

**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION COMMISSION**

**IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION FOR THE PURPOSE OF
CONSIDERING:**

**APPLICATION OF TMBR/SHARP
DRILLING, INC. FOR AN ORDER
STAYING DAVID H. ARRINGTON
OIL & GAS, INC. FROM COMMENCING
OPERATIONS, LEA COUNTY, NEW MEXICO.**

CASE NO. 12731

**APPLICATION OF TMBR/SHARP
DRILLING, INC. APPEALING THE
HOBBS DISTRICT SUPERVISOR'S
DECISION DENYING APPROVAL OF
TWO APPLICATIONS FOR PERMIT TO DRILL
FILED BY TMBR/SHARP DRILLING, INC.,
LEA COUNTY, NEW MEXICO.**

CASE NO. 12744

ORDER NO. R-11700-B

ORDER OF THE OIL CONSERVATION COMMISSION

BY THE COMMISSION:

THIS MATTER came before the Oil Conservation Commission (hereinafter referred to as "the Commission") on March 26, 2002, at Santa Fe, New Mexico, on application of TMBR/Sharp Drilling Inc. (hereinafter referred to as "TMBR/Sharp"), *de novo*, and opposed by David H. Arrington Oil and Gas Inc. (hereinafter referred to as "Arrington") and Ocean Energy Inc. (hereinafter referred to as "Ocean Energy") and the Commission, having carefully considered the evidence, the pleadings and other materials submitted by the parties hereto, now, on this 26th day of April, 2002,

FINDS,

1. Notice has been given of the application and the hearing on this matter, and the Commission has jurisdiction of the parties and the subject matter herein.
2. In Case No. 12731, TMBR/Sharp seeks an order voiding permits to drill obtained by Arrington and awarding or confirming permits to drill to TMBR/Sharp concerning the same property.
3. In Case No. 12744, TMBR/Sharp appeals the action of the Supervisor of District I of the Oil Conservation Division denying two applications for permit to drill.

4. Arrington and Ocean Energy oppose¹ both applications.

5. The cases were consolidated by the Division for purposes of hearing and remain so before the Commission.

6. Still pending before the Division are two applications for compulsory pooling. They are: Case No. 12816, Application of TMBR/Sharp for compulsory pooling, Lea County, and Case No. 12841, Application of Ocean Energy Inc. for compulsory pooling, Lea County.

7. The Commission conducted an evidentiary hearing on March 26, 2002, heard testimony from witnesses called by TMBR/Sharp, and accepted exhibits. The Commission also accepted pre-hearing statements from TMBR/Sharp and Arrington and heard opening statements from TMBR/Sharp, Arrington and Ocean Energy and accepted brief closing statements from TMBR/Sharp and Arrington.

8. Following the hearing, TMBR/Sharp filed a Motion to Supplement the Record to include the April 10, 2002 letter of Arrington to the Oil Conservation Division's Hobbs District Office and a portion of Arrington's Supplemental Response to Plaintiff's Motion for Reconsideration in Lea County Cause No. CV-2001-315C. Ocean filed a response to that motion that argued the items add nothing to the record, and Arrington filed a response arguing that the supplemental material is not new or inconsistent. The Motion to Supplement the Record should be granted as no party seems to object to review of the documents; the objections seem to relate only to the significance of the documents to this matter.

9. Applications for permit to drill were filed with the Division in Sections 23 and 25 by Arrington and TMBR/Sharp. The applications filed by TMBR/Sharp and Arrington both proposed a well in the NW/4 of in Section 25. In Section 23, the application for permit to drill filed by TMBR/Sharp proposed a well in the NE/4, and the application of Arrington proposed a well in the SE/4.

10. Arrington's application in Section 25 was filed on July 17, 2001 and sought a permit to drill its proposed "Triple-Hackle Dragon "25" Well No. 1." This application was approved on July 17. On or about August 7, 2001, TMBR/Sharp filed its application for a permit to drill its proposed "Blue Fin "25" Well No. 1" in the same section. That application was denied on August 8, 2001.

11. Arrington's application in Section 23 was filed on July 25, 2001 and sought a permit to drill its proposed "Blue Drake "23" Well No. 1." This application was

¹ On April 10, 2002 Arrington agreed to release its permit to drill to TMBR/Sharp. A dispute may no longer therefore exist concerning Section 23 although the parties apparently do not agree with this assessment.

approved on July 30, 2001. On or about August 6, 2001, TMBR/Sharp filed its application for a permit to drill its proposed "Leavelle "23" Well No. 1" in the same section. That application was denied on August 8, 2001.²

12. TMBR/Sharp's applications in Sections 23 and 25 were denied on the grounds of the permits previously issued to Arrington for the "Triple-Hackle Dragon "25" Well No. 1" and the "Blue Drake "23" Well No. 1." The Townsend Mississippian North Gas Pool, the pool from which the wells are to produce, is governed by the spacing and well density requirements of Rule 104.C(2) [19 NMAC 15.C.104.C(2)]. That rule imposes 320-acre spacing on wells producing from that pool. TMBR/Sharp's applications were denied because, if granted, more than one well would be present within a 320-acre spacing unit, in violation of Rule 104.C(2).

13. Before an oil or natural gas well may be drilled within the State of New Mexico, a permit to drill must be obtained. See NMAC 19.15.3.102.A, 19 NMAC 15.M.1101.A. Only an "operator" may obtain a permit to drill, 19 NMAC 15.M.1101.A, and an "operator" is a person who is "duly authorized" and "is in charge of the development of a lease or the operation of a producing property." NMAC 19.15.1.7.O(8).

14. The central issue in this case is whether Arrington was eligible to become the operator of the wells in question. If not, Arrington should not have received the permits to drill. If Arrington was eligible to become the operator, then the permits were properly issued to Arrington.

15. A dispute exists concerning the validity of Arrington and TMBR/Sharp's mineral leases in Sections 23 and 25. As will be seen below, resolution of this dispute in favor of Arrington or TMBR/Sharp determines which party is eligible to be the operator and thus, who should receive the permits to drill.

16. TMBR/Sharp is the owner of oil and gas leases comprising the NW/4 of Section 25 and the SE/4 of Section 23 (along with other lands) pursuant to leases dated August 25, 1997 granted by Madeline Stokes and Erma Stokes Hamilton. TMBR/Sharp Exhibit 6. The leases were granted to Ameristate Oil & Gas, Inc. (hereinafter referred to as "Ameristate") and were recorded respectively in Book 827 at Page 127 and in Book 827 at Page 124 in Lea County, New Mexico.

17. TMBR/Sharp and Ameristate entered into a Joint Operating Agreement along with other parties on July 1, 1998 and TMBR/Sharp was designated as the operator in Section 25. See TMBR/Sharp Exhibit 7.

² Apparently TMBR/Sharp reapplied for the permits to drill that were previously denied, and the Division approved those permits on March 20, 2002.

18. Although the primary terms of the TMBR/Sharp leases have apparently expired, TMBR/Sharp alleges that the leases were preserved by the drilling of the "Blue Fin 24 Well No. 1" and subsequent production from that well. The Blue Fin 24 Well No. 1 is located in the offsetting section 24.

19. Subsequent to Stokes and Hamilton's execution of leases in favor of Ameristate Oil & Gas Inc., they granted leases in the same property to James D. Huff on March 27, 2001. See TMBR/Sharp Exhibit 9. The leases to Mr. Huff were recorded in Book 1084 at Page 282 and in Book 1084 at Page 285 in Lea County, New Mexico. The parties referred to these leases as "top leases," meaning that according to their terms, they would not take effect until the prior or "bottom" leases became ineffective. See TMBR/Sharp Exhibit 9, ¶ 15.

20. Arrington alleges Mr. Huff is an agent of Arrington but presented nothing to support that contention.

21. In July and August 2001, Ocean acquired a number of farm-out agreements in Section 25. See TMBR/Sharp Exhibit 10, Schedule 1. By an assignment dated September 10, 2001, Ocean assigned a percentage of the farm out agreements to Arrington under terms that require Arrington to drill a test well in Section 25 known as the Triple Hackle Dragon "25" Well No. 1 in the NW/4 of that section.

22. On August 21, 2001, after receiving the denials of the applied-for permits to drill from the District office, TMBR/Sharp filed suit against Arrington and the lessors of its mineral interests in the Fifth Judicial District Court of Lea County, New Mexico. In that case, styled "TMBR/Sharp Drilling, Inc. v. David H. Arrington Oil & Gas, Inc., *et al.*", TMBR/Sharp alleged that its leases were still effective and the Arrington top leases were ineffective. The District Court, in its Order Granting Partial Summary Judgment, dated December 24, 2001, agreed with TMBR/Sharp's contention. See TMBR/Sharp's Exhibit No. 12,

23. During the hearing of this matter, TMBR/Sharp argued that because the Fifth Judicial District Court found that Arrington's "top leases" had failed, TMBR/Sharp was entitled to permits to drill in Sections 23 and 25 and Arrington was not entitled to permits to drill and its permits should be rescinded. TMBR/Sharp also argued that Arrington had filed applications to prevent TMBR/Sharp from being able to drill and to place its obligations under the continuous drilling clauses of the oil and gas leases in jeopardy. TMBR/Sharp argued that Ocean Energy's letter agreement with Arrington could not revive Arrington's claim of title and that Ocean Energy's pending pooling application with the Division is essentially irrelevant to the question of whether TMBR/Sharp should have been granted a permit to drill.

24. Arrington argued in response that the title issue ruled upon by the District Court with respect to section 25 is irrelevant because Arrington acquired an independent

interest in that section by virtue of a farm out agreement in September of 2001. Arrington also argued it was willing to assign the disputed acreage in Section 23 to TMBR/Sharp in order to resolve the present controversy. Arrington also argued that it doesn't intend to actually drill at the present time under either approved permit to drill and argued, citing Order No. R-10731-B, that the Commission's practice has not been to rely on "first in time, first in right" principles in deciding competing applications on compulsory pooling, but instead on geological evidence. Arrington seemed to argue that a compulsory pooling proceeding is the place to present such geologic evidence. Arrington argues that these proceedings are unnecessary and that the Commission should rely upon the Division's pending pooling cases to decide who of the various parties should properly possess the permit to drill.

25. Ocean Energy argued that since its farm out agreement terminates on July 1, 2002 time is of the essence and that the matters at issue here should be resolved in the pending compulsory pooling proceeding instead of this proceeding. Ocean Energy argued that the permit to drill is meaningless in this context, that TMBR/Sharp is essentially asking the Commission to determine pooling in the context of the permit to drill, and that the dedication of acreage on the acreage dedication plat should not determine what acreage would be pooled to the well. If the Commission were to adopt this approach, Ocean Energy argues, the compulsory pooling statutes would be written out of existence.

26. The parties seem to agree that in a situation where the bottom lease has not failed, a person owning a top lease is not a person duly authorized to be in charge of the development of a lease or the operation of a producing property, and is therefore not entitled to a permit to drill. NMAC 19.15.1.7(O)(8). See also 1 Kramer & Martin, The Law of Pooling and Unitization, 3rd ed., § 11.04 at 11-10 (2001). Moreover, because only an "owner" may seek compulsory pooling, it seems that a person owning a top lease where the bottom lease has not failed might not be entitled to compulsory pooling either. See NMSA 1978, § 70-2-17(C).

27. When an application for permit to drill is filed, the Division does not determine whether an applicant can validly claim a real property interest in the property subject to the application, and therefore whether the applicant is "duly authorized" and "is in charge of the development of a lease or the operation of a producing property." The Division has no jurisdiction to determine the validity of any title, or the validity or continuation in force and effect of any oil and gas lease. Exclusive jurisdiction of such matters resides in the courts of the State of New Mexico. The Division so concluded in its Order in this matter. See Order No. R-11700 (December 13, 2001).

28. It is the responsibility of the operator filing an application for a permit to drill to do so under a good faith claim to title and a good faith belief that it is authorized to drill the well applied for. It appears to this body that Arrington had such a good faith belief when it filed its application, but subsequently the District Court found otherwise.

It is not within the purview of this body to question that decision and it should not do so in this case.

29. As of the date of this order, TMBR/Sharp, by Court declaration, is the owner of an oil and gas lease in both Section 23 and Section 25, and Arrington, also by Court declaration, is not an owner in those sections. Therefore, Arrington, who the Court has now decreed has no authority over the property, should not have been granted permits to drill in those sections and TMBR/Sharp should have been granted a permit.

30. Both Arrington and Ocean Energy imply that an appeal will be filed of the District Court's decision. Until the issue of title in Sections 23 and 25 is finally resolved by the courts or by agreement of the parties, the outcome of this proceeding is therefore uncertain. As of the present time, TMBR/Sharp has prevailed on the title question and this Order reflects that (present) reality. However, as an appeal could change that conclusion, jurisdiction of this matter should therefore be retained until matters are finally resolved.

31. The permits to drill issued by the Division in July 2001 to Arrington were issued erroneously and should be rescinded *ab initio*. The applications to drill submitted by TMBR/Sharp in August 2001 should have been processed within a few days of receipt. Arrington's later acquisition of an interest in section 23 and 25 through a farm out agreement doesn't change this analysis; Arrington had no interest by virtue of farm out as of the date of TMBR/Sharp's applications.

32. On another issue, Arrington and Ocean Energy have both urged this body to stay these proceedings pending the resolution of the applications for compulsory pooling, arguing that a decision on those matters will effectively resolve the issues surrounding the permits to drill.

33. Arrington and Ocean Energy's conclusion does not necessarily follow. An application for a permit to drill serves different objectives than an application for compulsory pooling and the two proceedings should not be confused. The application for a permit to drill is required to verify that requirements for a permit are satisfied. For example, on receipt of an application, the Division will verify whether an operator has financial assurance on file, identify which pool is the objective of the well so as to identify the proper well spacing and other applicable requirements, ensure that the casing and cementing program meets Division requirements and check the information provided to identify any other relevant issues. The acreage dedication plat that accompanies the application (form C-102) permits verification of the spacing requirements under the applicable pool rules or statewide rules. Compulsory pooling is related to these objectives in that compulsory pooling would not be needed in the absence of spacing requirements. 1 Kramer & Martin, The Law of Pooling and Unitization, § 10.01 (2001) at 10-2. But its primary objectives are to avoid the drilling of unnecessary wells and to protect correlative rights. NMSA 1978, § 70-2-17(C).

34. It has long been the practice in New Mexico that the operator is free to choose whether to drill first, whether to pool first, or whether to pursue both contemporaneously. The Oil and Gas Act explicitly permits an operator to apply for compulsory pooling after the well is already drilled. See NMSA 1978, § 70-2-17(C) (the compulsory pooling powers of the Division may be invoked by an owner or owners "... who has the right to drill *has drilled* or proposes to drill a well [sic] ..."). Issuance of the permit to drill does not prejudice the results of a compulsory pooling proceeding, and any suggestion that the acreage dedication plat attached to an application to drill somehow "pools" acreage is expressly disavowed. If acreage included on an acreage dedication plat is not owned in common, it is the obligation of the operator to seek voluntary pooling of the acreage pursuant to NMSA 1978, § 70-2-18(A) and, if unsuccessful, to seek compulsory pooling pursuant to NMSA 1978, § 70-2-17(C).

35. Thus, where compulsory pooling is not required because of voluntary agreement or because of common ownership of the dedicated acreage, the practice of designating the acreage to be dedicated to the well on the application for a permit to drill furthers administrative expedience. Once the application is approved, no further proceedings are necessary. An operator may first apply for a permit to drill a well and may thereafter pool (on a voluntary or compulsory basis) separately owned tracts to the well. Alternatively, the operator may first pool and later seek a permit to drill. The two are not mutually exclusive, and there is no preferred methodology.

36. Thus, the process fosters efficiency by permitting a simple approach in cases where ownership is common and pooling, voluntary or compulsory, is not necessary.

37. Ocean's expiring farm-outs present a difficult problem because the delay occasioned by this proceeding and any delay that might occur in the pending compulsory pooling cases may place Ocean's interests in jeopardy. It is worth noting that Ocean's interests seem to be free of the title issues plaguing the other parties, but since Ocean Energy intended that Arrington drill and become operator, Ocean isn't planning on preserving its rights by drilling a well itself and hasn't applied for a permit to drill. Unfortunately, this body is without authority to stay expiration of the farm-outs; Ocean should petition the District Court for relief if the expiring farm-outs are a concern.

CONCLUSION OF LAW:

The Oil Conservation Commission has no jurisdiction to determine the validity of any title, or the validity or continuation in force and effect of any oil and gas lease. Exclusive jurisdiction of such matters resides in the courts of the State of New Mexico.

IT IS THEREFORE ORDERED:

1. The portion of TMBR/Sharp's application in Case No. 12731 seeking to void permits to drill obtained by Arrington is granted. The permits to drill awarded to

Arrington shall be and hereby are rescinded *ab initio* and the applications originally filed by TMBR/Sharp in August, 2001 shall be and hereby are remanded to the District Office for approval consistent with this Order provided the applications otherwise meet applicable Division requirements.

2. TMBR/Sharp's application in Case No. 12744, appealing the decision of the Supervisor of District I of the Oil Conservation Division, is granted and the decision shall be and hereby is overruled.

3. The motions of Arrington and Ocean to continue this proceeding until after the decision in Cases No. 12816 and No. 12841 shall be and hereby are denied.

4. The motion of TMBR/Sharp to Supplement the Record is hereby granted.

5. Jurisdiction of this case is retained for the entry of such further orders as may be necessary given subsequent proceedings in TMBR/Sharp Drilling, Inc. v. David H. Arrington Oil & Gas, Inc., *et al.*

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


LORI WROTENBERY, CHAIR


JAMI BAILEY, MEMBER


ROBERT LEE, MEMBER

SEAL

RECEIVED
JUL 10 2002
SRR

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-101
Revised October 18, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator Name and Address. TMBR/Sharp Drilling, Inc. P. O. Drawer 10970 Midland, TX 79702 Supplemental to API #30-025-35653		² OGRID Number 036554 ³ API Number 30-025-35866
⁴ Property Code 28579	⁵ Property Name Blue Fin "25"	⁶ Well No. 1

⁷ Surface Location

U/L or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	Count
E	25	16S	35E		1913	North	924	West	Lea

⁸ Proposed Bottom Hole Location If Different From Surface

U/L or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	Count
⁹ Proposed Pool 1 Townsend; Mississippian, N.					¹⁰ Proposed Pool 2 Townsend; Morrow				

¹¹ Work Type Code N	¹² Well Type Code G	¹³ Cable/Rotary R	¹⁴ Lease Type Code P	¹⁵ Ground Level Elevation 3959
¹⁶ Multiple No	¹⁷ Proposed Depth 13,200'	¹⁸ Formation Mississippian	¹⁹ Contractor TMBR/Sharp	²⁰ Spud Date 9/01/01

²¹ Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17½"	13¾"	54.5	420	500	Surface
12¼"	9¾"	40	5,000	1800	Surface
8¾"	7"	23 & 26	12,000	1000	5,000
6¼"	4½"	11.6	13,200	135	11,900

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

It is proposed to drill a 17½" hole to ±420' with fresh water & set 13¾" csg & cement to surface. A 12¼" intermediate hole will be drilled to ±5000' with cut-brine system & 9¾" csg will be set & cemented back to surface. A 3000 psi annular preventer & 3000 psi dual ram BOP will be used on the intermediate hole. An 8¾" hole will be drilled to a TD of ±12,000' with FW mud where 7" csg will be set at TD & cemented back to the intermediate csg @ 5000'. We will drill a 6¼" hole to TD of ±13,200'. We plan to run a 4½" liner to TD with top of liner @ 11,900' & cement w/135 sacks. A 3000 psi annular preventer & a 5000 psi double ram BOP will be used on the 8¾" & 6¼" hole. Mud up will occur between 9000' & 10,000' & several DST's are planned.

²³ I hereby certify that the information given above is true and complete best of my knowledge and belief.

Signature:

Printed name: Lonnie Arnold

Title: Production Manager

Date: March 15, 2002

OIL CONSERVATION DIVISION

Signed by:

ORIGINAL SIGNED BY

PAUL F. KAUTZ

PETROLEUM ENGINEER

Approval Date:

Expiration Date:

Conditions of Approval:

Attached:

Permit Expires 1 Year From Approval Date Unless Drilling Underway

DISTRICT I

P.O. Box 1988, Hobbs, NM 88241-1988

State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-10

Revised February 10, 1998

Submit to Appropriate District Office

State Lease - 4 Copy

Fee Lease - 3 Copy

DISTRICT II

P.O. Drawer DD, Artesia, NM 88211-0718

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

DISTRICT III

1000 Rio Brazos Rd., Artec, NM 87410

DISTRICT IV

P.O. Box 2088, SANTA FE, N.M. 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-35865		Pool Code 86390	Pool Name Townsend; Mississippian, N.
Property Code 28579	Property Name BLUEFIN 25		Well Number 1
OCRD No. 036554	Operator Name TMBR/SHARP DRILLING, INC.		Elevation 3959'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	25	16-S	35-E		1913	NORTH	924	WEST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320	N	P	

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. Signature Lonnie Arnold Printed Name Production Manager Title March 15, 2002 Date
	SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief. JULY 26, 2001 Date Surveyed Signature & Seal of Professional Surveyor Certificate No. RONALD A. SEDSON 3239 GARY KUDER 12641

TIMBER//SHARP DRILLING

B.O.P. Equipment Intended for use on Rig # 24

Well To Be drilled for TMBR/Sharp Drilling, Inc.

All Valves (H2S)

Choke Manifold:

Pressure Rating 3,000 or 5,000 (as Req.)

1 - 4" Valves (2 If Required)

4 - 2" Valves

2 - 2" Adjustable Chokes

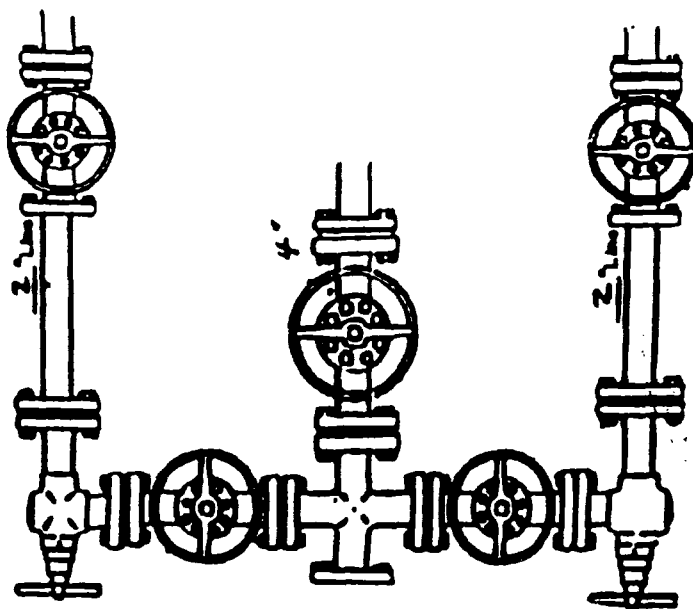
Valve Types Used:

Cameron - F or FC

Shaffer - B Floseal

WKM - type 2

Chokes - Cameron H2 or TC unibolt



TMBR//SHARP DRILLING

B.O.P. Equipment Intended for use on Rig # 24

Well To Be drilled for TMBR/Sharp Drilling, Inc.

- * All B.O.P. equipment is H2S Trim *
- * All Accumulators are Kookey Type-80 : Dual Power Electric/Air *
- * Choke Manifold: * See sheet 2
- 4" Valves : Cameron F/FC, Shaffer DB Hydraulic
- 2" Check Valve: Cameron Type R
- 2" Valves : Cameron or Shaffer

Annular: Shaffer **Type:** Spherical

Annular PSI: 3000

(If Shaffer: Spherical , If Hydril: Type GK)

BOP Type LWS 2 gate

(If Shaffer: LWS or SL If Cameron: Type U)

BOP Size: 11 " - 5000 PSI

Rotating Head Type Smith

Rot-Head Furnished By TMBR/Sharp

Rams in top gate: Blinds

Rams in bottom: 4-1/2" pipe

Side Outlets used:

Bottom X Top

4" Valves on Tee

