- N. (,		
	on (Artesia, (94 Dat (0-20 4) 54 Dat (0-20 4) (11 10 1920 2)		C	ISP
Form 3160-3 . (August 1999) UNITED STATES		Conferration	1010 25 20	FORM APPRO OMB No. 1004 Expires November	-0136
DEPARTMENT OF THE I BUREAU OF LAND MANA APPLICATION FOR PERMIT TO D	GEMENT	ARIED BEENTER	AN/	 Lease Serial No. <u>NM-91505</u> 6. If Indian, Allottee or T 	ribe Name
1a. Type of Work: 🕅 DRILL 🗋 REENTI				7. If Unit or CA Agreemen 30078	<u> </u>
1b. Type of Well: Oil Well Gas Well Other 2. Name of Operator		Single Zone 🔲 Multi	iple Zone	8. Lease Name and Well N Rock Tank Federa 2. API Well No.	
E.G.L. Resources. Inc. 17341	3				2382
Box 10886, Midland, TX 79702		No. (include area code) 5) 687–6560		10. Field and Pool, or Explo Rock Tank – Lower	ratory
4. Location of Well (Report location clearly and in accordance with At surface 500' FNL & 2265' FWL, Sec. 12, Twp	•	,		11. Sec., T., R., M., or Blk. Sec. 12, Twp. 23-	-
At proposed prod. zone				12. County or Parish	13. State
25 MILES SOUTHWEST OF CARLSBAD, NM 15. Distance from proposed*	16. No. of	Acres in lease	17 Spacin	Eddy g Unit dedicated to this well	NM
location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of Acres in lease 17. Spacin 320		320		
 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 	19. Proposed Depth 20. BLM/I 10,350' 10,350'		BIA Bond No. on file NM2693		
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 4067' (GL)	KDB, RT, GL, etc.) 22. Approximate date work will start* 23. Estimated dur.		23. Estimated duration 2 months		
	,	achments			
The following, completed in accordance with the requirements of Onsho	ore Oil and Ga	s Order No.1, shall be at	tached to thi	s form:	
 Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest System SUPO shall be filed with the appropriate Forest Service Office). 	Lands, the	Item 20 above). 5. Operator certific	ation. specific inf	ns unless covered by an existi ormation and/or plans as may	
25. Signature John A. Layhoff	Nam	e (Printed/Typed) John A. Langhof	f	Date No	ovember 29, 20
Title Petroleum Engineer					
Approved by (Signature)	Nam	e (Printed/Typed)		Date	
Fille Acting	cting Office Office Office Office		<u>a a</u>		
Application approval does not warrant or certify the the applicant holds I operations thereon. Conditions of approval, if any, are attached.				lease which would entitle the a	oplicant to conduct
File 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it States any false, fictitious or fraudulent statements or representations as t	t a crime for a o any matter v	ny person knowingly an vithin its jurisdiction.	d willfully t	o make to any department or a	gency of the United
*(Instructions on reverse)		-			
NSL-46		GEN	IERAL F	SUBJECT TO REQUIREMENTS AN IPULATIONS	ID:
	ι				

DISTRICT I 1825 N. French Dr., Hobbe, NM 88240 DISTRICT II 611 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		Pool CodePool Name84000ROCK TANK - LOWER MORROW							
Property C	ode		Property Name Well Number				ımber			
OGRID No			Operator Name Elevation					tion		
					-		OURCES		406	
					Surfac	e Loca	ation			
UL or lot No.	Section	Township	Range	Lot Idn	Feet fro	m the	North/South line	Feet from the	East/West line	County
С	12	23 S	24 E		50	0	NORTH	2265	WEST	EDDY
		Bottom Hole Location If Different From Surface								
UL or lot No.	Section	Township	Range	Lot Idn	Feet fro	m the	North/South line	Feet from the	East/West line	County
Dedicated Acres	Joint o	r Infill Co	nsolidation	Code Or	der No.					
320										
NO ALLO	WABLE W	TILL BE AS	SSIGNED '	TO THIS	COMPLE	τιον τ	UNTIL ALL INTER	ESTS HAVE BE	EEN CONSOLIDA	TED
							APPROVED BY 7			
	— 2265' 	4070	.3' 8 407	9.7'	Acres			I hereby contained herein best of my know Signature John A. Printed Nam Petrole Title Novembe Date SURVEYO I hereby certify on this plat uw actual surveys supervison, an correct to th Nover Date Surveye Signature Professional	eum Engineer er 29, 2000 PR CERTIFICAT I that the well locati made by me or d that the same is e best of my belief nber 01, 2000 Station Station (1) Station (1) (7977) Norn, 0607	Formation ete to the M ION on shown notes of under my true and
								Certificate W	$\neg Y = V \neg I$	

SURFACE USE PLAN

E.G.L. Resources, Inc. Rock Tank Federal No. 5 500' FNL & 2265' FWL Section 12, T-23-S, R-24-E Eddy County, New Mexico

- 1. EXISTING ROADS: Area map, Exhibit # 1, is a reproduction of the U.S.G.S., Carnero Peak Quadrangle 15 minute series. Existing and proposed roads are shown on the exhibit. All roads shall be maintained in a condition equal to that which existed prior to start of construction.
 - A. Exhibit # 1 shows the proposed development well site as staked.
 - B. From Carlsbad, New Mexico travel South on U.S. Highway 285 for approximately 9 miles. Turn West on County Road 408 (Dark Canyon) and go approximately 13 miles. Turn North on gravel road and continue Northward for 4 miles to location.

2. PLANNED ACCESS ROADS: 100' new access road will be constructed.

- A. The access road will be crowned and ditched to a 12'-00" wide travel surface with a 40' rightof-way.
- B. Gradient on all roads will be less than 5.00%.
- C. No turnouts will be necessary.
- D. If needed, road will be resurfaced with a minimum of 4" of caliche. This material will be obtained from a local source.
- E. Centerline for the new access road has been staked and flagged. Earth work will be as required by field conditions.
- F. One culvert will be required at the beginning of the entrance road just off White Pine Road.
- 3. LOCATION OF EXISTING WELLS IN A ONE-MILE RADIUS:
 - A. Water wells None Known at this time.
 - B. Disposal wells None Known.
 - C. Drilling wells None Known.
 - D. Producing wells As shown on Exhibit # 2

E.G.L. Resources, Inc.:	Rock Tank Unit Nos. 1, 2 and 4
Devon:	Smith Federal No. 1

E. Abandoned wells – As shown on Exhibit #2.

Gulf: Boothe Federal No. 1

4. If, upon completion, the well is a producer E.G.L. Resources, Inc. will furnish maps or plats showing "On Well Pad Facilities" and "Off Well Pad Facilities" (if needed) on a Sundry Notice before construction of these facilities starts.

5. LOCATION AND TYPE OF WATER SUPPLY:

Water will be purchased locally from a private source and trucked over the access roads.

6. SOURCE OF CONSTRUCTION MATERIALS:

If needed, construction materials will be obtained from the drill sites excavations or from a local source. These materials will be transported over the access roads as shown on Exhibit # 1.

7. METHOD FOR HANDLING WASTE DISPOSAL:

- A. 1. Drill cuttings will be disposed of in the reserve pit.
 - 2. Trash, waste paper, and garbage will be contained in a trash trailer and disposed of in an approved public landfill.
 - 3. All mud materials including salts will be picked up by the mud supplier and transported back to their warehouse facilities.
 - 4. Sewage from trailer houses will drain into hole with a minimum depth of 10'. A "Porta John" will be provided for the rig crews. This will be properly maintained and removed after drilling operations are completed.
 - 5. Chemicals remaining after completion of the well will be stored in the manufacturer containers and picked up by the supplier.
- B. Remaining drilling fluids will be allowed to evaporate in the reserve pit until the pit is dry enough for backfilling. In the event they will be transported by tank truck to a state approved disposal site.

Water produced during testing of the well will be disposed of in the reserve pit. Oil produced during testing of the well will be stored in test tanks until sold and hauled from the site.

8. ANCILLARY FACILITIES:

No camps or airstrips will be constructed.

9. WELL SITE LAYOUT:

- A. Exhibit # 3 is the H2S Drilling Operations Plan.
- B. Exhibit # 4a (Scale $1^{\circ} 50^{\circ}$) and Exhibit # 4b shows the proposed well site layout.
- C. This exhibit indicates the proposed location of reserve pit, trash trailer, and living facilities.
- D. Mud pits in the active circulation system will be steel pits.
- E. The reserve pit will be lined with a polyethylene liner. The pit liner will be a minimum of 2' over the reserve pit walls where the liner will be anchored down.
- F. The reserve pit will be fenced on three sides with four strands of barbed wire during drilling an completion operations. The fourth side will be fenced after drilling has been completed. If the well is a producer, the reserve pit fence will be torn down. The reserve pit and those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements.

10. PLANS FOR RESTORATION OF SURFACE:

Rehabilitation of the location and reserve pit will start in a timely manner after all drilling operations cease. The type of reclamation will depend on whether the well is a producer or a dry hole.

However, in either event, the reserve pit will be allowed to dry properly, and fluid removed and disposed of in accordance with Article 7.B as previously noted. The pit area will then be leveled and contoured to conform to the original and surrounding area. Drainage systems, if any, will be reshaped to the original configuration with provisions made to alleviate erosion. These may need to be modified in certain circumstances to prevent inundation of the location pad and surface facilities. After the area has been shaped and contoured, top soil from the spoil pile (if any) will be placed over the disturbed area to the extent possible. Revegetation procedures will comply with BLM standards.

If the well is a dry hole, the pad and road area will be recontoured to match the existing terrain. Topsoil will be spread to the extent possible. Revegetation will comply with BLM standards.

Should the well be a producer, the previously noted procedures will apply to those areas that are not required for production facilities.

11. OTHER INFORMATION:

- A. The topography is of mountainous terrain with vegetation of sagebrush and native grasses. The soils are silty and very shallow.
- B. The surface is used for livestock grazing. The surface is leased by Gerald Carter, 1254 Dark Canyon Road, Carlsbad, New Mexico 88220.
- C. An archeological study has been conducted for the location and new access road. The report is attached herewith.
- D. There are no buildings of any kind in the area.
- 12. OPERATOR'S REPRESENTATIVE: Field representative for contact regarding compliance with the Surface Use Plan is:

Before, during and after Construction:

John A. Langhoff 214 W. Texas Ave., Ste. 900 Midland, Texas 79701 (915) 687-6560

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 currently exists; 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 E.G.L. Resources, Inc. and its contractors/subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S. C. 1001 for the filing of a false statement.

NAME: John a. Light for DATE: November 29, 2000

TITLE: Petroleum Engineer

APPLICATION FOR PERMIT TO DRILL

E.G.L. Resources, Inc. Rock Tank Federal No. 5 500' FNL & 2265' FWL Section 12, T-23-S, R-24-E Eddy County, New Mexico

In conjunction with Form 3160-3, Application for Permit to Drill, E.G.L. Resources, Inc. submits the following items of pertinent information in accordance with Onshore Oil & Gas Order Nos. 1 & 2, and with all other applicable federal and state regulations.

- 1. The geological surface formation is of Permian age.
- 2. Estimate tops of geologic markers are as follows:

Captain	660'
San Andres	825'
Cherry Canyon	1575'
Brushy Canyon	2400'
Bone Springs	3800'
2 nd BS Sand	5300'
3 rd BS Sand	7400'
Wolfcamp Lime	7750'
Wolfcamp Shale	7900'
Canyon	8200'
Strawn	8800'
Atoka	9600'
Middle Morrow	9800'
Lower Morrow	10200'

3. The estimated depths at which water, oil or gas formation are expected to be encountered:

Captain	660'	Water
Canyon	8200'	Oil/Gas
Strawn	8800'	Gas
Atoka	9600'	Gas
Morrow	9800'	Gas

Groundwater to be protected by 13-3/8" surface casing with cement circulated to the surface.
** Potentially productive horizons to be protected by 5-1/2" production casing with cement tied back to approximately 200' above intermediate casing shoe.

4. Proposed Casing Programs.

W/ operator

	String	Footage	Size	Weight	Grade	Thread
1	Surface 117	500'	13-3/8"	48.00#	H-40	ST&C
	Intermediate	2,500'	8-5/8"	24.00#	J- 55	ST&C
	Production	10,200'	5-1/2"	17.00#	N-80	LT&C
	Tubing	10,100'	2-3/8"	4.70#	N-80	EUE 8rd

Proposed Cementing Program:

Cement 13-3/8" casing with 500 sx Class "C" cement with 2% CaCl2 (s.w. 14.8 ppg, yield 1.32 ft3/sx)

Cement 8-5/8" casing with 800 sx Class "C" with 4% gel and 2% CaCl2 (s.w. 13.51 ppg, yield 1.74 ft3/sx) plus 200 sx Class "C" with 2% CaCl2 (s.w. 14.8 ppg, yield 1.32 ft3/sx).

Cement 5-1/2" production casing (centralized through pay zones) in two stage with DV tool at approximately 7500' as follows:

First stage: 10 bfw + 500 gallons Mud Clean II + 10 bfw and 700 sx Super C Modified (15 #/sx Poz A and 11 #/sx CSE), 1% salt, 1.1% FL-25 (s.w. 14.2 ppg, yield 1.35 ft3/sx).

Second Stage: 600 sx BJ lite with 6% gel, 5% salt and 0.4% FL-62 (s.w. 12.56 ppg, yield 2.01 ft3/sx) plus 200 sx Class "C" neat (s.w. 14.8 ppg, yield 1.32 ft3/sx). Calculate second stage cement volume for TOC at intermediate shoe.

- 5. Pressure Control Equipment: See Exhibit #5a and 5b.
- 6. Mud Program:

Depth	Туре	Weight	Viscosity	Water Loss
1575 0'- 590'	Fresh Water	8.5	40	N.C.
500' - 2,500'	Fresh Water	8.5	26	N.C
2,500' - 5,000'	Fresh Water	8.5	26	N.C.
5,000' - 9,300'	Cut Brine	9.5	26	N.C
9,300'-10,200'	Poly/Starch	9.5	34	10 cc
10,200'-10,350'	Air			

- 7. Auxiliary Equipment: Upper Kelly Cock, Full Opening Stabbing Valve, PVT.
- 8. Testing Logging and Coring Programs:
 - DST's: DST any mudlog shows.
 - Logging: 2-man Mudlogging unit from 2500' to T.D.
 - Electric Logs: Platform Express with CNL-LDT, DLL-MSFL, GR and Caliper.
 - Coring: None anticipated.
 - Production casing to be set at 10,200' so that the Lower Morrow can be completed using air drilling equipment.
- 9. Abnormal Pressure, Temperatures or Other Hazards: Lost circulation is anticipated in the surface. Maximum bottomhole pressure is estimated to be 4200 psig.
- 10. Anticipated Starting Date: March 1, 2001.



ROCK TANK FEDERAL #5 Located at 500' FNL and 2265' FWL Section 12, Township 23 South, Range 24 East, N.M.P.M., Eddy County, New Mexico.

EXHIBIT NO. 1





HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

EXHIBIT #3

E.G.L. Resources, Inc. Rock Tank Federal No. 5 500' FNL & 2265' FWL Section 12, T-23-S, R-24-E Eddy County, New Mexico

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 (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 of first aid and rescue procedures.

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

- 1. The effects of H2S 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 H2S Drilling Operations Plan.

There will be an initial training session just prior to encountering a known or probable H2S zone (within 3 days or 500 feet) and weekly H2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H2S Drilling Operations 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. H2S Safety Equipment and Systems:
- **NOTE:** All H2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above or three days prior to penetration the first zone containing or reasonably expected to contain H2S.
 - 1. Well Control Equipment:
 - A. Flare line.
 - B. Choke manifold.

- C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
- D. Auxiliary equipment to include: annular preventer, mud gas separator (if necessary) and rotating head.
- 2. Protective Equipment for Essential Personnel:
 - A. 5-minute escape units located in the doghouse and 30-minute air units at briefing areas, as indicated on well site diagram.
- 3. H2S Detection and Monitoring Equipment:
 - A. 3 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.
 - B. 1 portable SO2 monitor positioned near flare line during H2S flaring operations.
- 4. Visual Warning Systems:
 - A. Wind direction indicators as shown on well site diagram.
 - B. Caution/Danger signs 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 a readable distance from the immediate location.
- 5. Mud Program:
 - A. The mud program has been designed to minimize the volume of H2S circulated to the surface. Proper mud weight safe drilling practices and the use of H2S scavengers when necessary will minimize hazards when penetrating H2S bearing zones.
 - B. A Mud-gas separator will be utilized (if necessary).
- 6. Metallurgy:
 - A. All drill strings, casings, tubing, wellhead, blowout preventers, drilling spools kill lines, choke manifold and lines valves shall be suitable for H2S service.
 - B. All elastomers used for packing and seals shall be H2S trimmed.
- 7. Communications:
 - A. Radio communications will be available in company vehicles and rig doghouse.
- 8. Well Testing:
 - A. Drill stem testing will be performed with a minimum number of personnel in the immediate vacinity which are necessary to safely and adequately conduct the test. The drill stem testing of any known formation that contains H2S will be conducted during daylight hours.









APPENDIX B.

TITLE PAGE/ABSTRACT/ NEGATIVE SITE REPORT ROSWELL DISTRICT

BLM/ RDO 1/95

1. BLM Report No.	2. (ACCEPTED) (REJECTED)	3. NMCRIS No. 57985
4. Title of Report (Project Title): Archaeological survey of Fasken Oil & Ran in Section 12, T235, D245, NMDM, Fills, C	5. Project Date(s) 8-20-1997	
in Section 12, T23S, R24E, NMPM, Eddy C	-ounty, INM.	6. Report Date - 8-20-1997
7. Consultant Name & Address: Direct Charge: David Wilcox Name: Desert West Archaeological Service		8. Permit No. 123-2920-97-N
Address: 102 N. Main, Carlsbad, NM 88226 Authors Name: David Wilcox field personnel names - David Wilcox Phone (505 887-7646)	9. Consultant Report No. DWAS 97-21AU	
10. Sponsor Name and Address: Indiv. Responsible: Mr. Tommy E. Taylor Name: Fasken Oil & Ranch Ltd.		11. For BLM Use only.
Address: 303 W. Wall Ave., Suite 1900, Mic Phone (915) 687-1777	12 ACREAGE: Total No. of acres surveyed - 3.67 Per Surface Ownership: Federal	
13. Location & Area: (Maps Attached if ne	gative survey)	
 a. State - NM b. County - Eddy c. BLM District: Roswell Resource Area: Carlsbad d. Nearest City or town: Carlsbad, NM e. Location: T23S; R24E; Sec. 12 Well Pad footages: 500' FNL; 2265' J f. 7.5 ' Map Name(s) and Code Numbers g. Area: Block: Impact: within staked a Surveyed: 400' x 400' Linear: Impact: Surveyed: 	s(s): Carnero Peak, NM (Provisional Edition 19	985 [32104-C4]).

14. a. Records Search:	
Location: BLM and	ARMS
Date: 8-19-1997	
List by LA# All sites	s within .25 miles of the project:
(Those sites within 5	500' are to be shown on the project map)
b. Description of undertaking:	
Class III pedestrian survey o	of a the Fasken Oil & Ranch Ltd.'s proposed Carnero Federal Well #1 in Section 12, T23S,
R24E, NMPM, Eddy County, NM	1. There is an existing access road which bisects this staked location's perimeter.
c. Environmental Setting (NRC	CS soil designation; vegetative community; etc.)
Vegetation - tree cholla, pric	ckly pear cactus, China Berry, acacia, sotol, juniper, littleleaf horsebrush, rainbow cactus, nugilla, torrey yucca, desert holly and assorted grasses.
Topography - The pad lies of	on top of a hill which gives an excellent 360 degree view shed. Limestone roak is exposed all
over the surveyed area, but the cen	ntral area of this proposed location is a saddle which has loamy soils on the surface. This ar
has limestone terraces layered to t	the hill's zenith which flattens to a finger ridge which runs in a northwesterly direction. An
existing lease road bisects the proj	posed pad's perimeter.
Soils - Limestone rock land-	-Ector association: Rock land and very shallow, stony and rocky, loamy soils over limestone;
on hills and mountains.	
d. Field Methods: Transect Intervals: straig Crew Size: 1 Time in Field: 1 hours Collections: n/a	ight and zig-zag transects, spaced not greater than 15 meters apart
15. Cultural Resource Findings: N	No cultural resource wre encountered during this survey.
16. Management Summary (Reco Archaeological clearance for Fask	ommendations):
Eddy County, NM is recommended	
Eddy County, NM is recommended notified immediately.	rovided above is correct and accurate and meets all appreciable BLM standards.
Eddy County, NM is recommended notified immediately. I support that the information pro	ovided above is correct and accurate and meets all appreciable BLM standards.
Eddy County, NM is recommended notified immediately.	

Figure 1. Topographic map of USGS 7.5' Series Carnero Peak, NM (Provisional Edition 1985) showing the project area.



Figure 1. Showing FASKEN OIL AND RANCH, LTD.'s proposed Carnero Federal Well No. 1 in Section 12, T23S, R24E, NMPM, Eddy County, New Mexico. Map Reference: USGS 7.5' series, Carnero Peak, NM (1985 Prov. Ed.)

STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

E.G.L. Resources, Inc. accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof, as described below:

LEASE NO.:	NM-91505
LEGAL DESCRIPTION:	W/2 Section 12, T-23-S, R-24-E Eddy County, New Mexico
FORMATION(S):	All
BOND COVERAGE:	\$25,000
BLM BOND FILE:	NM2693

E.G.L. Resources, Inc. By:

Cobert P Robert D. Snyder, Jr.

Vice-President

Date: 11-29-2000