

**N. M. Oil and Gas**  
ARTESIA, NM 87003-9004

chf

Form 3160-3  
(August 1999)

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

FORM APPROVED  
OMB No. 1004-0136  
Expires November 30, 2000

5. Lease Serial No.  
NM-14847

6. If Indian, Allottee or Tribe Name

1a. Type of Work: ☒ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.

1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.  
PHILLIPS-17-FEDERAL #4

2. Name of Operator  
CLAYTON WILLIAMS ENERGY, INC. 25766

9. API Well No.  
30-015- 31447

3a. Address  
SIX DESTA DRIVE, STE. 3000, MIDLAND TX 79705

3b. Phone No. (include area code)  
(915) 682-6324

10. Field and Pool, or Exploratory  
EMPIRE, EAST (YESO)

4. Location of Well (Report location clearly and in accordance with any State requirements. \*)  
At surface 330' FSL & 1651' FEL; UL 0  
At proposed prod. zone

11. Sec., T., R., M., or Blk. and Survey or Area  
SECT. 17; T-17S; R-29E

14. Distance in miles and direction from nearest town or post office\*  
7 MILES WEST FROM LOCO HILLS, NM

12. County or Parish  
EDDY

13. State  
NM

15. Distance from proposed\* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 330'

16. No. of Acres in lease  
80

17. Spacing Unit dedicated to this well  
40 ACRES

18. Distance from proposed location\* to nearest well, drilling, completed, applied for, on this lease, ft. 934' FROM 17 #2

19. Proposed Depth  
5000'

20. BLM/BIA Bond No. on file  
NM2787

21. Elevations (Show whether DF, KDB, RT, GL, etc.)  
3612' GL

22. Approximate date work will start\*  
UPON APPROVAL

23. Estimated duration  
±10 DAYS

**24. Attachments**  
**WELL CONTROLLED WATER BASIN**

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

- |   |  |
|---|--|
| 1. Well plat certified by a registered surveyor.  | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).    |
| 2. A Drilling Plan.   | 5. Operator certification.   |
| 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). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature <i>Betsy Luna</i>	Name (Printed/Typed) BETSY LUNA	Date 10/11/00
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Title ENGINEERING TECHNICIAN		
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Approved by (Signature) <i>[Signature]</i>	Name (Printed/Typed) [Signature]	Date [Signature]
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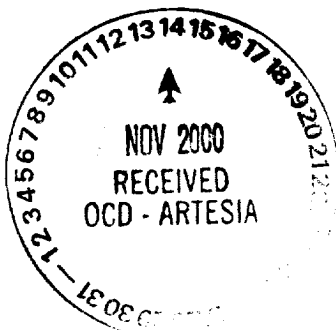
Title Assistant Field Manager, Lands And Minerals	Office [Signature]	APPROVED FOR
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Application approval does not warrant or certify the the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant 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 reverse)



APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS  
SPECIAL STIPULATIONS  
ATTACHED

DISTRICT I  
1825 N. French Dr., Hobbs, NM 88240

DISTRICT II  
811 South First, Artesia, NM 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised March 17, 1999

Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

2040 South Pacheco  
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-	Pool Code 96610	Pool Name EMPIRE, EAST (YESO)
Property Code 26583	Property Name PHILLIPS "17" FEDERAL	Well Number 4
OGRID No. 25706	Operator Name CLAYTON WILLIAMS ENERGY INC.	Elevation 3612'

Surface Location

UL or lot No. 0	Section 17	Township 17 S	Range 29 E	Lot Idn	Feet from the 330	North/South line SOUTH	Feet from the 1651	East/West line EAST	County EDDY
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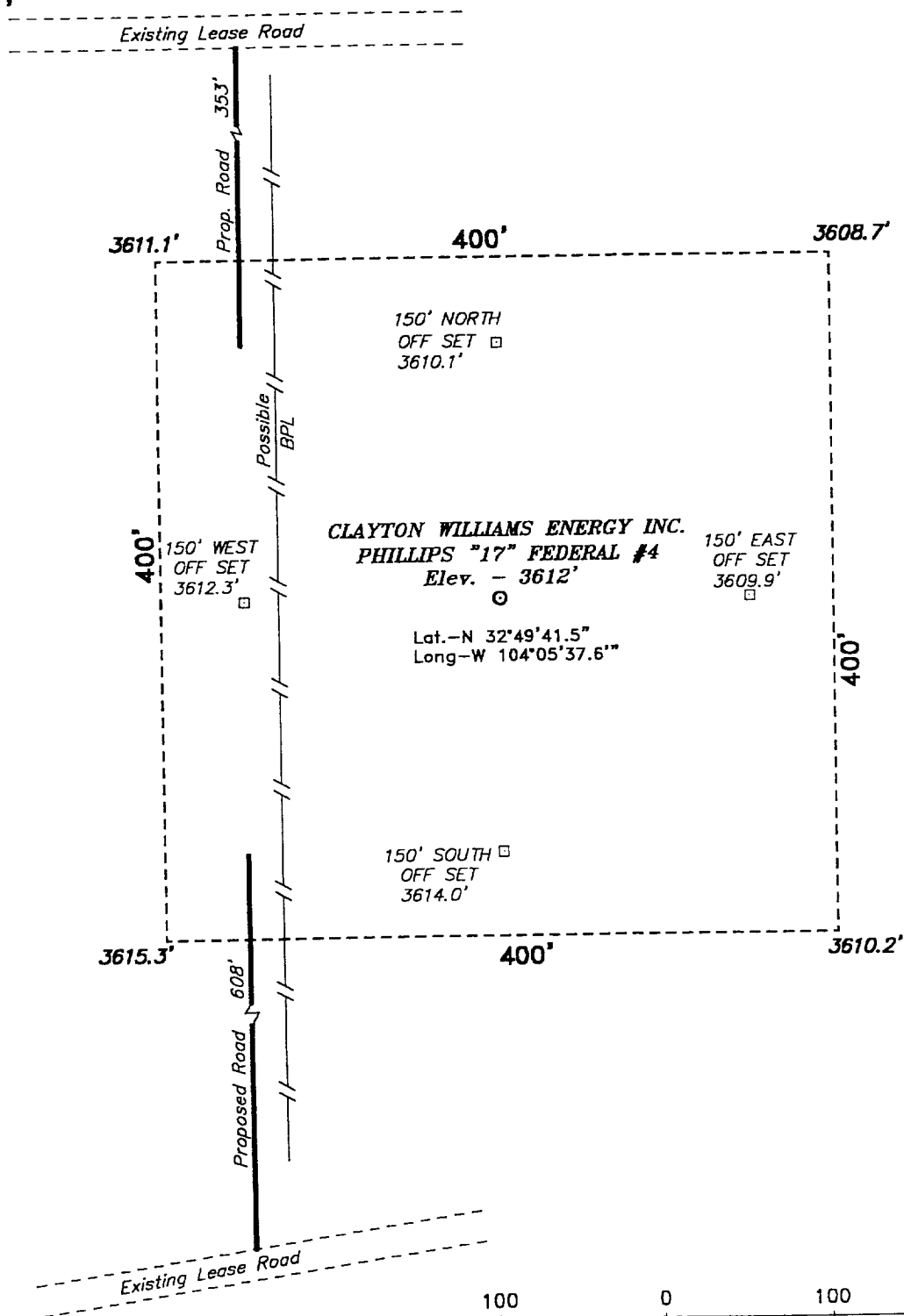
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 40	Joint or Infill	Consolidation Code	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

<div>Lat - N32°49'41.5" Lon - W104°05'37.6"</div>	<div>3611.1' 3608.7' 3615.3' 3610.2'</div>		<div>330' 1651'</div>		OPERATOR CERTIFICATION	
					<div>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</div>	
					<div>Betsy Luna Signature</div>	
					<div>BETSY LUNA Printed Name</div>	
					ENGINEERING TECHNICIAN Title	
					10-11-00 Date	
					SURVEYOR CERTIFICATION	
					<div>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.</div>	
					September 8, 2000 Date Surveyed	
					<div>Signature of Surveyor Professional Surveyor NEW MEXICO 7977 W.O. No. 0523A</div>	
					Certificate No. Gary Jones 7977 REGISTERED PROFESSIONAL LAND SURVEYOR BASIC SURVEYS	

SECTION 17, TOWNSHIP 17 SOUTH, RANGE 29 EAST, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO.



**DIRECTIONS TO LOCATION:**

FROM THE JUNCTION OF US HWY 82 AND CO. RD. 211, GO  
NORTH ON CO. RD. 211 APPROX. 1.0 MILE TO A POINT  
WHICH LIES APPROX. 900 FEET WEST OF THE PROPOSED  
WELL LOCATION.

**BASIN SURVEYS** P.O. BOX 1786-HOBBS, NEW MEXICO

W.O. Number: 0513

Drawn By: **K. GOAD**

Date: 09-11-2000

Disk: KJG #122 - 0513A.DWG

**CLAYTON WILLIAMS ENERGY INC.**

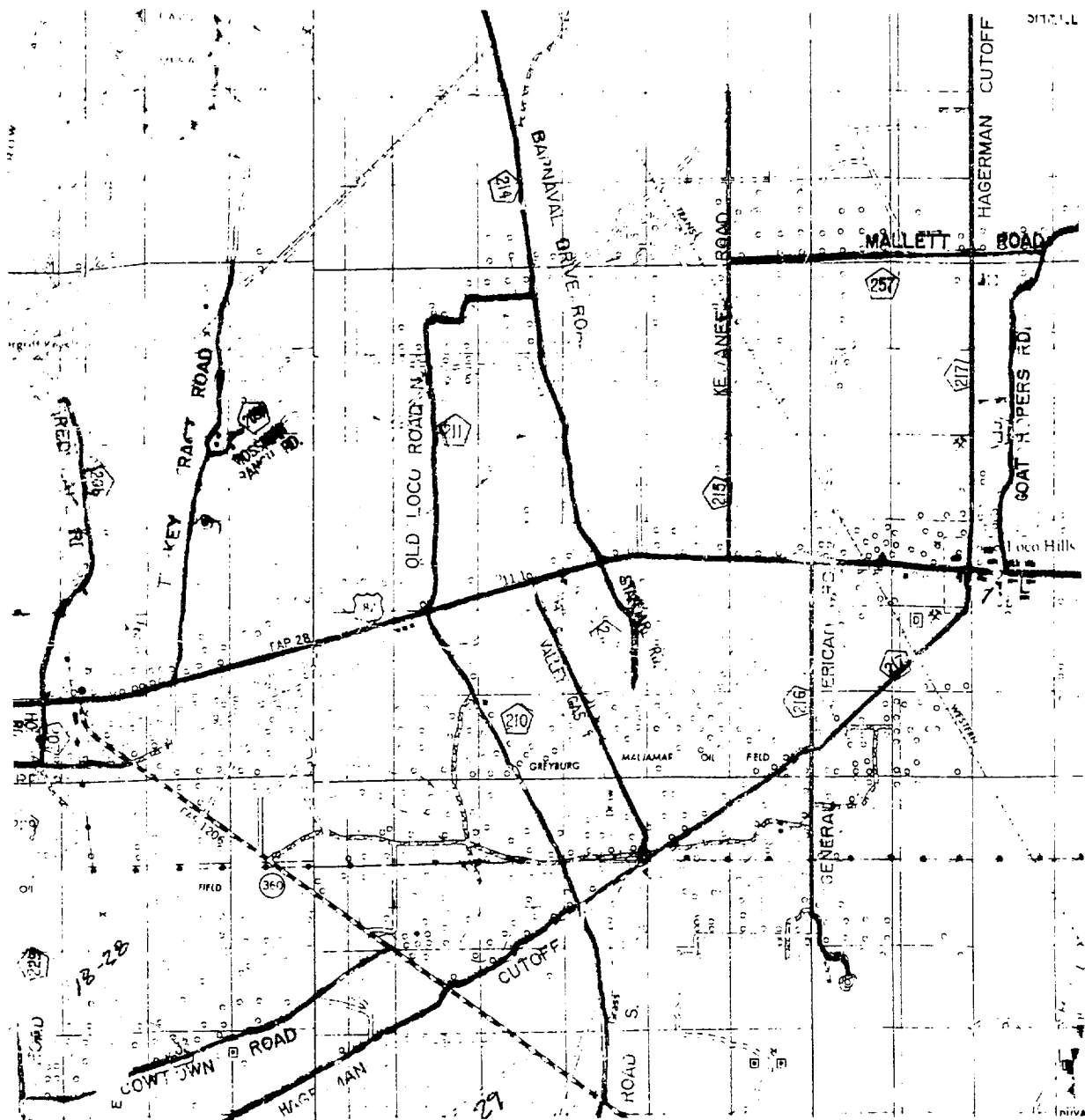
REF: Phillips "17" Fed. #4 / Well Pad Topo

THE PHILLIPS "17" FED. No. 4 LOCATED 330' FROM  
THE SOUTH LINE AND 1651' FROM THE EAST LINE OF  
SECTION 17, TOWNSHIP 17 SOUTH, RANGE 29 EAST,  
N.M.P.M., EDDY COUNTY, NEW MEXICO.

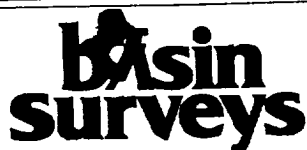
Survey Date: 09-08-2000

Sheet 1 of 1 Sheets





PHILLIPS "17" FEDERAL #4  
 Located at 1651' FSL and 330' FEL  
 Section 17, Township 17 South, Range 29 East,  
 N.M.P.M., Eddy County, New Mexico.



focused on excellence  
 in the oilfield

P.O. Box 1786  
 1120 N. West County Rd.  
 Hobbs, New Mexico 88241  
 (505) 393-7316 - Office  
 (505) 392-3074 - Fax  
[basinsurveys.com](http://basinsurveys.com)

W.O. Number: 0513AA - KJG #122

Survey Date: 09-08-2000

Scale: 1" = 2 MILES

Date: 09-11-2000

CLAYTON WILLIAMS  
 ENERGY INC.

**CLAYTON WILLIAMS ENERGY, INC.**  
**DRILLING PROGRAM**

Attached to BLM form 3160-3

**Lease Name:** Phillips -17-Federal

**Well No.:** 4

**Location:** 330' FSL & 1651' FEL; UL O  
Sec. 17, T-17-S, R-29-E  
Eddy Co., NM

1. Geological name of surface location: Triassic
2. Estimated tops of important geological markers:

<u>Name</u>	<u>Depth</u>
Yates	872'
Seven Rivers	1146'
Queen	1724'
Grayburg	2105'
San Andres	2414'
Glorieta	3841'

3. Estimated name of anticipated fresh water, oil, and gas:

<u>Formation</u>	<u>Depth</u>	<u>Fresh Water/Oil/Gas</u>
Seven Rivers	1146'	Oil
Queen	1724'	Oil
Grayburg	2105'	Oil
San Andres	2414'	Oil
Glorieta	3841'	Oil

4. CASING PROGRAM

<u>Hole Size</u>	<u>Interval</u>	<u>OD Csg</u>	<u>Weight, Grade, Type.</u>
11"	<del>300'</del> 250'	8-5/8	24#, J-55, ST&C
7-7/8"	5000'	5-1/2"	17#, J-55, LT&C

**WITNESS**

CEMENT PROGRAM

Conductor Casing: N/A

8-5/8" Surface Casing:  
300 SX CI "C" + 2% CaCl<sub>2</sub> + 1/4#/sx Flocele

**WITNESS**

5-1/2" Production Casing:

Stage tool @ +/- 2600'  
1<sup>st</sup> Stage: 400 sx. 35:65 Poz:C + 6% gel + 2% CaCl<sub>2</sub> + 1/4 pps Cello-flake  
150 sx. Class "C" Neat

2<sup>nd</sup> Stage: Lead: 800 sx 61:15:11 Lite + 1 pps salt + 4 pps Kolite + 0.2% D-65 + 0.3# D-167 + 0.2% D-46  
+ 0.25% D-13

5. Minimum Specifications for Pressure Control:

The blowout preventer equipment (BOP) schematic attached will consist of a double ram-type (3000 psi WP) preventer and/or a bag-type (hydril) preventer (3000 psi WP). BOP will be hydraulically operated and the ram-type preventer will be equipped with blind rams and appropriate pipe rams. The BOP will be nipped up on the surface casing and used continuously until TD is reached. All BOP's and accessory equipment will be tested to 1000 psi before drilling out of surface casing. Before drilling out of intermediate casing, the ram-type BOP and accessory equipment will be tested to 3000 psi and the hydril to 50% of rated working pressure (1500 psi). Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. A 2" kill line and 3" choke line will be attached to a drilling spool or BOP side outlets. Other accessories to the BOP equipment will include a kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold with 3000 psi WP rating.

6. Type & Characteristics of the Proposed Mud System:

The well will be drilled to TD with a combination of Fresh Water Gel/Brine System.

The applicable depths and properties of this system are as follows:

<u>Depth</u>	<u>Type</u>	<u>Weight (ppg)</u>	<u>Viscosity (sec)</u>	<u>Water Loss (cc)</u>
300'	FW Gel	8.6-9.0	34-45	N/C
5000'	Brine	9.8-10.1	28-30	N/C

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the well site at all times.

7. Auxiliary Well Control and Monitoring Equipment:

- A. A Kelly cock will be kept in the drill string at all times.
- B. A full opening drill pipe stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.
- C. The drilling fluids system will be visually monitored at all times.
- D. A mudlogging unit will be continuously monitoring drilling penetration rate and hydrocarbon shows from surface casing to TD.
- E. A fixed electronic H<sub>2</sub>S monitoring system, including alarms with monitors at the shaker and the bell nipple, will be in operation from surface to TD.

8. Logging, Testing, & Coring Program:

- A. Drill stem tests: None anticipated
- B. Electronic logging program: DSN, MSFL, DLL, FMI (optional)
- C. Coring: None

9. Abnormal Conditions, Pressures, Temperatures & Potentials Hazards:

Possible sulfur water in flow in the Queen/Grayburg intervals

10. Anticipated Starting Date & Duration of Operations:

Road and location work will not begin until approval has been received from the BLM. The anticipated spud date is upon approval of APD. Once commenced, the drilling operations should be finished within approximately 10 days. If the well is productive, an additional 10 days will be required for completion and testing.

**CLAYTON WILLIAMS ENERGY, INC.**  
**HYDROGEN SULFIDE DRILLING OPERATIONS PLAN**

**I. HYDROGEN SULFIDE TRAINING**

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well.

1. The hazards and characteristics of hydrogen sulfide (H<sub>2</sub>S).
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H<sub>2</sub>S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H<sub>2</sub>S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
3. The contents and requirements of the H<sub>2</sub>S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H<sub>2</sub>S zone (within 3 days or 500 feet) and weekly H<sub>2</sub>S and well control drills for all personnel in each crew. The initial training session shall include a review of the site, specific H<sub>2</sub>S Drilling Operations Plan, and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

**II. H<sub>2</sub>S SAFETY EQUIPMENT AND SYSTEMS**

**NOTE:** All H<sub>2</sub>S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H<sub>2</sub>S.

1. Well Control Equipment:
  - A. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
  - B. Auxiliary equipment to include: annular preventer
2. Protective Equipment for Essential Personnel:

Five – 30 minute self – contained breathing apparatuses (Scott).
3. H<sub>2</sub>S Detection and Monitoring Equipment:
  - A. Fixed electronic monitoring system and alarms with two monitors:  
one at shaker and one at bell nipple.



4. Visual Warning Systems:

- A. Two windsocks with frames and extension poles.
- B. One entrance sign with flags (with "CAUTION" and present well condition).
- C. Two briefing area signs.

5. Mud Program:

- A. The mud program has been designed to minimize the volume of H<sub>2</sub>S circulated to the surface. Proper mud weight, safe drilling practice, and the use of H<sub>2</sub>S scavengers will minimize hazards when penetrating H<sub>2</sub>S bearing zones.

6. Metallurgy:

- A. All drill strings, casing, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H<sub>2</sub>S service.

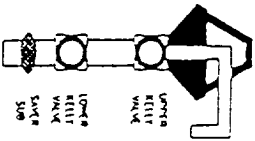
7. Communication:

- A. Cellular telephones in Company vehicles and at rig.

8. Well Testing:

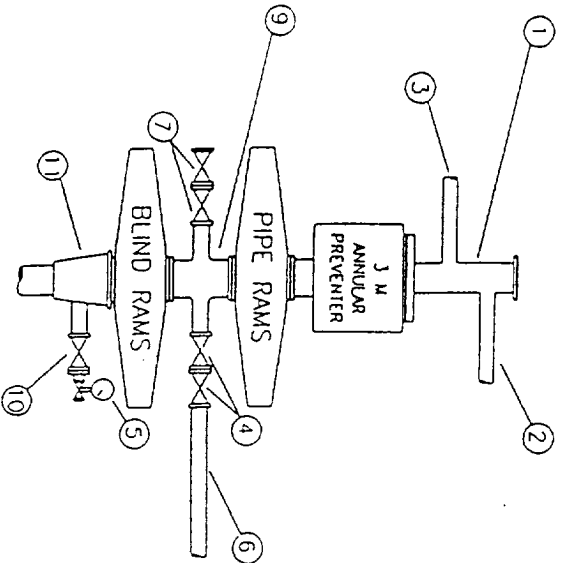
- A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity which is necessary to safely and adequately conduct the test. All drill stem testing operations conducted in an H<sub>2</sub>S environment will use the closed chamber method of testing.

# DRILLSTRING CONTROL DEVICES



ON DRILL FLOOR  
WISD  
BOP  
SAFETY  
VALVE  
FULL OPENING

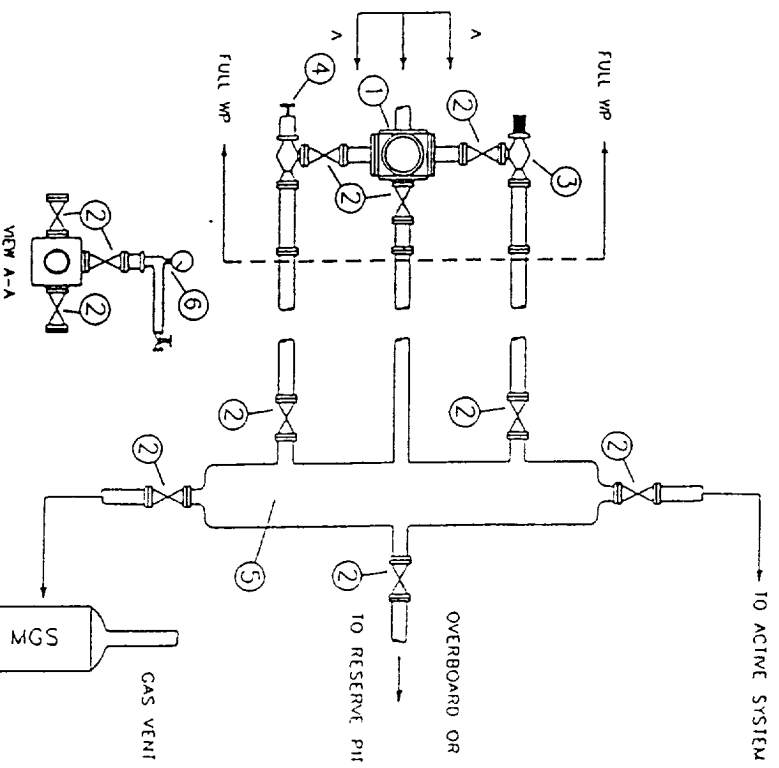
## BOP STACK



- 1 BELL NIPPLE
- 2 FLOW LINE
- 3 FILL-UP LINE
- 4 5" FE PRESSURE-OPERATED CHOKE LINE VALVE
- 5 PRESSURE GAUGE
- 6 5" CHOKE LINE TO CHOKE MANIFOLD
- 7 5" FE GATE OR PLUG VALVES
- 8 2" KILL LINE
- 9 DRILLING SPOOL
- 10 2" SE OR FE GATE VALVE WITH NEEDLE VALVE
- 11 CASING HEAD HOUSING

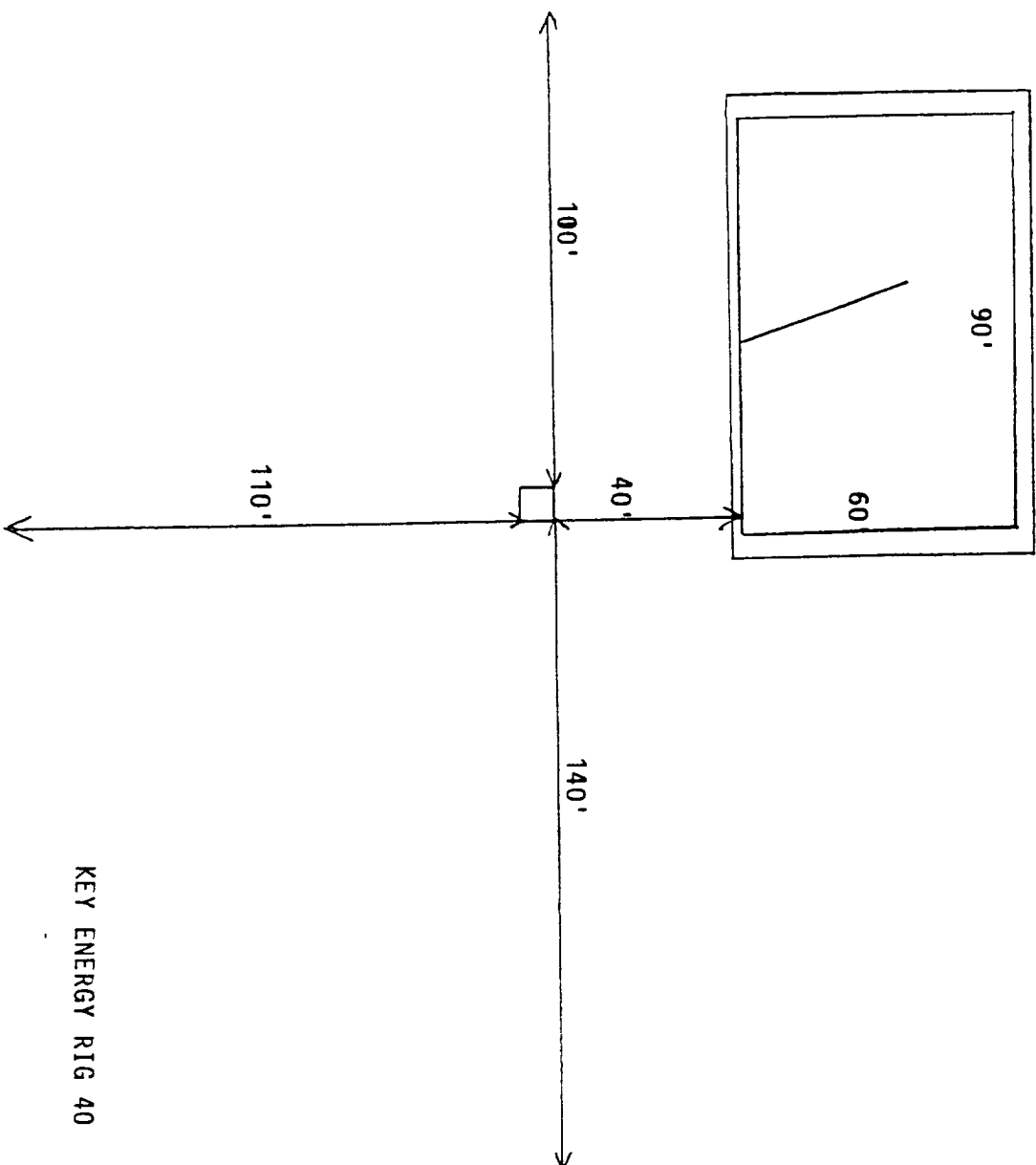
## CHOKE MANIFOLD

DISCHARGE MANIFOLD OPTIONAL FOR LAND RIGS



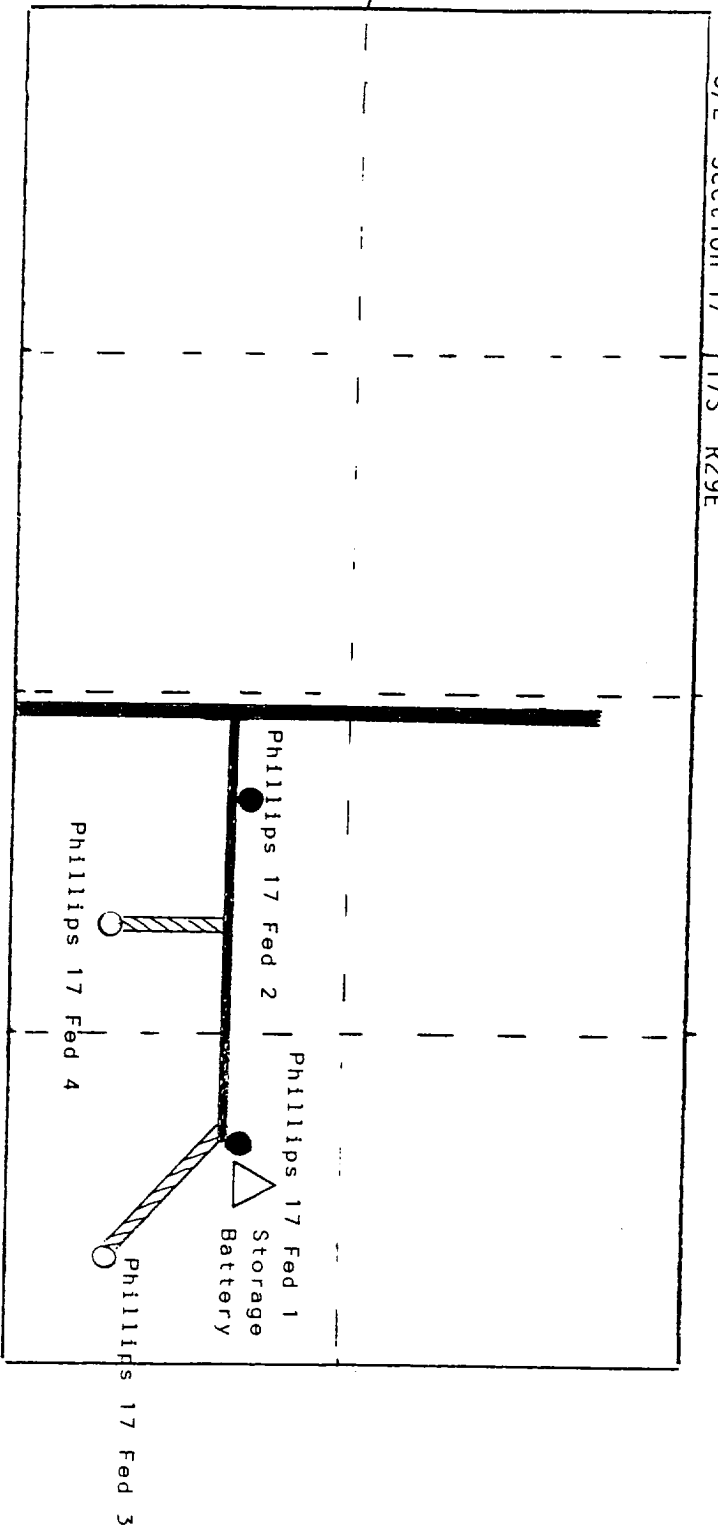
- 1 CROSS
- 2 GATE OR PLUG VALVE
- 3 CHOKE (ADJUSTABLE ONLY)
- 4 MANUAL ADJUSTABLE CHOKE
- 5 BUFFER CHAMBER/DISCHARGE MANIFOLD
- 6 NEEDLE VALVE AND PRESSURE GAUGE

CLAYTON WILLIAMS ENERGY INC.  
PHILLIPS 17 FEDERAL 4  
O-17-17S-29E  
330 FSL 1651 FEL  
EDDY CO., NM



KEY ENERGY RIG 40

S/2 Section 17 T17S R29E



Clayton Williams Energy Inc.  
Phillips 17 Federal  
Eddy County, NM  
Sec 17 T17S R29E

PROPOSED / EXISTING ROAD DIAGRAM  
PROPOSED FLOWLINE DIAGRAM

NOTE: flowlines will be laid on surface  
and follow lease roads to battery

NO SCALE

EXISTING ROAD

PROPOSED ROAD

10-4-00

**TITLE PAGE/ABSTRACT/  
NEGATIVE SITE REPORT  
CARLSBAD FIELD OFFICE**

BLM/CFO

1. BLM Report No.	2. (ACCEPTED) (REJECTED)	3. NMCRIS No. 71936
4. Title of Report (Project Title): Archaeological Survey for Well Locations Phillips 17 Fed. No. 3 and 4, Phillips 19 Fed. 3, 7, and 9, Their Associated Access Roads, and an Access Road for Phillips 19 Fed. No. 1.		5. Project Date(s): Sept 26, 2000
		6. Report Date: Sept 30, 2000
7. Consultant Name & Address: Direct Charge: Sean Simpson Name: Mesa Field Services Address: P.O. Box 3072 Carlsbad, NM 88221 Authors Name: Theresa Straight Field Personnel Names: Willi Hermann, Theresa Straight Phone: (505) 628-8885		8. Permit No.: 153-2920-00-D
		9. Consultant Report No. MFS - 51
10. Sponsor Name and Address: Indiv. Responsible: Mike Langford Name: Sierra Engineering, Inc. Address: P.O. Box 50203 Midland, TX 79710 Phone: (915) 683-8000		11. For BLM Use only.
		12 ACREAGE: Total No. of acres surveyed: <u>29.47</u> Per Surface Ownership: Federal <u>29.47</u> State <u>0.00</u> Private <u>0.00</u>
<p>13. Location &amp; Area: (Maps Attached if negative survey)</p> <p>a. State: New Mexico</p> <p>b. County: Eddy</p> <p>c. BLM Field Office: Carlsbad</p> <p>d. Nearest City or town: Loco Hills</p> <p>e. Location:</p> <p>For Phillips 17 Fed. No. 3 and access roads: <u>T 17S, R 29E, Section 17 NW¼ SE¼ SE¼, SW¼ SE¼ SE¼, SE¼ SE¼ SE¼, Section 20 NE¼ NE¼ NE¼</u></p> <p>For Phillips 17 Fed. No. 4 and access roads: <u>T 17S, R 29E, Section 17 NE¼ SW¼ SE¼, SE¼ SW¼ SE¼, Section 20 NE¼ NW¼ NE¼</u></p> <p>For Phillips 19 Fed. No. 3 and access road: <u>T 17S, R 29E, Section 19 (irregular section: used SW corner) NE¼ NW¼ NE¼, NW¼ NE¼ NE¼, SW¼ NE¼ NE¼, SE¼ NW¼ NE¼</u></p> <p>For Phillips 19 Fed. No. 7 and access road: <u>T 17S, R 29E, Section 19 (irregular section: used SW corner) NE¼ NE¼ NW¼, NW¼ NW¼ NE¼, SE¼ NE¼ NW¼</u></p> <p>For Phillips 19 Fed. No. 9 and access road: <u>T 17S, R 29E, Section 19 (irregular section: used SW corner) SW¼ NE¼ NW¼, SE¼ NE¼ NW¼</u></p> <p>For the access road to Phillips 19 Fed. No. 1: <u>T 17S, R 29E, Section 18 (irregular section: used SE corner) SE ¼ SE ¼ SE ¼, and Section 19 (irregular section: used SW corner) NE¼ NE¼ NE¼, SE¼ NE¼ NE¼</u></p> <p>Well Pad Footages: For Phillips 17 Fed. No. 3: 330 ft from the south line, 330 ft from the east line</p>		

For Phillips 17 Fed. No. 4: 330 ft from the south line, 1651 ft from the east line

For Phillips 19 Fed. No. 3: 520 ft from the north line, 880 ft from the east line

For Phillips 19 Fed. No. 7: 330 ft from the north line, 2318 ft from the east line

For Phillips 19 Fed. No. 9: 991 ft from the north line, 1882 ft from the west line

**f. 7.5' Map Name(s) and Code Number(s):** Red Lake SE, NM., (1955) 32104-G1

**g. Area:**

**Block:**

For Phillips 17 Fed. No. 3: Impact: 400 ft x 400 ft  
Surveyed: 400 ft x 400 ft

For Phillips 17 Fed. No. 4: Impact: 400 ft x 400 ft  
Surveyed: 400 ft x 400 ft

For Phillips 19 Fed. No. 3: Impact: 400 ft x 400 ft  
Surveyed: 400 ft x 400 ft

For Phillips 19 Fed. No. 7: Impact: 400 ft x 400 ft  
Surveyed: 400 ft x 400 ft

For Phillips 19 Fed. No. 9: Impact: 400 ft x 400 ft  
Surveyed: 400 ft x 400 ft

**Linear:**

For Phillips 17 Fed. No. 3 access roads: Impact: 1,155 ft x 20 ft  
Surveyed: 1,155 ft x 100 ft

For Phillips 17 Fed. No. 4 access roads: Impact: 963 ft x 20 ft  
Surveyed: 963 ft x 100 ft

For Phillips 19 Fed. No. 3 access road: Impact: 461 ft x 20 ft  
Surveyed: 461 ft x 100 ft

For Phillips 19 Fed. No. 7 access road: Impact: 678 ft x 20 ft  
Surveyed: 678 ft x 100 ft

For Phillips 19 Fed. No. 9 access road: Impact: 579 ft x 20 ft \*  
Surveyed: 579 ft x 100 ft

For Phillips 19 Fed. No. 1: Impact: 996.4 ft x 20 ft  
Surveyed: 996.4 ft x 100 ft

\*The access road for Phillips 19 Fed. No. 9 extends an additional 579 ft to the west; however, this portion of the road was originally staked as part of an access road for another proposed well pad location that is not included as part of this project. Because the western portion of the road will not be used for access to the Phillips 19 Fed. No. 9, it was not surveyed for cultural resources.

**14. a. Records Search:**

**Location:** Carlsbad Field Office and ARMS (via modem)

**Date:** Sept 25, 2000 by Jennifer Bowden

List by LA # All sites within .25 miles of the project: Two sites, LA 29367 and LA 103580, are located within ¼ mile of Phillips 19 Fed. No. 7. No sites are within ¼ mile of the rest of the project areas.

(Those sites within 500' are to be shown on the project map): No sites are within 500 ft of the project areas.

b. **Description of Undertaking:** The proposed undertaking includes the construction of five well pads, their associated access roads, and an access to road an existing well.

c. **Environmental Setting (NRCS soil designation; vegetative community; etc.):** The project areas are located northwest of Loco Hills on a gently rolling plain. Vegetation is consistent with Chihuahuan Desert Scrub, including honey mesquite, buckthorn, prickly pear, and grasses. Average surface visibility is 40 and 70 percent. The elevations of the project area range from 3600 ft to 3700 ft. Soils in the project area are light-brown silty sands with some caliche nodules and gravels of chert, quartzite, and basalt on the surface of deflated areas.

d. **Field Methods:**

Transect Intervals: 15 m

Crew Size: 2

Time in Field: 7 hours

Collections: None

15. **Cultural Resource Findings:**

**Identification and description:** (Location shown on Project map): Eight Isolated Manifestations (IMs) were identified and recorded during the survey. They are:

IM 1: gray/green chert angular debris, 4 cm long  
gray chert core reduction flake, 4 cm long  
gray chert core reduction flake, 4 cm long  
two pieces of burned caliche

IM 2: white chert core reduction flake, 4 cm long

IM 3: red quartzite/siltstone core reduction flake, 7 cm long

IM 4: dark brown chert core reduction flake, 5 cm long  
light brown chert core reduction flake, 4 cm long  
dark gray chert core reduction flake, 4 cm long

IM 5: beige quartzite hammerstone, 12 cm long  
purple quartzite core reduction flake, 3 cm long  
white chert angular debris fragment, 2 cm long  
gray quartzite core reduction flake, 4 cm long

IM 6: brown chert uniface, 7 cm long  
gray quartzite retouched flake, 6 cm long

IM 7: gray chert core reduction flake, 6 cm long

IM 8: white chert angular debris, 5 cm long

16. **Management Summary (Recommendations):** All the IMs have been recorded to currently acceptable standards. The very nature of IMs make them ineligible for the National Register. No further action needs to be taken. It is recommended that archaeological clearance be granted for the project.

I certify that the information provided above is correct and accurate and meets all appreciable BLM standards.

Responsible Archaeologist: Signature \_\_\_\_\_ Date \_\_\_\_\_

THE ABOVE COMPLETES A NEGATIVE REPORT. IF ELIGIBLE OR POTENTIALLY ELIGIBLE PROPERTIES ARE INVOLVED, THEN THE ABOVE WILL BE THE TITLE PAGE AND ABSTRACT FOR A COMPLETE REPORT.

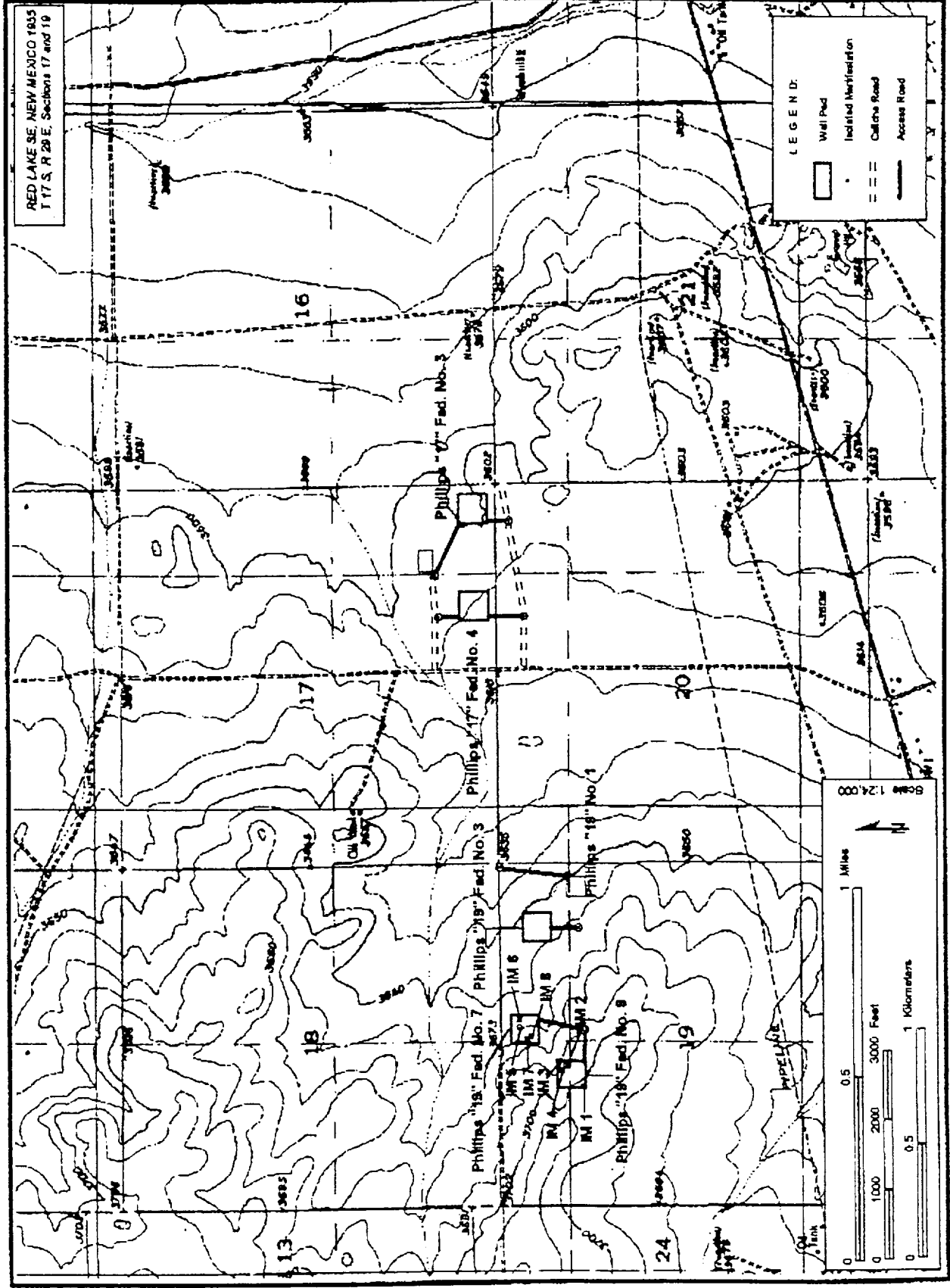


Figure 1. Project Area Map.



**CLAYTON WILLIAMS ENERGY, INC.  
SURFACE USE PLAN**

**Attached to form 3160-3**

**Lease Name:** Phillips -17-Federal

**Well No.:** 4

**Location:** 330' FSL & 1651' FEL; UL O  
Sec. 17, T-17-S, R-29-E  
Eddy Co., NM

**1.        Existing Roads:**

- A.        The well site and elevation for the proposed well are shown on the attached plat.
- B.        Existing roads are indicated on attached map. Existing roads are adequate for travel during drilling and production operations. Upgrading of the road prior to drilling well will be done when necessary as determined during the onsite inspection.
- C.        Direction to location:  
Phillips-17-Federal Wells: On Hwy. 82 approximately 6 miles West of Loco Hills, NM, turn North 1/2 mile on Old Loco Hills Rd.
- D.        Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as long as any operations continue on this lease.

**2.        Proposed access Roads:**

Attached map indicates the proposed new access road to be constructed. The road will be constructed as follows:

- A.        The maximum width of the running surface will be 20'. The road will be crowned and ditched and constructed of 6" rolled and compacted caliche. Ditches will be 3:1 slope and 4 feet wide. Water will be diverted where necessary to avoid ponding, prevent erosion, maintain good drainage, and to be consistent with local drainage patterns. BLM may specify any additions or changes during the onsite inspection.
- B.        The average grade will be less than 1%
- C.        No turnouts are planned
- D.        Culverts, cattle guards, low-water crossing, fence cuts:
- E.        Surface material will consist of native caliche. Caliche will be obtained from nearest BLM approved pit. Any additional materials required will be purchased from the dirt contractor.
- F.        The proposed access road will be centerlined flagged.

**3.        Location of Existing Wells :**

Phillips-17-Federal, well #1: Sec. 17, T-17-S, R-29-E, UL P, 990' FSL & 990' FEL  
Phillips-17-Federal, well #2: Sec. 17, T-17-S, R-29-E, UL O, 990' FSL & 2310' FEL  
Phillips-19-Federal, well #1: Sec. 19, T-17-S, R-29-E, UL A, 990' FNL & 330' FEL  
Phillips-19-Federal, well #2: Sec. 19, T-17-S, R-29-E, UL H, 2310' FNL & 330' FEL  
Phillips-19-Federal, well #5: Sec. 19, T-17-S, R-29-E, UL B, 990' FNL & 1650' FEL  
Phillips-19-Federal, well #6: Sec. 19, T-17-S, R-29-E, UL G, 2310' FNL & 1650' FEL

4. **Location of Existing Wells and/or Proposed Facilities:**

A. **Tank Battery:**

Sec. 19 wells: Sec. 19, T-17-S, R-29-E, UL G, 1980' FNL & 2310' FEL (Green B Federal #9 location)

Sec. 17 wells: Sec. 17, T-17-S, R-29-E, UL P, 990' FSL & 990' FEL

B. **Flowlines:** See attached Property Line & Road Diagram.

5. **Location and type of Water Supply:** To be hauled by contract company.

6. **Source of Construction Materials:**

All caliche required for construction of the drill pad and the proposed new access road will be obtained from a BLM approved caliche pit.

7. **Methods of Handling Waste Disposal:**

A. Drill cuttings not retained for evaluation purposes will be disposed of into the reserve pit.

B. Drilling fluids will be contained in steel mud tanks. The reserve pit will contain any excess drilling fluids or flow from the well during drilling, cementing, and completion operations. The reserve pit will be an earthen pit, approximately 60'X 90'X10' deep and fences on three sides prior to drilling. It will be fenced on on the fourth side immediately following rig removal. The reserve will be plastic-lined to minimize loss of drilling fluids and saturations of the ground with brine water.

C. Water produced from the well during completion may be disposed into the reserve pit or steel tank. After the well is permanently placed on production, produced water will be collected in tanks until hauled by transport to an approved disposal system or separate disposal application will be submitted for appropriate approval. Produced oil will be collected in steel tanks until sold.

D. A portable chemical toilet will be provided on the location for human waste during the drilling and completion operations.

E. Garbage and trash produced during drilling and completion will be put in trash trailer. If well is productive, maintenance waste will be placed in special trash cans and hauled away periodically. All waste material will be contained to prevent scattering by the wind. No toxic waste or hazardous chemicals will be produced by this operation.

F. After the rig is moved out and the well is either completed or abandoned, all waste materials will be cleaned-up within 30 days. No adverse materials will be left on the location. The reserve pit will be completely fenced and kept closed until it has dried. When the reserve pit is dry enough to break out and fill and, as weather permits, the unused portion of the well site will be leveled and re-seeded as per BLM specifications. Only the part of the pad required for production will be kept in use. In the event of a dry hole, only a dry hole marker will remain.

8. **Ancillary Facilities:**

No airstrip, campsite, or other facilities will be built as a result of the operations of this well.

9. **Well Site Layout:**

- A. **Drill pad:** Per attached plat.
- B. Attached plat shows planned orientation for the rig and associated drilling equipment, reserve pit, pipe racks, turnaround and parking areas, and access road. No permanent living facilities are planned, but a temporary foreman/tool pusher's trailer will be on location during the drilling operations.
- C. The reserve pit will be lined with high-quality plastic sheeting.

10. **Plans for Restoration of the Surface:**

- A. Upon completion of the proposed operations, if the well is to be abandoned, the caliche will be removed from the location and road and returned to the pit from which it was taken. The pit area, after allowing to dry, will be broken out and leveled. The original topsoil will be returned to the entire location, which will be leveled and contoured to as nearly to the original topography as possible.

All trash, garbage, and pit lining will be buried or hauled away in order to leave the location in an aesthetically pleasing condition. All pits will be filled and the location leveled within 120 days after abandonment.

- B. The disturbed area will be re-vegetated by re-seeding during the proper growing season with a seed mixture of native grasses as recommended by the BLM.
- C. Three sides of the reserve pit will be fenced prior to and during drilling operations. At the time the rig is removed, the reserve pit will be fenced on the rig (fourth) side to prevent livestock or wildlife from being entrapped.

The fencing will remain in place until the pit area is cleaned up and leveled. No oil will be left on the surface of the fluid in the pit. The entire reserve pit will be netted until the fluid has completely evaporated.

- D. Upon completion of the proposed operations, if the well is completed, the reserve pit area will be treated as outlined above within the same prescribed time. Topsoil removed from the drill site will be used to re-contour the pit area; any uncased portions of the drill pad to the original natural level and re-seeded as per BLM specifications.

11. **Surface Ownership:**

The wellsite and lease is located entirely on Federal surface.

**Other Information:**

- A. **Terrain:** See Archaeological Report
- B. **Soil:** See Archaeological Report
- C. **Vegetation:** See Archaeological Report
- D. **Surface Use:** See Archaeological Report
- E. **Ponds and Streams:** None
- F. **Water Wells:** None
- G. **Residences and Buildings:** None
- H. **Arroyos, Canyons, Etc.:** None
- I. **Well Sign:** To be installed at the wellsite
- J. **Archaeological Resources:** None reported. References archaeological report.

12. **Lessee's and Operator's Representative:**

The Clayton Williams Energy, Inc. representatives responsible for assuring compliance with the Surface Use Plan are:

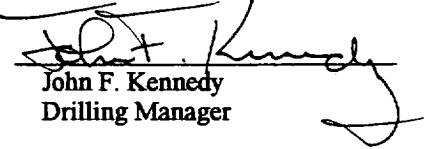
John Kennedy  
Clayton Williams Energy, Inc.  
Six Desta Drive, Ste. 3000  
Midland, TX 79705  
(915) 682-6324

or

Matt Swierc  
Clayton Williams Energy, Inc.  
Six Desta Drive, Ste. 3000  
Midland, TX 79705  
(915) 682-6324

**Certification:**

I hereby certify that I, or persons under my direct supervision, have inspected the 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 Clayton Williams Energy, Inc. and its contractors in conformity with this plan and the terms and conditions under which it is approved.

  
John F. Kennedy  
Drilling Manager



CLAYTON WILLIAMS ENERGY, INC.

October 11, 2000

United States Department of the Interior  
BUREAU OF LAND MANAGEMENT  
2909 West Second Street  
Roswell, New Mexico 88201-2019

Attention: Mr. David Glass

Re: **Application for Permit to Drill Form 3160-3**

Phillips-17-Federal Lease, Well #4  
Sec. 17; T-17-S; R-29-E  
Eddy County, New Mexico

Dear Mr. Glass:

Please find enclosed the following attachments pertaining to the above captioned application:

1. Application to Drill – BLM Form 3160-3
2. Location & Elevation Plats – OCD Form C102
3. Drilling Program
4. Hydrogen Sulfide Drilling Operations Plan
5. BOP & Choke Manifold Schematic
6. Rig Location Layout
7. Proposed Line & Road Diagram
8. Surface Use Plan

Please note a Negative Site Report has been filed in your Carlsbad Field office by our Archaeological Consultant, Mesa Field Services. I have included a copy for your reference.

I want to thank you for your assistance and should you require further, please call me at my office. My direct phone line is (915) 688-3240.

Sincerely yours,

A handwritten signature in cursive script that reads "Betsy Luna".

Betsy Luna  
Engineering Technician