APPLICATION TO DRILL

OCEAN ENERGY, INC. Burton Flat Deep Unit No. 42 Ul or Lot #M, Sec. 27, T20N, R28E

In response to questions asked under Section II of Bulletin NTL-6 the following information on the above well is provided for your consideration.

- 1. Location: 660' FSL & 660' FWL, Section 27, T20S-28E Eddy Co. NM
- 2. <u>Elevation above Sea Level:</u> 3217' GR
- 3. Geologic name of surface formation:
- 4. <u>Drilling tools and associated equipment:</u> Conventional rotary drilling rig using drilling mud as a circulating medium for solids removal from hole.
- 5. <u>Proposed drilling depth:</u> 11500'

6.	Estimated tops	of geological	markers:	
	Capitan	1010'	Wolfcamp	8900'
	Delaware	2935'	Strawn	10100'
	Bones Springs	5220'	Atoka	10500'
	1 st BS	6520'	Morrow	11000'
	2 nd BS	7230'	Barnett	11370'
	3 rd BS	8460'	TD	11500'

- Possible mineral bearing formation: Strawn 10100' Gas Morrow 11000' Gas
- 8. Casing program:

Hole size	Interval	OD of casing	Weight	Thread	Collar	Grade
36"	0-40'	20"	60	NA	NA	Conductor
17-1/2"	0-600'	13-3/8"	40	8-R	ST&C	H-40
11"	0-2780'	8-5/8"	32	8-R	LT&C	K-55
7-7/8"	0-11500'	5-1/2"	17	8-R	LT&C	L-80 & P-110

9. <u>Cementing and setting depth:</u> 20" Conductor

20"	Conductor	Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
13-3/8"	Surface	Set 600' of 13-3/8" H-40, 40# ST&C csg. Cement with 300 sx of
		35/65 POZ + Add, 200 sx "C" cement + 2% CaCl ₂ , circ to surface.
8-5/8"	Intermediate	Set 2780' of 8-5/8" K55 32# LT&C csg. Cement with 600 sx of
		35/65 POZ Class "C" + 6% Gel + 5% salt tail in with 200 sx of Class
		"C" cement + 2% CaCl ₂ , circulate cement to surface.
5-1/2	Production	Set 11500' of 5-1/2" 17# LT&C csg. Cement with 500 sx of Class
		"C" 35/65 POZ + additives, tail in with 190 sx of 50/50 POZ Class
		"H" + 10% Salt + .25% Dispersant + 2% Gel. Estimate top of cement
		500' above uppermost productive interval. Cement volumes will be
		adjusted based on open-hole caliper log.

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APPLICATION TO DRILL

OCEAN ENERGY, INC. Burton Flat Deep Unit No. 42 Ul or Lot #M, Sec. 27, T20N, R28E

10. <u>Pressure control equipment:</u> Exhibit "E". A Series 1500 5000-PSI working pressure B.O.P. consisting of a double ram type preventor with a bag type annular preventor. BOP unit will be hydraulically operated. Exhibit "E-1". Choke manifold and closing unit. BOP will be nippled up on 13-3/8" casing and will be operated at least once each 24 hr. period while drilling and blind rams will be operated when out of hole during trips. Flow sensor, PVT, full opening stabbing valve and upper kelly cock will be utilized from 7000' to TD. No abnormal pressure or temperature is expected while drilling

11. Proposed mud circulating system:

40-600'	8.4-9.0	32-36	NC	Fresh water mud use paper to control seepage add
500-2000'	10.1-10.5	32-38	NC	Bentunite/ Soda Ash for Viscosity. Brine water Salt-Gel add paper to control seepage, high viscosity sweeps to clean hole.
2000-8000'	8.4-8.8	32-38	NC	Fresh water use caustic soda to maintain pH @ 9.5-10.5 high viscosity sweeps to clean if necessary.
8000-11500'	8.8-9.2	34-38 40-45	8-10cc 6-10 for DST	Fresh water Polymer maintain pH with Caustic Soda @ 9.5-10.5 high viscosity sweeps to clean if necessary.

Sufficient mud materials will be kept on location or available at the nearest stocking points at all times in order to combat lost circulation and unexpected kicks. In order to run DST's, open hole logs and casing the viscosity and water loss may have to be adjusted to meet these needs.

12. Testing, logging and casing program:

- A. Open hole logs: Fluid caliper from 500-2000'.
- B. CNL/Gamma Ray with caliper from TD to surface.
- C. Dual Induction, Dual Induction, Compensated Sonic, Gamma Ray from TD to 3000'.
- D. Cement Bond Log Gamma Ray and CCL TD to top of cement.
- E. Mud logger on at 5000' to TD.

DST"s as warranted in Bone Spring, Atoka, and Morrow.

13. Potential hazards:

No abnormal pressures or temperatures are expected. Hydrogen Sulfide gas may be encountered; H_2S detectors will be in place to detect any presence after setting the intermediate casing. No lost circulation is expected to occur. All personal will be familiar with all aspects of safe operation of equipment being used. Estimated BHP 4200 PSI, estimated BHT 170°.

14. Anticipated starting date and duration of operation:

Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved. Drilling expected to take 30 days. If production casing is run an additional 30 days will be required to complete and construct surface facilities.

15. Other facets of operations:

After running casing, cased hole gamma ray cement bond and collar logs will be run from total depth over possible pay intervals. The Morrow pay will be perforated and stimulated. The well will be swab tested and potentialed as a gas well.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

- 1. All Company and Contract personnel admitted on location must be trained by a qualified H_2S safety instructor to the following:
 - A. Characteristics of H₂S
 - B. Physical effects and hazzards
 - C. Proper use of safety equipment and life support systems.
 - D. Principle and operation of H2S detectors, warning system and briefing areas.
 - E. Evacuation procedure, routes and first aid.
 - F. Proper use of 30 minute pressure demand air pack.
- 2. H_2S Detection and Alarm Systems
 - A. H_2S detectors and audio alarm system to be located at bell nipple, end of blooie line (mud pit) and on derrick floor or doghouse.
- 3. Windsock and/or wind streamers
 - A. Windsock at mudpit area should be high enough to be visible.
 - B. Windsock at briefing area should be high enough to be visible. с.
 - There should be a windsock at entrance to location.
- 4. Condition Flags and Signs
 - A. Warning sign on access road to location.
 - B. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H2S present in dangerous concentration. Only emergency personnel admitted to location.
- 5. Well control equipment
 - A. See exhibit "E"
- 6. Communication
 - A. While working under masks chalkboards will be used for communication.
 - B. Hand signals will be used where chalk board is inappropriate.
 - C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephoned will be available at most drilling foreman's trailer or living quarters.
- 7. Drillstem Testing
 - A. Exhausts will be watered.
 - B. Flare line will be equipped with an electric ignitor or a propane pilot light in case gas reaches the surface.
 - C. If location is near any dwelling a closed D.S.T. will be performed.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

- 8. Drilling contractor supervisor will be required to be familiar with the effects H_2S has on tubular goods and other mechanical equipment.
- 9. If H_2S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas seperator will be brought into service along with H_2S scavengers if necessary.





ARRANGEMENT SRRA

1500 Series 5000# Norking Pressure

> EXHIBIT "E" B.O.P. SKEICH





FIGURE \$4-2. Typical clocks manifold assumbly for 3M raied working pressure service - surfect menulation.

EXHIBIT "E-1" CHOKE MANIFOLD & CLOSING UNIT

SURFACE USE PLAN

OCEAN ENERGY, INC. Burton Flat Deep Unit 660' FSL & 660' FWL, Sec. 27, T20S, R28E, UL or Lot No. M Eddy County, New Mexico

1. Existing roads:

Area maps, Exhibit "B" is a reproduction of Eddy Co. General Highway Map. Exhibit "C" is a reproduction of a USGS Topographic Map, showing existing roads and proposed roads will be maintained in a condition equal to or better than current conditions. Any new roads will be constructed to BLM specifications.

- A. Exhibit "A" shows the proposed well site as staked.
- B. Directions to location from the junction of Co. Rd 206 and Co. Rd 600, go Eat on lease road for 5.6 miles; thence northeast for 1.7 miles to the Deep Unit #41 road; thence 0.2 miles to proposed lease road.
- C. Lay 3" pipelines and construct power lines along existing roads and pipeline R-O-W's necessary to produce this well.

2. Planned access roads:

Approximately 2000' of new road will be constructed.

- A. The access road will be crowned and ditched to a 12'00" wide travel surface with a 40' right-ofway.
- B. Gradient on all roads will be less than 5.00%.
- C. No turnouts will be necessary.
- D. If needed, road will be surfaced with a minimum of 4" of caliche.
- E. Centerline for the new access road has been flagged. Earthwork will be as required by field conditions.
- F. Culverts in the access road will not be used. The road will be constructed to utilize low water crossings for drainage as required by the Topography.

3. Location of existing wells in a one-mile radius Exhibit "A-1"

Α.	Water wells	None known
Β.	Disposal wells	None known
C.	Drilling wells	None known
D.	Producing wells	As shown on Exhibit "A-1"
E.	Abandoned wells	As shown on Exhibit "A-1"

- 4. If, upon completion this well is a producer OCEAN ENERGY, INC. will furnish maps and/or plats showing on site facilities or off site facilities if needed. This will be accompanied with a Sundry Notice.
- Location and type of water supply: Water will be purchase locally from a commercial source and trucked over the access roads or piped in flexible lines laid on top of the ground.
- Source of construction material: If possible construction will be obtained from the excavation of drill site, if additional material is needed it will be purchased from a local source and transported over the access route as shown on Exhibit "C".
- 7. Methods of handling waste material:
 - A. Drill cuttings will be disposed of in the reserve pit.
 - B. All trash junk and other waste material will be contained in trash cages or bins to prevent scattering. When the job is completed all contents will be removed and disposed of in an approved sanitary landfill.
 - C. Salts remaining after completion of well will be picked up by supplier including broken sacks.

SURFACE USE PLAN

OCEAN ENERGY, INC. Burton Flat Deep Unit 660' FSL & 660' FWL, Sec. 27, T20S, R28E, UL or Lot No. M Eddy County, New Mexico

- D. Sewage from living quarters will drain into holes with a minimum depth of 10'. These holes will be covered during drilling and will be back filled upon completion. A Porta-John will be provided for the rig crews. This equipment will be properly maintained during the drilling operations and removed upon completion of the well.
- E. Remaining drilling fluids will be allowed to evaporate in the reserve pit until the pit is dry enough for breaking out. In the event that drilling fluids do not evaporate in a reasonable time they will be hauled off by transports and be disposed of at a state approved disposal facility. Later pits will be broken out to speed drying. Water produced during testing will be put in reserve pits. Any oil or condensate produced will be stored in test tanks until sold and hauled from the site.

8. Ancillary facilities:

A. No camps or airstrips to be constructed.

9. Well site layout:

- A. Exhibit "D" shows location and rig layout.
- B. This exhibit indicates proposed location of reserve and trash pits; and living facilities.
- C. Mud pits in the active circulating system will be steel pits and the reserve pit is proposed to be lined.
- D. The reserve pit is to be lined with PVC or polyethylene liner. The pit liner will be 6 mils thick. Pit liner will extend a minimum, 2'00" over the reserve pits dikes where the liner will be anchored down.
- E. The reserve pit will be fenced on three sides with four strands of barbed wire during drilling and completion phases. The forth side will be fenced after all drilling operations have ceased. 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's pad and surface facilities. After the area has been shaped and contoured, topsoil from the spoil pile 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 recountered 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, which are not required for production facilities.

11. Other information:

- A. Topography consists of sand dunes, sandy soils with native grasses consisting Sand Sage, Scrub Oak Snakeweed and mesquite. Drainage is westerly toward the Querecho Plains.
- B. The surface is owned by The Bureau of Land Management, U.S. Department of Interior.
- C. An archaeological survey will be conducted and the results will be submitted to the Bureau of Land Management, Carlsbad, New Mexico.
- D. No dwellings within one mile of location.

SURFACE USE PLAN

OCEAN ENERGY, INC. Burton Flat Deep Unit 660' FSL & 660' FWL, Sec. 27, T20S, R28E, UL or Lot No. M Eddy County, New Mexico

12. Operators representative:

Field representative to contact regarding compliance with Application to Drill and surface Use Plan is:

Before APD is approved:

OCEAN ENERGY, INC. 4305 N. Garfield, Suite 200A Midland, TX 79705 Marty Davis Office phone 915-683-3003 Mobile phone (505) 390-6158 Before APD is approved:

OCEAN ENERGY, INC. 1001 Fannin, Suite 1600 Houston, TX 77002 Bill Billman or Wiley Kirk Billman's phone 713. 265.6605 Billman's Mobile 713.303.0466 Kirk's phone 713.265-6655 Kirk's Mobile 281.799.5723

If additional information is required to complete this APD please contact Joe Janica (local agent) or Jeanie McMillan at the following:

Joe Janica 726 East Michigan, Suite 188 Hobbs, New Mexico 88240 Office 505.391.8503 Mobile 505.390.1598

Jeanie McMillan Ocean Energy, Inc. 1001 Fannin, Suite 1600 Houston, TX 77002 Office 713.265-6834 Mobile 713.301.4871

13. Certification:

I herby 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 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 OCEAN ENERGY, INC., its contractors/subcontractors in conformity with this plan and the terms and the conditions under which it is approved. This statement is subject to the provision of U.S.C. 1001 for filing a false statement.

DATE:	<u>8/28/01</u>
NAME:	Jeanie McMillan
TITLE:	Regulatory Specialist

Jelanie McMilla







BURTON FLAT DEEP UNIT #42 Located at 660' FSL and 660' FWL Section 27, Township 20 South, Range 28 East, N.M.P.M., Eddy County, New Mexico.

	P.O. Box 1786	W.O. Number: 1733AA - KJG CD#4		
	1120 N. West County Rd. Hobbs, New Mexico 88241	Survey Date: 08-08-2001	OCEAN	ENERGY
Surveys	(505) 393-7316 - Office (505) 392-3074 - Fax	Scale: 1" = 2000'	UCEAN	LINLINGI
focused on excellence in the oilfield	basinsurveys.com	Date: 08-10-2001		



		180 STATES A DF THE INTERI	UR	NTE* Form approved. Budget Bureau N Side) Expires December 5. LEASE DESIGNATION AND	er 31, 1991
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APPLICATION	FOR PERMIT	TO DRILL, DEEP	EN, OR PLUG BA	6. IF INDIAN, ALLOTTEE OR T	RIBE NAME
		EEPEN		7. UNIT AGREEMENT NAME Burton Flat Deep	Unit 1/0895
OIL WELL			GLE 15 16 17 78 MULTI	PLE BFDU	
² NAME OF OPERATOR OCEAN ENERGY	INC. J.Z.	54 0		9. WELL NO.	
3 ADDRESS OF OPERATOR 1001 Fannin, Suite	1600 Houston (CV 77000 (7 9)	C- CRESEVICE	10. FIELD AND POOL OR WILD	
4. LOCATION OF WELL (Rep	1000, HOUSION, J	$\frac{X}{2000}$	(65-6000 X-6834	Burton Flat: Morr	ow
		L, Sec. 27, T20S, R		AND SURVEY OR AREA	
At proposed Prod. Zon San		Wim		Sec. 27, T20S, R28	2E
14 DISTANCE IN MILES AND DI Approximately 9 mi	iles north of Car	lsbad, NM		12. COUNTY OR PARISH Eddy County,	13. STATE NM
15 DISTANCE FROM PROPOSED OR LEASE LINE, FT.(Also to n	 LOCATION TO NEAREST earest drlg. unit line, if any) 	PROPERTY 16. NO. OF ACR	ES IN LEASE	17. NO. OF ACRES ASSIGNED TO TH	HIS WELL
660'			20	320	
DISTANCE FROM PROPOSED DRILLING, COMPLETED, OR 450			БЕРТН	20. ROTARY OR CABLE TOOLS Rotary	
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<u>GR 321</u>		D CASING AND CEME		October 15, 2001	·····
SIZE OF HOLE	SIZE OF C				
36"	20"	60#	OOT SETTING DEPTI	u QUANTITY OF ready-mix to surface	CEMENT
17-1/2"	13-3/8"	48#	600' 500'	500 sxs POZ & Class	C
11" 7-7/8"	8-5/8'' 5-1/2''	32# 17#	2780' 11500'	800 sxs POZ & Clas 690 sxs POZ & Clas	ss C

Capitan Controlled Water Basin

1. Drill 36" hole to 40'. Set 40' of 20" conductor & cement to surface with ready-mix

- 2. Drill 17-1/2" hole to 600'. Run & set 600' of 13-3/8" H-40, 48# ST&C csg, cmt w/500 sx POZ & Cl C cement + 2' circulate to surface.
- 3. Drill 11" hole to 2780'. Run & set 2780' of 8-5/8" K-55, 32# LT&C csg. Cmt w/800 sx ClassC + 6% gel + 5% sult, circ to surface.
- Drill 7-7/8" hole to 11500'. If logs indicate commercial production, run & set 11500' of 5-1/2" 17# LT&C csg. Cement w/500 sx Class C 35/65 POZ w/additives, tail in with 190 sx 50/50 POZ Class H + 10% salt + .25 dispersan + 2% gel. Estimated top of cement 500' above uppermost productive interval. Cement volumes will be adjusted based on open hole caliper log.

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM : If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any

	ie Mc Millan	TITLE Sr. Regulatory Specialist DATE	8/31/2001
(This space for Federal or PERMINNO.	r State office use)		
· · · · · · · · · · · · · · · · · · ·	s not warrant or certify that the applicant holds legal or OVAL. IF ANY:	APPROVAL DATE	licant to conduct operations thereon.
APPROVED BY	/S/ JOE G. LARA	ACCUTELELD MANAGER	OCT 1 5 2001
Title 1811 S.C. Sec		e Instructions On Reverse Side AF	PROVAL FOR 1 YEA

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United YEAR States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

DISTRICT I 1625 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 67505

State of New Mexico

Rnergy, Minerals and Natural Resources Department

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 Code 73280 BURTON FLAT; MORROLE								nar Row)	
Property (Code	T	I			Prope	erty Nam	1e	1010		Well N	umber
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L I		I	Bottom	Hole	Loc	ation I	f Diffe	rent Fron	n Surfi	ace		I
UL or lot No.	Section	Township	Range	Lot	Idn	Feet from	m the	North/South	h line	Feet from the	East/West line	County
Dedicated Acres	Joint o	r Infill Co	onsolidation	Code	Ord	ler No.			h			
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				OCEAN ENERGY, INC.						
Lease: Burton Flat Deep Unit Well: #42 Area: Burton Flat Deep Unit Test: Morrow & Strawn			BHL	Well Summary n: 660' FSL & 660' FWL :: Same y: Section 27, T20S, R28E Eddy Co., New Mexico		Drlg. Egnineer: RG Trueheart Rig: Nabors 319 Elevation: +/- 3220 RKB: +/- 3235				
Logs	Formation	Lithology	Depth MD/TVD	Casing Profile	Hole Size	Casing Details	Mud Wt. & Type	Max. Dogle Severity		
			600'		17 1/2" Hole	13 3/8" 40# STC Surface	Water	<1°/100'		
	Capitan	Reef	1,010'		11" Hole		Spud Mud MW=8.6			
None			2,780'			8 5/8" 32# LTC Internediate	FG=13ppg	<2° / 100'		
	Delaware	Shale	2,935'				8.6 ppg			
			2							
					7 7/8"					
					Hole					
Mud .ogger										
On ∕& 5,000′	Bone Springs	Shale & Sd	5,220'							
	l st BS	Sandstone	6,520'	C						
	2nd BS	Sandstone	7,320'							
	3rd BS	Sandstone	8,460'	P. T.						
				\$			Water Base Mud			
					Alternate Co	TOC @ 8400'				
	Wolfcamp	Shaley Lime	8,900'	-U		8800' if upper pay exsi	st			
)ST	Strawn	Carbinate	10,100'							
Logs TD	Atoka	Sandstone	10,500'							
L/LDT PEF	Morrow	Sandstone	11,000'							
IRXO onic	Barnett	Shale	11,370'			5 1/2" 17# LTC				
onic R-Cal	TD		11,500'			P-110 & N-80 Production	MW=10.0	<2° / 1000'		