

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

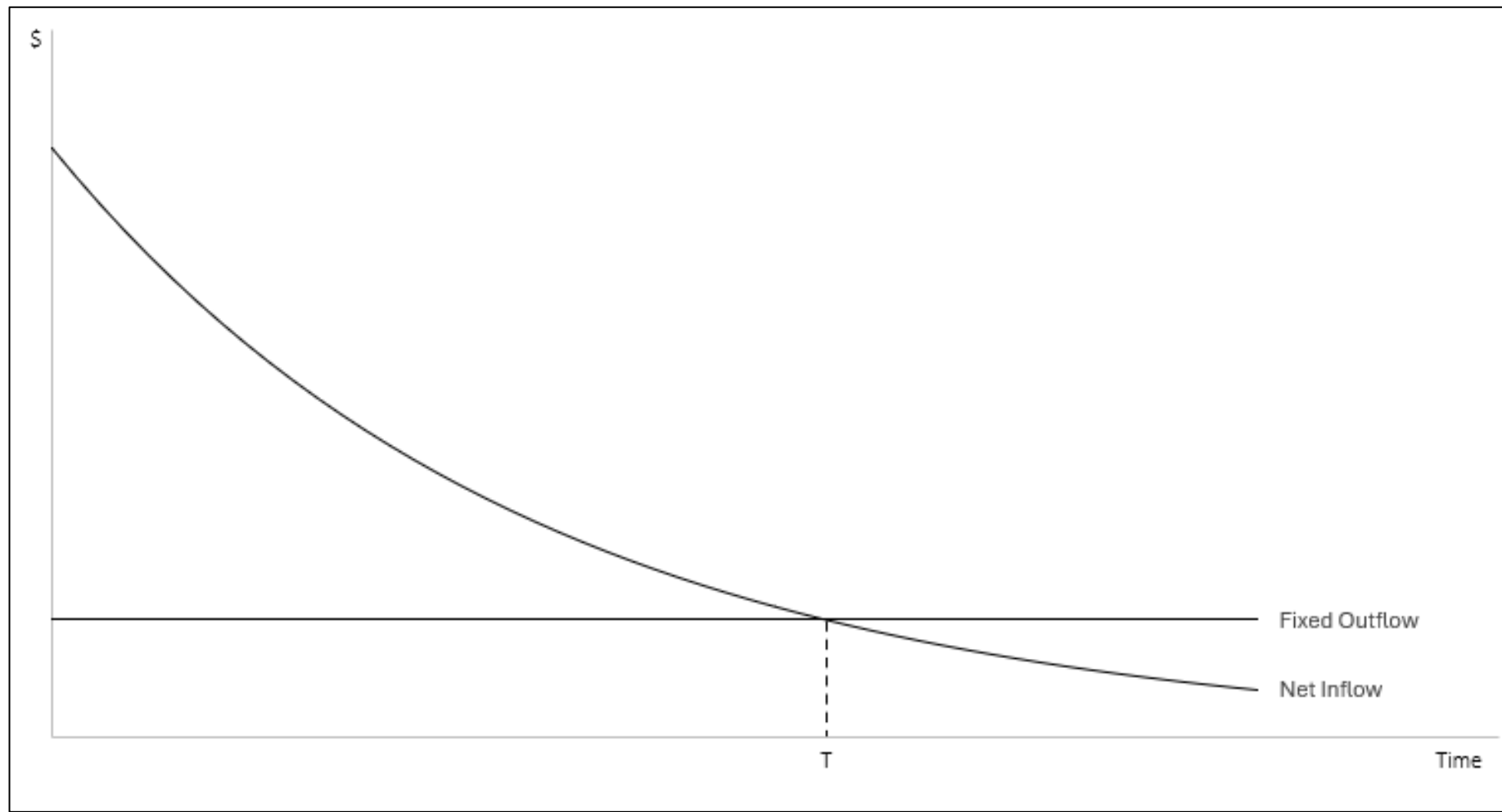
**IN THE MATTER OF PROPOSED
AMENDMENTS TO 19.15.2, 19.15.5,
19.15.8, 19.15.9, AND 19.15.25 NMAC**

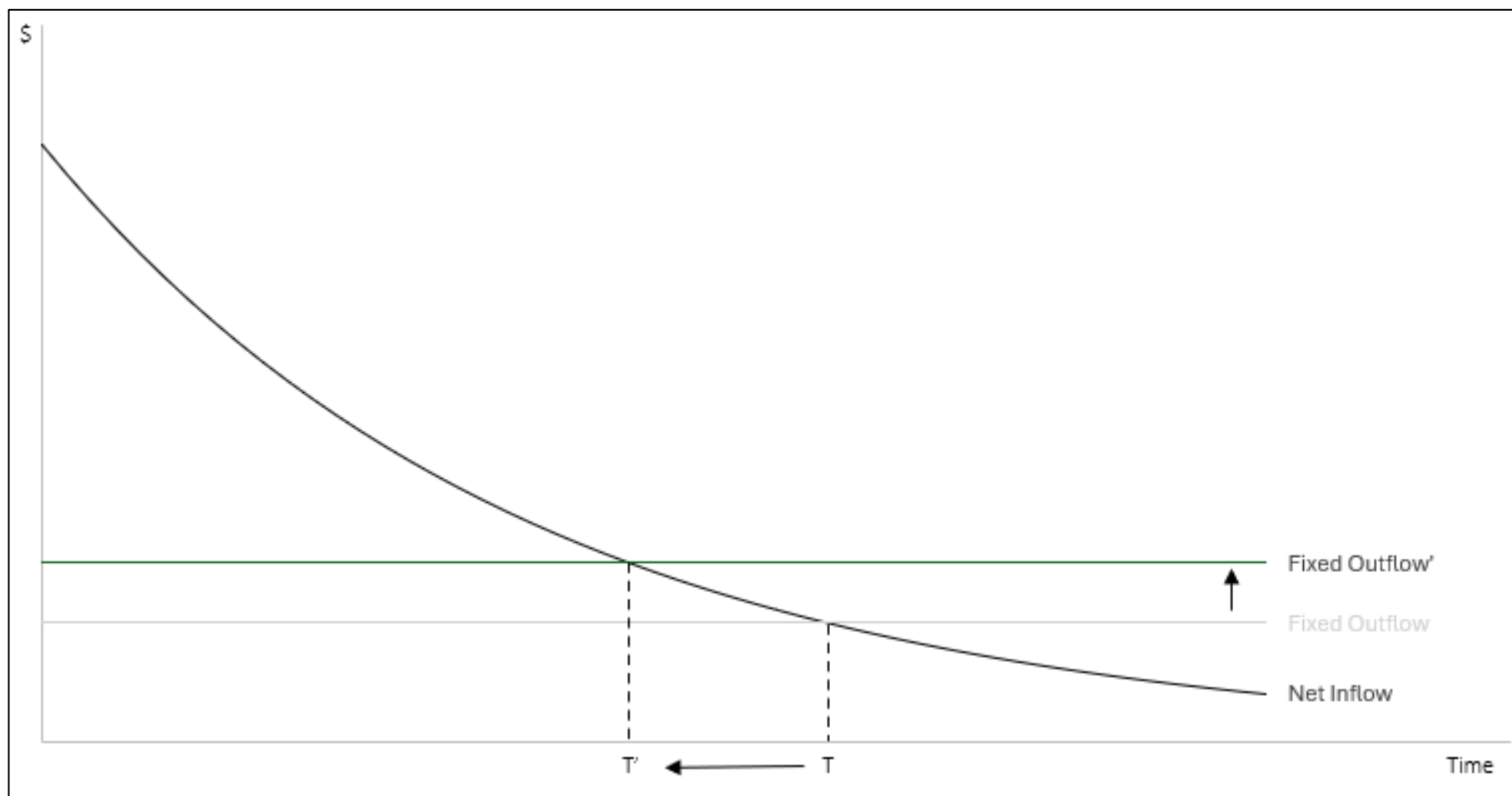
CASE NO. 24683

INDEX TO IPANM EXHIBITS

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1	Graphical Illustration of Net Inflows and Fixed Outflows of a Hypothetical Well Over Time
2	Graphical Illustration of the Timing of Plugging and Abandonment
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5	Graph Depicting the Production of Another Exemplar Well - the Federal G #001 Well
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Exhibit No.	Description
27	LFC Policy Spotlight
28	2025-08-07 Verification of Sonya Mares and attached LFC Meeting Testimony Transcript





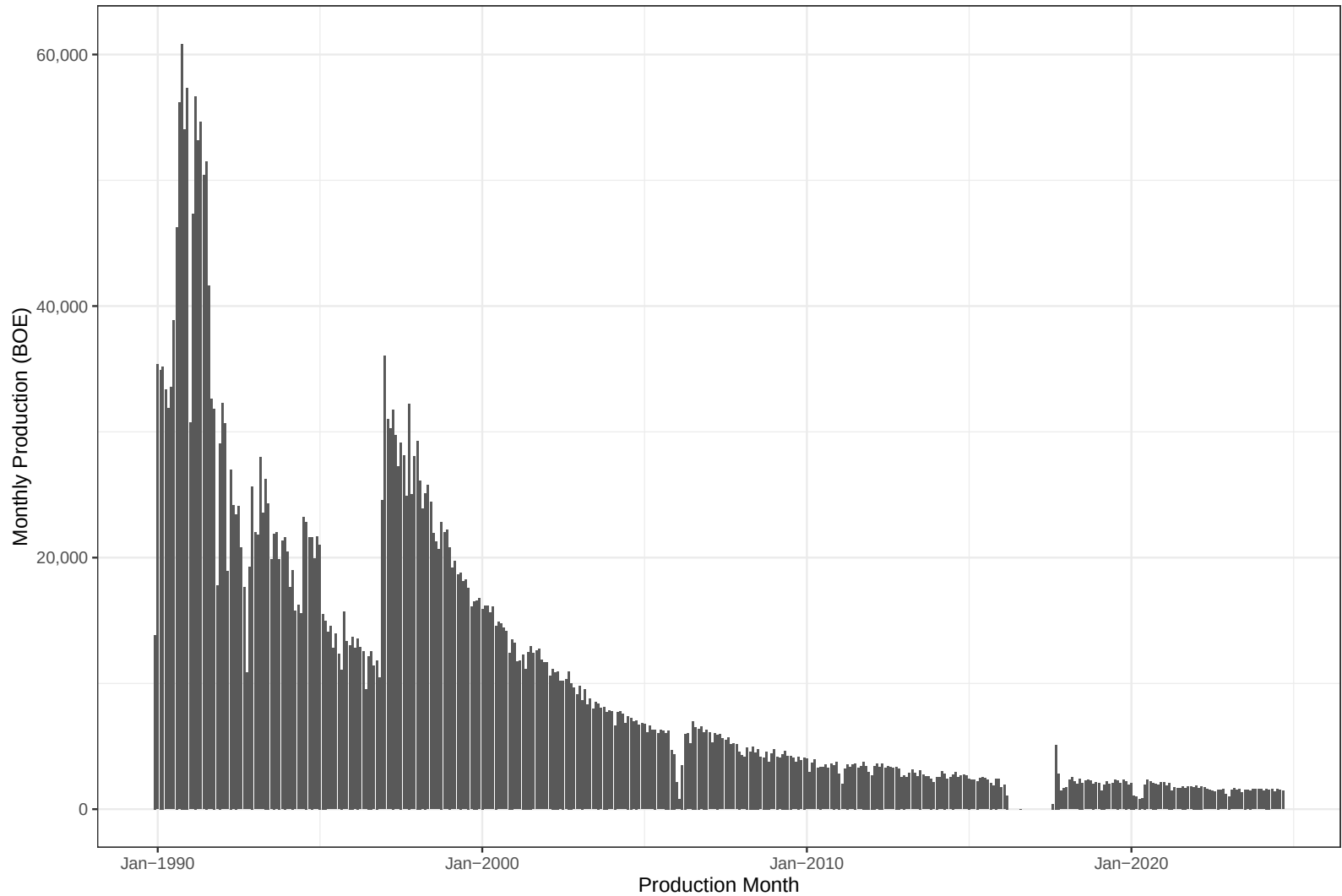
Summary of Current Status of Wells and Their Production Measured in Barrels of Oil Equivalent
between July 2017 through November 2024

Received by OCD: <<08/08/2025>>

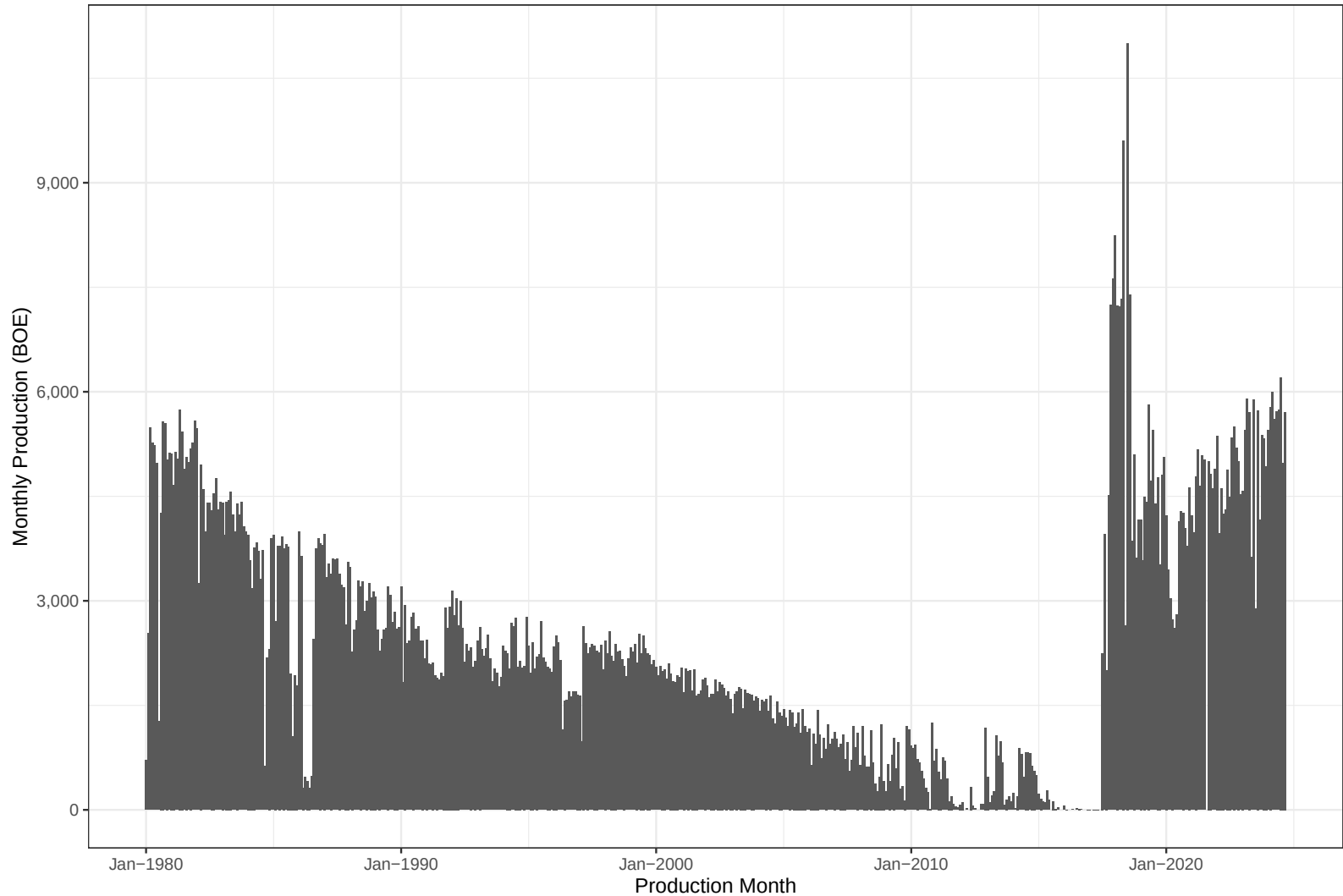
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BOE Production per Well	Total BOE Jul-17 to Nov-24	Number of Wells	Plugged and Abandon	Temp. Abandon	Inactive	Active
0 to 999	418,584	6,260	2,561	146	1,264	2,287
1,000 to 4,999	2,296,674	892	147	5	133	607
5,000 to 9,999	2,564,045	356	30	1	22	303
10,000 to 49,999	5,818,957	309	7	-	15	287
50,000 to 99,999	1,418,270	21	1	-	-	20
>100,000	1,098,463	6	-	-	1	5
Total	13,614,993	7,844	2,746	152	1,435	3,509

SAN JUAN 30 6 UNIT #407

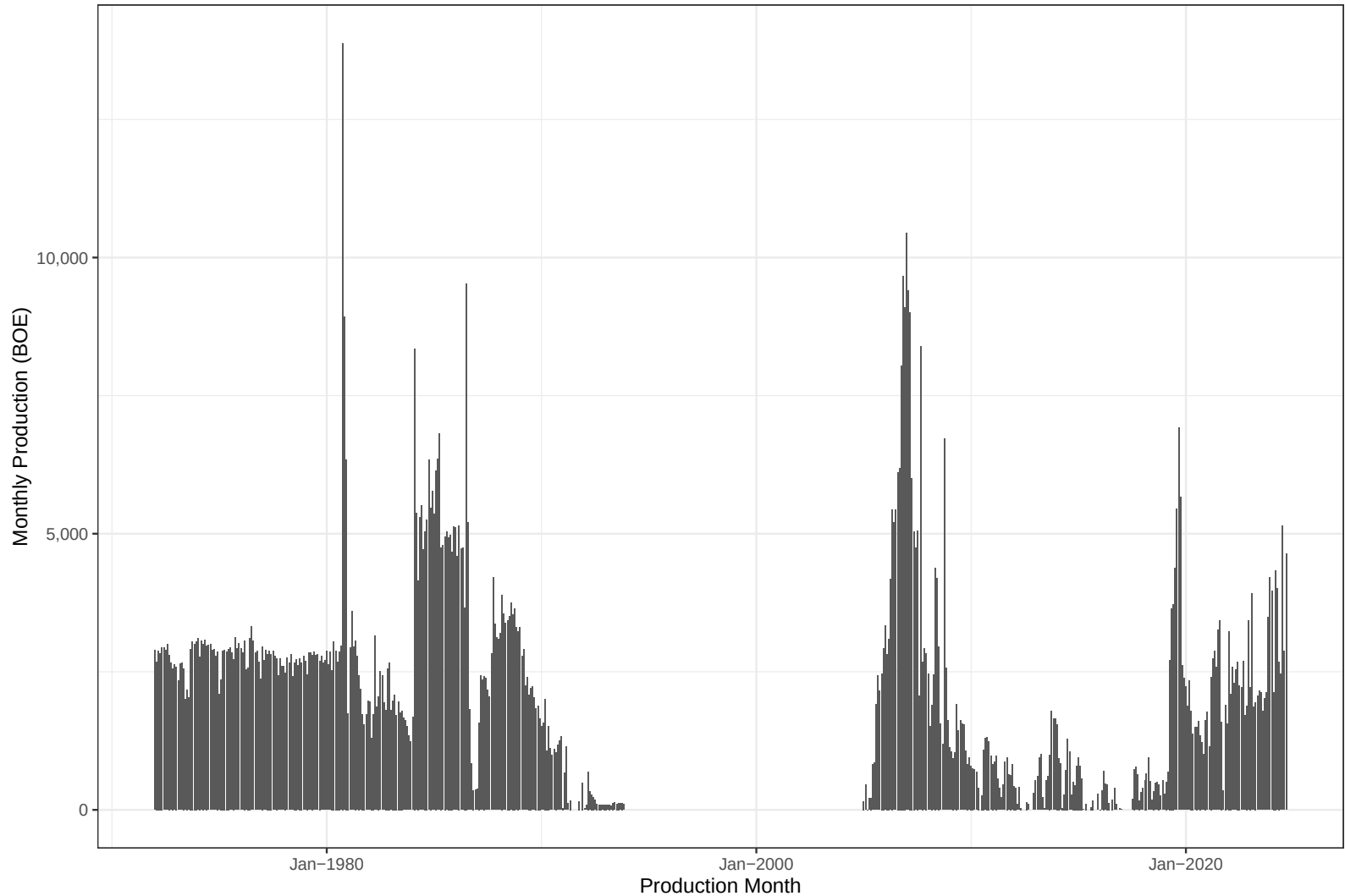


Graph Depicting the Production History of the Federal G #001 Well



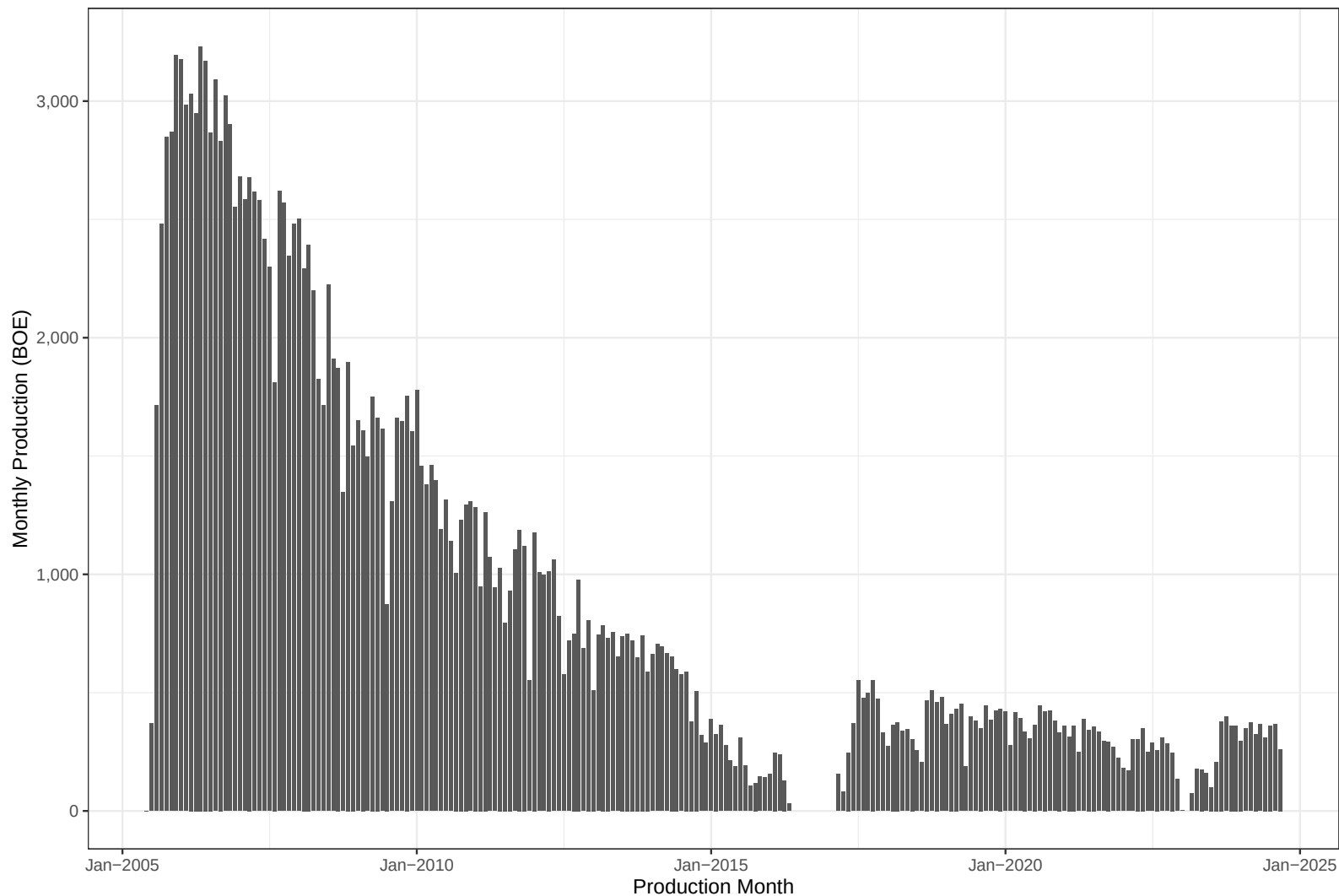
Graph Depicting the Production History of the North Hobbs G/SA Unit #241 Well

NORTH HOBBS G/SA UNIT #241



Production Profile of the Scott #2A Well

SCOTT #002A



Summary of Bonding Analysis

Number of Wells per Operator	Number of Operators	Average Number of Wells per Operator	Average Bond per Well (Existing Rules)	Average Bond per Well (Proposed Rules)
1	61	1	\$39,117	\$150,000
2 to 10	130	5	\$27,836	\$101,163
11 to 50	94	26	\$10,653	\$63,899
51 to 100	32	70	\$5,120	\$51,145
101 to 500	43	228	\$3,092	\$51,965
>500	16	1,730	\$900	\$38,402

Chart Depicting the Magnitude of the Bonding Cost Increase
Under Proposed Rules for Average Single-Well Operator

Received by OCD: <<08/08/2025>>

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Increase in Average Bond Amount per Well	Assumed Bond Required Rate of Return	Increase in Bond Cost per Month	% Increase Assuming LOE of \$1,500	% Increase Assuming LOE of \$2,500	% Increase Assuming LOE of \$5,000
\$110,000	10%	\$917	61%	37%	18%
\$110,000	9%	\$825	55%	33%	17%
\$110,000	8%	\$733	49%	29%	15%
\$110,000	7%	\$642	43%	26%	13%
\$110,000	6%	\$550	37%	22%	11%
\$110,000	5%	\$458	31%	18%	9%
\$110,000	4%	\$367	24%	15%	7%
\$110,000	3%	\$275	18%	11%	6%
\$110,000	2%	\$183	12%	7%	4%
\$110,000	1%	\$92	6%	4%	2%



State of New Mexico
Energy, Minerals and Natural Resources Department



Michelle Lujan Grisham, Governor
Sarah Cottrell Propst, Cabinet Secretary
Todd E. Leahy, JD, PhD, Deputy Cabinet Secretary
Adrienne Sandoval, Oil Conservation Division Director

December 31, 2020

Governor Michelle Lujan Grisham
State Capitol
Santa Fe, NM 87501

Cabinet Secretary
Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

Director Legislative Council Service
411 State Capitol
490 Old Santa Fe Trail
Santa Fe, NM 87501

Re: Annual Report on Use of the Oil Reclamation Fund

Enclosed is the Oil and Gas Reclamation Fund Report for Fiscal Year 2020.

If you have any questions regarding the report or would like additional information, please contact me at 505-231-3316.

Sincerely,

Adrienne Sandoval
Oil Conservation Division Director

Cc: David Abbey, Director, Legislative Finance Committee
Olivia Padilla-Jackson, Cabinet Secretary, Department of Finance and Administration

OIL CONSERVATION DIVISION
OIL AND GAS RECLAMATION FUND REPORT
FISCAL YEAR 2020
(July 1, 2019 – June 30, 2020)

The New Mexico Oil and Gas Act (“Act”) requires the Director of the New Mexico Oil Conservation Division (“OCD”) to prepare an annual report to the Secretary of the Energy, Minerals and Natural Resources Department, the Governor, and the Legislature on the use of the Oil and Gas Reclamation Fund provided by the Act. NMSA 1978, §70-2-38(C). The OCD Director has prepared this report for the fiscal year ending the preceding June 30, 2020.

Sections 70-2-37 and 70-2-38 of the Act create the Oil and Gas Reclamation Fund (“Fund”) and provide for the administration of the Fund. Fund expenditures may be used to plug abandoned wells and to restore and remediate abandoned well sites and associated production facilities. In addition, up to \$150,000 of the Fund may be spent annually to promote energy education in the State. The Fund is supported by a distribution of a portion of the revenues from the oil and gas conservation tax. NMSA 1978, §7-1-6.21.

Section 70-2-14 of the Act allows the OCD to require oil and gas operators to post plugging bonds to ensure performance of their plugging obligations. A well operator may furnish a single-well bond for each of its wells or a blanket bond for all wells on state or fee lands. Oil Conservation Commission regulations specify the formulas for determining bond amounts. 19.5.8 NMAC.

If the OCD must plug or remediate a well, site, or facility, the OCD may foreclose on the operator’s bond and deposit the proceeds into the Fund. NMSA 1978, §70-2-14(B).

The OCD employs independent contractors to perform the plugging, restoration, and remediation work. The contractors who are awarded contracts after a competitive process are oil field service companies specializing in plugging oil and gas wells or companies specializing in environmental cleanups. Wells are chosen to be plugged by their potential to cause harm to human health, underground sources of drinking water, and the environment. These wells must also have completed the regulatory process, where an OCD Hearing Order has been issued, providing the OCD the authority to plug and properly abandon wells.

During Fiscal Year 2020, approximately \$1.89 million was expended from the Fund. Of that \$1.89 million a total of 19 wells were plugged by OCD using the Fund at a total cost of \$600,490.40 (See Table 1), averaging approximately \$31,600 per well that was plugged. In addition, another 6 wells were plugged by OCD in FY 2020 using funds from the U.S. Bureau of Land Management at a cost of \$189,600. The additional approximately \$1.2 million expended out of the Fund was used to support reclamation and compliance work, OCD hearings, and IT infrastructure improvements. These are vital support costs that are critical to the reclamation work that must be performed. Without these items, reclamation work cannot be completed in a timely fashion and the OCD cannot ensure that the reclamation work was appropriately completed. OCD relies heavily on having the most up to date technical information readily

available on tablets that inspectors use in the field. OCD has worked over the past years to update our IT infrastructure to better support the work that we do. These upgrades have positioned the OCD to manage plugging work more effectively and efficiently in the future.

A new Statewide Plugging Agreement has been approved for the 2nd half of FY21 and 30 wells have been sent out for bid. These wells will be plugged in the 3rd quarter of FY21 at an estimated cost of **\$1,050,000**. Another group of 30 are anticipated to be sent out for bids in the 4th quarter of FY21. The wells chosen to be plugged were on an approved "Orphan Well List". The wells came from the abandoned Canyon E&P Company list.

For FY 21, the Legislature also appropriated \$2,000,000 from the Fund for the remediation of the Carlsbad brine well.

The following provides details on the Fund and its uses. These details include an FY20 balance sheet for the Fund and information on the procurement of well plugging, for the fiscal year:

OIL RECLAMATION FUND (See details below)

Beginning Cash Balance @ July 1, 2019	\$6,322,726.49
Oil & Gas Conservation Tax Revenue	\$3,340,307.80
Bond Forfeitures, Salvage and Reimbursement Recoveries	\$ 0.00
Total Revenues:	\$3,340,307.80
Balance:	\$9,663,034.29
Total Expenses Expended directly from the Reclamation Fund:	\$1,885,362.53
Ending Cash Balance @ June 30, 2020:	\$7,777,671.76

Table 1

FY20 EXPENDITURES AND USAGE DETAIL

<u>Well Name</u>	<u>Contractor</u>	<u>Plugging Cost</u>
1. North Shugart Queen Unit #10	J & B Well Service	\$42,815.23
2. North Shugart Queen Unit #11	J & B Well Service	\$42,815.23
3. Artesia Metex Unit #54	J & B Well Service	\$29,183.88
4. Artesia Metex Unit #55	J & B Well Service	\$29,838.85
5. Artesia Metex Unit #56	J & B Well Service	\$29,838.85
6. Artesia Metex Unit #57	J & B Well Service	\$24,985.04
7. Artesia Metex Unit #58	J & B Well Service	\$29,183.88
8. Artesia Metex Unit #59	J & B Well Service	\$24,953.39
9. Artesia Metex Unit #64	J & B Well Service	\$21,298.39
10. Artesia Metex Unit #68	J & B Well Service	\$20,221.29
11. Cato San Andres Unit #191	J & B Well Service	\$34,325.64
12. Cato San Andres Unit #194	J & B Well Service	\$23,527.08
13. Cato San Andres Unit #199	J & B Well Service	\$25,770.91
14. Cato San Andres Unit #201	J & B Well Service	\$41,044.41
15. Cato San Andres Unit #202	J & B Well Service	\$40,075.39
16. Cato San Andres Unit #183	J & B Well Service	\$31,939.61
17. Cato San Andres Unit #189	J & B Well Service	\$35,682.48
18. Cato San Andres Unit #190	J & B Well Service	\$36,434.07
19. Cato San Andres Unit #195	J & B Well Service	\$36,436.78
TOTAL:		\$600,490.40



State of New Mexico
Energy, Minerals and Natural Resources Department



Michelle Lujan Grisham, Governor
Sarah Cottrell Propst, Cabinet Secretary
Todd E. Leahy, JD, PhD, Deputy Cabinet Secretary
Adrienne Sandoval, Oil Conservation Division Director

December 20, 2021

Governor Michelle Lujan Grisham
State Capitol
Santa Fe, NM 87501

Cabinet Secretary
Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

Director Legislative Council Service
411 State Capitol
490 Old Santa Fe Trail
Santa Fe, NM 87501

Re: Annual Report on Use of the Oil Reclamation Fund

Enclosed is the Oil and Gas Reclamation Fund Report for Fiscal Year 2021.

If you have any questions regarding the report or would like additional information, please contact me at 505-231-3316.

Sincerely,

Adrienne Sandoval
Oil Conservation Division Director

Cc: David Abbey, Director, Legislative Finance Committee
Debbie Romero, Cabinet Secretary, Department of Finance and Administration

OIL CONSERVATION DIVISION
OIL AND GAS RECLAMATION FUND REPORT
FISCAL YEAR 2021
(July 1, 2020 – June 30, 2021)

The New Mexico Oil and Gas Act (“Act”) requires the Director of the New Mexico Oil Conservation Division (“OCD”) to prepare an annual report to the Secretary of the Energy, Minerals and Natural Resources Department, the Governor, and the Legislature on the use of the Oil and Gas Reclamation Fund provided by the Act. 70-2-38(C) NMSA 1978. The OCD Director has prepared this report for the fiscal year ending June 30, 2021.

Sections 70-2-37 and 70-2-38 of the Act create the Oil and Gas Reclamation Fund (“Fund”) and provide for its administration. Expenditures from the Fund may be used to survey and plug abandoned wells and to restore and remediate abandoned well sites and associated production facilities. The Fund allows for limited monies to be used for OCD salaries. In addition, the Fund may be spent for costs associated with plugging and remediation activities, such as equipment, and up to \$150,000 annually to promote energy education in the State. The Fund is supported by a distribution of a portion of the revenues from the oil and gas conservation tax. 7-1-6.21 NMSA 1978.

Section 70-2-14 of the Act allows the OCD to require oil and gas operators to post plugging bonds to ensure performance of their plugging obligations. A well operator may furnish a single-well bond for each of its wells or a blanket bond for all wells on state or fee lands. Oil Conservation Commission rules specify the formulas for determining bond amounts. 19.5.8 NMAC. If the OCD must plug or remediate a well, site, or facility, the OCD may foreclose on the operator’s bond and deposit the proceeds into the Fund. 70-2-14(B) NMSA 1978. OCD is also authorized to pursue recovery in state court for costs associated with well site plugging and reclamation. 70-2-38(B) NMSA 1978. When companies become insolvent, or bonding is inadequate the state has to step in to plug and remediate.

For its well plugging and remediation, the OCD employs independent contractors to perform the work. Contractors are awarded contracts after a competitive bidding process consistent with Procurement Code requirements. These contractors are oil field service companies specializing in plugging oil and gas wells and/or companies specializing in environmental cleanups. Wells are chosen to be plugged by their potential to cause harm to human health, underground sources of drinking water, and the environment. Wells to be plugged by the OCD must go through administrative hearing process wherein OCD obtains an order authorizing it to plug and properly abandon such wells.

During Fiscal Year 2021, approximately \$3.38 million was expended from the Fund. Of that, \$2,359,698 million was spent plugging 49 wells.

Additional monies expended from the Fund were used to support programmatic reclamation and compliance work, OCD hearings, and IT infrastructure improvements. These are vital support costs that are critical to the reclamation work OCD performs. Without this support, reclamation

work cannot be completed in a timely fashion and the OCD cannot ensure that any reclamation undertaken was completed properly. For example, before a well is plugged there must be a public hearing and an order issued by the OCD. Additionally, the OCD relies heavily on having the most up to date technical information readily available for field inspectors reviewing work that has been completed. OCD has worked diligently this most recent year, as it has in years past, to update IT infrastructure to support OCD well plugging. This program support has positioned the OCD to manage plugging work more effectively and efficiently in the future.

Finally, in FY21, the Legislature appropriated a one-time amount of \$2 million dollars from the Fund for the Carlsbad brine well remediation for use in FY21 through FY23. Of this, \$26,624.84 was expended in FY21. The remaining balance will be expended in FY22 consistent with existing contracts for that work.

The following provides details on the Fund and its uses. These details include an FY21 balance sheet for the Fund and information on the procurement of well plugging for the fiscal year:

OIL RECLAMATION FUND (See details below)

Beginning Cash Balance on July 1, 2020	\$7,777,671.76
Oil & Gas Conservation Tax Revenue	\$4,656,337.11
Bond Forfeitures, Salvage and Reimbursement Recoveries	\$ 0.00
Total Revenues:	\$ 4,656,337.11
Balance:	\$12,434,008.87
Total Expenses from the Reclamation Fund:	\$3,361,328.87
Ending Cash Balance @ June 30, 2021:	\$9,072,680.00



State of New Mexico
Energy, Minerals and Natural Resources Department



Michelle Lujan Grisham, Governor
Sarah Cottrell Propst, Cabinet Secretary
Todd E. Leahy, JD, PhD, Deputy Cabinet Secretary
Adrienne Sandoval, Oil Conservation Division Director

December 27, 2022

Governor Michelle Lujan Grisham
State Capitol
Santa Fe, NM 87501

Cabinet Secretary
Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

Director Legislative Council Service
411 State Capitol
490 Old Santa Fe Trail
Santa Fe, NM 87501

Re: Annual Report on Use of the Oil and Gas Reclamation Fund

Enclosed is the Oil and Gas Reclamation Fund Report for Fiscal Year 2022.

If you have any questions regarding the report or would like additional information, please contact me at 505-231-3316.

Sincerely,

Adrienne Sandoval
Oil Conservation Division Director

Cc: David Abbey, Director, Legislative Finance Committee
Debbie Romero, Cabinet Secretary, Department of Finance and Administration

OIL CONSERVATION DIVISION
OIL AND GAS RECLAMATION FUND REPORT
FISCAL YEAR 2022
(July 1, 2021 – June 30, 2022)

The New Mexico Oil and Gas Act (“Act”) requires the Director of the New Mexico Oil Conservation Division (“OCD”) to prepare an annual report to the Secretary of the Energy, Minerals and Natural Resources Department, the Governor, and the Legislature on the use of the Oil and Gas Reclamation Fund. 70-2-38(C) NMSA 1978. This report is for fiscal year 2022, which ran from July 1, 2021 through June 30, 2022.

Sections 70-2-37 and 70-2-38 of the Act create the Oil and Gas Reclamation Fund (the “Fund”) and provide for its administration. Under the Act, monies in the Fund, subject to legislative appropriation, may be used to survey and plug abandoned wells and to restore and remediate abandoned well sites and associated production facilities. The Fund also allows for limited monies to be used for OCD salaries, for costs associated with plugging and remediation equipment, and up to \$150,000 annually to promote energy education in the State. The Fund is supported by a distribution of a portion of the revenues from the oil and gas conservation tax. 7-1-6.21 NMSA 1978.

Section 70-2-14 of the Act allows the OCD to require oil and gas operators to post plugging bonds to ensure performance of their well plugging obligations. An operator may furnish a single-well bond for each of its wells or a blanket bond for all wells on state or private lands. Oil Conservation Commission rules specify the formulas for determining bond amounts in 19.5.8 NMAC. If the OCD steps in to plug or remediate a well, site, or facility in lieu of an operator, the OCD may foreclose on the operator’s bond and deposit the proceeds into the Fund. 70-2-14(B) NMSA 1978. OCD is also authorized to pursue recovery in state court for costs associated with well site plugging and reclamation from the responsible operator. 70-2-38(B) NMSA 1978. The OCD steps to plug and remediate a well when companies become insolvent, bonding is inadequate, or an operator abandons a well.

For its well plugging and remediation, the OCD employs independent contractors to perform the work. Contracts are awarded after a competitive bidding process consistent with Procurement Code requirements. These contractors are oil field service companies specializing in plugging oil and gas wells and/or companies specializing in environmental cleanups. Wells are prioritized to be plugged by their potential to cause harm to human health, underground sources of drinking water, and the environment. In order for a well to be plugged by the OCD, a well must first go through an administrative hearing process wherein OCD obtains an administrative order authorizing it to plug and abandon the well consistent with applicable requirements.

During Fiscal Year 2022, \$4,462,054.85 was expended from the Fund. Of that, the Legislature made a one-time appropriation of \$2 million dollars from the Fund for the Carlsbad brine well remediation project for use in FY21 through FY23. In FY22, the remaining amount available, \$1,973,375.14, was expended on the Carlsbad brine well remediation project. Additionally, \$1,788,941.23 was spent plugging and reclaiming 27 wells and an associated facility.

Additional monies expended from the Fund were used to support programmatic reclamation and compliance work, OCD hearings and IT infrastructure improvements to support the plugging and remediation of orphaned sites and research to better understand geologic formations and aquifers to ensure proper environmental protection during plugging. These are vital support costs that are critical to the reclamation work OCD performs. Without this support, reclamation work cannot be completed in a timely fashion and the OCD cannot ensure that any reclamation undertaken was completed properly. For example, before a well is plugged there must be a public hearing and an order issued by the OCD. Additionally, the OCD relies heavily on having the most up to date technical information readily available for field inspectors who are reviewing work that has been completed. OCD has worked diligently to continue to make updates to IT infrastructure to support OCD well plugging. This program support has positioned the OCD to manage plugging work more effectively and efficiently in the future, which is enabling it to, among other things, efficiently utilize the grant funding made available under the Bipartisan Infrastructure Law.

The following provides details on the Fund and its uses. These details include an FY22 balance sheet for the Fund and information on the procurement of well plugging for the fiscal year:

OIL RECLAMATION FUND (See details below)

Beginning Cash Balance on July 1, 2021	\$9,073,219.68
Oil & Gas Conservation Tax Revenue	\$22,222,631.48
Bond Forfeitures, Salvage and Reimbursement Recoveries	\$ 161,250.00
Total Revenues:	\$ 22,383,881.48
Balance:	\$31,457,101.16
Total Expenses from the Reclamation Fund:	\$4,462,054.85
Ending Cash Balance @ June 30, 2022:	\$26,995,046.31

Attachment A – Wells plugged in FY22 using Reclamation Funds

Fiscal Year	Well Name	API #
2022	Cato San Andres Unit #041	30-005-20047
2022	Cato San Andres Unit #042	30-005-20089
2022	Cato San Andres Unit #044	30-005-20004
2022	Cato San Andres Unit #061	30-005-20005
2022	Cato San Andres Unit #064	30-005-20028
2022	Cato San Andres Unit #302	30-005-21163
2022	Cato San Andres Unit #330	30-005-21165
2022	Cato San Andres Unit #063	30-005-20049
2022	Cato San Andres Unit #328	30-005-21164
2022	Cato San Andres Unit #017	30-005-10501
2022	Cato San Andres Unit #001	30-005-10584
2022	Cato San Andres Unit #002	30-005-20932
2022	Cato San Andres Unit #031	30-005-20170
2022	Cato San Andres Unit #032	30-005-10522
2022	Cato San Andres Unit #046	30-005-10538
2022	Cato San Andres Unit #045	30-005-20130
2022	Cato San Andres Unit #059	30-005-10570
2022	Cato San Andres Unit #060	30-005-10571
2022	Cato San Andres Unit #058	30-005-10500
2022	Cato San Andres Unit #047	30-005-10578
2022	Cato San Andres Unit #050	30-005-29021
2022	Cato San Andres Unit #027	30-005-10491
2022	Cato San Andres Unit #049	30-005-10455
2022	Cato San Andres Unit #028	30-005-10503
2022	Cato San Andres Unit #020	30-005-10504
2022	Cato San Andres Unit #081	30-005-10572
2022	Cato San Andres Unit #051	30-005-10539

Michelle Lujan Grisham
Governor

Dylan Fuge
Deputy Cabinet Secretary
and Acting Director, Oil Conservation Division



January 23, 2024

Governor Michelle Lujan Grisham
490 Old Santa Fe Trail, Room 400
Santa Fe, New Mexico 87501

Cabinet Secretary
Energy, Minerals & Natural Resources Department
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Raul Burciaga, Director
Legislative Council Service
490 Old Santa Fe Trail, Room 411
Santa Fe, New Mexico 87501

RE: Annual Report on Use of the Oil & Gas Reclamation Fund

Enclosed is the Oil & Gas Reclamation Fund Report for Fiscal Year 2023. Given the influx of federal dollars under the Bipartisan Infrastructure Law and the requirement that OCD expend its twenty-five million dollar initial grant within two years, OCD has been prioritizing plugging with those federal funds in the prior fiscal year. Wells plugged with federal funds are not reported in the attached report.

If you have any questions regarding the report or would like additional information, please feel free to contact me at (505) 476-3200 or by email at dylan.fuge@emnrd.nm.gov.

Respectfully,

Dylan Fuge
Deputy Cabinet Secretary, EMNRD

cc: Charles Sallee, Director, Legislative Finance Committee
Wayne Propst, Cabinet Secretary, Department of Finance and Administration

**OIL CONSERVATION DIVISION
OIL & GAS RECLAMATION FUND REPORT
FISCAL YEAR 2023
(July 1, 2022 – June 30, 2023)**

The New Mexico Oil and Gas Act (“Act”) requires the Director of the New Mexico Oil Conservation Division (“OCD”) to prepare an annual report to the Secretary of the Energy, Minerals and Natural Resources Department, the Governor, and the Legislature on the use of the Oil and Gas Reclamation Fund. 70-2-38(C) NMSA 1978. This report is for fiscal year 2023, which ran from July 1, 2022 through June 30, 2023.

Sections 70-2-37 and 70-2-38 of the Act create the Oil and Gas Reclamation Fund (“Fund”) and provide for its administration. Under the Act, monies in the Fund, subject to legislative appropriation, may be used to survey and plug abandoned wells and to restore and remediate abandoned well sites and associated production facilities. The Fund also allows for limited monies to be used for OCD salaries, for costs associated with plugging and remediation equipment, and up to \$150,000 annually to promote energy education in the State. The Fund is supported by a distribution of a portion of the revenues from the oil and gas conservation tax. 7-1-6.21 NMSA 1978.

Section 70-2-14 of the Act allows the OCD to require oil and gas operators to post plugging bonds to ensure performance of their well plugging obligations. An operator may furnish a single-well bond for each of its wells or a blanket bond for all wells on state or private lands. Oil Conservation Commission rules specify the formulas for determining bond amounts in 19.5.8 NMAC. If the OCD steps in to plug or remediate a well, site, or facility in lieu of an operator, the OCD may foreclose on all or part of the operator’s bond and deposit the proceeds into the Fund. 70-2-14(B) NMSA 1978. The OCD is also authorized to pursue recovery in state court for costs associated with well site plugging and reclamation from the responsible operator. 10-2-38(B) NMSA 1978. The OCD steps in to plug and remediate wells when companies become insolvent, bonding is inadequate, or an operator abandons a well.

For its well plugging and remediation, the OCD employs independent contractors to perform the work. Purchase orders are issued to pre-qualified contractors under a General Services Department- approved price agreement or after a competitive bidding process, both consistent with Procurement Code requirements. These contractors are oilfield service companies specializing in plugging oil and gas wells and/or companies specializing in environmental cleanups. Wells are prioritized for plugging by their potential to cause harm to human health, underground sources of drinking water, and the environment. In order for a well to be plugged by the OCD, it must first go through an administrative hearing process wherein the OCD obtains an administrative order authorizing it to plug and abandon the well consistent with applicable requirements in 19.15.25 NMAC.

During Fiscal Year 2023, \$3,030,666.66 was expended from the Fund. Of that, \$2,235,241.99 was spent plugging 13 abandoned wells. The balance of Reclamation Fund expenditures were made in support of the plugging of abandoned wells and the restoration of associated facilities.

The following provides details on the Fund and its usage.

OIL RECLAMATION FUND

Beginning Cash Balance on July 1, 2022	\$26,995,046.31
Oil & Gas Conservation Tax Revenue	\$26,933,678.40
Bond Forfeitures and Reimbursements	\$0.00
Total Revenues	\$26,933,678.40
Balance	\$53,928,724.71
Total Expenses from the Reclamation Fund	\$3,030,666.66
Ending Cash Balance on June 30, 2023	\$50,898,058.05

WELLS PLUGGED IN FY23 USING RECLAMATION FUNDS

<u>Well Name</u>	<u>API#</u>
Twin Lakes San Andres Unit #032	30-005-60795
Twin Lakes San Andres Unit #041	30-005-60768
Twin Lakes San Andres Unit #012	30-005-60578
Twin Lakes San Andres Unit #011	30-005-60563
Twin Lakes San Andres Unit #010	30-005-60571
Twin Lakes San Andres Unit #005	30-005-60572
Twin Lakes San Andres Unit #048	30-005-60697
Twin Lakes San Andres Unit #034	30-005-60033
Twin Lakes San Andres Unit #006	30-005-60596
Twin Lakes San Andres Unit #030	30-005-60595
Lawton State #001	30-025-07119
Shelly 36 State #006	30-025-36464
New Mexico 36 State #001	30-025-36485

A.A.P.L. FORM 610
MODEL FORM OPERATING AGREEMENT—1956
Non-Federal Lands

OPERATING AGREEMENT

DATED

_____, 19____,

FOR UNIT AREA IN TOWNSHIP_____, RANGE_____

_____ COUNTY, STATE OF_____

AMERICAN ASSOCIATION OF PETROLEUM LANDMEN
APPROVED FORM. A.A.P.L. NO. 610
MAY BE ORDERED DIRECTLY FROM THE PUBLISHER
KRAFTBILT PRODUCTS, BOX 800, TULSA 74101

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A.A.P.L. FORM 610

OPERATING AGREEMENT

THIS AGREEMENT, entered into this _____ day of _____, 19____, between _____,

hereafter designated as "Operator", and the signatory parties other than Operator.

WITNESSETH, THAT:

WHEREAS, the parties to this agreement are owners of oil and gas leases covering and, if so indicated, unleased mineral interests in the tracts of land described in Exhibit "A", and all parties have reached an agreement to explore and develop these leases and interests for oil and gas to the extent and as hereinafter provided;

NOW, THEREFORE, it is agreed as follows:

1. DEFINITIONS

As used in this agreement, the following words and terms shall have the meanings here ascribed to them.

- (1) The words "party" and "parties" shall always mean a party, or parties, to this agreement.
- (2) The parties to this agreement shall always be referred to as "it" or "they", whether the parties be corporate bodies, partnerships, associations, or persons real.
- (3) The term "oil and gas" shall include oil, gas, casinghead gas, gas condensate, and all other liquid or gaseous hydrocarbons, unless an intent to limit the inclusiveness of this term is specifically stated.
- (4) The term "oil and gas interests" shall mean unleased fee and mineral interests in tracts of land lying within the Unit Area which are owned by parties to this agreement.
- (5) The term "Unit Area" shall refer to and include all of the lands, oil and gas leasehold interests and oil and gas interests intended to be developed and operated for oil and gas purposes under this agreement. Such lands, oil and gas leasehold interests and oil and gas interests are described in Exhibit "A".
- (6) The term "drilling unit" shall mean the area fixed for the drilling of one well by order or rule of any state or federal body having authority. If a drilling unit is not fixed by any such rule or order, a drilling unit shall be the drilling unit as established by the pattern of drilling in the Unit Area or as fixed by express agreement of the parties.
- (7) All exhibits attached to this agreement are made a part of the contract as fully as though copied in full in the contract.
- (8) The words "equipment" and "materials" as used here are synonymous and shall mean and include all oil field supplies and personal property acquired for use in the Unit Area.

2. TITLE EXAMINATION, LOSS OF LEASES AND OIL AND GAS INTERESTS**A. Title Examination:**

Each party other than Operator shall promptly submit to Operator abstracts certified from beginning to recent date, together with all title papers in its possession covering leases and oil and gas interests which it is subjecting to this contract. All of these abstracts and title records shall be examined for the benefit of all parties by Operator's attorneys.

Operator shall promptly submit abstracts certified from beginning to recent date, together with all title papers in its possession covering leases and oil and gas interests which it is subjecting to this agreement, to _____ for examination by the latter's attorney for the benefit of all parties.

All title examinations shall be made without charge. Each examining attorney shall prepare a complete title report on each separate tract based upon the abstract record and title papers submitted to him. Each title report shall contain a list of fee owners and their interests, shall state the attorney's opinion concerning validity of their interests, and shall contain an enumeration and description of title defects, if any, a report upon mortgages, taxes, pending suits, and judgments, and unreleased oil and gas leases, and a list of requirements, if any, upon which the examiner's approval of title to the lease or oil and gas interest is contingent. The title report shall also contain a specific description of the oil and gas lease being subjected to this contract, with a statement of its form, term (which will be satisfactory if it has a primary term expiring not sooner than _____), amount of royalty, status of delay rental payments, and unusual drilling

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obligations and of excess royalty, oil payments, and other special burdens. A copy of each title opinion, and of each supplemental opinion, and of all final opinions, shall be sent promptly to each party. The opinion of the examining attorney concerning the validity of the title to each oil and gas interest and each lease, and the amount of interest covered thereby shall be binding and conclusive on the parties, but the acceptability of leases as to primary term, royalty provisions, drilling obligations, and special burdens, shall be a matter for approval and acceptance by an authorized representative of each party.

All title examinations shall be made, and title reports submitted, within a period of _____ days after the submission of abstracts and title papers. Each party shall, in good faith, try to satisfy the requirements of the examining attorneys concerning its leases and interests, and each shall have a period of _____ days from receipt of title report for this purpose. If the title to any lease, or oil and gas interest, is finally rejected by the examining attorney, all parties shall then be asked to state in writing whether they will waive the title defects and accept the leases or interests, or whether they will stand on the attorney's opinion. If one or more parties refuse to waive title defects, this agreement shall, in that case, be terminated and abandoned, and all abstracts and title papers shall be returned to their senders. If all titles are approved by the examining attorneys, or are accepted by all parties, and if all leases are accepted as to primary terms, royalty provisions, drilling obligations and special burdens, all subsequent provisions of this agreement shall become operative immediately, and the parties shall proceed to their performance as they are hereinafter stated.

B. Failure of Title:

After all titles are approved or accepted, any defects of title that may develop shall be the joint responsibility of all parties and, if a title loss occurs, it shall be the loss of all parties, with each bearing its proportionate part of the loss and of any liabilities incurred in the loss. If such a loss occurs, there shall be no change in, or adjustment of, the interests of the parties in the remaining portion of the Unit Area.

C. Loss of Leases For Other Than Title Failure:

If any lease or interest subject to this agreement be lost through failure to develop or because express or implied covenants have not been performed, or if any lease be permitted to expire at the end of its primary term and not be renewed or extended, the loss shall not be considered a failure of title and all such losses shall be joint losses and shall be borne by all parties in proportion to their interests and there shall be no readjustment of interests in the remaining portion of the Unit Area.

3. UNLEASED OIL AND GAS INTERESTS

If any party owns an unleased oil and gas interest in the Unit Area, that interest shall be treated for the purpose of this agreement as if it were a leased interest under the form of oil and gas lease attached as Exhibit "B" and for the primary term therein stated. As to such interests, the owner shall receive royalty on production as prescribed in the form of oil and gas lease attached hereto as Exhibit "B". Such party shall, however, be subject to all of the provisions of this agreement relating to lessees, to the extent that it owns the lessee interest.

4. INTERESTS OF PARTIES

Exhibit "A" lists all of the parties, and their respective percentage or fractional interests under this agreement. Unless changed by other provisions, all costs and liabilities incurred in operations under this contract shall be borne and paid, and all equipment and material acquired in operations on the Unit Area shall be owned, by the parties as their interests are given in Exhibit "A". All production of oil and gas from the Unit Area, subject to the payment of lessor's royalties, shall also be owned by the parties in the same manner.

If the interest of any party in any oil and gas lease covered by this agreement is subject to an overriding royalty, production payment, or other charge over and above the usual one-eighth ($\frac{1}{8}$) royalty, such party shall assume and alone bear all such excess obligations and shall account for them to the owners thereof out of its share of the working interest production of the Unit Area.

5. OPERATOR OF UNIT

_____ shall be the Operator of the Unit Area, and shall conduct and direct and have full control of all operations on the Unit Area as permitted and required by, and within the limits of, this agreement. It shall conduct all such operations in a good and workmanlike manner, but it shall have no liability as Operator to the other parties for losses sustained, or liabilities incurred, except such as may result from gross negligence or from breach of the provisions of this agreement.

6. EMPLOYEES

The number of employees and their selection, and the hours of labor and the compensation for services performed, shall be determined by Operator. All employees shall be the employees of Operator.

7. TEST WELL

On or before the _____ day of _____, 19____, Operator shall commence the drilling of a well for oil and gas in the following location:

and shall thereafter continue the drilling of the well with due diligence to

unless granite or other practically impenetrable substance is encountered at a lesser depth or unless all parties agree to complete the well at a lesser depth.

Operator shall make reasonable tests of all formations encountered during drilling which give indication of containing oil and gas in quantities sufficient to test, unless this agreement shall be limited in its application to a specific formation or formations, in which event Operator shall be required to test only the formation or formations to which this agreement may apply.

If in Operator's judgment the well will not produce oil or gas in paying quantities, and it wishes to plug and abandon the test as a dry hole, it shall first secure the consent of all parties to the plugging, and the well shall then be plugged and abandoned as promptly as possible.

8. COSTS AND EXPENSES

Except as herein otherwise specifically provided, Operator shall promptly pay and discharge all costs and expenses incurred in the development and operation of the Unit Area pursuant to this agreement and shall charge each of the parties hereto with their respective proportionate shares upon the cost and expense basis provided in the Accounting Procedure attached hereto and marked Exhibit "C". If any provision of Exhibit "C" should be inconsistent with any provision contained in the body of this agreement, the provisions in the body of this agreement shall prevail.

Operator, at its election, shall have the right from time to time to demand and receive from the other parties payment in advance of their respective shares of the estimated amount of the costs to be incurred in operations hereunder during the next succeeding month, which right may be exercised only by submission to each such party of an itemized statement of such estimated costs, together with an invoice for its share thereof. Each such statement and invoice for the payment in advance of estimated costs shall be submitted on or before the 20th day of the next preceding month. Each party shall pay to Operator its proportionate share of such estimate within fifteen (15) days after such estimate and invoice is received. If any party fails to pay its share of said estimate within said time, the amount due shall bear interest at the rate of six percent (6%) per annum until paid. Proper adjustment shall be made monthly between advances and actual cost, to the end that each party shall bear and pay its proportionate share of actual costs incurred, and no more.

9. OPERATOR'S LIEN

Operator is given a first and preferred lien on the interest of each party covered by this contract, and in each party's interest in oil and gas produced and the proceeds thereof, and upon each party's interest in material and equipment, to secure the payment of all sums due from each such party to Operator.

In the event any party fails to pay any amount owing by it to Operator as its share of such costs and expense or such advance estimate within the time limited for payment thereof, Operator, without prejudice to other existing remedies, is authorized, at its election, to collect from the purchaser or purchasers of oil or gas, the proceeds accruing to the working interest or interests in the Unit Area of the delinquent party up to the amount owing by such party, and each purchaser of oil or gas is authorized to rely upon Operator's statement as to the amount owing by such party.

In the event of the neglect or failure of any non-operating party to promptly pay its proportionate part of the cost and expense of development and operation when due, the other non-operating parties and Operator, within thirty (30) days after the rendition of statements therefor by Operator, shall proportionately contribute to the payment of such delinquent indebtedness and the non-operating parties so contributing shall be entitled to the same lien rights as are granted to Operator in this section. Upon the payment by such delinquent or defaulting party to Operator of any amount or amounts on such delinquent indebtedness, or upon any recovery on behalf of the non-operating parties under the lien conferred above, the amount or amounts so paid or recovered shall be distributed and paid by Operator to the other non-operating parties and Operator proportionately in accordance with the contributions theretofore made by them.

10. TERM OF AGREEMENT

This agreement shall remain in full force and effect for as long as any of the oil and gas leases subjected to this agreement remain or are continued in force as to any part of the Unit Area, whether by production, extension, renewal or otherwise; provided, however, that in the event the first well drilled hereunder results in a dry hole and no other well is producing oil or gas in paying quantities from the Unit Area, then at the end of ninety (90) days after abandonment of the first test well, this agreement shall terminate unless one or more of the parties are then engaged in drilling a well or wells pursuant to Section 12 hereof, or all parties have agreed to drill an additional well or wells under this agreement, in which event this agreement shall continue in force until such well or wells shall have been drilled and completed. If production results therefrom this agreement shall continue in force thereafter as if said first test well had been productive in paying quantities, but if production in paying quantities does not result therefrom this agreement shall terminate at the end of ninety (90) days after abandonment of such well or wells. It is agreed, however, that the termination of this agreement shall not relieve any party hereto from any liability which has accrued or attached prior to the date of such termination.

11. LIMITATION ON EXPENDITURES

Without the consent of all parties: (a) No well shall be drilled on the Unit Area except any well expressly provided for in this agreement and except any well drilled pursuant to the provisions of Section 12 of this agreement, it being understood that the consent to the drilling of a well shall include consent to all necessary expenditures in the drilling, testing, completing, and equipping of the well, including necessary tankage; (b) No well shall be reworked, plugged back or deepened except a well reworked, plugged back or deepened pursuant to the provisions of Section 12 of this agreement, it being understood that the consent to the reworking, plugging back or deepening of a well shall include consent to all necessary expenditures in conducting such operations and completing and equipping of said well to produce, including necessary tankage; (c) Operator shall not undertake any single project reasonably estimated to require an expenditure in excess of _____ Dollars (\$_____) except in connection with a well the drilling, reworking, deepening, or plugging back of which has been previously authorized by or pursuant to this agreement; provided, however, that in case of explosion, fire, flood, or other sudden emergency, whether of the same or different nature, Operator may take such steps and incur such expenses as in its opinion are required to deal with the emergency and to safeguard life and property, but Operator shall, as promptly as possible, report the emergency to the other parties. Operator shall, upon request, furnish copies of its "Authority for Expenditures" for any single project costing in excess of \$_____.

12. OPERATIONS BY LESS THAN ALL PARTIES

If all the parties cannot mutually agree upon the drilling of any well on the Unit Area other than the test well provided for in Section 7, or upon the reworking, deepening or plugging back of a dry hole drilled at the joint expense of all parties or a well jointly owned by all the parties and not then producing in paying quantities on the Unit Area, any party or parties wishing to drill, rework, deepen or plug back such a well may give the other parties written notice of the proposed operation, specifying the work to be performed, the location, proposed depth, objective formation and the estimated cost of the operation. The parties receiving such a notice shall have thirty (30) days (except as to reworking, plugging back or drilling deeper, where a drilling rig is on location, the period shall be limited to forty-eight (48) hours exclusive of Saturday or Sunday) after receipt of the notice within which to notify the parties wishing to do the work whether they elect to participate in the cost of the proposed operation. Failure of a party receiving such a notice to so reply to it within the period above fixed shall constitute an election by that party not to participate in the cost of the proposed operation.

If any party receiving such a notice elects not to participate in the proposed operation (such party or parties being hereafter referred to as "Non-Consenting Party"), then in order to be entitled to the benefits of this section, the party or parties giving the notice and such other parties as shall elect to participate in the operation (all such parties being hereafter referred to as the "Consenting Parties") shall, within thirty (30) days after the expiration of the notice period of thirty (30) days (or as promptly as possible after the expiration of the 48-hour period where the drilling rig is on location, as the case may be) actually commence work on the proposed operation and complete it with due diligence.

The entire cost and risk of conducting such operations shall be borne by the Consenting Parties in the proportions that their respective interests as shown in Exhibit "A" bear to the total interests of all Consenting Parties. Consenting Parties shall keep the leasehold estates involved in such operations free and clear of all liens and encumbrances of every kind created by or arising from the operations of the Consenting Parties. If such an operation results in a dry hole, the Consenting Parties shall plug and abandon the well at their sole cost, risk and expense. If any well drilled, reworked, deepened or plugged back under the provisions of this section results in a producer of oil and/or gas in paying quantities, the Consenting Parties shall complete and equip the well to produce at their sole cost and risk, and the well shall then be turned over to Operator and shall be operated by it at the expense and for the account of the Consenting Parties. Upon commencement of operations for the drilling, reworking, deepening or plugging back of any such well by Consenting Parties in accordance with the provisions of this section, each Non-Consenting Party shall be deemed to have relinquished to Consenting Parties, and the Consenting Parties shall own and be entitled to receive, in proportion to their respective interests, all of such Non-Consenting Party's interest in the well, its leasehold operating rights, and share of production therefrom until the proceeds or market value thereof (after deducting production taxes, royalty, overriding royalty and other interests payable out of or measured by the production from such well accruing with respect to such interest until it reverts) shall equal the total of the following:

- (A) 100% of each such Non-Consenting Party's share of the cost of any newly acquired surface equipment beyond the wellhead connections (including, but not limited to, stock tanks, separators, treaters, pumping equipment and piping), plus 100% of each such Non-Consenting Party's share of the cost of operation of the well commencing with first production and continuing until each such Non-Consenting Party's relinquished interest shall revert to it under other provisions of this section, it being agreed that each Non-Consenting Party's share of such costs and equipment will be that interest which would have been chargeable to each Non-Consenting Party had it participated in the well from the beginning of the operation; and
- (B) 200% of that portion of the costs and expenses of drilling, reworking, deepening or plugging back, testing and completing, after deducting any cash contributions received under Section 25, and 200% of that portion of the cost of newly acquired equipment in the well (to and including the wellhead connections), which would have been chargeable to such Non-Consenting Party if it had participated therein.

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In the case of any reworking, plugging back or deeper drilling operation, the Consenting Parties shall be permitted to use, free of cost, all casing, tubing and other equipment in the well, but the ownership of all such equipment shall remain unchanged; and upon abandonment of a well after such reworking, plugging back or deeper drilling, the Consenting Parties shall account for all such equipment to the owners thereof, with each party receiving its proportionate part in kind or in value.

Within sixty (60) days after the completion of any operation under this section, the party conducting the operations for the Consenting Parties shall furnish each Non-Consenting Party with an inventory of the equipment in and connected to the well, and an itemized statement of the cost of drilling, deepening, plugging back, testing, completing, and equipping the well for production; or, at its option, the operating party, in lieu of an itemized statement of such costs of operation, may submit a detailed statement of monthly billings. Each month thereafter, during the time the Consenting Parties are being reimbursed as provided above, the Consenting Parties shall furnish the Non-Consenting Parties with an itemized statement of all costs and liabilities incurred in the operation of the well, together with a statement of the quantity of oil and gas produced from it and the amount of proceeds realized from the sale of the well's working interest production during the preceding month. Any amount realized from the sale or other disposition of equipment newly acquired in connection with any such operation which would have been owned by a Non-Consenting Party had it participated therein shall be credited against the total unreturned costs of the work done and of the equipment purchased, in determining when the interest of such Non-Consenting Party shall revert to it as above provided; if there is a credit balance it shall be paid to such Non-Consenting Party.

If and when the Consenting Parties recover from a Non-Consenting Party's relinquished interest the amounts provided for above, the relinquished interests of such Non-Consenting Party shall automatically revert to it and from and after such reversion such Non-Consenting Party shall own the same interest in such well, the operating rights and working interest therein, the material and equipment in or pertaining thereto, and the production therefrom as such Non-Consenting Party would have owned had it participated in the drilling, reworking, deepening or plugging back of said well. Thereafter, such Non-Consenting Party shall be charged with and shall pay its proportionate part of the further costs of the operation of said well in accordance with the terms of this agreement and the accounting procedure schedule, Exhibit "C", attached hereto.

Notwithstanding the provisions of this Section 12, it is agreed that without the mutual consent of all parties, no wells shall be completed in or produced from a source of supply from which a well located elsewhere on the Unit Area is producing, unless such well conforms to the then-existing well spacing pattern for such source of supply.

The provisions of this section shall have no application whatsoever to the drilling of the initial test well on the Unit Area, but shall apply to the reworking, deepening, or plugging back of the initial test well after it has been drilled to the depth specified in Section 7, if it is, or thereafter shall prove to be, a dry hole or non-commercial well, and to all other wells drilled, reworked, deepened, or plugged back, or proposed to be drilled, reworked, deepened, or plugged back, upon the Unit Area subsequent to the drilling of the initial test well.

13. RIGHT TO TAKE PRODUCTION IN KIND

Each party shall take in kind or separately dispose of its proportionate share of all oil and gas produced from the Unit Area, exclusive of production which may be used in development and producing operations and in preparing and treating oil for marketing purposes and production unavoidably lost. Each party shall pay or deliver, or cause to be paid or delivered, all royalties, overriding royalties, or other payments due on its share of such production, and shall hold the other parties free from any liability therefor. Any extra expenditure incurred in the taking in kind or separate disposition by any party of its proportionate share of the production shall be borne by such party.

Each party shall execute all division orders and contracts of sale pertaining to its interest in production from the Unit Area, and shall be entitled to receive payment direct from the purchaser or purchasers thereof for its share of all production.

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In the event any party shall fail to make the arrangements necessary to take in kind or separately dispose of its proportionate share of the oil and gas produced from the Unit Area, Operator shall have the right, subject to revocation at will by the party owning it, but not the obligation, to purchase such oil and gas or sell it to others for the time being, at not less than the market price prevailing in the area, which shall in no event be less than the price which Operator receives for its portion of the oil and gas produced from the Unit Area. Any such purchase or sale by Operator shall be subject always to the right of the owner of the production to exercise at any time its right to take in kind, or separately dispose of, its share of all oil and gas not previously delivered to a purchaser. Notwithstanding the foregoing, Operator shall not make a sale into interstate commerce of any other party's share of gas production without first giving such other party sixty (60) days notice of such intended sale.

14. ACCESS TO UNIT AREA

Each party shall have access to the Unit Area at all reasonable times, at its sole risk, to inspect or observe operations, and shall have access at reasonable times to information pertaining to the development or operation thereof, including Operator's books and records relating thereto. Operator shall, upon request, furnish each of the other parties with copies of all drilling reports, well logs, tank tables, daily gauge and run tickets and reports of stock on hand at the first of each month, and shall make available samples of any cores or cuttings taken from any well drilled on the Unit Area.

15. DRILLING CONTRACTS

All wells drilled on the Unit Area shall be drilled on a competitive contract basis at the usual rates prevailing in the area. Operator, if it so desires, may employ its own tools and equipment in the drilling of wells, but its charges therefor shall not exceed the prevailing rates in the field, and the rate of such charges shall be agreed upon by the parties in writing before drilling operations are commenced, and such work shall be performed by Operator under the same terms and conditions as shall be customary and usual in the field in contracts of independent contractors who are doing work of a similar nature.

16. ABANDONMENT OF WELLS

No well, other than any well which has been drilled or reworked pursuant to Section 12 hereof for which the Consenting Parties have not been fully reimbursed as therein provided, which has been completed as a producer shall be plugged and abandoned without the consent of all parties; provided, however, if all parties do not agree to the abandonment of any well, those wishing to continue its operation shall tender to each of the other parties its proportionate share of the value of the well's salvable material and equipment, determined in accordance with the provisions of Exhibit "C", less the estimated cost of salvaging and the estimated cost of plugging and abandoning. Each abandoning party shall then assign to the non-abandoning parties, without warranty, express or implied, as to title or as to quantity, quality, or fitness for use of the equipment and material, all of its interest in the well and its equipment, together with its interest in the leasehold estate as to, but only as to, the interval or intervals of the formation or formations then open to production. The assignments so limited shall encompass the "drilling unit" upon which the well is located. The payments by, and the assignments to, the assignees shall be in a ratio based upon the relationship of their respective percentages of participation in the Unit Area to the aggregate of the percentages of participation in the Unit Area of all assignees. There shall be no readjustment of interest in the remaining portion of the Unit Area.

After the assignment, the assignors shall have no further responsibility, liability, or interest in the operation of or production from the well in the interval or intervals then open. Upon request of the assignees, Operator shall continue to operate the assigned well for the account of the non-abandoning parties at the rates and charges contemplated by this agreement, plus any additional cost and charges which may arise as the result of the separate ownership of the assigned well.

17. DELAY RENTALS AND SHUT-IN WELL PAYMENTS

Each party shall pay all delay rentals and shut-in well payments which may be required under the terms of its lease or leases and submit evidence of each payment to the other parties at least ten (10) days prior to the payment date. The paying party shall be reimbursed by Operator for 100% of any such delay rental payment and 100% of any such shut-in well payment. The amount of such reimbursement shall be charged by Operator to the joint account of the parties and treated in all respects the same as costs incurred in the development and operation of the Unit Area. Each party responsible for such payments shall diligently attempt to make proper payment, but shall not be held liable to the other parties in damages for the loss of any lease or interest therein if, through mistake or oversight, any rental or shut-in well payment is not paid or is erroneously paid. The loss of any lease or interest therein which results from a failure to pay or an erroneous payment of rental or shut-in well payment shall be a joint loss and there shall be no readjustment of interests in the remaining portion of the Unit Area. If any party secures a new lease covering the terminated interest, such acquisition shall be subject to the provisions of Section 23 of this agreement.

Operator shall promptly notify each other party hereto of the date on which any gas well located on the Unit Area is shut in and the reason therefor.

18. PREFERENTIAL RIGHT TO PURCHASE

Should any party desire to sell all or any part of its interests under this contract, or its rights and interests in the Unit Area, it shall promptly give written notice to the other parties, with full information concerning its proposed sale, which shall include the name and address of the prospective purchaser (who must be ready, willing and able to purchase), the purchase price, and all other terms of the offer. The other parties shall then have an optional prior right, for a period of ten (10) days after receipt of the notice, to purchase on the same terms and conditions the interest which the other party proposes to sell; and, if this optional right is exercised, the purchasing parties shall share the purchased interest in the proportions that the interest of each bears to the total interest of all purchasing parties. However, there shall be no preferential right to purchase in those cases where any party wishes to mortgage its interests, or to dispose of its interests by merger, reorganization, consolidation, or sale of all of its assets, or a sale or transfer of its interests to a subsidiary or parent company, or subsidiary of a parent company, or to any company in which any one party owns a majority of the stock.

19. SELECTION OF NEW OPERATOR

Should a sale be made by Operator of its rights and interests, the other parties shall have the right within sixty (60) days after the date of such sale, by majority vote in interest, to select a new Operator. If a new Operator is not so selected, the transferee of the present Operator shall assume the duties of and act as Operator. In either case, the retiring Operator shall continue to serve as Operator, and discharge its duties in that capacity under this agreement, until its successor Operator is selected and begins to function, but the present Operator shall not be obligated to continue the performance of its duties for more than 120 days after the sale of its rights and interests has been completed.

20. MAINTENANCE OF UNIT OWNERSHIP

For the purpose of maintaining uniformity of ownership in the oil and gas leasehold interests covered by this contract, and notwithstanding any other provisions to the contrary, no party shall sell, encumber, transfer or make other disposition of its interest in the leases embraced within the Unit Area and in wells, equipment and production unless such disposition covers either:

- (1) the entire interest of the party in all leases and equipment and production; or
- (2) an equal undivided interest in all leases and equipment and production in the Unit Area.

Every such sale, encumbrance, transfer or other disposition made by any party shall be made expressly subject to this agreement, and shall be made without prejudice to the rights of the other parties.

If at any time the interest of any party is divided among and owned by four or more co-owners, Operator may, at its discretion, require such co-owners to appoint a single trustee or agent with full authority to receive notices, approve expenditures, receive billings for and approve and pay such party's share of the joint expenses, and to deal generally with, and with power to bind, the co-owners of such party's interests within the scope of the operations embraced in this contract; however, all such co-owners shall enter into and execute all contracts or agreements for the disposition of their respective shares of the oil and gas produced from the Unit Area and they shall have the right to receive, separately, payment of the sale proceeds thereof.

21. RESIGNATION OF OPERATOR

Operator may resign from its duties and obligations as Operator at any time upon written notice of not less than ninety (90) days given to all other parties. In this case, all parties to this contract shall select by majority vote in interest, not in numbers, a new Operator who shall assume the responsibilities and duties, and have the rights, prescribed for Operator by this agreement. The retiring Operator shall deliver to its successor all records and information necessary to the discharge by the new Operator of its duties and obligations.

22. LIABILITY OF PARTIES

The liability of the parties shall be several, not joint or collective. Each party shall be responsible only for its obligations, and shall be liable only for its proportionate share of the costs of developing and operating the Unit Area. Accordingly, the lien granted by each party to Operator in Section 9 is given to secure only the debts of each severally. It is not the intention of the parties to create, nor shall this agreement be construed as creating, a mining or other partnership or association, or to render them liable as partners.

23. RENEWAL OR EXTENSION OF LEASES

If any party secures a renewal of any oil and gas lease subject to this contract, each and all of the other parties shall be notified promptly, and shall have the right to participate in the ownership of the renewal lease by paying to the party who acquired it their several proper proportionate shares of the acquisition cost, which shall be in proportion to the interests held at that time by the parties in the Unit Area.

If some, but less than all, of the parties elect to participate in the purchase of a renewal lease, it shall be owned by the parties who elect to participate therein, in a ratio based upon the relationship of their respective percentage of participation in the unit area to the aggregate of the percentages of participation in the unit area of all parties participating in the purchase of such renewal lease. Any renewal lease in which less than all the parties elect to participate shall not be subject to this agreement.

Each party who participates in the purchase of a renewal lease shall be given an assignment of its proportionate interest therein by the acquiring party.

The provisions of this section shall apply to renewal leases whether they are for the entire interest covered by the expiring lease or cover only a portion of its area or an interest therein. Any renewal lease taken before the expiration of its predecessor lease, or taken or contracted for within six (6) months after the expiration of the existing lease shall be subject to this provision; but any lease taken or contracted for more than six (6) months after the expiration of an existing lease shall not be deemed a renewal lease and shall not be subject to the provisions of this section.

The provisions in this section shall apply also and in like manner to extensions of oil and gas leases.

24. SURRENDER OF LEASES

The leases covered by this agreement, in so far as they embrace acreage in the Unit Area, shall not be surrendered in whole or in part unless all parties consent.

However, should any party desire to surrender its interest in any lease or in any portion thereof, and other parties not agree or consent, the party desiring to surrender shall assign, without express or implied warranty of title, all of its interest in such lease, or portion thereof, and any well, material and equipment which may be located thereon and any rights in production thereafter secured, to the parties not desiring to surrender it. Upon such assignment, the assigning party shall be relieved from all obligations thereafter accruing, but not theretofore accrued, with respect to the acreage assigned and the operation of any well thereon, and the assigning party shall have no further interest in the lease assigned and its equipment and production. The parties assignee shall pay to the party assignor the reasonable salvage value of the latter's interest in any wells and equipment on the assigned acreage, determined in accordance with the provisions of Exhibit "C", less the estimated cost of salvaging and the estimated cost of plugging and abandoning. If the assignment is in favor of more than one party, the assigned interest shall be shared by the parties assignee in the proportions that the interest of each bears to the interest of all parties assignee.

Any assignment or surrender made under this provision shall not reduce or change the assignors' or surrendering parties' interest, as it was immediately before the assignment, in the balance of the Unit Area; and the acreage assigned or surrendered, and subsequent operations thereon, shall not thereafter be subject to the terms and provisions of this agreement.

25. ACREAGE OR CASH CONTRIBUTIONS

If any party receives while this agreement is in force a contribution of cash toward the drilling of a well or any other operation on the Unit Area, such contribution shall be paid to the party who conducted the drilling or other operation and shall be applied by it against the cost of such drilling or other operation. If the contribution be in the form of acreage, the party to whom the contribution is made shall promptly execute an assignment of the acreage, without warranty of title, to all parties to this agreement in proportion to their interests in the Unit Area at that time, and such acreage shall become a part of the Unit Area and be governed by all the provisions of this contract. Each party shall promptly notify all other parties of all acreage or money contributions it may obtain in support of any well or any other operation on the Unit Area.

26. PROVISION CONCERNING TAXATION

Each of the parties hereto elects, under the authority of Section 761(a) of the Internal Revenue Code of 1954, to be excluded from the application of all of the provisions of Subchapter K of Chapter 1 of Subtitle A of the Internal Revenue Code of 1954. If the income tax laws of the state or states in which the property covered hereby is located contain, or may hereafter contain, provisions similar to those contained in the Subchapter of the Internal Revenue Code of 1954 above referred to under which a similar election is permitted, each of the parties agrees that such election shall be exercised. Each party authorizes and directs the Operator to execute such an election or elections on its behalf and to file the election with the proper governmental office or agency. If requested by the Operator so to do, each party agrees to execute and join in such an election.

Operator shall render for ad valorem taxation all property subject to this agreement which by law should be rendered for such taxes, and it shall pay all such taxes assessed thereon before they become delinquent. Operator shall bill all other parties for their proportionate share of all tax payments in the manner provided in Exhibit "C".

If any tax assessment is considered unreasonable by Operator, it may at its discretion protest such valuation within the time and manner prescribed by law, and prosecute the protest to a final determination, unless all parties agree to abandon the protest prior to final determination. When any such protested valuation shall have been finally determined, Operator shall pay the assessment for the joint account, together with interest and penalty accrued, and the total cost shall then be assessed against the parties, and be paid by them, as provided in Exhibit "C".

27. INSURANCE

At all times while operations are conducted hereunder, Operator shall comply with the Workmen's Compensation Law of the State where the operations are being conducted. Operator shall also carry or provide insurance for the benefit of the joint account of the parties as may be outlined in Exhibit "D" attached to and made a part hereof. Operator shall require all contractors engaged in work on or for the Unit Area to comply with the Workmen's Compensation Law of the State where the operations are being conducted and to maintain such other insurance as Operator may require.

In the event Automobile Public Liability Insurance is specified in said Exhibit "D", or subsequently receives the approval of the parties, no direct charge shall be made by Operator for premiums paid for such insurance for operator's fully owned automotive equipment.

28. CLAIMS AND LAWSUITS

If any party to this contract is sued on an alleged cause of action arising out of operations on the Unit Area, or on an alleged cause of action involving title to any lease or oil and gas interest subjected to this contract, it shall give prompt written notice of the suit to the Operator and all other parties.

The defense of lawsuits shall be under the general direction of a committee of lawyers representing the parties, with Operator's attorney as Chairman. Suits may be settled during litigation only with the joint consent of all parties. No charge shall be made for services performed by the staff attorneys for any of the parties, but otherwise all expenses incurred in the defense of suits, together with the amount paid to discharge any final judgment, shall be considered costs of operation and shall be charged to and paid by all parties in proportion to their then interests in the Unit Area. Attorneys, other than staff attorneys for the parties, shall be employed in lawsuits involving Unit Area operations only with the consent of all parties; if outside counsel is employed, their fees and expenses shall be considered Unit Area expense and shall be paid by Operator and charged to all of the parties in proportion to their then interests in the Unit Area. The provisions of this paragraph shall not be applied in any instance where the loss which may result from the suit is treated as an individual loss rather than a joint loss under prior provisions of this agreement, and all such suits shall be handled by and be the sole responsibility of the party or parties concerned.

Damage claims caused by and arising out of operations on the Unit Area, conducted for the joint account of all parties, shall be handled by Operator and its attorneys, the settlement of claims of this kind shall be within the discretion of Operator so long as the amount paid in settlement of any one claim does not exceed one thousand (\$1000.00) dollars and, if settled, the sums paid in settlement shall be charged as expense to and be paid by all parties in proportion to their then interests in the Unit Area.

29. FORCE MAJEURE

If any party is rendered unable, wholly or in part, by force majeure to carry out its obligations under this agreement, other than the obligation to make money payments, that party shall give to all other parties prompt written notice of the force majeure with reasonably full particulars concerning it; thereupon, the obligations of the party giving the notice, so far as they are affected by the force majeure, shall be suspended during, but no longer than, the continuance of the force majeure. The affected party shall use all possible diligence to remove the force majeure as quickly as possible.

The requirement that any force majeure shall be remedied with all reasonable dispatch shall not require the settlement of strikes, lockouts, or other labor difficulty by the party involved, contrary to its wishes; how all such difficulties shall be handled shall be entirely within the discretion of the party concerned.

The term "force majeure" as here employed shall mean an act of God, strike, lockout, or other industrial disturbance, act of the public enemy, war, blockade, public riot, lightning, fire, storm, flood, explosion, governmental restraint, unavailability of equipment, and any other cause, whether of the kind specifically enumerated above or otherwise, which is not reasonably within the control of the party claiming suspension.

30. NOTICES

All notices authorized or required between the parties, and required by any of the provisions of this agreement, shall, unless otherwise specifically provided, be given in writing by United States mail or Western Union Telegram, postage or charges prepaid, and addressed to the party to whom the notice is given at the

addresses listed on Exhibit "A". The originating notice to be given under any provision hereof shall be deemed given only when received by the party to whom such notice is directed and the time for such party to give any notice in response thereto shall run from the date the originating notice is received. The second or any responsive notice shall be deemed given when deposited in the United States mail or with the Western Union Telegraph Company, with postage or charges prepaid. Each party shall have the right to change its address at any time, and from time to time, by giving written notice thereof to all other parties.

31. OTHER CONDITIONS, IF ANY, ARE:

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This agreement may be signed in counterpart, and shall be binding upon the parties and upon their heirs, successors, representatives and assigns.

ATTEST:

OPERATOR

ATTEST:

ATTEST:

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FOR GUIDANCE IN THE PREPARATION OF THIS CONTRACT, THE EXHIBITS TO BE ATTACHED TO IT, AND THEIR CONTENTS, ARE AS SHOWN BELOW:

Exhibit "A"— (1) (a) Lands subject to contract.

(b) Restrictions, if any, as to formations or depths.

(c) Drilling Unit for first well.

(Found in (2) Percentage or fractional interests of parties under agreement.

Sections 1 (3) Leasehold and unleased interests of each party.

and 4) (4) Addresses of parties to which notices should be sent.

Exhibit "B"— Form of lease.

(Found in
Section 3)

Exhibit "C"— Accounting Procedure

(Found in
Section 8)

Exhibit "D"— Insurance to be carried.

(Found in
Section 26)

BLANKS TO BE COMPLETED ARE FOUND
ON THE PAGES SHOWN BELOW:

Page 1— Date and name of Operator.

Page 1 "Joint Loss"— Company to examine Operator's title and
expiration date of lease submitted.

Page 2 "Joint Loss"— Two blanks, number of days for submission of title reports and in which to satisfy
requirements.

Page 3— Name of Operator, commencement date of test well and its location.

Page 3— Objective depth or formation of test well.

Page 4— Limitation of expenditure of Operator for single project.

Page 4— Amount of single project for which Operator may be called upon to furnish copies of its Authority
for Expenditures.

Page 8— If reimbursement for less than 100% of delay rentals, strike 100% and insert proper percentage.

Page 12— Other conditions, if any.

A.A.P.L. FORM 610

OPERATING AGREEMENT

THIS AGREEMENT, entered into this _____ day of _____, 19____, between

hereafter designated as "Operator", and the signatory parties other than Operator.

WITNESSETH, THAT:

WHEREAS, the parties to this agreement are owners of oil and gas leases covering and, if so indicated, unleased mineral interests in the tracts of land described in Exhibit "A", and all parties have reached an agreement to explore and develop these leases and interests for oil and gas to the extent and as hereinafter provided;

NOW, THEREFORE, it is agreed as follows:

1. DEFINITIONS

As used in this agreement, the following words and terms shall have the meanings here ascribed to them.

- (1) The words "party" and "parties" shall always mean a party, or parties, to this agreement.
- (2) The parties to this agreement shall always be referred to as "it" or "they", whether the parties be corporate bodies, partnerships, associations, or persons real.
- (3) The term "oil and gas" shall include oil, gas, casinghead gas, gas condensate, and all other liquid or gaseous hydrocarbons, unless an intent to limit the inclusiveness of this term is specifically stated.
- (4) The term "oil and gas interests" shall mean unleased fee and mineral interests in tracts of land lying within the Unit Area which are owned by parties to this agreement.
- (5) The term "Unit Area" shall refer to and include all of the lands, oil and gas leasehold interests and oil and gas interests intended to be developed and operated for oil and gas purposes under this agreement. Such lands, oil and gas leasehold interests and oil and gas interests are described in Exhibit "A".
- (6) The term "drilling unit" shall mean the area fixed for the drilling of one well by order or rule of any state or federal body having authority. If a drilling unit is not fixed by any such rule or order, a drilling unit shall be the drilling unit as established by the pattern of drilling in the Unit Area or as fixed by express agreement of the parties.
- (7) All exhibits attached to this agreement are made a part of the contract as fully as though copied in full in the contract.
- (8) The words "equipment" and "materials" as used here are synonymous and shall mean and include all oil field supplies and personal property acquired for use in the Unit Area.

2. TITLE EXAMINATION, LOSS OF LEASES AND OIL AND GAS INTERESTS**A. Title Examination:**

There shall be no examination of title to leases, or to oil and gas interests, except that title to the lease covering the land upon which the exploratory well is to be drilled in accordance with Section 7, shall be examined on a complete abstract record by Operator's attorney, and the title to both the oil and gas lease and to the fee title of the lessors must be approved by the examining attorney, and accepted by all parties. A copy of the examining attorney's opinion shall be sent to each party immediately after the opinion is written, and, also, each party shall be given, as they are written, a copy of all subsequent supplemental attorney's reports. A good faith effort to satisfy the examining attorney's requirements shall be made by the party owning the lease covering the drillsite.

If title to the proposed drillsite is not approved by the examining attorney or the lease is not acceptable for a material reason, and all the parties do not accept the title, the parties shall select a new drillsite for the first exploratory well; provided, if the parties are unable to agree upon another drillsite, this agreement shall, in that case, come to an end and all parties shall then forfeit their rights and be relieved of obligations hereunder. If a new drillsite is selected, title to the oil and gas lease covering it and to the fee title of the lessor shall be examined, and title shall be approved or accepted or rejected in like manner as provided above concerning the drillsite first selected. If title to the oil and gas lease covering the second choice drillsite is not approved or accepted, other drillsites shall be successively selected and title examined, until a drillsite is chosen

to which title is approved or accepted, or until the parties fail to select another drillsite. As in the case of the drillsite first selected, so also with successive choices if the time comes that the parties have not approved title and are unable to agree upon an alternate drillsite, the contract shall, in that case and at that time, come to an end and all parties shall forfeit their rights and be relieved of obligations under this contract.

No well other than the first test shall be drilled in the Unit Area until after (1) the title to the lease covering the lands upon which such well is to be located has been examined by Operator's attorney, and (2) the title has been approved by the examining attorney and the title has been accepted by all of the parties who are to participate in the drilling of the well.

B. Failure of Title:

Should any oil and gas lease, or interest therein, be lost through failure of title, this agreement shall, nevertheless, continue in force as to all remaining leases and interests, and

- (1) The party whose lease or interest is affected by the title failure shall bear alone the entire loss and it shall not be entitled to recover from Operator or the other parties any development or operating costs which it may have theretofore paid, but there shall be no monetary liability on its part to the other parties hereto by reason of such title failure; and
- (2) There shall be no retroactive adjustment of expenses incurred or revenues received from the operation of the interest which has been lost, but the interests of the parties shall be revised on an acreage basis, as of the time it is determined finally that title failure has occurred, so that the interest of the party whose lease or interest is affected by the title failure will thereafter be reduced in the Unit Area by the amount of the interest lost; and
- (3) If the proportionate interests of the other parties hereto in any producing well theretofore drilled on the Unit Area is increased by reason of the title failure, the party whose title has failed shall receive the proceeds attributable to the increase in such interests (less operating costs attributable thereto) until it has been reimbursed for unrecovered costs paid by it in connection with such well; and
- (4) Should any person not a party to this agreement, who is determined to be the owner of any interest in the title which has failed, pay in any manner any part of the cost of operation, development, or equipment, or equipment previously paid under this agreement, such amount shall be proportionately paid to the party or parties hereto who in the first instance paid the costs which are so refunded; and
- (5) Any liability to account to a third party for prior production of oil and gas which arises by reason of title failure shall be borne by the party or parties whose title failed in the same proportions in which they shared in such prior production.

C. Loss of Leases for Causes Other Than Title Failure:

If any lease or interest subject to this agreement be lost through failure to develop or because express or implied covenants have not been performed, or if any lease be permitted to expire at the end of its primary term and not be renewed or extended, or if any lease or interest therein is lost due to the fact that the production therefrom is shut in by reason of lack of market, the loss shall not be considered a failure of title and all such losses shall be joint losses and shall be borne by all parties in proportion to their interests and there shall be no readjustment of interests in the Unit Area.

3. UNLEASED OIL AND GAS INTERESTS

If any party owns an unleased oil and gas interest in the Unit Area, that interest shall be treated for the purpose of this agreement as if it were a leased interest under the form of oil and gas lease attached as "Exhibit B" and for the primary term therein stated. As to such interests, the owner shall receive royalty on production as prescribed in the form of oil and gas lease attached hereto as Exhibit "B". Such party shall, however, be subject to all of the provisions of this agreement relating to lessees, to the extent that it owns the lessee interest.

4. INTERESTS OF PARTIES

Exhibit "A" lists all of the parties, and their respective percentage or fractional interests under this agreement. Unless changed by other provisions, all costs and liabilities incurred in operations under this contract shall be borne and paid, and all equipment and material acquired in operations on the Unit Area shall be owned, by the parties as their interests are given in Exhibit "A". All production of oil and gas from the Unit Area, subject to the payment of lessor's royalties, shall also be owned by the parties in the same manner.

17. DELAY RENTALS AND SHUT-IN WELL PAYMENTS

Delay rentals and shut-in well payments which may be required under the terms of any lease shall be paid by the party who has subjected such lease to this agreement, at its own expense. Proof of each payment shall be given to Operator at least ten (10) days prior to the rental or shut-in well payment date. Operator shall furnish similar proof to all other parties concerning payments it makes in connection with its leases. Any party may request, and shall be entitled to receive, proper evidence of all such payments. If, through mistake or oversight, any delay rental or shut-in well payment is not paid or is erroneously paid, and as a result a lease or interest therein terminates, there shall be no monetary liability against the party who failed to make such payment. Unless the party who failed to pay a rental or shut-in well payment secures a new lease covering the same interest within ninety (90) days from the discovery of the failure to make proper payment, the interests of the parties shall be revised on an acreage basis effective as of the date of termination of the lease involved, and the party who failed to make proper payment will no longer be credited with an interest in the Unit Area on account of the ownership of the lease which has terminated. In the event the party who failed to pay the rental or the shut-in well payment shall not have been fully reimbursed, at the time of the loss, from the proceeds of the sale of oil and gas attributable to the lost interest, calculated on an acreage basis, for the development and operating costs theretofore paid on account of such interest, it shall be reimbursed for unrecovered actual costs theretofore paid by it (but not for its share of the cost of any dry hole previously drilled or wells previously abandoned) from so much of the following as is necessary to effect reimbursement:

- (1) Proceeds of oil and gas, less operating expenses, theretofore accrued to the credit of the lost interest, on an acreage basis, up to the amount of unrecovered costs;
- (2) proceeds, less operating expenses thereafter incurred attributable to the lost interest on an acreage basis, of that portion of oil and gas thereafter produced and marketed (excluding production from any wells thereafter drilled) which would, in the absence of such lease termination, be attributable to the lost interest on an acreage basis, up to the amount of unrecovered costs, the proceeds of said portion of the oil and gas to be contributed by the other parties in proportion to their respective interests; and
- (3) any moneys, up to the amount of unrecovered costs, that may be paid by any party who is, or becomes, the owner of the interest lost, for the privilege of participating in the Unit Area or becoming a party to this contract.

Operator shall attempt to notify all parties when a gas well is shut-in or returned to production, but assumes no liability whatsoever for failure to do so.

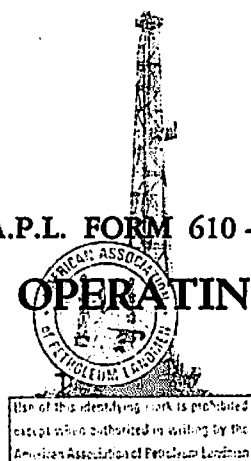
18. PREFERENTIAL RIGHT TO PURCHASE

Should any party desire to sell all or any part of its interests under this contract, or its rights and interests in the Unit Area, it shall promptly give written notice to the other parties, with full information concerning its proposed sale, which shall include the name and address of the prospective purchaser (who must be ready, willing and able to purchase), the purchase price, and all other terms of the offer. The other parties shall then have an optional prior right, for a period of ten (10) days after receipt of the notice, to purchase on the same terms and conditions the interest which the other party proposes to sell; and, if this optional right is exercised, the purchasing parties shall share the purchased interest in the proportions that the interest of each bears to the total interest of all purchasing parties. However, there shall be no preferential right to purchase in those cases where any party wishes to mortgage its interests, or to dispose of its interests by merger, reorganization, consolidation, or sale of all of its assets, or a sale or transfer of its interests to a subsidiary or parent company, or subsidiary of a parent company, or to any company in which any one party owns a majority of the stock.

19. SELECTION OF NEW OPERATOR

Should a sale be made by Operator of its rights and interests, the other parties shall have the right within sixty (60) days after the date of such sale, by majority vote in interest, to select a new Operator. If a new Operator is not so selected, the transferee of the present Operator shall assume the duties of and act as Operator. In either case, the retiring Operator shall continue to serve as Operator, and discharge its duties in that capacity under this agreement, until its successor Operator is selected and begins to function, but the present Operator shall not be obligated to continue the performance of its duties for more than 120 days after the sale of its rights and interests has been completed.

A.A.P.L. FORM 610 - 1977
MODEL FORM OPERATING AGREEMENT



OPERATING AGREEMENT

DATED

_____, 19____,

OPERATOR _____

CONTRACT AREA _____

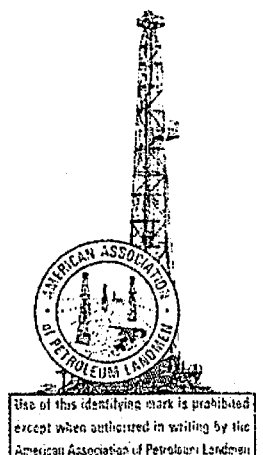
COUNTY OR PARISH OF _____ **STATE OF** _____

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GUIDANCE IN THE PREPARATION OF THIS AGREEMENT:

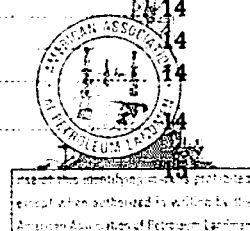
1. Title Page - Fill in blank as applicable.
2. Preamble, Page 1 - Name of Operator.
3. Article II - Exhibits:
 - (a) Indicate Exhibits to be attached.
 - (b) If it is desired that no reference be made to Non-discrimination, the reference to Exhibit "F" should be deleted.
4. Article IV.A - Title Examination - Select option as agreed to by the parties.
5. Article IV.B - Loss of Title - If "Joint Loss" of Title is desired, the following changes should be made:
 - (a) Delete Articles IV.B.1 and IV.B.2.
 - (b) Article IV.B.3 - Delete phrase "other than those set forth in Articles IV.B.1 and IV.B.2 above."
 - (c) Article VII.F. - Change reference at end of the first grammatical paragraph from "Article IV.B.2" to "Article IV.B.3."
6. Article V - Operator - Enter name of Operator.
7. Article VI.A - Initial Well:
 - (a) Date of commencement of drilling.
 - (b) Location of well.
 - (c) Obligation depth.
8. Article VI.B.2.(b) - Subsequent Operations - Enter penalty percentage as agreed to by parties.
9. Article VII.D.1. - Limitation of Expenditures - Select option as agreed to by parties.
10. Article VII.D.3. - Limitation of Expenditures - Enter limitation of expenditure of Operator for single project and amount above which Operator may furnish information AFE.
11. Article VII.E. - Royalties, Overriding Royalties and Other Payments - Enter royalty fraction as agreed to by parties.
12. Article X. - Claims and Lawsuits - Enter claim limit as agreed to by parties.
13. Article XIII. - Term of Agreement:
 - (a) Select Option as agreed to by parties.
 - (b) If Option No. 2 is selected, enter agreed number of days in two (2) blanks.
14. Signature Page - Enter effective date.



A.A.P.L. FORM 610 - MODEL FORM OPERATING AGREEMENT - 1977

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A.A.P.L. FORM 610 - MODEL FORM OPERATING AGREEMENT - 1977

OPERATING AGREEMENT

THIS AGREEMENT, entered into by and between _____, hereinafter designated and referred to as "Operator", and the signatory party or parties other than Operator, sometimes hereinafter referred to individually herein as "Non-Operator", and collectively as "Non-Operators",

WITNESSETH:

WHEREAS, the parties to this agreement are owners of oil and gas leases and/or oil and gas interests in the land identified in Exhibit "A", and the parties hereto have reached an agreement to explore and develop these leases and/or oil and gas interests for the production of oil and gas to the extent and as hereinafter provided:

NOW, THEREFORE, it is agreed as follows:

ARTICLE I.
DEFINITIONS

As used in this agreement, the following words and terms shall have the meanings here ascribed to them:

A. The term "oil and gas" shall mean oil, gas, casinghead gas, gas condensate, and all other liquid or gaseous hydrocarbons and other marketable substances produced therewith, unless an intent to limit the inclusiveness of this term is specifically stated.

B. The terms "oil and gas lease", "lease" and "leasehold" shall mean the oil and gas leases covering tracts of land lying within the Contract Area which are owned by the parties to this agreement.

C. The term "oil and gas interests" shall mean unleased fee and mineral interests in tracts of land lying within the Contract Area which are owned by parties to this agreement.

D. The term "Contract Area" shall mean all of the lands, oil and gas leasehold interests and oil and gas interests intended to be developed and operated for oil and gas purposes under this agreement. Such lands, oil and gas leasehold interests and oil and gas interests are described in Exhibit "A".

E. The term "drilling unit" shall mean the area fixed for the drilling of one well by order or rule of any state or federal body having authority. If a drilling unit is not fixed by any such rule or order, a drilling unit shall be the drilling unit as established by the pattern of drilling in the Contract Area or as fixed by express agreement of the Drilling Parties.

F. The term "drillsite" shall mean the oil and gas lease or interest on which a proposed well is to be located.

G. The terms "Drilling Party" and "Consenting Party" shall mean a party who agrees to join in and pay its share of the cost of any operation conducted under the provisions of this agreement.

H. The terms "Non-Drilling Party" and "Non-Consenting Party" shall mean a party who elects not to participate in a proposed operation.

Unless the context otherwise clearly indicates, words used in the singular include the plural, the plural includes the singular, and the neuter gender includes the masculine and the feminine.

ARTICLE II.
EXHIBITS

The following exhibits, as indicated below and attached hereto, are incorporated in and made a part hereof:

☐ A. Exhibit "A", shall include the following information:

- (1) Identification of lands subject to agreement,
- (2) Restrictions, if any, as to depths or formations,
- (3) Percentages or fractional interests of parties to this agreement,
- (4) Oil and gas leases and/or oil and gas interests subject to this agreement,
- (5) Addresses of parties for notice purposes.

☐ B. Exhibit "B", Form of Lease.

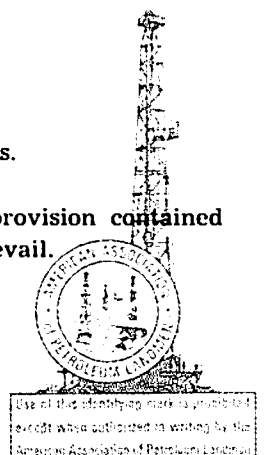
☐ C. Exhibit "C", Accounting Procedure.

☐ D. Exhibit "D", Insurance.

☐ E. Exhibit "E", Gas Balancing Agreement.

☐ F. Exhibit "F", Non-Discrimination and Certification of Non-Segregated Facilities.

If any provision of any exhibit, except Exhibit "E", is inconsistent with any provision contained in the body of this agreement, the provisions in the body of this agreement shall prevail.



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**ARTICLE III.
INTERESTS OF PARTIES****A. Oil and Gas Interests:**

If any party owns an unleased oil and gas interest in the Contract Area, that interest shall be treated for the purpose of this agreement and during the term hereof as if it were a leased interest under the form of oil and gas lease attached as Exhibit "B". As to such interest, the owner shall receive royalty on production as prescribed in the form of oil and gas lease attached hereto as Exhibit "B". Such party shall, however, be subject to all of the provisions of this agreement relating to lessees, to the extent that it owns the lessee interest.

B. Interest of Parties in Costs and Production:

Exhibit "A" lists all of the parties and their respective percentage or fractional interests under this agreement. Unless changed by other provisions, all costs and liabilities incurred in operations under this agreement shall be borne and paid, and all equipment and material acquired in operations on the Contract Area shall be owned by the parties as their interests are shown in Exhibit "A". All production of oil and gas from the Contract Area, subject to the payment of lessor's royalties which will be borne by the Joint Account, shall also be owned by the parties in the same manner during the term hereof; provided, however, this shall not be deemed an assignment or cross-assignment of interests covered hereby.

**ARTICLE IV.
TITLES****A. Title Examination:**

Title examination shall be made on the drillsite of any proposed well prior to commencement of drilling operations or, if the Drilling Parties so request, title examination shall be made on the leases and or oil and gas interests included, or planned to be included, in the drilling unit around such well. The opinion will include the ownership of the working interest, minerals, royalty, overriding royalty and production payments under the applicable leases. At the time a well is proposed, each party contributing leases and/or oil and gas interests to the drillsite, or to be included in such drilling unit, shall furnish to Operator all abstracts (including Federal Lease Status Reports), title opinions, title papers and curative material in its possession free of charge. All such information not in the possession of or made available to Operator by the parties, but necessary for the examination of title, shall be obtained by Operator. Operator shall cause title to be examined by attorneys on its staff or by outside attorneys. Copies of all title opinions shall be furnished to each party hereto. The cost incurred by Operator in this title program shall be borne as follows:

☐ **Option No. 1:** Costs incurred by Operator in procuring abstracts and title examination (including preliminary, supplemental, shut-in gas royalty opinions and division order title opinions) shall be a part of the administrative overhead as provided in Exhibit "C," and shall not be a direct charge, whether performed by Operator's staff attorneys or by outside attorneys.

☐ **Option No. 2:** Costs incurred by Operator in procuring abstracts and fees paid outside attorneys for title examination (including preliminary, supplemental, shut-in gas royalty opinions and division order title opinions) shall be borne by the Drilling Parties in the proportion that the interest of each Drilling Party bears to the total interest of all Drilling Parties as such interests appear in Exhibit "A". Operator shall make no charge for services rendered by its staff attorneys or other personnel in the performance of the above functions.

Each party shall be responsible for securing curative matter and pooling amendments or agreements required in connection with leases or oil and gas interests contributed by such party. The Operator shall be responsible for the preparation and recording of Pooling Designations or Declarations as well as the conduct of hearings before Governmental Agencies for the securing of spacing or pooling orders. This shall not prevent any party from appearing on its own behalf at any such hearing.

No well shall be drilled on the Contract Area until after (1) the title to the drillsite or drilling unit has been examined as above provided, and (2) the title has been approved by the examining attorney or title has been accepted by all of the parties who are to participate in the drilling of the well.

B. Loss of Title:

1. **Failure of Title:** Should any oil and gas interest or lease, or interest therein, be lost through failure of title, which loss results in a reduction of interest from that shown on Exhibit "A", this agreement, nevertheless, shall continue in force as to all remaining oil and gas leases and interests, and

(a) The party whose oil and gas lease or interest is affected by the title failure shall bear alone the entire loss and it shall not be entitled to recover from Operator or the other parties any development

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or operating costs which it may have theretofore paid, but there shall be no monetary liability on its part to the other parties hereto for drilling, development, operating or other similar costs by reason of such title failure; and

(b) There shall be no retroactive adjustment of expenses incurred or revenues received from the operation of the interest which has been lost, but the interests of the parties shall be revised on an acreage basis, as of the time it is determined finally that title failure has occurred, so that the interest of the party whose lease or interest is affected by the title failure will thereafter be reduced in the Contract Area by the amount of the interest lost; and

(c) If the proportionate interest of the other parties hereto in any producing well theretofore drilled on the Contract Area is increased by reason of the title failure, the party whose title has failed shall receive the proceeds attributable to the increase in such interests (less costs and burdens attributable thereto) until it has been reimbursed for unrecovered costs paid by it in connection with such well; and

(d) Should any person not a party to this agreement, who is determined to be the owner of any interest in the title which has failed, pay in any manner any part of the cost of operation, development, or equipment, such amount shall be paid to the party or parties who bore the costs which are so refunded; and

(e) Any liability to account to a third party for prior production of oil and gas which arises by reason of title failure shall be borne by the party or parties in the same proportions in which they shared in such prior production; and

(f) No charge shall be made to the joint account for legal expenses, fees or salaries, in connection with the defense of the interest claimed by any party hereto, it being the intention of the parties hereto that each shall defend title to its interest and bear all expenses in connection therewith.

2. Loss by Non-Payment or Erroneous Payment of Amount Due: If, through mistake or oversight, any rental, shut-in well payment, minimum royalty or royalty payment, is not paid or is erroneously paid, and as a result a lease or interest therein terminates, there shall be no monetary liability against the party who failed to make such payment. Unless the party who failed to make the required payment secures a new lease covering the same interest within ninety (90) days from the discovery of the failure to make proper payment, which acquisition will not be subject to Article VIII.B., the interests of the parties shall be revised on an acreage basis, effective as of the date of termination of the lease involved, and the party who failed to make proper payment will no longer be credited with an interest in the Contract Area on account of ownership of the lease or interest which has terminated. In the event the party who failed to make the required payment shall not have been fully reimbursed, at the time of the loss, from the proceeds of the sale of oil and gas attributable to the lost interest, calculated on an acreage basis, for the development and operating costs theretofore paid on account of such interest, it shall be reimbursed for unrecovered actual costs theretofore paid by it (but not for its share of the cost of any dry hole previously drilled or wells previously abandoned) from so much of the following as is necessary to effect reimbursement:

(a) Proceeds of oil and gas, less operating expenses, theretofore accrued to the credit of the lost interest, on an acreage basis, up to the amount of unrecovered costs;

(b) Proceeds, less operating expenses, thereafter accrued attributable to the lost interest on an acreage basis, of that portion of oil and gas thereafter produced and marketed (excluding production from any wells thereafter drilled) which, in the absence of such lease termination, would be attributable to the lost interest on an acreage basis, up to the amount of unrecovered costs, the proceeds of said portion of the oil and gas to be contributed by the other parties in proportion to their respective interests; and

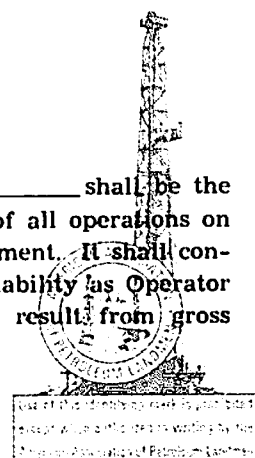
(c) Any monies, up to the amount of unrecovered costs, that may be paid by any party who is, or becomes, the owner of the interest lost, for the privilege of participating in the Contract Area or becoming a party to this agreement.

3. Other Losses: All losses incurred, other than those set forth in Articles IV.B.1. and IV.B.2. above, shall not be considered failure of title but shall be joint losses and shall be borne by all parties in proportion to their interests. There shall be no readjustment of interests in the remaining portion of the Contract Area.

ARTICLE V. OPERATOR

A. DESIGNATION AND RESPONSIBILITIES OF OPERATOR:

_____ shall be the Operator of the Contract Area, and shall conduct and direct and have full control of all operations on the Contract Area as permitted and required by, and within the limits of, this agreement. It shall conduct all such operations in a good and workmanlike manner, but it shall have no liability as Operator to the other parties for losses sustained or liabilities incurred, except such as may result from gross negligence or willful misconduct.



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B. Resignation or Removal of Operator and Selection of Successor:

1. Resignation or Removal of Operator: Operator may resign at any time by giving written notice thereof to Non-Operators. If Operator terminates its legal existence, no longer owns an interest in the Contract Area, or is no longer capable of serving as Operator, it shall cease to be Operator without any action by Non-Operator, except the selection of a successor. Operator may be removed if it fails or refuses to carry out its duties hereunder, or becomes insolvent, bankrupt or is placed in receivership, by the affirmative vote of two (2) or more Non-Operators owning a majority interest based on ownership as shown on Exhibit "A", and not on the number of parties remaining after excluding the voting interest of Operator. Such resignation or removal shall not become effective until 7:00 o'clock A.M. on the first day of the calendar month following the expiration of ninety (90) days after the giving of notice of resignation by Operator or action by the Non-Operators to remove Operator, unless a successor Operator has been selected and assumes the duties of Operator at an earlier date. Operator, after effective date of resignation or removal, shall be bound by the terms hereof as a Non-Operator. A change of a corporate name or structure of Operator or transfer of Operator's interest to any single subsidiary, parent or successor corporation shall not be the basis for removal of Operator.

2. Selection of Successor Operator: Upon the resignation or removal of Operator, a successor Operator shall be selected by the Parties. The successor Operator shall be selected from the parties owning an interest in the Contract Area at the time such successor Operator is selected. If the Operator that is removed fails to vote or votes only to succeed itself, the successor Operator shall be selected by the affirmative vote of two (2) or more parties owning a majority interest based on ownership as shown on Exhibit "A", and not on the number of parties remaining after excluding the voting interest of the Operator that was removed.

C. Employees:

The number of employees used by Operator in conducting operations hereunder, their selection, and the hours of labor and the compensation for services performed, shall be determined by Operator, and all such employees shall be the employees of Operator.

D. Drilling Contracts:

All wells drilled on the Contract Area shall be drilled on a competitive contract basis at the usual rates prevailing in the area. If it so desires, Operator may employ its own tools and equipment in the drilling of wells, but its charges therefor shall not exceed the prevailing rates in the area and the rate of such charges shall be agreed upon by the parties in writing before drilling operations are commenced, and such work shall be performed by Operator under the same terms and conditions as are customary and usual in the area in contracts of independent contractors who are doing work of a similar nature.

ARTICLE VI. DRILLING AND DEVELOPMENT

A. Initial Well:

On or before the _____ day of _____, 19____, Operator shall commence the drilling of a well for oil and gas at the following location:

and shall thereafter continue the drilling of the well with due diligence to

unless granite or other practically impenetrable substance or condition in the hole, which renders further drilling impractical, is encountered at a lesser depth, or unless all parties agree to complete or abandon the well at a lesser depth.

Operator shall make reasonable tests of all formations encountered during drilling which give indication of containing oil and gas in quantities sufficient to test, unless this agreement shall be limited in its application to a specific formation or formations, in which event Operator shall be required to test only the formation or formations to which this agreement may apply.

If, in Operator's judgment, the well will not produce oil or gas in paying quantities, and it wishes to plug and abandon the well as a dry hole, it shall first secure the consent of all parties and shall plug and abandon same as provided in Article VI.E.1. hereof.

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B. Subsequent Operations:

1. Proposed Operations: Should any party hereto desire to drill any well on the Contract Area other than the well provided for in Article VI.A., or to rework, deepen or plug back a dry hole drilled at the joint expense of all parties or a well jointly owned by all the parties and not then producing in paying quantities, the party desiring to drill, rework, deepen or plug back such a well shall give the other parties written notice of the proposed operation, specifying the work to be performed, the location, proposed depth, objective formation and the estimated cost of the operation. The parties receiving such a notice shall have thirty (30) days after receipt of the notice within which to notify the parties wishing to do the work whether they elect to participate in the cost of the proposed operation. If a drilling rig is on location, notice of proposal to rework, plug back or drill deeper may be given by telephone and the response period shall be limited to forty-eight (48) hours, exclusive of Saturday, Sunday or legal holidays. Failure of a party receiving such notice to reply within the period above fixed shall constitute an election by that party not to participate in the cost of the proposed operation. Any notice or response given by telephone shall be promptly confirmed in writing.

2. Operations by Less than All Parties: If any party receiving such notice as provided in Article VI.B.1. or VI.E.1. elects not to participate in the proposed operation, then, in order to be entitled to the benefits of this article, the party or parties giving the notice and such other parties as shall elect to participate in the operation shall, within sixty (60) days after the expiration of the notice period of thirty (30) days (or as promptly as possible after the expiration of the forty-eight (48) hour period where the drilling rig is on location, as the case may be) actually commence work on the proposed operation and complete it with due diligence. Operator shall perform all work for the account of the Consenting Parties; provided, however, if no drilling rig or other equipment is on location, and if Operator is a Non-Consenting Party, the Consenting Parties shall either: (a) request Operator to perform the work required by such proposed operation for the account of the Consenting Parties, or (b) designate one (1) of the Consenting Parties as Operator to perform such work. Consenting Parties, when conducting operations on the Contract Area pursuant to this Article VI.B.2., shall comply with all terms and conditions of this agreement.

If less than all parties approve any proposed operation, the proposing party, immediately after the expiration of the applicable notice period, shall advise the Consenting Parties of (a) the total interest of the parties approving such operation, and (b) its recommendation as to whether the Consenting Parties should proceed with the operation as proposed. Each Consenting Party, within forty-eight (48) hours (exclusive of Saturday, Sunday or legal holidays) after receipt of such notice, shall advise the proposing party of its desire to (a) limit participation to such party's interest as shown on Exhibit "A", or (b) carry its proportionate part of Non-Consenting Parties' interest. The proposing party, at its election, may withdraw such proposal if there is insufficient participation, and shall promptly notify all parties of such decision.

The entire cost and risk of conducting such operations shall be borne by the Consenting Parties in the proportions they have elected to bear same under the terms of the preceding paragraph. Consenting Parties shall keep the leasehold estates involved in such operations free and clear of all liens and encumbrances of every kind created by or arising from the operations of the Consenting Parties. If such an operation results in a dry hole, the Consenting Parties shall plug and abandon the well at their sole cost, risk and expense. If any well drilled, reworked, deepened or plugged back under the provisions of this Article results in a producer of oil and/or gas in paying quantities, the Consenting Parties shall complete and equip the well to produce at their sole cost and risk, and the well shall then be turned over to Operator and shall be operated by it at the expense and for the account of the Consenting Parties. Upon commencement of operations for the drilling, reworking, deepening or plugging back of any such well by Consenting Parties in accordance with the provisions of this Article, each Non-Consenting Party shall be deemed to have relinquished to Consenting Parties, and the Consenting Parties shall own and be entitled to receive, in proportion to their respective interests, all of such Non-Consenting Party's interest in the well and share of production therefrom until the proceeds of the sale of such share, calculated at the well, or market value thereof if such share is not sold (after deducting production taxes, royalty, overriding royalty and other interests existing on the effective date hereof, payable out of or measured by the production from such well accruing with respect to such interest until it reverts) shall equal the total of the following:

(a) 100% of each such Non-Consenting Party's share of the cost of any newly acquired surface equipment beyond the wellhead connections (including, but not limited to, stock tanks, separators, treaters, pumping equipment and piping), plus 100% of each such Non-Consenting Party's share of the cost of operation of the well commencing with first production and continuing until each such Non-Consenting Party's relinquished interest shall revert to it under other provisions of this Article, it being agreed that each Non-Consenting Party's share of such costs and equipment will be that interest which would have been chargeable to each Non-Consenting Party had it participated in the well from the beginning of the operation; and

(b) _____% of that portion of the costs and expenses of drilling reworking, deepening or plugging back, testing and completing, after deducting any cash contributions received under Article VIII.C., and

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1 ____% of that portion of the cost of newly acquired equipment in the well (to and including the well-
2 head connections), which would have been chargeable to such Non-Consenting Party if it had partici-
3 pated therein.

4
5 Gas production attributable to any Non - Consenting Party's relinquished interest upon such Party's
6 election, shall be sold to its purchaser, if available, under the terms of its existing gas sales con-
7 tract. Such Non - Consenting Party shall direct its purchaser to remit the proceeds receivable from
8 such sale direct to the Consenting Parties until the amounts provided for in this Article are recov-
9 ered from the Non - Consenting Party's relinquished interest. If such Non - Consenting Party has not
10 contracted for sale of its gas at the time such gas is available for delivery, or has not made the elec-
11 tion as provided above, the Consenting Parties shall own and be entitled to receive and sell such Non-
12 Consenting Party's share of gas as hereinabove provided during the recoupment period.

13
14 During the period of time Consenting Parties are entitled to receive Non-Consenting Party's share
15 of production, or the proceeds therefrom, Consenting Parties shall be responsible for the payment of
16 all production, severance, gathering and other taxes, and all royalty, overriding royalty and other
17 burdens applicable to Non-Consenting Party's share of production.

18
19 In the case of any reworking, plugging back or deeper drilling operation, the Consenting Parties shall
20 be permitted to use, free of cost, all casing, tubing and other equipment in the well, but the ownership of
21 all such equipment shall remain unchanged; and upon abandonment of a well after such reworking,
22 plugging back or deeper drilling, the Consenting Parties shall account for all such equipment to the
23 owners thereof, with each party receiving its proportionate part in kind or in value, less cost of
24 salvage.

25
26 Within sixty (60) days after the completion of any operation under this Article, the party con-
27 ducting the operations for the Consenting Parties shall furnish each Non-Consenting Party with an in-
28 ventory of the equipment in and connected to the well, and an itemized statement of the cost of drilling,
29 deepening, plugging back, testing, completing, and equipping the well for production; or, at its option,
30 the operating party, in lieu of an itemized statement of such costs of operation, may submit a detailed
31 statement of monthly billings. Each month thereafter, during the time the Consenting Parties are being
32 reimbursed as provided above, the Party conducting the operations for the Consenting Parties shall furn-
33 ish the Non-Consenting Parties with an itemized statement of all costs and liabilities incurred in the
34 operation of the well, together with a statement of the quantity of oil and gas produced from it and the
35 amount of proceeds realized from the sale of the well's working interest production during the preceding
36 month. In determining the quantity of oil and gas produced during any month, Consenting Parties
37 shall use industry accepted methods such as, but not limited to, metering or periodic well tests. Any
38 amount realized from the sale or other disposition of equipment newly acquired in connection with any
39 such operation which would have been owned by a Non-Consenting Party had it participated therein
40 shall be credited against the total unreturned costs of the work done and of the equipment purchased,
41 in determining when the interest of such Non-Consenting Party shall revert to it as above provided;
42 and if there is a credit balance, it shall be paid to such Non-Consenting party.

43
44 If and when the Consenting Parties recover from a Non-Consenting Party's relinquished interest
45 the amounts provided for above, the relinquished interests of such Non-Consenting Party shall auto-
46 matically revert to it, and, from and after such reversion, such Non-Consenting Party shall own the same
47 interest in such well, the material and equipment in or pertaining thereto, and the production there-
48 from as such Non-Consenting Party would have been entitled to had it participated in the drilling,
49 reworking, deepening or plugging back of said well. Thereafter, such Non-Consenting Party shall be
50 charged with and shall pay its proportionate part of the further costs of the operation of said well in
51 accordance with the terms of this agreement and the Accounting Procedure, attached hereto.

52
53 Notwithstanding the provisions of this Article VI.B.2., it is agreed that without the mutual consent
54 of all parties, no wells shall be completed in or produced from a source of supply from which a well
55 located elsewhere on the Contract Area is producing, unless such well conforms to the then-existing
56 well spacing pattern for such source of supply.

57
58 The provisions of this Article shall have no application whatsoever to the drilling of the initial
59 well described in Article VI.A. except (a) when Option 2, Article VII.D.1., has been selected, or (b)
60 to the reworking, deepening and plugging back of such initial well, if such well is or thereafter shall
61 prove to be a dry hole or non-commercial well, after having been drilled to the depth specified in Article
62 VI.A.

63
64 **C. Right to Take Production in Kind:**

65
66 Each party shall have the right to take in kind or separately dispose of its proportionate share of
67 all oil and gas produced from the Contract Area, exclusive of production which may be used in de-
68 velopment and producing operations and in preparing and treating oil for marketing purposes and
69 production unavoidably lost. Any extra expenditure incurred in the taking in kind or separate dispo-
70 sition by any party of its proportionate share of the production shall be borne by such party. Any

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1 party taking its share of production in kind shall be required to pay for only its proportionate share
2 of such part of Operator's surface facilities which it uses.

3
4 Each party shall execute such division orders and contracts as may be necessary for the sale of its
5 interest in production from the Contract Area, and, except as provided in Article VII.B., shall be entitled
6 to receive payment direct from the purchaser thereof for its share of all production.

7
8 In the event any party shall fail to make the arrangements necessary to take in kind or separately
9 dispose of its proportionate share of the oil and gas produced from the Contract Area, Operator shall have
10 the right, subject to the revocation at will by the party owning it, but not the obligation, to purchase such
11 oil and gas or sell it to others at any time and from time to time, for the account of the non-taking
12 party at the best price obtainable in the area for such production. Any such purchase or sale by Op-
13 erator shall be subject always to the right of the owner of the production to exercise at any time its
14 right to take in kind, or separately dispose of, its share of all oil and gas not previously delivered to a
15 purchaser. Any purchase or sale by Operator of any other party's share of oil and gas shall be only for
16 such reasonable periods of time as are consistent with the minimum needs of the industry under the
17 particular circumstances, but in no event for a period in excess of one (1) year. Notwithstanding the
18 foregoing, Operator shall not make a sale, including one into interstate commerce, of any other party's
19 share of gas production without first giving such other party thirty (30) days notice of such intended
20 sale.

21
22 In the event one or more parties' separate disposition of its share of the gas causes split-stream de-
23 liveries to separate pipelines and/or deliveries which on a day-to-day basis for any reason are not
24 exactly equal to a party's respective proportionate share of total gas sales to be allocated to it, the
25 balancing or accounting between the respective accounts of the parties shall be in accordance with
26 any Gas Balancing Agreement between the parties hereto, whether such Agreement is attached as
27 Exhibit "E", or is a separate Agreement.

28
29 **D. Access to Contract Area and Information:**

30
31 Each party shall have access to the Contract Area at all reasonable times, at its sole risk to inspect
32 or observe operations, and shall have access at reasonable times to information pertaining to the de-
33 velopment or operation thereof, including Operator's books and records relating thereto. Operator, upon
34 request, shall furnish each of the other parties with copies of all forms or reports filed with govern-
35 mental agencies, daily drilling reports, well logs, tank tables, daily gauge and run tickets and reports
36 of stock on hand at the first of each month, and shall make available samples of any cores or cuttings
37 taken from any well drilled on the Contract Area. The cost of gathering and furnishing information to
38 Non-Operator, other than that specified above, shall be charged to the Non-Operator that requests the
39 information.

40
41 **E. Abandonment of Wells:**

42
43 1. Abandonment of Dry Holes: Except for any well drilled pursuant to Article VI.B.2., any well
44 which has been drilled under the terms of this agreement and is proposed to be completed as a dry hole
45 shall not be plugged and abandoned without the consent of all parties. Should Operator, after diligent
46 effort, be unable to contact any party, or should any party fail to reply within forty-eight (48) hours
47 (exclusive of Saturday, Sunday or legal holidays) after receipt of notice of the proposal to plug and
48 abandon such well, such party shall be deemed to have consented to the proposed abandonment. All
49 such wells shall be plugged and abandoned in accordance with applicable regulations and at the cost,
50 risk and expense of the parties who participated in the cost of drilling of such well. Any party who ob-
51 jects to the plugging and abandoning such well shall have the right to take over the well and conduct
52 further operations in search of oil and/or gas subject to the provisions of Article VI.B.

53
54 2. Abandonment of Wells that have Produced: Except for any well which has been drilled or re-
55 worked pursuant to Article VI.B.2. hereof for which the Consenting Parties have not been fully reim-
56 bursed as therein provided, any well which has been completed as a producer shall not be plugged and
57 abandoned without the consent of all parties. If all parties consent to such abandonment, the well shall
58 be plugged and abandoned in accordance with applicable regulations and at the cost, risk and expense
59 of all the parties hereto. If, within thirty (30) days after receipt of notice of the proposed abandonment
60 of such well, all parties do not agree to the abandonment of any well, those wishing to continue its op-
61 eration shall tender to each of the other parties its proportionate share of the value of the well's salvageable
62 material and equipment, determined in accordance with the provisions of Exhibit "C", less the estimated
63 cost of salvaging and the estimated cost of plugging and abandoning. Each abandoning party shall
64 assign to the non-abandoning parties, without warranty, express or implied, as to title or as to quantity,
65 quality, or fitness for use of the equipment and material, all of its interest in the well and related equip-
66 ment, together with its interest in the leasehold estate as to, but only as to, the interval or intervals of the
67 formation or formations then open to production. If the interest of the abandoning party is or includes
68 an oil and gas interest, such party shall execute and deliver to the non-abandoning party or parties an
69 oil and gas lease, limited to the interval or intervals of the formation or formations then open to produc-
70 tion, for a term of one year and so long thereafter as oil and/or gas is produced from the ~~interval or inter-~~

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vals of the formation or formations covered thereby, such lease to be on the form attached as Exhibit "B". The assignments or leases so limited shall encompass the "drilling unit" upon which the well is located. The payments by, and the assignments or leases to, the assignees shall be in a ratio based upon the relationship of their respective percentages of participation in the Contract Area to the aggregate of the percentages of participation in the Contract Area of all assignees. There shall be no readjustment of interest in the remaining portion of the Contract Area.

Thereafter, abandoning parties shall have no further responsibility, liability, or interest in the operation of or production from the well in the interval or intervals then open other than the royalties retained in any lease made under the terms of this Article. Upon request, Operator shall continue to operate the assigned well for the account of the non-abandoning parties at the rates and charges contemplated by this agreement, plus any additional cost and charges which may arise as the result of the separate ownership of the assigned well.

ARTICLE VII. EXPENDITURES AND LIABILITY OF PARTIES

A. Liability of Parties:

The liability of the parties shall be several, not joint or collective. Each party shall be responsible only for its obligations, and shall be liable only for its proportionate share of the costs of developing and operating the Contract Area. Accordingly, the liens granted among the parties in Article VII.B. are given to secure only the debts of each severally. It is not the intention of the parties to create, nor shall this agreement be construed as creating, a mining or other partnership or association, or to render the parties liable as partners.

B. Liens and Payment Defaults:

Each Non-Operator grants to Operator a lien upon its oil and gas rights in the Contract Area, and a security interest in its share of oil and/or gas when extracted and its interest in all equipment, to secure payment of its share of expense, together with interest thereon at the rate provided in the Accounting Procedure attached hereto as Exhibit "C". To the extent that Operator has a security interest under the Uniform Commercial Code of the State, Operator shall be entitled to exercise the rights and remedies of a secured party under the Code. The bringing of a suit and the obtaining of judgment by Operator for the secured indebtedness shall not be deemed an election of remedies or otherwise affect the lien rights or security interest as security for the payment thereof. In addition, upon default by any Non-Operator in the payment of its share of expense, Operator shall have the right, without prejudice to other rights or remedies, to collect from the purchaser the proceeds from the sale of such Non-Operator's share of oil and/or gas until the amount owed by such Non-Operator, plus interest has been paid. Each purchaser shall be entitled to rely upon Operator's written statement concerning the amount of any default. Operator grants a like lien and security interest to the Non-Operators to secure payment of Operator's proportionate share of expense.

If any party fails or is unable to pay its share of expense within sixty (60) days after rendition of a statement therefor by Operator, the non-defaulting parties, including Operator, shall, upon request by Operator, pay the unpaid amount in the proportion that the interest of each such party bears to the interest of all such parties. Each party so paying its share of the unpaid amount shall, to obtain reimbursement thereof, be subrogated to the security rights described in the foregoing paragraph.

C. Payments and Accounting:

Except as herein otherwise specifically provided, Operator shall promptly pay and discharge expenses incurred in the development and operation of the Contract Area pursuant to this agreement and shall charge each of the parties hereto with their respective proportionate shares upon the expense basis provided in the Accounting Procedure attached hereto as Exhibit "C". Operator shall keep an accurate record of the joint account hereunder, showing expenses incurred and charges and credits made and received.

Operator, at its election, shall have the right from time to time to demand and receive from the other parties payment in advance of their respective shares of the estimated amount of the expense to be incurred in operations hereunder during the next succeeding month, which right may be exercised only by submission to each such party of an itemized statement of such estimated expense, together with an invoice for its share thereof. Each such statement and invoice for the payment in advance of estimated expense shall be submitted on or before the 20th day of the next preceding month. Each party shall pay to Operator its proportionate share of such estimate within fifteen (15) days after such estimate and invoice is received. If any party fails to pay its share of said estimate within said time, the amount due shall bear interest as provided in Exhibit "C" until paid. Proper adjustment shall be made monthly between advances and actual expense to the end that each party shall bear and pay its proportionate share of actual expenses incurred, and no more.

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D. Limitation of Expenditures:

1. Drill or Deepen: Without the consent of all parties, no well shall be drilled or deepened, except any well drilled or deepened pursuant to the provisions of Article VI.B.2. of this Agreement, it being understood that the consent to the drilling or deepening shall include:

☐ Option No. 1: All necessary expenditures for the drilling or deepening, testing, completing and equipping of the well, including necessary tankage and/or surface facilities.

☐ Option No. 2: All necessary expenditures for the drilling or deepening and testing of the well. When such well has reached its authorized depth, and all tests have been completed, Operator shall give immediate notice to the Non-Operators who have the right to participate in the completion costs. The parties receiving such notice shall have forty-eight (48) hours (exclusive of Saturday, Sunday and legal holidays) in which to elect to participate in the setting of casing and the completion attempt. Such election, when made, shall include consent to all necessary expenditures for the completing and equipping of such well, including necessary tankage and/or surface facilities. Failure of any party receiving such notice to reply within the period above fixed shall constitute an election by that party not to participate in the cost of the completion attempt. If one or more, but less than all of the parties, elect to set pipe and to attempt a completion, the provisions of Article VI.B.2. hereof (the phrase "reworking, deepening or plugging back" as contained in Article VI.B.2. shall be deemed to include "completing") shall apply to the operations thereafter conducted by less than all parties.

2. Rework or Plug Back: Without the consent of all parties, no well shall be reworked or plugged back except a well reworked or plugged back pursuant to the provisions of Article VI.B.2. of this agreement, it being understood that the consent to the reworking or plugging back of a well shall include consent to all necessary expenditures in conducting such operations and completing and equipping of said well, including necessary tankage and/or surface facilities.

3. Other Operations: Operator shall not undertake any single project reasonably estimated to require an expenditure in excess of _____ Dollars (\$ _____) except in connection with a well, the drilling, reworking, deepening, completing, recompleting, or plugging back of which has been previously authorized by or pursuant to this agreement; provided, however, that, in case of explosion, fire, flood or other sudden emergency, whether of the same or different nature, Operator may take such steps and incur such expenses as in its opinion are required to deal with the emergency to safeguard life and property but Operator, as promptly as possible, shall report the emergency to the other parties. If Operator prepares "Authority for Expenditures" for its own use, Operator, upon request, shall furnish copies of its "Authority for Expenditures" for any single project costing in excess of _____ Dollars (\$ _____).

E. Royalties, Overriding Royalties and Other Payments:

Each party shall pay or deliver, or cause to be paid or delivered, all royalties to the extent of _____ due on its share of production and shall hold the other parties free from any liability therefor. If the interest of any party in any oil and gas lease covered by this agreement is subject to any royalty, overriding royalty, production payment, or other charge over and above the aforesaid royalty, such party shall assume and alone bear all such obligations and shall account for or cause to be accounted for, such interest to the owners thereof.

No party shall ever be responsible, on any price basis higher than the price received by such party, to any other party's lessor or royalty owner; and if any such other party's lessor or royalty owner should demand and receive settlements on a higher price basis, the party contributing such lease shall bear the royalty burden insofar as such higher price is concerned.

F. Rentals, Shut-in Well Payments and Minimum Royalties:

Rentals, shut-in well payments and minimum royalties which may be required under the terms of any lease shall be paid by the party or parties who subjected such lease to this agreement at its or their expense. In the event two or more parties own and have contributed interests in the same lease to this agreement, such parties may designate one of such parties to make said payments for and on behalf of all such parties. Any party may request, and shall be entitled to receive, proper evidence of all such payments. In the event of failure to make proper payment of any rental, shut-in well payment or minimum royalty through mistake or oversight where such payment is required to continue the lease in force, any loss which results from such non-payment shall be borne in accordance with the provisions of Article IV.B.2.

Operator shall notify Non-Operator of the anticipated completion of a shut-in gas well, or the shutting in or return to production of a producing gas well, at least five (5) days (excluding Saturday, Sunday and holidays), or at the earliest opportunity permitted by circumstances, prior to taking such action, but assumes no liability for failure to do so. In the event of failure by Operator to so notify Non-Operator, the loss of any lease contributed hereto by Non-Operator for failure to make timely payments

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1 of any shut-in well payment shall be borne jointly by the parties hereto under the provisions of Article
2 IV.B.3.

3
4 **G. Taxes:**

5
6 Beginning with the first calendar year after the effective date hereof, Operator shall render for ad
7 valorem taxation all property subject to this agreement which by law should be rendered for such
8 taxes, and it shall pay all such taxes assessed thereon before they become delinquent. Prior to the ren-
9 dition date, each Non-Operator shall furnish Operator information as to burdens (to include, but not be
10 limited to, royalties, overriding royalties and production payments) on leases and oil and gas interests con-
11 tributed by such Non-Operator. If the assessed valuation of any leasehold estate is reduced by reason of its
12 being subject to outstanding excess royalties, overriding royalties or production payments, the reduction in
13 ad valorem taxes resulting therefrom shall inure to the benefit of the owner or owners of such leasehold
14 estate, and Operator shall adjust the charge to such owner or owners so as to reflect the benefit of such
15 reduction. Operator shall bill other parties for their proportionate share of all tax payments in the man-
16 ner provided in Exhibit "C".

17
18 If Operator considers any tax assessment improper, Operator may, at its discretion, protest within
19 the time and manner prescribed by law, and prosecute the protest to a final determination, unless all
20 parties agree to abandon the protest prior to final determination. During the pendency of administrative
21 or judicial proceedings, Operator may elect to pay, under protest, all such taxes and any interest and
22 penalty. When any such protested assessment shall have been finally determined, Operator shall pay
23 the tax for the joint account, together with any interest and penalty accrued, and the total cost shall then
24 be assessed against the parties, and be paid by them, as provided in Exhibit "C".

25
26 Each party shall pay or cause to be paid all production, severance, gathering and other taxes im-
27 posed upon or with respect to the production or handling of such party's share of oil and/or gas pro-
28 duced under the terms of this agreement.

29
30 **H. Insurance:**

31
32 At all times while operations are conducted hereunder, Operator shall comply with the Workmen's
33 Compensation Law of the State where the operations are being conducted; provided, however, that Op-
34 erator may be a self-insurer for liability under said compensation laws in which event the only charge
35 that shall be made to the joint account shall be an amount equivalent to the premium which would have
36 been paid had such insurance been obtained. Operator shall also carry or provide insurance for the
37 benefit of the joint account of the parties as outlined in Exhibit "D", attached to and made a part hereof.
38 Operator shall require all contractors engaged in work on or for the Contract Area to comply with the
39 Workmen's Compensation Law of the State where the operations are being conducted and to maintain
40 such other insurance as Operator may require.

41
42 In the event Automobile Public Liability Insurance is specified in said Exhibit "D", or subsequently
43 receives the approval of the parties, no direct charge shall be made by Operator for premiums paid for
44 such insurance for Operator's fully owned automotive equipment.

45
46 **ARTICLE VIII.**
47 **ACQUISITION, MAINTENANCE OR TRANSFER OF INTEREST**

48
49 **A. Surrender of Leases:**

50
51 The leases covered by this agreement, insofar as they embrace acreage in the Contract Area, shall
52 not be surrendered in whole or in part unless all parties consent thereto.

53
54 However, should any party desire to surrender its interest in any lease or in any portion thereof, and
55 other parties do not agree or consent thereto, the party desiring to surrender shall assign, without express
56 or implied warranty of title, all of its interest in such lease, or portion thereof, and any well, material and
57 equipment which may be located thereon and any rights in production thereafter secured, to the parties
58 not desiring to surrender it. If the interest of the assigning party includes an oil and gas interest, the as-
59 signing party shall execute and deliver to the party or parties not desiring to surrender an oil and gas
60 lease covering such oil and gas interest for a term of one year and so long thereafter as oil and/or gas
61 is produced from the land covered thereby, such lease to be on the form attached hereto as Exhibit "B".
62 Upon such assignment, the assigning party shall be relieved from all obligations thereafter accruing,
63 but not theretofore accrued, with respect to the acreage assigned and the operation of any well thereon,
64 and the assigning party shall have no further interest in the lease assigned and its equipment and pro-
65 duction other than the royalties retained in any lease made under the terms of this Article. The parties
66 assignee shall pay to the party assignor the reasonable salvage value of the latter's interest in any wells
67 and equipment on the assigned acreage. The value of all material shall be determined in accordance
68 with the provisions of Exhibit "C", less the estimated cost of salvaging and the estimated cost of plug-
69 ging and abandoning. If the assignment is in favor of more than one party, the assigned interest shall

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1 be shared by the parties assignee in the proportions that the interest of each bears to the interest of all
2 parties assignee.

3
4 Any assignment or surrender made under this provision shall not reduce or change the assignor's or
5 surrendering parties' interest, as it was immediately before the assignment, in the balance of the Contract
6 Area; and the acreage assigned or surrendered, and subsequent operations thereon, shall not thereafter
7 be subject to the terms and provisions of this agreement.

8
9 **B. Renewal or Extension of Leases:**

10
11 If any party secures a renewal of any oil and gas lease subject to this Agreement, all other parties
12 shall be notified promptly, and shall have the right for a period of thirty (30) days following receipt
13 of such notice in which to elect to participate in the ownership of the renewal lease, insofar as such
14 lease affects lands within the Contract Area, by paying to the party who acquired it their several proper
15 proportionate shares of the acquisition cost allocated to that part of such lease within the Contract Area,
16 which shall be in proportion to the interests held at that time by the parties in the Contract Area.

17
18 If some, but less than all, of the parties elect to participate in the purchase of a renewal lease, it
19 shall be owned by the parties who elect to participate therein, in a ratio based upon the relationship of
20 their respective percentage of participation in the Contract Area to the aggregate of the percentages
21 of participation in the Contract Area of all parties participating in the purchase of such renewal lease.
22 Any renewal lease in which less than all parties elect to participate shall not be subject to this agreement.

23
24 Each party who participates in the purchase of a renewal lease shall be given an assignment of its
25 proportionate interest therein by the acquiring party.

26
27 The provisions of this Article shall apply to renewal leases whether they are for the entire interest
28 covered by the expiring lease or cover only a portion of its area or an interest therein. Any renewal lease
29 taken before the expiration of its predecessor lease, or taken or contracted for within six (6) months after
30 the expiration of the existing lease shall be subject to this provision; but any lease taken or contracted
31 for more than six (6) months after the expiration of an existing lease shall not be deemed a renewal
32 lease and shall not be subject to the provisions of this agreement.

33
34 The provisions in this Article shall apply also and in like manner to extensions of oil and gas
35 leases.

36
37 **C. Acreage or Cash Contributions:**

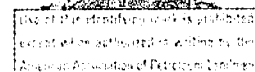
38
39 While this agreement is in force, if any party contracts for a contribution of cash toward the drilling
40 of a well or any other operation on the Contract Area, such contribution shall be paid to the party who
41 conducted the drilling or other operation and shall be applied by it against the cost of such drilling or
42 other operation. If the contribution be in the form of acreage, the party to whom the contribution is
43 made shall promptly tender an assignment of the acreage, without warranty of title, to the Drilling
44 Parties in the proportions said Drilling Parties shared the cost of drilling the well. If all parties hereto
45 are Drilling Parties and accept such tender, such acreage shall become a part of the Contract Area and
46 be governed by the provisions of this agreement. If less than all parties hereto are Drilling Parties and
47 accept such tender, such acreage shall not become a part of the Contract Area. Each party shall prompt-
48 ly notify all other parties of all acreage or money contributions it may obtain in support of any well or
49 any other operation on the Contract Area.

50
51 If any party contracts for any consideration relating to disposition of such party's share of substances
52 produced hereunder, such consideration shall not be deemed a contribution as contemplated in this
53 Article VIII.C.

54
55 **D. Subsequently Created Interest:**

56
57 Notwithstanding the provisions of Article VIII.E. and VIII.G., if any party hereto shall, subsequent
58 to execution of this agreement, create an overriding royalty, production payment, or net proceeds inter-
59 est, which such interests are hereinafter referred to as "subsequently created interest", such subsequently
60 created interest shall be specifically made subject to all of the terms and provisions of this agreement, as
61 follows:

62
63 1. If non-consent operations are conducted pursuant to any provision of this agreement, and the
64 party conducting such operations becomes entitled to receive the production attributable to the interest
65 out of which the subsequently created interest is derived, such party shall receive same free and clear
66 of such subsequently created interest. The party creating same shall bear and pay all such subsequently
67 created interests and shall indemnify and hold the other parties hereto free and harmless from any and
68 all liability resulting therefrom.



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2. If the owner of the interest from which the subsequently created interest is derived (1) fails to pay, when due, its share of expenses chargeable hereunder, or (2) elects to abandon a well under provisions of Article VI.E. hereof, or (3) elects to surrender a lease under provisions of Article VIII.A. hereof, the subsequently created interest shall be chargeable with the pro rata portion of all expenses hereunder in the same manner as if such interest were a working interest. For purposes of collecting such chargeable expenses, the party or parties who receive assignments as a result of (2) or (3) above shall have the right to enforce all provisions of Article VII.B. hereof against such subsequently created interest.

E. Maintenance of Uniform Interest:

For the purpose of maintaining uniformity of ownership in the oil and gas leasehold interests covered by this agreement, and notwithstanding any other provisions to the contrary, no party shall sell, encumber, transfer or make other disposition of its interest in the leases embraced within the Contract Area and in wells, equipment and production unless such disposition covers either:

1. the entire interest of the party in all leases and equipment and production; or
2. an equal undivided interest in all leases and equipment and production in the Contract Area.

Every such sale, encumbrance, transfer or other disposition made by any party shall be made expressly subject to this agreement, and shall be made without prejudice to the right of the other parties.

If, at any time the interest of any party is divided among and owned by four or more co-owners, Operator, at its discretion, may require such co-owners to appoint a single trustee or agent with full authority to receive notices, approve expenditures, receive billings for and approve and pay such party's share of the joint expenses, and to deal generally with, and with power to bind, the co-owners of such party's interests within the scope of the operations embraced in this agreement; however, all such co-owners shall have the right to enter into and execute all contracts or agreements for the disposition of their respective shares of the oil and gas produced from the Contract Area and they shall have the right to receive, separately, payment of the sale proceeds hereof.

F. Waiver of Right to Partition:

If permitted by the laws of the state or states in which the property covered hereby is located, each party hereto owning an undivided interest in the Contract Area waives any and all rights it may have to partition and have set aside to it in severalty its undivided interest therein.

G. Preferential Right to Purchase:

Should any party desire to sell all or any part of its interests under this agreement, or its rights and interests in the Contract Area, it shall promptly give written notice to the other parties, with full information concerning its proposed sale, which shall include the name and address of the prospective purchaser (who must be ready, willing and able to purchase), the purchase price, and all other terms of the offer. The other parties shall then have an optional prior right, for a period of ten (10) days after receipt of the notice, to purchase on the same terms and conditions the interest which the other party proposes to sell; and, if this optional right is exercised, the purchasing parties shall share the purchased interest in the proportions that the interest of each bears to the total interest of all purchasing parties. However, there shall be no preferential right to purchase in those cases where any party wishes to mortgage its interests, or to dispose of its interests by merger, reorganization, consolidation, or sale of all or substantially all of its assets to a subsidiary or parent company or to a subsidiary of a parent company, or to any company in which any one party owns a majority of the stock.

**ARTICLE IX.
INTERNAL REVENUE CODE ELECTION**

This agreement is not intended to create, and shall not be construed to create, a relationship of partnership or an association for profit between or among the parties hereto. Notwithstanding any provisions herein that the rights and liabilities hereunder are several and not joint or collective, or that this agreement and operations hereunder shall not constitute a partnership, if, for Federal income tax purposes, this agreement and the operations hereunder are regarded as a partnership, each party hereby affected elects to be excluded from the application of all of the provisions of Subchapter "K", Chapter 1, Subtitle "A", of the Internal Revenue Code of 1954, as permitted and authorized by Section 761 of the Code and the regulations promulgated thereunder. Operator is authorized and directed to execute on behalf of each party hereby affected such evidence of this election as may be required by the Secretary of the Treasury of the United States or the Federal Internal Revenue Service, including specifically, but not by way of limitation, all of the returns, statements, and the data required by Federal Regulations 1.761. Should there be any requirement that each party hereby affected give further evidence of this election, each such party shall execute such documents and furnish such other evidence as may be required by the Federal Internal Revenue Service or as may be necessary to evidence this election. No

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1 such party shall give any notices or take any other action inconsistent with the election made hereby.
2 If any present or future income tax laws of the state or states in which the Contract Area is located or
3 any future income tax laws of the United States contain provisions similar to those in Subchapter "K",
4 Chapter 1, Subtitle "A", of the Internal Revenue Code of 1954, under which an election similar to that
5 provided by Section 761 of the Code is permitted, each party hereby affected shall make such election as
6 may be permitted or required by such laws. In making the foregoing election, each such party states that
7 the income derived by such party from Operations hereunder can be adequately determined without the
8 computation of partnership taxable income.

9
10 **ARTICLE X.**
11 **CLAIMS AND LAWSUITS**
12

13 Operator may settle any single damage claim or suit arising from operations hereunder if the ex-
14 penditure does not exceed _____ Dollars
15 (\$ _____) and if the payment is in complete settlement of such claim or suit. If the amount
16 required for settlement exceeds the above amount, the parties hereto shall assume and take over the
17 further handling of the claim or suit, unless such authority is delegated to Operator. All costs and ex-
18 pense of handling, settling, or otherwise discharging such claim or suit shall be at the joint expense
19 of the parties. If a claim is made against any party or if any party is sued on account of any matter
20 arising from operations hereunder over which such individual has no control because of the rights given
21 Operator by this agreement, the party shall immediately notify Operator, and the claim or suit shall
22 be treated as any other claim or suit involving operations hereunder.

23
24 **ARTICLE XI.**
25 **FORCE MAJEURE**
26

27 If any party is rendered unable, wholly or in part, by force majeure to carry out its obligations
28 under this agreement, other than the obligation to make money payments, that party shall give to all
29 other parties prompt written notice of the force majeure with reasonably full particulars concerning it;
30 thereupon, the obligations of the party giving the notice, so far as they are affected by the force majeure,
31 shall be suspended during, but no longer than, the continuance of the force majeure. The affected party
32 shall use all reasonable diligence to remove the force majeure situation as quickly as practicable.

33
34 The requirement that any force majeure shall be remedied with all reasonable dispatch shall not
35 require the settlement of strikes, lockouts, or other labor difficulty by the party involved, contrary to its
36 wishes; how all such difficulties shall be handled shall be entirely within the discretion of the party
37 concerned.

38
39 The term "force majeure", as here employed, shall mean an act of God, strike, lockout, or other
40 industrial disturbance, act of the public enemy, war, blockade, public riot, lightning, fire, storm, flood,
41 explosion, governmental action, governmental delay, restraint or inaction, unavailability of equipment,
42 and any other cause, whether of the kind specifically enumerated above or otherwise, which is not
43 reasonably within the control of the party claiming suspension.

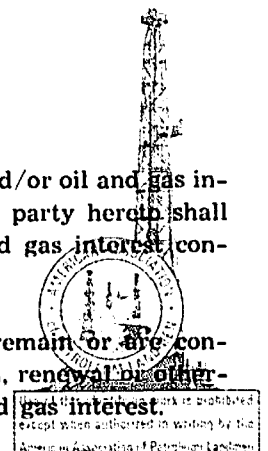
44
45 **ARTICLE XII.**
46 **NOTICES**
47

48 All notices authorized or required between the parties, and required by any of the provisions of
49 this agreement, unless otherwise specifically provided, shall be given in writing by United States mail
50 or Western Union telegram, postage or charges prepaid, or by teletype, and addressed to the party to
51 whom the notice is given at the addresses listed on Exhibit "A". The originating notice given under any
52 provision hereof shall be deemed given only when received by the party to whom such notice is directed,
53 and the time for such party to give any notice in response thereto shall run from the date the originat-
54 ing notice is received. The second or any responsive notice shall be deemed given when deposited in
55 the United States mail or with the Western Union Telegraph Company, with postage or charges prepaid,
56 or when sent by teletype. Each party shall have the right to change its address at any time, and from
57 time to time, by giving written notice hereof to all other parties.

58
59 **ARTICLE XIII.**
60 **TERM OF AGREEMENT**
61

62 This agreement shall remain in full force and effect as to the oil and gas leases and/or oil and gas in-
63 terests subjected hereto for the period of time selected below; provided, however, no party hereto shall
64 ever be construed as having any right, title or interest in or to any lease, or oil and gas interest con-
65 tributed by any other party beyond the term of this agreement.

66
67 ☐ **Option No. 1:** So long as any of the oil and gas leases subject to this agreement remain or are con-
68 tinued in force as to any part of the Contract Area, whether by production, extension, renewal or other-
69 wise, and/or so long as oil and/or gas production continues from any lease or oil and gas interest.



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☐ **Option No. 2:** In the event the well described in Article VI.A., or any subsequent well drilled under any provision of this agreement, results in production of oil and/or gas in paying quantities, this agreement shall continue in force so long as any such well or wells produce, or are capable of production, and for an additional period of _____ days from cessation of all production; provided, however, if, prior to the expiration of such additional period, one or more of the parties hereto are engaged in drilling or reworking a well or wells hereunder, this agreement shall continue in force until such operations have been completed and if production results therefrom, this agreement shall continue in force as provided herein. In the event the well described in Article VI.A., or any subsequent well drilled hereunder, results in a dry hole, and no other well is producing, or capable of producing oil and/or gas from the Contract Area, this agreement shall terminate unless drilling or reworking operations are commenced within _____ days from the date of abandonment of said well.

It is agreed, however, that the termination of this agreement shall not relieve any party hereto from any liability which has accrued or attached prior to the date of such termination.

**ARTICLE XIV.
COMPLIANCE WITH LAWS AND REGULATIONS**

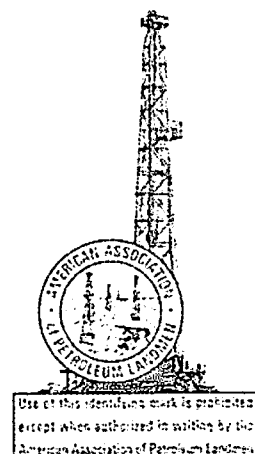
A. Laws, Regulations and Orders:

This agreement shall be subject to the conservation laws of the state in which the committed acreage is located, to the valid rules, regulations, and orders of any duly constituted regulatory body of said state; and to all other applicable federal, state, and local laws, ordinances, rules, regulations, and orders.

B. Governing Law:

The essential validity of this agreement and all matters pertaining thereto, including, but not limited to, matters of performance, non-performance, breach, remedies, procedures, rights, duties and interpretation or construction, shall be governed and determined by the law of the state in which the Contract Area is located. If the Contract Area is in two or more states, the law of the state where most of the land in the Contract Area is located shall govern.

**ARTICLE XV.
OTHER PROVISIONS**



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ARTICLE XVI.
MISCELLANEOUS

This agreement shall be binding upon and shall inure to the benefit of the parties hereto and to their respective heirs, devisees, legal representatives, successors and assigns.

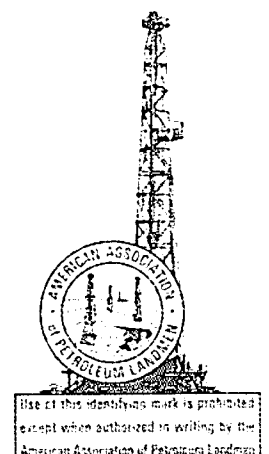
This instrument may be executed in any number of counterparts, each of which shall be considered an original for all purposes.

IN WITNESS WHEREOF, this agreement shall be effective as of _____ day of _____, 19____.

OPERATOR

NON-OPERATORS

AAPL Educational use ONLY



A.A.P.L. FORM 610-1982
MODEL FORM OPERATING AGREEMENT

OPERATING AGREEMENT

OPERATOR _____

CONTRACT AREA _____

COUNTY OR PARISH OF _____ STATE OF _____

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BLVD., FORT WORTH, TEXAS. 76137-2791.

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OPERATING AGREEMENT

THIS AGREEMENT, entered into by and between _____, hereinafter designated and referred to as “Operator”, and the signatory party or parties other than Operator, sometimes hereinafter referred to individually herein as “Non-Operator”, and collectively as “Non-Operators”.

WITNESSETH:

WHEREAS, the parties to this agreement are owners of oil and gas leases and/or oil and gas interests in the land identified in Exhibit “A”, and the parties hereto have reached an agreement to explore and develop these leases and/or oil and gas interests for the production of oil and gas to the extent and as hereinafter provided,

NOW, THEREFORE, it is agreed as follows:

ARTICLE I.
DEFINITIONS

As used in this agreement, the following words and terms shall have the meanings here ascribed to them:

- A. The term “oil and gas” shall mean oil, gas, casinghead gas, gas condensate, and all other liquid or gaseous hydrocarbons and other marketable substances produced therewith, unless an intent to limit the inclusiveness of this term is specifically stated.
- B. The terms “oil and gas lease”, “lease” and “leasehold” shall mean the oil and gas leases covering tracts of land lying within the Contract Area which are owned by the parties to this agreement.
- C. The term “oil and gas interests” shall mean unleased fee and mineral interests in tracts of land lying within the Contract Area which are owned by parties to this agreement.
- D. The term “Contract Area” shall mean all of the lands, oil and gas leasehold interests and oil and gas interests intended to be developed and operated for oil and gas purposes under this agreement. Such lands, oil and gas leasehold interests and oil and gas interests are described in Exhibit “A”.
- E. The term “drilling unit” shall mean the area fixed for the drilling of one well by order or rule of any state or federal body having authority. If a drilling unit is not fixed by any such rule or order, a drilling unit shall be the drilling unit as established by the pattern of drilling in the Contract Area or as fixed by express agreement of the Drilling Parties.
- F. The term “drillsite” shall mean the oil and gas lease or interest on which a proposed well is to be located.
- G. The terms “Drilling Party” and “Consenting Party” shall mean a party who agrees to join in and pay its share of the cost of any operation conducted under the provisions of this agreement.
- H. The terms “Non-Drilling Party” and “Non-Consenting Party” shall mean a party who elects not to participate in a proposed operation.

Unless the context otherwise clearly indicates, words used in the singular include the plural, the plural includes the singular, and the neuter gender includes the masculine and the feminine.

ARTICLE II.
EXHIBITS

The following exhibits, as indicated below and attached hereto, are incorporated in and made a part hereof:

- ☐ A. Exhibit “A”, shall include the following information:
 - (1) Identification of lands subject to this agreement,
 - (2) Restrictions, if any, as to depths, formations, or substances,
 - (3) Percentages or fractional interests of parties to this agreement,
 - (4) Oil and gas leases and/or oil and gas interests subject to this agreement,
 - (5) Addresses of parties for notice purposes.
- ☐ B. Exhibit “B”, Form of Lease.
- ☐ C. Exhibit “C”, Accounting Procedure.
- ☐ D. Exhibit “D”, Insurance.
- ☐ E. Exhibit “E”, Gas Balancing Agreement.
- ☐ F. Exhibit “F”, Non-Discrimination and Certification of Non-Segregated Facilities.
- ☐ G. Exhibit “G”, Tax Partnership.

If any provision of any exhibit, except Exhibits “E” and “G”, is inconsistent with any provision contained in the body of this agreement, the provisions in the body of this agreement shall prevail.

ARTICLE III. INTERESTS OF PARTIES

A. Oil and Gas Interests:

If any party owns an oil and gas interest in the Contract Area, that interest shall be treated for all purposes of this agreement and during the term hereof as if it were covered by the form of oil and gas lease attached hereto as Exhibit “B”, and the owner thereof shall be deemed to own both the royalty interest reserved in such lease and the interest of the lessee thereunder.

B. Interests of Parties in Costs and Production:

Unless changed by other provisions, all costs and liabilities incurred in operations under this agreement shall be borne and paid, and all equipment and materials acquired in operations on the Contract Area shall be owned, by the parties as their interests are set forth in Exhibit “A”. In the same manner, the parties shall also own all production of oil and gas from the Contract Area subject to the payment of royalties to the extent of _____*****_____ which shall be borne as hereinafter set forth.

Regardless of which party has contributed the lease(s) and/or oil and gas interest(s) hereto on which royalty is due and payable, each party entitled to receive a share of production of oil and gas from the Contract Area shall bear and shall pay or deliver, or cause to be paid or delivered, to the extent of its interest in such production, the royalty amount stipulated hereinabove and shall hold the other parties free from any liability therefore. No party shall ever be responsible, however, on a price basis higher than the price received by such party, to any other party’s lessor or royalty owner, and if any such other party’s lessor or royalty owner should demand and receive settlement on a higher price basis, the party contributing the affected lease shall bear the additional royalty burden attributable to such higher price.

Nothing contained in this Article III.B. shall be deemed an assignment or cross-assignment of interests covered hereby.

C. Excess Royalties, Overriding Royalties and Other Payments:

Unless changed by other provisions, if the interest of any party in any lease covered hereby is subject to any royalty, overriding royalty, production payment or other burden on production in excess of the amount stipulated in Article III.B., such party so burdened shall assume and alone bear all such excess obligations and shall indemnify and hold the other parties hereto harmless from any and all claims and demands for payment asserted by owners of such excess burden.

D. Subsequently Created Interests:

If any party should hereafter create an overriding royalty, production payment or other burden payable out of production attributable to its working interest hereunder, or if such a burden existed prior to this agreement and is not set forth in Exhibit “A”, or was not disclosed in writing to all other parties prior to the execution of this agreement by all parties, or is not a jointly acknowledged and accepted obligation of all parties (any such interest being hereinafter referred to as “subsequently created interest” irrespective of the timing of its creation and the party out of whose working interest the subsequently created interest is derived being hereinafter referred to as “burdened party”), and:

1. If the burdened party is required under this agreement to assign or relinquish to any other party, or parties, all or a portion of its working interest and/or the production attributable thereto, said other party, or parties, shall receive said assignment and/or production free and clear of said subsequently created interest and the burdened party shall indemnify and save said other party, or parties, harmless from any and all claims and demands for payment asserted by owners of the subsequently created interest; and,
2. If the burdened party fails to pay, when due, its share of expenses chargeable hereunder, all provisions of Article VII.B. shall be enforceable against the subsequently created interest in the same manner as they are enforceable against the working interest of the burdened party.

ARTICLE IV. TITLES

A. Title Examination:

Title examination shall be made on the drillsite of any proposed well prior to commencement of drilling operations or, if the Drilling Parties so request, title examination shall be made on the leases and/or oil and gas interests included, or planned to be included, in the drilling unit around such well. The opinion will include the ownership of the working interest, minerals, royalty, overriding royalty and production payments under the applicable leases. At the time a well is proposed, each party contributing leases and/or oil and gas interests to the drillsite, or to be included in such drilling unit, shall furnish to Operator all abstracts (including federal lease status reports), title opinions, title papers and curative material in its possession free of charge. All such information not in the possession of or made available to Operator by the parties, but necessary for the examination of the title, shall be obtained by Operator. Operator shall cause title to be examined by attorneys on its staff or by outside attorneys. Copies of all title opinions shall be furnished to each party hereto. The cost incurred by Operator in this title program shall be borne as follows:

☐ Option No. 1: Costs incurred by Operator in procuring abstracts and title examination (including preliminary, supplemental, shut-in gas royalty opinions and division order title opinions) shall be a part of the administrative overhead as provided in Exhibit “C”, and shall not be a direct charge, whether performed by Operator’s staff attorneys or by outside attorneys.

Article IV

□ Option No. 2: Costs incurred by Operator in procuring abstracts and fees paid outside attorneys for title examination (including preliminary, supplemental, shut-in gas royalty opinions and division order title opinions) shall be borne by the Drilling Parties in the proportion that the interest of each Drilling Party bears to the total interest of all Drilling Parties as such interests appear in Exhibit "A". Operator shall make no charge for services rendered by its staff attorneys or other personnel in the performance of the above functions.

Each party shall be responsible for securing curative matter and pooling amendments or agreements required in connection with leases or oil and gas interests contributed by such party. Operator shall be responsible for the preparation and recording of pooling designations or declarations as well as the conduct of hearings before governmental agencies for the securing of spacing or pooling orders. This shall not prevent any party from appearing on its own behalf at any such hearing.

No well shall be drilled on the Contract Area until after (1) the title to the drillsite or drilling unit has been examined as above provided, and (2) the title has been approved by the examining attorney or title has been accepted by all of the parties who are to participate in the drilling of the well.

B. Loss of Title:

1. Failure of Title: Should any oil and gas interest or lease, or interest therein, be lost through failure of title, which loss results in a reduction of interest from that shown on Exhibit "A", the party contributing the affected lease or interest shall have ninety (90) days from final determination of title failure to acquire a new lease or other instrument curing the entirety of the title failure, which acquisition will not be subject to Article VIII.B., and failing to do so, this agreement, nevertheless, shall continue in force as to all remaining oil and gas leases and interests: and,

(a) The party whose oil and gas lease or interest is affected by the title failure shall bear alone the entire loss and it shall not be entitled to recover from Operator or the other parties any development or operating costs which it may have theretofore paid or incurred, but there shall be no additional liability on its part to the other parties hereto by reason of such title failure;

(b) There shall be no retroactive adjustment of expenses incurred or revenues received from the operation of the interest which has been lost, but the interests of the parties shall be revised on an acreage basis, as of the time it is determined finally that title failure has occurred, so that the interest of the party whose lease or interest is affected by the title failure will thereafter be reduced in the Contract Area by the amount of the interest lost;

(c) If the proportionate interest of the other parties hereto in any producing well theretofore drilled on the Contract Area is increased by reason of the title failure, the party whose title has failed shall receive the proceeds attributable to the increase in such interest (less costs and burdens attributable thereto) until it has been reimbursed for unrecovered costs paid by it in connection with such well;

(d) Should any person not a party to this agreement, who is determined to be the owner of any interest in the title which has failed, pay in any manner any part of the cost of operation, development, or equipment, such amount shall be paid to the party or parties who bore the costs which are so refunded;

(e) Any liability to account to a third party for prior production of oil and gas which arises by reason of title failure shall be borne by the party or parties whose title failed in the same proportions in which they shared in such prior production; and,

(f) No charge shall be made to the joint account for legal expenses, fees or salaries, in connection with the defense of the interest claimed by any party hereto, it being the intention of the parties hereto that each shall defend title to its interest and bear all expenses in connection therewith.

2. Loss by Non-Payment or Erroneous Payment of Amount Due: If, through mistake or oversight, any rental, shut-in well payment, minimum royalty or royalty payment, is not paid or is erroneously paid, and as a result a lease or interest therein terminates, there shall be no monetary liability against the party who failed to make such payment. Unless the party who failed to make the required payment secures a new lease covering the same interest within ninety (90) days from the discovery of the failure to make proper payment, which acquisition will not be subject to Article VIII.B., the interests of the parties shall be revised on an acreage basis, effective as of the date of termination of the lease involved, and the party who failed to make proper payment will no longer be credited with an interest in the Contract Area on account of ownership of the lease or interest which has terminated. In the event the party who failed to make the required payment shall not have been fully reimbursed, at the time of the loss, from the proceeds of the sale of oil and gas attributable to the lost interest, calculated on an acreage basis, for the development and operating costs theretofore paid on account of such interest, it shall be reimbursed for unrecovered actual costs theretofore paid by it (but not for its share of the cost of any dry hole previously drilled or wells previously abandoned) from so much of the following as is necessary to effect reimbursement:

(a) Proceeds of oil and gas, less operating expenses, theretofore accrued to the credit of the lost interest, on an acreage basis, up to the amount of unrecovered costs;

(b) Proceeds, less operating expenses, thereafter accrued attributable to the lost interest on an acreage basis, of that portion of oil and gas thereafter produced and marketed (excluding production from any wells thereafter drilled) which, in the absence of such lease termination, would be attributable to the lost interest on an acreage basis, up to the amount of unrecovered costs, the proceeds of said portion of the oil and gas to be contributed by the other parties in proportion to their respective interest; and,

(c) Any monies, up to the amount of unrecovered costs, that may be paid by any party who is, or becomes, the owner of the interest lost, for the privilege of participating in the Contract Area or becoming a party to this agreement.

3. Other Losses: All losses incurred, other than those set forth in Articles IV.B.1. and IV.B.2. above, shall be joint losses and shall be borne by all parties in proportion to their interests. There shall be no readjustment of interests in the remaining portion of the Contract Area.

ARTICLE V.
OPERATOR

A. Designation and Responsibilities of Operator:

_____ shall be the Operator of the Contract Area, and shall conduct and direct and have full control of all operations on the Contract Area as permitted and required by, and within the limits of this agreement. It shall conduct all such operations in a good and workmanlike manner, but it shall have no liability as Operator to the other parties for losses sustained or liabilities incurred, except such as may result from gross negligence or willful misconduct.

B. Resignation or Removal of Operator and Selection of Successor:

1. Resignation or Removal of Operator: Operator may resign at any time by giving written notice thereof to Non-Operators. If Operator terminates its legal existence, no longer owns an interest hereunder in the Contract Area, or is no longer capable of serving as Operator, Operator shall be deemed to have resigned without any action by Non-Operators, except the selection of a successor. Operator may be removed if it fails or refuses to carry out its duties hereunder, or becomes insolvent, bankrupt or is placed in receivership, by the affirmative vote of two (2) or more Non-Operators owning a majority interest based on ownership as shown on Exhibit “A” remaining after excluding the voting interest of Operator. Such resignation or removal shall not become effective until 7:00 o’clock A.M. on the first day of the calendar month following the expiration of ninety (90) days after the giving of notice of resignation by Operator or action by the Non-Operators to remove Operator, unless a successor Operator has been selected and assumes the duties of Operator at an earlier date. Operator, after effective date of resignation or removal, shall be bound by the terms hereof as a Non-Operator. A change of a corporate name or structure of Operator or transfer of Operator’s interest to any single subsidiary, parent or successor corporation shall not be the basis for removal of Operator.

2. Selection of Successor Operator: Upon the resignation or removal of Operator, a successor Operator shall be selected by the parties. The successor Operator shall be selected from the parties owning an interest in the Contract Area at the time such successor Operator is selected. The successor Operator shall be selected by the affirmative vote of two (2) or more parties owning a majority interest based on ownership as shown on Exhibit “A”; provided, however, if an Operator which has been removed fails to vote or votes only to succeed itself, the successor Operator shall be selected by the affirmative vote of two (2) or more parties owning a majority interest based on ownership as shown on Exhibit “A” remaining after excluding the voting interest of the Operator that was removed.

C. Employees:

The number of employees used by Operator in conducting operations hereunder, their selection, and the hours of labor and the compensation for services performed shall be determined by Operator, and all such employees shall be the employees of Operator.

D. Drilling Contracts:

All wells drilled on the Contract Area shall be drilled on a competitive contract basis at the usual rates prevailing in the area. If it so desires, Operator may employ its own tools and equipment in the drilling of wells, but its charges therefor shall not exceed the prevailing rates in the area and the rate of such charges shall be agreed upon by the parties in writing before drilling operations are commenced, and such work shall be performed by Operator under the same terms and conditions as are customary and usual in the area in contracts of independent contractors who are doing work of a similar nature.

ARTICLE VI.
DRILLING AND DEVELOPMENT

A. Initial Well:

On or before the _____ day of _____, (year) _____, Operator shall commence the drilling of a well for oil and gas at the following location:

and shall thereafter continue the drilling of the well with due diligence to

unless granite or other practically impenetrable substance or condition in the hole, which renders further drilling impractical, is encountered at a lesser depth, or unless all parties agree to complete or abandon the well at a lesser depth.

Operator shall make reasonable tests of all formations encountered during drilling which give indication of containing oil and gas in quantities sufficient to test, unless this agreement shall be limited in its application to a specific formation or formations, in which event Operator shall be required to test only the formation or formations to which this agreement may apply.

Article VI

continued

If, in Operator's judgment, the well will not produce oil or gas in paying quantities, and it wishes to plug and abandon the well as a dry hole, the provisions of Article VI.E.1. shall thereafter apply.

B. Subsequent Operations:

1. Proposed Operations: Should any party hereto desire to drill any well on the Contract Area other than the well provided for in Article VI.A., or to rework, deepen or plug back a dry hole drilled at the joint expense of all parties or a well jointly owned by all the parties and not then producing in paying quantities, the party desiring to drill, rework, deepen or plug back such a well shall give the other parties written notice of the proposed operation, specifying the work to be performed, the location, proposed depth, objective formation and the estimated cost of the operation. The parties receiving such a notice shall have thirty (30) days after receipt of the notice within which to notify the party wishing to do the work whether they elect to participate in the cost of the proposed operation. If a drilling rig is on location, notice of a proposal to rework, plug back or drill deeper may be given by telephone and the response period shall be limited to forty-eight (48) hours, exclusive of Saturday, Sunday, and legal holidays. Failure of a party receiving such notice to reply within the period above fixed shall constitute an election by that party not to participate in the cost of the proposed operation. Any notice or response given by telephone shall be promptly confirmed in writing.

If all parties elect to participate in such a proposed operation, Operator shall, within ninety (90) days after expiration of the notice period of thirty (30) days (or as promptly as possible after the expiration of the forty-eight (48) hour period when a drilling rig is on location, as the case may be), actually commence the proposed operation and complete it with due diligence at the risk and expense of all parties hereto; provided, however, said commencement date may be extended upon written notice of same by Operator to the other parties, for a period of up to thirty (30) additional days if, in the sole opinion of Operator, such additional time is reasonably necessary to obtain permits from governmental authorities, surface rights (including rights-of-way) or appropriate drilling equipment, or to complete title examination or curative matter required for title approval or acceptance. Notwithstanding the force majeure provisions of Article XI, if the actual operation has not been commenced within the time provided (including any extension thereof as specifically permitted herein) and if any party hereto still desires to conduct said operation, written notice proposing same must be resubmitted to the other parties in accordance with the provisions hereof as if no prior proposal had been made.

2. Operations by Less than All Parties: If any party receiving such notice as provided in Article VI.B.1. or VII.D.1. (Option No. 2) elects not to participate in the proposed operation, then, in order to be entitled to the benefits of this Article, the party or parties giving the notice and such other parties as shall elect to participate in the operation shall, within ninety (90) days after the expiration of the notice period of thirty (30) days (or as promptly as possible after the expiration of the forty-eight (48) hour period when a drilling rig is on location, as the case may be) actually commence the proposed operation and complete it with due diligence. Operator shall perform all work for the account of the Consenting Parties; provided, however, if no drilling rig or other equipment is on location, and if Operator is a Non-Consenting Party, the Consenting Parties shall either: (a) request Operator to perform the work required by such proposed operation for the account of the Consenting Parties, or (b) designate one (1) of the Consenting Parties as Operator to perform such work. Consenting Parties, when conducting operations on the Contract Area pursuant to this Article VI.B.2., shall comply with all terms and conditions of this agreement.

If less than all parties approve any proposed operation, the proposing party, immediately after the expiration of the applicable notice period, shall advise the Consenting Parties of the total interest of the parties approving such operation and its recommendation as to whether the Consenting Parties should proceed with the operation as proposed. Each Consenting Party, within forty-eight (48) hours (exclusive of Saturday, Sunday and legal holidays) after receipt of such notice, shall advise the proposing party of its desire to (a) limit participation to such party's interest as shown on Exhibit "A" or (b) carry its proportionate part of Non-Consenting Parties' interests, and failure to advise the proposing party shall be deemed an election under (a). In the event a drilling rig is on location, the time permitted for such a response shall not exceed a total of forty-eight (48) hours (inclusive of Saturday, Sunday and legal holidays). The proposing party, at its election, may withdraw such proposal if there is insufficient participation and shall promptly notify all parties of such decision.

The entire cost and risk of conducting such operations shall be borne by the Consenting Parties in the proportions they have elected to bear same under the terms of the preceding paragraph. Consenting Parties shall keep the leasehold estates involved in such operations free and clear of all liens and encumbrances of every kind created by or arising from the operations of the Consenting Parties. If such an operation results in a dry hole, the Consenting Parties shall plug and abandon the well and restore the surface location at their sole cost, risk and expense. If any well drilled, reworked, deepened or plugged back under the provisions of this Article results in a producer of oil and/or gas in paying quantities, the Consenting Parties shall complete and equip the well to produce at their sole cost and risk,

and the well shall then be turned over to Operator and shall be operated by it at the expense and for the account of the Consenting Parties. Upon commencement of operations for the drilling, reworking, deepening or plugging back of any such well by Consenting Parties in accordance with the provisions of this Article, each Non-Consenting Party shall be deemed to have relinquished to Consenting Parties, and the Consenting Parties shall own and be entitled to receive, in proportion to their respective interests, all of such Non-Consenting Party's interest in the well and share of production therefrom until the proceeds of the sale of such share, calculated at the well, or market value thereof if such share is not sold, (after deducting production taxes, excise taxes, royalty, overriding royalty and other interests not excepted by Article III.D. payable out of or measured by the production from such well accruing with respect to such interest until it reverts) shall equal the total of the following:

(a) 100% of each such Non-Consenting Party's share of the cost of any newly acquired surface equipment beyond the wellhead connections (including, but not limited to, stock tanks, separators, treaters, pumping equipment and piping), plus 100% of each such Non-Consenting Party's share of the cost of operation of the well commencing with first production and continuing until each such Non-Consenting Party's relinquished interest shall revert to it under other provisions of this Article, it being agreed that each Non-Consenting Party's share of such costs and equipment will be that interest which would have been chargeable to such Non-Consenting Party had it participated in the well from the beginning of the operations; and

(b) _____ % of that portion of the costs and expenses of drilling, reworking, deepening, plugging back, testing and completing, after deducting any cash contributions received under Article VIII.C., and _____ % of that portion of the cost of newly acquired equipment in the well (to and including the wellhead connections), which would have been chargeable to such Non-Consenting Party if it had participated therein.

An election not to participate in the drilling or the deepening of a well shall be deemed an election not to participate in any reworking or plugging back operation proposed in such a well, or portion thereof, to which the initial Non-Consent election applied that is conducted at any time prior to full recovery by the Consenting Parties of the Non-Consenting Party's recoupment account. Any such reworking or plugging back operation conducted during the recoupment period shall be deemed part of the cost of operation of said well and there shall be added to the sums to be recouped by the Consenting Parties one hundred percent (100%) of that portion of the costs of the reworking or plugging back operation which would have been chargeable to such Non-Consenting Party had it participated therein. If such a reworking or plugging back operation is proposed during such recoupment period, the provisions of this Article VI.B. shall be applicable as between said Consenting Parties in said well.

During the period of time Consenting Parties are entitled to receive Non-Consenting Party's share of production, or the proceeds therefrom, Consenting Parties shall be responsible for the payment of all production, severance, excise, gathering and other taxes, and all royalty, overriding royalty and other burdens applicable to Non-Consenting Party's share of production not excepted by Article III.D.

In the case of any reworking, plugging back or deeper drilling operation, the Consenting Parties shall be permitted to use, free of cost, all casing, tubing and other equipment in the well, but the ownership of all such equipment shall remain unchanged; and upon abandonment of a well after such reworking, plugging back or deeper drilling, the Consenting Parties shall account for all such equipment to the owners thereof, with each party receiving its proportionate part in kind or in value, less cost of salvage.

Within sixty (60) days after the completion of any operation under this Article, the party conducting the operations for the Consenting Parties shall furnish each Non-Consenting Party with an inventory of the equipment in and connected to the well, and an itemized statement of the cost of drilling, deepening, plugging back, testing, completing, and equipping the well for production; or, at its option, the operating party, in lieu of an itemized statement of such costs of operation, may submit a detailed statement of monthly billings. Each month thereafter, during the time the Consenting Parties are being reimbursed as provided above, the party conducting the operations for the Consenting Parties shall furnish the Non-Consenting Parties with an itemized statement of all costs and liabilities incurred in the operation of the well, together with a statement of the quantity of oil and gas produced from it and the amount of proceeds realized from the sale of the well's working interest production during the preceding month. In determining the quantity of oil and gas produced during any month, Consenting Parties shall use industry accepted methods such as, but not limited to, metering or periodic well tests. Any amount realized from the sale or other disposition of equipment newly acquired in connection with any such operation which would have been owned by a Non-Consenting Party had it participated therein shall be credited against the total unreturned costs of the work done and of the equipment purchased in determining when the interest of such Non-Consenting Party shall revert to it as above provided; and if there is a credit balance, it shall be paid to such Non-Consenting Party.

If and when the Consenting Parties recover from a Non-Consenting Party's relinquished interest the amounts provided for above, the relinquished interests of such Non-Consenting Party shall automatically revert to it, and, from and after such reversion, such Non-Consenting Party shall own the same interest in such well, the material and equipment in or pertaining thereto, and the production therefrom as such Non-Consenting Party would have been entitled to had it participated in the drilling, reworking, deepening or plugging back of said well. Thereafter, such Non-Consenting Party shall be charged with and shall pay its proportionate part of the further costs of the operation of said well in accordance with the terms of this agreement and the Accounting Procedure attached hereto.

Notwithstanding the provisions of this Article VI.B.2., it is agreed that without the mutual consent of all parties, no wells shall be completed in or produced from a source of supply from which a well located elsewhere on the Contract Area is producing, unless such well conforms to the then-existing well spacing pattern for such source of supply.

The provisions of this Article shall have no application whatsoever to the drilling of the initial well described in Article VI.A. except (a) as to Article VII.D.1. (Option No. 2), if selected, or (b) as to the reworking, deepening and plugging back of such initial well after if has been drilled to the depth specified in Article VI.A. if it shall thereafter prove to be a dry hole or, if initially completed for production, ceases to produce in paying quantities.

3. Stand-By Time: When a well which has been drilled or deepened has reached its authorized depth and all tests have been completed, and the results thereof furnished to the parties, stand-by costs incurred pending response to a party's notice proposing a reworking, deepening, plugging back or completing operation in such a well shall be charged and borne as part of the drilling or deepening operation just completed. Stand-by costs subsequent to all parties responding, or expiration of the response time permitted, whichever first occurs, and prior to agreement as to the participating interests of all Consenting Parties pursuant to the terms of the second grammatical paragraph of Article VI.B.2., shall be charged to and borne as part of the proposed operation, but if the proposal is subsequently withdrawn because of insufficient participation, such stand-by costs shall be allocated between the Consenting Parties in the proportion each Consenting Party's interest as shown on Exhibit "A" bears to the total interest as shown on Exhibit "A" of all Consenting Parties.

4. Sidetracking: Except as hereinafter provided, those provisions of this agreement applicable to a "deepening" operation shall also be applicable to any proposal to directionally control and intentionally deviate a well from vertical so as to change the bottom hole location (herein call "sidetracking"), unless done to straighten the hole or to drill around junk in the hole or because of other mechanical difficulties. Any party having the right to participate in a proposed sidetracking operation that does not own an interest in the affected well bore at the time of the notice shall, upon electing to participate, tender to the well bore owners its proportionate share (equal to its interest in the sidetracking operation) of the value of that portion of the existing well bore to be utilized as follows:

(a) If the proposal is for sidetracking an existing dry hole, reimbursement shall be on the basis of the actual costs incurred in the initial drilling of the well down to the depth at which the sidetracking operation is initiated.

(b) If the proposal is for sidetracking a well which has previously produced, reimbursement shall be on the basis of the well's salvable materials and equipment down to the depth at which the sidetracking operation is initiated, determined in accordance with the provisions of Exhibit "C", less the estimated cost of salvaging and the estimated cost of plugging and abandoning.

In the event that notice for a sidetracking operation is given while the drilling rig to be utilized is on location, the response period shall be limited to forty-eight (48) hours, exclusive of Saturday, Sunday and legal holidays; provided, however, any party may request and receive up to eight (8) additional days after expiration of the forty-eight (48) hours within which to respond by paying for all stand-by time incurred during such extended response period. If more than one party elects to take such additional time to respond to the notice, stand by costs shall be allocated between the parties taking additional time to respond on a day-to-day basis in the proportion each electing party's interest as shown on Exhibit "A" bears to the total interest as shown on Exhibit "A" of all the electing parties. In all other instances the response period to a proposal for sidetracking shall be limited to thirty (30) days.

C. TAKING PRODUCTION IN KIND:

Each party shall take in kind or separately dispose of its proportionate share of all oil and gas produced from the Contract Area, exclusive of production which may be used in development and producing operations and in preparing and treating oil and gas for marketing purposes and production unavoidably lost. Any extra expenditure incurred in the taking in kind or separate disposition by any party of its proportionate share of the production shall be borne by such party. Any party taking its share of production in kind shall be

required to pay for only its proportionate share of such part of Operator's surface facilities which it uses.

Each party shall execute such division orders and contracts as may be necessary for the sale of its interest in production from the Contract Area, and, except as provided in Article VII.B., shall be entitled to receive payment directly from the purchaser thereof for its share of all production.

In the event any party shall fail to make the arrangements necessary to take in kind or separately dispose of its proportionate share of the oil produced from the Contract Area, Operator shall have the right, subject to the revocation at will by the party owning it, but not the obligation, to purchase such oil or sell it to others at any time and from time to time, for the account of the non-taking party at the best price obtainable in the area for such production. Any such purchase or sale by Operator shall be subject always to the right of the owner of the production to exercise at any time its right to take in kind, or separately dispose of, its share of all oil not previously delivered to a purchaser. Any purchase or sale by Operator of any other party's share of oil shall be only for such reasonable periods of time as are consistent with the minimum needs of the industry under the particular circumstances, but in no event for a period in excess of one (1) year.

In the event one or more parties' separate disposition of its share of the gas causes split-stream deliveries to separate pipelines and/or deliveries which on a day-to-day basis for any reason are not exactly equal to a party's respective proportionate share of total gas sales to be allocated to it, the balancing or accounting between the respective accounts of the parties shall be in accordance with any gas balancing agreement between the parties hereto, whether such an agreement is attached as Exhibit "E", or is a separate agreement.

D. Access to Contract Area and Information:

Each party shall have access to the Contract Area at all reasonable times, at its sole cost and risk to inspect or observe operations, and shall have access at reasonable times to information pertaining to the development or operation thereof, including Operator's books and records relating thereto. Operator, upon request, shall furnish each of the other parties with copies of all forms or reports filed with governmental agencies, daily drilling reports, well logs, tank tables, daily gauge and run tickets and reports of stock on hand at the first of each month, and shall make available samples of any cores or cuttings taken from any well drilled on the Contract Area. The cost of gathering and furnishing information to Non-Operator, other than that specified above, shall be charged to the Non-Operator that requests the Information.

E. Abandonment of Wells:

1. Abandonment of Dry Holes: Except for any well drilled or deepened pursuant to Article VI.B.2., any well which has been drilled or deepened under the terms of this agreement and is proposed to be completed as a dry hole shall not be plugged and abandoned without the consent of all parties. Should Operator, after diligent effort, be unable to contact any party, or should any party fail to reply within forty-eight (48) hours (exclusive of Saturday, Sunday and legal holidays) after receipt of notice of the proposal to plug and abandon such well, such party shall be deemed to have consented to the proposed abandonment. All such wells shall be plugged and abandoned in accordance with applicable regulations and at the cost, risk and expense of the parties who participated in the cost of drilling or deepening such well. Any party who objects to plugging and abandoning such well shall have the right to take over the well and conduct further operations in search of oil and/or gas subject to the provisions of Article VI.B.

2. Abandonment of Wells that have Produced: Except for any well in which a Non-Consent operation has been conducted hereunder for which the Consenting Parties have not been fully reimbursed as herein provided, any well which has been completed as a producer shall not be plugged and abandoned without the consent of all parties. If all parties consent to such abandonment, the well shall be plugged and abandoned in accordance with applicable regulations and at the cost, risk and expense of all the parties hereto. If, within thirty (30) days after receipt of notice of the proposed abandonment of any well, all parties do not agree to the abandonment of such well, those wishing to continue its operation from the interval(s) of the formation(s) then open to production shall tender to each of the other parties its proportionate share of the value of the well's salvable material and equipment, determined in accordance with the provisions of Exhibit "C", less the estimated cost of salvaging and the estimated cost of plugging and abandoning. Each abandoning party shall assign the non-abandoning parties, without warranty, express or implied, as to title or as to quantity, or fitness for use of the equipment and material, all of its interest in the well and related equipment, together with its interest in the leasehold estate as to, but only as to, the interval or intervals of the formation or formations then open to production. If the interest of the abandoning party is or includes an oil and gas interest, such party shall execute and deliver to the non-abandoning party or parties an oil and gas lease, limited to the interval or intervals of the formation or formations then open to production, for a term of one (1) year and so long thereafter as oil and/or gas is produced from the interval or intervals of the formation or formations covered thereby, such lease to be on the form attached as Exhibit

required to pay for only its proportionate share of such part of Operator's surface facilities which it uses.

Each party shall execute such division orders and contracts as may be necessary for the sale of its interest in production from the Contract Area, and, except as provided in Article VII.B., shall be entitled to receive payment directly from the purchaser thereof for its share of all production.

In the event any party shall fail to make the arrangements necessary to take in kind or separately dispose of its proportionate share of the oil and gas produced from the Contract Area, Operator shall have the right, subject to the revocation at will by the party owning it, but not the obligation, to purchase such oil and gas or sell it to others at any time and from time to time, for the account of the non-taking party at the best price obtainable in the area for such production. Any such purchase or sale by Operator shall be subject always to the right of the owner of the production to exercise at any time its right to take in kind, or separately dispose of, its share of all oil and gas not previously delivered to a purchaser. Any purchase or sale by Operator of any other party's share of oil and gas shall be only for such reasonable periods of time as are consistent with the minimum needs of the industry under the particular circumstances, but in no event for a period in excess of one (1) year. Notwithstanding the foregoing, Operator shall not make a sale, including one into interstate commerce, of any other party's share of gas production without first giving such other party thirty (30) days notice of such intended sale.

D. Access to Contract Area and Information:

Each party shall have access to the Contract Area at all reasonable times, at its sole cost and risk to inspect or observe operations, and shall have access at reasonable times to information pertaining to the development or operation thereof, including Operator's books and records relating thereto. Operator, upon request, shall furnish each of the other parties with copies of all forms or reports filed with governmental agencies, daily drilling reports, well logs, tank tables, daily gauge and run tickets and reports of stock on hand at the first of each month, and shall make available samples of any cores or cuttings taken from any well drilled on the Contract Area. The cost of gathering and furnishing information to Non-Operator, other than that specified above, shall be charged to the Non-Operator that requests the Information.

E. Abandonment of Wells:

1. Abandonment of Dry Holes: Except for any well drilled or deepened pursuant to Article VI.B.2., any well which has been drilled or deepened under the terms of this agreement and is proposed to be completed as a dry hole shall not be plugged and abandoned without the consent of all parties. Should Operator, after diligent effort, be unable to contact any party, or should any party fail to reply within forty-eight (48) hours (exclusive of Saturday, Sunday and legal holidays) after receipt of notice of the proposal to plug and abandon such well, such party shall be deemed to have consented to the proposed abandonment. All such wells shall be plugged and abandoned in accordance with applicable regulations and at the cost, risk and expense of the parties who participated in the cost of drilling or deepening such well. Any party who objects to plugging and abandoning such well shall have the right to take over the well and conduct further operations in search of oil and/or gas subject to the provisions of Article VI.B.

2. Abandonment of Wells that have Produced: Except for any well in which a Non-Consent operation has been conducted hereunder for which the Consenting Parties have not been fully reimbursed as herein provided, any well which has been completed as a producer shall not be plugged and abandoned without the consent of all parties. If all parties consent to such abandonment, the well shall be plugged and abandoned in accordance with applicable regulations and at the cost, risk and expense of all the parties hereto. If, within thirty (30) days after receipt of notice of the proposed abandonment of any well, all parties do not agree to the abandonment of such well, those wishing to continue its operation from the interval(s) of the formation(s) then open to production shall tender to each of the other parties its proportionate share of the value of the well's salvable material and equipment, determined in accordance with the provisions of Exhibit "C", less the estimated cost of salvaging and the estimated cost of plugging and abandoning. Each abandoning party shall assign the non-abandoning parties, without warranty, express or implied, as to title or as to quantity, or fitness for use of the equipment and material, all of its interest in the well and related equipment, together with its interest in the leasehold estate as to, but only as to, the interval or intervals of the formation or formations then open to production. If the interest of the abandoning party is or includes an oil and gas interest, such party shall execute and deliver to the non-abandoning party or parties an oil and gas lease, limited to the interval or intervals of the formation or formations then open to production, for a term of one (1) year and so long thereafter as oil and/or gas is produced from the interval or intervals of the formation or formations covered thereby, such lease to be on the form attached as Exhibit

“B”. The assignments or leases so limited shall encompass the “drilling unit” upon which the well is located. The payments by, and the assignments or leases to, the assignees shall be in a ratio based upon the relationship of their respective percentage of participation in the Contract Area to the aggregate of the percentages of participation in the Contract Area of all assignees. There shall be no readjustment of interests in the remaining portion of the Contract Area.

Thereafter, abandoning parties shall have no further responsibility, liability, or interest in the operation of or production from the well in the interval or intervals then open other than the royalties retained in any lease made under the terms of this Article. Upon request, Operator shall continue to operate the assigned well for the account of the non-abandoning parties at the rates and charges contemplated by this agreement, plus any additional cost and charges which may arise as the result of the separate ownership of the assigned well. Upon proposed abandonment of the producing interval(s) assigned or leased, the assignor or lessor shall then have the option to repurchase its prior interest in the well (using the same valuation formula) and participate in further operations therein subject to the provisions hereof.

3. Abandonment of Non-Consent Operations: The provisions of Article VI.E.1. or VI.E.2 above shall be applicable as between Consenting Parties in the event of the proposed abandonment of any well excepted from said Articles; provided, however, no well shall be permanently plugged and abandoned unless and until all parties having the right to conduct further operations therein have been notified of the proposed abandonment and afforded the opportunity to elect to take over the well in accordance with the provisions of this Article VI.E.

ARTICLE VII. EXPENDITURES AND LIABILITY OF PARTIES

A. Liability of Parties:

The liability of the parties shall be several, not joint or collective. Each party shall be responsible only for its obligations, and shall be liable only for its proportionate share of the costs of developing and operating the Contract Area. Accordingly, the liens granted among the parties in Article VII.B. are given to secure only the debts of each severally. It is not the intention of the parties to create, nor shall this agreement be construed as creating, a mining or other partnership or association, or to render the parties liable as partners.

B. Liens and Payment Defaults:

Each Non-Operator grants to Operator a lien upon its oil and gas rights in the Contract Area, and a security interest in its share of oil and/or gas when extracted and its interest in all equipment, to secure payment of its share of expense, together with interest thereon at the rate provided in Exhibit “C”. To the extent that Operator has a security interest under the Uniform Commercial Code of the state, Operator shall be entitled to exercise the rights and remedies of a secured party under the Code. The bringing of a suit and the obtaining of judgment by Operator for the secured indebtedness shall not be deemed an election of remedies or otherwise affect the lien rights or security interest as security for the payment thereof. In addition, upon default by any Non-Operator in the payment of its share of expense, Operator shall have the right, without prejudice to other rights or remedies, to collect from the purchaser the proceeds from the sale of such Non-Operator’s share of oil and/or gas until the amount owed by such Non-Operator, plus interest, has been paid. Each purchaser shall be entitled to rely upon Operator’s written statement concerning the amount of any default. Operator grants a like lien and security interest to the Non-Operators to secure payment of Operator’s proportionate share of expense.

If any party fails or is unable to pay its share of expense within sixty (60) days after rendition of a statement therefor by Operator, the non-defaulting parties, including Operator, shall, upon request by Operator, pay the unpaid amount in the proportion that the interest of each such party bears to the interest of all such parties. Each party so paying its share of the unpaid amount shall, to obtain reimbursement thereof, be subrogated to the security rights described in the foregoing paragraph.

C. Payments and Accounting:

Except as herein otherwise specifically provided, Operator shall promptly pay and discharge expenses incurred in the development and operation of the Contract Area pursuant to this agreement and shall charge each of the parties hereto with their respective proportionate shares upon the expense basis provided in Exhibit “C”. Operator shall keep an accurate record of the joint account hereunder, showing expenses incurred and charges and credits made and received.

Operator, at its election, shall have the right from time to time to demand and receive from the other parties payment in advance of their respective shares of the estimated amount of the expense to be incurred in operations hereunder during the next succeeding month, which right may be exercised only by submission to each such party of an itemized statement of such estimated expense, together with an invoice for its share thereof. Each such statement and invoice for the payment in advance of estimated expense shall be submitted on or before the 20th day of the next preceding month. Each party shall pay to Operator its proportionate share of such estimate within fifteen (15) days after such estimate and invoice is received. If any party fails to pay its share of said estimate within said time, the amount due shall bear interest as provided in Exhibit “C” until paid. Proper adjustment shall be made monthly between advances and actual expense to the end that each party shall bear and pay its proportionate share of actual expenses incurred, and no more.

D. Limitation of Expenditures:

1. Drill or Deepen: Without the consent of all parties, no well shall be drilled or deepened, except any well drilled or deepened pursuant to the provisions of Article VI.B.2. of this agreement. Consent to the drilling or deepening shall include:

☐ Option No. 1: All necessary expenditures for the drilling or deepening, testing, completing and equipping of the well, including necessary tankage and/or surface facilities.

☐ Option No. 2: All necessary expenditures for the drilling or deepening and testing of the well. When such well has reached its authorized depth, and all tests have been completed, and the results thereof furnished to the parties, Operator shall give immediate notice to the Non-Operators who have the right to participate in the completion costs. The parties receiving such notice shall have forty-eight (48) hours (exclusive of Saturday, Sunday and legal holidays) in which to elect to participate in the setting of casing and the completion attempt. Such election, when made, shall include consent to all necessary expenditures for the completing and equipping of such well, including necessary tankage and/or surface facilities. Failure of any party receiving such notice to reply within the period above fixed shall constitute an election by that party not to participate in the cost of the completion attempt. If one or more, but less than all of the parties, elect to set pipe and to attempt a completion, the provisions of Article VI.B.2. hereof (the phrase "reworking, deepening or plugging back" as contained in Article VI.B.2. shall be deemed to include "completing") shall apply to the operations thereafter conducted by less than all parties.

2. Rework or Plug Back: Without the consent of all parties, no well shall be reworked or plugged back except a well reworked or plugged back pursuant to the provisions of Article VI.B.2. of this agreement. Consent to the reworking or plugging back of a well shall include all necessary expenditures in conducting such operations and completing and equipping of said well, including necessary tankage and/or surface facilities.

3. Other Operations: Without the consent of all parties, Operator shall not undertake any single project reasonably estimated to require an expenditure in excess of _____ Dollars (\$)) except in connection with a well, the drilling, reworking, deepening, completing, recompleting, or plugging back of which has been previously authorized by or pursuant to this agreement; provided, however, that, in case of explosion, fire, flood or other sudden emergency, whether of the same or different nature, Operator may take such steps and incur such expenses as in its opinion are required to deal with the emergency to safeguard life and property but Operator, as promptly as possible, shall report the emergency to the other parties. If Operator prepares an authority for expenditure (AFE) for its own use, Operator shall furnish any Non-Operator so requesting an information copy thereof for any single project costing in excess of _____ Dollars (\$)) but less than the amount first set forth above in this paragraph.

E. Rentals, Shut-in Well Payments and Minimum Royalties:

Rentals, shut-in well payments and minimum royalties which may be required under the terms of any lease shall be paid by the party or parties who subjected such lease to this agreement at its or their expense. In the event two or more parties own and have contributed interests in the same lease to this agreement, such parties may designate one of such parties to make said payments for and on behalf of all such parties. Any party may request, and shall be entitled to receive, proper evidence of all such payments. In the event of failure to make proper payment of any rental, shut-in well payment or minimum royalty through mistake or oversight where such payment is required to continue the lease in force, any loss which results from such non-payment shall be borne in accordance with the provisions of Article IV.B.2.

Operator shall notify Non-Operator of the anticipated completion of a shut-in gas well, or the shutting in or return to production of a producing gas well, at least five (5) days (excluding Saturday, Sunday and legal holidays), or at the earliest opportunity permitted by circumstances, prior to taking such action, but assumes no liability for failure to do so. In the event of failure by Operator to so notify Non-Operator, the loss of any lease contributed hereto by Non-Operator for failure to make timely payments of any shut-in well payment shall be borne jointly by the parties hereto under the provisions of Article IV.B.3.

F. Taxes:

Beginning with the first calendar year after the effective date hereof, Operator shall render for ad valorem taxation all property subject to this agreement which by law should be rendered for such taxes, and it shall pay all such taxes assessed thereon before they become delinquent. Prior to the rendition date, each Non-Operator shall furnish Operator information as to burdens (to include, but not be limited to, royalties, overriding royalties and production payments) on leases and oil and gas interests contributed by such Non-Operator. If the assessed valuation of any leasehold estate is reduced by reason of its being subject to outstanding excess royalties, overriding royalties or production payments, the reduction in ad valorem taxes resulting therefrom shall inure to the benefit of the owner or owners of such leasehold estate, and Operator shall adjust the charge to such owner or owners so as to reflect the benefit of such reduction. If the ad valorem taxes are based in whole or in part upon separate valuations of each party's working interest, then notwithstanding anything to the contrary herein, charges to the joint account shall be made and paid by the parties hereto in accordance with the tax value generated by each party's working interest. Operator shall bill the other parties for their proportionate shares of all tax payments in the manner provided in Exhibit "C".

If Operator considers any tax assessment improper, Operator may, at its discretion, protest within the time and manner prescribed by law, and prosecute the protest to a final determination, unless all parties agree to abandon the protest prior to final determination. During the pendency of administrative or judicial proceedings, Operator may elect to pay, under protest, all such taxes and any interest and penalty. When any such protested assessment shall have been finally determined, Operator shall pay the tax for the joint account, together with any interest and penalty accrued, and the total cost shall then be assessed against the parties, and be paid by them, as provided in Exhibit "C".

Each party shall pay or cause to be paid all production, severance, excise, gathering and other taxes imposed upon or with respect to the production or handling of such party's share of oil and/or gas produced under the terms of this agreement.

G. Insurance:

At all times while operations are conducted hereunder, Operator shall comply with the workmen's compensation law of the state where the operations are being conducted; provided, however, that Operator may be a self-insurer for liability under said compensation laws in which event the only charge that shall be made to the joint account shall be as provided in Exhibit "C". Operator shall also carry or provide insurance for the benefit of the joint account of the parties as outlined in Exhibit "D", attached to and made a part hereof. Operator shall require all contractors engaged in work on or for the Contract Area to comply with the workmen's compensation law of the state where the operations are being conducted and to maintain such other insurance as Operator may require.

In the event automobile public liability insurance is specified in said Exhibit "D", or subsequently receives the approval of the parties, no direct charge shall be made by Operator for premiums paid for such insurance for Operator's automotive equipment.

ARTICLE VIII.**ACQUISITION, MAINTENANCE OR TRANSFER OF INTEREST****A. Surrender of Leases:**

The leases covered by this agreement, insofar as they embrace acreage in the Contract Area, shall not be surrendered in whole or in part unless all parties consent thereto.

However, should any party desire to surrender its interest in any lease or in any portion thereof, and the other parties do not agree or consent thereto, the party desiring to surrender shall assign, without express or implied warranty of title, all of its interest in such lease, or portion thereof, and any well, material and equipment which may be located thereon and any rights in production thereafter secured, to the parties not consenting to such surrender. If the interest of the assigning party is or includes an oil and gas interest, the assigning party shall execute and deliver to the party or parties not consenting to such surrender an oil and gas lease covering such oil and gas interest for a term of one (1) year and so long thereafter as oil and/or gas is produced from the land covered thereby, such lease to be on the form attached hereto as Exhibit "B". Upon such assignment or lease, the assigning party shall be relieved from all obligations thereafter accruing, but not theretofore accrued, with respect to the interest assigned or leased and the operation of any well attributable thereto, and the assigning party shall have no further interest in the assigned or leased premises and its equipment and production other than the royalties retained in any lease made under the terms of this Article. The party assignee or lessee shall pay to the party assignor or lessor the reasonable salvage value of the latter's interest in any wells and equipment attributable to the assigned or leased acreage. The value of all material shall be determined in accordance with the provisions of Exhibit "C", less the estimated cost of salvaging and the estimated cost of plugging and abandoning. If the assignment or lease is in favor of more than one party, the interest shall be shared by such parties in the proportions that the interest of each bears to the total interest of all such parties.

Any assignment, lease or surrender made under this provision shall not reduce or change the assignor's, lessor's or surrendering party's interest as it was immediately before the assignment, lease or surrender in the balance of the Contract Area; and the acreage assigned, leased or surrendered, and subsequent operations thereon, shall not thereafter be subject to the terms and provisions of this agreement.

B. Renewal or Extension of Leases:

If any party secures a renewal of any oil and gas lease subject to this agreement, all other parties shall be notified promptly, and shall have the right for a period of thirty (30) days following receipt of such notice in which to elect to participate in the ownership of the renewal lease, insofar as such lease affects lands within the Contract Area, by paying to the party who acquired it their several proper proportionate shares of the acquisition cost allocated to that part of such lease within the Contract Area, which shall be in proportion to the interests held at that time by the parties in the Contract Area.

If some, but less than all, of the parties elect to participate in the purchase of a renewal lease, it shall be owned by the parties who elect to participate therein, in a ratio based upon the relationship of their respective percentage of participation in the Contract Area to the aggregate of the percentages of participation in the Contract Area of all parties participating in the purchase of such renewal lease. Any renewal lease in which less than all parties elect to participate shall not be subject to this agreement.

Each party who participates in the purchase of a renewal lease shall be given an assignment of its proportionate interest therein by the acquiring party.

The provisions of this Article shall apply to renewal leases whether they are for the entire interest covered by the expiring lease or cover only a portion of its area or an interest therein. Any renewal lease taken before the expiration of its predecessor lease, or taken or contracted for within six (6) months after the expiration of the existing lease shall be subject to this provision; but any lease taken or contracted for more than six (6) months after the expiration of an existing lease shall not be deemed a renewal lease and shall not be subject to the provisions of this agreement.

The provisions in this Article shall also be applicable to extensions of oil and gas leases.

C. Acreage or Cash Contributions:

While this agreement is in force, if any party contracts for a contribution of cash towards the drilling of a well or any other operation on the Contract Area, such contribution shall be paid to the party who conducted the drilling or other operation and shall be applied by it against the cost of such drilling or other operation. If the contribution be in the form of acreage, the party to whom the contribution is made shall promptly tender an assignment of the acreage, without warranty of title, to the Drilling Parties in the proportions

said Drilling Parties shared the cost of drilling the well. Such acreage shall become a separate Contract Area and, to the extent possible, be governed by provisions identical to this agreement. Each party shall promptly notify all other parties of any acreage or cash contributions it may obtain in support of any well or any other operation on the Contract Area. The above provisions shall also be applicable to optional rights to earn acreage outside the Contract Area which are in support of a well drilled inside the Contract Area.

If any party contracts for any consideration relating to disposition of such party's share of substances produced hereunder, such consideration shall not be deemed a contribution as contemplated in this Article VIII.C.

D. Maintenance of Uniform Interests:

For the purpose of maintaining uniformity of ownership in the oil and gas leasehold interests covered by this agreement, no party shall sell, encumber, transfer or make other disposition of its interest in the leases embraced within the Contract Area and in wells, equipment and production unless such disposition covers either:

1. the entire interest of the party in all leases and equipment and production; or
2. an equal undivided interest in all leases and equipment and production in the Contract Area.

Every such sale, encumbrance, transfer or other disposition made by any party shall be made expressly subject to this agreement and shall be made without prejudice to the right of the other parties.

If, at any time the interest of any party is divided among and owned by four or more co-owners, Operator, at its discretion, may require such co-owners to appoint a single trustee or agent with full authority to receive notices, approve expenditures, receive billings for and approve and pay such party's share of the joint expenses, and to deal generally with, and with power to bind, the co-owners of such party's interest within the scope of the operations embraced in this agreement; however, all such co-owners shall have the right to enter into and execute all contracts or agreements for the disposition of their respective shares of the oil and gas produced from the Contract Area and they shall have the right to receive, separately, payment of the sale proceeds thereof.

E. Waiver of Rights to Partition:

If permitted by the laws of the state or states in which the property covered hereby is located, each party hereto owning an undivided interest in the Contract Area waives any and all rights it may have to partition and have set aside to it in severalty its undivided interest therein.

F. Preferential Right to Purchase:

Should any party desire to sell all or any part of its interests under this agreement, or its rights and interests in the Contract Area, it shall promptly give written notice to the other parties, with full information concerning its proposed sale, which shall include the name and address of the prospective purchaser (who must be ready, willing and able to purchase), the purchase price, and all other terms of the offer. The other parties shall then have an optional prior right, for a period of ten (10) days after receipt of the notice, to purchase on the same terms and conditions the interest which the other party proposes to sell; and, if this optional right is exercised, the purchasing parties shall share the purchased interest in the proportions that the interest of each bears to the total interest of all purchasing parties. However, there shall be no preferential right to purchase in those cases where any party wishes to mortgage its interests, or to dispose of its interests by merger, reorganization, consolidation, or sale of all or substantially all of its assets to a subsidiary or parent company or to a subsidiary of a parent company, or to any company in which any one party owns a majority of the stock.

ARTICLE IX.

INTERNAL REVENUE CODE ELECTION

This agreement is not intended to create, and shall not be construed to create, a relationship of partnership or an association for profit between or among the parties hereto. Notwithstanding any provision herein that the rights and liabilities hereunder are several and not joint or collective, or that this agreement and operations hereunder shall not constitute a partnership, if, for federal income tax purposes, this agreement and the operations hereunder are regarded as a partnership, each party hereby affected elects to be excluded from the application of all of the provisions of Subchapter "K", Chapter 1, Subtitle "A", of the Internal Revenue Code of 1954, as permitted and authorized by Section 761 of the Code and the regulations promulgated thereunder. Operator is authorized and directed to execute on behalf of each party hereby affected such evidence of this election as may be required by the Secretary of the Treasury of the United States or the Federal Internal Revenue Service, including specifically, but not by way of limitation, all of the returns, statements, and the data required by Federal Regulations 1.761. Should there be any requirement that each party hereby affected give further evidence of this election, each such party shall execute such documents and furnish such other evidence as may be required by the Federal Internal Revenue Service or as may be necessary to evidence this election. No such party shall give any notices or take any other action inconsistent with the election made hereby. If any present or future income tax laws of the state or states in which the Contract Area is located or any future income tax laws of the United States contain provisions similar to those in Subchapter "K", Chapter 1, Subtitle "A", of the Internal Revenue Code of 1954, under which an election similar to that provided by Section 761 of the Code is permitted, each party hereby affected shall make such election as may be permitted or required by such laws. In making the foregoing election, each such party states that the income derived by such party from operations hereunder can be adequately determined without the computation of partnership taxable income.

ARTICLE X.
CLAIMS AND LAWSUITS

Operator may settle any single uninsured third party damage claim or suit arising from operations hereunder if the expenditure does not exceed _____ Dollars (\$_____) and if the payment is in complete settlement of such claim or suit. If the amount required for settlement exceeds the above amount, the parties hereto shall assume and take over the further handling of the claim or suit, unless such authority is delegated to Operator. All costs and expenses of handling, settling, or otherwise discharging such claim or suit shall be at the joint expense of the parties participating in the operation from which the claim or suit arises. If a claim is made against any party or if any party is sued on account of any matter arising from operations hereunder over which such individual has no control because of the rights given Operator by this agreement, such party shall immediately notify all other parties, and the claim or suit shall be treated as any other claim or suit involving operations hereunder.

ARTICLE XI.
FORCE MAJEURE

If any party is rendered unable, wholly or in part, by force majeure to carry out its obligations under this agreement, other than the obligation to make money payments, that party shall give to all other parties prompt written notice of the force majeure with reasonably full particulars concerning it; thereupon, the obligations of the party giving the notice, so far as they are affected by the force majeure, shall be suspending during, but no longer than, the continuance of the force majeure. The affected party shall use all reasonable diligence to remove the force majeure situation as quickly as practicable.

The requirement that any force majeure shall be remedied with all reasonable dispatch shall not require the settlement of strikes, lockouts, or other labor difficulty by the party involved, contrary to its wishes; how all such difficulties shall be handled shall be entirely within the discretion of the party concerned.

The term "force majeure", as here employed, shall mean an act of God, strike, lockout, or other industrial disturbance, act of the public enemy, war, blockade, public riot, lightning, fire, storm, flood, explosion, governmental action, governmental delay, restraint or inaction, unavailability of equipment, and any other cause, whether of the kind specifically enumerated above or otherwise, which is not reasonably within the control of the party claiming suspension.

ARTICLE XII.
NOTICES

All notices authorized or required between the parties and required by any of the provisions of this agreement, unless otherwise specifically provided, shall be given in writing by mail or telegram, postage or charges prepaid, or by telex or telecopier and addressed to the parties to whom the notice is given at the addresses listed on Exhibit "A". The originating notice given under any provision hereof shall be deemed given only when received by the party to whom such notice is directed, and the time for such party to give any notice in response thereto shall run from the date the originating notice is received. The second or any responsive notice shall be deemed given when deposited in the mail or with the telegraph company, with postage or charges prepaid, or sent by telex or telecopier. Each party shall have the right to change its address at any time, and from time to time, by giving written notice thereof to all other parties.

ARTICLE XIII.
TERM OF AGREEMENT

This agreement shall remain in full force and effect as to the oil and gas leases and/or oil and gas interests subject hereto for the period of time selected below; provided, however, no party hereto shall ever be construed as having any right, title or interest in or to any lease or oil and gas interest contributed by any other party beyond the term of this agreement.

☐ Option No. 1: So long as any of the oil and gas leases subject to this agreement remain or are continued in force as to any part of the Contract Area, whether by production, extension, renewal, or otherwise.

☐ Option No. 2: In the event the well described in Article VI.A., or any subsequent well drilled under any provision of this agreement, results in production of oil and/or gas in paying quantities, this agreement shall continue in force so long as any such well or wells produce, or are capable of production, and for an additional period of _____ days from cessation of all production; provided, however, if, prior to the expiration of such additional period, one or more of the parties hereto are engaged in drilling, reworking, deepening, plugging back, testing or attempting to complete a well or wells hereunder, this agreement shall continue in force until such operations have been completed and if production results therefrom, this agreement shall continue in force as provided herein. In the event the well described in Article VI.A., or any subsequent well drilled hereunder, results in a dry hole, and no other well is producing, or capable of producing oil and/or gas from the Contract Area, this agreement shall terminate unless drilling, deepening, plugging back or reworking operations are commenced within _____ days from the date of abandonment of said well.

It is agreed, however, that the termination of this agreement shall not relieve any party hereto from any liability which has accrued or attached prior to the date of such termination.

ARTICLE XIV.
COMPLIANCE WITH LAWS AND REGULATIONS

A. Laws, Regulations and Orders:

This agreement shall be subject to the conservation laws of the state in which the Contract Area is located, to the valid rules, regulations, and orders of any duly constituted regulatory body of said state; and to all other applicable federal, state, and local laws, ordinances, rules, regulations, and orders.

B. Governing Law:

This agreement and all matters pertaining hereto, including, but not limited to, matters of performance, non-performance, breach, remedies, procedures, rights, duties, and interpretation or construction, shall be governed and determined by the law of the state in which the Contract Area is located. If the Contract Area is in two or more states, the law of the state of _____ shall govern.

C. Regulatory Agencies:

Nothing herein contained shall grant, or be construed to grant, Operator the right or authority to waive or release any rights, privileges, or obligations which Non-Operators may have under federal or state laws or under rules, regulations or orders promulgated under such laws in reference to oil, gas and mineral operations, including the location, operation, or production of wells, on tracts offsetting or adjacent to the Contract Area.

With respect to operations hereunder, Non-Operators agree to release Operator from any and all losses, damages, injuries, claims and causes of action arising out of, incident to or resulting directly or indirectly from Operator’s interpretation or application of rules, rulings, regulations or orders of the Department of Energy or predecessor or successor agencies to the extent such interpretation or application was made in good faith. Each Non-Operator further agrees to reimburse Operator for any amounts applicable to such Non-Operator’s share of production that Operator may be required to refund, rebate or pay as a result of such an incorrect interpretation or application, together with interest and penalties thereon owing by Operator as a result of such incorrect interpretation or application.

Non-Operators authorize Operator to prepare and submit such documents as may be required to be submitted to the purchaser of any crude oil sold hereunder or to any other person or entity pursuant to the requirements of the “Crude Oil Windfall Profit Tax Act of 1980”, as same may be amended from time to time (“Act”), and any valid regulations or rules which may be issued by the Treasury Department from time to time pursuant to said Act. Each party hereto agrees to furnish any and all certifications or other information which is required to be furnished by said Act in a timely manner and in sufficient detail to permit compliance with said Act.

ARTICLE XV.
OTHER PROVISIONS

ARTICLE XVI.
MISCELLANEOUS

This agreement shall be binding upon and shall inure to the benefit of the parties hereto and to their respective heirs, devisees, legal representatives, successors and assigns.

This instrument may be executed in any number of counterparts, each of which shall be considered an original for all purposes.

IN WITNESS WHEREOF, this agreement shall be effective as of _____ day of _____, (year) _____.

_____, who has prepared and circulated this form for execution, represents and warrants that the form was printed from and with the exception listed below, is identical to the AAPL Form 610-1982 Model Form Operating Agreement, as published in diskette form by Forms On-A-Disk, Inc. No changes, alterations, or modifications, other than those in Articles _____, have been made to the form.

O P E R A T O R

N O N - O P E R A T O R S

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OPERATING AGREEMENT

WITNESSETH:

NOW, THEREFORE, it is agreed as follows:

H. Other:

If any provision of any exhibit, except Exhibits "E," "F" and "G," is inconsistent with any provision contained in the body of this agreement, the provisions in the body of this agreement shall prevail.

ARTICLE III. INTERESTS OF PARTIES

A. Oil and Gas Interests:

If any party owns an Oil and Gas Interest in the Contract Area, that Interest shall be treated for all purposes of this agreement and during the term hereof as if it were covered by the form of Oil and Gas Lease attached hereto as Exhibit "B," and the owner thereof shall be deemed to own both royalty interest in such lease and the interest of the lessee thereunder.

B. Interests of Parties in Costs and Production:

Unless changed by other provisions, all costs and liabilities incurred in operations under this agreement shall be borne and paid, and all equipment and materials acquired in operations on the Contract Area shall be owned, by the parties as their interests are set forth in Exhibit "A." In the same manner, the parties shall also own all production of Oil and Gas from the Contract Area subject, however, to the payment of royalties and other burdens on production as described hereafter.

Regardless of which party has contributed any Oil and Gas Lease or Oil and Gas Interest on which royalty or other burdens may be payable and except as otherwise expressly provided in this agreement, each party shall pay or deliver, or cause to be paid or delivered, all burdens on its share of the production from the Contract Area up to, but not in excess of, _____ and shall indemnify, defend and hold the other parties free from any liability therefor.

Except as otherwise expressly provided in this agreement, if any party has contributed hereto any Lease or Interest which is burdened with any royalty, overriding royalty, production payment or other burden on production in excess of the amounts stipulated above, such party so burdened shall assume and alone bear all such excess obligations and shall indemnify, defend and hold the other parties hereto harmless from any and all claims attributable to such excess burden. However, so long as the Drilling Unit for the productive Zone(s) is identical with the Contract Area, each party shall pay or deliver, or cause to be paid or delivered, all burdens on production from the Contract Area due under the terms of the Oil and Gas Lease(s) which such party has contributed to this agreement, and shall indemnify, defend and hold the other parties free from any liability therefor.

No party shall ever be responsible, on a price basis higher than the price received by such party, to any other party's lessor or royalty owner, and if such other party's lessor or royalty owner should demand and receive settlement on a higher price basis, the party contributing the affected Lease shall bear the additional royalty burden attributable to such higher price.

Nothing contained in this Article III.B. shall be deemed an assignment or cross-assignment of interests covered hereby, and in the event two or more parties contribute to this agreement jointly owned Leases, the parties' undivided interests in said Leaseholds shall be deemed separate leasehold interests for the purposes of this agreement.

C. Subsequently Created Interests:

If any party has contributed hereto a Lease or Interest that is burdened with an assignment of production given as security for the payment of money, or if, after the date of this agreement, any party creates an overriding royalty, production payment, net profits interest, assignment of production or other burden payable out of production attributable to its working interest hereunder, such burden shall be deemed a "Subsequently Created Interest." Further, if any party has contributed hereto a Lease or Interest burdened with an overriding royalty, production payment, net profits interests, or other burden payable out of production created prior to the date of this agreement, and such burden is not shown on Exhibit "A," such burden also shall be deemed a Subsequently Created Interest to the extent such burden causes the burdens on such party's Lease or Interest to exceed the amount stipulated in Article III.B. above.

The party whose interest is burdened with the Subsequently Created Interest (the "Burdened Party") shall assume and alone bear, pay and discharge the Subsequently Created Interest and shall indemnify, defend and hold harmless the other parties from and against any liability therefor. Further, if the Burdened Party fails to pay, when due, its share of expenses chargeable hereunder, all provisions of Article VII.B. shall be enforceable against the Subsequently Created Interest in the same manner as they are enforceable against the working interest of the Burdened Party. If the Burdened Party is required under this agreement to assign or relinquish to any other party, or parties, all or a portion of its working interest and/or the production attributable thereto, said other party, or parties, shall receive said assignment and/or production free and clear of said Subsequently Created Interest, and the Burdened Party shall indemnify, defend and hold harmless said other party, or parties, from any and all claims and demands for payment asserted by owners of the Subsequently Created Interest.

ARTICLE IV. TITLES

A. Title Examination:

Title examination shall be made on the Drillsite of any proposed well prior to commencement of drilling operations and, if a majority in interest of the Drilling Parties so request or Operator so elects, title examination shall be made on the entire Drilling Unit, or maximum anticipated Drilling Unit, of the well. The opinion will include the ownership of the working interest, minerals, royalty, overriding royalty and production payments under the applicable Leases. Each party contributing Leases and/or Oil and Gas Interests to be included in the Drillsite or Drilling Unit, if appropriate, shall furnish to Operator all abstracts (including federal lease status reports), title opinions, title papers and curative material in its possession free of charge. All such information not in the possession of or made available to Operator by the parties, but necessary for the examination of the title, shall be obtained by Operator. Operator shall cause title to be examined by attorneys on its staff or by outside attorneys. Copies of all title opinions shall be furnished to each Drilling Party. Costs incurred by Operator in procuring abstracts, fees paid outside attorneys for title examination (including preliminary, supplemental, shut-in royalty opinions and division order title opinions) and other direct charges as provided in Exhibit "C" shall be borne by the Drilling Parties in the proportion that the interest of each Drilling Party bears to the total interest of all Drilling Parties as such interests appear in Exhibit "A." Operator shall make no charge for services rendered by its staff attorneys or other personnel in the performance of the above functions.

Each party shall be responsible for securing curative matter and pooling amendments or agreements required in connection with Leases or Oil and Gas Interests contributed by such party. Operator shall be responsible for the preparation and recording of pooling designations or declarations and communitization agreements as well as the conduct of hearings before governmental agencies for the securing of spacing or pooling orders or any other orders necessary or appropriate to the conduct of operations hereunder. This shall not prevent any party from appearing on its own behalf at such hearings. Costs incurred by Operator, including fees paid to outside attorneys, which are associated with hearings before governmental agencies, and which costs are necessary and proper for the activities contemplated under this agreement, shall be direct charges to the joint account and shall not be covered by the administrative overhead charges as provided in Exhibit "C."

Operator shall make no charge for services rendered by its staff attorneys or other personnel in the performance of the above functions.

No well shall be drilled on the Contract Area until after (1) the title to the Drillsite or Drilling Unit, if appropriate, has been examined as above provided, and (2) the title has been approved by the examining attorney or title has been accepted by all of the Drilling Parties in such well.

B. Loss or Failure of Title:

1. Failure of Title: Should any Oil and Gas Interest or Oil and Gas Lease be lost through failure of title, which results in a reduction of interest from that shown on Exhibit "A," the party credited with contributing the affected Lease or Interest (including, if applicable, a successor in interest to such party) shall have ninety (90) days from final determination of title failure to acquire a new lease or other instrument curing the entirety of the title failure, which acquisition will not be subject to Article VIII.B., and failing to do so, this agreement, nevertheless, shall continue in force as to all remaining Oil and Gas Leases and Interests; and,

(a) The party credited with contributing the Oil and Gas Lease or Interest affected by the title failure (including, if applicable, a successor in interest to such party) shall bear alone the entire loss and it shall not be entitled to recover from Operator or the other parties any development or operating costs which it may have previously paid or incurred, but there shall be no additional liability on its part to the other parties hereto by reason of such title failure;

(b) There shall be no retroactive adjustment of expenses incurred or revenues received from the operation of the Lease or Interest which has failed, but the interests of the parties contained on Exhibit "A" shall be revised on an acreage basis, as of the time it is determined finally that title failure has occurred, so that the interest of the party whose Lease or Interest is affected by the title failure will thereafter be reduced in the Contract Area by the amount of the Lease or Interest failed;

(c) If the proportionate interest of the other parties hereto in any producing well previously drilled on the Contract Area is increased by reason of the title failure, the party who bore the costs incurred in connection with such well attributable to the Lease or Interest which has failed shall receive the proceeds attributable to the increase in such interest (less costs and burdens attributable thereto) until it has been reimbursed for unrecovered costs paid by it in connection with such well attributable to such failed Lease or Interest;

(d) Should any person not a party to this agreement, who is determined to be the owner of any Lease or Interest which has failed, pay in any manner any part of the cost of operation, development, or equipment, such amount shall be paid to the party or parties who bore the costs which are so refunded;

(e) Any liability to account to a person not a party to this agreement for prior production of Oil and Gas which arises by reason of title failure shall be borne severally by each party (including a predecessor to a current party) who received production for which such accounting is required based on the amount of such production received, and each such party shall severally indemnify, defend and hold harmless all other parties hereto for any such liability to account;

(f) No charge shall be made to the joint account for legal expenses, fees or salaries in connection with the defense of the Lease or Interest claimed to have failed, but if the party contributing such Lease or Interest hereto elects to defend its title it shall bear all expenses in connection therewith; and

(g) If any party is given credit on Exhibit "A" to a Lease or Interest which is limited solely to ownership of an interest in the wellbore of any well or wells and the production therefrom, such party's absence of interest in the remainder of the Contract Area shall be considered a Failure of Title as to such remaining Contract Area unless that absence of interest is reflected on Exhibit "A."

2. Loss by Non-Payment or Erroneous Payment of Amount Due: If, through mistake or oversight, any rental, shut-in well payment, minimum royalty or royalty payment, or other payment necessary to maintain all or a portion of an Oil and Gas Lease or interest is not paid or is erroneously paid, and as a result a Lease or Interest terminates, there shall be no monetary liability against the party who failed to make such payment. Unless the party who failed to make the required payment secures a new Lease or Interest covering the same interest within ninety (90) days from the discovery of the failure to make proper payment, which acquisition will not be subject to Article VIII.B., the interests of the parties reflected on Exhibit "A" shall be revised on an acreage basis, effective as of the date of termination of the Lease or Interest involved, and the party who failed to make proper payment will no longer be credited with an interest in the Contract Area on account of ownership of the Lease or Interest which has terminated. If the party who failed to make the required payment shall not have been fully reimbursed, at the time of the loss, from the proceeds of the sale of Oil and Gas attributable to the lost Lease or Interest, calculated on an acreage basis, for the development and operating costs previously paid on account of such Lease or Interest, it shall be reimbursed for unrecovered actual costs previously paid by it (but not for its share of the cost of any dry hole previously drilled or wells previously abandoned) from so much of the following as is necessary to effect reimbursement:

(a) Proceeds of Oil and Gas produced prior to termination of the Lease or Interest, less operating expenses and lease burdens chargeable hereunder to the person who failed to make payment, previously accrued to the credit of the lost Lease or Interest, on an acreage basis, up to the amount of unrecovered costs;

(b) Proceeds of Oil and Gas, less operating expenses and lease burdens chargeable hereunder to the person who failed to make payment, up to the amount of unrecovered costs attributable to that portion of Oil and Gas thereafter produced and marketed (excluding production from any wells thereafter drilled) which, in the absence of such Lease or Interest termination, would be attributable to the lost Lease or Interest on an acreage basis and which as a result of such Lease or Interest termination is credited to other parties, the proceeds of said portion of the Oil and Gas to be contributed by the other parties in proportion to their respective interests reflected on Exhibit "A"; and,

(c) Any monies, up to the amount of unrecovered costs, that may be paid by any party who is, or becomes, the owner of the Lease or Interest lost, for the privilege of participating in the Contract Area or becoming a party to this agreement.

3. Other Losses: All losses of Leases or Interests committed to this agreement, other than those set forth in Articles IV.B.1. and IV.B.2. above, shall be joint losses and shall be borne by all parties in proportion to their interests shown on Exhibit "A." This shall include but not be limited to the loss of any Lease or Interest through failure to develop or because express or implied covenants have not been performed (other than performance which requires only the payment of money), and the loss of any Lease by expiration at the end of its primary term if it is not renewed or extended. There shall be no readjustment of interests in the remaining portion of the Contract Area on account of any joint loss.

4. Curing Title: In the event of a Failure of Title under Article IV.B.1. or a loss of title under Article IV.B.2. above, any Lease or Interest acquired by any party hereto (other than the party whose interest has failed or was lost) during the ninety (90) day period provided by Article IV.B.1. and Article IV.B.2. above covering all or a portion of the interest that has failed or was lost shall be offered at cost to the party whose interest has failed or was lost, and the provisions of Article VIII.B. shall not apply to such acquisition.

ARTICLE V. OPERATOR

A. Designation and Responsibilities of Operator:

_____ shall be the Operator of the Contract Area, and shall conduct and direct and have full control of all operations on the Contract Area as permitted and required by, and within the limits of this agreement. In its performance of services hereunder for the Non-Operators, Operator shall be an independent contractor not subject to the control or direction of the Non-Operators except as to the type of operation to be undertaken in accordance with the election procedures contained in this agreement. Operator shall not be deemed, or hold itself out as, the agent of the Non-Operators with authority to bind them to any obligation or liability assumed or incurred by Operator as to any third party. Operator shall conduct its activities under this agreement as a reasonable prudent operator, in a good and workmanlike manner, with due diligence and dispatch, in accordance with good oilfield practice, and in compliance with applicable law and regulation, but in no event shall it have any liability as Operator to the other parties for losses sustained or liabilities incurred except such as may result from gross negligence or willful misconduct.

B. Resignation or Removal of Operator and Selection of Successor:

1. Resignation or Removal of Operator: Operator may resign at any time by giving written notice thereof to Non-Operators. If Operator terminates its legal existence, no longer owns an interest hereunder in the Contract Area, or is no longer capable of serving as Operator, Operator shall be deemed to have resigned without any action by Non-Operators, except the selection of a successor. Operator may be removed only for good cause by the affirmative vote of Non-Operators owning a majority interest based on ownership as shown on Exhibit "A" remaining after excluding the voting interest of Operator; such vote shall not be deemed effective until a written notice has been delivered to the Operator by a Non-Operator detailing the alleged default and Operator has failed to cure the default within thirty (30) days from its receipt of the notice or, if the default concerns an operation then being conducted, within forty-eight (48) hours of its receipt of the notice. For purposes hereof, "good cause" shall mean not only gross negligence or willful misconduct but also the material breach of or inability to meet the standards of operation contained in Article V.A. or material failure or inability to perform its obligations under this agreement.

Subject to Article VII.D.1., such resignation or removal shall not become effective until 7:00 o'clock A.M. on the first day of the calendar month following the expiration of ninety (90) days after the giving of notice of resignation by Operator or action by the Non-Operators to remove Operator, unless a successor Operator has been selected and assumes the duties of Operator at an earlier date. Operator, after effective date of resignation or removal, shall be bound by the terms hereof as a Non-Operator. A change of a corporate name or structure of Operator or transfer of Operator's interest to any single subsidiary, parent or successor corporation shall not be the basis for removal of Operator.

2. Selection of Successor Operator: Upon the resignation or removal of Operator under any provision of this agreement, a successor Operator shall be selected by the parties. The successor Operator shall be selected from the parties owning an interest in the Contract Area at the time such successor Operator is selected. The successor Operator shall be selected by the affirmative vote of two (2) or more parties owning a majority interest based on ownership as shown on Exhibit "A"; provided, however, if an Operator which has been removed or is deemed to have resigned fails to vote or votes only to succeed itself, the successor Operator shall be selected by the affirmative vote of the party or parties owning a majority interest based on ownership as shown on Exhibit "A" remaining after excluding the voting interest of the Operator that was removed or resigned. The former Operator shall promptly deliver to the successor Operator all records and data relating to the operations conducted by the former Operator to the extent such records and data are not already in the possession of the successor operator. Any cost of obtaining or copying the former Operator's records and data shall be charged to the joint account.

3. Effect of Bankruptcy: If Operator becomes insolvent, bankrupt or is placed in receivership, it shall be deemed to have resigned without any action by Non-Operators, except the selection of a successor. If a petition for relief under the federal bankruptcy laws is filed by or against Operator, and the removal of Operator is prevented by the federal bankruptcy court, all Non-Operators and Operator shall comprise an interim operating committee to serve until Operator has elected to reject or assume this agreement pursuant to the Bankruptcy Code, and an election to reject this agreement by Operator as a debtor in possession, or by a trustee in bankruptcy, shall be deemed a resignation as Operator without any action by Non-Operators, except the selection of a successor. During the period of time the operating committee controls operations, all actions shall require the approval of two (2) or more parties owning a majority interest based on ownership as shown on Exhibit "A." In the event there are only two (2) parties to this agreement, during the period of time the operating committee controls operations, a third party acceptable to Operator, Non-Operator and the federal bankruptcy court shall be selected as a member of the operating committee, and all actions shall require the approval of two (2) members of the operating committee without regard for their interest in the Contract Area based on Exhibit "A."

C. Employees and Contractors:

The number of employees or contractors used by Operator in conducting operations hereunder, their selection, and the hours of labor and the compensation for services performed shall be determined Operator, and all such employees or contractors shall be the employees or contractors of Operator.

D. Rights and Duties of Operator:

1. Competitive Rates and Use of Affiliates: All wells drilled on the Contract Area shall be drilled on a competitive contract basis at the usual rates prevailing in the area. If it so desires, Operator may employ its own tools and equipment in the drilling of wells, but its charges therefor shall not exceed the prevailing rates in the area and the rate of such charges shall be agreed upon by the parties in writing before drilling operations are commenced, and such work shall be performed by Operator under the same terms and conditions as are customary and usual in the area in contracts of independent contractors who are doing work of a similar nature. All work performed or materials supplied by affiliates or related parties of Operator shall be performed or supplied at competitive rates, pursuant to written agreement, and in accordance with customs and standards prevailing in the industry.

2. Discharge of Joint Account Obligations: Except as herein otherwise specifically provided, Operator shall promptly pay and discharge expenses incurred in the development and operation of the Contract Area pursuant to this agreement and shall charge each of the parties hereto with their respective proportionate shares upon the expense basis provided in Exhibit "C." Operator shall keep an accurate record of the joint account hereunder, showing expenses incurred and charges and credits made and received.

3. Protection from Liens: Operator shall pay, or cause to be paid, as and when they become due and payable, all accounts of contractors and suppliers and wages and salaries for services rendered or performed, and for materials supplied on, to or in respect of the Contract Area or any operations for the joint account thereof, and shall keep the Contract Area free from

liens and encumbrances resulting therefrom except for those resulting from a bona fide dispute as to services rendered or materials supplied.

4. Custody of Funds: Operator shall hold for the account of the Non-Operators any funds of the Non-Operators advanced or paid to the Operator, either for the conduct of operations hereunder or as a result of the sale of production from the Contract Area, and such funds shall remain the funds of the Non-Operators on whose account they are advanced or paid until used for their intended purpose or otherwise delivered to the Non-Operators or applied toward the payment of debts as provided in Article VII.B. Nothing in this paragraph shall be construed to establish a fiduciary relationship between Operator and Non-Operators for any purpose other than to account for Non-Operator funds as herein specifically provided. Nothing in this paragraph shall require the maintenance by Operator of separate accounts for the funds of Non-Operators unless the parties otherwise specifically agree.

5. Access to Contract Area and Records: Operator shall, except as otherwise provided herein, permit each Non-Operator or its duly authorized representative, at the Non-Operator's sole risk and cost, full and free access at all reasonable times to all operations of every kind and character being conducted for the joint account on the Contract Area and to the records of operations conducted thereon or production therefrom, including Operator's books and records relating thereto. Such access rights shall not be exercised in a manner interfering with Operator's conduct of an operation hereunder and shall not obligate Operator to furnish any geologic or geophysical data of an interpretive nature unless the cost of preparation of such interpretive data was charged to the joint account. Operator will furnish to each Non-Operator upon request copies of any and all reports and information obtained by Operator in connection with production and related items, including, without limitation, meter and chart reports, production purchaser statements, run tickets and monthly gauge reports, but excluding purchase contracts and pricing information to the extent not applicable to the production of the Non-Operator seeking the information. Any audit of Operator's records relating to amounts expended and the appropriateness of such expenditures shall be conducted in accordance with the audit protocol specified in Exhibit "C."

6. Filing and Furnishing Governmental Reports: Operator will file, and upon written request promptly furnish copies to each requesting Non-Operator not in default of its payment obligations, all operational notices, reports or applications required to be filed by local, State, Federal or Indian agencies or authorities having jurisdiction over operations hereunder. Each Non-Operator shall provide to Operator on a timely basis all information necessary to Operator to make such filings.

7. Drilling and Testing Operations: The following provisions shall apply to each well drilled hereunder, including but not limited to the Initial Well:

(a) Operator will promptly advise Non-Operators of the date on which the well is spudded, or the date on which drilling operations are commenced.

(b) Operator will send to Non-Operators such reports, test results and notices regarding the progress of operations on the well as the Non-Operators shall reasonably request, including, but not limited to, daily drilling reports, completion reports, and well logs.

(c) Operator shall adequately test all Zones encountered which may reasonably be expected to be capable of producing Oil and Gas in paying quantities as a result of examination of the electric log or any other logs or cores or tests conducted hereunder.

8. Cost Estimates: Upon request of any Consenting Party, Operator shall furnish estimates of current and cumulative costs incurred for the joint account at reasonable intervals during the conduct of any operation pursuant to this agreement. Operator shall not be held liable for errors in such estimates so long as the estimates are made in good faith.

9. Insurance: At all times while operations are conducted hereunder, Operator shall comply with the workers compensation law of the state where the operations are being conducted; provided, however, that Operator may be a self-insurer for liability under said compensation laws in which event the only charge that shall be made to the joint account shall be as provided in Exhibit "C." Operator shall also carry or provide insurance for the benefit of the joint account of the parties as outlined in Exhibit "D" attached hereto and made a part hereof. Operator shall require all contractors engaged in work on or for the Contract Area to comply with the workers compensation law of the state where the operations are being conducted and to maintain such other insurance as Operator may require.

In the event automobile liability insurance is specified in said Exhibit "D," or subsequently receives the approval of the parties, no direct charge shall be made by Operator for premiums paid for such insurance for Operator's automotive equipment.

ARTICLE VI. DRILLING AND DEVELOPMENT

A. Initial Well:

On or before the _____ day of _____, _____, Operator shall commence the drilling of the Initial Well at the following location:

and shall thereafter continue the drilling of the well with due diligence to

The drilling of the Initial Well and the participation therein by all parties is obligatory, subject to Article VI.C.1. as to participation in Completion operations and Article VI.F. as to termination of operations and Article XI as to occurrence of force majeure.

B. Subsequent Operations:

1. Proposed Operations: If any party hereto should desire to drill any well on the Contract Area other than the Initial Well, or if any party should desire to Rework, Sidetrack, Deepen, Recomplete or Plug Back a dry hole or a well no longer capable of producing in paying quantities in which such party has not otherwise relinquished its interest in the proposed objective Zone under this agreement, the party desiring to drill, Rework, Sidetrack, Deepen, Recomplete or Plug Back such a well shall give written notice of the proposed operation to the parties who have not otherwise relinquished their interest in such objective Zone

under this agreement and to all other parties in the case of a proposal for Sidetracking or Deepening, specifying the work to be performed, the location, proposed depth, objective Zone and the estimated cost of the operation. The parties to whom such a notice is delivered shall have thirty (30) days after receipt of the notice within which to notify the party proposing to do the work whether they elect to participate in the cost of the proposed operation. If a drilling rig is on location, notice of a proposal to Rework, Sidetrack, Recomplete, Plug Back or Deepen may be given by telephone and the response period shall be limited to forty-eight (48) hours, exclusive of Saturday, Sunday and legal holidays. Failure of a party to whom such notice is delivered to reply within the period above fixed shall constitute an election by that party not to participate in the cost of the proposed operation. Any proposal by a party to conduct an operation conflicting with the operation initially proposed shall be delivered to all parties within the time and in the manner provided in Article VI.B.6.

If all parties to whom such notice is delivered elect to participate in such a proposed operation, the parties shall be contractually committed to participate therein provided such operations are commenced within the time period hereafter set forth, and Operator shall, no later than ninety (90) days after expiration of the notice period of thirty (30) days (or as promptly as practicable after the expiration of the forty-eight (48) hour period when a drilling rig is on location, as the case may be), actually commence the proposed operation and thereafter complete it with due diligence at the risk and expense of the parties participating therein; provided, however, said commencement date may be extended upon written notice of same by Operator to the other parties, for a period of up to thirty (30) additional days if, in the sole opinion of Operator, such additional time is reasonably necessary to obtain permits from governmental authorities, surface rights (including rights-of-way) or appropriate drilling equipment, or to complete title examination or curative matter required for title approval or acceptance. If the actual operation has not been commenced within the time provided (including any extension thereof as specifically permitted herein or in the force majeure provisions of Article XI) and if any party hereto still desires to conduct said operation, written notice proposing same must be resubmitted to the other parties in accordance herewith as if no prior proposal had been made. Those parties that did not participate in the drilling of a well for which a proposal to Deepen or Sidetrack is made hereunder shall, if such parties desire to participate in the proposed Deepening or Sidetracking operation, reimburse the Drilling Parties in accordance with Article VI.B.4. in the event of a Deepening operation and in accordance with Article VI.B.5. in the event of a Sidetracking operation.

2. Operations by Less Than All Parties:

(a) Determination of Participation. If any party to whom such notice is delivered as provided in Article VI.B.1. or

VI.C.1. (Option No. 2) elects not to participate in the proposed operation, then, in order to be entitled to the benefits of this Article, the party or parties giving the notice and such other parties as shall elect to participate in the operation shall, no later than ninety (90) days after the expiration of the notice period of thirty (30) days (or as promptly as practicable after the expiration of the forty-eight (48) hour period when a drilling rig is on location, as the case may be) actually commence the proposed operation and complete it with due diligence. Operator shall perform all work for the account of the Consenting Parties; provided, however, if no drilling rig or other equipment is on location, and if Operator is a Non-Consenting Party, the Consenting Parties shall either: (i) request Operator to perform the work required by such proposed operation for the account of the Consenting Parties, or (ii) designate one of the Consenting Parties as Operator to perform such work. The rights and duties granted to and imposed upon the Operator under this agreement are granted to and imposed upon the party designated as Operator for an operation in which the original Operator is a Non-Consenting Party. Consenting Parties, when conducting operations on the Contract Area pursuant to this Article VI.B.2., shall comply with all terms and conditions of this agreement.

If less than all parties approve any proposed operation, the proposing party, immediately after the expiration of the applicable notice period, shall advise all Parties of the total interest of the parties approving such operation and its recommendation as to whether the Consenting Parties should proceed with the operation as proposed. Each Consenting Party, within forty-eight (48) hours (exclusive of Saturday, Sunday, and legal holidays) after delivery of such notice, shall advise the proposing party of its desire to (i) limit participation to such party's interest as shown on Exhibit "A" or (ii) carry only its proportionate part (determined by dividing such party's interest in the Contract Area by the interests of all Consenting Parties in the Contract Area) of Non-Consenting Parties' interests, or (iii) carry its proportionate part (determined as provided in (ii)) of Non-Consenting Parties' interests together with all or a portion of its proportionate part of any Non-Consenting Parties' interests that any Consenting Party did not elect to take. Any interest of Non-Consenting Parties that is not carried by a Consenting Party shall be deemed to be carried by the party proposing the operation if such party does not withdraw its proposal. Failure to advise the proposing party within the time required shall be deemed an election under (i). In the event a drilling rig is on location, notice may be given by telephone, and the time permitted for such a response shall not exceed a total of forty-eight (48) hours (exclusive of Saturday, Sunday and legal holidays). The proposing party, at its election, may withdraw such proposal if there is less than 100% participation and shall notify all parties of such decision within ten (10) days, or within twenty-four (24) hours if a drilling rig is on location, following expiration of the applicable response period. If 100% subscription to the proposed operation is obtained, the proposing party shall promptly notify the Consenting Parties of their proportionate interests in the operation and the party serving as Operator shall commence such operation within the period provided in Article VI.B.1., subject to the same extension right as provided therein.

(b) Relinquishment of Interest for Non-Participation. The entire cost and risk of conducting such operations shall be borne by the Consenting Parties in the proportions they have elected to bear same under the terms of the preceding paragraph. Consenting Parties shall keep the leasehold estates involved in such operations free and clear of all liens and encumbrances of every kind created by or arising from the operations of the Consenting Parties. If such an operation results in a dry hole, then subject to Articles VI.B.6. and VI.E.3., the Consenting Parties shall plug and abandon the well and restore the surface location at their sole cost, risk and expense; provided, however, that those Non-Consenting Parties that participated in the drilling, Deepening or Sidetracking of the well shall remain liable for, and shall pay, their proportionate shares of the cost of plugging and abandoning the well and restoring the surface location insofar only as those costs were not increased by the subsequent operations of the Consenting Parties. If any well drilled, Reworked, Sidetracked, Deepened, Recompleted or Plugged Back under the provisions of this Article results in a well capable of producing Oil and/or Gas in paying quantities, the Consenting Parties shall Complete and equip the well to produce at their sole cost and risk, and the well shall then be turned over to Operator (if the Operator did not conduct the operation) and shall be operated by it at the expense and for the account of the Consenting Parties. Upon commencement of operations for the drilling, Reworking, Sidetracking, Recompleting, Deepening or Plugging Back of any such well by Consenting Parties in accordance with the provisions of this Article, each Non-Consenting Party shall be deemed to have relinquished to Consenting Parties, and the Consenting Parties shall own and be entitled to receive, in proportion to their respective interests, all of such Non-Consenting Party's interest in the well and share of production therefrom or, in the case of a Reworking, Sidetracking,

Deepening, Recompleting or Plugging Back, or a Completion pursuant to Article VI.C.1. Option No. 2, all of such Non-Consenting Party's interest in the production obtained from the operation in which the Non-Consenting Party did not elect to participate. Such relinquishment shall be effective until the proceeds of the sale of such share, calculated at the well, or market value thereof if such share is not sold (after deducting applicable ad valorem, production, severance, and excise taxes, royalty, overriding royalty and other interests not excepted by Article III.C. payable out of or measured by the production from such well accruing with respect to such interest until it reverts), shall equal the total of the following:

(i) _____ % of each such Non-Consenting Party's share of the cost of any newly acquired surface equipment beyond the wellhead connections (including but not limited to stock tanks, separators, treaters, pumping equipment and piping), plus 100% of each such Non-Consenting Party's share of the cost of operation of the well commencing with first production and continuing until each such Non-Consenting Party's relinquished interest shall revert to it under other provisions of this Article, it being agreed that each Non-Consenting Party's share of such costs and equipment will be that interest which would have been chargeable to such Non-Consenting Party had it participated in the well from the beginning of the operations; and

(ii) _____ % of (a) that portion of the costs and expenses of drilling, Reworking, Sidetracking, Deepening, Plugging Back, testing, Completing, and Recompleting, after deducting any cash contributions received under Article VIII.C., and of (b) that portion of the cost of newly acquired equipment in the well (to and including the wellhead connections), which would have been chargeable to such Non-Consenting Party if it had participated therein.

Notwithstanding anything to the contrary in this Article VI.B., if the well does not reach the deepest objective Zone described in the notice proposing the well for reasons other than the encountering of granite or practically impenetrable substance or other condition in the hole rendering further operations impracticable, Operator shall give notice thereof to each Non-Consenting Party who submitted or voted for an alternative proposal under Article VI.B.6. to drill the well to a shallower Zone than the deepest objective Zone proposed in the notice under which the well was drilled, and each such Non-Consenting Party shall have the option to participate in the initial proposed Completion of the well by paying its share of the cost of drilling the well to its actual depth, calculated in the manner provided in Article VI.B.4. (a). If any such Non-Consenting Party does not elect to participate in the first Completion proposed for such well, the relinquishment provisions of this Article VI.B.2. (b) shall apply to such party's interest.

(c) Reworking, Recompleting or Plugging Back. An election not to participate in the drilling, Sidetracking or Deepening of a well shall be deemed an election not to participate in any Reworking or Plugging Back operation proposed in such a well, or portion thereof, to which the initial non-consent election applied that is conducted at any time prior to full recovery by the Consenting Parties of the Non-Consenting Party's recoupment amount. Similarly, an election not to participate in the Completing or Recompleting of a well shall be deemed an election not to participate in any Reworking operation proposed in such a well, or portion thereof, to which the initial non-consent election applied that is conducted at any time prior to full recovery by the Consenting Parties of the Non-Consenting Party's recoupment amount. Any such Reworking, Recompleting or Plugging Back operation conducted during the recoupment period shall be deemed part of the cost of operation of said well and there shall be added to the sums to be recouped by the Consenting Parties _____ % of that portion of the costs of the Reworking, Recompleting or Plugging Back operation which would have been chargeable to such Non-Consenting Party had it participated therein. If such a Reworking, Recompleting or Plugging Back operation is proposed during such recoupment period, the provisions of this Article VI.B. shall be applicable as between said Consenting Parties in said well.

(d) Recoupment Matters. During the period of time Consenting Parties are entitled to receive Non-Consenting Party's share of production, or the proceeds therefrom, Consenting Parties shall be responsible for the payment of all ad valorem, production, severance, excise, gathering and other taxes, and all royalty, overriding royalty and other burdens applicable to Non-Consenting Party's share of production not excepted by Article III.C.

In the case of any Reworking, Sidetracking, Plugging Back, Recompleting or Deepening operation, the Consenting Parties shall be permitted to use, free of cost, all casing, tubing and other equipment in the well, but the ownership of all such equipment shall remain unchanged; and upon abandonment of a well after such Reworking, Sidetracking, Plugging Back, Recompleting or Deepening, the Consenting Parties shall account for all such equipment to the owners thereof, with each party receiving its proportionate part in kind or in value, less cost of salvage.

Within ninety (90) days after the completion of any operation under this Article, the party conducting the operations for the Consenting Parties shall furnish each Non-Consenting Party with an inventory of the equipment in and connected to the well, and an itemized statement of the cost of drilling, Sidetracking, Deepening, Plugging Back, testing, Completing, Recompleting, and equipping the well for production; or, at its option, the operating party, in lieu of an itemized statement of such costs of operation, may submit a detailed statement of monthly billings. Each month thereafter, during the time the Consenting Parties are being reimbursed as provided above, the party conducting the operations for the Consenting Parties shall furnish the Non-Consenting Parties with an itemized statement of all costs and liabilities incurred in the operation of the well, together with a statement of the quantity of Oil and Gas produced from it and the amount of proceeds realized from the sale of the well's working interest production during the preceding month. In determining the quantity of Oil and Gas produced during any month, Consenting Parties shall use industry accepted methods such as but not limited to metering or periodic well tests. Any amount realized from the sale or other disposition of equipment newly acquired in connection with any such operation which would have been owned by a Non-Consenting Party had it participated therein shall be credited against the total unreturned costs of the work done and of the equipment purchased in determining when the interest of such Non-Consenting Party shall revert to it as above provided; and if there is a credit balance, it shall be paid to such Non-Consenting Party.

If and when the Consenting Parties recover from a Non-Consenting Party's relinquished interest the amounts provided for above, the relinquished interests of such Non-Consenting Party shall automatically revert to it as of 7:00 a.m. on the day following the day on which such recoupment occurs, and, from and after such reversion, such Non-Consenting Party shall own the same interest in such well, the material and equipment in or pertaining thereto, and the production therefrom as such Non-Consenting Party would have been entitled to had it participated in the drilling, Sidetracking, Reworking, Deepening, Recompleting or Plugging Back of said well. Thereafter, such Non-Consenting Party shall be charged with and shall pay its proportionate part of the further costs of the operation of said well in accordance with the terms of this agreement and Exhibit "C" attached hereto.

5. Stand-By Costs. When a well which has been drilled or Deepened has reached its authorized depth and all tests have been completed and the results thereof furnished to the parties, or when operations on the well have been otherwise terminated pursuant to Article VI.F., stand-by costs incurred pending response to a party's notice proposing a Reworking,

Sidetracking, Deepening, Recompleting, Plugging Back or Completing operation in such a well (including the period required under Article VI.B.6. to resolve competing proposals) shall be charged and borne as part of the drilling or Deepening operation just completed. Stand-by costs subsequent to all parties responding, or expiration of the response time permitted, whichever first occurs, and prior to agreement as to the participating interests of all Consenting Parties pursuant to the terms of the second grammatical paragraph of Article VI.B.2. (a), shall be charged to and borne as part of the proposed operation, but if the proposal is subsequently withdrawn because of insufficient participation, such stand-by costs shall be allocated between the Consenting Parties in the proportion each Consenting Party's interest as shown on Exhibit "A" bears to the total interest as shown on Exhibit "A" of all Consenting Parties.

In the event that notice for a Sidetracking operation is given while the drilling rig to be utilized is on location, any party may request and receive up to five (5) additional days after expiration of the forty-eight hour response period specified in Article VI.B.1. within which to respond by paying for all stand-by costs and other costs incurred during such extended response period; Operator may require such party to pay the estimated stand-by time in advance as a condition to extending the response period. If more than one party elects to take such additional time to respond to the notice, standby costs shall be allocated between the parties taking additional time to respond on a day-to-day basis in the proportion each electing party's interest as shown on Exhibit "A" bears to the total interest as shown on Exhibit "A" of all the electing parties.

4. Deepening: If less than all parties elect to participate in a drilling, Sidetracking, or Deepening operation proposed pursuant to Article VI.B.1., the interest relinquished by the Non-Consenting Parties to the Consenting Parties under Article VI.B.2. shall relate only and be limited to the lesser of (i) the total depth actually drilled or (ii) the objective depth or Zone of which the parties were given notice under Article VI.B.1. ("Initial Objective"). Such well shall not be Deepened beyond the Initial Objective without first complying with this Article to afford the Non-Consenting Parties the opportunity to participate in the Deepening operation.

In the event any Consenting Party desires to drill or Deepen a Non-Consent Well to a depth below the Initial Objective, such party shall give notice thereof, complying with the requirements of Article VI.B.1., to all parties (including Non-Consenting Parties). Thereupon, Articles VI.B.1. and 2. shall apply and all parties receiving such notice shall have the right to participate or not participate in the Deepening of such well pursuant to said Articles VI.B.1. and 2. If a Deepening operation is approved pursuant to such provisions, and if any Non-Consenting Party elects to participate in the Deepening operation, such Non-Consenting party shall pay or make reimbursement (as the case may be) of the following costs and expenses.

(a) If the proposal to Deepen is made prior to the Completion of such well as a well capable of producing in paying quantities, such Non-Consenting Party shall pay (or reimburse Consenting Parties for, as the case may be) that share of costs and expenses incurred in connection with the drilling of said well from the surface to the Initial Objective which Non-Consenting Party would have paid had such Non-Consenting Party agreed to participate therein, plus the Non-Consenting Party's share of the cost of Deepening and of participating in any further operations on the well in accordance with the other provisions of this Agreement; provided, however, all costs for testing and Completion or attempted Completion of the well incurred by Consenting Parties prior to the point of actual operations to Deepen beyond the Initial Objective shall be for the sole account of Consenting Parties.

(b) If the proposal is made for a Non-Consent Well that has been previously Completed as a well capable of producing in paying quantities, but is no longer capable of producing in paying quantities, such Non-Consenting Party shall pay (or reimburse Consenting Parties for, as the case may be) its proportionate share of all costs of drilling, Completing, and equipping said well from the surface to the Initial Objective, calculated in the manner provided in paragraph (a) above, less those costs recouped by the Consenting Parties from the sale of production from the well. The Non-Consenting Party shall also pay its proportionate share of all costs of re-entering said well. The Non-Consenting Parties' proportionate part (based on the percentage of such well Non-Consenting Party would have owned had it previously participated in such Non-Consent Well) of the costs of salvable materials and equipment remaining in the hole and salvable surface equipment used in connection with such well shall be determined in accordance with Exhibit "C." If the Consenting Parties have recouped the cost of drilling, Completing, and equipping the well at the time such Deepening operation is conducted, then a Non-Consenting Party may participate in the Deepening of the well with no payment for costs incurred prior to re-entering the well for Deepening.

The foregoing shall not imply a right of any Consenting Party to propose any Deepening for a Non-Consent Well prior to the drilling of such well to its Initial Objective without the consent of the other Consenting Parties as provided in Article VI.F.

5. Sidetracking: Any party having the right to participate in a proposed Sidetracking operation that does not own an interest in the affected wellbore at the time of the notice shall, upon electing to participate, tender to the wellbore owners its proportionate share (equal to its interest in the Sidetracking operation) of the value of that portion of the existing wellbore to be utilized as follows:

(a) If the proposal is for Sidetracking an existing dry hole, reimbursement shall be on the basis of the actual costs incurred in the initial drilling of the well down to the depth at which the Sidetracking operation is initiated.

(b) If the proposal is for Sidetracking a well which has previously produced, reimbursement shall be on the basis of such party's proportionate share of drilling and equipping costs incurred in the initial drilling of the well down to the depth at which the Sidetracking operation is conducted, calculated in the manner described in Article VI.B.4(b) above. Such party's proportionate share of the cost of the well's salvable materials and equipment down to the depth at which the Sidetracking operation is initiated shall be determined in accordance with the provisions of Exhibit "C."

6. Order of Preference of Operations. Except as otherwise specifically provided in this agreement, if any party desires to propose the conduct of an operation that conflicts with a proposal that has been made by a party under this Article VI, such party shall have fifteen (15) days from delivery of the initial proposal, in the case of a proposal to drill a well or to perform an operation on a well where no drilling rig is on location, or twenty-four (24) hours, exclusive of Saturday, Sunday and legal holidays, from delivery of the initial proposal, if a drilling rig is on location for the well on which such operation is to be conducted, to deliver to all parties entitled to participate in the proposed operation such party's alternative proposal, such alternate proposal to contain the same information required to be included in the initial proposal. Each party receiving such proposals shall elect by delivery of notice to Operator within five (5) days after expiration of the proposal period, or within twenty-four (24) hours (exclusive of Saturday, Sunday and legal holidays) if a drilling rig is on location for the well that is the subject of the proposals, to participate in one of the competing proposals. Any party not electing within the time required shall be deemed not to have voted. The proposal receiving the vote of parties owning the largest aggregate percentage interest of the parties voting shall have priority over all other competing proposals; in the case of a tie vote, the

initial proposal shall prevail. Operator shall deliver notice of such result to all parties entitled to participate in the operation within five (5) days after expiration of the election period (or within twenty-four (24) hours, exclusive of Saturday, Sunday and legal holidays, if a drilling rig is on location). Each party shall then have two (2) days (or twenty-four (24) hours if a rig is on location) from receipt of such notice to elect by delivery of notice to Operator to participate in such operation or to relinquish interest in the affected well pursuant to the provisions of Article VI.B.2.; failure by a party to deliver notice within such period shall be deemed an election not to participate in the prevailing proposal.

7. Conformity to Spacing Pattern. Notwithstanding the provisions of this Article VI.B.2., it is agreed that no wells shall be proposed to be drilled to or Completed in or produced from a Zone from which a well located elsewhere on the Contract Area is producing, unless such well conforms to the then-existing well spacing pattern for such Zone.

8. Paying Wells. No party shall conduct any Reworking, Deepening, Plugging Back, Completion, Recompletion, or Sidetracking operation under this agreement with respect to any well then capable of producing in paying quantities except with the consent of all parties that have not relinquished interests in the well at the time of such operation.

C. Completion of Wells; Reworking and Plugging Back:

1. Completion: Without the consent of all parties, no well shall be drilled, Deepened or Sidetracked, except any well drilled, Deepened or Sidetracked pursuant to the provisions of Article VI.B.2. of this agreement. Consent to the drilling, Deepening or Sidetracking shall include:

- ☐ Option No. 1: All necessary expenditures for the drilling, Deepening or Sidetracking, testing, Completing and equipping of the well, including necessary tankage and/or surface facilities.
- ☐ Option No. 2: All necessary expenditures for the drilling, Deepening or Sidetracking and testing of the well. When such well has reached its authorized depth, and all logs, cores and other tests have been completed, and the results thereof furnished to the parties, Operator shall give immediate notice to the Non-Operators having the right to participate in a Completion attempt whether or not Operator recommends attempting to Complete the well, together with Operator's AFE for Completion costs if not previously provided. The parties receiving such notice shall have forty-eight (48) hours (exclusive of Saturday, Sunday and legal holidays) in which to elect by delivery of notice to Operator to participate in a recommended Completion attempt or to make a Completion proposal with an accompanying AFE. Operator shall deliver any such Completion proposal, or any Completion proposal conflicting with Operator's proposal, to the other parties entitled to participate in such Completion in accordance with the procedures specified in Article VI.B.6. Election to participate in a Completion attempt shall include consent to all necessary expenditures for the Completing and equipping of such well, including necessary tankage and/or surface facilities but excluding any stimulation operation not contained on the Completion AFE. Failure of any party receiving such notice to reply within the period above fixed shall constitute an election by that party not to participate in the cost of the Completion attempt; provided, that Article VI.B.6. shall control in the case of conflicting Completion proposals. If one or more, but less than all of the parties, elect to attempt a Completion, the provision of Article VI.B.2. hereof (the phrase "Reworking, Sidetracking, Deepening, Recompleting or Plugging Back" as contained in Article VI.B.2. shall be deemed to include "Completing") shall apply to the operations thereafter conducted by less than all parties; provided, however, that Article VI.B.2. shall apply separately to each separate Completion or Recompletion attempt undertaken hereunder, and an election to become a Non-Consenting Party as to one Completion or Recompletion attempt shall not prevent a party from becoming a Consenting Party in subsequent Completion or Recompletion attempts regardless whether the Consenting Parties as to earlier Completions or Recompletion have recouped their costs pursuant to Article VI.B.2.; provided further, that any recoupment of costs by a Consenting Party shall be made solely from the production attributable to the Zone in which the Completion attempt is made. Election by a previous Non-Consenting party to participate in a subsequent Completion or Recompletion attempt shall require such party to pay its proportionate share of the cost of salvable materials and equipment installed in the well pursuant to the previous Completion or Recompletion attempt, insofar and only insofar as such materials and equipment benefit the Zone in which such party participates in a Completion attempt.

2. Rework, Recomplete or Plug Back: No well shall be Reworked, Recompleted or Plugged Back except a well Reworked, Recompleted, or Plugged Back pursuant to the provisions of Article VI.B.2. of this agreement. Consent to the Reworking, Recompleting or Plugging Back of a well shall include all necessary expenditures in conducting such operations and Completing and equipping of said well, including necessary tankage and/or surface facilities.

D. Other Operations:

Operator shall not undertake any single project reasonably estimated to require an expenditure in excess of _____ Dollars (\$ _____) except in connection with the drilling, Sidetracking, Reworking, Deepening, Completing, Recompleting or Plugging Back of a well that has been previously authorized by or pursuant to this agreement; provided, however, that, in case of explosion, fire, flood or other sudden emergency, whether of the same or different nature, Operator may take such steps and incur such expenses as in its opinion are required to deal with the emergency to safeguard life and property but Operator, as promptly as possible, shall report the emergency to the other parties. If Operator prepares an AFE for its own use, Operator shall furnish any Non-Operator so requesting an information copy thereof for any single project costing in excess of _____ Dollars (\$ _____). Any party who has not relinquished its interest in a well shall have the right to propose that Operator perform repair work or undertake the installation of artificial lift equipment or ancillary production facilities such as salt water disposal wells or to conduct additional work with respect to a well drilled hereunder or other similar project (but not including the installation of gathering lines or other transportation or marketing facilities, the installation of which shall be governed by separate agreement between the parties) reasonably estimated to require an expenditure in excess of the amount first set forth above in this Article VI.D. (except in connection with an operation required to be proposed under Articles VI.B.1. or VI.C.1. Option No. 2, which shall be governed exclusively by those Articles). Operator shall deliver such proposal to all parties entitled to participate therein. If within thirty (30) days thereof Operator secures the written consent of any party or parties owning at least _____% of the interests of the parties entitled to participate in such operation, each party having the right to participate in such project shall be bound by the terms of such proposal and shall be obligated to pay its proportionate share of the costs of the proposed project as if it had consented to such project pursuant to the terms of the proposal.

E. Abandonment of Wells:

1. Abandonment of Dry Holes: Except for any well drilled or Deepened pursuant to Article VI.B.2., any well which has been drilled or Deepened under the terms of this agreement and is proposed to be completed as a dry hole shall not be

plugged and abandoned without the consent of all parties. Should Operator, after diligent effort, be unable to contact any party, or should any party fail to reply within forty-eight (48) hours (exclusive of Saturday, Sunday and legal holidays) after delivery of notice of the proposal to plug and abandon such well, such party shall be deemed to have consented to the proposed abandonment. All such wells shall be plugged and abandoned in accordance with applicable regulations and at the cost, risk and expense of the parties who participated in the cost of drilling or Deepening such well. Any party who objects to plugging and abandoning such well by notice delivered to Operator within forty-eight (48) hours (exclusive of Saturday, Sunday and legal holidays) after delivery of notice of the proposed plugging shall take over the well as of the end of such forty-eight (48) hour notice period and conduct further operations in search of Oil and/or Gas subject to the provisions of Article VI.B.; failure of such party to provide proof reasonably satisfactory to Operator of its financial capability to conduct such operations or to take over the well within such period or thereafter to conduct operations on such well or plug and abandon such well shall entitle Operator to retain or take possession of the well and plug and abandon the well. The party taking over the well shall indemnify Operator (if Operator is an abandoning party) and the other abandoning parties against liability for any further operations conducted on such well except for the costs of plugging and abandoning the well and restoring the surface, for which the abandoning parties shall remain proportionately liable.

2. Abandonment of Wells That Have Produced: Except for any well in which a Non-Consent operation has been conducted hereunder for which the Consenting Parties have not been fully reimbursed as herein provided, any well which has been completed as a producer shall not be plugged and abandoned without the consent of all parties. If all parties consent to such abandonment, the well shall be plugged and abandoned in accordance with applicable regulations and at the cost, risk and expense of all the parties hereto. Failure of a party to reply within sixty (60) days of delivery of notice of proposed abandonment shall be deemed an election to consent to the proposal. If, within sixty (60) days after delivery of notice of the proposed abandonment of any well, all parties do not agree to the abandonment of such well, those wishing to continue its operation from the Zone then open to production shall be obligated to take over the well as of the expiration of the applicable notice period and shall indemnify Operator (if Operator is an abandoning party) and the other abandoning parties against liability for any further operations on the well conducted by such parties. Failure of such party or parties to provide proof reasonably satisfactory to Operator of their financial capability to conduct such operations or to take over the well within the required period or thereafter to conduct operations on such well shall entitle operator to retain or take possession of such well and plug and abandon the well.

Parties taking over a well as provided herein shall tender to each of the other parties its proportionate share of the value of the well's salvable material and equipment, determined in accordance with the provisions of Exhibit "C," less the estimated cost of salvaging and the estimated cost of plugging and abandoning and restoring the surface; provided, however, that in the event the estimated plugging and abandoning and surface restoration costs and the estimated cost of salvaging are higher than the value of the well's salvable material and equipment, each of the abandoning parties shall tender to the parties continuing operations their proportionate shares of the estimated excess cost. Each abandoning party shall assign to the non-abandoning parties, without warranty, express or implied, as to title or as to quantity, or fitness for use of the equipment and material, all of its interest in the wellbore of the well and related equipment, together with its interest in the Leasehold insofar and only insofar as such Leasehold covers the right to obtain production from that wellbore in the Zone then open to production. If the interest of the abandoning party is or includes an Oil and Gas Interest, such party shall execute and deliver to the non-abandoning party or parties an oil and gas lease, limited to the wellbore and the Zone then open to production, for a term of one (1) year and so long thereafter as Oil and/or Gas is produced from the Zone covered thereby, such lease to be on the form attached as Exhibit "B." The assignments or leases so limited shall encompass the Drilling Unit upon which the well is located. The payments by, and the assignments or leases to, the assignees shall be in a ratio based upon the relationship of their respective percentage of participation in the Contract Area to the aggregate of the percentages of participation in the Contract Area of all assignees. There shall be no readjustment of interests in the remaining portions of the Contract Area.

Thereafter, abandoning parties shall have no further responsibility, liability, or interest in the operation of or production from the well in the Zone then open other than the royalties retained in any lease made under the terms of this Article. Upon request, Operator shall continue to operate the assigned well for the account of the non-abandoning parties at the rates and charges contemplated by this agreement, plus any additional cost and charges which may arise as the result of the separate ownership of the assigned well. Upon proposed abandonment of the producing Zone assigned or leased, the assignor or lessor shall then have the option to repurchase its prior interest in the well (using the same valuation formula) and participate in further operations therein subject to the provisions hereof.

3. Abandonment of Non-Consent Operations: The provisions of Article VI.E.1. or VI.E.2. above shall be applicable as between Consenting Parties in the event of the proposed abandonment of any well excepted from said Articles; provided, however, no well shall be permanently plugged and abandoned unless and until all parties having the right to conduct further operations therein have been notified of the proposed abandonment and afforded the opportunity to elect to take over the well in accordance with the provisions of this Article VI.E.; and provided further, that Non-Consenting Parties who own an interest in a portion of the well shall pay their proportionate shares of abandonment and surface restoration cost for such well as provided in Article VI.B.2.(b).

F. Termination of Operations:

Upon the commencement of an operation for the drilling, Reworking, Sidetracking, Plugging Back, Deepening, testing, Completion or plugging of a well, including but not limited to the Initial Well, such operation shall not be terminated without consent of parties bearing ____% of the costs of such operation; provided, however, that in the event granite or other practically impenetrable substance or condition in the hole is encountered which renders further operations impractical, Operator may discontinue operations and give notice of such condition in the manner provided in Article VI.B.1, and the provisions of Article VI.B. or VI.E. shall thereafter apply to such operation, as appropriate.

G. Taking Production in Kind:

☐ **Option No. 1: Gas Balancing Agreement Attached**

Each party shall take in kind or separately dispose of its proportionate share of all Oil and Gas produced from the Contract Area, exclusive of production which may be used in development and producing operations and in preparing and treating Oil and Gas for marketing purposes and production unavoidably lost. Any extra expenditure incurred in the taking in kind or separate disposition by any party of its proportionate share of the production shall be borne by such party. Any party taking its share of production in kind shall be required to pay for only its proportionate share of such part of Operator's surface facilities which it uses.

Each party shall execute such division orders and contracts as may be necessary for the sale of its interest in production from the Contract Area, and, except as provided in Article VII.B., shall be entitled to receive payment

directly from the purchaser thereof for its share of all production.

If any party fails to make the arrangements necessary to take in kind or separately dispose of its proportionate share of the Oil produced from the Contract Area, Operator shall have the right, subject to the revocation at will by the party owning it, but not the obligation, to purchase such Oil or sell it to others at any time and from time to time, for the account of the non-taking party. Any such purchase or sale by Operator may be terminated by Operator upon at least ten (10) days written notice to the owner of said production and shall be subject always to the right of the owner of the production upon at least ten (10) days written notice to Operator to exercise at any time its right to take in kind, or separately dispose of, its share of all Oil not previously delivered to a purchaser. Any purchase or sale by Operator of any other party's share of Oil shall be only for such reasonable periods of time as are consistent with the minimum needs of the industry under the particular circumstances, but in no event for a period in excess of one (1) year.

Any such sale by Operator shall be in a manner commercially reasonable under the circumstances but Operator shall have no duty to share any existing market or to obtain a price equal to that received under any existing market. The sale or delivery by Operator of a non-taking party's share of Oil under the terms of any existing contract of Operator shall not give the non-taking party any interest in or make the non-taking party a party to said contract. No purchase shall be made by Operator without first giving the non-taking party at least ten (10) days written notice of such intended purchase and the price to be paid or the pricing basis to be used.

All parties shall give timely written notice to Operator of their Gas marketing arrangements for the following month, excluding price, and shall notify Operator immediately in the event of a change in such arrangements. Operator shall maintain records of all marketing arrangements, and of volumes actually sold or transported, which records shall be made available to Non-Operators upon reasonable request.

In the event one or more parties' separate disposition of its share of the Gas causes split-stream deliveries to separate pipelines and/or deliveries which on a day-to-day basis for any reason are not exactly equal to a party's respective proportionate share of total Gas sales to be allocated to it, the balancing or accounting between the parties shall be in accordance with any Gas balancing agreement between the parties hereto, whether such an agreement is attached as Exhibit "E" or is a separate agreement. Operator shall give notice to all parties of the first sales of Gas from any well under this agreement.

□ Option No. 2: No Gas Balancing Agreement:

Each party shall take in kind or separately dispose of its proportionate share of all Oil and Gas produced from the Contract Area, exclusive of production which may be used in development and producing operations and in preparing and treating Oil and Gas for marketing purposes and production unavoidably lost. Any extra expenditures incurred in the taking in kind or separate disposition by any party of its proportionate share of the production shall be borne by such party. Any party taking its share of production in kind shall be required to pay for only its proportionate share of such part of Operator's surface facilities which it uses.

Each party shall execute such division orders and contracts as may be necessary for the sale of its interest in production from the Contract Area, and, except as provided in Article VII.B., shall be entitled to receive payment directly from the purchaser thereof for its share of all production.

If any party fails to make the arrangements necessary to take in kind or separately dispose of its proportionate share of the Oil and/or Gas produced from the Contract Area, Operator shall have the right, subject to the revocation at will by the party owning it, but not the obligation, to purchase such Oil and/or Gas or sell it to others at any time and from time to time, for the account of the non-taking party. Any such purchase or sale by Operator may be terminated by Operator upon at least ten (10) days written notice to the owner of said production and shall be subject always to the right of the owner of the production upon at least ten (10) days written notice to Operator to exercise its right to take in kind, or separately dispose of, its share of all Oil and/or Gas not previously delivered to a purchaser; provided, however, that the effective date of any such revocation may be deferred at Operator's election for a period not to exceed ninety (90) days if Operator has committed such production to a purchase contract having a term extending beyond such ten (10) -day period. Any purchase or sale by Operator of any other party's share of Oil and/or Gas shall be only for such reasonable periods of time as are consistent with the minimum needs of the industry under the particular circumstances, but in no event for a period in excess of one (1) year.

Any such sale by Operator shall be in a manner commercially reasonable under the circumstances, but Operator shall have no duty to share any existing market or transportation arrangement or to obtain a price or transportation fee equal to that received under any existing market or transportation arrangement. The sale or delivery by Operator of a non-taking party's share of production under the terms of any existing contract of Operator shall not give the non-taking party any interest in or make the non-taking party a party to said contract. No purchase of Oil and Gas and no sale of Gas shall be made by Operator without first giving the non-taking party ten days written notice of such intended purchase or sale and the price to be paid or the pricing basis to be used. Operator shall give notice to all parties of the first sale of Gas from any well under this Agreement.

All parties shall give timely written notice to Operator of their Gas marketing arrangements for the following month, excluding price, and shall notify Operator immediately in the event of a change in such arrangements. Operator shall maintain records of all marketing arrangements, and of volumes actually sold or transported, which records shall be made available to Non-Operators upon reasonable request.

ARTICLE VII.

EXPENDITURES AND LIABILITY OF PARTIES

A. Liability of Parties:

The liability of the parties shall be several, not joint or collective. Each party shall be responsible only for its obligations, and shall be liable only for its proportionate share of the costs of developing and operating the Contract Area. Accordingly, the liens granted among the parties in Article VII.B. are given to secure only the debts of each severally, and no party shall have any liability to third parties hereunder to satisfy the default of any other party in the payment of any expense or obligation hereunder. It is not the intention of the parties to create, nor shall this agreement be construed as creating, a mining or other partnership, joint venture, agency relationship or association, or to render the parties liable as partners, co-venturers, or principals. In their relations with each other under this agreement, the parties shall not be considered fiduciaries or to have established a confidential relationship but rather shall be free to act on an arm's-length basis in accordance with their own respective self-interest, subject, however, to the obligation of the parties to act in good faith in their dealings with each other with respect to activities hereunder.

B. Liens and Security Interests:

Each party grants to the other parties hereto a lien upon any interest it now owns or hereafter acquires in Oil and Gas Leases and Oil and Gas Interests in the Contract Area, and a security interest and/or purchase money security interest in any interest it now owns or hereafter acquires in the personal property and fixtures on or used or obtained for use in connection therewith, to secure performance of all of its obligations under this agreement including but not limited to payment of expense, interest and fees, the proper disbursement of all monies paid hereunder, the assignment or relinquishment of interest in Oil and Gas Leases as required hereunder, and the proper performance of operations hereunder. Such lien and security interest granted by each party hereto shall include such party's leasehold interests, working interests, operating rights, and royalty and overriding royalty interests in the Contract Area now owned or hereafter acquired and in lands pooled or unitized therewith or otherwise becoming subject to this agreement, the Oil and Gas when extracted therefrom and equipment situated thereon or used or obtained for use in connection therewith (including, without limitation, all wells, tools, and tubular goods), and accounts (including, without limitation, accounts arising from gas imbalances or from the sale of Oil and/or Gas at the wellhead), contract rights, inventory and general intangibles relating thereto or arising therefrom, and all proceeds and products of the foregoing.

To perfect the lien and security agreement provided herein, each party hereto shall execute and acknowledge the recording supplement and/or any financing statement prepared and submitted by any party hereto in conjunction herewith or at any time following execution hereof, and Operator is authorized to file this agreement or the recording supplement executed herewith as a lien or mortgage in the applicable real estate records and as a financing statement with the proper officer under the Uniform Commercial Code in the state in which the Contract Area is situated and such other states as Operator shall deem appropriate to perfect the security interest granted hereunder. Any party may file this agreement, the recording supplement executed herewith, or such other documents as it deems necessary as a lien or mortgage in the applicable real estate records and/or a financing statement with the proper officer under the Uniform Commercial Code.

Each party represents and warrants to the other parties hereto that the lien and security interest granted by such party to the other parties shall be a first and prior lien, and each party hereby agrees to maintain the priority of said lien and security interest against all persons acquiring an interest in Oil and Gas Leases and Interests covered by this agreement by, through or under such party. All parties acquiring an interest in Oil and Gas Leases and Oil and Gas Interests covered by this agreement, whether by assignment, merger, mortgage, operation of law, or otherwise, shall be deemed to have taken subject to the lien and security interest granted by this Article VII.B. as to all obligations attributable to such interest hereunder whether or not such obligations arise before or after such interest is acquired.

To the extent that parties have a security interest under the Uniform Commercial Code of the state in which the Contract Area is situated, they shall be entitled to exercise the rights and remedies of a secured party under the Code. The bringing of a suit and the obtaining of judgment by a party for the secured indebtedness shall not be deemed an election of remedies or otherwise affect the lien rights or security interest as security for the payment thereof. In addition, upon default by any party in the payment of its share of expenses, interests or fees, or upon the improper use of funds by the Operator, the other parties shall have the right, without prejudice to other rights or remedies, to collect from the purchaser the proceeds from the sale of such defaulting party's share of Oil and Gas until the amount owed by such party, plus interest as provided in "Exhibit C," has been received, and shall have the right to offset the amount owed against the proceeds from the sale of such defaulting party's share of Oil and Gas. All purchasers of production may rely on a notification of default from the non-defaulting party or parties stating the amount due as a result of the default, and all parties waive any recourse available against purchasers for releasing production proceeds as provided in this paragraph.

If any party fails to pay its share of cost within one hundred twenty (120) days after rendition of a statement therefor by Operator, the non-defaulting parties, including Operator, shall upon request by Operator, pay the unpaid amount in the proportion that the interest of each such party bears to the interest of all such parties. The amount paid by each party so paying its share of the unpaid amount shall be secured by the liens and security rights described in Article VII.B., and each paying party may independently pursue any remedy available hereunder or otherwise.

If any party does not perform all of its obligations hereunder, and the failure to perform subjects such party to foreclosure or execution proceedings pursuant to the provisions of this agreement, to the extent allowed by governing law, the defaulting party waives any available right of redemption from and after the date of judgment, any required valuation or appraisal of the mortgaged or secured property prior to sale, any available right to stay execution or to require a marshaling of assets and any required bond in the event a receiver is appointed. In addition, to the extent permitted by applicable law, each party hereby grants to the other parties a power of sale as to any property that is subject to the lien and security rights granted hereunder, such power to be exercised in the manner provided by applicable law or otherwise in a commercially reasonable manner and upon reasonable notice.

Each party agrees that the other parties shall be entitled to utilize the provisions of Oil and Gas lien law or other lien law of any state in which the Contract Area is situated to enforce the obligations of each party hereunder. Without limiting the generality of the foregoing, to the extent permitted by applicable law, Non-Operators agree that Operator may invoke or utilize the mechanics' or materialmen's lien law of the state in which the Contract Area is situated in order to secure the payment to Operator of any sum due hereunder for services performed or materials supplied by Operator.

C. Advances:

Operator, at its election, shall have the right from time to time to demand and receive from one or more of the other parties payment in advance of their respective shares of the estimated amount of the expense to be incurred in operations hereunder during the next succeeding month, which right may be exercised only by submission to each such party of an itemized statement of such estimated expense, together with an invoice for its share thereof. Each such statement and invoice for the payment in advance of estimated expense shall be submitted on or before the 20th day of the next preceding month. Each party shall pay to Operator its proportionate share of such estimate within fifteen (15) days after such estimate and invoice is received. If any party fails to pay its share of said estimate within said time, the amount due shall bear interest as provided in Exhibit "C" until paid. Proper adjustment shall be made monthly between advances and actual expense to the end that each party shall bear and pay its proportionate share of actual expenses incurred, and no more.

D. Defaults and Remedies:

If any party fails to discharge any financial obligation under this agreement, including without limitation the failure to make any advance under the preceding Article VII.C. or any other provision of this agreement, within the period required for such payment hereunder, then in addition to the remedies provided in Article VII.B. or elsewhere in this agreement, the remedies specified below shall be applicable. For purposes of this Article VII.D., all notices and elections shall be delivered

only by Operator, except that Operator shall deliver any such notice and election requested by a non-defaulting Non-Operator, and when Operator is the party in default, the applicable notices and elections can be delivered by any Non-Operator. Election of any one or more of the following remedies shall not preclude the subsequent use of any other remedy specified below or otherwise available to a non-defaulting party.

1. Suspension of Rights: Any party may deliver to the party in default a Notice of Default, which shall specify the default, specify the action to be taken to cure the default, and specify that failure to take such action will result in the exercise of one or more of the remedies provided in this Article. If the default is not cured within thirty (30) days of the delivery of such Notice of Default, all of the rights of the defaulting party granted by this agreement may upon notice be suspended until the default is cured, without prejudice to the right of the non-defaulting party or parties to continue to enforce the obligations of the defaulting party previously accrued or thereafter accruing under this agreement. If Operator is the party in default, the Non-Operators shall have in addition the right, by vote of Non-Operators owning a majority in interest in the Contract Area after excluding the voting interest of Operator, to appoint a new Operator effective immediately. The rights of a defaulting party that may be suspended hereunder at the election of the non-defaulting parties shall include, without limitation, the right to receive information as to any operation conducted hereunder during the period of such default, the right to elect to participate in an operation proposed under Article VI.B. of this agreement, the right to participate in an operation being conducted under this agreement even if the party has previously elected to participate in such operation, and the right to receive proceeds of production from any well subject to this agreement.

2. Suit for Damages: Non-defaulting parties or Operator for the benefit of non-defaulting parties may sue (at joint account expense) to collect the amounts in default, plus interest accruing on the amounts recovered from the date of default until the date of collection at the rate specified in Exhibit "C" attached hereto. Nothing herein shall prevent any party from suing any defaulting party to collect consequential damages accruing to such party as a result of the default.

3. Deemed Non-Consent: The non-defaulting party may deliver a written Notice of Non-Consent Election to the defaulting party at any time after the expiration of the thirty-day cure period following delivery of the Notice of Default, in which event if the billing is for the drilling a new well or the Plugging Back, Sidetracking, Reworking or Deepening of a well which is to be or has been plugged as a dry hole, or for the Completion or Recompletion of any well, the defaulting party will be conclusively deemed to have elected not to participate in the operation and to be a Non-Consenting Party with respect thereto under Article VI.B. or VI.C., as the case may be, to the extent of the costs unpaid by such party, notwithstanding any election to participate theretofore made. If election is made to proceed under this provision, then the non-defaulting parties may not elect to sue for the unpaid amount pursuant to Article VII.D.2.

Until the delivery of such Notice of Non-Consent Election to the defaulting party, such party shall have the right to cure its default by paying its unpaid share of costs plus interest at the rate set forth in Exhibit "C," provided, however, such payment shall not prejudice the rights of the non-defaulting parties to pursue remedies for damages incurred by the non-defaulting parties as a result of the default. Any interest relinquished pursuant to this Article VII.D.3. shall be offered to the non-defaulting parties in proportion to their interests, and the non-defaulting parties electing to participate in the ownership of such interest shall be required to contribute their shares of the defaulted amount upon their election to participate therein.

4. Advance Payment: If a default is not cured within thirty (30) days of the delivery of a Notice of Default, Operator, or Non-Operators if Operator is the defaulting party, may thereafter require advance payment from the defaulting party of such defaulting party's anticipated share of any item of expense for which Operator, or Non-Operators, as the case may be, would be entitled to reimbursement under any provision of this agreement, whether or not such expense was the subject of the previous default. Such right includes, but is not limited to, the right to require advance payment for the estimated costs of drilling a well or Completion of a well as to which an election to participate in drilling or Completion has been made. If the defaulting party fails to pay the required advance payment, the non-defaulting parties may pursue any of the remedies provided in the Article VII.D. or any other default remedy provided elsewhere in this agreement. Any excess of funds advanced remaining when the operation is completed and all costs have been paid shall be promptly returned to the advancing party.

5. Costs and Attorneys' Fees: In the event any party is required to bring legal proceedings to enforce any financial obligation of a party hereunder, the prevailing party in such action shall be entitled to recover all court costs, costs of collection, and a reasonable attorney's fee, which the lien provided for herein shall also secure.

E. Rentals, Shut-in Well Payments and Minimum Royalties:

Rentals, shut-in well payments and minimum royalties which may be required under the terms of any lease shall be paid by the party or parties who subjected such lease to this agreement at its or their expense. In the event two or more parties own and have contributed interests in the same lease to this agreement, such parties may designate one of such parties to make said payments for and on behalf of all such parties. Any party may request, and shall be entitled to receive, proper evidence of all such payments. In the event of failure to make proper payment of any rental, shut-in well payment or minimum royalty through mistake or oversight where such payment is required to continue the lease in force, any loss which results from such non-payment shall be borne in accordance with the provisions of Article IV.B.2.

Operator shall notify Non-Operators of the anticipated completion of a shut-in well, or the shutting in or return to production of a producing well, at least five (5) days (excluding Saturday, Sunday, and legal holidays) prior to taking such action, or at the earliest opportunity permitted by circumstances, but assumes no liability for failure to do so. In the event of failure by Operator to so notify Non-Operators, the loss of any lease contributed hereto by Non-Operators for failure to make timely payments of any shut-in well payment shall be borne jointly by the parties hereto under the provisions of Article IV.B.3.

F. Taxes:

Beginning with the first calendar year after the effective date hereof, Operator shall render for ad valorem taxation all property subject to this agreement which by law should be rendered for such taxes, and it shall pay all such taxes assessed thereon before they become delinquent. Prior to the rendition date, each Non-Operator shall furnish Operator information as to burdens (to include, but not be limited to, royalties, overriding royalties and production payments) on Leases and Oil and Gas Interests contributed by such Non-Operator. If the assessed valuation of any Lease is reduced by reason of its being subject to outstanding excess royalties, overriding royalties or production payments, the reduction in ad valorem taxes resulting therefrom shall inure to the benefit of the owner or owners of such Lease, and Operator shall adjust the charge to such owner or owners so as to reflect the benefit of such reduction. If the ad valorem taxes are based in whole or in part upon separate valuations of each party's working interest, then notwithstanding anything to the contrary herein, charges to the joint account shall be made and paid by the parties hereto in accordance with the tax value generated by each party's working interest. Operator shall bill the other parties for their proportionate shares of all tax payments in the manner provided in Exhibit "C."

If Operator considers any tax assessment improper, Operator may, at its discretion, protest within the time and manner prescribed by law, and prosecute the protest to a final determination, unless all parties agree to abandon the protest prior to final determination. During the pendency of administrative or judicial proceedings, Operator may elect to pay, under protest, all such taxes and any interest and penalty. When any such protested assessment shall have been finally determined, Operator shall pay the tax for the joint account, together with any interest and penalty accrued, and the total cost shall then be assessed against the parties, and be paid by them, as provided in Exhibit "C."

Each party shall pay or cause to be paid all production, severance, excise, gathering and other taxes imposed upon or with respect to the production or handling of such party's share of Oil and Gas produced under the terms of this agreement.

ARTICLE VIII.

ACQUISITION, MAINTENANCE OR TRANSFER OF INTEREST

A. Surrender of Leases:

The Leases covered by this agreement, insofar as they embrace acreage in the Contract Area, shall not be surrendered in whole or in part unless all parties consent thereto.

However, should any party desire to surrender its interest in any Lease or in any portion thereof, such party shall give written notice of the proposed surrender to all parties, and the parties to whom such notice is delivered shall have thirty (30) days after delivery of the notice within which to notify the party proposing the surrender whether they elect to consent thereto. Failure of a party to whom such notice is delivered to reply within said 30-day period shall constitute a consent to the surrender of the Leases described in the notice. If all parties do not agree or consent thereto, the party desiring to surrender shall assign, without express or implied warranty of title, all of its interest in such Lease, or portion thereof, and any well, material and equipment which may be located thereon and any rights in production thereafter secured, to the parties not consenting to such surrender. If the interest of the assigning party is or includes an Oil and Gas Interest, the assigning party shall execute and deliver to the party or parties not consenting to such surrender an oil and gas lease covering such Oil and Gas Interest for a term of one (1) year and so long thereafter as Oil and/or Gas is produced from the land covered thereby, such lease to be on the form attached hereto as Exhibit "B." Upon such assignment or lease, the assigning party shall be relieved from all obligations thereafter accruing, but not theretofore accrued, with respect to the interest assigned or leased and the operation of any well attributable thereto, and the assigning party shall have no further interest in the assigned or leased premises and its equipment and production other than the royalties retained in any lease made under the terms of this Article. The party assignee or lessee shall pay to the party assignor or lessor the reasonable salvage value of the latter's interest in any well's salvable materials and equipment attributable to the assigned or leased acreage. The value of all salvable materials and equipment shall be determined in accordance with the provisions of Exhibit "C," less the estimated cost of salvaging and the estimated cost of plugging and abandoning and restoring the surface. If such value is less than such costs, then the party assignor or lessor shall pay to the party assignee or lessee the amount of such deficit. If the assignment or lease is in favor of more than one party, the interest shall be shared by such parties in the proportions that the interest of each bears to the total interest of all such parties. If the interest of the parties to whom the assignment is to be made varies according to depth, then the interest assigned shall similarly reflect such variances.

Any assignment, lease or surrender made under this provision shall not reduce or change the assignor's, lessor's or surrendering party's interest as it was immediately before the assignment, lease or surrender in the balance of the Contract Area; and the acreage assigned, leased or surrendered, and subsequent operations thereon, shall not thereafter be subject to the terms and provisions of this agreement but shall be deemed subject to an Operating Agreement in the form of this agreement.

B. Renewal or Extension of Leases:

If any party secures a renewal or replacement of an Oil and Gas Lease or Interest subject to this agreement, then all other parties shall be notified promptly upon such acquisition or, in the case of a replacement Lease taken before expiration of an existing Lease, promptly upon expiration of the existing Lease. The parties notified shall have the right for a period of thirty (30) days following delivery of such notice in which to elect to participate in the ownership of the renewal or replacement Lease, insofar as such Lease affects lands within the Contract Area, by paying to the party who acquired it their proportionate shares of the acquisition cost allocated to that part of such Lease within the Contract Area, which shall be in proportion to the interest held at that time by the parties in the Contract Area. Each party who participates in the purchase of a renewal or replacement Lease shall be given an assignment of its proportionate interest therein by the acquiring party.

If some, but less than all, of the parties elect to participate in the purchase of a renewal or replacement Lease, it shall be owned by the parties who elect to participate therein, in a ratio based upon the relationship of their respective percentage of participation in the Contract Area to the aggregate of the percentages of participation in the Contract Area of all parties participating in the purchase of such renewal or replacement Lease. The acquisition of a renewal or replacement Lease by any or all of the parties hereto shall not cause a readjustment of the interests of the parties stated in Exhibit "A," but any renewal or replacement Lease in which less than all parties elect to participate shall not be subject to this agreement but shall be deemed subject to a separate Operating Agreement in the form of this agreement.

If the interests of the parties in the Contract Area vary according to depth, then their right to participate proportionately in renewal or replacement Leases and their right to receive an assignment of interest shall also reflect such depth variances.

The provisions of this Article shall apply to renewal or replacement Leases whether they are for the entire interest covered by the expiring Lease or cover only a portion of its area or an interest therein. Any renewal or replacement Lease taken before the expiration of its predecessor Lease, or taken or contracted for or becoming effective within six (6) months after the expiration of the existing Lease, shall be subject to this provision so long as this agreement is in effect at the time of such acquisition or at the time the renewal or replacement Lease becomes effective; but any Lease taken or contracted for more than six (6) months after the expiration of an existing Lease shall not be deemed a renewal or replacement Lease and shall not be subject to the provisions of this agreement.

The provisions in this Article shall also be applicable to extensions of Oil and Gas Leases.

C. Acreage or Cash Contributions:

While this agreement is in force, if any party contracts for a contribution of cash towards the drilling of a well or any other operation on the Contract Area, such contribution shall be paid to the party who conducted the drilling or other operation and shall be applied by it against the cost of such drilling or other operation. If the contribution be in the form of acreage, the party to whom the contribution is made shall promptly tender an assignment of the acreage, without warranty of title, to the Drilling Parties in the proportions said Drilling Parties shared the cost of drilling the well. Such acreage shall become a separate Contract Area and, to the extent possible, be governed by provisions identical to this agreement. Each party shall promptly notify all other parties of any acreage or cash contributions it may obtain in support of any well or any other operation on the Contract Area. The above provisions shall also be applicable to optional rights to earn acreage outside the Contract Area which are in support of well drilled inside Contract Area.

If any party contracts for any consideration relating to disposition of such party's share of substances produced hereunder, such consideration shall not be deemed a contribution as contemplated in this Article VIII.C.

D. Assignment; Maintenance of Uniform Interest:

For the purpose of maintaining uniformity of ownership in the Contract Area in the Oil and Gas Leases, Oil and Gas Interests, wells, equipment and production covered by this agreement no party shall sell, encumber, transfer or make other disposition of its interest in the Oil and Gas Leases and Oil and Gas Interests embraced within the Contract Area or in wells, equipment and production unless such disposition covers either:

- 1. the entire interest of the party in all Oil and Gas Leases, Oil and Gas Interests, wells, equipment and production; or
- 2. an equal undivided percent of the party's present interest in all Oil and Gas Leases, Oil and Gas Interests, wells, equipment and production in the Contract Area.

Every sale, encumbrance, transfer or other disposition made by any party shall be made expressly subject to this agreement and shall be made without prejudice to the right of the other parties, and any transferee of an ownership interest in any Oil and Gas Lease or Interest shall be deemed a party to this agreement as to the interest conveyed from and after the effective date of the transfer of ownership; provided, however, that the other parties shall not be required to recognize any such sale, encumbrance, transfer or other disposition for any purpose hereunder until thirty (30) days after they have received a copy of the instrument of transfer or other satisfactory evidence thereof in writing from the transferor or transferee. No assignment or other disposition of interest by a party shall relieve such party of obligations previously incurred by such party hereunder with respect to the interest transferred, including without limitation the obligation of a party to pay all costs attributable to an operation conducted hereunder in which such party has agreed to participate prior to making such assignment, and the lien and security interest granted by Article VII.B. shall continue to burden the interest transferred to secure payment of any such obligations.

If, at any time the interest of any party is divided among and owned by four or more co-owners, Operator, at its discretion, may require such co-owners to appoint a single trustee or agent with full authority to receive notices, approve expenditures, receive billings for and approve and pay such party's share of the joint expenses, and to deal generally with, and with power to bind, the co-owners of such party's interest within the scope of the operations embraced in this agreement; however, all such co-owners shall have the right to enter into and execute all contracts or agreements for the disposition of their respective shares of the Oil and Gas produced from the Contract Area and they shall have the right to receive, separately, payment of the sale proceeds thereof.

E. Waiver of Rights to Partition:

If permitted by the laws of the state or states in which the property covered hereby is located, each party hereto owning an undivided interest in the Contract Area waives any and all rights it may have to partition and have set aside to it in severalty its undivided interest therein.

F. Preferential Right to Purchase:

☐ (Optional; Check if applicable.)

Should any party desire to sell all or any part of its interests under this agreement, or its rights and interests in the Contract Area, it shall promptly give written notice to the other parties, with full information concerning its proposed disposition, which shall include the name and address of the prospective transferee (who must be ready, willing and able to purchase), the purchase price, a legal description sufficient to identify the property, and all other terms of the offer. The other parties shall then have an optional prior right, for a period of ten (10) days after the notice is delivered, to purchase for the stated consideration on the same terms and conditions the interest which the other party proposes to sell; and, if this optional right is exercised, the purchasing parties shall share the purchased interest in the proportions that the interest of each bears to the total interest of all purchasing parties. However, there shall be no preferential right to purchase in those cases where any party wishes to mortgage its interests, or to transfer title to its interests to its mortgagee in lieu of or pursuant to foreclosure of a mortgage of its interests, or to dispose of its interests by merger, reorganization, consolidation, or by sale of all or substantially all of its Oil and Gas assets to any party, or by transfer of its interests to a subsidiary or parent company or to a subsidiary of a parent company, or to any company in which such party owns a majority of the stock.

ARTICLE IX.

INTERNAL REVENUE CODE ELECTION

If, for federal income tax purposes, this agreement and the operations hereunder are regarded as a partnership, and if the parties have not otherwise agreed to form a tax partnership pursuant to Exhibit "G" or other agreement between them, each party thereby affected elects to be excluded from the application of all of the provisions of Subchapter "K," Chapter 1, Subtitle "A," of the Internal Revenue Code of 1986, as amended ("Code"), as permitted and authorized by Section 761 of the Code and the regulations promulgated thereunder. Operator is authorized and directed to execute on behalf of each party hereby affected such evidence of this election as may be required by the Secretary of the Treasury of the United States or the Federal Internal Revenue Service, including specifically, but not by way of limitation, all of the returns, statements, and the data required by Treasury Regulation §1.761. Should there be any requirement that each party hereby affected give further evidence of this election, each such party shall execute such documents and furnish such other evidence as may be required by the Federal Internal Revenue Service or as may be necessary to evidence this election. No such party shall give any notices or take any other action inconsistent with the election made hereby. If any present or future income tax laws of the state or states in which the Contract Area is located or any future income tax laws of the United States contain provisions similar to those in Subchapter "K," Chapter 1, Subtitle "A," of the Code, under which an election similar to that provided by Section 761 of the Code is permitted, each party hereby affected shall make such election as may be permitted or required by such laws. In making the foregoing election, each such party states that the income derived by such party from operations hereunder can be adequately determined without the computation of partnership taxable income.

ARTICLE X.

CLAIMS AND LAWSUITS

Operator may settle any single uninsured third party damage claim or suit arising from operations hereunder if the expenditure does not exceed _____ Dollars (\$ _____) and if the payment is in complete settlement of such claim or suit. If the amount required for settlement exceeds the above amount, the parties hereto shall assume and take over the further handling of the claim or suit, unless such authority is delegated to Operator. All costs and expenses of handling settling, or otherwise discharging such claim or suit shall be a the joint expense of the parties participating in the operation from which the claim or suit arises. If a claim is made against any party or if any party is sued on account of any matter arising from operations hereunder over which such individual has no control because of the rights given Operator by this agreement, such party shall immediately notify all other parties, and the claim or suit shall be treated as any other claim or suit involving operations hereunder.

ARTICLE XI.**FORCE MAJEURE**

If any party is rendered unable, wholly or in part, by force majeure to carry out its obligations under this agreement, other than the obligation to indemnify or make money payments or furnish security, that party shall give to all other parties prompt written notice of the force majeure with reasonably full particulars concerning it; thereupon, the obligations of the party giving the notice, so far as they are affected by the force majeure, shall be suspended during, but no longer than, the continuance of the force majeure. The term "force majeure," as here employed, shall mean an act of God, strike, lockout, or other industrial disturbance, act of the public enemy, war, blockade, public riot, lightening, fire, storm, flood or other act of nature, explosion, governmental action, governmental delay, restraint or inaction, unavailability of equipment, and any other cause, whether of the kind specifically enumerated above or otherwise, which is not reasonably within the control of the party claiming suspension.

The affected party shall use all reasonable diligence to remove the force majeure situation as quickly as practicable. The requirement that any force majeure shall be remedied with all reasonable dispatch shall not require the settlement of strikes, lockouts, or other labor difficulty by the party involved, contrary to its wishes; how all such difficulties shall be handled shall be entirely within the discretion of the party concerned.

ARTICLE XII.**NOTICES**

All notices authorized or required between the parties by any of the provisions of this agreement, unless otherwise specifically provided, shall be in writing and delivered in person or by United States mail, courier service, telegram, telex, telecopier or any other form of facsimile, postage or charges prepaid, and addressed to such parties at the addresses listed on Exhibit "A." All telephone or oral notices permitted by this agreement shall be confirmed immediately thereafter by written notice. The originating notice given under any provision hereof shall be deemed delivered only when received by the party to whom such notice is directed, and the time for such party to deliver any notice in response thereto shall run from the date the originating notice is received. "Receipt" for purposes of this agreement with respect to written notice delivered hereunder shall be actual delivery of the notice to the address of the party to be notified specified in accordance with this agreement, or to the telecopy, facsimile or telex machine of such party. The second or any responsive notice shall be deemed delivered when deposited in the United States mail or at the office of the courier or telegraph service, or upon transmittal by telex, telecopy or facsimile, or when personally delivered to the party to be notified, provided, that when response is required within 24 or 48 hours, such response shall be given orally or by telephone, telex, telecopy or other facsimile within such period. Each party shall have the right to change its address at any time, and from time to time, by giving written notice thereof to all other parties. If a party is not available to receive notice orally or by telephone when a party attempts to deliver a notice required to be delivered within 24 or 48 hours, the notice may be delivered in writing by any other method specified herein and shall be deemed delivered in the same manner provided above for any responsive notice.

ARTICLE XIII.**TERM OF AGREEMENT**

This agreement shall remain in full force and effect as to the Oil and Gas Leases and/or Oil and Gas Interests subject hereto for the period of time selected below; provided, however, no party hereto shall ever be construed as having any right, title or interest in or to any Lease or Oil and Gas Interest contributed by any other party beyond the term of this agreement.

- ☐ **Option No. 1:** So long as any of the Oil and Gas Leases subject to this agreement remain or are continued in force as to any part of the Contract Area, whether by production, extension, renewal or otherwise.
- ☐ **Option No. 2:** In the event the well described in Article VI.A., or any subsequent well drilled under any provision of this agreement, results in the Completion of a well as a well capable of production of Oil and/or Gas in paying quantities, this agreement shall continue in force so long as any such well is capable of production, and for an additional period of _____ days thereafter; provided, however, if, prior to the expiration of such additional period, one or more of the parties hereto are engaged in drilling, Reworking, Deepening, Sidetracking, Plugging Back, testing or attempting to Complete or Re-complete a well or wells hereunder, this agreement shall continue in force until such operations have been completed and if production results therefrom, this agreement shall continue in force as provided herein. In the event the well described in Article VI.A., or any subsequent well drilled hereunder, results in a dry hole, and no other well is capable of producing Oil and/or Gas from the Contract Area, this agreement shall terminate unless drilling, Deepening, Sidetracking, Completing, Re-completing, Plugging Back or Reworking operations are commenced within _____ days from the date of abandonment of said well. "Abandonment" for such purposes shall mean either (i) a decision by all parties not to conduct any further operations on the well or (ii) the elapse of 180 days from the conduct of any operations on the well, whichever first occurs.

The termination of this agreement shall not relieve any party hereto from any expense, liability or other obligation or any remedy therefor which has accrued or attached prior to the date of such termination.

Upon termination of this agreement and the satisfaction of all obligations hereunder, in the event a memorandum of this Operating Agreement has been filed of record, Operator is authorized to file of record in all necessary recording offices a notice of termination, and each party hereto agrees to execute such a notice of termination as to Operator's interest, upon request of Operator, if Operator has satisfied all its financial obligations.

ARTICLE XIV.**COMPLIANCE WITH LAWS AND REGULATIONS****A. Laws, Regulations and Orders:**

This agreement shall be subject to the applicable laws of the state in which the Contract Area is located, to the valid rules, regulations, and orders of any duly constituted regulatory body of said state; and to all other applicable federal, state, and local laws, ordinances, rules, regulations and orders.

B. Governing Law:

This agreement and all matters pertaining hereto, including but not limited to matters of performance, non-performance, breach, remedies, procedures, rights, duties, and interpretation or construction, shall be governed and determined by the law of the state in which the Contract Area is located. If the Contract Area is in two or more states, the law of the state of _____ shall govern.

C. Regulatory Agencies:

Nothing herein contained shall grant, or be construed to grant, Operator the right or authority to waive or release any rights, privileges, or obligations which Non-Operators may have under federal or state laws or under rules, regulations or

orders promulgated under such laws in reference to oil, gas and mineral operations, including the location, operation, or production of wells, on tracts offsetting or adjacent to the Contract Area.

With respect to the operations hereunder, Non-Operators agree to release Operator from any and all losses, damages, injuries, claims and causes of action arising out of, incident to or resulting directly or indirectly from Operator's interpretation or application of rules, rulings, regulations or orders of the Department of Energy or Federal Energy Regulatory Commission or predecessor or successor agencies to the extent such interpretation or application was made in good faith and does not constitute gross negligence. Each Non-Operator further agrees to reimburse Operator for such Non-Operator's share of production or any refund, fine, levy or other governmental sanction that Operator may be required to pay as a result of such an incorrect interpretation or application, together with interest and penalties thereon owing by Operator as a result of such incorrect interpretation or application.

ARTICLE XV. MISCELLANEOUS

A. Execution:

This agreement shall be binding upon each Non-Operator when this agreement or a counterpart thereof has been executed by such Non-Operator and Operator notwithstanding that this agreement is not then or thereafter executed by all of the parties to which it is tendered or which are listed on Exhibit "A" as owning an interest in the Contract Area or which own, in fact, an interest in the Contract Area. Operator may, however, by written notice to all Non-Operators who have become bound by this agreement as aforesaid, given at any time prior to the actual spud date of the Initial Well but in no event later than five days prior to the date specified in Article VI.A. for commencement of the Initial Well, terminate this agreement if Operator in its sole discretion determines that there is insufficient participation to justify commencement of drilling operations. In the event of such a termination by Operator, all further obligations of the parties hereunder shall cease as of such termination. In the event any Non-Operator has advanced or prepaid any share of drilling or other costs hereunder, all sums so advanced shall be returned to such Non-Operator without interest. In the event Operator proceeds with drilling operations for the Initial Well without the execution hereof by all persons listed on Exhibit "A" as having a current working interest in such well, Operator shall indemnify Non-Operators with respect to all costs incurred for the Initial Well which would have been charged to such person under this agreement if such person had executed the same and Operator shall receive all revenues which would have been received by such person under this agreement if such person had executed the same.

B. Successors and Assigns:

This agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective heirs, devisees, legal representatives, successors and assigns, and the terms hereof shall be deemed to run with the Leases or Interests included within the Contract Area.

C. Counterparts:

This instrument may be executed in any number of counterparts, each of which shall be considered an original for all purposes.

D. Severability:

For the purposes of assuming or rejecting this agreement as an executory contract pursuant to federal bankruptcy laws, this agreement shall not be severable, but rather must be assumed or rejected in its entirety, and the failure of any party to this agreement to comply with all of its financial obligations provided herein shall be a material default.

ARTICLE XVI. OTHER PROVISIONS

A.A.P.L. FORM 610 - MODEL FORM OPERATING AGREEMENT - 1989

1 IN WITNESS WHEREOF, this agreement shall be effective as of the _____ day of _____,
2 _____.
3 _____, who has prepared and circulated this form for execution, represents and warrants
4 that the form was printed from and, with the exception(s) listed below, is identical to the AAPL Form 610-1989 Model Form
5 Operating Agreement, as published in computerized form by Forms On-A-Disk, Inc. No changes, alterations, or
modifications, other than those made by strikethrough and/or insertion and that are clearly recognizable as changes in
Articles _____, have been made to the form.

ATTEST OR WITNESS:

OPERATOR

6
7 _____
8 _____ By _____
9 _____
Type or print name
10
11 Title _____
12 Date _____
13 Tax ID or S.S. No. _____
14

NON-OPERATORS

15
16
17 _____
18 _____ By _____
19 _____
Type or print name
20
21 Title _____
22 Date _____
23 Tax ID or S.S. No. _____
24
25 _____
26 _____ By _____
27 _____
Type or print name
28
29 Title _____
30 Date _____
31 Tax ID or S.S. No. _____
32 _____
33 _____ By _____
34 _____
Type or print name
35
36 Title _____
37 Date _____
Tax ID or S.S. No. _____

Note: The following forms of acknowledgment are the short forms approved by the Uniform Law on Notarial Acts.

validity and effect of these forms in any state will depend upon the statutes of that state.

County of _____)

by _____

My commission expires: _____

County of _____)

My commission expires: _____

A.A.P.L. FORM 610 - 2015

MODEL FORM OPERATING AGREEMENT

OPERATING AGREEMENT

DATED

_____, _____,

Year

OPERATOR _____

CONTRACT AREA _____

COUNTY OR PARISH OF _____, STATE OF _____

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OPERATING AGREEMENT

THIS AGREEMENT, entered into by and between _____, hereinafter designated and referred to as “Operator,” and the signatory party or parties other than Operator, sometimes hereinafter referred to individually as “Non-Operator,” and collectively as “Non-Operators.”

WITNESSETH:

WHEREAS, the parties to this agreement are owners of Oil and Gas Leases and/or Oil and Gas Interests in the land identified in Exhibit “A,” and the parties hereto have reached an agreement to explore and develop these Leases and/or Oil and Gas Interests for the production of Oil and Gas to the extent and as hereinafter provided,

NOW, THEREFORE, it is agreed as follows:

ARTICLE I.

DEFINITIONS

As used in this agreement, the following words and terms shall have the meanings here ascribed to them:

A. The term “AFE” shall mean an Authority for Expenditure prepared by a party to this agreement for the purpose of estimating the costs to be incurred in conducting an operation hereunder. An AFE is not a contractual commitment. Rather it is only an estimate, made in good faith.

B. The term “Affiliate” shall mean for a person, another person that controls, is controlled by, or is under common control with that person. For purposes of this definition, “control” means the ownership by one person, directly or indirectly, of more than fifty percent (50%) of the voting securities of a corporation or, for other persons, the equivalent ownership interest (such as a partnership interest), and “person” means an individual, corporation, partnership, trust, estate, unincorporated organization, association, or legal entity.

C. Completion” or “Complete” shall mean a single operation intended to complete a well as a well capable of producing Oil or Gas in one or more Zones, including, but not limited to, the setting of production casing, perforating, well stimulation and production testing conducted in such operation.

D. The term “Consenting Party” shall mean a party who agrees to join in and pay its share of the cost of any operation conducted under the provisions of this agreement.

E. The term “Contract Area” shall mean all of the lands, Oil and Gas Leases and/or Oil and Gas Interests intended to be developed and operated for Oil and Gas purposes under this agreement. Such lands, Oil and Gas Leases and Oil and Gas Interests are described in Exhibit “A.”

F. The term “Deepen” shall mean a single operation whereby a well is drilled to an objective Zone below the deepest Zone in which the well was previously drilled, or below the deepest Zone proposed in the associated AFE, whichever is the lesser. “Deepen” shall not refer or apply to an operation involving the Extension of a Lateral.

G. The term “Displacement” shall have the same meaning as the term defined by the state regulatory agency having jurisdiction over the Contract Area, in the absence of which the term shall otherwise mean the length of a Lateral.

H. The term “Drilling Unit” shall mean the area fixed for the drilling of one well by order or rule of any state or federal body having authority. If a Drilling Unit is not fixed by any such rule or order, a Drilling Unit shall be the drilling unit as established by the pattern of drilling in the Contract Area unless fixed by express agreement of the Consenting Parties.

I. The term “Drillsite” shall mean the Oil and Gas Lease or Oil and Gas Interest on which a proposed well is to be located. When used in connection with a Horizontal Well, the term “Drillsite” shall mean (i) the surface hole location, and (ii) the Oil and Gas Leases or Oil and Gas Interests within the Drilling Unit on or under which the wellbore, including the Lateral, is located.

J. The term “Extension” or “Extend” shall mean an operation related to a Horizontal Well whereby a Lateral is drilled in the same Zone to a Displacement greater than (i) the Displacement contained in the proposal for such operation approved by the Consenting Parties, or (ii) the Displacement to which the Lateral was drilled pursuant to a previous proposal.

K. The term “Horizontal Rig Move-On Period” shall mean the number of days after the date of rig release of a Spudder Rig until the date a rig capable of drilling a Horizontal Well to its Total Measured Depth has moved onto location.

L. The term “Horizontal Well” shall have the same meaning as the term defined by the state regulatory agency having jurisdiction over the Contract Area, in the absence of which the term shall mean a well containing one or more Laterals which are drilled, Completed or Recompleted in a manner in which the horizontal component of the Completion interval (1) extends at least one hundred feet (100’) in the objective formation(s) and (2) exceeds the vertical component of the Completion interval in the objective formation(s).

M. The term “Initial Well” shall mean the well required to be drilled by the parties hereto as provided in Article VI.A.

N. The term “Lateral” shall mean that portion of a wellbore of a Horizontal Well between the point at which the wellbore initially penetrates the objective Zone and the Terminus.

O. The term “Non-Consent Well” shall mean a well in which less than all parties have conducted an operation as provided in Article VI.B.2.

P. The term “Non-Consenting Party” shall mean a party who elects not to participate in a proposed operation.

Q. The term “Oil and Gas” shall mean oil, gas, casinghead gas, gas condensate, and/or all other liquid or gaseous hydrocarbons and other marketable substances produced therewith, unless an intent to limit the inclusiveness of this term is specifically stated.

R. The term “Oil and Gas Interests” or “Interests” shall mean unleased fee and mineral interests in Oil and Gas in tracts of land lying within the Contract Area which are owned by parties to this agreement.

S. The terms “Oil and Gas Lease,” “Lease” and “Leasehold” shall mean the oil and gas leases or interests therein covering tracts of land lying within the Contract Area which are owned by the parties to this agreement.

T. The term “Plug Back” shall mean a single operation whereby a deeper Zone is abandoned in order to attempt a Completion in a shallower Zone. When used in connection with a Horizontal Well, the term “Plug Back” shall mean an operation to test or Complete the well at a stratigraphically shallower Zone in which the operation has been or is being Completed and which is not in an existing Lateral.

U. The term “Recompletion” or “Recomplete” shall mean an operation whereby a Completion in one Zone is abandoned in order to attempt a Completion in a different Zone within the existing wellbore.

V. The term “Rework” shall mean an operation conducted in the wellbore of a well after it is Completed to secure, restore, or improve production in a Zone

which is currently open to production in the wellbore. Such operations include, but are not limited to, well stimulation operations but exclude any Workover or drilling, Sidetracking, Deepening, Completing, Recompleting, or Plugging Back of a well.

W. The term “Sidetrack” shall mean the directional control and intentional deviation of a well from vertical so as to change the bottom hole location unless done to straighten the hole or drill around junk in the hole to overcome other mechanical difficulties. When used in connection with a Horizontal Well, the term “Sidetrack” shall mean the directional control and deviation of a well outside the existing Lateral(s) so as to change the Zone or the direction of a Lateral from the approved proposal unless done to straighten the hole or drill around junk in the hole or to overcome other mechanical difficulties.

X. The term “Spudder Rig” shall mean a drilling rig utilized only for drilling all or part of the vertical component of a Horizontal Well; a rig used only for setting conductor pipe shall not be considered a Spudder Rig.

Y. The term “Terminus” shall have the same meaning as the term defined by the state regulatory agency having jurisdiction over the Contract Area, in the absence of which the term shall mean the furthest point drilled in the Lateral.

Z. The term “Total Measured Depth”, when used in connection with a Horizontal Well, shall mean the distance from the surface of the ground to the Terminus, as measured along and including the vertical component of the well and Lateral(s). When the proposed operation(s) is the drilling of, or operation on, a Horizontal Well, the terms “depth” or “total depth” wherever used in this agreement shall be deemed to read “Total Measured Depth” insofar as it applies to such well.

AA. The term “Vertical Well” shall mean a well drilled, Completed or Recompleted other than a Horizontal Well.

BB. The term “Workover” shall mean routine maintenance and repair work performed on a well but does not include a Rework operation.

CC. The term “Zone” shall mean a stratum of earth containing or thought to contain a common accumulation of Oil and Gas separately producible from any other common accumulation of Oil and Gas.

Unless the context otherwise clearly indicates, words used in the singular include the plural, the word “person” includes natural and artificial persons, the plural includes the singular, and any gender includes the masculine, feminine, and neuter.

[SCRIVENER'S INSTRUCTION: Be careful to check the applicable leases and state statute and/or regulation for possible conflicting definitions]

ARTICLE II.

EXHIBITS

The following exhibits, as indicated below and attached hereto, are incorporated in and made a part hereof:

- _____

A.

Exhibit “A,” shall include the following information:
- (1) Description of lands subject to this agreement,
- (2) Restrictions, if any, as to depths, formations, or substances,
- (3) Parties to agreement with addresses and telephone numbers for notice purposes,
- (4) Percentages or fractional interests of parties to this agreement,
- (5) Oil and Gas Leases and/or Oil and Gas Interests subject to this agreement.
- (6) Burdens on production.
- _____

B.

Exhibit “B,” Form of Lease.
- _____

C.

Exhibit “C,” Accounting Procedure.
- _____

D.

Exhibit “D,” Insurance.
- _____

E.

Exhibit “E,” Gas Balancing Agreement.
- _____

F.

Exhibit “F,” Non-Discrimination and Certification of Non-Segregated Facilities.
- _____

G.

Exhibit “G,” Tax Partnership.
- _____

H.

Other: _____

If any provision of any exhibit, except Exhibits “E,” “F” and “G,” is inconsistent with any provision contained in the body of this agreement, the provisions in the body of this agreement shall prevail.

ARTICLE III.

INTERESTS OF PARTIES

A. Oil and Gas Interests:

If any party owns an Oil and Gas Interest in the Contract Area, that Interest shall be treated for all purposes of this agreement and during the term hereof as if it were covered by the form of Oil and Gas Lease attached hereto as Exhibit “B,” and the owner thereof shall be deemed to own both royalty interest in such lease and the interest of the lessee thereunder.

B. Interests of Parties in Costs and Production:

Unless changed by other provisions, all costs and liabilities incurred in operations under this agreement shall be borne and paid, and all equipment and materials acquired in operations conducted under this agreement shall be owned, by the parties as their interests are set forth in Exhibit “A.” In the same manner, the parties shall also own all production of Oil and Gas from the Contract Area subject, however, to the payment of royalties and other burdens on production as described hereafter. Operator shall amend Exhibit “A,” from time to time, in order to correct mistakes therein or to reflect changes in ownership within the Contract Area. Operator’s duty to amend Exhibit “A” shall be subject to the following:

1.

If such amendment is a correction of the initial Exhibit “A,” it shall be effective, retroactively as of the effective date of this agreement. If such amendment reflects a change occurring after the effective date of this agreement, it shall be effective, retroactively, as of the effective date of such change. In either event, if the amendment changes the interests of any parties in the Contract Area, the accounts of the affected parties shall be thus adjusted.
2.

If a proposed amendment to Exhibit “A” involves only one of the parties, Operator shall amend Exhibit “A,” upon the written consent of such affected party.
3.

If a proposed amendment to Exhibit “A” results in an increase or decrease in the percentage of ownership of one or more parties, Operator shall amend Exhibit “A” upon the written consent of all affected parties.
4.

If any party affected by a proposed amendment to Exhibit “A” fails to give written consent to such amendment, Operator may nevertheless make such

amendment, in order to conform Exhibit “A” to ownership as reflected in an opinion issued by a licensed attorney, who is neither an employee of a party that is affected by the amendment nor of any Affiliate of such party. Such amendment shall be binding upon the parties until and unless determined otherwise pursuant to Article III.B.6.

5. Whenever any amendment is made to Exhibit “A,” Operator shall promptly furnish each party with a copy of the amended Exhibit “A,” together with a copy of the attorney’s opinion upon which such amendment is based, when applicable, irrespective of whether such party is affected by the amendment.

6. Any party who has not consented to an amendment to Exhibit “A,” may pursue litigation as to the validity of the basis for the amendment in a court of competent jurisdiction, by joining all other affected parties as parties to such litigation. If such litigation results in a determination which is contrary to the amendment, Operator shall conform Exhibit “A” to such determination, retroactive to the effective date determined pursuant to Article III.B.1, and the accounts of the affected parties shall be thus adjusted.

Regardless of which party has contributed any Oil and Gas Lease or Oil and Gas Interest on which royalty or other burdens may be payable and except as otherwise expressly provided in this agreement, each party shall pay or deliver, or cause to be paid or delivered:

☐ Option No. 1: all burdens on its share of the production from the Contract Area up to, but not in excess of _____ and shall indemnify, defend and hold the other parties free from any liability therefor. Except as otherwise expressly provided in this agreement, if any party has contributed hereto any Lease or Interest which is burdened with any royalty, overriding royalty, production payment or other burden on production in excess of the amounts stipulated above, such party so burdened shall assume and alone bear all such excess obligations and shall indemnify, defend and hold the other parties hereto harmless from any and all claims attributable to such excess burden.

☐ Option No. 2: all burdens on its share of production from the Contract Area except Subsequently Created Interests of other parties to this agreement.

Notwithstanding anything set forth in this Article III.B above, as long as the Drilling Unit for the productive Zone(s) is identical with the Contract Area, each party shall pay or deliver, or cause to be paid or delivered, all burdens on production from the Contract Area due under the terms of the Oil and Gas Lease(s) which such party has contributed to this agreement, and shall indemnify, defend and hold the other parties free from any liability therefor.

No party shall ever be responsible, on a price basis higher than the price received by such party, to any other party’s lessor or royalty owner, and if such other party’s lessor or royalty owner should demand and receive settlement on a higher price basis, the party contributing the affected Lease shall bear the additional royalty burden attributable to such higher price.

Nothing contained in this Article III.B. shall be deemed an assignment or cross-assignment of interests covered hereby, and in the event two or more parties contribute to this agreement jointly owned Leases, the parties’ undivided interests in said Leaseholds shall be deemed separate leasehold interests for the purposes of this agreement.

C. Subsequently Created Interests:

If any party has contributed hereto a Lease or Interest that is burdened with an assignment of production given as security for the payment of money, or if, after the date of this agreement, any party creates an overriding royalty, production payment, net profits interest, assignment of production or other burden payable out of production attributable to its working interest hereunder, such burden shall be deemed a “Subsequently Created Interest.” Further, if any party has contributed hereto a Lease or Interest burdened with an overriding royalty, production payment, net profits interests, or other burden payable out of production created prior to the date of this agreement, and such burden is not shown on Exhibit “A,” such burden also shall be deemed a Subsequently Created Interest; provided, however, that, if Option 1 of Article III.B is applicable, such burden shall be deemed a Subsequently Created Interest only to the extent such burden causes the burdens on such party’s Lease or Interest to exceed the amount stipulated in said Option 1.

The party whose interest is burdened with the Subsequently Created Interest (the “Burdened Party”) shall assume and alone bear, pay and discharge the Subsequently Created Interest and shall indemnify, defend and hold harmless the other parties from and against any liability therefor. Further, if the Burdened Party fails to pay, when due, its share of expenses chargeable hereunder, all provisions of Article VII.B. shall be enforceable against the Subsequently Created Interest in the same manner as they are enforceable against the working interest of the Burdened Party. If the Burdened Party is required under this agreement to assign or relinquish to any other party, or parties, all or a portion of its working interest and/or the production attributable thereto, said other party, or parties, shall receive said assignment and/or production free and clear of said Subsequently Created Interest, and the Burdened Party shall indemnify, defend and hold harmless said other party, or parties, from any and all claims and demands for payment asserted by owners of the Subsequently Created Interest.

ARTICLE IV.

TITLES

A. Title Examination:

Title examination shall be made on the Drillsite of any proposed well prior to commencement of drilling operations and, if a majority in interest of the Consenting Parties so request or Operator so elects, title examination shall be made on the entire Drilling Unit, or maximum anticipated Drilling Unit, of the well. The opinion will include the ownership of the working interest, minerals, royalty, overriding royalty and production payments under the applicable Leases. Each party contributing Leases and/or Oil and Gas Interests to be included in the Drillsite or Drilling Unit, if appropriate, shall furnish to Operator all abstracts (including federal lease status reports), title opinions, title papers and curative material in its possession free of charge. All such information not in the possession of or made available to Operator by the parties, but necessary for the examination of the title, shall be obtained by Operator. Operator shall cause title to be examined by attorneys on its staff or by outside attorneys. Copies of all title opinions shall be furnished to each Consenting Party. Costs incurred by Operator in procuring abstracts, fees paid outside attorneys and outside landmen for title examination (including preliminary, supplemental, shut-in royalty opinions and division order title opinions), title curative, and other direct charges as provided in Exhibit “C” shall be borne by the Consenting Parties in the proportion that the interest of each Consenting Party bears to the total interest of all Consenting Parties. Operator shall make no charge for services rendered by its staff attorneys, staff landmen or other personnel in the performance of the above functions.

If requested by Operator, a party shall be responsible for securing curative matter and pooling amendments or agreements required in connection with Leases or Oil and Gas Interests contributed by such party; otherwise, Operator shall be responsible for such activities. Operator shall be responsible for the preparation and recording of pooling designations or declarations and communitization agreements as well as the conduct of hearings before governmental agencies for the securing of spacing or pooling orders or any other orders necessary or appropriate to the conduct of operations hereunder. This shall not prevent any party from appearing on its own behalf at such hearings. Costs incurred by Operator, including fees paid to outside attorneys, which are associated with hearings before governmental agencies, and which costs are necessary and proper for the activities contemplated under this agreement, shall be direct charges to the joint account and shall not be covered by the administrative overhead charges as provided in Exhibit “C.” Operator shall make no charge for services rendered by its staff attorneys or other personnel in the performance of the above functions.

No well shall be drilled on the Contract Area until after (1) the title to the Drillsite or Drilling Unit, if appropriate, has been examined as above provided, and (2) the title has been approved by the examining attorney or title has been accepted by Operator.

B. Loss or Failure of Title:

1. **Failure of Title:** A failure of title shall occur when an Oil and Gas Interest or Oil and Gas Lease contributed by a party is determined to be invalid as of the effective date of this agreement, or to cover a lesser interest or less lands (as to aerial extent or Zones) during the term of this agreement, unless such limitations are disclosed on Exhibit “A”. Should any Oil and Gas Interest or Oil and Gas Lease be lost through failure of title, which results in a reduction of interest from that shown on Exhibit “A,” the party credited with contributing the affected Lease or Interest (including, if applicable, a successor in interest to such party) shall have ninety (90) days from final determination of title failure to acquire a new lease or other instrument curing the entirety of the title failure, which acquisition will not be subject to Article

VIII.B., and failing to do so, this agreement, nevertheless, shall continue in force as to all remaining Oil and Gas Leases and Interests; and,

(a) The party credited with contributing the Oil and Gas Lease or Interest affected by the title failure (including, if applicable, a successor in interest to such party) shall bear alone the entire loss and it shall not be entitled to recover from Operator or the other parties any development or operating costs which it may have previously paid or incurred, but there shall be no additional liability on its part to the other parties hereto by reason of such title failure;

(b) There shall be no retroactive adjustment of expenses incurred or revenues received from the operation of the Lease or Interest which has failed, but the interests of the parties contained on Exhibit "A" shall be revised on an acreage basis, as of the time it is determined finally that title failure has occurred, so that the interest of the party whose Lease or Interest is affected by the title failure will thereafter be reduced in the Contract Area by the amount of the Lease or Interest failed;

(c) If the proportionate interest of the other parties hereto in any producing well previously drilled on the Contract Area is increased by reason of the title failure, the party who bore the costs incurred in connection with such well attributable to the Lease or Interest which has failed shall receive the proceeds attributable to the increase in such interest (less costs and burdens attributable thereto) until it has been reimbursed for unrecovered costs paid by it in connection with such well attributable to such failed Lease or Interest;

(d) Should any person not a party to this agreement, who is determined to be the owner of any Lease or Interest which has failed, pay in any manner any part of the cost of operation, development, or equipment, such amount shall be paid to the party or parties who bore the costs which are so refunded;

(e) Any liability to account to a person not a party to this agreement for prior production of Oil and Gas which arises by reason of title failure shall be borne severally by each party (including a predecessor to a current party) who received production for which such accounting is required based on the amount of such production received, and each such party shall severally indemnify, defend and hold harmless all other parties hereto for any such liability to account;

(f) No charge shall be made to the joint account for legal expenses, fees or salaries in connection with the defense of the Lease or Interest claimed to have failed, but if the party contributing such Lease or Interest hereto elects to defend its title it shall bear all expenses in connection therewith; and

(g) If any party is given credit on Exhibit "A" to a Lease or Interest which is limited solely to ownership of an interest in the wellbore of any well or wells and the production therefrom, such party's absence of interest in the remainder of the Contract Area shall be considered a Failure of Title as to such remaining Contract Area unless that absence of interest is reflected on Exhibit "A."

2. Loss by Non-Payment or Erroneous Payment of Amount Due: If, through mistake or oversight, any rental, shut-in well payment, minimum royalty or royalty payment, or other payment necessary to maintain all or a portion of an Oil and Gas Lease or interest is not paid or is erroneously paid, and as a result a Lease or Interest terminates, there shall be no monetary liability against the party who failed to make such payment. Unless the party who failed to make the required payment secures a new Lease or Interest covering the same interest within ninety (90) days from the discovery of the failure to make proper payment, which acquisition will not be subject to Article VIII.B., and subject to the provisions of Article VII.E with respect to shut-in payments, the interests of the parties reflected on Exhibit "A" shall be revised on an acreage basis, effective as of the date of termination of the Lease or Interest involved, and the party who failed to make proper payment will no longer be credited with an interest in the Contract Area on account of ownership of the Lease or Interest which has terminated. If the party who failed to make the required payment shall not have been fully reimbursed, at the time of the loss, from the proceeds of the sale of Oil and Gas attributable to the lost Lease or Interest, calculated on an acreage basis, for the development and operating costs previously paid on account of such Lease or Interest, it shall be reimbursed for unrecovered actual costs previously paid by it (but not for its share of the cost of any dry hole previously drilled or wells previously abandoned) from so much of the following as is necessary to effect reimbursement:

(a) Proceeds of Oil and Gas produced prior to termination of the Lease or Interest, less operating expenses and lease burdens chargeable hereunder to the person who failed to make payment, previously accrued to the credit of the lost Lease or Interest, on an acreage basis, up to the amount of unrecovered costs;

(b) Proceeds of Oil and Gas, less operating expenses and lease burdens chargeable hereunder to the person who failed to make payment, up to the amount of unrecovered costs attributable to that portion of Oil and Gas thereafter produced and marketed (excluding production from any wells thereafter drilled) which, in the absence of such Lease or Interest termination, would be attributable to the lost Lease or Interest on an acreage basis and which as a result of such Lease or Interest termination is credited to other parties, the proceeds of said portion of the Oil and Gas to be contributed by the other parties in proportion to their respective interests reflected on Exhibit "A"; and,

(c) Any monies, up to the amount of unrecovered costs, that may be paid by any party who is, or becomes, the owner of the Lease or Interest lost, for the privilege of participating in the Contract Area or becoming a party to this agreement.

3. Other Losses: All losses of Leases or Interests committed to this agreement, other than those set forth in Articles IV.B.1. and IV.B.2. above, shall be joint losses and shall be borne by all parties in proportion to their interests shown on Exhibit "A." Losses included in this Article IV.B.3. shall include but not be limited to the loss of any Lease or Interest (or portion thereof) through failure to develop or because express or implied covenants have not been performed (other than performance which requires only the payment of money which is addressed in IV.B.2. above), operation of an express term in the Lease or Interest, , or the loss of any Lease by expiration at the end of its primary term if it is not renewed or extended as provided in Article VIII.B. There shall be no readjustment of interests in the remaining portion of the Contract Area on account of any joint loss.

4. Curing Title: In the event of a Failure of Title under Article IV.B.1. or a loss of title under Article IV.B.2. above, any Lease or Interest acquired by any party hereto (other than the party whose interest has failed or was lost) during the ninety (90) day period provided by Article IV.B.1. and Article IV.B.2. above covering all or a portion of the interest that has failed or was lost shall be offered at cost to the party whose interest has failed or was lost, and the provisions of Article VIII.B. shall not apply to such acquisition.

ARTICLE V.

OPERATOR

A. Designation and Responsibilities of Operator:

_____ shall be the Operator of the Contract Area, and shall conduct and direct and have full control of all operations conducted under this agreement as permitted and required by, and within the limits of this agreement. Operatorship is neither assignable nor forfeited except in accordance with the provisions of this Article V. In its performance of services hereunder for the Non-Operators, Operator shall be an independent contractor not subject to the control or direction of the Non-Operators except as to the type of operation to be undertaken in accordance with the election procedures contained in this agreement. Operator shall not be deemed, or hold itself out as, the agent of the Non-Operators with authority to bind them to any obligation or liability assumed or incurred by Operator as to any third party, except that Non-Operators hereby designate and appoint Operator as their agent and attorney-in-fact for the sole purpose of executing, filing for approval by a governmental agency as required under applicable law or regulation, and recording a declaration of pooling or communitization agreement to effectuate the pooling or communitization of the Oil and Gas Leases (to the extent legally allowed under their respective terms and conditions) and/or Oil and Gas Interests to conform with a spacing order of a governmental agency having jurisdiction over any portion of the Contract Area. However, said agency authority shall only be exercised by Operator after providing written notice including a copy of the proposed pooling declaration or communitization agreement to Non-Operators, and shall be binding upon any Non-Operator failing to provide to Operator a written objection within ten (10) days after receipt of such notice. Operator shall conduct its activities under this agreement as a reasonably prudent operator, in a good and workmanlike manner, with due diligence and dispatch, in accordance with good oilfield practice, and in compliance with applicable law and regulation. However, in no event shall it have any liability as Operator to the other parties for losses sustained or liabilities incurred in connection with authorized or approved operations under this agreement except such as may result from gross negligence or willful misconduct.

The Operator shall own an interest in the Contract Area except as provided in this Article V.A and subject to the provisions of Article V.B.5. A non-owning operator may serve as Operator but, as a condition precedent to serving as Operator, the putative non-owning operator and the Non-Operators must enter into a separate

agreement, or insert Article XVI provisions to this agreement, to govern the relationship between them. Unless such separate agreement or Article XVI provisions provide otherwise, said non-owning operator shall be bound by all terms and conditions of this agreement applicable to Operator. The failure of a non-owning operator and Non-Operators to enter into such a separate agreement or such Article XVI provisions shall disqualify said non-owning operator from serving as Operator, and a party owning an interest in the Contract Area must instead be designated as Operator.

B. Resignation or Removal of Operator and Selection of Successor:

1. **Voluntary Resignation of Operator:** Operator may resign at any time by giving written notice thereof to Non-Operators.

2. **Events Deemed Resignation of Operator:** If, after the effective date of this agreement, Operator (i) terminates its legal existence, (ii) sells, transfers or has a loss of title to more than ____% of its interest in the Contract Area as shown on Exhibit "A," or (iii) is no longer capable of serving as Operator, then Operator shall be deemed to have resigned without any action by Non-Operators, except for the selection of a successor Operator. A change of a corporate name or type of business entity of Operator shall not be deemed resignation of Operator.

3. **Effect of Bankruptcy:** If Operator becomes insolvent, bankrupt or is placed in receivership, it shall be deemed to have resigned without any action by Non-Operators, except the selection of a successor. If a petition for relief under the federal bankruptcy laws is filed by or against Operator, and the removal of Operator is prevented by the federal bankruptcy court, all Non-Operators and Operator shall comprise an interim operating committee to serve until Operator has elected to reject or assume this agreement pursuant to the Bankruptcy Code, and an election to reject this agreement by Operator as a debtor in possession, or by a trustee in bankruptcy, shall be deemed a resignation as Operator without any action by Non-Operators, except the selection of a successor. During the period of time the operating committee controls operations, all actions shall require the approval of two (2) or more parties owning a majority interest based on ownership as shown on Exhibit "A." In the event there are only two (2) parties to this agreement, during the period of time the operating committee controls operations, a third party acceptable to Operator, Non-Operator and the federal bankruptcy court shall be selected as a member of the operating committee, and all actions shall require the approval of two (2) members of the operating committee without regard for their interest in the Contract Area based on Exhibit "A."

4. **Removal of Operator:** Except as provided in Article V.B.5., an Operator that has not voluntarily resigned and is not deemed to have resigned may be removed only for good cause by the affirmative vote of Non-Operators owning a majority interest based on ownership as shown on Exhibit "A" remaining after excluding the voting interest of Operator. Such vote shall not be effective until a written notice has been delivered to Operator by a Non-Operator detailing the alleged default and Operator has failed to cure the default within thirty (30) days from its receipt of the notice or, if the default concerns an operation then being conducted, within forty-eight (48) hours of its receipt of the notice. For purposes hereof, "good cause" shall include, but not be limited to Operator's (i) gross negligence or willful misconduct; (ii) the material breach of or inability to meet the standards of operation contained in Article V.A. or (iii) material failure or inability to perform its obligations or duties under this agreement.

5. **Non-Ownning Operator:** Unless the parties have otherwise agreed, a non-owning Operator may be removed at any time, with or without cause, by the affirmative vote of parties owning a majority interest based on ownership as shown on Exhibit "A." Moreover, if good cause for removal of such non-owning Operator, as defined in Article V.B.4., exists, the non-owning Operator may be removed by the affirmative vote of Non-Operators owning a majority interest based on ownership as shown on Exhibit "A" remaining after excluding the voting interest of any non-operator who is an Affiliate of non-owning Operator following the procedure set out in Article V.B.4.

6. **Selection of Successor Operator:** Upon the resignation or removal of Operator under any provision of this agreement, a successor Operator shall be selected by the parties. The successor Operator shall be selected by the affirmative vote of one (1) or more parties owning a majority interest based on ownership as shown on Exhibit "A" including the vote(s) of the former Operator and/or any transferee(s) of the former Operator's interest, to the extent that they are owners within the contract area; provided, however, if an Operator which has been removed or is deemed to have resigned fails to vote or votes only to succeed itself, the successor Operator shall be selected by the affirmative vote of the party or parties owning a majority interest based on ownership as shown on Exhibit "A" remaining after excluding the voting interest of the Operator that was removed or resigned. In the event that such vote results in a tie, the candidate supported by the former Operator or the majority of its transferee(s), shall become the successor Operator. The former Operator shall promptly deliver to the successor Operator all records and data relating to the operations conducted by the former Operator to the extent such records and data are not already in the possession of the successor Operator. Any cost of obtaining or copying the former Operator's records and data shall be charged to the joint account.

7. **Effective Date and Time of Resignation or Removal of Operator:** In the event of the resignation or removal of Operator, pursuant to any of Articles V.B.1-B.5, such resignation or removal shall become effective on the earlier of:

(a) The time and date that a successor Operator has been selected pursuant to Article V.B.6, and assumes the duties of Operator; or

(b) 7:00 o'clock A.M. on the first day of the calendar month following the expiration of ninety (90) days after the giving of notice of resignation by Operator, the event deemed to be Operator's resignation or action by the Non-Operators to remove Operator.

Thereafter, the former Operator shall be bound by the terms hereof as a Non-Operator to the extent it continues to be a party hereto.

C. Employees and Contractors:

The number of employees or contractors used by Operator in conducting operations hereunder, their selection, and the hours of labor and the compensation for services performed shall be determined by the Operator, and all such employees or contractors shall be the employees or contractors of Operator.

D. Rights and Duties of Operator:

1. **Competitive Rates and Use of Affiliates:** All wells drilled on the Contract Area shall be drilled on a competitive contract basis at the usual rates prevailing in the area. If it so desires, Operator may employ its own tools and equipment in the drilling of wells, but its charges therefor shall not exceed the prevailing rates in the area and the rate of such charges shall be agreed upon by the parties in writing before drilling operations are commenced, and such work shall be performed by Operator under the same terms and conditions as are customary and usual in the area in contracts of independent contractors who are doing work of a similar nature. All work performed or materials supplied by an Affiliate of Operator shall be performed or supplied at competitive rates, pursuant to written agreement, and in accordance with customs and standards prevailing in the industry.

2. **Discharge of Joint Account Obligations:** Except as herein otherwise specifically provided, Operator shall promptly pay and discharge expenses incurred in the development and operation of the Contract Area pursuant to this agreement and shall charge each of the parties hereto with their respective proportionate shares upon the expense basis provided in Exhibit "C." Operator shall keep an accurate record of the joint account hereunder, showing expenses incurred and charges and credits made and received.

3. **Protection from Liens:** Operator shall pay, or cause to be paid, as and when they become due and payable, all accounts of contractors and suppliers and wages and salaries for services rendered or performed, and for materials supplied on, to or in respect of the Contract Area or any operations for the joint account thereof, and shall keep the Contract Area free from liens and encumbrances resulting therefrom except for those resulting from a bona fide dispute as to services rendered or materials supplied.

4. **Custody of Funds:** Operator shall hold for the account of the Non-Operators any funds of the Non-Operators advanced or paid to the Operator, either for the conduct of operations hereunder or as a result of the sale of production from the Contract Area, and such funds shall remain the funds of the Non-Operators on whose account they are advanced or paid until used for their intended purpose or otherwise delivered to the Non-Operators or applied toward the payment of debts as provided in Article VII.B. Nothing in this paragraph shall be construed to establish a fiduciary relationship between Operator and Non-Operators for any purpose other than to account for Non-Operator funds as herein specifically provided. Nothing in this paragraph shall require the maintenance by Operator of separate accounts for the funds of Non-Operators unless the parties otherwise specifically agree.

5. **Access to Contract Area and Records:**

(a) Except as otherwise provided herein, Operator shall permit each Consenting Party or its duly authorized representative, at the Consenting Party's sole risk and cost, full and free access at all reasonable times to all operations of every kind and character being conducted for the joint account under this agreement and to the records of operations conducted thereon or production therefrom, including Operator's books and records relating thereto. Such access rights shall not be exercised in a manner interfering with Operator's conduct of an operation hereunder and shall not obligate Operator to furnish any geologic or geophysical data of an interpretive nature unless the cost of preparation of such interpretive data was charged to the joint account. Operator will furnish to each Non-Operator upon request copies of any and all reports and information obtained by Operator in connection with production and related items, including, without limitation, meter and chart reports, production purchaser statements, run tickets and monthly gauge reports, but excluding purchase contracts and pricing information to the extent not applicable to the production of the Non-Operator seeking the information.

(b) With the exception of the information required to be furnished by Operator pursuant to Article V.D.5(c) or VI.B.2(d), a Non-Consenting Party is neither entitled by virtue of this agreement to, nor may compel Operator or any Consenting Party to provide, access to the well location and information and reports (or parts thereof) solely relating to such non-consented operation until the earlier of full recoupment by the Consenting Parties of the amounts provided for in Article VI.B.2(b)(i) or two (2) years following the date the non-consented operation was commenced. Thereafter, Operator shall promptly furnish such access, information and reports upon receipt of a written request from the Non-Consenting Party.

(c) Any audit of Operator's records relating to amounts expended and the appropriateness of such expenditures shall be conducted in accordance with the audit protocol specified in Exhibit "C" or other agreement of the parties. Except as provided in Article VII.D.1, prior to a payout, a Non-Consenting Party shall be entitled to review the joint account records pertaining to a non-consented operation to the extent necessary to conduct an audit of the payout account. Any such review shall be conducted in accordance with Exhibit "C" or other agreement of the parties.

6. Filing and Furnishing Governmental Reports: Operator will file, and upon written request promptly furnish copies to each requesting Non-Operator not in default of its payment obligations, all operational notices, reports or applications required to be filed by local, State, Federal or Indian agencies or authorities having jurisdiction over operations hereunder. All such filings shall be made in accordance with the provisions of this agreement. Each Non-Operator shall provide to Operator on a timely basis all information necessary to Operator to make such filings.

7. Drilling and Testing Operations: The following provisions shall apply to each well drilled hereunder, including but not limited to the Initial Well:

(a) Operator will use reasonable efforts to promptly advise Non-Operators of the date on which drilling operations are commenced.

(b) Subject to the provisions of Article V.B.5, Operator will send to the Consenting Parties such reports, test results and notices regarding the progress of operations on the well as the Consenting Parties shall reasonably request, including, but not limited to, daily drilling reports, completion reports, and well logs.

(c) Operator shall adequately test all Zones encountered that are within the Contract Area which may reasonably be expected to be capable of producing Oil and Gas in paying quantities as a result of examination of the electric log or any other logs or cores or tests conducted hereunder.

(d) For any Horizontal Well drilled under this agreement, Operator shall drill such well to the objective Zone(s) and drill the Lateral in the Zone(s) to the proposed Displacement unless drilling operations are terminated pursuant to Article VI.G or Operator deems further drilling is neither justified nor required.

8. Cost Estimates: Upon written request of any Consenting Party, Operator shall furnish estimates of current and cumulative costs incurred for the joint account at reasonable intervals during the conduct of any operation pursuant to this agreement. Operator shall not be held liable for errors in such estimates so long as the estimates are made in good faith.

9. Insurance: At all times while operations are conducted hereunder, Operator shall comply with the workers compensation law of the state where the operations are being conducted; provided, however, that Operator may be a self-insurer for liability under said compensation laws in which event the only charge that shall be made to the joint account shall be as provided in Exhibit "C." Operator shall also carry or provide insurance for the benefit of the joint account of the parties as outlined in Exhibit "D" attached hereto and made a part hereof. Operator shall require all contractors engaged in work on or for the Contract Area to comply with the workers compensation law of the state where the operations are being conducted and to maintain such other insurance as Operator may require.

In the event automobile liability insurance is specified in said Exhibit "D," or subsequently receives the approval of the parties, no direct charge shall be made by Operator for premiums paid for such insurance for Operator's automotive equipment.

ARTICLE VI.

DRILLING AND DEVELOPMENT

A. Initial Well:

On or before the _____ day of _____, Operator shall commence the drilling of the Initial Well at the following location (if a Horizontal Well, surface and Terminus/Termini of the Lateral(s)): and shall thereafter continue the drilling of the well (horizontally if a Horizontal Well) with due diligence to the drilling of the Initial Well and the participation therein by all parties is obligatory, subject to Article VI.C.1. as to participation in Completion operations and Article VI.G. as to termination of operations and Article XI as to occurrence of force majeure.

B. Subsequent Operations:

1. Proposed Operations: If any party hereto should desire to drill any well under this agreement other than the Initial Well, or if any party should desire to Rework, Sidetrack, Deepen, Recomplete or Plug Back a dry hole or a well no longer capable of producing in paying quantities in which such party has not otherwise relinquished its interest in the proposed objective Zone under this agreement, the party desiring to drill, Rework, Sidetrack, Deepen, Recomplete or Plug Back such a well shall give a written proposal of the operation to the parties who have not otherwise relinquished their interest in such objective Zone under this agreement (and to all other parties in the case of a proposal for Sidetracking or Deepening as to a Vertical Well) specifying: (a) as relating to a Vertical Well, (1) that the proposed operation is a Vertical Well operation; (2) drilling and Completion plans specifying the proposed: (i) depth, (ii) surface and, if deviated, bottom hole locations, (iii) objective Zone, (iv) utilization and scheduling of rig(s) (drilling and Completion), and (v) stimulation operations, staging and sizing; and (3) estimated drilling and Completion costs as set forth in an AFE; or (b) as relating to a Horizontal Well, (1) that the proposed operation is a Horizontal Well operation; (2) include drilling and Completion plans specifying the proposed: (i) Total Measured Depth(s), (ii) surface hole location(s), (iii) Terminus/Termini, (iv) Displacement(s), (v) utilization and scheduling of rig(s) (Spudder Rig, drilling and Completion), and (vi) stimulation operations, staging and sizing; and (3) estimated drilling and Completion costs as set forth in an AFE. The parties to whom such a notice is delivered shall have thirty (30) days after receipt of the notice within which to notify the party proposing to do the work whether they elect to participate in the cost of the proposed operation. If a drilling rig is on location, notice of a proposal to Rework, Sidetrack, Recomplete, Plug Back or Deepen may be given by telephone and the response period shall be limited to forty-eight (48) hours, exclusive of Saturday, Sunday and legal holidays. Failure of a party to whom such notice is delivered to reply within the period above fixed shall constitute an election by that party not to participate in the cost of the proposed operation. Any proposal by a party to conduct an operation conflicting with the operation initially proposed shall be delivered to all parties within the time and in the manner provided in Article VI.B.7.

If all parties to whom such notice is delivered elect to participate in such a proposed operation, the parties shall be contractually committed to participate therein provided such operations are commenced within the time period hereafter set forth, and Operator shall, no later than ninety (90) days after expiration of the notice period of thirty (30) days (or as promptly as practicable after the expiration of the forty-eight (48) hour period when a drilling rig is on location, as the case may be), actually commence the proposed operation and thereafter complete it with due diligence at the risk and expense of the parties participating therein; provided, however, said commencement date may be extended upon written notice of same by Operator to the other parties, for a period of up to thirty (30) additional days if, in the sole opinion of Operator, such additional time is reasonably necessary to obtain permits from governmental authorities, surface rights (including rights-of-way) or appropriate drilling equipment, or to complete title examination or curative matter required for title approval or acceptance. If the actual operation has not been commenced within the time provided (including any extension thereof as specifically permitted herein or in the force majeure provisions of Article XI) and if any party

hereto still desires to conduct said operation, written notice proposing same must be resubmitted to the other parties in accordance herewith as if no prior proposal had been made. Those parties that did not participate in the drilling of a well for which a proposal to Deepen or Sidetrack is made hereunder shall, if such parties desire to participate in the proposed Deepening or Sidetracking operation, reimburse the Consenting Parties in accordance with Article VI.B.4. in the event of a Deepening operation and in accordance with Article VI.B.5. in the event of a Sidetracking operation.

2. Operations by Less Than All Parties:

(a) Determination of Participation. If any party to whom such notice is delivered as provided in Article VI.B.1. or VI.C.1. (Option No. 2) elects not to participate in the proposed operation, then, in order to be entitled to the benefits of this Article, the party or parties giving the notice and such other parties as shall elect to participate in the operation shall, no later than ninety (90) days after the expiration of the notice period of thirty (30) days (or as promptly as practicable after the expiration of the forty-eight (48) hour period when a drilling rig is on location, as the case may be) actually commence the proposed operation and complete it with due diligence. Operator shall perform all work for the account of the Consenting Parties; provided, however, if no drilling rig or other equipment is on location, and if Operator is a Non-Consenting Party, the Consenting Parties shall either: (i) request Operator to perform the work required by such proposed operation for the account of the Consenting Parties, or (ii) designate one of the Consenting Parties as Operator to perform such work. The rights and duties granted to and imposed upon the Operator under this agreement are granted to and imposed upon the party designated as Operator for an operation in which the original Operator is a Non-Consenting Party. Consenting Parties, when conducting operations pursuant to this Article VI.B.2., shall comply with all terms and conditions of this agreement.

If less than all parties approve any proposed operation, the proposing party, immediately after the expiration of the applicable notice period, shall advise all Parties of the total interest of the parties approving such operation and its recommendation as to whether the Consenting Parties should proceed with the operation as proposed. Each Consenting Party, within forty-eight (48) hours (exclusive of Saturday, Sunday, and legal holidays) after delivery of such notice, shall advise the proposing party of its desire to (i) limit participation to such party's interest as shown on Exhibit "A" or (ii) carry only its proportionate part (determined by dividing such party's interest in the Contract Area by the interests of all Consenting Parties in the Contract Area) of Non-Consenting Parties' interests, or (iii) carry its proportionate part (determined as provided in (ii)) of Non-Consenting Parties' interests together with all or a portion of its proportionate part of any Non-Consenting Parties' interests that any Consenting Party did not elect to take. Any interest of Non-Consenting Parties that is not carried by a Consenting Party shall be deemed to be carried by the party proposing the operation if such party does not withdraw its proposal. Failure to advise the proposing party within the time required shall be deemed an election under (i). In the event a drilling rig is on location, notice may be given by telephone, and the time permitted for such a response shall not exceed a total of forty-eight (48) hours (exclusive of Saturday, Sunday and legal holidays). The proposing party, at its election, may withdraw such proposal if there is less than 100% participation and shall notify all parties of such decision within ten (10) days, or within twenty-four (24) hours if a drilling rig is on location, following expiration of the applicable response period. If 100% subscription to the proposed operation is obtained, the proposing party shall promptly notify the Consenting Parties of their proportionate interests in the operation and the party serving as Operator shall commence such operation within the period provided in Article VI.B.1., subject to the same extension right as provided therein.

(b) Relinquishment of Interest for Non-Participation. The entire cost and risk of conducting such operations shall be borne by the Consenting Parties in the proportions they have elected to bear same under the terms of the preceding paragraph. Consenting Parties shall keep the leasehold estates involved in such operations free and clear of all liens and encumbrances of every kind created by or arising from the operations of the Consenting Parties. If such an operation results in a dry hole, then subject to Articles VI.B.7. and VI.F.3., the Consenting Parties shall plug and abandon the well and restore the surface location at their sole cost, risk and expense; provided, however, that those Non-Consenting Parties that participated in the drilling, Deepening or Sidetracking of the well shall remain liable for, and shall pay, their proportionate shares of the cost of plugging and abandoning the well and restoring the surface location insofar only as those costs were not increased by the subsequent operations of the Consenting Parties. If any well drilled, Reworked, Sidetracked, Deepened, Recompleted or Plugged Back under the provisions of this Article results in a well capable of producing Oil and/or Gas in paying quantities, the Consenting Parties shall Complete and equip the well to produce at their sole cost and risk, and the well shall then be turned over to Operator (if the Operator did not conduct the operation) and shall be operated by it at the expense and for the account of the Consenting Parties. Upon commencement of operations for the drilling, Reworking, Sidetracking, Recompleting, Deepening or Plugging Back of any such well by Consenting Parties in accordance with the provisions of this Article, each Non-Consenting Party shall be deemed to have relinquished to Consenting Parties, and the Consenting Parties shall own and be entitled to receive, in proportion to their respective interests, all of such Non-Consenting Party's interest in the well and share of production therefrom or, in the case of a Reworking, Sidetracking, Deepening, Recompleting or Plugging Back, or a Completion pursuant to Article VI.C.1. Option No. 2, all of such Non-Consenting Party's interest in the production obtained from the operation in which the Non-Consenting Party did not elect to participate. Such relinquishment shall be effective until the proceeds of the sale of such share, calculated at the well, or market value thereof if such share is not sold (after deducting applicable ad valorem, production, severance, and excise taxes, royalty, overriding royalty and other interests not excepted by Article III.C. payable out of or measured by the production from such well accruing with respect to such interest until it reverts), shall equal the total of the following:

- (i) _____ % of each such Non-Consenting Party's share of the cost of any newly acquired surface equipment beyond the wellhead connections (including but not limited to stock tanks, separators, treaters, pumping equipment and piping), plus 100% of each such Non-Consenting Party's share of the cost of operation of the well commencing with first production and continuing until each such Non-Consenting Party's relinquished interest shall revert to it under other provisions of this Article, it being agreed that each Non-Consenting Party's share of such costs and equipment will be that interest which would have been chargeable to such Non-Consenting Party had it participated in the proposed operation; and
- (ii) _____ % of (a) that portion of the costs and expenses of drilling, Reworking, Sidetracking, Deepening, Plugging Back, testing, Completing, and Recompleting, after deducting any cash contributions received under Article VIII.C., and of (b) that portion of the cost of newly acquired equipment in the well (to and including the wellhead connections), which would have been chargeable to such Non-Consenting Party if it had participated in the proposed operation.

Notwithstanding anything to the contrary in this Article VI.B., if the well does not reach the deepest objective Zone described in the notice proposing the well for reasons other than the encountering of granite or practically impenetrable substance or other condition in the hole rendering further operations impracticable, Operator shall give notice thereof to each Non-Consenting Party who submitted or voted for an alternative proposal under Article VI.B.7. to drill the well to a shallower Zone than the deepest objective Zone proposed in the notice under which the well was drilled, and each such Non-Consenting Party shall have the option to participate in the initial proposed Completion of the well by paying its share of the cost of drilling the well to its actual depth, calculated in the manner provided in Article VI.B.4. (a) If any such Non-Consenting Party does not elect to participate in the first Completion proposed for such well, the relinquishment provisions of this Article VI.B.2. (b) shall apply to such party's interest.

(c) Reworking, Recompleting or Plugging Back. An election not to participate in the drilling, Sidetracking or Deepening of a well shall be deemed an election not to participate in any Reworking or Plugging Back operation proposed in such a well, or portion thereof, to which the initial non-consent election applied that is conducted at any time prior to full recovery by the Consenting Parties of the Non-Consenting Party's recoupment amount. Similarly, an election not to participate in the Completing or Recompleting of a well shall be deemed an election not to participate in any Reworking operation proposed in such a well, or portion thereof, to which the initial non-consent election applied that is conducted at any time prior to full recovery by the Consenting Parties of the Non-Consenting Party's recoupment amount. Any such Reworking, Recompleting or Plugging Back operation conducted during the recoupment period shall be deemed part of the cost of operation of said well and there shall be added to the sums to be recouped by the Consenting Parties _____ % of that portion of the costs of the Reworking, Recompleting or Plugging Back operation which would have been chargeable to such Non-Consenting Party had it participated therein. If such a Reworking, Recompleting or Plugging Back operation is proposed during such recoupment period, the provisions of this Article VI.B. shall be applicable as between said Consenting Parties in said well.

(d) Recoupment Matters. During the period of time Consenting Parties are entitled to receive Non-Consenting Party's share of production, or the proceeds therefrom, Consenting Parties shall be responsible for the payment of all ad valorem, production, severance, excise, gathering and other taxes, and all royalty, overriding royalty and other burdens applicable to Non-Consenting Party's share of production not excepted by Article III.C.

In the case of any Reworking, Sidetracking, Plugging Back, Recompleting or Deepening operation, the Consenting Parties shall be permitted to use, free of cost, all casing, tubing and other equipment in the well, but the ownership of all such equipment shall remain unchanged; and upon abandonment of a well after such Reworking, Sidetracking, Plugging Back, Recompleting or Deepening, the Consenting Parties shall account for all such equipment to the owners thereof, with each party receiving its proportionate part in kind or in value, less cost of salvage.

Within ninety (90) days after the completion of any operation under this Article, the party conducting the operations for the Consenting Parties shall furnish each Non-Consenting Party with an inventory of the equipment in and connected to the well, and an itemized statement of the cost of drilling, Sidetracking, Deepening, Plugging Back, testing, Completing, Recompleting, and equipping the well for production; or, at its option, the operating party, in lieu of an itemized statement of such

costs of operation, may submit a detailed statement of monthly billings. Each month thereafter, during the time the Consenting Parties are being reimbursed as provided above, the party conducting the operations for the Consenting Parties shall furnish the Non-Consenting Parties with an itemized statement of all costs and liabilities incurred in the operation of the well, together with a statement of the quantity of Oil and Gas produced from it and the amount of proceeds realized from the sale of the well's working interest production during the preceding month. In determining the quantity of Oil and Gas produced during any month, Consenting Parties shall use industry accepted methods such as but not limited to metering or periodic well tests. Any amount realized from the sale or other disposition of equipment newly acquired in connection with any such operation which would have been owned by a Non-Consenting Party had it participated therein shall be credited against the total unreturned costs of the work done and of the equipment purchased in determining when the interest of such Non-Consenting Party shall revert to it as above provided; and if there is a credit balance, it shall be paid to such Non-Consenting Party.

If and when the Consenting Parties recover from a Non-Consenting Party's relinquished interest the amounts provided for above, the relinquished interests of such Non-Consenting Party shall automatically revert to it as of 7:00 a.m. on the day following the day on which such recoupment occurs, and, from and after such reversion, such Non-Consenting Party shall own the same interest in such well, the material and equipment in or pertaining thereto, and the production therefrom as such Non-Consenting Party would have been entitled to had it participated in the drilling, Sidetracking, Reworking, Deepening, Recompleting or Plugging Back of said well. Thereafter, such Non-Consenting Party shall be charged with and shall pay its proportionate part of the further costs of the operation of said well in accordance with the terms of this agreement and Exhibit "C" attached hereto.

3. Stand-By Costs: When a well which has been drilled or Deepened has reached its authorized depth and all tests have been completed and the results thereof furnished to the parties, or when operations on the well have been otherwise terminated pursuant to Article VI.G., stand-by costs incurred pending response to a party's notice proposing a Reworking, Sidetracking, Deepening, Recompleting, Plugging Back, Completing or Extension operation in such a well (including the period required under Article VI.B.7. to resolve competing proposals) shall be charged and borne as part of the drilling or Deepening operation just completed. Stand-by costs subsequent to all parties responding, or expiration of the response time permitted, whichever first occurs, and prior to agreement as to the participating interests of all Consenting Parties pursuant to the terms of the second grammatical paragraph of Article VI.B.2. (a), shall be charged to and borne as part of the proposed operation, but if the proposal is subsequently withdrawn because of insufficient participation, such stand-by costs shall be allocated between the Consenting Parties in the proportion each Consenting Party's interest as shown on Exhibit "A" bears to the total interest as shown on Exhibit "A" of all Consenting Parties.

In the event that notice for a Sidetracking operation is given while the drilling rig to be utilized is on location, any party may request and receive up to five (5) additional days after expiration of the forty-eight hour response period specified in Article VI.B.1. within which to respond by paying for all stand-by costs and other costs incurred during such extended response period; Operator may require such party to pay the estimated stand-by time in advance as a condition to extending the response period. If more than one party elects to take such additional time to respond to the notice, standby costs shall be allocated between the parties taking additional time to respond on a day-to-day basis in the proportion each electing party's interest as shown on Exhibit "A" bears to the total interest as shown on Exhibit "A" of all the electing parties.

4. Deepening: If less than all parties elect to participate in a drilling, Sidetracking, or Deepening operation proposed pursuant to Article VI.B.1., the interest relinquished by the Non-Consenting Parties to the Consenting Parties under Article VI.B.2. shall relate only and be limited to the lesser of (i) the total depth actually drilled or (ii) the objective depth or Zone of which the parties were given notice under Article VI.B.1. ("Initial Objective"). A Vertical Well shall not be Deepened beyond the Initial Objective without first complying with this Article to afford the Non-Consenting Parties the opportunity to participate in the Deepening operation.

In the event any Consenting Party desires to drill or Deepen a Non-Consent Well to a depth below the Initial Objective, such party shall give notice thereof, complying with the requirements of Article VI.B.1., to all parties (including Non-Consenting Parties). Thereupon, Articles VI.B.1. and 2. shall apply and all parties receiving such notice shall have the right to participate or not participate in the Deepening of such well pursuant to said Articles VI.B.1. and 2. If a Deepening operation is approved pursuant to such provisions, and if any Non-Consenting Party elects to participate in the Deepening operation, such Non-Consenting party shall pay or make reimbursement (as the case may be) of the following costs and expenses.

(a) If the proposal to Deepen is made prior to the Completion of such well as a well capable of producing in paying quantities, such Non-Consenting Party shall pay (or reimburse Consenting Parties for, as the case may be) that share of costs and expenses incurred in connection with the drilling of said well from the surface to the Initial Objective which Non-Consenting Party would have paid had such Non-Consenting Party agreed to participate therein, plus the Non-Consenting Party's share of the cost of Deepening and of participating in any further operations on the well in accordance with the other provisions of this agreement; provided, however, all costs for testing and Completion or attempted Completion of the well incurred by Consenting Parties prior to the point of actual operations to Deepen beyond the Initial Objective shall be for the sole account of Consenting Parties.

(b) If the proposal is made for a Non-Consent Well that has been previously Completed as a well capable of producing in paying quantities, but is no longer capable of producing in paying quantities, such Non-Consenting Party shall pay (or reimburse Consenting Parties for, as the case may be) its proportionate share of all costs of drilling, Completing, and equipping said well from the surface to the Initial Objective, calculated in the manner provided in paragraph (a) above, less those costs recouped by the Consenting Parties from the sale of production from the well. The Non-Consenting Party shall also pay its proportionate share of all costs of re-entering said well. The Non-Consenting Parties' proportionate part (based on the percentage of such well Non-Consenting Party would have owned had it previously participated in such Non-Consent Well) of the costs of salvable materials and equipment remaining in the hole and salvable surface equipment used in connection with such well shall be determined in accordance with Exhibit "C." If the Consenting Parties have recouped the cost of drilling, Completing, and equipping the well at the time such Deepening operation is conducted, then a Non-Consenting Party may participate in the Deepening of the well with no payment for costs incurred prior to re-entering the well for Deepening

The foregoing shall not imply a right of any Consenting Party to propose any Deepening for a Non-Consent Well prior to the drilling of such well to its Initial Objective without the consent of the other Consenting Parties as provided in Article VI.G.

5. Sidetracking: Any party having the right to participate in a proposed Sidetracking operation that does not own an interest in the affected wellbore at the time of the notice shall, upon electing to participate, tender to the wellbore owners its proportionate share (equal to its interest in the Sidetracking operation) of the value of that portion of the existing wellbore to be utilized as follows:

(a) If the proposal is for Sidetracking an existing dry hole, reimbursement shall be on the basis of the actual costs incurred in the initial drilling of the well down to the depth at which the Sidetracking operation is initiated.

(b) If the proposal is for Sidetracking a well which has previously produced, reimbursement shall be on the basis of such party's proportionate share of drilling and equipping costs incurred in the initial drilling of the well down to the depth at which the Sidetracking operation is conducted, calculated in the manner described in Article VI.B.4(b) above. Such party's proportionate share of the cost of the well's salvable materials and equipment down to the depth at which the Sidetracking operation is initiated shall be determined in accordance with the provisions of Exhibit "C."

6. Extension: If, in the event that during actual drilling operations on the Lateral and prior to reaching the Displacement specified in an approved proposal for a Horizontal Well (the "Approved Displacement"), Operator desires an Extension of the Lateral more than ___% (measured in feet) beyond the Approved Displacement, Operator shall give the Consenting Parties written notice of such intent to Extend, together with the estimated costs, not less than 24 hours before Operator estimates reaching the Approved Displacement. Unless at least ___% interest of the Consenting Parties provide written notice of their consent to the Extension within 48 hours of receipt of such notice, Operator shall not Extend the Lateral beyond the Approved Displacement and will proceed with Completion in accordance with the latest approved proposal and applicable terms and conditions of this agreement. Failure of a Consenting Party to respond to such notice shall be deemed a rejection. If ___% interest of the Consenting Parties or more consent, the Extension shall be deemed approved and binding upon all Consenting Parties.

7. Order of Preference of Operations: Except as otherwise specifically provided in this agreement, if any party desires to propose the conduct of an operation that conflicts with a proposal that has been made by a party under this Article VI, such party shall have fifteen (15) days from delivery of the initial proposal, in the case of a proposal to drill a well or to perform an operation on a well where no drilling rig is on location, or twenty-four (24) hours, exclusive of Saturday, Sunday and legal holidays, from delivery of the initial proposal, if a drilling rig is on location for the well on which such operation is to be conducted, to deliver to all parties entitled to participate in the proposed operation such party's alternative proposal, such alternate proposal to contain

the same information required to be included in the initial proposal. Each party receiving such proposals shall elect by delivery of notice to Operator within five (5) days after expiration of the proposal period, or within twenty-four (24) hours (exclusive of Saturday, Sunday and legal holidays) if a drilling rig is on location for the well that is the subject of the proposals, to participate in one of the competing proposals. Any party not electing within the time required shall be deemed not to have voted. The proposal receiving the vote of parties owning the largest aggregate percentage interest of the parties voting shall have priority over all other competing proposals; in the case of a tie vote, the initial proposal shall prevail. Operator shall deliver notice of such result to all parties entitled to participate in the operation within five (5) days after expiration of the election period (or within twenty-four (24) hours, exclusive of Saturday, Sunday and legal holidays, if a drilling rig is on location). Each party shall then have two (2) days (or twenty-four (24) hours if a rig is on location) from receipt of such notice to elect by delivery of notice to Operator to participate in such operation or to relinquish interest in the affected well pursuant to the provisions of Article VI.B.2.; failure by a party to deliver notice within such period shall be deemed an election not to participate in the prevailing proposal.

8. Conformity to Spacing Pattern: Notwithstanding the provisions of this Article VI.B.2., it is agreed that no wells shall be proposed to be drilled to or Completed in or produced from a Zone from which a well located elsewhere on the Contract Area is producing, unless such well conforms to the then-existing well spacing pattern for such Zone, including such well having been approved as an exception to the existing well pattern for such Zone by the regulatory agency having jurisdiction thereof.

9. Paying Wells: No party shall conduct any Reworking, Deepening, Plugging Back, Completion, Recompletion, Sidetracking, or Extension operation under this agreement with respect to any well then capable of producing in paying quantities except with the consent of all parties that have not relinquished interests in the well at the time of such operation.

10. Spudder Rigs:

(a) Within Approved Horizontal Well proposals (i.e. proposals which include an approved AFE). If an approved Horizontal Well proposal provides that a Spudder Rig shall be utilized, and Operator desires to extend the proposed Horizontal Rig Move-On Period, Operator may obtain one or more extensions, each for a period of time not to exceed ___ days only upon notice and the affirmative vote of not less than ___% in interest of the Consenting Parties to the drilling of the proposed well.

(b) Not Within Approved Horizontal Well proposals. If an approved Horizontal Well proposal does not provide that a Spudder Rig may be utilized, and Operator subsequently desires to utilize a Spudder Rig, Operator may utilize a Spudder Rig upon notice to the Consenting Parties (which notice shall include a Horizontal Rig Move-On Period) and the affirmative vote of not less than ___% in interest of the Consenting Parties. Extension(s) of the Horizontal Rig Move-On Period may be requested by Operator in the same manner as provided in Article VI.B.10.(a) immediately above.

(c) Failure to meet Horizontal Rig Move-On Period. If a rig capable of drilling a Horizontal Well to its Total Measured Depth has not commenced operations within the Horizontal Rig Move-On Period, or any approved extension(s) thereof, unless ___% in interest of the Consenting Parties agree to abandon the operation, Operator shall re-propose the well in the manner provided in Article VI.B of this agreement. Any party who was a Non-Consenting Party to the original drilling proposal shall be entitled to a new election. Costs of the operation, incurred both before and after such re-proposal, shall be borne as follows:

(1) Operator shall promptly reimburse all unused funds previously advanced for the drilling of the well to each party who advanced such unused funds;

(2) If the well's drilling operations are subsequently resumed, all costs, whether incurred before or after the re-proposal, shall be borne by the Consenting Parties to the re-proposed well; and, the Consenting Parties shall proportionately reimburse each party who consented to the original proposal but did not consent to the re-proposal such party's share of costs incurred prior to the re-proposal.

(3) If the well's drilling operations are not subsequently resumed pursuant to a re-proposal as herein provided, all costs incurred prior to the re-proposal, and all costs of abandonment, shall be borne and paid by the original Consenting Parties.

(d) Commencement of Operations. For purposes of Article VI.B., and subject to the provisions of this sub-section 10, the date a Spudder Rig commences actual drilling operations shall be considered the commencement of drilling operations of the proposed well.

11. Multi-well Pads: If multiple Horizontal Wells are drilled or proposed to be drilled from a single pad or location, the costs of such pad or location shall be allocated, and/or reallocated as necessary, to the Consenting Parties of each of the wells thereon.

C. Completion of Wells; Reworking and Plugging Back:

1. Completion: Without the consent of all parties, no well shall be drilled, Deepened or Sidetracked, except any well drilled, Deepened or Sidetracked pursuant to the provisions of Article VI.B.2. of this agreement. Consent to the drilling, Deepening or Sidetracking shall include:

☐ Option No. 1: All necessary expenditures for the drilling, Deepening or Sidetracking, testing, Completion and equipping of the well, including tankage and/or surface facilities.

☐ Option No. 2: All necessary expenditures for the drilling, Deepening or Sidetracking and testing of a Vertical Well. When such well has reached its authorized depth, and all logs, cores and other tests have been completed, and the results thereof furnished to the parties, Operator shall give immediate notice to the Non-Operators having the right to participate in a Completion attempt whether or not Operator recommends attempting to Complete the well, together with Operator's AFE for Completion costs if not previously provided. The parties receiving such notice shall have forty-eight (48) hours (exclusive of Saturday, Sunday and legal holidays) in which to elect by delivery of notice to Operator to participate in a recommended Completion attempt or to make a Completion proposal with an accompanying AFE. Operator shall deliver any such Completion proposal, or any Completion proposal conflicting with Operator's proposal, to the other parties entitled to participate in such Completion in accordance with the procedures specified in Article VI.B.7. Election to participate in a Completion attempt shall include consent to all necessary expenditures for the Completing and equipping of such well, including necessary tankage and/or surface facilities but excluding any stimulation operation not contained on the Completion AFE. Failure of any party receiving such notice to reply within the period above fixed shall constitute an election by that party not to participate in the cost of the Completion attempt; provided, that Article VI.B.7. shall control in the case of conflicting Completion proposals. If one or more, but less than all of the parties, elect to attempt a Completion, the provision of Article VI.B.2. hereof (the phrase "Reworking, Sidetracking, Deepening, Recompleting or Plugging Back" as contained in Article VI.B.2. shall be deemed to include "Completing") shall apply to the operations thereafter conducted by less than all parties; provided, however, that Article VI.B.2. shall apply separately to each separate Completion or Recompletion attempt undertaken hereunder, and an election to become a Non-Consenting Party as to one Completion or Recompletion attempt shall not prevent a party from becoming a Consenting Party in subsequent Completion or Recompletion attempts regardless whether the Consenting Parties as to earlier Completions or Recompletions have recouped their costs pursuant to Article VI.B.2.; provided further, that any recoupment of costs by a Consenting Party shall be made solely from the production attributable to the Zone in which the Completion attempt is made. Election by a previous Non-Consenting party to participate in a subsequent Completion or Recompletion attempt shall require such party to pay its proportionate share of the cost of salvable materials and equipment installed in the well pursuant to the previous Completion or Recompletion attempt, insofar and only insofar as such materials and equipment benefit the Zone in which such party participates in a Completion attempt.

Notwithstanding anything to the contrary, including the selection of Option 2 above, or anything else in this agreement, Option 1 shall apply to all Horizontal Wells.

2. Rework, Recomplete or Plug Back: No well shall be Reworked, Recompleted or Plugged Back except a well Reworked, Recompleted, or Plugged Back pursuant to the provisions of Article VI.B.2. of this agreement. Consent to the Reworking, Recompleting or Plugging Back of a well shall include all necessary expenditures in conducting such operations and Completing and equipping of said well, including necessary tankage and/or surface facilities.

D. Other Operations:

Operator shall not undertake any single project reasonably estimated to require an expenditure in excess of _____ Dollars (\$) except in connection with the drilling, Sidetracking, Reworking, Deepening, Completing, Recompleting or Plugging Back of a well that has been previously authorized by or pursuant to this agreement; provided, however, that, in case of explosion, fire, flood or other sudden emergency, whether of the same or different nature, Operator may take such steps and incur such expenses as in its opinion are required to deal with the emergency to safeguard life and property but Operator, as promptly as possible, shall report the emergency to the other parties. If Operator prepares an AFE for its own use, Operator shall furnish any Non-Operator so requesting an information copy thereof for any single project costing in excess of _____ Dollars (\$_____). Any party who has not relinquished its interest in a well shall have the right to propose that Operator perform a Workover operation or undertake the installation of artificial lift equipment or to conduct additional work with respect to a well drilled hereunder or other similar project reasonably estimated to require an expenditure in excess of the amount first set forth above in this Article VI.D. (except in connection with an operation required to be proposed under Articles VI.B.1. or VI.C.1. Option No. 2, which shall be governed exclusively by those Articles). Operator shall deliver such proposal to all parties entitled to participate therein. If within thirty (30) days thereof Operator secures the written consent of any party or parties owning at least _____ % of the interests of the parties entitled to participate in such operation, each party having the right to participate in such project shall be bound by the terms of such proposal and shall be obligated to pay its proportionate share of the costs of the proposed project as if it had consented to such project pursuant to the terms of the proposal. Facilities other than those exclusively servicing and benefiting the Contract Area shall be governed by separate agreement.

E. Deviations from Approved Proposals:

If Operator, in its reasonable judgment, deviates from an approved proposal based upon information derived from facts and circumstances determined subsequent to the commencement of the operations relating to such proposal (including, without limitation, revision of the originally proposed Completion staging and design), such deviations in and of themselves will not result in liability of the Operator to the Parties.

F. Abandonment of Wells:

1. Abandonment of Dry Holes: Except for any well drilled, Deepened or Sidetracked pursuant to Article VI.B., any well which has been drilled, Deepened or Sidetracked under the terms of this agreement and is proposed to be completed as a dry hole shall not be plugged and abandoned without the consent of all parties owning an interest in the well at the time of the dry hole completion proposal. Should Operator, after diligent effort, be unable to contact any party, or should any party fail to reply within thirty (30) days or, if a drilling rig is on location, within forty-eight (48) hours (exclusive of Saturday, Sunday and legal holidays) after delivery of notice of the proposal to plug and abandon such well, such party shall be deemed to have consented to the proposed abandonment. All such wells shall be plugged and abandoned in accordance with applicable regulations and at the cost, risk and expense of the parties who participated in the cost of drilling or Deepening such well. Any party who objects to plugging and abandoning such well by notice delivered to Operator within thirty (30) days or forty-eight (48) hours (exclusive of Saturday, Sunday and legal holidays), whichever is applicable, after delivery of notice of the proposed plugging shall take over the well as of the end of such thirty (30) day or forty-eight (48) hour notice period, whichever is applicable, and conduct further operations in search of Oil and/or Gas subject to the provisions of Article VI.B.; failure of such party to provide proof reasonably satisfactory to Operator of its financial capability to conduct such operations or to take over the well within such period or thereafter to conduct operations on such well or plug and abandon such well shall entitle Operator to retain or take possession of the well and plug and abandon the well. The party taking over the well shall indemnify Operator (if Operator is an abandoning party) and the other abandoning parties against liability for any further operations conducted on such well except for the costs of plugging and abandoning the well and restoring the surface, for which the abandoning parties shall remain proportionately liable.

2. Abandonment of Wells That Have Produced: Except for any well in which a Non-Consent operation has been conducted hereunder for which the Consenting Parties have not been fully reimbursed as herein provided, any party may propose that a well which has been completed as a producer be plugged and abandoned; provided, however, that such a well may not be plugged and abandoned without the consent of all parties. If all parties consent to such abandonment, the well shall be plugged and abandoned in accordance with applicable regulations and at the cost, risk and expense of all the parties hereto. Failure of a party to reply within sixty (60) days of delivery of notice of proposed abandonment shall be deemed an election to consent to the proposal. If, within sixty (60) days after delivery of notice of the proposed abandonment of any well, all parties do not agree to the abandonment of such well, those wishing to continue its operation from the Zone then open to production shall be obligated to take over the well as of the expiration of the applicable notice period and shall indemnify Operator (if Operator is an abandoning party) and the other abandoning parties against liability for any further operations on the well conducted by such parties. Failure of such party or parties to provide proof reasonably satisfactory to Operator of their financial capability to conduct such operations or to take over the well within the required period or thereafter to conduct operations on such well shall entitle operator to retain or take possession of such well and plug and abandon the well.

Parties taking over a well as provided herein shall tender to each of the other parties its proportionate share of the value of the well's salvable material and equipment, determined in accordance with the provisions of Exhibit "C," less the estimated cost of salvaging and the estimated cost of plugging and abandoning and restoring the surface; provided, however, that in the event the estimated plugging and abandoning and surface restoration costs and the estimated cost of salvaging are higher than the value of the well's salvable material and equipment, each of the abandoning parties shall tender to the parties continuing operations their proportionate shares of the estimated excess cost. Each abandoning party shall assign to the non-abandoning parties, without warranty, express or implied, as to title or as to quantity, or fitness for use of the equipment and material, all of its interest in the wellbore of the well and related equipment, together with its interest in the Leasehold insofar and only insofar as such Leasehold covers the right to obtain production from that wellbore in the Zone then open to production. If the interest of the abandoning party is or includes an Oil and Gas Interest, such party shall execute and deliver to the non-abandoning party or parties an oil and gas lease, limited to the wellbore and the Zone then open to production, for a term of one (1) year and so long thereafter as Oil and/or Gas is produced from the Zone covered thereby, such lease to be on the form attached as Exhibit "B." The assignments or leases so limited shall encompass the Drilling Unit upon which the well is located. The payments by, and the assignments or leases to, the assignees shall be in a ratio based upon the relationship of their respective percentage of participation in the Contract Area to the aggregate of the percentages of participation in the Contract Area of all assignees. All such assigned interests shall be free and clear of Subsequently Created Interests. There shall be no readjustment of interests in the remaining portions of the Contract Area.

Thereafter, abandoning parties shall have no further responsibility, liability, or interest in the operation of or production from the well in the Zone then open other than the royalties retained in any lease made under the terms of this Article. Upon request, Operator shall continue to operate the assigned well for the account of the non-abandoning parties at the rates and charges contemplated by this agreement, plus any additional cost and charges which may arise as the result of the separate ownership of the assigned well. Upon proposed abandonment of the producing Zone assigned or leased, the assignor or lessor shall then have the option to repurchase its prior interest in the well (using the same valuation formula) and participate in further operations therein subject to the provisions hereof.

3. Abandonment of Non-Consent Operations: The provisions of Article VI.F.1. or VI.F.2. above shall be applicable as between Consenting Parties in the event of the proposed abandonment of any well excepted from said Articles; provided, however, no well shall be permanently plugged and abandoned unless and until all parties having the right to conduct further operations therein have been notified of the proposed abandonment and afforded the opportunity to elect to take over the well in accordance with the provisions of this Article VI.F.; and provided further, that Non-Consenting Parties who own an interest in a portion of the well shall pay their proportionate shares of abandonment and surface restoration cost for such well as provided in Article VI.B.2.(b).

G. Termination of Operations:

Upon the commencement of an operation for the drilling, Reworking, Sidetracking, Plugging Back, Deepening, testing, Completion, Extension or plugging of a well, including but not limited to the Initial Well, such operation shall not be terminated without consent of parties bearing _____ % of the costs of such operation; provided, however, that in the event granite or other practically impenetrable substance or condition in the hole is encountered which renders further operations impractical, Operator may discontinue operations and give notice of such condition in the manner provided in Article VI.B.1, and the provisions of Article VI.B. or VI.F. shall thereafter apply to such operation, as appropriate.

H. Taking Production in Kind:

☐ Option No. 1: Gas Balancing Agreement Attached

Each party shall take in kind or separately dispose of its proportionate share of all Oil and Gas produced from the Contract Area, exclusive of production which may be used in development and producing operations and in preparing and treating Oil and Gas for marketing purposes and production unavoidably lost. Any extra expenditure incurred in the taking in kind or separate disposition by any party of its proportionate share of the production shall be borne by such party. Any party taking its share of production in kind shall be required to pay for only its proportionate share of such part of Operator's surface facilities which it uses.

Each party shall execute such division orders and contracts as may be necessary for the sale of its interest in production from the Contract Area, and, except as provided in Article VII.B., shall be entitled to receive payment directly from the purchaser thereof for its share of all production.

If any party fails to make the arrangements necessary to take in kind or separately dispose of its proportionate share of the Oil produced from the Contract Area, Operator shall have the right, subject to the revocation at will by the party owning it, but not the obligation, to purchase such Oil or sell it to others at any time and from time to time, for the account of the non-taking party. Any such purchase or sale by Operator may be terminated by Operator upon at least ten (10) days written notice to the owner of said production and shall be subject always to the right of the owner of the production upon at least ten (10) days written notice to Operator to exercise at any time its right to take in kind, or separately dispose of, its share of all Oil not previously delivered to a purchaser. Any purchase or sale by Operator of any other party's share of Oil shall be only for such reasonable periods of time as are consistent with the minimum needs of the industry under the particular circumstances, but in no event for a period in excess of one (1) year.

Any such sale by Operator shall be in a manner commercially reasonable under the circumstances but Operator shall have no duty to share any existing market or to obtain a price equal to that received under any existing market. The sale or delivery by Operator of a non-taking party's share of Oil under the terms of any existing contract of Operator shall not give the non-taking party any interest in or make the non-taking party a party to said contract. No purchase shall be made by Operator without first giving the non-taking party at least ten (10) days written notice of such intended purchase and the price to be paid or the pricing basis to be used.

All parties shall give timely written notice to Operator of their Gas marketing arrangements for the following month, excluding price, and shall notify Operator immediately in the event of a change in such arrangements. Operator shall maintain records of all marketing arrangements, and of volumes actually sold or transported, which records shall be made available to Non-Operators upon reasonable request.

In the event one or more parties' separate disposition of its share of the Gas causes split-stream deliveries to separate pipelines and/or deliveries which on a day-to-day basis for any reason are not exactly equal to a party's respective proportionate share of total Gas production available for sale to be allocated to it, the balancing or accounting between the parties shall be in accordance with any Gas balancing agreement between the parties hereto, whether such an agreement is attached as Exhibit "E" or is a separate agreement. Operator shall give notice to all parties of the first sales of Gas from any well under this agreement.

☐ **Option No. 2: No Gas Balancing Agreement:**

Each party shall take in kind or separately dispose of its proportionate share of all Oil and Gas produced from the Contract Area, exclusive of production which may be used in development and producing operations and in preparing and treating Oil and Gas for marketing purposes and production unavoidably lost. Any extra expenditures incurred in the taking in kind or separate disposition by any party of its proportionate share of the production shall be borne by such party. Any party taking its share of production in kind shall be required to pay for only its proportionate share of such part of Operator's surface facilities which it uses.

Each party shall execute such division orders and contracts as may be necessary for the sale of its interest in production from the Contract Area, and, except as provided in Article VII.B., shall be entitled to receive payment directly from the purchaser thereof for its share of all production.

If any party fails to make the arrangements necessary to take in kind or separately dispose of its proportionate share of the Oil and/or Gas produced from the Contract Area, Operator shall have the right, subject to the revocation at will by the party owning it, but not the obligation, to purchase such Oil and/or Gas or sell it to others at any time and from time to time, for the account of the non-taking party. Any such purchase or sale by Operator may be terminated by Operator upon at least ten (10) days written notice to the owner of said production and shall be subject always to the right of the owner of the production upon at least ten (10) days written notice to Operator to exercise its right to take in kind, or separately dispose of, its share of all Oil and/or Gas not previously delivered to a purchaser; provided, however, that the effective date of any such revocation may be deferred at Operator's election for a period not to exceed ninety (90) days if Operator has committed such production to a purchase contract having a term extending beyond such ten (10) -day period. Any purchase or sale by Operator of any other party's share of Oil and/or Gas shall be only for such reasonable periods of time as are consistent with the minimum needs of the industry under the particular circumstances, but in no event for a period in excess of one (1) year.

Any such sale by Operator shall be in a manner commercially reasonable under the circumstances, but Operator shall have no duty to share any existing market or transportation arrangement or to obtain a price or transportation fee equal to that received under any existing market or transportation arrangement. The sale or delivery by Operator of a non-taking party's share of production under the terms of any existing contract of Operator shall not give the non-taking party any interest in or make the non-taking party a party to said contract. No purchase of Oil and Gas and no sale of Gas shall be made by Operator without first giving the non-taking party ten days written notice of such intended purchase or sale and the price to be paid or the pricing basis to be used. Operator shall give notice to all parties of the first sale of Gas from any well under this agreement.

All parties shall give timely written notice to Operator of their Gas marketing arrangements for the following month, excluding price, and shall notify Operator immediately in the event of a change in such arrangements. Operator shall maintain records of all marketing arrangements, and of volumes actually sold or transported, which records shall be made available to Non-Operators upon reasonable request.

ARTICLE VII.

EXPENDITURES AND LIABILITY OF PARTIES

A. Liability of Parties:

The liability of the parties shall be several, not joint or collective. Each party shall be responsible only for its obligations, and shall be liable only for its proportionate share of the costs of developing and operating the Contract Area. Accordingly, the liens granted among the parties in Article VII.B. are given to secure only the debts of each severally, and no party shall have any liability to third parties hereunder to satisfy the default of any other party in the payment of any expense or obligation hereunder. It is not the intention of the parties to create, nor shall this agreement be construed as creating, a mining or other partnership, joint venture, agency relationship or association, or to render the parties liable as partners, co-venturers, or principals. In their relations with each other under this agreement, the parties shall not be considered fiduciaries or to have established a confidential relationship but rather shall be free to act on an arm's-length basis in accordance with their own respective self-interest, subject, however, to the obligation of the parties to act in good faith in their dealings with each other with respect to activities hereunder.

B. Liens and Security Interests:

Each party grants to the other parties hereto a lien upon any interest it now owns or hereafter acquires in Oil and Gas Leases and Oil and Gas Interests in the Contract Area, and a security interest and/or purchase money security interest in any interest it now owns or hereafter acquires in the personal property and fixtures on or used or obtained for use in connection therewith, to secure performance of all of its obligations under this agreement including but not limited to payment of expense, interest and fees, the proper disbursement of all monies paid hereunder, the assignment or relinquishment of interest in Oil and Gas Leases as required hereunder, and the proper performance of operations hereunder. Such lien and security interest granted by each party hereto shall include such party's leasehold interests, working interests, operating rights, and royalty and overriding royalty interests in the Contract Area now owned or hereafter acquired and in lands pooled or unitized therewith or otherwise becoming subject to this agreement, the Oil and Gas when extracted therefrom and equipment situated thereon or used or obtained for use in connection therewith (including, without limitation, all wells, tools, and tubular goods), and accounts (including, without limitation, accounts arising from gas imbalances or from the sale of Oil and/or Gas at the wellhead), contract rights, inventory and general intangibles relating thereto or arising therefrom, and all proceeds and products of the foregoing.

To perfect the lien and security agreement provided herein, each party hereto shall execute and acknowledge the recording supplement and/or any financing statement prepared and submitted by any party hereto in conjunction herewith or at any time following execution hereof, and Operator is authorized to file this agreement or the recording supplement executed herewith as a lien or mortgage in the applicable real estate records and as a financing statement with the proper officer under the Uniform Commercial Code in the state in which the Contract Area is situated and such other states as Operator shall deem appropriate to perfect the security interest granted hereunder. Any party may file this agreement, the recording supplement executed herewith, or such other documents as it deems necessary as a lien or mortgage in the applicable real estate records and/or a financing statement with the proper officer under the Uniform Commercial Code.

Each party represents and warrants to the other parties hereto that the lien and security interest granted by such party to the other parties shall be a first and prior lien, and each party hereby agrees to maintain the priority of said lien and security interest against all persons acquiring an interest in Oil and Gas Leases and Interests covered by this agreement by, through or under such party. All parties acquiring an interest in Oil and Gas Leases and Oil and Gas Interests covered by this agreement, whether by assignment, merger, mortgage, operation of law, or otherwise, shall be deemed to have taken subject to the lien and security interest granted by this Article VII.B. as to all obligations attributable to such interest hereunder whether or not such obligations arise before or after such interest is acquired.

To the extent that parties have a security interest under the Uniform Commercial Code of the state in which the Contract Area is situated, they shall be entitled to exercise the rights and remedies of a secured party under the Code. The bringing of a suit and the obtaining of judgment by a party for the secured indebtedness shall not be deemed an election of remedies or otherwise affect the lien rights or security interest as security for the payment thereof. In addition, upon default by any party in the payment of its share of expenses, interests, fees or other financial obligations under this agreement, or upon the improper use of funds by a party, the other parties shall have the right, without prejudice to other rights or remedies, to collect from the purchaser the proceeds from the sale of such defaulting party's share of Oil and Gas until the amount owed by such party, plus interest as provided in "Exhibit C," has been received, and shall have the right to offset the amount owed against the proceeds from the sale of such defaulting party's share of Oil and Gas. All purchasers of production may rely on a notification of default from the non-defaulting party or parties stating the amount due as a result of the default, and all parties waive any recourse available against purchasers for releasing production proceeds as provided in this paragraph.

If any party fails to pay its share of cost within one hundred twenty (120) days after rendition of a statement therefor by Operator, the non-defaulting parties, including Operator, shall upon request by Operator, pay the unpaid amount in the proportion that the interest of each such party bears to the interest of all such parties. The amount paid by each party so paying its share of the unpaid amount shall be secured by the liens and security rights described in Article VII.B., and each paying party may independently pursue any remedy available hereunder or otherwise.

If any party does not perform all of its obligations hereunder, and the failure to perform subjects such party to foreclosure or execution proceedings pursuant to the provisions of this agreement, to the extent allowed by governing law, the defaulting party waives any available right of redemption from and after the date of judgment, any required valuation or appraisal of the mortgaged or secured property prior to sale, any available right to stay execution or to require a marshaling of assets and any required bond in the event a receiver is appointed. In addition, to the extent permitted by applicable law, each party hereby grants to the other parties a power of sale as to any property that is subject to the lien and security rights granted hereunder, such power to be exercised in the manner provided by applicable law or otherwise in a commercially reasonable manner and upon reasonable notice.

Each party agrees that the other parties shall be entitled to utilize the provisions of Oil and Gas lien law or other lien law of any state in which the Contract Area is situated to enforce the obligations of each party hereunder. Without limiting the generality of the foregoing, to the extent permitted by applicable law, Non-Operators agree that Operator may invoke or utilize the mechanics' or materialmen's lien law of the state in which the Contract Area is situated in order to secure the payment to Operator of any sum due hereunder for services performed or materials supplied by Operator.

C. Advances:

Operator, at its election, shall have the right from time to time to demand and receive from one or more of the other parties payment in advance of their respective shares of the estimated amount of the expense to be incurred in operations hereunder during the next succeeding month, which right may be exercised only by submission to each such party of an itemized statement of such estimated expense, together with an invoice for its share thereof. Each such statement and invoice for the payment in advance of estimated expense shall be submitted on or before the 20th day of the next preceding month. Each party shall pay to Operator its proportionate share of such estimate within thirty (30) days after such estimate and invoice is received. If any party fails to pay its share of said estimate within said time, the amount due shall bear interest as provided in Exhibit "C" until paid. Proper adjustment shall be made monthly between advances and actual expense to the end that each party shall bear and pay its proportionate share of actual expenses incurred, and no more.

D. Defaults and Remedies:

If any party fails to discharge any financial obligation under this agreement, including without limitation the failure to make any advance under the preceding Article VII.C. or any other provision of this agreement, within the period required for such payment hereunder, then in addition to the remedies provided in Article VII.B. or elsewhere in this agreement, the remedies specified below shall be applicable. For purposes of this Article VII.D., all notices and elections shall be delivered only by Operator, except that Operator shall deliver any such notice and election requested by a non-defaulting Non-Operator, and when Operator is the party in default, the applicable notices and elections can be delivered by any Non-Operator. Election of any one or more of the following remedies shall not preclude the subsequent use of any other remedy specified below or otherwise available to a non-defaulting party.

1. **Suspension of Rights:** Any party may deliver to the party in default a Notice of Default, which shall specify the default, specify the action to be taken to cure the default, and specify that failure to take such action will result in the exercise of one or more of the remedies provided in this Article. If the default is not cured within thirty (30) days of the delivery of such Notice of Default, all of the rights of the defaulting party granted by this agreement may upon notice be suspended until the default is cured, without prejudice to the right of the non-defaulting party or parties to continue to enforce the obligations of the defaulting party previously accrued or thereafter accruing under this agreement. If Operator is the party in default, the Non-Operators shall have in addition the right, by vote of Non-Operators owning a majority in interest in the Contract Area after excluding the voting interest of Operator, to appoint a new Operator effective immediately. The rights of a defaulting party that may be suspended hereunder at the election of the non-defaulting parties shall include, without limitation, the right to receive information as to any operation conducted hereunder during the period of such default, the right to elect to participate in an operation proposed under Article VI.B. of this agreement, the right to participate in an operation being conducted under this agreement even if the party has previously elected to participate in such operation, and the right to receive proceeds of production from any well subject to this agreement.

2. **Suit for Damages:** Non-defaulting parties or Operator for the benefit of non-defaulting parties may sue (at joint account expense) to collect the amounts in default, plus interest accruing on the amounts recovered from the date of default until the date of collection at the rate specified in Exhibit "C" attached hereto. Nothing herein shall prevent any party from suing any defaulting party to collect consequential damages accruing to such party as a result of the default.

3. **Deemed Non-Consent:** The non-defaulting party may deliver a written Notice of Non-Consent Election to the defaulting party at any time after the expiration of the thirty-day cure period following delivery of the Notice of Default, in which event if the billing is for the drilling a new well or the Plugging Back, Sidetracking, Reworking or Deepening of a well which is to be or has been plugged, or for the Completion or Recompletion of any well, the defaulting party will be conclusively deemed to have elected not to participate in the operation and to be a Non-Consenting Party with respect thereto under Article VI.B. or VI.C., as the case may be, to the extent of the costs unpaid by such party, notwithstanding any election to participate theretofore made. If election is made to proceed under this provision, then the non-defaulting parties may not elect to sue for the unpaid amount pursuant to Article VII.D.2.

Until the delivery of such Notice of Non-Consent Election to the defaulting party, such party shall have the right to cure its default by paying its unpaid share of costs plus interest at the rate set forth in Exhibit "C," provided, however, such payment shall not prejudice the rights of the non-defaulting parties to pursue remedies for damages incurred by the non-defaulting parties as a result of the default. Any interest relinquished pursuant to this Article VII.D.3. shall be offered to the non-defaulting consenting parties in proportion to their interests, and the non-defaulting parties electing to participate in the ownership of such interest shall be required to contribute their shares of the defaulted amount upon their election to participate therein.

Notwithstanding the foregoing, to the extent that all or any part of the risk penalty to be recovered pursuant to Article VI.B. or Article VI.C., as the case may be, in connection with the provisions of this Article VII.B.3, is determined to constitute interest on a debt, such interest shall not exceed the maximum amount of

non-usurious interest that may be contracted for, taken, reserved, charged, or received under law. Any interest in excess of that maximum amount will be credited on the principal of such debt or, if that has been paid, refunded. This provision overrides any conflicting provisions in this agreement.

4. **Advance Payment:** If a default is not cured within thirty (30) days of the delivery of a Notice of Default, Operator, or Non-Operators if Operator is the defaulting party, may thereafter require advance payment from the defaulting party of such defaulting party's anticipated share of any item of expense for which Operator, or Non-Operators, as the case may be, would be entitled to reimbursement under any provision of this agreement, whether or not such expense was the subject of the previous default. Such right includes, but is not limited to, the right to require advance payment for the estimated costs of drilling a well or Completion of a well as to which an election to participate in drilling or Completion has been made. If the defaulting party fails to pay the required advance payment, the non-defaulting parties may pursue any of the remedies provided in the Article VII.D. or any other default remedy provided elsewhere in this agreement. Any excess of funds advanced remaining when the operation is completed and all costs have been paid shall be promptly returned to the advancing party.

5. **Costs and Attorneys' Fees:** In the event any party is required to bring legal proceedings to enforce any financial obligation of a party hereunder, the prevailing party in such action shall be entitled to recover all court costs, costs of collection, and a reasonable attorney's fee, which the lien provided for herein shall also secure.

E. Rentals, Shut-in Well Payments and Minimum Royalties:

Rentals, shut-in well payments and minimum royalties which may be required under the terms of any lease shall be paid by the party or parties who subjected such lease to this agreement at its or their expense. In the event two or more parties own and have contributed interests in the same lease to this agreement, such parties may designate one of such parties to make said payments for and on behalf of all such parties. Any party may request, and shall be entitled to receive, proper evidence of all such payments. In the event of failure to make proper payment of any rental, shut-in well payment or minimum royalty through mistake or oversight where such payment is required to continue the lease in force, any loss which results from such non-payment shall be borne in accordance with the provisions of Article IV.B.2.

Operator shall notify Non-Operators of the anticipated completion of a shut-in well, or the shutting in or return to production of a producing well, at least five (5) days (excluding Saturday, Sunday, and legal holidays) prior to taking such action, or at the earliest opportunity permitted by circumstances, but assumes no liability for failure to do so. In the event of failure by Operator to so notify Non-Operators, the loss of any lease contributed hereto by Non-Operators for failure to make timely payments of any shut-in well payment shall be borne jointly by the parties hereto under the provisions of Article IV.B.3.

F. Taxes:

Beginning with the first calendar year after the effective date hereof, Operator shall render for ad valorem taxation all property subject to this agreement which by law should be rendered for such taxes, and it shall pay all such taxes assessed thereon before they become delinquent. Prior to the rendition date, each Non-Operator shall furnish Operator information as to burdens (to include, but not be limited to, royalties, overriding royalties and production payments) on Leases and Oil and Gas Interests contributed by such Non-Operator. If the assessed valuation of any Lease is reduced by reason of its being subject to outstanding excess royalties, overriding royalties or production payments, the reduction in ad valorem taxes resulting therefrom shall inure to the benefit of the owner or owners of such Lease, and Operator shall adjust the charge to such owner or owners so as to reflect the benefit of such reduction. If the ad valorem taxes are based in whole or in part upon separate valuations of each party's working interest, then notwithstanding anything to the contrary herein, charges to the joint account shall be made and paid by the parties hereto in accordance with the tax value generated by each party's working interest. Operator shall bill the other parties for their proportionate shares of all tax payments in the manner provided in Exhibit "C."

If Operator considers any tax assessment improper, Operator may, at its discretion, protest within the time and manner prescribed by law, and prosecute the protest to a final determination, unless it agrees to abandon the protest prior to final determination. During the pendency of administrative or judicial proceedings, Operator may elect to pay, under protest, all such taxes and any interest and penalty. When any such protested assessment shall have been finally determined, Operator shall pay the tax for the joint account, together with any interest and penalty accrued, and the total cost shall then be assessed against the parties, and be paid by them, as provided in Exhibit "C."

Each party shall pay or cause to be paid all production, severance, excise, gathering and other taxes imposed upon or with respect to the production or handling of such party's share of Oil and Gas produced under the terms of this agreement to the extent that all such taxes are assessed at a uniform rate. If an Oil and Gas Lease or Oil and Gas Interest contributed by any party is taxed at a higher rate, or is subject to an additional tax, that party alone shall pay or cause to be paid such additional tax.

ARTICLE VIII.

ACQUISITION, MAINTENANCE OR TRANSFER OF INTEREST

A. Surrender of Leases:

The Leases covered by this agreement, insofar as they embrace acreage in the Contract Area, shall not be surrendered in whole or in part unless all parties consent thereto.

However, should any party desire to surrender its interest in any Lease or in any portion thereof, such party shall give written notice of the proposed surrender to all parties, and the parties to whom such notice is delivered shall have thirty (30) days after delivery of the notice within which to notify the party proposing the surrender whether they elect to consent thereto. Failure of a party to whom such notice is delivered to reply within said 30-day period shall constitute a consent to the surrender of the Leases described in the notice. If all parties do not agree or consent thereto, the party desiring to surrender shall assign, without express or implied warranty of title, all of its interest in such Lease, or portion thereof, and any well, material and equipment acquired by the parties under this agreement and used exclusively for the lease being surrendered and any rights in production thereafter secured, to the parties not consenting to such surrender. If the interest of the assigning party is or includes an Oil and Gas Interest, the assigning party shall execute and deliver to the party or parties not consenting to such surrender an oil and gas lease covering such Oil and Gas Interest for a term of one (1) year and so long thereafter as Oil and/or Gas is produced from the land covered thereby or lands pooled therewith, such lease to be on the form attached hereto as Exhibit "B." Upon such assignment or lease, the assigning party shall be relieved from all obligations thereafter accruing, but not theretofore accrued, with respect to the interest assigned or leased and the operation of any well attributable thereto, and the assigning party shall have no further interest in the assigned or leased premises and its equipment and production other than the royalties retained in any lease made under the terms of this Article. The party assignee or lessee shall pay to the party assignor or lessor the reasonable salvage value of the latter's interest in any well's salvable materials and equipment attributable to the assigned or leased acreage. The value of all salvable materials and equipment shall be determined in accordance with the provisions of Exhibit "C," less the estimated cost of salvaging and the estimated cost of plugging and abandoning and restoring the surface. If such value is less than such costs, then the party assignor or lessor shall pay to the party assignee or lessee the amount of such deficit. If the assignment or lease is in favor of more than one party, the interest shall be shared by such parties in the proportions that the interest of each bears to the total interest of all such parties. If the interest of the parties to whom the assignment is to be made varies according to depth, then the interest assigned shall similarly reflect such variances.

Any assignment, lease or surrender made under this provision shall not reduce or change the assignor's, lessor's or surrendering party's interest as it was immediately before the assignment, lease or surrender in the balance of the Contract Area; and the acreage assigned, leased or surrendered, and subsequent operations thereon, shall not thereafter be subject to the terms and provisions of this agreement but shall be deemed subject to an Operating Agreement in the form of this agreement.

B. Renewal or Extension of Leases:

If any party secures a renewal or replacement of an Oil and Gas Lease or Interest subject to this agreement, then all other parties shall be notified promptly upon such acquisition or, in the case of a replacement Lease taken before expiration of an existing Lease, promptly upon expiration of the existing Lease. The parties notified shall have the right for a period of thirty (30) days following delivery of such notice in which to elect to participate in the ownership of the renewal or

replacement Lease, insofar as such Lease affects lands within the Contract Area, by paying to the party who acquired it their proportionate shares of the acquisition cost allocated to that part of such Lease within the Contract Area, which shall be in proportion to the interest held at that time by the parties in the Contract Area. Each party who participates in the purchase of a renewal or replacement Lease shall be given an assignment of its proportionate interest therein by the acquiring party.

If some, but less than all, of the parties elect to participate in the purchase of a renewal or replacement Lease, it shall be owned by the parties who elect to participate therein, in a ratio based upon the relationship of their respective percentage of participation in the Contract Area to the aggregate of the percentages of participation in the Contract Area of all parties participating in the purchase of such renewal or replacement Lease. The acquisition of a renewal or replacement Lease by any or all of the parties hereto shall not cause a readjustment of the interests of the parties stated in Exhibit "A," but any renewal or replacement Lease in which less than all parties elect to participate shall not be subject to this agreement but shall be deemed subject to a separate Operating Agreement in the form of this agreement.

If the interests of the parties in the Contract Area vary according to depth, then their right to participate proportionately in renewal or replacement Leases and their right to receive an assignment of interest shall also reflect such depth variances.

The provisions of this Article shall apply to renewal or replacement Leases whether they are for the entire interest covered by the expiring Lease or cover only a portion of its area or an interest therein. Any renewal or replacement Lease taken before the expiration of its predecessor Lease, or taken or contracted for or becoming effective within six (6) months after the expiration of the existing Lease, shall be subject to this provision so long as this agreement is in effect at the time of such acquisition or at the time the renewal or replacement Lease becomes effective; but any Lease taken or contracted for more than six (6) months after the expiration of an existing Lease shall not be deemed a renewal or replacement Lease and shall not be subject to the provisions of this agreement.

The provisions in this Article shall also be applicable to extensions of Oil and Gas Leases.

C. Acreage or Cash Contributions:

While this agreement is in force, if any party contracts for a contribution of cash towards the drilling of a well or any other operation under this agreement, such contribution shall be paid to the party who conducted the drilling or other operation and shall be applied by it against the cost of such drilling or other operation. If the contribution be in the form of acreage, the party to whom the contribution is made shall promptly tender an assignment of the acreage, without warranty of title, to the Consenting Parties in the proportions said Consenting Parties shared the cost of drilling the well. Such acreage shall become a separate Contract Area and, to the extent possible, be governed by provisions identical to this agreement. Each party shall promptly notify all other parties of any acreage or cash contributions it may obtain in support of any well or any other operation on the Contract Area. The above provisions shall also be applicable to optional rights to earn acreage outside the Contract Area which are in support of well drilled inside Contract Area.

If any party contracts for any consideration relating to disposition of such party's share of substances produced hereunder, such consideration shall not be deemed a contribution as contemplated in this Article VIII.C.

D. Assignment; Maintenance of Uniform Interest:

For the purpose of maintaining uniformity of ownership in the Contract Area in the Oil and Gas Leases, Oil and Gas Interests, wells, equipment and production covered by this agreement, except as otherwise provided herein, no party shall sell, encumber, transfer or make other disposition of its interest in the Oil and Gas Leases and Oil and Gas Interests embraced within the Contract Area or in wells, equipment and production unless such disposition covers either:

1. the entire interest of the party in all Oil and Gas Leases, Oil and Gas Interests, wells, equipment and production; or
2. an equal undivided percent of the party's present interest in all Oil and Gas Leases, Oil and Gas Interests, wells, equipment owned by such party under this agreement, and production in the Contract Area.

Every sale, encumbrance, transfer or other disposition made by any party shall be made expressly subject to this agreement and shall be made without prejudice to the right of the other parties, and any transferee of an ownership interest in any Oil and Gas Lease or Interest shall be deemed a party to this agreement as to the interest conveyed from and after the effective date of the transfer of ownership; provided, however, that the other parties shall not be required to recognize any such sale, encumbrance, transfer or other disposition for any purpose hereunder until thirty (30) days after Operator has received a copy of the instrument of transfer or other satisfactory evidence thereof in writing from the transferor or transferee. Except as otherwise provided herein, any transfer by a party shall relieve the transferor from liability for the cost and expense of operations attributable to the transferred interest which are conducted after the expiration of the 30-day period above provided; provided that, no assignment or other disposition of interest by a party shall relieve such party of obligations previously incurred by such party hereunder with respect to the interest transferred, including without limitation the obligation of a party to pay all costs and expenses attributable to an approved operation conducted hereunder, in which such party has agreed to participate and the lien and security interest granted by Article VII.B. shall continue to burden the interest transferred to secure payment of any such obligations. The transferee shall be jointly and severally liable with its transferor for payment of its share of all costs and expenses attributable to an approved operation conducted hereunder in which its transferor had agreed to participate.

If, at any time the interest of any party is divided among and owned by four or more co-owners, Operator, at its discretion, may require such co-owners to appoint a single trustee or agent with full authority to receive notices, approve expenditures, receive billings for and approve and pay such party's share of the joint expenses, and to deal generally with, and with power to bind, the co-owners of such party's interest within the scope of the operations embraced in this agreement; however, all such co-owners shall have the right to enter into and execute all contracts or agreements for the disposition of their respective shares of the Oil and Gas produced from the Contract Area and they shall have the right to receive, separately, payment of the sale proceeds thereof.

E. Waiver of Rights to Partition:

If permitted by the laws of the state or states in which the property covered hereby is located, each party hereto owning an undivided interest in the Contract Area waives any and all rights it may have to partition and have set aside to it in severalty its undivided interest therein.

F. Preferential Right to Purchase

☐ (Option: Check if applicable)

Should any party desire to sell all or any part of its interests under this agreement, or its rights and interests in the Contract Area, it shall promptly give written notice to the other parties, with full information concerning its proposed disposition, which shall include the name and address of the prospective transferee (who must be ready, willing and able to purchase), the purchase price, a legal description sufficient to identify the property, and all other terms of the offer. The other parties shall then have an optional prior right, for a period of ten (10) days after notice is delivered, to purchase for the stated consideration on the same terms and conditions the interest which the other party proposes to sell; and, if this optional right is exercised, the purchasing parties shall share the purchased interest in the proportions that the interest of each bears to the total interest of all purchasing parties. However, there shall be no preferential right to purchase in those cases where any party wishes to mortgage its interests, or to transfer title to its interest to its mortgagee in lieu of or pursuant to foreclosure of a mortgage of its interests, or to dispose of its interests by merger, reorganization, consolidation, or by sale of all or substantially all of its Oil and Gas assets to any party, or by transfer of its interests to a subsidiary or parent company or to a subsidiary of a parent company, or to any company in which such party owns a majority of the stock.

ARTICLE IX.

INTERNAL REVENUE CODE ELECTION

If, for federal income tax purposes, this agreement and the operations hereunder are regarded as a partnership, and if the parties have not otherwise agreed to form a tax partnership pursuant to Exhibit "G" or other agreement between them, each party thereby affected elects to be excluded from the application of all of the

provisions of Subchapter “K,” Chapter 1, Subtitle “A,” of the Internal Revenue Code of 1986, as amended (“Code”), as permitted and authorized by Section 761 of the Code and the regulations promulgated thereunder. Operator is authorized and directed to execute on behalf of each party hereby affected such evidence of this election as may be required by the Secretary of the Treasury of the United States or the Federal Internal Revenue Service, including specifically, but not by way of limitation, all of the returns, statements, and the data required by Treasury Regulation §1.761. Should there be any requirement that each party hereby affected give further evidence of this election, each such party shall execute such documents and furnish such other evidence as may be required by the Federal Internal Revenue Service or as may be necessary to evidence this election. No such party shall give any notices or take any other action inconsistent with the election made hereby. If any present or future income tax laws of the state or states in which the Contract Area is located or any future income tax laws of the United States contain provisions similar to those in Subchapter “K,” Chapter 1, Subtitle “A,” of the Code, under which an election similar to that provided by Section 761 of the Code is permitted, each party hereby affected shall make such election as may be permitted or required by such laws. In making the foregoing election, each such party states that the income derived by such party from operations hereunder can be adequately determined without the computation of partnership taxable income. For federal income tax purposes the parties agree that any gas imbalances will be reported under the cumulative gas balancing method as defined in Treasury Regulations § 1.761-2(d)(3).

ARTICLE X.

CLAIMS AND LAWSUITS

Operator may settle any single or related aggregate uninsured third party damage claim or suit arising from operations hereunder if the expenditure does not exceed _____ Dollars (\$) and if the payment is in complete settlement of such claim or suit. If the amount required for settlement exceeds the above amount, Operator shall promptly give notice to Non-Operators and Operator shall assume and handle the claim or suit on behalf of all parties unless, within 14 days after receipt of such notice, a party gives notice to Operator and the other parties of its affirmative election to assume and handle the claim or suit on its own behalf, which assumption and handling shall be done at said party’s own expense and over and above said party’s proportionate share chargeable to the joint account as hereinafter provided. All costs and expenses of handling, settling, or otherwise discharging such claim or suit shall be at the joint expense of the parties participating in the operation from which the claim or suit arises. If a claim is made against any party or if any party is sued on account of any matter arising from operations hereunder over which such individual has no control because of the rights given Operator by this agreement, such party shall immediately notify all other parties, and the claim or suit shall be treated as any other claim or suit involving operations hereunder.

ARTICLE XI.

FORCE MAJEURE

If any party is rendered unable, wholly or in part, by force majeure to carry out its obligations under this agreement, other than the obligation to indemnify or make money payments or furnish security, that party shall give to all other parties prompt written notice of the force majeure with reasonably full particulars concerning it; thereupon, the obligations of the party giving the notice, so far as they are affected by the force majeure, shall be suspended during, but no longer than, the continuance of the force majeure. The term “force majeure,” as here employed, shall mean an act of God, strike, lockout, or other industrial disturbance, act of the public enemy, war, blockade, public riot, lightening, fire, storm, flood or other act of nature, explosion, governmental action, governmental delay, restraint or inaction, unavailability of equipment, and any other cause, whether of the kind specifically enumerated above or otherwise, which is not reasonably within the control of the party claiming suspension.

The affected party shall use all reasonable diligence to remove the force majeure situation as quickly as practicable. The requirement that any force majeure shall be remedied with all reasonable dispatch shall not require the settlement of strikes, lockouts, or other labor difficulty by the party involved, contrary to its wishes; how all such difficulties shall be handled shall be entirely within the discretion of the party concerned.

ARTICLE XII.

NOTICES

All notices authorized or required between the parties by any of the provisions of this agreement, unless otherwise specifically provided, shall be in writing and delivered in person or by United States mail, courier service, or facsimile, each of which may also be delivered by attachment to electronic mail (“Email Notice”), postage or charges prepaid, if applicable, and addressed to such parties at the addresses listed on Exhibit “A.” All telephone or oral notices permitted by this agreement shall be confirmed immediately thereafter by written notice. The originating notice given under any provision hereof shall be deemed delivered only when received by the party to whom such notice is directed, and the time for such party to deliver any notice in response thereto shall run from the date the originating notice is received. “Receipt” for purposes of this agreement with respect to written notice delivered hereunder shall be actual delivery of the notice to the address of the party to be notified specified in accordance with this agreement, or to the facsimile machine or email address of such party. The second or any responsive notice shall be deemed delivered when deposited in the United States mail or at the office of the courier or facsimile, or when personally delivered to the party to be notified, provided, that when response is required within 24 or 48 hours, such response shall be given orally or by telephone, or other facsimile or email address within such period. Each party shall have the right to change its address at any time, and from time to time, by giving written notice thereof to all other parties. If a party is not available to receive notice orally or by telephone when a party attempts to deliver a notice required to be delivered within 24 or 48 hours, the notice may be delivered in writing by any other method specified herein and shall be deemed delivered in the same manner provided above for any responsive notice. Each Email Notice shall clearly state that it is a notice or response to a notice under this agreement. An Email Notice shall be deemed delivered only when affirmatively acknowledged by email reply from the receiving party. Automatic delivery receipts issued, without direct acknowledgment of the Email Notice, are not evidence of Receipt for purposes of this agreement. If the receiving party fails or declines to affirmatively acknowledge an Email Notice, then Receipt of the notice shall only be deemed to have occurred when received by the party as otherwise provided above.

ARTICLE XIII.

TERM OF AGREEMENT

This agreement shall remain in full force and effect as to the Oil and Gas Leases and/or Oil and Gas Interests subject hereto for the period of time selected below; provided, however, no party hereto shall ever be construed as having any right, title or interest in or to any Lease or Oil and Gas Interest contributed by any other party beyond the term of this agreement.

- ☐ Option No. 1: So long as any of the Oil and Gas Leases subject to this agreement remain or are continued in force as to any part of the Contract Area, whether by production, extension, renewal or otherwise
- ☐ Option No. 2: In the event the well described in Article VI.A., or any subsequent well drilled under any provision of this agreement, results in the Completion of a well as a well capable of production of Oil and/or Gas in paying quantities, this agreement shall continue in force so long as any such well is capable of production, and for an additional period of days thereafter; provided, however, if, prior to the expiration of such additional period, one or more of the parties hereto are engaged in drilling, Reworking, Deepening, Sidetracking, Plugging Back, testing or attempting to Complete or Re-complete a well or wells hereunder, this agreement shall continue in force until such operations have been completed and if production results therefrom, this agreement shall continue in force as provided herein. In the event the well described in Article VI.A., or any subsequent well drilled hereunder, results in a dry hole, and no other well is capable of producing Oil and/or Gas from the Contract Area, this agreement shall terminate unless drilling, Deepening, Sidetracking, Completing, Recompleting, Plugging Back or Reworking operations are commenced within _____ days from the date of abandonment of said well. “Abandonment” for such purposes shall mean either (i) a decision by all parties not to conduct any further operations on the well or (ii) the elapse of 180 days from the conduct of any operations on the well, whichever first occurs.

The termination of this agreement shall not relieve any party hereto from any expense, liability or other obligation or any remedy therefor which has accrued or attached prior to the date of such termination.

Upon termination of this agreement and the satisfaction of all obligations hereunder, in the event a memorandum of this Operating Agreement has been filed of record, Operator is authorized to file of record in all necessary recording offices a notice of termination, and each party hereto agrees to execute such a notice of

termination as to Operator's interest, upon request of Operator, if Operator has satisfied all its financial obligations.

ARTICLE XIV.

COMPLIANCE WITH LAWS AND REGULATIONS

A. Laws, Regulations and Orders:

This agreement shall be subject to the applicable laws of the state in which the Contract Area is located, to the valid rules, regulations, and orders of any duly constituted regulatory body of said state; and to all other applicable federal, state, and local laws, ordinances, rules, regulations and orders.

B. Governing Law:

This agreement and all matters pertaining hereto, including but not limited to matters of performance, non-performance, breach, remedies, procedures, rights, duties, and interpretation or construction, shall be governed and determined by the law of the state in which the Contract Area is located. If the Contract Area is in two or more states, the law of the state of _____ shall govern.

C. Regulatory Agencies:

Nothing herein contained shall grant, or be construed to grant, Operator the right or authority to waive or release any rights, privileges, or obligations which Non-Operators may have under federal or state laws or under rules, regulations or orders promulgated under such laws in reference to oil, gas and mineral operations, including the location, operation, or production of wells, on tracts offsetting or adjacent to the Contract Area.

With respect to the operations hereunder, Non-Operators agree to release Operator from liability above and beyond its proportionate share of any and all losses, damages, injuries, claims and causes of action arising out of, incident to or resulting directly or indirectly from Operator's interpretation or application of rules, rulings, regulations or orders of any governmental agency having jurisdiction to the extent such interpretation or application was made in good faith and does not constitute gross negligence or willful misconduct. Each Non-Operator further agrees to reimburse Operator for such Non-Operator's share of production or any refund, fine, levy or other governmental sanction that Operator may be required to pay as a result of such an incorrect interpretation or application, together with interest and penalties thereon owing by Operator as a result of such incorrect interpretation or application.

ARTICLE XV.

MISCELLANEOUS

A. Execution:

This agreement shall be binding upon each Non-Operator when this agreement or a counterpart thereof has been executed by such Non-Operator and Operator notwithstanding that this agreement is not then or thereafter executed by all of the parties to which it is tendered or which are listed on Exhibit "A" as owning an interest in the Contract Area or which own, in fact, an interest in the Contract Area. Operator may, however, by written notice to all Non-Operators who have become bound by this agreement as aforesaid, given at any time prior to the actual spud date of the Initial Well but in no event later than five days prior to the date specified in Article VI.A. for commencement of the Initial Well, terminate this agreement if Operator in its sole discretion determines that there is insufficient participation to justify commencement of drilling operations. In the event of such a termination by Operator, all further obligations of the parties hereunder shall cease as of such termination. In the event any Non-Operator has advanced or prepaid any share of drilling or other costs hereunder, all sums so advanced less costs incurred by Operator prior to termination that were attributable to preparation for or furtherance of the operation shall be returned to such Non-Operator without interest. Except as otherwise provided in Article IV.B, in the event operations on a well shall be commenced without execution of this agreement by all persons listed on Exhibit "A" as having a current interest in such well, or in the event that subsequent to the commencement of operations on the well previously unknown or undisclosed persons owning working interests in a well are discovered, or both, the parties executing this agreement agree to one of the following:

☐ Option No. 1: Operator shall indemnify executing Non-Operators with respect to all costs incurred for the well which would have been charged to each such person under this agreement as if such person had executed the same and Operator shall receive all revenues which would have been received by each such person under this agreement as if such person had executed the same.

☐ Option No. 2: The Operator shall advise all parties of the total interest of the parties that have executed this agreement. Each party executing this agreement, within forty-eight (48) hours (exclusive of Saturday, Sunday, and legal holidays) after delivery of such notice, shall advise the Operator of its desire to (i) limit participation to such party's interest as shown on Exhibit "A" or (ii) carry only its proportionate part (determined by dividing such party's interest in the Contract Area by the interest of all parties executing this agreement) of non-executing persons' interests, or (iii) carry its proportionate part (determined as provided in (ii)) of non-executing persons' interests together with all or a portion of its proportionate part of any non-executing persons interests that any executing party did not elect to take. Any interest of non-executing persons that is not carried by an executing party shall be deemed to be carried by the Operator. Failure to advise the Operator within the time required shall be deemed an election under (i).

B. Successors and Assigns:

This agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective heirs, devisees, legal representatives, successors and assigns, and the terms hereof shall be deemed to run with the Leases or Interests included within the Contract Area.

C. Counterparts:

This instrument may be executed in any number of counterparts, each of which shall be considered an original for all purposes.

D. Severability:

For the purposes of assuming or rejecting this agreement as an executory contract pursuant to federal bankruptcy laws, this agreement shall not be severable, but rather must be assumed or rejected in its entirety, and the failure of any party to this agreement to comply with all of its financial obligations provided herein shall be a material default.

E. Conflict of Terms:

Notwithstanding anything in this agreement to the contrary, in the event of any conflict between the provisions of Articles I through XV of this agreement and the provisions of Article XVI, if any, the provisions of Article XVI, if any, shall govern

ARTICLE XVI.
OTHER PROVISIONS

IN WITNESS WHEREOF, this agreement shall be effective as of the _____ day of _____, _____.

_____, who has prepared and circulated this form for execution, represents and warrants that the form was printed from and, with the exception(s) listed below, is identical to the AAPL Form 610-2015 Model Form Operating Agreement, as published in computerized form by AAPL. No changes, alterations, or modifications, other than those made by strikethrough and/or insertion and that are clearly recognizable as changes in Articles _____, have been made to the form.

ATTEST OR WITNESS:

By

OPERATOR

Type or print name

Title _____

Date _____

Tax ID or S.S. No. _____

NON-OPERATORS

By

Type or print name

Title _____

Date _____

Tax ID or S.S. No. _____

By

Type or print name

Title _____

Date _____

Tax ID or S.S. No. _____

By

Type or print name

Title _____

Date _____

Tax ID or S.S. No. _____

By

Type or print name

Title _____

Date _____

Tax ID or S.S. No. _____

By

Type or print name

Title _____

Date _____

Tax ID or S.S. No. _____

ACKNOWLEDGMENTS

Note: The following forms of acknowledgment are the short forms approved by the Uniform Law on Notarial Acts.

The validity and effect of these forms in any state will depend upon the statutes of that state.

Individual acknowledgment:

State of _____)
) ss.
County of _____)

This instrument was acknowledged before me on

(Seal, if any) _____

Title (and Rank) _____

My commission expires: _____

Acknowledgment in representative capacity:

State of _____)
County of _____) ss.

This instrument was acknowledged before me on

_____ by _____ as _____

(Seal, if any) _____

Title (and Rank)_____

My commission expires: _____

A.A.P.L. FORM 610 - 2015

MODEL FORM OPERATING AGREEMENT

OPERATING AGREEMENT

DATED

_____, _____,

Year

OPERATOR_____

CONTRACT AREA_____

COUNTY OR PARISH OF _____, STATE OF _____

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OPERATING AGREEMENT

THIS AGREEMENT, entered into by and between _____, hereinafter designated and referred to as “Operator,” and the signatory party or parties other than Operator, sometimes hereinafter referred to individually as “Non-Operator,” and collectively as “Non-Operators.”

WITNESSETH:

WHEREAS, the parties to this agreement are owners of Oil and Gas Leases and/or Oil and Gas Interests in the land identified in Exhibit “A,” and the parties hereto have reached an agreement to explore and develop these Leases and/or Oil and Gas Interests for the production of Oil and Gas to the extent and as hereinafter provided,

NOW, THEREFORE, it is agreed as follows:

ARTICLE I.

DEFINITIONS

As used in this agreement, the following words and terms shall have the meanings here ascribed to them:

A. The term “AFE” shall mean an Authority for Expenditure prepared by a party to this agreement for the purpose of estimating the costs to be incurred in conducting an operation hereunder. An AFE is not a contractual commitment. Rather it is only an estimate, made in good faith.

B. The term “Affiliate” shall mean for a person, another person that controls, is controlled by, or is under common control with that person. For purposes of this definition, “control” means the ownership by one person, directly or indirectly, of more than fifty percent (50%) of the voting securities of a corporation or, for other persons, the equivalent ownership interest (such as a partnership interest), and “person” means an individual, corporation, partnership, trust, estate, unincorporated organization, association, or legal entity.

C. Completion” or “Complete” shall mean a single operation intended to complete a well as a well capable of producing Oil or Gas in one or more Zones, including, but not limited to, the setting of production casing, perforating, well stimulation and production testing conducted in such operation.

D. The term “Consenting Party” shall mean a party who agrees to join in and pay its share of the cost of any operation conducted under the provisions of this agreement.

E. The term “Contract Area” shall mean all of the lands, Oil and Gas Leases and/or Oil and Gas Interests intended to be developed and operated for Oil and Gas purposes under this agreement. Such lands, Oil and Gas Leases and Oil and Gas Interests are described in Exhibit “A.”

F. The term “Deepen” shall mean a single operation whereby a well is drilled to an objective Zone below the deepest Zone in which the well was previously drilled, or below the deepest Zone proposed in the associated AFE, whichever is the lesser. “Deepen” shall not refer or apply to an operation involving the Extension of a Lateral.

G. The term “Displacement” shall have the same meaning as the term defined by the state regulatory agency having jurisdiction over the Contract Area, in the absence of which the term shall otherwise mean the length of a Lateral.

H. The term “Drilling Unit” shall mean the area fixed for the drilling of one well by order or rule of any state or federal body having authority. If a Drilling Unit is not fixed by any such rule or order, a Drilling Unit shall be the drilling unit as established by the pattern of drilling in the Contract Area unless fixed by express agreement of the Consenting Parties.

I. The term “Drillsite” shall mean the Oil and Gas Lease or Oil and Gas Interest on which a proposed well is to be located. When used in connection with a Horizontal Well, the term “Drillsite” shall mean (i) the surface hole location, and (ii) the Oil and Gas Leases or Oil and Gas Interests within the Drilling Unit on or under which the wellbore, including the Lateral, is located.

J. The term “Extension” or “Extend” shall mean an operation related to a Horizontal Well whereby a Lateral is drilled in the same Zone to a Displacement greater than (i) the Displacement contained in the proposal for such operation approved by the Consenting Parties, or (ii) the Displacement to which the Lateral was drilled pursuant to a previous proposal.

K. The term “Horizontal Rig Move-On Period” shall mean the number of days after the date of rig release of a Spudder Rig until the date a rig capable of drilling a Horizontal Well to its Total Measured Depth has moved onto location.

L. The term “Horizontal Well” shall have the same meaning as the term defined by the state regulatory agency having jurisdiction over the Contract Area, in the absence of which the term shall mean a well containing one or more Laterals which are drilled, Completed or Recompleted in a manner in which the horizontal component of the Completion interval (1) extends at least one hundred feet (100’) in the objective formation(s) and (2) exceeds the vertical component of the Completion interval in the objective formation(s).

M. The term “Initial Well” shall mean the well required to be drilled by the parties hereto as provided in Article VI.A.

N. The term “Lateral” shall mean that portion of a wellbore of a Horizontal Well between the point at which the wellbore initially penetrates the objective Zone and the Terminus.

O. The term “Non-Consent Well” shall mean a well in which less than all parties have conducted an operation as provided in Article VI.B.2.

P. The term “Non-Consenting Party” shall mean a party who elects not to participate in a proposed operation.

Q. The term “Oil and Gas” shall mean oil, gas, casinghead gas, gas condensate, and/or all other liquid or gaseous hydrocarbons and other marketable substances produced therewith, unless an intent to limit the inclusiveness of this term is specifically stated.

R. The term “Oil and Gas Interests” or “Interests” shall mean unleased fee and mineral interests in Oil and Gas in tracts of land lying within the Contract Area which are owned by parties to this agreement.

S. The terms “Oil and Gas Lease,” “Lease” and “Leasehold” shall mean the oil and gas leases or interests therein covering tracts of land lying within the Contract Area which are owned by the parties to this agreement.

T. The term “Plug Back” shall mean a single operation whereby a deeper Zone is abandoned in order to attempt a Completion in a shallower Zone. When used in connection with a Horizontal Well, the term “Plug Back” shall mean an operation to test or Complete the well at a stratigraphically shallower Zone in which the operation has been or is being Completed and which is not in an existing Lateral.

U. The term “Recompletion” or “Recomplete” shall mean an operation whereby a Completion in one Zone is abandoned in order to attempt a Completion in a different Zone within the existing wellbore.

V. The term “Rework” shall mean an operation conducted in the wellbore of a well after it is Completed to secure, restore, or improve production in a Zone

which is currently open to production in the wellbore. Such operations include, but are not limited to, well stimulation operations but exclude any Workover or drilling, Sidetracking, Deepening, Completing, Recompleting, or Plugging Back of a well.

W. The term “Sidetrack” shall mean the directional control and intentional deviation of a well from vertical so as to change the bottom hole location unless done to straighten the hole or drill around junk in the hole to overcome other mechanical difficulties. When used in connection with a Horizontal Well, the term “Sidetrack” shall mean the directional control and deviation of a well outside the existing Lateral(s) so as to change the Zone or the direction of a Lateral from the approved proposal unless done to straighten the hole or drill around junk in the hole or to overcome other mechanical difficulties.

X. The term “Spudder Rig” shall mean a drilling rig utilized only for drilling all or part of the vertical component of a Horizontal Well; a rig used only for setting conductor pipe shall not be considered a Spudder Rig.

Y. The term “Terminus” shall have the same meaning as the term defined by the state regulatory agency having jurisdiction over the Contract Area, in the absence of which the term shall mean the furthest point drilled in the Lateral.

Z. The term “Total Measured Depth”, when used in connection with a Horizontal Well, shall mean the distance from the surface of the ground to the Terminus, as measured along and including the vertical component of the well and Lateral(s). When the proposed operation(s) is the drilling of, or operation on, a Horizontal Well, the terms “depth” or “total depth” wherever used in this agreement shall be deemed to read “Total Measured Depth” insofar as it applies to such well.

AA. The term “Vertical Well” shall mean a well drilled, Completed or Recompleted other than a Horizontal Well.

BB. The term “Workover” shall mean routine maintenance and repair work performed on a well but does not include a Rework operation.

CC. The term “Zone” shall mean a stratum of earth containing or thought to contain a common accumulation of Oil and Gas separately producible from any other common accumulation of Oil and Gas.

Unless the context otherwise clearly indicates, words used in the singular include the plural, the word “person” includes natural and artificial persons, the plural includes the singular, and any gender includes the masculine, feminine, and neuter.

[SCRIVENER'S INSTRUCTION: Be careful to check the applicable leases and state statute and/or regulation for possible conflicting definitions]

ARTICLE II.

EXHIBITS

The following exhibits, as indicated below and attached hereto, are incorporated in and made a part hereof:

- _____

A.

Exhibit “A,” shall include the following information:
- (1) Description of lands subject to this agreement,
- (2) Restrictions, if any, as to depths, formations, or substances,
- (3) Parties to agreement with addresses and telephone numbers for notice purposes,
- (4) Percentages or fractional interests of parties to this agreement,
- (5) Oil and Gas Leases and/or Oil and Gas Interests subject to this agreement.
- (6) Burdens on production.
- _____

B.

Exhibit “B,” Form of Lease.
- _____

C.

Exhibit “C,” Accounting Procedure.
- _____

D.

Exhibit “D,” Insurance.
- _____

E.

Exhibit “E,” Gas Balancing Agreement.
- _____

F.

Exhibit “F,” Non-Discrimination and Certification of Non-Segregated Facilities.
- _____

G.

Exhibit “G,” Tax Partnership.
- _____

H.

Other: _____

If any provision of any exhibit, except Exhibits “E,” “F” and “G,” is inconsistent with any provision contained in the body of this agreement, the provisions in the body of this agreement shall prevail.

ARTICLE III.

INTERESTS OF PARTIES

A. Oil and Gas Interests:

If any party owns an Oil and Gas Interest in the Contract Area, that Interest shall be treated for all purposes of this agreement and during the term hereof as if it were covered by the form of Oil and Gas Lease attached hereto as Exhibit “B,” and the owner thereof shall be deemed to own both royalty interest in such lease and the interest of the lessee thereunder.

B. Interests of Parties in Costs and Production:

Unless changed by other provisions, all costs and liabilities incurred in operations under this agreement shall be borne and paid, and all equipment and materials acquired in operations conducted under this agreement shall be owned, by the parties as their interests are set forth in Exhibit “A.” In the same manner, the parties shall also own all production of Oil and Gas from the Contract Area subject, however, to the payment of royalties and other burdens on production as described hereafter. Operator shall amend Exhibit “A,” from time to time, in order to correct mistakes therein or to reflect changes in ownership within the Contract Area. Operator’s duty to amend Exhibit “A” shall be subject to the following:

1.

If such amendment is a correction of the initial Exhibit “A,” it shall be effective, retroactively as of the effective date of this agreement. If such amendment reflects a change occurring after the effective date of this agreement, it shall be effective, retroactively, as of the effective date of such change. In either event, if the amendment changes the interests of any parties in the Contract Area, the accounts of the affected parties shall be thus adjusted.
2.

If a proposed amendment to Exhibit “A” involves only one of the parties, Operator shall amend Exhibit “A,” upon the written consent of such affected party.
3.

If a proposed amendment to Exhibit “A” results in an increase or decrease in the percentage of ownership of one or more parties, Operator shall amend Exhibit “A” upon the written consent of all affected parties.
4.

If any party affected by a proposed amendment to Exhibit “A” fails to give written consent to such amendment, Operator may nevertheless make such

amendment, in order to conform Exhibit “A” to ownership as reflected in an opinion issued by a licensed attorney, who is neither an employee of a party that is affected by the amendment nor of any Affiliate of such party. Such amendment shall be binding upon the parties until and unless determined otherwise pursuant to Article III.B.6.

5. Whenever any amendment is made to Exhibit “A,” Operator shall promptly furnish each party with a copy of the amended Exhibit “A,” together with a copy of the attorney’s opinion upon which such amendment is based, when applicable, irrespective of whether such party is affected by the amendment.

6. Any party who has not consented to an amendment to Exhibit “A,” may pursue litigation as to the validity of the basis for the amendment in a court of competent jurisdiction, by joining all other affected parties as parties to such litigation. If such litigation results in a determination which is contrary to the amendment, Operator shall conform Exhibit “A” to such determination, retroactive to the effective date determined pursuant to Article III.B.1, and the accounts of the affected parties shall be thus adjusted.

Regardless of which party has contributed any Oil and Gas Lease or Oil and Gas Interest on which royalty or other burdens may be payable and except as otherwise expressly provided in this agreement, each party shall pay or deliver, or cause to be paid or delivered:

☐ **Option No. 1:** all burdens on its share of the production from the Contract Area up to, but not in excess of _____ and shall indemnify, defend and hold the other parties free from any liability therefor. Except as otherwise expressly provided in this agreement, if any party has contributed hereto any Lease or Interest which is burdened with any royalty, overriding royalty, production payment or other burden on production in excess of the amounts stipulated above, such party so burdened shall assume and alone bear all such excess obligations and shall indemnify, defend and hold the other parties hereto harmless from any and all claims attributable to such excess burden.

☐ **Option No. 2:** all burdens on its share of production from the Contract Area except Subsequently Created Interests of other parties to this agreement.

Notwithstanding anything set forth in this Article III.B above, as long as the Drilling Unit for the productive Zone(s) is identical with the Contract Area, each party shall pay or deliver, or cause to be paid or delivered, all burdens on production from the Contract Area due under the terms of the Oil and Gas Lease(s) which such party has contributed to this agreement, and shall indemnify, defend and hold the other parties free from any liability therefor.

No party shall ever be responsible, on a price basis higher than the price received by such party, to any other party’s lessor or royalty owner, and if such other party’s lessor or royalty owner should demand and receive settlement on a higher price basis, the party contributing the affected Lease shall bear the additional royalty burden attributable to such higher price.

Nothing contained in this Article III.B. shall be deemed an assignment or cross-assignment of interests covered hereby, and in the event two or more parties contribute to this agreement jointly owned Leases, the parties’ undivided interests in said Leaseholds shall be deemed separate leasehold interests for the purposes of this agreement.

C. Subsequently Created Interests:

If any party has contributed hereto a Lease or Interest that is burdened with an assignment of production given as security for the payment of money, or if, after the date of this agreement, any party creates an overriding royalty, production payment, net profits interest, assignment of production or other burden payable out of production attributable to its working interest hereunder, such burden shall be deemed a “Subsequently Created Interest.” Further, if any party has contributed hereto a Lease or Interest burdened with an overriding royalty, production payment, net profits interests, or other burden payable out of production created prior to the date of this agreement, and such burden is not shown on Exhibit “A,” such burden also shall be deemed a Subsequently Created Interest; provided, however, that, if Option 1 of Article III.B is applicable, such burden shall be deemed a Subsequently Created Interest only to the extent such burden causes the burdens on such party’s Lease or Interest to exceed the amount stipulated in said Option 1.

The party whose interest is burdened with the Subsequently Created Interest (the “Burdened Party”) shall assume and alone bear, pay and discharge the Subsequently Created Interest and shall indemnify, defend and hold harmless the other parties from and against any liability therefor. Further, if the Burdened Party fails to pay, when due, its share of expenses chargeable hereunder, all provisions of Article VII.B. shall be enforceable against the Subsequently Created Interest in the same manner as they are enforceable against the working interest of the Burdened Party. If the Burdened Party is required under this agreement to assign or relinquish to any other party, or parties, all or a portion of its working interest and/or the production attributable thereto, said other party, or parties, shall receive said assignment and/or production free and clear of said Subsequently Created Interest, and the Burdened Party shall indemnify, defend and hold harmless said other party, or parties, from any and all claims and demands for payment asserted by owners of the Subsequently Created Interest.

ARTICLE IV.

TITLES

A. Title Examination:

Title examination shall be made on the Drillsite of any proposed well prior to commencement of drilling operations and, if a majority in interest of the Consenting Parties so request or Operator so elects, title examination shall be made on the entire Drilling Unit, or maximum anticipated Drilling Unit, of the well. The opinion will include the ownership of the working interest, minerals, royalty, overriding royalty and production payments under the applicable Leases. Each party contributing Leases and/or Oil and Gas Interests to be included in the Drillsite or Drilling Unit, if appropriate, shall furnish to Operator all abstracts (including federal lease status reports), title opinions, title papers and curative material in its possession free of charge. All such information not in the possession of or made available to Operator by the parties, but necessary for the examination of the title, shall be obtained by Operator. Operator shall cause title to be examined by attorneys on its staff or by outside attorneys. Copies of all title opinions shall be furnished to each Consenting Party. Costs incurred by Operator in procuring abstracts, fees paid outside attorneys and outside landmen for title examination (including preliminary, supplemental, shut-in royalty opinions and division order title opinions), title curative, and other direct charges as provided in Exhibit “C” shall be borne by the Consenting Parties in the proportion that the interest of each Consenting Party bears to the total interest of all Consenting Parties. Operator shall make no charge for services rendered by its staff attorneys, staff landmen or other personnel in the performance of the above functions.

If requested by Operator, a party shall be responsible for securing curative matter and pooling amendments or agreements required in connection with Leases or Oil and Gas Interests contributed by such party; otherwise, Operator shall be responsible for such activities. Operator shall be responsible for the preparation and recording of pooling designations or declarations and communitization agreements as well as the conduct of hearings before governmental agencies for the securing of spacing or pooling orders or any other orders necessary or appropriate to the conduct of operations hereunder. This shall not prevent any party from appearing on its own behalf at such hearings. Costs incurred by Operator, including fees paid to outside attorneys, which are associated with hearings before governmental agencies, and which costs are necessary and proper for the activities contemplated under this agreement, shall be direct charges to the joint account and shall not be covered by the administrative overhead charges as provided in Exhibit “C.” Operator shall make no charge for services rendered by its staff attorneys or other personnel in the performance of the above functions.

No well shall be drilled on the Contract Area until after (1) the title to the Drillsite or Drilling Unit, if appropriate, has been examined as above provided, and (2) the title has been approved by the examining attorney or title has been accepted by Operator.

B. Loss or Failure of Title:

1. **Failure of Title:** A failure of title shall occur when an Oil and Gas Interest or Oil and Gas Lease contributed by a party is determined to be invalid as of the effective date of this agreement, or to cover a lesser interest or less lands (as to aerial extent or Zones) during the term of this agreement, unless such limitations are disclosed on Exhibit “A”. Should any Oil and Gas Interest or Oil and Gas Lease be lost through failure of title, which results in a reduction of interest from that shown on Exhibit “A,” the party credited with contributing the affected Lease or Interest (including, if applicable, a successor in interest to such party) shall have ninety (90) days from final determination of title failure to acquire a new lease or other instrument curing the entirety of the title failure, which acquisition will not be subject to Article

VIII.B., and failing to do so, this agreement, nevertheless, shall continue in force as to all remaining Oil and Gas Leases and Interests; and,

(a) The party credited with contributing the Oil and Gas Lease or Interest affected by the title failure (including, if applicable, a successor in interest to such party) shall bear alone the entire loss and it shall not be entitled to recover from Operator or the other parties any development or operating costs which it may have previously paid or incurred, but there shall be no additional liability on its part to the other parties hereto by reason of such title failure;

(b) There shall be no retroactive adjustment of expenses incurred or revenues received from the operation of the Lease or Interest which has failed, but the interests of the parties contained on Exhibit "A" shall be revised on an acreage basis, as of the time it is determined finally that title failure has occurred, so that the interest of the party whose Lease or Interest is affected by the title failure will thereafter be reduced in the Contract Area by the amount of the Lease or Interest failed;

(c) If the proportionate interest of the other parties hereto in any producing well previously drilled on the Contract Area is increased by reason of the title failure, the party who bore the costs incurred in connection with such well attributable to the Lease or Interest which has failed shall receive the proceeds attributable to the increase in such interest (less costs and burdens attributable thereto) until it has been reimbursed for unrecovered costs paid by it in connection with such well attributable to such failed Lease or Interest;

(d) Should any person not a party to this agreement, who is determined to be the owner of any Lease or Interest which has failed, pay in any manner any part of the cost of operation, development, or equipment, such amount shall be paid to the party or parties who bore the costs which are so refunded;

(e) Any liability to account to a person not a party to this agreement for prior production of Oil and Gas which arises by reason of title failure shall be borne severally by each party (including a predecessor to a current party) who received production for which such accounting is required based on the amount of such production received, and each such party shall severally indemnify, defend and hold harmless all other parties hereto for any such liability to account;

(f) No charge shall be made to the joint account for legal expenses, fees or salaries in connection with the defense of the Lease or Interest claimed to have failed, but if the party contributing such Lease or Interest hereto elects to defend its title it shall bear all expenses in connection therewith; and

(g) If any party is given credit on Exhibit "A" to a Lease or Interest which is limited solely to ownership of an interest in the wellbore of any well or wells and the production therefrom, such party's absence of interest in the remainder of the Contract Area shall be considered a Failure of Title as to such remaining Contract Area unless that absence of interest is reflected on Exhibit "A."

2. Loss by Non-Payment or Erroneous Payment of Amount Due: If, through mistake or oversight, any rental, shut-in well payment, minimum royalty or royalty payment, or other payment necessary to maintain all or a portion of an Oil and Gas Lease or interest is not paid or is erroneously paid, and as a result a Lease or Interest terminates, there shall be no monetary liability against the party who failed to make such payment. Unless the party who failed to make the required payment secures a new Lease or Interest covering the same interest within ninety (90) days from the discovery of the failure to make proper payment, which acquisition will not be subject to Article VIII.B., and subject to the provisions of Article VII.E with respect to shut-in payments, the interests of the parties reflected on Exhibit "A" shall be revised on an acreage basis, effective as of the date of termination of the Lease or Interest involved, and the party who failed to make proper payment will no longer be credited with an interest in the Contract Area on account of ownership of the Lease or Interest which has terminated. If the party who failed to make the required payment shall not have been fully reimbursed, at the time of the loss, from the proceeds of the sale of Oil and Gas attributable to the lost Lease or Interest, calculated on an acreage basis, for the development and operating costs previously paid on account of such Lease or Interest, it shall be reimbursed for unrecovered actual costs previously paid by it (but not for its share of the cost of any dry hole previously drilled or wells previously abandoned) from so much of the following as is necessary to effect reimbursement:

(a) Proceeds of Oil and Gas produced prior to termination of the Lease or Interest, less operating expenses and lease burdens chargeable hereunder to the person who failed to make payment, previously accrued to the credit of the lost Lease or Interest, on an acreage basis, up to the amount of unrecovered costs;

(b) Proceeds of Oil and Gas, less operating expenses and lease burdens chargeable hereunder to the person who failed to make payment, up to the amount of unrecovered costs attributable to that portion of Oil and Gas thereafter produced and marketed (excluding production from any wells thereafter drilled) which, in the absence of such Lease or Interest termination, would be attributable to the lost Lease or Interest on an acreage basis and which as a result of such Lease or Interest termination is credited to other parties, the proceeds of said portion of the Oil and Gas to be contributed by the other parties in proportion to their respective interests reflected on Exhibit "A"; and,

(c) Any monies, up to the amount of unrecovered costs, that may be paid by any party who is, or becomes, the owner of the Lease or Interest lost, for the privilege of participating in the Contract Area or becoming a party to this agreement.

3. Other Losses: All losses of Leases or Interests committed to this agreement, other than those set forth in Articles IV.B.1. and IV.B.2. above, shall be joint losses and shall be borne by all parties in proportion to their interests shown on Exhibit "A." Losses included in this Article IV.B.3. shall include but not be limited to the loss of any Lease or Interest (or portion thereof) through failure to develop or because express or implied covenants have not been performed (other than performance which requires only the payment of money which is addressed in IV.B.2. above), operation of an express term in the Lease or Interest, or the loss of any Lease by expiration at the end of its primary term if it is not renewed or extended as provided in Article VIII.B. There shall be no readjustment of interests in the remaining portion of the Contract Area on account of any joint loss.

4. Curing Title: In the event of a Failure of Title under Article IV.B.1. or a loss of title under Article IV.B.2. above, any Lease or Interest acquired by any party hereto (other than the party whose interest has failed or was lost) during the ninety (90) day period provided by Article IV.B.1. and Article IV.B.2. above covering all or a portion of the interest that has failed or was lost shall be offered at cost to the party whose interest has failed or was lost, and the provisions of Article VIII.B. shall not apply to such acquisition.

ARTICLE V.

OPERATOR

A. Designation and Responsibilities of Operator:

_____ shall be the Operator of the Contract Area, and shall conduct and direct and have full control of all operations conducted under this agreement as permitted and required by, and within the limits of this agreement. Operatorship is neither assignable nor forfeited except in accordance with the provisions of this Article V. In its performance of services hereunder for the Non-Operators, Operator shall be an independent contractor not subject to the control or direction of the Non-Operators except as to the type of operation to be undertaken in accordance with the election procedures contained in this agreement. Operator shall not be deemed, or hold itself out as, the agent of the Non-Operators with authority to bind them to any obligation or liability assumed or incurred by Operator as to any third party, except that Non-Operators hereby designate and appoint Operator as their agent and attorney-in-fact for the sole purpose of executing, filing for approval by a governmental agency as required under applicable law or regulation, and recording a declaration of pooling or communitization agreement to effectuate the pooling or communitization of the Oil and Gas Leases (to the extent legally allowed under their respective terms and conditions) and/or Oil and Gas Interests to conform with a spacing order of a governmental agency having jurisdiction over any portion of the Contract Area. However, said agency authority shall only be exercised by Operator after providing written notice including a copy of the proposed pooling declaration or communitization agreement to Non-Operators, and shall be binding upon any Non-Operator failing to provide to Operator a written objection within ten (10) days after receipt of such notice. Operator shall conduct its activities under this agreement as a reasonably prudent operator, in a good and workmanlike manner, with due diligence and dispatch, in accordance with good oilfield practice, and in compliance with applicable law and regulation. However, in no event shall it have any liability as Operator to the other parties for losses sustained or liabilities incurred in connection with authorized or approved operations under this agreement except such as may result from gross negligence or willful misconduct.

The Operator shall own an interest in the Contract Area except as provided in this Article V.A and subject to the provisions of Article V.B.5. A non-owning operator may serve as Operator but, as a condition precedent to serving as Operator, the putative non-owning operator and the Non-Operators must enter into a separate

agreement, or insert Article XVI provisions to this agreement, to govern the relationship between them. Unless such separate agreement or Article XVI provisions provide otherwise, said non-owning operator shall be bound by all terms and conditions of this agreement applicable to Operator. The failure of a non-owning operator and Non-Operators to enter into such a separate agreement or such Article XVI provisions shall disqualify said non-owning operator from serving as Operator, and a party owning an interest in the Contract Area must instead be designated as Operator.

B. Resignation or Removal of Operator and Selection of Successor:

1. **Voluntary Resignation of Operator:** Operator may resign at any time by giving written notice thereof to Non-Operators.

2. **Events Deemed Resignation of Operator:** If, after the effective date of this agreement, Operator (i) terminates its legal existence, (ii) sells, transfers or has a loss of title to more than ____% of its interest in the Contract Area as shown on Exhibit "A," or (iii) is no longer capable of serving as Operator, then Operator shall be deemed to have resigned without any action by Non-Operators, except for the selection of a successor Operator. A change of a corporate name or type of business entity of Operator shall not be deemed resignation of Operator.

3. **Effect of Bankruptcy:** If Operator becomes insolvent, bankrupt or is placed in receivership, it shall be deemed to have resigned without any action by Non-Operators, except the selection of a successor. If a petition for relief under the federal bankruptcy laws is filed by or against Operator, and the removal of Operator is prevented by the federal bankruptcy court, all Non-Operators and Operator shall comprise an interim operating committee to serve until Operator has elected to reject or assume this agreement pursuant to the Bankruptcy Code, and an election to reject this agreement by Operator as a debtor in possession, or by a trustee in bankruptcy, shall be deemed a resignation as Operator without any action by Non-Operators, except the selection of a successor. During the period of time the operating committee controls operations, all actions shall require the approval of two (2) or more parties owning a majority interest based on ownership as shown on Exhibit "A." In the event there are only two (2) parties to this agreement, during the period of time the operating committee controls operations, a third party acceptable to Operator, Non-Operator and the federal bankruptcy court shall be selected as a member of the operating committee, and all actions shall require the approval of two (2) members of the operating committee without regard for their interest in the Contract Area based on Exhibit "A."

4. **Removal of Operator:** Except as provided in Article V.B.5., an Operator that has not voluntarily resigned and is not deemed to have resigned may be removed only for good cause by the affirmative vote of Non-Operators owning a majority interest based on ownership as shown on Exhibit "A" remaining after excluding the voting interest of Operator. Such vote shall not be effective until a written notice has been delivered to Operator by a Non-Operator detailing the alleged default and Operator has failed to cure the default within thirty (30) days from its receipt of the notice or, if the default concerns an operation then being conducted, within forty-eight (48) hours of its receipt of the notice. For purposes hereof, "good cause" shall include, but not be limited to Operator's (i) gross negligence or willful misconduct; (ii) the material breach of or inability to meet the standards of operation contained in Article V.A. or (iii) material failure or inability to perform its obligations or duties under this agreement.

5. **Non-Ownning Operator:** Unless the parties have otherwise agreed, a non-owning Operator may be removed at any time, with or without cause, by the affirmative vote of parties owning a majority interest based on ownership as shown on Exhibit "A." Moreover, if good cause for removal of such non-owning Operator, as defined in Article V.B.4., exists, the non-owning Operator may be removed by the affirmative vote of Non-Operators owning a majority interest based on ownership as shown on Exhibit "A" remaining after excluding the voting interest of any non-operator who is an Affiliate of non-owning Operator following the procedure set out in Article V.B.4.

6. **Selection of Successor Operator:** Upon the resignation or removal of Operator under any provision of this agreement, a successor Operator shall be selected by the parties. The successor Operator shall be selected by the affirmative vote of one (1) or more parties owning a majority interest based on ownership as shown on Exhibit "A" including the vote(s) of the former Operator and/or any transferee(s) of the former Operator's interest, to the extent that they are owners within the contract area; provided, however, if an Operator which has been removed or is deemed to have resigned fails to vote or votes only to succeed itself, the successor Operator shall be selected by the affirmative vote of the party or parties owning a majority interest based on ownership as shown on Exhibit "A" remaining after excluding the voting interest of the Operator that was removed or resigned. In the event that such vote results in a tie, the candidate supported by the former Operator or the majority of its transferee(s), shall become the successor Operator. The former Operator shall promptly deliver to the successor Operator all records and data relating to the operations conducted by the former Operator to the extent such records and data are not already in the possession of the successor Operator. Any cost of obtaining or copying the former Operator's records and data shall be charged to the joint account.

7. **Effective Date and Time of Resignation or Removal of Operator:** In the event of the resignation or removal of Operator, pursuant to any of Articles V.B.1-B.5, such resignation or removal shall become effective on the earlier of:

(a) The time and date that a successor Operator has been selected pursuant to Article V.B.6, and assumes the duties of Operator; or

(b) 7:00 o'clock A.M. on the first day of the calendar month following the expiration of ninety (90) days after the giving of notice of resignation by Operator, the event deemed to be Operator's resignation or action by the Non-Operators to remove Operator.

Thereafter, the former Operator shall be bound by the terms hereof as a Non-Operator to the extent it continues to be a party hereto.

C. Employees and Contractors:

The number of employees or contractors used by Operator in conducting operations hereunder, their selection, and the hours of labor and the compensation for services performed shall be determined by the Operator, and all such employees or contractors shall be the employees or contractors of Operator.

D. Rights and Duties of Operator:

1. **Competitive Rates and Use of Affiliates:** All wells drilled on the Contract Area shall be drilled on a competitive contract basis at the usual rates prevailing in the area. If it so desires, Operator may employ its own tools and equipment in the drilling of wells, but its charges therefor shall not exceed the prevailing rates in the area and the rate of such charges shall be agreed upon by the parties in writing before drilling operations are commenced, and such work shall be performed by Operator under the same terms and conditions as are customary and usual in the area in contracts of independent contractors who are doing work of a similar nature. All work performed or materials supplied by an Affiliate of Operator shall be performed or supplied at competitive rates, pursuant to written agreement, and in accordance with customs and standards prevailing in the industry.

2. **Discharge of Joint Account Obligations:** Except as herein otherwise specifically provided, Operator shall promptly pay and discharge expenses incurred in the development and operation of the Contract Area pursuant to this agreement and shall charge each of the parties hereto with their respective proportionate shares upon the expense basis provided in Exhibit "C." Operator shall keep an accurate record of the joint account hereunder, showing expenses incurred and charges and credits made and received.

3. **Protection from Liens:** Operator shall pay, or cause to be paid, as and when they become due and payable, all accounts of contractors and suppliers and wages and salaries for services rendered or performed, and for materials supplied on, to or in respect of the Contract Area or any operations for the joint account thereof, and shall keep the Contract Area free from liens and encumbrances resulting therefrom except for those resulting from a bona fide dispute as to services rendered or materials supplied.

4. **Custody of Funds:** Operator shall hold for the account of the Non-Operators any funds of the Non-Operators advanced or paid to the Operator, either for the conduct of operations hereunder or as a result of the sale of production from the Contract Area, and such funds shall remain the funds of the Non-Operators on whose account they are advanced or paid until used for their intended purpose or otherwise delivered to the Non-Operators or applied toward the payment of debts as provided in Article VII.B. Nothing in this paragraph shall be construed to establish a fiduciary relationship between Operator and Non-Operators for any purpose other than to account for Non-Operator funds as herein specifically provided. Nothing in this paragraph shall require the maintenance by Operator of separate accounts for the funds of Non-Operators unless the parties otherwise specifically agree.

5. **Access to Contract Area and Records:**

(a) Except as otherwise provided herein, Operator shall permit each Consenting Party or its duly authorized representative, at the Consenting Party's sole risk and cost, full and free access at all reasonable times to all operations of every kind and character being conducted for the joint account under this agreement and to the records of operations conducted thereon or production therefrom, including Operator's books and records relating thereto. Such access rights shall not be exercised in a manner interfering with Operator's conduct of an operation hereunder and shall not obligate Operator to furnish any geologic or geophysical data of an interpretive nature unless the cost of preparation of such interpretive data was charged to the joint account. Operator will furnish to each Non-Operator upon request copies of any and all reports and information obtained by Operator in connection with production and related items, including, without limitation, meter and chart reports, production purchaser statements, run tickets and monthly gauge reports, but excluding purchase contracts and pricing information to the extent not applicable to the production of the Non-Operator seeking the information.

(b) With the exception of the information required to be furnished by Operator pursuant to Article V.D.5(c) or VI.B.2(d), a Non-Consenting Party is neither entitled by virtue of this agreement to, nor may compel Operator or any Consenting Party to provide, access to the well location and information and reports (or parts thereof) solely relating to such non-consented operation until the earlier of full recoupment by the Consenting Parties of the amounts provided for in Article VI.B.2(b)(i) or two (2) years following the date the non-consented operation was commenced. Thereafter, Operator shall promptly furnish such access, information and reports upon receipt of a written request from the Non-Consenting Party.

(c) Any audit of Operator's records relating to amounts expended and the appropriateness of such expenditures shall be conducted in accordance with the audit protocol specified in Exhibit "C" or other agreement of the parties. Except as provided in Article VII.D.1, prior to a payout, a Non-Consenting Party shall be entitled to review the joint account records pertaining to a non-consented operation to the extent necessary to conduct an audit of the payout account. Any such review shall be conducted in accordance with Exhibit "C" or other agreement of the parties.

6. **Filing and Furnishing Governmental Reports:** Operator will file, and upon written request promptly furnish copies to each requesting Non-Operator not in default of its payment obligations, all operational notices, reports or applications required to be filed by local, State, Federal or Indian agencies or authorities having jurisdiction over operations hereunder. All such filings shall be made in accordance with the provisions of this agreement. Each Non-Operator shall provide to Operator on a timely basis all information necessary to Operator to make such filings.

7. **Drilling and Testing Operations:** The following provisions shall apply to each well drilled hereunder, including but not limited to the Initial Well:

(a) Operator will use reasonable efforts to promptly advise Non-Operators of the date on which drilling operations are commenced.

(b) Subject to the provisions of Article V.B.5, Operator will send to the Consenting Parties such reports, test results and notices regarding the progress of operations on the well as the Consenting Parties shall reasonably request, including, but not limited to, daily drilling reports, completion reports, and well logs.

(c) Operator shall adequately test all Zones encountered that are within the Contract Area which may reasonably be expected to be capable of producing Oil and Gas in paying quantities as a result of examination of the electric log or any other logs or cores or tests conducted hereunder.

(d) For any Horizontal Well drilled under this agreement, Operator shall drill such well to the objective Zone(s) and drill the Lateral in the Zone(s) to the proposed Displacement unless drilling operations are terminated pursuant to Article VI.G or Operator deems further drilling is neither justified nor required.

8. **Cost Estimates:** Upon written request of any Consenting Party, Operator shall furnish estimates of current and cumulative costs incurred for the joint account at reasonable intervals during the conduct of any operation pursuant to this agreement. Operator shall not be held liable for errors in such estimates so long as the estimates are made in good faith.

9. **Insurance:** At all times while operations are conducted hereunder, Operator shall comply with the workers compensation law of the state where the operations are being conducted; provided, however, that Operator may be a self-insurer for liability under said compensation laws in which event the only charge that shall be made to the joint account shall be as provided in Exhibit "C." Operator shall also carry or provide insurance for the benefit of the joint account of the parties as outlined in Exhibit "D" attached hereto and made a part hereof. Operator shall require all contractors engaged in work on or for the Contract Area to comply with the workers compensation law of the state where the operations are being conducted and to maintain such other insurance as Operator may require.

In the event automobile liability insurance is specified in said Exhibit "D," or subsequently receives the approval of the parties, no direct charge shall be made by Operator for premiums paid for such insurance for Operator's automotive equipment.

ARTICLE VI.

DRILLING AND DEVELOPMENT

A. Initial Well:

On or before the _____ day of _____, Operator shall commence the drilling of the Initial Well at the following location (if a Horizontal Well, surface and Terminus/Termini of the Lateral(s)); and shall thereafter continue the drilling of the well (horizontally if a Horizontal Well) with due diligence to The drilling of the Initial Well and the participation therein by all parties is obligatory, subject to Article VI.C.1. as to participation in Completion operations and Article VI.G. as to termination of operations and Article XI as to occurrence of force majeure.

B. Subsequent Operations:

1. **Proposed Operations:** If any party hereto should desire to drill any well under this agreement other than the Initial Well, or if any party should desire to Rework, Sidetrack, Deepen, Recomplete or Plug Back a dry hole or a well no longer capable of producing in paying quantities in which such party has not otherwise relinquished its interest in the proposed objective Zone under this agreement, the party desiring to drill, Rework, Sidetrack, Deepen, Recomplete or Plug Back such a well shall give a written proposal of the operation to the parties who have not otherwise relinquished their interest in such objective Zone under this agreement (and to all other parties in the case of a proposal for Sidetracking or Deepening as to a Vertical Well) specifying: (a) as relating to a Vertical Well, (1) that the proposed operation is a Vertical Well operation; (2) drilling and Completion plans specifying the proposed: (i) depth, (ii) surface and, if deviated, bottom hole locations, (iii) objective Zone, (iv) utilization and scheduling of rig(s) (drilling and Completion), and (v) stimulation operations, staging and sizing; and (3) estimated drilling and Completion costs as set forth in an AFE; or (b) as relating to a Horizontal Well, (1) that the proposed operation is a Horizontal Well operation; (2) include drilling and Completion plans specifying the proposed: (i) Total Measured Depth(s), (ii) surface hole location(s), (iii) Terminus/Termini, (iv) Displacement(s), (v) utilization and scheduling of rig(s) (Spudder Rig, drilling and Completion), and (vi) stimulation operations, staging and sizing; and (3) estimated drilling and Completion costs as set forth in an AFE. The parties to whom such a notice is delivered shall have thirty (30) days after receipt of the notice within which to notify the party proposing to do the work whether they elect to participate in the cost of the proposed operation. If a drilling rig is on location, notice of a proposal to Rework, Sidetrack, Recomplete, Plug Back or Deepen may be given by telephone and the response period shall be limited to forty-eight (48) hours, exclusive of Saturday, Sunday and legal holidays. Failure of a party to whom such notice is delivered to reply within the period above fixed shall constitute an election by that party not to participate in the cost of the proposed operation. Any proposal by a party to conduct an operation conflicting with the operation initially proposed shall be delivered to all parties within the time and in the manner provided in Article VI.B.7.

If all parties to whom such notice is delivered elect to participate in such a proposed operation, the parties shall be contractually committed to participate therein provided such operations are commenced within the time period hereafter set forth, and Operator shall, no later than ninety (90) days after expiration of the notice period of thirty (30) days (or as promptly as practicable after the expiration of the forty-eight (48) hour period when a drilling rig is on location, as the case may be), actually commence the proposed operation and thereafter complete it with due diligence at the risk and expense of the parties participating therein; provided, however, said commencement date may be extended upon written notice of same by Operator to the other parties, for a period of up to thirty (30) additional days if, in the sole opinion of Operator, such additional time is reasonably necessary to obtain permits from governmental authorities, surface rights (including rights-of-way) or appropriate drilling equipment, or to complete title examination or curative matter required for title approval or acceptance. If the actual operation has not been commenced within the time provided (including any extension thereof as specifically permitted herein or in the force majeure provisions of Article XI) and if any party

hereto still desires to conduct said operation, written notice proposing same must be resubmitted to the other parties in accordance herewith as if no prior proposal had been made. Those parties that did not participate in the drilling of a well for which a proposal to Deepen or Sidetrack is made hereunder shall, if such parties desire to participate in the proposed Deepening or Sidetracking operation, reimburse the Consenting Parties in accordance with Article VI.B.4. in the event of a Deepening operation and in accordance with Article VI.B.5. in the event of a Sidetracking operation.

2. Operations by Less Than All Parties:

(a) Determination of Participation. If any party to whom such notice is delivered as provided in Article VI.B.1. or VI.C.1. (Option No. 2) elects not to participate in the proposed operation, then, in order to be entitled to the benefits of this Article, the party or parties giving the notice and such other parties as shall elect to participate in the operation shall, no later than ninety (90) days after the expiration of the notice period of thirty (30) days (or as promptly as practicable after the expiration of the forty-eight (48) hour period when a drilling rig is on location, as the case may be) actually commence the proposed operation and complete it with due diligence. Operator shall perform all work for the account of the Consenting Parties; provided, however, if no drilling rig or other equipment is on location, and if Operator is a Non-Consenting Party, the Consenting Parties shall either: (i) request Operator to perform the work required by such proposed operation for the account of the Consenting Parties, or (ii) designate one of the Consenting Parties as Operator to perform such work. The rights and duties granted to and imposed upon the Operator under this agreement are granted to and imposed upon the party designated as Operator for an operation in which the original Operator is a Non-Consenting Party. Consenting Parties, when conducting operations pursuant to this Article VI.B.2., shall comply with all terms and conditions of this agreement.

If less than all parties approve any proposed operation, the proposing party, immediately after the expiration of the applicable notice period, shall advise all Parties of the total interest of the parties approving such operation and its recommendation as to whether the Consenting Parties should proceed with the operation as proposed. Each Consenting Party, within forty-eight (48) hours (exclusive of Saturday, Sunday, and legal holidays) after delivery of such notice, shall advise the proposing party of its desire to (i) limit participation to such party's interest as shown on Exhibit "A" or (ii) carry only its proportionate part (determined by dividing such party's interest in the Contract Area by the interests of all Consenting Parties in the Contract Area) of Non-Consenting Parties' interests, or (iii) carry its proportionate part (determined as provided in (ii)) of Non-Consenting Parties' interests together with all or a portion of its proportionate part of any Non-Consenting Parties' interests that any Consenting Party did not elect to take. Any interest of Non-Consenting Parties that is not carried by a Consenting Party shall be deemed to be carried by the party proposing the operation if such party does not withdraw its proposal. Failure to advise the proposing party within the time required shall be deemed an election under (i). In the event a drilling rig is on location, notice may be given by telephone, and the time permitted for such a response shall not exceed a total of forty-eight (48) hours (exclusive of Saturday, Sunday and legal holidays). The proposing party, at its election, may withdraw such proposal if there is less than 100% participation and shall notify all parties of such decision within ten (10) days, or within twenty-four (24) hours if a drilling rig is on location, following expiration of the applicable response period. If 100% subscription to the proposed operation is obtained, the proposing party shall promptly notify the Consenting Parties of their proportionate interests in the operation and the party serving as Operator shall commence such operation within the period provided in Article VI.B.1., subject to the same extension right as provided therein.

(b) Relinquishment of Interest for Non-Participation. The entire cost and risk of conducting such operations shall be borne by the Consenting Parties in the proportions they have elected to bear same under the terms of the preceding paragraph. Consenting Parties shall keep the leasehold estates involved in such operations free and clear of all liens and encumbrances of every kind created by or arising from the operations of the Consenting Parties. If such an operation results in a dry hole, then subject to Articles VI.B.7. and VI.E.3., the Consenting Parties shall plug and abandon the well and restore the surface location at their sole cost, risk and expense; provided, however, that those Non-Consenting Parties that participated in the drilling, Deepening or Sidetracking of the well shall remain liable for, and shall pay, their proportionate shares of the cost of plugging and abandoning the well and restoring the surface location insofar only as those costs were not increased by the subsequent operations of the Consenting Parties. If any well drilled, Reworked, Sidetracked, Deepened, Recompleted or Plugged Back under the provisions of this Article results in a well capable of producing Oil and/or Gas in paying quantities, the Consenting Parties shall Complete and equip the well to produce at their sole cost and risk, and the well shall then be turned over to Operator (if the Operator did not conduct the operation) and shall be operated by it at the expense and for the account of the Consenting Parties. Upon commencement of operations for the drilling, Reworking, Sidetracking, Recompleting, Deepening or Plugging Back of any such well by Consenting Parties in accordance with the provisions of this Article, each Non-Consenting Party shall be deemed to have relinquished to Consenting Parties, and the Consenting Parties shall own and be entitled to receive, in proportion to their respective interests, all of such Non-Consenting Party's interest in the well and share of production therefrom or, in the case of a Reworking, Sidetracking, Deepening, Recompleting or Plugging Back, or a Completion pursuant to Article VI.C.1. Option No. 2, all of such Non-Consenting Party's interest in the production obtained from the operation in which the Non-Consenting Party did not elect to participate. Such relinquishment shall be effective until the proceeds of the sale of such share, calculated at the well, or market value thereof if such share is not sold (after deducting applicable ad valorem, production, severance, and excise taxes, royalty, overriding royalty and other interests not excepted by Article III.C. payable out of or measured by the production from such well accruing with respect to such interest until it reverts), shall equal the total of the following:

(i) _____ % of each such Non-Consenting Party's share of the cost of any newly acquired surface equipment beyond the wellhead connections (including but not limited to stock tanks, separators, treaters, pumping equipment and piping), plus 100% of each such Non-Consenting Party's share of the cost of operation of the well commencing with first production and continuing until each such Non-Consenting Party's relinquished interest shall revert to it under other provisions of this Article, it being agreed that each Non-Consenting Party's share of such costs and equipment will be that interest which would have been chargeable to such Non-Consenting Party had it participated in the proposed operation; and

(ii) _____ % of (a) that portion of the costs and expenses of drilling, Reworking, Sidetracking, Deepening, Plugging Back, testing, Completing, and Recompleting, after deducting any cash contributions received under Article VIII.C., and of (b) that portion of the cost of newly acquired equipment in the well (to and including the wellhead connections), which would have been chargeable to such Non-Consenting Party if it had participated in the proposed operation.

Notwithstanding anything to the contrary in this Article VI.B., if the well does not reach the deepest objective Zone described in the notice proposing the well for reasons other than the encountering of granite or practically impenetrable substance or other condition in the hole rendering further operations impracticable, Operator shall give notice thereof to each Non-Consenting Party who submitted or voted for an alternative proposal under Article VI.B.7. to drill the well to a shallower Zone than the deepest objective Zone proposed in the notice under which the well was drilled, and each such Non-Consenting Party shall have the option to participate in the initial proposed Completion of the well by paying its share of the cost of drilling the well to its actual depth, calculated in the manner provided in Article VI.B.4.

(a). If any such Non-Consenting Party does not elect to participate in the first Completion proposed for such well, the relinquishment provisions of this Article VI.B.2.

(b) shall apply to such party's interest.

(c) Reworking, Recompleting or Plugging Back. An election not to participate in the drilling, Sidetracking or Deepening of a well shall be deemed an election not to participate in any Reworking or Plugging Back operation proposed in such a well, or portion thereof, to which the initial non-consent election applied that is conducted at any time prior to full recovery by the Consenting Parties of the Non-Consenting Party's recoupment amount. Similarly, an election not to participate in the Completing or Recompleting of a well shall be deemed an election not to participate in any Reworking operation proposed in such a well, or portion thereof, to which the initial non-consent election applied that is conducted at any time prior to full recovery by the Consenting Parties of the Non-Consenting Party's recoupment amount. Any such Reworking, Recompleting or Plugging Back operation conducted during the recoupment period shall be deemed part of the cost of operation of said well and there shall be added to the sums to be recouped by the Consenting Parties _____ % of that portion of the costs of the Reworking, Recompleting or Plugging Back operation which would have been chargeable to such Non-Consenting Party had it participated therein. If such a Reworking, Recompleting or Plugging Back operation is proposed during such recoupment period, the provisions of this Article VI.B. shall be applicable as between said Consenting Parties in said well.

(d) Recoupment Matters. During the period of time Consenting Parties are entitled to receive Non-Consenting Party's share of production, or the proceeds therefrom, Consenting Parties shall be responsible for the payment of all ad valorem, production, severance, excise, gathering and other taxes, and all royalty, overriding royalty and other burdens applicable to Non-Consenting Party's share of production not excepted by Article III.C.

In the case of any Reworking, Sidetracking, Plugging Back, Recompleting or Deepening operation, the Consenting Parties shall be permitted to use, free of cost, all casing, tubing and other equipment in the well, but the ownership of all such equipment shall remain unchanged; and upon abandonment of a well after such Reworking, Sidetracking, Plugging Back, Recompleting or Deepening, the Consenting Parties shall account for all such equipment to the owners thereof, with each party receiving its proportionate part in kind or in value, less cost of salvage.

Within ninety (90) days after the completion of any operation under this Article, the party conducting the operations for the Consenting Parties shall furnish each Non-Consenting Party with an inventory of the equipment in and connected to the well, and an itemized statement of the cost of drilling, Sidetracking, Deepening, Plugging Back, testing, Completing, Recompleting, and equipping the well for production; or, at its option, the operating party, in lieu of an itemized statement of such

costs of operation, may submit a detailed statement of monthly billings. Each month thereafter, during the time the Consenting Parties are being reimbursed as provided above, the party conducting the operations for the Consenting Parties shall furnish the Non-Consenting Parties with an itemized statement of all costs and liabilities incurred in the operation of the well, together with a statement of the quantity of Oil and Gas produced from it and the amount of proceeds realized from the sale of the well's working interest production during the preceding month. In determining the quantity of Oil and Gas produced during any month, Consenting Parties shall use industry accepted methods such as but not limited to metering or periodic well tests. Any amount realized from the sale or other disposition of equipment newly acquired in connection with any such operation which would have been owned by a Non-Consenting Party had it participated therein shall be credited against the total unreturned costs of the work done and of the equipment purchased in determining when the interest of such Non-Consenting Party shall revert to it as above provided; and if there is a credit balance, it shall be paid to such Non-Consenting Party.

If and when the Consenting Parties recover from a Non-Consenting Party's relinquished interest the amounts provided for above, the relinquished interests of such Non-Consenting Party shall automatically revert to it as of 7:00 a.m. on the day following the day on which such recoupment occurs, and, from and after such reversion, such Non-Consenting Party shall own the same interest in such well, the material and equipment in or pertaining thereto, and the production therefrom as such Non-Consenting Party would have been entitled to had it participated in the drilling, Sidetracking, Reworking, Deepening, Recompleting or Plugging Back of said well. Thereafter, such Non-Consenting Party shall be charged with and shall pay its proportionate part of the further costs of the operation of said well in accordance with the terms of this agreement and Exhibit "C" attached hereto.

3. **Stand-By Costs:** When a well which has been drilled or Deepened has reached its authorized depth and all tests have been completed and the results thereof furnished to the parties, or when operations on the well have been otherwise terminated pursuant to Article VI.G., stand-by costs incurred pending response to a party's notice proposing a Reworking, Sidetracking, Deepening, Recompleting, Plugging Back, Completing or Extension operation in such a well (including the period required under Article VI.B.7. to resolve competing proposals) shall be charged and borne as part of the drilling or Deepening operation just completed. Stand-by costs subsequent to all parties responding, or expiration of the response time permitted, whichever first occurs, and prior to agreement as to the participating interests of all Consenting Parties pursuant to the terms of the second grammatical paragraph of Article VI.B.2. (a), shall be charged to and borne as part of the proposed operation, but if the proposal is subsequently withdrawn because of insufficient participation, such stand-by costs shall be allocated between the Consenting Parties in the proportion each Consenting Party's interest as shown on Exhibit "A" bears to the total interest as shown on Exhibit "A" of all Consenting Parties.

In the event that notice for a Sidetracking operation is given while the drilling rig to be utilized is on location, any party may request and receive up to five (5) additional days after expiration of the forty-eight hour response period specified in Article VI.B.1. within which to respond by paying for all stand-by costs and other costs incurred during such extended response period; Operator may require such party to pay the estimated stand-by time in advance as a condition to extending the response period. If more than one party elects to take such additional time to respond to the notice, standby costs shall be allocated between the parties taking additional time to respond on a day-to-day basis in the proportion each electing party's interest as shown on Exhibit "A" bears to the total interest as shown on Exhibit "A" of all the electing parties.

4. **Deepening:** If less than all parties elect to participate in a drilling, Sidetracking, or Deepening operation proposed pursuant to Article VI.B.1., the interest relinquished by the Non-Consenting Parties to the Consenting Parties under Article VI.B.2. shall relate only and be limited to the lesser of (i) the total depth actually drilled or (ii) the objective depth or Zone of which the parties were given notice under Article VI.B.1. ("Initial Objective"). A Vertical Well shall not be Deepened beyond the Initial Objective without first complying with this Article to afford the Non-Consenting Parties the opportunity to participate in the Deepening operation.

In the event any Consenting Party desires to drill or Deepen a Non-Consent Well to a depth below the Initial Objective, such party shall give notice thereof, complying with the requirements of Article VI.B.1., to all parties (including Non-Consenting Parties). Thereupon, Articles VI.B.1. and 2. shall apply and all parties receiving such notice shall have the right to participate or not participate in the Deepening of such well pursuant to said Articles VI.B.1. and 2. If a Deepening operation is approved pursuant to such provisions, and if any Non-Consenting Party elects to participate in the Deepening operation, such Non-Consenting party shall pay or make reimbursement (as the case may be) of the following costs and expenses.

(a) If the proposal to Deepen is made prior to the Completion of such well as a well capable of producing in paying quantities, such Non-Consenting Party shall pay (or reimburse Consenting Parties for, as the case may be) that share of costs and expenses incurred in connection with the drilling of said well from the surface to the Initial Objective which Non-Consenting Party would have paid had such Non-Consenting Party agreed to participate therein, plus the Non-Consenting Party's share of the cost of Deepening and of participating in any further operations on the well in accordance with the other provisions of this agreement; provided, however, all costs for testing and Completion or attempted Completion of the well incurred by Consenting Parties prior to the point of actual operations to Deepen beyond the Initial Objective shall be for the sole account of Consenting Parties.

(b) If the proposal is made for a Non-Consent Well that has been previously Completed as a well capable of producing in paying quantities, but is no longer capable of producing in paying quantities, such Non-Consenting Party shall pay (or reimburse Consenting Parties for, as the case may be) its proportionate share of all costs of drilling, Completing, and equipping said well from the surface to the Initial Objective, calculated in the manner provided in paragraph (a) above, less those costs recouped by the Consenting Parties from the sale of production from the well. The Non-Consenting Party shall also pay its proportionate share of all costs of re-entering said well. The Non-Consenting Parties' proportionate part (based on the percentage of such well Non-Consenting Party would have owned had it previously participated in such Non-Consent Well) of the costs of salvable materials and equipment remaining in the hole and salvable surface equipment used in connection with such well shall be determined in accordance with Exhibit "C." If the Consenting Parties have recouped the cost of drilling, Completing, and equipping the well at the time such Deepening operation is conducted, then a Non-Consenting Party may participate in the Deepening of the well with no payment for costs incurred prior to re-entering the well for Deepening.

The foregoing shall not imply a right of any Consenting Party to propose any Deepening for a Non-Consent Well prior to the drilling of such well to its Initial Objective without the consent of the other Consenting Parties as provided in Article VI.G.

5. **Sidetracking:** Any party having the right to participate in a proposed Sidetracking operation that does not own an interest in the affected wellbore at the time of the notice shall, upon electing to participate, tender to the wellbore owners its proportionate share (equal to its interest in the Sidetracking operation) of the value of that portion of the existing wellbore to be utilized as follows:

(a) If the proposal is for Sidetracking an existing dry hole, reimbursement shall be on the basis of the actual costs incurred in the initial drilling of the well down to the depth at which the Sidetracking operation is initiated.

(b) If the proposal is for Sidetracking a well which has previously produced, reimbursement shall be on the basis of such party's proportionate share of drilling and equipping costs incurred in the initial drilling of the well down to the depth at which the Sidetracking operation is conducted, calculated in the manner described in Article VI.B.4(b) above. Such party's proportionate share of the cost of the well's salvable materials and equipment down to the depth at which the Sidetracking operation is initiated shall be determined in accordance with the provisions of Exhibit "C."

6. **Extension:** If, in the event that during actual drilling operations on the Lateral and prior to reaching the Displacement specified in an approved proposal for a Horizontal Well (the "Approved Displacement"), Operator desires an Extension of the Lateral more than ____% (measured in feet) beyond the Approved Displacement, Operator shall give the Consenting Parties written notice of such intent to Extend, together with the estimated costs, not less than 24 hours before Operator estimates reaching the Approved Displacement. Unless at least ____% interest of the Consenting Parties provide written notice of their consent to the Extension within 48 hours of receipt of such notice, Operator shall not Extend the Lateral beyond the Approved Displacement and will proceed with Completion in accordance with the latest approved proposal and applicable terms and conditions of this agreement. Failure of a Consenting Party to respond to such notice shall be deemed a rejection. If ____% interest of the Consenting Parties or more consent, the Extension shall be deemed approved and binding upon all Consenting Parties.

7. **Order of Preference of Operations:** Except as otherwise specifically provided in this agreement, if any party desires to propose the conduct of an operation that conflicts with a proposal that has been made by a party under this Article VI, such party shall have fifteen (15) days from delivery of the initial proposal, in the case of a proposal to drill a well or to perform an operation on a well where no drilling rig is on location, or twenty-four (24) hours, exclusive of Saturday, Sunday and legal holidays, from delivery of the initial proposal, if a drilling rig is on location for the well on which such operation is to be conducted, to deliver to all parties entitled to participate in the proposed operation such party's alternative proposal, such alternate proposal to contain

the same information required to be included in the initial proposal. Each party receiving such proposals shall elect by delivery of notice to Operator within five (5) days after expiration of the proposal period, or within twenty-four (24) hours (exclusive of Saturday, Sunday and legal holidays) if a drilling rig is on location for the well that is the subject of the proposals, to participate in one of the competing proposals. Any party not electing within the time required shall be deemed not to have voted. The proposal receiving the vote of parties owning the largest aggregate percentage interest of the parties voting shall have priority over all other competing proposals; in the case of a tie vote, the initial proposal shall prevail. Operator shall deliver notice of such result to all parties entitled to participate in the operation within five (5) days after expiration of the election period (or within twenty-four (24) hours, exclusive of Saturday, Sunday and legal holidays, if a drilling rig is on location). Each party shall then have two (2) days (or twenty-four (24) hours if a rig is on location) from receipt of such notice to elect by delivery of notice to Operator to participate in such operation or to relinquish interest in the affected well pursuant to the provisions of Article VI.B.2.; failure by a party to deliver notice within such period shall be deemed an election not to participate in the prevailing proposal.

8. Conformity to Spacing Pattern: Notwithstanding the provisions of this Article VI.B.2., it is agreed that no wells shall be proposed to be drilled to or Completed in or produced from a Zone from which a well located elsewhere on the Contract Area is producing, unless such well conforms to the then-existing well spacing pattern for such Zone, including such well having been approved as an exception to the existing well pattern for such Zone by the regulatory agency having jurisdiction thereof.

9. Paying Wells: No party shall conduct any Reworking, Deepening, Plugging Back, Completion, Recompletion, Sidetracking, or Extension operation under this agreement with respect to any well then capable of producing in paying quantities except with the consent of all parties that have not relinquished interests in the well at the time of such operation.

10. Spudder Rigs:

(a) Within Approved Horizontal Well proposals (i.e. proposals which include an approved AFE). If an approved Horizontal Well proposal provides that a Spudder Rig shall be utilized, and Operator desires to extend the proposed Horizontal Rig Move-On Period, Operator may obtain one or more extensions, each for a period of time not to exceed ___ days only upon notice and the affirmative vote of not less than ___% in interest of the Consenting Parties to the drilling of the proposed well.

(b) Not Within Approved Horizontal Well proposals. If an approved Horizontal Well proposal does not provide that a Spudder Rig may be utilized, and Operator subsequently desires to utilize a Spudder Rig, Operator may utilize a Spudder Rig upon notice to the Consenting Parties (which notice shall include a Horizontal Rig Move-On Period) and the affirmative vote of not less than ___% in interest of the Consenting Parties. Extension(s) of the Horizontal Rig Move-On Period may be requested by Operator in the same manner as provided in Article VI.B.10.(a) immediately above.

(c) Failure to meet Horizontal Rig Move-On Period. If a rig capable of drilling a Horizontal Well to its Total Measured Depth has not commenced operations within the Horizontal Rig Move-On Period, or any approved extension(s) thereof, unless ___% in interest of the Consenting Parties agree to abandon the operation, Operator shall re-propose the well in the manner provided in Article VI.B of this agreement. Any party who was a Non-Consenting Party to the original drilling proposal shall be entitled to a new election. Costs of the operation, incurred both before and after such re-proposal, shall be borne as follows:

(1) Operator shall promptly reimburse all unused funds previously advanced for the drilling of the well to each party who advanced such unused funds;

(2) If the well's drilling operations are subsequently resumed, all costs, whether incurred before or after the re-proposal, shall be borne by the Consenting Parties to the re-proposed well; and, the Consenting Parties shall proportionately reimburse each party who consented to the original proposal but did not consent to the re-proposal such party's share of costs incurred prior to the re-proposal.

(3) If the well's drilling operations are not subsequently resumed pursuant to a re-proposal as herein provided, all costs incurred prior to the re-proposal, and all costs of abandonment, shall be borne and paid by the original Consenting Parties.

(d) Commencement of Operations. For purposes of Article VI.B., and subject to the provisions of this sub-section 10, the date a Spudder Rig commences actual drilling operations shall be considered the commencement of drilling operations of the proposed well.

11. Multi-well Pads: If multiple Horizontal Wells are drilled or proposed to be drilled from a single pad or location, the costs of such pad or location shall be allocated, and/or reallocated as necessary, to the Consenting Parties of each of the wells thereon.

C. Completion of Wells; Reworking and Plugging Back:

1. Completion: Without the consent of all parties, no well shall be drilled, Deepened or Sidetracked, except any well drilled, Deepened or Sidetracked pursuant to the provisions of Article VI.B.2. of this agreement. Consent to the drilling, Deepening or Sidetracking shall include:

☐ Option No. 1: All necessary expenditures for the drilling, Deepening or Sidetracking, testing, Completion and equipping of the well, including tankage and/or surface facilities.

☐ Option No. 2: All necessary expenditures for the drilling, Deepening or Sidetracking and testing of a Vertical Well. When such well has reached its authorized depth, and all logs, cores and other tests have been completed, and the results thereof furnished to the parties, Operator shall give immediate notice to the Non-Operators having the right to participate in a Completion attempt whether or not Operator recommends attempting to Complete the well, together with Operator's AFE for Completion costs if not previously provided. The parties receiving such notice shall have forty-eight (48) hours (exclusive of Saturday, Sunday and legal holidays) in which to elect by delivery of notice to Operator to participate in a recommended Completion attempt or to make a Completion proposal with an accompanying AFE. Operator shall deliver any such Completion proposal, or any Completion proposal conflicting with Operator's proposal, to the other parties entitled to participate in such Completion in accordance with the procedures specified in Article VI.B.7. Election to participate in a Completion attempt shall include consent to all necessary expenditures for the Completing and equipping of such well, including necessary tankage and/or surface facilities but excluding any stimulation operation not contained on the Completion AFE. Failure of any party receiving such notice to reply within the period above fixed shall constitute an election by that party not to participate in the cost of the Completion attempt; provided, that Article VI.B.7. shall control in the case of conflicting Completion proposals. If one or more, but less than all of the parties, elect to attempt a Completion, the provision of Article VI.B.2. hereof (the phrase "Reworking, Sidetracking, Deepening, Recompleting or Plugging Back" as contained in Article VI.B.2. shall be deemed to include "Completing") shall apply to the operations thereafter conducted by less than all parties; provided, however, that Article VI.B.2. shall apply separately to each separate Completion or Recompletion attempt undertaken hereunder, and an election to become a Non-Consenting Party as to one Completion or Recompletion attempt shall not prevent a party from becoming a Consenting Party in subsequent Completion or Recompletion attempts regardless whether the Consenting Parties as to earlier Completions or Recompletion have recouped their costs pursuant to Article VI.B.2.; provided further, that any recoupment of costs by a Consenting Party shall be made solely from the production attributable to the Zone in which the Completion attempt is made. Election by a previous Non-Consenting party to participate in a subsequent Completion or Recompletion attempt shall require such party to pay its proportionate share of the cost of salvable materials and equipment installed in the well pursuant to the previous Completion or Recompletion attempt, insofar and only insofar as such materials and equipment benefit the Zone in which such party participates in a Completion attempt.

Notwithstanding anything to the contrary, including the selection of Option 2 above, or anything else in this agreement, Option 1 shall apply to all Horizontal Wells.

2. Rework, Recomplete or Plug Back: No well shall be Reworked, Recompleted or Plugged Back except a well Reworked, Recompleted, or Plugged Back pursuant to the provisions of Article VI.B.2. of this agreement. Consent to the Reworking, Recompleting or Plugging Back of a well shall include all necessary expenditures in conducting such operations and Completing and equipping of said well, including necessary tankage and/or surface facilities.

D. Other Operations:

Operator shall not undertake any single project reasonably estimated to require an expenditure in excess of _____ Dollars (\$_____) except in connection with the drilling, Sidetracking, Reworking, Deepening, Completing, Recompleting or Plugging Back of a well that has been previously authorized by or pursuant to this agreement; provided, however, that, in case of explosion, fire, flood or other sudden emergency, whether of the same or different nature, Operator may take such steps and incur such expenses as in its opinion are required to deal with the emergency to safeguard life and property but Operator, as promptly as possible, shall report the emergency to the other parties. If Operator prepares an AFE for its own use, Operator shall furnish any Non-Operator so requesting an information copy thereof for any single project costing in excess of _____ Dollars (\$_____) Any party who has not relinquished its interest in a well shall have the right to propose that Operator perform a Workover operation or undertake the installation of artificial lift equipment or to conduct additional work with respect to a well drilled hereunder or other similar project reasonably estimated to require an expenditure in excess of the amount first set forth above in this Article VI.D. (except in connection with an operation required to be proposed under Articles VI.B.1. or VI.C.1. Option No. 2, which shall be governed exclusively by those Articles). Operator shall deliver such proposal to all parties entitled to participate therein. If within thirty (30) days thereof Operator secures the written consent of any party or parties owning at least _____ % of the interests of the parties entitled to participate in such operation, each party having the right to participate in such project shall be bound by the terms of such proposal and shall be obligated to pay its proportionate share of the costs of the proposed project as if it had consented to such project pursuant to the terms of the proposal. Facilities other than those exclusively servicing and benefiting the Contract Area shall be governed by separate agreement.

E. Deviations from Approved Proposals:

If Operator, in its reasonable judgment, deviates from an approved proposal based upon information derived from facts and circumstances determined subsequent to the commencement of the operations relating to such proposal (including, without limitation, revision of the originally proposed Completion staging and design), such deviations in and of themselves will not result in liability of the Operator to the Parties.

F. Abandonment of Wells:

1. Abandonment of Dry Holes: Except for any well drilled, Deepened or Sidetracked pursuant to Article VI.B., any well which has been drilled, Deepened or Sidetracked under the terms of this agreement and is proposed to be completed as a dry hole shall not be plugged and abandoned without the consent of all parties owning an interest in the well at the time of the dry hole completion proposal. Should Operator, after diligent effort, be unable to contact any party, or should any party fail to reply within thirty (30) days or, if a drilling rig is on location, within forty-eight (48) hours (exclusive of Saturday, Sunday and legal holidays) after delivery of notice of the proposal to plug and abandon such well, such party shall be deemed to have consented to the proposed abandonment. All such wells shall be plugged and abandoned in accordance with applicable regulations and at the cost, risk and expense of the parties who participated in the cost of drilling or Deepening such well. Any party who objects to plugging and abandoning such well by notice delivered to Operator within thirty (30) days or forty-eight (48) hours (exclusive of Saturday, Sunday and legal holidays), whichever is applicable, after delivery of notice of the proposed plugging shall take over the well as of the end of such thirty (30) day or forty-eight (48) hour notice period, whichever is applicable, and conduct further operations in search of Oil and/or Gas subject to the provisions of Article VI.B.; failure of such party to provide proof reasonably satisfactory to Operator of its financial capability to conduct such operations or to take over the well within such period or thereafter to conduct operations on such well or plug and abandon such well shall entitle Operator to retain or take possession of the well and plug and abandon the well. The party taking over the well shall indemnify Operator (if Operator is an abandoning party) and the other abandoning parties against liability for any further operations conducted on such well except for the costs of plugging and abandoning the well and restoring the surface, for which the abandoning parties shall remain proportionately liable.

2. Abandonment of Wells That Have Produced: Except for any well in which a Non-Consent operation has been conducted hereunder for which the Consenting Parties have not been fully reimbursed as herein provided, any party may propose that a well which has been completed as a producer be plugged and abandoned; provided, however, that such a well may not be plugged and abandoned without the consent of all parties. If all parties consent to such abandonment, the well shall be plugged and abandoned in accordance with applicable regulations and at the cost, risk and expense of all the parties hereto. Failure of a party to reply within sixty (60) days of delivery of notice of proposed abandonment shall be deemed an election to consent to the proposal. If, within sixty (60) days after delivery of notice of the proposed abandonment of any well, all parties do not agree to the abandonment of such well, those wishing to continue its operation from the Zone then open to production shall be obligated to take over the well as of the expiration of the applicable notice period and shall indemnify Operator (if Operator is an abandoning party) and the other abandoning parties against liability for any further operations on the well conducted by such parties. Failure of such party or parties to provide proof reasonably satisfactory to Operator of their financial capability to conduct such operations or to take over the well within the required period or thereafter to conduct operations on such well shall entitle operator to retain or take possession of such well and plug and abandon the well.

Parties taking over a well as provided herein shall tender to each of the other parties its proportionate share of the value of the well's salvable material and equipment, determined in accordance with the provisions of Exhibit "C," less the estimated cost of salvaging and the estimated cost of plugging and abandoning and restoring the surface; provided, however, that in the event the estimated plugging and abandoning and surface restoration costs and the estimated cost of salvaging are higher than the value of the well's salvable material and equipment, each of the abandoning parties shall tender to the parties continuing operations their proportionate shares of the estimated excess cost. Each abandoning party shall assign to the non-abandoning parties, without warranty, express or implied, as to title or as to quantity, or fitness for use of the equipment and material, all of its interest in the wellbore of the well and related equipment, together with its interest in the Leasehold insofar and only insofar as such Leasehold covers the right to obtain production from that wellbore in the Zone then open to production. If the interest of the abandoning party is or includes an Oil and Gas Interest, such party shall execute and deliver to the non-abandoning party or parties an oil and gas lease, limited to the wellbore and the Zone then open to production, for a term of one (1) year and so long thereafter as Oil and/or Gas is produced from the Zone covered thereby, such lease to be on the form attached as Exhibit "B." The assignments or leases so limited shall encompass the Drilling Unit upon which the well is located. The payments by, and the assignments or leases to, the assignees shall be in a ratio based upon the relationship of their respective percentage of participation in the Contract Area to the aggregate of the percentages of participation in the Contract Area of all assignees. All such assigned interests shall be free and clear of Subsequently Created Interests. There shall be no readjustment of interests in the remaining portions of the Contract Area.

Thereafter, abandoning parties shall have no further responsibility, liability, or interest in the operation of or production from the well in the Zone then open other than the royalties retained in any lease made under the terms of this Article. Upon request, Operator shall continue to operate the assigned well for the account of the non-abandoning parties at the rates and charges contemplated by this agreement, plus any additional cost and charges which may arise as the result of the separate ownership of the assigned well. Upon proposed abandonment of the producing Zone assigned or leased, the assignor or lessor shall then have the option to repurchase its prior interest in the well (using the same valuation formula) and participate in further operations therein subject to the provisions hereof.

3. Abandonment of Non-Consent Operations: The provisions of Article VI.F.1. or VI.F.2. above shall be applicable as between Consenting Parties in the event of the proposed abandonment of any well excepted from said Articles; provided, however, no well shall be permanently plugged and abandoned unless and until all parties having the right to conduct further operations therein have been notified of the proposed abandonment and afforded the opportunity to elect to take over the well in accordance with the provisions of this Article VI.F.; and provided further, that Non-Consenting Parties who own an interest in a portion of the well shall pay their proportionate shares of abandonment and surface restoration cost for such well as provided in Article VI.B.2.(b).

G. Termination of Operations:

Upon the commencement of an operation for the drilling, Reworking, Sidetracking, Plugging Back, Deepening, testing, Completion, Extension or plugging of a well, including but not limited to the Initial Well, such operation shall not be terminated without consent of parties bearing _____% of the costs of such operation; provided, however, that in the event granite or other practically impenetrable substance or condition in the hole is encountered which renders further operations impractical, Operator may discontinue operations and give notice of such condition in the manner provided in Article VI.B.1, and the provisions of Article VI.B. or VI.F. shall thereafter apply to such operation, as appropriate.

H. Taking Production in Kind:

☐ Option No. 1: Gas Balancing Agreement Attached

Each party shall take in kind or separately dispose of its proportionate share of all Oil and Gas produced from the Contract Area, exclusive of production which may be used in development and producing operations and in preparing and treating Oil and Gas for marketing purposes and production unavoidably lost. Any extra expenditure incurred in the taking in kind or separate disposition by any party of its proportionate share of the production shall be borne by such party. Any party taking its share of production in kind shall be required to pay for only its proportionate share of such part of Operator's surface facilities which it uses.

Each party shall execute such division orders and contracts as may be necessary for the sale of its interest in production from the Contract Area, and, except as provided in Article VII.B., shall be entitled to receive payment directly from the purchaser thereof for its share of all production.

If any party fails to make the arrangements necessary to take in kind or separately dispose of its proportionate share of the Oil produced from the Contract Area, Operator shall have the right, subject to the revocation at will by the party owning it, but not the obligation, to purchase such Oil or sell it to others at any time and from time to time, for the account of the non-taking party. Any such purchase or sale by Operator may be terminated by Operator upon at least ten (10) days written notice to the owner of said production and shall be subject always to the right of the owner of the production upon at least ten (10) days written notice to Operator to exercise at any time its right to take in kind, or separately dispose of, its share of all Oil not previously delivered to a purchaser. Any purchase or sale by Operator of any other party's share of Oil shall be only for such reasonable periods of time as are consistent with the minimum needs of the industry under the particular circumstances, but in no event for a period in excess of one (1) year.

Any such sale by Operator shall be in a manner commercially reasonable under the circumstances but Operator shall have no duty to share any existing market or to obtain a price equal to that received under any existing market. The sale or delivery by Operator of a non-taking party's share of Oil under the terms of any existing contract of Operator shall not give the non-taking party any interest in or make the non-taking party a party to said contract. No purchase shall be made by Operator without first giving the non-taking party at least ten (10) days written notice of such intended purchase and the price to be paid or the pricing basis to be used.

All parties shall give timely written notice to Operator of their Gas marketing arrangements for the following month, excluding price, and shall notify Operator immediately in the event of a change in such arrangements. Operator shall maintain records of all marketing arrangements, and of volumes actually sold or transported, which records shall be made available to Non-Operators upon reasonable request.

In the event one or more parties' separate disposition of its share of the Gas causes split-stream deliveries to separate pipelines and/or deliveries which on a day-to-day basis for any reason are not exactly equal to a party's respective proportionate share of total Gas production available for sale to be allocated to it, the balancing or accounting between the parties shall be in accordance with any Gas balancing agreement between the parties hereto, whether such an agreement is attached as Exhibit "E" or is a separate agreement. Operator shall give notice to all parties of the first sales of Gas from any well under this agreement.

☐ **Option No. 2: No Gas Balancing Agreement:**

Each party shall take in kind or separately dispose of its proportionate share of all Oil and Gas produced from the Contract Area, exclusive of production which may be used in development and producing operations and in preparing and treating Oil and Gas for marketing purposes and production unavoidably lost. Any extra expenditures incurred in the taking in kind or separate disposition by any party of its proportionate share of the production shall be borne by such party. Any party taking its share of production in kind shall be required to pay for only its proportionate share of such part of Operator's surface facilities which it uses.

Each party shall execute such division orders and contracts as may be necessary for the sale of its interest in production from the Contract Area, and, except as provided in Article VII.B., shall be entitled to receive payment directly from the purchaser thereof for its share of all production.

If any party fails to make the arrangements necessary to take in kind or separately dispose of its proportionate share of the Oil and/or Gas produced from the Contract Area, Operator shall have the right, subject to the revocation at will by the party owning it, but not the obligation, to purchase such Oil and/or Gas or sell it to others at any time and from time to time, for the account of the non-taking party. Any such purchase or sale by Operator may be terminated by Operator upon at least ten (10) days written notice to the owner of said production and shall be subject always to the right of the owner of the production upon at least ten (10) days written notice to Operator to exercise its right to take in kind, or separately dispose of, its share of all Oil and/or Gas not previously delivered to a purchaser; provided, however, that the effective date of any such revocation may be deferred at Operator's election for a period not to exceed ninety (90) days if Operator has committed such production to a purchase contract having a term extending beyond such ten (10) -day period. Any purchase or sale by Operator of any other party's share of Oil and/or Gas shall be only for such reasonable periods of time as are consistent with the minimum needs of the industry under the particular circumstances, but in no event for a period in excess of one (1) year.

Any such sale by Operator shall be in a manner commercially reasonable under the circumstances, but Operator shall have no duty to share any existing market or transportation arrangement or to obtain a price or transportation fee equal to that received under any existing market or transportation arrangement. The sale or delivery by Operator of a non-taking party's share of production under the terms of any existing contract of Operator shall not give the non-taking party any interest in or make the non-taking party a party to said contract. No purchase of Oil and Gas and no sale of Gas shall be made by Operator without first giving the non-taking party ten days written notice of such intended purchase or sale and the price to be paid or the pricing basis to be used. Operator shall give notice to all parties of the first sale of Gas from any well under this agreement.

All parties shall give timely written notice to Operator of their Gas marketing arrangements for the following month, excluding price, and shall notify Operator immediately in the event of a change in such arrangements. Operator shall maintain records of all marketing arrangements, and of volumes actually sold or transported, which records shall be made available to Non-Operators upon reasonable request.

ARTICLE VII.

EXPENDITURES AND LIABILITY OF PARTIES

A. Liability of Parties:

The liability of the parties shall be several, not joint or collective. Each party shall be responsible only for its obligations, and shall be liable only for its proportionate share of the costs of developing and operating the Contract Area. Accordingly, the liens granted among the parties in Article VII.B. are given to secure only the debts of each severally, and no party shall have any liability to third parties hereunder to satisfy the default of any other party in the payment of any expense or obligation hereunder. It is not the intention of the parties to create, nor shall this agreement be construed as creating, a mining or other partnership, joint venture, agency relationship or association, or to render the parties liable as partners, co-venturers, or principals. In their relations with each other under this agreement, the parties shall not be considered fiduciaries or to have established a confidential relationship but rather shall be free to act on an arm's-length basis in accordance with their own respective self-interest, subject, however, to the obligation of the parties to act in good faith in their dealings with each other with respect to activities hereunder.

B. Liens and Security Interests:

Each party grants to the other parties hereto a lien upon any interest it now owns or hereafter acquires in Oil and Gas Leases and Oil and Gas Interests in the Contract Area, and a security interest and/or purchase money security interest in any interest it now owns or hereafter acquires in the personal property and fixtures on or used or obtained for use in connection therewith, to secure performance of all of its obligations under this agreement including but not limited to payment of expense, interest and fees, the proper disbursement of all monies paid hereunder, the assignment or relinquishment of interest in Oil and Gas Leases as required hereunder, and the proper performance of operations hereunder. Such lien and security interest granted by each party hereto shall include such party's leasehold interests, working interests, operating rights, and royalty and overriding royalty interests in the Contract Area now owned or hereafter acquired and in lands pooled or unitized therewith or otherwise becoming subject to this agreement, the Oil and Gas when extracted therefrom and equipment situated thereon or used or obtained for use in connection therewith (including, without limitation, all wells, tools, and tubular goods), and accounts (including, without limitation, accounts arising from gas imbalances or from the sale of Oil and/or Gas at the wellhead), contract rights, inventory and general intangibles relating thereto or arising therefrom, and all proceeds and products of the foregoing.

To perfect the lien and security agreement provided herein, each party hereto shall execute and acknowledge the recording supplement and/or any financing statement prepared and submitted by any party hereto in conjunction herewith or at any time following execution hereof, and Operator is authorized to file this agreement or the recording supplement executed herewith as a lien or mortgage in the applicable real estate records and as a financing statement with the proper officer under the Uniform Commercial Code in the state in which the Contract Area is situated and such other states as Operator shall deem appropriate to perfect the security interest granted hereunder. Any party may file this agreement, the recording supplement executed herewith, or such other documents as it deems necessary as a lien or mortgage in the applicable real estate records and/or a financing statement with the proper officer under the Uniform Commercial Code.

Each party represents and warrants to the other parties hereto that the lien and security interest granted by such party to the other parties shall be a first and prior lien, and each party hereby agrees to maintain the priority of said lien and security interest against all persons acquiring an interest in Oil and Gas Leases and Interests covered by this agreement by, through or under such party. All parties acquiring an interest in Oil and Gas Leases and Oil and Gas Interests covered by this agreement, whether by assignment, merger, mortgage, operation of law, or otherwise, shall be deemed to have taken subject to the lien and security interest granted by this Article VII.B. as to all obligations attributable to such interest hereunder whether or not such obligations arise before or after such interest is acquired.

To the extent that parties have a security interest under the Uniform Commercial Code of the state in which the Contract Area is situated, they shall be entitled to exercise the rights and remedies of a secured party under the Code. The bringing of a suit and the obtaining of judgment by a party for the secured indebtedness shall not be deemed an election of remedies or otherwise affect the lien rights or security interest as security for the payment thereof. In addition, upon default by any party in the payment of its share of expenses, interests, fees or other financial obligations under this agreement, or upon the improper use of funds by a party, the other parties shall have the right, without prejudice to other rights or remedies, to collect from the purchaser the proceeds from the sale of such defaulting party's share of Oil and Gas until the amount owed by such party, plus interest as provided in "Exhibit C," has been received, and shall have the right to offset the amount owed against the proceeds from the sale of such defaulting party's share of Oil and Gas. All purchasers of production may rely on a notification of default from the non-defaulting party or parties stating the amount due as a result of the default, and all parties waive any recourse available against purchasers for releasing production proceeds as provided in this paragraph.

If any party fails to pay its share of cost within one hundred twenty (120) days after rendition of a statement therefor by Operator, the non-defaulting parties, including Operator, shall upon request by Operator, pay the unpaid amount in the proportion that the interest of each such party bears to the interest of all such parties. The amount paid by each party so paying its share of the unpaid amount shall be secured by the liens and security rights described in Article VII.B., and each paying party may independently pursue any remedy available hereunder or otherwise.

If any party does not perform all of its obligations hereunder, and the failure to perform subjects such party to foreclosure or execution proceedings pursuant to the provisions of this agreement, to the extent allowed by governing law, the defaulting party waives any available right of redemption from and after the date of judgment, any required valuation or appraisal of the mortgaged or secured property prior to sale, any available right to stay execution or to require a marshaling of assets and any required bond in the event a receiver is appointed. In addition, to the extent permitted by applicable law, each party hereby grants to the other parties a power of sale as to any property that is subject to the lien and security rights granted hereunder, such power to be exercised in the manner provided by applicable law or otherwise in a commercially reasonable manner and upon reasonable notice.

Each party agrees that the other parties shall be entitled to utilize the provisions of Oil and Gas lien law or other lien law of any state in which the Contract Area is situated to enforce the obligations of each party hereunder. Without limiting the generality of the foregoing, to the extent permitted by applicable law, Non-Operators agree that Operator may invoke or utilize the mechanics' or materialmen's lien law of the state in which the Contract Area is situated in order to secure the payment to Operator of any sum due hereunder for services performed or materials supplied by Operator.

C. Advances:

Operator, at its election, shall have the right from time to time to demand and receive from one or more of the other parties payment in advance of their respective shares of the estimated amount of the expense to be incurred in operations hereunder during the next succeeding month, which right may be exercised only by submission to each such party of an itemized statement of such estimated expense, together with an invoice for its share thereof. Each such statement and invoice for the payment in advance of estimated expense shall be submitted on or before the 20th day of the next preceding month. Each party shall pay to Operator its proportionate share of such estimate within thirty (30) days after such estimate and invoice is received. If any party fails to pay its share of said estimate within said time, the amount due shall bear interest as provided in Exhibit "C" until paid. Proper adjustment shall be made monthly between advances and actual expense to the end that each party shall bear and pay its proportionate share of actual expenses incurred, and no more.

D. Defaults and Remedies:

If any party fails to discharge any financial obligation under this agreement, including without limitation the failure to make any advance under the preceding Article VII.C. or any other provision of this agreement, within the period required for such payment hereunder, then in addition to the remedies provided in Article VII.B. or elsewhere in this agreement, the remedies specified below shall be applicable. For purposes of this Article VII.D., all notices and elections shall be delivered only by Operator, except that Operator shall deliver any such notice and election requested by a non-defaulting Non-Operator, and when Operator is the party in default, the applicable notices and elections can be delivered by any Non-Operator. Election of any one or more of the following remedies shall not preclude the subsequent use of any other remedy specified below or otherwise available to a non-defaulting party.

1. **Suspension of Rights:** Any party may deliver to the party in default a Notice of Default, which shall specify the default, specify the action to be taken to cure the default, and specify that failure to take such action will result in the exercise of one or more of the remedies provided in this Article. If the default is not cured within thirty (30) days of the delivery of such Notice of Default, all of the rights of the defaulting party granted by this agreement may upon notice be suspended until the default is cured, without prejudice to the right of the non-defaulting party or parties to continue to enforce the obligations of the defaulting party previously accrued or thereafter accruing under this agreement. If Operator is the party in default, the Non-Operators shall have in addition the right, by vote of Non-Operators owning a majority in interest in the Contract Area after excluding the voting interest of Operator, to appoint a new Operator effective immediately. The rights of a defaulting party that may be suspended hereunder at the election of the non-defaulting parties shall include, without limitation, the right to receive information as to any operation conducted hereunder during the period of such default, the right to elect to participate in an operation proposed under Article VI.B. of this agreement, the right to participate in an operation being conducted under this agreement even if the party has previously elected to participate in such operation, and the right to receive proceeds of production from any well subject to this agreement.

2. **Suit for Damages:** Non-defaulting parties or Operator for the benefit of non-defaulting parties may sue (at joint account expense) to collect the amounts in default, plus interest accruing on the amounts recovered from the date of default until the date of collection at the rate specified in Exhibit "C" attached hereto. Nothing herein shall prevent any party from suing any defaulting party to collect consequential damages accruing to such party as a result of the default.

3. **Deemed Non-Consent:** The non-defaulting party may deliver a written Notice of Non-Consent Election to the defaulting party at any time after the expiration of the thirty-day cure period following delivery of the Notice of Default, in which event if the billing is for the drilling a new well or the Plugging Back, Sidetracking, Reworking or Deepening of a well which is to be or has been plugged, or for the Completion or Recompletion of any well, the defaulting party will be conclusively deemed to have elected not to participate in the operation and to be a Non-Consenting Party with respect thereto under Article VI.B. or VI.C., as the case may be, to the extent of the costs unpaid by such party, notwithstanding any election to participate theretofore made. If election is made to proceed under this provision, then the non-defaulting parties may not elect to sue for the unpaid amount pursuant to Article VII.D.2.

Until the delivery of such Notice of Non-Consent Election to the defaulting party, such party shall have the right to cure its default by paying its unpaid share of costs plus interest at the rate set forth in Exhibit "C," provided, however, such payment shall not prejudice the rights of the non-defaulting parties to pursue remedies for damages incurred by the non-defaulting parties as a result of the default. Any interest relinquished pursuant to this Article VII.D.3. shall be offered to the non-defaulting consenting parties in proportion to their interests, and the non-defaulting parties electing to participate in the ownership of such interest shall be required to contribute their shares of the defaulted amount upon their election to participate therein.

Notwithstanding the foregoing, to the extent that all or any part of the risk penalty to be recovered pursuant to Article VI.B. or Article VI.C., as the case may be, in connection with the provisions of this Article VII.B.3, is determined to constitute interest on a debt, such interest shall not exceed the maximum amount of

non-usurious interest that may be contracted for, taken, reserved, charged, or received under law. Any interest in excess of that maximum amount will be credited on the principal of such debt or, if that has been paid, refunded. This provision overrides any conflicting provisions in this agreement.

4. **Advance Payment:** If a default is not cured within thirty (30) days of the delivery of a Notice of Default, Operator, or Non-Operators if Operator is the defaulting party, may thereafter require advance payment from the defaulting party of such defaulting party's anticipated share of any item of expense for which Operator, or Non-Operators, as the case may be, would be entitled to reimbursement under any provision of this agreement, whether or not such expense was the subject of the previous default. Such right includes, but is not limited to, the right to require advance payment for the estimated costs of drilling a well or Completion of a well as to which an election to participate in drilling or Completion has been made. If the defaulting party fails to pay the required advance payment, the non-defaulting parties may pursue any of the remedies provided in the Article VII.D. or any other default remedy provided elsewhere in this agreement. Any excess of funds advanced remaining when the operation is completed and all costs have been paid shall be promptly returned to the advancing party.

5. **Costs and Attorneys' Fees:** In the event any party is required to bring legal proceedings to enforce any financial obligation of a party hereunder, the prevailing party in such action shall be entitled to recover all court costs, costs of collection, and a reasonable attorney's fee, which the lien provided for herein shall also secure.

E. Rentals, Shut-in Well Payments and Minimum Royalties:

Rentals, shut-in well payments and minimum royalties which may be required under the terms of any lease shall be paid by the party or parties who subjected such lease to this agreement at its or their expense. In the event two or more parties own and have contributed interests in the same lease to this agreement, such parties may designate one of such parties to make said payments for and on behalf of all such parties. Any party may request, and shall be entitled to receive, proper evidence of all such payments. In the event of failure to make proper payment of any rental, shut-in well payment or minimum royalty through mistake or oversight where such payment is required to continue the lease in force, any loss which results from such non-payment shall be borne in accordance with the provisions of Article IV.B.2.

Operator shall notify Non-Operators of the anticipated completion of a shut-in well, or the shutting in or return to production of a producing well, at least five (5) days (excluding Saturday, Sunday, and legal holidays) prior to taking such action, or at the earliest opportunity permitted by circumstances, but assumes no liability for failure to do so. In the event of failure by Operator to so notify Non-Operators, the loss of any lease contributed hereto by Non-Operators for failure to make timely payments of any shut-in well payment shall be borne jointly by the parties hereto under the provisions of Article IV.B.3.

F. Taxes:

Beginning with the first calendar year after the effective date hereof, Operator shall render for ad valorem taxation all property subject to this agreement which by law should be rendered for such taxes, and it shall pay all such taxes assessed thereon before they become delinquent. Prior to the rendition date, each Non-Operator shall furnish Operator information as to burdens (to include, but not be limited to, royalties, overriding royalties and production payments) on Leases and Oil and Gas Interests contributed by such Non-Operator. If the assessed valuation of any Lease is reduced by reason of its being subject to outstanding excess royalties, overriding royalties or production payments, the reduction in ad valorem taxes resulting therefrom shall inure to the benefit of the owner or owners of such Lease, and Operator shall adjust the charge to such owner or owners so as to reflect the benefit of such reduction. If the ad valorem taxes are based in whole or in part upon separate valuations of each party's working interest, then notwithstanding anything to the contrary herein, charges to the joint account shall be made and paid by the parties hereto in accordance with the tax value generated by each party's working interest. Operator shall bill the other parties for their proportionate shares of all tax payments in the manner provided in Exhibit "C."

If Operator considers any tax assessment improper, Operator may, at its discretion, protest within the time and manner prescribed by law, and prosecute the protest to a final determination, unless it agrees to abandon the protest prior to final determination. During the pendency of administrative or judicial proceedings, Operator may elect to pay, under protest, all such taxes and any interest and penalty. When any such protested assessment shall have been finally determined, Operator shall pay the tax for the joint account, together with any interest and penalty accrued, and the total cost shall then be assessed against the parties, and be paid by them, as provided in Exhibit "C."

Each party shall pay or cause to be paid all production, severance, excise, gathering and other taxes imposed upon or with respect to the production or handling of such party's share of Oil and Gas produced under the terms of this agreement to the extent that all such taxes are assessed at a uniform rate. If an Oil and Gas Lease or Oil and Gas Interest contributed by any party is taxed at a higher rate, or is subject to an additional tax, that party alone shall pay or cause to be paid such additional tax.

ARTICLE VIII.

ACQUISITION, MAINTENANCE OR TRANSFER OF INTEREST

A. Surrender of Leases:

The Leases covered by this agreement, insofar as they embrace acreage in the Contract Area, shall not be surrendered in whole or in part unless all parties consent thereto.

However, should any party desire to surrender its interest in any Lease or in any portion thereof, such party shall give written notice of the proposed surrender to all parties, and the parties to whom such notice is delivered shall have thirty (30) days after delivery of the notice within which to notify the party proposing the surrender whether they elect to consent thereto. Failure of a party to whom such notice is delivered to reply within said 30-day period shall constitute a consent to the surrender of the Leases described in the notice. If all parties do not agree or consent thereto, the party desiring to surrender shall assign, without express or implied warranty of title, all of its interest in such Lease, or portion thereof, and any well, material and equipment acquired by the parties under this agreement and used exclusively for the lease being surrendered and any rights in production thereafter secured, to the parties not consenting to such surrender. If the interest of the assigning party is or includes an Oil and Gas Interest, the assigning party shall execute and deliver to the party or parties not consenting to such surrender an oil and gas lease covering such Oil and Gas Interest for a term of one (1) year and so long thereafter as Oil and/or Gas is produced from the land covered thereby or lands pooled therewith, such lease to be on the form attached hereto as Exhibit "B." Upon such assignment or lease, the assigning party shall be relieved from all obligations thereafter accruing, but not theretofore accrued, with respect to the interest assigned or leased and the operation of any well attributable thereto, and the assigning party shall have no further interest in the assigned or leased premises and its equipment and production other than the royalties retained in any lease made under the terms of this Article. The party assignee or lessee shall pay to the party assignor or lessor the reasonable salvage value of the latter's interest in any well's salvable materials and equipment attributable to the assigned or leased acreage. The value of all salvable materials and equipment shall be determined in accordance with the provisions of Exhibit "C," less the estimated cost of salvaging and the estimated cost of plugging and abandoning and restoring the surface. If such value is less than such costs, then the party assignor or lessor shall pay to the party assignee or lessee the amount of such deficit. If the assignment or lease is in favor of more than one party, the interest shall be shared by such parties in the proportions that the interest of each bears to the total interest of all such parties. If the interest of the parties to whom the assignment is to be made varies according to depth, then the interest assigned shall similarly reflect such variances.

Any assignment, lease or surrender made under this provision shall not reduce or change the assignor's, lessor's or surrendering party's interest as it was immediately before the assignment, lease or surrender in the balance of the Contract Area; and the acreage assigned, leased or surrendered, and subsequent operations thereon, shall not thereafter be subject to the terms and provisions of this agreement but shall be deemed subject to an Operating Agreement in the form of this agreement.

B. Renewal or Extension of Leases:

If any party secures a renewal or replacement of an Oil and Gas Lease or Interest subject to this agreement, then all other parties shall be notified promptly upon such acquisition or, in the case of a replacement Lease taken before expiration of an existing Lease, promptly upon expiration of the existing Lease. The parties notified shall have the right for a period of thirty (30) days following delivery of such notice in which to elect to participate in the ownership of the renewal or

replacement Lease, insofar as such Lease affects lands within the Contract Area, by paying to the party who acquired it their proportionate shares of the acquisition cost allocated to that part of such Lease within the Contract Area, which shall be in proportion to the interest held at that time by the parties in the Contract Area. Each party who participates in the purchase of a renewal or replacement Lease shall be given an assignment of its proportionate interest therein by the acquiring party.

If some, but less than all, of the parties elect to participate in the purchase of a renewal or replacement Lease, it shall be owned by the parties who elect to participate therein, in a ratio based upon the relationship of their respective percentage of participation in the Contract Area to the aggregate of the percentages of participation in the Contract Area of all parties participating in the purchase of such renewal or replacement Lease. The acquisition of a renewal or replacement Lease by any or all of the parties hereto shall not cause a readjustment of the interests of the parties stated in Exhibit "A," but any renewal or replacement Lease in which less than all parties elect to participate shall not be subject to this agreement but shall be deemed subject to a separate Operating Agreement in the form of this agreement.

If the interests of the parties in the Contract Area vary according to depth, then their right to participate proportionately in renewal or replacement Leases and their right to receive an assignment of interest shall also reflect such depth variances.

The provisions of this Article shall apply to renewal or replacement Leases whether they are for the entire interest covered by the expiring Lease or cover only a portion of its area or an interest therein. Any renewal or replacement Lease taken before the expiration of its predecessor Lease, or taken or contracted for or becoming effective within six (6) months after the expiration of the existing Lease, shall be subject to this provision so long as this agreement is in effect at the time of such acquisition or at the time the renewal or replacement Lease becomes effective; but any Lease taken or contracted for more than six (6) months after the expiration of an existing Lease shall not be deemed a renewal or replacement Lease and shall not be subject to the provisions of this agreement.

The provisions in this Article shall also be applicable to extensions of Oil and Gas Leases.

C. Acreage or Cash Contributions:

While this agreement is in force, if any party contracts for a contribution of cash towards the drilling of a well or any other operation under this agreement, such contribution shall be paid to the party who conducted the drilling or other operation and shall be applied by it against the cost of such drilling or other operation. If the contribution be in the form of acreage, the party to whom the contribution is made shall promptly tender an assignment of the acreage, without warranty of title, to the Consenting Parties in the proportions said Consenting Parties shared the cost of drilling the well. Such acreage shall become a separate Contract Area and, to the extent possible, be governed by provisions identical to this agreement. Each party shall promptly notify all other parties of any acreage or cash contributions it may obtain in support of any well or any other operation on the Contract Area. The above provisions shall also be applicable to optional rights to earn acreage outside the Contract Area which are in support of well drilled inside Contract Area.

If any party contracts for any consideration relating to disposition of such party's share of substances produced hereunder, such consideration shall not be deemed a contribution as contemplated in this Article VIII.C.

D. Assignment; Maintenance of Uniform Interest:

For the purpose of maintaining uniformity of ownership in the Contract Area in the Oil and Gas Leases, Oil and Gas Interests, wells, equipment and production covered by this agreement, except as otherwise provided herein, no party shall sell, encumber, transfer or make other disposition of its interest in the Oil and Gas Leases and Oil and Gas Interests embraced within the Contract Area or in wells, equipment and production unless such disposition covers either:

1. the entire interest of the party in all Oil and Gas Leases, Oil and Gas Interests, wells, equipment and production; or
2. an equal undivided percent of the party's present interest in all Oil and Gas Leases, Oil and Gas Interests, wells, equipment owned by such party under this agreement, and production in the Contract Area.

Every sale, encumbrance, transfer or other disposition made by any party shall be made expressly subject to this agreement and shall be made without prejudice to the right of the other parties, and any transferee of an ownership interest in any Oil and Gas Lease or Interest shall be deemed a party to this agreement as to the interest conveyed from and after the effective date of the transfer of ownership; provided, however, that the other parties shall not be required to recognize any such sale, encumbrance, transfer or other disposition for any purpose hereunder until thirty (30) days after Operator has received a copy of the instrument of transfer or other satisfactory evidence thereof in writing from the transferor or transferee. Except as otherwise provided herein, any transfer by a party shall relieve the transferor from liability for the cost and expense of operations attributable to the transferred interest which are conducted after the expiration of the 30-day period above provided; provided that, no assignment or other disposition of interest by a party shall relieve such party of obligations previously incurred by such party hereunder with respect to the interest transferred, including without limitation the obligation of a party to pay all costs and expenses attributable to an approved operation conducted hereunder, in which such party has agreed to participate and the lien and security interest granted by Article VII.B. shall continue to burden the interest transferred to secure payment of any such obligations. The transferee shall be jointly and severally liable with its transferor for payment of its share of all costs and expenses attributable to an approved operation conducted hereunder in which its transferor had agreed to participate.

If, at any time the interest of any party is divided among and owned by four or more co-owners, Operator, at its discretion, may require such co-owners to appoint a single trustee or agent with full authority to receive notices, approve expenditures, receive billings for and approve and pay such party's share of the joint expenses, and to deal generally with, and with power to bind, the co-owners of such party's interest within the scope of the operations embraced in this agreement; however, all such co-owners shall have the right to enter into and execute all contracts or agreements for the disposition of their respective shares of the Oil and Gas produced from the Contract Area and they shall have the right to receive, separately, payment of the sale proceeds thereof.

E. Waiver of Rights to Partition:

If permitted by the laws of the state or states in which the property covered hereby is located, each party hereto owning an undivided interest in the Contract Area waives any and all rights it may have to partition and have set aside to it in severalty its undivided interest therein.

F. Preferential Right to Purchase

☐ (Option: Check if applicable)

Should any party desire to sell all or any part of its interests under this agreement, or its rights and interests in the Contract Area, it shall promptly give written notice to the other parties, with full information concerning its proposed disposition, which shall include the name and address of the prospective transferee (who must be ready, willing and able to purchase), the purchase price, a legal description sufficient to identify the property, and all other terms of the offer. The other parties shall then have an optional prior right, for a period of ten (10) days after notice is delivered, to purchase for the stated consideration on the same terms and conditions the interest which the other party proposes to sell; and, if this optional right is exercised, the purchasing parties shall share the purchased interest in the proportions that the interest of each bears to the total interest of all purchasing parties. However, there shall be no preferential right to purchase in those cases where any party wishes to mortgage its interests, or to transfer title to its interest to its mortgagee in lieu of or pursuant to foreclosure of a mortgage of its interests, or to dispose of its interests by merger, reorganization, consolidation, or by sale of all or substantially all of its Oil and Gas assets to any party, or by transfer of its interests to a subsidiary or parent company or to a subsidiary of a parent company, or to any company in which such party owns a majority of the stock.

ARTICLE IX.

INTERNAL REVENUE CODE ELECTION

If, for federal income tax purposes, this agreement and the operations hereunder are regarded as a partnership, and if the parties have not otherwise agreed to form a tax partnership pursuant to Exhibit "G" or other agreement between them, each party thereby affected elects to be excluded from the application of all of the

provisions of Subchapter “K,” Chapter 1, Subtitle “A,” of the Internal Revenue Code of 1986, as amended (“Code”), as permitted and authorized by Section 761 of the Code and the regulations promulgated thereunder. Operator is authorized and directed to execute on behalf of each party hereby affected such evidence of this election as may be required by the Secretary of the Treasury of the United States or the Federal Internal Revenue Service, including specifically, but not by way of limitation, all of the returns, statements, and the data required by Treasury Regulation §1.761. Should there be any requirement that each party hereby affected give further evidence of this election, each such party shall execute such documents and furnish such other evidence as may be required by the Federal Internal Revenue Service or as may be necessary to evidence this election. No such party shall give any notices or take any other action inconsistent with the election made hereby. If any present or future income tax laws of the state or states in which the Contract Area is located or any future income tax laws of the United States contain provisions similar to those in Subchapter “K,” Chapter 1, Subtitle “A,” of the Code, under which an election similar to that provided by Section 761 of the Code is permitted, each party hereby affected shall make such election as may be permitted or required by such laws. In making the foregoing election, each such party states that the income derived by such party from operations hereunder can be adequately determined without the computation of partnership taxable income. For federal income tax purposes the parties agree that any gas imbalances will be reported under the cumulative gas balancing method as defined in Treasury Regulations § 1.761-2(d)(3).

ARTICLE X.

CLAIMS AND LAWSUITS

Operator may settle any single or related aggregate uninsured third party damage claim or suit arising from operations hereunder if the expenditure does not exceed _____ Dollars (\$) and if the payment is in complete settlement of such claim or suit. If the amount required for settlement exceeds the above amount, Operator shall promptly give notice to Non-Operators and Operator shall assume and handle the claim or suit on behalf of all parties unless, within 14 days after receipt of such notice, a party gives notice to Operator and the other parties of its affirmative election to assume and handle the claim or suit on its own behalf, which assumption and handling shall be done at said party's own expense and over and above said party's proportionate share chargeable to the joint account as hereinafter provided. All costs and expenses of handling, settling, or otherwise discharging such claim or suit shall be at the joint expense of the parties participating in the operation from which the claim or suit arises. If a claim is made against any party or if any party is sued on account of any matter arising from operations hereunder over which such individual has no control because of the rights given Operator by this agreement, such party shall immediately notify all other parties, and the claim or suit shall be treated as any other claim or suit involving operations hereunder.

ARTICLE XI.

FORCE MAJEURE

If any party is rendered unable, wholly or in part, by force majeure to carry out its obligations under this agreement, other than the obligation to indemnify or make money payments or furnish security, that party shall give to all other parties prompt written notice of the force majeure with reasonably full particulars concerning it; thereupon, the obligations of the party giving the notice, so far as they are affected by the force majeure, shall be suspended during, but no longer than, the continuance of the force majeure. The term “force majeure,” as here employed, shall mean an act of God, strike, lockout, or other industrial disturbance, act of the public enemy, war, blockade, public riot, lightening, fire, storm, flood or other act of nature, explosion, governmental action, governmental delay, restraint or inaction, unavailability of equipment, and any other cause, whether of the kind specifically enumerated above or otherwise, which is not reasonably within the control of the party claiming suspension.

The affected party shall use all reasonable diligence to remove the force majeure situation as quickly as practicable. The requirement that any force majeure shall be remedied with all reasonable dispatch shall not require the settlement of strikes, lockouts, or other labor difficulty by the party involved, contrary to its wishes; how all such difficulties shall be handled shall be entirely within the discretion of the party concerned.

ARTICLE XII.

NOTICES

All notices authorized or required between the parties by any of the provisions of this agreement, unless otherwise specifically provided, shall be in writing and delivered in person or by United States mail, courier service, or facsimile, each of which may also be delivered by attachment to electronic mail (“Email Notice”), postage or charges prepaid, if applicable, and addressed to such parties at the addresses listed on Exhibit “A.” All telephone or oral notices permitted by this agreement shall be confirmed immediately thereafter by written notice. The originating notice given under any provision hereof shall be deemed delivered only when received by the party to whom such notice is directed, and the time for such party to deliver any notice in response thereto shall run from the date the originating notice is received. “Receipt” for purposes of this agreement with respect to written notice delivered hereunder shall be actual delivery of the notice to the address of the party to be notified specified in accordance with this agreement, or to the facsimile machine or email address of such party. The second or any responsive notice shall be deemed delivered when deposited in the United States mail or at the office of the courier or facsimile, or when personally delivered to the party to be notified, provided, that when response is required within 24 or 48 hours, such response shall be given orally or by telephone, or other facsimile or email address within such period. Each party shall have the right to change its address at any time, and from time to time, by giving written notice thereof to all other parties. If a party is not available to receive notice orally or by telephone when a party attempts to deliver a notice required to be delivered within 24 or 48 hours, the notice may be delivered in writing by any other method specified herein and shall be deemed delivered in the same manner provided above for any responsive notice. Each Email Notice shall clearly state that it is a notice or response to a notice under this agreement. An Email Notice shall be deemed delivered only when affirmatively acknowledged by email reply from the receiving party. Automatic delivery receipts issued, without direct acknowledgment of the Email Notice, are not evidence of Receipt for purposes of this agreement. If the receiving party fails or declines to affirmatively acknowledge an Email Notice, then Receipt of the notice shall only be deemed to have occurred when received by the party as otherwise provided above.

ARTICLE XIII.

TERM OF AGREEMENT

This agreement shall remain in full force and effect as to the Oil and Gas Leases and/or Oil and Gas Interests subject hereto for the period of time selected below; provided, however, no party hereto shall ever be construed as having any right, title or interest in or to any Lease or Oil and Gas Interest contributed by any other party beyond the term of this agreement.

- ☐ Option No. 1: So long as any of the Oil and Gas Leases subject to this agreement remain or are continued in force as to any part of the Contract Area, whether by production, extension, renewal or otherwise
- ☐ Option No. 2: In the event the well described in Article VI.A., or any subsequent well drilled under any provision of this agreement, results in the Completion of a well as a well capable of production of Oil and/or Gas in paying quantities, this agreement shall continue in force so long as any such well is capable of production, and for an additional period of days thereafter; provided, however, if, prior to the expiration of such additional period, one or more of the parties hereto are engaged in drilling, Reworking, Deepening, Sidetracking, Plugging Back, testing or attempting to Complete or Re-complete a well or wells hereunder, this agreement shall continue in force until such operations have been completed and if production results therefrom, this agreement shall continue in force as provided herein. In the event the well described in Article VI.A., or any subsequent well drilled hereunder, results in a dry hole, and no other well is capable of producing Oil and/or Gas from the Contract Area, this agreement shall terminate unless drilling, Deepening, Sidetracking, Completing, Recompleting, Plugging Back or Reworking operations are commenced within _____ days from the date of abandonment of said well. “Abandonment” for such purposes shall mean either (i) a decision by all parties not to conduct any further operations on the well or (ii) the elapse of 180 days from the conduct of any operations on the well, whichever first occurs.

The termination of this agreement shall not relieve any party hereto from any expense, liability or other obligation or any remedy therefor which has accrued or attached prior to the date of such termination.

Upon termination of this agreement and the satisfaction of all obligations hereunder, in the event a memorandum of this Operating Agreement has been filed of record, Operator is authorized to file of record in all necessary recording offices a notice of termination, and each party hereto agrees to execute such a notice of

termination as to Operator’s interest, upon request of Operator, if Operator has satisfied all its financial obligations.

ARTICLE XIV.

COMPLIANCE WITH LAWS AND REGULATIONS

A. Laws, Regulations and Orders:

This agreement shall be subject to the applicable laws of the state in which the Contract Area is located, to the valid rules, regulations, and orders of any duly constituted regulatory body of said state; and to all other applicable federal, state, and local laws, ordinances, rules, regulations and orders.

B. Governing Law:

This agreement and all matters pertaining hereto, including but not limited to matters of performance, non-performance, breach, remedies, procedures, rights, duties, and interpretation or construction, shall be governed and determined by the law of the state in which the Contract Area is located. If the Contract Area is in two or more states, the law of the state of _____ shall govern.

C. Regulatory Agencies:

Nothing herein contained shall grant, or be construed to grant, Operator the right or authority to waive or release any rights, privileges, or obligations which Non-Operators may have under federal or state laws or under rules, regulations or orders promulgated under such laws in reference to oil, gas and mineral operations, including the location, operation, or production of wells, on tracts offsetting or adjacent to the Contract Area.

With respect to the operations hereunder, Non-Operators agree to release Operator from liability above and beyond its proportionate share of any and all losses, damages, injuries, claims and causes of action arising out of, incident to or resulting directly or indirectly from Operator’s interpretation or application of rules, rulings, regulations or orders of any governmental agency having jurisdiction to the extent such interpretation or application was made in good faith and does not constitute gross negligence or willful misconduct. Each Non-Operator further agrees to reimburse Operator for such Non-Operator’s share of production or any refund, fine, levy or other governmental sanction that Operator may be required to pay as a result of such an incorrect interpretation or application, together with interest and penalties thereon owing by Operator as a result of such incorrect interpretation or application.

ARTICLE XV.

MISCELLANEOUS

A. Execution:

This agreement shall be binding upon each Non-Operator when this agreement or a counterpart thereof has been executed by such Non-Operator and Operator notwithstanding that this agreement is not then or thereafter executed by all of the parties to which it is tendered or which are listed on Exhibit “A” as owning an interest in the Contract Area or which own, in fact, an interest in the Contract Area. Operator may, however, by written notice to all Non-Operators who have become bound by this agreement as aforesaid, given at any time prior to the actual spud date of the Initial Well but in no event later than five days prior to the date specified in Article VI.A. for commencement of the Initial Well, terminate this agreement if Operator in its sole discretion determines that there is insufficient participation to justify commencement of drilling operations. In the event of such a termination by Operator, all further obligations of the parties hereunder shall cease as of such termination. In the event any Non-Operator has advanced or prepaid any share of drilling or other costs hereunder, all sums so advanced less costs incurred by Operator prior to termination that were attributable to preparation for or furtherance of the operation shall be returned to such Non-Operator without interest. Except as otherwise provided in Article IV.B, in the event operations on a well shall be commenced without execution of this agreement by all persons listed on Exhibit “A” as having a current interest in such well, or in the event that subsequent to the commencement of operations on the well previously unknown or undisclosed persons owning working interests in a well are discovered, or both, the parties executing this agreement agree to one of the following:

☐ Option No. 1: Operator shall indemnify executing Non-Operators with respect to all costs incurred for the well which would have been charged to each such person under this agreement as if such person had executed the same and Operator shall receive all revenues which would have been received by each such person under this agreement as if such person had executed the same.

☐ Option No. 2: The Operator shall advise all parties of the total interest of the parties that have executed this agreement. Each party executing this agreement, within forty-eight (48) hours (exclusive of Saturday, Sunday, and legal holidays) after delivery of such notice, shall advise the Operator of its desire to (i) limit participation to such party’s interest as shown on Exhibit “A” or (ii) carry only its proportionate part (determined by dividing such party’s interest in the Contract Area by the interest of all parties executing this agreement) of non-executing persons’ interests, or (iii) carry its proportionate part (determined as provided in (ii)) of non-executing persons’ interests together with all or a portion of its proportionate part of any non-executing persons interests that any executing party did not elect to take. Any interest of non-executing persons that is not carried by an executing party shall be deemed to be carried by the Operator. Failure to advise the Operator within the time required shall be deemed an election under (i).

B. Successors and Assigns:

This agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective heirs, devisees, legal representatives, successors and assigns, and the terms hereof shall be deemed to run with the Leases or Interests included within the Contract Area.

C. Counterparts:

This instrument may be executed in any number of counterparts, each of which shall be considered an original for all purposes.

D. Severability:

For the purposes of assuming or rejecting this agreement as an executory contract pursuant to federal bankruptcy laws, this agreement shall not be severable, but rather must be assumed or rejected in its entirety, and the failure of any party to this agreement to comply with all of its financial obligations provided herein shall be a material default.

E. Conflict of Terms:

Notwithstanding anything in this agreement to the contrary, in the event of any conflict between the provisions of Articles I through XV of this agreement and the provisions of Article XVI, if any, the provisions of Article XVI, if any, shall govern

ARTICLE XVI.
OTHER PROVISIONS

IN WITNESS WHEREOF, this agreement shall be effective as of the _____ day of _____, _____.

_____, who has prepared and circulated this form for execution, represents and warrants that the form was printed from and, with the exception(s) listed below, is identical to the AAPL Form 610-2015 Model Form Operating Agreement, as published in computerized form by AAPL. No changes, alterations, or modifications, other than those made by strikethrough and/or insertion and that are clearly recognizable as changes in Articles _____, have been made to the form.

ATTEST OR WITNESS:

OPERATOR

By

Type or print name

Title _____

Date _____

Tax ID or S.S. No. _____

NON-OPERATORS

By

Type or print name

Title _____

Date _____

Tax ID or S.S. No. _____

By

Type or print name

Title _____

Date _____

Tax ID or S.S. No. _____

By

Type or print name

Title _____

Date _____

Tax ID or S.S. No. _____

By

Type or print name

By

Type or print name

Title

Date

Tax ID or S.S. No.

ACKNOWLEDGMENTS

Note: The following forms of acknowledgment are the short forms approved by the Uniform Law on Notarial Acts.
The validity and effect of these forms in any state will depend upon the statutes of that state.

Individual acknowledgment:

State of)
) ss.
County of)

This instrument was acknowledged before me on

by

(Seal, if any)

Title (and Rank)

My commission expires:

Acknowledgment in representative capacity:

State of)
) ss.
County of)

This instrument was acknowledged before me on

by as
 of

(Seal, if any)

Title (and Rank)

My commission expires:



COPAS 1962 Model Form Accounting Procedure Interpretation

MODEL FORM INTERPRETATION

MFI – 1

Publication/Revision Date --- September 1966

Council Approved

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Model Form Interpretation: 1**COPAS 1962 MODEL FORM
ACCOUNTING PROCEDURE INTERPRETATION****TABLE OF CONTENTS**

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FOREWORD

Accounting in joint operations is controlled by an accounting procedure usually attached to the joint operating agreements. The form of these accounting procedures varies from area to area and among companies and operators in some particulars; but notwithstanding these differences, they will provide for and cover substantially the same items or matters of accounting which are involved in such joint operations. The Petroleum Accountants Societies throughout the petroleum industry have occasion to consider and discuss these items or matters of accounting and the various provisions relating to each of them to determine the problems involved and what is considered by the group opinion to be the most equitable and fair basis for the treatment and administration of each item as a matter of general policy.

It is recognized that the basic purpose is that all costs, subject to special provisions, shall be shared in the proportion to the interest of each respective party; but it is difficult, if not impossible, to exactly allocate costs in the many instances where other properties are served in conjunction with the joint property by common facilities, work force and supervision. It is not the purpose to criticize any particular form or practice but, rather, to better and more fully understand the problems involved and the possible alternative treatments of them and, after such consideration and discussion, to arrive at the consensus.

It is felt that these conclusions, comments and suggestions serve a most useful purpose, not only as an aid for the interpretation and application of the accounting procedure under existing agreements, but for the preparation and adoption of those in the future so that there will be a common ground of understanding in negotiations which may involve normal and customary conditions or special circumstances requiring special treatment.

This model form interpretation has been reviewed by the Petroleum Accountants Societies through representation on the Council of Petroleum Accountants Societies of North America. It is recommended that the contents of this model form interpretation be used as a guide to joint interest operations accounting.

The Council is gratified to and appreciative of the Petroleum Accountants Societies as indicated in the Table of Contents for the original research for this model form interpretation.

Specimen, Form 601 COPAS

ACCOUNTING PROCEDURE (JOINT OPERATIONS)

I. GENERAL PROVISIONS

1. Definitions

“Joint Property” shall mean the real and personal property subject to the agreement to which this “Accounting Procedure” is attached.

“Joint Operations” shall mean all operations necessary or proper for the development, operation, protection and maintenance of the Joint Property.

“Operator” shall mean the party designated to conduct the Joint Operations.

“Non-Operators” shall mean the non-operating parties, whether one or more.

“Joint Account” shall mean the account showing the charges and credits accruing because of the Joint Operations and which are to be shared by the Parties.

“Parties” shall mean Operator and Non-Operators.

“Material” shall mean personal property, equipment or supplies acquired or held for use on the Joint Property.

“Controllable Material” shall mean material which at the time is so classified in the Material Classification Manual as most recently recommended by the Council of Petroleum Accountants Societies of North America.

2. Conflict with Agreement

In the event of a conflict between the provisions of this Accounting Procedure and the provisions of the agreement to which this Accounting Procedure is attached, the provisions of the agreement shall control.

3. Collective Action by Non-Operators

Where an agreement or other action of Non-Operators is expressly required under this Accounting Procedure and if the agreement to which this Accounting Procedure is attached contains no contrary provisions in regard thereto, the agreement or action of a majority in interest of the Non-Operators shall be controlling on all Non-Operators.

4. Statements and Billings

Operator shall bill Non-Operators on or before the last day of each month for their proportionate share of costs and expenses, for the preceding month. Such bills will be accompanied by statements reflecting the total charges and credits as set forth under Subparagraph _____ below:

A. Statement in detail of all charges and credits to the Joint Account.

B. Statement of all charges and credits to the Joint Account, summarized by appropriate classifications indicative of the nature thereof.

C. Statement of all charges and credits to the Joint Account summarized by appropriate classifications indicative of the nature thereof, except that items of Controllable Material and unusual charges and credits shall be detailed.

5. Payment and Advances by Non-Operators

Each Non-Operator shall pay its proportion of all such bills within fifteen (15) days after receipt thereof. If payment is not made within such time, the unpaid balance shall bear interest at the rate of six percent (6%) per annum until paid.

6. Adjustments

Payment of any such bills shall not prejudice the right of any Non-Operators to protest or question the correctness thereof; provided however, all bills and statements rendered to Non-Operators by Operator during any calendar year shall conclusively be presumed to be true and correct after twenty-four (24) months following the end of any such calendar year, unless within the said twenty-four (24) month period a Non-Operator takes written exception thereto and makes claim on Operator for adjustment.

No adjustment favorable to Operator shall be made unless it is made within the same prescribed period. The provisions of this paragraph shall not prevent adjustments resulting from a physical inventory of the Joint Property as provided for in Section VII.

7. Audits

A Non-Operator, upon notice in writing to Operator and all other Non-Operators, shall have the right to audit Operator's accounts and records relating to the accounting hereunder for any calendar year within the twenty-four (24) month period following the end of such calendar year, provided however, the making of an audit shall not extend the time for the taking of written exception to and the adjustment of accounts as provided for in Paragraph 6 of this Section I. Where there are two or more Non-Operators, the Non-Operators shall make every reasonable effort to conduct joint or simultaneous audits in a manner which will result in a minimum of inconvenience to the Operator.

II. DIRECT CHARGES

Subject to limitations hereinafter prescribed, Operator shall charge the Joint Account with the following items:

1. Rentals and Royalties

Delay or other rentals and royalties when such rentals and royalties are paid by Operator for the Joint Account of the Parties.

2. Labor

A. Salaries and wages of Operator's employees directly engaged on the Joint Property in the conduct of the Joint Operations, and salaries or wages of technical employees who are temporarily assigned to and directly employed on the Joint Property.

- B. Operator's cost of holiday, vacation, sickness and disability benefits and other customary allowances paid to the employees whose salaries and wages are chargeable to the Joint Account under Paragraph 2A of this Section II and Paragraph 1 of Section III; except that in the case of those employees only a pro rata portion of whose salaries and wages are chargeable to the Joint Account under Paragraph 1 of Section III, not more than the same pro rata portion of the benefits and allowances herein provided for shall be charged to the Joint Account. Cost under this Paragraph 2B may be charged on a "when and as paid basis" or by "percentage assessment" on the amount of salaries and wages chargeable to the Joint Account under Paragraph 2A of this Section II and Paragraph 1 of Section III. If percentage assessment is used, the rate shall be based on the Operator's cost experience.
- C. Expenditures or contributions made pursuant to assessments imposed by governmental authority which are applicable to Operator's labor cost of salaries and wages chargeable to the Joint Account under Paragraphs 2A and 2B of this Section II and Paragraph 1 of Section III.
- D. Reasonable personal expenses or those employees whose salaries and wages are chargeable to the Joint Account under Paragraph 2A of this Section II and for which expenses the employees are reimbursed under Operator's usual practice.
- 3. Employee Benefits**
Operator's current cost of established plans for employees' group life insurance, hospitalization, pension, retirement, stock purchase, thrift, bonus, and other benefit plans of a like nature, applicable to Operator's labor cost; provided however, the total of such charges shall not exceed ten percent (10%) of Operator's labor costs chargeable to the Joint Account under Paragraphs 2A and 2B of this Section II and Paragraph 1 of Section III.
- 4. Material**
Material purchased or furnished by Operator for use on the Joint Property. So far as it is reasonably practical and consistent with efficient and economical operation, only such Material shall be purchased for or transferred to the Joint Property as may be required for immediate use; and the accumulation of surplus stocks shall be avoided.
- 5. Transportation**
Transportation of employees and Material necessary for the Joint Operations but subject to the following limitations:
 - A. If Material is moved to the Joint Property from the Operator's warehouse or other properties, no charge shall be made to the Joint Account for a distance greater than the distance from the nearest reliable supply store or railway receiving point where like material is available, except by agreement with Non-Operators.
 - B. If surplus Material is moved to Operator's warehouse or other storage point, no charge shall be made to the Joint Account for a distance greater than the distance to the nearest reliable supply store or railway receiving point, except by agreement with Non-Operators. No charge shall be made to Joint Account for moving Material to other properties belonging to Operator, except by agreement with Non-Operators.
 - C. In the application of subparagraphs A and B above, there shall be no equalization of actual gross trucking costs of \$100 or less.
- 6. Services**
 - A. The cost of contract services and utilities procured from outside sources other than services covered by Paragraph 8 of this Section II and Paragraph 2 of Section III.
 - B. Use and service of equipment and facilities furnished by Operator as provided in Paragraph 5 of Section IV.
- 7. Damages and Losses to Joint Property**
All costs or expenses necessary for the repair or replacement of Joint Property made necessary because of damages or losses incurred by fire, flood, storm, theft, accident, or any other cause, except to the extent that the damage or loss could have been avoided through the exercise of reasonable diligence on the part of Operator. Operator shall furnish Non-Operators written notice of damages or losses incurred as soon as practicable after a report thereof has been received by Operator.
- 8. Legal Expense**
All costs and expenses of handling, investigating and settling litigation or claims arising by reason of the Joint Operations or necessary to protect to recover the Joint Property, including, but not limited to, attorneys' fees, court costs, cost of investigation or procuring evidence and amounts paid in settlement or satisfaction of any such litigation or claims: provided, (a) no charge shall be made for the services of Operator's legal staff or other regularly employed personnel (such services being considered to the Administrative Overhead under Section III), except by agreement with Non-Operators, and (b) no charge shall be made for the fees and expenses of outside attorneys unless the employment of such attorneys is agreed to by Operator and Non-Operators.
- 9. Taxes**
All taxes of every kind and nature assessed or levied upon or in connection with the Joint Property, the operation thereof or the production therefrom, and which taxes have been paid by the Operator for the benefit of the Parties.
- 10. Insurance Premiums**
Premiums paid for insurance required to be carried on the Joint Property for the protection of the Parties.
- 11. Other Expenditures**
Any other expenditure not covered or dealt with in the foregoing provisions of this Section II, or in Section III, and which is incurred by the Operator for the necessary and proper conduct of the Joint Operations.

III. INDIRECT CHARGES

Operator may charge the Joint Account for indirect costs either by use of an allocation of district expense items plus a fixed rate for administrative overhead, and plus the warehousing charges, all as provided for in Paragraphs 1, 2, and 3 of this Section III OR by combining all three of said items under the fixed rate provided for in Paragraph 4 of this Section III, as indicated next below:

OPERATOR SHALL CHARGE THE JOINT ACCOUNT UNDER THE TERMS OF:

- ☐ Paragraphs 1, 2 and 3. (Allocation of district expense plus fixed rate for administrative overhead plus warehousing.)
- ☐ Paragraph 4. (Combined fixed rate)

1. District Expense

Operator shall charge the Joint Account with a pro rata portion of the salaries, wages and expenses of Operator's production superintendent and other employees serving the Joint Property and other properties of the Operator in the same operating area, whose time is not allocated directly to the properties, and a pro rata portion of the cost of maintaining and operating a production office known as Operator's office located at or near (or a comparable office if location changed), and necessary sub-offices (if any), maintained for the convenience or the above-described office, and all necessary camps, including housing facilities for employees if required, used in connection with the operations of the Joint Property and other properties in the same operating area. The expense of, less any revenue from, such facilities may, at the option of Operator, include depreciation of investment or a fair monthly rental in lieu of depreciation. Such charges shall be apportioned to all properties served on some equitable basis consistent with Operator's accounting practice.

2. Administrative Overhead

Operator shall charge administrative overhead to the Joint Account at the following rates, which charge shall be in lieu of the cost and expense of all offices of the Operator not covered by Paragraph 1 of this Section III, including salaries, wages and expenses of personnel assigned to such offices. Such charges shall be in addition to the salaries, wages and expenses of employees of Operator authorized to be charged as direct charges as provided in Paragraphs 2 and 8 of Section II.

WELL BASIS (RATE PER WELL PER MONTH)

Well Depth	DRILLING WELL RATE (Use Total Depth)	PRODUCING WELL RATE (Use Current Producing Depth)		
	Each Well	First Five	Next Five	All Wells Over Ten
.....				
.....				
.....				
.....				
.....				
.....				

The cost and expense of services from outside sources in connection with matters of taxation, traffic, accounting, or matters before or involving governmental agencies shall be considered as included in the overhead rates provided for in this Paragraph 2 of Section III, unless such cost and expense are agreed upon between Operator and Non-Operators as a direct charge to the Joint Account.

3. Operator's Fully Owned Warehouse Operating and Maintenance Expense

(Describe fully the agreed procedure to be followed by the Operator.)

.....

.....

4. Combined Fixed Rates

Operator shall charge the Joint Account for the services covered by Paragraph 1, 2 and 3 of this Section III, the following fixed per well rates:

WELL BASIS (RATE PER WELL PER MONTH)

Well Depth	DRILLING WELL RATE (Use Total Depth)	PRODUCING WELL RATE (Use Current Producing Depth)		
	Each Well	First Five	Next Five	All Wells Over Ten
.....				
.....				
.....				
.....				
.....				
.....				

Said fixed rate (shall) (shall not) include salaries and expenses of production foremen.

5. **Application of Administrative Overhead or Combined Fixed Rates**

The following limitations, instructions and charges shall apply in the application of the per well rates as provided under either Paragraph 2 or Paragraph 4 of this Section III:

- A. Charges for drilling wells shall begin on the date each well is spudded and terminate on the date the drilling or completion rig is released, whichever is later, except that no charge shall be made during the suspension of drilling operations for fifteen (15) or more consecutive days.
 - B. The status of wells shall be as follows:
 - (1) Producing gas wells, injection wells for recovery operations, water supply wells utilized for water flooding operations and salt water disposal wells shall be considered the same as producing wells.
 - (2) Wells permanently shut down but on which plugging operations are deferred shall be dropped from the well schedule at the time the shutdown is effected. When such a well is plugged a charge shall be made at the producing well rates.
 - (3) Wells being plugged back, drilled deeper, converted to a source or input well, or which are undergoing any type of workover that requires the use of a drilling or workover rig shall be considered the same as drilling wells.
 - (4) Temporarily shut-down wells, which are not produced or worked upon for a period of a full calendar month, shall not be included in the well schedule, provided however, wells shut in by governmental regulatory body shall be included in the well schedule only in the event the allowable production is transferred to some other well or wells on the Joint Property. In the event of a unit allowable, all wells capable of producing will be counted in determining the charge.
 - (5) Gas wells shall be included in the well schedule if directly connected to a permanent sales outlet even though temporarily shut in due to overproduction or failure of purchaser to take the allowed production.
 - (6) Wells completed in multiple horizons, in which the production is not commingled down hole, shall be considered as a producing well for each separately producing horizon.
 - C. The well rates shall apply to the total number of wells being drilled or operated under the agreement to which this Accounting Procedure is attached, irrespective of individual leases.
 - D. The well rates shall be adjusted on the first day of April of each year following the effective date of the agreement to which this Accounting Procedure is attached. The adjustment shall be computed by multiplying the rate currently in use by the percentage increase or decrease in the average weekly earnings of Crude Petroleum and Gas Production Workers for the last calendar year compared to the preceding calendar year shown by "The Index of Average Weekly Earnings of Crude Petroleum and Gas Production Workers" as published by the United States Department of Labor, Bureau of Labor Statistics. The adjusted rates shall be the rates currently in use, plus or minus the computed adjustment.
6. For the construction of compressor plants, water stations, secondary recovery systems, salt water disposal facilities, and other such projects, as distinguished from the more usual drilling and producing operations, Operator in addition to the Administrative Overhead or Combined Fixed Rates provided for in Paragraph 2 and 4 of this Section III, shall charge the Joint Account with an additional overhead charge as follows:
- A. Total cost less than \$25,000, no charge.
 - B. Total cost more than \$25,000 but less than \$100,000, _____ % of total cost.
 - C. Total cost of \$100,000 or more, _____ % of the first \$100,000 plus _____ % of all over \$100,000 of total cost.
- Total cost shall mean the total gross cost of any one project. For the purpose of this Paragraph the component parts of a single project shall not be treated separately and the cost of drilling wells shall be excluded.
7. The specific rates provided for in this Section III may be amended from time to time by mutual agreement between the Parties hereto if, in practice, the rates are found to be insufficient or excessive.

IV. BASIS OF CHARGES TO JOINT ACCOUNT

Subject to the further provisions of this Section IV, Operator will procure all Material and services for the Joint Property. At the Operator's option, Non-Operator may supply Material or services for the Joint Property.

1. **Purchases**

Material purchased and service procured shall be charged at the price paid by Operator after deduction of all discounts actually received.

2. **Material furnished from Operator's Warehouse or Other Properties**

- A. New Material (Condition "A")
 - (1) Tubular goods, two inch (2") and over, shall be priced on Eastern Mill base (i.e. Youngstown, Ohio; Lorain, Ohio; and Indiana Harbor, Indiana) on a minimum carload basis effective at date of movement and f.o.b. railway receiving point nearest the Joint Property, regardless of quantity. In equalized hauling charges, Operator is permitted to include ten cents (10c) per hundred-weight on all tubular goods furnished from his stocks in lieu of loading and unloading costs sustained.
 - (2) Other Material shall be priced at the current replacement cost of the same kind of Material, effective at date of movement and f.o.b. the supply store or railway receiving point nearest the Joint Property where Material of the same kind is available.
 - (3) The Joint Account shall not be credited with cash discounts applicable to prices provided for in this Paragraph 2 of Section IV.
- B. Used Material (Condition "B" and "C")
 - (1) Material in sound and serviceable condition and suitable for reuse without reconditioning, shall be classified as Condition "B" and priced at seventy-five per cent (75%) of the current price of new Material.

- (2) Material which cannot be classified as Condition "B" but which,
 - (a) After reconditioning will be further serviceable for original function as good secondhand Material (Condition "B"), or
 - (b) Is serviceable for original function but substantially not suitable for reconditioning, shall be classified as Condition "C" and priced at fifty per cent (50%) of current new price.
 - (3) Obsolete Material or Material which cannot be classified as Condition "B" or Condition "C" shall be priced at a value commensurate with its use. Material no longer suitable for its original purpose but usable for some other purpose, shall be priced on a basis comparable with that of items normally used for such other purpose.
 - (4) Material involving erection costs shall be charged at applicable percentage of the current knocked-down price of new Material.
- 3. Premium Prices**
Whenever Material is not readily obtainable at prices specified in Paragraphs 1 and 2 of this Section IV because of national emergencies, strikes or other unusual causes over which the Operator has no control, the Operator may charge the Joint Account for the required Material at the Operator's actual cost incurred in procuring such Material, in making it suitable for use, and in moving it to the Joint Property, provided, that notice in writing is furnished to Non-Operators of the proposed charge prior to billing Non-Operators for such Material. Each Non-Operator shall have the right, by so electing and notifying Operator within 10 days after receiving notice from Operator, to furnish in kind all or part of his share of such Material suitable for use and acceptable to Operator.
- 4. Warranty of Material Furnished by Operator**
Operator does not warrant the Material furnished. In case of defective Material, credit shall not be passed to the Joint Account until adjustment has been received by Operator from the manufacturers or their agents.
- 5. Equipment and Facilities Furnished by Operator**
 - A. Operator shall charge the Joint Account for use of equipment and facilities at rates commensurate with cost of ownership and operation. Such rates shall include cost of maintenance, repairs, other operating expense, insurance, taxes, depreciation and interest on investment not to exceed six per cent (6%) per annum, provided such rates shall not exceed those currently prevailing in the immediate area within which the Joint Property is located. Rates for automotive equipment shall generally be in line with the schedule of rates adopted by the Petroleum Motor Transport Association, or some other recognized organization, as recommended uniform charges against Joint Property operations. Rates for laboratory services shall not exceed those currently prevailing if performed by outside service laboratories. Rates for trucks, tractors and well service units may include wages and expenses of Operator.
 - B. Whenever requested, Operator shall inform Non-Operators in advance of the rates it proposes to charge.
 - C. Rates shall be revised and adjusted from time to time when found to be either excessive or insufficient.

V. DISPOSAL OF MATERIAL

The Operator may purchase, but shall be under no obligation to purchase, interest of Non-Operators in surplus Condition "A" or "B" Material. The disposition of surplus Controllable Material, not purchased by Operator, shall be subject to agreement between Operator and Non-Operators, provided Operator shall dispose of normal accumulations of junk and scrap Material either by transfer or sale from the Joint Property.

- 1. Material Purchased by the Operator or Non-Operators**
Material purchased by either the Operator or Non-Operators shall be credited by the Operator to the Joint Account for the month in which the Material is removed by the purchaser.
- 2. Division in Kind**
Division of Material in kind, if made between Operator and Non-Operators, shall be in proportion to the respective interests in such Material. The Parties will thereupon be charged individually with the value of the Material received or receivable. Proper credits shall be made by the Operator in the monthly statement of operations.
- 3. Sales to Outsiders**
Sales to outsiders of Material from the Joint Property shall be credited by Operator to the Joint Account at the net amount collected by Operator from vendee. Any claim by vendee related to such sale shall be charged back to the Joint Account if and when paid by Operator.

VI. BASIS OF PRICING MATERIAL TRANSFERRED FROM JOINT ACCOUNT

Material purchased by either Operator or Non-Operators or divided in kind, unless otherwise agreed to between Operator and Non-Operators shall be priced on the following basis:

- 1. New Price Defined**
New price as used in this Section VI shall be the price specified for New Material in Section IV.
- 2. New Material**
New Material (Condition "A"), being new Material procured for the Joint Property but never used, at one hundred per cent (100%) of current new price (plus sales tax if any).
- 3. Good Used Material**
Good used Material (Condition "B"), being used Material in sound and serviceable condition, suitable for reuse without reconditioning:
 - A. At seventy-five per cent (75%) of current new price if Material was charged to Joint Account as new, or
 - B. At sixty-five per cent (65%) of current new price if Material was originally charged to the Joint Account as secondhand at seventy-five percent (75%) of new price.

4. Other Used Material

Used Material (Condition "C"), at fifty per cent (50%) of current new price, being used Material which:

- A. Is not in sound and serviceable condition but suitable for reuse after reconditioning, or
- B. Is serviceable for original function but not suitable for reconditioning.

5. Bad-Order Material

Material (Condition "D"), no longer suitable for its original purpose without excessive repair cost but usable for some other purpose at a price comparable with that of items normally used for such other purpose.

6. Junk Material

Junk Material (Condition "E") being obsolete and scrap Material, at prevailing prices.

7. Temporarily Used Material

When the use of Material is temporary and its service to the Joint Property does not justify the reduction in price as provided for in Paragraph 3 B of this Section VI, such Material shall be priced on a basis that will leave a net charge to the Joint Account consistent with the value of the service rendered.

VII. INVENTORIES

The Operator shall maintain detailed records of Material generally considered controllable by the Industry.

1. Periodic Inventories, Notice and Representation

At reasonable intervals, inventories shall be taken by Operator of the Joint Account Material, which shall include all such Material as is ordinarily considered controllable. Written notice of intention to take inventory shall be given by Operator at least thirty (30) days before any inventory is to begin so that Non-Operators may be represented when any inventory is taken. Failure of Non-Operators to be represented at an inventory shall bind Non-Operators to accept the inventory taken by Operator, who shall in that event furnish Non-Operators with a copy thereof.

2. Reconciliation and Adjustment of Inventories

Reconciliation of inventory with charges to the Joint Account shall be made, and a list of overages and shortages shall be jointly determined by Operator and Non-Operators. Inventory adjustments shall be made by Operator with the Joint Account for overages and shortages, but Operator shall be held accountable to Non-Operator only for shortages due to lack of reasonable diligence.

3. Special Inventories

Special inventories may be taken whenever there is any sale or change of interest in the Joint Property. It shall be the duty of the party selling to notify all other Parties as quickly as possible after the transfer of interest takes place. In such cases, both the seller and the purchaser shall be governed by such inventory.

I. GENERAL PROVISIONS

STATEMENTS AND BILLINGS

A. Detailed Billings

(Statement in detail of all charges and credits to the joint account)

This type of billing contains a reference (generally known as the voucher reference) to the accounts and/or to the source information of the Operator of each transaction contained in the billing. Each transaction further reflects the complete description and price of each item or unit charged.

Labor charges should be described in sufficient detail to enable the Non-Operator to apply the correct distribution and accounting. It is not necessary to identify each individual employee by name on the billings.

Material and supplies should be described in such a manner to provide a means of price verification by the Non-Operator. Serial numbers and/or other identifying registration data should be shown.

Prorated charges from Operator's wholly owned clearing accounts, such as district supervision costs, should be billed in such a manner to show the basis of the allocation of the whole to the particular property charged. It is not required that the detailed transactions to the basic account that is cleared be shown on the billing to a property charged for only an allocated portion; however, if the basic account is a joint property from which clearings are made to other properties, then the billing should reflect the same detail as provided for herein for other joint properties. The statement should also include AUTHORITY FOR EXPENDITURE identification.

B. Summary Billings

(Statement of all charges and credits to the joint account summarized by the appropriate classifications indicative of the nature thereof) Reference is made to COPAS MFI-26, *Joint Interest Billing Summary Classifications* recommended by COPAS.

This type of billing consists of a statement of charges and credits to the joint account summarized in such a manner to permit identification of labor, material, transportation, taxes, contract services, district expense, employee benefits, overhead and other such classifications, and in such a manner to identify development, operating and other types of expense.

Capital expenditures should be classified and billed in such a manner that tangibles and intangibles may be segregated and the totals of the various classifications of equipment such as tanks, compressors, pumps, engines, derricks, buildings, pipe and fittings may be recorded. The statement should also include AUTHORITY FOR EXPENDITURE identification.

C. Combination Billings

This type of billing is designed to permit the detailed accounting control of equipment and to summarize, by appropriate classifications, the intangible charges and credits. The billing should reflect a detailed statement of all Controllable Material.

Ordinary charges and credits other than Controllable Material should be summarized and classified in such a manner to enable the non-Operator to make proper distribution between capital expenditures, development and operating expense, and in such a manner to permit identification of labor, material, transportation, contract services, district expense, employee benefits, overhead and other such classifications.

The billing should reflect a detailed statement of any other charges and credits applicable to the joint account. Examples of such transactions would be lease bonuses and rentals, ad valorem taxes, insurance, legal expense, damages, contributions, audit adjustments and audit expenses. The statement should also include AUTHORITY FOR EXPENDITURE identification.

PAYMENTS AND ADVANCES BY NON-OPERATORS

Payments should be made promptly by the non-Operators in accordance with the terms of the contract. If such payments are not made timely, then simple interest should accrue at the stipulated rate. It is recognized, subject to provisions to the contrary, that the Operator has advanced his money to finance the operations; and, if the payments by Non-Operator are timely, or if interest payments are made on delinquent accounts, the Non-Operator still enjoys a more favorable financial position. It is, therefore, our opinion that interest payments should be applied universally by Operators when applicable and accepted without reservation or criticism by Non-Operators who for any reason do not remit their payments in accordance with the limitations of the contract. To encourage the enforcement of this provision, any policy by the Operator of placing a notation on his billings to the effect that the interest provision is to be applied is hereby sanctioned.

ADJUSTMENTS

The monthly joint account billing should be paid as rendered by the Operator. If any item on the Operator's statement is questionable, the payment for such item should be included by the Non-Operator with the remainder of the billing. A request for an adjustment or explanation should be directed promptly to the Operator. The Operator should answer such request promptly; and if an adjustment is in order, he should issue a credit (or debit) memorandum or advise the Non-Operator of the corrections on the next monthly billing.

When the total monthly billing to a particular account reflects a credit balance, the Operator should accompany the billing with his check to settle the account.

AUDITS

(Reference is made to COPAS AG-19, Expenditure Audit Protocols.)

All parties should adhere as closely as possible to the audit provisions set out in the contract. The Non-Operator's representative should apprise the Operator of the period they desire to audit. When Non-Operators desire to audit records covering periods beyond the contract limitations, permission of the Operator should be obtained when the audit notice is given.

Proper coordination and communication should be exercised when two or more Non-Operators perform an audit of the operating company's records. The Non-Operators to participate in the audit should first be determined, after which a lead auditor will be selected. The lead auditor should be responsible for organizing the audit team, as well as handling routine communications between the Operator and the Non-Operators. This includes setting up the audit date, arranging for visits to the field or plants, scheduling work giving due consideration to other participants' suggestions, submission of the audit report to Operator after approval by other participants, and handling of audit adjustments subsequent to the audit. Other participants may extend the audit scope they so desire. Prior to any policy discussions and/or negotiations with Operator's management, the lead auditor should notify all participating Non-Operators of such forthcoming discussions and/or negotiations. This will enable the other participants to either have a representative present or inform the lead auditor of their position on matters to be covered.

In instances where the unit or plant agreements provide for an operating committee, the lead auditor should obtain approval from the committee for the arrangement of the audit. All exceptions and negotiated adjustments should have the committee's approval.

Unless otherwise provided, the expense of the audit should be borne by the Non-Operators in proportion to their interest in the audited properties.

II. DIRECT CHARGES

LABOR

- A. Operator's labor cost applies to the salaries and wages of personnel on the Operator's payroll whose time is chargeable directly to the joint account. Prevalent examples of occupations would be pumpers, switchers, gaugers, roustabouts, production foremen, gang pushers, mechanics, plant Operators and maintenance men. In most instances the original time sheets should show the time spent on any particular job or joint property, and the charge should be based upon such time shown. In some instances, however, particularly in the case of production foremen, pumpers and switchers, the employees may directly serve a number of properties, each having one or more wells, and it may not be practical and/or equitable to use time as a basis for the charge. This can result from location of employees' headquarters (dog house, etc.), travel time required, common facilities serving properties manned by the employee and other reasons. In such instances it is sometimes more feasible to allocate the charge to all properties served on a well, or other equitable basis, than on the time spent on the individual properties.

In some instances certain properties or facilities may require field work and direct supervision from employees whose time is considered to be a district charge which, if charged through district expense, might result in inequity. Examples might include drilling engineers, maintenance or construction foremen, tool pushers and subject to contractual provisions, production foremen. It is recommended that when practical and equitable the cost of personnel normally

assigned to the district office who perform services at the well site or facility in the normal course of their employment (i.e., drilling engineers, company personnel who supervise workovers, etc.) and who are relieved of their other general duties, be charged as a direct cost. The unapplied time of such personnel (general duties) should remain a district cost and the time allocated to all properties as District Expense. The effect is that employees directly engaged on a joint property will be charged directly to that property as provided in the Labor paragraph of the Accounting Procedure. However, there should be a consistency in the charging of wholly owned properties and joint properties conforming to good accounting practices.

In some instances technical employees from the Operator's overhead office are temporarily assigned to and directly engaged on the joint property. Charges for such employees should be limited to such personnel who have been relieved of their administrative or supervisory duties incidental to all assignments other than to the particular joint account project which qualifies them for such joint charge. A routine inspection or advisory tour from the administrative office should not qualify for this charge.

- B. Operator's cost of holiday, vacation, sickness, disability benefits, jury duty and other excused allowances are recognized joint account costs, chargeable on a "when and as paid" basis or by "percentage assessment." Unless an employee is regularly assigned to a particular property for the entire year, it is very difficult to make an equitable charge by the "when and as paid" basis. It is generally agreed that the "percentage assessment" provides a more equitable distribution of these costs. It is recommended that the "percentage assessment" be reviewed currently and that proper adjustments be made in the rate to provide, over a period of time, that actual costs are distributed to the properties served. This will require that any balance in the accrual account be used in determining the new adjusted rate.
- C. Costs pursuant to governmental authority are recognized joint costs. Since these costs are limited, being based upon a maximum amount earned by each employee and the maximum earnings may be different for each category of charge, the cost terminates at various times during the year for individual employees. Although it is acceptable to determine the average time for payout of each category and discontinue such charges at the expiration of that period, this usually produces inequities in charges to the individual properties. This is particularly true if a property is discontinued in the early part of the year, or begins operations in the latter part of the year. For this reason it is recommended that a percentage be determined for twelve months to spread the costs over the entire year.
- D. Reimbursable personal and travel expenses of those employees serving the joint property should be charged equitably and consistently with wages and salaries as provided under "A" above.

EMPLOYEE BENEFITS

Employee Benefits are generally considered to be a part of the employer's total labor cost. The operating agreement usually provides that the Operator shall charge the joint account with the current cost of established plans for employees' group life insurance, hospitalization, pension, retirement, stock purchase, thrift, bonus and other benefit plans of a like nature applicable to Operator's labor cost, provided however, the total of such charges shall not exceed the contract provisions. Employee Benefits may be generally defined as the types of plans enumerated above and other established plans, such as supplemental or catastrophe medical insurance for employees and dependents, accident and disability insurance and military service benefits which provide for the welfare of the Operator's employees, their families or beneficiaries, and which are made available to all employees of the Operator on an equitable basis. The cost of such plans may be borne entirely by the Operator or jointly by the Operator and the employees. Only the Operator's share of these costs is chargeable to the joint account. The following should be excluded:

1. Operator's cost of holiday, vacation, etc., which is primarily the continuation of salaries and wages during periods of absence by the employee.
2. Operator's cost pursuant to assessments imposed by governmental authority.
3. Insurance premiums computed by application of a rate to the amount of payroll.
4. Costs which are beneficial primarily to the Operator, such as industrial nurse or doctor, safety awards, service awards, employees' credit union; company magazines and periodicals; social functions, dinners and programs for retirements, safety, etc.; recreational programs and facilities; Christmas bonuses given to selected employees; other special benefits available only to executives, certain employees or groups on a selective basis.

"Established" plans are those made available to all employees on a regular basis. Such plans may be established in accordance with and subject to collective bargaining agreements.

Charges may be made to the joint account for benefit plans expense on a “when and as paid” basis or by “percentage assessment” on the amount of the labor costs. It is generally agreed that the “percentage assessment” provides a more equitable distribution of these costs. If the “percentage assessment” method is used, it should be based on the Operator’s actual cost experience, exclusive of any cost of administering such plans; however, the application of a rate determined from the preceding year’s experience may be considered as compliance with the “current cost” requirement. In determination of actual cost experience, any dividends or refunds received which are applicable to insurance or annuity policies should be used to reduce the cost of such policies.

There is considerable variation in the actual cost of benefits plans in various companies in the industry. Some of the factors causing these variations are number of employees; average age of employees; types of plans established; methods of funding (contributory or non-contributory, trustee or insured) and collective bargaining agreement requirements. Since these wide variations exist, a percentage limitation may be established. The Operator should determine annually that his costs equal or exceed the stipulated percent of labor before continuing to make charges at that rate. The percentage assessment rate is applicable to the Operator’s labor costs chargeable directly to the joint account and/or through district expense but not applicable to administrative overhead labor or contract labor.

TRANSPORTATION

Transportation expense can be defined as the “cost incurred from the point where material and/or personnel is ready for movement until the cargo reaches its destination or delivery point.” This activity is largely of a physical or mechanical nature and is readily adaptable to standardization and control.

Transportation shall include all costs incurred in the transportation of employees, equipment, material, and supplies necessary for the development, maintenance and operation of the joint property.

Employee transportation cost is directly related to the charge for salaries and wages of the Operator’s employees engaged for the joint operation. Transportation cost of employees directly engaged on the joint property should be charged as a direct cost. Transportation cost for employees serving all properties in the operating area whose time is chargeable to district expense should also be charged as a district cost. Costs of moving and transferring of employees directly concerned with the operations of the joint property shall be a direct charge unless such move is for the primary benefit of the Operator.

The transportation charges for material purchased for the joint account should include all elements of cost from the point of delivery by the vendor to the destination on the joint property, including cost for loading, storage, hauling, demurrage, unloading, etc., but subject to the following limitations:

1. If material is moved to the joint property from the Operator’s warehouse or other properties, no charge shall be made to the joint account for a distance greater than the distance from the nearest reliable supply store or railway receiving point, except by special agreement with the Non-Operators.
2. If surplus material is moved to the Operator’s warehouse or other storage point, actual transportation cost should be charged not to exceed a charge for a distance greater than the distance to the nearest reliable supply store or railway receiving point, except by agreement with the Non-Operators. No charge shall be made to the joint account for moving material to other properties belonging to the Operator, except by agreement with the Non-Operators.
3. The joint account should be charged with the full cost of transportation of rental equipment to and from the joint property, except when such equipment is moved from the joint property to another service location.
4. In the application of subparagraphs (1) and (2) above, there shall be no equalization of actual gross trucking costs of \$100 or less, per each movement.

In subparagraphs (1) and (2) above, the following definitions are applicable:

Reliable supply store shall indicate a recognized source of common stock point for the particular material involved.

Railway receiving point shall mean a recognized railway delivery or receiving point which has the necessary facilities with which to perform the desired services, such services being those normally provided on a routine basis.

DAMAGES AND LOSSES TO JOINT PROPERTY

The generally accepted operating agreement provides that costs incurred for repairs or replacement of joint property because of damage or loss shall be borne by the joint account. Damages or losses to the joint property because of fire, lightning, windstorm, hurricane, hail, smoke, explosion, flood, theft, accident, vandalism, malicious mischief or any other cause are recognized joint account costs except to the extent that the damages or losses could have been prevented through the exercise of reasonable diligence on the part of the Operator.

As soon as practicable the Operator should notify Non-Operators in writing of the damage or loss giving the time, cause, extent and the estimated charge to the joint account. The Operator should also give immediate notice to the insurance carrier, if the property is covered by insurance, and protect the property from further damage. If the loss results from theft, vandalism or malicious mischief, the proper law enforcement agency should be notified.

If any equipment is removed from the joint property, the Operator should furnish Non-Operators enough information to enable them to make proper entries to their investment records.

Any settlement received from an insurance carrier should be credited to the parties participating in such insurance coverage.

LEGAL EXPENSES

Costs and expenses incurred in handling, investigating and settling litigation or claims arising by reason of joint operations, or necessary to protect or recover the joint property, including court costs, costs of investigation or procuring evidence and amounts paid in settlement or satisfaction of any litigation or claim, are recognized as joint account costs. It should be recognized that these direct costs are subject to the limitation on expenditures provided in the operating agreement. Exceptions are also recognized in that no charge shall be made for (a) services of the Operator's legal staff or other regularly employed personnel or (b) for fees and expenses of outside counsel. Costs of such services whether performed by the legal staff or outside attorneys are considered and covered by Administrative Overhead. In either case, by agreement of all parties, any of these costs may be made to the joint account.

Direct charges for legal expenses expressly relate, as above set forth, only to such costs in connection with or related to litigation and claims. There are, however, other legal expenses which arise by reason of the joint operations, such as drilling contracts and other contracts of all kinds, title examination and curative activities, gas and oil sales or other disposition, division orders and many other activities relating to the joint property. The same principles and exceptions should likewise apply to these legal expenses. All of these are considered covered by Administrative Overhead, whether rendered by staff or outside attorneys, unless agreed to by all parties.

In case an Operator uses outside personnel to perform any of the functions which normally and usually are performed by its legal staff or regular employees, no charge shall be made to the joint account unless agreed to by all parties. If some unusual and special activity becomes involved for the benefit of all parties to the operating agreement, it would be anticipated that all parties would consent, as necessary, in order for a direct charge to be made.

In this way an Operator with little or no legal staff and related employees and an Operator who has such a staff but uses outside counsel for all or some of such functions will be treated equally with an Operator who has and uses such a staff. No charges may be made to the joint account for any such activities, since they are covered by the administrative overhead allowance, unless necessary consent is first obtained.

INSURANCE PREMIUMS

These costs apply to insurance required to be carried on the joint property. The types and amounts of insurance are agreed upon by the parties and are usually included in the operating agreement.

The following are types of insurance commonly required to be carried on joint properties:

1. Workmen's Compensation and Employer's Liability Insurance which are designed to cover a company's liability to its employees for on-the-job injuries. This obligation is required to be insured by law in most states; however, some permit self insurance in which case state manual rates may be charged.

2. Comprehensive automobile liability insurance which protects the Operators from damages resulting from the use of jointly owned vehicles. In addition to the liability coverage in the policy, there is usually an endorsement adding fire, theft and additional comprehensive coverage which provides protection for physical damage to, or loss of, the vehicles.
3. Comprehensive General Liability Insurance which provides protection to the joint owners from claims by third parties. The primary coverage in this base policy may be supplemented by additions to cover specific risks.

Additional insurance may be required for offshore operations, such as:

1. Longshoremen and Harbor Worker's Compensation Insurance under the United States Longshoremen and Harbor Worker's Compensation Act, Marine and voluntary coverage or similar coverage which may be required for operations outside the continental limits of the United States.
2. Vessels, hull and machinery insurance to the extent of sound value.
3. Waterborne cargo insurance to the extent of sound value.

No charge for insurance premiums on automotive equipment owned exclusively by the Operator should be made to the joint account except as otherwise provided in the operating agreement.

III. INDIRECT CHARGES

DISTRICT EXPENSE

DISTRICT EXPENSE DEFINED

In order to distinguish between items covered by administrative overhead and those items properly includable in District Expense, it is necessary that "District Expense" be defined.

District Expense is an accumulation of drilling and producing charges of such general nature that all wells, leases and facilities in the district area benefit proportionately. The Operator's district office is a field production office whose function is to supervise the drilling and producing operations in the specified district. Such office may be called an area office, or some other designation, as long as it conforms to the specifications indicated above.

District Expense consists of the salaries and expenses of the field production superintendent and other employees located in the district serving properties in the same operating area, whose time is not charged directly to the properties, and the cost of maintaining and operating the field production office and necessary suboffices, and all necessary camps, including housing facilities for employees if required, used in the conduct of the operations of properties in the same operating area. The expense of, less any revenue from, housing and other facilities, may include depreciation or a fair monthly rental in lieu of depreciation on the investment.

Items included in the categories set out below are chargeable to District Expense. Any items not included in these categories should be considered as being covered by administrative overhead rates or as direct charges to the joint property.

ITEMS GENERALLY INCLUDED IN DISTRICT EXPENSE

1. COMPANY LABOR

Salaries of district superintendent, assistant district superintendent, production foremen, assistant production foremen, district production engineers, office clerks and other employees located in the district and performing district functions. Salaries of production foremen and assistant production foremen may be included in District Expense or charged directly to the property, depending on the Operator's procedure.

Vacation and holiday pay, allowable time off for other reasons and company's payment for time off because of sickness and accidents applicable to salaries of personnel properly chargeable to District Expense.

2. CONTRACT LABOR

All contract labor that is not allocated directly to individual leases and/or facilities.

3. TRANSPORTATION

Items of trucking, freight and express costs when such items are incurred directly in the operation or maintenance of district offices or camps, as well as boat, helicopter or airplane expense.

4. SMALL TOOLS AND SUPPLIES

Cost of supplies and cost of repairs and replacements to district tools when such items are for general use and cannot be allocated to any lease or facility. Such supplies will include wiping rags, gloves, safety supplies, etc.

5. AUTOMOBILE EXPENSE

Cost of automobile operations when used by employees whose salaries are chargeable to the district account. Rates for automotive equipment shall generally be in line with schedule of rates adopted by Petroleum Motor Transport Association or some other recognized organization.

6. OFFICE SUPPLIES

Cost of stationery and office supplies, cleaning and repairing of office equipment and rentals paid for use of typewriters or other district office equipment. This includes janitor supplies used in the district office.

7. COMMUNICATIONS EXPENSE

Telephone, telegraph and teletype service rendered to the district; also operating expenses of radio communication systems which serve the district and which are not chargeable to any particular lease or facility operation.

8. TRAVELING EXPENSE

Items of traveling expense of district employees when such expense is for the sole benefit of the district. Excluded are personal and travel expense of district personnel attending oil shows, API meetings, etc. Costs in connection with company training schools which are for the primary benefit of the Operator are also excluded;

9. MOVING EXPENSE

Costs of moving and transfer of district employees (as defined above) when transferred within or into the district. These costs shall be excluded when they are of primary benefit for the Operator, such as transfer of trainees.

10. MEMBERSHIPS AND DUES

Dues and membership in technical organizations with which district personnel should be affiliated. Memberships, contributions or donations paid to a civic organization shall be excluded.

11. SUBSCRIPTIONS

Subscriptions to periodicals, magazines, trade journals and newspapers.

12. MAPS, PHOTOSTATS AND BLUEPRINTS

Expenses incurred by Production Department for drafting, mapping, photostat and blue printing work, when such service is of a general district nature and cannot be allocated to a particular lease or facility.

13. REPAIRS AND MAINTENANCE TO DISTRICT AND CAMP FACILITIES

Costs of painting and repairing of district office and camp buildings. Also includes costs of repairing and maintenance of district and camp roads, walks, fences and water, electric and gas lines or facilities serving the district or camp.

14. PHYSICAL AND MEDICAL EXAMINATIONS

Costs of pre-employment and medical examinations of personnel to be employed in the district. Costs of annual or periodic examinations and immunizations shall be included.

15. TAXES

Ad valorem taxes on buildings and equipment when the investment for such buildings and equipment is charged to the district. In those instances where Operator assesses a monthly rental charge for buildings and equipment owned 100% by the Operator, the ad valorem taxes shall be excluded.

On personnel whose time is chargeable to District Expense.
Federal and State Excise (where applicable)

16. INSURANCE

Costs of all types of insurance, including workmen's compensation and public liability insurance, when such insurance is applicable to the district.

17. RENTALS

Surface rentals paid in connection with sites for district production offices, camps or other facilities used specifically for district purposes. Also included is rent paid for buildings, office and storage space used by district employees; rentals paid in connection with rights-of-way for district purposes.

18. UTILITIES

All utilities when they are purchased for consumption by district facilities.

19. DEPRECIATION ON DISTRICT INVESTMENT

Depreciation may be charged on Operator's wholly owned district tools and equipment, district camps, district office equipment, etc., only if same is not recoverable through other means such as direct charges, rentals, etc.

20. SAFETY

Costs of safety meetings, safety award dinners and first aid training schools.

METHODS OF ALLOCATING DISTRICT EXPENSE

The committee recognizes that many changes have taken place in the methods of producing oil and in labor relations between employer and employee. The increased use of contract labor, proration problems, FPC rulings and regulations, stronger labor unions, increased well depth, LACT installations, increased volume of secondary recovery operations, decentralization of offices and the installation of integrated data processing equipment, have resulted in more varied ways of allocating District Expense to properties served and therefore making it more difficult to recommend any particular basis for allocation. However, District Expense should be apportioned to all properties served on some equitable basis consistent with Operator's accounting practice.

Fifteen or twenty years ago, it was common practice in the industry to allocate district expense either on a well basis or a payroll labor basis, with the payroll labor basis being prevalent. Present day allocations are made on a (1) well basis, (2) payroll labor basis, (3) contract labor basis, (4) percentage of certain development and operating costs, and (5) fixed flat rate basis. The prevalent basis presently used in the industry is the well basis.

ADMINISTRATIVE OVERHEAD

Administrative expense for joint account purposes is defined as those general costs attendant to executive and administrative functions incurred by the Operator at the home, divisional, area, regional, or similar administrative office above the operating level serving, indirectly, the development and producing operations. In the case of the large or "major" companies, the administrative function can be located in more than one office, while in the case of the smaller or "independent" companies the function is usually located at the home office. Administrative overhead applicable to development and production operations includes the overhead of the related facility operations, such as gas systems and plants, salt water disposal systems, additional recovery systems, etc., if such other facility operations are administered by a common staff with the development and producing operations. Administrative overhead costs of such functional operations as refinery, sales, oil and gas transportation, oil purchases and sales, manufacturing and other operations not directly associated with producing operations should not be included in administrative expense for our purpose. In determining the apportionment of administrative cost of any particular account, equitable weight should be given to all functions served.

It is common practice in the industry to negotiate an agreed allowance for reimbursement to the Operator for overhead cost applicable to the joint account. Such provisions should be reviewed periodically to determine that the allowance is equitable and commensurate with Operator's costs, considering changes in the services furnished, the fluctuation of wages and other cost changes from the date of the agreement.

The following reflects representative listing of functions, the cost of which should be included in the overhead allowance:

General Management

General Operating Administration

- Drilling Superintendent and Office Staff
- Production Superintendent and Office Staff
- Civil Engineering
- Reservoir Analysis and Engineering
- Petroleum Engineering
- Negotiation of Production and Residue Gas Sales
- Negotiation of Major Gas Sales
- Preparation and Negotiation of Joint Operating Contracts
- Preparation of General Production Records
- Traveling and Transportation Expense of Home Office Employees

General Accounting & Services

- Checking of Invoices
- Preparation of Pay Checks
- Responsibility of Account Distribution or Coding
- Payment of Vendor's Invoices
- Maintain Farm Investment Record
- Maintain Joint Interest Cost Records
- Preparation of Joint Interest Billing
- Preparation of Royalty Checks
- Machine Accounting Section
- Photostat and Other Reproduction Service
- Ad Valorem Tax Service or Counsel
- Income Tax Service or Counsel
- Systems and Procedures
- Internal Auditing

Title Record and Division Order Administration

- Landmen and Titlemen
- Maintenance of Division of Interest Records
- Obtaining Royalty Signatures

Exploration Administration

- Geologists
- General Research
- Geophysicists

General Purchasing Administration

Industrial Relation & Public Relation Administration

- Employee Relation Counselor
- Safety Engineer
- Industrial Nurse or Doctor
- Dinners, Parties, etc.
- Safety Awards
- Incentive Awards
- Thanksgiving Turkeys or Christmas Baskets
- Contributions to Charity or Civic Organizations
- Special Investigators
- Administration of Benefit Plans

General Oil & Gas Well Proration & Pricing Administration

- Preparation of Reports to and representation before Governmental Agencies

General Legal Counsel

Preparation of Contracts
Claims and Litigation
Title and Other Opinions

Transportation & Traffic Administration**Insurance Administration**

It is not intended that this listing include all items applicable to every Operator but serve as a guide for similar functions. The joint account should not receive a direct charge for these services unless by special agreement or unless employees are temporarily assigned to and directly employed on the joint property, even though some of the functions are contract services performed by third parties.

It is recognized that the Operator of joint properties, in most instances, does not recover his actual cost. The purpose of this section is to provide a mutual understanding between Operators of the functions intended to be included in the overhead allowance.

OPERATOR'S FULLY OWNED WAREHOUSE OPERATING AND MAINTENANCE EXPENSE

Warehouse handling charges to the joint property are intended to provide the Operator a return of the costs of storing and handling that material on which it is not practical nor feasible to purchase directly from outside sources at the required time of need. Material purchased for use on the joint property should be charged directly thereto, thus avoiding warehouse handling charges. No handling charges should be made merely for accounting control purposes when material is moved through the Operator's warehouse.

It is the practice of some Operators to include warehouse expense in the district expense account which is prorated to all properties served, while it is the practice of other Operators to account for warehouse expense separately in an account not allocable to joint properties. The Operator should recover warehouse costs applicable to the joint property either through an apportionment of district expense or by an agreed percentage assessment, but he should not duplicate this cost by applying both applications to the joint account.

In those instances when the contract provides for a percentage assessment of the value of material furnished from the Operator's warehouse, warehousing costs should not be passed on to the joint account in any other manner. The assessment is in lieu of such costs as salaries of warehousemen or clerks receiving and disbursing stock items, depreciation on material storage facilities, loading, unloading and transportation in to stocking point, maintenance and care of stocks and storage facilities and any other costs incurred directly for the purpose of warehousing material. If a portion of any district expense function serves the warehouse operation, then such portion should be included in the Operator's warehouse expense rather than district expense.

COMBINED FIXED RATES

The Combined Fixed Rate is a provision whereby all charges considered includable under sections of this model form interpretation titled "District Expense", "Administrative Overhead" and "Operator's Fully Owned Warehouse Operating and Maintenance Expense" are combined into a fixed rate.

The Combined Fixed Rate is initially established during the negotiation of the associated Joint Operating Agreement. The rate should be commensurate with the Operator's cost of providing the three component services which form the basis of the rate. An acceptable method is for an Operator to add to his administrative overhead rate, the average rate per well for district expense and warehouse expense for the district in which the property is located. In negotiating this rate, the Non-Operators should be apprised of the Operator's accounting practices regarding certain expenditures before the Operating Agreement is approved. Such information is essential for proper evaluation of proposed rates and will preclude possible misunderstanding among the parties with regard to direct and indirect charges. For example, an Operator may be requested to specify what technical employees, if any, or what type of miscellaneous field operating supplies, if any, are to be considered a direct charge. It is emphasized that a joint account should not receive a direct charge for any materials or services which are includable in the above mentioned sections unless by special agreement.

The fixed rate may either include or exclude salaries and expenses of Production Foremen. Consequently, the rate should be established according to the option selected. Salaries and expenses of Production Foremen should be interpreted as including all associated expenses necessary for proper performance of the foreman's function. This optional provision permits the various companies in the industry to treat such costs in accordance with their respective established accounting practices.

The rates specified in the Joint Operating Agreement and the well status information for the associated jointly owned property are the only elements necessary for the Operator to administer or the Non-Operators to verify.

The use of Combined Fixed Rates eliminates the fluctuation of indirect charges that frequently occur with District Expense allocations. Consequently, changes in drilling activity or well count on other properties under the Operator's jurisdiction have no effect on the joint account. An Operator may also move, consolidate, or redefine the functions of the various offices indirectly serving the property without affecting the costs chargeable to the joint account. Each property is unaffected by the activities of other properties.

Specific Combined Fixed Rates may be amended from time to time by mutual agreement between the parties if, in practice, the rates are determined to be insufficient or excessive. Any amendment to the original provisions would be considered unusual since the rates are subject to an annual adjustment based on the percentage increase or decrease in the average weekly earnings of Crude Petroleum and Gas Production Workers for the last calendar year compared to the preceding calendar year.

CONSTRUCTION OVERHEAD

During the construction phase of certain projects, hereinafter defined, overhead cost related to the construction project is incurred by the Operator. This cost is commonly referred to as Construction Overhead, whereas Administrative Overhead normally referred to in joint operations applies to the more usual drilling and producing operations. Construction Overhead is defined as those general costs attendant to executive and administrative functions incurred by the Operator at the home, divisional, area, regional or similar administrative office above the operating level serving indirectly the particular construction project in progress. The Construction Overhead charge for joint account purposes allows the Operator to recover these overhead costs. Reference is made to the section titled "Administrative Overhead" for the types of charges that would be included and to the section titled "Labor" for the types of charges that would not be included in the overhead allowance.

- I. Construction projects which are covered by the Construction Overhead provision include the following:
 1. Compressor plant may consist of a single stage compressor serving a single lease or it may consist of multi-stage compression with several compressors serving many leases. It is not uncommon to include dehydration equipment along with and in conjunction to the compression of the gas, and under these circumstances the cost of such dehydration equipment should be included in the total amount subject to Construction Overhead. It should be noted that ordinarily dehydration equipment (e.g. LTX Units) is considered normal production equipment and not subject to Construction Overhead.
 2. Water Stations
A water station will consist of the pumps, lines, tanks, treaters, and all other equipment necessary for complete water system. The type of water stations or systems contemplated by Section III, Paragraph 6 of COPAS-62 would not include water systems, and their related equipment used for camps, warehouses or office locations, or drilling locations.
 3. Secondary Recovery or Pressure Maintenance Installations
The below listed facilities should serve as a guide to the types of secondary recovery, additional recovery or pressure maintenance installations subject to Construction Overhead:
 - a. Water Flood
 - b. Gas Injection
 - c. Steam Injection
 - d. Fire Flood
 - e. Miscible Drive (LPG)
 4. Hydrocarbon Recovery Unit
 5. Gas Conditioning Plant
 6. Vapor Recovery Unit
 7. Salt Water Disposal Facilities
Salt water disposal facilities would consist of all necessary tanks, earthen reservoirs, pumps, treating equipment and lines.

8. Other Such Projects

Construction Overhead should be allowed for other construction projects such as drilling and producing platforms and terminals that obligate an Operator to incur design and indirect supervision expenses that are not otherwise covered by Administrative Overhead or Combined Fixed Rates which apply to the usual drilling and producing operations. This paragraph would not apply to any projects that would be considered routine and usual lease, installations.

The above usually includes, but is not limited to tanks, lines, treating equipment, pumps, surface reservoirs, or other construction.

II. Projects which are not covered by the Construction Overhead provision usually include the following.

1. Pumping Units
2. Flow Lines
3. Tank Battery
4. LACT Unit
5. Dehydration Unit (e. g. LTX)
6. Electrical Systems
7. Roads, Bridges, Canals

Projects of this nature are normally considered routine and usual lease installations which do not involve a significant amount of design and indirect supervision and for which the Operator receives compensation for such indirect costs through the Administrative Overhead or Combined Fixed Rate charges. It should be noted, however, that when the installation of such equipment is an integral part of a major construction project such as water stations, secondary recovery or pressure maintenance installations, and salt water disposal facilities, construction overhead may be applied to such costs. Whether the construction cost comes under this section or I above will depend upon the intent of use for which the construction project was designed. For example, if a road and/or bridge was built for use on a lease or well, the indirect costs would be recovered through the administrative overhead rate. However, if the road and/or bridge was built for compressor plants, water stations, or other projects covered by construction overhead, the indirect cost of the road and/or bridge would be recovered through the construction overhead rate. Where unusual circumstances exist (such as a large LACT unit serving many different leases having divergent interest, major road construction, major dehydration installations, etc.) a separate agreement should be entered into to cover, among other things, Construction Overhead.

- III. Rates for Construction Overhead are applied to total gross cost of a single project. Total gross cost means all direct costs charged to the project, reduced by the credits for refunds or returns. Additions, modifications, enlargements, etc., required at some date subsequent to the physical completion of the project would constitute a separate project.
- IV. Where major installations or projects are constructed involving several leases regardless of the two general categories mentioned above in paragraphs I and II as being either usual or unusual production or drilling operations, it may be more desirable to enter into a separate agreement covering not only the construction, but also the operations and subsequent changes in investment ownership that may occur

IV. BASIS OF CHARGES TO JOINT ACCOUNT

MATERIALS FURNISHED FROM OPERATOR'S WAREHOUSE OR OTHER PROPERTIES

A uniform method of pricing new and used materials is necessary in order to provide a yardstick by which the parties can operate with a minimum of differences regarding the pricing of materials.

TUBULAR GOODS PRICING

Tubular goods two inches and over furnished from the Operator's warehouse or other properties should be priced on Eastern Mill base on a minimum carload basis, effective at date of movement and f.o.b. the railway receiving point capable of handling such deliveries which is nearest the joint property, regardless of quantity. A "minimum carload basis" interpreted to mean the minimum freight rate applicable to a 70,000-pound carload. It is recognized that this basis may vary in some isolated instances.

Youngstown, Ohio should be used as the pricing basis for all API casing; Lorain, Ohio, for all API tubing and seamless and electric weld line pipe; and Indiana Harbor, Indiana, for continuous weld line pipe. Tubular goods which are not produced at these mills should be priced at the producing mill; for example, A. O. Smith casing, which is produced at Milwaukee, Wisconsin, and spiral weld casing at Middletown, Ohio, and Chicago, Illinois.

Special tubular goods, such as Hydril threaded, Hardy-Griffin threaded, doped and wrapped, plastic coated, etc., should be priced at the Eastern Mill base, as defined above, to the railway receiving point nearest the joint property, plus transportation to the shop or plant where the special service is performed plus transportation from the shop or plant to the joint property, however, in no case shall the amount charged for hauling exceed the actual hauling cost incurred. Costs of the special services should be added to arrive at the delivered price.

TUBULAR GOODS - HAULING COSTS

Actual hauling costs of tubular goods (new or used) should be equalized to the cost from the nearest railway receiving point to the joint property, provided the gross charge is over one hundred dollars (\$100) per each movement. In equalized hauling charges the Operator may include ten cents (10c) per hundredweight on all tubular goods furnished from his stocks in lieu of one loading at the warehouse or other property and one unloading at the joint property. These costs should theoretically be the same as loading from a car at the rail point and unloading at the property had the material been purchased and moved directly from the mill. If the Operator charges ten cents (10c) per hundredweight, the actual cost of all loading and unloading should be absorbed by the Operator.

OTHER MATERIAL - PRICING

Other material should be priced at the current replacement cost of the same kind of material, effective at date of movement and f.o.b. the railway receiving point, as defined above, or the reliable supply store nearest the joint property. Prices should be obtained from a reputable supplier's published price list. In some instances price lists are not distributed but are quoted by the supplier or manufacturer. Discontinued equipment should be priced the same as comparable equipment if manufactured; otherwise, the last available price of the discontinued equipment should be used.

OTHER MATERIAL - HAULING COSTS

Where current market condition pricing on large items of equipment will result in inequities, it is recommended that the Operator contact the Non-Operators in order to arrive at an acceptable pricing basis.

Actual hauling costs of other material (new or used) should be equalized to the cost from the nearest supply store or railway receiving point as defined above to the joint property, provided the gross charge is over one hundred dollars (\$100) per each movement. Actual cost of loading and unloading should be charged. If prices used are f.o.b. location, actual cost of transporting from the Operator's warehouse or other properties should not be charged.

USED MATERIAL - PRICING

Material in sound and serviceable condition and suitable for reuse without reconditioning should be classified as Condition "B" and priced at seventy-five per cent (75%) of the current price of new material.

Material which is not suitable for its original function until after reconditioning may be furnished to the joint account under one of the two methods defined below:

1. Classified as Condition "B" and priced at seventy-five per cent (75%) of the current price of new material. The cost of reconditioning should be absorbed by the Operator or transferring property.
2. Classified as Condition "C" and priced at fifty per cent (50%) of current new price. The cost of reconditioning should also be charged to the receiving property provided Condition "C" value, plus cost of reconditioning, does not exceed Condition "B" value.

Method number 1 above is preferred and recommended; however, either is acceptable if consistently applied.

Material no longer suitable for its original function, but suitable for some other function, should be priced on a basis commensurate with its use (i.e. casing or tubing used as line pipe, sucker rods used as reinforcing steel or fencing, etc.)

Obsolete material or material which cannot be classified as Condition “B” or Condition “C” should be priced at a value commensurate with its use.

Material involving erection costs should be priced at the applicable percentage of the current knocked-down price of new material. If such material is moved erected, the normal cost of erection should be added to the price of the material.

Current replacement costs should include sales tax that would be paid by the Operator if the material were purchased in the state in which the joint property is located.

EQUIPMENT AND FACILITIES FURNISHED BY OPERATOR

The term “equipment and facilities” is used in the broad sense to include equipment both mobile, semi-mobile and permanent in nature, and also installations which may be semi-permanent or permanent in nature. Examples of such facilities and the recommended basis of charge are as follows:

<u>Equipment/Facility</u>	<u>Basis of Charge</u>
1. Mobile Equipment	
Airplanes	Hour
Automobiles	Mile/Hour
Trucks	Mile/Hour
Tractors	Hour
Bulldozers	Hour
Mobile Cranes	Hour
Trailer-Mounted Test Separators	Hour
Truck-Mounted Paraffin Scraping Units	Hour
Trailer-Mounted Cement Mixers	Hour
Boats	Day
House Trailers	Day
2. Semi-Mobile Equipment	
Drill Rigs	Foot/Day
Workover Rigs	Hour
Pulling Units	Hour
Derricks	Day
Drilling Tender	Day
Barges	Day
3. Semi-Permanent Installations	
Skid-Mounted Separators	Day/Volume
Skid-Mounted Compressors	Day/Volume
4. Permanent Installations	
Permanent Compressor Stations	Volume
Salt Water Disposal Wells	Volume/Wells
Freshwater Wells and Supply Systems	Volume
Roads	Wells
Production Platform	Volume/Wells
Canals	Wells
Docks	Wells
Oil Storage and Loading Facilities	Volume/Wells
Gathering Systems	Volume/Wells
LACT Systems	Volume/Wells
Laboratory Services	Hour/Unit
District Facilities	Allocation/Fixed Rate
5. Miscellaneous	
Drill Pipe	Foot per Day
Casing Setting Tools	Day
Well testing Equipment	Day

Normally, the joint property rents the use of these facilities when in practice the joint property has need for only a small portion of the service available from the facility. As an example, one joint interest well located in proximity to a large number of wells wholly owned by the Operator will normally be furnished the services of a salt water disposal system or compressor system on a cost of service or rental basis. The same practice is true in the case of automobiles, trucks, and drilling equipment where the equipment may be in use only for a short time on the joint interest property.

Where the cost of the service is expected to be material or perhaps involves a greater than normal cost, the Operator is well advised to obtain a separate letter or some other type of agreement authorizing the charge. This is advisable because the Accounting Procedure is general in nature and limits the Operator to charge an amount not in excess of the rates normally prevailing in the field. In many instances there is no established rate, and it is necessary to rely upon the Operator's cost in establishing the rates.

Although the rates charged by the Operator should be in line with those normally prevailing in the field, the Operator is also charged with the duties and acts of a prudent individual experienced in oil field operations and technology; therefore, in cases of bona fide emergencies where time is of the essence, it is felt that the Operator is authorized to exceed the normal prevailing rates where time and circumstances dictate the use of facilities nearest at hand and do not afford the opportunity to shop for the lowest or prevailing cost.

When the Operator's wholly owned facilities are used on the joint property, he is entitled to recover the following types of costs prorated on the basis of time actually used on the joint property:

Labor, Maintenance, Repair, Depreciation of investment including overhead on construction, Insurance, Interest on investment, Taxes.

The current consensus is that an Operator should not charge the joint account for profit for the use of his equipment. The interest on investment is considered the cost of money and not a profit. A six percent per annum rate on the Operator's depreciated investment is currently normal; however, it is felt that a rate approximately two percent above the prime lending rate is reasonable.

The greatest difficulty in determining reasonable depreciation is encountered in the case of permanent installations of the type of compressor stations and salt water disposal systems. In order to accommodate the joint interest property along with his own and other joint property, the Operator will frequently install a larger installation than he needs for his own use. If a high rate of depreciation is not charged in the early life of the installation, later the Operator may be left with greater capacity than needed for his remaining wells; and thus the burden of having served the joint property is shifted to the Operator's sole account. Neither a depreciation rate based on unit of production nor a rate based on passage of time is entirely adequate to prevent such an inequity. Also, the cost of the foundations of these permanent installations, which are not salvable, is frequently equal to or greater than the equipment itself; therefore, if the installation is expected to be used for a period of one-half its useful life, the foundation, not being movable, must be fully depreciated, while the compressor itself should only be depreciated down to its expected salvage value. The cost of intangibles, such as transportation, dirt work, etc., not salvable, should be fully depreciated.

In those instances when the maintenance and repair cost of the facility is absorbed by the Operator, the depreciation rate should be considered in its appropriate relationship with these costs in establishing the over-all rate. In the earlier life of the facility, maintenance and repair costs should be relatively insignificant; whereas, in the later life of the facility (when possibly the facility may be fully depreciated on the Operator's books), the maintenance and repair costs would tend to increase substantially. It is, therefore, suggested that an equitable rate be determined to include not only depreciation, but maintenance and repair costs. This logic should be applied in general to Categories 1 Mobile Equipment, 2 Semi-Mobile Equipment, 3 Semi-Permanent Installations, and 5 Miscellaneous Equipment. This factor of cost should continue in the rental charge throughout the life of the equipment, regardless of the fact that the facility might be fully depreciated on the Operator's books.

In those instances when the maintenance and repair cost of the facility is charged to the joint account, the depreciation rate should be considered separately from the maintenance and repair costs. After giving proper consideration to salvage value, estimated service life, and other conditions mentioned above, an equitable depreciation rate should be determined to recover the Operator's cost. After such cost (including interest on investment, overhead on construction and other costs originally absorbed by Operator) has been recovered, the depreciation element of rental should be discontinued. This logic should generally be applied to Category 4 – Permanent Installations.

The period of time a facility is charged to the joint account compared to the time the facility is actually in use is sometimes a matter of controversy, and it is not always an easy matter to arrive at an equitable solution. Generally, in the case of Categories 1 Mobile Equipment, 2 Semi-Mobile Equipment, 3 Semi-Permanent Installations and 5 Miscellaneous Equipment, charges should be made for the time a facility is at the exclusive disposal and use of the joint account and is required to be available on a stand-by basis to adequately serve the joint account. We assume, of course, that the Operator is a prudent one and does not move a facility into the service of a joint property before its use is required nor permit the facility

to remain on or in the service of the joint property when it is not necessary. In the case of Category 4 Permanent Installations, the period of time the facility is charged should generally be on the basis of actual time used. This would be appropriate for permanent compressor stations, salt water disposal wells, fresh water wells and supply systems, gathering systems and LACT systems. In other instances charges for facilities in this category (such as roads, canals, docks and oil storage and loading facilities) should be based on their availability for use if the service is of a continuing or permanent nature and by special agreement if the service is of a temporary nature.

The joint account should be charged with transportation to and from the joint location except when transferred to another service location, and charges should also include cost of setting up and dismantling the facility when such services are particularly required for the joint account.

In conclusion, where wholly owned facilities are rented to the joint account and the costs are anticipated to be equal to or less than the prevailing field price, the Operator can adequately pass these costs on under the provisions of the Accounting Procedure. In instances where the cost is expected to exceed the charge prevailing in the field or normal in industry in the area, the Operator should obtain prior agreement from the Non-Operators.

V. DISPOSAL OF MATERIAL

GENERAL

The Operating Agreement provides for the disposition of surplus material by the following methods:

- Purchase by Operator or Non-Operator/s
- Division in Kind
- Sales to Outsiders

Proper credits to the joint account resulting from the disposition of surplus material by any one of the above methods should be reflected in the monthly statement covering the period in which the transaction occurred. Material should not be removed from the joint property without a transfer or similar source document being prepared initiating credit to the joint account. Credit to the joint account is determined by the condition of the material and pricing provisions as set forth in the Operating Agreement, or as to sales, by the actual selling price.

Junk material is normally held by the Operator for the joint account until a reasonable quantity is accumulated and then sold to an outsider. The Operating Agreement usually provides that junk shall be disposed of by transfer or sale, indicating that the Operator has the right to take such material into its 100 percent account; however, the most acceptable practice in the industry is to sell to an outsider.

MATERIAL PURCHASED BY OPERATOR OR NON-OPERATOR/S

The Operator has the prerogative subject to contract limitations to purchase for its own account surplus condition "A" or "B" material without approval of the Non-Operators.

Reference to "C" and "D" condition material has been omitted from the COPAS-1962 Accounting Procedure. Such material requires repairing prior to use under its original function. It is felt that when the Operator desires to take the material into its 100 percent account, the most equitable method of handling this type material is for the joint account to be charged with repair costs and for the Operator to grant credit at condition "B" value in those instances where the cost of repairs plus the value at condition "C" do not exceed the value at condition "B".

It is pertinent that any disposition of controllable material, regardless of condition value (except as to junk), which is not purchased by the Operator, requires approval of the Non-Operator/s. Occasionally, the Operator may desire to acquire a piece of equipment from a joint property that is properly of condition "B" value, thereby requiring credit to the joint account at 75 percent of new value; however, due to the age of the equipment and the fact that it is obsolete material, the Operator may not feel that 75 percent of new value is equitable. Nevertheless, if the Operator acquires the material, it must grant credit in accordance with the provisions of the Accounting Procedure or obtain prior approval of Non-Operator/s for a stipulated value.

DIVISION IN KIND

The Operator and Non-Operator/s may elect to divide, in proportion to each party's interest, surplus material from the joint property. Due to the time, expense and inconvenience involved, a division of material among Operators will be infrequent except as to shortage of material or in secondary recovery projects where large quantities of material often become surplus.

At such time as a division does occur, the Operator should bill the party or parties acquiring the material as if it were a sale to an outsider and, upon receipt of payment, credit the joint account with the proceeds therefrom. In the event the material or equipment involved is of such nature that division in kind would be impractical or impossible, the parties desiring the material must arrive at a mutual agreement as to its disposition; or if unable to do so, the Operator shall sell the material as provided below.

SALES TO OUTSIDERS

Disposition of material by this method is accomplished on the basis of competitive bidding in writing from outsiders. This will normally occur after it has been determined that neither the Operator nor Non-Operators have need for the material and approval has been obtained by the Operator to dispose of the material at the best price possible.

In the absence of explanatory detail in the Operating Agreement covering the disposition of material, it is recommended that after approval has been obtained by the Operator to dispose of the material, the interest owners as well as outsiders be allowed the opportunity to submit bids. If the high bid is satisfactory, the sale will be made to the high bidder.

KNOX 601, TULSA 74161

COPAS — 1974

Recommended by the
Council of Petroleum
Accountants Societies of
North America

COPAS

EXHIBIT " C "

Attached to and made a part of that Operating Agreement dated September 3, 2013, between Yates Petroleum Corporation and Chi Operating, Inc. as Operators and Chi Energy, Inc., et al, as Non-operators

ACCOUNTING PROCEDURE JOINT OPERATIONS

I. GENERAL PROVISIONS

1. Definitions

"Joint Property" shall mean the real and personal property subject to the agreement to which this Accounting Procedure is attached.

"Joint Operations" shall mean all operations necessary or proper for the development, operation, protection and maintenance of the Joint Property.

"Joint Account" shall mean the account showing the charges paid and credits received in the conduct of the Joint Operations and which are to be shared by the Parties.

"Operator" shall mean the party designated to conduct the Joint Operations.

"Non-Operators" shall mean the parties to this agreement other than the Operator.

"Parties" shall mean Operator and Non-Operators.

"First Level Supervisors" shall mean those employees whose primary function in Joint Operations is the direct supervision of other employees and/or contract labor directly employed on the Joint Property in a field operating capacity.

"Technical Employees" shall mean those employees having special and specific engineering, geological or other professional skills, and whose primary function in Joint Operations is the handling of specific operating conditions and problems for the benefit of the Joint Property.

"Personal Expenses" shall mean travel and other reasonable reimbursable expenses of Operator's employees.

"Material" shall mean personal property, equipment or supplies acquired or held for use on the Joint Property.

"Controllable Material" shall mean Material which at the time is so classified in the Material Classification Manual as most recently recommended by the Council of Petroleum Accountants Societies of North America.

2. Statement and Billings

Operator shall bill Non-Operators on or before the last day of each month for their proportionate share of the Joint Account for the preceding month. Such bills will be accompanied by statements which identify the authority for expenditure, lease or facility, and all charges and credits, summarized by appropriate classifications of investment and expense except that items of Controllable Material and unusual charges and credits shall be separately identified and fully described in detail.

3. Advances and Payments by Non-Operators

Unless otherwise provided for in the agreement, the Operator may require the Non-Operators to advance their share of estimated cash outlay for the succeeding month's operation. Operator shall adjust each monthly billing to reflect advances received from the Non-Operators.

Each Non-Operator shall pay its proportion of all bills within fifteen (15) days after receipt. If payment is not made within such time, the unpaid balance shall bear interest monthly at the rate of twelve percent (12%) per annum or the maximum contract rate permitted by the applicable usury laws in the state in which the Joint Property is located, whichever is the lesser, plus attorney's fees, court costs, and other costs in connection with the collection of unpaid amounts.

4. Adjustments

Payment of any such bills shall not prejudice the right of any Non-Operator to protest or question the correctness thereof; provided, however, all bills and statements rendered to Non-Operators by Operator during any calendar year shall conclusively be presumed to be true and correct after twenty-four (24) months following the end of any such calendar year, unless within the said twenty-four (24) month period a Non-Operator takes written exception thereto and makes claim on Operator for adjustment. No adjustment favorable to Operator shall be made unless it is made within the same prescribed period. The provisions of this paragraph shall not prevent adjustments resulting from a physical inventory of Controllable Material as provided for in Section V.

5. Audits

A. Non-Operator, upon notice in writing to Operator and all other Non-Operators, shall have the right to audit Operator's accounts and records relating to the Joint Account for any calendar year within the twenty-four (24) month period following the end of such calendar year; provided, however, the making of an audit shall not extend the time for the taking of written exception to and the adjustments of accounts as provided for in Paragraph 4 of this Section I. Where there are two or more Non-Operators, the Non-Operators shall make every reasonable effort to conduct joint or simultaneous audits in a manner which will result in a minimum of inconvenience to the Operator. Operator shall bear no portion of the Non-Operators' audit cost incurred under this paragraph unless agreed to by the Operator.

6. Approval by Non-Operators

Where an approval or other agreement of the Parties or Non-Operators is expressly required under other sections of this Accounting Procedure and if the agreement to which this Accounting Procedure is attached contains no contrary provisions in regard thereto, Operator shall notify all Non-Operators of the Operator's proposal, and the agreement or approval of a majority in interest of the Non-Operators shall be controlling on all Non-Operators.

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II. DIRECT CHARGES

Operator shall charge the Joint Account with the following items:

1. Rentals and Royalties

Lease rentals and royalties paid by Operator for the Joint Operations.

2. Labor

- A. (1) Salaries and wages of Operator's field employees directly employed on the Joint Property in the conduct of Joint Operations.
- (2) Salaries of First Level Supervisors in the field.
- (3) Salaries and wages of Technical Employees directly employed on the Joint Property if such charges are excluded from the Overhead rates.
- B. Operator's cost of holiday, vacation, sickness and disability benefits and other customary allowances paid to employees whose salaries and wages are chargeable to the Joint Account under Paragraph 2A of this Section II. Such costs under this Paragraph 2B may be charged on a "when and as paid basis" or by "percentage assessment" on the amount of salaries and wages chargeable to the Joint Account under Paragraph 2A of this Section II. If percentage assessment is used, the rate shall be based on the Operator's cost experience.
- C. Expenditures or contributions made pursuant to assessments imposed by governmental authority which are applicable to Operator's costs chargeable to the Joint Account under Paragraphs 2A and 2B of this Section II.
- D. Personal Expenses of those employees whose salaries and wages are chargeable to the Joint Account under Paragraph 2A of this Section II.

3. Employee Benefits

Operator's current costs of established plans for employees' group life insurance, hospitalization, pension, retirement, stock purchase, thrift, bonus, and other benefit plans of a like nature, applicable to Operator's labor cost chargeable to the Joint Account under Paragraphs 2A and 2B of this Section II shall be Operator's actual cost not to exceed twenty per cent (20%).

4. Material

Material purchased or furnished by Operator for use on the Joint Property as provided under Section IV. Only such Material shall be purchased for or transferred to the Joint Property as may be required for immediate use and is reasonably practical and consistent with efficient and economical operations. The accumulation of surplus stocks shall be avoided.

5. Transportation

Transportation of employees and Material necessary for the Joint Operations but subject to the following limitations:

- A. If Material is moved to the Joint Property from the Operator's warehouse or other properties, no charge shall be made to the Joint Account for a distance greater than the distance from the nearest reliable supply store, recognized barge terminal, or railway receiving point where like material is normally available, unless agreed to by the Parties.
- B. If surplus Material is moved to Operator's warehouse or other storage point, no charge shall be made to the Joint Account for a distance greater than the distance to the nearest reliable supply store, recognized barge terminal, or railway receiving point unless agreed to by the Parties. No charge shall be made to the Joint Account for moving Material to other properties belonging to Operator, unless agreed to by the Parties.
- C. In the application of Subparagraphs A and B above, there shall be no equalization of actual gross trucking cost of \$200 or less excluding accessorial charges.

6. Services

The cost of contract services, equipment and utilities provided by outside sources, except services excluded by Paragraph 9 of Section II and Paragraph 1. ii of Section III. The cost of professional consultant services and contract services of technical personnel directly engaged on the Joint Property if such charges are excluded from the Overhead rates. The cost of professional consultant services or contract services of technical personnel not directly engaged on the Joint Property shall not be charged to the Joint Account unless previously agreed to by the Parties.

7. Equipment and Facilities Furnished by Operator

- A. Operator shall charge the Joint Account for use of Operator owned equipment and facilities at rates commensurate with costs of ownership and operation. Such rates shall include costs of maintenance, repairs, other operating expense, insurance, taxes, depreciation, and interest on investment not to exceed eight per cent (8%) per annum. Such rates shall not exceed average commercial rates currently prevailing in the immediate area of the Joint Property.
- B. In lieu of charges in Paragraph 7A above, Operator may elect to use average commercial rates prevailing in the immediate area of the Joint Property less 20%. For automotive equipment, Operator may elect to use rates published by the Petroleum Motor Transport Association.

8. Damages and Losses to Joint Property

All costs or expenses necessary for the repair or replacement of Joint Property made necessary because of damages or losses incurred by fire, flood, storm, theft, accident, or other cause, except those resulting from Operator's gross negligence or willful misconduct. Operator shall furnish Non-Operator written notice of damages or losses incurred as soon as practicable after a report thereof has been received by Operator.

9. Legal Expense

- A. Expense of handling, investigating and settling litigation or claims, discharging of liens, payment of judgments and amounts paid for settlement of claims incurred in or resulting from operations under the agreement or necessary to protect or recover the Joint Property, except that no charge for services of Operator's legal staff or fees or expense of outside attorneys shall be made unless previously agreed to by the Parties. All other legal expense is considered to be covered by the overhead provisions of Section III unless otherwise agreed to by the Parties, except as provided in Section I, Paragraph 3.
- B. Expenses incurred by Operator in representing the Joint Property at hearings or proceedings before state or federal regulatory or administrative agencies.

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10. Taxes

All taxes of every kind and nature assessed or levied upon or in connection with the Joint Property, the operation thereof, or the production therefrom, and which taxes have been paid by the Operator for the benefit of the Parties.

11. Insurance

Net premiums paid for insurance required to be carried for the Joint Operations for the protection of the Parties. In the event Joint Operations are conducted in a state in which Operator may act as self-insurer for Workmen's Compensation and/or Employers Liability under the respective state's laws, Operator may, at its election, include the risk under its self-insurance program and in that event, Operator shall include a charge at Operator's cost not to exceed manual rates.

12. Other Expenditures

Any other expenditure not covered or dealt with in the foregoing provisions of this Section II, or in Section III, and which is incurred by the Operator in the necessary and proper conduct of the Joint Operations.

III. OVERHEAD**1. Overhead - Drilling and Producing Operations**

i. As compensation for administrative, supervision, office services and warehousing costs, Operator shall charge drilling and producing operations on either:

- (XX) Fixed Rate Basis, Paragraph 1A, or
() Percentage Basis, Paragraph 1B.

Unless otherwise agreed to by the Parties, such charge shall be in lieu of costs and expenses of all offices and salaries or wages plus applicable burdens and expenses of all personnel, except those directly chargeable under Paragraph 2A, Section II. The cost and expense of services from outside sources in connection with matters of taxation, traffic, accounting or matters before or involving governmental agencies shall be considered as included in the Overhead rates provided for in the above selected Paragraph of this Section III unless such cost and expense are agreed to by the Parties as a direct charge to the Joint Account.

ii. The salaries, wages and Personal Expenses of Technical Employees and/or the cost of professional consultant services and contract services of technical personnel directly employed on the Joint Property shall () shall not (XX) be covered by the Overhead rates.

A. Overhead - Fixed Rate Basis

(1) Operator shall charge the Joint Account at the following rates per well per month:

Drilling Well Rate \$ 5,400.00
Producing Well Rate \$ 540.00

(2) Application of Overhead - Fixed Rate Basis shall be as follows:

(a) Drilling Well Rate

- [1] Charges for onshore drilling wells shall begin on the date the well is spudded and terminate on the date the drilling or completion rig is released, whichever is later, except that no charge shall be made during suspension of drilling operations for fifteen (15) or more consecutive days.
- [2] Charges for offshore drilling wells shall begin on the date when drilling or completion equipment arrives on location and terminate on the date the drilling or completion equipment moves off location or rig is released, whichever occurs first, except that no charge shall be made during suspension of drilling operations for fifteen (15) or more consecutive days.
- [3] Charges for wells undergoing any type of workover or recompletion for a period of five (5) consecutive days or more shall be made at the drilling well rate. Such charges shall be applied for the period from date workover operations, with rig, commence through date of rig release, except that no charge shall be made during suspension of operations for fifteen (15) or more consecutive days.

(b) Producing Well Rates

- [1] An active well, whether produced or injected into for any portion of the month shall be considered as a one-well charge for the entire month.
- [2] Each active completion in a multi-completed well in which production is not commingled down hole shall be considered as a one-well charge providing each completion is considered a separate well by the governing regulatory authority.
- [3] An inactive gas well shut in because of overproduction or failure of purchaser to take the production shall be considered as a one-well charge providing the gas well is directly connected to a permanent sales outlet.
- [4] A one-well charge may be made for the month in which plugging and abandonment operations are completed on any well.
- [5] All other inactive wells (including but not limited to inactive wells covered by unit allowable, lease allowable, transferred allowable, etc.) shall not qualify for an overhead charge.

(3) The well rates shall be adjusted as of the first day of April each year following the effective date of the agreement to which this Accounting Procedure is attached. The adjustment shall be computed by multiplying the rate currently in use by the percentage increase or decrease in the average weekly earnings of Crude Petroleum and Gas Production Workers for the last calendar year compared to the calendar year preceding as shown by the index of average weekly earnings of Crude Petroleum and Gas Fields Production Workers as published by the United States Department of Labor, Bureau of Labor Statistics, or the equivalent Canadian index as published by Statistics Canada, as applicable. The adjusted rates shall be the rates currently in use, plus or minus the computed adjustment.

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B. Overhead - Percentage Basis

(1) Operator shall charge the Joint Account at the following rates:

(a) Development

____ Percent (%) of the cost of Development of the Joint Property exclusive of costs provided under Paragraph 3 of Section II and all salvage credits.

(b) Operating

____ Percent (%) of the cost of Operating the Joint Property exclusive of costs provided under Paragraphs 1 and 9 of Section II, all salvage credits, the value of injected substances purchased for secondary recovery and all taxes and assessments which are levied, assessed and paid upon the mineral interest in and to the Joint Property.

(2) Application of Overhead - Percentage Basis shall be as follows:

For the purpose of determining charges on a percentage basis under Paragraph 1B of this Section III, development shall include all costs in connection with drilling, redrilling, deepening or any remedial operations on any or all wells involving the use of drilling crew and equipment; also, preliminary expenditures necessary in preparation for drilling and expenditures incurred in abandoning when the well is not completed as a producer, and original cost of construction or installation of fixed assets, the expansion of fixed assets and any other project clearly discernible as a fixed asset, except Major Construction as defined in Paragraph 2 of this Section III. All other costs shall be considered as Operating.

2. Overhead - Major Construction

To compensate Operator for overhead costs incurred in the construction and installation of fixed assets, the expansion of fixed assets, and any other project clearly discernible as a fixed asset required for the development and operation of the Joint Property, Operator shall either negotiate a rate prior to the beginning of construction, or shall charge the Joint Account for Overhead based on the following rates for any Major Construction project in excess of \$ 25,000.00 :

- A. 5 % of total costs if such costs are more than \$ 25,000.00 but less than \$ 100,000.00; plus
 B. 3 % of total costs in excess of \$ 100,000.00 but less than \$1,000,000; plus
 C. 2 % of total costs in excess of \$1,000,000.

Total cost shall mean the gross cost of any one project. For the purpose of this paragraph, the component parts of a single project shall not be treated separately and the cost of drilling and workover wells shall be excluded.

3. Amendment of Rates

The Overhead rates provided for in this Section III may be amended from time to time only by mutual agreement between the Parties hereto if, in practice, the rates are found to be insufficient or excessive.

IV. PRICING OF JOINT ACCOUNT MATERIAL PURCHASES, TRANSFERS AND DISPOSITIONS

Operator is responsible for Joint Account Material and shall make proper and timely charges and credits for all material movements affecting the Joint Property. Operator shall provide all Material for use on the Joint Property; however, at Operator's option, such Material may be supplied by the Non-Operator. Operator shall make timely disposition of idle and/or surplus Material, such disposal being made either through sale to Operator or Non-Operator, division in kind, or sale to outsiders. Operator may purchase, but shall be under no obligation to purchase, interest of Non-Operators in surplus condition A or B Material. The disposal of surplus Controllable Material not purchased by the Operator shall be agreed to by the Parties.

1. Purchases

Material purchased shall be charged at the price paid by Operator after deduction of all discounts received. In case of Material found to be defective or returned to vendor for any other reason, credit shall be passed to the Joint Account when adjustment has been received by the Operator.

2. Transfers and Dispositions

Material furnished to the Joint Property and Material transferred from the Joint Property or disposed of by the Operator, unless otherwise agreed to by the Parties, shall be priced on the following bases exclusive of cash discounts:

A. New Material (Condition A)

- (1) Tubular goods, except line pipe, shall be priced at the current new price in effect on date of movement on a maximum carload or barge load weight basis, regardless of quantity transferred, equalized to the lowest published price f.o.b. railway receiving point or recognized barge terminal nearest the Joint Property where such Material is normally available.
- (2) Line Pipe
 - (a) Movement of less than 30,000 pounds shall be priced at the current new price, in effect at date of movement, as listed by a reliable supply store nearest the Joint Property where such Material is normally available.
 - (b) Movement of 30,000 pounds or more shall be priced under provisions of tubular goods pricing in Paragraph 2A (1) of this Section IV.
- (3) Other Material shall be priced at the current new price, in effect at date of movement, as listed by a reliable supply store or f.o.b. railway receiving point nearest the Joint Property where such Material is normally available.

B. Good Used Material (Condition B)

Material in sound and serviceable condition and suitable for reuse without reconditioning:

(1) Material moved to the Joint Property

- (a) At seventy-five percent (75%) of current new price, as determined by Paragraph 2A of this Section IV.

(2) Material moved from the Joint Property

- (a) At seventy-five percent (75%) of current new price, as determined by Paragraph 2A of this Section IV, if Material was originally charged to the Joint Account as new Material, or

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- (b) at sixty-five percent (65%) of current new price, as determined by Paragraph 2A of this Section IV, if Material was originally charged to the Joint Account as good used Material at seventy-five percent (75%) of current new price.

The cost of reconditioning, if any, shall be absorbed by the transferring property.

C. Other Used Material (Condition C and D)

(1) Condition C

Material which is not in sound and serviceable condition and not suitable for its original function until after reconditioning shall be priced at fifty percent (50%) of current new price as determined by Paragraph 2A of this Section IV. The cost of reconditioning shall be charged to the receiving property, provided Condition C value plus cost of reconditioning does not exceed Condition B value.

(2) Condition D

All other Material, including junk, shall be priced at a value commensurate with its use or at prevailing prices. Material no longer suitable for its original purpose but usable for some other purpose, shall be priced on a basis comparable with that of items normally used for such other purpose. Operator may dispose of Condition D Material under procedures normally utilized by the Operator without prior approval of Non-Operators.

D. Obsolete Material

Material which is serviceable and usable for its original function but condition and/or value of such Material is not equivalent to that which would justify a price as provided above may be specially priced as agreed to by the Parties. Such price should result in the Joint Account being charged with the value of the service rendered by such Material.

E. Pricing Conditions

- (1) Loading and unloading costs may be charged to the Joint Account at the rate of fifteen cents (15¢) per hundred weight on all tubular goods movements, in lieu of loading and unloading costs sustained, when actual hauling cost of such tubular goods are equalized under provisions of Paragraph 5 of Section II.

- (2) Material involving erection costs shall be charged at applicable percentage of the current knocked-down price of new Material.

3. Premium Prices

Whenever Material is not readily obtainable at published or listed prices because of national emergencies, strikes or other unusual causes over which the Operator has no control, the Operator may charge the Joint Account for the required Material at the Operator's actual cost incurred in providing such Material, in making it suitable for use, and in moving it to the Joint Property; provided notice in writing is furnished to Non-Operators of the proposed charge prior to billing Non-Operators for such Material. Each Non-Operator shall have the right, by so electing and notifying Operator within ten days after receiving notice from Operator, to furnish in kind all or part of his share of such Material suitable for use and acceptable to Operator.

4. Warranty of Material Furnished by Operator

Operator does not warrant the Material furnished. In case of defective Material, credit shall not be passed to the Joint Account until adjustment has been received by Operator from the manufacturers or their agents.

V. INVENTORIES

The Operator shall maintain detailed records of Controllable Material.

1. Periodic Inventories, Notice and Representation

At reasonable intervals, Inventories shall be taken by Operator of the Joint Account Controllable Material. Written notice of intention to take inventory shall be given by Operator at least thirty (30) days before any inventory is to begin so that Non-Operators may be represented when any inventory is taken. Failure of Non-Operators to be represented at an inventory shall bind Non-Operators to accept the inventory taken by Operator.

2. Reconciliation and Adjustment of Inventories

Reconciliation of a physical inventory with the Joint Account shall be made, and a list of overages and shortages shall be furnished to the Non-Operators within six months following the taking of the inventory. Inventory adjustments shall be made by Operator with the Joint Account for overages and shortages, but Operator shall be held accountable only for shortages due to lack of reasonable diligence.

3. Special Inventories

Special Inventories may be taken whenever there is any sale or change of interest in the Joint Property. It shall be the duty of the party selling to notify all other Parties as quickly as possible after the transfer of interest takes place. In such cases, both the seller and the purchaser shall be governed by such inventory.

4. Expense of Conducting Periodic Inventories

The expense of conducting periodic Inventories shall not be charged to the Joint Account unless agreed to by the Parties.

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EXHIBIT "C"

Attached to and made a part of that certain Operating Agreement dated August 20, 2001 between OXY USA WTP
Limited Partnership as Operator and Non-Operators.

ACCOUNTING PROCEDURE

JOINT OPERATIONS

I. GENERAL PROVISIONS

1. Definitions

"Joint Property" shall mean the real and personal property subject to the agreement to which this Accounting Procedure is attached.

"Joint Operations" shall mean all operations necessary or proper for the development, operation, protection and maintenance of the Joint Property.

"Joint Account" shall mean the account showing the charges paid and credits received in the conduct of the Joint Operations and which are to be shared by the Parties.

"Operator" shall mean the party designated to conduct the Joint Operations.

"Non-Operators" shall mean the Parties to this agreement other than the Operator.

"Parties" shall mean Operator and Non-Operators.

"First Level Supervisors" shall mean those employees whose primary function in Joint Operations is the direct supervision of other employees and/or contract labor directly employed on the Joint Property in a field operating capacity.

"Technical Employees" shall mean those employees having special and specific engineering, geological or other professional skills, and whose primary function in Joint Operations is the handling of specific operating conditions and problems for the benefit of the Joint Property.

"Personal Expenses" shall mean travel and other reasonable reimbursable expenses of Operator's employees.

"Material" shall mean personal property, equipment or supplies acquired or held for use on the Joint Property.

"Controllable Material" shall mean Material which at the time is so classified in the Material Classification Manual as most recently recommended by the Council of Petroleum Accountants Societies.

2. Statement and Billings

Operator shall bill Non-Operators on or before the last day of each month for their proportionate share of the Joint Account for the preceding month. Such bills will be accompanied by statements which identify the authority for expenditure, lease or facility, and all charges and credits summarized by appropriate classifications of investment and expense except that items of Controllable Material and unusual charges and credits shall be separately identified and fully described in detail.

3. Advances and Payments by Non-Operators

A. Unless otherwise provided for in the agreement, the Operator may require the Non-Operators to advance their share of estimated cash outlay for the succeeding month's operation within fifteen (15) days after receipt of the billing or by the first day of the month for which the advance is required, whichever is later. Operator shall adjust each monthly billing to reflect advances received from the Non-Operators.

B. Each Non-Operator shall pay its proportion of all bills within fifteen (15) days after receipt. If payment is not made within such time, the unpaid balance shall bear interest monthly at the prime rate in effect at Bank of America in San Francisco on the first day of the month in which delinquency occurs plus 1% or the maximum contract rate permitted by the applicable usury laws in the state in which the Joint Property is located, whichever is the lesser, plus attorney's fees, court costs, and other costs in connection with the collection of unpaid amounts.

4. Adjustments

Payment of any such bills shall not prejudice the right of any Non-Operator to protest or question the correctness thereof; provided, however, all bills and statements rendered to Non-Operators by Operator during any calendar year shall conclusively be presumed to be true and correct after twenty-four (24) months following the end of any such calendar year, unless within the said twenty-four (24) month period a Non-Operator takes written exception thereto and makes claim on Operator for adjustment. No adjustment favorable to Operator shall be made unless it is made within the same prescribed period. The provisions of this paragraph shall not prevent adjustments resulting from a physical inventory of Controllable Material as provided for in Section V.

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5. Audits

A. A Non-Operator, upon notice in writing to Operator and all other Non-Operators, shall have the right to audit Operator's accounts and records relating to the Joint Account for any calendar year within the twenty-four (24) month period following the end of such calendar year; provided, however, the making of an audit shall not extend the time for the taking of written exception to and the adjustments of accounts as provided for in Paragraph 4 of this Section I. Where there are two or more Non-Operators, the Non-Operators shall make every reasonable effort to conduct a joint audit in a manner which will result in a minimum of inconvenience to the Operator. Operator shall bear no portion of the Non-Operators' audit cost incurred under this paragraph unless agreed to by the Operator. The audits shall not be conducted more than once each year without prior approval of Operator, except upon the resignation or removal of the Operator, and shall be made at the expense of those Non-Operators approving such audit.

B. The Operator shall reply in writing to an audit report within 180 days after receipt of such report.

6. Approval By Non-Operators

Where an approval or other agreement of the Parties or Non-Operators is expressly required under other sections of this Accounting Procedure and if the agreement to which this Accounting Procedure is attached contains no contrary provisions in regard thereto, Operator shall notify all Non-Operators of the Operator's proposal, and the agreement or approval of a majority in interest of the Non-Operators shall be controlling on all Non-Operators.

II. DIRECT CHARGES

Operator shall charge the Joint Account with the following items:

1. Ecological and Environmental

Costs incurred for the benefit of the Joint Property as a result of governmental or regulatory requirements to satisfy environmental considerations applicable to the Joint Operations. Such costs may include surveys of an ecological or archaeological nature and pollution control procedures as required by applicable laws and regulations.

2. Rentals and Royalties

Lease rentals and royalties paid by Operator for the Joint Operations.

3. Labor

A. (1) Salaries and wages of Operator's field employees directly employed on the Joint Property in the conduct of Joint Operations.

(2) Salaries of First level Supervisors in the field.

(3) Salaries and wages of Technical Employees directly employed on the Joint Property if such charges are excluded from the overhead rates.

(4) Salaries and wages of Technical Employees either temporarily or permanently assigned to and directly employed in the operation or the Joint Property if such charges are excluded from the overhead rates.

B. Operator's cost of holiday, vacation, sickness and disability benefits and other customary allowances paid to employees whose salaries and wages are chargeable to the Joint Account under Paragraph 3A of this Section II. Such costs under this Paragraph 3B may be charged on a "when and as paid basis" or by "percentage assessment" on the amount of salaries and wages chargeable to the Joint Account under Paragraph 3A of this Section II. If percentage assessment is used, the rate shall be based on the Operator's cost experience.

C. Expenditures or contributions made pursuant to assessments imposed by governmental authority which are applicable to Operator's costs chargeable to the Joint Account under Paragraphs 3A and 3B of this Section II.

D. Personal Expenses of those employees whose salaries and wages are chargeable to the Joint Account under Paragraphs 3A and 3B of this Section II.

4. Employee Benefits

Operator's current costs or established plans for employees' group life insurance, hospitalization, pension, retirement, stock purchase, thrift, bonus, and other benefit plans of a like nature, applicable to Operator's labor cost chargeable to the Joint Account under Paragraphs 3A and 3B of this Section II shall be Operator's actual cost not to exceed the percent most recently recommended by the Council of Petroleum Accountants Societies.

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5. Material

Material purchased or furnished by Operator for use on the Joint Property as provided under Section IV. Only such Material shall be purchased for or transferred to the Joint Property as may be required for immediate use and is reasonably practical and consistent with efficient and economical operations. The accumulation of surplus stocks shall be avoided.

6. Transportation

Transportation of employees and Material necessary for the Joint Operations but subject to the following limitations:

- A. If Material is moved to the Joint Property from the Operator's warehouse or other properties, no charge shall be made to the Joint Account for a distance greater than the distance from the nearest reliable supply store where like material is normally available or railway receiving point nearest the Joint Property unless agreed to by the Parties.
- B. If surplus Material is moved to Operator's warehouse or other storage point, no charge shall be made to the Joint Account for a distance greater than the distance to the nearest reliable supply store where like material is normally available, or railway receiving point nearest the Joint Property unless agreed to by the Parties. No charge shall be made to the Joint Account for moving Material to other properties belonging to Operator, unless agreed to by the Parties.
- C. In the application of subparagraphs A and B above, the option to equalize or charge actual trucking cost is available when the actual charge is \$400 or less excluding accessorial charges. The \$400 will be adjusted to the amount most recently recommended by the Council of Petroleum Accountants Societies.

7. Services

The cost of contract services, equipment and utilities provided by outside sources, except services excluded by Paragraph 10 of Section II and Paragraph i, ii, and iii, of Section III. The cost of professional consultant services and contract services of technical personnel directly engaged on the Joint Property if such charges are excluded from the overhead rates. The cost of professional consultant services or contract services of technical personnel not directly engaged on the Joint Property shall not be charged to the Joint Account unless previously agreed to by the Parties.

8. Equipment and Facilities Furnished By Operator

- A. Operator shall charge the Joint Account for use of Operator owned equipment and facilities at rates commensurate with costs of ownership and operation. Such rates shall include costs of maintenance, repairs, other operating expense, insurance, taxes, depreciation, and interest on gross investment less accumulated depreciation not to exceed eight percent (8 %) per annum. Such rates shall not exceed average commercial rates currently prevailing in the immediate area of the Joint Property.
- B. In lieu of charges in Paragraph 8A above, Operator may elect to use average commercial rates prevailing in the immediate area of the Joint Property less 20%. For automotive equipment, Operator may elect to use rates published by the Petroleum Motor Transport Association.

9. Damages and Losses to Joint Property

All costs or expenses necessary for the repair or replacement of Joint Property made necessary because of damages or losses incurred by fire, flood, storm, theft, accident, or other cause, except those resulting from Operator's gross negligence or willful misconduct. Operator shall furnish Non-Operator written notice of damages or losses incurred as soon as practicable after a report thereof has been received by Operator.

10. Legal Expense

Expense of handling, investigating and settling litigation or claims, discharging of liens, payment of judgments and amounts paid for settlement of claims incurred in or resulting from operations under the agreement or necessary to protect or recover the Joint Property, except that no charge for services of Operator's legal staff or fees or expense of outside attorneys shall be made unless previously agreed to by the Parties. All other legal expense is considered to be covered by the overhead provisions of Section III unless otherwise agreed to by the Parties, except as provided in Section I, Paragraph 3.

11. Taxes

All taxes of every kind and nature assessed or levied upon or in connection with the Joint Property, the operation thereof, or the production therefrom, and which taxes have been paid by the Operator for the benefit of the Parties. If the ad valorem taxes are based in whole or in part upon separate valuations of each party's working interest, then notwithstanding anything to the contrary herein, charges to the Joint Account shall be made and paid by the Parties hereto in accordance with the tax value generated by each party's working interest.

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12. Insurance

Net premiums paid for insurance required to be carried for the Joint Operations for the protection of the Parties. In the event Joint Operations are conducted in a state in which Operator may act as self-insurer for Worker's Compensation and/or Employers Liability under the respective state's laws, Operator may, at its election, include the risk under its self-insurance program and in that event, Operator shall include a charge at Operator's cost not to exceed manual rates.

13. Abandonment and Reclamation

Costs incurred for abandonment of the Joint Property, including costs required by governmental or other regulatory authority.

14. Communications

Cost of acquiring, leasing, installing, operating, repairing and maintaining communication systems, including radio and microwave facilities directly serving the Joint Property. In the event communication facilities/systems serving the Joint Property are Operator owned, charges to the Joint Account shall be made as provided in Paragraph 8 of this Section II.

15. Other Expenditures

Any other expenditure not covered or dealt with in the foregoing provisions of this Section II, or in Section III and which is of direct benefit to the Joint Property and is incurred by the Operator in the necessary and proper conduct of the Joint Operations.

III. OVERHEAD

1. Overhead - Drilling and Producing Operations

i. As compensation for administrative, supervision, office services and warehousing costs, Operator shall charge drilling and producing operations on either:

- (☒) Fixed Rate Basis, Paragraph 1A, or
() Percentage Basis, Paragraph 1B

Unless otherwise agreed to by the Parties, such charge shall be in lieu of costs and expenses of all offices and salaries or wages plus applicable burdens and expenses of all personnel, except those directly chargeable under Paragraph 3A, Section II. The cost and expense of services from outside sources in connection with matters of taxation, traffic, accounting or matters before or involving governmental agencies shall be considered as included in the overhead rates provided for in the above selected Paragraph of this Section III unless such cost and expense are agreed to by the Parties as a direct charge to the Joint Account.

ii. The salaries, wages and Personal Expenses of Technical Employees and/or the cost of professional consultant services and contract services of technical personnel directly employed on the Joint Property:

- () shall be covered by the overhead rates, or
(☒) shall not be covered by the overhead rates.

iii. The salaries, wages and Personal Expenses of Technical Employees and/or costs of professional consultant services and contract services of technical personnel either temporarily or permanently assigned to and directly employed in the operation of the Joint Property:

- () shall be covered by the overhead rates, or
(☒) shall not be covered by the overhead rates.

A. Overhead - Fixed Rate Basis

(1) Operator shall charge the Joint Account at the following rates per well per month:

Drilling Well Rate \$ 550.00
(Prorated for less than a full month)

Producing Well Rate \$ 550.00

(2) Application of Overhead - Fixed Rate Basis shall be as follows:

(a) Drilling Well Rate

(1) Charges for drilling wells shall begin on the date the well is spudded and terminate on the date the drilling rig, completion rig, or other units used in completion of the well is released, whichever

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is later, except that no charge shall be made during suspension of drilling or completion operations for fifteen (15) or more consecutive calendar days.

- (2) Charges for wells undergoing any type of workover or recompletion for a period of five (5) consecutive work days or more shall be made at the drilling well rate. Such charges shall be applied for the period from date workover operations, with rig or other units used in workover, commence through date of rig or other unit release, except that no charge shall be made during suspension of operations for fifteen (15) or more consecutive calendar days.

(b) Producing Well Rates

- (1) An active well either produced or injected into for any portion of the month shall be considered as a one-well charge for the entire month.
- (2) Each active completion in a multi-completed well in which production is not commingled down hole shall be considered as a one-well charge providing each completion is considered a separate well by the governing regulatory authority.
- (3) An inactive gas well shut in because of overproduction or failure of purchaser to take the production shall be considered as a one-well charge providing the gas well is directly connected to a permanent sales outlet.
- (4) A one-well charge shall be made for the month in which plugging and abandonment operations are completed on any well. This one-well charge shall be made whether or not the well has produced except when drilling well rate applies.
- (5) All other inactive wells (including but not limited to inactive wells covered by unit allowable, lease allowable, transferred allowable, etc.) shall not qualify for an overhead charge.

- (3) The well rates shall be adjusted as of the first day of April each year following the effective date of the agreement to which this Accounting Procedure is attached. The adjustment shall be computed by multiplying the rate currently in use by the percentage increase or decrease in the average weekly earnings of Crude Petroleum and Gas Production Workers for the last calendar year compared to the calendar year preceding as shown by the index of average weekly earnings of Crude Petroleum and Gas Production Workers as published by the United States Department of Labor, Bureau of Labor Statistics, or the equivalent Canadian index as published by Statistics Canada, as applicable. The adjusted rates shall be the rates currently in use, plus or minus the computed adjustment.

B. Overhead - Percentage Basis

- (1) Operator shall charge the Joint Account at the following rates:

(a) Development

_____ Percent (_____) of the cost of development of the Joint Property exclusive of costs provided under Paragraph 10 of Section II and all salvage credits.

(b) Operating

_____ Percent (_____) of the cost of operating the Joint Property exclusive of costs provided under Paragraphs 2 and 10 of Section II, all salvage credits, the value of injected substances purchased for secondary recovery and all taxes and assessments which are levied, assessed and paid upon the mineral interest in and to the Joint Property.

- (2) Application of Overhead - Percentage Basis shall be as follows:

For the purpose of determining charges on a percentage basis under Paragraph 1B of this Section III, development shall include all costs in connection with drilling, redrilling, deepening, or any remedial operations on any or all wells involving the use of drilling rig and crew capable of drilling to the producing interval on the Joint Property; also, preliminary expenditures necessary in preparation for drilling and expenditures incurred in abandoning when the well is not completed as a producer, and original cost of construction or installation of fixed assets, the expansion of fixed assets and any other project clearly discernible as a fixed asset, except Major Construction as defined in Paragraph 2 of this Section III. All other costs shall be considered as operating.

2. Overhead - Major Construction

To compensate Operator for overhead costs incurred in the construction and installation of fixed assets, the expansion of fixed assets, and any other project clearly discernible as a fixed asset required for the development and operation of the Joint Property, Operator shall either negotiate a rate prior to the beginning of construction, or shall charge the Joint

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Account for overhead based on the following rates for any Major Construction project in excess of \$ 25,000.00 :

- A. 5 % of first \$100,000 or total cost if less, plus
- B. 3 % of costs in excess of \$100,000 but less than \$1,000,000, plus
- C. 2 % of costs in excess of \$1,000,000.

Total cost shall mean the gross cost of any one project. For the purpose of this paragraph, the component parts of a single project shall not be treated separately and the cost of drilling and workover wells and artificial lift equipment shall be excluded.

3. Catastrophe Overhead

To compensate Operator for overhead costs incurred in the event of expenditures resulting from a single occurrence due to oil spill, blowout, explosion, fire, storm, hurricane, or other catastrophes as agreed to by the Parties, which are necessary to restore the Joint Property to the equivalent condition that existed prior to the event causing the expenditures, Operator shall either negotiate a rate prior to charging the Joint Account or shall charge the Joint Account for overhead based on the following rates:

- A. 5 % of total costs through \$100,000; plus
- B. 3 % of total costs in excess of \$100,000 but less than \$1,000,000; plus
- C. 2 % of total costs in excess of \$1,000,000.

Expenditures subject to the overheads above will not be reduced by insurance recoveries, and no other overhead provisions of this Section III shall apply.

4. Amendment of Rates

The overhead rates provided for in this Section III may be amended from time to time only by mutual agreement between the Parties hereto if, in practice, the rates are found to be insufficient or excessive.

IV. PRICING OF JOINT ACCOUNT MATERIAL PURCHASES, TRANSFERS AND DISPOSITIONS

Operator is responsible for Joint Account Material and shall make proper and timely charges and credits for all Material movements affecting the Joint Property. Operator shall provide all Material for use on the Joint Property; however, at Operator's option, such Material may be supplied by the Non-Operator. Operator shall make timely disposition of idle and/or surplus Material, such disposal being made either through sale to Operator or Non-Operator, division in kind, or sale to outsiders. Operator may purchase, but shall be under no obligation to purchase, interest of Non-Operators in surplus condition A or B Material. The disposal of surplus Controllable Material not purchased by the Operator shall be agreed to by the Parties.

1. Purchases

Material purchased shall be charged at the price paid by Operator after deduction of all discounts received. In case of Material found to be defective or returned to vendor for any other reasons, credit shall be passed to the Joint Account when adjustment has been received by the Operator.

2. Transfers and Dispositions

Material furnished to the Joint Property and Material transferred from the Joint Property or disposed of by the Operator, unless otherwise agreed to by the Parties, shall be priced on the following basis exclusive of cash discounts:

A. New Material (Condition A)

(1) Tubular Goods Other than Line Pipe

- (a) Tubular goods, sized 2 3/8 inches OD and larger, except line pipe, shall be priced at Eastern mill published carload base prices effective as of date of movement plus transportation cost using the 80,000 pound carload weight basis to the railway receiving point nearest the Joint Property for which published rail rates for tubular goods exist. If the 80,000 pound rail rate is not offered, the 70,000 pound or 90,000 pound rail rate may be used. Freight charges for tubing will be calculated from Lorain, Ohio and casing from Youngstown, Ohio.

- (b) For grades which are special to one mill only, prices shall be computed at the mill base of that mill plus transportation cost from that mill to the railway receiving point nearest the Joint Property as provided above in Paragraph 2.A.(1)(a). For transportation cost from points other than Eastern mills, the 30,000

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1 pound Oil Field Haulers Association interstate truck rate shall be used.

2
3 (c) Special end finish tubular goods shall be priced at the lowest published out-of-stock price, f.o.b. Houston,
4 Texas, plus transportation cost, using Oil Field Haulers Association interstate 30,000 pound truck rate,
5 to the railway receiving point nearest the Joint Property.

6
7 (d) Macaroni tubing (size less than 2 3/8 inch OD) shall be priced at the lowest published out-of-stock prices
8 f.o.b. the supplier plus transportation costs, using the Oil Field Haulers Association interstate truck rate
9 per weight of tubing transferred, to the railway receiving point nearest the Joint Property.

10
11 (2) Line Pipe

12
13 (a) Line pipe movements (except size 24 inch OD and larger with walls 3/4 inch and over) 30,000 pounds or
14 more shall be priced under provisions of tubular goods pricing in Paragraph A.(1)(a) as provided above.
15 Freight charges shall be calculated from Lorain, Ohio.

16
17 (b) Line Pipe movements (except size 24 inch OD) and larger with walls 3/4 inch and over) less than 30,000
18 pounds shall be priced at Eastern mill published carload base prices effective as of date of shipment,
19 plus 20 percent, plus transportation costs based on freight rates as set forth under provisions of tubular
20 goods pricing in Paragraph A.(1)(a) as provided above. Freight charges shall be calculated from Lorain,
21 Ohio.

22
23 (c) Line pipe 24 inch OD and over and 3/4 inch wall and larger shall be priced f.o.b. the point of
24 manufacture at current new published prices plus transportation cost to the railway receiving point
25 nearest the Joint Property.

26
27 (d) Line pipe, including fabricated line pipe, drive pipe and conduit not listed on published price lists shall
28 be priced at quoted prices plus freight to the railway receiving point nearest the Joint Property or at
29 prices agreed to by the Parties.

30
31 (3) Other Material shall be priced at the current new price, in effect at date of movement, as listed by a reliable
32 supply store nearest the Joint Property, or point of manufacture, plus transportation costs, if applicable, to the
33 railway receiving point nearest the Joint Property.

34
35 (4) Unused new Material, except tubular goods, moved from the Joint Property shall be priced at the current
36 new price, in effect on date of movement, as listed by a reliable supply store nearest the Joint Property, or
37 point of manufacture, plus transportation costs, if applicable, to the railway receiving point nearest the Joint
38 Property. Unused new tubulars will be priced as provided above in Paragraph 2.A.(1) and (2).

39
40 B. Good Used Material (Condition B)

41
42 Material in sound and serviceable condition and suitable for reuse without reconditioning:

43
44 (1) Material moved to the Joint Property

45
46 At seventy-five percent (75%) of current new price, as determined by Paragraph A.

47
48 (2) Material used on and moved from the Joint Property

49
50 (a) At seventy-five percent (75%) of current new price, as determined by Paragraph A, if Material was
51 originally charged to the Joint Account as new Material or

52
53 (b) At sixty-five percent (65%) of current new price, as determined by Paragraph A, if Material was
54 originally charged to the Joint Account as used Material

55
56 (3) Material not used on and moved from the Joint Property

57
58 At seventy-five percent (75%) of current new price as determined by Paragraph A.

59
60 The cost of reconditioning, if any, shall be absorbed by the transferring property.

61
62 C. Other Used Material

63
64 (1) Condition C

65
66 Material which is not in sound and serviceable condition and not suitable for its original function until
67 after reconditioning shall be priced at fifty percent (50%) of current new price as determined by
68 Paragraph A. The cost of reconditioning shall be charged to the receiving property, provided Condition
69 C value plus cost of reconditioning does not exceed Condition B value.

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(2) Condition D

Material, excluding junk, no longer suitable for its original purpose, but usable for some other purpose shall be priced on a basis commensurate with its use. Operator may dispose of Condition D Material under procedures normally used by Operator without prior approval of Non-Operators.

(a) Casing, tubing, or drill pipe used as line pipe shall be priced as Grade A and B seamless line pipe of comparable size and weight. Used casing, tubing or drill pipe utilized as line pipe shall be priced at used line pipe prices.

(b) Casing, tubing or drill pipe used as higher pressure service lines than standard line pipe, e.g. power oil lines, shall be priced under normal pricing procedures for casing, tubing, or drill pipe. Upset tubular goods shall be priced on a non upset basis.

(3) Condition E

Junk shall be priced at prevailing prices. Operator may dispose of Condition E Material under procedures normally utilized by Operator without prior approval of Non-Operators.

D. Obsolete Material

Material which is serviceable and usable for its original function but condition and/or value of such Material is not equivalent to that which would justify a price as provided above may be specially priced as agreed to by the Parties. Such price should result in the Joint Account being charged with the value of the service rendered by such Material.

E. Pricing Conditions

(1) Loading or unloading costs may be charged to the Joint Account at the rate of twenty-five cents (25¢) per hundred weight on all tubular goods movements, in lieu of actual loading or unloading costs sustained at the stocking point. The above rate shall be adjusted as of the first day of April each year following January 1, 1985 by the same percentage increase or decrease used to adjust overhead rates in Section III, Paragraph 1.A.(3). Each year, the rate calculated shall be rounded to the nearest cent and shall be the rate in effect until the first day of April next year. Such rate shall be published each year by the Council of Petroleum Accountants Societies.

(2) Material involving erection costs shall be charged at applicable percentage of the current knocked-down price of new Material.

3. Premium Prices

Whenever Material is not readily obtainable at published or listed prices because of national emergencies, strikes or other unusual causes over which the Operator has no control, the Operator may charge the Joint Account for the required Material at the Operator's actual cost incurred in providing such Material, in making it suitable for use, and in moving it to the Joint Property; provided notice in writing is furnished to Non-Operators of the proposed charge prior to billing Non-Operators for such Material. Each Non-Operator shall have the right, by so electing and notifying Operator within ten days after receiving notice from Operator, to furnish in kind all or part of his share of such Material suitable for use and acceptable to Operator.

4. Warranty of Material Furnished By Operator

Operator does not warrant the Material furnished. In case of defective Material, credit shall not be passed to the Joint Account until adjustment has been received by Operator from the manufacturers or their agents.

V. INVENTORIES

The Operator shall maintain detailed records of Controllable Material.

1. Periodic Inventories, Notice and Representation

At reasonable intervals, inventories shall be taken by Operator of the Joint Account Controllable Material. Written notice of intention to take inventory shall be given by Operator at least thirty (30) days before any inventory is to begin so that Non-Operators may be represented when any inventory is taken. Failure of Non-Operators to be represented at an inventory shall bind Non-Operators to accept the inventory taken by Operator.

2. Reconciliation and Adjustment of Inventories

Adjustments to the Joint Account resulting from the reconciliation of a physical inventory shall be made within six months following the taking of the inventory. Inventory adjustments shall be made by Operator to the Joint Account for

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overages and shortages, but, Operator shall be held accountable only for shortages due to lack of reasonable diligence.

3. **Special Inventories**

Special inventories may be taken whenever there is any sale, change of interest, or change of Operator in the Joint Property. It shall be the duty of the party selling to notify all other Parties as quickly as possible after the transfer of interest takes place. In such cases, both the seller and the purchaser shall be governed by such inventory. In cases involving a change of Operator, all Parties shall be governed by such inventory.

4. **Expense of Conducting Inventories**

A. The expense of conducting periodic inventories shall not be charged to the Joint Account unless agreed to by the Parties.

B. The expense of conducting special inventories shall be charged to the Parties requesting such inventories, except inventories required due to change of Operator shall be charged to the Joint Account.

EXHIBIT “ “

Attached to and made a part of _____

ACCOUNTING PROCEDURE
JOINT OPERATIONS

I. GENERAL PROVISIONS

1. DEFINITIONS

“Joint Property” shall mean the real and personal property subject to the agreement to which this Accounting Procedure is attached.

“Joint Operations” shall mean activities required to handle specific operating conditions and problems for the exploration, development, production, protection, maintenance, abandonment, and restoration of the Joint Property.

“Joint Account” shall mean the account showing the charges paid and credits received in the conduct of the Joint Operations and which are to be shared by the Parties.

“Operator” shall mean the Party designated to conduct the Joint Operations.

“Non-Operators” shall mean the Parties to this agreement other than the Operator.

“Material” shall mean personal property, equipment, supplies, or consumables acquired or held for use on the Joint Property.

“Controllable Material” shall mean Material that at the time is so classified in the Material Classification Manual as most recently recommended by the Council of Petroleum Accountants Societies.

“Parties” shall mean legal entities signatory to the agreement, or their successors or assigns, to which this Accounting Procedure is attached.

“Affiliate” shall mean, with respect to the Operator, any party directly or indirectly controlling, controlled by, or under common control with the Operator.

2. STATEMENTS AND BILLINGS

The Operator shall bill Non-Operators on or before the last day of the month for their proportionate share of the Joint Account for the preceding month. Such bills shall be accompanied by statements which identify the authority for expenditure, lease or facility, and all charges and credits summarized by appropriate categories of investment and expense. Controllable Material shall be summarized by major Material classifications. Intangible drilling costs and audit exceptions shall be separately and clearly identified.

3. ADVANCES AND PAYMENTS BY NON-OPERATORS

- A. If gross expenditures for the Joint Account are expected to exceed \$ _____ in the next succeeding month’s operations, the Operator may require the Non-Operators to advance their share of the estimated cash outlay for the month’s operations. Unless otherwise provided in the agreement, any billing for such advance shall be payable within 15 days after receipt of the advance request or by the first day of the month for which the advance is required, whichever is later. The Operator shall adjust each monthly billing to reflect advances received from the Non-Operators for such month.
- B. Each Non-Operator shall pay its proportion of all bills within 15 days of receipt date. If payment is not made within such time, the unpaid balance shall bear interest compounded monthly using the U.S. Treasury three-month discount rate plus 3% in effect on the first day of the month for each month that the payment is delinquent or the maximum contract rate permitted by the applicable usury laws in the state in which the Joint Property is located, whichever is the lesser, plus attorney’s fees, court costs, and other costs in connection with the collection of unpaid amounts. Interest shall begin accruing on the first day of the month in which the payment was due.

4. ADJUSTMENTS

- A. Payment of any such bills shall not prejudice the right of any Non-Operator to protest or question the correctness thereof; however, all bills and statements (including payout status statements) related to expenditures rendered to Non-Operators by the Operator during any calendar year shall conclusively be presumed to be true and correct after 24 months following the end of any such calendar year, unless within the said period a Non-Operator takes specific detailed written exception thereto and makes claim on the Operator for adjustment.

- B. All adjustments initiated by the Operator except those described in (1) through (4) below are limited to the 24-month period following the end of the calendar year in which the original charge appeared or should have appeared on the Joint Account statement or payout status statement. Adjustments made beyond the 24-month period are limited to the following:
- (1) a physical inventory of Controllable Material as provided for in Section VII
 - (2) an offsetting entry (whether in whole or in part) which is the direct result of a specific joint interest audit exception granted by the Operator relating to another property
 - (3) a government/regulatory audit
 - (4) working interest ownership adjustments

5. EXPENDITURE AUDITS

- A. A Non-Operator, upon notice in writing to the Operator and other Non-Operators, shall have the right to audit the Operator's accounts and records relating to the Joint Account for any calendar year within the 24-month period following the end of such calendar year; however, conducting an audit shall not extend the time for the taking of written exception to and the adjustment of accounts as provided for in Paragraph 4 of this Section I. Where there are two or more Non-Operators, the Non-Operators shall make every reasonable effort to conduct a joint audit in a manner that will result in a minimum of inconvenience to the Operator. The Operator shall bear no portion of the Non-Operators' audit cost incurred under this paragraph unless agreed to by the Operator. The audits shall not be conducted more than once each year without prior approval of the Operator, except upon the resignation or removal of the Operator, and shall be made at the expense of those Non-Operators approving such audit. The lead audit company's audit report shall be issued within 180 days after completion of the audit fieldwork; however, the 180-day time period shall not extend the 24-month requirement for taking specific detailed written exception as required in Paragraph 4.A. above. All claims shall be supported with sufficient documentation. Failure to issue the report within the prescribed time will preclude the Non-Operator from taking exception to any charge billed within the time period audited.

A timely filed audit report or any timely submitted response thereto shall suspend the running of any applicable statute of limitations regarding claims made in the audit report. While any audit claim is being resolved, the applicable statute of limitations will be suspended; however, the failure to comply with the deadlines provided herein shall cause the statute to commence running again.

- B. The Operator shall allow or deny all exceptions in writing to an audit report within 180 days after receipt of such report. Denied exceptions should be accompanied by a substantive response. Failure to respond to an exception with substantive information on denials within the time provided will result in the Operator paying interest on that exception, if ultimately granted, from the date of the audit report. The interest charged shall be calculated in the same manner as used in Section I, Paragraph 3.B.
- C. The lead audit company shall reply to the Operator's response to an audit report within 90 days of receipt, and the Operator shall reply to the lead audit company's follow-up response within 90 days of receipt. If the lead audit company does not provide a substantive response to an exception within 90 days, that unresolved audit exception will be disallowed. If the Operator does not provide a substantive response to the lead auditor's follow-up response within 90 days, that unresolved audit exception will be allowed and credit given the Joint Account.
- D. The lead audit company or Operator may call an audit resolution conference for the purpose of resolving audit issues/exceptions that are outstanding at least 18 months after the date of the audit report. The meeting will require one month's written notice to the Operator and all audit participants, be held at the Operator's office or other mutually agreed upon location, and require the attendance of representatives of the Operator and each audit participant responsible for the area(s) in which the exceptions are based and who have authority to resolve issues on behalf of their company. Any Party who fails to attend the resolution conference shall be bound by any resolution reached at the conference. The lead audit company will coordinate the response/position of the Non-Operators and continue to maintain its traditional role throughout the audit resolution process.

Attendees will make good faith efforts to resolve outstanding issues, and each Party will be required to present substantive information supporting its position. An audit resolution conference may be held as often as agreed to by the Parties. Issues unresolved at one conference can be discussed at subsequent conferences until each such issue is resolved.

6. AFFILIATES

Charges to the Joint Account for any services or Materials provided by an Affiliate shall not exceed average commercial rates for such services or Materials.

Unless otherwise indicated below, Affiliates performing services or providing Materials for Joint Operations shall provide the Operator with written agreement to make their records relating to the work performed for the Joint Account available for audit upon request by a Non-Operator under this accounting procedure. These records shall include, but not be limited to, invoices, field work tickets, equipment use records, employee time reports, and payroll summaries relating to the work performed for the Joint Account. All audits will be conducted pursuant to Section I, Paragraph 5.

- † The Parties agree that records relating to the work performed by Affiliates will not be made available for audit.

7. APPROVAL BY PARTIES

An affirmative vote of _____ or more Parties having a combined working interest of _____ percent (____ %) shall be required for all items in this Accounting Procedure Exhibit requiring approval by the Parties. This vote shall be taken in writing, in a meeting, or by telephone; and results shall be binding on all Parties. All votes must be confirmed in writing by each Party to the Operator within two business days. The Operator shall give notice to all Parties of the results.

8. AMENDMENT OF RATES

All rates provided in Fixed Rate (Section II, Paragraph 1), Facilities (Section IV, Paragraph 1), and/or Overhead (Section V, Paragraph 1.A.) shall be adjusted each year as of the first day of the production month of April following the effective date of the agreement to which this Accounting Procedure is attached. The adjustment shall be computed by multiplying the rate currently in use by the percentage increase or decrease recommended by COPAS each year. The adjusted rates shall be the rates currently in use, plus or minus the computed adjustment.

The Operator may, at intervals of at least two years, elect to review the costs associated with any fixed rate and calculate a new rate. At intervals of at least four years, Non-Operators with 50% or more of the Non-Operators’ working interest may challenge any rate subject to this provision provided such challenge is supported by factual data. If a rate is so challenged, the Operator shall calculate a new rate. The calculation of any new rate shall be in accordance with COPAS recommendations or other procedures approved by the Parties. The new rate shall then be proposed for approval by the Parties.

II. METHOD OF CHARGES TO JOINT ACCOUNT

The Operator shall charge the Joint Operations in accordance with only one of the following options. The method of charges to the Joint Account may be changed if approved by the Parties in accordance with Section I, Paragraph 7.

1. FIXED RATE

A fixed rate of \$ _____ per month per active well

Active wells are those wells that qualify for a producing overhead charge as specified in Section V, Paragraph 1.A.(3) of this procedure.

The fixed rate will compensate the Operator for all costs applicable to Joint Operations except for royalties, ad valorem taxes, and production/severance taxes paid by the Operator for the Joint Operations and except downhole well work, Controllable Material, and all projects that qualify for drilling, construction, and/or catastrophe overhead as specified in Section V of this procedure. These exception costs shall be charged as specified in Sections III, IV, and V of this procedure.

2. COSTS

Costs as specified in Sections III, IV, and V of this procedure

III. COSTS INCURRED ON THE JOINT PROPERTY

The Operator shall charge the Joint Account for the following items less discounts taken which are incurred on the Joint Property for Joint Operations. Employees and contract personnel who spend substantially all their time in offices that are not Joint Property are not chargeable under this Section while working in those offices.

1. RENTALS AND ROYALTIES

Lease rentals and royalties paid by the Operator

2. LABOR

Salaries and wages of the Operator’s employees directly employed on the Joint Property in the conduct of Joint Operations or while in transit to/from the Joint Property, provided such costs are excluded from the calculation of overhead rates in Section V

Other expenses associated with these employees to the extent the employees’ salaries and wages are chargeable are also chargeable as follows:

- A. The Operator’s cost of holiday, vacation, sickness, and disability benefits and other customary allowances available to all employees, but specifically excluding severance compensation programs and all employee relocation expenses.

Such costs may be charged on a “when and as-paid basis” or by “percentage assessment” on the amount of salaries and wages chargeable to the Joint Account. If percentage assessment is used, the rate shall be based on the Operator’s recent cost experience.

- B. Expenditures or contributions made pursuant to assessments imposed by governmental authority incurred by the Operator associated with salaries, wages, and benefits charged to the Joint Account
- C. Reimbursable travel, meals, and lodging of these employees
- D. Government-mandated training.

This training charge shall include the wages, salaries, training course cost, and reimbursable travel, meals, and lodging incurred during the training session. The cost of the training course will be limited to prevailing commercial rates.

- E. The Operator’s cost of established plans for employees benefits as described in COPAS Interpretation No. 11 determined by applying the employee benefits percent most recently published by COPAS to the chargeable salaries and wages

3. MATERIAL

Materials purchased or furnished by the Operator for use on the Joint Property as provided under Section VI.

Only such Materials shall be purchased for or transferred to the Joint Property as may be required for immediate use and are reasonably practical and consistent with efficient and economical operations. The accumulation of surplus stocks shall be avoided.

4. TRANSPORTATION

Transportation of company labor, contract personnel, and Material necessary for the Joint Operations but subject to the following limitations:

- A. If Material is moved to the Joint Property from the Operator’s warehouse or other properties, no charge shall be made to the Joint Account for a distance greater than the distance from the nearest supply store where like Material is normally available, or railway receiving point nearest the Joint Property, unless agreed to by the Parties.
- B. If surplus Material is moved to the Operator’s warehouse or other storage point, no charge shall be made to the Joint Account for a distance greater than the distance to the nearest supply store where like Material is normally available, or railway receiving point nearest the Joint Property unless agreed to by the Parties. No charge shall be made to the Joint Account for moving Material to other properties, unless agreed to by the Parties.
- C. In the application of subparagraphs A and B above, the option to equalize or charge actual trucking costs is available when the actual charge is less than the amount most recently recommended by COPAS, excluding accessorial charges. Examples of accessorial charges are listed in Bulletin 21.
- D. No charge shall be made for transportation costs associated with relocating employees, including the costs of moving their household goods and personal effects, unless agreed to by the Parties.

5. SERVICES

The cost of contract services, equipment, and utilities provided by sources other than the Operator

6. EQUIPMENT FURNISHED BY THE OPERATOR

- A. Equipment located on the Joint Property owned by the Operator shall be charged to the Joint Account at the average prevailing commercial rate for such equipment. If an average commercial rate is used to bill the Joint Account, the Operator shall adequately document and support such rate and shall periodically review and update the rate.
- B. In lieu of charges in Paragraph 6.A. above, or if a prevailing commercial rate is not available, equipment owned by the Operator will be charged to the Joint Account at the Operator’s actual cost. Such costs may include all expenses that would be chargeable pursuant to this Section III if such equipment were jointly owned, depreciation using straight line depreciation method, interest on investment (less gross accumulated depreciation) not to exceed ___% per annum, and an element of the estimated costs to dismantle and abandon the equipment. Charges for depreciation will no longer be allowable once the equipment has been fully depreciated. Actual cost shall not exceed the average prevailing commercial rate.
- C. When applicable for Operator-owned or -leased motor vehicles, the Operator shall use rates published by the Petroleum Motor Transport Association or such other organization recognized by COPAS as the official source of such rates. When such rates are not available, the Operator shall comply with the provisions of Paragraph A or B above.

7. DAMAGES AND LOSSES TO JOINT PROPERTY

All costs or expenses necessary for the repair or replacement of Joint Property resulting from damages or losses incurred, except those resulting from the Operator’s gross negligence or willful misconduct

8. TAXES AND PERMITS

All taxes and permits of every kind and nature, including penalties and interest, assessed or levied upon or in connection with the Joint Property, or the production therefrom, and which have been paid by the Operator for the benefit of the Parties

If ad valorem taxes paid by the Operator are based in whole or in part upon separate valuations of each Party’s working interest, then notwithstanding any contrary provisions, the charges to Parties will be made in accordance with the tax value generated by each Party’s working interest.

9. INSURANCE

Net premiums paid for insurance required to be carried for the protection of the Parties.

If Joint Operations are conducted at locations where the Operator acts as self-insurer, the Operator shall charge the Joint Account manual rates, as regulated by the state in which the Joint Property is located, or in the case of offshore operations, the adjacent state as adjusted for offshore operations by the U.S. Longshoreman and Harbor Workers (USL&H) or Jones Act surcharge, as appropriate.

10. COMMUNICATIONS

Costs of acquiring, leasing, installing, operating, repairing, and maintaining communication systems

11. ECOLOGICAL AND ENVIRONMENTAL

Costs of surveys as well as pollution containment, actual control, and resulting responsibilities as required by applicable laws or resulting from statutory regulations

12. ABANDONMENT AND RECLAMATION

Costs incurred for abandonment and reclamation of the Joint Property, including costs required by governmental or other regulatory authority

IV. COSTS INCURRED OFF THE JOINT PROPERTY

The Operator shall charge the Joint Account for the following items, which are incurred off the Joint Property for Joint Operations.

1. FACILITIES

A. PRODUCTION-HANDLING FACILITIES

1) ALLOCATED

The Operator shall allocate charges to the Joint Account on an equitable and consistent basis for facilities that handle substances extracted from or injected into the real property subject to the agreement to which this Accounting Procedure is attached if such facilities are not listed in Paragraph (2) below or covered by a separate facility agreement. Allocable charges for such facilities that are leased or rented shall be at the Operator's cost. All allocable charges for such facilities owned by the Operator shall be operating costs as defined in Section III incurred on the facility site plus depreciation, interest on investment (less gross accumulated depreciation) not to exceed ____% per annum, and estimated dismantling and abandonment costs. Charges for depreciation will no longer be allowable once the equipment has been fully depreciated. Such rates shall not exceed average commercial rates prevailing in the area of the Joint Property.

In lieu of charges in Paragraph 1.A.(1) above for Operator-owned facilities, the Operator may elect to charge average commercial rates prevailing in the immediate area of the Joint Property. If average commercial rates are used, the Operator shall adequately document and support the rates.

2) FIXED RATE

The Operator shall charge the Joint Account monthly for the following facilities based on the rates and units provided:

FACILITY TYPE (function performed)	FIXED RATE	UNITS (Well, MCF, BOE, etc.)

B. OTHER FACILITIES

The Operator shall charge the Joint Account for use of other facilities not covered by Section IV, Paragraph 1.A. (such as shore bases, field offices, telecommunication equipment, and computer equipment) as listed below or if subsequently approved by the Parties. (Choose and complete only one methodology for each facility type.)

FACILITY TYPE (function performed)	AVG COM- MERCIAL RATES	FIXED RATE BASIS		ACTUAL COST ALLOCATION
		UNITS		
		RATE	(Well, MCF, BOE, etc.)	BASIS
	↑	↑		↑
	↑	↑		↑
	↑	↑		↑
	↑	↑		↑
	↑	↑		↑

If the Actual Cost Allocation method is chosen, all allocable charges for such facilities owned by the Operator shall be operating costs as defined in Section III incurred on the facility site plus depreciation, interest on investment (less gross accumulated depreciation) not to exceed ____% per annum, and estimated dismantling and abandonment costs. Charges for depreciation will no longer be allowable once the equipment has been fully depreciated. Such rates shall not exceed average commercial rates prevailing in the area of the Joint Property.

2. ECOLOGICAL AND ENVIRONMENTAL

Ecological and environmental costs are those that arise from compliance with governmental or regulatory requirements or prudent operations. These costs that are incurred off the Joint Property shall be

- ↑ allocated directly to the Joint Account
- ↑ included in the Overhead rates provided in Section V

3. LEGAL EXPENSE

The Operator may not charge for services of the Operator's legal staff or fees and expense of outside attorneys unless approved by the Parties in writing. Other expenses of handling, settling, or otherwise discharging litigation, claims, liens, title examinations, and curative work necessary to protect or recover the Joint Property shall be chargeable.

4. TRAINING

Training mandated by governmental authorities for those employees who would be chargeable to the Joint Account under Section III, Paragraph 2, of this Accounting Procedure if they were not attending the training shall be chargeable to the Joint Account. This training charge shall include costs as defined in Section III, Paragraph 2.D., but incurred off the Joint Property.

5. ENGINEERING, DESIGN, AND DRAFTING

Engineering, design, and drafting costs associated with major construction or catastrophes, as defined in Section V, Paragraph 2, of this Accounting Procedure, may be charged to the Joint Account only when the Operator elects to charge overhead for major construction or catastrophes per Section V, Paragraph 2.B. Such charges shall be determined in a manner consistent with those defined in Section III, Paragraphs 2 and 5.

V. OVERHEAD

The Operator shall be compensated for costs not chargeable in Section III (Costs Incurred On The Joint Property) or Section IV (Costs Incurred Off The Joint Property) that are incurred in connection with and in support of Joint Operations.

1. OVERHEAD—DRILLING AND PRODUCING OPERATIONS

As compensation for overhead in connection with drilling and producing operations, the Operator shall charge on either a

- ↑ Fixed Rate Basis, Paragraph 1.A., or
- ↑ Percentage Basis, Paragraph 1.B.

A. OVERHEAD—FIXED RATE BASIS

(1) The Operator shall charge the Joint Account at the following rates per well month:

Drilling well rate per month \$ _____ (Prorated for less than a full month)
Producing well rate per month \$ _____

(2) Application of Overhead—drilling well rate shall be as follows:

- (a) Charges for onshore drilling wells shall begin on spud date and terminate on the date the drilling or completion equipment is released, whichever occurs later. Charges for offshore drilling wells shall begin on the date drilling or completion equipment arrives on location and terminate on the date the drilling or completion equipment moves off location or the rig is released, whichever occurs first. No charge shall be made during suspension of drilling or completion operations for 15 or more consecutive calendar days.
- (b) Charges for wells undergoing any type of workover, recompletion, or abandonment for a period of five consecutive work days or more shall be made at the drilling well rate. Such charges shall be applied for the period from the date workover operations, with the rig or other units used in workover, commence through the date of the rig or other unit release, except that no charges shall be made during suspension of operations for 15 or more consecutive calendar days.

(3) Application of Overhead—producing well rate shall be as follows:

- (a) An active well completion for any portion of the month shall qualify for a one-well charge for the entire month. An active completion is one that is
 - [1] produced,
 - [2] injected into for recovery or disposal, or
 - [3] used to obtain water supply to support production operations.
- (b) Each active completion in a multi-completed well in which production is not commingled downhole shall qualify for a one-well charge providing each completion is considered a separate well by the governing regulatory authority.
- (c) A one-well charge shall be made for the month in which plugging and abandonment operations are completed on any well. This one-well charge shall be made whether or not the well has produced except when the drilling well rate applies.
- (d) All wells not meeting the criteria set forth in this Paragraph A.(3) (a), (b), or (c) shall not qualify for a producing overhead charge.

B. OVERHEAD—PERCENTAGE BASIS

(1) The Operator shall charge the Joint Account at the following rates:

- (a) Development rate _____ percent (_____ %) of the cost of development of the Joint Property exclusive of costs provided under Section IV, Paragraph 3 and all salvage credits.
- (b) Operating rate _____ percent (_____ %) of the cost of operating the Joint Property exclusive of costs provided under Section III, Paragraph 1 and Section IV, Paragraph 3; all salvage credits; the value of injected substances purchased for secondary recovery; and all taxes and assessments that are levied, assessed, and paid upon the mineral interest in and to the Joint Property.

(2) Application of overhead—percentage basis shall be as follows:

- (a) Development shall include all costs in connection with
 - [1] drilling, redrilling, plugging back, or deepening of any or all wells
 - [2] workover operations requiring a period of five consecutive work days or more on any or all wells
 - [3] preliminary expenditures necessary in preparation for drilling
 - [4] expenditures incurred in abandoning when the well is not completed as a producer
 - [5] original construction or installation of fixed assets, expansion of fixed assets, and any other project clearly discernible as a fixed asset, except major construction as defined in Section V, Paragraph 2

- (b) Operating shall include all other costs in connection with Joint Operations except that catastrophe costs shall be assessed overhead as provided in Section V, Paragraph 2.

2. OVERHEAD—MAJOR CONSTRUCTION AND CATASTROPHES

Major construction is defined as any project in excess of \$ _____ required for the construction and installation of fixed assets, the expansion of fixed assets, or in the dismantling for abandonment of fixed assets as required for the development and operation of the Joint Property.

Catastrophe is defined as a calamitous event bringing damage, loss, or destruction resulting from a single occurrence requiring expenditures in excess of \$ _____ to restore the Joint Property to the equivalent condition that existed prior to the event causing the damage.

To compensate the Operator for overhead costs incurred in connection with major construction and catastrophes, the Operator shall either negotiate a rate prior to beginning the work or shall charge the Joint Account for overhead based on the following rates:

- A. If the Operator absorbs engineering, design, and drafting costs related to the project, the overhead assessment will be _____% of total project costs.
- B. If the Operator charges engineering, design, and drafting costs related to the project directly to the Joint Account, the overhead assessment will be _____% of total project costs.

For each project, the Operator shall provide advance notice to the Non-Operators in writing if Option A or B above will be used for calculating construction or catastrophe overhead. For purposes of calculating overhead, the cost of drilling and workover wells shall be excluded and catastrophe expenditures to which these rates apply shall not be reduced by insurance recoveries. Overhead assessed under the construction and catastrophe provisions shall be in lieu of all other overhead provisions.

VI. MATERIAL PURCHASES, TRANSFERS, AND DISPOSITIONS

The Operator is responsible for Joint Account Material and shall make proper and timely charges and credits for direct purchases, transfers, and dispositions. The Operator normally provides all Material for use on the Joint Property but does not warrant the Material furnished. At the Operator's option, Material may be supplied by Non-Operators.

1. DIRECT PURCHASES

Direct purchases shall be charged to the Joint Account at the price paid by the Operator after deduction of all discounts received. A direct purchase is determined to occur when an agreement is made between an Operator and a third party for the acquisition of Materials for a specific well site or location. Material provided by the Operator under "vendor stocking programs", where the initial use is for a Joint Property and title of the Material does not pass from the vendor until usage, is considered a direct purchase. If Material is found to be defective or is returned to the vendor for any other reason, credit shall be passed to the Joint Account when adjustments have been received by the Operator from the manufacturer, distributor, or agent.

2. TRANSFERS

A transfer is determined to occur when the Operator furnishes Material from its storage facility or from another operated property. Additionally, the Operator has assumed liability for the storage costs and changes in value and has previously secured and held title to the transferred Material. Similarly, the removal of Material from a Joint Property to the Operator's facility or to another operated property is also considered a transfer. Material that is moved from the Joint Property to a temporary storage location pending disposition may remain charged to the Joint Account and is not considered a transfer.

A. PRICING

The value of Material transferred to/from the Joint Property should generally reflect the market value on the date of transfer. Transfers of new Material will be priced using one of the following new Material bases:

- (1) Published prices in effect on the date of movement as adjusted by the appropriate COPAS Historical Price Multiplier (HPM) or prices provided by the COPAS Computerized Equipment Pricing System (CEPS).

The HPMs and the associated date of published price to which they should be applied will be published by COPAS periodically.

- (a) For oil country tubulars and line pipe, the published price shall be based upon eastern mill (Houston for special end) carload base prices effective as of the date of movement, plus transportation cost as defined in Section VI, Paragraph 2.B.
- (b) For other Material, the published price shall be the published list price in effect at the date of movement, as listed by a supply store nearest the Joint Property or point of manufacture, plus transportation costs as defined in Section VI, Paragraph 2.B.

- (2) A price quotation that reflects a current realistic acquisition cost may be obtained from a supplier/manufacturer.
- (3) Historical purchase price may be used, providing it reflects a current realistic acquisition cost on the date of movement. Sufficient price documents should be available to Non-Operators for purposes of verifying Material transfer valuation.
- (4) As agreed to by the Parties

B. FREIGHT

Transportation costs should be added to the Material transfer price based on one of the following:

- (1) Transportation costs for oil country tubulars and line pipe shall be calculated using the distance from eastern mill to the railway receiving point nearest the Joint Property based on the carload weight basis as recommended by COPAS in Bulletin 21 and current interpretations.
- (2) Transportation costs for special mill items shall be calculated from that mill's shipping point to the railway receiving point nearest the Joint Property. For transportation costs from other than eastern mills, the 30,000-pound Specialized Motor Carriers interstate truck rate shall be used. Transportation costs for macaroni tubing shall be calculated based on the Specialized Motor Carriers rate per weight of tubing transferred to the railway receiving point nearest the Joint Property.
- (3) Transportation costs for special end tubular goods shall be calculated using the 30,000-pound Specialized Motor Carriers interstate truck rate from Houston, Texas, to the railway receiving point nearest the Joint Property.
- (4) Transportation costs for Material other than that described in Section VI, Paragraphs 2.B (1) through (3), if applicable, shall be calculated from the supply store or point of manufacturer, whichever is appropriate, to the railway receiving point nearest the Joint Property.

C. CONDITION

- (1) Condition "A" - New and unused Material in sound and serviceable condition shall be charged at one hundred percent of the price as determined in Section VI, Paragraphs 2.A and B. Material transferred from the Joint Property that was not placed in service on the Joint Property shall be credited as charged without gain or loss. Any unused Material that was charged to the Joint Account through a direct purchase will be credited to the Joint Account at the original cost paid. All refurbishing costs necessary to correct handling or transportation damages and other related costs will be borne by the divesting property. The Joint Account is responsible for Material preparation, handling, and transportation costs for new and unused Material charged to the property either through a direct purchase or transfer. Any preparation costs performed, including any internal or external coating and wrapping, will be credited on new Material provided these costs were not repeated for the receiving property.
- (2) Condition "B" - Used Material in sound and serviceable condition and suitable for reuse without reconditioning shall be priced at the condition percentage most recently recommended by COPAS times the price determined by the pricing guidelines in Section VI, Paragraphs 2.A and B. Any cost of reconditioning to return the Material to Condition B will be absorbed by the divesting property.

If the Material was originally charged to the Joint Account as used Material and placed in service on the Joint Property, the Material will be credited at the condition percentage most recently recommended by COPAS times the price, as determined in Section VI, Paragraphs 2.A and B.

Used Material transferred from the Joint Property that was not placed in service on the property shall be credited as charged without gain or loss.

- (3) Condition "C" - Material that is not in sound and serviceable condition and not suitable for its original function until after reconditioning shall be priced at the condition percentage most recently recommended by COPAS times the price determined in Section VI, Paragraphs 2.A and B. The cost of reconditioning shall be charged to the receiving property provided Condition C value, plus cost of reconditioning, does not exceed Condition B value.
- (4) Condition "D" - Other Material that is no longer suitable for its original purpose but useable for some other purpose is considered Condition D Material. Included under Condition "D" is also obsolete items or Material that does not meet original specifications but still has value and can be used in other services as a substitute for items with different specifications. Due to the condition or value of other used and obsolete items, it is not possible to price these items under Section VI, Paragraph 2.A. The price used should result in the Joint Account being charged or credited with the value of the service rendered or use of the Material. In some instances, it may be necessary or desirable to have the Material specially priced as agreed to by the parties.
- (5) Condition "E" – Junk shall be priced at prevailing scrap value prices.

D. OTHER PRICING PROVISIONS

(1) Preparation Costs

Costs incurred by the Operator in making Material serviceable including inspection, third party surveillance services, and other similar services will be charged to the Joint Account at prices reflective of the actual costs of the services. Documentation must be retained to support the cost of service. New coating and/or wrapping may be charged per Section VI, Paragraph 2.A.

(2) Loading and Unloading Costs

Loading and unloading costs related to the movement of the Material to the Joint Property shall be charged in accordance with the methods specified in COPAS Bulletin 21.

3. DISPOSITION OF SURPLUS

Surplus Material is that Material, whether new or used, that is no longer required for Joint Operations. The Operator may purchase, but shall be under no obligation to purchase, the interest of the Non-Operator in surplus Material.

Dispositions for the purpose of this procedure are considered to be the relinquishment of title of the Material from the Joint Property to either a third party, a Non-Operator, or to the Operator. To avoid the accumulation of surplus materials, the Operator should make good faith efforts to dispose of surplus within 12 months through buy/sale agreements, trade, sale to a third party, division in-kind, or other dispositions as agreed to by the Parties.

An Operator may, through a sale to an unrelated third party or entity, dispose of surplus Material having a gross sale value that is less than or equal to the Operator's expenditure limit as set forth in the Operating Agreement to which this Accounting Procedure is attached without the prior approval of the Non-Operator. If the gross sale value exceeds the Operating Agreement expenditure limit, the disposal must be agreed to by the Parties.

The Operator may dispose of Condition D and E Material under procedures normally utilized by the Operator without prior approval.

4. SPECIAL PRICING PROVISIONS

A. PREMIUM PRICING

Whenever Material is not readily replaceable due to national emergencies, strikes, or other unusual causes over which the Operator has no control, the Operator may charge the Joint Account for the required Material at the Operator's actual cost incurred in providing such Material, in making it suitable for use, and in moving it to the Joint Property provided notice in writing is furnished to Non-Operators of the proposed charge prior to use and to billing Non-Operators for such Material. During premium pricing periods, each Non-Operator shall have the right to furnish in-kind all or part of his share of such material suitable for use and acceptable to the Operator by so electing and notifying the Operator within ten days after receiving notice from the Operator.

B. SHOP-MADE ITEMS

Shop-made items may be priced using the value of the Material used to construct the item plus labor costs. If the Material is from a scrap or junk account, the Material may be priced at either 25% of the current price as determined in Section VI, Paragraph 2.A., or scrap value, whichever is higher, plus estimated labor costs to fabricate the item.

C. MILL REJECTS

Mill rejects purchased as "limited service" casing or tubing shall be priced at 80% of K-55/J-55 price as determined in Section VI, Paragraphs 2.A and B. Line pipe converted to casing or tubing with casing or tubing couplings attached shall be priced as K-55/J-55 casing or tubing at the nearest size and weight.

VII. INVENTORIES OF CONTROLLABLE MATERIAL

The Operator shall maintain records of Controllable Material charged to the Joint Account, as defined in the COPAS Material Classification Manual, with sufficient detail to perform the physical inventories requested unless directed otherwise by the Non-Operators.

Adjustments to the Joint Account by the Operator resulting from a physical inventory of jointly owned Controllable Material are limited to the six months following the taking of the inventory. Charges and credits for overages or shortages will be valued for the Joint Account based on Condition B prices in effect on the date of physical inventory as determined in accordance with Section VI, Paragraph 2.A and B unless the inventorying Parties can prove another Material condition applies.

1. DIRECTED INVENTORIES

With an interval of not less than five years, physical inventories shall be performed by the Operator upon written request of a majority in working interests of the Non-Operators.

Expenses of directed inventories will be borne by the Joint Account and may include the following:

- A. Audit per diem rate for each inventory person in line with the auditor rates determined, adjusted, and published each April by COPAS

The per diem should also be applied to a reasonable number of days for pre-inventory work and for report preparation. The amount of time required for this additional work may vary from inventory to inventory.

- B. Actual travel including Operator-provided transportation and personal expenses for the inventory team

C. Reasonable charges for report typing and processing

The Operator is expected to exercise judgment in keeping expenses within reasonable limits. Unless otherwise agreed, costs associated with any post-report follow-up work in settling the inventory will be absorbed by the Non-Operator incurring such costs. Any anticipated disproportionate costs should be discussed and agreed upon prior to commencement of the inventory.

When directed inventories are performed, all Parties shall be governed by such inventory.

2. NON-DIRECTED INVENTORIES

A. OPERATOR INVENTORIES

Periodic physical inventories that are not requested by the Non-Operator may be performed by the Operator at the Operator's discretion. The expenses of conducting such Operator inventories shall not be charged to the Joint Account.

B. NON-OPERATOR INVENTORIES

Any Non-Operator(s) may conduct a physical inventory at reasonable times with prior notification to the Operator. Such inventories shall be conducted at the sole cost and risk of the participating Non-Operator(s).

C. OTHER INVENTORIES

Other inventories may be taken whenever there is any sale or change of interest. When possible, the selling Party should notify all other owners 30 days prior to the anticipated closing date. When there is a change in Operator of the Joint Property, an inventory by the former and new Operator should be taken. The expenses of conducting other inventories shall be charged to the Joint Account.

EXHIBIT “ ”
ACCOUNTING PROCEDURE
JOINT OPERATIONS

Attached to and made part of _____

I. GENERAL PROVISIONS

IF THE PARTIES FAIL TO SELECT EITHER ONE OF COMPETING “ALTERNATIVE” PROVISIONS, OR SELECT ALL THE COMPETING “ALTERNATIVE” PROVISIONS, ALTERNATIVE 1 IN EACH SUCH INSTANCE SHALL BE DEEMED TO HAVE BEEN ADOPTED BY THE PARTIES AS A RESULT OF ANY SUCH OMISSION OR DUPLICATE NOTATION.

IN THE EVENT THAT ANY “OPTIONAL” PROVISION OF THIS ACCOUNTING PROCEDURE IS NOT ADOPTED BY THE PARTIES TO THE AGREEMENT BY A TYPED, PRINTED OR HANDWRITTEN INDICATION, SUCH PROVISION SHALL NOT FORM A PART OF THIS ACCOUNTING PROCEDURE, AND NO INFERENCE SHALL BE MADE CONCERNING THE INTENT OF THE PARTIES IN SUCH EVENT.

1. DEFINITIONS

All terms used in this Accounting Procedure shall have the following meaning, unless otherwise expressly defined in the Agreement:

“Affiliate” means for a person, another person that controls, is controlled by, or is under common control with that person. In this definition, (a) control means the ownership by one person, directly or indirectly, of more than fifty percent (50%) of the voting securities of a corporation or, for other persons, the equivalent ownership interest (such as partnership interests), and (b) “person” means an individual, corporation, partnership, trust, estate, unincorporated organization, association, or other legal entity.

“Agreement” means the operating agreement, farmout agreement, or other contract between the Parties to which this Accounting Procedure is attached.

“Controllable Material” means Material that, at the time of acquisition or disposition by the Joint Account, as applicable, is so classified in the Material Classification Manual most recently recommended by the Council of Petroleum Accountants Societies(COPAS).

“Equalized Freight” means the procedure of charging transportation cost to the Joint Account based upon the distance from the nearest Railway Receiving Point to the property.

“Excluded Amount” means a specified excluded trucking amount most recently recommended by COPAS.

“Field Office” means a structure, or portion of a structure, whether a temporary or permanent installation, the primary function of which is to directly serve daily operation and maintenance activities of the Joint Property and which serves as a staging area for directly chargeable field personnel.

“First Level Supervision” means those employees whose primary function in Joint Operations is the direct oversight of the Operator’s field employees and/or contract labor directly employed On-site in a field operating capacity. First Level Supervision functions may include, but are not limited to:

- Responsibility for field employees and contract labor engaged in activities that can include field operations, maintenance, construction, well remedial work, equipment movement and drilling
- Responsibility for day-to-day direct oversight of rig operations
- Responsibility for day-to-day direct oversight of construction operations
- Coordination of job priorities and approval of work procedures
- Responsibility for optimal resource utilization (equipment, Materials, personnel)
- Responsibility for meeting production and field operating expense targets
- Representation of the Parties in local matters involving community, vendors, regulatory agents and landowners, as an incidental part of the supervisor’s operating responsibilities
- Responsibility for all emergency responses with field staff
- Responsibility for implementing safety and environmental practices
- Responsibility for field adherence to company policy
- Responsibility for employment decisions and performance appraisals for field personnel
- Oversight of sub-groups for field functions such as electrical, safety, environmental, telecommunications, which may have group or team leaders.

“Joint Account” means the account showing the charges paid and credits received in the conduct of the Joint Operations that are to be shared by the Parties, but does not include proceeds attributable to hydrocarbons and by-products produced under the Agreement.

“Joint Operations” means all operations necessary or proper for the exploration, appraisal, development, production, protection, maintenance, repair, abandonment, and restoration of the Joint Property.

“**Joint Property**” means the real and personal property subject to the Agreement.

“**Laws**” means any laws, rules, regulations, decrees, and orders of the United States of America or any state thereof and all other governmental bodies, agencies, and other authorities having jurisdiction over or affecting the provisions contained in or the transactions contemplated by the Agreement or the Parties and their operations, whether such laws now exist or are hereafter amended, enacted, promulgated or issued.

“**Material**” means personal property, equipment, supplies, or consumables acquired or held for use by the Joint Property.

“**Non-Operators**” means the Parties to the Agreement other than the Operator.

“**Offshore Facilities**” means platforms, surface and subsea development and production systems, and other support systems such as oil and gas handling facilities, living quarters, offices, shops, cranes, electrical supply equipment and systems, fuel and water storage and piping, heliport, marine docking installations, communication facilities, navigation aids, and other similar facilities necessary in the conduct of offshore operations, all of which are located offshore.

“**Off-site**” means any location that is not considered On-site as defined in this Accounting Procedure.

“**On-site**” means on the Joint Property when in direct conduct of Joint Operations. The term “On-site” shall also include that portion of Offshore Facilities, Shore Base Facilities, fabrication yards, and staging areas from which Joint Operations are conducted, or other facilities that directly control equipment on the Joint Property, regardless of whether such facilities are owned by the Joint Account.

“**Operator**” means the Party designated pursuant to the Agreement to conduct the Joint Operations.

“**Parties**” means legal entities signatory to the Agreement or their successors and assigns. Parties shall be referred to individually as “Party.”

“**Participating Interest**” means the percentage of the costs and risks of conducting an operation under the Agreement that a Party agrees, or is otherwise obligated, to pay and bear.

“**Participating Party**” means a Party that approves a proposed operation or otherwise agrees, or becomes liable, to pay and bear a share of the costs and risks of conducting an operation under the Agreement.

“**Personal Expenses**” means reimbursed costs for travel and temporary living expenses.

“**Railway Receiving Point**” means the railhead nearest the Joint Property for which freight rates are published, even though an actual railhead may not exist.

“**Shore Base Facilities**” means onshore support facilities that during Joint Operations provide such services to the Joint Property as a receiving and transshipment point for Materials; debarkation point for drilling and production personnel and services; communication, scheduling and dispatching center; and other associated functions serving the Joint Property.

“**Supply Store**” means a recognized source or common stock point for a given Material item.

“**Technical Services**” means services providing specific engineering, geoscience, or other professional skills, such as those performed by engineers, geologists, geophysicists, and technicians, required to handle specific operating conditions and problems for the benefit of Joint Operations; provided, however, Technical Services shall not include those functions specifically identified as overhead under the second paragraph of the introduction of Section III (*Overhead*). Technical Services may be provided by the Operator, Operator’s Affiliate, Non-Operator, Non-Operator Affiliates, and/or third parties.

2. STATEMENTS AND BILLINGS

The Operator shall bill Non-Operators on or before the last day of the month for their proportionate share of the Joint Account for the preceding month. Such bills shall be accompanied by statements that identify the AFE (authority for expenditure), lease or facility, and all charges and credits summarized by appropriate categories of investment and expense. Controllable Material shall be separately identified and fully described in detail, or at the Operator’s option, Controllable Material may be summarized by major Material classifications. Intangible drilling costs, audit adjustments, and unusual charges and credits shall be separately and clearly identified.

The Operator may make available to Non-Operators any statements and bills required under Section I.2 and/or Section I.3.A (*Advances and Payments by the Parties*) via email, electronic data interchange, internet websites or other equivalent electronic media in lieu of paper copies. The Operator shall provide the Non-Operators instructions and any necessary information to access and receive the statements and bills within the timeframes specified herein. A statement or billing shall be deemed as delivered twenty-four (24) hours (exclusive of weekends and holidays) after the Operator notifies the Non-Operator that the statement or billing is available on the website and/or sent via email or electronic data interchange transmission. Each Non-Operator individually shall elect to receive statements and billings electronically, if available from the Operator, or request paper copies. Such election may be changed upon thirty (30) days prior written notice to the Operator.

3. ADVANCES AND PAYMENTS BY THE PARTIES

- A. Unless otherwise provided for in the Agreement, the Operator may require the Non-Operators to advance their share of the estimated cash outlay for the succeeding month's operations within fifteen (15) days after receipt of the advance request or by the first day of the month for which the advance is required, whichever is later. The Operator shall adjust each monthly billing to reflect advances received from the Non-Operators for such month. If a refund is due, the Operator shall apply the amount to be refunded to the subsequent month's billing or advance, unless the Non-Operator sends the Operator a written request for a cash refund. The Operator shall remit the refund to the Non-Operator within fifteen (15) days of receipt of such written request.
- B. Except as provided below, each Party shall pay its proportionate share of all bills in full within fifteen (15) days of receipt date. If payment is not made within such time, the unpaid balance shall bear interest compounded monthly at the prime rate published by the *Wall Street Journal* on the first day of each month the payment is delinquent, plus three percent (3%), per annum, or the maximum contract rate permitted by the applicable usury Laws governing the Joint Property, whichever is the lesser, plus attorney's fees, court costs, and other costs in connection with the collection of unpaid amounts. If the *Wall Street Journal* ceases to be published or discontinues publishing a prime rate, the unpaid balance shall bear interest compounded monthly at the prime rate published by the Federal Reserve plus three percent (3%), per annum. Interest shall begin accruing on the first day of the month in which the payment was due. Payment shall not be reduced or delayed as a result of inquiries or anticipated credits unless the Operator has agreed. Notwithstanding the foregoing, the Non-Operator may reduce payment, provided it furnishes documentation and explanation to the Operator at the time payment is made, to the extent such reduction is caused by:
- (1) being billed at an incorrect working interest or Participating Interest that is higher than such Non-Operator's actual working interest or Participating Interest, as applicable; or
 - (2) being billed for a project or AFE requiring approval of the Parties under the Agreement that the Non-Operator has not approved or is not otherwise obligated to pay under the Agreement; or
 - (3) being billed for a property in which the Non-Operator no longer owns a working interest, provided the Non-Operator has furnished the Operator a copy of the recorded assignment or letter in-lieu. Notwithstanding the foregoing, the Non-Operator shall remain responsible for paying bills attributable to the interest it sold or transferred for any bills rendered during the thirty (30) day period following the Operator's receipt of such written notice; or
 - (4) charges outside the adjustment period, as provided in Section I.4 (*Adjustments*).

4. ADJUSTMENTS

- A. Payment of any such bills shall not prejudice the right of any Party to protest or question the correctness thereof; however, all bills and statements, including payout statements, rendered during any calendar year shall conclusively be presumed to be true and correct, with respect only to expenditures, after twenty-four (24) months following the end of any such calendar year, unless within said period a Party takes specific detailed written exception thereto making a claim for adjustment. The Operator shall provide a response to all written exceptions, whether or not contained in an audit report, within the time periods prescribed in Section I.5 (*Expenditure Audits*).
- B. All adjustments initiated by the Operator, except those described in items (1) through (4) of this Section I.4.B, are limited to the twenty-four (24) month period following the end of the calendar year in which the original charge appeared or should have appeared on the Operator's Joint Account statement or payout statement. Adjustments that may be made beyond the twenty-four (24) month period are limited to adjustments resulting from the following:
- (1) a physical inventory of Controllable Material as provided for in Section V (*Inventories of Controllable Material*), or
 - (2) an offsetting entry (whether in whole or in part) that is the direct result of a specific joint interest audit exception granted by the Operator relating to another property, or
 - (3) a government/regulatory audit, or
 - (4) a working interest ownership or Participating Interest adjustment.

5. EXPENDITURE AUDITS

- A. A Non-Operator, upon written notice to the Operator and all other Non-Operators, shall have the right to audit the Operator's accounts and records relating to the Joint Account within the twenty-four (24) month period following the end of such calendar year in which such bill was rendered; however, conducting an audit shall not extend the time for the taking of written exception to and the adjustment of accounts as provided for in Section I.4 (*Adjustments*). Any Party that is subject to payout accounting under the Agreement shall have the right to audit the accounts and records of the Party responsible for preparing the payout statements, or of the Party furnishing information to the Party responsible for preparing payout statements. Audits of payout accounts may include the volumes of hydrocarbons produced and saved and proceeds received for such hydrocarbons as they pertain to payout accounting required under the Agreement. Unless otherwise provided in the Agreement, audits of a payout account shall be conducted within the twenty-four (24) month period following the end of the calendar year in which the payout statement was rendered.

Where there are two or more Non-Operators, the Non-Operators shall make every reasonable effort to conduct a joint audit in a manner that will result in a minimum of inconvenience to the Operator. The Operator shall bear no portion of the Non-Operators' audit cost incurred under this paragraph unless agreed to by the Operator. The audits shall not be conducted more than once each year without prior approval of the Operator, except upon the resignation or removal of the Operator, and shall be made at the expense of

those Non-Operators approving such audit.

The Non-Operator leading the audit (hereinafter “lead audit company”) shall issue the audit report within ninety (90) days after completion of the audit testing and analysis; however, the ninety (90) day time period shall not extend the twenty-four (24) month requirement for taking specific detailed written exception as required in Section I.4.A (*Adjustments*) above. All claims shall be supported with sufficient documentation.

A timely filed written exception or audit report containing written exceptions (hereinafter “written exceptions”) shall, with respect to the claims made therein, preclude the Operator from asserting a statute of limitations defense against such claims, and the Operator hereby waives its right to assert any statute of limitations defense against such claims for so long as any Non-Operator continues to comply with the deadlines for resolving exceptions provided in this Accounting Procedure. If the Non-Operators fail to comply with the additional deadlines in Section I.5.B or I.5.C, the Operator’s waiver of its rights to assert a statute of limitations defense against the claims brought by the Non-Operators shall lapse, and such claims shall then be subject to the applicable statute of limitations, provided that such waiver shall not lapse in the event that the Operator has failed to comply with the deadlines in Section I.5.B or I.5.C.

B. The Operator shall provide a written response to all exceptions in an audit report within one hundred eighty (180) days after Operator receives such report. Denied exceptions should be accompanied by a substantive response. If the Operator fails to provide substantive response to an exception within this one hundred eighty (180) day period, the Operator will owe interest on that exception or portion thereof, if ultimately granted, from the date it received the audit report. Interest shall be calculated using the rate set forth in Section I.3.B (*Advances and Payments by the Parties*).

C. The lead audit company shall reply to the Operator’s response to an audit report within ninety (90) days of receipt, and the Operator shall reply to the lead audit company’s follow-up response within ninety (90) days of receipt; provided, however, each Non-Operator shall have the right to represent itself if it disagrees with the lead audit company’s position or believes the lead audit company is not adequately fulfilling its duties. Unless otherwise provided for in Section I.5.E, if the Operator fails to provide substantive response to an exception within this ninety (90) day period, the Operator will owe interest on that exception or portion thereof, if ultimately granted, from the date it received the audit report. Interest shall be calculated using the rate set forth in Section I.3.B (*Advances and Payments by the Parties*).

D. If any Party fails to meet the deadlines in Sections I.5.B or I.5.C or if any audit issues are outstanding fifteen (15) months after Operator receives the audit report, the Operator or any Non-Operator participating in the audit has the right to call a resolution meeting, as set forth in this Section I.5.D or it may invoke the dispute resolution procedures included in the Agreement, if applicable. The meeting will require one month’s written notice to the Operator and all Non-Operators participating in the audit. The meeting shall be held at the Operator’s office or mutually agreed location, and shall be attended by representatives of the Parties with authority to resolve such outstanding issues. Any Party who fails to attend the resolution meeting shall be bound by any resolution reached at the meeting. The lead audit company will make good faith efforts to coordinate the response and positions of the Non-Operator participants throughout the resolution process; however, each Non-Operator shall have the right to represent itself. Attendees will make good faith efforts to resolve outstanding issues, and each Party will be required to present substantive information supporting its position. A resolution meeting may be held as often as agreed to by the Parties. Issues unresolved at one meeting may be discussed at subsequent meetings until each such issue is resolved.

If the Agreement contains no dispute resolution procedures and the audit issues cannot be resolved by negotiation, the dispute shall be submitted to mediation. In such event, promptly following one Party’s written request for mediation, the Parties to the dispute shall choose a mutually acceptable mediator and share the costs of mediation services equally. The Parties shall each have present at the mediation at least one individual who has the authority to settle the dispute. The Parties shall make reasonable efforts to ensure that the mediation commences within sixty (60) days of the date of the mediation request. Notwithstanding the above, any Party may file a lawsuit or complaint (1) if the Parties are unable after reasonable efforts, to commence mediation within sixty (60) days of the date of the mediation request, (2) for statute of limitations reasons, or (3) to seek a preliminary injunction or other provisional judicial relief, if in its sole judgment an injunction or other provisional relief is necessary to avoid irreparable damage or to preserve the status quo. Despite such action, the Parties shall continue to try to resolve the dispute by mediation.

E. ☐ (Optional Provision – Forfeiture Penalties)

If the Non-Operators fail to meet the deadline in Section I.5.C, any unresolved exceptions that were not addressed by the Non-Operators within one (1) year following receipt of the last substantive response of the Operator shall be deemed to have been withdrawn by the Non-Operators. If the Operator fails to meet the deadlines in Section I.5.B or I.5.C, any unresolved exceptions that were not addressed by the Operator within one (1) year following receipt of the audit report or receipt of the last substantive response of the Non-Operators, whichever is later, shall be deemed to have been granted by the Operator and adjustments shall be made, without interest, to the Joint Account.

6. APPROVAL BY PARTIES

A. GENERAL MATTERS

Where an approval or other agreement of the Parties or Non-Operators is expressly required under other Sections of this Accounting Procedure and if the Agreement to which this Accounting Procedure is attached contains no contrary provisions in regard thereto, the

Operator shall notify all Non-Operators of the Operator's proposal and the agreement or approval of a majority in interest of the Non-Operators shall be controlling on all Non-Operators.

This Section I.6.A applies to specific situations of limited duration where a Party proposes to change the accounting for charges from that prescribed in this Accounting Procedure. This provision does not apply to amendments to this Accounting Procedure, which are covered by Section I.6.B.

B. AMENDMENTS

If the Agreement to which this Accounting Procedure is attached contains no contrary provisions in regard thereto, this Accounting Procedure can be amended by an affirmative vote of _____ (_____) or more Parties, one of which is the Operator, having a combined working interest of at least _____ percent (_____%), which approval shall be binding on all Parties, provided, however, approval of at least one (1) Non-Operator shall be required.

C. AFFILIATES

For the purpose of administering the voting procedures of Sections I.6.A and I.6.B, if Parties to this Agreement are Affiliates of each other, then such Affiliates shall be combined and treated as a single Party having the combined working interest or Participating Interest of such Affiliates.

For the purposes of administering the voting procedures in Section I.6.A, if a Non-Operator is an Affiliate of the Operator, votes under Section I.6.A shall require the majority in interest of the Non-Operator(s) after excluding the interest of the Operator's Affiliate.

II. DIRECT CHARGES

The Operator shall charge the Joint Account with the following items:

1. RENTALS AND ROYALTIES

Lease rentals and royalties paid by the Operator, on behalf of all Parties, for the Joint Operations.

2. LABOR

A. Salaries and wages, including incentive compensation programs as set forth in COPAS MFI-37 ("Chargeability of Incentive Compensation Programs"), for:

- (1) Operator's field employees directly employed On-site in the conduct of Joint Operations,
- (2) Operator's employees directly employed on Shore Base Facilities, Offshore Facilities, or other facilities serving the Joint Property if such costs are not charged under Section II.6 (*Equipment and Facilities Furnished by Operator*) or are not a function covered under Section III (*Overhead*),
- (3) Operator's employees providing First Level Supervision,
- (4) Operator's employees providing On-site Technical Services for the Joint Property if such charges are excluded from the overhead rates in Section III (*Overhead*),
- (5) Operator's employees providing Off-site Technical Services for the Joint Property if such charges are excluded from the overhead rates in Section III (*Overhead*).

Charges for the Operator's employees identified in Section II.2.A may be made based on the employee's actual salaries and wages, or in lieu thereof, a day rate representing the Operator's average salaries and wages of the employee's specific job category.

Charges for personnel chargeable under this Section II.2.A who are foreign nationals shall not exceed comparable compensation paid to an equivalent U.S. employee pursuant to this Section II.2, unless otherwise approved by the Parties pursuant to Section I.6.A (*General Matters*).

B. Operator's cost of holiday, vacation, sickness, and disability benefits, and other customary allowances paid to employees whose salaries and wages are chargeable to the Joint Account under Section II.2.A, excluding severance payments or other termination allowances. Such costs under this Section II.2.B may be charged on a "when and as-paid basis" or by "percentage assessment" on the amount of salaries and wages chargeable to the Joint Account under Section II.2.A. If percentage assessment is used, the rate shall be based on the Operator's cost experience.

C. Expenditures or contributions made pursuant to assessments imposed by governmental authority that are applicable to costs chargeable to the Joint Account under Sections II.2.A and B.

- D. Personal Expenses of personnel whose salaries and wages are chargeable to the Joint Account under Section II.2.A when the expenses are incurred in connection with directly chargeable activities.
- E. Reasonable relocation costs incurred in transferring to the Joint Property personnel whose salaries and wages are chargeable to the Joint Account under Section II.2.A. Notwithstanding the foregoing, relocation costs that result from reorganization or merger of a Party, or that are for the primary benefit of the Operator, shall not be chargeable to the Joint Account. Extraordinary relocation costs, such as those incurred as a result of transfers from remote locations, such as Alaska or overseas, shall not be charged to the Joint Account unless approved by the Parties pursuant to Section I.6.A (*General Matters*).
- F. Training costs as specified in COPAS MFI-35 ("Charging of Training Costs to the Joint Account") for personnel whose salaries and wages are chargeable under Section II.2.A. This training charge shall include the wages, salaries, training course cost, and Personal Expenses incurred during the training session. The training cost shall be charged or allocated to the property or properties directly benefiting from the training. The cost of the training course shall not exceed prevailing commercial rates, where such rates are available.
- G. Operator's current cost of established plans for employee benefits, as described in COPAS MFI-27 ("Employee Benefits Chargeable to Joint Operations and Subject to Percentage Limitation"), applicable to the Operator's labor costs chargeable to the Joint Account under Sections II.2.A and B based on the Operator's actual cost not to exceed the employee benefits limitation percentage most recently recommended by COPAS.
- H. Award payments to employees, in accordance with COPAS MFI-49 ("Awards to Employees and Contractors") for personnel whose salaries and wages are chargeable under Section II.2.A.

3. MATERIAL

Material purchased or furnished by the Operator for use on the Joint Property in the conduct of Joint Operations as provided under Section IV (*Material Purchases, Transfers, and Dispositions*). Only such Material shall be purchased for or transferred to the Joint Property as may be required for immediate use or is reasonably practical and consistent with efficient and economical operations. The accumulation of surplus stocks shall be avoided.

4. TRANSPORTATION

- A. Transportation of the Operator's, Operator's Affiliate's, or contractor's personnel necessary for Joint Operations.
- B. Transportation of Material between the Joint Property and another property, or from the Operator's warehouse or other storage point to the Joint Property, shall be charged to the receiving property using one of the methods listed below. Transportation of Material from the Joint Property to the Operator's warehouse or other storage point shall be paid for by the Joint Property using one of the methods listed below:
- (1) If the actual trucking charge is less than or equal to the Excluded Amount the Operator may charge actual trucking cost or a theoretical charge from the Railway Receiving Point to the Joint Property. The basis for the theoretical charge is the per hundred weight charge plus fuel surcharges from the Railway Receiving Point to the Joint Property. The Operator shall consistently apply the selected alternative.
 - (2) If the actual trucking charge is greater than the Excluded Amount, the Operator shall charge Equalized Freight. Accessorial charges such as loading and unloading costs, split pick-up costs, detention, call out charges, and permit fees shall be charged directly to the Joint Property and shall not be included when calculating the Equalized Freight.

5. SERVICES

The cost of contract services, equipment, and utilities used in the conduct of Joint Operations, except for contract services, equipment, and utilities covered by Section III (*Overhead*), or Section II.7 (*Affiliates*), or excluded under Section II.9 (*Legal Expense*). Awards paid to contractors shall be chargeable pursuant to COPAS MFI-49 ("Awards to Employees and Contractors").

The costs of third party Technical Services are chargeable to the extent excluded from the overhead rates under Section III (*Overhead*).

6. EQUIPMENT AND FACILITIES FURNISHED BY OPERATOR

In the absence of a separately negotiated agreement, equipment and facilities furnished by the Operator will be charged as follows:

- A. The Operator shall charge the Joint Account for use of Operator-owned equipment and facilities, including but not limited to production facilities, Shore Base Facilities, Offshore Facilities, and Field Offices, at rates commensurate with the costs of ownership and operation. The cost of Field Offices shall be chargeable to the extent the Field Offices provide direct service to personnel who are chargeable pursuant to Section II.2.A (*Labor*). Such rates may include labor, maintenance, repairs, other operating expense, insurance, taxes, depreciation using straight line depreciation method, and interest on gross investment less accumulated depreciation not to exceed _____ percent (_____ %) per annum; provided, however, depreciation shall not be charged when the

equipment and facilities investment have been fully depreciated. The rate may include an element of the estimated cost for abandonment, reclamation, and dismantlement. Such rates shall not exceed the average commercial rates currently prevailing in the immediate area of the Joint Property.

- B. In lieu of charges in Section II.6.A above, the Operator may elect to use average commercial rates prevailing in the immediate area of the Joint Property, less twenty percent (20%). If equipment and facilities are charged under this Section II.6.B, the Operator shall adequately document and support commercial rates and shall periodically review and update the rate and the supporting documentation. For automotive equipment, the Operator may elect to use rates published by the Petroleum Motor Transport Association (PMTA) or such other organization recognized by COPAS as the official source of rates.

7. AFFILIATES

- A. Charges for an Affiliate's goods and/or services used in operations requiring an AFE or other authorization from the Non-Operators may be made without the approval of the Parties provided (i) the Affiliate is identified and the Affiliate goods and services are specifically detailed in the approved AFE or other authorization, and (ii) the total costs for such Affiliate's goods and services billed to such individual project do not exceed \$ _____. If the total costs for an Affiliate's goods and services charged to such individual project are not specifically detailed in the approved AFE or authorization or exceed such amount, charges for such Affiliate shall require approval of the Parties, pursuant to Section I.6.A (*General Matters*).

- B. For an Affiliate's goods and/or services used in operations not requiring an AFE or other authorization from the Non-Operators, charges for such Affiliate's goods and services shall require approval of the Parties, pursuant to Section I.6.A (*General Matters*), if the charges exceed \$ _____ in a given calendar year.

- C. The cost of the Affiliate's goods or services shall not exceed average commercial rates prevailing in the area of the Joint Property, unless the Operator obtains the Non-Operators' approval of such rates. The Operator shall adequately document and support commercial rates and shall periodically review and update the rate and the supporting documentation; provided, however, documentation of commercial rates shall not be required if the Operator obtains Non-Operator approval of its Affiliate's rates or charges prior to billing Non-Operators for such Affiliate's goods and services. Notwithstanding the foregoing, direct charges for Affiliate-owned communication facilities or systems shall be made pursuant to Section II.12 (*Communications*).

If the Parties fail to designate an amount in Sections II.7.A or II.7.B, in each instance the amount deemed adopted by the Parties as a result of such omission shall be the amount established as the Operator's expenditure limitation in the Agreement. If the Agreement does not contain an Operator's expenditure limitation, the amount deemed adopted by the Parties as a result of such omission shall be zero dollars (\$ 0.00).

8. DAMAGES AND LOSSES TO JOINT PROPERTY

All costs or expenses necessary for the repair or replacement of Joint Property resulting from damages or losses incurred, except to the extent such damages or losses result from a Party's or Parties' gross negligence or willful misconduct, in which case such Party or Parties shall be solely liable.

The Operator shall furnish the Non-Operator written notice of damages or losses incurred as soon as practicable after a report has been received by the Operator.

9. LEGAL EXPENSE

Recording fees and costs of handling, settling, or otherwise discharging litigation, claims, and liens incurred in or resulting from operations under the Agreement, or necessary to protect or recover the Joint Property, to the extent permitted under the Agreement. Costs of the Operator's or Affiliate's legal staff or outside attorneys, including fees and expenses, are not chargeable unless approved by the Parties pursuant to Section I.6.A (*General Matters*) or otherwise provided for in the Agreement.

Notwithstanding the foregoing paragraph, costs for procuring abstracts, fees paid to outside attorneys for title examinations (including preliminary, supplemental, shut-in royalty opinions, division order title opinions), and curative work shall be chargeable to the extent permitted as a direct charge in the Agreement.

10. TAXES AND PERMITS

All taxes and permitting fees of every kind and nature, assessed or levied upon or in connection with the Joint Property, or the production therefrom, and which have been paid by the Operator for the benefit of the Parties, including penalties and interest, except to the extent the penalties and interest result from the Operator's gross negligence or willful misconduct.

If ad valorem taxes paid by the Operator are based in whole or in part upon separate valuations of each Party's working interest, then notwithstanding any contrary provisions, the charges to the Parties will be made in accordance with the tax value generated by each Party's working interest.

Costs of tax consultants or advisors, the Operator's employees, or Operator's Affiliate employees in matters regarding ad valorem or other tax matters, are not permitted as direct charges unless approved by the Parties pursuant to Section I.6.A (*General Matters*).

Charges to the Joint Account resulting from sales/use tax audits, including extrapolated amounts and penalties and interest, are permitted, provided the Non-Operator shall be allowed to review the invoices and other underlying source documents which served as the basis for tax charges and to determine that the correct amount of taxes were charged to the Joint Account. If the Non-Operator is not permitted to review such documentation, the sales/use tax amount shall not be directly charged unless the Operator can conclusively document the amount owed by the Joint Account.

11. INSURANCE

Net premiums paid for insurance required to be carried for Joint Operations for the protection of the Parties. If Joint Operations are conducted at locations where the Operator acts as self-insurer in regard to its worker's compensation and employer's liability insurance obligation, the Operator shall charge the Joint Account manual rates for the risk assumed in its self-insurance program as regulated by the jurisdiction governing the Joint Property. In the case of offshore operations in federal waters, the manual rates of the adjacent state shall be used for personnel performing work On-site, and such rates shall be adjusted for offshore operations by the U.S. Longshoreman and Harbor Workers (USL&H) or Jones Act surcharge, as appropriate.

12. COMMUNICATIONS

Costs of acquiring, leasing, installing, operating, repairing, and maintaining communication facilities or systems, including satellite, radio and microwave facilities, between the Joint Property and the Operator's office(s) directly responsible for field operations in accordance with the provisions of COPAS MFI-44 ("Field Computer and Communication Systems"). If the communications facilities or systems serving the Joint Property are Operator-owned, charges to the Joint Account shall be made as provided in Section II.6 (*Equipment and Facilities Furnished by Operator*). If the communication facilities or systems serving the Joint Property are owned by the Operator's Affiliate, charges to the Joint Account shall not exceed average commercial rates prevailing in the area of the Joint Property. The Operator shall adequately document and support commercial rates and shall periodically review and update the rate and the supporting documentation.

13. ECOLOGICAL, ENVIRONMENTAL, AND SAFETY

Costs incurred for Technical Services and drafting to comply with ecological, environmental and safety Laws or standards recommended by Occupational Safety and Health Administration (OSHA) or other regulatory authorities. All other labor and functions incurred for ecological, environmental and safety matters, including management, administration, and permitting, shall be covered by Sections II.2 (*Labor*), II.5 (*Services*), or Section III (*Overhead*), as applicable.

Costs to provide or have available pollution containment and removal equipment plus actual costs of control and cleanup and resulting responsibilities of oil and other spills as well as discharges from permitted outfalls as required by applicable Laws, or other pollution containment and removal equipment deemed appropriate by the Operator for prudent operations, are directly chargeable.

14. ABANDONMENT AND RECLAMATION

Costs incurred for abandonment and reclamation of the Joint Property, including costs required by lease agreements or by Laws.

15. OTHER EXPENDITURES

Any other expenditure not covered or dealt with in the foregoing provisions of this Section II (*Direct Charges*), or in Section III (*Overhead*) and which is of direct benefit to the Joint Property and is incurred by the Operator in the necessary and proper conduct of the Joint Operations. Charges made under this Section II.15 shall require approval of the Parties, pursuant to Section I.6.A (*General Matters*).

III. OVERHEAD

As compensation for costs not specifically identified as chargeable to the Joint Account pursuant to Section II (*Direct Charges*), the Operator shall charge the Joint Account in accordance with this Section III.

Functions included in the overhead rates regardless of whether performed by the Operator, Operator's Affiliates or third parties and regardless of location, shall include, but not be limited to, costs and expenses of:

- warehousing, other than for warehouses that are jointly owned under this Agreement
- design and drafting (except when allowed as a direct charge under Sections II.13, III.1.A(ii), and III.2, Option B)
- inventory costs not chargeable under Section V (*Inventories of Controllable Material*)
- procurement
- administration
- accounting and auditing
- gas dispatching and gas chart integration

- human resources
- management
- supervision not directly charged under Section II.2 (*Labor*)
- legal services not directly chargeable under Section II.9 (*Legal Expense*)
- taxation, other than those costs identified as directly chargeable under Section II.10 (*Taxes and Permits*)
- preparation and monitoring of permits and certifications; preparing regulatory reports; appearances before or meetings with governmental agencies or other authorities having jurisdiction over the Joint Property, other than On-site inspections; reviewing, interpreting, or submitting comments on or lobbying with respect to Laws or proposed Laws.

Overhead charges shall include the salaries or wages plus applicable payroll burdens, benefits, and Personal Expenses of personnel performing overhead functions, as well as office and other related expenses of overhead functions.

1. OVERHEAD—DRILLING AND PRODUCING OPERATIONS

As compensation for costs incurred but not chargeable under Section II (*Direct Charges*) and not covered by other provisions of this Section III, the Operator shall charge on either:

- ☐ (Alternative 1) Fixed Rate Basis, Section III.1.B.
- ☐ (Alternative 2) Percentage Basis, Section III.1.C.

A. TECHNICAL SERVICES

- (i) Except as otherwise provided in Section II.13 (*Ecological Environmental, and Safety*) and Section III.2 (*Overhead – Major Construction and Catastrophe*), or by approval of the Parties pursuant to Section I.6.A (*General Matters*), the salaries, wages, related payroll burdens and benefits, and Personal Expenses for **On-site** Technical Services, including third party Technical Services:

☐ (Alternative 1 – Direct) shall be charged direct to the Joint Account.

☐ (Alternative 2 – Overhead) shall be covered by the overhead rates.

- (ii) Except as otherwise provided in Section II.13 (*Ecological, Environmental, and Safety*) and Section III.2 (*Overhead – Major Construction and Catastrophe*), or by approval of the Parties pursuant to Section I.6.A (*General Matters*), the salaries, wages, related payroll burdens and benefits, and Personal Expenses for **Off-site** Technical Services, including third party Technical Services:

☐ (Alternative 1 – All Overhead) shall be covered by the overhead rates.

☐ (Alternative 2 – All Direct) shall be charged direct to the Joint Account.

☐ (Alternative 3 – Drilling Direct) shall be charged direct to the Joint Account, only to the extent such Technical Services are directly attributable to drilling, re-drilling, deepening, or sidetracking operations, through completion, temporary abandonment, or abandonment if a dry hole. Off-site Technical Services for all other operations, including workover, recompletion, abandonment of producing wells, and the construction or expansion of fixed assets not covered by Section III.2 (*Overhead - Major Construction and Catastrophe*) shall be covered by the overhead rates.

Notwithstanding anything to the contrary in this Section III, Technical Services provided by Operator's Affiliates are subject to limitations set forth in Section II.7 (*Affiliates*). Charges for Technical personnel performing non-technical work shall not be governed by this Section III.1.A, but instead governed by other provisions of this Accounting Procedure relating to the type of work being performed.

B. OVERHEAD—FIXED RATE BASIS

- (1) The Operator shall charge the Joint Account at the following rates per well per month:

Drilling Well Rate per month \$ _____ (prorated for less than a full month)

Producing Well Rate per month \$ _____

- (2) Application of Overhead—Drilling Well Rate shall be as follows:

- (a) Charges for onshore drilling wells shall begin on the spud date and terminate on the date the drilling and/or completion equipment used on the well is released, whichever occurs later. Charges for offshore and inland waters drilling wells shall begin on the date the drilling or completion equipment arrives on location and terminate on the date the drilling or completion equipment moves off location, or is released, whichever occurs first. No charge shall be made during suspension of drilling and/or completion operations for fifteen (15) or more consecutive calendar days.

(b) Charges for any well undergoing any type of workover, recompletion, and/or abandonment for a period of five (5) or more consecutive work-days shall be made at the Drilling Well Rate. Such charges shall be applied for the period from date operations, with rig or other units used in operations, commence through date of rig or other unit release, except that no charges shall be made during suspension of operations for fifteen (15) or more consecutive calendar days.

(3) Application of Overhead—Producing Well Rate shall be as follows:

(a) An active well that is produced, injected into for recovery or disposal, or used to obtain water supply to support operations for any portion of the month shall be considered as a one-well charge for the entire month.

(b) Each active completion in a multi-completed well shall be considered as a one-well charge provided each completion is considered a separate well by the governing regulatory authority.

(c) A one-well charge shall be made for the month in which plugging and abandonment operations are completed on any well, unless the Drilling Well Rate applies, as provided in Sections III.1.B.(2)(a) or (b). This one-well charge shall be made whether or not the well has produced.

(d) An active gas well shut in because of overproduction or failure of a purchaser, processor, or transporter to take production shall be considered as a one-well charge provided the gas well is directly connected to a permanent sales outlet.

(e) Any well not meeting the criteria set forth in Sections III.1.B.(3) (a), (b), (c), or (d) shall not qualify for a producing overhead charge.

(4) The well rates shall be adjusted on the first day of April each year following the effective date of the Agreement; provided, however, if this Accounting Procedure is attached to or otherwise governing the payout accounting under a farmout agreement, the rates shall be adjusted on the first day of April each year following the effective date of such farmout agreement. The adjustment shall be computed by applying the adjustment factor most recently published by COPAS. The adjusted rates shall be the initial or amended rates agreed to by the Parties increased or decreased by the adjustment factor described herein, for each year from the effective date of such rates, in accordance with COPAS MFI-47 (“Adjustment of Overhead Rates”).

C. OVERHEAD—PERCENTAGE BASIS

(1) Operator shall charge the Joint Account at the following rates:

(a) Development Rate _____ percent (_____) % of the cost of development of the Joint Property, exclusive of costs provided under Section II.9 (*Legal Expense*) and all Material salvage credits.

(b) Operating Rate _____ percent (_____) % of the cost of operating the Joint Property, exclusive of costs provided under Sections II.1 (*Rentals and Royalties*) and II.9 (*Legal Expense*); all Material salvage credits; the value of substances purchased for enhanced recovery; all property and ad valorem taxes, and any other taxes and assessments that are levied, assessed, and paid upon the mineral interest in and to the Joint Property.

(2) Application of Overhead—Percentage Basis shall be as follows:

(a) The Development Rate shall be applied to all costs in connection with:

- [i] drilling, re-drilling, sidetracking, or deepening of a well
- [ii] a well undergoing plugback or workover operations for a period of five (5) or more consecutive work-days
- [iii] preliminary expenditures necessary in preparation for drilling
- [iv] expenditures incurred in abandoning when the well is not completed as a producer
- [v] construction or installation of fixed assets, the expansion of fixed assets and any other project clearly discernible as a fixed asset, other than Major Construction or Catastrophe as defined in Section III.2 (*Overhead-Major Construction and Catastrophe*).

(b) The Operating Rate shall be applied to all other costs in connection with Joint Operations, except those subject to Section III.2 (*Overhead-Major Construction and Catastrophe*).

2. OVERHEAD—MAJOR CONSTRUCTION AND CATASTROPHE

To compensate the Operator for overhead costs incurred in connection with a Major Construction project or Catastrophe, the Operator shall either negotiate a rate prior to the beginning of the project, or shall charge the Joint Account for overhead based on the following rates for any Major Construction project in excess of the Operator’s expenditure limit under the Agreement, or for any Catastrophe regardless of the amount. If the Agreement to which this Accounting Procedure is attached does not contain an expenditure limit, Major Construction Overhead shall be assessed for any single Major Construction project costing in excess of \$100,000 gross.

Major Construction shall mean the construction and installation of fixed assets, the expansion of fixed assets, and any other project clearly discernible as a fixed asset required for the development and operation of the Joint Property, or in the dismantlement, abandonment, removal, and restoration of platforms, production equipment, and other operating facilities.

Catastrophe is defined as a sudden calamitous event bringing damage, loss, or destruction to property or the environment, such as an oil spill, blowout, explosion, fire, storm, hurricane, or other disaster. The overhead rate shall be applied to those costs necessary to restore the Joint Property to the equivalent condition that existed prior to the event.

A. If the Operator absorbs the engineering, design and drafting costs related to the project:

- (1) _____ % of total costs if such costs are less than \$100,000; plus
- (2) _____ % of total costs in excess of \$100,000 but less than \$1,000,000; plus
- (3) _____ % of total costs in excess of \$1,000,000.

B. If the Operator charges engineering, design and drafting costs related to the project directly to the Joint Account:

- (1) _____ % of total costs if such costs are less than \$100,000; plus
- (2) _____ % of total costs in excess of \$100,000 but less than \$1,000,000; plus
- (3) _____ % of total costs in excess of \$1,000,000.

Total cost shall mean the gross cost of any one project. For the purpose of this paragraph, the component parts of a single Major Construction project shall not be treated separately, and the cost of drilling and workover wells and purchasing and installing pumping units and downhole artificial lift equipment shall be excluded. For Catastrophes, the rates shall be applied to all costs associated with each single occurrence or event.

On each project, the Operator shall advise the Non-Operator(s) in advance which of the above options shall apply.

For the purposes of calculating Catastrophe Overhead, the cost of drilling relief wells, substitute wells, or conducting other well operations directly resulting from the catastrophic event shall be included. Expenditures to which these rates apply shall not be reduced by salvage or insurance recoveries. Expenditures that qualify for Major Construction or Catastrophe Overhead shall not qualify for overhead under any other overhead provisions.

In the event of any conflict between the provisions of this Section III.2 and the provisions of Sections II.2 (*Labor*), II.5 (*Services*), or II.7 (*Affiliates*), the provisions of this Section III.2 shall govern.

3. AMENDMENT OF OVERHEAD RATES

The overhead rates provided for in this Section III may be amended from time to time if, in practice, the rates are found to be insufficient or excessive, in accordance with the provisions of Section I.6.B (*Amendments*).

IV. MATERIAL PURCHASES, TRANSFERS, AND DISPOSITIONS

The Operator is responsible for Joint Account Material and shall make proper and timely charges and credits for direct purchases, transfers, and dispositions. The Operator shall provide all Material for use in the conduct of Joint Operations; however, Material may be supplied by the Non-Operators, at the Operator's option. Material furnished by any Party shall be furnished without any express or implied warranties as to quality, fitness for use, or any other matter.

1. DIRECT PURCHASES

Direct purchases shall be charged to the Joint Account at the price paid by the Operator after deduction of all discounts received. The Operator shall make good faith efforts to take discounts offered by suppliers, but shall not be liable for failure to take discounts except to the extent such failure was the result of the Operator's gross negligence or willful misconduct. A direct purchase shall be deemed to occur when an agreement is made between an Operator and a third party for the acquisition of Material for a specific well site or location. Material provided by the Operator under "vendor stocking programs," where the initial use is for a Joint Property and title of the Material does not pass from the manufacturer, distributor, or agent until usage, is considered a direct purchase. If Material is found to be defective or is returned to the manufacturer, distributor, or agent for any other reason, credit shall be passed to the Joint Account within sixty (60) days after the Operator has received adjustment from the manufacturer, distributor, or agent.

2. TRANSFERS

A transfer is determined to occur when the Operator (i) furnishes Material from a storage facility or from another operated property, (ii) has assumed liability for the storage costs and changes in value, and (iii) has previously secured and held title to the transferred Material. Similarly, the removal of Material from the Joint Property to a storage facility or to another operated property is also considered a transfer; provided, however, Material that is moved from the Joint Property to a storage location for safe-keeping pending disposition may remain charged to the Joint Account and is not considered a transfer. Material shall be disposed of in accordance with Section IV.3 (*Disposition of Surplus*) and the Agreement to which this Accounting Procedure is attached.

A. PRICING

The value of Material transferred to/from the Joint Property should generally reflect the market value on the date of physical transfer. Regardless of the pricing method used, the Operator shall make available to the Non-Operators sufficient documentation to verify the Material valuation. When higher than specification grade or size tubulars are used in the conduct of Joint Operations, the Operator shall charge the Joint Account at the equivalent price for well design specification tubulars, unless such higher specification grade or sized tubulars are approved by the Parties pursuant to Section I.6.A (*General Matters*). Transfers of new Material will be priced using one of the following pricing methods; provided, however, the Operator shall use consistent pricing methods, and not alternate between methods for the purpose of choosing the method most favorable to the Operator for a specific transfer:

(1) Using published prices in effect on date of movement as adjusted by the appropriate COPAS Historical Price Multiplier (HPM) or prices provided by the COPAS Computerized Equipment Pricing System (CEPS).

(a) For oil country tubulars and line pipe, the published price shall be based upon eastern mill carload base prices (Houston, Texas, for special end) adjusted as of date of movement, plus transportation cost as defined in Section IV.2.B (*Freight*).

(b) For other Material, the published price shall be the published list price in effect at date of movement, as listed by a Supply Store nearest the Joint Property where like Material is normally available, or point of manufacture plus transportation costs as defined in Section IV.2.B (*Freight*).

(2) Based on a price quotation from a vendor that reflects a current realistic acquisition cost.

(3) Based on the amount paid by the Operator for like Material in the vicinity of the Joint Property within the previous twelve (12) months from the date of physical transfer.

(4) As agreed to by the Participating Parties for Material being transferred to the Joint Property, and by the Parties owning the Material for Material being transferred from the Joint Property.

B. FREIGHT

Transportation costs shall be added to the Material transfer price using the method prescribed by the COPAS Computerized Equipment Pricing System (CEPS). If not using CEPS, transportation costs shall be calculated as follows:

(1) Transportation costs for oil country tubulars and line pipe shall be calculated using the distance from eastern mill to the Railway Receiving Point based on the carload weight basis as recommended by the COPAS MFI-38 ("Material Pricing Manual") and other COPAS MFIs in effect at the time of the transfer.

(2) Transportation costs for special mill items shall be calculated from that mill's shipping point to the Railway Receiving Point. For transportation costs from other than eastern mills, the 30,000-pound interstate truck rate shall be used. Transportation costs for macaroni tubing shall be calculated based on the interstate truck rate per weight of tubing transferred to the Railway Receiving Point.

(3) Transportation costs for special end tubular goods shall be calculated using the interstate truck rate from Houston, Texas, to the Railway Receiving Point.

(4) Transportation costs for Material other than that described in Sections IV.2.B.(1) through (3), shall be calculated from the Supply Store or point of manufacture, whichever is appropriate, to the Railway Receiving Point

Regardless of whether using CEPS or manually calculating transportation costs, transportation costs from the Railway Receiving Point to the Joint Property are in addition to the foregoing, and may be charged to the Joint Account based on actual costs incurred. All transportation costs are subject to Equalized Freight as provided in Section II.4 (*Transportation*) of this Accounting Procedure.

C. TAXES

Sales and use taxes shall be added to the Material transfer price using either the method contained in the COPAS Computerized Equipment Pricing System (CEPS) or the applicable tax rate in effect for the Joint Property at the time and place of transfer. In either case, the Joint Account shall be charged or credited at the rate that would have governed had the Material been a direct purchase.

D. CONDITION

(1) Condition “A” – New and unused Material in sound and serviceable condition shall be charged at one hundred percent (100%) of the price as determined in Sections IV.2.A (*Pricing*), IV.2.B (*Freight*), and IV.2.C (*Taxes*). Material transferred from the Joint Property that was not placed in service shall be credited as charged without gain or loss; provided, however, any unused Material that was charged to the Joint Account through a direct purchase will be credited to the Joint Account at the original cost paid less restocking fees charged by the vendor. New and unused Material transferred from the Joint Property may be credited at a price other than the price originally charged to the Joint Account provided such price is approved by the Parties owning such Material, pursuant to Section I.6.A (*General Matters*). All refurbishing costs required or necessary to return the Material to original condition or to correct handling, transportation, or other damages will be borne by the divesting property. The Joint Account is responsible for Material preparation, handling, and transportation costs for new and unused Material charged to the Joint Property either through a direct purchase or transfer. Any preparation costs incurred, including any internal or external coating and wrapping, will be credited on new Material provided these services were not repeated for such Material for the receiving property.

(2) Condition “B” – Used Material in sound and serviceable condition and suitable for reuse without reconditioning shall be priced by multiplying the price determined in Sections IV.2.A (*Pricing*), IV.2.B (*Freight*), and IV.2.C (*Taxes*) by seventy-five percent (75%).

Except as provided in Section IV.2.D(3), all reconditioning costs required to return the Material to Condition “B” or to correct handling, transportation or other damages will be borne by the divesting property.

If the Material was originally charged to the Joint Account as used Material and placed in service for the Joint Property, the Material will be credited at the price determined in Sections IV.2.A (*Pricing*), IV.2.B (*Freight*), and IV.2.C (*Taxes*) multiplied by sixty-five percent (65%).

Unless otherwise agreed to by the Parties that paid for such Material, used Material transferred from the Joint Property that was not placed in service on the property shall be credited as charged without gain or loss.

(3) Condition “C” – Material that is not in sound and serviceable condition and not suitable for its original function until after reconditioning shall be priced by multiplying the price determined in Sections IV.2.A (*Pricing*), IV.2.B (*Freight*), and IV.2.C (*Taxes*) by fifty percent (50%).

The cost of reconditioning may be charged to the receiving property to the extent Condition “C” value, plus cost of reconditioning, does not exceed Condition “B” value.

(4) Condition “D” – Material that (i) is no longer suitable for its original purpose but useable for some other purpose, (ii) is obsolete, or (iii) does not meet original specifications but still has value and can be used in other applications as a substitute for items with different specifications, is considered Condition “D” Material. Casing, tubing, or drill pipe used as line pipe shall be priced as Grade A and B seamless line pipe of comparable size and weight. Used casing, tubing, or drill pipe utilized as line pipe shall be priced at used line pipe prices. Casing, tubing, or drill pipe used as higher pressure service lines than standard line pipe, e.g., power oil lines, shall be priced under normal pricing procedures for casing, tubing, or drill pipe. Upset tubular goods shall be priced on a non-upset basis. For other items, the price used should result in the Joint Account being charged or credited with the value of the service rendered or use of the Material, or as agreed to by the Parties pursuant to Section 1.6.A (*General Matters*).

(5) Condition “E” – Junk shall be priced at prevailing scrap value prices.

E. OTHER PRICING PROVISIONS

(1) Preparation Costs

Subject to Section II (*Direct Charges*) and Section III (*Overhead*) of this Accounting Procedure, costs incurred by the Operator in making Material serviceable including inspection, third party surveillance services, and other similar services will be charged to the Joint Account at prices which reflect the Operator’s actual costs of the services. Documentation must be provided to the Non-Operators upon request to support the cost of service. New coating and/or wrapping shall be considered a component of the Materials and priced in accordance with Sections IV.1 (*Direct Purchases*) or IV.2.A (*Pricing*), as applicable. No charges or credits shall be made for used coating or wrapping. Charges and credits for inspections shall be made in accordance with COPAS MFI-38 (“Material Pricing Manual”).

(2) Loading and Unloading Costs

Loading and unloading costs related to the movement of the Material to the Joint Property shall be charged in accordance with the methods specified in COPAS MFI-38 (“Material Pricing Manual”).

3. DISPOSITION OF SURPLUS

Surplus Material is that Material, whether new or used, that is no longer required for Joint Operations. The Operator may purchase, but shall be under no obligation to purchase, the interest of the Non-Operators in surplus Material.

Dispositions for the purpose of this procedure are considered to be the relinquishment of title of the Material from the Joint Property to either a third party, a Non-Operator, or to the Operator. To avoid the accumulation of surplus Material, the Operator should make good faith efforts to dispose of surplus within twelve (12) months through buy/sale agreements, trade, sale to a third party, division in kind, or other dispositions as agreed to by the Parties.

Disposal of surplus Materials shall be made in accordance with the terms of the Agreement to which this Accounting Procedure is attached. If the Agreement contains no provisions governing disposal of surplus Material, the following terms shall apply:

- The Operator may, through a sale to an unrelated third party or entity, dispose of surplus Material having a gross sale value that is less than or equal to the Operator's expenditure limit as set forth in the Agreement to which this Accounting Procedure is attached without the prior approval of the Parties owning such Material.
- If the gross sale value exceeds the Agreement expenditure limit, the disposal must be agreed to by the Parties owning such Material.
- Operator may purchase surplus Condition "A" or "B" Material without approval of the Parties owning such Material, based on the pricing methods set forth in Section IV.2 (*Transfers*).
- Operator may purchase Condition "C" Material without prior approval of the Parties owning such Material if the value of the Materials, based on the pricing methods set forth in Section IV.2 (*Transfers*), is less than or equal to the Operator's expenditure limitation set forth in the Agreement. The Operator shall provide documentation supporting the classification of the Material as Condition C.
- Operator may dispose of Condition "D" or "E" Material under procedures normally utilized by Operator without prior approval of the Parties owning such Material.

4. SPECIAL PRICING PROVISIONS

A. PREMIUM PRICING

Whenever Material is available only at inflated prices due to national emergencies, strikes, government imposed foreign trade restrictions, or other unusual causes over which the Operator has no control, for direct purchase the Operator may charge the Joint Account for the required Material at the Operator's actual cost incurred in providing such Material, making it suitable for use, and moving it to the Joint Property. Material transferred or disposed of during premium pricing situations shall be valued in accordance with Section IV.2 (*Transfers*) or Section IV.3 (*Disposition of Surplus*), as applicable.

B. SHOP-MADE ITEMS

Items fabricated by the Operator's employees, or by contract laborers under the direction of the Operator, shall be priced using the value of the Material used to construct the item plus the cost of labor to fabricate the item. If the Material is from the Operator's scrap or junk account, the Material shall be priced at either twenty-five percent (25%) of the current price as determined in Section IV.2.A (*Pricing*) or scrap value, whichever is higher. In no event shall the amount charged exceed the value of the item commensurate with its use.

C. MILL REJECTS

Mill rejects purchased as "limited service" casing or tubing shall be priced at eighty percent (80%) of K-55/J-55 price as determined in Section IV.2 (*Transfers*). Line pipe converted to casing or tubing with casing or tubing couplings attached shall be priced as K-55/J-55 casing or tubing at the nearest size and weight.

V. INVENTORIES OF CONTROLLABLE MATERIAL

The Operator shall maintain records of Controllable Material charged to the Joint Account, with sufficient detail to perform physical inventories.

Adjustments to the Joint Account by the Operator resulting from a physical inventory of Controllable Material shall be made within twelve (12) months following the taking of the inventory or receipt of Non-Operator inventory report. Charges and credits for overages or shortages will be valued for the Joint Account in accordance with Section IV.2 (*Transfers*) and shall be based on the Condition "B" prices in effect on the date of physical inventory unless the inventorying Parties can provide sufficient evidence another Material condition applies.

1. DIRECTED INVENTORIES

Physical inventories shall be performed by the Operator upon written request of a majority in working interests of the Non-Operators (hereinafter, “directed inventory”); provided, however, the Operator shall not be required to perform directed inventories more frequently than once every five (5) years. Directed inventories shall be commenced within one hundred eighty (180) days after the Operator receives written notice that a majority in interest of the Non-Operators has requested the inventory. All Parties shall be governed by the results of any directed inventory.

Expenses of directed inventories will be borne by the Joint Account; provided, however, costs associated with any post-report follow-up work in settling the inventory will be absorbed by the Party incurring such costs. The Operator is expected to exercise judgment in keeping expenses within reasonable limits. Any anticipated disproportionate or extraordinary costs should be discussed and agreed upon prior to commencement of the inventory. Expenses of directed inventories may include the following:

- A. A per diem rate for each inventory person, representative of actual salaries, wages, and payroll burdens and benefits of the personnel performing the inventory or a rate agreed to by the Parties pursuant to Section I.6.A (*General Matters*). The per diem rate shall also be applied to a reasonable number of days for pre-inventory work and report preparation.
- B. Actual transportation costs and Personal Expenses for the inventory team.
- C. Reasonable charges for report preparation and distribution to the Non-Operators.

2. NON-DIRECTED INVENTORIES**A. OPERATOR INVENTORIES**

Physical inventories that are not requested by the Non-Operators may be performed by the Operator, at the Operator’s discretion. The expenses of conducting such Operator-initiated inventories shall not be charged to the Joint Account.

B. NON-OPERATOR INVENTORIES

Subject to the terms of the Agreement to which this Accounting Procedure is attached, the Non-Operators may conduct a physical inventory at reasonable times at their sole cost and risk after giving the Operator at least ninety (90) days prior written notice. The Non-Operator inventory report shall be furnished to the Operator in writing within ninety (90) days of completing the inventory fieldwork.

C. SPECIAL INVENTORIES

The expense of conducting inventories other than those described in Sections V.1 (*Directed Inventories*), V.2.A (*Operator Inventories*), or V.2.B (*Non-Operator Inventories*), shall be charged to the Party requesting such inventory; provided, however, inventories required due to a change of Operator shall be charged to the Joint Account in the same manner as described in Section V.1 (*Directed Inventories*).

EXHIBIT “ ”
ACCOUNTING PROCEDURE
JOINT OPERATIONS

Attached to and made part of _____

I. GENERAL PROVISIONS

1. DEFINITIONS

The following capitalized terms have the meaning ascribed to them in this Section I.1. However, if the term is expressly defined in the Agreement, the definition in the Agreement controls.

“**AFE**” means an Authority for Expenditure prepared by a party to the Agreement for the purpose of estimating the costs to be incurred in conducting an operation under the Agreement.

“**Affiliate**” means for a person, another person that controls, is controlled by, or is under common control with that person. For the purposes of this definition, “control” means the ownership by one person, directly or indirectly, of more than 50% of the voting securities of a corporation or, for other persons, the equivalent ownership interest (such as a partnership interest), and “person” means an individual, corporation, partnership, trust, estate, unincorporated organization, association, or other legal entity.

“**Agreed Interest**” means interest, compounded monthly, at the rate per annum equal to the prime rate published by *The Wall Street Journal*, or by the Federal Reserve if *The Wall Street Journal* is not published, on the first business day of the month in which payment is due, and afterwards on the first business day of each succeeding month, plus three percentage points. If the aforesaid rate is contrary to any applicable usury Law, the interest rate will be the maximum rate permitted by Law.

“**Agreement**” means the operating agreement, farmout agreement, or other contract between the Parties to which this Accounting Procedure is attached.

“**Catastrophe**” means a sudden calamitous event bringing damage, loss, or destruction to property or the environment, such as an oil spill, blowout, explosion, fire, storm, hurricane, or other disaster.

“**Controllable Material**” means Material that, at the time of acquisition or disposition by the Joint Account, as applicable, is so classified by the Council of Petroleum Accountants Societies, Inc. (COPAS).

“**Environmental Project**” means a project to investigate and remediate environmental conditions, or to prevent environmental claims, that is necessary and proper for the direct benefit of the Joint Operations. An Environmental Project does not include routine operations, such as exploration, appraisal, development, production, maintenance, repair, Major Construction projects, or Catastrophe projects.

“**Field Office**” means a structure, or portion of a structure, whether a temporary or permanent installation, the primary function of which is to directly serve operation of the Joint Property and which serves as a staging area for directly chargeable employees and contractors who operate the Joint Property.

“**First Level Supervision**” means those individuals whose primary function in Joint Operations is the direct oversight of directly chargeable employees and contractors who operate the Joint Property. First Level Supervision functions may include:

- (i) responsibility for employees and contractors engaged in field operations activities, such as production operations, maintenance, construction, well remedial work, equipment movement and drilling;
- (ii) responsibility for day-to-day direct oversight of rig operations;
- (iii) responsibility for day-to-day direct oversight of construction operations;
- (iv) coordination of job priorities and approval of work procedures;
- (v) responsibility for optimal resource utilization (equipment, Materials, personnel);
- (vi) responsibility for meeting production and operating expense targets;

- (vii) representation of the Parties in local matters involving community, vendors, regulatory agencies, and landowners, as an incidental part of the supervisor's operating responsibilities;
- (viii) responsibility for all emergency responses with employees and contractors who operate the Joint Property;
- (ix) responsibility for ensuring employees and contractors operate the Joint Property in compliance with company policies and procedures;
- (x) responsibility for employment decisions and performance appraisals for employees who operate the Joint Property; and
- (xi) oversight of sub-groups for operations functions such as electrical, HSE, communications, instrumentation, measurement, which may have group or team leaders.

"HSE" means health, safety, and environment.

"Joint Account" means the account showing the charges paid and credits received in the conduct of the Joint Operations that are to be shared by the Parties, but does not include the account pertaining to volumes or proceeds attributable to hydrocarbons and by-products produced under the Agreement.

"Joint Operations" means all operations necessary or proper for the exploration, appraisal, development, production, protection, maintenance, repair, abandonment, and restoration of the Joint Property.

"Joint Property" means the real and personal property subject to the Agreement, regardless of location.

"Laws" means any statutes, rules, regulations, decrees, and orders of the United States of America or any state thereof and all other governmental bodies, agencies, and other authorities having jurisdiction over or affecting the provisions contained in or the transactions contemplated by the Agreement or the Parties and their activities and operations under the Agreement. This term applies to Laws that exist as of the effective date of the Agreement as well as those that are hereafter amended, enacted, promulgated, or issued.

"Major Construction" means a project to construct and install, expand, or modify fixed assets beyond the wellhead that are required for Joint Operations, or the dismantlement, abandonment, removal, and restoration of platforms, production equipment, and other operating facilities.

"Material" means personal property, equipment, supplies, or consumables acquired or held for use in Joint Operations.

"Non-Operators" means the Parties other than the Operator.

"Offshore Facilities" means platforms, surface and subsea development and production systems, and other support systems, such as oil and gas handling facilities, living quarters, offices, shops, cranes, electrical supply equipment and systems, fuel and water storage and piping, heliport, marine docking installations, communication facilities, navigation aids, and other similar facilities necessary in the conduct of offshore operations, all of which are located offshore.

"Operator" means the Party designated pursuant to the Agreement to conduct the Joint Operations.

"Parties" means legal entities signatory to the Agreement or their successors and assigns. Parties are referred to individually as "Party."

"Participating Interest" means the percentage of the costs and risks of conducting an operation under the Agreement that a Party agrees, or is otherwise obligated, to pay and bear.

"Payroll Burden and Benefits" means payroll-related costs other than salary and wages, such as payroll taxes, employee benefits, workers' compensation insurance, unemployment taxes, and time-off pay.

"Personal Expenses" means costs for transportation, meals, lodging, temporary living accommodations, relocation, and other expenses reimbursed under the usual practice of the Operator or its Affiliate, as applicable.

"Remote Technology Center" means a facility, regardless of location, having dedicated technical and/or operations staffing, that directly monitors and/or controls Joint Operations on a real-time basis.

"Shore Base Facilities" means onshore support facilities that provide such services to the Joint Property as a receiving and transshipment point for Material; debarkation point for operations personnel

and services; communication, scheduling, and dispatching center; and other associated functions serving Joint Operations.

“**Technical Services**” means engineering, geosciences, or other professional services (such as those performed by engineers, geologists, geophysicists, HSE specialists, technicians) that handle or address specific operating conditions or problems for the benefit of Joint Operations. Technical Services also includes design and drafting. Technical Services does not include those functions specifically identified as overhead under the second paragraph of Section III (*Overhead*).

2. STATEMENTS AND BILLINGS

The Operator shall bill each Non-Operator on or before the last day of the month for its proportionate share of the Joint Account for the preceding month. Bills and statements must identify the AFE, lease or facility, and all charges and credits summarized by appropriate categories of investment and expense, and a summary of all Controllable Material by major Material classifications. Intangible drilling costs, audit adjustments, and unusual charges and credits shall be separately and clearly identified.

The Operator will make available to Non-Operators any statements and bills required under Section I.2 or Section I.3.A (*Advances and Payments*) by electronic means or by paper copy. The Operator shall provide the Non-Operators instructions and any necessary information to access and receive the statements and bills within the timeframes specified herein. An electronic statement or bill will be deemed as delivered 24 hours (exclusive of weekends and federal holidays) after the Operator notifies the Non-Operator that the statement or bill is available. Upon request from a Non-Operator, Operator shall provide the bills and statements to such Non-Operator in another medium, if reasonably available to Operator.

3. ADVANCES AND PAYMENTS

A. Except as otherwise provided for in the Agreement, the Operator may require one or more of the Non-Operators to advance their share of the estimated cash outlay for the succeeding month’s operations. Each such statement and invoice for the payment in advance of estimated expense will be submitted on or before the 20th day of the preceding month. Each Non-Operator shall pay to Operator its proportionate share of such estimate within 30 days after receipt of the advance request. The Operator shall adjust each monthly billing to reflect advances received from the Non-Operators for such month. If a refund is due, the Operator shall apply the refund to the subsequent month’s billing or advance, unless the Non-Operator sends the Operator a written request for a cash refund. The Operator shall remit the refund to the Non-Operator within 30 days of receipt of such written request.

B. Except as provided below, each Non-Operator shall pay its proportionate share of each bill in full within 30 days of receipt. If the due date is on a weekend or on a federal holiday, the payment will be due the following business day. If payment is not made within such time, the Non-Operator shall pay interest at the Agreed Interest rate on the unpaid balance, if requested by Operator. Agreed Interest on late payments accrues the day after the due date until the date the Operator receives payment. In addition, the delinquent Party shall reimburse Operator for attorney’s fees, court costs, and other costs incurred by Operator in connection with the collection of unpaid amounts. Non-Operator may not reduce or delay payment as a result of inquiries or anticipated credits unless the Operator has agreed. Notwithstanding the foregoing, the Non-Operator may reduce payment to the extent such reduction is caused by being billed for:

- (i) an incorrect working interest or Participating Interest that is higher than such Non-Operator’s actual working interest or Participating Interest, as applicable;
- (ii) a project or AFE requiring approval of the Parties under the Agreement that the Non-Operator has not approved or is not otherwise obligated to pay under the Agreement;
- (iii) a property in which the Non-Operator no longer owns a working interest, except for costs which remain the responsibility of the Non-Operator according to the transfer of interest requirements in the Agreement; or
- (iv) charges outside the adjustment period, as provided in Section I.4 (*Adjustments*).

If the Non-Operator reduces payment pursuant to items (i) through (iv), it must furnish Operator documentation or explanation prior to the payment due date. If any amount withheld pursuant to this provision is determined to be due and payable, and is paid after the due date, such delinquent amount is subject to the Agreed Interest at the discretion of the Operator.

4. ADJUSTMENTS

- A. Payment of a bill shall not prejudice the right of any Party to protest or question the correctness thereof; however, all bills and statements, including payout statements, rendered during any calendar year shall conclusively be presumed to be true and correct, with respect only to expenditures, after 24 months following the end of any such calendar year, unless within said period a Party takes specific detailed written exception thereto making a claim for adjustment. The Operator shall provide a written response to all written exceptions, whether or not contained in an audit report, within the time periods prescribed in Section I.5 (*Expenditure Audits*).
- B. All adjustments initiated by the Operator, except those described in items (i) through (iv) of this Section I.4.B, must be made no later than 24 months following the end of the calendar year in which the original charge appeared or should have appeared on the Joint Account statement or payout statement. Adjustments that may be made after such 24-month period are limited to those resulting from any of the following:
- (i) a physical inventory of Controllable Material as provided for in Section V (*Inventories of Controllable Material*);
 - (ii) an offsetting entry (whether in whole or in part) that is the direct result of a specific written exception or inquiry relating to another property or agreement;
 - (iii) a retroactive adjustment resulting from an audit or assessment by a government entity; or
 - (iv) a working interest ownership or Participating Interest adjustment.
- C. Any allocation or reallocation of preliminary project costs or costs for shared equipment, facilities, or services among wells or projects receiving benefit should appear on the Joint Account statement or payout statement when the well or project receives benefit. Examples include: location staking, permitting fees, rights of way and easement payments, environmental assessments, shared pads, production facilities, and drilling support facilities.

5. EXPENDITURE AUDITS

- A. A Non-Operator, upon written notice to the Operator and all other Non-Operators, has the right to audit the Operator's accounts and records relating to any bills rendered, unless otherwise provided in the Agreement. The audit must be conducted no later than 24-months following the end of the calendar year in which such bill was rendered. Conducting an audit will not extend the time for the taking of written exception to and the adjustment of accounts as provided for in Section I.4 (*Adjustments*).

Any Party subject to payout accounting under the Agreement has the right to audit the accounts and records of the Party responsible for preparing the payout statements, or of the Party furnishing information to the Party responsible for preparing payout statements. Audits of payout accounts may include the volumes of hydrocarbons produced and saved and proceeds received for such hydrocarbons insofar as they pertain to payout accounting required under the Agreement. Unless otherwise provided in the Agreement, audits of a payout account statement must be conducted no later than 24 months following the end of the calendar year in which the payout statement was rendered.

The Non-Operators shall make every reasonable effort to conduct a joint audit in a manner that will result in a minimum of inconvenience to the Operator. The Operator will bear no portion of the Non-Operator's audit cost. The audits may not be conducted more than once each year without prior approval of the Operator, except upon the resignation or removal of the Operator.

The Non-Operator leading the audit ("lead audit company") shall make good faith efforts to issue the audit report within 90 days after completion of the audit testing and analysis; however, the 90-day period will not extend or shorten the 24-month requirement for taking specific detailed written exception as required in Section I.4.A (*Adjustments*) above. All claims shall be supported with sufficient documentation.

A timely filed written exception will, with respect to the claims made therein, preclude the Operator from asserting a statute of limitations defense against such claims, and the Operator waives its right to assert any statute of limitations defense against such claims for so long as any Non-Operator continues to comply with the deadlines for resolving exceptions provided in this Accounting Procedure. If the Non-Operators fail to comply with the deadline in Section I.5.C, the Operator's waiver of its rights to assert a statute of limitations defense against the claims brought by the Non-Operators will lapse, and such claims will then be subject to the applicable statute of limitations.

- B. The Operator shall provide a written response to all exceptions in an audit report within 180 days after Operator receives such report. Denied exceptions should be accompanied by a substantive written response. If the Operator fails to provide a substantive written response to an exception within this 180-day period, upon request by Non-Operator the Operator will owe Agreed Interest on that exception or portion thereof, if ultimately granted, from the date Operator received the audit report until the date the Non-Operator receives payment or credit on its joint interest bill.
- C. The lead audit company shall reply in writing to the Operator's response to an audit report within 90 days of receipt, and the Operator shall respond in writing to the lead audit company's follow-up reply within 90 days of receipt; provided, however, each Non-Operator has the right to represent itself if it disagrees with the lead audit company's position or believes the lead audit company is not adequately fulfilling its duties. If the Operator fails to provide a substantive written response to an exception within this 90-day period, upon request by Non-Operator the Operator will owe Agreed Interest on that exception or portion thereof, if ultimately granted, from the date it received the audit report until the date the Non-Operator receives payment or credit on its joint interest bill.
- D. If any Party fails to meet the deadlines in Sections I.5.B or I.5.C, or if any audit issues are outstanding 15 months after Operator received the audit report, the Operator or any Non-Operator participating in the audit has the right to call a resolution meeting, as set forth in this Section I.5.D, or it may invoke the dispute resolution procedures included in the Agreement, if applicable. The meeting will require one month's written notice to the Operator and all Non-Operators participating in the audit. The meeting will be held at the Operator's office or mutually agreed location and shall be attended by representatives of the Parties with authority to resolve such outstanding issues. Any Party who fails to attend the resolution meeting shall be bound by any resolution reached at the meeting. The lead audit company shall make good faith efforts to coordinate the response and positions of the Non-Operator participants throughout the resolution process; however, each Non-Operator has the right to represent itself. Attendees shall make good faith efforts to resolve outstanding issues, and the Parties must present substantive information supporting their position. A resolution meeting may be held as often as agreed to by the Parties. Issues unresolved at one meeting may be discussed at subsequent meetings until each such issue is resolved.

If the Agreement contains no dispute resolution procedures and the audit issues cannot be resolved by negotiation, any Party to the dispute may request the matter be submitted to mediation. In such event, promptly following one Party's written request for mediation, the Parties to the dispute shall choose a mutually acceptable mediator and share the costs of mediation services equally. The Parties shall each have present at the mediation at least one individual who has the authority to settle the dispute. The Parties shall make reasonable efforts to ensure that the mediation commences within 60 days after receipt of the mediation request. Notwithstanding the above, any Party may file a lawsuit or complaint (i) if the Parties are unable, after reasonable efforts, to commence mediation within 60 days after receipt of the mediation request, (ii) for statute of limitations reasons, or (iii) to seek a preliminary injunction or other provisional judicial relief, if in its sole judgment an injunction or other provisional relief is necessary to avoid irreparable damage or to preserve the status quo.

- E. ☐ **[OPTIONAL PROVISION – FORFEITURE PENALTIES]**
THIS PROVISION APPLIES ONLY IF THE PARTIES EXPRESS THEIR INTENT TO INCLUDE IT BY A TYPED, PRINTED OR HANDWRITTEN INDICATION. THIS PROVISION WILL NOT FORM A PART OF THIS ACCOUNTING PROCEDURE, AND NO INFERENECE MAY BE MADE CONCERNING THE PARTIES' INTENT IF THEY FAIL TO INDICATE THEIR INTENT TO ADOPT IT.

If the Non-Operators fail to meet the deadline in Section I.5.C, any unresolved exceptions that were not addressed by the Non-Operators within one year following receipt of the last substantive response of the Operator are deemed to have been withdrawn by the Non-Operators. If the Operator fails to meet the deadlines in Section I.5.B or I.5.C, any unresolved exceptions that were not addressed by the Operator within one year following receipt of the audit report or receipt of the last substantive response of the Non-Operators, whichever is later, are deemed to have been granted by the Operator and adjustments shall be made, without interest, to the Joint Account.

6. APPROVAL BY PARTIES

A. General Matters

When an approval or other agreement of the Parties or Non-Operators is expressly required under other Sections of this Accounting Procedure, the Operator shall notify all Non-Operators who are eligible to vote of the Operator's proposal. Except for approvals required under Sections IV.2.A.(v)

(*Transfers*) and IV.3 (*Disposition of Surplus*) or as provided in the Agreement, the agreement or approval of a majority in interest of the Non-Operators who are eligible to vote and not an Affiliate of the Operator shall be controlling on all Non-Operators.

If Material being transferred to the Joint Property is priced under Section IV.2.A(v) – agreed-to pricing – approval of a majority in interest of the Parties who will be charged for such Material is required; provided, however, if Operator and its Affiliates own a majority in interest, approval requires vote of one other Party. If Material being transferred from the Joint Property is priced under Section IV.2.A(v) – agreed-to pricing – or being disposed of under Section IV.3 (*Disposition of Surplus*), approval of a majority in interest of Parties owning the Material is required; provided, however, if Operator and its Affiliates own a majority in interest, but less than 90%, approval requires the vote of one other Party owning an interest in the Materials.

This Section I.6.A applies to specific situations of limited duration where a Party proposes to deviate from this Accounting Procedure. Approval of a deviation under this provision does not constitute an amendment.

B. Amendments

If the Agreement contains no contrary provisions in regard thereto, this Accounting Procedure can be amended by an affirmative vote of Operator and _____ or more Non-Operators who are not an Affiliate of the Operator, having a combined working interest of at least _____%, which approval shall be binding on all Parties. If the Parties fail to specify the percentage vote required, an amendment will require unanimous approval.

II. DIRECT CHARGES

The following costs are directly chargeable to the Joint Account:

1. RENTALS AND ROYALTIES

Rentals, royalties, rights of way, and easements paid by Operator on behalf of the Parties, for Joint Operations.

2. LABOR

A. Salaries and wages, including Operator's established incentive compensation programs that are based on pre-determined metrics and are an integral part of salary programs, other than burdens on production, for Operator's employees:

- (1) directly engaged in operating the Joint Property;
- (2) directly engaged in operating Shore Base Facilities, Offshore Facilities, or other facilities serving the Joint Property if such costs are not included in the rates charged under Section II.6 (*Equipment and Facilities Furnished by Operator*) and are not a function covered under Section III (*Overhead*);
- (3) directly engaged in First Level Supervision of operations employees chargeable under II.2.A.(1) and (2);
- (4) directly engaged in providing Technical Services for:
 - (a) design and drafting for a Major Construction or Catastrophe project, or Environmental Project, or technical design for the drilling, completing, sidetracking, deepening, or extending of a well; or
 - (b) handling or addressing specific operating conditions or problems for:
 - (i) drilling, re-drilling, deepening, plugging back, recompleting, or sidetracking operations through the latter of completion or through plugging and abandonment if the well is a dry hole;
 - (ii) workovers, remediation, repairs, or reworks;
 - (iii) isolating, decompleting, or securing a well to protect it from operations conducted on an offset well;
 - (iv) Major Construction projects;
 - (v) Catastrophe projects;
 - (vi) Environmental Projects;

- (vii) implementing new, or non-routine updates to, HSE Laws or standards required or recommended by governmental authorities having jurisdiction; or
 - (viii) plugging and abandonment operations.
 - (5) directly engaged in performing the following functions for Joint Operations:
 - (i) negotiating with landowners to acquire surface and subsurface rights to build, install, and access wells and other operations infrastructure; but excluding negotiations to acquire leasehold or mineral rights;
 - (ii) meeting with landowners, regulatory personnel, or survey crews to select sites for conducting Joint Operations and related infrastructure needed to carry out operations;
 - (iii) overseeing surveying and staking of locations, and line locating;
 - (iv) acquiring water rights;
 - (v) assessing damages in the field and negotiating settlements with landowners; or
 - (vi) conducting inspections in the field to verify compliance with surface use agreements or Laws.

Charges for the Operator’s employees identified in Section II.2.A will be based on the employee’s actual salaries and wages, or in lieu thereof, a day rate representing the Operator’s average salaries and wages of the employee’s specific job category.

Charges under this Section II.2.A for employees who are foreign nationals may not exceed comparable compensation paid to an equivalent U.S. employee pursuant to this Section II.2 unless approved by the Parties pursuant to Section I.6.A (*General Matters*).

- B. Operator’s cost of holiday, vacation, sickness, and disability benefits, and other customary allowances paid to employees whose salaries and wages are chargeable to the Joint Account under Section II.2.A, excluding severance payments or other termination allowances. Such costs under this Section II.2.B may be charged on a “when and as-paid basis” or by “percentage assessment” on the amount of salaries and wages chargeable to the Joint Account under Section II.2.A. If percentage assessment is used, the rate shall be based on the Operator’s cost experience.
- C. Expenditures or contributions made pursuant to assessments imposed by governmental authority that are applicable to costs chargeable to the Joint Account under Sections II.2.A and B.
- D. Personal Expenses of employees whose salaries and wages are chargeable to the Joint Account under Section II.2.A when the expenses are incurred in connection with directly chargeable activities; provided, however, relocation costs that result from reorganization or merger of a Party, or that are for the primary benefit of the Operator, shall not be chargeable to the Joint Account. Extraordinary relocation costs, such as those incurred as a result of transfers from remote locations, such as Alaska or overseas, shall not be charged to the Joint Account unless approved by the Parties pursuant to Section I.6.A (*General Matters*).
- E. Costs incurred for operational, technical, HSE, government-mandated, or government-recommended training for employees whose salaries and wages are chargeable under Section II.2.A. This training charge includes the salary or wages and Payroll Burden and Benefits of the person being trained, training course costs, and Personal Expenses incurred for the training. The training cost will be charged to the properties directly benefiting from the training. Charges to the Joint Account for training course costs may not exceed prevailing commercial rates, where such rates are available.
- F. Operator’s current cost of established plans for employee benefits, including group life insurance, health care plans, retirement/401K contributions, stock purchase, savings plans, bonus, tuition assistance, applicable to the Operator’s labor costs chargeable to the Joint Account under Sections II.2.A and B, based on the Operator’s actual cost not to exceed the employee benefits limitation percentage most recently published by COPAS. If COPAS ceases or fails to publish an employee benefits limitation percentage, the upper limit on employee benefits will be based on a replacement index and methodology that reflects substantially the same data.
- G. Award payments to employees whose salaries and wages are chargeable under Section II.2.A to the extent such awards (i) pertain to services directly benefitting Joint Operations, (ii) are an established award program that is not part of incentive pay compensation, and (iii) are based on pre-determined metrics.

3. MATERIAL

Material purchased or furnished for use in Joint Operations, as may be required for immediate use or is reasonably practical and consistent with efficient and economical operations. The Operator shall make good faith efforts to avoid the accumulation of surplus stocks.

4. TRANSPORTATION

Transportation of the Operator's, Operator's Affiliate's, or contractor's personnel and Material necessary for Joint Operations, subject to Section IV.2.B (*Freight*).

5. SERVICES

The cost of third-party services, equipment, and utilities used in Joint Operations, except as follows:

- (i) goods and services provided by Operator's Affiliates, which are covered by Section II.7 (*Affiliates*);
- (ii) services covered by Section II.9 (*Legal Expense*); and
- (iii) functions specifically identified in Section III (*Overhead*) as covered by overhead.

Notwithstanding the foregoing, chargeable costs include incidental administrative and other costs incurred by the third-party vendor that are an integral part of providing chargeable services.

Awards paid to contractors whose goods or services are chargeable under this Section II.5 are chargeable to the Joint Account if they pertain to services directly benefitting Joint Operations, are an established award program, and are based on pre-determined metrics. The Operator may charge the Joint Account for operational, technical, HSE, government-mandated, or government-recommended training for third parties who are chargeable under this Section II.5.

6. EQUIPMENT AND FACILITIES FURNISHED BY OPERATOR

The Operator shall charge the Joint Account for use of equipment and facilities furnished by Operator, including production facilities, Shore Base Facilities, Offshore Facilities, Field Offices, and Remote Technology Centers. The cost of Field Offices are chargeable only to the extent the Field Offices provide direct service to individuals who are chargeable pursuant to Section II.2.A (*Labor*), Section II.5 (*Services*), or II.7 (*Affiliates*), as applicable.

In the absence of a separately negotiated agreement, equipment and facilities furnished by the Operator will be charged as follows:

- A. Charges for use of such equipment and facilities will be made at rates commensurate with the cost of ownership and operation. Such rates may include labor, maintenance, repairs, other operating expense, insurance, taxes, depreciation using straight line depreciation method, and interest on gross investment, less accumulated depreciation, not to exceed ___ % per annum; provided, however, depreciation shall not be charged when the equipment and facilities investment has been fully depreciated. The rate may include an element of the estimated cost for abandonment, reclamation, and dismantlement. Such rates shall not exceed the commercial rates currently prevailing in the area of the Joint Operations.
- B. In lieu of charges in Section II.6.A, the Operator may elect to use commercial rates prevailing in the area of the Joint Operations, less 20%. If equipment and facilities are charged under this Section II.6.B, the Operator shall adequately document and support commercial rates and shall periodically review and update the rate and the supporting documentation. For automotive equipment, the Operator may elect to use rates published by COPAS. If COPAS ceases or fails to publish such rates, Operator may charge vehicle rates based on a method comparable to that most recently used by COPAS.

7. AFFILIATES

All work performed, or materials supplied, by an Affiliate of Operator shall be performed or supplied at competitive rates and terms, and in accordance with customs and standards prevailing in the industry unless otherwise agreed to by the Parties under Section I.6.A (*General Matters*).

Charges to the Joint Account for goods and services provided by an Affiliate in a Competitive Transaction may be made without approval of the Parties, unless required under the Agreement. Each of the following is considered a Competitive Transaction:

- (i) for an Affiliate that routinely conducts business with unaffiliated customers, the rates and terms charged the Joint Account are representative of rates and terms the Affiliate charges non-affiliated customers;
- (ii) Affiliate labor charged on the same basis as if provided by Operator under Section II.2 (*Labor*);
- (iii) Affiliate equipment and facilities charged on the same basis as equipment and facilities provided by Operator under Section II.6 (*Equipment and Facilities Furnished by Operator*);
- (iv) Affiliate equipment, facilities, or Materials charged at rates and terms that are competitive with unaffiliated third parties, in accordance with customs and standards prevailing in the area of Joint Operations;
- (v) charges to the Joint Account for the Affiliate's goods and services used in Joint Operations that are less than or equal to \$ _____. This threshold applies separately to each Affiliate, and it applies separately to each: (x) project or operation requiring an AFE or other authorization from Non-Operators under the Agreement or (y) calendar year, for Joint Operations not requiring an AFE or other authorization under the Agreement.

If the Parties fail to designate a dollar amount in (v), the amount deemed adopted by the Parties is the amount established as the Operator's expenditure limitation in the Agreement. If the Agreement does not contain an Operator's expenditure limitation, the amount deemed adopted by the Parties is \$0.

Charges to the Joint Account for goods and services provided by an Affiliate that are not considered a Competitive Transaction require approval of the Parties under Section I.6.A (*General Matters*).

Nothing in this Section II.7 authorizes charges to the Joint Account for services covered by Section II.9 (Legal Expense) or functions covered by Section III (Overhead).

The Operator may not charge the Joint Account for expediting, purchasing fees, or other mark-up for Affiliate goods and services.

8. DAMAGES AND LOSSES TO JOINT PROPERTY

Costs or expenses, other than those covered by Section III (*Overhead*), necessary to repair, replace, or abandon Joint Property resulting from damages or losses incurred, except to the extent such damages or losses result from a Party's or Parties' gross negligence or willful misconduct, in which case such Party or Parties shall be solely liable.

9. LEGAL EXPENSE

- A. Costs incurred by Operator in procuring abstracts, fees paid to attorneys and landmen for title examinations (including preliminary, supplemental, shut-in royalty opinions, division order title opinions), and title curative work, except as limited by the Agreement. If the Agreement is silent regarding chargeability, these costs are directly chargeable to the Joint Account.
- B. Costs incurred by Operator, including fees paid to outside attorneys, which are associated with hearings before governmental agencies for securing of spacing or pooling orders or any other orders necessary and proper to conduct Joint Operations, except as limited by the Agreement. If the Agreement is silent regarding chargeability, these costs are directly chargeable to Parties on whose behalf Operator is acting.
- C. Attorney's fees, court costs, and other legal costs incurred to collect amounts due under this agreement, in accordance with the Agreement and Section I.3.B (*Advances and Payments*). Recording fees to file of record liens and security interests granted under the Agreement, except as limited by the Agreement.
- D. The costs of handling, settling, or otherwise discharging litigation, claims, and liens incurred in or resulting from Joint Operations, or necessary to protect or recover the Joint Property, and which are not covered by paragraphs A, B, and C, to the extent permitted under the Agreement. Costs of the Operator's or Affiliate's legal staff or outside attorney fees and expenses, are not chargeable unless approved by the Parties pursuant to Section I.6.A (*General Matters*) or otherwise provided for in the Agreement.

10. TAXES, PERMITS AND STATUTORY FEES

All taxes, import duties, licenses, bonds, and permitting fees of every kind and nature, assessed or levied upon or in connection with Joint Operations, Joint Property, or the production therefrom, and which have been paid by the Operator for the benefit of the Parties, including penalties and interest,

except to the extent the penalties and interest result from the Operator's gross negligence or willful misconduct.

If a Law requires the Operator to provide a service and prescribes a fee payable to the Operator for such service, such fee will be a direct charge to the Joint Account or to the affected Party or Parties, as applicable.

If ad valorem taxes paid by the Operator are based in whole or in part upon separate valuations of each Party's working interest, then notwithstanding any contrary provisions, the charges to the Parties will be made in accordance with the tax value generated by each Party's working interest.

Costs of tax consultants or advisors, the Operator's employees, or Operator's Affiliate employees in matters regarding ad valorem or other tax matters are not permitted as direct charges unless approved by the Parties pursuant to Section I.6.A (*General Matters*).

Charges or credits to the Joint Account resulting from sales or use tax audits, including extrapolated amounts and penalties and interest, are permitted, provided the Non-Operator has the right, upon request, to review the tax auditors' reports and the calculation of the extrapolated amount for the various properties which served as the basis for tax charges or credits and to determine that the correct amount of taxes was allocated to the Joint Account. If the Non-Operator is not permitted to review such documentation, the sales or use tax may not be directly charged unless the Operator can conclusively document the amount owed by the Joint Account.

11. INSURANCE

Net premiums paid for insurance required to be carried for Joint Operations for the protection of the Parties. If Joint Operations are conducted at locations where the Operator acts as self-insurer in regard to its workers' compensation and employers' liability insurance obligation, the Operator shall charge the Joint Account manual rates for the risk assumed in its self-insurance program subject to applicable state and federal workers' compensation Laws. The manual rates will be the rates published by COPAS or as provided by an actuary if COPAS ceases or fails to publish manual rates. The manual rates of the adjacent state will be used for employees performing work offshore, adjusted by the U.S. Longshore and Harbor Workers' Compensation Act or Jones Act surcharge, if applicable.

Operator shall credit the Joint Account with settlements received from insurance it carried for the benefit of the Parties. Each Party's share of the settlement will be based on its Participating Interest share of the operation giving rise to the settlement; provided, however, if such settlement is derived from insurance purchased by the Operator for fewer than all Parties, such settlement will be credited to those Parties for whom the insurance was purchased in proportion to their respective contributions toward the insurance coverage.

12. COMMUNICATIONS

Costs of acquiring, leasing, installing, operating, repairing, maintaining, dismantling, and abandoning communication facilities or systems directly supporting Joint Operations. Such costs include hardware, software, labor, field buildings that house the communication system, and communication links.

13. HEALTH, SAFETY AND ENVIRONMENT

Costs incurred for:

- (i) well containment, pollution containment, and pollution removal equipment that is in the same program area and capable of serving Joint Operations, whether used or on standby; or
- (ii) actual costs of control, cleanup, and resulting responsibilities of spills, or discharges from permitted outfalls, as deemed appropriate by Operator for prudent operations; or
- (iii) HSE assessments, surveys, or testing.

14. OTHER EXPENDITURES

Any other expenditure not covered or dealt with in the foregoing provisions of this Section II (*Direct Charges*) or in Section III (*Overhead*) and which is of direct benefit to Joint Operations and is incurred by the Operator in the necessary and proper conduct of the Joint Operations; provided, however, the charge requires approval of the Parties, pursuant to Section I.6.A (*General Matters*), if it exceeds \$ _____. If the Parties fail to designate an amount, the amount deemed adopted by the Parties is the amount established as the Operator's expenditure limit in the Agreement. If the Agreement does not contain an Operator's expenditure limit, the amount will be deemed to be \$100,000.

III. OVERHEAD

The Operator is entitled to charge overhead fees to the Joint Account in accordance with this Section as reimbursement for costs incurred by it that are not directly chargeable to the Joint Account. The overhead fees are reimbursement for the functions listed in the next paragraph and any other expenditures not classified as directly chargeable under Section II (*Direct Charges*).

Functions included in the overhead rates regardless of whether performed by the Operator, Operator's Affiliates, or third parties, and regardless of location, include the following:

- warehousing, other than for warehouses that are jointly owned under the Agreement
- costs of conducting inventories that are not chargeable under Section V (*Inventories of Controllable Material*)
- procurement
- administration
- accounting and auditing
- pipeline nominations and scheduling
- human resources
- management
- supervision not directly chargeable under Section II.2 (*Labor*)
- legal services not directly chargeable under Section II.9 (*Legal Expense*)
- handling tax matters, other than those costs identified as directly chargeable under Section II.10 (*Taxes, Permits and Statutory Fees*)
- permitting and regulatory work not directly chargeable under the Agreement or Section II.9 (*Legal Expense*), such as: preparing and monitoring of permits or certifications; preparing regulatory reports; reviewing, interpreting, or submitting comments on, or lobbying with respect to, Laws or proposed Laws
- land and division order services that are not chargeable under the Agreement or Sections II.2 (*Labor*) or II.9 (*Legal Expense*)
- Technical Services not chargeable under Section II.2.A.(4).

Overhead charges are considered reimbursement for all costs and expenses associated with functions not directly chargeable, including the salaries or wages plus applicable Payroll Burden and Benefits, and Personal Expenses of individuals performing such functions, as well as their office and other support costs.

1. OVERHEAD—DRILLING AND PRODUCING OPERATIONS

As reimbursement for costs incurred but not chargeable under Section II (*Direct Charges*) and not covered by other provisions of this Section III, the Operator shall charge overhead using:

☐ (Alternative 1) Fixed Rate Basis, Section III.1.A.

☐ (Alternative 2) Percentage Basis, Section III.1.B.

A. Overhead—Fixed Rate Basis

(1) The Operator shall charge the Joint Account at the following rates per well per month:

Drilling Well Rate per month \$ _____ (prorated for less than a full month)

Producing Well Rate per month \$ _____

(2) Application of Overhead—Drilling Well Rate shall be charged as follows:

- (a) Charges for onshore drilling wells begin on the date of initial penetration of the ground by any rig or unit to commence drilling the wellbore ("spud date") and terminate on the later of the date the drilling or completion equipment used on the well is released. Charges for offshore and inland waters drilling wells begin on the date the first drilling or completion equipment arrives on location and terminates the earlier of (i) the date the last drilling or completion equipment moves off location or (ii) the date the equipment is released. No charge may be made during suspension of drilling or completion operations for 15 or more consecutive calendar days.

- (b) Charges for any well undergoing downhole work, including abandonment, for a period of five or more consecutive workdays shall be made at the Drilling Well Rate. Such charges shall be applied for the period from date operations, with rig or other units used in operations, commence through date of rig or other unit release, except that no charges shall be made during suspension of operations for 15 or more consecutive calendar days.
- (3) Application of Overhead—Producing Well Rate shall be charged as follows:
 - (a) An active well that is produced, injected into for recovery or disposal, or used to supply water for Joint Operations for any portion of the month qualifies for a one-well charge for the entire month, except as provided in III.1.A.(3)(b).
 - (b) With respect to a multi-completed well, each completion that is considered a separate well by the governing regulatory authority counts as a separate well for overhead purposes.
 - (c) A one-well charge will be made for the month in which plugging and abandonment operations are completed on any well, unless the Drilling Well Rate applies, as provided in Sections III.1.A.(2)(a) or (b). This one-well charge applies even if the well qualified for producing overhead in that same month.
 - (d) A well that is capable of producing but shut-in for the entire month because of (i) an overproduced allowable, (ii) inability of a purchaser, processor, or transporter to take production, or (iii) legal restrictions on flaring or venting qualifies for a one-well charge.
- (4) The well rates will be adjusted on April 1 each year following the effective date of the Agreement; provided, however, if this Accounting Procedure is attached to or otherwise governing the payout accounting under a farmout agreement, the rates shall be adjusted on April 1 each year following the effective date of such farmout agreement. The adjusted rates will be the initial or amended rates agreed to by the Parties, increased or decreased by the cumulative adjustment factor published by COPAS from the effective date of such rates to April 1 of the current year. If COPAS ceases or fails to publish the overhead adjustment factor, the adjustment will be based on the same methodology or a replacement index that reflects substantially the same data.

B. Overhead—Percentage Basis

- (1) Operator shall charge the Joint Account at the following rates:

Development Rate ____ % of the cost of development of the Joint Property.

Operating Rate ____ % of the cost of operating the Joint Property.
- (2) Application of Overhead—Percentage Basis shall be as follows:
 - (a) Subject to III.1.B.(2)(c), the Development Rate applies to the directly chargeable costs in connection with:
 - (i) drilling, redrilling, sidetracking, plugging back, recompleting or deepening of a well;
 - (ii) a well undergoing downhole work for a period of five or more consecutive workdays;
 - (iii) abandonment and restoration of a well not completed as a producer;
 - (iv) construction or installation of fixed assets, the expansion of fixed assets, and any project clearly discernible as a fixed asset, other than a project that qualifies for overhead under Sections III.2 (*Overhead—Major Construction and Catastrophe*) or III.3 (*Overhead—Environmental Project*); and
 - (v) activities in preparation for any of the above operations.
 - (b) The Operating Rate applies to all other directly chargeable costs in connection with Joint Operations, except those subject to Sections III.1.B.(1)(a), III.1.B.(2)(c), Section III.2 (*Overhead – Major Construction and Catastrophe*), or Section III.3 (*Overhead – Environmental Project*).
 - (c) The Development Rate and Operating Rate do not apply to the following:
 - (i) legal fees covered by Section II.9 (*Legal Expense*);
 - (ii) Material salvage credits;

- (iii) costs covered by Section II.1 (*Rentals and Royalties*);
- (iv) the value of injected substances purchased for secondary or tertiary recovery;
- (v) property taxes, ad valorem taxes, and other taxes and assessments levied, assessed, and paid upon the mineral interest in and to the Joint Property;
- (vi) payments to or receipts from third parties in settlement of claims;
- (vii) production handling fees, infrastructure access fees, or operating and maintenance fees paid for production handling facilities not owned by the Joint Account;
- (viii) deferred production payments paid by Operator on behalf of the Parties;
- (ix) premiums for insurance acquired for the Joint Account, other than workers' compensation and employers' liability insurance;
- (x) costs in excess of \$5,000,000 cumulative per well operation, paid to one or more marine well containment vendors to have equipment available on a stand-by basis in case of an incident;
- (xi) guarantee deposits; and
- (xii) fines and penalties.

2. OVERHEAD—MAJOR CONSTRUCTION AND CATASTROPHE

The Operator may charge an overhead fee to reimburse it for costs not directly chargeable under Section II (*Direct Charges*), which it incurs in connection with a Major Construction project that costs more than the Operator's expenditure limit under the Agreement, or for any Catastrophe regardless of the amount. If the Agreement does not contain an expenditure limit, Major Construction Overhead will be assessed for any single Major Construction project costing more than \$100,000 gross. The overhead rates for Major Construction and Catastrophe projects are:

____% of the first \$100,000; plus
 ____% of the next \$900,000; plus
 ____% of costs in excess of \$1,000,000.

The rates apply to the total gross cost charged under Section II (*Direct Charges*) for each Major Construction or Catastrophe project. To calculate Major Construction Overhead, the components of a single Major Construction project must be aggregated, and the cost of drilling and downhole well operations and cost of purchasing and installing pumping units and downhole artificial lift equipment are excluded.

For Catastrophes, the overhead rates apply to the total gross costs chargeable under Section II (*Direct Charges*), incurred in responding to and restoring the Joint Property and environment to the equivalent condition that existed prior to the Catastrophe. The rates apply separately to each Catastrophe. For the purposes of calculating Catastrophe overhead, the cost of drilling relief wells, substitute wells, or conducting other well operations directly resulting from the Catastrophe are included.

Notwithstanding anything to the contrary in the foregoing, Major Construction and Catastrophe overhead rates do not apply to the following:

- (i) legal fees covered by Section II.9 (*Legal Expense*);
- (ii) Material salvage credits;
- (iii) payments to and receipts from third parties in settlement of claims;
- (iv) premiums for insurance acquired for the Joint Account, other than workers' compensation and employers' liability insurance;
- (v) guarantee deposits; and
- (vi) fines and penalties.

Expenditures that qualify for Major Construction or Catastrophe Overhead do not qualify for overhead under any other overhead provisions.

3. OVERHEAD – ENVIRONMENTAL PROJECT

Operator may either negotiate an overhead rate or charge the Joint Account the following rates as reimbursement for costs not directly chargeable under Section II (*Direct Charges*), which it incurs in connection with an Environmental Project that costs more than the Operator's expenditure limit under the Agreement. If the Agreement does not contain an expenditure limit, Environmental Project overhead will be assessed for any single Environmental Project costing more than \$100,000 gross. Expenditures that qualify for Environmental Project Overhead do not qualify for overhead under any other overhead provision.

The overhead rates for an Environmental Project are:

____% of the first \$ 100,000; plus

____ % of the next \$ 900,000; plus
____ % of costs exceeding \$ 1,000,000.

Environmental Project overhead rates do not apply to the following:

- (i) legal fees covered by Section II.9 (Legal Expense);
- (ii) Material salvage credits;
- (iii) payments to and receipts from third parties in settlement of claims;
- (iv) premiums for insurance acquired for the Joint Account, other than workers' compensation and employers' liability insurance;
- (v) guarantee deposits; and
- (vi) fines and penalties.

4. AMENDMENT OF OVERHEAD RATES

The overhead rates provided for in this Section III may be amended in accordance with Section I.6.B (*Amendments*) if, in practice, they are found to be insufficient or excessive.

IV. MATERIAL PURCHASES, TRANSFERS, AND DISPOSITIONS

The Operator is responsible for Joint Account Material and shall make proper and timely charges and credits for direct purchases, transfers, and dispositions. The Operator shall provide all Material for use in the conduct of Joint Operations; however, Material may be supplied by the Non-Operators at the Operator's option. Material furnished by any Party shall be furnished without any express, implied, or statutory warranties. The Operator shall maintain documentation to support charges and credits for Materials.

1. DIRECT PURCHASES

Direct purchases shall be charged to the Joint Account at the price paid by the Operator after deduction of all discounts taken. The Operator shall make good faith efforts to take discounts offered by suppliers, but will not be liable for failure to take discounts except to the extent such failure was the result of the Operator's gross negligence or willful misconduct. A direct purchase is deemed to occur when an agreement is made between an Operator and a third party to acquire Material specifically for Joint Operations. Material provided by the Operator under vendor stocking programs, where the initial use is for Joint Operations and ownership of the Material does not pass from the manufacturer, distributor, or agent until usage, is considered a direct purchase. If Material is found to be defective or is returned to the manufacturer, distributor, or agent for any other reason, credit shall be passed to the Joint Account within 60 days after the Operator has received adjustment from the manufacturer, distributor, or agent.

2. TRANSFERS

A transfer is determined to occur when the Operator (i) furnishes Material from a storage facility or from another operated property, (ii) has assumed liability for the storage costs and changes in value, and (iii) has ownership of the transferred Material. Similarly, the removal of Material from the Joint Operations site to a storage facility or to another operated property is also considered a transfer; provided, however, Material that is moved from the Joint Operations site to a storage location for safe-keeping pending disposition may remain charged to the Joint Account and is not considered a transfer. Material shall be disposed of in accordance with Section IV.3 (*Disposition of Surplus*) and the Agreement.

A. PRICING

The pricing of Material transferred should generally reflect the market value on the date of transfer. When higher than specification grade or size Material is used in Joint Operations, the Operator shall charge the Joint Account at the equivalent price for well design specification Material, unless such higher specification grade or sized Material is approved by the Parties pursuant to Section I.6.A (*General Matters*). Transfers of Material will be priced using one of the following pricing methods for new Material; provided, however, the Operator shall use consistent pricing methods and not alternate among methods for the purpose of choosing the method most favorable to the Operator for a specific transfer:

- (i) prices published in COPAS' Computerized Equipment Pricing System (CEPS), including the transportation cost from manufacturer to rail point as defined in Section IV.2.B (Freight);
- (ii) a price paid by the Operator in the 12-month period prior to the transfer for like Material in the vicinity of the Joint Operations site;

- (iii) a price quote from a vendor that reflects a current realistic acquisition cost;
- (iv) the weighted average price paid by Operator for such Material purchased in the vicinity of the Joint Operations site; or
- (v) a price agreed to pursuant to Section I.6.A (*General Matters*).

B. FREIGHT

- (1) Freight for oil country tubular goods (OCTG) and line pipe will be charged as follows:
 - (a) actual freight costs paid by the Operator to a third party to move the OCTG or line pipe from the manufacturer to the shore base, warehouse or fabrication yard, or other operations site;
 - (b) freight rates provided by CEPS, which includes loading and unloading costs, for moving the OCTG or line pipe, as applicable, from the manufacturer to the rail point nearest the Joint Operations site; or
 - (c) for freight provided by Operator or its Affiliate, the freight costs determined in accordance with Section II.6 (*Equipment and Facilities Furnished by Operator*) or Section II.7 (*Affiliates*), as applicable.

- (2) Freight for Material other than OCTG and line pipe will be charged as follows:
 - (a) actual freight costs paid by the Operator to a third party to move the Material; or
 - (b) for freight provided by Operator or its Affiliate, the freight costs determined in accordance with Section II.6 (*Equipment and Facilities Furnished by Operator*) or Section II.7 (*Affiliates*), as applicable.

(3) Other Freight Provisions

Regardless of whether using CEPS or manually calculating transportation costs, transportation costs from the rail point or staging area nearest to the Joint Operations site to the Joint Operations site are in addition to the foregoing, and directly chargeable to the Joint Account.

Notwithstanding the foregoing, if the actual freight charges associated with redeployment of Operator's surplus (i) from another property to the Joint Operations site or (ii) between the warehouse and the Joint Operations site exceeds the excluded amount most recently published by COPAS, the charge to the Joint Account may not exceed the cost of moving such surplus between the nearest stocking point and the Joint Operations site. Accessorial charges such as loading and unloading costs, split pick-up costs, detention, call-out charges, and permit fees are excluded when determining whether the actual freight costs exceed the excluded amount published by COPAS. If COPAS ceases or fails to publish an excluded amount, the excluded amount will be the amount last published by COPAS, adjusted annually by the same factor used to adjust overhead rates under Section III.1.A.(4).

Transportation of Material between the Joint Operations site and another property, or from the Operator's warehouse or other storage point to the Joint Operations site, shall be charged to the receiving property. Transportation of Material from the Joint Operations site to a warehouse or other storage point shall be charged to the sending Joint Account.

C. TAXES

Sales and use taxes shall be added to the Material transfer price using either the method contained in CEPS or the applicable tax rate in effect for the Joint Property at the time and place of transfer. In either case, the Joint Account will be charged or credited at the rate that would have applied had the Material been a direct purchase.

D. CONDITION

- (1) Condition A – New and unused Material in sound and serviceable condition will be valued at 100% of the price determined in Section IV.2.A (*Pricing*), plus freight and taxes as provided in Sections IV.2.B (*Freight*) and IV.2.C (*Taxes*). All refurbishing costs required to repair damages will be borne by the divesting property. Notwithstanding the foregoing, Material charged in error, such as a miscoding, will be credited as charged, with no gain or loss.
- (2) Condition B – Used Material in sound and serviceable condition and suitable for reuse without reconditioning will be valued by multiplying the price determined in Section IV.2.A (*Pricing*) by 75%, plus freight and taxes as provided in Sections IV.2.B (*Freight*) and IV.2.C (*Taxes*).

Notwithstanding the foregoing, Material that was charged to the Joint Account as used Material and placed in service for Joint Operations, will be credited at the price determined in Section IV.2.A (*Pricing*) multiplied by 65%, plus freight and taxes as provided in Sections IV.2.B (*Freight*) and IV.2.C (*Taxes*). Notwithstanding the foregoing, Material charged in error, such as a miscoding, will be credited as charged, with no gain or loss.

Except as provided in Section IV.2.D.(3), all reconditioning costs required to return the Material to Condition B or to repair damages will be borne by the divesting property.

- (3) Condition C – Material that is not in sound and serviceable condition and not suitable for its original function until after reconditioning will be valued by multiplying the price determined in Section IV.2.A (*Pricing*) by 50%, plus freight and taxes as provided in Sections IV.2.B (*Freight*) and IV.2.C (*Taxes*).

The cost of reconditioning may be charged to the receiving property to the extent Condition C value, plus cost of reconditioning, does not exceed Condition B value.

- (4) Condition D – Material that is obsolete or no longer suitable for its original purpose but useable for some other purpose shall be charged or credited at a price commensurate with its intended use.
- (5) Condition E – Junk shall be priced at prevailing scrap value prices.

E. OTHER PRICING PROVISIONS

(1) Preparation Costs

Subject to Section II (*Direct Charges*) and Section III (*Overhead*) of this Accounting Procedure, costs incurred by the Operator in making Material serviceable, including inspection, third-party surveillance services, and other services, will be charged to the Joint Account at prices which reflect the Operator's actual costs of the services. New coating or wrapping are considered a component of the Material and priced in accordance with Sections IV.1 (*Direct Purchases*) or IV.2.A (*Pricing*), as applicable. No charges or credits may be made for used coating or wrapping. Preparation costs incurred will not be credited for Material transferred from the Joint Account unless those services permanently alter the Material and provide full value to any future receiving property.

(2) Loading and Unloading Costs

Actual costs incurred in loading and unloading related to the movement of the Material to be used for Joint Operations will be charged to the Joint Account in accordance with Section II (*Direct Charges*); provided, however, Operator may charge the rates published by COPAS for loading or unloading tubular goods when Operator uses its own equipment and employees. If COPAS ceases or fails to publish rates for loading and unloading tubular goods, the rate will be the rate last published by COPAS, adjusted annually by the same factor used to adjust overhead rates under Section III.1.A.(4).

3. DISPOSITION OF SURPLUS

Surplus Material is that Material, whether new or used, that is no longer required for Joint Operations. The Operator may purchase, but is not required to purchase, the interest of the Non-Operators in surplus Material.

A disposition is the relinquishment of ownership of the Material from the Joint Account to either a third party, a Non-Operator, or to the Operator. The Operator should make good faith efforts to dispose of surplus Material within 12 months.

Disposal of surplus Materials shall be made in accordance with the terms of the Agreement. If the Agreement contains no provisions governing disposal of surplus Material, this provision will apply.

Operator may dispose of Material without notice or approval of the Parties if disposed of under one of the following methods:

- (i) Material that was charged to the Joint Account through a direct purchase is returned to the vendor;
- (ii) Condition A, B, or C Material is purchased by Operator or its Affiliate based on the pricing methods set forth in Section IV.2 (*Transfers*);

- (iii) Condition D or E Material is sold to a third party that is not an Affiliate of Operator under procedures normally utilized by Operator;
- (iv) Sale, other than those under (i) or (iii), to a third party that is not an Affiliate of Operator and the market value is less than or equal to the expenditure limit in the Agreement, or \$100,000 if the Agreement does not have an expenditure limit; or
- (v) Material in any condition that is sold at or above market value.

All other dispositions require approval of Parties owning the Material (“Owners”) pursuant to Section I.6.A (*General Matters*). If approval is required, Operator shall give written notice to the Owners of the proposed disposition with sufficient price, material specifications, and condition information to make an informed decision. The Owners have 48 hours, exclusive of Saturdays, Sundays, and federal holidays, after receipt of notice to respond. Failure to respond within the specified time is deemed approval of the proposed disposition.

Operator shall credit the Joint Account for net proceeds received from the buyer. Costs incurred by Operator in disposing of the Materials that are not considered overhead under Section III (*Overhead*) will be borne by the Owners. Operator shall make good faith efforts to credit the Joint Account for proceeds from the disposal of surplus Material within 60 days after (i) sale to Operator or its Affiliate or (ii) payment is received from an unaffiliated third party for the Material, as applicable.

4. SPECIAL PRICING PROVISIONS

A. SHOP-MADE ITEMS

Items fabricated by the Operator’s employees, or by contract laborers under the direction of the Operator, shall be priced using the value of the Material used to construct the item plus the cost of labor to fabricate the item. Material from the Operator’s scrap or junk account will be valued at either 25% of the current price as determined in Section IV.2.A (*Pricing*) or scrap value, whichever is higher. In no event shall the amount charged exceed the value of the item commensurate with its use.

B. MILL REJECTS

Mill rejects purchased as limited-service casing or tubing will be priced at the price paid, if a direct purchase for the Joint Account, or at current market value commensurate with its use in the case of a transfer in accordance with Section IV.2 (*Transfers*).

V. INVENTORIES OF CONTROLLABLE MATERIAL

The Operator shall maintain records of Controllable Material charged to the Joint Account with sufficient detail to perform physical inventories.

Adjustments to the Joint Account by the Operator resulting from a physical inventory of Controllable Material shall be made within 12 months following the taking of the inventory or receipt of Non-Operator inventory report, or within the time prescribed for adjustments under Section I.4 (*Adjustments*), whichever is later. Charges and credits for overages or shortages will be valued for the Joint Account in accordance with Section IV.2 (*Transfers*) using Condition B prices in effect on the date of physical inventory unless the Operator or inventorying Parties can provide sufficient evidence another Material condition applies.

1. DIRECTED INVENTORIES

Operator shall perform physical inventories upon written request of a majority in working interests of the Non-Operators (hereinafter, “directed inventory”); provided, however, Non-Operators cannot require Operator to perform directed inventories more frequently than once every five years. Operator shall commence directed inventories within 180 days after receiving written notice that a majority in interest of the Non-Operators has requested the inventory. All Parties shall be governed by the results of any directed inventory.

Expenses of directed inventories will be borne by the Joint Account; provided, however, costs associated with any post-report follow-up work in settling the inventory will be absorbed by the Party incurring such costs. Expenses of directed inventories may include the following:

- (i) A per diem rate, representative of actual salaries, wages, and Payroll Burden and Benefits of the persons performing the inventory, or a rate agreed to by the Parties pursuant to Section I.6.A

(*General Matters*). The per diem rate will also be applied to a reasonable number of days for pre-inventory work and report preparation.

(ii) Reasonable Personal Expenses for the inventory team.

2. NON-DIRECTED INVENTORIES

A. OPERATOR INVENTORIES

The Operator may conduct physical inventories not required by Non-Operators or a government entity at its discretion. The expenses of conducting such Operator-initiated inventories may not be charged to the Joint Account.

B. NON-OPERATOR INVENTORIES

Subject to the terms of the Agreement, a Non-Operator may conduct a physical inventory at reasonable times at its sole cost and risk after giving the Operator at least 90 days’ prior written notice. The Non-Operator shall furnish the Operator its written report within 90 days of completing the inventory field work.

C. SPECIAL INVENTORIES

The expense of conducting inventories, other than those described in Sections V.1 (*Directed Inventories*), V.2.A (*Operator Inventories*), or V.2.B (*Non-Operator Inventories*), shall be borne by the Party requesting such inventory; provided, however, inventories required due to a change of Operator or that are required by a government authority shall be charged to the Joint Account in the same manner as described in Section V.1 (*Directed Inventories*).

O.G. 512 PAGE 776

70423

Producer's 88—Producer's Revised 1981 New Mexico Form 342P, Paid-up

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OIL & GAS LEASE

THIS AGREEMENT made this 6th day of March, 1995, betweenDebbie Lynn Stewart Wattier, a married woman dealing in her separate property, of
1140 Lov.-Flo., Station Road E., Paducah, Kentucky 42003

(Post-Office Address)

herein called lessor (whether one or more) and Scott E. Wilson (1/2) and Richard K. Barr (1/2), lessee:

1. Lessor, in consideration of TEN AND OTHER DOLLARS in hand paid, receipt of which is here acknowledged, and of the royalties herein provided and of the agreements of the lessee herein contained, hereby grants, leases and lets exclusively unto lessee for the purpose of investigating, exploring, prospecting, drilling, and operating for and producing oil and gas, injecting gas, waters, other fluids, and air into subsurface strata, laying pipe lines, storing oil, building tanks, roadways, telephone lines, and other structures and things thereon to produce, save, take care of, treat, process, store and transport said minerals, the following described land in Lea County, New Mexico, to-wit:

Township 25 South, Range 35 East, NMPM
Section 9: N/2

Said land is estimated to comprise 320.00 acres, whether it actually comprises more or less.

2. Subject to the other provisions herein contained, this lease shall remain in force for a term of four (4) years from this date (called "primary term") and as long thereafter as oil or gas is produced from said land or from land with which said land is pooled.

3. The royalties to be paid by lessee are: (a) on oil, and other liquid hydrocarbons saved at the well, three-sixteenths of that produced and saved from said land, same to be delivered at the wells or to the credit of lessor in the pipeline to which the wells may be connected; (b) on gas, including casinghead gas or other gaseous substance produced from said land and used off the premises or used in the manufacture of gasoline or other products, the market value at the well of three-sixteenths of the gas used,

provided that on gas sold on or off the premises, the royalties shall be three-sixteenths of the amount realized from such sale(s) and at any time when this lease is not validated by other provisions hereof and there is a gas and/or condensate well on said land, or land pooled therewith, but gas or condensate is not being so sold or used and such well is shut in, either before or after production therefrom, then on or before 90 days after said well is shut in, and thereafter at annual intervals, lessee may pay or tender in advance shut-in royalty equal to \$1.00 per net acre of lessor's gas acreage then held under this lease by the party making such payment or tender, and so long as said shut-in royalty is paid or tendered, this lease shall not terminate and it shall be considered under all clauses hereof that gas is being produced from the leased premises in paying quantities. Each such payment shall be paid or tendered to the party or parties who at the time of such payment would be entitled to receive the royalties which would be paid under this lease if the well were in fact producing. The payment or tender of royalties and shut-in royalties may be made by check or draft. Any timely payment or tender of shut-in royalty which is made in a bona fide attempt to make proper payment, but which is erroneous in whole or in part as to parties or amounts, shall nevertheless be sufficient to prevent termination of this lease in the same manner as though a proper payment had been made. If lessee shall correct such error within 30 days after lessee has received written notice thereof by certified mail from the party or parties entitled to receive payment together with such written instruments (or certified copies thereof) as are necessary to enable lessee to make proper payment. The amount realized from the sale of gas on or off the premises shall be the price established by the gas sales contract entered into in good faith by lessee and gas purchaser for such term and under such conditions as are customary in the industry. "Price" shall mean the net amount received by lessee after giving effect to applicable regulatory orders and after application of any applicable price adjustments specified in such contract or regulatory orders. In the event lessee compresses, treats, purifies, or dehydrates such gas (whether on or off the leased premises) or transports gas off the leased premises, lessee in computing royalty hereunder may deduct from such price a reasonable charge for each of such functions performed.

4. This is a paid-up lease and lessee shall not be obligated during the primary term hereof to commence or continue any operations of whatsoever character or to make any payments hereunder in order to maintain this lease in force during the primary term; however, this provision is not intended to relieve lessee of the obligation to pay royalties on actual production pursuant to the provisions of Paragraph 3 hereof.

5. Lessee is hereby granted the right and power, from time to time, to pool or combine this lease, the land covered by it or any part or horizon thereof with any other land, leases, mineral estates or parts thereof for the production of oil or gas. Units pooled hereunder shall not exceed the standard proration unit fixed by law or by the Oil Conservation Division of the Energy and Minerals Department of the State of New Mexico or by any other lawful authority for the pool or area in which said land is situated, plus a tolerance of ten percent. Lessee shall file written unit designations in the county in which the premises are located and such units may be designated from time to time and either before or after the completion of wells. Drilling operations on or production from any part of any such unit shall be considered for all purposes, except the payment of royalty, as operations conducted upon or production from the land described in this lease. There shall be allocated to the land covered by this lease included in any such unit that portion of the total production of pooled minerals from wells in the unit, after deducting any used in lease or unit operations, which the net oil or gas acreage in the land covered by this lease included in the unit bears to the total number of surface acres in the unit. The production so allocated shall be considered for all purposes, including the payment or delivery of royalty, to be the entire production of pooled minerals from the portion of said land covered hereby and included in said unit in the same manner as though produced from said land under the terms of this lease. Any pooled unit designated by lessee, as provided herein, may be dissolved by lessee by recording an appropriate instrument in the County where the land is situated at any time after the completion of a dry hole or the cessation of production on said unit.

6. If at the expiration of the primary term there is no well upon said land capable of producing oil or gas, but lessee has commenced operations for drilling or reworking thereon, this lease shall remain in force so long as operations are prosecuted with no cessation of more than 60 consecutive days, whether such operations be on the same well or on a different or additional well or wells, and if they result in the production of oil or gas, so long thereafter as oil or gas is produced from said land. If, after the expiration of the primary term, all wells upon said land should become incapable of producing for any cause, this lease shall not terminate if lessee commences operations for additional drilling or for reworking within 90 days thereafter. If any drilling, additional drilling, or reworking operations hereunder result in production, then this lease shall remain in full force so long thereafter as oil or gas is produced hereunder.

7. Lessee shall have free use of oil, gas and water from said land, except water from lessor's wells and tanks, for all operations hereunder, and the royalty shall be computed after deducting any so used. Lessee shall have the right at any time during or after the expiration of this lease to remove all property and fixtures placed by lessee on said land, including the right to draw and remove all casing. When required by lessor, lessee will bury all pipe lines on cultivated lands below ordinary plow depth, and no well shall be drilled within two hundred feet (200 ft.) of any residence or barn now on said land without lessor's consent. Lessor shall have the privilege, at his risk and expense, of using gas from any gas well on said land for stoves and inside lights in the principal dwelling thereon, out of any surplus gas not needed for operations hereunder.

8. The rights of either party hereunder may be assigned in whole or in part and the provisions hereof shall extend to their heirs, executors, administrators, successors and assigns; but no change in the ownership of the land or in the ownership of, or rights to receive, royalties or shut-in royalties, however accomplished shall operate to enlarge the obligations or diminish the rights of lessor and no such change or division shall be binding upon lessee for any purpose until 30 days after lessee has been furnished by certified mail at lessee's principal place of business with acceptable instruments or certified copies thereof constituting the chain of title from the original lessor. If any such change in ownership occurs through the death of the owner, lessee may, at its option, pay or tender any royalties or shut-in royalties in the name of the deceased or to his estate or to his heirs, executor or administrator until such time as lessee has been furnished with evidence satisfactory to lessee as to the persons entitled to such sums. An assignment of this lease in whole or in part shall, to the extent of such assignment, relieve and discharge lessee of any obligations hereunder and, if lessee or assignee of part or parts hereof shall fail or make default in the payment of the proportionate part of royalty or shut-in royalty due from such lessee or assignee or fail to comply with any of the provisions of this lease, such default shall not affect this lease insofar as it covers a part of said lands upon which lessee or any assignee thereof shall properly comply or make such payments.

9. Should lessee be prevented from complying with any express or implied covenant of this lease, or from conducting drilling or reworking operations hereunder, or from producing oil or gas hereunder by reason of scarcity or inability to obtain or use equipment or material, or by operation of force majeure, or by any Federal or state law or any order, rule or regulation of governmental authority, then while so prevented, lessee's duty shall be suspended, and lessee shall not be liable for failure to comply therewith; and this lease shall be extended while and so long as lessee is prevented by any such cause from conducting drilling or reworking operations or from producing oil or gas hereunder; and the time while lessee is so prevented shall not be counted against lessee, anything in this lease to the contrary notwithstanding.

10. Lessor hereby warrants and agrees to defend the title to said land and agrees that lessee at its option may discharge any tax, mortgage or other lien upon said land, and in the event lessee does so it shall be subrogated to such lien with the right to enforce same and to apply royalties and shut-in royalties payable hereunder toward satisfying same. Without impairment of lessee's rights under the warranty, if this lease covers a less interest in the oil or gas in all or any part of said land than the entire and undivided fee simple estate (whether lessor's interest is herein specified or not) then the royalties, shut-in royalty, and other payments, if any, accruing from any part as to which this lease covers less than such full interest, shall be paid only in the proportion which the interest therein, if any, covered by this lease, bears to the whole and undivided fee simple estate therein. Should any one or more of the parties named above as lessors fail to execute this lease, it shall nevertheless be binding upon the party or parties executing the same.

11. Lessee, its or his successors, heirs and assigns, shall have the right at any time to surrender this lease, in whole or in part, to lessor or his heirs, successors, and assigns by delivering or mailing a release thereof to the lessor, or by placing a release thereof of record in the county in which said land is situated; thereupon lessee shall be relieved from all obligations, expressed or implied, of this agreement as to acreage so surrendered, and thereafter the shut-in royalty payable hereunder shall be reduced in the proportion that the acreage covered hereby is reduced by said release or releases.

12. Anything herein contained to the contrary notwithstanding, this lease may not be maintained in force by the payment of shut-in gas royalties for a period in excess of two years beyond the expiration of the primary term hereof; provided, however, the time limitation contained in this sentence shall not apply to periods of time during which lessee is unable to market gas because there is a lack of an available market therefore or to periods of time during which the purchaser to whom gas produced from the leased premises is contracted for sale certifies its purchases of gas produced from the lease premises.

13. Notwithstanding the use of the word "mineral", "minerals", or "other minerals", this lease shall cover only oil, gas, casinghead gas, condensate, other hydrocarbons and minerals produced in association with such oil, gas, and other hydrocarbons.

Executed the day and year first above written.

Debbie Lynn Stewart Wattier
Debbie Lynn Stewart Wattier

STATE OF KENTUCKY
County of McCracken
The foregoing instrument was acknowledged before me this 10th day of March, 1995 by Debbie Lynn Stewart Wattier, a married woman dealing in her separate property.
My Commission expires 11-16-96, 19____
Notary Public

INDIVIDUAL ACKNOWLEDGMENT (New Mexico Short Form)

STATE OF _____
County of _____
The foregoing instrument was acknowledged before me this _____ day of _____, 19____ by _____
My Commission expires _____, 19____
Notary Public

INDIVIDUAL ACKNOWLEDGMENT (New Mexico Short Form)

STATE OF _____
County of _____
The foregoing instrument was acknowledged before me this _____ day of _____, 19____ by _____
My Commission expires _____, 19____
Notary Public

INDIVIDUAL ACKNOWLEDGMENT (New Mexico Short Form)

STATE OF _____
County of _____
The foregoing instrument was acknowledged before me this _____ day of _____, 19____ by _____
My Commission expires _____, 19____
Notary Public

INDIVIDUAL ACKNOWLEDGMENT (New Mexico Short Form)

By _____ Deputy.
County Clerk.
A. D., 19____, at _____ o'clock _____ m., and was duly recorded in Book _____ at Page _____ of the Records of said County.
I hereby certify that this instrument was filed for record on the _____ day of _____, 19____.
STATE OF NEW MEXICO
COUNTY OF _____
Term _____
No. of Acres _____
Section _____, Township _____, Range _____
Date _____, 19____
County, New Mexico
OIL AND GAS LEASE
NEW MEXICO
STATE OF NEW MEXICO
COUNTY OF LEA
FILED
MAR 21 1995
at _____ o'clock _____ A M
and recorded in Book _____
Page _____
Pat Chappell, Lea County Clerk
By _____ Deputy

STATE OF _____
County of _____
The foregoing instrument was acknowledged before me this _____ day of _____, 19____ by _____, President of _____ corporation on behalf of said corporation.
My Commission Expires: _____
Notary Public

CORPORATION ACKNOWLEDGMENT (New Mexico Short Form)

STATE OF _____
County of _____
The foregoing instrument was acknowledged before me this _____ day of _____, 19____ by _____, President of _____ corporation on behalf of said corporation.
My Commission Expires: _____
Notary Public

CORPORATION ACKNOWLEDGMENT (New Mexico Short Form)

New Mexico Legislative Finance Committee Policy Spotlight

Policy Spotlight: Orphaned Wells



June 24, 2025

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Policy Spotlight: Orphaned Wells

Summary

New Mexico faces significant and growing financial liabilities for oil and gas well cleanup.

New Mexico has more than 60 thousand oil and gas wells that will eventually need to be plugged. Properly plugging and decommissioning those wells at the end of their productive lives is important to protect health and safety, the environment, and future resource development.

While operators plug most wells in New Mexico, the Oil Conservation Division (OCD) of the Energy, Minerals and Natural Resources Department (EMNRD) can intervene to plug wells that operators leave inactive and unplugged without authorization. In the past 20 years, OCD has plugged approximately 1,000 of those “orphaned” wells, or 5 percent of all wells plugged in the state. However, the number of wells the division is authorized to plug has consistently outpaced its plugging efforts.

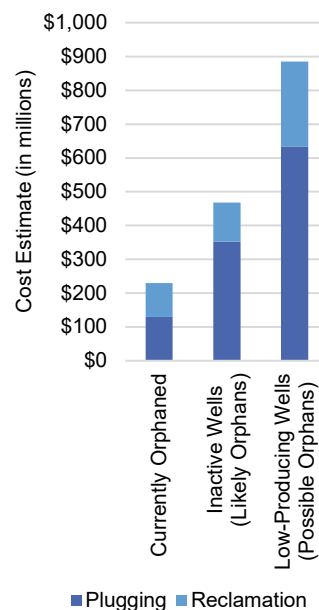
Currently, OCD has plugging authority for roughly 700 wells on state and private (“fee”) lands. The state likely will need to plug an additional 1,400 inactive wells for which OCD has not yet pursued plugging authority. On top of that, there are more than 3,000 wells on state or private land producing extremely small quantities of oil and gas whose expected cleanup costs far exceed their predicted future revenues, increasing their risk of being orphaned.

At recent state-contracted rates, plugging, remediating and reclaiming currently orphaned wells and their associated infrastructure will likely take close to a decade and cost more than \$208 million. Plugging and reclaiming the other 1,400 inactive wells on state and private land could cost more than \$468 million. Should additional extremely low-producing wells be orphaned by their operators, the costs for plugging and reclaiming them could approach \$1 billion. Altogether, the state’s current and near-future liability for well plugging and site remediation is estimated at \$700 million to \$1.6 billion.

Recent federal grants have increased OCD’s plugging capacity, but the division is still unable to plug wells at a rate that would allow it to clear its existing orphaned well list in a timely fashion, even without accounting for additional wells that are likely to become orphaned. The division has also struggled to control the costs of plugging and reclamation. Given that, it would be prudent for the state to reduce its future liability for orphaned wells, which could be accomplished through a variety of mechanisms, including revising its financial assurance system to incentivize operators to plug wells before they become fully inactive.

Properly plugging and decommissioning wells at the end of their productive lives is important to protect health and safety, the environment, and future resource development.

Chart 1. Liability Estimates for Plugging and Reclamation



*Note: Only wells on state or private lands; categories are mutually exclusive; plugging based on actual depth, \$43.85/foot, gas wells costing 9 percent more than oil wells; reclamation at \$83 thousand per well site.

Source: LFC

Policy Spotlight: Orphaned Wells

Project Objectives

- Assess the current scope of the orphaned well problem in New Mexico, including the environmental, economic, and health and safety impacts.
- Evaluate the adequacy of the state's current regulatory framework for preventing wells from becoming orphaned, and the efficacy of its current efforts to plug and abandon orphaned wells.
- Estimate the state's potential future liability for orphaned wells and accompanying infrastructure.

Key Findings

- Current orphaned wells will cost the state more than \$200 million; future liability very likely exceeds \$700 million.
- Reforms that prioritize operator-led cleanup can limit the state's financial exposure.

Key Recommendations

The Legislature should consider:

- Amending statute to define “orphaned” and “abandoned” wells, aligning the definitions with their common use in the oil and gas industry and clarifying that “orphaned” wells are oil and gas wells for which the state has pursued and received plugging authority;
- Amending Section 70-2-14 NMSA 1978 to specify that wells producing below certain thresholds set in rule require additional financial assurance;
- Amending Section 70-2-14 NMSA 1978 to allow an operator to meet its financial assurance obligations by fully funding a third-party trust or escrow up to OCD's site- or operator-specific estimated plugging and remediation costs; and
- Amending statute to clarify OCD's authority to review and disallow the transfer of wells should the division determine, through processes outlined in rule, the purchaser is unlikely to be able to fulfill its asset retirement obligations.

The Energy, Minerals and Natural Resources Department should:

- Promulgate rules defining “low-producing” wells (such as wells producing less than 750 BOE annually or ~ 2 BOE per day);
- Promulgate rules to expand the definition of “inactive” wells to include consistently ultra-low producing wells (such as wells that produce less than 180 BOE annually or ~0.5 BOE per day for more than three years);
- Promulgate rules specifying that low-producing wells require individual well financial assurance, posted within two months of

Policy Spotlight: Orphaned Wells

notice, and clarifying that their transfer is contingent on regulatory approval;

- Publish a list of orphaned wells monthly, including both wells the state has already plugged and those it is planning to plug and the costs associated with their plugging and reclamation, to ensure transparent tracking of state expenditures on orphaned wells; and
- Ensure the presence of a “company man” for all state-contracted well plugging who is responsible for filing daily reports on the activities undertaken by the contractor, the materials used, and the estimated plugging cost.

Background

New Mexico has been an oil and gas producing state for more than a century. During that time, companies have drilled at least 121 thousand oil and gas wells in the state, mostly in the northwest (San Juan Basin) and southeast (Permian Basin). Wells must be plugged at the end of their productive lives to protect the environment, health and safety, and future resource production. For wells still producing any volume of oil or gas, the state typically leaves it to operators to decide when the well should be plugged—in recent years, the average well produced roughly two barrels of oil equivalent a day in the year before it was plugged. However, if a well becomes fully inactive for more than a year, the Oil Conservation Division (OCD) of the Energy, Minerals and Natural Resources Department (EMNRD) can require an operator to plug the well or pursue authority to plug it itself to mitigate potential risks. Since the 1970s, OCD has largely paid for state-contracted plugging using money from the oil and gas reclamation fund, which receives a portion of the oil conservation tax. Since 2022, the state has also received \$55.5 million in multiyear federal grants to address unplugged orphaned wells on state and private lands.

New Mexico has long recognized the importance of plugging wells at their end of their lives, but there is no consensus on when that is.

Oil and gas wells, by design, tap into subsurface reservoirs that are often more than a mile deep. When active production ceases, the wells can become pathways for hazardous substances to escape, including gases like methane and hydrogen sulfide and fluids like produced water and residual hydrocarbons. Those leaking gases and fluids can contaminate groundwater, endanger nearby homes, and impede future development of oil and gas resources. Modern plugging involves using cement to seal off oil, gas, and water-bearing formations to prevent leaks to the surface or adjacent strata, while site remediation and reclamation involve removing contaminated soil and disposing of surface infrastructure. Since the 1930s, New Mexico has required operators to plug wells at the end of their productive life.

Plugging wells mitigates the risk of a variety of hazards, including groundwater contamination. In the early 20th century, most states started requiring companies to plug oil and gas wells that were no longer producing or otherwise inactive with the goal of oil conservation because unplugged wells can lead to pressure drops or water intrusions that impede oil recovery. However, over time, regulators also recognized the importance of plugging for conservation of other resources, including groundwater. Improperly sealed wells can act as a conduit for fluids and gases to migrate into underground aquifers. A 2011 study by the Groundwater Protection Council, an organization whose members are state groundwater regulators, found inactive and unplugged wells were responsible for 22 percent of oil-

Terms and Definitions

Many terms used in the oil and gas industry are inconsistently defined. For example, “abandoned well” means different things in different parts of New Mexico statute. For this report, the following definitions apply, unless otherwise specified:

Orphaned well

A well for which the state has received plugging authority, either through a settlement agreement, order, or intergovernmental agreement.

Abandoned well

A well that has been properly plugged, either by the state or its operator.

Inactive well

A well that has not produced or injected for at least 15 months.

Plugging

Placing cement plugs at specific depths inside the wellbore to prevent migration of fluids and gas.

Remediation

Removal or treatment of contaminated soil and groundwater.

Reclamation

Removing infrastructure and returning the land to a condition as close to its original state as possible.

Produced water

Water that is brought to the surface alongside the oil and gas produced from a well. Produced water is also called “saltwater” because it typically contains high levels of salts, hydrocarbons, and other contaminants.

Barrel of oil equivalent (BOE)

A standardized unit that combines oil and gas into a single measure; one barrel of crude oil or 6,000 cubic feet of natural gas (6 mcf) equals one BOE

Policy Spotlight: Orphaned Wells

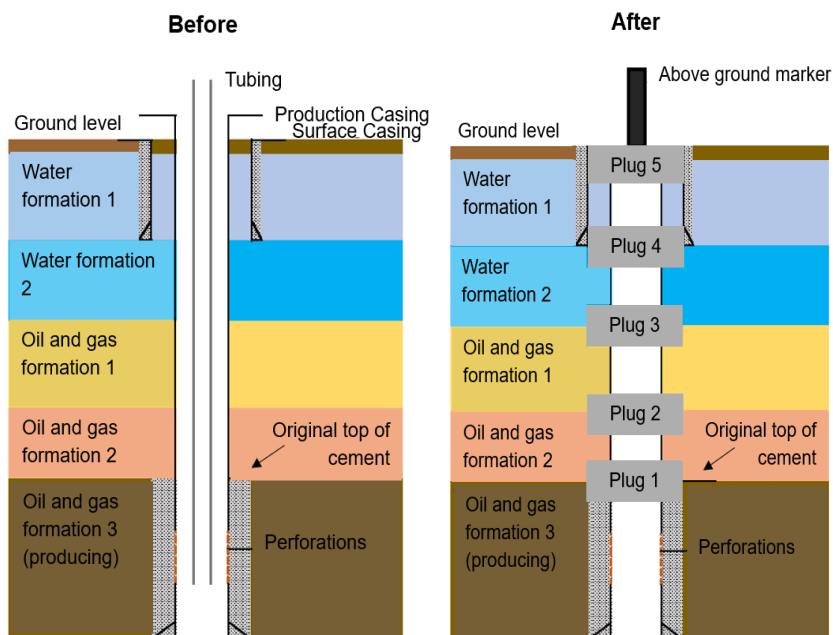
and gas-related groundwater contamination incidents in Ohio and 14 percent in Texas over a 16-year study period. Improperly plugged or unplugged wells have also been implicated in surface contamination incidents, including recently near the Texas-New Mexico border, where the wells have served as conduits for large leaks of produced water and hydrocarbons. Unplugged or improperly plugged wells can also leak gases, including hydrogen sulfide, which is toxic and highly corrosive, and methane, which is both a potent greenhouse gas and explosive. The federal Environmental Protection Agency estimates annual methane emissions from the nation's inactive and unplugged oil and gas wells are comparable to adding an additional 2 million gas-powered cars to the road. Although rare, methane leaks from oil and gas wells have also caused buildings to explode.

OCD regulations for plugging require placing cement at various depths inside the wellbore. Cement is the primary material used in oil and gas wells to prevent fluid and gas migration. When a well is constructed, companies anchor the steel casing that lines the well in place by filling sections of the space between the casing and the surrounding rock formation with cement. Similarly, when a well is plugged, cement is used to both seal off the producing formation and any hydrocarbon- and water-bearing formations above it. OCD may also require other types of mechanical barriers to be set inside the wellbore. The location of plugged wells must be marked with a 4-inch-wide, 4-foot-tall steel post, unless OCD grants a waiver to place the marker below ground.

Rising Incidence of State-Contracted Emergency Well Plugging in Texas

In November 2024, Texas' oil and gas regulator, the Texas Railroad Commission (RRC), requested an additional \$100 million appropriation for FY26-27 for well plugging, saying, "Emergent issues have developed that have made [the initial \$234 million request] insufficient to protect groundwater and the environment." While the request did not cite any specific incidents, RRC has reported responding to a number of well emergencies in the region of west Texas bordering New Mexico in recent years. For example, in December 2023, an unplugged well on a ranch in west Texas began leaking produced water at 14,000 gallons an hour. The water eventually covered more than 300 acres and pooled to as deep as a foot. Testing found the water contained 10 times the EPA's allowable amount of benzene, a chemical found in crude oil that is a known carcinogen. With no existing operator associated with the well, RRC paid \$2.5 million to plug the well and clean up the spill.

Figure 1. Well Plugging



Source: OCD

Policy Spotlight: Orphaned Wells

After a well is plugged, OCD may require remediation and reclamation of the well site. During active production, wells may leak oil, produced water, or drilling fluids, either from the well itself or from associated pits and tanks. When spills occur, operators are required to remediate the site promptly. However, a second round of remediation is often necessary at the end of a well's life to ensure the site is clean before closure. Remediation focuses on removing polluted soil and, if necessary, addressing impacts to surface water or groundwater. When remediation is necessary, OCD regulations require the top 4 feet of soil be free of contamination, usually achieved through excavation and replacement of the affected soil. Reclamation is usually characterized as restoring the land to its prior physical and ecological condition. Prior to well closure, OCD requires operators to level the site, remove equipment and debris, and close pits and tanks. OCD does not have a requirement for the operator to restore native vegetation or remove roads. The State Land Office (SLO) has its own requirements for reclaiming well sites on state trust land, which include erosion prevention, removal of infrastructure and roads, and revegetation.

Figure 2. Remediation and Reclamation



Remediation involves cleaning up surface and groundwater contamination, as at the Chaves County site on the left. Reclamation involves leveling the site and removing any equipment, as at the Eddy County site on the right.

Source: LFC files

Roughly half of wells drilled in New Mexico have already been plugged, although not always to modern standards. Of the roughly 121 thousand wells drilled in New Mexico, OCD records compiled by the energy analytics firm Enverus show at least 54 thousand have been plugged. Sixty-four percent of those wells have a plugging date, indicating there is an administrative record associated with their abandonment. The remaining wells in “plugged and abandoned” status have either blank or placeholder plugging dates. According to OCD, placeholder dates may mean they were plugged prior to modern recordkeeping or they remain unplugged. For wells plugged prior to the 1990s, the plugs may not meet modern plugging standards. While most modern plugging techniques were well-understood by the 1990s, the American Petroleum Institute, which publishes technical standards for the industry, did not release a manual of recommended practices for wellbore plugging and abandonment until 2021.

Figure 3. Modern Plugging Rig



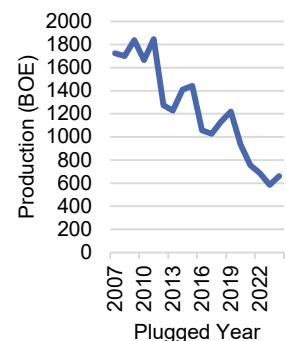
Source: LFC Files

Policy Spotlight: Orphaned Wells

For wells producing any volume of oil or gas, OCD has historically left it to the discretion of operators to decide when to plug and reclaim the well. While state statute authorizes OCD to “require dry or abandoned wells to be plugged” to prevent oil, gas, or water from migrating between underground formations, neither “dry” nor “abandoned” is defined. In regulation, OCD requires operators to plug a well that is “no longer useable for beneficial purposes; or a period of one year in which a well has been continuously inactive.” “Beneficial purpose” is not defined, leaving operators with considerable discretion to decide when a well producing in any quantity has reached the end of its useful life. Operators may weigh different variables in their decision-making, including oil and gas prices, produced-water disposal costs, the potential for reworking the well to increase production, and the opportunity to drill new wells nearby, which often requires plugging older wells. In recent years, the average well produced roughly two barrels of oil equivalent (BOE) a day in the year before it was plugged, a decline from the mid-2000s. When wells stop producing altogether for an extended period, they become “inactive,” and must be either plugged, approved for temporary abandonment, or returned to production within a year.

Chart 2. Average Production in Year Prior to Plugging

n = 13,134



Source: Enverus

Since the 1970s, the state has stepped in to plug oil and gas wells when the operator does not.

When a well becomes inactive and is not plugged by its operator, OCD can pursue authority to plug the well itself. Once it receives that authority, OCD contracts with a plugging company. The division pays those contractors using funds from several sources, including forfeited financial assurances, the oil and gas reclamation fund, and, recently, federal grant funding through the Infrastructure, Investment and Jobs Act (IIJA). Since FY19, OCD’s contractual services spending has grown more than 2,000 percent, primarily as a result of plugging and reclamation of orphaned wells and their associated infrastructure. Most of that money has come from federal grants.

Plugging and reclamation account for a growing majority of OCD’s spending. OCD has broad authority to regulate oil and gas activity in New Mexico. Its statutory responsibilities include conducting inspections, overseeing drilling operations, and ensuring wells are properly plugged at the end of their productive life. State law also requires OCD to collect financial assurance from operators before drilling begins, to help insulate the state from future plugging and reclamation liability. As New Mexico has grown into the second-largest oil-producing state in the country, behind only Texas, OCD has also expanded, in both budget and personnel, although it remains relatively small compared to regulators in other oil- and gas-producing states. OCD regularly reports challenges with recruitment and retention, which has contributed to the division consistently underspending its budget. In recent years, plugging and reclamation of orphaned wells and their associated infrastructure have become a major part of OCD’s budget and responsibilities; contractual services spending, which

In recent years, plugging and reclamation of orphaned wells and their associated infrastructure have become a major part of OCD’s budget and responsibilities.

Policy Spotlight: Orphaned Wells

is primarily for addressing orphaned wells, has far exceeded any other spending category in the division's budget in recent years.

Table 1. OCD Sources and Uses
(in thousands)

	FY19	FY20	FY21	FY22	FY23	FY24	FY25 (budgeted)	FY26 (allocated)
Sources								
General Fund Transfers	\$5,020.9	\$5,835.3	\$6,203.1	\$6,451.1	\$7,163.1	\$8,836.6	\$10,374.6	\$10,439.3
Other Transfers	\$0.0	\$0.0	\$3.5	\$88.1	\$348.8	\$394.9	\$0.0	\$0.0
Federal Revenues	\$673.8	\$510.7	\$214.7	\$325.7	\$10,093.6	\$15,913.9	\$25,930.2	\$30,861.5
Other Revenues	\$3,040.8	\$4,523.6	\$5,333.2	\$19,384.6	\$30,353.4	\$24,698.8	\$21,475	\$25,192.8
Fund Balance	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$722.1	\$0.0
Total Sources	\$8,735.5	\$10,869.6	\$11,754.5	\$26,249.5	\$47,958.9	\$49,844.2	\$58,501.9	\$66,493.6
Uses								
Personal Services and Employee Benefits	\$4,305.3	\$4,303.7	\$4,891.2	\$5,291.0	\$6,548.1	\$7,173.7	\$9759.9	\$9,759.9
Contractual Services	\$1,711.6	\$1,415.3	\$3,136.8	\$10,607.9	\$13,219.0	\$28,546.7	\$44,990.9	\$52,983.9
Other	\$716.5	\$1,244.5	\$911.3	\$1,503.3	\$2,228.4	\$2,368.6	\$3,451.4	\$3,450.1
Other Financing Uses	\$119.9	\$132.0	\$123.9	\$91.8	\$0.0	\$144.8	\$299.7	\$299.7
Total Uses	\$6,853.3	\$7,095.5	\$9,063.2	\$17,494.0	\$21,995.5	\$38,233.8	\$58,501.9	\$66,493.6

Source: LFC files

OCD typically pursues plugging authority for a well only when the operator is unresponsive to enforcement action. OCD can issue a notice of violation (NOV) to any operator that has more inactive wells than they are allowed under NMAC 19.15.5.9 A(4). Inactive wells are any production in 15 months and which are not plugged or approved for tem NOV, OCD offers operators the option to informally resolve the situation via (“agreed compliance order”) prior to a formal administrative law hearing. Of an informal agreement with OCD may contest the NOV in an administrative much like a civil trial. In practice, many operators simply do not respond to i a default judgment in OCD’s favor at hearing. Following the hearing, if the c violation of the law, OCD’s director may issue an order directing the operato days or have them plugged by the state (Figure 4). OCD can also plug wells government and tribal governments as requested, using either state funding, 1978, or through intergovernmental cost-sharing agreements.

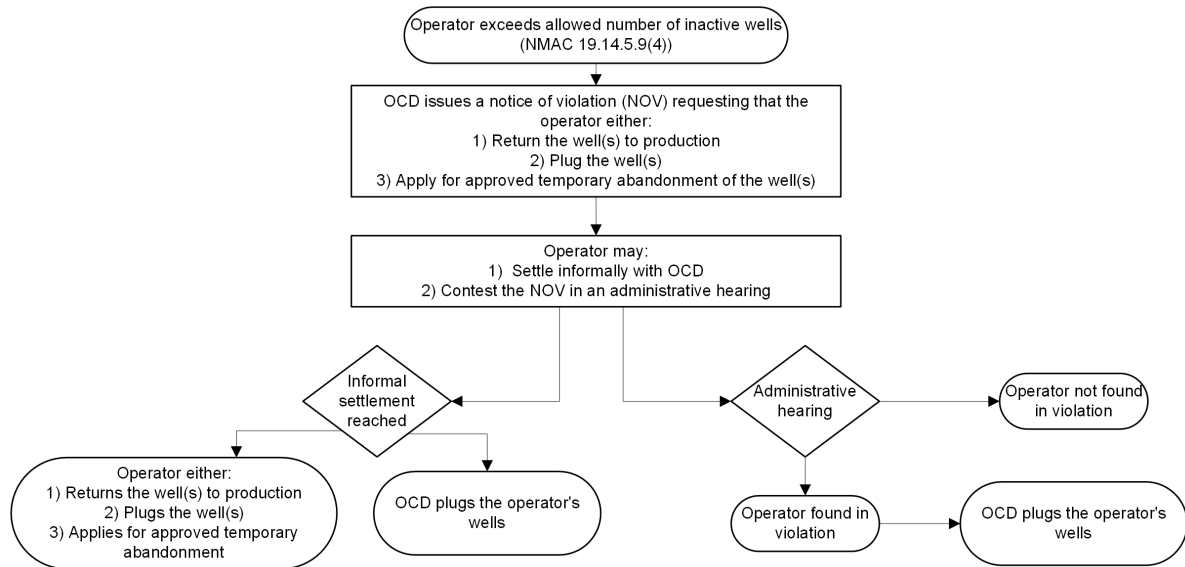
Table 2. Number of Allowed Inactive Wells

Size of Operation	Number of Wells
100 wells or less	Two or fifty percent, whichever is less
101 to 500 wells	Five or less
501 to 1000 wells	Seven or less
More than 1000 wells	10 or less

Source: NMAC 19.15.5.9

Policy Spotlight: Orphaned Wells

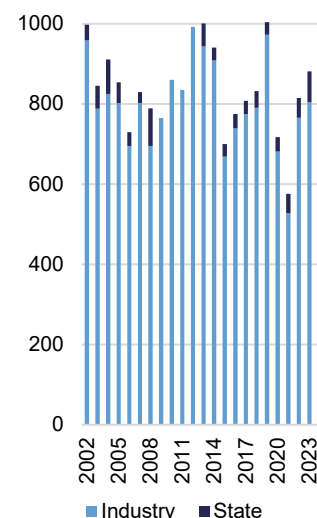
Figure 4. How Wells are “Orphaned” in New Mexico



Source: LFC

OCD has not kept detailed records of state-contracted plugging, but the division has plugged at least 967 wells since 2002, or approximately 5 percent of all wells plugged in New Mexico during the same period. Historically, OCD has not kept robust records of the wells it has plugged, making it difficult to evaluate trends in state-contracted well plugging over time. However, the division began reporting the number of orphaned wells plugged during a fiscal year as part of its budget performance measures starting in 2002. According to those records, OCD has plugged at least 967 wells since then, although the actual number is likely higher because reporting was not required for fiscal years 2009-2012. That equates to approximately 51 wells per year and 5 percent of all wells plugged in the state since 2002. However, OCD has always had a plugging backlog, meaning the percentage of state-plugged wells would be higher if OCD were able to plug all wells it had the authority to plug in any given year. In past performance reports to LFC, OCD has cited a number of reasons for delays in plugging, including contractor availability, funding shortfalls, weather conditions, well conditions, and delays in procurement contracting (see Appendix A).

Statute requires operators to provide financial assurance to OCD before drilling to insulate the state from well plugging and reclamation liability, but the maximum allowable amounts do not cover actual costs. Financial assurance requirements for oil and gas operations in New Mexico are set partly in statute and partly in rule. Section 70-2-14 NMSA 1978 requires operators to post financial assurance before they can drill or

Chart 3. Wells Plugged by Year
FY02-FY24

Note: OCD was not required to report to the LFC on state-contracted well plugging between FY09 and FY12.

Source: OCD, LFC Report Cards

Policy Spotlight: Orphaned Wells

produce a well, in an amount “sufficient to reasonably pay the cost of plugging the wells covered.” However, the statute caps total financial assurance at \$250 thousand per operator for all active wells, even though plugging a single well can often exceed \$100 thousand, and most operators in the state have more than five wells. The statute also requires higher bonding amounts for wells in “temporarily abandoned status,” although that term is not defined. In practice, for the purposes of financial assurance, OCD considers wells “temporarily abandoned” when they have reported no production for more than two years or when operators apply for official permission to shut-in a well temporarily. In rule, OCD sets the maximum financial assurance for temporarily abandoned wells at \$1 million, which reflects their higher risk of being orphaned. According to a study examining 40 years of oil production in California, the chance a dormant well will resume production is 50-50 after just 10 months of dormancy and 25 percent after five years of dormancy. (See Appendix B for other states’ minimum and maximum financial assurance amounts).

Even if OCD plugs an operator’s well or wells, its financial assurance remains intact unless the division actively pursues forfeiture.

Operators can use one of several financial instruments to fulfill the state’s financial assurance requirements. Surety bonds, typically issued by specialized surety companies, are the most commonly used type of financial assurance. They are paid for with annual premiums and secured by varying amounts of collateral; typical premium rates are 1 to 5 percent of the total bond amount annually. Regulations state OCD will not approve the transfer of a well to a new operator until appropriate financial assurance is in place. Once a new operator provides the required financial assurance, the previous operator can request release of its own bond or policy. When OCD plugs an operator’s wells, it can seek forfeiture of the financial assurance. In the case of a surety bond, OCD must file a claim with the surety company that is the third-party guarantor. The surety will then initiate an investigation to determine the validity of both the bond and the claim. Investigations can be lengthy and may involve site visits and requesting evidence from OCD. At the end of the process, if the surety company finds the claim is valid, it will try to get the operator to pay and, only failing that, pay the claim itself. If the operator is bankrupt or the surety disputes the validity of the bond, the process can be complicated and involve litigation. In most cases, the funds recovered through forfeiture fall short of the actual cleanup cost. Although OCD is authorized by statute to sue operators for the remaining balance, it has not done so.

Financial Assurance Tiers for Wells on Private and State Lands

Active wells

- One well: \$25 thousand plus \$2 per foot depth.
- One to 10 wells: \$50 thousand.
- 11 to 50 wells: \$75 thousand.
- 51 to 100 wells: \$125 thousand.
- More than 100 wells: \$250 thousand.

Temporarily abandoned wells

- One well: \$25 thousand plus \$2 per foot depth.
- One to five wells: \$150 thousand.
- Six to 10 wells: \$300 thousand.
- 11 to 25 wells: \$500 thousand.
- More than 25 wells: \$1 million.

Source: NMAC 19.15.8.9

Allowable Types of Financial Assurance

Surety bond

A three-party agreement in which a surety company guarantees the operator will fulfill its plugging and reclamation obligations.

Cash bond

A cash deposit held by the state to guarantee the operator fulfills its obligations.

Irrevocable letter of credit

A financial guarantee issued by a bank, ensuring payment to the state under specified conditions and with appropriate documentation.

Insurance policy

A two-party contract in which an operator pays a premium in exchange for an insurer guaranteeing a defined well cleanup benefit.

Table 3. Estimated Annual Premiums for Surety Bonds

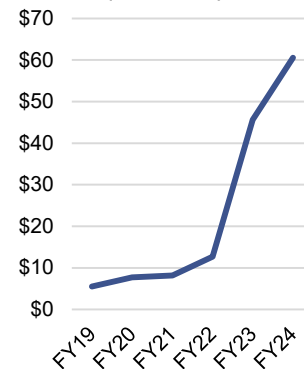
Premium Rate	100+ Active Wells	25+ Temporarily Abandoned Wells
2%	\$5,000	\$20,000
4%	\$10,000	\$40,000

Source: LFC files

Policy Spotlight: Orphaned Wells

Historically, OCD has used the oil and gas reclamation fund to pay for plugging orphaned wells; as of April 2025, the fund's balance was \$66.7 million. The Legislature established the oil and gas reclamation fund in 1977 as a nonreverting fund “for use by the oil conservation division in carrying out the provisions of the Oil and Gas Act.” Among the currently enumerated purposes of the fund is ensuring the proper plugging and reclamation of “abandoned oil and gas wells and associated facilities” (Section 70-2-38 NMSA 1978). While the statute does not define “abandoned,” the fund has historically been used primarily for plugging and reclamation of wells and associated infrastructure without a locatable or financially viable operator. At the time of its creation, the fund received 0.01 percent of oil and gas conservation tax revenues. Today, the reclamation fund receives 10.5 percent of conservation tax proceeds when the price of West Texas Intermediate crude oil is less than \$70 and 19.7 percent when it is above \$70. Those distributions represent the highest percentages of the conservation tax the reclamation fund has received since the fund was created (see Appendix C). The remainder of the oil and gas conservation tax goes to the general fund. The reclamation fund also receives financial assurances the state has forfeited from oil and gas producers that fail to meet their reclamation obligations, but those are a minor contributor. The fund’s balance grew 998 percent between the end of FY19 and the end of FY24, to \$65 million, because of high oil and gas prices and production. Despite those record balances, the state has made minimal expenditures from the fund in the last two years, instead using federal grants to pay for plugging orphaned wells.

Chart 4. Oil Reclamation Fund Balance (in millions)



Source: LFC cash balance

Table 4. Reclamation Fund Sources and Uses
(in thousands)

	FY19	FY20	FY21	FY22	FY23
Beginning Cash Balance July	\$4,226.4	\$6,322.7	\$7,777.7	\$9,073.2	\$26,995.0
Oil and Gas Conservation Tax Revenue	\$3,529.5	\$3,340.3	\$4,656.3	\$22,222.6	\$26,933.7
Bond Forfeitures, Salvage, and Reimbursement Recoveries	\$88.5	\$0.00	\$0.00	\$161.3	\$0.00
Total Revenue	\$3,617.9	\$3,340.3	\$4,656.3	\$22,383.9	\$26,933.7
Total Expenses Directly from Fund	\$1,521.6	\$1,885.4	\$3,361.3	\$4,462.1	\$3,030.7
Ending Cash Balance June	\$6,322.7	\$7,777.7	\$9,072.7	\$26,995.0	\$50,898.1

Source: OCD

Since 2022, New Mexico has received \$55.5 million in federal grants to identify and plug orphaned oil and gas wells and is eligible for up to \$111.8 million more. The federal Infrastructure Investment and Jobs Act, (IIJA) or bipartisan infrastructure law, signed into law in 2021, allocated more than \$4 billion toward identifying, plugging, and remediating orphaned wells on state, federal, and tribal lands. The law specifies that for the purposes of wells on state and private lands, the term orphaned “has the

Policy Spotlight: Orphaned Wells

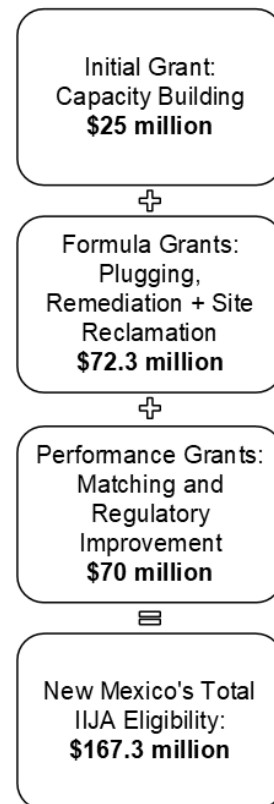
meaning given the term by the applicable state.” Under IIJA, states became eligible for three types of grants: an initial grant, formula grants, and performance grants. The initial grant was intended to strengthen states’ existing well-plugging programs. New Mexico received an initial grant of \$25 million. The formula grants provide additional financial assistance for plugging and reclamation on state and private lands. New Mexico is eligible for up to \$72.3 million in formula grants; it received \$25 million in 2024. Finally, performance grants are intended to reward states for meeting specific targets; matching performance grants of up to \$30 million are available to cover the cost of any spending on orphaned well plugging in a single fiscal year that exceeds historic state averages, while regulatory improvement performance grants provide up to \$40 million to states that improve their standards and procedures around well-plugging and strengthen their regulatory frameworks to avoid future orphaned well liability. New Mexico received a \$5.5 million performance matching grant in January 2025 based on the average of its spending on well plugging between 2010 and 2019. A federal review of grants briefly paused funding in early 2025, but it has since resumed.

OCD spent \$46.4 million between FY19 and FY24 on plugging and reclamation of 360 wells and their associated infrastructure.

With federal funding to plug and remediate orphaned wells, OCD has recently increased its yearly plugging rate from 30 to 50 wells a year to over 100 in FY24. Historically, OCD has not consistently or systematically tracked the costs incurred by the state for plugging and reclamation, complicating the assessment of long-term trends in spending on orphaned wells. However, at a high level, OCD has spent more in the last five years on plugging and reclamation than it did in the previous 10. As spending has increased, the costs for plugging and remediation have also risen dramatically.

Plugging costs are highly site-specific but depth, type of well, and other variables typically affect costs. Numerous studies have found the cost of plugging can vary widely between different well sites. However, a 2021 study of more than 19 thousand wells across several states found certain factors to be predictive of increased costs, including well depth, well age, and the elevation of the well site. Additionally, the study found gas wells were, on average, 9 percent more expensive to plug than oil wells because of additional time and equipment often needed to stop the flow of natural gas during plugging operations. In testing those findings on recent well plugging costs in New Mexico, the relationships between plugging costs and depth and plugging costs and well type hold true; deeper wells were more expensive to plug and gas wells were more expensive than oil wells. (In FY24, the average gas well cost 101 percent more to plug than the average oil well, but the sample size was only 10 wells). Wells at higher elevations, however, were not more expensive in FY24 than lower elevations, and older wells were not significantly more expensive than more

Figure 5. New Mexico’s IIJA Funding Eligibility



Source: Orphaned Well Program Office



Scan the QR code for an interactive map of wells plugged by the state

Policy Spotlight: Orphaned Wells

recently drilled wells. New Mexico's current financial assurance regulations account for the increased cost of depth in requirements for single well bonds, but not all-well or blanket bonds, and do not differentiate between oil and gas wells.

The average per-well cost of state-contracted plugging has risen nearly 450 percent since FY19 and the average per-foot cost has risen 270 percent, more than eight times the rate of overall oilfield inflation.

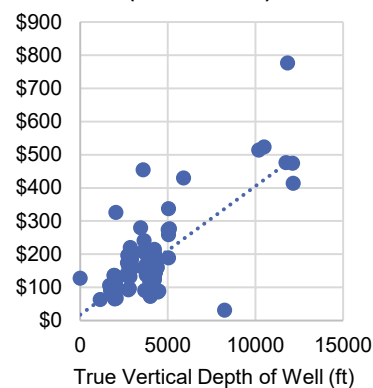
OCD does not systematically track the cost of well plugging, but LFC analysis of available invoices from FY19 onward shows the per-well cost of state-contracted plugging rose 443 percent between FY19 to FY24, from an average of \$30 thousand to \$163 thousand. In FY24, costs ranged from \$31 thousand to \$778 thousand. Because deeper wells, which take more time and require more cement, are typically more expensive to plug, many cost comparisons use cost-per-foot instead of a per-well average. Since FY19, per-foot costs for state-contracted plugging have risen roughly 270 percent. In FY24, the average per-foot cost of state-contracted plugging in New Mexico was \$43.85. The Texas Railroad Commission (RRC) has reported comparable costs for state-contracted plugging in RRC District 8, a region that borders New Mexico. However, RRC attributes those high costs primarily to complex emergency plugging incidents in District 8. While New Mexico has had a handful of emergency plugging incidents, its costs for nonemergency plugging are similarly high (see Appendix D for more on Texas' plugging costs).

Table 5. FY24 Average Cost to Plug by Well Type

Well Type	# of wells	Average Cost
Overall Average	106	\$163,000
Oil	81	\$150,634
Gas	10	\$303,063
Injection	13	\$120,634
Salt Water Disposal	2	\$259,965

Source: OCD, SHARE

Chart 5. FY24 Cost of Plugging by Depth of Well
(in thousands)



Source: OCD, SHARE

Table 6. OCD Reclamation and Remediation Costs for Orphaned Tank Batteries
FY23-25

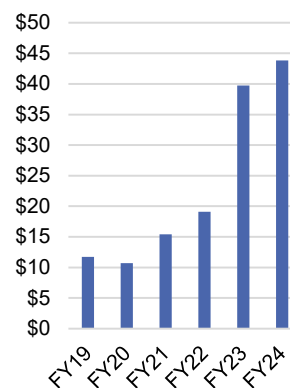
Cato San Andres Tank Battery #6	\$ 623,024.02
Double L Queen Tank Battery	\$ 5,151,041.47
Hal J Rasmussen Tank Battery	\$ 7,607,260.24
Total	\$13,381,325.73

*Note, all totals are as of May 1, 2025

Source: SHARE

While OCD spent more overall on well plugging between FY19 and FY24, per-project costs were highest for remediation and reclamation of infrastructure associated with oil and gas production, not well plugging itself. In FY23, OCD began remediation and reclamation work on three tank batteries—groups of tanks typically used to collect, separate, and store crude oil and produced water—in Lea and Chaves counties. The tank batteries were previously owned and operated by Canyon E&P Company, Cano Petro of New Mexico, and Hal J Rasmussen Operating, and all three were selected for remediation because of suspected or confirmed leaks of petroleum hydrocarbons. Two of the three projects are ongoing, but the most expensive project to date has been the Hal J Rasmussen site, known as the Reed Estate #001 tank battery. A site assessment conducted prior to remediation efforts found soil with

Chart 6. Average Per-Foot Cost for State-Contracted Plugging
FY19-24



Source: LFC analysis of OCD and SHARE data

Policy Spotlight: Orphaned Wells

hydrocarbon levels 10 times the state limit and chloride levels double the state limit. However, the most recent leak at the site was more than a decade ago and there is no evidence spills at the site have contaminated groundwater or a nearby playa (seasonal lake). Similarly, a contamination delineation assessment of the Double L Queen Tank battery (Canyon E&P) found evidence of hydrocarbon and chloride contamination above state thresholds from past leaks, but no evidence the spills had impacted groundwater resources or caused any additional health or safety issues. At the third site, known as the Cato San Andres tank battery #6 (Cano Petro), OCD documents do not indicate that similar soil sampling or groundwater assessment have occurred to date, but photographs submitted to the division by the contractor responsible for cleanup show pools of standing oil at the site. In a 2021 report for the New Mexico State Land Office, Vertex Resources estimated the decommissioning and reclamation costs of a storage tank site at \$9.5 million, based principally on an assumption of a large site surface area and the need to remove substantial volumes of contaminated soil. Invoices from the tank battery sites show that removal of contaminated soil is by far the largest line-item expense.

Figure 6. Orphaned Tank Batteries



Double L Queen tank battery in Chaves county



Cato San Andres tank battery #6 in Chaves county

Source: Envirotech/Frontier Development

Policy Spotlight: Orphaned Wells

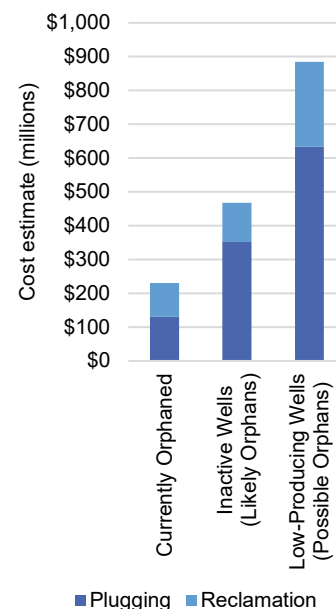
Current Orphaned Wells Will Cost the State More Than \$200 Million; Future Liability Very Likely Exceeds \$700 Million

New Mexico does not define “orphaned well” in statute or rule, resulting in different estimates of both the number of orphaned wells and the resulting state liability, depending on the context and source. For this report, orphaned wells are those for which OCD has already pursued and received plugging authority, either through a settlement agreement or administrative hearings, because those represent the most immediate and certain costs. However, in addition to wells the state already has legal authority to plug, thousands of inactive and low-producing wells are at risk of being orphaned, potentially increasing the state’s liability by many orders of magnitude. OCD considers a well “inactive” if it has not reported production in 15 months. OCD does not currently have the authority to plug approximately 1,400 inactive wells on state or private land that it considers likely to be orphaned. In addition to those inactive wells, thousands of wells produce extremely low volumes of oil and gas—less than a barrel of oil equivalent per day. For many of those wells, the expected cost of cleanup far exceeds predicted future revenues, increasing their risk of being orphaned. Altogether, the state’s current and near-future liability for well plugging and site remediation is estimated to be between \$700 million and \$1.6 billion.

Plugging and reclaiming the well sites and associated infrastructure OCD currently has responsibility for will likely cost between \$200 million and \$400 million.

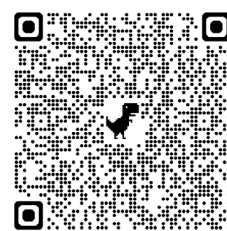
Based on internal OCD data, the division is currently responsible for plugging close to 1,000 orphaned wells, including roughly 700 on state or private land. At recent rates, plugging those wells will take close to a decade, not including well site remediation and reclamation. OCD is also responsible for remediation and reclamation of an additional 500 well sites and 18 infrastructure sites, including a number of tank batteries. In total, plugging, remediation and reclamation of all currently orphaned wells and infrastructure on state and private land is estimated to cost a minimum of \$208 million, and likely more.

Chart 7. Liability Estimates for Plugging and Reclamation



*Note: Only wells on state or private lands; categories are mutually exclusive; plugging based on actual depth, \$43.85/foot, gas wells costing 9 percent more than oil wells; reclamation at \$83 thousand per well site.

Source: LFC analysis



Scan the QR code for an interactive map of current, likely, and possible orphaned wells

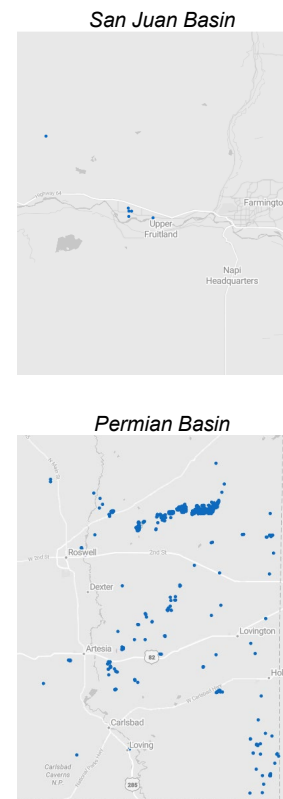
Policy Spotlight: Orphaned Wells

The term “orphaned well” is not defined in either statute or rule, complicating efforts to estimate the state’s liability. While orphaned wells are commonly understood in the oil and gas industry to mean wells that have no viable operator and, therefore, have become the responsibility of the state or federal government, New Mexico does not define the term anywhere in statute or rule, and OCD does not use the term consistently. Public estimates of the number of orphaned wells in New Mexico vary widely, depending on how the term is defined. In some contexts, OCD cites around 700 orphaned wells; in others, it references 1,700 or more than 3,000. The disparity results from whether OCD includes only wells the state has pursued and received permission to plug or also those it does not currently have legal authority to plug but believes it will have to plug in the future. It also depends on whether the count refers only to state and private (fee) wells or also includes federal and tribal wells. While limiting the definition to only wells OCD currently has plugging authority for runs the risk of obscuring the magnitude of the state’s liability, it is important to distinguish between certain liability and expected liability. For that reason, this report considers those categories separately. Also, while OCD contracts for well plugging on state, private, tribal, and federal land under different circumstances, state funds are primarily used for plugging wells on state and private land¹, so those wells are the focus of this analysis.

OCD does not publish a list of wells the state has plugged or is planning to plug and does not track them consistently in internal documents. As a result of requirements associated with federal IJA grant funding, OCD has recently begun compiling an internal list of wells the state has plugged or plans to plug, along with associated infrastructure requiring cleanup. That list represents the most comprehensive effort to understand the scope of state-contracted well plugging. However, the list is not publicly available and is frequently inconsistent with publicly available data. However, because it is the only available data source that tracks wells for which OCD has received plugging authority, LFC staff used the list to determine the number of currently orphaned wells in New Mexico and refined the number by removing incorrectly labeled data. Wells were included if they did not have a plugged date and if they were located on state or private land.

At current rates, plugging the 702 wells the state is currently responsible for will likely cost more than \$130 million and take close to a decade. According to OCD’s internal list, OCD currently has plugging authority for 702 wells that have yet to be plugged on state and private land. Based on the average per-foot cost for state-contracted well plugging in

Figure 7. Maps of Orphaned Wells in New Mexico



¹ Per Section 70-2-37 NMSA 1978, OCD does have authority to plug wells on federal land using the reclamation fund; however, most orphaned wells on federal land are plugged using federal money. Additionally, OCD does not have authority to plug wells on tribal land without a request from the corresponding tribal government. Therefore, this analysis of state liability only includes wells with state or private surface ownership; it excludes orphaned, inactive, and low-producing wells with federal surface ownership and private or state mineral ownership, which are rare.

Policy Spotlight: Orphaned Wells

FY24 (\$43.85) it will cost OCD over \$130 million just to plug those wells. That figure is based on actual well depths and an estimate that gas wells cost 9 percent more to plug than oil wells, although, as noted above, recent actual costs for plugging gas wells have been 101 percent higher than oil wells. If that trend holds, the total cost could be closer to \$141 million for those 702 wells. Saltwater disposal wells could also be more expensive to plug based on previous OCD spending, and there are currently 11 of those wells on OCD's plugging list. However, the state has plugged too few in recent years to draw clear conclusions. If the state's per-foot plugging costs could be brought closer to those of other states, like Texas's FY24 average of \$15.60 statewide, or back to OCD's average of \$19.10 in FY22, plugging currently orphaned wells could be closer to \$46 million to \$57 million. The state holds \$5.6 million in financial assurance associated with currently orphaned wells or their operators, meaning most of the funding for plugging the wells is likely to come from federal IJA grants or the reclamation fund. If FY24 plugging rates of approximately 100 wells per year are maintained, it would take OCD seven years to plug its current orphan well population. However, these estimates do not include the added time and cost of site remediation.

Table 7. Orphaned Well Plugging Cost Estimates

Estimate	Per-foot Cost	Oil and Other Wells (in millions)	Gas Wells (9% increase) (in millions)	Total Cost (in millions)
NM FY24 Average	\$43.85	\$118.7	\$12.1	\$130.8
NM FY24 Median	\$40.30	\$109.1	\$11.1	\$120.2
NM FY22 Average	\$19.10	\$51.7	\$5.3	\$57.0
Texas Statewide FY24 Average	\$15.60	\$42.2	\$4.3	\$46.5

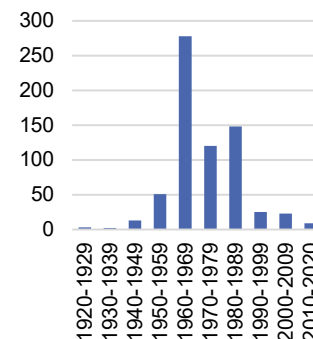
Source: OCD, SHARE, Enverus

In addition to plugging, OCD is currently responsible for remediation and reclamation of roughly 1,200 well sites; the estimated cost is \$48 million to \$100 million. In addition to the 702 unplugged wells, 499 wells plugged by the state between 2013 and 2024 are awaiting environmental remediation and reclamation. OCD records show the division has only remediated and reclaimed five of the wells it has plugged since 2013. That work cost a total of \$205 thousand, including performance bond premiums paid by contractors but reimbursed by OCD. The average per-site cost was approximately \$40 thousand. All those projects were completed in FY24 for wells plugged in FY18. At \$40 thousand per site, remediation of all roughly 1,200 well sites the state currently has authority for would cost an estimated \$48 million. OCD has inspected 121 well sites to date and has estimated the cost of remediation and reclamation for those sites at \$2.8 million, or an average of \$23 thousand per site. However, based on past averages and other studies, that estimate is likely low. The 2021 Vertex Resources study for the State Land Office estimated well site remediation and reclamation at \$83 thousand per-site, on average, which would put the total at \$100 million, not including cleanup of infrastructure associated with the well sites, like tank batteries.

Ridgeway Arizona Settlement Agreement

Among the orphaned wells OCD is currently plugging are a number of wells owned by Ridgeway Arizona Oil Corporation, an active operator. In 2023, OCD reached a settlement agreement with Ridgeway Arizona to plug 299 of the company's wells. Under the terms of the agreement, the state is paying upfront to plug the wells, with Ridgeway Arizona reimbursing the state "at a rate of \$2.00 per gross barrel of oil sold by Operator," with a minimum payment of \$30 thousand per month. According to OCD contracts, the state paid \$1.3 million to plug six of Ridgeway's inactive wells in FY24, for an average cost of \$210 thousand per well. If future costs are similar, the total for the remaining inactive Ridgeway wells could exceed \$60 million. Paying \$30 thousand per month, it would take Ridgeway Arizona 170 years to make the state whole in that scenario.

Chart 8. Orphaned Wells by Year Drilled



Note: Does not include orphaned wells missing a drilling date (30 out of the 700)

Source: OCD

Policy Spotlight: Orphaned Wells

OCD is also responsible for decommissioning, remediation, and reclamation of 18 infrastructure sites; the estimated cost is \$30 million to \$140 million. The infrastructure sites include both tank batteries and a waterflood facility, which are facilities that treat, store, and pump (usually produced) water for injection into oil and gas wells to increase reservoir pressure and boost oil recovery. As noted above, the cost for remediation and reclamation of tank batteries has varied widely in the past. The three already-commenced projects have collectively cost the state \$13.4 million since FY23, and two are ongoing. Two of the tank battery sites listed for future reclamation are considered “highest” priority by OCD, although no public documents indicate how the division arrived at that assessment. OCD has not yet had to reclaim a waterflood facility, and its public database lacks information about the facility, making it difficult to estimate the potential costs associated with its decommissioning and reclamation. Given that the only completed tank battery project cost OCD \$5.2 million and a nearing-completion project has already cost \$7.6 million, a very conservative estimate for the remaining 15 tank batteries would be \$30 million, at \$2 million per site. On the high end, using the \$9.5 million estimate from the Vertex Resources report, the costs could be more than \$140 million.

OCD expects to plug and reclaim most wells on its inactive well list, which would cost close to \$500 million.

OCD rules require it to keep a publicly available “inactive well list” that is updated daily. The list records wells that have reported no production or injection for 15 months, a period encompassing both the 12 months of inactivity that renders a well out of compliance with the Oil and Gas Act and a 90-day grace period for the operator to remedy the problem and report production. Inactive wells become orphaned wells when OCD issues a notice of violation (NOV), and the operator fails to bring its inactive wells into compliance. While virtually all wells on the inactive list are eligible for enforcement action, OCD has historically prioritized issuing NOVs to operators with large numbers of inactive wells. However, the division considers the entire inactive well list likely orphans. In its application for federal IIJA funding, OCD estimated New Mexico has 1,700 orphaned wells, a number encompassing all inactive wells on state and private land, including wells for which OCD has not yet pursued plugging authority.

**Table 8. April 2025
Inactive Well Count by
Surface Owner**

Surface Owner	Inactive Wells
State	749
Private/ Fee	1307
Federal	955
Tribal	336

Source: OCD Inactive well list

Policy Spotlight: Orphaned Wells

Twenty-nine percent of operators are out of compliance with the Oil and Gas Act because they have too many inactive wells. Under administrative code, an operator is allowed to have a certain number of wells that are nonproducing and unplugged for more than a year while remaining in compliance with the Oil and Gas Act, depending on the size of its overall well portfolio. About 60 percent of the 576 oil and gas companies operating in the state have at least one well that has not produced anything in the past 15 months; 29 percent of all operators are out of compliance with the Oil and Gas Act because they hold too many inactive wells. Of those out of compliance, 121 companies have no wells that have produced any oil or gas in the last 15 months; they collectively hold 1,034 inactive, unplugged wells. About 70 percent of those operators could be considered very small, with five wells or less.

Table 9. Years Since Last Production for Inactive Wells

Years since last production	Number of inactive wells
1 to 5	928
6 to 10	283
11 to 20	140
21 to 40	47
More than 40	3

Source: OCD

Table 10. Operators Out of Compliance Due to Inactive Well Counts

Size of Operation	# of inactive wells to be out of compliance	# of operators out of compliance
100 wells or less	Two or fifty percent, whichever is more	139
101 to 500 wells	Six or more	20
501 to 1,000 wells	Eight or more	7
More than 1,000 wells	11 or more	1

Note: As of March 2025.

Source: OCD Inactive Well List

Currently, the state does not have plugging authority for 1,400 wells on state or private land that appear on the inactive well list; they could cost the state \$468 million to plug and reclaim. The inactive well list is updated daily and is not archived, making it difficult to track trends in the data over time, but past presentations and reports from OCD indicate the overall number of inactive wells has been increasing. A 2008 LFC report card for EMNRD indicates roughly 2,000 wells were inactive at the time. In 2021, OCD reported the state had over 3,000 inactive wells, similar to the number of inactive wells on the list when it was exported for analysis in this report in April 2025. Of those, roughly 2,000 are on state and private land and 1,400 are not currently orphaned. Plugging those 1,400 inactive wells would cost \$352 million at the FY24 per-foot average of \$43.85, assuming gas wells cost 9 percent more. However, if gas-well costs follow recent trends, the total would be closer to \$416 million. Site remediation would cost an additional \$116 million based on Vertex's per-site estimate of \$83 thousand. OCD currently holds \$66 million in financial assurance associated with the operators of those wells, although not all of that would likely be available for plugging and reclamation. At the rate OCD plugged orphaned wells in FY24, about 100 wells, it would take the division over 30 years to plug all the wells on the inactive well list. About 14 percent of the remaining wells on the inactive well list have not produced or injected in the last decade.

Table 11. Estimated Costs to Plug Remaining Inactive Wells

(in millions)		
Per- foot Estimate	Total Cost (9% more for gas wells)	Total Cost (101% more for gas wells)
NM FY24 Average (\$43.85)	\$352.5	\$416.4
NM FY24 Median (\$40.30)	\$323.9	\$382.7
NM FY22 Average (\$19.10)	\$153.5	\$181.4
Texas Statewide FY24 Average (\$15.60)	\$125.4	\$148.1

Source: OCD Inactive Well List, SHARE, Enverus

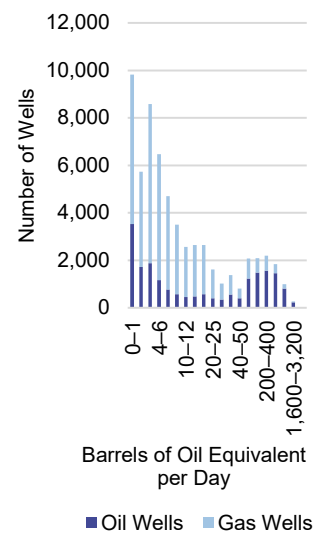
Policy Spotlight: Orphaned Wells

In addition to fully inactive wells, thousands of extremely low-producing wells have minimal revenues and hundreds of millions of dollars in outstanding cleanup liabilities.

New Mexico oil and gas production has climbed precipitously in recent years, driven by a small subset of very high-volume unconventional wells in the Permian Basin. Meanwhile, a growing majority of wells in the state are “stripper” wells, nearing the end of their productive lives. While low-producing wells can generate significant revenues for both operators and the state, wells below certain production thresholds are unlikely to generate sufficient revenues in their remaining lifespan to be able to fund their own plugging and reclamation, putting those wells at greater risk of being orphaned.

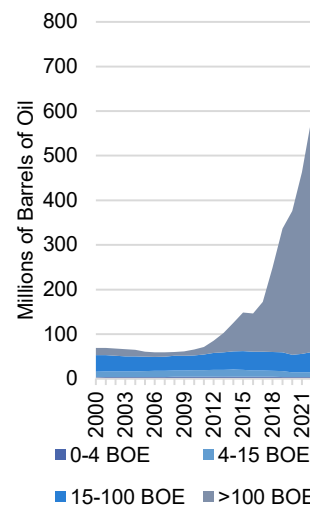
Wells producing extremely low volumes pose a financial risk to the state because they may not generate sufficient revenues to fund their own end-of-life plugging and abandonment. Stripper wells are defined in Section 7-29B-3 NMSA 1978 as an oil well producing less than 10 barrels of oil a day, a gas well that produces less than 60 thousand cubic feet of gas a day or an oil and gas well that produces less than 10 barrels of oil equivalent (BOE) per day. The federal government uses the term to refer to wells that produce less than 15 BOE a day. According to production data from the energy analytics firm Enverus compiled by the federal Energy Information Administration, 64 percent of active wells in New Mexico produced 10 BOE a day or less in 2023. Those 38,817 stripper wells accounted for 1 percent of the state’s oil production and 7 percent of its natural gas production in 2023 and generated roughly \$890 million in revenue based on average commodity prices. However, most of those revenues are attributable to wells producing at the higher end of the range, with just \$48.8 million, or an average of \$5 thousand per well attributable to the 9,824 wells that produced 1 BOE a day or less in 2023. Revenues for those ultra-low producing wells likely vary widely, depending on the oil/gas ratio of the well (oil-heavy wells are more profitable), pipeline availability, and location, among other things. However, even at the high end, those wells are unlikely to be generating sufficient revenues to finance their own end-of-life plugging and abandonment. While companies with diversified well portfolios may be able to fund plugging and abandonment out of revenues from other wells, companies with concentrated portfolios of ultra-low-producing wells may struggle to meet their end-of-life asset retirement obligations.

Chart 9. New Mexico Oil and Gas Wells by Production Volume, 2023



Source: EIA (Enverus)

Chart 10. New Mexico Oil Production by Well Production Volume, 2000-2023



Source: EIA (Enverus)

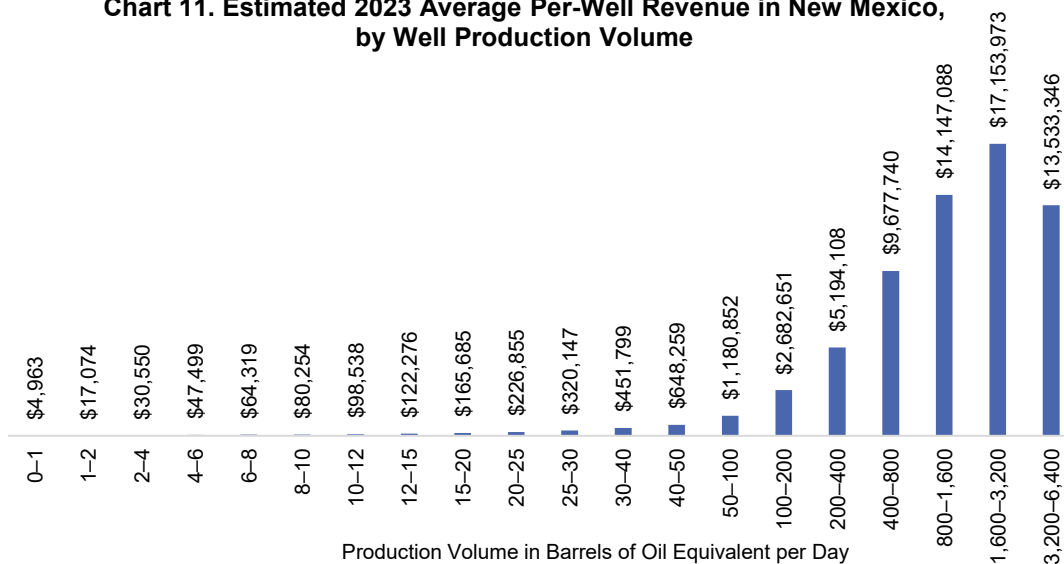
Policy Spotlight: Orphaned Wells

There is no specific threshold at which a well becomes uneconomic, but production of less than 2 BOE a day may be an appropriate threshold for additional regulatory scrutiny.

Determining the specific point when a well becomes uneconomic—i.e., when a well's liability surpasses the value of its potential future production—is challenging for several reasons, but principally because of fluctuating prices for oil and gas. For example, a well producing 2 BOE per day might be profitable at \$100 per barrel but uneconomic at \$50 per barrel. However, as noted previously, in New Mexico, the average well plugged in recent years produced approximately 2 BOE per day in the year prior to abandonment. Because most wells are plugged by the industry, that suggests operators may find it uneconomic to maintain production from wells producing less than 2 BOE a day—roughly 750 BOE a year. In Colorado, wells producing less than two barrels of oil or 10 mcf of gas per day are considered “low-producing” and are subject to additional scrutiny because of their risk of being orphaned. New Mexico should consider adopting a similar standard. In 2023, 15,558 wells produced less than 750 BOE. Of those, 9,016 produced less than 750 BOE a year from 2021 to 2023 and are not currently on the state's orphaned or inactive lists, including 4,969 on state or private land. Given when industry plugs wells and Colorado's regulations, that group of persistently low-producing wells likely represents those most at risk of being orphaned in the future.

In Colorado, wells producing less than two barrels of oil or 10 mcf of gas per day are considered “low-producing” and are subject to additional scrutiny because of their risk of being orphaned.

Chart 11. Estimated 2023 Average Per-Well Revenue in New Mexico, by Well Production Volume



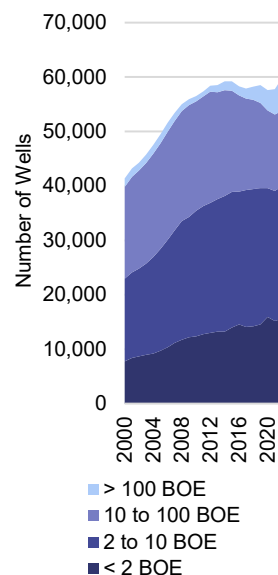
*Note: Estimates are based on EIA's 2023 average WTI price of \$77.58/barrel and Henry Hub spot price of \$2.53/MMBtu. EIA classified wells based on peak production, without accounting for well downtime, so for categories with a small sample size (11 wells produced 3,200 boe +/day), well downtime has a large effect on overall production volumes, and per-well revenue estimates.

Source: LFC analysis of EIA (Enverus) data.

Policy Spotlight: Orphaned Wells

The roughly 3,000 wells on state and private land in New Mexico that have produced less than 1 BOE per day over multiple years are likely at the end of their lives. Wells may temporarily dip into ultra-low production levels for a variety of reasons. However, wells that consistently produce less than 365 barrels of oil equivalent a year (1 BOE a day) are likely at the end of their productive lives, given the average production of wells in the year before they are plugged. More than 5,000 oil and gas wells in New Mexico fall into that category based on annual production data for 2021, 2022, and 2023. (This analysis excludes enhanced oil recovery injection wells and saltwater disposal wells, which also require plugging at the end of their lives.) While some of those wells are currently on the inactive list, a majority are not. Of the wells not on the inactive list, 3,024 are located on state or private land, meaning they could become the responsibility of the state if their operators fail to plug them. Seventy percent of those wells are oil wells while 30 percent are gas wells, and they are of widely varying vintages, with some of the wells drilled more than a century ago, according to OCD records, and others drilled as recently as 2020. Most were drilled between 1950 and 2010. The vast majority of the wells—87 percent—are owned by private companies whose financial health is difficult for regulators to assess. New Mexico should consider updating its definition of “inactive” to include wells producing fractions of a barrel a day for multiple years, to minimize the incentive for operators to delay plugging of wells.

Chart 12. New Mexico Oil and Gas Wells by Production Volume 2000-2023



Source: EIA (Enverus) data

Potential liability for extremely low-producing wells greatly exceeds potential tax contributions. While wells can continue producing in very low quantities for extended periods of time, the financial risk those wells pose to the state far exceeds potential tax revenues. At an 8 percent effective tax rate on oil and gas, the 3,024 wells producing 365 BOE a year would generate a maximum of \$6 million in tax revenue annually with West Texas Intermediate crude oil at \$70 per barrel. The 1,828 wells producing 180 BOE would generate a maximum of \$1.8 million in tax revenue annually under the same scenario. At current state-contracted plugging and reclamation costs, using actual depth and assuming gas wells cost 9 percent more to plug than oil wells, plugging and reclaiming those wells would cost \$531 million to \$885 million.

Table 12. Estimated Plugging Costs for Wells Producing <365 BOE Annually Between 2021 and 2023

	Number of Wells	Estimated Plugging Cost
< 90 BOE	1,135	\$235,000,000
<180 BOE	1,828	\$379,000,000
<365 BOE	3,024	\$634,000,000

*Note: Only currently active wells on state or fee land; categories are inclusive; plugging estimate based on actual depth, \$43.85/foot, and gas wells costing 9% more than oil wells

Source: LFC Analysis of OCD data

Policy Spotlight: Orphaned Wells

Recommendations

The Legislature should consider:

- Amending statute to define “orphaned” and “abandoned” wells, aligning the definitions with their common use in the oil and gas industry and clarifying that “orphaned” wells are oil and gas wells for which the state has pursued and received plugging authority.

The Energy, Minerals and Natural Resources Department should:

- Archive and publish a quarterly inactive well list to enable longitudinal analysis and better cost estimating.
- Create a system that formally reminds operators of stripper wells of state statute and rule requiring them to plug and properly abandon their wells;
- Promulgate rules defining “low-producing” wells (such as wells producing less than 750 BOE annually or ~ 2 BOE per day); and
- Promulgate rules to expand the definition of “inactive well” to include consistently ultra-low producing wells (such as wells that produce less than 180 BOE annually or ~0.5 BOE per day for more than three years).

Reforms That Prioritize Operator-Led Cleanup can Limit the State's Financial Exposure

Requiring financial assurance is currently the state's primary tool to discourage operators from orphaning wells, but in practice, it is insufficient. Even when OCD can successfully forfeit an operator's financial assurance, the amount recovered is typically far below the actual costs of plugging and reclamation. The gap between actual plugging costs and the required financial assurance weakens the incentive for operators to plug their own wells, especially older, low-value wells where cleanup costs are high. As a result, operators are more likely to walk away from those wells, leaving OCD to manage the most complex and least desirable sites. Managing those projects has proven difficult: OCD was not designed to act as a large-scale plugging contractor and has struggled to control costs and ensure consistent quality. To reduce future liabilities and discourage a reliance on state-contracted plugging, the Legislature should consider regulatory mechanisms beyond financial assurance that would better align incentives and keep well closure in the hands of the industry, which is generally better equipped to do the work efficiently and cost-effectively.

OCD struggles to control both the cost and quality of state-contracted plugging.

As noted in earlier in this report, per-foot and per-well costs for state-contracted plugging have increased sharply in recent years. There are a number of possible explanations for that increase. Oil field inflation has increased industry costs across the board. Also, with increased funding, OCD has taken on a backlog of plugging and remediation work that involves more complicated and expensive wells and associated infrastructure. However, OCD's lack of systematic cost-tracking mechanisms and its procurement process have also likely contributed to the rapid increase in New Mexico's per-foot plugging costs, which are higher on average than neighboring states. Since FY19, OCD has managed well plugging and reclamation through four separate statewide price agreements (SPAs), each amended multiple times. Instead of issuing contracts for individual projects, OCD uses SPAs as rate sheets, allowing contractors to bill for work based on pre-approved unit prices. That approach has resulted in limited price competition and inconsistent cost control, with multiple projects requiring change orders exceeding \$1 million. Plugging designs and costs have also varied widely across sites with similar characteristics, suggesting gaps in both quality oversight and financial accountability.

OCD Contracting Procedure for Standard Well Plugging Operation:

1. OCD requests and receives a plugging price estimate from a vendor on the statewide price agreement.
2. OCD issues a purchase order (PO) to the vendor.
3. The vendor designs a plugging plan and wellbore diagram based on available information.
4. The vendor submits a sundry notice to OCD for review and approval.
5. OCD reviews the sundry and may add additional conditions of approval, depending on the well.
6. The vendor plugs the well and submits a plugging and abandonment report for the OCD well file.
7. The vendor invoices OCD with line items for each per-unit charge, by day.

Source: OCD

Policy Spotlight: Orphaned Wells

Records associated with orphaned wells may be missing or incomplete, making it more difficult to anticipate problems that might arise during plugging. Operators are required to file paperwork with OCD about various well operations, including drilling, well completions, and well conversions. Many of those records are digital or have been digitized and are available as PDFs on OCD's website. However, those public well files usually contain far less detail than the files available to operators themselves when they purchase a well. Older wells also often have incomplete OCD well files, resulting in situations where OCD's plugging contractors encounter unanticipated problems as they commence plugging. Those problems can result in orphaned wells being more expensive and dangerous to plug than wells plugged by the industry.

Figure 9: Incomplete Well File

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

DATE 1/31/84

RE: Proposed MC _____
Proposed DHC _____
Proposed NSL _____
Proposed HSP _____
Proposed SMD ✓
Proposed WFX _____
Proposed PHX _____

Gentlemen:

I have examined the application for the:

Alpha Twenty One Prod Co. Buckskin Fed #2-N
Operator Lease and Well No. Unit, S - T - R 18-24-38

and my recommendations are as follows:

SOME OF THE PEA WELLS
TO NOT ISOLATE DISPOSAL ZONE.
THE CASE SHOULD BE SET FOR
HEARING OR DENIED

The OCD file for the Buckskin Federal #002 well contains a document from 1984 indicating OCD had concerns at the time about converting the well to a saltwater disposal well. The file does not contain information about how those concerns were resolved, but it was ultimately converted. Plugging the well cost the state \$5.2 million.

Source: OCD

OCD does not have a comprehensive monitoring system for regularly assessing the relative risk of a well. As a condition of the federal IJA grants, OCD is required to measure the amount of methane a well is emitting pre- and post-plugging, the state's first attempt at monitoring leaks from orphaned wells. While methane is just one type of potential leak, it can indicate larger problems with the well that may not be otherwise easily detectable, making it a powerful diagnostic tool. To date, OCD has sampled 172 wells pre-plugging, most of which have since been plugged. Thirty-eight percent of the wells had no detectable methane leakage, and another 35 percent were leaking in very low quantities. However, 27 percent were leaking more than the IJA reporting threshold of 1 gram per hour. Leaking wells are supposed to be considered the top plugging priority in OCD's prioritization framework, which combines field observations with other

Figure 8. Corroded Production Tubing



When pluggers pulled the production tubing from this well prior to plugging, they found it was full of holes, likely caused by either prolonged contact with saltwater or hydrogen sulfide. Holes can cause the tubing to part or split as it is removed from the hole, which then necessitates expensive fishing operations.

Source: LFC files

Table 13. Pre-Plugging Methane Emissions

Emissions Rate (g/hr)	Count of Wells
0	66
< 1	60
1-100	37
100-1,000	4
1,000 +	5

Source: OCD

Policy Spotlight: Orphaned Wells

data to assign wells a plugging priority (see Appendix E for more on the scoring system). OCD has scored 271 or 39 percent of the 702 currently orphaned wells. Despite measured methane leaks at some of those sites, OCD has not assigned any of the currently orphaned wells to its top priority category. Also, OCD's priority rankings are time-sensitive, meaning low-priority wells may become high priority in the future. Factors like whether a well is inside a municipal boundary and the type of well are unlikely to change over time, but development can encroach on wells, and inactive and unmaintained wells are more likely to develop integrity issues that could lead to leaks or other problems. Roughly 80 percent of the 702 currently orphaned wells have not produced oil or gas in the last five years. Given that OCD has been able to plug roughly 100 wells a year in recent years, the lowest-priority wells on its list may not be plugged for close to a decade. Unmaintained and unplugged wells are more likely to develop integrity issues, which not only can pose an environmental and safety hazard but has the potential to make the wells more expensive and difficult to eventually plug. To reduce the risk of currently low-priority wells becoming safety or environmental emergencies, OCD should develop a system for consistently monitoring orphaned wells awaiting plugging.

Table 14. Statewide Purchase Agreements for Plugging and Reclamation

SPA	Start Date	End Date	Amendments	Spending Authorized Through SPA
60-521-16-05813	12/1/2016	12/1/2020	4	\$4,971,170
10-00000-20-00038	10/1/2020	10/1/2022	2	\$6,707,646
10-52100-21-06041	6/1/2021	6/1/2023	1	\$3,049,040
30-00000-22-00001	2/1/2023	(ongoing)	9	\$48,438,853

Source: LFC Analysis of SHARE data

Frequent changes to the statewide price agreements obscure pricing and make it difficult to pinpoint specific cost drivers. A statewide purchase price agreement (SPA) is a contract with one or more vendors to provide specific goods or services at a predetermined price for a set period. In theory, SPAs can allow the state to leverage its purchase power for discounts on bulk goods or services, but past LFC evaluations have found agencies often use them to make direct purchases that might be provided more economically through separate contracts. However, agencies often favor SPAs because they allow for faster procurement, without the need for individual bids. . OCD has used SPAs, administered for agencies by the State Purchasing Division of the General Services Department (GSD), for all of its plugging and remediation work in recent years, and the division says this allows it to respond quickly to emergency plugging situations. However, the division's use of SPAs reduces pricing transparency and cost control. Because of frequent changes to the invoiceable line items covered by the SPAs, it is extremely difficult to track changes to the costs of goods

Policy Spotlight: Orphaned Wells

and services over time. For example, cement retainers and cast iron bridge plugs—both used to help place cement plugs in the wellbore—have been categorized differently across the last four SPAs. Some agreements list them separately, others group them together, and the latest agreement includes different bid options based on whether they are set via tubing or wireline. However, where comparable, costs for the same goods and services have in many cases doubled or even tripled since FY19. Analyzing a single contractor’s invoices from 2023 shows that prices for identical line items increased by more than 20 percent between March and November of that year, at a time when the producer price index for oilfield services, a measure of inflation, was declining. For example, the cost of a “supervisor/cementer” rose from \$500 per day to \$750 per day, “backhoe services with operator” increased from \$100 per hour to \$150 per hour, and the price for a “wireline unit on location” jumped from \$500 to \$2,000.

Figure 10. Vendor Costs for Specific Line Items within the Statewide Purchase Price Agreement

			(AO)	\$1,730.00
			(AS)	\$5,100.00
61	Each	Wireline set CIBP, 7.625", includes setting tool rental		
			(AB)	\$3,500.00
			(AE)	\$2,850.00
			(AL)	\$5,000.00
			(AO)	\$2,345.00
			(AS)	\$5,600.00
62	Each	Tubing set CIBP, 7.625", includes setting tool rental		
			(AB)	\$3,800.00
			(AE)	\$5,250.00
			(AL)	\$5,000.00
			(AO)	\$1,925.00

Source: GSD

Without internal cost estimates or requirements to select the lowest bid, OCD may be paying more for plugging and reclamation than necessary. In the latest statewide purchase agreement, GSD requested vendor “bids” or rate proposals on 156 items and services related to the plugging, remediation and restoration of orphaned oil and gas wells and facilities. That process is similar to what Colorado requests as part of its “main service agreement” and Texas as part of its “request for qualifications.” The items and services in the SPA range from the per-item cost of sacks of Class B cement to the discount a vendor will offer if it provides items not covered by the SPA. Companies were not required to submit bids on all items, but only on the items and services they intended to provide. A total of 31 vendors were awarded under the agreement, ranging from oilfield service companies to environmental consulting firms. According to the terms of the SPA, awarded vendors effectively form a “pre-approved” vendor list.

OCD is not required to contract for the lowest rate proposed under the agreement but can choose the contractor it believes is best suited to a

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particular job. Texas and Colorado follow similar models, but both states then issue separate, detailed contracts for specific plugging projects. Colorado's contract includes a per-unit, line-item breakdown of the estimated cost. In Texas, the Railroad Commission can negotiate the details of the contract. Before issuing a purchase order, OCD does not negotiate or develop its own internal price estimates for plugging and remediation work but instead relies on the approved vendors to submit estimates. Plugging costs frequently exceed estimates, with 236 recently plugged wells costing \$10.4 million more than originally budgeted. While some of those cost overruns may be unavoidable, requiring more detailed information from contractors upfront and having more structured processes for internally estimating costs could save the state hundreds of thousands of dollars if they help reduce project totals by even a fraction of a percent.

OCD has approved multiple change orders exceeding \$1 million on projects contracted through the statewide purchase price agreement. Change orders are used to adjust the total authorized by a purchase order to accommodate alterations in scope, timeline, or cost. It is considered procurement best practice to limit change orders and for any change order involving significant increases or decreases to include supporting documentation and an estimate of the projected total cost. OCD frequently issues multiple change orders for plugging and reclamation projects, and often the justification for the change order is "additional work was required." In many cases, the division also issues change orders after receiving invoices for total amounts higher than the initial purchase order, which, while not prohibited, is considered a poor procurement practice.

Ballooning Costs as a Result of Plugging Problems

The most expensive well OCD plugged in FY24 was the BRC Madera #001 well (API 30-015-22372), a gas well drilled in 1977. The well is between an RV park and a residential neighborhood on the south side of Carlsbad and prior to plugging was leaking significant quantities of methane. OCD's contractor began plugging the well on August 23, 2023. According to a plugging summary filed with OCD, the contractor encountered a number of issues during plugging, including problems with cementing that resulted in the company having to drill out cement plugs it had previously set before replacing them, extending the time and equipment needed to completely plug the well. While the original cost estimate was \$250 thousand, it ultimately cost \$778 thousand to plug the well.

Table 15. Change Orders for Plugging the Buckskin Federal #002 Well (API: 30-025-27024)

Date	Event	Plugging	Bond Premiums	NM GRT	Total Authorized
7/5/2024	Purchase Order Issued for Plugging 2 Wells (Buckskin #001 and #002)	\$ 372,031.37	\$ 18,601.57	\$ 20,508.23	\$ 411,141.17
Undated	Change Order Issued	\$ 1,183,069.91	\$ (6,267.33)	\$ 61,802.00	\$ 1,649,745.75
1/29/2025	Change Order Issued	\$ 1,157,000.00		\$ 83,159.38	\$ 2,889,905.13
2/21/2025	Change Order Issued	\$ 2,750,000.00		\$ 342,617.63	\$ 5,982,522.76

*Note: The values associated with NM GRT in the latter two change orders do not correspond to a line item in the original purchase order but are assumed to be for NM GRT. The total is listed incorrectly in the 02/21/2025 change order but is correct in the table.

Source: SHARE

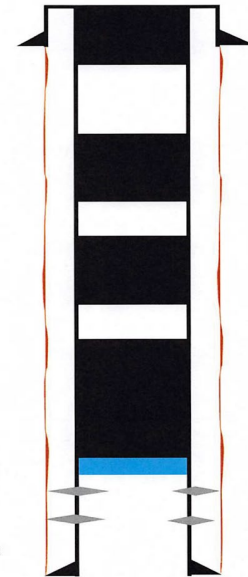
OCD has paid at least \$1.3 million between FY23 and FY25 to reimburse contractors for performance bond premiums but has no guidelines for nonperformance. The purpose of a performance bond is to ensure that only qualified, financially stable contractors take on public projects and that the contractor fulfills the obligations outlined in their contract. The terms of the most recent state purchase price agreement

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governing plugging and reclamation work specify that companies are required to obtain performance bonds covering 50 percent of the project total for any project estimated to cost more than \$25 thousand. The agreement also specifies that the state will pay “the premium cost for the performance bond without markup.” Section 13-4-18 NMSA 1978 requires contractors to provide performance bonding for public works construction contracts valued at \$25 thousand or more. Public works contracts are defined as “a contract for construction, construction management, architectural, landscape architectural, engineering, surveying or interior design services.” While performance bonds can theoretically help insulate the state from liability associated with incomplete or poorly executed work, OCD has no record of ever pulling a contractor’s performance bond and does not specify under what circumstances it would do so in the statewide purchase price agreement. Nevertheless, according to invoices, OCD has paid at least \$1.3 million in bond premiums between FY23 and FY25. Some states do not require performance bonding for plugging and reclamation projects. The Colorado Department of Natural Resources only requires performance bonds for federally funded projects but not state projects; the Texas Railroad Commission’s contract management guide notes that performance bonds are “discouraged unless there is a compelling need or statutory requirement.”

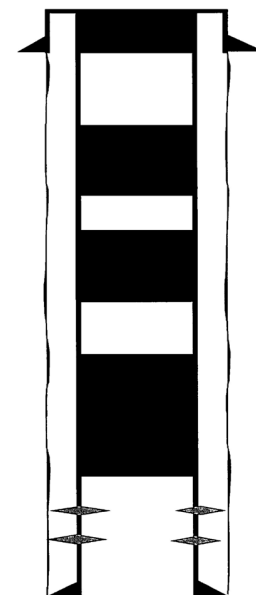
Plugging costs and designs vary widely between sites with similar characteristics, suggesting inadequate quality and financial controls. Examining a set of 12 oil wells plugged between March and November 2023 within a half-mile radius by the same contractor, total plugging costs ranged from \$73 thousand to \$220 thousand (Figure 13). The wells are largely identical in their depth, design and age. For example, the lowest and highest cost wells are 600 feet apart and were drilled in the same year, to the same depth (Table 15). While the final plugging design is also almost identical (Figure 11 and Figure 12), the OCD plugging report for the Barkneht well indicates the contractor had trouble with cementing

Figure 11. Plugged Wellbore Diagram: Barkneht #001
\$219,834



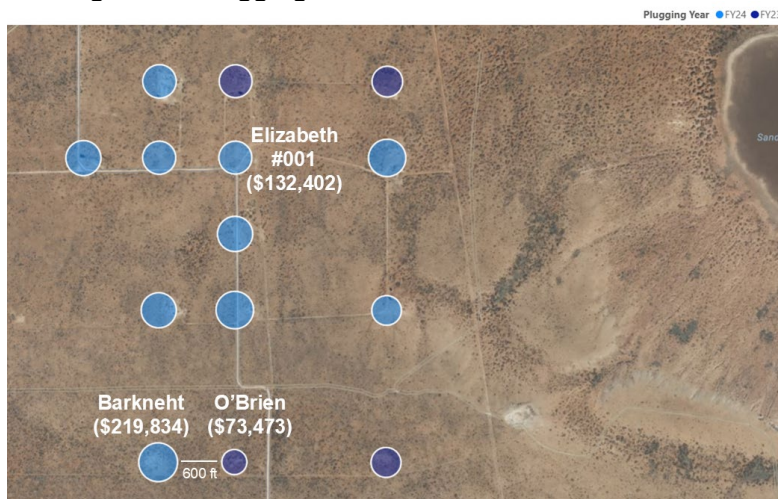
Source: OCD

Figure 12. Plugged Wellbore Diagram: O'Brien Lightcap 7 #001
\$73,473



Source: OCD

Figure 13. Plugging Cost Variation Within an Oil Field



Source: OCD, SHARE

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equipment that resulted in needing to drill out a previously-set plug, and that it had to pump much more cement to cover the same vertical distance because of cement loss to the surrounding rock formation. The contractor ran a cement bond log—a tool used to determine how well cement is bonded to the casing and surrounding formation—prior to plugging the Barkneht well, but not the O'Brien, and used a device called a cement retainer below the first plug on the Barkneht, but not on the O'Brien. OCD attributes the differences in plugging costs and procedures to differences in the conditions encountered downhole, as well as staff turnover. While downhole conditions do vary across wells, differences of the magnitude observed in this small group of wells suggest OCD has inadequate financial and quality controls.

Table 16. Adjacent Well Plugging Comparison

Well Name	O'Brien Lightcap	Barkneht
API	30-005-60815	30-005-60817
Date Drilled	12/2/1980	12/15/1980
Well Depth	2860	2861
Well Type	Oil	Oil
Date Plugged	3/18/2023	10/12/2023
Plugs Placed	4	4
Days to Plug	5	9
Purchase Order Estimated Cost	\$78,974.00	\$150,000.00
Actual Plugging Cost	\$ 73,472.95	\$ 219,834.41

Source: OCD, SHARE

Having a designated agency representative on site for state-contracted plugging, as is done by the industry and other states, could result in significant cost savings and would ensure plugging standards are followed. It is common practice for the industry to have a representative on site during well-plugging operations, often called a “company man.” The representative might either be a direct employee of the company or a contracted third party, but the job is to be an on-site supervisor, sending frequent updates to the operator on actions taken to plug the well, materials used, and any issues that arise. The practice ensures all plugging standards are followed and that billing is accurate. Eight states require a representative of the regulator to be on site for well plugging, including Texas and Colorado, but New Mexico does not. While different states have different reasons for requiring a representative of the regulator on site during plugging operations, the practice has both potential quality and cost-saving benefits. Improperly plugged wells may leak, requiring re-plugging, which is time-consuming and expensive, so it is in the state’s interest to ensure wells are plugged properly the first time. There is also the potential for cost savings from more accurate invoicing. At the anticipated total cost for plugging all wells currently under OCD’s purview, a 1 percent cost savings would translate to \$1.3 million, which would cover the cost of OCD hiring a third-party contractor to be the division’s representative at state-contracted plugging operations.

OCD Plugging Oversight

Although many staff at OCD play some role in the state’s well-plugging efforts, only one person currently provides dedicated oversight of state-contracted plugging. That petroleum engineer in the engineering special projects group reviews contractor-provided plugging plans and diagrams and communicates with the plugging contractors over the phone about problems that arise, as well as any modifications to the plugging plan. However, the engineer is not in the field and must rely on accurate reporting from the contractors. Field oversight is handled by a rotating group of inspectors, who visit plugging sites as their broader duties allow but who are typically not present for any extended period of time at a site. Using IIJA funding, OCD is currently attempting to hire a new staff member whose sole focus would be on-the-ground oversight of plugging operations, but the division has struggled with recruitment and retention (see Appendix F for OCD’s organization structure).

Despite recent increases, financial assurance posted by operators is typically insufficient to cover the costs of plugging and remediating orphaned well sites.

In 2015, the Legislature amended statute to create separate financial assurance requirements for “temporarily abandoned” wells, and in 2018, it increased the maximum amount of financial assurance that can be required for active wells from \$50 thousand to \$250 thousand. The result has been operators posting an additional \$53 million for temporarily abandoned wells and increased overall financial assurance. However, the financial assurance posted by some operators remains as low as \$105 per well, with only one operator in the state having more per-well financial assurance than the current average cost of state-contracted plugging.

Operators have posted a total of \$117 million in financial assurance with OCD, but that translates to less than \$1,000 per well for some operators. OCD records show the division currently holds unreleased financial assurance from 1,580 operators totaling \$117 million. There are currently 576 operators in New Mexico with unplugged wells. Of the financial assurance that has not been released by OCD, \$17 million is associated with operators that OCD records show no longer have any unplugged wells in the state. The largest amount held by OCD for a single operator with active wells is \$1.5 million, or \$20 thousand per well. The median financial assurance held by OCD for an individual operator with active wells is \$75 thousand, or an average of \$7,000 per well. However, some operators have much lower per-well financial assurance; more than three dozen operators have less than \$1,000 per well in posted assurance, and the company with the least has just \$105 per well. Because financial assurance is tied to specific operators, the per-well financial assurance amount is much more significant than the statewide total; OCD can only access funds from the individual operator whose wells it has plugged.

According to OCD records, the state has successfully redeemed a total of \$870 thousand in financial assurances since 2000, which represents just a fraction of the costs of state-contracted well plugging over the same time period. As noted previously, OCD does not have a comprehensive record of the wells it has plugged historically, making it difficult to evaluate how much financial assurance should have been available to OCD for plugging. However, according to OCD records, the state has successfully “redeemed” \$869,863 in financial assurance since 2000 from 15 different operators backed by 10 banks or sureties. OCD has not successfully redeemed any financial assurance since 2018; available data does not indicate whether the division has pursued forfeiture in the interim. Of the financial assurance that has been forfeited since 2000 (the furthest extent of OCD records), roughly a third (\$304 thousand) came from a single operator, Canyon E&P, which orphaned 227 wells in 2015 (see sidebar). There are 34 operators on OCD’s orphaned well list with wells on state or private land that are being or have been plugged by the division.

Canyon E&P: Insufficient and Unforfeited Financial Assurance

Canyon E&P, a foreign limited liability company, purchased many of its 227 wells in 2010 from an operator going through bankruptcy proceedings with the stated intent of using waterflooding to restore production from the wells, which had been depleted of conventional oil resources. However, the waterflooding never commenced and Canyon E&P also went bankrupt.

In 2015, OCD issued the company a notice of violation (NOV), noting that none of the company’s wells had reported production for two years and many of its wells had not produced for much longer, putting the company out of compliance with the Oil and Gas Act. After an administrative law hearing, the OCD director issued an order compelling Canyon E&P to plug the wells within 30 days, or barring that, giving OCD the authority to plug them itself. OCD began plugging the wells shortly thereafter, in the first quarter of fiscal year 2016.

At the time OCD began plugging Canyon E&P’s wells, the state held **\$957 thousand** in financial assurance from the operator. It has successfully forfeited **\$304 thousand**, while **\$644 thousand** is listed as unredeemed, without a release date. While OCD does not have records that would allow for analysis of the total amount spent by the state on plugging Canyon E&P’s wells, since FY18, it has been at least **\$10 million**.

A decade later, the division has fully plugged and remediated 25 of Canyon E&P’s wells, plugged but not remediated an additional 171, and **32 remain unplugged and unremediated**. Those unplugged wells have been sitting idle for at least 11 years, and in some cases as long as 30 years.

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Together, those operators have \$5.8 million in unredeemed financial assurance, but the totals for individual operators vary widely, from \$16 thousand to more than \$1 million. The administrative burden of pursuing small amounts of financial assurance could be seen as outweighing the value, but not pursuing forfeiture may communicate that there are no consequences for orphaning wells.

While statute authorizes OCD to sue operators for indemnification of costs associated with state-contracted plugging, the division has no record of ever having done so. Section 70-14 NMSA 1978 allows OCD to sue operators to recover plugging costs paid out of the reclamation fund. However, there is no record of OCD ever bringing suit against an operator to recover costs incurred by the state through the plugging of its wells. The State Land Office (SLO) brought suit against an operator in 2016 for recovery of damages associated with spills and unpaid fees. In 2020, a judge ruled in SLO's favor and ordered the operator to pay \$2.4 million, with interest. In 2023, the company filed for Chapter 11 bankruptcy and in 2024, for Chapter 7. Despite the judgement, the state has not recovered any money beyond the operator's original financial assurance.

Regulators in other states and countries reduce their liability for plugging and remediating orphaned wells through various mechanisms.

Current financial incentives are poorly aligned to encourage operators to properly plug and abandon their wells because requirements for financial assurance per well are less than the typical plugging cost, and OCD does not consistently seek forfeiture of financial assurance. Regulators in other states and countries have attempted to address that misalignment of incentives through a variety of mechanisms, including increasing financial assurance requirements, assigning liability to prior operators or interest holders, and preventing the transfer of wells to operators that cannot demonstrate they have the financial resources to plug them. More direct approaches include requiring operators to set aside future cleanup money in site- or operator-specific trust or escrow accounts and to plug a certain percentage of their inactive wells regularly. Many of these policy approaches have only been implemented in recent years, making it too early to fully assess their long-term effectiveness, and each comes with tradeoffs in terms of administrative burden, enforceability, and industry impact. EMNRD is currently beginning a rulemaking process based on a third-party petition that would make changes to the financial assurance requirements, among other things. While many of the changes align with the recommendations of this report, they are constrained by the current statutory framework and, as a result, have the potential to simply replicate its existing problems. In New Mexico, the goal should be to structure policies that motivate operators to plug wells before they become OCD's responsibility, leveraging the industry's capacity to do the work faster and likely at a lower cost.

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Table 17. Policy Options for Reducing Orphan Well Liability

Policy	Description	Arguments For	Arguments Against	Implementing Jurisdictions
Increased financial assurance	Increase required financial assurance amounts to reflect actual plugging costs, including requiring single well financial assurance for inactive and low producing wells.	Increases the money available to the state for orphaned well plugging; matches an operator or well's risk profile to its required financial assurance.	Bonds or letters of credit can be difficult to obtain and cost operators money that goes towards neither production nor plugging; it can be difficult for the state to forfeit surety bonds.	Colorado Proposed NM rules
Trailing liability	The regulator can hold prior operators, lease holders, or working interest owners responsible for well plugging and remediation if the current operator is unable to pay.	Allows the state to hold operators that profited from the well responsible for cleanup; encourages self-policing among operators and may minimize the transfer of wells to risky operators.	Trailing liability can be difficult to enforce and can result in costly legal battles.	California Louisiana Department of the Interior
Licensing	The regulator can assess various aspects of a company (past compliance, financial standing, plugging liability, well portfolio, etc.) to determine if a company should operate in the state and/or if it can buy wells from other operators.	Prevents operators that do not have the capital to plug wells, have many inactive wells, or are facing large plugging liabilities from obtaining more wells that could become the responsibility of the state.	Depending on the level of detail requested from operators, the administrative burden could be significant.	Alberta <Canada> Texas
Site- or operator-specific trusts	Operators are required to pay into a trust or escrow account up to a site- or operator-specific estimated cleanup cost. The payments can be structured to build over time at defined rates or be tethered to production, so those profiting the most pay the most.	Ensures the state has enough money to plug and remediate wells should they be orphaned and puts all the money spent by the operators on FA towards cleanup. Disincentivizes orphaning because liability is effectively pre-paid.	Between estimating the necessary assurance and tracking many hundreds or thousands of accounts, the administrative burden could be significant. This option also ties up operator capital.	Louisiana Colorado

Source: LFC files

In 2022, Colorado adopted new rules requiring additional financial assurance with the goal of aligning an operator's risk profile with its required financial assurance. In 2019, the Colorado General Assembly passed Senate Bill 19-181, which restructured the Oil and Gas Conservation Commission into the Energy and Carbon Management Commission (ECMC) and directed it to adopt rules ensuring every operator is financially capable of meeting statutory obligations, including plugging, remediation, and reclamation (C.R.S. § 34-60-106(13)). The resulting rules, which went into effect in 2022, require all operators to submit a financial assurance plan, reviewed annually by ECMC. In its rulemaking, the commission determined lower production is a proxy for higher orphaning risk, and as a result, the required financial assurance plans are tethered to an operator's average annual production and its corporate structure (e.g., public or private). Operators with lower average production are assigned to plans that require greater financial assurance. Operators on those plans must also make defined annual contributions to a third-party trust fund until their full financial assurance obligation is met. Operators receive credit toward their financial assurance requirements for wells they plug and abandon. As of June 2024, more than one-third of operators had not submitted a financial assurance plan, and another 10 percent had submitted plans that were deemed insufficient. The rules have also been criticized for offering too many compliance pathways, increasing ECMC's administrative burden and potentially creating loopholes. However, it remains to be seen whether they

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ultimately achieve the goal of reducing the number of orphaned wells in the state.

Similar to Colorado, proposed New Mexico rules would require operators to submit a plugging and abandonment plan prior to purchasing wells and for OCD to collect more financial assurance from operators with lower production. The rulemaking proposal, case number 24683 submitted by the Western Environmental Law Center, would make changes to OCD's current rules regarding inactive wells, financial assurance and well plugging. Among the suggestions are requiring operators to submit plugging plans when wells are transferred that demonstrate the purchaser has sufficient resources to plug the wells it is purchasing, requiring single well financial assurance for wells that produce less than 1,000 BOE annually and for less than 180 days, and requiring operators with well portfolios composed of more than 15 percent inactive or low-producing wells to provide single-well financial assurance for all of their wells. The proposal also recommends treating wells that produce less than 90 barrels and for less than 90 days in a year as presumptively of "no beneficial use," meaning they would need to be plugged. This report recommends defining "low-producing" wells and requiring additional financial assurances for them. It further recommends expanding the definition of "inactive" wells to include wells that produce fractions of a barrel of oil equivalent a day. This report also suggests additional mechanisms be made available to fulfill financial assurance requirements that would allow operators to set aside money over time for plugging and reclamation costs. Careful consideration should be afforded in the rulemaking process to ensuring the changes do not result in operators orphaning additional wells.

California uses trailing liability to hold previous operators responsible for properly plugging and abandoning wells if the current operator does not meet its obligations. Since 1996, California administrative code (Cal. PRC. Section 3237) has stated that the current operator of a deserted well is responsible for properly plugging wells and decommissioning production facilities. However, if the regulator determines the current operator does not have the financial resources to fully cover the cost of plugging and cleanup, the immediately preceding operator is responsible for the cost. The regulator can continue to look to previous operators until an operator is found that is determined to have the resources to plug and abandon the well. That includes mineral interest owners that may have leased the working interest in a well to another person. Known as "trailing liability," the rule is meant to disincentivize operators from transferring wells to companies they believe will not have the capital to properly plug and abandon the well, therefore keeping it from being orphaned to the state. The federal Department of the Interior has also had regulations that create trailing liability for offshore oil and gas platform decommissioning since the 1950s. However, it has never used those rules to pursue a prior operator in part because complex corporate structures can limit the ability of regulators to pursue compensation using trailing liability.

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While OCD is limited in its ability to hold previous operators responsible for well plugging and reclamation, the State Land Office (SLO) can hold lessees responsible for the cleanup of well sites on state land if the operator cannot afford or refuses to do it themselves.

On New Mexico state trust lands, the lessee and the operator of a well are often not the same because the entity that holds the lease from SLO may assign operational responsibilities to another company. In March 2020, SLO created an accountability and enforcement program focused on ensuring leaseholders comply with the terms of their lease agreements, including proper plugging and reclamation. SLO staff began tracking inactive wells and reaching out to lessees to plug and remediate those sites. In several cases, SLO has sued to compel lessees, and a recent New Mexico Court of Appeals decision concluded prior oil and gas lessees can be held responsible for cleanup necessitated by their activities on state trust lands. According to the agency, the program has resulted in the industry plugging 650 wells that may otherwise have been orphaned. At the current per-well average of \$163 thousand, that translates to nearly \$106 million in potential cost savings for plugging alone. SLO also claims increased enforcement has led to operators and lessees doing a better job of tracking and managing their inactive and marginal wells before the agency gets involved, but it is difficult to validate those claims. OCD records indicate a similar number of wells have been plugged annually in recent years as have been plugged historically, but it is possible those wells would not have been plugged otherwise.

The Alberta (Canada) Energy Regulator can deny the transfer of wells to operators that cannot afford to plug them. The Alberta Energy Regulator (AER) oversees all oil and gas production in Alberta, including licensing of oil and gas operators in the province. AER conducts an annual licensee assessment with the goal of understanding the ability of licensees to meet their regulatory obligations, including plugging and abandoning their wells. Factors considered in determining whether the applicant poses an unreasonable risk and should be denied a license include the compliance history of all actors within the applicant's company (including its directors, officers, and shareholders in the province and elsewhere), compliance history of actors previously associated with the applicant, financial health of the applicant and associated entities, outstanding debts to AER or others, cancellation or reductions in insurance coverage, and any unspecified factor AER considers appropriate in the circumstances. This process applies to the company's initial license to operate as well as whether it is allowed to purchase additional wells from other operators. Texas similarly requires operator assessments, though the information required is far less comprehensive than the financial and operational assessments used in Alberta. If OCD were able to review and deny or approve well transfers from one operator to another based on both companies' compliance history and available capital, the division could potentially prevent the transfer of wells to companies that do not have the financial resources to properly plug and abandon wells, therefore reducing the likelihood of orphaning.

Alberta Licensee Capability Assessment Considerations

- Financial health;
- Estimated total magnitude of liability (active and inactive), including plugging, remediation, and reclamation;
- Remaining lifespan of mineral resources and infrastructure and the extent to which existing operations fund current and future liabilities;
- Management and maintenance of regulated infrastructure and sites, including compliance with operational requirements;
- Rate of closure activities and spending and pace of inactive liability growth; and
- Compliance with administrative regulatory requirements, including the management of debts, fees, and levies.

Source: Alberta Energy Regulator

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A site-specific trust account, like those offered in Louisiana and required for certain operators in Colorado, can be used as a supplement or alternative to the current financial assurance system.

Bonds, particularly surety bonds, have long been the primary regulatory mechanism for ensuring proper plugging and abandonment of wells. However, changes to the surety bond market have made those more difficult for some operators to obtain. As a result, regulators in some states have created a mechanism for companies to set aside money directly for cleanup through site-specific trusts or escrow accounts, up to an estimated maximum. In Louisiana, operators have the option of fulfilling their financial assurance requirements through a site-specific trust when they transfer a well to another operator. Typically, an operator will do that to avoid being held liable for plugging and remediation costs if the new operator fails to pay (because Louisiana also has trailing liability). The amount required for Louisiana's site-specific trust accounts is determined through an estimate of actual plugging costs, which must be updated when the well is transferred. A 2024 legislative program evaluation recommended Louisiana encourage the use of site-specific trusts by requiring them when new wells are permitted. In Colorado, certain low-producing operators are required to contribute to a sinking fund or third-party trust at a specified rate annually. Those funds are not tied to individual wells but to the operator itself to minimize the administrative burden on regulatory staff. Other models for escrow or trust accounts include tethering contributions to the account to production, with different tiers for the stage of a well's life. Those can be structured to ensure the operator who profits from the most from the well also pay towards the liability, or to require accelerated contributions later in a well's life. One advantage of trusts over sureties is that all the money paid into the account ultimately goes toward plugging and reclamation, not to a bank or insurance company through premiums. If structured properly, the trusts also ensure the state has sufficient financial assurance to cover the costs of plugging and remediating the site should it be orphaned.

Recommendations

The Legislature should consider:

- Amending statute to require the Oil Conservation Division of the Energy, Minerals and Natural Resources Department to annually provide a report to the Legislature detailing all costs associated with state-contracted plugging and remediation, not only costs associated with use of the reclamation fund, including information about average cost-per-foot for plugging and cost-per-acre for remediation;
- Amending Section 70-2-14 NMSA 1978 to specify that wells producing below certain thresholds set in rule require additional financial assurance;
- Amending Section 70-2-14 NMSA 1978 to allow an operator to meet its financial assurance obligations by fully funding a third-

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party trust or escrow up to OCD's site- or operator-specific estimated plugging and remediation costs; and

- Amending statute to grant the Oil Conservation Division the authority to review and disallow the transfer of wells should the division determine, through processes outlined in rule, that the purchaser is unlikely to be able to fulfill its asset retirement obligations.

The Energy, Minerals and Natural Resources Department should:

- Promulgate rules specifying that low-producing wells require individual well financial assurance, posted within two months of notice, and clarifying that the transfer is contingent on regulatory approval;
- Publish a list of orphaned wells monthly, including both wells the state has already plugged and those it is planning to plug, including the costs associated with plugging and reclamation, to ensure transparent tracking of state expenditures on orphaned wells;
- Develop internal estimates for the cost of plugging and reclaiming individual wells and associated infrastructure;
- Develop individual contracts for plugging projects, in addition to the statewide purchase price agreement, that specify the scope of work, the estimated cost, the procedures for obtaining a change order and the circumstances under which OCD will pull a contractor's performance bond;
- Reopen its statewide purchase agreement for plugging and remediation work to solicit additional bids from plugging contractors by September 2025;
- Ensure the presence of a "company man" for all state-contracted well plugging who is responsible for filing daily reports on the activities undertaken by the contractor, the materials used, and the estimated plugging cost;
- Develop a risk-based monitoring system to track leaks from wells awaiting plugging, as well as plugged and abandoned wells, and provide annual reports on the number of previously plugged wells that are leaking, what they are leaking, and how much; and
- Complete the prioritization scoring of all currently orphaned wells and complete assessments for new orphaned wells within 90 days of the state assuming plugging authority.

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Appendix A. EMNRD Report Card Updates on Orphaned Well Plugging

Fiscal Year	LFC/OCD Comments
2007	"The program area managed 12 site remediation projects in FY07 costing approximately \$3 million and exhausting reclamation funds available for this purpose. It should be noted that some of these projects, while expensive, were determined to be critical to reclamation efforts."
2012	"In FY12, the OCD spent only \$3 million, or 30 percent, of the oil and gas reclamation fund to plug wells and to conduct site assessments, monitoring and maintenance activities. The agency reports no wells were plugged for the first quarter of FY13 because a vendor on price agreement went out of business and the price agreement expired."
2013	"Well plugging activity increased in FY13, with a cumulative, annual total of 57 wells plugged, decreasing the number of outstanding wells to be plugged by almost 50 percent. Additionally, the program generated \$100 thousand in revenue for the oil and gas reclamation fund from the sale of salvage equipment at the plugging sites."
2014	"The program is currently working with a group of contractors to properly plug a significant number of wells resulting from the business failure of the former Xeric Oil and Gas Corp. There are 45 such wells located southwest of Hobbs, ten of which were plugged in the first quarter of FY14."
2015	"The program is currently working with a group of contractors to properly plug a significant number of wells resulting from the business failure of the former Xeric Oil and Gas Corp. The hearing process for two sets of wells was completed and the wells are now approved for plugging. The division has five plugging contractors under contract. All five are currently doing work for other clients and will begin plugging wells for the Oil Conservation Division as soon as possible."
2016	"The agency is on track to meet the annual target for plugging abandoned oil and gas wells. However, agency and LFC projections show a rapidly decreasing oil reclamation fund balance through FY17 due to a long list of wells authorized for plugging – which is expected to grow in the near future due to oil producer bankruptcies – and increased use of the fund to support agency operations. At the same time the fund is being tapped at a higher rate, revenues are projected to decline as the oil and gas industry weathers the downturn. As of May 2016, the cash balance of the oil reclamation fund is \$9.3 million, but agency staff reports an unobligated balance of only \$395 thousand and projects a reduction in fund revenues. The average cost of plugging a well is \$30 thousand to \$40 thousand."
2017	"OCD had been waiting on General Services Department approval of a new four year plugging contract, which stopped activity in the second quarter. However, 10 wells were plugged in the third quarter and improved weather conditions should allow the agency to meet the annual target of 30 wells plugged."
2018	Q1: "No wells were plugged in the first quarter, which the OCD attributes to wet weather in the southeast which limited access to well locations. OCDs performance on this measure will also likely be hindered by funding; the oil reclamation fund, which is used to pay for plugging activities, will likely be exhausted by the close of FY20." Q2: "OCD plugged 12 wells in the second quarter and is on pace to meet the target. Performance on this measure may improve as a result of the Legislature increasing general fund appropriations for EMNRD by \$3 million to offset use of the reclamation fund. EMNRD anticipates plugging 60 wells in calendar year 2018. The State Land Office estimates there are 600 unplugged, abandoned wells on state trust lands."
2019	"Despite plugging 41 abandoned oil and gas wells in FY18, the agency requested a target of only 27 in FY19, which it met. OCD reports that 208 abandoned or orphaned wells are currently approved for plugging."
2021	Q1: "Due mainly to timing conflicts with OCD's well-plugging contractor, the target for wells plugged was not met in FY20." Q4: "OCD had a new procurement agreement for FY21 that allowed for additional approved well-plugging contractors, which substantially increased the number of wells plugged in FY21 relative to the past three fiscal years. The division was just one well short of meeting its annual target."

Policy Spotlight: Orphaned Wells

Comments Continued

2022	Q2: "Orphan well-plugging was slow in the first two quarters of FY22 and OCD is unlikely to meet its annual target. Program staff report the recent well sites have been in worse than usual condition with defective casing and casing collapses causing additional rig time and cementing to properly remediate the wells. The increased time and materials required, plus the effects of inflation, have significantly increased cost of well-plugging to roughly \$70.5 thousand per well." Q3: "OCD has recently been focusing its well-plugging efforts on a large oil field containing old, poorly maintained orphan well sites that require additional time and resources to remediate. Furthermore, program staff report low availability of equipment and crews has also contributed to the slow pace of well-plugging. Wells such as these with defective casing and casing collapses are more expensive and take longer to complete, but pose the greatest risk to groundwater. OCD has spent just over \$1 million on plugging costs for 16 wells so far in FY22." Q4: OCD has recently been focusing its well-plugging efforts on a large oil field containing old, poorly maintained orphan well sites that require additional time and resources to remediate. Since 2015, OCD has plugged 234 wells on state and private land. In FY22 OCD has spent \$1.6 million in recurring funds, and \$1.8 in other state funds on well plugging. OCD secured the services of four rigs and intends to plug more wells using monies from the reclamation fund and a sizeable grant from the federal government. Plugging cost per well have doubled from FY21 to FY22."
2023	"OCD received a \$25 million initial federal grant to fund plugging and remediation at 200 well sites over 24 months under the federal Infrastructure Investment and Jobs Act's Orphan Well Program. ENMRD's 2022 annual report estimated more than 1,700 abandoned wells are located on state-owned or private land. The division expects to receive an additional \$75 million over the next four years for expenditure through 2030. As required by the grant, the division successfully obligated 90 percent of the initial funding to 145 plugging projects. The Division anticipates plugging the remaining balance of those initial grant funds by September 2023. However, the "wells properly plugged" metric counts only completed plugging projects. The division currently has three contract plugging crews working concurrently and correctly predicted a significant increase in well-plugging activity between the second and third quarters once it completed steps to ramp up the program. OCD has set an internal target of plugging approximately 200 wells by October 2023, well above its target of 50 for the year; however, crew availability remains a challenge."
2024	"Ten wells were plugged during the fourth quarter of FY24, bringing the total for the fiscal year to 105. Five plugging rigs were contracted and are working simultaneously. Plugging activity increased due to funding from the federal Infrastructure Investment and Jobs Act and continued state support from the oil reclamation fund. With still over 2,000 orphaned wells identified in New Mexico, the agency's ability to complete these plugging projects at an increased pace will be critical to protecting public health and safety."
2025	"Nine abandoned and orphaned wells were plugged during the first quarter of FY25. The lower-than-average number was due to new requirements for pre-clearance of well site regarding compliance with the Endangered Species Act and the National Historic Preservation Act. Once new clearance requirements are finalized, well plugging will return to a more consistent rate. The division also, per the request of the Federal Indian Minerals office, has begun plugging on Navajo-allotted land. With still over 2,000 orphaned wells identified in New Mexico, the agency's ability to complete these plugging projects at an increased pace will be critical to protecting public health and safety."

Source: LFC

Appendix B. Other State Financial Assurance Amounts

While most states require oil and gas operators to provide upfront financial assurance for well plugging, the amounts and variables considered vary widely. In 2023, the Ground Water Protection Council published a summary report featuring different states' approaches to financial assurance for oil and gas well plugging and remediation. Among the states, Alaska has the highest blanket or all-well bond maximum at \$30 million, while Pennsylvania has the lowest blanket bond at \$25 thousand for all wells. New Mexico is one of four states where the maximum blanket bond is capped at \$250,000 in statute. Eleven states consider the depth of the proposed well in the amount of financial assurance required, increasing the amount as the well depth increases. However, many of these states, including New Mexico, only consider well depth in the financial assurance amount required for a single well while the blanket bonds for more than one well do not consider depth. Only four states vary their blanket bond amounts depending on the depth of the well: for example, in Kansas there are blanket bond amounts for all wells less than 2,000 feet in depth and higher blanket amounts for wells more than 2,000 feet in depth. Additionally, some states consider factors like location of the well, mineral type, and status of the well.

Financial Assurance Amounts in Select States

State	Minimum	Maximum	Do amounts consider well depth?
Alaska	\$400,000	\$30,000,000	No
Colorado	\$12,000	\$6,000,000	No
New York	\$2,500	\$2,000,000	Yes*
Louisiana	\$6,000	\$500,000	Yes
New Mexico	\$25,000	\$250,000	Yes
Texas	\$25,000	\$250,000	Yes
Michigan	\$20,000	\$250,000	Yes*
West Virginia	\$5,000	\$250,000	No
Utah	\$1,500	\$120,000	Yes*
South Dakota	\$50,000	\$100,000	No
Mississippi	\$20,000	\$100,000	Yes
Nebraska	\$10,000	\$100,000	No
Alabama	\$5,000	\$100,000	Yes
Arkansas	\$3,000	\$100,000	No
Illinois	\$1,500	\$100,000	Yes
Montana	\$1,500	\$50,000	Yes
Kansas	\$7,500	\$45,000	Yes*
Indiana	\$2,500	\$45,000	No
Pennsylvania	\$2,500	\$25,000	No

Note: New York, Michigan, Utah, and Kansas regulate blanket bond amounts based on the depth of the wells while the other only consider depth in the amount for a single well.

Source: Ground Water Protection Council

Appendix C. History of the Oil and Gas Conservation Tax and the Oil and Gas Reclamation Fund

- Laws 1959, Chapter 53, Section 7: Oil conservation tax created at a rate of 0.14 percent on oil and gas products severed and sold. The revenue went to the oil conservation fund, which was used by the Oil Conservation Commission (OCC) to enforce the Oil and Gas Act (as is currently the function of OCD).
- Laws 1975, Chapter 289, Section 15: The oil conservation tax rate was increased to .18 percent.
- Laws 1977, Chapter 237, Section 5 and 6; Chapter 234, Section 4: The Legislature amended statute so most of the conservation tax revenue still went to the conservation fund, but 0.01 percent was deposited in the newly created oil and gas reclamation fund specifically for the OCC to plug and remediate abandoned well sites. The laws also tied the conservation tax rate to the balance in the reclamation fund; being 0.19 percent when the fund balance was under \$1 million, and 0.18 percent when the balance was over \$1 million.
- Laws 1989, Chapter 130, Sections 1 and 6: The Legislature changed the allocation of the conservation tax, increasing the share directed to the reclamation fund to 5.3 percent, with 87.7 percent going to the conservation fund, and 7 percent to the general fund.
- Laws 1991, Chapter 9, Section 16: The Legislature repealed the conservation fund, instead sending all conservation tax not sent to the reclamation fund to the general fund; the percent directed to the reclamation fund remained the same, at 5.3 percent.
- Laws 2010, Chapter 98, Sections 1 and 2: The Legislature untethered the conservation tax rate from the balance of the reclamation fund and instead tied it to the price of oil. When the price of West Texas Intermediate is less than \$70 per barrel, the tax is 0.19 percent and the reclamation fund receives 10.5 percent of the tax revenue and the remainder goes to the general fund. When the price is over \$70 per barrel, the tax is 0.24 percent and the reclamation fund receives 19.7 percent of the revenue.

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Appendix D. Texas Plugging Costs

District	Calculated average per-foot cost															
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	
01	\$3.95	\$3.03	\$5.98	\$10.47	\$8.52	\$6.85	\$6.65	\$7.68	\$8.21	\$7.88	\$11.14	\$12.31	\$11.53	\$9.49	\$11.15	
02	\$3.96	\$4.84	\$4.84 ⁽²⁾	\$14.27	\$10.74	\$10.74 ⁽⁴⁾	\$8.36	\$8.36 ⁽⁵⁾	\$8.30	\$8.81	\$15.70	\$13.57	\$7.97	\$8.48	\$11.77	
03	\$8.36	\$6.07	\$8.73	\$12.13	\$8.71	\$10.59	\$10.96	\$5.22	\$6.04	\$7.51	\$13.93	\$15.58	\$10.40	\$30.19	\$21.60	
04	\$4.31	\$5.60	\$7.72	\$13.96	\$15.77	\$6.49	\$6.38	\$7.56	\$9.42	\$9.35	\$8.32	\$8.16	\$8.66	\$10.35	\$16.37	
05	\$3.87	\$4.35	\$6.10	\$7.85	\$14.45	\$10.96	\$7.45	\$5.28	\$5.02	\$31.73	\$6.40	\$8.29	\$6.62	\$10.20	\$9.92	
06	\$8.99	\$7.64	\$6.42	\$4.90	\$5.94	\$5.94 ⁽⁴⁾	\$8.30	\$11.00	\$6.84	\$7.69	\$7.93	\$6.49	\$8.81	\$15.75	\$15.05	
6E	\$3.74	\$5.63	\$5.63 ⁽²⁾	\$8.45	\$7.16	\$6.25	\$6.11	\$5.96	\$6.40	\$7.63	\$6.79	\$7.54	\$8.34	\$12.46	\$11.90	
7B	\$3.90	\$5.70	\$5.39	\$6.48	\$6.76	\$7.77	\$5.93	\$6.23	\$6.23	\$7.19	\$11.27	\$7.42	\$10.09	\$9.57	\$10.62	
7C	\$7.34	\$12.93	\$10.56	\$6.29	\$4.52	\$10.26	\$7.53	\$7.85	\$7.21	\$8.09	\$9.63	\$9.30	\$6.43	\$11.14	\$10.95	
08	\$8.56	\$6.52	\$12.31	\$12.68	\$17.37	\$6.80	\$11.57	\$14.15	\$13.28	\$10.29	\$17.88	\$17.23	\$27.38	\$30.75	\$46.48	
8A	\$4.28	\$4.28 ⁽¹⁾	\$4.28 ⁽²⁾	\$4.28 ⁽³⁾	\$9.02	\$9.02 ⁽⁴⁾	\$6.54	\$6.54 ⁽⁵⁾	\$6.54 ⁽⁶⁾	\$10.62	\$12.16	\$17.54	\$12.74	\$17.09	\$14.27	
09	\$2.60	\$2.73	\$3.38	\$3.96	\$4.21	\$4.92	\$2.88	\$2.97	\$3.04	\$4.27	\$4.37	\$4.46	\$4.61	\$6.39	\$5.96	
10	\$6.25	\$5.85	\$5.63	\$14.50	\$7.48	\$17.17	\$9.05	\$6.85	\$5.44	\$8.13	\$9.69	\$10.94	\$9.81	\$16.45	\$16.39	

Notes: Cost is calculated based on actual costs incurred by the Railroad Commission for plugging wells in the previous fiscal year.

- (1) No State Funded plugging operations were completed in District 8A during FY 2011. The per-foot cost from FY 2010 was continued.
- (2) No State Funded plugging operations were completed in Districts 02, 6E or 8A during FY 2012. The per-foot cost from FY 2011 was continued.
- (3) No State Funded plugging operations were completed in Districts 8A during FY 2013. The per-foot cost from FY 2012 was continued.
- (4) No State Funded plugging operations were completed in Districts 02, 06, and 8A during FY 2015. The per-foot cost from FY 2014 was continued.
- (5) No State Funded plugging operations were completed in Districts 02 and 8A during FY 2017. The per-foot cost from FY 2016 was continued.
- (6) No State Funded plugging operations were completed in Districts 8A during FY 2018. The per-foot cost from FY 2017 was continued.

Appendix E. OCD Well Plugging Prioritization System

Each well is scored on 21 different criteria, with different weights assigned to each criterion. Wells that are actively leaking are automatically deemed highest priority, but other criteria that may boost a well's overall score include if it is within 300 feet of an occupied structure, if it is within a municipal boundary, if the well is a saltwater disposal well, if it has known defective casing, and if it has no well head control. After wells that are actively leaking, wells with a score over 100 are considered the second-highest priority, scores of 50-100 are third, and wells with a score lower than 50 are the last priority to plug.

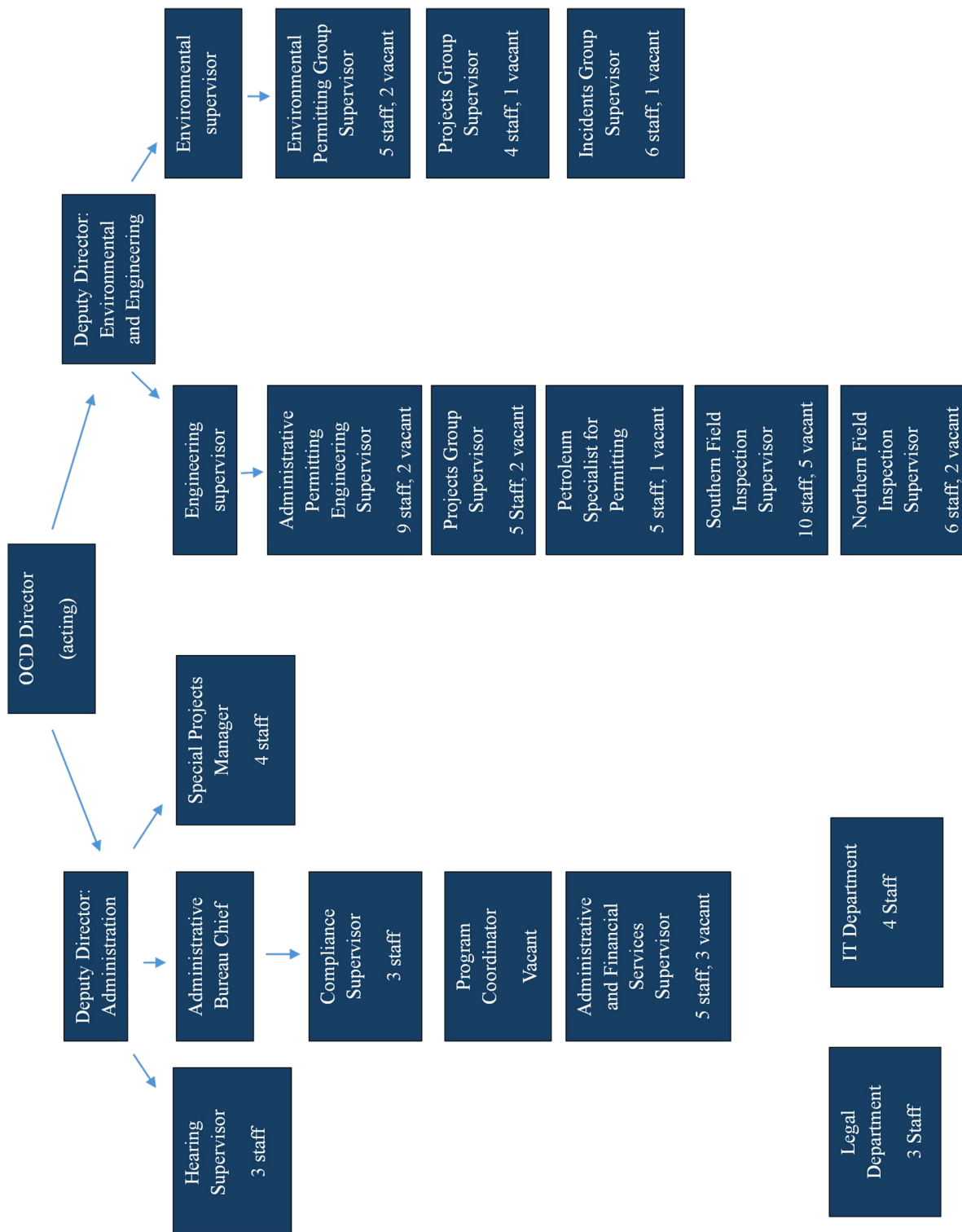
OCD Plugging Prioritization Ranking Criteria

Factor	Maximum Weight	Weighting Criteria
Active leaks	Highest priority	
Within 300 ft of an occupied structure	10	Yes/No
Within a municipal boundary	10	Yes/No
Disposal well?	10	Yes/No
Mechanical integrity testing history/ known defective casing	10	Yes/ No; unrepaired failure
No Wellhead control	10	Well with gas or casing above 12" =10, well without gas =7
No surface casing or water protection casing	9	Yes/No
Well has abnormally high pressure	8	Yes/No
Located within an agricultural area	8	Yes/No
Age of well >25 years	7	Yes/No
Bradenhead pressure >10	7	Yes/No
Date of las production or injection >10	7	Yes/No
Within one mile of other orphan wells needing plugging	6	Yes/No
Within 200 ft of a water supply well	5	Yes/No
Proximity to karst geology	5	High karst =5, medium karst =3, low karst =0
Hydrogen sulfide	5	Yes/No
Naturally occurring radioactive material	5	Yes/No
Citizen complaints	5	Yes/No
Areas within ½ mile of injection/disposal	4	Yes/No
Private surface	3	Yes/No
Other	10	TBD, level dependent on issue discovered.

Source: OCD

Policy Spotlight: Orphaned Wells

Appendix F. OCD Organizational Structure



Source: OCD

Note: As of March 2025

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

**IN THE MATTER OF PROPOSED
AMENDMENTS TO 19.15.2, 19.15.5,
19.15.8, 19.15.9, AND 19.15.25 NMAC**

CASE NO. 24683

VERIFICATION OF SONYA MARES

My name is Sonya Mares. I am a legal assistant employed by Hinkle Shanor LLP. I am over the age of eighteen (18) and am otherwise competent to testify.

1. I obtained the June 24, 2025 testimony of Deputy Secretary Ben Shelton and others before the Legislative Finance Committee in Taos, New Mexico, during the Legislative Finance Committee program evaluation, "Policy Spotlight: Orphaned Wells", via recording downloaded from nmlegis.gov Webcast, available at <https://sg001-harmony.sliq.net/00293/Harmony/en/PowerBrowser/PowerBrowserV2/20250624/-1/77293>.

2. After receiving the recording of the Legislative Finance Committee Meeting on June 24, 2025, I sent the audio to be transcribed by REV, which used the computer program at Rev.com to transcribe a rough transcript of the presentation, Deputy Secretary Shelton's testimony, and questions from the committee members.

3. After Rev.com generated a rough transcript of Secretary Shelton's testimony, I reviewed that rough transcript while listening to the recording and made corrections in order to create a more accurate transcript.

4. Attached hereto as Exhibit IPANM # 28-A is a true and accurate copy of my transcription of the LFC Program Evaluators presentation, Deputy Secretary Shelton's

testimony, and other testimony during the June 24, 2025 New Mexico Legislative Finance Committee meeting in Taos, New Mexico.

5. I understand that I am making this Declaration under penalty of perjury under the laws of the State of New Mexico.

/s/ Sonya Mares

Sonya Mares

Date: August 7, 2025

**TRANSCRIPT OF LFC MEETING RE
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June 24, 2024**

SPEAKERS – In Order of Appearance

1. Rep. Nathan P. Small, Chair
2. Stephanie Joyce – Project Evaluation Team (“PET”)
3. Elizabeth Dodson, MA – (PET)
4. Ben Shelton, Deputy Cabinet Secretary (ENMRD)
5. Rep. Jack Chatfield
6. Rep. Harlan Vincent
7. Rep. Mark Duncan
8. Rep. Tara L. Lujan
9. Sen. Steve D. Lanier
10. Rep. Rebecca Dow
11. Rep. Susan K. Herrera
12. Ismael Torres – Chief Economist LFC
13. Sen. Pat Woods
14. Sen. Benny Shendo, Jr.
15. Sen. Nicole Tobiasson
16. Sen. George K. Munoz, Vice Chair
17. Rep. Meredith A. Dixon
18. Jim Winchester (IPANM)
19. Ashley Wagner, VP, Governmental Affairs for NMOGA
20. Margaret Klug (PET)
21. Brendan Gray (PET)
22. Rep. Derrick J. Lente

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1 **Chair:** ([00:00:00](#)):

2 That said, thank you for this conversation. Thank you all for very much for taking the time. Thank you all
3 for continuing to work together, and a big thanks to the committee, I think, for really good questions from
4 a lot of different perspectives. Great. Okay, now we're going to go into a presentation on orphaned and
5 abandoned wells. A couple of quick notes as we're doing this. I'm going to invite up Mr. Winchester and
6 Ashley from NMOGA after the presentation should they wish. This is a staff report led by nonpartisan staff
7 with excellent expertise. Mr. Winchester, and I think Ashley, have requested the opportunity to sort of
8 address or offer perspective given that their industries are very much at the center of the report, which is
9 fine. Obviously, we're working under time constraints. I do very much if there are any sort of questions.
10 The LFC staff work very hard to do the very best job that they can. It's for us in our elected roles to sort of
11 hash through that. But any sort of ascribing of motive, or this or that, sort of tipping the scales one way
12 or another on the staff. Staff is doing the best job that they can, and I think we all always benefit deeply
13 from that. So, with that, just as a look ahead, and Mr. Winchester, Ashley, thank you for being here. We'll
14 look forward to visiting a little bit later. With that, we'll turn it over to staff.

15 **Joyce:** ([00:01:49](#)):

16 Thank you Mr. Chair, members of the committee. My name is Stephanie Joyce. I am one of your LFC
17 program evaluators, and today I'll be presenting this LFC policy spotlight report on orphaned oil and gas
18 wells, along with my colleague Elizabeth Dodson. The report is in Tab D of your binder and it looks like
19 this. If we can get the technology to work, we will also be tracking where we are in the report up on the
20 screen. They're working on it. Just before we dive in, I wanted to thank Secretary Kenderdine, Deputy
21 Secretary Shelton of the Energy Minerals and Natural Resources Department, and the Staff at the Oil
22 Conservation Division (OCD) for their collaboration on this report. I also want to thank the researchers

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1 and oil and gas workers who generously lent us their valuable time and expertise. So, Mr. Chair, members
2 of the Committee, just to set the stage a little bit, the goals of this report were twofold.

3 ([00:02:56](#)):

4 First, to understand why the number of orphaned wells reported by OCD has continued to rise despite
5 record funding allocated to OCD for plugging those wells. And second, to understand how much it has
6 cost, is costing, and will cost the state to plug those wells. If you'll please turn to page one, you will see a
7 summary of the report. The key point that I will draw your attention to is that the state faces significant
8 and growing financial liabilities for oil and gas well cleanup. As you can see here in Chart one on page one,
9 the report estimates the current and likely liability to be between \$200 million and \$700 million, with
10 possible liabilities as high as \$1.6 billion. We'll get into how we arrived at those estimates in a bit and why
11 there is such a large range but, first, if you will turn to page four of the report. We'll start with a little bit
12 of background about the oil and gas industry in New Mexico and how it is that the state sometimes ends
13 up responsible for plugging and decommissioning oil and gas wells.

14 ([00:04:14](#)):

15 So, as you all know, New Mexico has been an oil and gas producing state for more than a century and,
16 during that time, companies have drilled more than 120,000 wells in the state. Many of those wells tap
17 hydrocarbon reservoirs a mile or even two miles deep, and wells aren't built to last forever. Over time, as
18 the oil and gas reservoir is depleted, it gets harder and harder to get oil and gas out of the well and a well
19 reaches the end of its life. At that point, the well needs to be sealed or plugged. That's been a requirement
20 in New Mexico since the very earliest days of oil and gas production, and it's important for a few reasons.
21 One, unplugged and inactive wells can pollute groundwater by acting as a conduit for fluids and gases to

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1 migrate underground. Two, they can pose a risk to human health and safety if they leak gas or produced
2 water to the surface.

3 ([00:05:13](#)):

4 And three, they can impede the efficient extraction of nearby resources. If you'll turn to page five of the
5 report, here in Figure one, you can see, you can see how plugging can mitigate some of those undesirable
6 outcomes. So here on the left of figure one is a diagram of an unplugged well, and on the right is a diagram
7 of a plugged well. The basic idea is that you use cement to isolate each underground water or hydrocarbon
8 formation from the ones above and below it, and I know I'm speaking to some folks who are experts in
9 this, so bear with me. Using specialized equipment, cement is pumped down the well bore to specific
10 depths where it sets up and, when done correctly, keeps all the gases and fluids in their original places.
11 Now, once a well has been plugged, the well site needs to be remediated and reclaimed.

12 ([00:06:14](#)):

13 If you'll turn to page six of the report, you can see that remediation means removing any polluted soil and
14 addressing any impacts to surface or groundwater and reclamation, as OCD defines it, includes removing
15 debris and equipment and closing any above ground pits. Figure two here on page six on the left shows
16 an example of in-progress remediation and on the right a well site that has been reclaimed. If you'll turn
17 the page again to page seven, you'll see that when wells are producing any volume of oil or gas, OCD
18 typically leaves it to the discretion of operators to decide when to plug and reclaim. The well chart two
19 here on page seven shows that, in recent years, the average well produced about 700 barrels of oil
20 equivalent in the year before it was plugged, or about two barrels of oil equivalent a day. Operators, of
21 course, take many variables into consideration when deciding when it makes sense to plug a well.

22 ([00:07:21](#)):

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1 A few include the cost to get oil or gas to market, the cost to dispose of produced water, which is the salt
2 water that comes up alongside oil and gas, and the vast majority of wells are plugged by industry. But, as
3 you can see here in the middle of page seven, when a well becomes fully inactive and is not plugged by
4 its operator, OCD can pursue the authority to plug the well itself in order to prevent some of those
5 outcomes that I mentioned earlier. If you'll turn to page nine of the report, you'll see a figure that shows
6 how OCD pursues authority to plug a well. The first step is issuing a notice of violation to an operator with
7 too many inactive wells, and then there are a few different pathways that can result in OCD receiving
8 authority to plug the well. On this same page, page nine in Chart three, you can see the number of wells
9 plugged historically by OCD versus industry.

10 ([00:08:20](#)):

11 Light blue is industry, dark blue is OCD. I do want to note here that OCD did not keep robust records until
12 recently of the wells it had plugged historically. So, these numbers are almost certainly low, but according
13 to its budget performance measures, OCD has plugged at least 967 wells since 2002, which is an average
14 of 51 wells a year or about 5% of all wells plugged in the state since 2002. Here at the bottom of page
15 nine, these next few pages, starting here at the bottom of page nine, these next few pages of the report
16 explain the various ways the state pays for plugging when it has to plug a well. Historically, the main source
17 of funding has been the Oil and Gas Reclamation Fund, which is discussed on page 11 if you'll turn the
18 page again. As you can see in the first finding or the first paragraph on this page, the legislature created
19 the Reclamation Fund in 1977 and directed a portion of the oil conservation tax proceeds to it. The share
20 of the tax going to the Reclamation Fund has grown a thousand fold since then. Currently, 10.5% of the
21 tax goes to the Reclamation Fund when the price of West Texas intermediate crude oil is below \$70, as it

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1 was this morning, and nearly 20% when it is above \$70. As you can see here on this page, page 11, in chart
2 four, the balance of the Reclamation Fund was \$65 million at the end of fiscal year 2024.

3 ([00:09:59](#)):

4 Here at the bottom of page 11, you can see, and onto page 12, you can see that that's because, recently,
5 OCD hasn't actually been using much in the way of state funds to plug wells. Instead, the division has been
6 using federal grants allocated to the states under the Infrastructure Investment and Jobs Act or the
7 bipartisan infrastructure law. New Mexico has received \$55.5 million in grants from the federal
8 government in the last two years, and is eligible for another a hundred million dollars in the coming years.
9 Further down here on page 12, you'll see that OCD has used that funding to increase its rate of well
10 plugging. But, if you turn the page to page 13, you'll see that the cost of well plugging has also gone up in
11 FY 19. The average state plugged well cost \$30,000 to plug; in FY 24 it was \$163,000. A different measure
12 is that is often used as the per foot cost, because deeper wells are more expensive to plug. If you look at
13 chart six here on page 13, you'll see that the per foot cost has gone from about \$11 to \$43 since FY 19.
14 We'll talk a little bit about why that might be in a moment, but first I'm going to hand the presentation
15 over to Elizabeth to discuss the report's estimates of the state's current and future liability.

16 **Dodson:** ([00:11:31](#)):

17 Thank you Stephanie. Mr. Chair, members of this committee. If you'll turn to page 15, you'll see the
18 overarching finding of this chapter is that the state faces current liability of roughly \$200 million and likely
19 liability exceeding \$700 million for orphaned wells, which is considerably more than the funds available
20 through the federal grants or the Reclamation Fund. Before we get into those numbers though, I'm going
21 to spend a minute on the term "orphaned wells." As you can see on page 16, the term is commonly used
22 in both industry and the media to refer to wells that have no viable operator and, therefore, have become

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1 the responsibility of the state. However, neither New Mexico statute nor code actually defines the term
2 "orphaned wells." News stories cite a few different numbers for how many orphan wells there are in New
3 Mexico, like 700, 1,700, 3,000 because OCD has used the term differently, depending on the context.

4 ([00:12:35](#)):

5 For example, if we are only talking about wells on state or private land that OCD has already pursued the
6 authority to plug, then the number of orphaned wells is going to be on that lower end. But if we're talking
7 about all inactive wells in the state, regardless of the landowner that may not plug the wells, or their
8 operator may not plug the wells, then it's going to be much higher. For this report, we were primarily
9 interested in understanding the potential cost to the state, so we defined orphan wells as wells on state
10 or private land a/k/a their surface owner that OCD has pursued and received the authority to plug. That's
11 the first section of this chapter. Then we'll look at wells that OCD does not currently have the authority to
12 plug, but which the state believes will ultimately become its responsibility. And finally, we look at wells
13 that are at risk of being orphaned because the expected cost of their cleanup far exceeds their predicted
14 future revenues.

15 ([00:13:34](#)):

16 So, again, this chapter is going to go current, likely and then possible liability for orphaned wells. Here at
17 the bottom of page 16, you'll see that based on OCD's internal list of wells, it has received the authority
18 to plug, there are 702 currently orphaned wells on state and private land. Turning to page 17, table seven
19 shows that the report estimates that at recent plugging rates, it will likely cost OCD at least \$130 million
20 to plug those orphaned wells and it could take close to a decade to complete that. Now, OCD will also
21 have to remediate and reclaim those well sites and their associated infrastructure. On top of the 700
22 orphaned wells that we've identified, the division also has a large backlog of cleanup for previously

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1 plugged orphaned wells. The report estimates that remediation and reclamation work will cost at least
2 another \$100 million dollars, and possibly much more just for that current liability of plugged and
3 unplugged orphan wells.

4 ([00:14:43](#)):

5 So that's where our estimate of \$200 million comes from: plugging, remediation, and reclamation of wells
6 and their associated infrastructure that the state is currently responsible for. Now, turning to page 18,
7 you'll see the next section of the report estimates the cost of plugging and remediating wells that have
8 been inactive for at least 15 months, but for which OCD has not yet pursued the plugging authority for.
9 These are not orphaned wells as the report defines those, but OCD considers them to be almost certain
10 future orphan wells, so they often include them in their estimates of the number of orphan wells in the
11 state. As you can see at the bottom of page 19, the estimated cost for plugging, remediation and
12 reclamation of those 1,400 inactive wells on state and private land is at least \$468 million plus. So, this
13 number plus our \$200 million in current liability that we estimate, is how the report concludes the low
14 end of our likely orphaned well liability to be about \$700 million.

15 ([00:15:55](#)):

16 That brings us to page 20. This next section of the report looks at a category of wells that are not orphaned
17 or inactive, but which are producing extremely low quantities of oil and gas; such low quantities that they
18 are likely not generating enough revenues to cover the cost of their own plugging and reclamation. These
19 are the wells that the report terms possible liability. You've probably heard a lot about stripper wells,
20 which are wells that have produced less than 10 barrels of oil equivalent in a day. The wells that the report
21 is talking about in this section are wells that are producing at volumes that are 1/10th or 1/20th of that
22 stripper well, As you can see in chart nine here on page 20, there are a lot of those really low producing

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1 wells. Those categories furthest to the left here and, in fact, New Mexico's well inventory is quite skewed
2 towards them.

3 [\(00:16:53\)](#):

4 However, most production is from really high volume wells, as you can see in chart 10 below there. The
5 profitability of these low producing wells depends a lot on the price of oil and gas, but as the report notes
6 on page 22, Table 12, there are about, yes, table 12. There are about 3,000 wells on state or private land
7 that produce less than a barrel of oil equivalent a day for three years straight between 2021 and 2023,
8 meaning they are consistently producing in very low quantities and are probably nearing the end of their
9 lives. Most of those wells are owned by privately held companies, which makes it difficult to say whether
10 they have money set aside to plug and reclaim them.

11 [\(00:17:42\)](#):

12 But if a third of those wells were to end up on the state's books, it would cost many hundreds of millions
13 of dollars to plug and reclaim them and, if all of them were to end up the state's responsibility, the liability
14 could be close to a \$1 billion at current plugging and reclamation rates. So, adding the estimations
15 discussed for current, likely, and possible plugging reclamation and remediation liability, the report
16 estimates a total cost between \$700 million to \$1.6 billion. Now, I'll turn the presentation back over to
17 Stephanie for more about the various factors that could reduce that liability.

18 **Joyce:** [\(00:18:23\)](#):

19 Thank you, Elizabeth. Mr. Chair, members of the Committee. If you'll turn to page 24 of the report, you
20 can see that the report finds that reforms that prioritize operator led cleanup can limit the state's financial
21 exposure. A key component of that conclusion is the report's finding that OCD was not set up to operate
22 as a large scale plugging contractor, and struggles to control both the cost and quality of state contracted

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1 plugging and remediation work. As I noted earlier, the cost of plugging has risen dramatically in recent
2 years. That's partly attributable to factors outside of OCD's control, including the fact that it's been
3 plugging deeper, more expensive wells recently. Oil field inflation has also been quite significant since the
4 pandemic, but not as significant as the cost increases that we've seen. If you'll turn to page 26 of the
5 report, there and on the next few pages, the report discusses the finding that OCD's procurement
6 practices are likely contributing to rising costs.

7 ([00:19:29](#)):

8 To summarize, some of the contributing factors may be that the Division relies on contractor estimates
9 for plugging, and does not competitively bid projects. In general, the report recommends that OCD change
10 a number of its contracting practices, and that it strengthen oversight of its spending to ensure state funds
11 are being used efficiently. Specifically, the report recommends that OCD follow the lead of a number of
12 other states that require a State representative to be on site for all plugging operations, both for quality
13 control and to ensure invoicing is accurate. If you'll flip ahead a few pages to page 31, the second finding
14 of this chapter of the report is that financial assurance requirements are insufficient to cover the costs of
15 plugging and reclamation. So, earlier in the background section, I mentioned that the state mostly pays
16 for plugging out of the Reclamation Fund and federal funds but, in statute, OCD is also required to collect
17 upfront financial assurance from operators "sufficient to reasonably pay the cost of plugging the wells
18 covered by the financial assurance."

19 ([00:20:38](#)):

20 Right now, statute says the maximum amount of financial assurance that OCD can require for all of a
21 company's active wells in the state is \$250,000 or up to \$1 million if the company has a lot of inactive
22 wells. As you can see in that second paragraph here on page 31, for many operators that translates to less

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1 than \$1,000 per well and, in some cases, just about \$100. As a reminder, the average cost to plug a well
2 last fiscal year was \$163,000. So, right now, the amount of financial assurance required from most
3 companies is not enough to cover the costs of plugging and reclamation. Further down on page 31, you
4 can see that OCD has successfully recovered \$870,000 in the last 20 years from operators whose wells it
5 has had to plug, but has spent tens of millions of dollars on plugging and reclamation.

6 ([00:21:34](#)):

7 If you'll turn to page 32, the report recommends that New Mexico adopt policies that incentivize operators
8 to plug wells before they become the responsibility of the state, leveraging industry's capacity to do the
9 work more efficiently and likely more cost effectively. Different states and countries have used different
10 statutory and regulatory mechanisms to try to align incentives towards that goal. Each of them has their
11 own pros and cons. This section of the report provides an overview of many of those options, including
12 increasing the upfront financial assurance required, and allowing the regulator to review the sale of wells
13 between operators to ensure the purchaser has the cash flow to plug the wells. Many of these regulatory
14 mechanisms are summarized in Table 17 on page 33. We'd be happy to discuss any of these more in depth,
15 but if you'll turn again to page 36 of the report, I'd like to particularly draw your attention to a somewhat
16 novel approach that several states are taking to this issue, which involves basically setting up trust funds
17 associated with either specific wells or their operators the companies pay into at a fixed rate.

18 ([00:22:52](#)):

19 You could think of it something like a retirement account for a well, where companies put money into it
20 over the course of a well's life, so that the money is there when it's needed later. Different states have
21 structured those trusts in different ways, but the report finds that it's a policy option that you, as a
22 legislature, might consider adopting. Which brings us to our key findings and recommendations. As we've

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1 discussed, the state faces current and midterm liabilities in excess of \$700 million, and possibly more,
2 significantly more than the funds currently available for plugging and reclamation. If you'll turn back to
3 page two of the report with me, you'll see that in light of that we're recommending both some statutory
4 changes and some regulatory changes. All of these recommendations are intended to improve
5 transparency around how much the state is spending to plug and reclaim wells, and to reduce the chances
6 of the state's liability growing in the future. With that, and with the permission of the chair, we'd like to
7 invite Deputy Secretary Shelton with the Energy Minerals and Natural Resources Department, to present
8 the agency's response, and then we'd be very happy to stand for your questions.

9 **Shelton:** ([00:24:10](#)):

10 Thank you, Mr. Chair and members. Thank you for having me here today. I'm here in place of our new Oil
11 Conservation Division Director, Albert Chang, who started on the job yesterday morning. He was presiding
12 over the Oil Conservation Commission. He sends his regrets. The overall response on behalf of me and the
13 entire staff at the Oil Conservation Division is, "thank you." This is an exhaustive, comprehensive, well-
14 researched, accurate and fair report. It's an accurate assessment of the challenges the Division is facing
15 with regards to orphan well liability, the challenges the Division wrestles with every day regarding financial
16 assurance, sufficiency, and basically how to manage this enormous level of work that OCD is candidly not
17 set up to do. We are a regulatory agency set up to permit the operation of the oil and gas industry in New
18 Mexico. This is something that has become a bit of an elephant that the Division is dealing with.

19 ([00:25:14](#)):

20 I would like to try to give a little bit more context to some of the tools that the state uses right now around
21 cost containment, for plugging specifically, and I'm not talking about a lot of the environmental work. I
22 just want to use my time here, because I know we are a little over time, to talk about the plugging costs

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1 and the way that we approach them sort of compared to other states. A couple of the examples that were
2 actually highlighted in the report are great examples to sort of illustrate the variability and the wide range
3 of outcomes that we see when we actually begin the work of attempting to plug a well, and I would start
4 with the two wells that are highlighted on page 29.

5 ([00:25:56](#)):

6 So, if you look at these two wells you've got. I should have checked on the pronunciation of this. I believe
7 it's Bartnet and O'Brien. Starting with the cheaper well, the O'Brien well, and you can kind of see from the
8 diagram on the page that they're very, very close together. These wells are going, we think, into similar
9 formations, so there's reason to believe that you should just be looking at the map, that they should be
10 comparable in price. What they found when they went in to start plugging O'Brien was that at every single
11 depth, there was good casing integrity. The amount of cement that it took and the time that it took to lay
12 that cement in is exactly what you would hope for. It took a single plug, a worth of cement to establish
13 the plug at the required depth, and generally speaking, everything stayed on target.

14 ([00:26:47](#)):

15 This is the exception. We see more commonly is with, what you see with the Bartnet well, which costs
16 what, almost three times, almost three times that much? They pumped cement down that well to assess
17 plugs at those depths day and night. They plugged more cement. They had to plug four plugs to lay the
18 base plug, and these are costs that you just do not begin to see until you are down and you are pumping
19 the cement and seeing if you have circulation or not. What's happening is that there are perforations in
20 that casing, and when you pump cement to attempt to plug, your cement is escaping into the formation.
21 So, effectively, you pump until you have stability in that formation and it backfills into the well bore, and
22 that is how you're going to seal all that off. You feed it until it stops eating. I mean, that is the approach

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1 and that's not just the OCD approach. This is the approach industry wide. This is how we plug wells in the
2 state.

3 ([00:27:43](#)):

4 We pumped various plugs multiple, multiple times. The only plug on Bartnet that went really according to
5 plan was plug number four and, when you factor in the time that was spent because the two main drivers
6 of costs are the time that we spend with the rig, and the time for the crew to actually operate it. When
7 you factor in the time that was spent plugging and pumping, and the actual cement utilized, this actually
8 came in pretty close. We didn't see overruns based on, based on the actual time. The reason that we are
9 highlighting the cost of this, in particular, is because I don't want to put ourselves in a situation where we
10 think we can take these actions, and we're taking a lot of actions legislatively, or OCD is taking actions,
11 and expecting big deltas downward in terms of what we're paying per well because, candidly, the flag that
12 popped for us on this is that when we compare our costs of plugging a well with what the costs are on the
13 private side, they're comparable.

14 ([00:28:39](#)):

15 Ours are higher for reasons I'll talk about in just a second, but they're not two to three times higher.
16 They're about 10% to 15% higher. So, this is the cost that we are seeing right now in the private industry,
17 just anecdotally, and we ask them, we meet with probably three to four times a month. We have different
18 operators in sort of checking in and one of our questions on the list is always, "What are you paying right
19 now approximately to plug?" And the answer recently, and by recently I mean in the last eight to 12
20 months, has been \$120,000 to \$150,000. Our OCD average is \$155,000 to \$160,000.

21

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1 ([00:29:14](#)):

2 Moving into slide three on mine, which is mostly text just to compare, people want to compare us to Texas
3 a lot. As I understand it, our plugging requirements are more stringent than Texas. We have a statute that
4 says that we need to seal off every single strata, which means that we lay multiple plugs at the required
5 depths. We pump concrete and cement in there; not concrete. We pump cement in there until we get the
6 plug established at the required depth. The way operators tell us they do it in Texas is you plug the bottom,
7 you fill with drilling bud, and you plug the top. It's cheaper and it's faster and it'll help contain your costs,
8 but it does not result in the sort of predictable isolation of strata that we are required to comply with here
9 in New Mexico because presumably it's more environmentally protective.

10 ([00:30:00](#)):

11 The other well I would draw your attention to, just because it's an important story to tell, was on page 28,
12 the Buckskin Federal #2 well. This is a well that got very, very expensive very quickly. The way that we
13 approve costs with contractors is that they, effectively, if they need to go over what is bid, so we have
14 statewide price agreements where we lay out the criteria for billing and we generally do cross-reference
15 that we're being billed for each task order, for each sort of item in our price orders, is comparable to
16 what's getting billed on the private side. We assess this because the contractors that we are using are the
17 same contractors that a lot of the private industry is using, but when those overages come, we tell them
18 to just pump it and Buckskin Federal #2 is the reason why this is a terrifying plug.

19 ([00:30:51](#)):

20 This is something that this well had the potential to contaminate water supplies. We were very, very
21 worried about this, and we advised them to go. And this kind of thing happens more commonly than you
22 would think. Again, we have a statutory requirement to plug at strata and protect environmental

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1 resources, and the reason that I'm glad that Buckskin Federal #2 was identified in this is that that is a plug
2 job, and that is a well that is talked about to this day at OCD, as what could have gone wrong if we didn't
3 have the ability to react quickly to use our purchase order approval and sort of our overage approval
4 process, to just keep crews working on that in a timely way to get that plugged.

5 ([00:31:35](#)):

6 Moving on, and I want to just use this as sort of a visual reference. You can see these are just two invoices
7 that we get. On the left, you can see a daily report that we get, that we have that's an example. It's a few
8 years old of just a daily report that we get. One of the recommendations is going to having a specific
9 inspector or a company man reporting daily from the site. We do have an analog to that and that is this
10 daily reporting process. It's a desk. It gets reviewed at the desk from our office either in Albuquerque,
11 Santa Fe, Artesia or Hobbs. There'll be staff who are receiving and reviewing those daily reports, so we
12 don't have people on site. That's a capacity determination that we just have to make. We do have
13 inspectors who will drop in periodically, but we do not have staff on site every single day.

14 ([00:32:20](#)):

15 What we do have is this reporting process. So, you'll see the day report on the left. On the right is an
16 example of the invoice that we get, for broken down by activities per day at the end of the plug, and that
17 gets reviewed as well by staff. The cost for specific pieces of our plugging are taken from the statewide
18 price agreement. They are itemized out in purchase orders. That is a piece of context that is probably
19 useful. It didn't make into the report robustly; that is our fault. We did not get that information
20 communicated properly to LFC staff. So, it didn't get into some of this, but some of the things that they
21 are asking for in terms of oversight of individual well plugging, the work orders oversight of the actual
22 work done from a day-to-day basis we do do, but we just didn't get that information to staff.

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1 ([00:33:09](#)):

2 That's our fault. I apologize for that. And then finally on slide five and six, this is sort of a thumbnail quickie
3 proposed response to some of the recommendations. The first one at least is incorrect. That was based
4 on the preliminary report, not the final, so you can throw that one out. The range of our responses to
5 most of these recommendations are a good idea. We'll get to work. Good idea. We're in process to
6 incorporate it. We don't, or something along the lines of we don't do this because we don't feel like we've
7 got the capacity currently to do it, or we're not sure it would necessarily help the problem but, for the
8 most part, I think that a lot of these recommendations are things that we are currently addressing,
9 certainly regarding characterization of inactive wells and orphan wells that we are looking at as part of a
10 rulemaking response.

11 ([00:33:53](#)):

12 There's a petition that is before the OCC right now that has been filed by an external party to reexamine
13 some of the financial assurance rules that we have in place enacting the statutory legislation. A lot of the
14 things that are going to be in that rule are going to be really on point for some of the recommendations
15 in here so we're excited to get started. But, yeah, the wrap in conclusion, it's good to be heard. This is
16 something that we have been struggling to say as clearly and comprehensively as you have it before you
17 today. Thanks to LFC. We've been trying to say this for a few years now, and this is the clearest and best
18 way that the case has been made yet around the state's coming issue with orphan well liability and the
19 tools and the limitations of some of the tools that OCD currently has to meet at the moment.

20 **Chair:** ([00:34:45](#)):

21 Great, thank you. Okay, we will go straight to Committee questions. So, just as a quick reminder, we're
22 going to, I think, go through questions for the presenters. We're going to invite up Mr. Winchester and

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1 Ms. Wagner after. There's questions for the presenters to share perspective and to address any questions
2 that the committee might have. So, we're going to start with Representative Sanchez then go to, oops,
3 we'll come back to him, Representative Chatfield, then Representative Vincent, then Representative
4 Duncan. Representative Chatfield, please?

5 **Chatfield:** ([00:35:29](#)):

6 Hey, thank you all for the presentation. Can you just go through it for me how the Reclamation Fund is
7 funded?

8 **Dodson:** ([00:35:40](#)):

9 Sure. Mr. Chair, Representative, thank you. Yes. The Reclamation Fund is funded through the oil
10 conservation tax, which actually I have the appendix if you wanted to turn to Appendix C at the end of the
11 report. But it's funded through a portion of the reclamation tax or the conservation tax that is on produced
12 revenue from produced oil and gas, and then it gets a portion of that tax. Right now, the portion is, let's
13 see, it is 0.24% of the revenue of the tax when the price, I'm sorry, I'm lost. Sorry.

14 **Joyce:** ([00:36:29](#)):

15 Let me jump in here. Yeah, so right now the Reclamation Fund gets a portion of the conservation tax, and
16 the portion that it gets depends on the current price of WTI of West Texas Intermediate crude oil. And, so
17 when the price is below \$70 a barrel, 10.5% of the conservation tax goes to the Reclamation Fund and,
18 when it's above, 19.7%, I believe, goes to the Reclamation Fund.

19 **Chatfield:** ([00:36:58](#)):

20 So, in fairness, I'll tell you that I don't know the answer to the questions that I'm asking, but it's not my
21 first bounce off the tater truck. So, I know a little bit about what I'm asking. So, where does the rest of the
22 conservation fund go? This conservation fund?

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1 **Joyce:** ([00:37:14](#)):

2 Conservation tax. It goes to the general fund. The rest of the conservation tax goes to the general fund.
3 And, as you'll see here in Appendix C, historically the conservation tax, when it was introduced in 1959,
4 was used to fund, to enforce the Oil and Gas Act. That's what the statute said when the oil conservation
5 tax was passed. Eventually over time, I believe different appropriators, different legislators, made the
6 decision to have more flexibility. So, rather than directing all of that tax specifically to the Oil Conservation
7 Commission, it went to the general fund principally in order, and then you fund the operations of the Oil
8 Conservation Division out of the General Fund. In 1977, the legislature also created the Reclamation Fund
9 and, at the time, 0.01% of the conservation tax went to the Reclamation Fund. That's obviously grown
10 over time.

11 **Chatfield:** ([00:38:16](#)):

12 So, I wasn't here in 1977, but I've been around the roundhouse a good while before I got elected and I've
13 seen, I've seen the fund rated before. I'll just say before, I'm not going to say for what or how many or by
14 who, but I have seen this money used when the state kind of gets in tough times and the money's sitting
15 there. So, I guess my question is this. In the past, a lot of money has been appropriated by the oil
16 companies to plug wells in the time whenever they become useless, and how much of that money is still
17 in the fund? Number one, how much money's in the fund? Number two, how much money isn't in the
18 fund what was put up by the industry in the past to plug wells?

19 **Joyce:** ([00:39:19](#)):

20 Mr. Chair, Representative. If you will turn to page 11, I believe, of the report, you can see the oil
21 Reclamation Fund balance currently as of the end of FY 24. And, as you can see, the amount of money
22 that the fund has been receiving has grown considerably in the last few years as a result of high oil and

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1 gas prices and high production. As I said, the Fund has not been used very much in recent years to plug
2 wells. They've been using federal grant funding to plug wells here in New Mexico, which is why you see
3 that high balance currently in the fund. Now, if I can direct you, sorry to make you jump around in the
4 report here, but if you can go to Appendix A here in the report that's on page 38, you can see over time
5 NMENRD has had to report to you about how that fund has been used, and there are a number of
6 moments when the fund has been used for things like paying for OCD staff, for example. So, that has
7 certainly been the case that's detailed here in Appendix A and some of these report card updates.

8 **Chatfield:** [\(00:40:48\)](#):

9 So how many wells did OCD plug last year?

10 **Joyce:** [\(00:40:56\)](#):

11 Mr. Chair, Representative. It was more than a hundred wells that OCD plugged last year. Let me see if I
12 can find a specific page.

13 **Chatfield:** [\(00:41:06\)](#):

14 Excuse me, Mr. Chair, with state funds, not the federal funds? Mr. Chair?

15 **Joyce:** [\(00:41:14\)](#):

16 Mr. Chair, Representative. I don't know the answer to that question. I can tell you how much they cost
17 and how much each well cost to plug, but in terms of whether the funding used was specifically state
18 funds or federal funds? I can't answer that question.

19 **Chatfield:** [\(00:41:33\)](#):

20 Mr. Chair, I guess where I'm going with that is, just looking at the report here, it looks like the federal
21 government pays for wells on federal lands and that the OCD pays for wells on state and private lands. Is
22 that true with plugging?

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1 **Joyce:** ([00:41:51](#)):

2 Mr. Chair, Representative. Historically, that is true. In recent years, the federal government, as part of the
3 Infrastructure Investment and Jobs Act or the bipartisan infrastructure law, the federal government has
4 allocated funding to the states for plugging on state and private land with the goal of addressing the large
5 backlog of orphaned wells that many states have, including New Mexico. So, those recent federal funds
6 are grant funds from the federal government for plugging on state and fee land.

7 **Chatfield:** ([00:42:26](#)):

8 So, I'm very supportive and happy to see federal money going into plugging our wells. And, I guess where
9 I'm going with that is, how much better if we used this fund to plug some more wells and have we been?

10 **Shelton:** ([00:42:45](#)):

11 Mr. Chairman, if I may, we also, I would add, do plug federal wells. We are effectively the contractor; OCD
12 is for BLM to plug BLM wells, so we get paid for that out of an additional and separate fund that BLM
13 specifically supplies to us. It takes a little longer, BLM, and the federal government has a lot more
14 processes they go through before they will let you plug a well but, in addition to using federal money to
15 plug state and private, we're also using federal money to plug federal wells.

16 **Chatfield:** ([00:43:17](#)):

17 So, Mr. Chair, thank you. You're talking about physically plugging the federal wells. I'm talking about using
18 the Reclamation Fund funding to plug state and private wells in New Mexico.

19 **Shelton:** ([00:43:34](#)):

20 Mr. Chairman, as Stephanie mentioned, we have been using almost exclusively federal funds. So the
21 reason that you have not seen that you've seen that rec fund balance climb in the last two, three years, is

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1 because just about all the activity you've been doing on state, private and federal. Well, yeah, state and
2 private land is using those I-I-J-A-B-I-L federal dollars.

3 **Chatfield:** ([00:43:57](#)):

4 So ,Mr. Chair, are we going to reduce the money that the oil companies are putting up to that fund? Is
5 that what we're doing? I mean, I know that's not what we're doing. What I'm saying is if we have federal
6 money coming in and we're plugging wells with it, we've got a fund over here of money that's been put
7 up by the oil companies and we're not using it to plug wells with, what are we doing? Why are we not
8 doing that?

9 **Joyce:** ([00:44:31](#)):

10 Mr. Chair, Representative. I believe the total of the federal grant funding that we are eligible for and/or
11 have received and the current balance of the Reclamation Fund still is insufficient for our estimate of the
12 likely liability posed by orphan wells.

13 **Chatfield:** ([00:44:49](#)):

14 So, Mr. Chair, that is insufficient for the likely liability. How about, is it sufficient to plug some of the wells
15 that we have orphaned now?

16 **Shelton:** ([00:45:02](#)):

17 Yes. \$66 million will certainly plug some wells. Our priority has been to utilize federal dollars. I think, Mr.
18 Chairman and Representative, going to your question of whether or not we can collect less of the
19 conservation tax based on the availability of federal funds, the answer to that is no. That is set in the
20 statute. The collection and the amount of the collection is out of our hands.

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1 **Chatfield:** ([00:45:24](#)):

2 So, Mr. Chair, I apologize. That was more of a smart alec answer than anything. I am saying we've got
3 money. Why are we not plugging wells with it? That's, the simple thing is, the federal government is
4 appropriating money and you all are doing the contracting and we have money there and I hear a lot
5 about orphan wells, so I don't understand why we don't use the money that's appropriated to plug wells.
6 Maybe even the money that goes in that goes to the conservation fund instead of putting it in the general
7 fund? We're not short on funding right now, but I understood it, and maybe years past when we were
8 desperate, but maybe we should think about using that money to plug wells. Thank you, Mr. Chair.

9 **Chair:** ([00:46:19](#)):

10 Thank you very much, Representative Chatfield. We'll go next to Representative Vincent then
11 Representative Duncan. Representative Vincent?

12 **Vincent:** ([00:46:29](#)):

13 Thank you, Mr. Chair. So, whenever we talk about you guys being the contractors, do you have a company
14 that does it? Do you have multiple companies that plug these wells? Mr. Chair?

15 **Shelton:** ([00:46:44](#)):

16 Mr. Chairman, Representative. We have five contractors right now on our statewide price agreement.
17 That is what I realized in my presentation. I didn't get back to something I promised to get back to, which
18 was our why we do pay more. All five of our contractors are currently in San Juan County. That is who bid.
19 We took every single bid in 2022 or 23 when they bid into the statewide price agreement, and just
20 happened to be the case that all five that we got at that moment were in San Juan County. So, we pay for
21 them to drive across the state and we pay for them to stand by occasionally if we need it to plug in the
22 Permian, which adds costs, adds about 10 to 15%. We do pay a little bit more than the private industry,

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1 and that's one of the reasons why we reopened with GSD that statewide price agreement in March of this
2 year. We are currently trying to get some more bids in trying to get some more contractors in the Permian
3 so that we can sort of cut down on some of those transportation costs.

4 **Vincent:** ([00:47:37](#)):

5 Thank you, Mr. Chair. So, always, whenever I see that kind of money, I always know that there's
6 contractors following that money around, and we only have five in the state and they're in the San Juan
7 area, and they're having to drive completely across the state, which makes costs go way up. Are you telling
8 me that there's nobody in the southeast that would be willing to plug these wells?

9 **Shelton:** ([00:47:59](#)):

10 When that, Mr. Chairman and Representative, when that first bid went out for the statewide price
11 agreement, that was the case. We are working right now, and hopeful that we will have contractors on
12 the statewide price agreement in the Permian on this new round of bidding.

13 **Vincent:** ([00:48:17](#)):

14 Thank you, Mr. Chair. And, so when will that price agreement come available and how often does it come
15 available?

16 **Shelton:** ([00:48:26](#)):

17 Mr. Chairman. Representative. The price agreement gets opened to GSDs basically when we ask GSD,
18 which we asked them earlier this year to do. In terms of when that will be concluded, I don't have an exact
19 answer for that. I can connect with GSD and follow up on that for you.

20 Vincent Speaker 6 ([00:48:40](#)):

21 Thank you, Mr. Chair.

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1 **Chair:** ([00:48:43](#)):

2 Thank you very much. Representative Vincent, Representative Duncan, and then Representative Lujan.

3 Representative Duncan?

4 **Duncan:** ([00:48:49](#)):

5 Thank you, Mr. Chair. I was at that meeting in 1959. Yeah, I was there. I would suspect every one of those

6 dollars at that point in time was supposed to go into this fund to take care of the wells. Mr. Chair, I would

7 recommend that we put all that money back and we delegate all of that money to go into this fund to

8 take care of that. If we do that, will we be a long way towards the goal of meeting that \$700 million?

9 **Joyce:** ([00:49:31](#)):

10 Mr. Chair, Representative. If you would like to turn back to page 11, you'll see in Table four the

11 Reclamation Fund sources and uses, and you can see the cash balance as it's increased in recent years.

12 Last year the Reclamation Fund received a record \$27 million from the conservation tax. Even at those

13 revenues, I think you'll find there's a significant gap between the revenues going into the fund and the

14 estimated liability.

15 **Duncan:** ([00:50:08](#)):

16 Thank you, Mr. Chair. What I was meaning is, if we took all of that tax, everything that's going to the

17 general fund, we brought it all back and diverted it all back into that fund, would then we have a whole

18 lot more money to work with since we're using what, ten percent?

19 **Joyce:** ([00:50:29](#)):

20 10% to 20% depending on the price of oil. Yeah, with the Chair's permission, I'd be happy to have our

21 Chief Economist come up and speak to the impact to the general fund of diverting all of the conservation

22 tax to the Reclamation Fund. I will note that it is generally this Committee's policy not to recommend

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1 earmarking tax revenues because it ties the hands of future legislatures. So, this report really focuses on
2 encouraging industry to plug wells since they are more likely to be able to do it efficiently and cost
3 effectively.

4 **Duncan:** ([00:51:04](#)):

5 Mr. Chairman, thank you for that. But who's paying those taxes right now? Is it industry or is it me going
6 shopping into Walmart?

7 **Joyce:** ([00:51:13](#)):

8 Mr. Chair, Representative. The conservation tax is a tax on oil and gas produced here in New Mexico.

9 **Duncan:** ([00:51:20](#)):

10 Okay, so thank you, Mr. Chair. So that industry is already paying this in, and then we're diverting it. As the
11 legislature, we've diverted it and it's going somewhere else. So, I'm saying we should do the right thing,
12 bring all that money back that the industry is paying into this and plug those wells, and that's why I'm
13 recommending that. Mr. Chair, thank you.

14 **Chair:** ([00:51:42](#)):

15 Thank you very much, Representative Duncan. Next we're going to go to Representative Lujan, then
16 Senator Lanier and then keep going from there.

17 **Lujan:** ([00:51:50](#)):

18 Thank you.

19 **Chair:** ([00:51:50](#)):

20 A Lot of hands came up.

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1 **Lujan:** ([00:51:52](#)):

2 Thank you, Mr. Chair. I think some of my questions have been answered already, but I'm looking at some
3 of the issues you brought forward on page three for EMNERD, and there's, and some of the problems you
4 have with just filling those wells. Is it due to the drilling practices or how deep, I mean, can you explain
5 that a little bit? Why? And each is different obviously, but geographically, but due to this, how many have
6 you measured? How many more difficult wells there are or is there a prioritization that you have for these
7 orphan wells and how we spend the money to plug them? Mr. Chair?

8 **Shelton:** ([00:52:42](#)):

9 Thank you, Mr. Chair. Representative Lujan. Yes, we do score based on priority for the orphan wells. One
10 of the recommendations in the report that's a great recommendation is be more proactive on that list
11 about going back and examining those orphan wells to see the conditions that led us to score it where we
12 did have changed, that we don't do, but we do score based on environmental hazard, age, all sorts of
13 things that results in, is we wind up tackling wells that tend to be a little bit more expensive, a little bit
14 earlier, when we get in there. It's another reason that it's difficult occasionally to compare our costs to
15 private industry costs. The private industry will be frequently plugging a well that they've been producing
16 for years sometimes. We'll find wells in rough shape, old casings that were poured sometimes around
17 World War II and that drives costs up.

18 **Lujan:** ([00:53:36](#)):

19 Thank you, Mr. Chair. That's really what I'm kind of driving here. I mean, what are the, on your
20 prioritization list, what are your estimate the highest cost? I guess what is the highest cost you're
21 estimating on just may be one in the worst wells, Mr. Chair?

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1 **Shelton:** ([00:53:55](#)):

2 Mr. Chair and Representative. I don't want to get too far out over my skis, but when we put that list
3 together, we don't necessarily assess it on cost. We assign a numeric score based on criteria. The cost is
4 determined when you're actually down hole pouring cement. We have specific sort of costs for different
5 actions and different pieces that are in the statewide price agreement, but in terms of what the whole
6 project is going to cost, that's just not really possible to assess until you're down hole trying to do the
7 work.

8 **Joyce:** ([00:54:24](#)):

9 Mr. Chair, Representative. I will just point you in the report to Appendix E, which is on page 43, which
10 does show how OCD prioritizes its well plugging, and I did just want to note that so, to date, as far as we
11 are aware, and OCD has not historically tracked costs systematically, but the most expensive well the state
12 has was plugged earlier this year and it cost \$5.2 million.

13 **Lujan:** ([00:54:49](#)):

14 Thank you. Exactly. That's where I'm getting at. Where are those costs and how are we estimating them
15 and when we're, we have these unknowns, I guess, is what we're really looking at? It's going to take more
16 work and even more money to really, if we find a way to estimate those costs, and how that's going to
17 happen. But I am aware that and, just to your point, that private industry, when they do the vast majority
18 of taking care of plugging their wells and that's good. Those are good intentions, but it's going to cost
19 them a lot less than what we're left with because we didn't have policies in place and we didn't have a
20 directive in place, so to speak, as we do today. So, I want to thank you for the work. The other point is,
21 maybe I'll ask that one offline, but do we know the ownership or previous ownership of those wells? Is
22 that something that's on record? Mr. Chair?

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1 **Shelton:** ([00:55:46](#)):

2 Mr. Chair, Representative. Yes. You can go in and type in what's called the OGRID. It's the unique identifier
3 number for different operators, and you can kind of search by well and get an idea of, we have a list of
4 the OGRIDs associated with a different well over its lifetime.

5 **Lujan:** ([00:56:00](#)):

6 Thank you. And yeah, better technology in the way that we're doing business, so to speak, now is going
7 to be more cost effective and we have to plug these wells. But where we're left right now is where the
8 conundrum is. So, thank you for the work in doing that. But the other offline, just to prompt you, the
9 safety of this and the work that's around it, I'd like to discuss a little bit more later. Thank you, Mr. Chair,
10 for the time.

11 **Chair:** ([00:56:24](#)):

12 Thank you very much, Representative Lujan. Next we have Senator Lanier, then Representative Dow.

13 **Lanier:** ([00:56:30](#)):

14 Thank you, Mr. Chairman. Can you just walk me through, when did we start plugging these wells? So, for
15 example, did we have a major accident in the state that caused us to do that? What started the plugging
16 process?

17 **Joyce:** ([00:56:53](#)):

18 Mr. Chair, Senator. It has been a requirement since the very early days of oil and gas development, since
19 the 1935 Oil and Gas Act, for operators to plug wells at the end of their life for the reasons that I mentioned
20 earlier for groundwater protection. It was actually originally intended to preserve resources because when
21 you have an unplugged well, it can lead to pressure drops or water intrusions that actually impede the
22 extraction of nearby oil and gas resources. So that was really the initial goal. And then, over time,

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1 regulators realized that there were these other sort of corollary benefits to plugging wells. So, if that's
2 your question?

3 **Lanier:** ([00:57:38](#)):

4 So, it was kind of driven by the industry itself?

5 **Joyce:** ([00:57:42](#)):

6 Yes.

7 **Lanier:** ([00:57:42](#)):

8 They wanted to plug them to

9 **Joyce:** ([00:57:45](#)):

10 Save

11 **Lanier:** ([00:57:45](#)):

12 Their other wells, things like that.

13 **Joyce:** ([00:57:47](#)):

14 Mr. Chair?

15 **Lanier:** ([00:57:48](#)):

16 So, Mr. Chair, then we have, so we don't know the exact number that we need plugged in New Mexico,
17 correct? I mean, we have three different numbers: 700, 1,400 and 3,000, but nobody seems to agree on
18 exactly how many we need. Pick a number of those numbers. Is that driven by the industry? Is that driven
19 by environmental industry or is that by government?

20 **Joyce:** ([00:58:24](#)):

21 Mr. Chair, Senator. I do want to just walk through a little bit those different estimates in the report if I
22 can. So, for the purposes of this report, we really wanted to quantify what the potential liability to the

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1 state is from these unplugged and inactive wells. As we mentioned, orphan well is not defined in statute
2 or rule. It's just a commonly used term and people refer to many different numbers of orphan wells. For
3 the purposes of this report, we refer to orphan wells only as those wells for which the state OCD has
4 plugging authority so they have gone through an administrative law process and they have received
5 authority to plug those wells. We also further narrowed that to only wells on state or private land because
6 those are the wells that the state is likely to be paying for. As the Deputy Secretary mentioned, the state
7 does also plug wells for the federal government. It's reimbursed by the federal government for those
8 wells. So that 700 number is the number of wells that the state currently has responsibility for plugging
9 and reclaiming. The 1,400 inactive wells are the wells, that are wells that have been inactive for at least
10 15 months. And if I can draw your attention to the table on,

11 **Lanier:** ([00:59:51](#)):

12 I hate to interrupt, Mr. Chair. So, when you mean inactive, what's the barrel count?

13 **Joyce:** ([00:59:58](#)):

14 Zero.

15 **Lanier:** ([01:00:00](#)):

16 Zero. So, at two, you start looking at it? If it's only producing two barrels, you start looking at it, and then
17 when it gets to zero, it has to be plugged?

18 **Joyce:** ([01:00:12](#)):

19 Mr. Chair, Senator. The inactive wells that OCD tracks have been inactive for at least 15 months and, if
20 you look at table nine here on page 19, you'll see that many of them have been active for much longer
21 than that. At that point, those wells, when they've been inactive for 12 months, OCD offers a three month
22 grace period for an operator to either apply for approved temporary abandonment of the well, to plug

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1 the well, or to resume production from the well. If they do none of those three things, they're out of
2 compliance with the Oil and Gas Act and OCD can pursue authority to either ask the operator to plug their
3 own well or to plug the well themselves. So those 1,400 inactive wells are all out of compliance with the Oil
4 and Gas Act and are subject to enforcement. OCD historically, and I'll let the Deputy Secretary speak more
5 to this, OCD historically has pursued plugging authority only for operators who have a large number of
6 inactive wells. So, if you have one or two inactive wells which may be out of compliance with the Oil and
7 Gas Act, OCD has historically not pursued the authority to plug those wells. So those wells are sitting there,
8 which is how there are some wells on the inactive well list, as you can see here in table nine, that have
9 been inactive for more than 40 years.

10 ([01:01:41](#)):

11 The third section of this chapter, which looks at extremely low producing wells, wells producing less than
12 two barrels of oil equivalent a day. Those wells are not orphaned. They're not inactive. The state has taken
13 no action against them. This report is recommending that there be additional regulatory oversight of wells
14 once they reach that point. That is the 0.2 barrels of oil a day when industry appears to be plugging most
15 of its wells. Chart two of the report shows that industry tends to plug wells when they have reached about
16 750 barrels of oil equivalent a year. And, so, we're recommending that wells that produce less than that
17 are subject to additional regulatory oversight in this report. Currently, they're not subject to that.

18 **Lanier:** ([01:02:31](#)):

19 Okay, thank you. I think that was a good explanation. And, Mr. Chair, so Deputy, you talked about the
20 difference between Texas and New Mexico which, I'm like you, I hate getting compared all the time to
21 such a small state. But they plug at the bottom and they plug at the top. And in New Mexico we plug
22 whatever the distance is, we plug it, fill it with, not concrete, but cement, and then we plug it again, and

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1 then we retest it and retest it. So that drives that cost up. So, if it works in Texas as a much more
2 economical way, why aren't we adopting that here?

3 **Shelton:** ([01:03:23](#)):

4 Mr. Chairman. Senator. It's set in the statute. That's what we're required to do.

5 **Lanier:** ([01:03:27](#)):

6 So, is that something you would recommend us looking at?

7 **Shelton:** ([01:03:31](#)):

8 Mr. Chairman, Senator. I don't believe that's in the recommendations for the report.

9 **Lanier:** ([01:03:34](#)):

10 Okay. So, Mr. Chair, so you don't think that would help get more of these orphan wells plugged?

11 **Shelton:** ([01:03:44](#)):

12 Mr. Chairman. Those are policy determinations that were made around preserving resources, protecting
13 freshwater resources, those kinds of things. That's just the statute that we abide by. We don't think about
14 it on that level.

15 **Lanier:** ([01:03:55](#)):

16 Okay. And, Mr. Chair, how do you make a plan? So, let's say we have a well and it needs to be plugged.
17 What's the process of making a plan? Do you work with the industry? Do we work with the federal
18 government, the industry, the state of New Mexico, your office and set a plan and go, okay, this one needs
19 to be taken care of and this is how we need to do it? Or is it just, it's zero? Plug it.

20 **Shelton:** ([01:04:21](#)):

21 Mr. Chairman, Senator. Once we have that plugging authority, we go out and basically issue a purchase
22 order under our statewide price agreement to one of our contractors. We kind of itemize out the work

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1 that we expect for that well, and we set them to it. The use of the statewide price agreement is that it is,
2 compared to the rest of the procurement code, a relatively nimble tool so it lets us get teams out there
3 relatively expediently and working.

4 **Lanier:** ([01:04:49](#)):

5 Alright. And then, thank you for that. So, when we set up this fund, right, so I hate to go back to the
6 financial part, but that's what we're about here. So, we set this fund up so that we can start plugging these
7 wells. Yet we're asking industry to plug their own wells. I don't understand how, if we're taxing them and
8 we're also asking them to pay to plug their own well, why are we taxing them if they're plugging anyway?
9 Does it get lost in the paperwork? Do we not know who the owner is? Do we not know who's responsible
10 for it? Is it federal government stepping in? I don't understand. When we get a well plugged, we see all
11 the prices, we know what it costs. I don't understand how we're putting money back and then they're
12 plugging their own wells anyway.

13 **Joyce:** ([01:06:03](#)):

14 Mr. Chair, Senator. If I can direct you to page 11. I think it would help to maybe just go over again a bit of
15 the history of the Oil and Gas Reclamation Fund. The legislature established the fund in 1977, enumerated
16 some of the purposes of the fund as ensuring the proper plugging and reclamation of abandoned oil and
17 gas wells and associated facilities. The statute doesn't define abandoned historically. The fund has
18 primarily been used for plugging and reclaiming wells and associated infrastructure that don't have a
19 locatable or financially viable operator. So, for bankrupt or defunct companies, so, historically, the Oil and
20 Gas Reclamation Fund was intended to take care of those wells that were not being plugged by industry.
21 Over time, the Fund has been used to plug, in some cases, wells for active operators. That was not, in

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1 reading the statute, the original intent of the Fund. Primarily, it was used as a stop gap. And, as I said, that
2 was created in 1977 after the oil conservation tax was created in 1959.

3 **Lanier:** ([01:07:35](#)):

4 Okay. So, Mr. Chairman, so I guess my question is, so we're all on finance committees up here and capital
5 outlay is a big, huge part of our job. So, when we send out capital outlay, we expect it to get spent. We
6 expect it to get used on the road we put it on, the bridge we put it on, whatever swimming pool, whatever
7 it is, that's what we expect. So, my question is, in capital outlay, we can reauthorize it, but there's a big
8 movement again in the House and the Senate. There's a big movement to stop doing all these
9 reauthorizations because we have over six, I don't even know the figure. Charles probably has a figure
10 over \$6 billion of unspent capital outlay. So, my question is, if you're going to have the industry use their
11 money to plug these wells, then we need to be pulling back this fund and we can use that money
12 somewhere else, whether we keep it in the Environment Department, whatever, it doesn't matter. But
13 why do we just have \$60 million sitting there not getting used? I understand we're fearful that the federal
14 government might start pulling money or whatever, I mean, obviously you use a lot of federal grants and
15 things like that, but we still have all that money sitting there doing nothing. It's no good for us. So how
16 can we resolve that?

17 **Shelton:** ([01:09:30](#)):

18 Mr. Chair and Senator. We're just spending the federal money first. We are not going to have any trouble
19 spending down the balance of the rec fund if and when we get to the bottom of the barrel on the federal
20 dollars. Ideally, we'd like to be spending them both down at the same time. It's a capacity concern that
21 we're trying to resolve by getting some more contractors on the price agreement and getting the wheels

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1 spinning faster. But we have plenty of work to spend down the existing balance of state dollars in the rec
2 fund. We've just been prioritizing spending the federal dollars first.

3 **Lanier:** ([01:10:01](#)):

4 Okay, so Mr. Chairman, and that's a good answer. And that's exactly what I'm getting to is, I want you to
5 spend the federal money first. Do it. Spend it all the way down. But why are we keep taxing, and we're
6 talking about increasing the taxes to our industry that feeds so many different programs in this state, and
7 we're going to keep taxing them when we hadn't started spending the money that we've already taxed
8 'em on? Do you see what I'm saying? I don't know that it's a fair and a level playing field when we're
9 playing on the unknown. If we need to come up with \$300 million to plug every well in New Mexico, then
10 why aren't we working towards that? I don't understand why we're breaking it down in so many different
11 ways, other than to confuse the world out of me. So, any response

12 **Chair:** ([01:11:05](#)):

13 And thank you, Senator. I think a lot of, there's a very meaty policy conversation for us here as elected
14 members, particularly on LFC. And, so, a lot of those questions, I think, will end up being very fair once
15 that we will be debating and again, particularly with staff. Yeah, they're sort of given their best expertise
16 and if we want to ask them at some point to sort of bring back policy recommendations, then maybe that's
17 something we as a committee can discuss.

18 **Lanier:** ([01:11:39](#)):

19 Alright, thank you, Mr. Chair. Thank you panel.

20 **Chair:** ([01:11:42](#)):

21 Thank you very much, Senator. We have Representative Dow and then Senator Woods next.
22 Representative Dow, please.

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1 **Dow:** ([01:11:48](#)):

2 Thank you, Mr. Chairman. And a lot of the questions I had were answered, but created more questions.
3 So, I'm on page 11 and looking at this and it, it's saying that this fund was established in 1977 as non-
4 reverting to be used for Oil Conservation Division to carry out the provisions of the Act. And it's for
5 plugging of the abandoned wells where you can't locate the operator or they're not financially viable. And
6 that was at the time of the creation. But now am I understanding that, in addition to this, the producers
7 are paying a fee and to go into this fund, but they're also responsible for plugging their own wells today?

8 **Joyce:** ([01:12:35](#)):

9 Mr. Chair, Representative. Industry has always been expected to plug their own wells. It is in statute that
10 industry must plug their own wells at the end of the well's life. In 1977, the legislature, I don't want to
11 speak for the legislature then, but presumably saw a need for there to be additional funds available for
12 wells that did not have a locatable operator. The history of this, Elizabeth went into the books of statutes
13 and it's a little hard to parse, but at the time the legislature enumerated the purposes of the Reclamation
14 Fund as plugging abandoned wells. It did not define abandoned wells in statute. So, conventionally, the
15 Fund has been used for plugging wells that don't have a locatable or financially viable operator. The
16 expectation has been and remains that operators plug their own wells at the end of the well's life.

17 **Dow:** Speaker 11 ([01:13:47](#)):

18 Thank you. Thank you, Mr. Chair. And thank you for that. So, since the seventies, the producers have been
19 plugging their own wells if they're viable producers. They've been plugging their own wells and
20 contributing to this fund. And, at some point, we started diverting the Fund and now we want more money
21 for the Fund, but not by recapturing the dollars that are being diverted to the general fund from increased
22 fees?

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1 **Joyce:** ([01:14:18](#)):

2 Mr. Chair, Representative. There's a very detailed history of the oil and gas conservation tax and the
3 Reclamation Fund in Appendix C of the report. Since the creation of the Reclamation Fund in 1977, the
4 portion of the conservation tax that has been diverted to the Fund has increased a thousand fold. So, since
5 the creation of the fund, the amount of the conservation tax that goes to the fund has increased from
6 0.01% to as high as 19.7% today. So that's not an additional tax on industry. That is a percentage of the
7 conservation tax that is being diverted to the Reclamation Fund has grown significantly over time. So,
8 what that means is that, over time, the Reclamation Fund has expanded. There's more money available
9 to plug orphaned or, as the statute calls them, abandoned wells. Thank you, Mr. Chair.

10 **Dow:** ([01:15:31](#)):

11 And maybe this is for the Deputy Secretary. You're talking about federal dollars that you're spending. Is
12 the federal government paying you to plug wells on federal land, or they're paying you to plug wells on
13 federal and state land?

14 **Shelton:** ([01:15:42](#)):

15 Mr. Chairman and Representative. All three. I would say most of the B-I-L-I-J funds we're using on state
16 and private.

17 **Dow:** ([01:15:53](#)):

18 Okay, thank you, Mr. Chair. And these dollars are used for state land only, or are we also using, because
19 the federal government pays for plugging on federal land, is this fund only being used to plug wells on
20 state land?

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1 **Shelton:** ([01:16:11](#)):

2 By this fund? You're referring to the Reclamation Fund specifically because, remember, the BIL, the federal
3 money we've been spending, is kind of over here, right? So, the rec fund, so yes, the rec fund is used for
4 state and private land plugging, primarily.

5 **Dow:** ([01:16:24](#)):

6 Primarily? Okay. And Mr. Chairman, I think what I am not understanding is if this is a tax or if it's a fee? Is
7 this a tax or is this a fee on the industry?

8 **Shelton:** ([01:16:38](#)):

9 Mr. Chair, Representative. It's a tax. It's the conservation tax.

10 **Dow:** ([01:16:42](#)):

11 It's a constitution tax?

12 **Shelton:** ([01:16:44](#)):

13 Conservation tax.

14 **Dow:** ([01:16:44](#)):

15 Conservation tax.

16 **Shelton:** ([01:16:45](#)):

17 Conservation.

18 **Dow:** ([01:16:46](#)):

19 Tax. Okay. And, Mr. Chairman, what differentiates, we had a lot of debate on the House side anyways, on
20 the difference of something as a tax or something of fee? What makes the distinction between a tax and
21 a fee?

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1 **Shelton:** ([01:17:02](#)):

2 Mr. Chair, Representative. That's a good question. I can repeat something that I heard in committee last
3 year because I happened to have the opportunity to sit at the table during a lot of that debate. What I
4 heard, that seemed to make sense to me, is a tax that is collected by one person is spent by somebody
5 else. A fee would be more like OCD collects a filing fee, but then OCD spends the money on administration
6 of the filing system. A tax is more something that TRD collects and then is spent by you all.

7 **Dow:** ([01:17:29](#)):

8 Thank you, Mr. Chair. I mean, I think that's where I'm getting lost here, because it's an industry fee. It's an
9 amount that we take from the industry that was designated for a specific purpose, plugging orphaned
10 wells. And, along the way we've decided as a body to change those purposes. It's not a fee, it's tax. I'm
11 just thinking about that dog food thing that came up where it was determined that we had to spend the
12 money for the purpose intended. So, I'm just wondering the distinction between when we decide we're
13 going to, this is an industry that's paying into something for this purpose, and somewhere along the way
14 we decide to divert money, why we had that right to do that, why we had the right to divert the money
15 away from the intended purpose and statute, and why that was legal? I guess this

16 **Joyce:** ([01:18:31](#)):

17 Mr. Chair, Representative. If I can again refer you to Appendix C. The oil conservation tax was created in
18 1959 at a rate of 0.14% on oil and gas products severed and sold in the state. The revenue went originally
19 to the oil conservation fund, which was used by the Oil Conservation Commission to enforce the Oil and
20 Gas Act. In 1977 the legislature chose to create the Reclamation Fund and a reclamation fund receives a
21 portion of the conservation tax.

22

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1 **Dow:** ([01:19:07](#)):

2 So, Mr. Chairman, and I guess the question would be, when that money was restored or, why didn't that
3 money just start going to the Reclamation Fund? I mean, did we make a mistake as a body when we said
4 we're going to create the Reclamation Fund to plug wells and didn't put all the money we were collecting
5 from industry for plugging wells into the Reclamation Fund but, instead, we said this had this purpose, but
6 we're going to only leave a little bit of it in reclamation and the rest of it, we're going to put in the general
7 fund? Has anybody asked that question? And what was the answer? I mean, I know we're we're on time

8 **Chair:** ([01:19:48](#)):

9 No, and again, totally fair questions. I think many of those may end up sort of things we may need to
10 wrestle with in our roles. I don't know that the staff would sort of have necessarily a perspective. Super
11 fair questions. Maybe we'll wrestle with those and, yeah. Okay, then we will go next to, sorry. Oh no, we
12 lost our list! We have Representative Herrera and then Senator Woods. Representative Herrera?

13 **Herrera:** ([01:20:23](#)):

14 Thank you, Mr. Chair. I actually was following up on Rebecca, on Representative Dow's question. Looking
15 at this chart, so we spent in, let's just say FY 19, \$3,529,000 went into the Reclamation Fund. How much
16 went into the General Fund that year? I guess that's a question I want to know.

17 **Joyce:** ([01:20:53](#)):

18 Mr. Chair, with your permission, I'll have our Chief Economist come up to answer that question.

19 **Chair:** ([01:20:56](#)):

20 Please. Mr. Torres, great to see you.

21

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1 **Torres:**

2 Mr. Chair and Representative. In FY 24, the general fund received about \$106 million from the
3 conservation tax. And then the Reclamation Fund, I think we have \$26 million. That's also in the report.
4 So, a total of about \$132 million of that tax collected and then \$106 million General Fund 26 to the
5 Reclamation Fund.

6 **Herrera: (01:21:18):**

7 So, I think that's the question that we're all struggling with and the questions Rebecca was leading up to.
8 If we're putting in, paying in a hundred and what was it, \$120 more million in '23 into the General Fund.

9 **Torres: (01:21:36):**

10 Mr. Chair and Representative Herrera. Yeah. And at risk of overstepping here, I think maybe it's helpful
11 from the outside perspective to clarify that when the tax was created, the tax was not dedicated towards
12 plugging wells. And I think that might be missing in this conversation. So, the tax was created to help run
13 the agency. And so over time, the legislature began to pull more and more of that tax away for the
14 reclamation for the purpose of plugging those wells, as Stephanie pointed out, increasing that amount
15 over time. And, so, there is still an amount in the general fund which is, theoretically in statute, the
16 purpose is to help fund the agency. And hopefully that helps clarify some of that confusion maybe.

17 **Herrera: (01:22:15):**

18 Well, I think I'm agreeing with a lot of representatives and senators on this panel that we really need to
19 look at the distribution of those monies, make sure that we use most of it for plugging the wells and
20 running the agency. It seems like there's a lot, but I am sure there is others on this panel that we'll talk
21 about well, we need that for the general fund. So, I think we need to look at this formula all over again.
22 So, thank you. That's all I have, Mr. Chair.

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1 **Chair:** ([01:22:41](#)):

2 That's great. Thank you very much, Representative Herrera. And thank you, Mr. Torres, for the additional
3 context. Next is Senator Woods, then Senator Shendo, then Senator Tobiason.

4 **Woods:** ([01:22:54](#)):

5 Thank you, Mr. Chair. If you guys will turn to page 38 on the report, put 38 up there. It's a very interesting
6 process here that we've gone through through the years that we're blaming the oil producers, but I can
7 see most definitely why the Finance Committee cut money, didn't put money in OCD for abandoned wells,
8 because it looks like it was kind of hit and miss a lot. And we even required them to set a goal on how
9 many wells they's going to plug. It says, if y'all read this deal, it says in here, well, the contractor was busy
10 with someone else and didn't get to our stuff. It says that GSA picked the contractors. Is that true? Does
11 GSA, Mr. Chairman, anybody? Does GSA pick the contractors?

12 **Joyce:** ([01:24:17](#)):

13 Mr. Chair, Senator. No. OCD today, in the present day, selects the plugging and reclamation and
14 remediation contractors. There are currently 31 vendors on the statewide price agreement.

15 **Woods:** ([01:24:34](#)):

16 Did you say there were 31 vendors, contractors? That's on the list to plug wells?

17 **Shelton:** ([01:24:43](#)):

18 Mr. Chair. My understanding, again, these statewide price agreements, and the reason that we may be
19 getting our numbers crosswise, is because they bid on different components. So, when we do an offer,
20 there's, we offer for, I think GSD puts it out for many, many different task sort of items. And people bid
21 on different components of them up to and including supervising the environmental remediation, but not
22 actually doing any of it. So, there's all sorts of different things that you do. I think that we, from OCD's

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1 perspective, have five down hole owners. The trucks will show up on the day and pour the cement
2 contractors. So, the total number may be larger than five but, from our perspective, we see it as five San
3 Juan based contractors who will actually do the plugging work and lay the cement in.

4 **Woods:** ([01:25:33](#)):

5 Is there, so there's no other contractors in the state that do that kind of work?

6 **Shelton:** ([01:25:40](#)):

7 Mr. Chair and Senator. Yes, there are many. Those are who bid when we first opened our statewide price
8 agreement. We have another one open right now, and we are getting more. So, there's a lot more that
9 are doing it. But at that time, that's who bid on the GSD open procurement.

10 **Woods:** ([01:25:58](#)):

11 So, this procurement contracts that we let, Mr. Chair, these procurement, they're competitive bid
12 contractors open, wide open if you meet these qualifications as a down hole operator?

13 **Shelton:** ([01:26:15](#)):

14 Mr. Chair, yes. They bid into the open process that GSD had, and I believe it was 2023, and they were
15 accepted. We said yes to everyone who showed up and bid for actual plugging work. And that was those
16 five.

17 **Woods:** ([01:26:30](#)):

18 Well, it's funny because in this literature that I have in front of me on page 38, it doesn't sound like that.
19 It sounded like they approved five contractors at one time. It sounded like they didn't plug any one quarter
20 because they said the contractors said it was too wet. And, they talked about, they anticipate plugging 60
21 wells in 2018. And then in 2019, they said well, in 2018 we plugged 41, and the agency only targeted 27
22 in '19. And yet they knew there was 208 abandoned wells and orphaned wells. And then in the first quarter

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1 of '21, timing conflicts with the well plugging contractor was not met in 2020. And then a new
2 procurement agreement in '21 allowed for additional approved well contractors. So it sounded like maybe
3 that was the first time additional contractors was considered, just in this narrative. I mean, just what I
4 read here, I have a hard time. All I can do is read what I see in front of me. And I know this is a particular
5 section of what you oversee. You don't know all the details in the deal. You probably don't work with it
6 daily.

7 **Chair:** ([01:28:38](#)):

8 Senator, we're going to have

9 **Shelton:** ([01:28:43](#)):

10 Thank you Mr. Chair, Senator. So, this is a compendium. You get your quarterly report cards for agencies.
11 And this is just a compilation that this has been a chronic performance challenge in this particular area.
12 And we went back to 2007 when we started these; we're not plugging very many of them. The cost is
13 variable. There's stop and start with contracts and it sort of provides context for why did we do this report?
14 Because sometimes that performance data doesn't tell you why or what to do about it or provide more
15 information than what you've got in front of you. So that was the purpose of this report. It's like, let's get
16 a better handle on understanding the scope of this performance challenge that's faced the state, and how
17 other states are trying to tackle it if they have similar issues.

18 **Woods:** ([01:29:37](#)):

19 Well, I'm sorry. Am I cutting you off, sir? Mr. Chair, with that said, that's exactly what I read in this, that
20 yeah, this plugging goes up and down with the oil market. So why wouldn't you use the money as the oil
21 is being produced to put in a fund so that you could keep this steady? And I know because of the

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1 performance of this OCD, you're saying those some bucks ain't using the money anyway, so I'm not going
2 to put money in there. I can just see John Arthur Smith saying that.

3 **Shelton:** ([01:30:24](#)):

4 Mr. Chair, Senator. I think the fund balance has grown exponentially as oil production and the price of oil
5 grew exponentially, which happened at the same time that we got a huge influx of federal funds for the
6 same exact purpose. And then it's what we're experiencing across government. We've talked about this
7 just in schools as organizationally as state government, as well as the private sector in this particular area.
8 We've run up against capacity constraints. And, so, the challenge is how to figure out how to manage
9 through those capacity strengths. But the challenge is that industry, they take care of the vast majority of
10 their wells as required by statute. There's a very small number that we're very challenged to do anything
11 about, and how do we work through that to prevent more of those coming online as abandoned, and
12 state responsibility and work with industry in order to do that?

13 **Woods:** ([01:31:23](#)):

14 And I agree with that. I mean, I agree that we probably haven't discovered all the abandoned wells yet,
15 and we can't figure out who those operators were so, you can, and they may be bankrupt as it says in this
16 narrative, but if you collect the money as they're producing well, as they produce the oil, then you don't
17 have to worry about 'em going bankrupt because you've got the money to take care of the abandoned
18 well, no matter.

19 **Shelton:** ([01:32:00](#)):

20 And that is something that the report alludes to of coming up with an alternative way to plan for the cost
21 of plugging it. Currently there's bond requirements, financial surety that is very difficult for OCD to work

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1 through. And this is an alternative mechanism that should be explored based on the staff report in a way
2 that hasn't been an option up until this report came out.

3 **Woods:** [\(01:32:34\)](#):

4 Well, I won't keep going. I understand a little more of the problem now. The main problem is old,
5 abandoned wells and you have nobody to tie to that. But what you're saying in the report is we need to
6 collect more money from a producer today to take care of somebody else's mistake. And I think most of
7 the committee is saying, we're collecting money, if we would direct it to this particular fund. But then
8 again, I am worried as long as there's plenty of contractors out there and we do this at a competitive bid
9 so that we know we get as cheap a job as we can get. I think that's what we all want if we want 'em
10 plugged, but we don't want to pay extra to plug them.

11 **Shelton:** [\(01:33:31\)](#):

12 And I think the question, there's not a recommendation in here to increase general industry tax to put
13 even more money in the reclamation. There's a recognition that there are certain types of wells that exist
14 out there, about 3,000 of 'em that are only producing about a barrel a day, when your common stripper
15 well would be producing ten, and are those financially viable? What do we do with the 3,000 if they stop
16 pumping and turn over and say, it's your problem OCD. Is there a novel solution to dealing with that
17 potential liability so that the Reclamation Fund or the general taxpayer doesn't have to take on that
18 responsibility? Are there other alternatives and how can we explore that with industry?

19 **Woods:** [\(01:34:26\)](#):

20 Okay. And under that circumstance, you've got a producer who has a well producing one barrel a day. Do
21 we know who the operator is?

22

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1 **Shelton:** ([01:34:35](#)):

2 Yes.

3 **Woods:** ([01:34:36](#)):

4 And you can't tie the obligation to him?

5 **Shelton:** ([01:34:39](#)):

6 Well, by law, they're obligated to fill it and plug it.

7 **Woods:** ([01:34:45](#)):

8 And, so, what do they do? Use LLCs, LLPs and just bankrupt that LLC and no longer an operator?

9 **Shelton:** ([01:34:54](#)):

10 Well, there's a worry that it's not economically viable, but it still meets the operational definition. And
11 does there need to be enhanced regulatory oversight so that doesn't happen? That's what the report is
12 raising a question about.

13 **Woods:** ([01:35:10](#)):

14 What's the industry saying about that?

15 **Shelton:** ([01:35:13](#)):

16 We will be finding out.

17 **Woods:** ([01:35:14](#)):

18 Yeah, and that's a great opportunity.

19 **Chair:** ([01:35:15](#)):

20 ([01:35:23](#)):

21 Sorry. No, no, that was great and good to go through the questions. We always want to make sure folks
22 have that opportunity. We are going pretty late. We may have to delay dinner or at least our appearance

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1 at the dinner a little bit. We will have an opportunity, it'll need to be brief, to hear from Mr. Winchester
2 and Ms. Wagner. We will go back to you, Senator Woods, if there's additional questions. Okay. And thanks
3 very much, Director. So, let's see, next we have Senator Shendo, Senator Tobiason, Vice Chairman Munoz,
4 and then we'll conclude with Representative Dixon. Senator Shendo?

5 **Shendo:** Speaker 16 ([01:36:01](#)):

6 Thank you, Mr. Chairman. Thank you for the presentation. Just had a quick question. On page 18 where
7 you have the chart on the right hand side where inactive wells, you have 336 identified as tribal. Are those
8 mainly on Navajo allotted lands? I'm just curious. I know because on page 39, on that last section on 2025,
9 it's also written on there that the Division has been requested by the Federal Indian Minerals to help plug
10 wells on Navajo and other land. So, I'm just curious, are those are one and the same or are they different?
11 I'm not sure.

12 **Joyce:** ([01:36:47](#)):

13 Mr. Chair, Senator. I don't have the exact answer for you about exactly where those wells are located. If
14 you go to page 15 of the report, there is a QR code that you can scan with the camera on your cell phone.
15 It will take you to a webpage that has an interactive map showing where all of the currently orphaned,
16 inactive, and low producing wells, as we've identified them in this report, are located. So, you can see
17 where all three categories of those wells are located here in New Mexico on that interactive map.

18 **Shendo:** ([01:37:34](#)):

19 Okay. Alright. And then another question is, it says that the OCD or has begun plugging the Navajo allotted
20 land wells. So, is that from the 55 or whatever million federal dollars, or is that a different source of
21 reimbursement to the state that comes in? I'm not sure.

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1 **Shelton:** ([01:37:57](#)):

2 Mr. Chair. Senator. That's a good question. I don't have the answer to that right now and I'll get that
3 information to you.

4 **Shendo:** ([01:38:01](#)):

5 Alright, that's fine. And the other questions I had have been answered by other questions. So, that's it,
6 Mr. Chairman.

7 **Chair:** ([01:38:06](#)):

8 Great. Thank you very much Senator Shendo. Senator Tobiason?

9 **Tobiason:** ([01:38:09](#)):

10 Thank you, Mr. Chair. Of the wells that you've mentioned that are orphaned, how many of them are, let's
11 say, 30, 40 years old or older?

12 **Joyce:** ([01:38:19](#)):

13 Mr. Chair, Senator. We do have a chart of that. If you'll just give me a minute to find it. I believe it's on
14 page 17. Yeah, chart eight. You can see the age of the wells that are currently orphaned based on the
15 year, decade that they were drilled.

16 **Tobiason:** ([01:38:47](#)):

17 Okay. So, it looks like by that chart, and thank you for that, that the vast majority were orphaned in the
18 sixties. So, looking at other states like Texas, sorry Mr. Chair, who just passed a law, I believe this last
19 legislative session, to be able to go back to those orphaned wells with today's technology and make those
20 wells viable. As a state, are we looking at that so that we're not just focused on plugging? Maybe there is
21 a way to make these active with today's technology?

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1 **Joyce:** ([01:39:19](#)):

2 Mr. Chair, Senator. I just want to clarify that chart eight is showing not when the wells were orphaned,
3 but when they were drilled.

4 **Tobiason:** ([01:39:28](#)):

5 Oh, I see.

6 **Joyce:** ([01:39:28](#)):

7 Okay. So, this is the year that they were spud, in the industry's terminology. When they were orphaned,
8 Depends on when OCD pursued plugging authority because, as I have said, we define in this report orphan
9 wells as wells for which OCD has pursued plugging authority. As to the question about whether these wells
10 can be repurposed for other uses, I think there is a lot of interest in that. Our understanding, in speaking
11 to experts as part of this report, is that that's often not possible because of the way the well was
12 completed, was drilled originally, the way that the well was constructed originally was designed to target
13 a specific formation, and targeting a different formation, a deeper formation. Doing something like
14 horizontal drilling or hydraulic fracturing often requires a different well design. And so these older wells
15 often are not able to be produced using modern technology. They do need to be plugged in order to
16 facilitate, in some cases, those new wells coming online.

17 **Tobiason:** ([01:40:39](#)):

18 Okay. And Mr. Chair, so are they doing something remarkably different in Texas? Does their drilling look
19 different than ours? Why would they have passed that in Texas? What's the difference?

20 **Joyce:** ([01:40:54](#)):

21 Mr. Chair, Senator. I'm not familiar with what you're discussing in Texas, so I wouldn't want to comment.

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1 **Tobiason:** ([01:41:00](#)):

2 Okay, fair. And we're talking about increasing bonding amounts, and we just increased them in 2018. So,
3 I'm really concerned about our small drillers. How does the tightening bond market really affect them in
4 this scenario?

5 **Joyce:** ([01:41:22](#)):

6 Mr. Chair, Senator. So, I will direct you to, sorry, let me just get there, page 31 of the report, just so that
7 we're all in the same place when it comes to financial assurance. You did mention that financial assurance
8 was, you did increase the maximum amount of financial assurance that can be required for active wells
9 from \$50,000 to \$250,000. You also introduced a separate financial assurance requirement for
10 temporarily abandoned wells, which are not currently defined in THE statute. That translates to, for many
11 operators, less than \$1,000 per well. So, the amount of assurance held for a single well in some cases is
12 \$100. So that's the context. Obviously, the overall amount, when you look at it, looks large, \$117 million,
13 but OCD can only pursue financial assurance forfeiture from the operator whose wells it has to plug. So,
14 if an operator only has \$1,000 per well in financial assurance, that's all OCD can pursue if it has to plug
15 that operator's wells. So, I just wanted to note that. I'm sorry, if you could repeat the rest of the question?
16 I got a little lost there.

17 **Tobiason:** ([01:42:57](#)):

18 Well, so Mr. Chair, I'm just concerned, and maybe Mr. Winchester can help us when he comes up to speak,
19 but I'm concerned with how the tightening bond markets will really affect small producers and are we
20 pushing small producers out of an industry? I don't know if you want to elaborate.

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1 **Joyce:** ([01:43:18](#)):

2 Mr. Chair, Senator. We did hear from NMOGA that members have been having trouble securing surety
3 bonds, which are currently one of the many options for financial assurance that is allowed by statute. The
4 surety bond market has gotten tighter, as we understand, in surveying surety companies as a result of
5 increased perception of the risk of these wells being orphaned. So, as in the report, there is a
6 recommendation that you, the legislature, look at an alternate financial assurance mechanism, which is a
7 third party trust or a site specific escrow account which would allow operators to set aside money over
8 the course of a well's life to ensure that the money is available when it does eventually need to be plugged
9 and reclaimed.

10 **Tobiason:** ([01:44:17](#)):

11 Okay. And Mr. Chair, one more question? You mentioned that you only have five people that responded
12 to the RFP here in New Mexico and that they're in San Juan County, all of them, which is kind of shocking
13 to me since it looks like, based on the map from your QR code, that most of our wells are in the Permian
14 Basin. So, are you also going out of state, in particular to Texas for responses?

15 **Shelton:** ([01:44:48](#)):

16 Mr. Chair and Senator. That's who responded. We do resource out of state resources. That really
17 expensive plug that Stephanie mentioned earlier was because we had a unit that we had to bring in from
18 Louisiana, had to bring a snubbing rig in from Louisiana to, that's not something that's necessarily on the
19 statewide price agreement itself. That's more like our existing contractor will subcontract out for that and
20 then bill us as an overage on that. So ,whether or not the statewide price agreement is open to out of
21 state contractors? I don't know off the top of my head, Mr. Chair. I'm sorry. I can look that up.

22

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1 **Tobiason:** ([01:45:27](#)):

2 Mr. Chair. Yes, if you could. Because it just seems to me, as just a business person, that it's not best
3 practice for our state and even all the dollars, whether they're federal dollars that we're currently using
4 or the tax from the oil and gas industry here in the state, it just doesn't seem practical to me that we
5 would be paying top dollar when I'm sure there has to be other operators in the region at least, even if
6 they aren't in Texas, which I would imagine Texas has quite a few. And I'd want to know why they aren't
7 responding. Is there some situation here in New Mexico that precludes them from any desire to come
8 here and expand their business? So, I'd like to know that answer. Thank you, Mr. Chair.

9 **Chair:** ([01:46:12](#)):

10 Great, thank you very much Senator Tobiason. We're going to go to Vice Chairman Munoz and then
11 conclude with Representative Dixon.

12 **Munoz:** ([01:46:22](#)):

13 Thank you guys, and thanks for doing this report. Lemme ask you some questions. How many federal wells
14 are unplugged right now, Mr. Shelton?

15 **Shelton:** ([01:46:33](#)):

16 Mr. Chair, Senator. I dunno if we keep that list. I can tell you that the process for the federal government
17 for going about getting permission, basically getting the plugging orders, is a lot longer and a lot slower
18 than ours.

19 **Munoz:** ([01:46:51](#)):

20 But we're not tracking the federal wells that need to be plugged too, because if the feds decide to come
21 up, not fund us for the federal side, they'll probably become the state's responsibility. So, I'd like to know
22 that. And then, why is not the land office abandoned wells listed in this also because they're part of the

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1 abandoned well project, I think? I don't know how they do those. Do you know how the state land office
2 pays for their well plugging?

3 **Joyce:** ([01:47:22](#)):

4 Mr. Chair, Vice Chair. State Land Office wells are included in this estimate of orphan wells. It is state and
5 private land wells. The State Land Office, OCD plugs all wells in New Mexico, including the State Land
6 Office wells. So, OCD does all of the plugging for wells in New Mexico, including on state lands.

7 **Munoz:** ([01:47:50](#)):

8 So, does the state land office have their own fund for well plugging? I believe they do.

9 **Shelton:** ([01:47:57](#)):

10 Mr. Chair. No. I will say that the State Land Office will compel their lease holders to go in and plug. So
11 sometimes they'll have, the leaseholder will be one entity, and then they'll have the operator be
12 somebody else. The state land office will frequently have the leaseholder go in and basically compel them
13 to plug the well on state trust land which, that would kind of count towards the private or industry plugged
14 wells.

15 **Munoz:** ([01:48:21](#)):

16 So, do you have any estimate on how many federal wells that will need to be plugged or how many in the
17 last five years you plugged and what those numbers look like? How many federal wells have you plugged
18 in the last five years and how many do you have on a two year spreadsheet to plug?

19 **Joyce:** ([01:48:39](#)):

20 Mr.

21 **Munoz:** ([01:48:39](#)):

22 Mr. Chair? I'm asking Mr. Sheldon there. He's in charge of OCD. You may not know that number.

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1 **Shelton:** ([01:48:44](#)):

2 Mr. Chair. I don't know the exact number. The number is not huge. We basically will plug BLM wells with
3 BLM funds. That's a separate fund. It's a separate project that we operate under, but it's not more than
4 probably, I'd say, 300 in the last five years.

5 **Munoz:** ([01:48:59](#)):

6 So how many in the last four or five years?

7 **Shelton:** ([01:49:01](#)):

8 I would estimate not more than 300 in the last four or five years, but I'll get the exact number for you.

9 **Munoz:** ([01:49:06](#)):

10 But you can plug those 300 wells in the last five years. But in the last, how many wells did you plug on the
11 state leases this last year?

12 **Shelton:** ([01:49:17](#)):

13 Mr. Chair and Senator. I think about 130.

14 **Munoz:** ([01:49:20](#)):

15 So, you have enough contractors to plug the federal wells, but you don't have enough contractors to plug
16 the state wells? Are the BLM wells operating under, when you plug 'em, operating under the state price
17 agreement?

18 **Shelton:** ([01:49:36](#)):

19 Mr. Chair, sorry,

20 **Munoz:** ([01:49:38](#)):

21 Just let me finish my question. So, if you're operating on the state pricing agreement and you're sending
22 your contractors to plug BLM wells before you plug state wells because the federal money is there, you're

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1 not balancing out the number of wells equally to balance those, even though you have the state funds to
2 plug those wells, correct? Your priority is BLM wells to be plugged over state wells.

3 **Shelton:** ([01:50:07](#)):

4 Mr. Chair and Senator. I don't know that I would. I think that we prioritize plugging wells based on our
5 criteria for what is a priority. The BLM project is significantly smaller. We get much less frequent orders,
6 and we use a lot of different pot of money to go plug BLM wells. So, it's a little bit of an apples and oranges
7 comparison, Mr. Chairman, based on just the volume of work.

8 **Munoz:** ([01:50:31](#)):

9 Well, how could it be different? I mean if you have a BLM well next to a state well a mile away, right, and
10 you chose to prioritize, you said 300 wells over the last couple of years, and you've only done 120 wells
11 for the state, you're prioritizing that state pricing agreement to do the federal wells and not do the state
12 wells. Is that why the state money is not getting used?

13 **Shelton:** ([01:50:58](#)):

14 Mr. Chairman. No. No. That is not what we are talking about. We don't prioritize federal wells over state
15 wells. When the BLM receives a plugging order under the contract that we have with them and they send
16 to us, we will utilize our contractors under the statewide price agreement. But the actual order that we
17 tackle the work on is based on the list, that is an appendix, I believe C. That is how we triage. It's based on
18 a number of criteria. But the question, the difference is really just who does the plugging order come
19 from, whether that is coming from OCD or coming from the BLM.

20 **Munoz:** ([01:51:35](#)):

21 So, does the OCD give the plugging orders or does the state land office give the plugging orders if the lease
22 is expiring in the lessee? So, who gives the plugging orders?

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1 **Shelton:** ([01:51:43](#)):

2 Mr. Chair. The OCD does all of the plugging orders. The land office can request them, but they will
3 occasionally direct lessees, which is different from

4 **Munoz:** ([01:51:50](#)):

5 How many FTE do we have in OCD that are working on well plugging?

6 **Shelton:** ([01:52:01](#)):

7 Mr. Chairman. And that would be our engineering bureau. And that's about 30 to 40 staff that are doing
8 well plugging in addition to all of the permitting for all of the active producing wells in the state.

9 **Munoz:** ([01:52:15](#)):

10 But you're not plugging active wells; you're just plugging abandoned or wells that have plugging orders
11 through an agency, correct?

12 **Shelton:** ([01:52:23](#)):

13 Mr. Chair. Yes, that's correct.

14 **Munoz:** ([01:52:25](#)):

15 And are you required to get a permit to do plugging or, you issue the permit to the contractor, not just
16 the order to do the plugging?

17 **Joyce:** ([01:52:37](#)):

18 Mr. Chair, Mr. Vice Chair. OCD does require a sundry notice for plugging. Operators have to submit that
19 before they plug wells. The contractors who work for OCD also have to submit a sundry notice before
20 plugging, which includes conditions of approval. OCD engineers review the plugging diagram, the plan,
21 add additional conditions where necessary, so there is a permitting process for plugging a well.

22

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1 **Munoz:** [\(01:53:13\)](#):

2 So, could you get me a copy of those orders, and I want to see the difference between the BLM and in the
3 state and see what the difference in the orders are and see why, because there's an imbalance for a
4 reason? I mean 300 to 120. There's an imbalance for a reason. I mean, if you have 120, how many orders
5 do you currently have to plug wells right now?

6 **Shelton:** [\(01:53:35\)](#):

7 Mr. Chair? I believe the number is 702 on our list.

8 **Munoz:** [\(01:53:40\)](#):

9 I'm sorry. 702?

10 **Shelton:** [\(01:53:42\)](#):

11 702 wells.

12 **Munoz:** [\(01:53:43\)](#):

13 702. And how many do you expect to plug this year?

14 **Shelton:** [\(01:53:50\)](#):

15 Mr. Chairman. That's a bit of a moving target because we were recently advised that using BIL funds to
16 plug wells requires us to satisfy some scoping requirements for the Endangered Species Act and the
17 National Cultural Preservation Act as well, which has held up some of the expenditure of the federal funds.
18 So, it's difficult to project right now. It kind of depends on what our contractors

19 [\(01:54:08\)](#):

20 get back to us with that final information that'll satisfy the federal government's requirements.

21 **Munoz:** [\(01:54:12\)](#):

22 But that's on the reclamation on the top side, not inside the well, right? To plug the well?

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1 **Shelton:** ([01:54:16](#)):

2 No. That's to go in down hole, Mr. Chairman, and plug the well.

3 **Munoz:** ([01:54:21](#)):

4 What endangered species would be down the well? Give me an idea of some creature we have. Maybe
5 Bigfoot's there since we haven't found him yet or any bones or anything.

6 **Shelton:** ([01:54:32](#)):

7 My understanding, Mr. Chairman, is that they're more concerned about the surface impacts associated
8 with the plugging activity.

9 **Munoz:** ([01:54:37](#)):

10 That's what I just asked. I said that's more in the surface than within the well, and so you could plug the
11 well and then do the reclamation later, right?

12 **Shelton:** ([01:54:45](#)):

13 Well, that's different from the environmental reclamation, which can frequently involve excavating soil
14 and that kind of thing. This is more trucks, traffic, that kind of impact.

15 **Munoz:** ([01:54:55](#)):

16 And, so, when you did your statewide pricing agreement, how many contractors bid on plugging wells
17 and, I don't know, how many they're scopes of work for each area, right? If it's going to take a plasticized
18 cement, if it's going to take a 4,000 or 10,000 psi, how many contractors bid on well plugging in the state
19 of New Mexico?

20 **Shelton:** ([01:55:19](#)):

21 And again, Mr. Chairman, not to get too lost in the sauce, but across,

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1 **Munoz:** ([01:55:23](#)):

2 Well I want to get lost in the sauce. I want to understand how the sauce is made. And so how many
3 contractors bid on the well plugging?

4 **Shelton:** ([01:55:30](#)):

5 On the actual well, plugging down hole work?

6 **Munoz:** ([01:55:35](#)):

7 So, on the state price agreement, how many contractors bid the statewide price agreement?

8 **Shelton:** ([01:55:40](#)):

9 Five.

10 **Munoz:** ([01:55:41](#)):

11 And that's five in total?

12 **Shelton:** ([01:55:43](#)):

13 On our last round for the statewide price agreement? Yes. Five.

14 **Munoz:** ([01:55:46](#)):

15 And then there's contractors in southeast New Mexico that plug wells, and they own well plugging deals,
16 but they're not allowed to plug wells in New Mexico. I won't say their name, but you guys have told 'em,
17 "No, you can't plug wells in New Mexico," even though they plug wells in Texas. And even though they're
18 well owners and can plug their own wells, you guys require them to go to the statewide pricing agreement
19 to do that. And, so, if they got to plug their own well at a higher cost because of the statewide pricing
20 agreement, then them plugging their own wells at a lower cost and meeting the same specs, why are you
21 not allowing that?

22

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1 **Shelton:** ([01:56:29](#)):

2 Mr. Chairman. I'm sorry. I'm not familiar with the process. You're talking about our contractors plug
3 abandoned wells. So, if there's no operator who's seeking permission to plug their own well, they wouldn't
4 be bound to use a contractor on our statewide price agreement. They can use whatever contractor that
5 they, I think, need for their own well.

6 **Munoz:** ([01:56:48](#)):

7 Well, we'll get the names of the contractors, and we'll get the letters saying they have wells, and they
8 want to plug their own wells, or they want to plug other wells, and you guys aren't allowing them to do
9 that. I don't know if it's chicken in the hen coop or what the scenario is, but that's interesting. How many
10 abandoned well owners has the state went after for well plugging costs?

11 **Joyce:** ([01:57:15](#)):

12 Mr. Chairman, Mr. Vice Chair. If you mean how many operators whose wells the state has plugged has
13 OCD sued? The answer is none.

14 **Munoz:** ([01:57:27](#)):

15 And doing Mr. Shelton, why hasn't your agency sued or tried to reclaim the money and the cost of the
16 state from those operators, owners, whatever you want to call 'em.

17 **Shelton:** ([01:57:39](#)):

18 Mr. Chair. And just to be clear, there's two specific activities. There's suing and then there's actually
19 pursuing financial assurance. And to be fair, we've barely pursued financial assurance, and the answer is
20 because the juice isn't worth the squeeze. I have three attorneys to process a

21 ([01:57:55](#)):

22 hundred percent of the enforcements.

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1 ([01:57:57](#)):

2 It's not worth the juice; is not worth the squeeze. I'm not going to send one of my three attorneys, who
3 are doing a hundred percent of the enforcement for the entire state, on a two month goose chase for a
4 \$50,000 bond. It's just not worth the state's taxpayer's dollars for me to dispatch legal staff to go do that.
5 Right now, that has been the case. We are adding another attorney. We're getting a little bit more active
6 about doing this. But, to this point, the value proposition of the department of pursuing a lot of financial
7 assurance and certainly suing under some of these things, the conditions have not been there for us to
8 even pursue it. And then once the conditions are there, it's not an efficient use of taxpayer resources to
9 go and try to get it.

10 **Munoz:** ([01:58:36](#)):

11 So, in the end, whoever it is, I'm going to use Senator Tobiason because she keeps losing it, looking at me.
12 So, Senator Tobiason has a well and she says, ah, this well's not producing anymore. I don't want to spend
13 the money and plug it. I'm just going to walk away. And she got a \$50,000 bond. Maybe it was a thousand
14 bucks or a \$50,000 bond. And she knows the state's not going to come after her for plugging the well
15 because the plugging the well costs I really couldn't see because I didn't have my glasses to see what it
16 cost to plug a well from Drake Well Services in Farmington. Why would I not walk away knowing that I'm
17 not going to get prosecuted even though that's the state's responsibility to chase the bad actors that leave
18 and leave the abandoned wells? And that's a state's responsibility, then why even have a bond if we know
19 that you're not going to chase the bond?

20 **Shelton:** ([01:59:33](#)):

21 Mr. Chairman. And this is, that's a great point, and this is why we're putting more of a priority and more
22 of an emphasis on starting to retire and go after some of that financial assurance, in particular. But there

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1 is a chicken and egg problem here, which is that we don't collect enough to make it worth our while. We
2 don't collect enough to make it really hard for operators that we have to go get it, and they're not going
3 to get it back. It's different in the mining space for instance, where we do full cost bonding. They really,
4 really, really want to get their mines cleaned up because they really want their bond back. And that's just
5 not the case in the oil and gas space because our amounts are low. And then, yeah, candidly, the capacity
6 concerns have advised against pursuing it. But it's something that we're changing specific to that dynamic,
7 we don't want to send that message.

8 **Munoz:** [\(02:00:14\)](#):

9 But you're allowing bad actors to continue their bad habits, knowing there's no recourse. I'm going to go
10 get a thousand dollar bond and buy 20 wells and spend \$20,000 getting a bond and maybe I make, I don't
11 know what they make. I make money off that deal and then I'm just going walk away knowing that I
12 committed a crime or a violation against the state of New Mexico, knowing that they're not going to even
13 begin to chase me because we don't think we need to send a message for \$50,000 to chase their bond. I
14 mean that is kind of a dereliction of duty because the bond exists for a certain purpose, to clean up the
15 wells, but you're just going to say no matter what happens, we don't think your bond's worth anything,
16 and we're not going to chase it. And, so, go ahead and just keep doing the same thing over and over again.

17 [\(02:01:07\)](#):

18 And people are creatures of habit. There's good actors. There's bad actors, and they're creatures of habit.
19 But if you don't prosecute or start chasing bonds and the bond companies say, we're not going to issue a
20 bond because you're not creditworthy, that's the way they issue bonds. How are you on your credit
21 worthiness? We're not going to issue a bond. We think you're going to bend this well and you don't have
22 the wherewithal to plug the well, and they're going to come after us for \$50,000. I mean, there's a process

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1 and it was set in there in place for a reason, but if the state's determined that they're not going to chase
2 the bonds, you could get a million dollar bond for a well and then the state would say, well, we're not
3 going to chase a bond because it's not worth the juice. It doesn't quite make sense to me.

4 ([02:01:56](#)):

5 I mean, as a contractor, I have to have a bond. And anytime anything happens, they'll try to chase your
6 bond if they can, but they will pursue it. But if the state's going to throw up their hands and say, go ahead
7 and do whatever you want, abandon all the wells you want in New Mexico, because we're not going to
8 have any recourse. We're not going to do anything to you. We're going to tax the industry or charge
9 industry a fee or whatever it is, at a certain rate, and they're going to plug your well for you. Those guys
10 that are buying those wells that are low producing, that they know are going to end up, that aren't credit
11 worthy, that continue to leave abandoned wells in New Mexico and leave us to clean up the mess. That's
12 not fair to everybody else. So, I want to see when the agency's going to start chasing bonds because they
13 are tasked with chasing those bonds.

14 ([02:02:45](#)):

15 And I imagine that, in the statute, and the statute says the bond is in place because if you abandon the
16 well and we have to plug it, then the state has a duty to proceed to chase that bond. Not just, I don't have
17 the time or it's not worth the juice. It doesn't really help send a menta, I an issue to him saying, you better
18 get to plugging this. So, if Senator Tobiason didn't plug her well and abandoned it and opened a new
19 company, would she be allowed to issue a permit or get any other wells even though she abandoned that
20 one?

21 **Shelton:** ([02:03:26](#)):

22 Mr. Chairman,

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1 **Munoz:** [\(02:03:27\)](#):

2 OCD controls the permitting process. Do you guys control the permitting process? So, are you matching
3 Senator Tobiason with a bad well actor, and then a new well actor, and saying, you didn't fix this well so
4 we're not going to allow you to permit the next one, or take over the next one? Are you guys matching
5 those up?

6 **Shelton:** [\(02:03:44\)](#):

7 Mr. Chairman. Our view of the Oil and Gas Act, and we proposed legislation I feel like, I'm going to say, in
8 2024. This may have been part of that bill, but the view right now is that we don't have the authority to
9 do that sort of bad actor review on personal compliance. So, if you start a brand new company that's got
10 a clean bill of health and a clean record, then no, we don't have the ability to come in and say, hey, one
11 of your officers has outstanding liability on another company.

12 **Munoz:** [\(02:04:13\)](#):

13 Well, I think the state can do that. If the state would have filed or chased that bond, they would actually
14 have a lien against somebody that's listed on a corporation that could now come back and say, well, we
15 have this state lien and we're not going to allow anything else to happen until this other issue is resolved.
16 I think they have that authority. I think they do it all the time. I mean, I think that Clay Bailey's agency can
17 go to a contractor and say, you have a complaint and you have a lien and you have a claim and we're not
18 going to renew your license or issue a permit. The former director's shaking her head at me and have
19 recourse until that's done. Or if you owe your taxes in the state of New Mexico, I think there's a recourse
20 that can happen too. But I mean the legislature is the legislature, but the agencies under the executive
21 have to function. And if they're not functioning and they're not functioning correctly to plug wells, to make
22 sure that you can't control the supply of contractors that are going to bid on well plugging. But you can

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1 control how you prioritize wells, how you chase people that have a bond that abandon wells and leave us
2 with this mess and spend us in a two or three hour discussion today and leave us holding the bag for how
3 much money over the last 10 years, Charles? I don't have that. I mean, what did we spend last year? 40
4 million. What did we spend on abandoned wells last year? Over the last three years?

5 **Joyce:** [\(02:05:51\)](#):

6 Mr. Chairman, Mr. Vice Chair. Since FY 19, we've spent about \$50 million on plugging. Yeah,

7 **Munoz:** [\(02:05:57\)](#):

8 I mean \$50 million because we didn't want to chase 'em. I mean, that's a big number. I mean, there's
9 places where we could put \$50 million, probably going to be in the SNAP program as it comes forward in
10 the cuts. But I mean, we all have to work together to get these problems resolved. I do want to bring one
11 other issue that's really bothered me and that's in this report, and this is not going to the staff but to
12 Charles, you agreed to meet with a legislator and then had him set up a meeting with the staff to talk
13 about this, and this is a legislator I'm talking about. And then when the legislator showed up at the
14 meeting, then there was no meeting and we're a nonpartisan committee, but if a legislator or someone
15 has knowledge and a skillset, they should be allowed to talk about it in a nonpartisan way.

16 [\(02:06:56\)](#):

17 So, we have the best information that we can have and that's an issue for me when someone, if you don't
18 want to have the meeting, then tell 'em you don't want to the meeting, but don't schedule a meeting and
19 then schedule it with your staff and the analyst and then him show up at the meeting and drive from
20 Roswell and then not have the meeting. I completely understand we're going to be nonpartisan. We're
21 going to listen to industry. We're going to write your opinions and what you think the process is and give
22 us a clear spotlight on what needs to happen. But if there's any outside influence, then it shouldn't be in

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1 there, and that goes on every side. But when we schedule a meeting with legislators and agree to meetings
2 and agree to do things in LFC, then we should do 'em. If we don't want to do 'em, don't agree to 'em, but
3 when I got to get my email lit up and have conversations, I don't expect that to happen in LFC anymore.
4 So, I think we got some responsibility and some that needs to happen. I think OCD and EMNRD has some
5 work to do, so we don't spend \$50 million when we could be ahead of this problem. If we have to change
6 legislation, I guess we'll have to change legislation, but everybody should have an opportunity, especially
7 industry, when they have knowledge and skillset. Thank you, Mr. Chairman.

8 **Chair:** ([02:08:26](#)):

9 Thank you. We're going to go to Representative Dixon and then Senator Padilla.

10 **Dixon:** ([02:08:33](#)):

11 Thank you, Mr. Chair, and thank you staff and Deputy Secretary for sitting here with us through a very
12 long, but I think enlightening and thorough discussion, although I think we could discuss this for another
13 three hours because there is actually a lot to unpack. I have three pages of questions, but since I am at
14 the end of the list, I will not ask all of them and I will try to consolidate them so that I can just ask a
15 question and get a quick answer. We answered why the state doesn't sue for financial assurances. It's
16 because the agency, I think, has a valid perspective that it may not be worth the taxpayer dollars. I think
17 that's useful information for us as we consider moving this forward. Why is the agency, sorry Mr. Chair
18 and Deputy Secretary, is the reason that the state is not plugging more wells each year capacity or is it
19 money?

20 **Shelton:** ([02:09:49](#)):

21 Mr. Chair. It's, I guess, capacity, but not agency capacity that we are limited by the contractors.

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1 **Dixon:** ([02:09:56](#)):

2 Exactly. Okay. So, if you had more money or less money, that's not the issue right now? It's that there are
3 five contractors on the price list that have signed up to do these pluggings, and when you do another bid
4 for the state price agreement, hopefully operators in the Permian with this expertise will sign up. Is that
5 correct?

6 **Shelton:** ([02:10:25](#)):

7 Mr. Chairman, Representative. Correct.

8 **Dixon:** ([02:10:26](#)):

9 And, so, Mr. Chairman, Secretary, Deputy Secretary. If you had ten contracted operators, theoretically the
10 agency could plug twice as many wells, theoretically.

11 **Shelton:** ([02:10:44](#)):

12 Mr. Chairman. Sure.

13 **Dixon:** ([02:10:45](#)):

14 Thank you, Mr. Chair and team. I guess, do we monitor all of our inactive wells to see if there are methane
15 emissions, things like that?

16 **Joyce:** ([02:11:11](#)):

17 Mr. Chair, Representative. As a condition of the funding through the I-I-J-A-B-I-L, OCD has begun
18 monitoring methane from some of the orphaned wells. I believe it's in the report, but they've taken
19 methane measurements at something about like 125 wells. But no,

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1 **Dixon:** ([02:11:36](#)):

2 That is great. Mr. Chair, Deputy Secretary, is it possible that the state could implement measures? Could
3 you work with contractors to monitor more wells because that's a significantly cheaper operation and
4 would that potentially help prioritize more wells that should be plugged?

5 **Shelton:** ([02:11:57](#)):

6 Mr. Chairman, Representative. This question, from my mind, the first question I ask is that an acceptable
7 use of just monitoring versus the actual plugging and reclamation work. So that'd be the threshold
8 question I'd answer but, if the answer is yes, then certainly we could put a price agreement or put a ITB
9 out for that kind of monitoring.

10 **Dixon:** ([02:12:16](#)):

11 Thank you, Mr. Chair. Thank you, Deputy Secretary. Because there are actually, there's a wide range of
12 new technologies that are emerging that can actually help with the monitoring and plugging activities,
13 that I think it would be great if this state could explore because it would also support the current energy
14 industry, as well as some of the advanced energy startups here in New Mexico. TS Nano being a great
15 example of a homegrown company. At some point I'd love to talk more about why there are 121
16 companies with 1,034 inactive wells just, and this is probably a question where I'd really like to talk to the
17 industry to understand the calculations of what those wells are doing and why they wouldn't be plugged
18 or would be plugged. Because I think that's just a business, because I'm not in the business. So, along
19 those lines, I would love to hear, I don't think we're going to get to it tonight, but in the future, I'd love to
20 hear what the industry recommends for steps that the state could take because I think that there's a valid,
21 the question of raising financial assurances using more reclamation fund money gets to a philosophical
22 debate about moral hazard, right?

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1 ([02:13:54](#)):

2 I mean, I'm not an economist or a philosopher, but I think that this is not just an easy answer. And, so, I'd
3 love to hear what industry suggests along those lines. Similarly, I was wondering for our team if you looked
4 at Colorado's, their new legislation that rewards operators that plug their wells with a credit, because I
5 certainly am a fan of incentives and carrots as opposed to sticks, particularly if the sticks aren't working
6 the best. And, so, with that, Mr. Chair, I will conclude.

7 **Chair:** ([02:14:37](#)):

8 Great. Thank you very much. Representative Dixon. Senator Padilla informed me he's going to have some
9 questions offline. I encourage everybody to do that. I'll wrap up a couple of quick things. First, we have a
10 nationally recognized evaluations team. One of the reasons that they're nationally recognized in this work
11 has gone on well, predating my time in the legislature, is because it's an independent group that is able
12 to do their work that is very engaged with all of us, whether stakeholders or individual members. I think
13 we can all agree that defending that independence is a core part of what keeps this evaluations team
14 really functioning for our state. And we all know that more evaluation, particularly with the resources
15 we're putting out, is very important at this time. So that's a long-winded way to say thank you to Ms. Joyce
16 and Ms. Dodson. Really appreciate this work and the extensive amount of work that went into it, the
17 evaluations team.

18 ([02:15:47](#)):

19 So, thank you guys. Whenever you can spark a lot of discussion, you know you're doing really good work.
20 So, a big thank you Mr. Shelton. Thank you Deputy Secretary. From my own perspective, I think it's clear
21 that there are things that need to change, and this has been sort of a start to that with an excellent report,
22 a really good discussion, another part of that. So, we will let you guys step away from the table after that.

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1 Thank you guys. I want to invite up Mr. Winchester and Ms. Wagner, communicating with them offline
2 today. They made the request to be part of the presentation. This is, I think, the way that best uses the
3 time we have today. Very grateful for them. Want to invite them. They're going to share brief thoughts
4 and perspectives. There won't be any questions simply because we have a couple other presentations
5 we've got to go to, but while this wasn't on the schedule, I did think was very important and appreciate
6 them both being here and taking the time. With that, we'll go to you.

7 **Winchester:** (02:17:00):

8 Mr. Chair. Can you hear me? Okay? Thank you. First of all, I just want to introduce myself, Jim Winchester
9 from the Independent Petroleum Association of New Mexico. We represent predominantly the smaller
10 producers and, in this case, they are the ones that stand to be impacted quite a bit by some of the
11 recommendations and some of the information that's being shared here. I want to start by saying that I
12 really do appreciate the opportunity to comment and I'm concerned and want to offer context on the
13 issue of abandoned wells a little bit from a higher perspective and, frankly, whatever specifics are in this
14 report we only did get this afternoon so obviously I'm not going to get into the specifics of the report itself
15 because we just don't know the context of that completely. But I want to offer context both as my eight
16 years representing Independent Petroleum Association of New Mexico, but also four years working at
17 EMNERD and directly interacting with OCD on many issues in seeing the pain of bureaucracy.

18 (02:18:09):

19 So, I want to stress that I'm empathetic of the challenges to that department. Industry has long been very
20 concerned over plugging abandoned wells and, as you heard, so much so that in the seventies and then
21 with further reforms over many, many years, we recognized that problem and want to fix it. As you heard,
22 the most recent financial assurance increase took effect in 2019. Rulemaking was in 2018. But,

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1 furthermore, I want to emphasize that it was industry that worked with the state that so many years ago
2 to create what we were hoping was going to be adequate funding by industry to plug abandoned wells
3 through this Reclamation Fund. We recognized that there are operators that abandoned wells, and the
4 whole concept behind the Reclamation Fund was for industry to have the state hold and reserve money
5 to take care of those wells by the bad actors.

6 [\(02:19:10\)](#):

7 We're not happy about the fact that this occurs and that there are bad actors that are out there. I want
8 to stress that the Conservation Fund, the Reclamation Fund, these are not taxes paid for by private
9 citizens. These are industry dollars on every barrel of production and, you've heard already in the
10 discussion, had the funds remained whole, it's our estimation that at least \$500 million, maybe more like
11 a billion dollars of money paid by industry, would've been available to simply plug all the 1,700 wells that
12 we have abandoned right now. Now, I don't have anything to back that up statistically, but I'm telling you
13 that with the last 15 years, the way that money has been robbed from that fund, we're talking about
14 millions and tens of millions of dollars.

15 [\(02:20:01\)](#):

16 We do want to make sure that the sites are cleaned up, that the environment is returned to its natural
17 state, and I do want to stress that 98% of abandoned wells are already plugged by industry, and industry
18 alone, without any of the additional funds that are put into the Reclamation Fund that operators already
19 pay into. As you've heard, during the down years it is the legislature that has swept these funds and
20 allocated them elsewhere and, essentially, in the perspective of my members, that's broken the trust with
21 industry and it's tying up the hands of OCD. Again, with the legislator spending industry's reclamation
22 funds money since 2010 elsewhere, it's become a very, very sensitive topic for the smaller members

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1 because that money is dedicated from industry and earmarked for that very reason and it was robbed.
2 So, understand that that is the starting point of view on this topic for IPANM members, hence the
3 sensitivity, which I do believe is justified.

4 ([02:21:10](#)):

5 That's our first point. Obviously, legislature created this problem by choosing different priorities other
6 than those intended by the industry and those industry dollars. I do want to note that even with that
7 circumstance, industry has attempted to fix the thievery of the oil and gas funds with proposed
8 Reclamation Fund Act bills the past two sessions that would redirect that industry money back into the
9 Reclamation Fund, and I'm pleased to say it's had bipartisan support with many folks around this table,
10 but we can't get it across the finish line for whatever reason. Sadly, I fear it's due to politics and, frankly,
11 without the votes from you guys, that Fund will never be made whole. My second point is this. Industry
12 has tried many times to work to create efficiencies with OCD to plug wells in a better manner with that
13 industry money, and now with tens of millions of dollars from the federal money, and that money has to
14 be spent or risk it being reverted back to the federal government. But the excuse we always hear from
15 OCD is that there's not enough staff. Now, I am shocked to hear that there's 30 to 40 people working on
16 plugging wells in OCD? That is not what at least my members tell me because maybe, it's just because
17 they communicate with only one person and, at times when they're trying to get stuff through, there's
18 delay after delay after delay.

19 ([02:22:44](#)):

20 But, frankly, in our estimation it's not necessarily just the staff situation. There's a systematic problem
21 when OCD is only able to issue contracts to plug a small number of wells, a small finite number of wells.
22 Industry does this job much more efficiently and at lower costs than OCD's process. We've talked about

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1 that and, in fact, to follow up on what Senator Munoz said, anecdotally, we've had some of our member
2 companies create sub companies that have wanted to bid on large scale plugging projects a hundred at a
3 time, at cheaper prices, but they've been told because of bureaucracy, that's not how we do it. I don't
4 know what the number is, 25 at a time or the bids are separated by component jobs, which is inefficient
5 and really just translates into bureaucracy getting in the way of cost savings and efficiencies. These
6 member companies of IPANM have abandoned those projects because it was futile.

7 ([02:23:50](#)):

8 Now, again, I do sympathize with OCD, having worked there. In some respects, their hands are tied, but
9 the fact of the matter is that the existing Reclamation Fund right now has tens of millions of dollars that
10 remains unspent. Now, I commend them for working hard to prioritize those federal dollars before getting
11 to the remainder of that which is contributed by the state and the state operators, excuse me, the state
12 operators, but the fact of the matter is they can't spend the money that they have. I do want to add that
13 we have high hopes and are excited about the newly appointed OCD director, Albert Chang, and we'll look
14 forward to hopefully working with him collaboratively to address this and many other problems. Finally, I
15 want to comment on the timing of this 43-page report.

16 **Chair:** ([02:24:41](#)):

17 And, go ahead, Mr. Winchester. I do want to say, and very much appreciate that sort of the hand on the
18 scale idea from staff is one of the few things that will, so please continue. Just please know that sort of
19 the independence of staff and the ability for folks to operate in a way that is separate from the politics
20 that we have to work through, which is totally what we sign up for. It's an important place for me for sure.

21

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1 **Winchester:** ([02:25:19](#)):

2 Okay, thank you. And regardless of the intent or why this report comes now, the fact of matter is, is that
3 it's problematic because we know that LFC is a nonpartisan group. They do hard work, they do good work,
4 but this report now comes three months before the Oil Conservation Division will be holding an extensive
5 rulemaking hearing on new extremely high bonding rate proposals that will put smaller operators out of
6 business. OCD. And, again, I haven't read the report, but what we are hearing suggests that one major
7 answer to the abandoned well problem is to raise bonding. Folks, that is not the answer, at least not a
8 sixfold increase proposed by OCD and the environmental groups who are driving this rulemaking. Now,
9 IPANM intends to argue vigorously in rulemaking in October that raising bonds to this level would be
10 catastrophic. Now, this nonpartisan report will be unfortunately flaunted as a dramatic reason as to why
11 we need to increase those bonds regardless of what the conclusions are, instead of really addressing the
12 problems that I just outlined.

13 ([02:26:43](#)):

14 Again, on the report itself, I paged through it. There are definitely some good points of analysis, but we
15 strongly disagree with the financial assurance findings. The last thing I will mention, and I'm learning about
16 this process even eight years into it with LFC, the report comes without any consultation to our group, the
17 Independent Petroleum Association of New Mexico. For us to even talk with the analysts or explain the
18 aforementioned problems. That's highly problematic to my members, and they're the ones that are on
19 me to ask why. I find great irony in the fact that Mr. Shelton wrapped up his comments with It's good to
20 be heard in this report. I counter by saying it sucks not to be heard. I think the members that I represent
21 are highly justified in their concern. Had we been consulted, we would've pointed to Colorado and raised
22 their financial rulemaking that occurred several years ago.

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1 ([02:27:45](#)):

2 And the impact of that, which immediately added to the abandoned well problem, because the bonds
3 they put in place were too high for smaller operators to continue to operate. We call that forced
4 premature closing of wells due to overregulation. And the shame is that those wells would've generated
5 revenue to the state, to Colorado, and we fear that that's coming our way. Again, I apologize, I'm wrapping
6 up. I'll skip the final notes on the problematic stats that I saw in here, but if the state is paying \$168,000
7 per well for plugging, they're getting taken to the cleaners. And there's more. I won't indulge. I appreciate
8 all of you allowing IPANM to offer our serious concerns about the process. Again, we need to look at the
9 content of this report, and there is a larger problem here about abandoned wells. I do want to stress,
10 despite the fact that we are sensitive, as you can tell, that we do want to partner with the state to solve
11 this problem, but to do so without making the problem worse and potentially taking down some of our
12 good smaller operators in the process. Thanks.

13 **Chair:** ([02:28:57](#)):

14 Thank you. Ms. Wagner?

15 **Wagner:** ([02:29:03](#)):

16 Thank you, Chairman and members of the committee. I'm Ashley Wagner, the Vice President of
17 Government Affairs for New Mexico Oil and Gas Association. We represent over 200 member companies.
18 Jim did such an excellent and thorough job that my comments will be a lot shorter. In recent years, oil and
19 gas operators plugged over 90% of the wells decommissioned in the state. For every well plugged using
20 public funds, the oil and gas industry independently plugs 10 more without fanfare and without burdening
21 New Mexico taxpayers. Only tax dollars paid by the oil and gas industry are used to plug orphan wells in
22 New Mexico. Not a single cent comes from the pockets of New Mexico families. The millions spent by OCD

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1 to plug wells came directly from federal funds and the Reclamation Fund funded entirely by industry paid
2 taxes. But these funds are only effective if they're deployed efficiently. The oil and gas industry supports
3 modernizing the Reclamation Fund to ensure it maintains a sustainable efficient tool for environmental
4 remediation.

5 ([02:30:07](#)):

6 That means streamlining procurement, reducing administrative burdens, and preserving the fund's
7 integrity for its intended purpose. The oil and gas industry is proud to carry the responsibility of plugging
8 and remediating wells. During a well's lifetime, it provides energy for the world and contributes to our
9 state's economy. At the end of its cycle, the land is returned to its native state. It's a responsibility we take
10 seriously and one that we're already fulfilling. Let's work together to ensure that the systems in place
11 support this important work now and for generations to come. NMOGA is committed to working with
12 OCD and the legislature to find a solution to move forward. Thank you.

13 **Chair:** ([02:30:47](#)):

14 Great. Thank you both very much. Thank you. Okay, members, we have two more presentations. We're
15 going to do our tax expenditure report and then Director Sali is going to go through the large
16 appropriations, as he's informed me, and it's the large appropriations. Both of these pieces are important
17 for the rest of the week as we go through it, and there's really no other time to reschedule, so we know
18 we take our work seriously. So, we're going to invite up our analysts and work through tax expenditures.

19 **Klug:** ([02:31:30](#)):

20 Alright, good afternoon everyone, Chair, and members. My name is Maggie Klug. I'm one of your program
21 evaluators at the LFC. On my right here is Brendan Gray, one of your economists at the LFC. If I could have
22 you turn to Tab E in your binders, we'll be presenting the first tax expenditure assessment report or Tax E

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1 report for short, and we'll try to keep our presentation short as well. Starting on slide two, we'll start with
2 some background on tax expenditures, why these tax expenditure assessments are needed, what they
3 contain, as well as some key terms and definitions to help you all in understanding the information you're
4 going to hear today. Then we'll present our first two assessments on the rural job tax credit and high wage
5 job tax credit.

6 [\(02:32:18\)](#):

7 Going to slide three, what is a tax expenditure? So, the name is actually a little bit maybe misleading. It's
8 not necessarily an appropriation that the state is spending, but money that the state foregoes to
9 incentivize businesses or individuals to act in a certain way. And, so, this can look like a credit or an
10 exemption or a deduction. A credit is where a business or individual gets money back from their taxes,
11 and a deduction or exemption is not having to pay something in the first place. Now moving to slide four,
12 tax expenditures make up a large share of the state budget, around \$3 billion or around 33% of our fiscal
13 year '24 recurring appropriations, with the largest expenditures going towards citizen benefits, healthcare
14 and economic development. However, despite this large share of the budget, monitoring of our tax
15 expenditures has been limited thus far. Recurring appropriations track closely with performance
16 measures.

17 [\(02:33:17\)](#):

18 We've recently begun non-recurring quarterly reports, but we don't really have a good idea of what we're
19 getting for our money with these tax expenditures. So, now moving to slide five. As you can see, tax
20 expenditures comprise most of economic development investments and you can see a list of these
21 economic development tax expenditures on the right side of the slide. Once again, like I said, currently we
22 don't have a good idea of what these expenditures and claims are getting or, we have an idea of the

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1 expenditures and claims through the taxation and revenue departments annual tax expenditure report,
2 but we don't know what we're really getting for our money. So, income, these monthly tax expenditure
3 assessments or Tax E reports. So, we're starting today with the two that you see highlighted in blue, high
4 wage jobs and rural jobs. And while these make up a small amount of the share of the total, we grouped
5 these by topic and started with these because, as you'll hear, high wage jobs will be expiring shortly. And,
6 so, we wanted to go ahead and get that information in front of you guys. I'll now hand it over to Brendan
7 to further describe the report's focus and go over some key terms for you all.

8 **Gray:** ([02:34:25](#)):

9 Mr. Chair, committee members. My name is Brendan Gray. I'm an economist at LFC. Like Maggie said, my
10 task is to orient you a little more towards the actual report itself, and to define some terms before we'll
11 jump in, and we're going to keep flying through our slides. And, so, if you want to read ahead, you can.
12 The actual Tax E reports are going to be after the slide deck. If you flip through your binder, they're going
13 to look like this. The good news is they're very short one page front and back. That summarizes a lot of
14 information very quickly.

15 ([02:34:59](#)):

16 Yeah, so if you, on slide six, this summarizes what these assessments contain and what they don't contain.
17 So, we're hitting three sections. We're summarizing the history of these tax credits. Some of these are
18 multi-decades old, and so we're going through that process. We're looking at the fiscal and economic
19 impact. We ran these through a new economic modeling software that we have called REMI to understand
20 how these are reverberating through the economy. And then, lastly, we're looking at the design of these
21 tax credits. Are they designed well? Are there places of low hanging fruit that we can make
22 improvements? What these assessments don't have, we're not comparing across states. We're not doing

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1 a cost benefit analysis, so we're not at that point where we can compare apples to apples between these
2 types of investments and other investments that you all as appropriators make. And then, lastly, we're
3 not making recommendations.

4 ([02:35:57](#)):

5 All of that we can develop if you, Mr. Chair or the committee wants us to develop those things, we're
6 happy to do that, but for now we're getting an inventory, getting our hands around that \$600 million that
7 we're spending on economic development tax expenditures to present to you all. Okay, on slide seven,
8 two quick terms. First, these are kind of the key takeaways. The economic impact of these, the return in
9 revenue, this is a measure that's measuring how much for every \$1 we spend, how much more in taxes
10 are we collecting? And, so, a negative return in revenue means that we're spending a dollar and we're
11 getting less than a dollar back in increased tax revenue. And then you also have economic return on
12 investment. This is moving away from just revenues and looking at the entire economy. For every \$1 we
13 spend on this tax expenditure, how much is the state economy growing?

14 ([02:36:58](#)):

15 That's what that measures and you're welcome to read more about those definitions and, if you have
16 questions about our methodology, there's a whole long explainer on how those are defined on our
17 website and I'm happy to talk about that if you'd like. And then slide eight, I want to pause, I've been going
18 really quick here and talk a little bit about the cost benefit analysis and why it's important and notable
19 that we are not including that here. So, cost benefit analysis helps you all as policymakers compare apples
20 to apples across policy areas. So, you could think what's the cost benefit of investing in early childhood
21 versus in K-12 education, apples to apples? And it's really the gold standard for answering what we call

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1 normative questions. Is this thing worth it? Is this tax expenditure, the rural jobs tax credit, is it worth it
2 or not?

3 [\(02:38:00\)](#):

4 And because we haven't done a cost benefit analysis, these tax expenditure assessments don't answer
5 that question that may or may or may not be on your mind. Instead, what we're hoping to do is compare
6 everything in this ecosystem to each other so you can get a sense of how you can prioritize best in this
7 \$600 million ecosystem that you're currently investing in. Alright, those are the terms and then last slide
8 I'll cover on slide nine. This is the summary table that we're going to be presenting. I'll move relatively
9 quickly through each of these, but if you have questions in the report or afterwards when you're reading,
10 this is really the place you can come and get those answered. So, this is the summary table. First two,
11 these are just reported by from TRD, jobs created, economic ROI, return and revenue. Those are all
12 calculated using REMI usage trends.

13 [\(02:38:52\)](#):

14 Pretty self-evident. Purpose statement. We're looking at the purpose statement of these expenditures,
15 whether they're being met or not. And then, lastly, the design of these credits, which I also think are
16 relatively self-explanatory. Alright, Mr. Chair and committee, if you can now flip to the end of that slide
17 deck. You should have the first actual Tax E report. Looks like this on the rural job tax credit. I've got one
18 or two more minutes and then I'll turn it over Maggie, and then we will wrap it up. So, the rural job tax
19 credit is companies eligible for JTIP, if you're familiar with that. Those are economic based companies in
20 rural areas. A business can get a thousand dollars a year per job and they can either qualify for that for
21 two years or for four years, based on the population that they're in. This credit is not refundable; it's
22 transferable up to three years.

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1 ([02:39:56](#)):

2 And I'll summarize the economic impact. On the top right hand corner of the page, you can see all those
3 numbers. FY 24, the state spent \$637,000 on the rural job tax credit. There was 45 claims. So, 40
4 businesses got this tax expenditure. This report estimates the economic ROI to be 35%. So that means for
5 every \$1 we spend on the rural job tax credit, the state economy grows by 35 cents. And this report
6 estimates that the return in revenue for the rural job tax credit is negative 83 cents. That means for every
7 \$1 we spend, we're foregoing 83 cents and we're getting back 17 cents. So, we're not making our money
8 back. We're making 17 cents back every dollar we spend. Alright, that's the economic impact analysis
9 calculated using REMI software. And if you turn to the second page, quickly through the summary table,
10 I'll go through the design elements and the usage trends.

11 ([02:41:03](#)):

12 Usage has dropped a lot recently for this credit. It does not have an expiration date. It does not have an
13 expenditure cap. Those are both LFC tax policy principles that aren't being met. It targets rural areas, but
14 maybe not distressed areas in particular. And it does target export based industry. And this report
15 concludes by saying the credit partially satisfies its purpose of encouraging businesses to start or expand
16 business to start or expand their operations. And it's partial because claims have come down so much and
17 it's a relatively small expenditure, less than a million dollars a year. And, also, the value of that incentive
18 has decreased a lot. It was created in 2000 at that \$1,000 per year, and that has decreased in value by
19 45% over that period. So, you can imagine the relative size of that has decreased a lot. Mr. Chair, with
20 that, I'll pass it back over to Maggie for high wage jobs.

21

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1 **Klug: (02:42:10):**

2 Thanks, Brendan. Chair members, if you all could turn to your next page, you should have a brief that
3 looks very similar, but says high wage jobs credit at the top. So, the high wage jobs credit, similar to rural
4 jobs, provides a tax credit to businesses eligible for the job training incentive program or JTIP for the
5 creation of new high wage jobs. Businesses can receive up to eight and 5% of wages up to around \$12,700
6 for a new high wage job. And, so, a high wage job is defined as one with wages over \$60,000 in urban
7 communities and \$40,000 in rural communities that are filled for at least 44 weeks of the year. So, for
8 instance, if I'm a business owner that created a new job costing around \$90,000, that would mean that I'd
9 get around \$7,500 back per year for that job. So, looking to the top right of the page, you can see that in
10 fiscal year 24, businesses received around \$11.2 million in state support through the credit, and 89 claims
11 were made.

12 **(02:43:09):**

13 Also at the top right of the page, you can see that that economic return on investment is around 47%,
14 meaning that for every dollar spent, the state economy grows by 47 cents and the return in revenue is
15 negative 83%, meaning that for every \$1 spent, the state foregoes 83 cents and gets back 17 cents in state
16 tax revenue. If you could now turn to the back of the page for me, looking at the design elements of that
17 summary box on the right that Brendan pointed you to, the credit does have a sunset date of July 1st,
18 2026. So, it does have an expiration date. However, it does not have an expenditure cap. Similarly, because
19 of the urban rural divide, it does target rural areas, but it doesn't target other distressed areas. So, we
20 said that it partially meets that criteria. And because of the JTIP requirements, it does target export based
21 industries. Given the usage of the credit and the estimated jobs created, around 135 jobs per year, this

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1 credit likely meets its purpose of providing an incentive for businesses to create and fill new high wage
2 jobs. Thank you all for your time. And now if there's time for questions, we'd be happy to answer any.

3 **Chair:** ([02:44:20](#)):

4 Excellent. Thank you both. Fascinating information. We're going to jump right in starting with
5 Representative Duncan. Representative Lujan know of course, Chair Lente, Representative Duncan to
6 start.

7 **Duncan:** ([02:44:33](#)):

8 Thank you, Mr. Chair. Just one quick question for you. On page six, you had indicated that you didn't
9 compare other states. Do you ever look, think there's a possibility that you will look back as you catch up
10 and look at what other states are doing so we don't have to reinvent the wheel?

11 **Gray:** ([02:44:49](#)):

12 Mr. Chair, Representative? Absolutely. If that's something you would find valuable, we would be happy
13 to do that.

14 **Chair:** ([02:44:57](#)):

15 Thank you.

16 **Duncan:** 7 ([02:44:57](#)):

17 Thank you, Mr. Chair.

18 **Chair:** ([02:44:58](#)):

19 Great, thank you very much, Representative Duncan. Representative LuJan, please?

20 **Lujan:** Speaker 8 ([02:45:01](#)):

21 Thank you, Mr. Chair. Just quickly in our for rural employers, do we know what counties are benefiting
22 the most? Mr. Chair?

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1 **Gray:** [\(02:45:15\)](#):

2 Mr. Chair, Representative. We don't have a breakdown of spending by county. I can give you the areas
3 that are eligible if you'd like. Sure. So, it's everywhere in New Mexico that is defined as rural except for
4 Albuquerque, Farmington, Las Cruces, Los Alamos, Roswell, Santa Fe, and then a 10 mile zone around all
5 those cities. Everywhere else is rural.

6 **Lujan:** [\(02:45:44\)](#):

7 Thank you. And, so, as we're creating these, as we've created and amended this incentive and there's no
8 cap, is that with the intention, because of inflation and growth of a need in housing as well? And if you
9 don't have those answers, is that something you're going to be looking at as you're tying in accountability
10 to what we're doing with this tax incentive? Mr. Chair?

11 **Gray:** [\(02:46:14\)](#):

12 Mr. Chair, Representative? What I'm hearing for your question is the reason this tax expenditure exists? I
13 think it's an acknowledgement by the legislature that there are different costs in rural communities, self-
14 evident but, to your point, there's a lot of other considerations like the indexing that haven't been made.
15 And so yeah.

16 **Lujan:** [\(02:46:35\)](#):

17 Yeah. Will you be looking at those as you're doing further analysis, like how this is benefiting with the
18 growth factor and the need for housing and those sorts of things? Because this would I mean, to my
19 knowledge, and the reason why we have done these things is because of the cost of living in our state.
20 And I represent Santa Fe, and so the highest cost of living areas and job creation. Is there's job creation
21 around Santa Fe or in Santa Fe, but people don't necessarily live there? So, I'm wondering how we connect
22 those things. Thank you, Mr. Chair.

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1 **Gray:** ([02:47:16](#)):

2 Yeah, Mr. Chair, absolutely. I think that cost benefit analysis gets at exactly that point. It would be
3 considering the value of that housing, the need of the housing, the cost, the benefit of that. So, we haven't
4 gotten there yet, but it sounds like there's interest so we can definitely start that process.

5 **Lujan:** ([02:47:34](#)):

6 Thank you, Mr. Chair. Maybe a few other things, but really to that point and how much money we've
7 really invested in the housing efforts for our state and tied to the tax incentives that we're doing, I think
8 is very something I would, and I think the rest of us, would appreciate analysis on. Thank you.

9 **Chair:** ([02:47:50](#)):

10 Great. Thank you very much Representative Lujan. Chair Lente please?

11 **Lente:** ([02:47:54](#)):

12 Thank you, Mr. Chairman. Thank you Brendan for the presentation and thank you for the presentation. I
13 forget your name, but I apologize. Nonetheless. Great work, fantastic new tool that we have at our
14 disposal. And I'm also reminded by Chief Torres that the staff will be working on the other economic
15 development investments that we have in this state so that, hopefully by the end of this year, we'll have
16 a report card on all of these so that we can begin to see which ones are working and which ones are not.
17 So, thank you Mr. Chairman.

18 **Chair:** ([02:48:22](#)):

19 Excellent. Thank you very much. Next we're going to go to Representative Herrera. Then we have
20 Representative Dixon.

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1 **Herrera:** ([02:48:28](#)):

2 Thank you, Mr. Chair. Thank you for the presentation. It was a very illuminating, I thought. I was very
3 curious about how these things had worked. Do you think there are other or better cost effective
4 alternatives to achieve these goals? Like just direct grant making or a direct investment? Have you thought
5 about that?

6 **Gray:** ([02:48:54](#)):

7 Mr. Chair, Representative. And a really good question. It's a little outside of these Tax E reports, but I can
8 give you my perspective. I would say the economic development literature tends to estimate the impacts
9 as being higher when an incentive is more targeted and, so, when you can tip a business decision, you can
10 say for sure that this business would not be open. But for this state investment, that's when it's going to
11 be the most cost effective. And, in general, tax policy applies to all businesses. And, so, you might not
12 have that level of specificity. So, I think to your point, I think the literature would say there are more
13 effective ways to make these kinds of investments.

14 **Herrera:** 12 ([02:49:46](#)):

15 Mr. Chair, thank you. Thank you for that answer. And I'm curious, are these tax credits are just open to
16 businesses? Are they open to nonprofits?

17 **Gray:** ([02:50:03](#)):

18 Mr. Chair, Representative? No, I don't think they would be open. These are JTIP eligible and I don't think
19 a nonprofit would be JTIP eligible.

20 **Herrera:** ([02:50:17](#)):

21 Mr. Chair, and thank you for that answer. I just want you to know that in rural counties, most of the startup
22 operations are really nonprofits. The only difference is they don't try to make a profit. They try to break

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1 even, but it's really service to the community. And, most jobs probably aren't starting, I think a lot higher
2 than \$40,000, but they're probably starting at \$40,000. Are they open to, are these tax credits open, these
3 not tax credits, are these credits open to a health agency that would open?

4 **Klug:** ([02:51:03](#)):

5 Chair, Representative. Thank you for the question. Given the job training incentive program requirements,
6 that eligibility can be found online. One of the business industries that is not eligible is healthcare.

7 **Herrera:** ([02:51:22](#)):

8 Mr. Chair, I'm also curious about the high quality jobs. I mean, how do you, is a high cost per job? Is it
9 justified by the type or the quality of the job itself? That's what I'm curious about. Could you speak to
10 that?

11 **Gray:** ([02:51:42](#)):

12 Mr. Chair, Representative? I think the economic development literature has looked at those questions,
13 looking at quality of life of the job, retirement benefits, these kinds of things. These tax credits are just
14 looking at wages and so, more narrow, not considering the quality of the job like you're mentioning. But,
15 that said, that's an important consideration.

16 **Chair:** ([02:52:12](#)):

17 Thank you very much, Representative Herrera. Next. Representative Dixon?

18 **Dixon:** ([02:52:18](#)):

19 Thank you, Mr. Chair. Thank you Brendan and Maggie for this excellent report. I have several notes, but I
20 just want to take a minute to express my appreciation for you guys for diving in and using REMI, so that
21 we as a legislature can make informed decisions on tax expenditures and actually understand the return
22 on investment and cost benefit. So, thank you, thank you, thank you.

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1 **Chair:** ([02:52:50](#)):

2 Excellent. Okay. I don't see any other questions. I think really good questions beginning from the
3 committee. We can clearly see that there's a great deal of opportunity here and are excited to know that
4 LFC, as we understand other executive agencies, including economic development department, have this
5 tool and we're excited to use it. And, yeah, appreciate both of you. Okay. We're going to ask Director
6 Sallee to talk us through the large expenditures report. Again, sort of a look ahead. This is helpful as we
7 go through the rest of the week. A lot, of some of these big expenditures are going to be very relevant to
8 what we'll be dealing with. So, I'll turn over to the Director.

9 **Dir. Soliz:** ([02:53:33](#)):

10 So, thank you, Mr. Chairman. Just real quickly, on Tab F, I thought it was important to just bring it to your
11 attention because it's going to, some of the information contained in this report is going to help answer
12 questions you're going to have for the next two days on what the status of the \$20 million is for child
13 welfare and behavioral health at CYFD, or what's the status of the big investment in certificate training
14 and higher education that's contained in this report? I think it's a snapshot in time of expenditures. We
15 don't have higher ed expenditures and shares, so there's a bit of a limitation there. It's a point in time and
16 we may not see encumbrances for personnel. So, it's something that's not going to answer all of your
17 questions, but it will certainly help highlight things. The other thing I think is important for the committee
18 to consider is, once we get to the closeout of some of these appropriations, agencies feel under a lot of
19 pressure to not revert money and try to just spend all of it.

20 ([02:54:38](#)):

21 And I think we want to resist the temptation of spend what you need to get the job done, and if there's
22 money that's left over, it goes back to the General Fund and we'll have to make kind of an informed

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1 decision on a case by case basis on, are we over appropriating for something that creates an opportunity
2 cost, or were you able to just be more efficient and should be congratulated for it as an agency? So, if
3 you're reverting 4% of the appropriation, I really wouldn't sweat it. If it's like none of it's getting spent and
4 you're in the legislative session and they're asking for an extension, that's going to raise some red flags,
5 and you should have conversations with them about the viability of the appropriation or the special
6 project. So, thank you, Mr. Chairman.

7 **Chair:** ([02:55:22](#)):

8 Great. Thank you very much, Director Sallee. That's very helpful. We can take these home if you want to.
9 I'd just obviously bring 'em back tomorrow. That's going to wrap up. A quick note. Kelly reminded me for
10 folks who are going on the Natural Resources tour tomorrow, please wear comfortable footwear because
11 there's going to be some walking; not a ton, but it'll be some walking outside. These will be the
12 subcommittees in the afternoon when we break up for that. With that, thank you members very much.
13 Big thanks to the staff. We're adjourned for today. The Martyrs?

14 **??:** ([02:55:59](#)):

15 Martyr Steakhouse.

16 **Chair:** ([02:56:01](#)):

17 Martyr Steakhouse, and I'd drive safely, but head over there right away. We'll get started over there.
18 Alright, thanks everybody. We're adjourned.

19