Attachment B.

Department of the Interior OCS Orders 1 thru 12

OCS ORDERS 1 thru 12

Governing

Oil, Gas, And Sulphur Leases

In The Outer Continental Shelf

Gulf Of Mexico Area

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CONSERVATION DIVISION

Gulf Of Mexico Area

INDEX

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UNITED STA
DEPARTMENT OF T
GEOLOGICAL
CONSERVATION
GULF OF MEXICO

OCS ORDER
Effective

MARKING OF

This Order is
30 CFR 250.11
provides a

Wells. The lessee shall i
drilling pla
showing his
number of th
shall take a l
these mar

The operator any
departures from
approved p

1. Identification P
a other
small structures
of the platfo
not less than
the name of lea
block number
located. The an
mation shall

"The Blank
Block 37 of

The identify

"BOCS-T - 37 - C

2. Identification of
Single well
sign only, wi

The information shall be abbreviated as i
lowing example:

> "The Blank Oil Company ope
> is equipped with a protect
> in the East Cameron Area."

The identifying sign on the pr

> " B- OE.C. -- 68 - No. 1"

3 Identification of lease and well
be painted on, or a sign aff
well. multiple completed we
individually identified at the
signs shall be maintained

Robert F. Evans
Robert F. Evans
Supervisor

Approved: August 28, 1969

Russell G. Wayland
Russell G. Wayland
Chief, Conservation Divis

UNITED STATES
DEPARTMENT OF THE IN
GEOLOGICAL SURVEY
CONSERVATION DIVI
GULF OF MEXICO AREA

OCS ORDER NO. 2
Effective August 28,

DRILLING PROCEDURES OFF

This Order is established pu
250.11 and in accordance wit
exploratory wells drilled for
with the provisions of this Initial developm
for oil and **gas** shall be drilled i
this Order which shall conti
After field rules have bee
wells shall be drilled in ac
fields containing more tha
ment wells commenced prior to Oc
provisions of this Order, as
for the establishment of fi

Where sufficient geologic
exploratory drilling, oper
for the establishment of fie
application before more than five
the field. Operators may also make appl
field rules for existing fields
wells on the date of this Order. Each Application to D
for exploratory wells and developm
shall include all information requ
grated casing, cementing, mud, an
well, and shall comp Any departure
from the requirements specified i
to 30 CFR 250.12(b).

1. Well Casing and Cementing. All wells shall be cased **an**
in accordance with the requirem
Application to Drill (Form 9-3
all zones which contain oil, gas,
protected by casing and cement. For th purpose of
the several casing strings in
drive or structural **casing**, conduct
intermediate casing, and All depths r perfo
to true vertical depth (TVD).

A. Drive or Structural Casing. This casing shall be set by drilling, driving, or jetting to a below the Gulf floor or to such greater dep support unconsolidated deposits for initial drilling. If drilling fluid is used in the drilling operation fluid shall be a type that will not pollute quantity of cement sufficient to fill the annular space back to the Gulf floor must be used.

B. Conductor and Surface Casing - Gener of proper casing setting depths shall be based factors including the presence o water depths on the well site. The setting depths of casing strings shall be determined tion fracture gradients and hydrostati within the well bore. The conductor and surface new pipe or reconditioned pipe that h to verify a new condition.

(1) Conductor Casing. This casing shall be set in with the table below. A quantity of cement su fill the annular space back to the Gulf floor used. The cement may be washed out or displaced depth of 40 feet below the Gulf floor to removal upon well abandonment.

(2) Surface Casing. This casing shall be set at a depth accordance with the table below and cemen necessary to protect all fresh water san well control until the next string of casing This casing shall be cemented with a quantit to fill the calculated annular space to (a) a 1,500 feet above the casing shoe, or (b) within below the conductor casing. Whenever there are any indications of improper cementing, such cement channeling, or mechanical failu a temperature or cement bond survey shall before or after remedial cementing, to aid in whether the casing is properly cemented. If the annular space is not adequately cemented by the primary the operator shall either recement or squ shoe after drilling out.

(3) Conductor and Surface Casing Setting Depths. The setting of casing shall be set at the depths specified in lowing table subject to minor variation t to be set in a competent bed; provided, ho conductor casing shall be set before dri formations known to contain oil or gas or, if unknown encountering such formations. These casing strings shall be

run and cemented prior to d
depth. For those wells which
conditions, the **district** engine
ting depth within the ra

Required Setting Depth Below G

Proposed Total Depth of Well or Depth of First Full String of Intermediate Casing feet from	Surface Casing Rotary Minimum	Maximum	Conductor Ca Minimum	Maximum
0 - 7,000	1,500	2,500	300	800
7,000 - 9,000	1,750	3,000	400	800
9,000 - 11,000	2,250	3,500	500	900
11,000 - 13,000	3,000	4,000	600	900
13,000 - Below	3,500	4,500	700	1,000

C. Intermediate Casing. The intermediate casing
required by anticipated a
ment and The intermediate condition
be new pipe or reconditioned **pip**
inspected to verify a new condition. of c
sufficient **to cover** and isol
isolate abnormal pressur
vals shall be used. If a liner **is used as an**
string, the cement shall be
test to determine whether a
larger string has been achi
the drilling. When such liner is us
it shall be extended to the
face **casing** being used as pr

D. Production Casing. This string of casing
completing The production
be new pipe or reconditioned
spected to **verify**. This shall be cemented in the
manner necessary **to** cover or
hydrocarbons, but in any
fill the annular space at l
producible hydrocarbon zone
as production casing, the
top and next **larger** string shall
intermediate liners.

E. Pressure Testing. Prior to drilling th
casing strings, except the
pressure tested as shown in the
exceed the working pressure. The surface casing

shall *be tested with* **water in the top** 100 **feet** of **the casing.** *If the pressure declines more than 10% in 30 min* *other indication of a leak, the casing sha* *paired, or an additional casing string* **run,** *and* *be tested again in the same manner.*

Casing String	**Minimum Pressure** *Test (psi)*
Conductor	*200*
Surface	*1,000*
Intermediate	*1,500 or 0.2 psi/ft., whichever is*
Liner	*1,500 or 0.2 psi/ft., whichever is*
Production	*1,500 or 0.2 psi/ft., whichever is*

After cementing any of the **above** *strings, drill* *commenced until a time lapse of:*

(1) 24 hours, or

(2) 8 *hours under pressure for conductor* *12* **hours** *under pressure for* **all** *other* **strings.** *(Cement is considered under pressure if float valves are employed and are shown* *ing* **the cement** *in place or* **when other means** *of hold-ing pressure is used.)*

All casing pressure tests shall be *recorded on the drille*

2. *Blowout Prevention Equipment.* *Blowout prevention and relate* *control equipment shall be installed, used, and* **tested** *in a manner necessary to prevent blowouts. Prior to drilling below the* con- *ductor casing, blowout prevention equipment* **maintained ready for use until drilling operations are** *completed, as follows:*

A. **Conductor Casing.** *Before* **drilling** *below* **this string, at least** *one remotely controlled* **bag-type** *blowout pr* *for circulating the drilling fluid to the* **vessel shall be installed.** *To avoid formation fracturing* *complete shut-in of the well, a large diame* *valves shall be installed on the conductor* *out preventer so as to permit the diversion* *other fluids; except that when the blowout* *on the Gulf Coast, the choke, and kill lines shall be eq* *permit the diversion of hydrocarbons and*

B. *Surface* **Casing.** *Before drilling below this string* *prevention equipment shall include a mini* *(1) three re-motely controlled, hydraulically operat*

a working pressure which exceeds the maximum anticipate pressure, including one equipped with pipe rams, one with rams, and one bag-type; (2) a drilling spool with side outlets side outlets are not provided in the blowout preventer bod choke manifold; (4) a kill line; and (5) a fill-up line.

C. Intermediate String. Before drilling below this string the blow out prevention equipment shall include a minimum of: (1) four re- motely controlled, hydraulically operated, blowout preve a working pressure which exceeds the maximum anticipat pressure, including at least one equipped with pipe rams, blind rams, and one bag-type; (2) a drilling spool with si lets, if side outlets are not provided in the blowout pr body; (3) a choke manifold; (4) a kill line; and (5) a fill-up line.

D. Testing. Ram-type blowout preventers and related control ment shall be tested with water to the rated working press the stack assembly or to the working pressure of the cas ever is the lesser, (1) when installed; (2) before drilli after each string of casing is set; (3) not less than once e week while drilling; and (4) following repairs that require dis- connecting a pressure seal in the assembly. The bag-type blowout preventer shall be tested to 70 percent of the above pressure re- quirements.

While drill pipe is in use ram-type blowout preventers shall be actuated to test proper functioning once each trip, but in no event less than once each day. The hag-type blowout preventer shall be actuated on the drill pipe once each week. Accumulators or accumulators and pumps shall maintain a pressure capacity re- serve at all times to provide for repeated operation of hydraulic preventers. A blowout prevention drill shall be conducted weekly for each drilling crew to insure that "all equipment is operational and that crews are properly trained to carry out emergency duties. All blowout preventer tests and crew drills shall be recorded on the driller's log.

E. Other Equipment. An inside blowout preventer assembly (back pressure valve) and drill string safety valve in the open position shall be maintained on the rig floor at all times while drilling operations are being conducted. Separate valves shall be main- tained on the rig floor to fit all pipe in the drill string. A Kelly cock shall be installed below the swivel, and an essentially full opening Kelly cock shall be installed at the bottom of the Kelly of such design that it can be run through the blowout pre- venters.

3. Mud Program - General. The characteristics, use, and testing of drilling mud and the conduct of related drilling procedures shall be

such as are necessary to prevent the ... Quantities of mud materials sufficient to i... readily accessible for use at all ...

A. Mud Control. Before starting out of hole with drill pipe, the ... shall be circulated with the drill pipe just off bottom ... mud is pr... When coming out of the hole with drill pipe, the annulus shall be filled with mud before ... level drops below 100 feet, and a mechanical device f... the amount of mud required to fill the hole shall be ... The volume of mud required to fill the hole shall be wa... any time there is an indication of ... tion fluids, the necessary safety device (s) required ... paragraph 2(E) above shall be in... drill pipe shall be run to bottom, and the mud properly co... ti... The mud shall not be circula... on or near bottom, unless well condition... pipe to bottom. The mud in the hole shall be ... verse circulated prior to pulling d... the hole.

B. Mud Testing Equipment. Mud testing equipment shall b... tained on the drilling platform at all times, ... shall be performed daily, or more frequ... warrant.

The following mud system monitoring equipm... (with derrick floor indicators) and used ... drilling after setting and cementing the conductor ca...

(1) Recording mud pit level indicator to d... volume gains and losses. This indicator shall inclu... visual or audio warning device.

(2) Mud volume measuring device for acc... mud volumes required to fill the hole o...

(3) Mud return indicator to determine tha... tially equal the pump discharge rate.

Robert F. Evans
Supervisor

Approved: August 28, 1969

Russell G. Wayland
Chief, Conservation Division

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CONSERVATION DIVISION
GULF OF MEXICO AREA

OCS ORDER NO. 3
Effective August 28, 1969

PLUGGING AND ABANDONMENT OF WELLS

This Order is established pursuant to the authority prescribed in 30 CFR 250.11 and in accordance with 30 CFR 250.41. Operator shall comply with the following minimum plugging and abandonment practices of general application to all wells drilled for oil, gas, and sulphur. Plugging and abandonment operations must not be commenced prior to oral approval from an authorized representative of the Conservation Division, Geological Survey, and shall be in accordance with any departure from the requirements specified in this Order must be approved pursuant to 30 CFR 250.12(b).

1. **Permanent Abandonment.**

   A. **Isolation in Uncased Holes.** In uncased portions of wells, cement plugs shall be spaced to extend 100 feet below the bottom to 100 feet above the top of any oil, gas, and water zones so as to isolate them in the strata in which they are found and to prevent them from escaping into other strata.

   B. **Isolation of Open Hole.** Where there is open hole (uncased and open into the casing string above) below the casing, cement plug shall be placed in the deepest casing as in (1) or (2) below, or in the event lost circulation conditions exist or are anticipated, the plug may be placed in accordance with (3) below:

      (1) A cement plug placed by displacement method so as to extend a minimum of 100 feet above and 100 feet below the casing shoe.

      (2) A cement retainer with effective back pressure control set not less than 50 feet, nor more than 100 feet, above the casing shoe with a cement plug calculated to extend at least 100 feet below the casing shoe and 50 feet above the retainer.

(3) A permanent type bridge plug set within 150 feet above the casing shoe with 50 feet o cement on top of the bridge plug. This plug shall be tested prior to placing subs plugs.

C. Plugging or Isolating Perforated Intervals. A cement plug shall be placed opposite all open per not squeezed with cement) extending a minimum of 100 feet above and 100 feet below the perforated i a casing plug whichever is less. In lieu of the cement plug, a bridge plug set at a maximum of 150 feet a forations with 50 feet of cement on top may be the perforations are isolated from the

D. Plugging of Casing Stubs. If casing is cut and recovered, cement plug 200 feet in length shall be placed to extend 100 feet above and 100 feet below the stub. A used in setting the required plug.

E. Plugging of Annular Space. An annular space that extends the Gulf floor shall be left open to drilled hole below. this condition exists, the annulus shall be plugged wit cement.

F. Surface Plug Requirement. A cement plug of at least 150 feet, with the top of the plug 150 feet or less below the Gulf floo shall be placed in the smallest string of casing which to the surface.

G. Testing of Plugs. The setting and location of the first plug below the top 150-foot plug, will be verified by either placing a minimum pipe weight of 15,000 pounds on the plug, or (2) testing with a minimum pump pressure of 1,000 psig wit more than a 10 percent pressure drop during a 15-minute

H. Mud. Each of the respective intervals of the hole between various plugs shall be filled with mud fluid of sufficient density to exert hydrostatic pressure exceeding the g formation pressure encountered while drilling such i

I. Clearance of Location. Casing and piling shall be severed and removed to at least 15 feet below the Gulf floor and the location shall be dragged to clear the well site of any ob structions.

2. Temporary Abandonment. Any drilling well which is to be temporarily abandoned shall be plugged and cemented as required for permanent abandonment except requirements F and I of paragraph 1 above.

When casing extends above the Gulf fl
(retrievable or permanent) shall be set in
and 200 feet below the Gulf floor.

Robert F. Evans
Supervisor

Approved: August 28, 1969

Russell G. Wayland
Chief, Conservation Division

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CONSERVATION DIVISION
GULF OF MEXICO AREA

OCS ORDER NO. 4
Effective August 28, 1969

SUSPENSIONS AND DETERMINATION OF WELL PRODUCIBILITY

This Order is established pursuant to the authority prescribed in 30 CFR 250.11 and in accordance with 30 CFR 250.12(d)(l). An OCS lease provides for extension beyond its primary term for as long as oil or gas may be produced from the lease in paying quantities. An OCS lease may be maintained beyond the primary term, in the absence of actual production, a suspension of operations or production, or both, has been approved. An application for suspension of product for an initial period should be submitted prior to the expiration of the term of the lease. The supervisor may approve a suspension of production provided at least one well has been drilled on the lease and determined to be capable of being produced in paying quantities. The temporary or permanent abandonment of a well will preclude approval of a suspension of production as provided in 250.12(d)(l). Any departures from the requirements specified in this must be approved pursuant to 30 CFR 250.12(b).

A well may be determined to be capable of producing in paying quantities when the requirements of either 1 or 2 below have been met.

1. Production Tests.

   A. Oil Wells. A production test of at least two hours duration, following stabilization, is required.

   B. Gas Wells. A deliverability test of at least two hours duration, following stabilization, or a four-point back-pressure test, is required.

   C. Witnessing and Acceptance of Tests. All tests must be witnessed by an authorized representative of the Geological Survey. Tests not accompanied by operator's affidavit, or third-party witnessed test provided prior approval is obtained from the appropriate district office. The results of the witnessed or accepted test must justify a determination that the well is capable of producing in paying quantities,

2. <u>Production</u> Capability. Information for dete
should be submitted in time to p
determination. In cases of urgency, dete
or at... The following may be consid
a well is capable of producing in payin

A. An induction-electric log of
of **15 feet** of producible sand in one s
clude any interval which appea
the section counted as produc
properties:

(1) Electrical spontaneous pote
millivolts beyond the shale
prevent a 20 negative millivo
base line, a gamma ray log def
cent of the maximum gamma ray
clean water bearing sand may be **sub**

(2) A minimum true resistivity rati
to the nearest clean **water** sand of
the **producible section** exhibits a minimum
2.0 ohm-meters.

(3) A porosity log indicating **porosity** in
tion.

B. Sidewall cores and core analysis whic
tion is producible.

C. A wire line formation test or evidence that
to obtain such test. The test results must indica
section is producible.

D. All logs run must support other evidenc
producible.

Robert F. **Evans**
Supervisor

Approved: August 28, 1969

Russell G. **Wayland**
Chief, Conservation Division

UNITED STATES
DEPARTMENT OF THE INTERIO
GEOLOGICAL SURVEY
CONSERVATION DIVISION
GULF OF MEXICO AREA

OCS ORDER NO. 5
Effective June 5, 1972

SUBSURFACE SAFETY DEVICE

This Order is published pursuant to the a
250.11 and in accordance with the provisions of 30 CFR 250.41 (b)
as follows:

(b) Completed wells. In the conduct of all its operatio
the lessee shall take all steps necessary to prevent
blowouts, and the lessee shall immediately
action is required to bring under control any well over
which control has been lost. The lessee shall: (1) in
wells capable of flowing oil or gas, when requi
the supervisor, install and maintain in operating co
tion storm chokes or similar subsurface safety devic
(2) for producing wells not capable of flowing oil or
gas, install and maintain surface safety valves with
automatic shutdown controls; and (3) periodically t
or inspect such devices or equipment as prescribed by
the supervisor.

The operator shall comply with the following requirement
from the requirements specified in this Order shall be subject to approval
pursuant to 30 CFR 250.12(b). Applications for approval under the
visions of this Order shall be submitted to the appropriate D
References in this Order to approvals, determinations, o
to those given or made by the Supervisor or his delegated

1. Installation. All new and existing tubing installations
hydrocarbon-bearing zones shall be equipped with
controlled or a surface-remotely controlled subsu
safety device, to be installed at a depth of 100 feet or more
below the sea floor unless, after application and
the well is determined to be incapable of flowing oil or g
These installations shall be made as required in subp
and B below within two (2) days after stabilized produ
established, and during this period of time the well sh
left unattended while open to production.

A. New Wells. Tubing installations in wells completed after December 1, 1972, shall be equipped with a surface- or other remotely controlled subsurface safety device; provided, that wells with a shut-in tubing pressure of 4,000 psig or greater shall be equipped with a subsurface safety device in lieu of a surface- or other remotely controlled subsurface safety device unless a surface- or other remotely controlled subsurface safety device is required. When the shut-in tubing pressure declines below 4,000 psig, a surface- or other remotely controlled subsurface safety device shall be installed when the tubing is first removed and reinstalled.

B. Existing Wells. All tubing installations in wells completed prior to the date of this Order shall be equipped with a surface- or other remotely controlled subsurface safety device when the tubing is first removed and reinstalled; provided, that wells with a shut-in tubing pressure of 4,000 psig or greater shall be equipped with a subsurface safety device in lieu of a surface- or other remotely controlled subsurface safety device unless a surface- or other remotely controlled subsurface safety device is required. When the shut-in tubing pressure declines below 4,000 psig, a surface- or other remotely controlled subsurface safety device shall be installed when the tubing is first removed and reinstalled.

Tubing installations in existing wells completed for single well and multi-well satellite caissons or jackets and sea-floor completions may be equipped with a subsurface-controlled surface safety device, in lieu of a surface- or other remotely controlled subsurface safety device, upon application, and approval.

C. Shut-in Wells. Tubing plugs shall be installed in lieu of, or in addition to, other subsurface safety devices if a well has been shut in for a period of six (6) months. Such plugs shall be set at a depth of 100 feet or more below the sea floor. Only retrievable plugs installed after the date of this Order shall be of the pump-through type. All wells perforated and completed, but not placed on production, shall be equipped with a subsurface safety device or tubing plug within two (2) days after completion.

D. Injection Wells. Subsurface safety devices as required in subparagraphs A and B above shall be installed in all injection wells unless, after application and justification, it is determined that the well is incapable of flowing oil or gas, which condition shall be verified annually.

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2. Technological Advancement. As technological research, progress, and product improvement result in increased effectiveness of safety devices or the development of new devices or systems, such devices or systems may be required or used ... fication, and approval. Application for routine use shall ... evidence. that the device or system has been field- ... once each month for a minimum of six (6) consecutive ... that each test indicated proper operation.

3. Testing and Inspection. Subsurface safety devices shall be de- signed, adjusted, installed, and maintained to insure reliable oper- ation. During testing and inspection procedures, ... be left unattended while open to production unless a properly oper- ating subsurface safety device has been installed in t...

A. Surface-Controlled Subsurface Safety De... or other remotely controlled subsurface safety dev... in a well shall be tested in place for proper o... stalled and thereafter at intervals not exceeding ... If the device does not operate properly it sh... repaired, and reinstalled or replaced and ... proper operation.

B. Subsurface-Controlled Subsurface Safety Devices. Ea... surface-controlled subsurface safety device installed ... shall be removed, inspected, and repaired or adjusted as nec- essary and reinstalled at intervals not exceeding six ... provided, that such removable devices set in a landing nipp... shall be removed, inspected, and repaired or adjusted as nec- essary and reinstalled at intervals not exceeding twelv... months. Each velocity-type device shall be designed to clos... at a flow rate not to exceed the larger of either 150 percent of, or 200 BFPD above, the most recent well-test rate which equals or exceeds the approved production rate. The above closing flow rate shall not exceed the calculated capacity o... the well to produce against a flowing wellhead pressure o... psig. Each preset tubing-pressure-actuated device shall be... signed to close prior to reduction of the flowing wellh... pressure to 50 psig.

C. Tubing Plugs. A shut-in well equipped with a tubing plug shall ... be inspected for leakage by opening the well to possible flow... intervals not exceeding six (6) months. If a sustained liquid flow exceeds 400 cc/min., or gas flow exceeds 15 cu. ft./rei... the plug shall be removed, repaired, and reinstalled or an addi- tional tubing plug installed to prevent leakage.

4. Temporary Removal. Each wireline- or pumpdown-retrievable sub- surface safety device may be removed, without further authority or

notice, for a routine operation which does not a Sundry Notice and Report on Wells (Form 9-331) for a to exceed fifteen (15) days. be clearly as being without a subsurface safety device and shall not unattended while The approvals or modifications graph are not applicable to the testi in paragraph 3 above.

5. Additional Requirements. After the date of this Order retrievable subsurface safety device is equipped with a landing nipple, with flow c tective equipment above and below, to provide subsurface All wells in which a subsurfa device or tubing plug is installed shall annulus packed off above the uppermost ope The control system for all surface-con vices shall be an integral part of the platform of an independent remote shut-in system

6. Departures. All requests for departures (or waivers) approved of this Order are hereby terminated as of December 1, 1972, new applications are submitted prior to that date. All such new applications will be considered for approval pursuant to 250.12(b) and the requirements of this Order. All appl departures shall include a detailed statement of the well con tions, efforts made to overcome any difficulties, and ternate safety measures.

7. Emergency Action. All tubing installations open to hydrocarb bearing zones and not equipped with a subsurface safety permitted by this Order shall be clearly identified as not being equipped, and a subsurface safety device or tubing plug sha available at the field location. In the event of an emergency, such as an impending hurricane, such device or plug shall promptly installed within the limits of practicability, sideration being given to personnel safety.

8. Records. The operator shall maintain the following records minimum period of one year for each subsurface safety de tubing plug installed, which records shall be available authorized representative of the Geological Survey.

A. Field Records. Individual well records shall be maintained or near the field and shall include, as a minimum, the ing information:

(1) A record which will give design and other inform i.e., make, model, type, spacers, bean and spring pressure, etc.

(2) Verification of qualifications of assembly person in char
of installing the device and installation

(3) Verification of setting depth and all
as required in this order.

(4) Removal date, reason for removal, and

(5) A record of all modifications of design

(6) All mechanical failures or malfunctions, including sand-
cutting, of such devices, with notation as to cause
probable cause.

(7) Verification that a failure report wa

B. Other Records. The following records, as a minimu
maintained at the operator's office:

(1) Verified design information of subsurface-controll
surface safety devices for the individual well.

(2) Verification of assembly and installation according t
design information.

(3) All failure reports.

(4) All laboratory analysis reports of failed or damaged part

(5) Quarterly failure-analysis report.

9. Reports. Well completion reports (Form 9-330) and any subsequen
reports of workover (Form 9-331) shall include the type and
depth of the subsurface safety devices and tubing plugs in
in the well or indicate that a departure has been granted.

To establish a failure-reporting and corrective-action prog
a basis for reliability and quality control, each operator s
submit a quarterly failure-analysis report to the office of the
Supervisor, identifying mechanical failures by lease and we
and model, cause or probable cause of failure, and action taken
correct the failure. The reporting period shall begin the first
day of the month following the date of this Order. The report

shall be submitted by February 28, May 3
for the periods ending January 31, April
of each year.

Robert F. Evans
Supervisor

Approved June 5, 1972

Russell G. Wayland
Chief, Conservation Division

UNITED STATES
DEPARTMENT OF THE INTERIO
GEOLOGICAL SURVEY
CONSERVATION DIVISION
***GULF OF** MEXICO* **AREA**

OCS ORDER NO. 6
Effective August 28, 1969

COMPLETION OF OIL AND **GAS** *WELLS*

This Order is established pursuant t 250.11 and in accordance with 30 CFR 250.92. Any departures from quirements specified in this Order must be approved pursuant **t** *250.12(b).*

1. *Wellhead Equipment and Testing*

A. *Wellhead Equipment.* *All completed wells shal* **with** *casingheads, wellhead fit* ***with a rated working pressure equal to o*** *surface shut-in pressure of the wells. Connections and valves* ***shall be designed and installed to perm*** **between any two strings of casing. Two master** *valves shall be installed on the tubing in wells with a s excess of five thousand pounds per square inch. connections shall be assembled and test tion, by a fluid pressure which shall be eq test pressure of the fitting to be insta*

B. *Testing Procedure. Any wells showing sustained the casinghead, or leaking gas or oil be casing and the next larger casing string,* the ***following manner: The well shall be killed with mud and pump pressure applied. Should*** the pressure at the ***casinghead reflect the applied pressu condemned. After corrective measures have*** *be* **casing** *shall be tested in the same manner. The testing procedure shall be used when the pressure cann determined otherwise.*

2. *Storm Chokes. All completed wells shall meet the requirement scribed in OCS Order No. 5*

3. Procedures for Multiple or Tubingless Completions.

A. Multiple Completions.

(1) Information shall be submitted on, or attached to, Form 9-331 showing top and bottom of all zones proposed for completion or alternate completion, including a partial electric log and a diagrammatic sketch showing such zones and equipment to be used.

(2) When zones approved for multiple completion become intercommunicatad the lessee shall immediate y repair and separate the zones after approval is obtained.

B. Tubingless Completions.

(1) All tubing strings in a multiple completed well shall be run to the same depth below the deepest producible zone.

(2) The tubing string (s) shall be new pipe and cemented with a sufficient volume to extend a minimum of 500 feet above the uppermost producible zone.

(3) A temperature or cement bond log shall be run in all tubingless completion wells where lost circulation or other unusual circumstances occur during the cementing operations.

(4) "Information shall be submitted on, or attached to, Form 9-331 showing the top and bottom of all zones proposed for completion or alternate completion, including a partial electric log and a diagrmmatic sketch showing such zones and equipment to be used.

Robert F. Evans
Supervisor

Approved: August 28, 1969

Russell G. Wayland
Chief Conservation Division

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CONSERVATION DIVISION
GULF OF MEXICO AREA

OCS 7 ORDER NO.
Effective August 28, 1969

POLLUTION AND WASTE D

This Order established pursuant to
250.11 and in accordance with 30 CFR 2
follows:

(a) The lessee shall not pollute la
aquatic life of the sea or a
and damage any mineral- or wa
lessee shall dispose of all liquid
materials as prescribed by the supervisor
leakage of oil or waste materials shall b
lessee and, upon request of the supervis
to him. All spills or leakage of a subs
quantity, as defined by the superv
or quantity which cannot be imme
be reported by the lessee without delay
to the Coast Guard and the Regiona
Water Pollution Control Coordinator and
of oil or waste materials of a size or quant
the designee under the pollution
be reportd by the lessee without

(b) If the waters of the sea are pollute
duction operations conducted by or
such pollution damages or threate
life, or public or private property
of the pollutant, wherever
from shall be at the expense of the
lessee to control and remove the
cooperation with other appropria
and local governments, or in coop
shall have the right to accomplish
pollutant in accordance with an
combating oil spills or by other means at the cost of the lessee.
Such action shall not relieve the
provided herein.

(c) The lessee's liability to third parties, other up the pollutant in accordance be governed by applicable law.

The operator shall comply with the following from the requirements specified in to 30 CFR 250.12 (b).

1. Pollution Prevention. Three copies of all oil operations, the operator shall the Gulf of Mexico or shall comp pollution prevention requir

A. Liquid Disposal.

(1) Oil in any form shall not be d of the Gulf.

(2) Liquid waste materials con harmful to aquatic life or wi reamer to life or property, shall b posal of harmful substances int

(3) Drilling mud containing oil s the Gulf. Drilling mud containing toxic be neutralized prior to disposal.

B. Solid Waste Disposal.

(1) Drill cuttings, sand, and other s shall not be disposed of into the Gulf un been removed.

(2) Mud containers and other solid waste incinerated or transported to shor

C. Production Facilities.

(1) All production facilities, such as separat treaters, and other equipment, shall be suc essary to control the maximum anti production of oil, gas, and sulphur, tained at all times in a manner necessary to lution.

(2) All platforms and structures shall by drains to a collecting tank or sump or equivalents, are placed under equi pollutant may spill into the Gulf, and p sump.

(3) The operator's pensonnel shall be thor in the techniques of equipment maintenance and for the prevention of pollution. Non shall be informed in writing, prior to tracts, of the operators obligations to prevent pollu tion.

2. Inspections and Reports. The operator shall comply with the fo lowing pollution inspection and reporti

A. Pollution Inspections.

(1) Manned facilities shall be inspected daily.

(2) Unattended facilities, including thos mote control and monitoring systems, shall b at frequent intervals. The district engineer may pr scribe the frequency of inspections f

B. Pollution Reports.

(1) All spills or leakage of oil and liquid pol be recorded showing the cause, size of spi taken, and the record shall be maintain for inspection by the supervisor. All s of less than 15 barrels shall be reported to the engineer when requested by him.

(2) All spills or leakage of oil and liquid to 50 barrels shall be reported orally t engineer without delay and shall be confirmed in writ

(3) All spills or leakage of oil and liquid p substantial size or quantity, which is than 50 barrels, and those of any size or quan cannot be immediately controlled, shal orally without delay to the supervisor, engineer, the Coast Guard, and the Regio Federal Water Pollution Control Adm reports shall be confirmed in writing.

(4) Operators shall notify each other upon obs equipment malfunction or pollution r another operation.

3. Control and Removal.

A. Corrective Measures. Immediate corrective action shall be in all cases where pollution has occurred. Each operator shall have an emergency plan for initiating cor

to control and remove pollution and such plan shall be with the supervisor. Corrective action taken under the pla shall be subject to modification when directed by visor.

B Equipment. Stand by pollution control equipment shall be main tained by or shall be immediately available to ea at a land base. This equipment shall include con tainment booms, skimming apparatus, and approved che persants and shall be available prior to the comm operation. The equipment shall be regularly inspecte maintained in good condition. The equipment and the location of land bases shall be approved by the The operator shall notify the supervisor of the l which such equipment is located for operations cond for each lease. All changes in location and equipment ma tained at each location shall be approved by the supe

Robert F. Evans
Supervisor

Approved: August 28, 1969

Russell G. Wayland
Chief, Conservation Division

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CONSERVATIN DIVISION
GULF OF MEXICO AREA

OCS ORDER NO. 8
Effective October 30, 1970

PLATFORMS AND STRUCTURES

This Order is established pursuant to the a 250.11 and in accordance with Section 30 CFR 250.19(a) 250.19(a as follows:

(a) The Supervisor is authorized to appro features, and plan of installation of a structures, and artificial islands as a granting of a right of use or easement u and (b) of Section 250.18 or authorized issued or maintained under the Act.

The operator shall be responsible for com this Order in the installation and operation of all platforms, mobile structures, and artificial islands, including all stalled on a platform or structure whether or not operated or operator. Any departures from the requirements specified in this must be approved pursuant to 30 CFR 250.12(b).

1. The following requirements are applicable to all pla and installed subsequent to the effective date of this to all platforms when structural and equipment modifica to be made:

   A. General Design. The design of platforms, fixed structures and artificial islands shall include consideration factors as water depth, surface and subsurface soil tions, wave and current forces, wind forces, total equipment weight, and other pertinent geological, geographi mental, and operational conditions.

   B. Application. The operator shall submit, in duplicate, the lowing to the appropriate District Office for appro

      (1) Design Features. Information relative to design featur on an 8" x 10 1/2" plat or plats showing the platform dimen sions, plan and two elevations, number and locatio well slots, and water depth. In addition, the plat shall include:

(a) Nominal size and thickness range of

(b) Nominal size and thickness range of

(c) Nominal size and thickness range of

(d) design piling penetration.

(e) Maximum bearing and lateral load per

(f) Identification data which shall be block number, area, and operator.

(g) The following certification signed title of the company representati

"Operator certifies that this platform has been certified by a registered sional engineer and that the structure be constructed, operated, and mai described in the application, and proved modification thereto. C plans are on file at."

(2) Non-design Information relative to non-design features including the following:

(a) Primary use intended, including drilling, prod of oil and gas, sulphur, or salt.

(b) personnel and personnel transfer facilities in living quarters, boat landings, and heliport.

(c) Type of deck, such as steel or wood, and whether coated with protective material.

(d) Method of protection from corrosion.

(e) Production facilities including separators, treaters, storage tanks, compressors, line pumps, and met devices, except that when initially designed and utilized for drilling, this information may be su mitted prior to installation.

(f) Safety and pollution control equipment and feat

(g) Other information when required.

c. Certified Detailed structural plans certified by a reg istered professional engineer shall be on file and main by the operator or his designee.

2. **Safety and Pollution Control E**

A. **The following requirements sh**
Operators of platforms install
of this Order shall comply with the
graphs (l)(a) through (f), (2),
with subparagraphs (1) (g) and
subparagraphs (5), (6), (7), (8),
from the effective date of this

(1) The following shut-in devi
maintained in an operating **condit**
vessels and water separatio
and separation The facilities or
shall submit records to the
semi-annually showing the p
of each device including dat
testing, **repairing, adjustment**

(a) All separators shall be eq
sure shut-in sensors, low le
a relief valve, high liquid level cont
shall be installed when the ve
a **flare.**

(b) All pressure surge tanks s
high and low pressure shut-in sensor
shut-in control, flare line, and **rel**

(c) Atmospheric surge tanks shall be
level shut-in sensor.

(d) All other hydrocarbon handling
be equipped with high-low pressur
high-level shut-in controls, and
unless determined to be otherwise

(e) Pilot-operated pressure relief valves shall be
equipped to permit testing with an **external press**
source. Spring-loaded pressure relief valves shall
either be bench-tested or equipped to permit testing
with an external pressure source. A relief valve
shall be set no higher than the designed working pressure **of the vessel. The high pressure shut-in sensor**
shall be set **no higher** than **5% below the** rated or designed working pressure and the low pressure shut-in sensor shall be set no lower than 10% below the lowest **pressure in the operating pressure** range **on all**
vessels with a rated or **designed working pressure** of **more than** 400 **psi. On lower pressure vessels the**

above percentages shall be used as guidelines for sensor settings considering pressure and operatin conditions involved; except thatsensor settings sh not be within 5 psi of the rated or designed working pressure or the lowest pressure in the operating pre sure range.

(f) Allsensors shall be equipped to permit testing with an external pressure source.

(9) All flare lines shall be equipped with a scrubber or similar separation equipment.

(2) The following remote and local automatic shut-in devic shall be installed and maintained in an operating condition at all times when the affected well (or wells) is producing. The operator shall submit records to the appropriate District Office semi-annually showing the present status and past history of each such device including dates and details of inspection, testing, re ing, adjustment, and reinstallation.

(a) **All wellhead assemblies shall be equipped with an** automatic fail-close valve. Automatic safety valves temporarily out of service shall be flagged.

(b) All flowlines from wellheads shall be equipped with **high-low pressure sensors located close** to the wellhead The pressure sensors shall be set to activate the wellhead valve in the event of abnormal pressure in the flowline.

(c) All headers shall be equipped with check valves on the individual flowlines. The flowline and valves from each well located upstream of, and including, the header valves shall withstand the shut-in pressure of that well, unless protected by a relief valve with connections to bypass the header. If there is an inlet valve to a separator, the valve, flowline, and all equipment upstream of the valve shall also withstand shut-in wellhead pressure, unless protected by a relief valve with connections to bypass the header.

(d) All pneumatic shut-in control lines shall be equipp with fusible material at strategic points.

(e) Remote shut-in controls shall be located on the heli copter deck and all exit stairway landings, includi

at least one on each bestTheseing.controls shall be quick-opening valves.

(f) All pressure sensors shall be tested for proper pressure settings monthly for at least four months. At such time as the monthly results are consistent, a quarterly test shall be required for at lease one yearIf these resultsconsistent, longer period of time between testing may then be approved by the SupervisorIn the event any testing sequence reveals inconsistent results, the monthly testing sequence shall be reinstituted. Results of all tests shall be recorded and maintained in the field.

(g) All automatic wellhead safety valves shall be testedfor operation Allautomatic wellhead safety valves shall be testedpressureholdingmonthly. If these results are consistent, a longer period of time between pressure tests, not to exceed quarterly, may then be approved by the Supervisor.In the event that any pressure testing sequence, exceeding monthly reveals inconsistent results, the monthly testing sequence shall be reinstituted. Results of all tests shall be recorded and maintained in the field.

(h) Check valves shall be tested for holding pressure monthly for at least four months. At such time as the monthly results are satisfactory, a quarterly test shall be required for at least one year. If these results are consistent, a longer period of time between testing may then be approved by the Supervisor. In the event any testing sequence reveals inconsistent results, the monthly testing sequence shall be reinstituted. Results of all tests shall be recorded and maintained in the field.

(i) A complete testing and inspection of the safety system shall be witnessed by Geological Survey representatives at the time production is cammenced. Thereafter, the operator shall arrange for a test every six months. The test shall be conducted when it can be witnessed by Geological Survey representatives.

(j) A standard procedure for testing of safety equipment shall be prepared and posted in a prominent place on the platform.

(3) Curbs, gutters, and drains shall be constructed in all deck areas in a manner necessary to collect all contaminants, unless drip pans or equivalent are placed under

equipment and piped to a sump which will automatically maintain the oil at a level sufficient to prevent discharge of oil into the Gulf waters. Alternate methods to obtain the same results will be acceptable. These systems shall not permit spilled oil to flow into the wellhead area.

(4) An auxiliary electrical power supply shall be installed to provide emergency power capable of operating all electrical equipment required to maintain safety of operation in the event the primary electrical power supply fails.

(5) The following requirements shall apply to the handling and disposal of all produced waste water discharged into the Gulf of Mexico. The disposal of waste water other than into the Gulf waters shall have the method and location approved by the Supervisor.

(a) Water discharged shall not create conditions which will adversely affect the public health or the use of the waters for the propagation of aquatic life, recreation, navigation, or other legitimate uses.

(b) Waste water disposal systems shall be designed and maintained to reduce the oil content of the disposed water to an average of not more than fifty ppm. An effluent sampling station shall be located at a point prior to discharge into the receiving waters where a representative sample of the treated effluent can be obtained. On one day each month four effluent samples shall be taken within a 24-hour period and determinations shall be made on the temperature, suspended solids, settleable solids, pH, total oil content, and volume of sample obtained. Samples shall be taken and all analyses for oil content shall be performed in accordance with the American Society for Testing and Materials test "Oil in Water," D1346, Oil Content of Water." The Supervisor may approve different methods for determination of oil content if the method to be used is indicated to be equivalent. No effluent containing in excess of one hundred ppm of total oil content shall be discharged into the Gulf of Mexico. A written report of the results shall be furnished to the Regional Office annually. The report shall contain dates, time and location of sample, volumes of waste discharge on the date of sampling in barrels per day, and the results of the specific analysis and physical observations.

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(6) A firefighting system shall be instilled and maintained in an operating condition in accordance with the following:

(a) A fixed autamatic water spray system shall be installed in all insdequately ventilated wellhead areas as these areas are defined in Paragraph 9 API RP 500A. These systems shall be installed in accordance with the most current edition of National Fire Protection Association's Pamphlet No. 15.

(b) A firewater system of rigid pipe with fire hose stations shall be installed and may include a fixed water spray system. Such a system shall be installed in a manner necessary to provide needed protection in areas where production handling equipment is located. A firefighting system using chemicals may be considered for installation in certain platform areas in lieu of a firewater system in that area, if determined to provide equivalent fire protection control.

(c) Pumps for the firewater systems shall be inspected and test -operated weekly. A record of the tests shall be maintained in the field and submitted semi-annually to the appropriate District Office. An alternate fuel or power source shall be installed to provide continued pump operation during platform shutdown unless an alternate firefighting system is provided.

(d) Portable "fire extinguishers shall be located in the living" quarters and in other strategic areas.

(e) A diagram of the firefighting system showing the location of all equipment shall be posted in a prominent place on the platform and a copy submitted to the appropriate District Office.

(7) An automatic gas detector and alarm system shall be installed and maintained in an operating condition in accordance with the following:

(a) Gas detection systems shall be installed in all enclosed areas containing gas handling facilities or equipment and in other enclosed areas which are classified as hazardous areas as defined in API RP 500 and the most current edition of the National Electric Code.

(b) All gas detection systems shall be capable of continuously monitoring for the presence in the areas in which the detection devi cated.

(c) The central control shall be capable alarm at some point below the lower of 1.3% as shown in the Bureau of Mines No. 5 This low level shall be for alarm only.

(d) A high level setting of not more than 4.9% s used for shut-in sequences and the o gency equipment.

(e) An application for the installation of any gas detection system shall be filed appropriate District The applic for a cat shall include the following:

(i) Type, location, and number of det sampling heads.

(ii) Cycling, noncycling, and frequ

(iii) Type and kind of alarm including equipment to be activated.

(iv) Method used for detection of com

(v) Method and frequency of calibration.

(vi) A diagram of the gas detection system.

(vii) Other pertinent information.

(f) A diagram of the gas detection system showing the lo cation of all gas detection points shall be posted in a prominent place on the platform.

(8) The following requirements shall be applicable to electrical equipment and systems installed:

(a) All engines shall be equipped with low-tension igni tion systems containing rigid connections and sh wiring which shall prevent the release of sufficient electrical energy under normal or abnormal conditions to cause ignition of a combustible mixture.

(b) All electrical generators, motors, and lightin
tems shall be installed, protected, and maint
accordance with the most current edition of the
National Electric Code and API RF 500A and B, as
appropriate.

(c) Marine-armored metal-clad cable may be sub-
stituted for conduit in any area.

(9) Sewage disposal systems shall reinstalled and us
cases where sewage is discharged into the Gulf of M
Sewage is defined as human body wastes and the wa
toilets and other receptacles intended to receiv
body wastes. Following sewage treatment, the effluent
shall contain 50 ppm or less of biochemical oxygen
(BOD), 150 ppm or less of suspended solids, and sh
a minimum chlorine residual of 1.0 mg/liter after
mum retention time of fifteen minutes.

B. The requirements of paragraphs 2.A(3), (4), (8), and (9)
shall apply to all mobile drilliny structures used to conduct
drilling or workover operations on Federal leases in
of Mexico.

Robert F. Evans
Robert F. Evans
Supervisor

Approved: October 30, 1970

Russell G. Wayland
Russell G. Wayland
Chief, Conservation Division

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CONSERVATION DIVISION
GULF OF MEXICO AREA

OCS ORDER NO. 9
Effective October 30, 1970

OIL AND GAS PIPELINES

This Order is established purstuant to the authority presc
250.l1 and in accordance with 30 CFR 250.19(b). Section
vides as follows:

(b) The Supervisor is authorized to approve the design,
features, and plan of installation of all pipelines
which a right of use or easement has been granted unde
Paragraph (c) of Section 250.18 or authorized under
lease issued or maintained under the Act, including those
portions of such lines which extend onto or traverse areas
other than the Outer Continental Shelf.

The operator shall comply with the following requirements. Any departures from the requirements specified in this Order must be approved pursuant to 30 CFR 250.12(b).

1. General Design. All pipelines shall be designed and maintained in accordance with the following:

A. The operator shall be responsible for the installation of the following control devices on all oil and gas pipelines connected to a platform including pipelines which are not operated or owned by the operator. Operators of platforms installed prior to the effective date of this Order shall comply with the requirements of subparagraphs (1) and (2) within six months of the effective date of this Order. The operator shall submit records semi-annually showing the present status and past history of each device, including dates and details of inspection, testing, repairing, adjustment, and reinstallation.

(1) All oil and gas pipelines leaving a platform receiving production from the platform shall be equipped with a high-low pressure sensor to directly or indirectly shut-in the wells on the platform.

b

(2) (a) All oil and gas pipelines delivering production production facilities on a platform shall be equ with an automatic shut-in valve connected to the p form's automatic and remote shut-in system.

(b) All oil and gas pipelines coming onto a platform be equipped with a check valve to avoid backflow.

(c) Any oil or gas pipelines crossing a platform which not deliver production to the platform, but which or may not receive production from the platform, shall be equipped with high-low pressure sensors to activat an automatic shut-in valve to be located in the up- stream portion of the pipeline at the platform. The automatic shut-in valve shall be connected to either the platform automatic and remote shut-in system or an independent remote shut-in system.

(d) All pipeline pumps shall be equipped with high- pressure shut-in devices.

B. All pipelines shall be protected from loss of metal by sion that would endanger the strength and safety of the li either by providing extra metal for corrosion allowance some means of preventing loss of metal such as protecti ings or cathodic protection.

c. All pipelines shall be installed and maintained to be with trawling operations and other uses.

D. All pipelines shall be hydrostatically tested to 1.25 designed working pressure for a minimum of 2 hours prior placing the line in service.

E. All pipelines shall be maintained in good operating c at all times and inspected monthly for indication of leak using aircraft, floating equipment, or other methods. Re ords of these inspections including the date, methods, sults of each inspection shall be maintained by the pi operator and submitted annually by April 1. The pipeline op- ator shall submit records indicating the cause, effect, and remedial action taken regarding all pipeline leaks within week following each such occurrence.

F. All pipelines shall be designed to be protected against currents, storm scouring, and soft bottoms and other environmental factors.

2. Application. The operator shall submit in duplicate the following to the Supervisor for approval:

A. Drawing on 8" x 10½" plats or plats showing the major features and other pertinent data (1) including depth, (2) route, (3) location, (4) length, (5) connecting facilities, (6) and (7, burial depth, if buried.

B. A schematic drawing showing the following pipeline safety equipment and the manner in which the equipment functions: (1) High-low pressure (2) automatic shut-in valves, and (3) check valves.

c. General information concerning the pipeline including the following:

(1) Product or products to be transported by the pipeline.

(2) Size, weight, and grade of the pipe.

(3) Length of line.

(4) Maximum water depth.

(5) Type or types of corrosion protection.

(6) Description of protective coating.

(7) Bulk specific gravity of line (with the line empty).

(8) Anticipated gravity or density of the product or products.

(9) Design working pressure and capacity.

(lo) Maximum working pressure and capacity.

(11) Hydrostatic pressure and hold time to which the line will be tested after installation.

(12) Size and location of pumps and prime movers.

(13) Any other pertinent informtion as the Supervisor -My prescribe.

3. Completion. The operator shall notify the Supervisor when installation of the pipeline is completed and submit a drawing 8" x 10½" plats showing the location of the line as installed, accompanied by all hydrostatic test data including proc pressure, hold time, and results.

Robert F. Evans
Supervisor

Approved October 30, 1970

Russell G. Wayland
Chief, Conservation Division

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CONSERVATION DIVISION
GULF OF MEXICO AREA

OCS ORDER NO. 10
Effective August 28, 1969

SULPNUR DRILLING PROCEDURES

This Order is established pursuant to the authority prescri 250.11 'and in accordance with 30 CFR 250.34, 250.41, and 250. ploratory core holes for sulphur and all sulphur developmen be drilled in accordance with the provisions of this Order, development wells shall be drilled in accordance with field established by the Supervisor. An Application to Drill (Form 9-331C) shall include all information required under 30 CFR 250.91 a grated casing, cementing, mud, and blowout prevention progra The operator shall comply with the following requirements. Any departures from the requirements specified in this Order must be approv 30 CFR 250.12(b).

1. Well Casing and Cementing. All wells shall be cased and cemented in accordance with the requirements of 30 CFR 250.41(a Special consideration to casing design shall be given to c for effects caused by subsidence, corrosion, and temp tion. All depths refer to true vertical depth (TVD).

   A. Drive or Structural Casing. This casing shall be set by drilling, driving, or jetting to a minimum depth of 100 fee the Gulf floor, or to such greater depth required to unconsolidated deposits and to provide hole stabili initial drilling operations. If drilled in, the drilling fluid shall be a type that **will not pollute the Gulf, and a q of cement sufficient to fill the annular space back floor must be** used.

   B. **Conductor Casing.** This casing **shall be set and cemented drilling into shallow formations known to conta or, if unknown,** upon encountering conduct formations. Conductor casing shall extend to a depth of not less than 350 feet more than 750 feet below the Gulf floor. A sufficient quantity of cement shall be used to fill the annular space back to the Gulf The cement may be washed out or displaced to a depth of 40 feet below the Gulf floor to facilitate casing removal upon well abandonment.

c. Caprock Casing. This casing shall be set at the top of the caprock and be cemented with a quantity of cement sufficient to fill the annular space back to the Gulf floor. Stage cementing or other cementing method shall be used to insure cement returns to the Gulf floor.

Blowout Prevention Equipment. Blowout preventers and related well control equipment shall be installed, used, and tested in a manner necessary to prevent blowouts. Prior to drilling below the conductor casing, blowout prevention equipment shall be installed and maintained ready for use until drilling operations are completed as follows:

A. Conductor Casing. Before drilling below this string, at least one remotely controlled bag-type blowout preventer and equipment for circulating the drilling fluid to the drilling structure or vessel shall be installed. To avoid formation fracturing from complete shut-in of the well, a large diameter with control valves shall be installed on the conductor casing below the blowout preventer so as to permit the diversion of hydrocarbons and other fluids; except when the blowout preventer assembly is on the Gulf floor, the choke and kill lines shall be equipped to permit the diversion of hydrocarbons and other fluids.

B. Caprock Casing. Before drilling below this string, the blowout prevention equipment shall include a minimum of: (1) three remotely controlled, hydraulically operated, blowout preventers with a working pressure which exceeds the maximum anticipated surface pressure, including one equipped with pipe rams, one with blind rams, and one bag-type; (2) a drilling spool with side outlets, if side outlets are not provided in the blowout preventer body; (3) a choke manifold; [4] a kill line; and (5) a fill-up line.

c. Testing. Ram-type blowout preventers and related control equipment shall be tested with water to the rated working pressure of the stack assembly, or to the working pressure of the casing, whichever is the lesser, (1) when installed; (2) before drilling out after each string of casing is set; (3) not less than once each week while drilling; and (4) following repairs that require disconnecting a pressure seal in the assembly. The bag-type blowout preventer shall be tested to 70 percent of the above pressure requirements.

While drill pipe is in use ram-type blowout preventers shall be actuated to test proper functioning once each day. The bag-type blowout preventer shall be actuated on the drill pipe once each week. Accumulators or accumulators and pumps shall maintain a pressure capacity reserve at all times to provide for repeated

operation of hydraulic blowout prevention drill shall be conducted weekly for each drilling crew to ins all equipment is operational and that crews are prope to carry out emergency duties. Adjustable choke preventer tests and crew drills shall be recorded on the driller's log.

D. Other Equipment. A manual string safety valve in the open pos tion shall be maintained on the rig floor at all times drilling operations are being conducted. Separate be maintained on the rig floor to fit all pipe in the dr string. A Kelly cock shall be installed below the swivel.

3. Mud Program - The mud characteristics, use, and testing o drilling mud and the conduct of related drilling proce be such as are necessary to prevent the blowout of any well. Quantities of mud materials sufficient to insure well be maintained readily accessible for the use of the crew at all times. The following mud control and testing equipment requirements are a to operations conducted prior to drilling below the c

A. Mud Control. Before starting out of the hole with drill pi the mud shall be circulated with the drill pipe just off bo until the mud is properly conditioned. When coming out of the hole with drill pipe, the annulus shall be filled with fore the mud level drops below 100 feet, and a mechanic vice for measuring the amount of mud required to fill t shall be utilized. The volume of mud required to fill the hole shall be watched, and any time there is an indication bing, or influx of formation fluids, the drill pipe sh run to bottom, and the mud properly conditioned. The mud shall not be circulated and conditioned except on or near unless well conditions prevent running the pipe to

B. Mud Testing and Monitoring Equipment. Equipment shall be maintained on the drilllng platform at all times, and shall be performed daily, or more frequently as con rant.

The following mud system monitoring equipment must (with derrick floor indicators) and used throughout of drilling after setting and cementing the conductor casing:

(1) Recording mud pit level indicator to determine mud pit volume gains and losses. This indicator shall include a visual or audio warning device.

(2) Mud volume measuring device for accurately determining mud volumes required to fill the hole on trips.

(3) *Mud return indicator to determine that returns equal the pump discharge* rate.

Robert F. Evans
Robert F. Evans
Supervisor

Approved: *August 28, 1969*

Russell B. Wayland
Russell B. Wayland
Chief, Conservation Division

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CONSERVATION DIVISION
GULF OF MEXICO AREA

OCS ORDER NO. 11
Effective May 1, 1974

OIL AND GAS PRODUCTION RATES, PREVENTION OF WASTE, AND PROTECTION OF CORRELATIVE RIGHTS

This Order is established pursuant to the authority prescri CFR 250.1, 30 CFR 250.11, and in accordance with all other provisions of 30 CFR and 250, notice appearing in the Federal Register, dated December 5, 1970 (35 F.R. 18559), to prov prevention of waste and conservation of the natural resources of t Outer Continental Shelf, and the protection of correlati This Order shall be applicable to all oil and gas wells on Fed in the Outer Continental Shelf of the Gulf of Mexico; p that it shall not apply to oil and gas wells on a lease of which lies within the disputed area referred to in paragraph 4 of the Supplemental Decree of December 20, 1971, in United States vs. Louisiana, et al., 404 U.S. 388 (1971). All departures from the requirements specified in this Order shall be subject to approval pursuant to 30 CFR 250.12(b). References in this Order to approvals, determinations, and requirements for submittal of information or applications for approval are to those granted, made, or required by the Oil and Gas Supervisor or his delegated representative.

1. Definition of Terms. As used in this Order, the following terms shall have the meanings indicated:

   A. Waste of Oil and Gas. The definition of waste appearing in 30 CFR 250.2(h) shall apply, and includes the failure to timely initiate enhanced recovery operations where such methods would result in an increase: ultimate recovery of oil or gas under sound engineering and economic principles. Enhanced recovery operations refers to pressure maintenance operations, secondary and tertiary recovery, cycling, and similar recovery operations which alter the natural forces in a reservoir to increase the ultimate recovery of oil or gas.

   B. Correlative Rights. The opportunity afforded each lessee or operator to produce without waste his just and equitable share of oil and gas from a common source of supply.

c. Maximum Efficient Rate (MER). The maximum sustainable daily oil or gas withdrawal rate from a reservoir which will permit economic development and depletion of that reservoir without detriment to ultimate recovery.

D. Maximum Production Rate (MPR). The approved maximum daily rate at which oil may be produced from a specified oil well completion or the maximum approved daily rate at which gas may be produced from a specified gas well completion.

E. Interested Party. Persons, operators and lessees, as defined in 30 CFR 250.2(f) and (g), of the lease or leases involved in a proceeding initiated under this Order.

F. Reservoir. An oil or gas accumulation which is separated from and not in oil or gas communication with any other such accumulation.

G. Competitive Reservoir. A reservoir as defined herein containing one or more producible or producing well completions on two or more leases, or portions thereof, in which the lease or operating interests are not the same.

H. Property Line. A boundary dividing leases, or portions thereof, in which the lease or operating interest is not the same. The boundaries of Federally approved unit areas shall be considered property lines. The boundaries dividing leased and unleased acreage shall be considered property lines for the purpose of this Order.

I. Oil Reservoir. A reservoir that contains hydrocarbons predominantly in a liquid (single-phase) state.

J. Oil Well Completion. A well completed in an oil reservoir or in the oil accumulation of an oil reservoir with an associated gas cap.

K. Gas Reservoir. A reservoir that contains hydrocarbons predominantly in a gaseous (single-phase) state.

L. Gas Well Completion. A well completed in a gas reservoir or in the gas cap of an oil reservoir with an associated gas cap.

M. Oil Reservoir with an Associated Gas Cap. A reservoir that contains hydrocarbons in both a liquid and a gaseous state (two-phase).

N. Producible Well Completion. A well which is physically capable of production and which is shut in at the wellhead or at the

surface, but not necessarily y connected to productio
and **from which the operator plans f**

2. **Classification of Reservoirs.**

A. Initial Classification. Each producing reservoir sha
classified by the operator, subject to approv
visor, as an oil reservoir, an oil reservoir wi
gas cap, or a gas reservoir.

(1) The initial classification of each
production is commenced subsequent to
Order shall be submitted for approval
submittal of MER data for the reservoi

(2) Each reservoir from which production
to the date of this Order shall be classified b
ator, based on existing reservoir data. Such
fication **shall be** determined and submitted to the Super
visor within six (6) months of the date of th

B. Reclassification. A reservoir may be reclassified by
visor, **on his own** initiative or upon application
during its productive life when, in the opinion of
showing that such reclassification is warranted.

3. Oil and Gas Production Rates.

A. Maximum Efficient Rate (MER). **The operator shall propose** a
maximum efficient rate **(MER) for each producing res**
on sound engineering and **economic principles.** When approved
the proposed or other rate, such rate shall not be exacee
except as provided in paragraph 4 of this Order.

(1) Submittal of Initial MER. Within 45 days after the date
of first production or such longer period as may be a
proved, the operator shall submit a Request for Re
MER (Form 9-1866) with appropriate supporting in

(2) Revision of the MER. Operator may request a revision of
an MER **by submitting** the proposed revision to the Super-
visor on a Request for Reservoir MER (Form 9-1866) with
appropriate supporting information. The Operator **shall**
obtain approval to produce a t test rates which exceed an
approved MER when such testing is necessary to substantiate
an increase in the MER.

(3) Review of MER. The MER for each reservoir will be reviewed
by the operator annually, or at such other required or ap-

proved interval. The results of the review, with all current supporting information, shall be submitted on a Request for Reservoir MER (Form 9-1866).

(4) Effective Date. The MER, or revision thereof, will be determined by the Supervisor and shown on a Request for Reservoir MER (Form 9-1866) when the MER is approved. The effective date for an initial MER shall be the first day following the completion of an approved testing period. The effective date for a revised MER shall be the first day following the completion of an approved testing period, or if testing is not conducted, the date the revision is approved.

B. Maximum Production Rate (MPR). The operator shall propose a maximum production rate (MPR) for each producing well completion in a reservoir together with full information on the method used in its determination. When an MPR has been approved for a well completion, that rate shall not be exceeded, except as provided in paragraph 4 of this Order. The MPR shall be based on well tests and any limitations imposed by (1) well tubing, safety equipment, artificial lift equipment, surface back pressure, and equipment capacity; (2) sand producing problems; (3) producing gas-oil and water-oil ratios; (4) relative structural position of the well with respect to gas-oil or water-oil contacts; (5) position of perforated interval within total production zone; and (6) prudent operating practices. The MPR established for each well completion shall not exceed 110 percent of the rate demonstrated by a well test unless justified by supporting information.

(1) Submittal of Initial MPR. The operator shall have 30 days from the date of first continuous production within which to conduct a potential test, as specified under subparagraphs 5.B and 6.B of this Order, on all new and reworked well completions. Within 15 days after the date of the potential test, the operator shall submit a proposed MPR for the individual well completion on a Request for Well Maximum Production Rate (MPR) (Form 9-1867), with the results of the potential test on a Well Potential Test Report (Form 9-1868). Extension of the 30-day test period may be granted. The effective date for any approved initial MPR shall be the first day following the test period. During the 30-day period allowed for testing, or any approved extensions thereof, the operator may produce a new or reworked well completion at rates necessary to establish the MPR. The operator shall report the total production obtained during the test period, and approved extensions thereof, on the Well Potential Test Report (Form 9-1868).

(2) Revision of MPR Increase. To test a well completion at rates above the approved MPR to determine whether the MPR should be increased, notification of to test the well at such higher rates, not to stated maximum rate during a specified be filed with the Supervisor tests may commence on the day following the date of filing notice otherwise ordered If by the Supervisor. mines that the MPR should be increased, within 15 days after the specified test increased MPR on a Request for Well Maximum Rate (MPR) (Form 9-1867), and any other available data support the requested revision, including the the potential test and the total production the test period on a Well Potential Test Report 9-1868) Prior to approval of the proposed increased MPR the operator may produce the well completion to exceed the proposed increased MPR of effective date for any approved increase first day following the test period. If increased MPR rates result in production in excess of the approved MER, this excess pro be balanced by underproduction from the provisions of subparagraph 4.B of this

(3) Revision of MPR Because Quarterly Test Rate. If an oil well completion or the semiannual test gas well completion required under subparagraphs 6.C of this Order is less than 90 percent approved MPR for the well, a new reduced MPR lished automatically for that well completion equal to percent of the test rate submitted. The effective date the new MPR for such well completion shall be the first day of the quarter following the required date of submittal periodic well-test results under subparagraphs 5.C and of this Order. Also, the operator may notify the Supervisor on a Request for Well Maximum Production Rate (MPR) (Form 9-1867) of, or the Supervisor may require, a downward revision of a well MPR at any time when the well is no longer capable of producing its approved MPR on a sustained basis. This effective date for such reduced MPR for a well completion shall be the first day of the month following the date of notification.

(4) Continuation of MPR. If submittal of the results of a quarterly well test for an "oil completion or a semiannual well test for a gas well completion, as provided for in subparagraphs 5.C and 6.C of this Order, cannot be timely continuation of production under the last approved MPR

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the well may be authorized, provided an extension of time in which to submit the test results is requested an approved in advance.

(5) Cancellation. When MPR well completion ceases to produce, is shut in pending workover, or any other condition exists which causes the assigned MPR to be no longer appropriate, the operator shall notify the Supervisor accordingly on a Request for Well Maximum Production Rate (MPR) (Form 9-1867), indicating the date of last production from the well, and the MIX will be canceled. Reporting of temporary shut-ins by the operator for well maintenance, safety conditions, or other normal operating conditions is not required, except as is necessary for completion of the Monthly Report of Operations (Form 9-152).

c. MER and MPR Relationship. The withdrawal rate from a reservoir shall not exceed the approved MER and may be produced from any combination of well completions subject to any limitations imposed by the MPR established for each well completion. The rate of production from the reservoir shall not exceed the MER although the actual sum of individual well MPR's may be greater than the MER.

4. Balancing of Production.

A. **Production Variances. Temporary well production rates resulting from normal variations** and fluctuations exceeding a well MPR or reservoir MER shall not be considered a violation of this Order, and such production may be sold or transferred pursuant to paragraph 8 of this Order. However, when normal variations and fluctuations result in production in excess of a reservoir MER, any operator who is overproduced shall balance such production in accordance with subparagraph 4.B below. Such operator shall advise the Supervisor of the amount of such excess production from the reservoir for the month at the same time as Form 9-152 is filed for that month.

B. Balancing Periods. As of the first day of the month following the month in which this Order becomes effective, all reservoirs shall be considered in balance. Balancing periods for overproduction of a reservoir MER shall end on January 1, April 1, July 1, and October 1 of each year. If a reservoir is produced at a rate in excess of the MER for any month, the operator who is overproduced shall take steps to balance production during the next succeeding month. In any event, all overproduction shall be balanced by the end of the next succeeding quarter following the quarter in which the overproduction occurred. The operator shall notify the Supervisor at the end of the month in which he has balanced the production from an overproduced reservoir.

c. Shut-in for Overproduction. Any operator in an overproduction status in any reservoir for two successive quarters not been brought into balance within the balancing be shut in from that reservoir until the actual produ equals that which would have occurred under the app

D. Temporary Shut-in. As a result of storm, hurricanes. emergencies, or other conditions peculiar to offsh tions, an operator is forced to curtail or shut in produ from a reservoir, the Supervisor may, on request, makeup of all or part of this production loss.

5. Oil Well Testing Procedures.

A. General. Tests shall be conducted for not less than four consecutive hours immediately prior to the 4-hour test period, the well completion shall have produced under stab tions for a period of not less than six consecutive hour 6-hour pretest period shall not begin until after rec volume of fluid equivalent to the amount of fluids intro into the formation for measured purposes. Measured gas volumes shall be adjusted to the standard conditions of 15.025 psia for all tests. When orifice meters are used, a specific gravity shall be obtained or estimated for the gas and a specific g correction factor applied to the orifice coefficient. The Supervisor may require a prolonged test or retest of a well completion if such test is determined to be necessary for the establishment of a well MPR or a reservoir MER. The Supervisor may approve test periods of less than four hours and pretest stabilization periods of less than six hours for well completions, provided that test reliability can be demonstrated under such procedures.

B. Potential Test. Test data to establish or to increase an oil well MPR shall be submitted on a Well Potential Test Report (Form 9-1868). The total production obtained from all tests during the test period shall be reported on such form.

C. Quarterly Test. Tests shall be conducted on each producing oil well completion quarterly, and test results shall be submitted on a Quarterly Oil Well Test Report (Form 9-1869). Testing periods and submittal dates shall be as follows:

Testing Period	Latest Date for Submittal of Test Results	For Quarter Beginning
September 11 - December 10	December 10	January 1
December 11 - March 10	March 10	April 1
March 11 - June 10	June 10	July 1
June 11 - September 10	September 10	October 1

There shall be a minimum of 45 days between quarterly tests for an oil well completion.

6. Gas well Testing Procedures.

A. General Testing procedures for gas well completions shall be the same as those specified for oil well completions in paragraph 5.A except for the initial test which shall be a multi-point back-pressure test as described in paragrap

B. Potential Test data to establish or to increase a gas well MPR shall be submitted on a Well Potential Test Repor (Form 9-1868).

c. Semiannual Test. Test shall be conducted on each producing well completion semiannually, and test results shall b mitted on a Semiannual Gas Well Test Report (Form 9-1870).
Testing periods and submittal dates shall be as follow

Testing Period	For Submittal of Test Results	For Semi-Annual Period Beginning
June 11 - December 10	December 10	January 1
December 11 - June 10	June 10	July 1

There shall be a minimum of 90 days between semiannual tes a gas well Completion.

D. Back-Pressure Tests. A multi-point back-pressure test to determine the theoretical open-flow potential of gas wells shall be conducted within thirty days after connection to a pipeline. If bottom-hole pressures are not measured, such pressures shall be calculated from surface pressures using the method, or other similar method, found in the Interstate Oil Compact Commission (IOCC) Manual of Back-Pressure Testing of gas wells. The results of all back-pressure tests conducted by the operator shall be filed with the Supervisor, including all basic data usd in determining the test results. The Supervisor may waive this requirement if multi-point back-pressure test information has previously been obtained on a representative number of wells in a reservoir.

h. Witnessing Well Tests. The Supervisor may have a representative witness any potential or periodic well tests on oil and gas well completions. Upon request, an operator shall notify the appropriate District office of the time and date of well tests.

g. Sale or Transfer of Production. Oil and gas produced pursuant to the provisions of this Order, including test production, may be sold to purchasers or transferred as production authorized for disposal hereunder.

9. **Bottom-Hole Pressure Tests.** Static bottom-hole pressure tests shall be conducted annually on sufficient key wells to establ reservoir pressure in each producing reservoir unless frequency is approved. The operator may be required to test speci wells. Results of bottom-hole pressure tests shall be within 60 days after the date of the test.

10. **Flaring and Venting of Gas.** Oil- and gas-well gas shall not be flared or vented, except as provided herein.

A. **Small-Volume or Short-Term Flaring and Venting.** Casinghead gas may be flared or vented in small volumes or without the approval of the Supervisor in the follo tions:

(1) **Gas Vapors.** When gas vapors are released from storage a other low-pressure production vessels if such ga cannot be economically recovered or retained.

(2) **Emergencies.** During temporary emergency situations, such as compressor or other equipment failure, or the relie abnormal system pressures.

(3) **Well purging and Evaluation Tests.** During the unload or cleaning up of a well and during drillstem, producing, or other well evaluation tests not exceeding a period of 24 hours.

B. **Approval for Routine or Special Well Tests.** Oil- and gas-well gas may be flared or vented during routine and special well tests, other than those described in paragraph A above, only after approval of the Supervisor.

C. **Gas-Well Gas.** Except as provided in A and B above, gas-well gas shall not be flared or vented.

D. **Oil-Well Gas.** Except as provided in A and B above, oil-well gas shall not be flared or vented unless approved by the Supervisor. The Supervisor may approve an application for flaring or venting of oil-well yas for periods not exceeding one year if (1) the operator has initiated positive action which will eliminate flaring or venting, or (2) the operator has submitted an evaluation supported by engineering, geologic, and economic data indicating that rejection of an application to flare or vent the gas will result in an ultimate greater loss of equivalent total energy than could be recovered for beneficial use from the lease if flaring or venting were allowed.

E. **Content of Application.** Applications under paragraph D above for existing operations, as of the date of this Notice, shall

be filed within three months from the effective date of Order. Applications under paragraph D (2) above shall include all appropriate engineering, geologic, and economic data evaluation showing that absence of approval to flare or vent the gas will result in premature abandonment of oil and gas production or curtailment of lease development. Applications shall include an estimate of the amount and value of the gas reserves that would not be recovered if the application to flare or vent were rejected and an estimate of the total amount of oil to be recovered and associated gas that would be lost or vented if the application were approved.

11. Disposition of Gas. The disposition of all gas produced from each lease shall be reported monthly on, or attached to, Form 9-152. The report shall be submitted in the following manner:

	Oil-Well Gas (MCF)	Gas-Well Gas (MCF)
Sales		
Fuel		
*Injected		
Flared		
Vented		
Other (Specify)		
Total		

*Gas produced from the lease and injected on or off the lease.

12. Multiple and Selective Completions.

A. Number of Completions. A well bore may contain any number of producible completions when justified and approved.

B. Numbering Well Completions. Well completions made after the date of this Order shall be designated using numerical and alphabetical nomenclature. Once designated as a reservoir completion, the well completion number shall not change. Appendix A contains a detailed explanation of procedures for naming well completions.

L. Packer Tests. Multiple and selective completions shall be equipped to isolate the respective producing reservoirs. A packer test or other appropriate reservoir isolation test shall be conducted prior to or immediately after initiating production and annually thereafter on all multiply completed wells. Should the reservoirs in any multiply completed well become intercommunicative the operator shall make repairs and again conduct reservoir isolation tests unless some other operational procedure is approved. The results of all tests shall be submitted

on a Packer Test (Form 9-1871) within 30 days after the date the test.

D. Selective Completions. Completion equipment may be installed to permit selective reservoir isolation or exposure in bore through wireline or other operations. **All selective completions shall be designated in accordance** with **subp 12.B when the application for approval of such compl filed.**

E. **Commingling.** Commingling of production from two or more separate reservoirs within a common well bore may be permitted if it is determined that, collectively, the ultimate recovery not be decreased. An application to commingle hydrocarbons from multiple reservoirs in a common well bore shall be submitted for approval and shall include all pertinent information, geologic and reservoir engineering data, and diagram of well equipment. For competitive reservoirs, notice of the application shall be sent by the applicant other operators of interest in the reservoirs prior to **submi the** application to the Supervisor. The application shall specify the well completion number to be used for subsequening purposes.

13. Gas-Cap **Well Completions. All existing and future wells completed in the gas cap of a reservoir which has been classified and approved as an associated oil reservoir shall be shut in until** such time as the oil is depleted or the reservoir is reclassified as a gas reservoir; provided, however, that production from such wells may be approved when (1) it can be shown that such gas-cap production would not lead to waste of oil and gas, or **(2)** when necessary to protect correlative rights unless it can be shown that this production will lead to waste of oil and gas.

14. **Location** of Wells.

A. General. The location and **spacing of** all exploratory and development wells shall be in. accordance with approved programs and plans required in 30 CFR 250.17 and 250.34. Such location and spacing shall be determined independently for each lease or reservoir in a manner which will locate wells in the optimum structural position for the most effective production of reservoir fluids and to avoid the drilling of unnecessary wells.

B. Distance from Property Line. An operator may drill exploratory or development wells at any location on a lease in accordance with approved plans; provided that no well directionally or vertically drilled and completed after **the** date of this Order in which the completed interval is less than 500 feet from a property line shall be produced unless approved by the Supervisor.

For **wells drilled** as vertical holes, the surface location well shall be considered as the location of the completed i val but shall be subject to the provisions of 30 CFR 250.40(b) An operator requesting approval to produce a directiona drilled well in which the completed interval is located clos than 500 feet from a property line, or approval to produce a vertically drilled well with a surface location closer th feet from a property line, shall furnish the Supervisor w letters expressing acceptance or objection from operators o offset properties.

15. Enhanced Oil and Gas Recovery Operations. Operators shall timely initiate enhanced oil and gas recovery operations for all competi tive and noncompetitive reservoirs where such oprations w result in an increased ultimate recovery of oil or gas under sound engineering and economic principles. A plan for such operations shall be submitted with the results of the annual MER review required in paragraph 3A (3) of this Order.

16. Competitive Reservoir Development. Operations and production oper- ations in a competitive reservoir may be required to be con under either pooling and drilling agreements or unitizatio ments when the Conservation Manager determines, pursuant to 250.50 and delegated authority, that such agreements are practicable and necessary or advisable and in the interest of conservation.

A. Competitive Reservoir Determination. The Supervisor shall notify the operators when he has made a preliminary determination that a reservoir is competitive as defined in this Order. An operator may request at any time that **the** Supervisor make a preliminary determination as to whether a reservoir is competitive. **The operators, within thirty (30) days of such preliminary notification or such extension of time** as approved by the Supervisor, shall advise of their concurrence with such determination, or submit objections with supporting evidence. The Supervisor will make a final determination and notify the oprators.

B. Development and Production Plans. When drilling and/or producing operations are conducted in a competitive reservoir, the operators shall submit for approval a plan governing the applicable operations. The plan shall be submitted within ninety (90) days after a determination by the Supervisor that a reservoir is competitive or within such extended period of time as approved by the Supervisor. The plan shall provide for the development and or production of the reservoir, and may provide for the submittal of supplemental plans for approval by the Supervisor.

(1) Development Plan. When competitive reservoir is still being developed or future development is contemp development plan may be required in addition to a tion plan. This plan shall include the information r quired in 30 CFR 250.34. If agreement to a joint develop- ment plan cannot be reached by the operators, each submit a separate plan and any differences may be reso in accordance with paragraph 17 of this Order.

(2) Production A Plan. Joint production plan is required fo each competitive reservoir. This plan shall include (a) the proposed MER for the reservoir, (b) the props for each completion in the reservoir, (c) the p allocation of reservoir MER for each lease involved, (d) plans for secondary recovery or pressure ma operations. In agreement to a joint production plan ca be reached by the operators, each shall submit a s plan, and any differences may be resolved in accor with paragraph 17 of this Order.

c. Unitization. The Conservation Manager shall determine conservation will be best served by unitization of a competitive reservoir, or any reservoir reasonably delineated and determined to be productive, in lieu of a development and/or production plan or when the operators and lessees involved have been unable to voluntarily effect unitization. In such cases, the Conservation Manager may require that development and/or production operations be conducted under an approved unitization plan. Within six (6) months after notification by the Conservation Manager that such a unit plan is required, or within such extended period of time as approved by the Conservation Manager, the lessees and operators shall submit a proposed unit plan for designation of the unit area and approval of the form of agreement pursuant to 30 CFR 250.51.

17. Conferences, Decisions and Appeals. Conferences with interested parties may be held to discuss matters relating to applications and statements of position filed by the parties relating to operations conducted pursuant to this Order. The Supervisor or Conservation Manager may call a conference with one or more, or all, interested parties on his own initiative or at the request of any interested party. All interested parties shall be served with copies of the Supervisor's or Conservation Manager's decisions. Any interested party may appeal decisions of the Supervisor or Conservation Manager pursuant to 30 CFR 250.81. Decisions of the

Supervisor or Conservation Manager shall rennin in effect not be suspended by reason of any appeal, except as provided that regulation.

J. B. Lowenhaupt
Oil and Gas Supervisor
Production Control
Gulf of Mexico Area

Approved: May 1, 1974

Russell G. Wayland
Chief, Conservation Division

APPENDIX A

Subparagraph 12, "Numbering Well Completions," states: "Completions made after the date of this Order shall be designated using numerical nomenclature. Once designated as a reservoir completion, completion number shall not change..."

The intent of this subparagraph is not necessarily to change well completion names but to change the method of naming completions after the effective date of this Order in order to insure that each completion in a given reservoir and a specific well bore will have a unique name and will retain that name for the permanent identification, the following guidelines and examples are offered:

1. Each well bore will have a distinct, permanent number.
2. Each reservoir completion in a well bore will have a permanent designation which includes the well bore number in its nomenclature.
3. For the purpose of this subparagraph, a "completion" is all perforations in a given reservoir in a specific well bore and is not necessarily associated with a tubing string or strings.
4. If more than one completion is made in a well bore, an alphabetical suffix must be used in the nomenclature to differentiate between completions.
5. An alphabetical prefix may be utilized to designate the platform from which the well will be produced.

Example No. 1: The first well drilled from the A Platform is a single completion.

Well No. A-1

(Should an operator wish to use an alphabetical suffix with a single completion, he may do so.)

Example No. 2: A well drilled by a mobile rig need not carry an alphabetical prefix.

Well No. 1

(If the well is later connected to and produced from a production platform, the well shall be redesignated to reflect an alphabetical prefix.)

Example No. 3: The second well drilled from the A Platform is a tri completion.

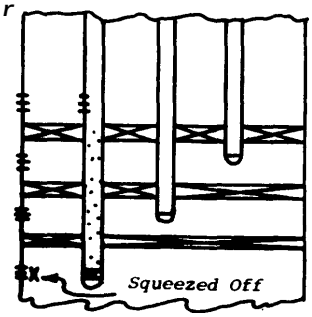
First Completion	Second Completion	Third Completion
A-2	A-2-D	A-2-T

(In the above example, the letters "D" and "T" were used in naming the second and third completions utiliz current industry practice, although the intent is not t restrict operators to the use of these particular alphabetical suffixes. Any alphabetical suffix may be used as long as it is unique to the completion in that reservoir.)

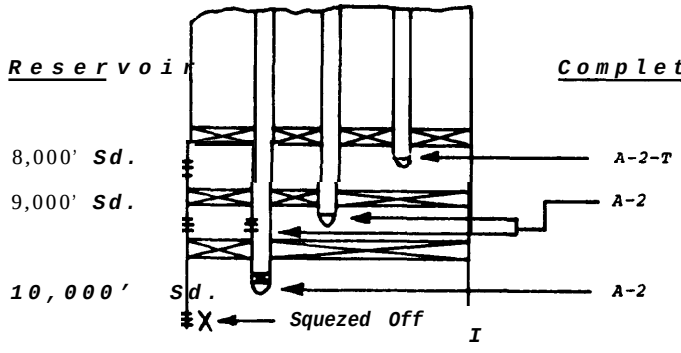
Example No. 4: The drawing is shown to illustrate the fact that once completion in a specific well bore is designated in given reservoir, it will retain that name permanently. Let us consider the A-2 completion shown in Example No. 3. Should a recompletion be made in a different reservoir at a later date, it shall be renamed; however, the production from the reservoir associated the original A-2 completion will always be identi with the A-2 completion. Once the A-2 completion in the 10,000' sand is squeezed and plugged off and the recompletion made to the 7,000' sand, the completion in the 7,000' sand would be designated A-2-A (or some other alphabetical suffix other than the "D" or "T" presently associated with other completions in the 9,000' and 8,000' sands).

The Sundry Notices and Reports on Wells (Form 9-331) submitted to obtain approval for the workover shall be the vehicle for naming the new completion.

Reservoir	Completion Name
7,000' Sd.	A-2-A
8,000' Sd.	A-2-T
9,000' Sd.	A-2-D
10,000' Sd.	A-2



Example No. 5 *If the A-2 completion in Example No. 4 had been completed from the 10,000' sand to the 9,000' (where the A-2-D is currently completed), the pletion would still be named A-2-D as both tub strings would be considered one completion fo poses of this Order.*



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CONSERVATION DIVISION
GULF OF MEXICO AREA

OCS ORDER NO. 12
Effective August 13, 1971

PUBLIC INSPECTION OF RECORDS

This Interim Order is established and published pursuant to 30 CFR 250.11 and in accordance with 30 CFR 250.97 of 30 CFR provides as follows:

> Public inspection of records. Geological and geophysical interpretations, maps, and data required to be submitted under this part shall not be available for public inspection without the consent of the lessee so long as the lease remains in effect or until such time as the supervisor determines that release of such information is required and necessary for proper development of the field or area.

Section 2.2 of 43 CFR provides in part as follows:

> Determinations as to availability. Records subject to section 552 of Title 5, U.S. Code, as amended by Public Law 90-23 (the act codified in the Information Act") requires that identifiable agency records be made available for inspection. Subsection (b)[1] of section 552 exempts several categories of records from the general requirement but does not require the withholding from inspection of all records which may fall within the categories exempted. Accordingly, no request made of a field office to inspect a record shall be denied unless the head of the office or such higher field authority as the head of the bureau may designate shall determine (1) that the record falls within one or more of the

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[1] subsection (b) of section 552 provides that:

(b) This section does not apply to matters that are--

* * *

(4) Trade secrets and commercial or financial information obtained from a person and privileged or confidential;

* * *

(9) Geological and geophysical information and data, including maps, concerning wells.

categories exempted and (2) either that disclosure is prohibited by statute or Executive Order or that sound grounds exist which require the invocation of the exemption. A request to inspect a record located in the headquarters office or a bureau shall not be denied except on the basis of a similar determination made by the head of the bureau or his designee, and a request made to inspect a record located in a major organizational unit of the Office of the Secretary shall not be denied except on the basis of a similar determination by the head of that unit. Officers and employees of the Department shall be guided by the 'Attorney General's Memorandum on the Public Information Section of the Administrative Procedure Act" of June 1967.

(b) An applicant may appeal from a determination that a record is not available for inspection to the Solicitor of the Department of the Interior, who may exercise all of the authority of the Secretary of the Interior in this regard. The Deputy Solicitor may decide such appeals and may exercise all of the authority of the Secretary in this regard.

The operator shall comply with the requirements of this Order. Any departures from the requirements specified in this Order shall be approved pursuant to 30 CFR 250.12(b).

1. Availability of Records Filed on or after December 1, 1970. It has been determined that certain records pertaining to leases and wells in the Outer Continental Shelf and submitted under 30 CFR 250 shall be made available for public inspection, as specified below, in the Area office, Metairie, Louisiana.

   A. **Form 9-152 - Monthly Report of Operations. All information contained on this form shall be available except the information required in the Remarks column.**

   B. Form 9-330 - Well Completion or Recompletion Report and Log.

      (1) Prior to commencement of production all information contained on this form shall be available **except Item** 1a, Type of Well; Item 4, Location of Well, At top prod. interval reported below; Item 22, if Multiple Compl., How many; Item 24, Producing Interval; Item 26, Type Electric and Other Logs Run; Item 28, Casing Record; Item 29, Liner Record; Item 30, Tubing Record; Item 31, Perforation Record; Item 32, Acid, Shot, Fracture, Cement Squeeze, etc.; **Item 33, Production; Item 37, Summary of Porous Zones; and Item 38, Geologic** Markers.

      (2) After commencement of production all information shall be available except Item 37, Summary of Porous Zones; and Item 38, Geologic Markers.

(3) If production has not commenced after the elapsed time of five years from the date of filing Form 9-330 as required in 30 CFR 250.38 (b), all information contained on this form shall be available except Item 37, Summary of Porous Zones; and Item 38, Geological Markers within 90 days prior to the end of the five-year period the lessee or operator may submit objections to the release of such information. The supervisor, taking into consideration the objections of the lessee, proximity to unleased lands, and the best interests of the United States, may determine that such information shall not be released.

c. Form 9-331 Sundry Notices and Report on Wells.

(1) When used as a "Notice of Intention to" conduct operations, all information contained on this form shall be available except Item 4, Location of Well, At top prod. interval; and Item 17, Describe Proposed or Completed Operations.

(2) When used as a "Subsequent Report of" operations, and after commencement of production, all information contained this form shall be available except information under Item 17 as to subsurface locations and measured and true vertical depths for all markers and zones not placed on production.

D. Form 9-331C - Application for Permit to Drill, Deepen or Plug Back. All information contained on this form, and location plat attached thereto, shall be available except Item 4, Location of Well, At proposed prod. zone; and Item 23, Proposed Casing and Cementing Program.

E. Sales of Lease Production. Information contained on monthly Geological Survey computer printout showing sales of production of oil, condensate, gas and liquid products, by lease, shall be made available.

2. Filing of Reports. All reports on Forms 9-152, 9-330, 9-331, and 9-331C shall be filed in accordance with the following:

A. All reports submitted on these forms after the effective date of this Order shall be filed in two separate sets. All items on the forms in one set shall be completed in full and such forms, and all attachments thereto, shall not be available for public inspection. The additional set shall be completed in full, except that the items described in 1. (A), (B), (C), and (D) above, and the attachments relating to such items, may be excluded. The words "Public Information" shall be shown on the lower right-hand corner of this set. This additional set shall be made available for public inspection.

B. Copies of reports on these forms which were filed bet December 1, 1970, and the effective date of this Order, shall be resubmitted (in duplicate or triplicate, as provid regulations) within 30 days after the effective date of Order. These reports may exclude the items described in 1. (A), (B), (C), (D) and above, and shall show the words "Public In formation" in the lower right-hand corner and shall be made available for public inspection.

3. Availability of Records Filed Prior to December 1, 1970. Information filed prior to December 1, 1970, on the forms referred to above, is not in a form which can be readily made availab public inspection. Requests for information on these forms shal besubmitted to the supervisor in writing and shall be made av inaccordance with 43 CFR Part 2.

Robert F. Evans
Supervisor

Approved: August 13, 1971

Russell G. Wayland
Chief, Conservation Division

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