

HOBBS OCD

New Mexico Oil Conservation Division, District 1
1625 N. French Drive
Hobbs, NM 88240

JUN 19 2013

Form 3160 -3
(April 2004)

RECEIVED UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

5. Lease Serial No.
NMNM-124658

6. If Indian, Allottee or Tribe Name

1a. Type of work: DRILL REENTER

7. If Unit or CA Agreement, Name and No.
30-005-21140

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

8. Lease Name and Well No.
Casper Federal #1 <39968>

2. Name of Operator
Mack Energy Corporation

<138377

9. API Well No.
30-005-21140

3a. Address
P.O. Box 960 Artesia, NM 88211-0960

3b. Phone No. (include area code)
(575)748-1288

10. Field and Pool, or Exploratory
WC San Andres <98031>

4. Location of Well (Report location clearly and in accordance with any State requirements*)

At surface 346 FNL & 1647 FWL
At proposed prod. zone

11. Sec., T. R. M. or Blk. and Survey or Area

Sec. 21 T14S R30E

14. Distance in miles and direction from nearest town or post office*
21 miles north of Loco Hills, NM

12. County or Parish
Chaves

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. unit line, if any) 327

16. No. of acres in lease
1880

17. Spacing Unit dedicated to this well
40

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 5000'

19. Proposed Depth
3750'

20. BLM/BIA Bond No. on file
NMB000286

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3856 GR'

22 Approximate date work will start*
6/15/2013

23. Estimated duration
5 days

24. Attachments

ROSWELL 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.
- 2. A Drilling Plan.
- 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).

- 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- 5. Operator certification
- 6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature
Jerry W. Sherrell

Name (Printed/Typed)
Jerry W. Sherrell

Date
2/22/13

Title
Production Clerk

Approved by (Signature)
15/ Angel Mayes

Name (Printed/Typed)
Angel Mayes

Date
6-17-13

Title
Assistant Field Manager,
Lands And Minerals

Office
Roswell Field Office

APPROVED FOR 2 YEARS

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.

*(Instructions on page 2)

*Ka
06/25/13*

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS ATTACHED

DRILLING PROGRAM

Re-Entry
Attached Exhibits 1-5

1. Geologic Name of Surface Formation

Quaternary

2. Estimated Tops of Important Geologic Markers:

Rustler	440'		
TOS	520'	Queen	2093'
BOS	1183'	Grayburg	2424'
Yates	1327'	San Andres	2733'
Seven Rivers	1570'		

3. Estimated Depths of Anticipated Fresh Water, Oil and Gas:

Water Sand	150'	Fresh Water
Yates	1327'	Oil/Gas
Queen	2093'	Oil/Gas
San Andres	2733'	Oil/Gas

No other formations above the San Andres are expected to give up oil, gas or fresh water in measurable quantities. The 13 3/8" casing is set @ 366' and cement was circulated. The 8 5/8" casing is set @ 2877' and cement was circulated. The 5 1/2" production casing is set @ 10900' and cement was circulated.

4. Casing Program: In place.

Hole Size	Interval	OD Casing	Wt, Grade, Jt, cond, collapse/burst/tension
17 1/2"	0-366'	13 3/8"	48#,H-90, ST&C, In place
12 1/4"	0-2877'	8 5/8"	32#, J-55, ST&C, In place
7 7/8"	0-10900'	5 1/2"	17#,L-80,LT&C, In place

5. Cement Program:

13 3/8" Surface Casing: 400sx, circulated.
8 5/8" Intermediate Casing: 1350sx, circulated.
5 1/2" Production Casing: 1890sx, circulated.

6. Minimum Specifications for Pressure Control:

The blowout preventer equipment (BOP) will consist of a double ram-type (3000 psi WP) manually operated. Nipped up on the 5 1/2" casing using a double stud adapter and used continuously until TD is reached.

1. Blow out preventer and all fittings must be in good condition, 3000 psi WP minimum.

7. Types and Characteristics of the Proposed Mud System:

The plugs will be drilled out with fresh water mud system. The applicable depths and properties of this system are as follows:

DEPTH	TYPE	WEIGHT	VISCOSITY	WATERLOSS
0'-3750'	Fresh Water	8.5	28	N.C.

8. Auxiliary Well Control and Monitoring Equipment:

A. Well work-over unit will be equipped with H2S monitors.

9. Logging, Testing and Coring Program:

A. A collar locator log will be run.

10. Abnormal Conditions, Pressures, Temperatures and Potential Hazards:

No abnormal pressures or temperatures are anticipated.

11. Anticipated Starting Date and Duration of Operations:

Road and location work will not begin until approval has been received from the BLM. The anticipated spud date is June 15, 2013. Once commenced, the work-over operation should be finished in approximately 5 days. If the well is productive, an additional 5 days will be required to install permanent facilities.

**Mack Energy Corporation
Onshore Order #6
Hydrogen Sulfide Operation 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 and work-over operations on this well:

1. The hazards and characteristics of hydrogen sulfide (H₂S)
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H₂S 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 H₂S on metal components. If high tensile tubular 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 H₂S Operations Plan and Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H₂S zone. The initial training session shall include a review of the site specific H₂S Operations Plan and the Public Protection Plan. **The concentrations of H₂S of wells in this area from surface to TD are low enough that a contingency plan is not required.**

II. H₂S SAFETY EQUIPMENT AND SYSTEMS

Note: All H₂S safety equipment and systems will be installed, tested, and operational when drilling/work-over begins.

1. Well Control Equipment:

- A. Flow line.
- B. Manually operated 3000 psi BOP.

2. Protective equipment for essential personnel:

- A. Mark II Survive air 30-minute units located in the doghouse.

3. H₂S detection and monitoring equipment:

- A. 1 portable H₂S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H₂S levels of 20 PPM are reached.

4. Visual warning systems:

- A. Wind direction indicators as shown on well site diagram (Exhibit #7).
- B. Caution/Danger signs (Exhibit #6) shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.

5. Mud program:

- A. The mud program has been designed to minimize the volume of H₂S circulated to surface. Proper mud weight, safe drilling practices and the use of H₂S scavengers will minimize hazards when penetrating H₂S bearing zones.

6. Metallurgy:

- A. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H₂S service.
- B. All elastomers used for packing and seals shall be H₂S trim.

7. Communication:

- A. Cellular communications in company vehicles including hand held devices.
- B. Land line (telephone) communication at Office.

8. Well testing:

- A. There will be no drill stem testing.

EXHIBIT #6

WARNING
YOU ARE ENTERING AN H₂S
AUTHORIZED PERSONNEL ONLY

- 1. BEARDS OR CONTACT LENSES NOT ALLOWED**
- 2. HARD HATS REQUIRED**
- 3. SMOKING IN DESIGNATED AREAS ONLY**
- 4. BE WIND CONSCIOUS AT ALL TIMES**
- 5. CHECK WITH MACK ENERGY FOREMAN AT OFFICE**

MACK ENERGY CORPORATION

1-575-748-1288

DRILLING LOCATION H2S SAFTY EQUIPMENT

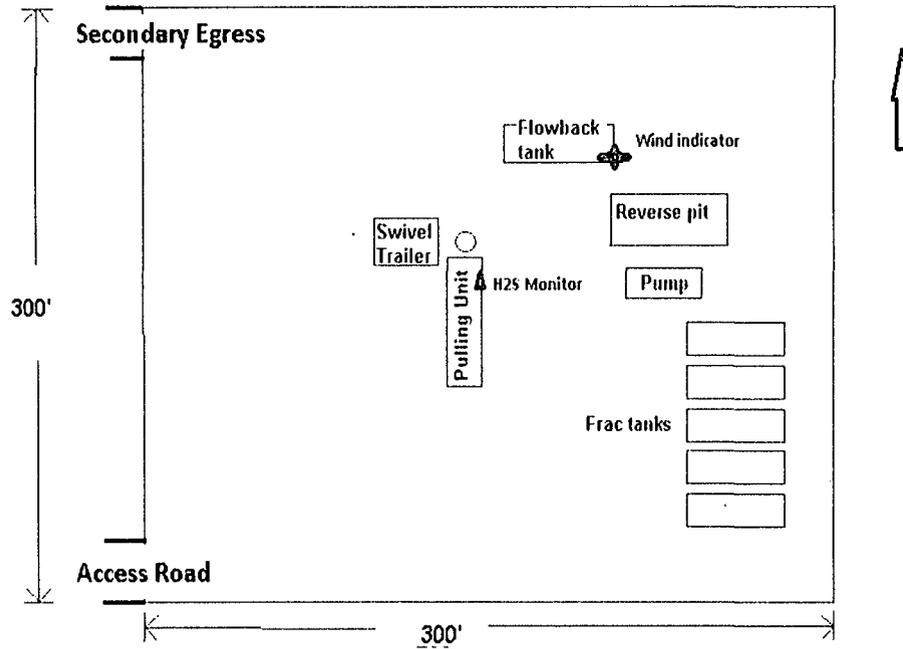
Exhibit # 7

Standard setup for workover operations

Tanks and equipment are of adequate size to hold all fluids and cuttings during workover operations.

Daily inspections of all equipment will be performed.

In the event of a leak: Fluids will be removed and remediation procedure started. OCD will be notified within 48 hours of any leak.



Note: Flowback tank is a frac tank, Reverse pit is a steel open top tank measuring 20' L x 7' W x 6' D.

Mack Energy Corporation Call List, Chaves County

Artesia (575)	Cellular	Office	Home
Jim Krogman.....	746-5515.....	748-1288.....	746-2674
Donald Archer.....	748-7875.....	748-1288.....	748-2287
Chris Davis.....	432-934-7846.....	748-1288.....	
Emilio Martinez.....	432-934-7586.....	748-1288.....	
Matt Buckles.....	432-212-3732.....	748-1288.....	
Kevin Garrett.....	432-934-7948.....	748-1288.....	

Agency Call List (575)**Roswell**

State Police.....	622-7200
City Police.....	624-6770
Sheriff's Office.....	624-7590
Ambulance.....	624-7590
Fire Department.....	624-7590
LEPC (Local Emergency Planning Committee).....	624-6770
NMOCD.....	748-1283
Bureau of Land Management.....	627-0272

Emergency Services

Boots & Coots IWC.....	1-800-256-9688 or (281)931-8884
Cudd pressure Control.....	(915)699-0139 or (915)563-3356
Halliburton.....	746-2757
B. J. Services.....	746-3569
Flight For Life-Lubbock, TX.....	(806)743-9911
Aerocare-Lubbock, TX.....	(806)747-8923
Med Flight Air Amb-Albuquerque, NM.....	(505)842-4433
Lifeguard Air Med Svc. Albuquerque, NM.....	(505)272-3115

SURFACE USE AND OPERATING PLAN

1. Existing Access Roads

- A. All roads to the location are shown in Exhibit #8. The existing lease roads are illustrated and are adequate for travel during drilling and production operations. Upgrading existing roads prior to drilling well, will be done where necessary.
- B. Directions to Location: From the intersection of State Hwy 249 and CO. RD 161 (Cindy Rd.) intersection. Go north approx.. 3.6 miles, turn right and go NE on lease road 1.5 miles, turn south on reclaimed access road 800' to location.
- C. 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.

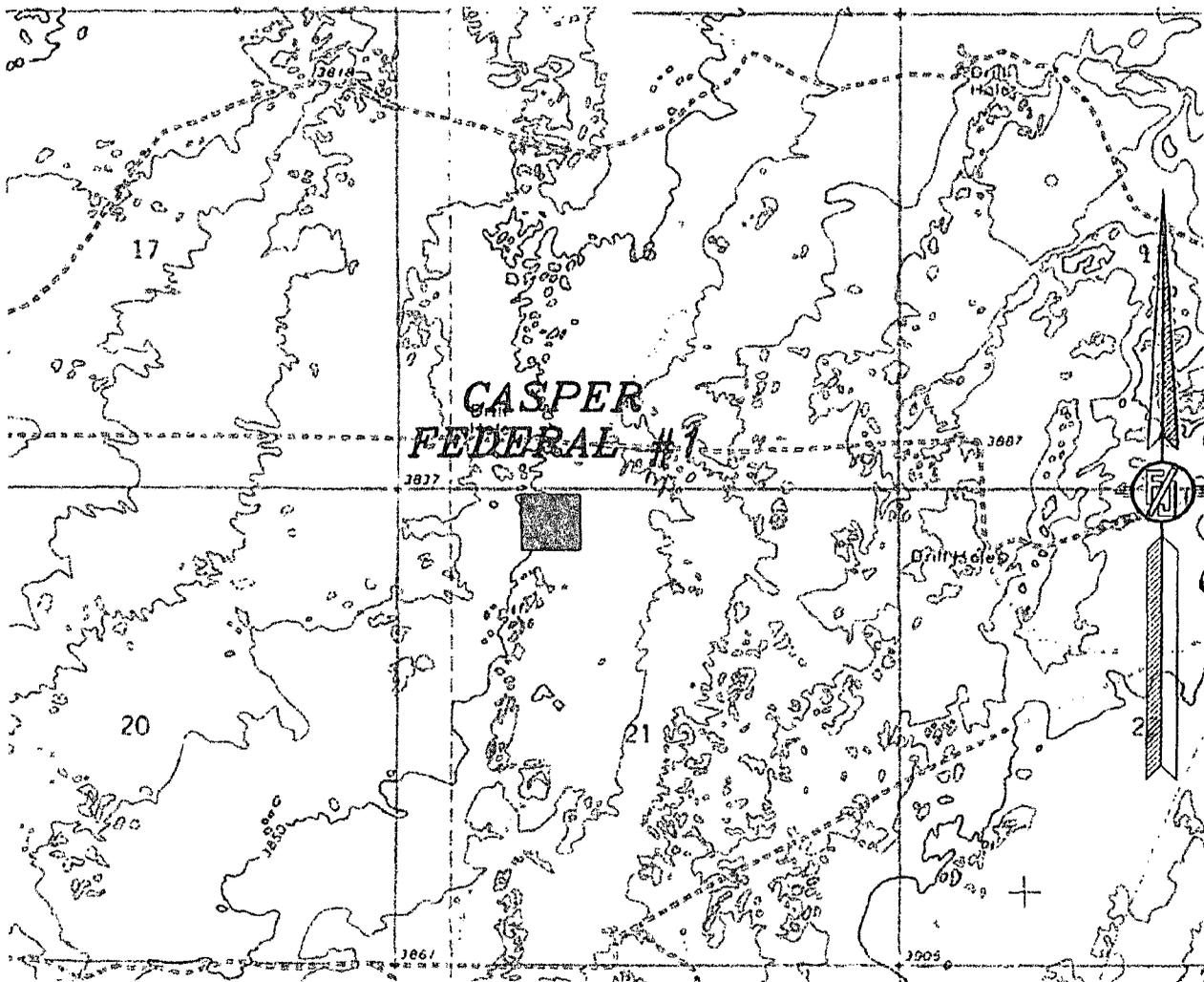


Exhibit #8

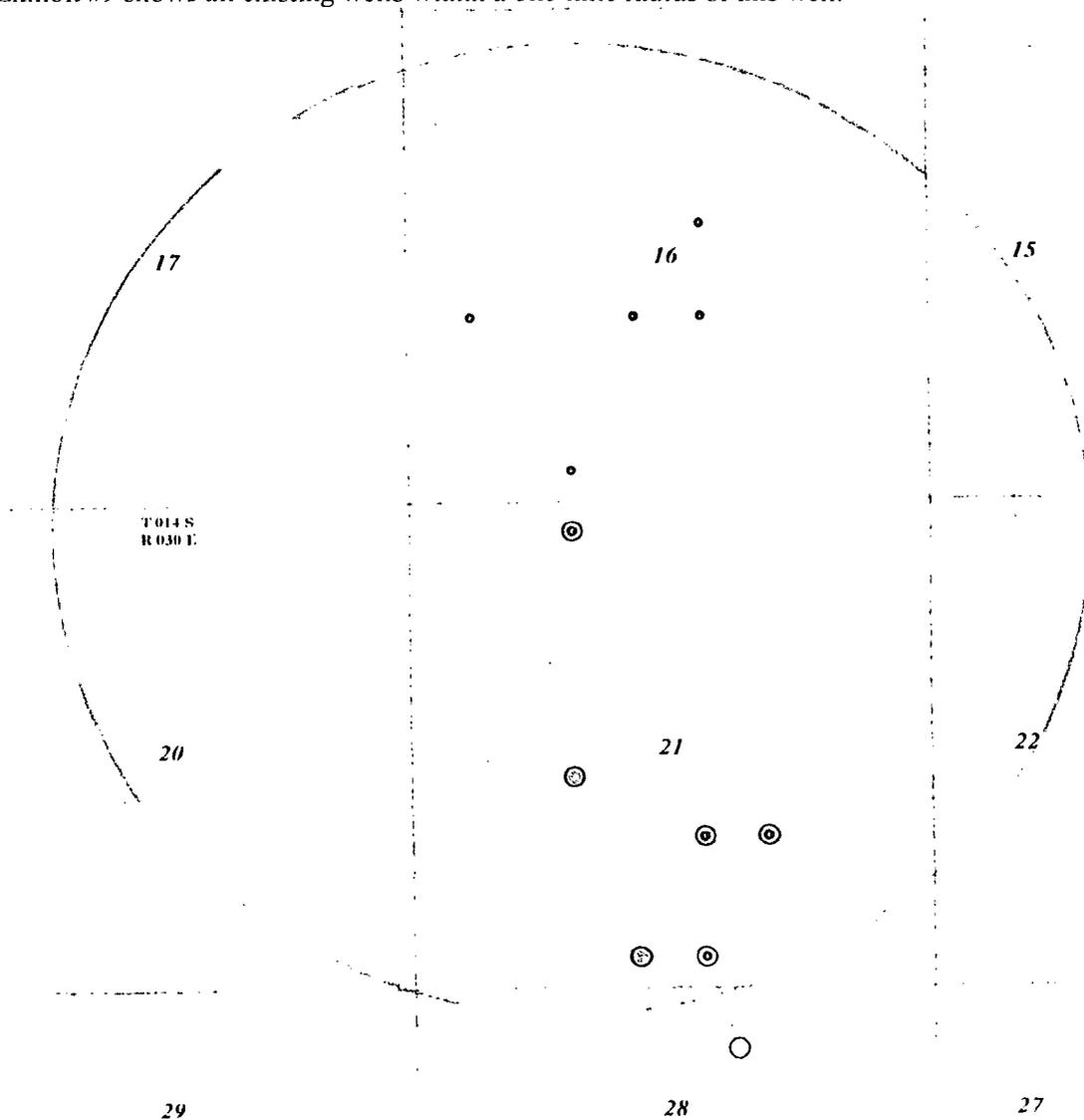
1. Proposed Access Road:

Location Verification map shows the existing reclaimed road to be constructed. Proposed upgrade of existing road will be done along staked centerline survey. Necessary maintenance will be done to insure traffic stays within proposed ROW. The road will be constructed as follows:

- A. The Maximum width of the running surface will be 14'. The road will be crowned and ditched and constructed of 6" rolled and compacted caliche. Ditches will be at 3:1 slope and 3 feet wide. Water will be diverted where necessary to avoid ponding, prevent erosion, maintain good drainage, and to be consistent with local drainage patterns.
- B. The average grade will be less than 1%.
- C. No turnouts are planned.
- D. No culverts, cattleguard, gates, low water crossings or fence cuts are necessary.
- E. Surfacing material will consist of native caliche. Caliche will be obtained from the nearest BLM approved caliche pit.
- F. The proposed access road as shown in Exhibit #6 has been centerline flagged by Madron Surveying Inc., Carlsbad, New Mexico.

2. Location of Existing Wells:

Exhibit #9 shows all existing wells within a one-mile radius of this well.



3. Location of Existing and/or Proposed Facilities:

- A. Mack Energy Corporation does operate a production facility on this lease.
- B. If the well is productive, contemplated facilities will be as follows:
 - 1) San Andres Completion: Will be sent to the Casper Federal TB located at the #1 well. The Facility is shown in Exhibit #10.

- 2) The tank battery and facilities including all flow lines and piping will be installed according to API specifications.
- 3) Any additional caliche will be obtained from a BLM approved caliche pit. Any additional construction materials will be purchased from contractors.
- 4) It will be necessary to run electric power if this well is productive. Power will be run by CVE and they will send in a separate plan for power.

C. Proposed flow lines will stay on location, TB will be constructed on this pad.

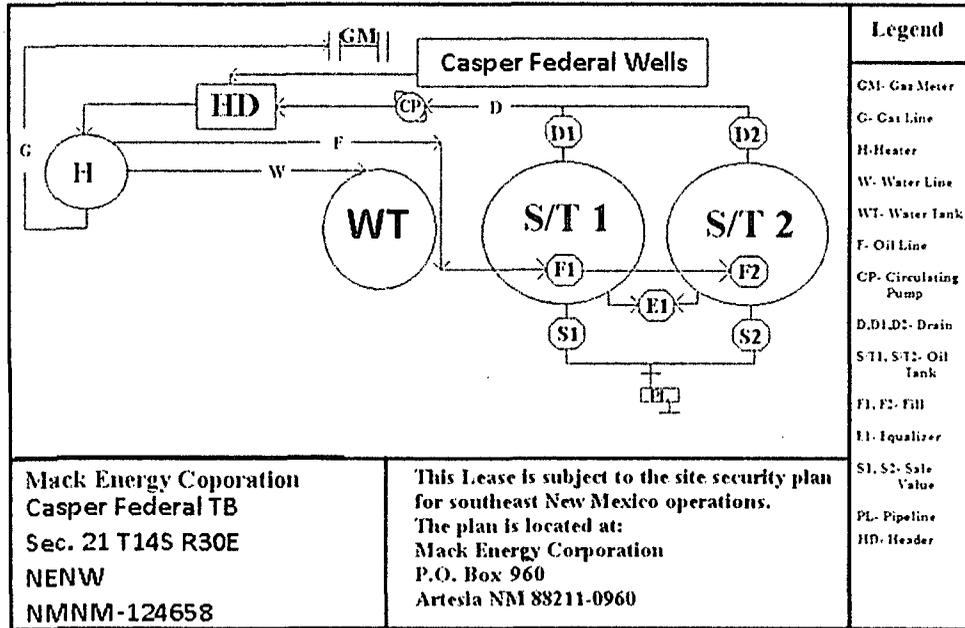


Exhibit #10

4. Location and Type of Water Supply:

The plugs will be drilled with fresh water mud system as outlined in the drilling program. The water will be obtained from commercial water stations in the area and hauled to location by transport truck over the existing and proposed access roads shown in Exhibit #6. If a commercial fresh water source is nearby, fasline may be laid along existing road ROW's and fresh water pumped to the well. No water well will be drilled on the location.

5. Source of Construction Materials:

All caliche required for construction of the drill pad and proposed new access road (approximately 2500 cubic yards) will be obtained from a BLM approved caliche pit.

6. Methods of Handling Waste:

- A. Drill cuttings not retained for evaluation purposes will be disposed into the steel tanks and hauled to an approved facility.
- B. Drilling fluids will be contained in steel tanks using a closed loop system Exhibit #7.
- C. Water produced from the well during completion may be disposed into a steel tank. After the well is permanently placed on production, produced water will be collected in tanks (fiberglass) until hauled to an approved disposal system; produced oil will be collected in steel tanks until sold.

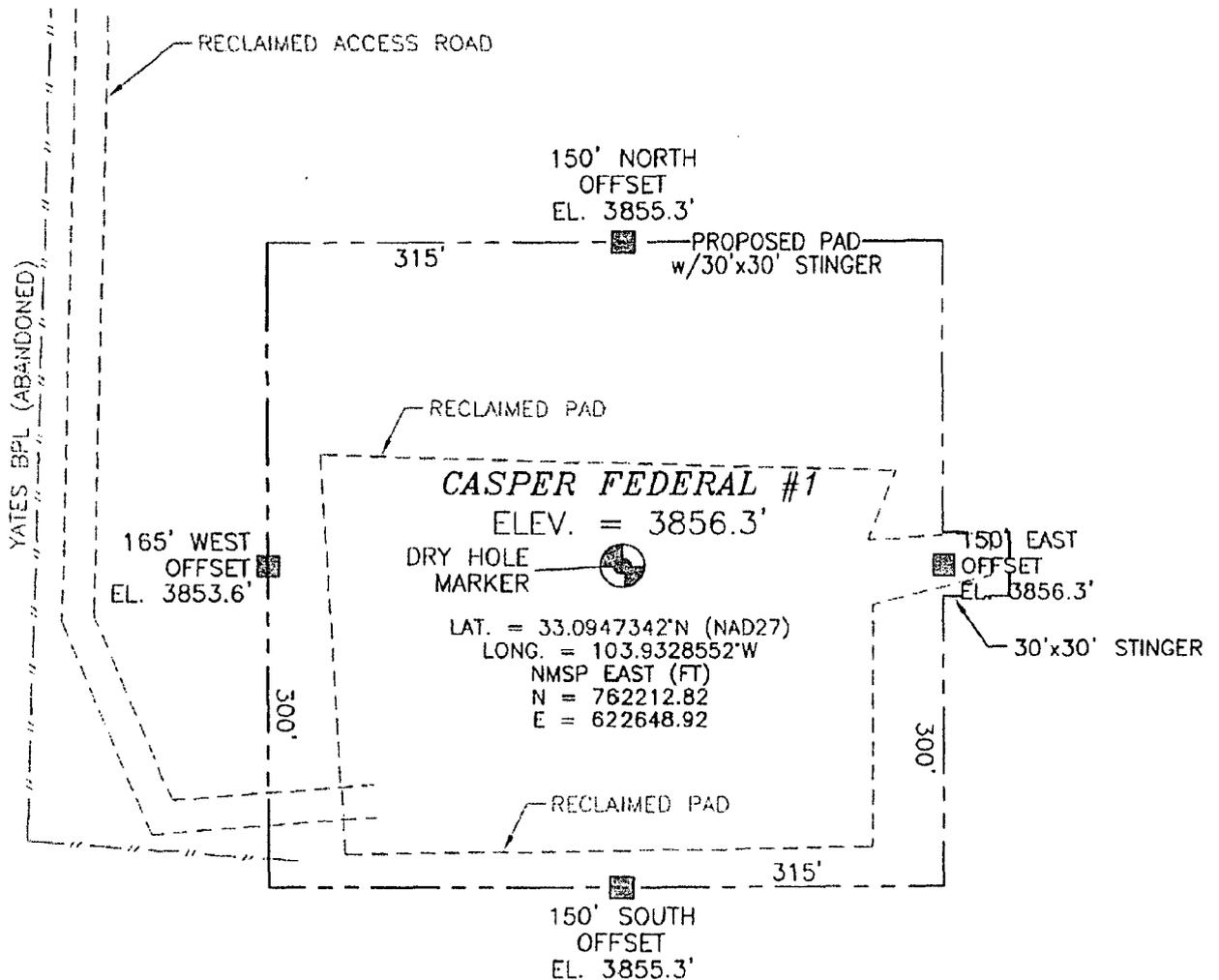
- D. Garbage and trash produced during drilling or completion operations will be collected in a trash bin and hauled to an approved landfill. All water and fluids will be disposed of into an approved facility. No toxic waste or hazardous chemicals will be produced by this operation.
- E. After the rig is moved out and the well is either completed or abandoned, all waste materials will be cleaned up within 30 days. In the event of a dry hole only a dry hole marker will remain.
- F. Sewage and Gray Water will be placed in container and hauled to a approved facility.

7. Ancillary Facilities:

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

8. Well Site Layout:

- A. The well site and elevation plat for the proposed well is shown in Exhibit #11. It was staked by Madron Surveying Inc., Carlsbad, NM.
- B. The drill pad layout, with elevations, is shown in Exhibit #11. Dimensions of the pad are shown. Topsoil, if available, will be stockpiled per BLM specifications. Because the pad is almost level no major cuts will be required.
- C. Diagram below shows the proposed orientation of the location. No permanent living facilities are planned.



Exhibit# 14

9. Plans for Restoration of the Surface:

- A. Upon completion of the proposed operations, if the well is completed, any additional caliche required for facilities will be obtained from a BLM approved caliche pit.
- B. In the event of a dry hole. Topsoil removed from the drill site will be used to recontour the area to its original natural level and reseeded as per BLM specifications.
- C. If the well is productive, rehabilitation plans are as follows:
 - 1) Topsoil removed from the drill site will be used to recontour the surrounding area to the original natural level and reseeded as per BLM specifications.
- D. Exhibit #12 below shows the proposed downsized well site after Interim Reclamation. Dimensions are estimates on present conditions and are subject to change.

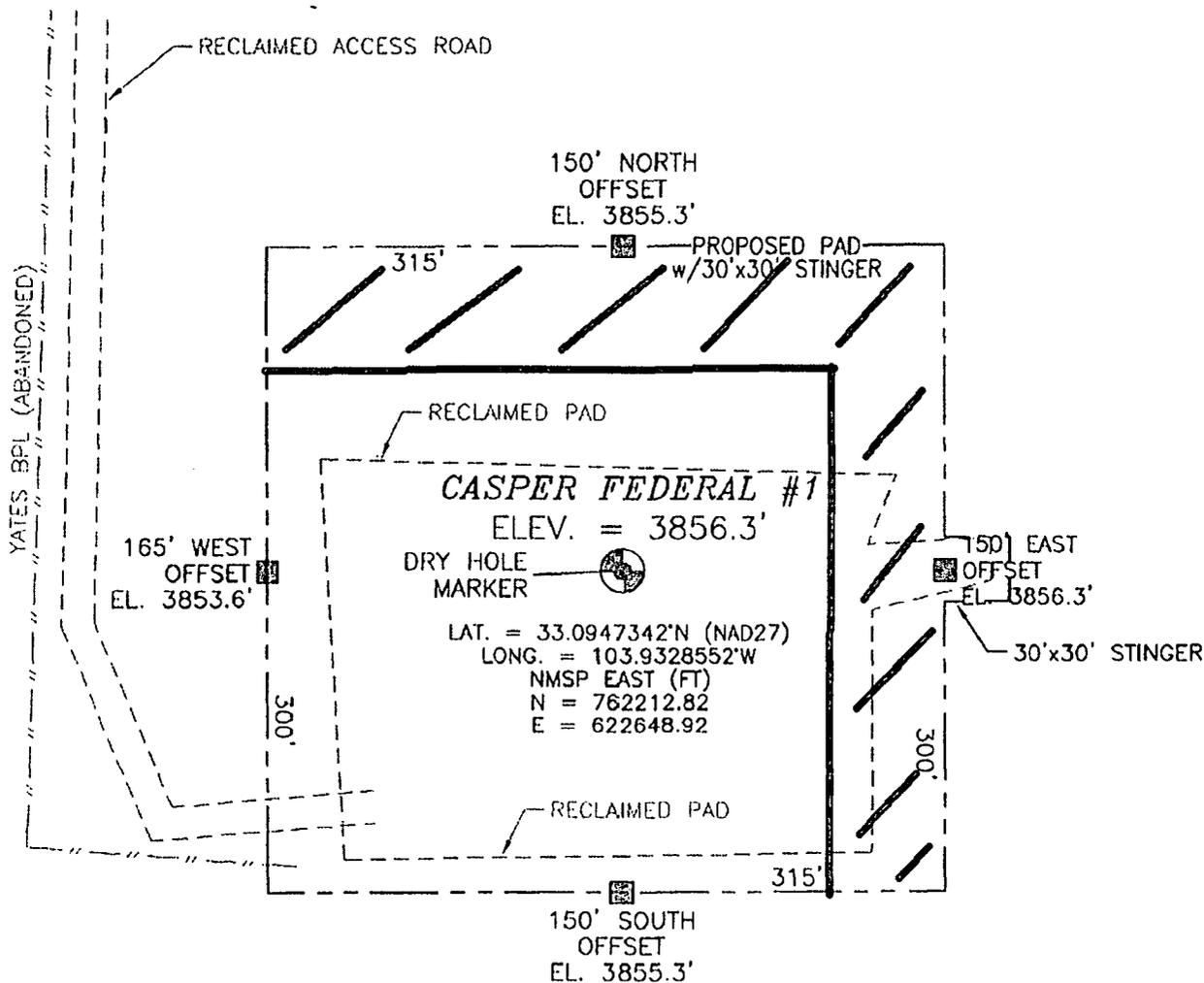


Exhibit #15

10. Surface Ownership:

The well site and lease is located entirely on Federal surface. We have notified the surface lessee of the impending operations. According to BLM the lessee is Bogel Limited Company, PO Box 460 Dexter, NM 88230 (575) 365-2996.

11. Other Information:

- A. The area around the well site is grassland and the topsoil is sandy. The vegetation is native scrub grass with sagebrush.
- B. There is no permanent or live water in the immediate area.
- C. A Cultural Resources Examination has been requested and will be forwarded to your office in the near future.

12. Lessee's and Operator's Representative:

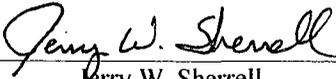
The Mack Energy Corporation representative responsible for assuring compliance with the surface use plan is as follows:

Jerry W. Sherrell
Mack Energy Corporation
P.O. Box 960
Artesia, NM 88211-0960
Phone (575) 748-1288 (office)

APD CERTIFICATION

I hereby certify that I, or person under my direct supervision, have inspected the proposed 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 this APD package are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and 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.

Date: 2-22-2013

Signed: 
Jerry W. Sherrell