed to build roads and location and drill the well to total depth. If commercial, completion will commence immediately and require ten days.

SHAFER HYDRAULIC BLOWOUT PREVENTERS

(Patented)

TYPE LWS PREVENTERS—8", 3000 lb. & 5000 lb.—10", 5000 lb.
12", 3000 lb.—13 1/8", 5000 lb.—16", 3000 lb.

PARTS AND DIMENSIONAL ILLUSTRATIONS

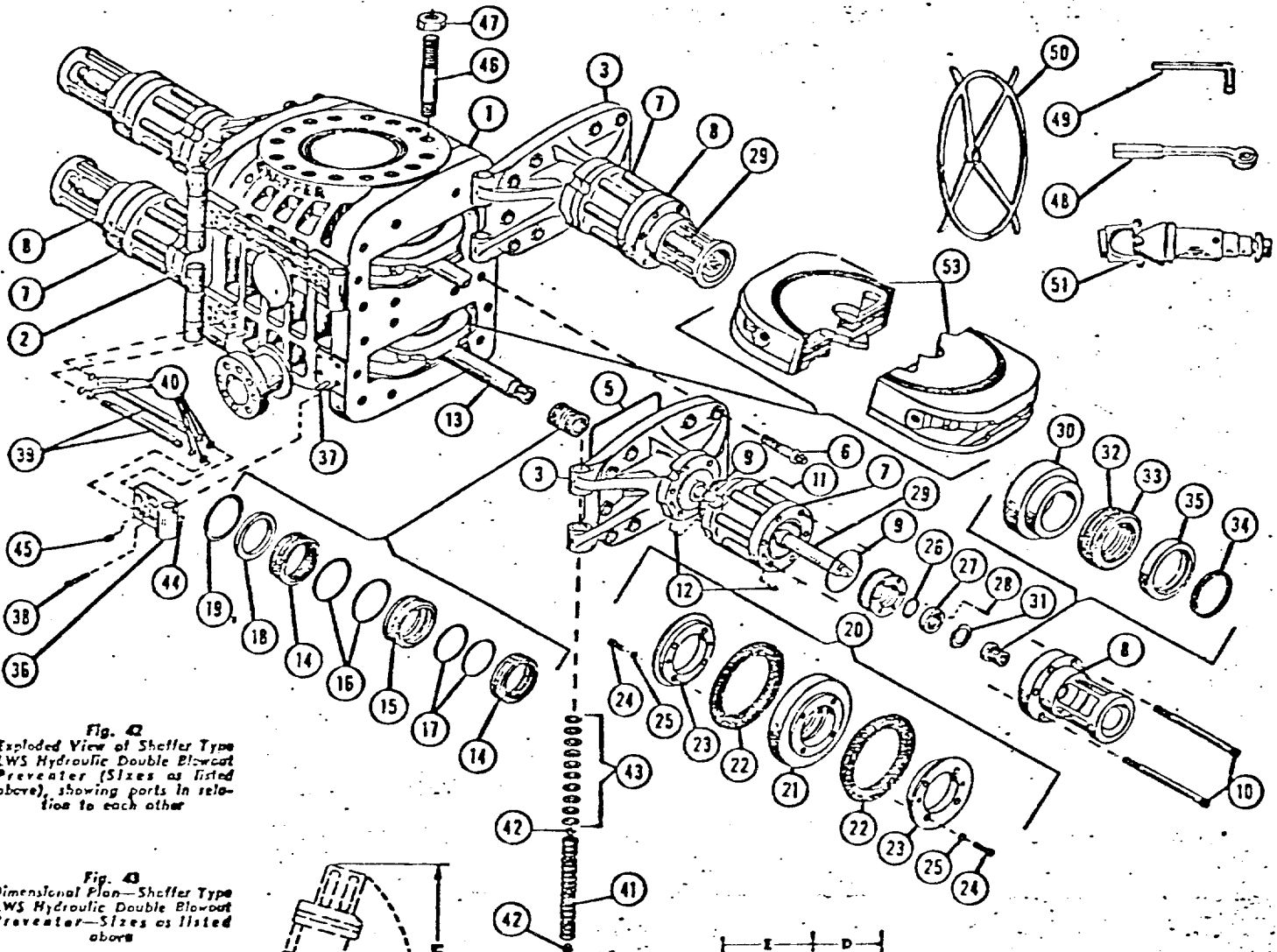


Fig. 42
Exploded View of Shaffer Type LWS Hydraulic Double Blowout Preventer (Sizes as listed above), showing ports in relation to each other

Fig. 43
Dimensional Plan—Shaffer Type LWS Hydraulic Double Blowout Preventer—Sizes as listed above

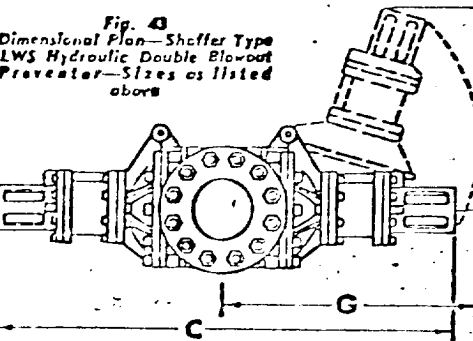
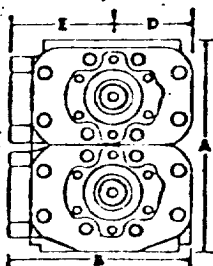


Fig. 44
Dimensional End Elevation—Shaffer Type LWS Hydraulic Double Blowout Preventer—Sizes as listed above



- STANDARD ACCESSORIES
- (50) 4 Hand Wheels
 - (48) 1 Door Wrench
 - (49) 1 Cylinder & Cylinder Head Wrench
 - (51) 4 Universal Joints

DIMENSIONAL AND ENGINEERING DATA ON ABOVE SIZES OF TYPE LWS PREVENTERS

Refer to Figs. 43 and 44

Size	Max. Service Press. Rating psi	Test Press. psi	Vertical Elev.	Max. Perm. Size	Approx. Weight Lbs.		A				B	C	D	E	F	G	U.S. Gals. Fluid To Close Rams	U.S. Gals. Fluid To Open Rams						
					Saddled Flange		Height		Width	Length									Center To Front	Center To Rear	Door Open To Change Rams	Door Open To Change Rams	Co. Jct. Ratio	Opening Ratio
					Single	Double	Saddled Flange	Polished Flange																
8"	2,000	8,000	8"	7"	2,500	3,500	29 1/2"	41 3/4"	25 3/4"	75 1/2"	11 1/2"	14 1/2"	22"	40"	5.6 to 1	1.85 to 1	2.75	2.2						
10"	2,000	10,000	8"	7 1/2"	3,500	4,500	29 1/2"	43 1/4"	25 3/4"	75 1/2"	11 1/2"	14 1/2"	22"	40"	8.8 to 1	1.85 to 1	2.75	2.2						
12"	3,000	10,000	11"	8 1/2"	6,000	7,000	33 1/2"	50 3/4"	25 3/4"	85 1/2"	11 1/2"	14 1/2"	22"	40"	8.8 to 1	1.5 to 1	2.25	2.7						
13 1/8"	2,000	6,000	12 1/2"	10 1/2"	6,300	8,300	33 1/2"	47 3/4"	21 3/4"	85 1/2"	11 1/2"	14 1/2"	27"	52"	5.5 to 1	1.5 to 1	2.25	2.9						
16"	3,000	10,000	15 1/2"	16 1/2"	9,700	11,700	33 1/2"	54 1/4"	23 1/4"	105 1/2"	11 1/2"	14 1/2"	24"	54"	5.5 to 1	1.5 to 1	2.25	2.9						
16"	3,000	6,000	15 1/2"	15 1/2"	8,500	10,500	35"	61"	25 1/4"	105 1/2"	11 1/2"	14 1/2"	26 1/2"	56"	2.5 to 1	1.5 to 1	2.1	2.2						

13 POINT SURFACE USE PLAN - continued

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8. ANCILLARY FACILITIES:

No camps or airstrips will be constructed.

9. WELL SITE LAYOUT:

The attached layout shows the drilling rig with all supporting facilities. Cut and fill, required for pad construction, is also shown.

10. SURFACE RESTORATION PLANS:

Restoration of the well site and access road will begin within 90 days of well completion, weather permitting.

Should the well be abandoned, the drilling site will be reshaped to its approximate former contour. The access road will be plowed and leveled. Both road and location will have top soil replaced and will be reseeded when germination can occur.

Should the well be commercial, that portion of location not needed for operation will be repaired as above. The portion of the location needed for daily production operations, and the access road, will be kept in good repair and clean.

In either case, cleanup of the site will include burning any safely burnable material, filling of all pits, and proper disposal of any nonburnable material that can not be safely buried. Any oil that has accumulated on the pits will be trucked away.

11. OTHER INFORMATION:

A. General topography of the area may be seen on the attached map.

B. There were no archaeological or cultural sites visible on the location. The archaeologist's report is forthcoming.

C. Animal life: SMALL - WILD

D. Dwellings: NONE

E. Drainage: NW

F. Surface Owner: IND. ALLOTTED

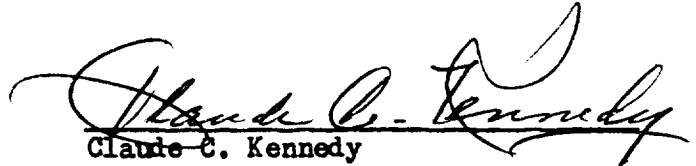
G. General location: SE BISTI

12. OPERATOR REPRESENTATIVES:

C. C. KENNEDY
6109 DEL CAMPO PL., N.E.
ALBUQUERQUE, N.M. 87109
PHONE (505) 883-9624

13. CERTIFICATION:

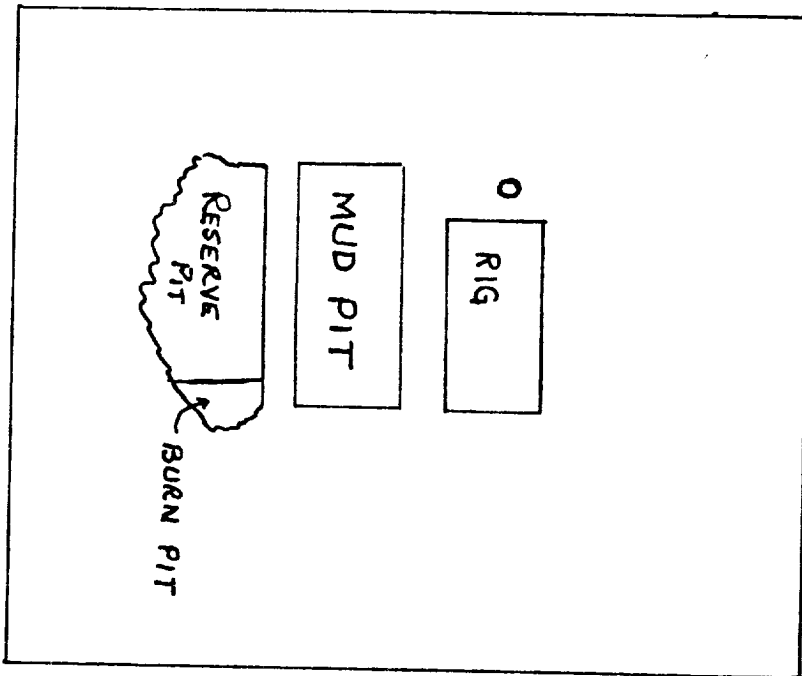
I hereby certify that I or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in the plan are to the best of my knowledge; true and correct; and, that the work associated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


Claude C. Kennedy

Date: 8-20-1980

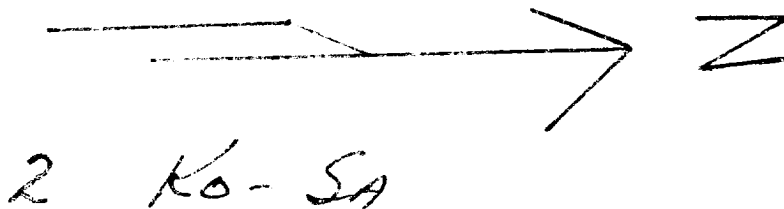
LOCATION LAYOUT

MAX: 18 INCH CUT OR FILL REQUIRED



SCALE 1 INCH = 30' FEET

MAX: 18 INCH CUT OR FILL REQUIRED





108°00'31" 10 MI. TO N. MEX. 44 233 1:460 000 FEET 57

Geological Survey Washington, D.C. - 1989 1:68000m E

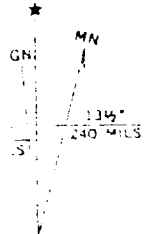
Mapped, edited, and published by the Geological Survey
Control by USGS and USC&GS

ROAD CLASSIFICATION

Unimproved dirt -----

Vicinity Map for
LUDWICK EXPLORATION CORP. #2
1830'FSL 1800'FWL Sec. 23-T25N-R11W
SAN JUAN COUNTY, NEW MEXICO

Ko-Sa



1989 13, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 360, 370, 380, 390, 400, 410, 420, 430, 440, 450, 460, 470, 480, 490, 500, 510, 520, 530, 540, 550, 560, 570, 580, 590, 600, 610, 620, 630, 640, 650, 660, 670, 680, 690, 700, 710, 720, 730, 740, 750, 760, 770, 780, 790, 800, 810, 820, 830, 840, 850, 860, 870, 880, 890, 900, 910, 920, 930, 940, 950, 960, 970, 980, 990, 1000