Form 3160-5

UNITED STATES

OCD Hobbs

FORM APPROVED

	PARTMENT OF THE REAU OF LAND MAI		5. Lease Ser NMLC06	
	NOTICES AND REP s form proposals to Use Form 3160-3 (ORTS ON WELLS to drill or to re-entered (APD) for such proposals.	6. If Indian,	Allottee or Tribe Name
	T IN TRIPLICATE - Other instr	ructions on page 2. AUG 132	7. If Unit of	CA/Agreement, Name and/or No.
	Well Other	RECEIVE	8. Well Nam Brook Fec	leral #4
2. Name of Operator Mack E	nergy Corporation		30-025-40	
3a. Address		3b. Phone No. (include area code)	10. Field and	l Pool or Exploratory Area
P.O. Box 960 Artesia, NI	И 88210-0960	(575) 748-1288	Baish Wo	
4. Location of Well (Footage, Sec., T,R,M, or Survey Description)			11. Country	or Parish, State
750 FNL & 1120 FEL, Sec. 30 T17S R32E			Lea, NM	
12. CH	CK THE APPROPRIATE B	OX(ES) TO INDICATE NATURE O	F NOTICE, REPORT	OR OTHER DATA
TYPE OF SUBMISSION		ТҮРЕ	OF ACTION	
Notice of Intent	Acidize Alter Casing	Deepen Fracture Treat	Production (Start/R Reclamation	Well Integrity
Subsequent Report	Casing Repair	New Construction	Recomplete	Other Build Fresh Water
	Change Plans.	Plug and Abandon	Temporarily Abandon	Frac Pit
Final Abandonment Notice	Convert to Injection	Plug Back	Water Disposal	
the proposal is to deepen direc Attach the Bond under which the following completion of the invo	tionally or recomplete horiz work will be performed or p lved operations. If the operati Abandonment Notices must	zontally, give subsurface locations and me provide the Bond No. on file with BLN tion results in a multiple completion or	asured and true vertical MBIA. Required subse- recompletion in a nev	posed work and approximate duration thereof. If depths of all pertinent markers and zones. quent reports must be filed within 30 days vinterval, a Form 3160-4 must be filed once ave been completed and the operator has

Mack Energy Corporation proposes to Build and Maintain a lined Fresh Water Frac Pit at this location.

This pit will be filled by transport trucks. Water will be purchased from an(undesignated at this time) source in the area.

This frac pit will be used to stimulate The Brook Federal wells.

fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Pit will be closed and reclaimed as per BLM requiremnts.

See attached Plat.

SEE ATTACHED FOR CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)		
Jerry W. Sherrell	tle Production Clerk	
Signature Zung W. Shendl	Date 6/17/14	
	AL OR STATE OFFICE USE	
Approved by /S/ STEPHEN J. CAFFEY	FIELD MANAGER AUG 1 1 2014	
Conditions of approval, if any, are attached. Approval of this notice does not warrant or cert that the applicant holds legal or equitable title to those rights in the subject lease which woulentitle the applicant to conduct operations thereon.	ify	
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for my person	on knowingly and willfully to make to any department or agency of the United States any false,	

(Instructions on page 2)

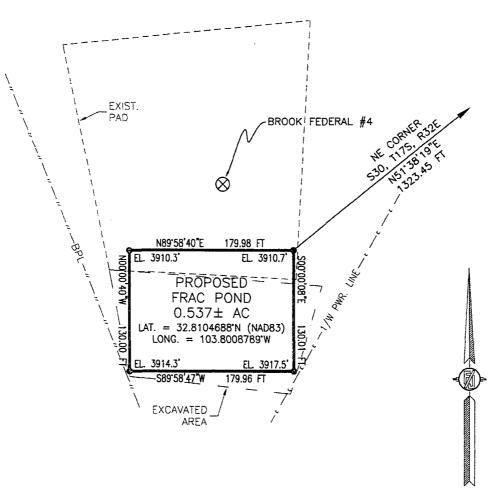
AUG 1 5 2010



BROOK FEDERAL FRAC POND

MACK ENERGY CORPORATION IN THE NE/4 NE/4 OF SECTION 30, TOWNSHIP 17 SOUTH, RANGE 32 EAST, N.M.P.M. LEA COUNTY, STATE OF NEW MEXICO

FEBRUARY 4, 2014



DIRECTIONS TO LOCATION
FROM THE INTERSECTION OF STATE HIGHWAY 529 AND CR 126 GO
NORTHWEST APPROX. 2.5 MILES. GO NORTH ON CALICHE LEASE ROAD
APPROX. 0.8 OF A MILE TO A T. GO EAST APPROX. 0.15 OF A MILE TO BROOK FEDERAL #4 WELL AND PIT.

LEGEND SET #4 REBAR W/JARAMILLO CAP Scale: = 100

DESCRIPTION

A CERTAIN PIECE OR PARCEL OF LAND AND REAL ESTATE LYING IN THE NE/4 NE/4 OF SECTION 30, TOWNSHIP 17 SOUTH, RANGE 32 EAST N.M.P.M., LEA COUNTY, NEW MEXICO.

BEGINNING AT THE NORTHEAST CORNER OF THE PARCEL, WHENCE THE NORTHEAST CORNER OF SECTION 30, TOWNSHIP 17 SOUTH, RANGE 32 EAST, N.M.P.M. BEARS N51'38'19"E, A DISTANCE OF 1323.45 FEET;

THENCE S00'00'08"E A DISTANCE OF 130.01 FEET TO THE SOUTHEAST CORNER OF THE PARCEL;
THENCE S89'58'47"W A DISTANCE OF 179.96 FEET TO THE SOUTHWEST CORNER OF THE PARCEL;
THENCE N00'00'40"W A DISTANCE OF 130.00 FEET TO THE NORTHWEST CORNER OF THE PARCEL;
THENCE N89'58'40"E A DISTANCE OF 179.98 FEET TO THE NORTHEAST CORNER OF THE PARCEL, TO THE POINT OF BEGINNING

CONTAINING 0.537 ACRES MORE OR LESS.

SURVEYOR CERTIFICATE

GENERAL NOTES 1.) THE INTENT OF THIS SURVEY IS TO ACQUIRE A BUSINESS LEASE FOR THE PURPOSE OF BUILDING A FRAC. POND

2.) BASIS OF BEARING IS NEW MEXICO STATE

PLANE EAST ZONE

SHEET: 1-3 MADRON SURVEYING, I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND, AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO

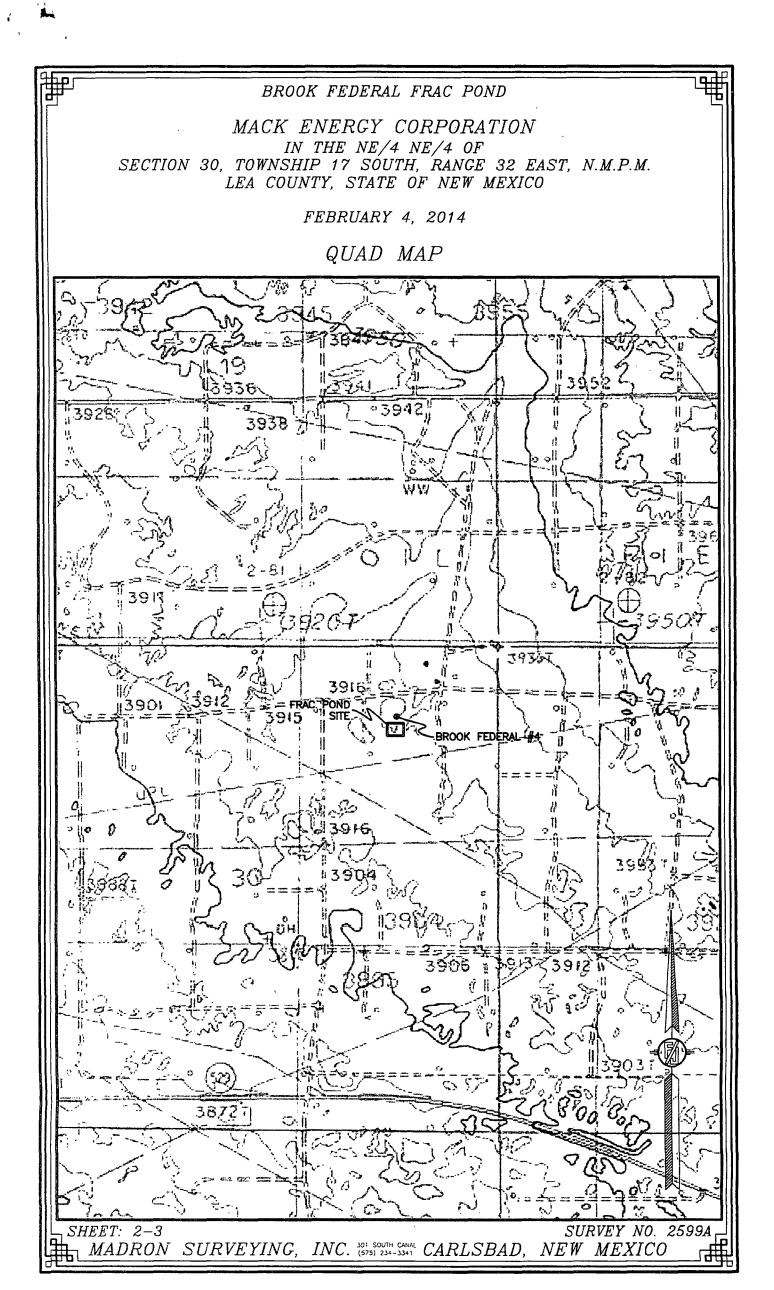
ATE S EXECUTED AT CARLSBAD. IN WITNESS WHEREOF, THIS CERTIF NEW MEXICO, THIS >

> MADRON SURVEYING, INC. 7301 SOUTH CANAL CARLSBAD, NEW MEXICO NEW MEXICO 88220 Phone (575) 234-334

SURVEY NO. 2599A

INC. 301 SQUIH CATAL CARLSBAD, NEW MEXICO

KILLINON F. JARAMILLO PLS. 12797



BROOK FEDERAL FRAC POND

MACK ENERGY CORPORATION

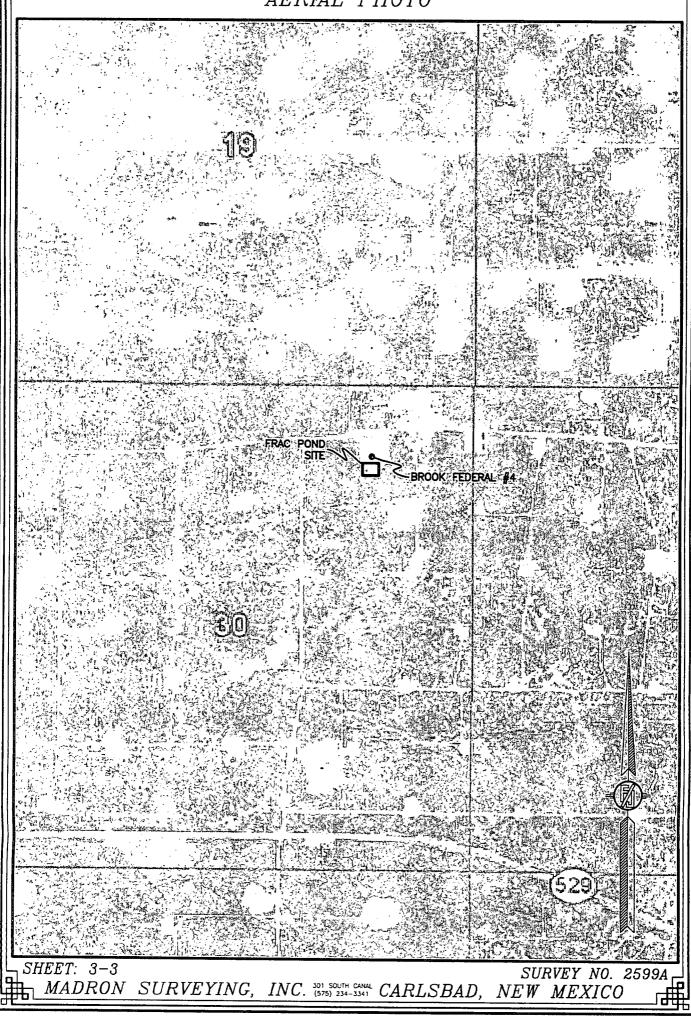
IN THE NE/4 NE/4 OF

SECTION 30, TOWNSHIP 17 SOUTH, RANGE 32 EAST, N.M.P.M.

LEA COUNTY, STATE OF NEW MEXICO

FEBRUARY 4, 2014

AERIAL PHOTO



BLM LEASE NUMBER: NMLC060199B COMPANY NAME: Mack Energy Corporation ASSOCIATED WELL NAME: Brook Federal #4

FRAC POND CONDITIONS OF APPROVAL

A copy of the application (APD, Grant, or Sundry Notice) and attachments, including stipulations, survey plat and diagram, will be on location during construction. BLM personnel may request to see a copy of your permit during construction to ensure compliance with all conditions of approval.

Holder agrees to comply with the following conditions of approval to the satisfaction of the Authorized Officer:

- 1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this permit.
- 2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated.
- 3. Required Standard Conditions of Approval:

a. Notification

Contact the Supervisory Environmental Protection Specialist, Jim Amos, at 575-234-5909 at least 24 hours prior to starting construction.

b. Freshwater Only

The frac pond will only be authorized to contain freshwater and testing of water quality is required. Additives are not allowed without consent of the authorized officer in writing.

c. Contamination

If at any time the water in the frac pond becomes polluted with salts or other contaminants, use of the frac pond will cease and desist, and all liquids will be removed from the frac pond and disposed of properly. The operator will preclude releases of oil into open pits. The operator must remove any accumulation of oil, condensate, or contaminant in a pit within 48 hours of discovery.

d. Authorized Disturbance

Confine all construction and maintenance activity to the approved authorized area applied for in the application.

e. Facilities

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations. Grey-water, sewage, and trash shall be removed from the site and disposed of properly at a state approved facility.

f. Escape Ramps

The operator will construct and maintain frac ponds to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or other methods of avian and terrestrial wildlife escape in frac ponds. Escape ramps must be installed at every corner of

the frac pond and in the center of each side if that side exceeds 100 feet in length. Escape ramps must be in contact with the side of the frac pond, bottom of the frac pond, and the top of the frac pond berm. Escape ramps cannot be made of metal and cannot be steeper than a 3:1 slope (Horizontal Distance: Vertical Distance) or 30% slope. (Examples of escape ramps: 12" wide wooden planks wrapped in matting, felt lining, etc.)

g. Frac Pond Pipelines

Temporary pipelines flowing from the frac pond to the target well will be laid along existing roadways unless an exception has been granted by the authorized officer in writing.

h. Mineral Material from Excavation

Mineral materials extracted during construction of the frac pond will be stored on-location and/or used for constructing the frac pond.

i. Frac Pond Liner

The frac pond will be lined with at least a 30 mil. plastic liner. The plastic lining will be removed prior to final abandonment.

j. Topsoil Stockpile

The operator shall strip at least the top 6 inches of soil (root zone) from the entire frac pond area and stockpile the topsoil approximately 25 feet outside the bermed perimeter of the pond in a low profile manner, reasonably protected from wind and water erosion. Topsoil shall not be used for constructing the frac pond. The topsoil will be used for final reclamation purposes only.

k. Frac Pond Fence

The operator will install and maintain exclosure fencing on all sides of the frac pond to prevent access to public, livestock, and large forms of wildlife. The fence shall be installed at the base of the berm and never on top of the berm. Construction of the fence shall consist of steel and/or wooden posts set firmly into natural ground. Hog panel or chain-link fencing must be used as the fence and tied securely to the fence posts. Barbed-wire fencing or electric fences shall not be used. The fence height shall not be shorter than six (6) feet. The erected fence shall be maintained in adequate condition until the frac pond is reclaimed.

l. Erosion Prevention

Install earthen erosion-control structures as are suitable for the specific terrain and soil conditions.

m. Reclamation Start

- I. Reclamation efforts will commence immediately after the frac pond is no longer needed for the purpose of completing wells.
- II. Within 3 months of completion of frac operations on associated wells, all earthwork and final reclamation must be completed. This includes reclaiming and/or removal of:
 - i. Any roads approved for use with the pond
 - ii. Surface water lines
 - iii. Tanks, pumps, fencing etc.

Requirements for Operations and Final Reclamation:

4. If, during any phase of the construction, operation, maintenance, or termination of the frac pond, any pollutant should be released from the contaminated frac pond, the control and total removal, disposal, and cleaning up of such pollutant, wherever found, shall be the responsibility of holder, regardless of fault.

Upon failure of holder to control, dispose of, or clean up such discharge, or to repair all damages resulting there-from, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve holder of any responsibility as provided herein.

- 5. Any cultural and/or paleontological resources (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.
- 6. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.
- 7. After all disturbed areas have been satisfactorily contoured and prepared for seeding the location needs to be revegetated with the seed mixture provided. Seeding may need to be repeated until revegetation is successful. Operators shall contact Jim Amos, Supervisor, Environmental Protection (575)234-5909, **prior** to beginning surface reclamation operations.

8. Seeding is required: Use the follows:	owing seed mix.
() seed mixture 1	() seed mixture 3
() seed mixture 2	() seed mixture 4
(X) LPC mixture	() Aplomado Falcon mix

9. Special Stipulations:

<u>Dune Sagebrush Lizard:</u> Within Dune Sagebrush Lizard Suitable Habitat In addition to the fence requirements above, the operator must install a reptile exclosure fence (*Example: silt fence*). The reptile exclosure fence must be in contact with the soil at all times around the entire frac pond.

Lesser Prairie-Chicken

Oil and gas activities will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

Seed Mixture for LPC Sand/Shinnery Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be <u>no</u> primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

<u>Species</u>	<u>lb/acre</u>
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A

^{*}Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed