Form	316	0-3
(Senia	a her	2601

DEPARTMEN' BUREAU OF L

If earthen pits are used in association with the drilling of this UO well, an OCD pit permit must be obtained prior to pit construction

FORM APPROVED

Expire	es January	31
 Ci -1	\	

5. Lease Serial No. NM-67979

APPLICATION FOR PEK	·		711.	6. If Indian, Allottee o	r Tribe Name
la. Type of Work: DRILL REE	NTER	RECE	ΙΛĒŬ	7. If Unit or CA Agree	nent, Name and No.
1b. Type of Well: Oil Well Gas Well Other	□ s	JAN 0 4	2006 Produce	8. Lease Name and Wel Irish Whiskey Federa	~ ~ ~ ~
2. Name of Operator			,	9. API Well No.	< 17
Marbob Energy Corporation 3a. Address	3h Phone No	o. (include area code)		30-015-34 10. Field and Pool, or Ex	
PO Box 227, Artesia, NM 88220	505-748-33			Dublin Ranch, Morrov	10/4
4. Location of Well (Report location clearly and in accordance.) At surface 660 FNL & 1980 FWL B.	with any State requ		Marin	11. Sec., T., R., M., or B	lk. and Survey or Area
14. Distance in miles and direction from nearest town or post offic		11-20 05	CIVE	Section 26: T22S-R28 12. County or Parish	13. State
14. Distance in lines and an ection from homes town of post office				Eddy	NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of 2	Acres in lease	17. Spacin	g Unit dedicated to this we	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Propose			M/BIA Bond No. on file 6 NM 2056	
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approx	22. Approximate date work will start*		23. Estimated duration	
3137 GL	December	cember 1, 2005 41 days			
	24. Atta	chments			
The following, completed in accordance with the requirements of C	Inshore Oil and Gas	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 Sysupposts). 	stem Lands, the	Item 20 above). 5. Operator certific	cation. specific info	s unless covered by an expression and/or plans as	0
25. Signature	Name	(Printed/Typed)		I	Date
- / llane forta	Mela	nie J. Parker		1	0/24/2005
Title					
Approved by (Signature)	Nam	e (Printed/Typed)		11	lota
/s/ Joe G. Lara	Name	/s/ Jo	e G. L	ara	DEC 2 9 200
TIACTING FIELD MANAGER	Offic		-	ELD OFFICE	

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.

APPROVAL FOR 1 YEAR

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)

CENERAL REQUIREMENTS AND epecal stipulations ATTACHED



Carlsbad Controlled Water Basin

Witness Surface Casing

State of New Mexico

DISTRICT I 1625 N. PRENCH DR., HOBBS, NM 88240

Energy, Minerals and Natural Resources Department

DISTRICT II

DISTRICT IV

1301 V. GRAND AVENUE, ARTESIA, NM 88210

OIL CONSERVATION DIVISION 1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505 Form C-102
Revised JUNE 10, 2003
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Nam	ie
	76140	DUBLIN RANCH MORROW (G	AS)
Property Code	Property Name		Well Number
34529	IRISI	IRISH WHISKEY	
OGRID No.	•	erator Name	Elevation
14049	MARBOB ENE	RGY CORPORATION	3136'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	26	22-S	28-E		760	NORTH	1980	WEST	EDDY

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	Rast/West line	County
Dedicated Acres	Joint o	r Infill Co	onsolidation	Code Or	der 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

OR A NON-STANDARD UNIT HAS BEEN APPROVED BY T	HE DIVISION
	1
	OPERATOR CERTIFICATION
3124.6' & 3140.0'	I hereby certify the the information
	best of my knowledge and belief.
1980'	
3126.1' 3137.3'	In MUSBATHER SIGNATURE
	Nancy T. Bratcher Printed Name
	Land Department Tiue
	November 28, 2005
GEODETIC COORDINATES	SURVEYOR CERTIFICATION
GEODETIC COORDINATES NAD 27 NME	I hereby certify that the well location shown on this plat was plotted from field notes of
Y=497986.3 N	actual surveys made by me or under my supervison, and that the same is true and
X=584409.4 E	correct to the best of my belief.
LAT.=32*22'07.62" N	NOVEMBER 10, 2005
LONG.=104°03'35.79" W	Date Surveyed JR Signature & Seel of Professional Surveyor
	Rould Enlyn 1/15/05
	05.11.1733 Certificate No. GARY RIDSON 12641
	ROMAN EIDSON 3239

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

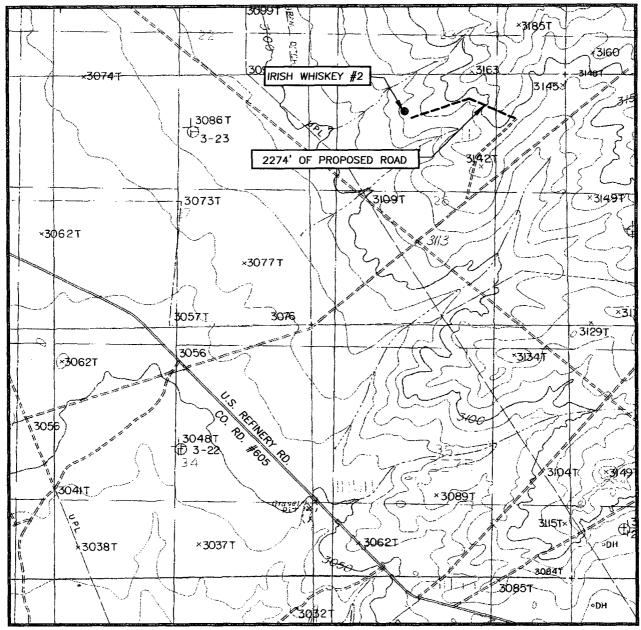
Form C-144

March 12, 2004

Pit or Below-Grade Tank Registration or Closure
Is pit or below-grade tank covered by a "general plan"? Yes No ...

	Type of acti	on: Registration of a pit o	or below-grade tank 🛛 Closure of a pit or	r below-grade tank	
Operator: Marbob E	nergy Corporation	1	Telephone: 505-748-3303	e-mail address: land	2@marbob.com
Address: PO Box 22	27, Artesia, NM 88	211-0227			
Facility or well name: Ir	rish Whiskey Fede	ral #2	API#:U/L or C	Qtr/Qtr N/2 Sec 26 T	22S R 28E
County: Eddy	Latitude	Longitude	NAD: 1927 🗌 1983 🔲 :	Surface Owner Federal 🛛 Sta	te 🗌 Private 🔲 Indian 🔲
<u>Pit</u>			Below-grade tank		
Type: Drilling A Produ	ection 🗌 Disposal 🔲		Volume:bbl Type of fluid:		RECEIVED
Workover 🗌 Em	iergency 🗌		Construction material:	n	ÛĈI 9 E 2005
Lined 🛛 Unlined 🗌			Double-walled, with leak detection? Ye	es If not, explain why not.	OCT 2.5 2005
Liner type: Synthetic 🛛	Thickness 12 mil Cla	y 🔲 Volume			OCU-ANI EBIA
bbl					
Don'th to around water (v	ratical distance from botto	- of nit to consonal high	Less than 50 feet	(20 points)	
water elevation of ground	vertical distance from botto	m of pit to seasonal nigh	50 feet or more, but less than 100 feet	(10 points)	
water elevation of ground	u water.)		100 feet or more	(0 points)	0 points
Wallhard protection area	. (Loss than 200 fact from	a privata domestia	Yes	(20 points)	
•	a: (Less than 200 feet from n 1000 feet from all other w	-	No	(0 points)	0 points
Di i			Less than 200 feet	(20 points)	
	r: (horizontal distance to a		200 feet or more, but less than 1000 feet	t (10 points)	
irrigation canais, ditches,	, and perennial and epheme	rai watercourses.)	1000 feet or more	(0 points)	0 points
			Ranking Score (Total Points)		0 points
If this is a pit closure:	(1) attach a diagram of the	e facility showing the pit's	relationship to other equipment and tanks	. (2) Indicate disposal location	n:
onsite 🗌 offsite 📗 If	offsite, name of facility		(3) Attach a general description of re	emedial action taken including	remediation start date and end
date. (4) Groundwater e	encountered: No 🗌 Yes [If yes, show depth belo	ow ground surfaceft. and a	ttach sample results. (5) Attac	ch soil sample results and a
diagram of sample locat	tions and excavations.				
I hereby certify that the in been/will be constructed Date: October 3, 200	d or closed according to N	nd complete to the best of NMOCD guidelines , a	my knowledge and belief. I further certi- general permit , or an (attached) alte	ernative OCD-approved plan	
Printed Name/Title:	Amy Johnson / La	nd Department	Signature	my John	Leon)
			relieve the operator of liability should the operator of its responsibility for compliance	contents of the pit or tank con	taminate ground water or
Approval: NOV	2 2005		000		
Date:	Field	d Supervisor			
Printed Name/Title			Signature // Signature		

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

LOVING, N.M.

CONTOUR INTERVAL: LOVING, N.M. - 10'

SEC. <u>20</u> 11	NP. <u>ZZ-S</u>	KGE	<u>28-</u>	<u> </u>
SURVEY	N.M.P	<u>.М.</u>		
COUNTY	EDD	Υ		
DESCRIPTION	760' FNL	&	1980'	FWL
ELEVATION	3	136	,	
OPERATOR	MARBOE CORP	3 E ORA	NERGY TION	
LEASE		IISK	(EY	
U.S.G.S. TOP	OGRAPHIC	MA	ıΡ	



PROVIDING SURVEYING SERVICES SINCE 1946 JOHN WEST SURVEYING COMPANY 412 N. DAL PASO HOBBS, N.M. 88240 (505) 393-3117

MARBOB ENERGY CORPORATION DRILLING AND OPERATIONS PROGRAM

Irish Whiskey Federal #2 660' FNL & 1980' FWL, Unit C Section 26, T22S, R28E Eddy County, New Mexico

In conjunction with Form 3160-3, Application for Permit to Drill subject well, Marbob Energy Corporation submits the following ten items of pertinent information in accordance with BLM requirements.

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

Top of Salt	770′	Strawn	11450′
Base of Salt	2630'	Atoka	11700′
Delaware	2870'	Morrow	12400'
Bone Spring	6430'	TD	13200′
Wolfcamp	9920'		

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

Delaware	2870'	Oil
Wolfcamp	9920'	
Strawn	11450′	Gas
Atoka	11700'	
Morrow	12400'	

No other formations are expected to give up oil, gas, or fresh water in measurable quantities. The surface fresh water sands will be protected by setting 13 3/8" casing at 400' and circulating cement back to surface. Any shallower zones above TD which contain commercial quantities of oil and/or gas will have cement circulated across them by inserting a float shoe joint into the 4 1/2" production casing which will be run at TD to sufficiently cover all known oil and gas horizons above 200'.

4. Proposed Casing Program:

Hole Size	Interval	OD Casing	Wt	Grade	
17 1/2"	0 – 400′	13 3/8"	48#	H-40	WITHESS
12 1/4"	0 - 2750'	9 5/8"	36#	J-55	
8 3/4"	0 – 9900'	7"	23#	L80 - P110	
6 1/8"	0 - 13200'	4 1/2"	11.6#	S95 - P110	

Proposed Cement Program:

13 3/8" Surface Casing: Cement w/ 400 sx Premium Plus. Circulate to surface.

9 5/8" Intermediate Casing: Cement w/ 700 sx cmt. Circulate to surface.

7" Intermediate Casing: Cement w/ 1050 sx cmt. Attempt to tie in to 9 5/8" csg.

4 1/2" Production Casing: Cement w/ 300 sx cmt. TOC 200' above all oil and gas

bearing zones

5. Pressure Control Equipment: See Exhibit 1. Marbob proposes to nipple up on the 13 3/8" and 9 5/8" casing with a 2M system, testing it to 1000# with rig pumps, then nipple up on the 7" casing with a 5M system, tested to 5000# before drilling out.

6. Mud Program: The applicable depths and properties of this system are as follows:

		Weight	Viscosity	Waterloss	
Depth	Туре	(ppg)	(sec)	(cc)	_
0 – 400′	Fresh Wtr	8.4 - 9.2	32 – 36	N.C.	
400 - 2750'	Brine	9.9 - 10.2	28 - 32	N.C.	
2750 – 9900'	Cut Brine	8.9 - 9.2	28 – 32	N.C.	
9900 – 13200'	Cut Brine	8.7 - 9.5	28 – 34	N.C.	

- 7. Auxiliary Equipment: Kelly Cock; Sub with full opening valve on floor; and drill pipe connections.
- 8. Testing, Logging and Coring Program:

No drillstem tests are anticipated.

The electric logging program will consist of Dual Laterolog Micro SFL, Spectral Density Dual Spaced Neutron Csng Log, and Depth Control Log. No conventional coring is anticipated.

- 9. No abnormal pressures or temperatures are anticipated.
- 10. Anticipated starting date: As soon as possible after approval.

MARBOB ENERGY CORPORATION MULTI-POINT SURFACE USE AND OPERATIONS PLAN

Irish Whiskey Federal #2 660' FNL & 1980' FWL, Unit C Section 26, T22S, R28E Eddy County, New Mexico

This plan is submitted with Form 3160-3, Application for Permit to Drill, covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of the surface disturbance involved and the procedures to be followed in rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effect associated with the operations.

1. EXISTING ROADS:

Exhibit 2 is a portion of a topo map showing the well and roads in the vicinity of the proposed location. The proposed wellsite and the access route to the location are indicated in red on Exhibit 2.

DIRECTIONS:

From the intersection of US Hwy 62-180 and County Rd #605 (US Refinery Rd) Go southeast on County Road #605 approximately 8.4 miles. Turn left (east) and go approximately 0.5 miles. Bend left (NE) and go approximately 0.5 miles to a pipeline crossing. Turn left (north) and go approximately 2685 feet to location.

PLANNED ACCESS ROAD:

A new access road of 2185' will be necessary. The new road will be constructed as follows:

- A. The maximum width of the running surface will be 10'. The road will be crowned and ditched and constructed of 6" of rolled and compacted caliche. Ditches will be at 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. 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. Any additional materials that are required will be purchased from the dirt contractor.
- F. The proposed access road as shown in Exhibit 2 has been centerline flagged by John West Engineering.

2. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

A. Marbob Energy Corporation proposes a collection facility, if well is productive, to be located on Irish Whiskey Federal #2 well pad.

3. METHODS OF HANDLING WASTE DISPOSAL:

- A. Drill cuttings will be disposed of in the lined pit.
- B. Drilling fluids will be allowed to evaporate in the lined pit until the pit is dry.
- C. Water produced during completion may be disposed into the lined reserve pit.
- D. All trash and debris will be removed from the wellsite within 30 days after finishing drilling and/or completion operations. All waste material will be contained to prevent scattering by the wind.

4. WELLSITE LAYOUT:

- A. Exhibit 3 shows the relative location and dimensions of the well pad, the pit.
- B. The reserve pit will be lined with high quality plastic sheeting.

5. PLANS FOR RESTORATION:

- A. After finishing drilling and/or completion operations, all equipment and other material not needed for further operations will be removed. The location will be cleaned of all trash and junk to leave the wellsite in as aesthetically pleasing a condition as possible.
- B. Reserve pit will be fenced until they have dried and been leveled.
- C. All rehabitation and/or vegetation requirements of the BLM will be complied with and will be accomplished as expeditiously as possible. All pits will be filled level within 90 days after abandonment.

6. SURFACE OWNERSHIP:

The well site and lease are located on Federal surface

- A. The area around the well site is grassland and the top soil is sandy. The vegetation is native scrub grasses with abundant oakbrush, sagebrush, yucca, and prickly pear.
- B. A Cultural Resources Examination has been requested and will be forwarded to your office in the near future.

7. OTHER INFORMATION:

A. Topography: Refer to the existing archaeological report for a description of the topography, flora, fauna, soil characteristics, dwellings, historical and cultural sites.

8. OPERATOR'S REPRESENTATIVE:

A. Through A.P.D. Approval:

Dean Chumbley, Landman Marbob Energy Corporation P. O. Box 227 Artesia, NM 88211-0227 Phone (505)748-3303 Cell (505)748-5988 B. Through Drilling Operations

Sheryl Baker, Drilling Supervisor Marbob Energy Corporation P. O. Box 227 Artesia, NM 88211-0227 Phone (505)748-3303 Cell (505)748-5489

9. CERTIFICATION:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite 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 Marbob Energy Corporation and its contractors and 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.

Date

Melanie'J. Parker Land Department

MARBOB ENERGY CORPORATION

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:

- A. The hazards and characteristics of hydrogen sulfide (H_2S) .
- B. The proper use and maintenance of personal protective equipment and life support systems.
- C. The proper use of H₂S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
- D. The proper techniques for first aid and rescue procedures.

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

- A. The effects of H₂S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
- B. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
- C. The contents and requirements of the H₂S Drilling Operations Plan and the Public Protection 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 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.

E. Mud Program:

The mud program has been designed to minimize the volume of H_2S circulated to the surface.

A mud-gas separator will be utilized.

F. Metallurgy:

All drill strings, casings, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H₂S service.

G. Communication:

Company vehicles equipped with cellular telephone and 2-way radio.

WARNING

YOU ARE ENTERING AN H₂S AREA 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. CK WITH MARBOB FOREMAN AT MAIN OFFICE

MARBOB ENERGY CORPORATION

1-505-748-3303

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 penetrating the first zone containing or reasonably expected to contain H₂S.

A. Well Control Equipment:

Flare line.

Choke manifold.

Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.

Auxiliary equipment to include: annular preventer, mud-gas separator, rotating head.

B. Protective equipment for essential personnel:

Mark II Surviveair 30-minute units located in the dog house and at briefing areas.

C. H₂S detection and monitoring equipment:

2 - portable H₂S monitor positioned on location for best coverage and response. These units have warning lights and audible sirens when H₂S levels of 20 ppm are reached.

D. Visual warning systems:

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 readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.

STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof, as described below:

Marbob Energy Corporation PO Box 227 Artesia, NM 88211-0227

Date:

October 4, 2005

Lease #:

NM 67979

Irish Whiskey Federal #2

Legal Description: Section 26: N/2

Township 22S - Range 28E Eddy County, New Mexico

Formation(s): Morrow

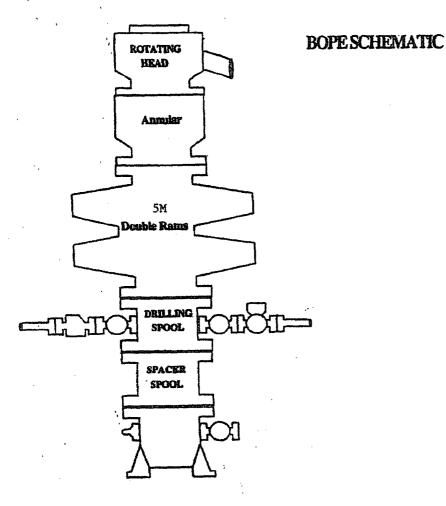
Bond Coverage: Statewide

BLM Bond File #: NM 2056

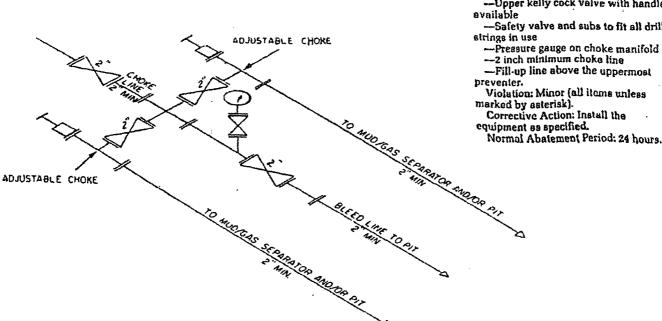
Authorized Signature

Melanie J. Par

Land Department



ONSHORE OIL AND GAS ORDER NO. 2



2M Double Rams BRADEN HEAD

2M system:

- -Annular preventer, or, double ram, or two rams with one being blind and one being a pipe ram *

 --Kill line (2 inch minimum)

 --1 kill line valve (2 inch minimum)

 - -1 choke line valve
 - -- 2 chokes (refer to diagram in

Attachment 1)

- -- Upper kelly cock valve with handle evailable
- -Safety valve and subs to fit all drill

Normal Abatement Period: 24 hours.

CONDITIONS OF APPROVAL - DRILLING

Operator's Name:	Marbob Energy Corporation				
Well Name & No.	Irish Whiskey Federal #2				
Location: 70	(O) 666 FNL, 1980 FWL, Section 26, T. 22 S., R. 28 E., Eddy County, New Mexico				
Lease:	NM-67979 H SN SN State 11-28-05 CAH				
I. DRILLING OPERATIONS REQUIREMENTS:					

- 1. The Bureau of Land Management (BLM) is to be notified at the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822 for wells in Eddy County in sufficient time for a representative to witness:
 - A. Well spud
 - B. Cementing casing: <u>13-3/8</u> inch <u>9-5/8</u> inch <u>7</u> inch <u>4-1/2</u> inch
 - C. BOP tests
- 2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
- 3. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15 day time frame.
- 4. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.

II. CASING:

- 1. The <u>13-3/8</u> inch surface casing shall be set at <u>approximately 400 feet and cement circulated to the surface</u>. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.
- 2. The minimum required fill of cement behind the <u>9-5/8</u> inch first intermediate casing is <u>to be circulated to the surface.</u>

3. The minimum required fill of cement behind the <u>7</u> inch second intermediate casing is to be sufficient to reach at least 500 feet above the top of the uppermost hydrocarbon productive interval.

4. The minimum required fill of cement behind the 4-1/2 inch production casing is to be sufficient to the back of the the 7 inch second intermediate casing.

III. PRESSURE CONTROL:

- 1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the <u>13-3/8</u> inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.
- 2. Minimum working pressure of the blowout preventer and related equipment (BOPE) from base of surface casing to 2750 feet shall be **2000** psi. Test to 1000 psi with rig pumps is ok.
- 3. Minimum working pressure of the blowout preventer and related equipment (BOPE) from base of first intermediate casing to 9900 feet shall be <u>3000</u> psi.

- 4. Minimum working pressure of the blowout preventer and related equipment (BOPE) from base of second intermediate casing to total depth shall be <u>5000</u> psi.
- 5. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.
- The tests shall be done by an independent service company.
- The results of the test shall be reported to the appropriate BLM office.
- Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- Testing must be done in a safe workman-like manner. Hard line connections shall be required.

IV. DRILLING MUD:

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the <u>Wolfcamp</u> formation, and shall be used until production casing is run and cemented. Monitoring equipment shall consist of the following:

- Recording pit level indicator to indicate volume gains and losses.
- Mud measuring device for accurately determining the mud volumes necessary to fill the hole during trips.
- Flow-sensor on the flow-line to warn of abnormal mud returns from the well.

10/31/05 acs