ENERGY, INC. 'STONE

1801 Broadway, Suite 630 • Denver, CO 80202

DHC 8/2

Bus: 303-296-6762 • Fax: 303-296-6971

July 30th, 1999

Ms. Lori Wrotenberry New Mexico Oil Conservation Division 2040 South Pacheco Street Santa Fe, New Mexico 87505

RE: Administrative Approval to Downhole Commingle Greystone Energy, Inc. Hoyt #2
1968' FSL, 1286' FWL, Sec.5 L, T26N, R4W, N.M.P.M. Rio Arriba County, New Mexico

Dear Ms. Wrotenberry:

Greystone Energy, Inc. requests administrative approval to downhole commingle the Blanco Mesaverde,BS Mesa Gallup, and Basin Dakota pools in the subject well. The well is currently producing as a Mesaverde / Gallup / Dakota triple completion. The Dakota and Gallup zones do exhibit signs of liquid loading problems and it is felt that downhole commingling will eliminate excessive operational problems and help mechanically configure the well in a way that will help keep these formations unloaded and producing at optimal rates.

To comply with the New Mexcio Oil Conservation Rules, Greystone Energy, Inc. is submitting the following data for your approval of the proposed commingling:

- 1. Form C-107 Application for Downhole Commingling
- 2. Form C-102 Location Plat showing each spacing unit and dedicated acreage
- 3. Production Curves for both the Mesaverde ,Gallup and Dakota formations
- 4. Offset operator list
- 5. Well spot map for offset operators
- 6. Working and Royalty Interest owner notification list
- 7. Bottom hole pressure data

In accordance to New Mexico Oil Conservation Division Rule 303C, all offset operators are being notified of this application by certified mail. As an offset operator, if you have no objection to this application, you do not have to respond to this notification.

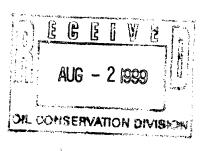
If additional information is needed, please contact me.

Sincerely,

Brian D. Voigt

Vice President

CC: NMOCD-Aztec, BLM – Albuquerque, Offset Operators



. DISTRICT I

P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II

•

•

811 South First St., Artesia, NM 88210-2835 DISTRICT III 1000 Rio Brazos Rd, Aztec, NM 87410-1693 State of New Mexico Energy, Minerals and Natural Resources Department OIL CONSERVATION DIVISION

2040 S. Pacheco

APPLICATION FOR DOWNHOLE COMMINGLING

ï

Form C-107A New 3-12-96

APPROVAL PROCESS:

X Administrative Hearing

Santa Fe, New Mexico 87505-6429

EXISTING WELLBORE

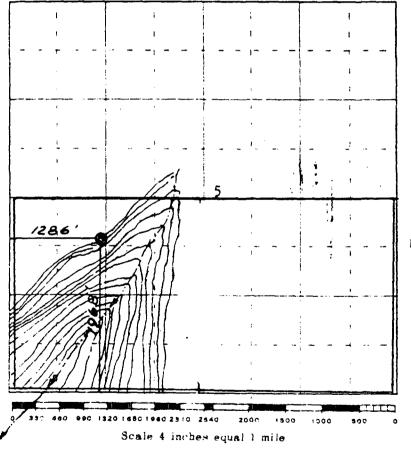
| Greystone Energy, Inc Operator | . 5802 Hwy | 64 Farming Address | gton NM 8 | 7401 | | | | |
|---|---------------------------------|---------------------------------------|------------------------------|------------------|----------------|-----------------------|--------------------------|----------------|
| HOYT | 2 | L-5-26 | N-4W | | RIO ARF | RIBA | | |
| Lease | Well No. | Unit Ltr S | ec - Twp - Rge | | Spa | Coun Icing Unit Le | ty ase Type: (Check 1 | or more) |
| OGRID NO. 173252 | Property Code | 24035 AF | PINO. 30-039 | 9-06690 | FederaX | State | (and/or) | Fee |
| The following facts are submitted in | Upper | | | Intermediate | | | Lower | |
| support of downhole commingling: | Zone | | | Zone | | | Zone | |
| 1. Pool Name and Pool Code | BALANCO-MES 723 | | BS MESA 729 | | | BA | SIN DAKO1 71599 | ΓA |
| 2. Top and Bottom of Pay Section (Perforations) | 6092'-628 | 2' | 7740'- | 7763' | | | 8234'-8383' | |
| 3. Type of production (Oil or Gas) | GAS | 1 | G | AS | | | GAS | |
| 4. Method of Production (Flowing or Artificial Lift) | FLOWING | 6 | FLOW | ING | | | FLOWING | |
| 5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current | a. (Current) 420 PSI | | a. 540 PS | 31 | | a. | 600 PSI | |
| Gas & Oil - Flowing: | b. (Original) | <u> </u> | b. | | | b. | | |
| Measured Current All Gas Zones: Estimated Or Measured Original | 1400 PSI | | 2240 8 | 'SI | | | 2630 PSI | |
| 6. Oil Gravity (API) or Gas BTU Content | 1255 | | 1318 | | · | | 1256 | |
| 7. Producing or Shut-in? | PRODUC | ING | | UCING | | | PRODUCIN | IG |
| Production Marginal? (yes or no) | | i ded detaile | | | | | | |
| * If Shut-In give date and oil/gas/ | Date: | | Date: | | | Date: | | |
| water rates or last production Note: For new zones with no production histo | Rates: | | Rates: | | | Rates: | | |
| applicant shall be required to attach producti estimates and supporting data | | | | | | _ | | |
| * If Producing, give date and oil/gas/ water rates of recent test (Within 60 days) | Date: 6/30/99 Rates: 32 MCFD | 0 BOPD | Date: 6/30/9 Rates: 16 MC | | BOPD | | 6/30/99 74 MCFD | .5 BOPD |
| 8. Fixed Percentage Allocation Formula - % for each zone | oii: 2.9 % | Gas: 23.7 % | oii: 11.8% | Gas: | 23.3 % | Oil | 85.3 % | Gas 53.0% |
| 9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and provididng rate projections or other required data. 10. Are all working, overriding, and royalty interests identical in all commingled zones? X Yes No If not, have all working, overriding, and royalty interests been notified by certified mail? X Yes No Have all offset operators been given written notice of the proposed downhole commingling? X Yes No 11. Will cross-flow occur? Yes X No If yes, are fluids compatible, will the formations not be damaged, will any cross flowed production be recovered, and will the allocation formula be reliabl X Yes No 12. Are all produced fluids from all commingled zones compatible with each X Yes No 13. Will the value of production be decreased by commingling? Yes X No (If No, attach explanation) 14. If this well is on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application. X Yes No 15. NMOCD Reference Cases for Rule 303(D) exceptions: ORDER NO(S). | | | | | | | | |
| 16. ATTACHMENTS: * C-102 for each zone to be commingled showing its spacing unit and acerage dedication. * Production curve for each zone for at least one year. (If not available, attach explanation.) * For zones with no production history, estimated production rates and supporting data. * Data to support allocation method or formula. * Notification list of all offset operators. * Notification list of working, overriding, and royalty interests for uncommon intrest cases. * Any additional statements, data, or documents required to support commingling. | | | | | | | | |
| I hereby certify that the infor | $\mathcal{D}_{(54)}$ | true and comp | lete to the bes | st of my kr) | nowledge a | nd beli | ef. DATE 7 | 30/99 |
| TYPE OR PRINT NAME | BRIAN VOIGT | • • • • • • • • • • • • • • • • • • • | | | TELEPHO | NE NO. | (505) 632 | / <u>··</u> ·/ |
| | | | | | | | | |

| Well L | and the second se | | | | |
|---|---|--------------------------|---------------------------------------|---------|-----------|
| $\mathbf{\hat{X}}$. | | (| January J | 10 | 1. |
| tion A. | | | me January | 59-190 | ×4 |
| MERICE CONSOLIDATED GAS AND OIL | INC. Lass | Howt 4 | 7 C | | |
| HI No. 2.5 Unit Letter I. Se | Lion 5 | Townshir26 | NORTH Farmer | NEST | NMDN |
| cated Unit Letter Second secon | 1286 | Fue | From the WEST | ····· | Line. |
| untyRIO_AREIBAG. L. Eleva | $7284_{\circ}0$ | Dedicated | A crease 320 | | A |
| me of Producing FormationBlanco | | | | | |
| Is the Operator the only owner in the dedic | | | | | |
| YesNoNo | acte age outlined | on the pint beio | ••• | | |
| | · · · · · · · · · · · · · · · · · · · | -11 + | к. с. с. на с. в. | | |
| If the answer to question one is "no", | | | | | 1112 8110 |
| | | | | | |
| agreement or otherwise? Yes Yes | NO | | rypa or consonnat | | |
| - | | | | | |
| If the answer to question two is "no", h | | their respective | interests below: | | |
| - | | their respective | | | |
| If the answer to question two is "no", h | ar all the owners and | their respective Land | interests below: Description | | |
| If the answer to question two is "no", h | ar all the owners and | their respective | interests below: Description | | |
| If the answer to question two is "no", h | ar all the owners and | their respective Land | interests below: Description | | |
| If the answer to question two is "no", h | ar all the owners and | their respective Land | interests below: Description | | |
| If the answer to question two is "no", h | ar all the owners and | their respective Land | interests below: Description | | |
| If the answer to question two is "no", h | ar all the owners and | their respective Land | interests below: Description | | |
| If the answer to question two is "no", h | ar all the owners and | their respective Land | interests below: Description | | |
| If the answer to question two is "no", in <u>Owner</u> | at all the owners and | their respective Land | interests below: Description | | |
| If the answer to question two is "no", in <u>Owner</u> | at all the owners and | their respective Land | interests below: Description | | |
| If the answer to question two is "no", in <u>Owner</u> | at all the owners and | their respective Land | interests below: Description | | |
| If the answer to question two is "no". in Owner | at all the owners and | their respective Land | interests below: Description | | |

| solidated Oil & Gas |
|---------------------|
| (Operator) |
| amas Boyd Jr. |
| (Representative) |
| a Supta |

(Address) B ox 2038

mington, New Mexico emac M. i.Sar





This is to certify that the above plat was prepared from field notes of actual surveys made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.

Date Surveyed 26 December 1963 Bame's P. Leese, N. Mex. Reg. No. 1463 or Sand Surveyor San Juan Engineering Company

Fermington, New Mexico

| Well Loc | ation and Acro | age Dedication F | <u>'lat</u> | | |
|---|------------------|---|-------------------------------|------------------|-----------|
| | | | | ary 15, 19 | |
| ection A. | | | | | |
| Derator CONSOLIDATED GAS AND OIL IN | iC. L | ease Hoyt | # 2-5 | | |
| ell No. 2-5 Unit Letter L Secti | | | | tange 4 WEST | NMP |
| ocated Feet From the SOUT | <u>H_Line,1</u> | 2861 | Feet From <u>the</u> | WEST | Lin |
| countyRIO_ARPIBAG. L. Elevatio | <u>7284,0</u> | Dedicat | ed Acreage | | A cre |
| lame of Producing Formation Basin Dake | | | | | |
| . Is the Operator the only owner in the dedicate | ed acreage outli | ned on the plat b | elow? | | |
| YesNoNo | | | | | |
| 2. If the answer to question one is "no", has | | | | • | nitizatio |
| agreement or otherwise? Yes <u>Yes</u> No | · II | answer 18 'yes' | , Type of Con | solidation. | |
| 3. If the answer to question two is "no", list | all the owners | and their teanent | iva internata ha | low | |
| · | all the Owners | | nd Description | 10 W. | |
| | | | nd Description | | |
| | • | | | | |
| | | | | | |
| | | | | | |
| | | | ·* | | |
| ······································ | | | | | |
| | | | | | |
| ection B. | Note: All dis | tances must be fi | rom outer bound | aries of section | • |
| | 1 | 1 | 1 | 1 | 7 |
| Chis is to certify that the information | | 1 1 | 1 | 1 | } |
| in Section A above is true and complete to the best of my knowledge and belief. | | | ↓ i= | | . |
| the best of my knowledge and benef. | | | | | |
| onsolidated Oil & Gas Inc. | | | | | |
| (Operator) | · | | ÷ | | |
| homas Boyd Jr. | | | | | } |
| (Representative) | 1 | | | | |
| <u>•0, B ox 2038</u> | <u>-</u> | | } } → - → - → - | | - |
| (Address) | 1 | | | : | |
| armington. New Mexico | 1 | 1 11 | 5 | 1 | [|
| A him of built | | 1 1/21 | + | | 4 |
| Lamas Bayly | | | | , | 1 |
| | 1286' | | 1 1 | 1 | N |
| | | | 1 | | Ï |
| | | | 1 | 1 | |
| | | | l | 1 | |
| | | 57 11111 | 1 1 | i | |
| | | \$ V1 / / / / } { { | 1 | 1 | |
| | K/ +/ +/ A | 1111/11/14/1 | + + | | . |
| | | Y [//] { { { { { { { { { { { { } } } } } } } | 6 | 1 | |
| | 1/1/1/1 | W////\\\\ | 1 | r | |
| and the second se | | | 1 | ; | - |
| CARD STATES | - | | | | ц |
| A LANK . | | 1320 1650 1980 2310 ; | 2640 2000 180 | 9 1000 800 | ٥ |
| | | Scale 4 Inche | es equal 1 mile | | |
| まま 「有法」「下す」(| | | | | |

This is to certify that the above plat was prepared from field notes of actual surveys made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.

Date Surveyed 26 December 1963

Farmington, New Mexico.

:

Begistered Professional Engineer and Or Land Surveyor Sames P. Leese, N. Mex. Reg. No. 1463 San Juan Engineering Company

PowerTools Map

| 27 | 34 | m | 10 | - 2 | 4W |
|----|---|-----------------|-------------------|------------------------|--|
| | * * * | * * * | ** ** ** | 16 | 26N 4W |
| 29 | ** 33 * | Hort * | * * * * * * | . 17 | |
| 30 | *************************************** | * * ن * * | * * * | 18 Colline / Dokoto | Spots |
| 25 | 36 | - | 12 | 13 | noyi z - iniceave de / cariup / poarora Offset Well Spots |

Offset Operators

| Operator | Reservoir | Township | Range | Section |
|--|---|--------------|----------------|---------|
| AMOCO PRODUCTION CO | DAKOTA | 26 N | 4 W | 4 |
| C/O Don Duhrkopf | GALLUP | 26 N | 4 W | 9 |
| 501 West Lake Park BLVD. | MESAVERDE | | | |
| Houston, TX 77079-2696 | | | | |
| | | | | |
| BURLINGTON RES O&G CO | | 27 N | 4 W | 31 |
| P.O. Box 4289 | MESAVERDE | | | |
| Farmington, NM 87499 | | | | |
| - | DAKOTA | 27 N | 4 W | 32 |
| | GALLUP | 27 N | 4 W | 33 |
| | MESAVERDE | | | 1 |
| | 0.4/074 | | | |
| Greystone Energy, Inc. | DAKOTA | 26 N | | 5 |
| 1801 Broadway, Suite 630 | GALLUP | 26 N | | 6 |
| Denver, Colorado 80202 | | 26 N | 4 W | 8 |
| | GALLUP | 26 N | 4 W | 7 |
| | | | | |
| | MESAVERDE | 26 N | | 5 |
| | | 26_N | 4 W | 7 |
| TAURUS EXPL USA INC 2198 Bloomfield Highway | DAKOTA MESAVERDE | 26 N 26 N | | 6 8 |
| Farmington, NM 87401 | | | | |
| | MESAVERDE | 26 N | 4 W | 7 |
| | والمستعلق والمتحد والمستعد والمتحد والمحدود | _ | فعفاري ويستعاق | |

Hoyt 2 - MV / GP / DK

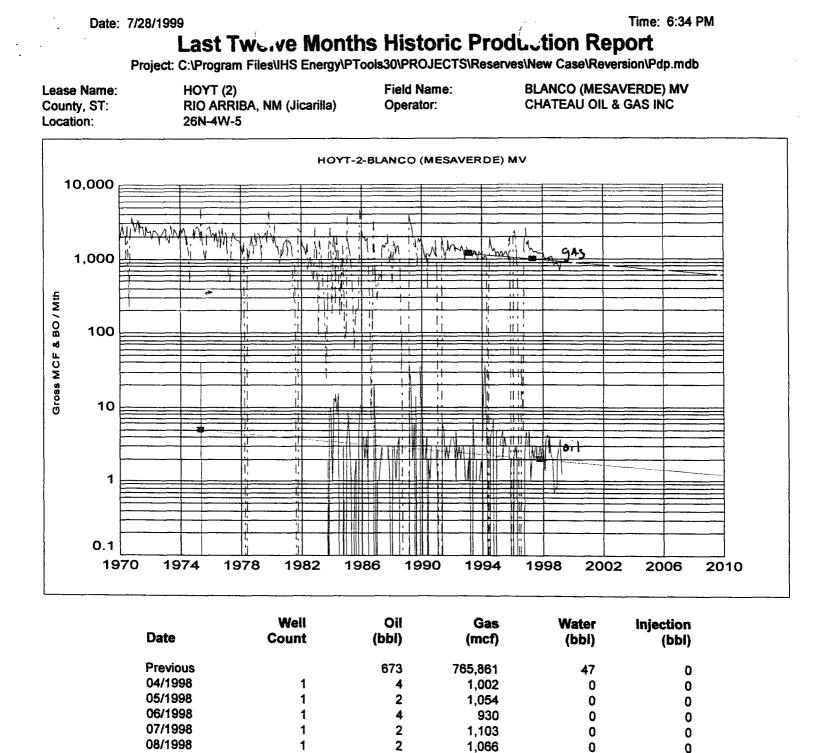
. 、

.

Fixed Percentage Allocation Formula

| | Oil | | Gas | |
|---------------------|-----------|-------|-----------|-------|
| | (Barrels) | % | (MCF) | % |
| Mesaverde Formation | 700 | 2.9% | 776,964 | 23.7% |
| Gallup Formation | 2,807 | 11.8% | 765,898 | 23.3% |
| Dakota Formation | 20,325 | 85.3% | 1,738,568 | 53.0% |
| | 23,832 | 100% | 3,281,430 | 100% |

Based on production through Jan - 1999

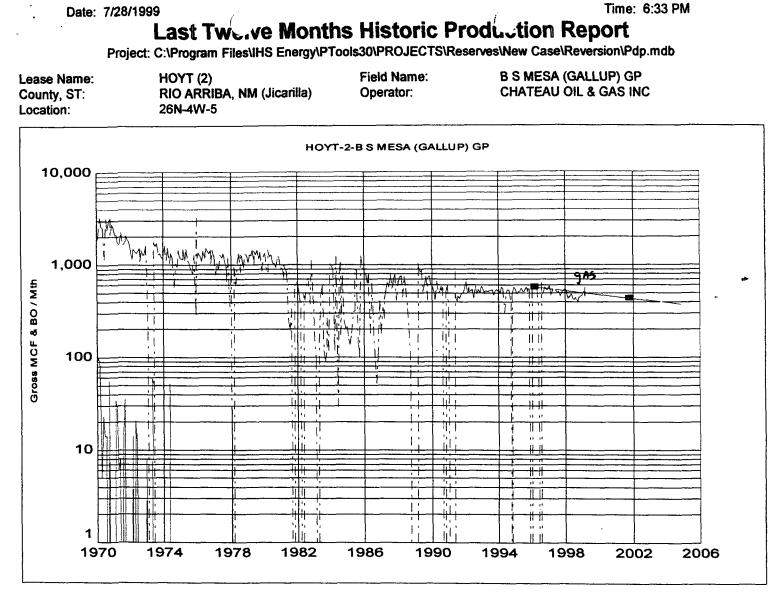


| | | | 4 • • • | • | |
|---------|---|-----|----------------|----|--|
| 10/1998 | 1 | 1 | 858 | 0 | |
| 11/1998 | 1 | 1 | 869 | 0 | |
| 12/1998 | 1 | 2 | 908 | 0 | |
| 01/1999 | 1 | 3 | 823 | Ō | |
| 02/1999 | 1 | 4 | 695 | Õ | |
| 03/1999 | 1 | 1 | 981 | 0 | |
| Total: | | 700 | 776,964 | 47 | |
| | | | | | |
| | | | | | |

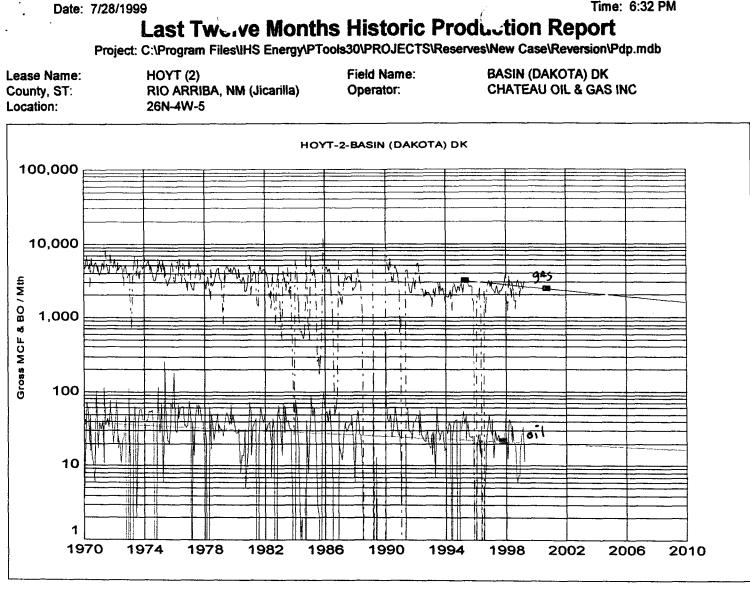
2.639

1,262

09/1998



| Date | Well Count | Oil (bbl) | Gas (mcf) | Water (bbl) | Injection (bbl) |
|----------|---------------|--------------|--------------|----------------|--------------------|
| Previous | | 2,807 | 760,321 | 343 | 0 |
| 04/1998 | 1 | 0 | 444 | 0 | 0 |
| 05/1998 | 1 | 0 | 481 | 0 | Ő |
| 06/1998 | 1 | 0 | 435 | 0 | Ō |
| 07/1998 | 1 | 0 | 422 | 0 | Ő |
| 08/1998 | 1 | 0 | 438 | 0 | Ő |
| 09/1998 | 1 | 0 | 400 | 0 | Ō |
| 10/1998 | 1 | 0 | 447 | 0 | 1,289 |
| 11/1998 | 1 | 0 | 450 | 0 | 445 |
| 12/1998 | 1 | 0 | 464 | 0 | 713 |
| 01/1999 | 1 | 0 | 526 | 0 | 2,438 |
| 02/1999 | 1 | 0 | 455 | 0 | 0 |
| 03/1999 | 1 | 0 | 615 | 0 | 0 |
| Total: | | 2,807 | 765,898 | 343 | 4,885 |

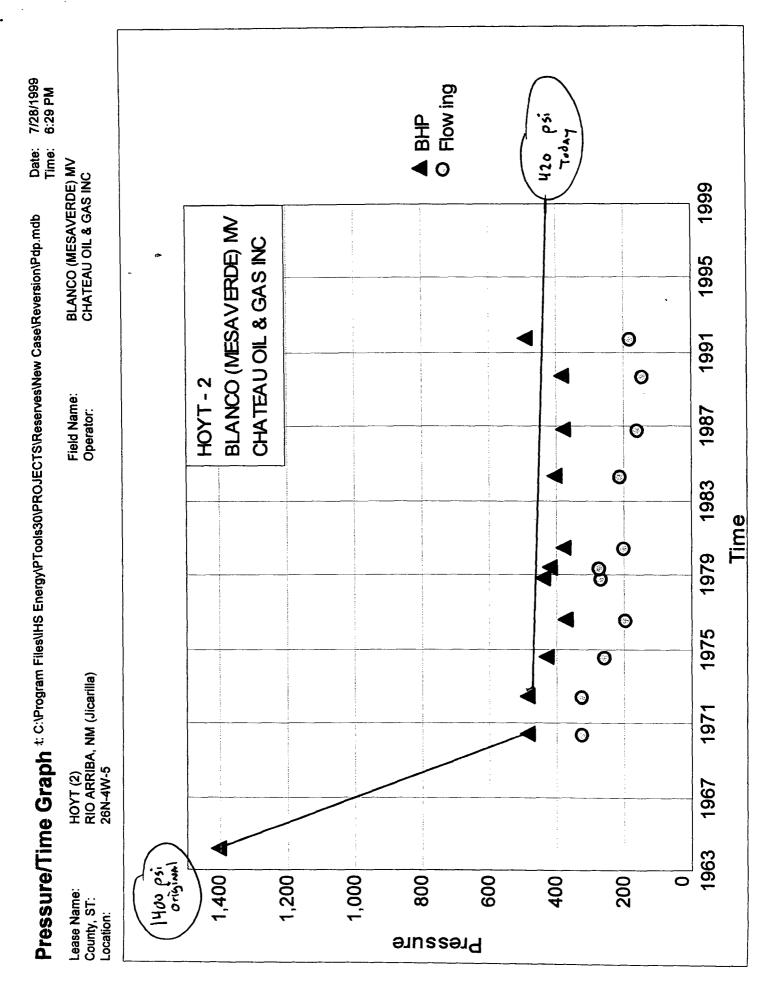


| Date | Well Count | Oil (bbl) | Gas | Water | Injection |
|----------|---------------|--------------|-----------|-------|-----------|
| Dare | Count | (וממ) | (mcf) | (bbl) | (bbl) |
| Previous | | 20,084 | 1,709,090 | 1,774 | 0 |
| 04/1998 | 1 | 39 | 2,523 | 0 | Ō |
| 05/1998 | 1 | 21 | 1,842 | 0 | Ō |
| 06/1998 | 1 | 35 | 2,961 | 0 | 0 |
| 07/1998 | 1 | 21 | 2,150 | 0 | Ō |
| 08/1998 | 1 | 18 | 1,303 | 0 | Ō |
| 09/1998 | 1 | 6 | 2,938 | 0 | Ō |
| 10/1998 | 1 | 8 | 3,241 | 0 | 4,213 |
| 11/1998 | 1 | 8 | 2,273 | 0 | 2,768 |
| 12/1998 | 1 | 17 | 1,888 | 0 | 1,786 |
| 01/1999 | 1 | 24 | 2,859 | 0 | 2,659 |
| 02/1999 | 1 | 34 | 2,445 | 0 | 0 |
| 03/1999 | 1 | 11 | 3,055 | 0 | 0 |
| Total: | | 20,325 | 1,738,568 | 1,774 | 11,426 |

Time: 6:32 PM

7/28/1999 6:24 PM O Flow ing 600 PS1 Date: Time: BASIN (DAKOTA) DK CHATEAU OIL & GAS INC 1999 Pressure/Time Graph & C:\Program Files\!HS Energy\PTools30\PROJECTS\Reserves\New Case\Reversion\Pdp.mdb CHATEAU OIL & GAS INC **BASIN (DAKOTA) DK** 1995 0 1991 **HOYT - 2** Ο Field Name: Operator: 0 1987 0000 1983 Time 1979 0 0 1975 0 HOYT (2) RIO ARRIBA, NM (Jicarilla) 26N-4W-5 0 1971 0 Original 50 1967 2630 1963 3,000 2,600 2,400 1,800 1,400 2,200 2,000 1,600 1,200 1,000 2,800 800 600 400 200 0 Lease Name: County, ST: Location: Pressure

7/28/1999 6:27 PM BHP
 Flow ing isd Date: Time: SHU B S MESA (GALLUP) GP CHATEAU OIL & GAS INC 1999 Pressure/Time Graph # C:\Program Files\IHS Energy\PTools30\PROJECTS\Reserves\New Case\Reversion\Pdp.mdb CHATEAU OIL & GAS INC B S MESA (GALLUP) GP 1995 1991 **HOYT - 2** Field Name: Operator: 1987 1983 Time 0 1979 0 1975 0 0 0 0 0 HOYT (2) RIO ARRIBA, NM (Jicarilla) 26N-4W-5 1971 1967 2240 psi original 1963 1,000 2,400 2,200 2,000 1,800 1,600 1,400 1,200 800 200 600 400 0 Lease Name: County, ST: Location: Pressure



ŧ

Hoyt 2 - Dakota

JICARILLA APACHE TRIBE PO BOX 2053 ALBUQUERQUE NM 87103-5810

ENERGEN RESOURCES CORPORATION

2101 SIXTH AVE, NO BIRMINGHAM AL 35203-2784

Hoyt 2 - Gallup

JICARILLA APACHE TRIBE PO BOX 2053 ALBUQUERQUE NM 87103-5810

ENERGEN RESOURCES CORPORATION 2101 SIXTH AVE, NO BIRMINGHAM AL 35203-2784

Hoyt 2 - Mesa Verde

JICARILLA APACHE TRIBE PO BOX 2053 ALBUQUERQUE NM 87103-5810

ENERGEN RESOURCES CORPORATION 2101 SIXTH AVE, NO BIRMINGHAM AL 35203-2784