## STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

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

CASE NO. 10252 ORDER NO. R-9596

## APPLICATION OF AMERADA HESS CORPORATION FOR A WATERFLOOD PROJECT, LEA COUNTY, NEW MEXICO.

## **BY THE DIVISION**

### **ORDER OF THE DIVISION**

This cause came on for hearing at 8:15 a.m. on September 19, 1991 at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 15th day of October, 1991, the Division Director, having considered the testimony, the record and the recommendations of the Examiner, and being fully advised in the premises,

## FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) The applicant, Amerada Hess Corporation, seeks authority to institute a waterflood project in its North Monument Grayburg-San Andres Unit by the injection of water into the Grayburg-San Andres formation, Eunice Monument Grayburg-San Andres Pool, through the gross perforated and/or open hole interval from approximately 3720 feet to 3965 feet in 108 existing or newly drilled wells (shown on Exhibit "A" attached hereto) located in Townships 19 and 20 South, Ranges 36 and 37 East, NMPM, Lea County, New Mexico.

(3) By Order No. R-9494 issued in Case No. 10253 on May 1, 1991, the Division, upon application of Amerada Hess Corporation, approved the North Monument Grayburg-San Andres Unit which comprises some 13,385 acres in Townships 19 and 20 South, Ranges 36 and 37 East, NMPM, Lea County, New Mexico.

## CASE NO. 10252 ORDER NO. R-9596 Page -2-

(4) The vast majority of wells located within the applicant's North Monument Grayburg-San Andres Unit Area are in an advanced state of depletion and should properly be classified as "stripper wells".

(5) The proposed waterflood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

(6) The applicant should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface from injection, production, or plugged and abandoned wells.

(7) The injection of water into each of the wells shown on Exhibit "A" should be accomplished through internally plastic-lined tubing installed in a packer set within 100 feet of the uppermost injection perforation or casing shoe; the casing-tubing annulus should be filled with an inert fluid and a gauge or approved leak-detection device should be attached to the annulus in order to determine leakage in the casing, tubing or packer.

(8) Prior to commencing injection operations into the wells shown on Exhibit "A", the casing in each well should be pressure tested throughout the interval from the surface down to the proposed packer setting depth, to assure the integrity of such casing.

(9) There are two proposed injection wells and nine producing wells located within the "area of review", shown on Exhibit "B" attached hereto, which may not be completed or cemented in such a manner which will assure that their wellbores will not serve as a conduit for movement of injected fluid out of the injection interval.

(10) Prior to initiating injection operations into the two proposed injection wells or in any other injection well located within one-half mile of any of the producing wells shown on Exhibit "B", the applicant should be required to complete or re-cement said wells in a manner which will assure that these wellbores will not serve as a conduit for migration of injected fluid and to the satisfaction of the supervisor of the Hobbs district office of the Division.

(11) There are twenty-three previously plugged and abandoned wells located within the "area of review" and shown on Exhibit "C" attached hereto, which may not be plugged in such a manner which will assure that their wellbores will not serve as a conduit for movement of injected fluid out of the injection interval.

(12) Prior to initiating injection operations into any injection well located within one-half mile of the wells shown on Exhibit "C", the applicant should be required to replug said wells in a manner which will assure that these wellbores will not serve as a conduit for migration of injected fluid and to the satisfaction of the supervisor of the Hobbs district office of the Division.

## CASE NO. 10252 ORDER NO. R-9596 Page -3-

(13) The injection wells or pressurization system should be initially equipped with a pressure control device or acceptable substitute which will limit the surface injection pressure to no more than 0.2 psi per foot of depth to the top injection perforation, or in the case of open hole completions, the casing shoe.

(14) As of the date of the hearing, the applicant did not have information regarding the exact location of injection perforations or open hole injection intervals in each of the proposed 108 injection wells.

(15) As such information becomes known, the applicant should be required to submit the exact location of the injection interval in each of the proposed injection wells to the Santa Fe office of the Division in order that maximum surface injection pressures may be assigned to such wells.

(16) The Division Director should have the authority to administratively authorize a pressure limitation in excess of the pressure limitation described in Finding No. (13) above upon a showing by the operator that such higher pressure will not result in the fracturing of the injection formation or confining strata.

(17) The operator should give advance notification to the supervisor of the Hobbs district office of the Division of the date and time of the installation of injection equipment, of the mechanical integrity pressure tests, and of the conductance of any remedial cement or plugging operations in order that the same may be witnessed.

(18) Prior to commencing injection operations into the proposed NMGSAU Block 18 Well Nos. 13 and 15, the applicant should be required to submit to the Santa Fe office of the Division an executed copy of an Injection Lease-Line Agreement.

(19) The application should be approved and the project should be governed by the provisions of Rule Nos. 701 through 708 of the Oil Conservation Division Rules and Regulations.

### **IT IS THEREFORE ORDERED THAT:**

(1) The applicant, Amerada Hess Corporation, is hereby authorized to institute a waterflood project in its North Monument Grayburg-San Andres Unit (as fully described in Division Order No. R-9494) by the injection of water into the Grayburg-San Andres formation, Eunice Monument Grayburg-San Andres Pool, through the gross perforated and/or open hole interval from approximately 3720 feet to 3965 feet in 108 existing or newly drilled wells (shown on Exhibit "A" attached hereto) located in Townships 19 and 20 South, Ranges 36 and 37 East, NMPM, Lea County, New Mexico. (2) The applicant shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface from injection, production, or plugged and abandoned wells.

(3) Injection into the proposed injection wells shall be accomplished through plastic-lined tubing installed in a packer set approximately within 100 feet of the uppermost injection perforation or casing shoe; the casing-tubing annulus in each well shall be filled with an inert fluid and equipped with an approved pressure gauge or attention-attracting leak detection device.

(4) The injection wells or pressurization system shall be equipped with a pressure control device or acceptable substitute which will limit the surface injection pressure to no more than 0.2 psi per foot of depth to the top injection perforation, or in the case of open hole completions, the casing shoe.

(5) The applicant shall submit information, as it becomes known, as to the exact location of the injection interval in each of the proposed injection wells to the Santa Fe office of the Division in order that maximum surface injection pressures may be assigned to such wells.

(6) The Division Director shall have the authority to administratively authorize a pressure limitation in excess of the above upon a showing by the operator that such higher pressure will not result in the fracturing of the injection formation or confining strata.

(7) Prior to commencing injection operations into the proposed injection wells, the casing in each well shall be pressure-tested throughout the interval from the surface down to the proposed packer setting depth, to assure the integrity of such casing.

(8) Prior to initiating injection operations into the two proposed injection wells or in any injection well located within one-half mile of any of the producing wells shown on Exhibit "B", the applicant shall complete or re-cement said wells in a manner which will assure that these wellbores will not serve as a conduit for migration of injected fluid and to the satisfaction of the supervisor of the Hobbs district office of the Division.

(9) Prior to initiating injection operations into any injection well located within one-half mile of the wells shown on Exhibit "C", the applicant shall re-plug said wells in a manner which will assure that these wellbores will not serve as a conduit for migration of injected fluid and to the satisfaction of the supervisor of the Hobbs district office of the Division.

## CASE NO. 10252 ORDER NO. R-9596 Page -5-

(10) The operator shall give advance notification to the supervisor of the Hobbs district office of the Division of the date and time of the installation of injection equipment, of the mechanical integrity pressure tests, and of the conductance of any remedial cement or plugging operations in order that the same may be witnessed.

(11) The applicant shall immediately notify the supervisor of the Hobbs district office of the Division of the failure of the tubing, casing or packer in any of the injection wells, the leakage of water or oil from or around any producing well, or the leakage of water or oil from any plugged and abandoned well within the project area, and shall take such steps as may be timely and necessary to correct such failure or leakage.

(12) Prior to commencing injection operations into the proposed NMGSAU Block 18 Well Nos. 13 and 15, the applicant shall submit to the Santa Fe office of the Division an executed copy of an Injection Lease-Line Agreement.

(13) The subject waterflood project is hereby designated the North Monument Grayburg-San Andres Unit Waterflood Project, and the applicant shall conduct injection operations in accordance with Division Rule Nos. 701 through 708 and shall submit monthly progress reports in accordance with Division Rule Nos. 706 and 1115.

(14) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

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

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

WILLIAM J. LEM Director

S E A L

Operator	Lcase Name & Well No.	Location Unit	STR	Proposed NMGSAU Block Well No.
Texaco Inc.	N.M. "F" State No. 1	3300' FNL & 660' FEL I	24-19S-36E	
Texaco Inc.	N.M. "J" State No. 1	1980' FSL & 1980' FWL K	24-19S-36E	4 11
Amerada Hess	State "T" No. 2	1980' FSL & 1980' FWL K	25-19S-36E	9 11
Amerada Hess	State "T" No. 4	660' FNL & 1980' FWL C	25-19S-36E	9 3
Chevron USA Inc.	Graham State (NCT-C) No. 6	660' FSL & 1980' FEL O	25-19S-36E	9 15
Chevron USA Inc.	Graham State (NCT-C) No. 7	1980' FNL & 1980 FEL 6	25-19S-36E	L 6
Chevron USA Inc.	Lola Martin No. 1	1980' FSL & 660' FEL I	25-19S-36E	6 6
Texaco Inc.	A.L. Christmas "B" No. 1	660' FSL & 660' FWL M	25-19S-36E	9 13
Oryx Energy	N.M. State No. 1	660' FNL & 660' FEL A	25-19S-36E	9 1
Amerada Hess	W.A. Weir "B" No. 1	1980' FNL & 1980' FEL G	26-19S-36E	8 7
Amerada Hess	W.A. Weir No. 1	660' FSL & 660' FWL M	35-19S-36E	13 13
Amerada Hess	W.A. Weir No. 5	1980' FNL & 660' FWL E	35-19S-36E	13 5
Amerada Hess	W.A. Weir No. 6	660' FNL & 1980' FWL C	35-19S-36E	13 3
Oryx Energy	W.B. Maveety No. 2	660' FSL & 1980' FEL O	35-19S-36E	13 15
Amerada Hess	State "D" No. 2	1980' FNL & 660' FWL E	1-20S-36E	19 5
Amerada Hess	State "I" No. 1	660' FNL & 1980' FWL C	2-20S-36E	18 3

Operator	Lease Name & Well No.	Location	STR	Proposed NMGSAU Block Well No.	AU No.
Amerada Hess	State "J" No. 1	660' FSL & 1980' FEL O	2-20S-36E	18 15	15
Amerada Hess	State "J" No. 3	1980' FSL & 1980' FWL K	2-20S-36E	18 11	11
Amerada Hess	State "S" No. 2	000' FSL & 660' FWL	2-20S-36E	18	13
Chevron USA Inc.	Graham State (NCT-B) No. 2	1980' FSL & 660' FEL I	2-20S-36E	18	6
Mobil TX & NM	State "A" No. 1	660' FNL & 660' FEL A	2-20S-36E	18	-
Mobil TX & NM	State "A" No. 4	1980' FNL & 1980' FEL G	2-20S-36E	18	-
Conoco Inc.	Reed "A-3" No. 1	660' FNL & 660' FEL A	3-20S-36E	13 17	17
Shell Western	State "B" No. 3	660' FNL & 1980' FWL C	36-19S-36E	14	6
Amerada Hess	State "A-7" No. 1	1980' FSL & 660' FEL I	7-19S-37E	1	6
Chevron USA Inc.	F.W. Kutter (NCT-D) No. 1	660' FSL & 660' FWL M	8-19S-37E	1	13
Conoco Inc.	State "A-17" No. 1	660' FSL & 660' FWL M	17-19S-37E	3 13	13
Conoco Inc.	State "A-17" No. 4	1980' FSL & 1980' FWL K	17-19S-37E	3 11	11
Chevron USA Inc.	Graham State (NCT-G) No. 1	660' FSL & 1980' FEL 0	17-19S-37E	3 15	15
Amerada Hess	State "G" No. 1	660' FSL & 660' FWL M	18-19S-37E	2 13	13
Chevron USA Inc.	F.W. Kutter (NCT-C) No. 2	1980' FNL & 1980' FEL G	18-19S-37E	2 7	2
Chevron USA Inc.	F.W. Kutter (NCT-C) No. 4	1980' FNL & 660' FWL E	18-19S-37E	2 5	S

3

1       660' FNL & 1980' FWL       C       18-195-37E         4       1980' FNL & 660' FWL       K       18-195-37E         *       1980' FNL & 660' FWL       K       18-195-37E         *       1980' FNL & 660' FWL       E       19-195-37E         *       660' FNL & 660' FWL       E       20-195-37E         *       1980' FNL & 1980' FEL       A       19-195-37E         *       1980' FNL & 1980' FEL       C       20-195-37E         *       1980' FNL & 1980' FEL       A       20-195-37E         *       660' FSL & 660' FWL       M       20-195-37E         *       1980' FSL & 1980' FWL       K       20-195-37E         *       1980' FSL & 1980' FWL       M       20-195-37E         *       1980' FSL & 1980' FWL       <	Operator	Lease Name & Well No.	Location	E	Proposed NMGSAU Riveb WM
C.J. Saunders Federal No. 4         1980' FNL & 660' FWL         K         Is.195.37E           B.V. Culp (NCT-A) No. 2         1980' FNL & 660' FWL         E         19-195.37E           B.V. Culp (NCT-A) No. 7         660' FNL & 660' FWL         E         19-195.37E           B.V. Culp (NCT-A) No. 7         660' FNL & 660' FWL         E         20-195.37E           B.V. Culp (NCT-A) No. 1         1980' FNL & 1980' FEL         C         20-195.37E           State "T' No. 1         1980' FNL & 1980' FEL         C         20-195.37E           N.M. 'D' State No. 2         660' FNL & 660' FEL         A         20-195.37E           N.M. 'D' State No. 2         660' FNL & 660' FEL         A         20-195.37E           M. 'D' State No. 2         660' FNL & 660' FWL         M         20-195.37E           M. 'D' State No. 2         660' FNL & 660' FWL         M         20-195.37E           M. 'D' State No. 2         660' FNL & 660' FWL         M         20-195.37E           M. 'D' State No. 2         660' FNL & 660' FWL         M         20-195.37E           M. 'D' State No. 2         1980' FNL & 660' FWL         M         20-195.37E           M. 'D' State No. 2         660' FNL & 660' FWL         M         20-195.37E           M. 'D' State 'F'' No. 2 <td< td=""><td>Texaco Inc.</td><td>American National Ins. No. 1</td><td></td><td></td><td></td></td<>	Texaco Inc.	American National Ins. No. 1			
<ul> <li>B.V. Culp (NCT-A) No. 2</li> <li>B.V. Culp (NCT-A) No. 2</li> <li>B.V. Culp (NCT-A) No. 7</li> <li>660' FNL &amp; 660' FEL</li> <li>A. 19-19S-37E</li> <li>B.V. Culp (NCT-A) No. 7</li> <li>660' FNL &amp; 660' FEL</li> <li>State "L' No. 1</li> <li>980' FNL &amp; 1980' FEL</li> <li>State "T' Battery 3 No. 5</li> <li>1980' FNL &amp; 1980' FEL</li> <li>C. 20-19S-37E</li> <li>F.W. Kutter (NCT-A) No. 1</li> <li>660' FNL &amp; 660' FNL</li> <li>C. 20-19S-37E</li> <li>C. 20-19S-37E<td>Texaco Inc.</td><td>C.J. Saunders Federal No. 4</td><td></td><td>18-19S-37E</td><td>1</td></li></ul>	Texaco Inc.	C.J. Saunders Federal No. 4		18-19S-37E	1
B. V. Culp (NCT-A) No. 7       660° FEL       A       19-195-37E         Image: T. No. 1       1980° FNL & 660° FWL       E       20-195-37E         Image: T. No. 1       1980° FNL & 660° FWL       E       20-195-37E         Image: T. No. 1       1980° FNL & 660° FEL       G       20-195-37E         Image: T. No. 1       660° FNL & 660° FEL       G       20-195-37E         Image: T. No. 1       660° FNL & 660° FEL       A       20-195-37E         Image: T. No. 2       660° FNL & 660° FEL       A       20-195-37E         Image: T. Mattern No. 2       660° FNL & 660° FWL       M       20-195-37E         Image: T. Mattern No. 2       660° FNL & 1980° FWL       M       20-195-37E         Image: T. Mattern No. 2       660° FNL & 1980° FWL       M       20-195-37E         Image: T. No. 2       660° FNL & 1980° FWL       M       20-195-37E         Image: T. No. 2       660° FNL & 1980° FWL       M       20-195-37E         Image: T. No. 2       660° FNL & 1980° FWL       M       20-195-37E         Image: T. No. 2       660° FNL & 1980° FWL       M       20-195-37E         Image: T. No. 2       660° FNL & 1980° FWL       M       20-195-37E         Image: T. No. 2       1980° FWL       1980° F	Chevron USA Inc.	B.V. Culp (NCT-A) No. 2		19-19S-37E	5 5
State T' No. 1         1980' FNL & 660' FWL         E         20-19S-37E           Nate "T" Battery 3 No. 5         1980' FNL & 1980' FEL         G         20-19S-37E           F.W. Kutter (NCT-A) No. 1         660' FNL & 1980' FEL         G         20-19S-37E           N.M. "D" State No. 2         660' FNL & 1980' FEL         O         20-19S-37E           N.M. "D" State No. 2         660' FNL & 660' FEL         A         20-19S-37E           H.T. Mattern No. 2         660' FNL & 660' FWL         M         20-19S-37E           State "F" No. 2         660' FNL & 660' FWL         M         20-19S-37E           M.M. "D" State No. 2         660' FNL & 1980' FWL         K         20-19S-37E           M.M. "D" State No. 2         660' FNL & 1980' FWL         K         20-19S-37E           M.M. Butter (NCT-B) No. 1         660' FNL & 1980' FWL         K         20-19S-37E           F.W. Kutter (NCT-B) No. 1         660' FNL & 1980' FWL         K         20-19S-37E           F.W. Kutter (NCT-B) No. 1         660' FNL & 660' FWL         M         21-19S-37E           F.W. Kutter (NCT-B) No. 2         1980' FNL         K         20-19S-37E           F.W. Kutter (NCT-B) No. 2         1980' FNL         M         21-19S-37E           M.B. Bordages No. 1         90	Chevron USA Inc.	B.V. Culp (NCT-A) No. 7		19-19S-37E	5 1
Nate "T" Battery 3 No. 5         1980' FNL & 1980' FEL         G         20-195.37E         20-195.37E           F.W. Kutter (NCT-A) No. 1         660' FNL & 660' FEL         O         20-195.37E         20-195.37E           M.M. "D" State (NCT-A) No. 1         660' FNL & 660' FEL         A         20-195.37E         20-195.37E           H.T. Mattern No. 2         660' FNL & 660' FNL & 660' FWL         M         20-195.37E         20-195.37E           H.T. Mattern No. 2         660' FNL & 1980' FWL         M         20-195.37E         20-195.37E           F.W. Kutter (NCT-B) No. 1         1980' FNL & 1980' FWL         C         20-195.37E         20-195.37E           F.W. Kutter (NCT-B) No. 1         660' FNL & 1980' FWL         C         20-195.37E         20-195.37E           F.W. Kutter (NCT-B) No. 1         660' FNL & 660' FWL         M         21-195.37E         20-195.37E           F.W. Kutter (NCT-B) No. 2         1980' FNL & 660' FWL         M         21-195.37E         20-195.37E           M.B. Bordages No. 1         90' FSL & 30' FWL         M         20-195.37E         20-195.37E           M.B. Bordages No. 1         90' FSL & 30' FWL         M         20-195.37E         20-195.37E           M.B. Bordages No. 1         90' FSL & 30' FWL         M         20-195.37E	Amerada Hess	State "L" No. 1		20-19S-37E	6 5
F.W. Kutter (NCT-A) No. 1         660' FSL & 1980' FEL         0         20-19S-37E         1           N.M. "D" State No. 2         660' FSL & 660' FEL         A         20-19S-37E         1           H.T. Mattern No. 2         660' FSL & 660' FWL         A         20-19S-37E         1           P.H.T. Mattern No. 2         660' FSL & 660' FWL         M         20-19S-37E         1           F.W. Kutter No. 2         660' FSL & 660' FWL         M         20-19S-37E         1           F.W. Kutter (NCT-B) No. 1         660' FSL & 660' FWL         M         20-19S-37E         1           F.W. Kutter (NCT-B) No. 1         660' FSL & 660' FWL         M         20-19S-37E         1           M.B. Bordages No. 1         990' FSL & 660' FWL         M         20-19S-37E         1           M.B. Bordages No. 1         990' FSL & 660' FWL         M         21-19S-37E         1           M.B. Bordages No. 1         990' FSL & 660' FWL         M         29-19S-37E         1           M.B. Bordages No. 1         990' FSL & 660' FWL         M         29-19S-37E         1           M.B. Bordages No. 1         990' FSL & 660' FWL         M         29-19S-37E         1           M.B. Bordages No. 1         990' FSL & 30' FWL         1         29-19	Amerada Hess	State "T" Battery 3 No. 5		20-19S-37E	6 7
N.M. "D" State No. 2         660' FNL & 660' FEL         A         20-195-37E           H.T. Mattern No. 2         660' FSL & 660' FWL         M         20-195-37E           H.T. Mattern No. 2         660' FSL & 660' FWL         M         20-195-37E           F.W. Kutter No. 4         1980' FSL & 1980' FWL         K         20-195-37E           F.W. Kutter No. 2         660' FNL & 1980' FWL         K         20-195-37E           F.W. Kutter (NCT-B) No. 1         660' FSL & 660' FWL         M         21-195-37E           F.W. Kutter (NCT-B) No. 1         660' FSL & 660' FWL         M         21-195-37E           N.B. Bordages No. 1         990' FSL & 660' FWL         M         21-195-37E           N.B. Bordages No. 1         990' FSL & 660' FWL         M         29-195-37E           N.B. Bordages No. 1         990' FSL & 660' FWL         M         29-195-37E           N.B. Bordages No. 1         990' FSL & 660' FWL         M         29-195-37E           State "K" No. 2         660' FNL & 1980' FWL         C         29-195-37E           State "K" No. 2         660' FNL & 1980' FWL         C         29-195-37E	Chevron USA Inc.	F.W. Kutter (NCT-A) No. 1		20-19S-37E	6 15
H.T. Mattern No. 2         660' FSL & 660' FWL         M         20-19S-37E         20           H.T. Mattern No. 4         1980' FSL & 1980' FWL         K         20-19S-37E         1           F.W. Kutter No. 2         660' FNL & 1980' FWL         K         20-19S-37E         1           F.W. Kutter (NCT-B) No. 1         660' FSL & 660' FWL         C         20-19S-37E         1           F.W. Kutter (NCT-B) No. 1         660' FSL & 660' FWL         M         21-19S-37E         1           F.W. Kutter (NCT-B) No. 1         660' FSL & 660' FWL         M         21-19S-37E         1           F.W. Kutter (NCT-B) No. 2         1980' FNL & 660' FWL         M         21-19S-37E         1           F.W. Kutter (NCT-B) No. 2         1980' FNL & 660' FWL         M         21-19S-37E         1           F.W. Kutter (NCT-B) No. 2         1980' FNL & 660' FWL         M         28-19S-37E         1           F.W. State "F" No. 2         660' FNL & 1980' FWL         M         28-19S-37E         1         1           F.W.B. Bordages No. 1         990' FSL & 330' FWL         M         29-19S-37E         1         1           F.W.B. Bordages No. 1         990' FSL & 330' FWL         M         29-19S-37E         1           F.W.B. Bordages No. 1	Grace Petroleum	N.M. "D" State No. 2		20-19S-37E	6 1
H.T. Mattern No. 4       1980' FSL & 1980' FWL       K       20-19S-37E         F.W. Kutter No. 2       660' FNL & 1980' FWL       C       20-19S-37E         F.W. Kutter (NCT-B) No. 1       660' FSL & 660' FWL       M       21-19S-37E         F.W. Kutter (NCT-B) No. 1       660' FSL & 660' FWL       M       21-19S-37E         N.B. Bordages No. 1       990' FSL & 660' FWL       M       28-19S-37E         N.B. Bordages No. 1       990' FSL & 660' FWL       M       28-19S-37E         State "K" No. 2       660' FSL & 660' FWL       M       28-19S-37E	Texaco Inc.	H.T. Mattern No. 2	L & 660' FWL	20-19S-37E	6 13
State "F" No. 2       660' FNL & 1980' FWL       C       20-19S-37E         F.W. Kutter (NCT-B) No. 1       660' FSL & 660' FWL       M       21-19S-37E         F.W. Kutter (NCT-B) No. 2       1980' FNL & 660' FWL       M       21-19S-37E         N.B. Bordages No. 1       990' FSL & 560' FWL       E       28-19S-37E         N.B. Bordages No. 1       990' FSL & 530' FWL       M       28-19S-37E         State "K" No. 2       660' FSL & 530' FWL       M       28-19S-37E         State "P" No. 2       660' FSL & 660' FWL       M       29-19S-37E	Texaco Inc.	H.T. Mattern No. 4		20-19S-37E	6 11
F.W. Kutter (NCT-B) No. 1       660' FSL & 660' FWL       M       21-19S-37E         F.W. Kutter (NCT-B) No. 2       1980' FNL & 660' FWL       E       28-19S-37E         N.B. Bordages No. 1       990' FSL & 330' FWL       E       28-19S-37E         State "K" No. 2       660' FNL & 1980' FWL       C       29-19S-37E         State "P" No. 2       660' FSL & 660' FWL       M       29-19S-37E	Texaco Inc.	State "F" No. 2		20-19S-37E	6 3
F.W. Kutter (NCT-B) No. 2       1980' FNL & 660' FWL       E       28-19S-37E         N.B. Bordages No. 1       990' FSL & 330' FWL       M       28-19S-37E         State "K" No. 2       660' FNL & 1980' FWL       C       29-19S-37E         State "P" No. 2       660' FSL & 660' FWL       M       29-19S-37E	Chevron USA Inc.	F.W. Kutter (NCT-B) No. 1	L & 660' FWL	21-19S-37E	7 13
N.B. Bordages No. 1         990' FSL & 330' FWL         M         28-19S-37E           State "K" No. 2         660' FNL & 1980' FWL         C         29-19S-37E           State "P" No. 2         660' FSL & 660' FWL         M         29-19S-37E	Chevron USA Inc.	F.W. Kutter (NCT-B) No. 2		28-19S-37E	12 5
State "K" No. 2         660' FNL & 1980' FWL         C         29-19S-37E           State "P" No. 2         660' FSL & 660' FWL         M         29-19S-37E	Amerada Hess	N.B. Bordages No. 1	. & 330' FWL	28-19S-37E	12 13
State "P" No. 2 660' FSL & 660' FWL M 29-19S-37E	Amerada Hess	State "K" No. 2		29-19S-37E	11 3
	م م	State "P" No. 2		29-19S-37E	11 13

e

Operator	Lease Name & Well No.	Location Unit	STR	Proposed NMG Block W	NMGSAU Well No.
Amerada Hess	State "R" No. 1	1980' FSL & 1980' FWL K	29-19S-37E	11	11
Chevron USA Inc.	Fred Luthy No. 1	1980' FNL & 660' FWL E	29-19S-37E	11	5
Chevron USA Inc.	D.A. Williams No. 2	660' FSL & 1980' FEL O	29-19S-37E	11	15
The Wiser Oil Co.	Luthy "A" State No. 1	1980' FNL & 1980' FEL G	29-19S-37E	11	2
Shell Western	State "F" No. 1Y	2280'FSL & 990' FEL	29-19S-37E	11	6
Texaco Inc.	Skelly "E" State No. 2	660' FNL & 660' FEL A	29-19S-37E	11	-
Marathon	Elliott "A" State No. 2	1980' FSL & 660' FEL	30-19S-37E	10	6
Amerada Hess	B.V. Culp No. 1	330' FSL & 2310' FEL O	31-19S-37E	15	15
Amerada Hess	J.R. Phillips "A" No. 3	1980' FNL & 1980' FEL G	31-19S-37E	15	7
Chevron USA Inc.	B.V. Culp (NCT-B) No. 2	1980' FSL & 660' FEL I	31-19S-37E	15	6
Chevron USA Inc.	J.R. Phillips No. 2	660' FNL & 660' FEL A	31-19S-37E	15	
Amerada Hess	J.R. Phillips "A" No. 3	2310' FSL & 2310' FWL K	31-19S-37E	15	11
Amerada Hess	J.R. Phillips "B" No. 4	1980' FNL & 990' FWL E	31-19S-37E	15	S
Amerada Hess	D.F. Larsen No. 4	1980' FNL & 1980' FEL G	32-19S-37E	16	2
Amerada Hess	State "U" No. 1	1980' FNL & 660' FWL E	32-19S-37E	16	S
Chevron USA Inc.	May L. Love Com No. 1	660' FSL & 1980' FEL O	32-19S-37E	16	15

Operator	Lease Name & Well No.	Location Unit	STR	Proposed NMGSAU Block Well No.
Marathon	Bertha Barber No. 1	660' FSL & 660' FWL M	32-19S-37E	16 13
Texaco Inc.	Cook Hartley No. 1	570' FNL & 710' FEL A	32-19S-37E	16 1
Texaco Inc.	State "H" No. 2	1980' FSL & 1980' FWL K	32-19S-37E	16 11
Amerada Hess	W.D. Hanley No. 1	660' FSL & 660' FWL M	33-19S-37E	17 13
Amerada Hess	J.H. Williams No. 2	330' FSL & 2310' FEL O	33-19S-37E	17 15
Amerada Hess	J.W. Cooper "G" No. 3	1650' FNL & 330' FWL E	3-20S-37E	23 5
Amerada Hess	J.W. Cooper "A" No. 1	1070' FNL & 1650' FW C	3-20S-37E	23 3
Amerada Hess	M.E. Laughlin No. 1	1980' FNL & 1980' FEL G	4-20S-37E	22 7
Amerada Hess	M.E. Laughlin No. 2	660' FSL & 660' FWL M	4-20S-37E	22 13
Amerada Hess	M.E. Laughlin No. 4	660' FSL & 1980' FEL O	4-20S-37E	22 15
Amerada Hess	J.W. Cooper "E" No. 1	330' FNL & 990' FEL A	4-20S-37E	22 1
Amerada Hess	Humble Laughlin No. 2	1980' FSL & 660' FEL I	4-20S-37E	22 9
Shell Western	Cooper "B" No. 3	1980' FNL & 660' FWL E	4-20E-37E	22 5
Texaco Inc.	M.E. Laughlin No. 2	1980' FSL & 1980' FWL K	4-20S-37E	22 11
Marathon	Bertha Barber No. 2	660' FNL & 1980' FWL C	5-20S-37E	21 3
Texaco Inc.	J.W. Cooper No. 2	660' FNL & 660' FEL A	5-20S-37E	21 1

Ś

Operator	Lease Name & Well No.	Location Unit	STR	Proposed NMGSAU Block Well No.
Amerada Hess	Lambert No. 3	990' FNL & 660' FEL A	6-20S-37E	20 1
Amerada Hess	V. Laughlin No. 2	660' FNL & 1980 FWL C	9-20S-37E	24 3
Shell Western	State "C" No. 1Y	990' FNL & 330' FEL A	24-19S-36E	4 17
Texaco Inc.	B.M. Keohane "A" No. 1	660' FNL & 660' FEL A	18-19S-37E	2 1
Shell Western	State "D" No. 2	1980' FSL & 660' FEL	19-19S-37E	5 9
Shell Western	State "H" No. 1	1980' FSL & 660' FEL 1	20-19S-37E	6 9
Shell Western	Cooper "B" No. 1	330' FNL & 2310' FWL C	4-20S-37E	22 3
Amerada Hess	State "V" No. 1	330' FNL & 330' FEL A	36-19S-36E	14 14
Amerada Hess	State "V" No. 4	1980' FNL & 1980' FEL G	36-19S-37E	14 7
Amerada Hess	State "F' No. 1	660' FSL & 660' FWL M	36-19S-36E	14 13
Amerada Hess	State "F" No. 3	1980' FSL & 1980' FWL K	36-19S-36E	14 11
Shell Western	State "B" No. 1	1980' FNL & 660' FWL E	36-19S-36E	14 5
Oryx Energy	W.B. Maveety No. 1	1980' FSL & 660' FEL I	35-19S-36E	13 9
Chevron USA Inc.	Graham State (NCT-C) No. 4	660' FSL & 1980' FEL O	24-19S-36E	4 15
Chevron USA Inc.	Graham State (NCT-C) No. 3	1980' FNL & 1980' FEL G	24-19S-36E	4 7
Amerada Hess	State Monument "A" No. 2	2322' FNL & 992' FWL E	2-20S-36E	18 5

9

NMGSAU Well No.	7	11	1
Proposed Block	13	12	13
STR	35-19S-36E	28-19S-37E	35-19S-36E
Unit	უ	х	A
Location	2310' FNL & 1650' FEL	1650' FSL & 1650' FWL	990' FNL & 480' FEL
Lease Name & Well No.	W.B. Mavcety No. 7	State "T" No. 8	W.A. Weir (NCT-A) No. 2
Operator	Oryx Energy	Graham Royalty	Chevron USA Inc.

## EXHIBIT "A" DIVISION ORDER NO. R-9596 NORTH MONUMENT GRAYBURG SAN ANDRES UNIT NEW DRILLS

C.H. Kyte       660' FSL & 1980' FEL       0         W.A. Weir       660' FSL & 1980' FEL       0         W.A. Weir       660' FSL & 1980' FEL       1         D.F. Larsen       660' FSL & 1980' FEL       1         D.F. Larsen       1980' FNL & 660' FEL       1         N.F. Larsen       1980' FNL & 660' FEL       1         N.F. Larsen       1980' FSL & 1980' FEL       0         W.E. Hatchett       1980' FSL & 1980' FWL       K         W.E. Hatchett       1980' FSL & 660' FEL       1         Monstate       1980' FSL & 660' FEL       1	Location	STR	Proposed NMGSAU Block Well No.
<ul> <li>660' FSL &amp; 1980' FEL</li> <li>1980' FNL &amp; 660' FEL</li> <li>660' FSL &amp; 1980' FEL</li> <li>1980' FSL &amp; 660' FEL</li> <li>1980' FSL &amp; 1980' FWL</li> <li>1980' FSL &amp; 660' FEL</li> <li>1980' FSL &amp; 660' FEL</li> </ul>	1980' FEL 0	7-19S-37E	1 15
1980' FNL & 660' FEL         660' FSL & 1980' FEL         1980' FSL & 660' FEL	1980' FEL 0	26-19S-36E	8 15
660' FSL & 1980' FEL 1980' FSL & 660' FEL 1980' FSL & 1980' FWL 1980' FNL & 660' FWL 1980' FSL & 660' FEL	660° FEL I	32-19S-37E	16 9
1980' FSL & 660' FEL 1980' FSL & 1980' FWL 1980' FNL & 660' FWL 1980' FSL & 660' FEL	1980' FEL 0	36-19S-36E	16 3
1980' FSL & 1980' FWL 1980' FNL & 660' FWL 1980' FSL & 660' FEL	660' FEL I	3-20S-36E	18 19
1980' FNL & 660' FWL 1980' FSL & 660' FEL	1980' FWL K	33-19S-37E	17 11
		33-19S-37E	17 5
	660' FEL I	13-19S-36E	4 3
Selby Maveety 980' FSL & 1978' FWL K		35-19S-36E	13 11 8

2

## EXHIBIT "B" DIVISION ORDER NO. R-9596 NORTH MONUMENT GRAYBURG SAN ANDRES UNIT INADEQUATELY CEMENTED WELLS

Operator	Lease Name & Well No.	Unit	S-T-R
Amerada Hess	State "F" No. 1	W	36-19S-36E
Amerada Hess	W.A. Weir "B" No. 1	IJ	26-19S-36E
Shell Oil	State "B" No. 1	Э	36-19S-36E
Amerada Hess	State "D" No. 1	D	1-20S-36E
Texaco Inc.	New Mexico "E" State (NCT-1) No. 1	W	1-20S-36E
Mobil	State "A" No. 2	B	2-20S-36E
Mobil	State "A" No. 3	Н	2-20S-36E
Marathon	Elliot State No. 1	7	30-19S-37E
Arco Oil & Gas	J.R. Phillips "A" No. 1	Μ	31-19S-37E
Amerada Hess	J.R. Phillips No. 1	A	1-20S-36E
Texaco Inc.	New Mexico "E" State (NCT-1) No. 2	Ν	1-20S-36E

### EXHIBIT "C" DIVISION ORDER NO. R-95% NORTH MONUMENT GRAYBURG SAN ANDRES UNIT INADEQUATELY PLUGGED AND ABANDONED WELLS

Operator	Lease Name & Well No.	Unit	STR
Chevron USA Inc.	W.A. Wier "A" No. 1	А	35-19S-36E
Arco Oil & Gas	Selby Maveety No. 1Y	N	35-19S-36E
Chevron USA Inc.	Kutter "D" No. 2	E	8-19S-37E
Marathon	State "A" 3071 D Com No. 1	J	28-19S-37E
Aztec Oil & Gas	Burke No. 1	Р	28-19S-37E
Arco Oil & Gas	J.R. Phillips "A" No. 8	М	31-19S-37E
Oro Peso Oil Co.	Weir "A" No. 2	N	3-208-37E
Repollo Oil Co.	E.H. Bolding No. 1	D	10-20S-37E
Amerada Hess	State "V" No. 5	G	36-19S-36E
Ashmun & Hilliard	Ellen Weir No. 1	L	3-20S-37E
Chevron USA Inc.	Elbert Shipp No. 4	С	21-19S-37E
Chi Operating	Cooper No. 1	В	3-20S-37E
Union Texas	State "A" No. 1	E	2-20S-36E
Amerada Hess	State "C" No. 1	K	7-19S-37E
Chevron USA Inc.	F.W. Kutter (NCT-B) No. 3	D	28-19S-37E
Arco Oil & Gas	Crutchfield No. 1	Ι	32-19S-37E
Chevron USA Inc.	Hatchett No. 1	L	33-198-37E
Chevron USA Inc.	W.E. Hatchett No. 2	Е	33-19S-37E
Hartman	Laughlin No. 1	J	5-20S-37E
Texaco Inc.	J.R. Phillips No. 1	D	6-20S-37E
Shell Western	Cooper "B" No. 2	D	4-20S-37E
Shell Western	State "B" No. 5	F	36-19S-36E
Great Western	N.B. Bordages	F	33-19S-37E