| DATE IN 11-04 | 12/1/04 SUSPENSE | ENGINEER KONUS | LOGGED IN 11-12-04 | MPE DHC | PSem04317428 |
|---------------|---------------------|----------------|--------------------|---------|--------------|
| | | · U | | 10/ | |

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -1220 South St. Francis Drive, Santa Fe, NM 87505



| | | <u>ADMINISTRATIVI</u> | E APPLICATIO | N CHECKLIST | |
|---------|--------------------------------|---|--|--|--|
| • . Т | THIS CHECKLIST IS M | IANDATORY FOR ALL ADMINISTRAT | IVE APPLICATIONS FOR EXC | | ND REGULATIONS |
| Appli | [DHC-Dow [PC-Po | s: ndard Location] [NSP-Non-\ nhole Commingling] [CTB ool Commingling] [OLS - O [WFX-Waterflood Expansior | Standard Proration Unit- Lease Commingling] off-Lease Storage] [On] [PMX-Pressure Ma Disal] [IPI-Injection Pr | t] [SD-Simultaneous Dedi [PLC-Pool/Lease Commi DLM-Off-Lease Measuremo intenance Expansion] | ingling] ent] |
| [1] | TYPE OF AE | PPLICATION - Check Those Location - Spacing Unit - S NSL NSP | Simultaneous Dedication | | |
| | Check [B] | COne Only for [B] or [C] Commingling - Storage - M DHC CTB | | OLS OLM | |
| | [C] | Injection - Disposal - Press WFX PMX | sure Increase - Enhanced SWD IPI | | |
| | [D] | Other: Specify | | | |
| [2] | NOTIFICAT [A] | ION REQUIRED TO: - Ch | eck Those Which Apply Overriding Royalty Inter | | to Box 100 miles to 100 miles |
| | [B] | Offset Operators, Leas | seholders or Surface Ow | vner | * 4 |
| | [C] | Application is One W | hich Requires Published | d Legal Notice | r str |
| | [D] | Notification and/or Co | oncurrent Approval by E - Commissioner of Public Lands, St | BLM or SLO late Land Office | en de la companya de La companya de la co |
| | [E] | For all of the above, P | roof of Notification or I | Publication is Attached, and | d/or, |
| | [F] | ☐ Waivers are Attached | | | |
| [3] | | CURATE AND COMPLET ATION INDICATED ABOV | | REQUIRED TO PROCES | SS THE TYPE |
| | val is <mark>accurate</mark> a | TION: I hereby certify that to and complete to the best of my quired information and notification. | y knowledge. I also und | derstand that no action wil | |
| | Note: | Statement must be completed by | y an Individual with manage | rial and/or supervisory capacity | <i>y</i> . |
| Print c | or Type Name | Signature | Ti | tle | Date |
| | | | | | |

e-mail Address

District I

State of New Mexico Energy, Minerals and Natural Resources Department

Form C-107A Revised June 10, 2003

District II

1301 W. Grand Aven

District III
1000 Rio Bruzos Road,

1220 South St. Francis Dr. Santa Fe, New Mexico 87505

Oil Conservation Division

APPLICATION TYPE X Single Well Establish Pre-Approved Pools

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

APPLICATION FOR DOWNHOLE COMMINGLING

EXISTING WELLBORE Yes X No

| Patina San Juan, Inc. | 1625 Broadway, Suite 2000, Denver, CO 80202 | | | | | |
|--|--|---|--|--------------------------|-----------------|---------------------------|
| Operator Hoyt | #2C | Ad "E", Section | dress 1 5, T26N — R | 4W DFC | Rio A | rriba |
| Lease | Well No. | Unit Letter- | Section-Townsh | ip-Range | | County |
| OGRID No. 173252 Property C | ode | API No. 30-0 | <u>)39-27663</u> | Lease Type: _ | Federal > | State Fee |
| DATA ELEMENT | | PER ZONE | INTERN | MEDIATE ZONE | LOW | ER ZONE |
| Pool Name | BLAND | esaverde Pus Ga | BSMESA- | Gallup Son | BASH D | akota Pro-Eos |
| Pool Code | | 72319 | 7292 | 979209 | 7 | 1599 |
| Top and Bottom of Pay Section (Perforated or Open-Hole Interval) | 565 | 54' – 6272' | 76 | 22' – 7634' | 8094 | - 8286' |
| Method of Production (Flowing or Artificial Lift) | | Flowing | | Flowing | FI | owing |
| Bottomhole Pressure (Note: Pressure data will not be required if the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone) | 125 | 50 psi (est.) | 120 | 00 psi (est.) | 1600 | 100 Posi (est.) |
| Oil Gravity or Gas BTU (Degree API or Gas BTU) | | | | | | 12 |
| Producing, Shut-In or New Zone | N | lew Zone | \ \ | lew Zone | Ne | ZZZone |
| Date and Oil/Gas/Water Rates of Last Production. (Note: For new zones with no production history, applicant shall be required to attach production | Date: | | Date: | | Date: | 12 21 |
| estimates and supporting data.) | Rates: | | Rates: | | Rates: | |
| Fixed Allocation Percentage (Note: If allocation is based upon something other | Oil | Gas | Oil | Gas | Oil | Gas |
| than current or past production, supporting data or explanation will be required.) | 13% | 35% | 12% | 15% | 75% | 50% |
| <i></i> | | ADDITIO | NAL DATA | | | |
| Are all working, royalty and overriding If not, have all working, royalty and ov | | | | | Yes_ Yes_ | No _XNo |
| Are all produced fluids from all commi | ngled zones | compatible with each | other? | | Yes_ | No |
| Will commingling decrease the value of production? Yes No X | | | | | No_X | |
| If this well is on, or communitized with, state or federal lands, has either the Commissioner of Public Lands or the United States Bureau of Land Management been notified in writing of this application? Yes X No | | | | | _X No | |
| NMOCD Reference Case No. applicab | le to this well | <u> </u> | · | | | |
| Attachments: C-102 for each zone to be comming Production curve for each zone for For zones with no production histo Data to support allocation method Notification list of working, royalty Any additional statements, data or | at least one y ry, estimated or formula. y and overridi | ear. (If not available production rates and ing royalty interests for | , attach explana supporting data or uncommon i | ation.) a. | | |
| | | PRE-APPRO | OVED POOI | LS | | |
| If application is to establish Pre-Appro List of other orders approving downhol List of all operators within the propose Proof that all operators within the prop Bottomhole pressure data. | le comminglis d Pre-Approv | ng within the propose red Pools | d Pre-Approve | d Pools | | |
| I hereby certify that the information | n above is tr | ue and complete to | the best of m | y knowledge and beli | ef. | |
| SIGNATURE / | | TITLE_A | gent for Po | ıntina San Juan | _DATE1 | 1/10/04 |
| TYPE OR PRINT NAME Joe N | <u>Nazotti</u> | | TELE | PHONE NO. (<u>720</u>) | <u>352-0158</u> | |

Recommended Allocation for Commingle

Well: Hoyt #2C

30-day average production based on Offset Well Performance (see attached decline curves)

| G | Zone | Average MCFD | Percentage of total flow |
|---|--------|-----------------|--------------------------|
| a | MV | 59 | 35% |
| s | Gallup | 26 | 15% |
| " | DK | 85 | 50% |
| | Total | 170 | 100% |

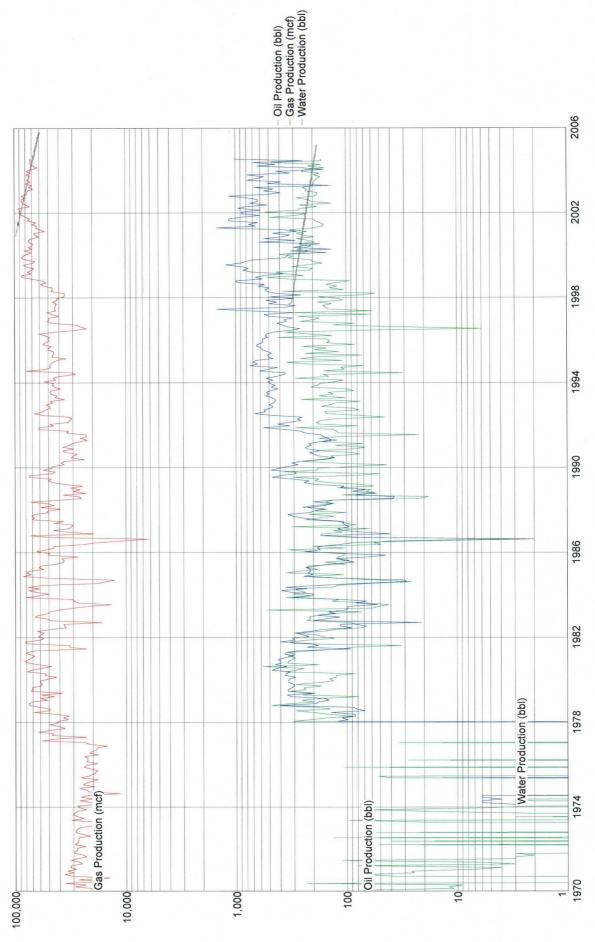
| o | Zone | Average BOPD | Percentage of total flow |
|-----|--------|-----------------|--------------------------|
| l ĭ | MV | 0.17 | 13% |
| ; | Gallup | 0.15 | 12% |
| • | DK | 0.95 | 75% |
| | Total | 1.27 | 100% |

Recommended allocation for future downhole commingled production

| Zone | Gas | Oil |
|--------|------|------|
| MV | 35% | 13% |
| Gallup | 15% | 12% |
| DK | 50% | 75% |
| Total | 100% | 100% |

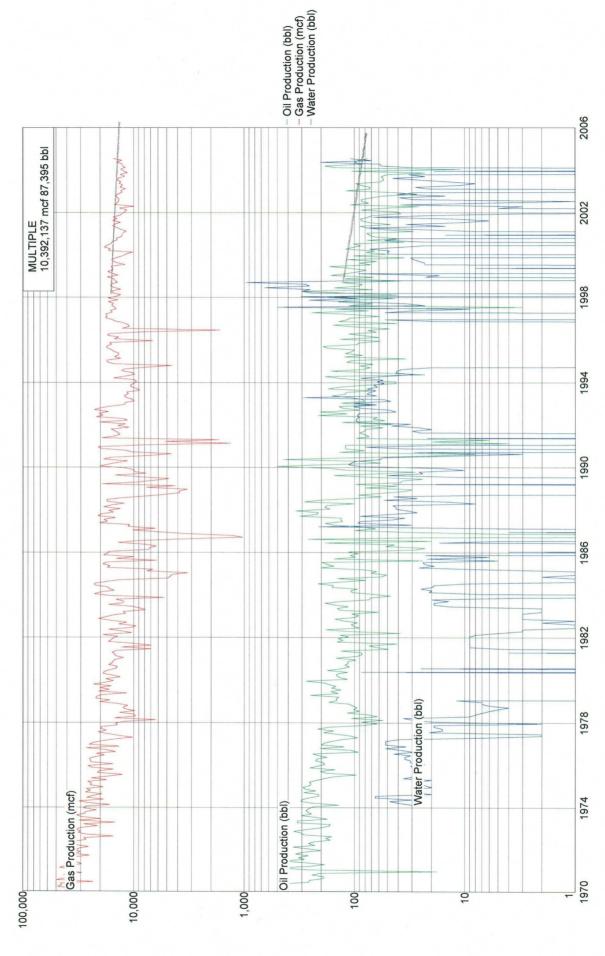
Lease Name: MULTIPLE
County, State: RIO ARBA, NM
Operator: MULTIPLE
Field: BLANCO
Reservoir: MESAVERDE
Location:





Lease Name: MULTIPLE
County, State: RIO ARBA, NM
Operator: MULTIPLE
Field: B S MESA
Reservoir: GALLUP
Location:

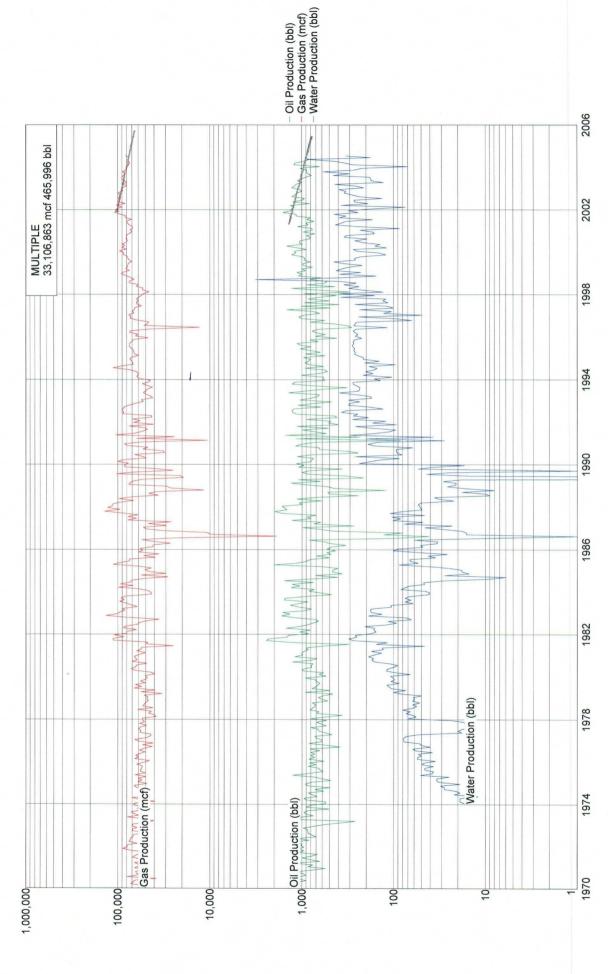
MULTIPLE GALLUP /SD/ SH/



Production Rates

Lease Name: MULTIPLE County, State: RIO ARBA, NM Operator: MULTIPLE Field: BASIN Reservoir: DAKOTA Location:





Production Rates

Hoyt #2C Section 5, T26N – R4W Rio Arriba County, New Mexica

Data from surrounding active Dakota, Gallup and Mesaverde Wells

Dakota Production

31 active Dakota wells

Gas Production

Well average monthly rate = 80,000 mcf

Monthly rater per well = 80000/31 = 2581 mcf

Daily rate per well = 2581/30.4167 = 85 mcfd

Oil Production

Well average monthly rate = 900 bopm

Monthly rater per well = 900/31 = 29 bopm

Daily rate per well = 29/30.4167 = 0.95 bopd

Gallup Production

19 active Gallup wells

Gas Production

Well average monthly rate = 15,000 mcf

Monthly rater per well = 15000/19 = 789 mcf

Daily rate per well = 789/30.4167 = 26 mcfd

Oil Production

Well average monthly rate = 85 bopm

Monthly rater per well = 85/19 = 4.5 bopm

Daily rate per well = 4.5/30.4167 = 0.15 bopd

Mesaverde Wells

39 active Mesavede wells

Gas Production

Well average monthly rate = 70,000 mcf

Monthly rater per well = 70000/39 = 1795 mcf

Daily rate per well = 1795/30.4167 = 59 mcfd

Oil Production

Well average monthly rate = 200 bopm

Monthly rater per well = 200/39 = 5.12 bopm

Daily rate per well = 5.12/30.4167 = 0.17 bopd



Hoyt #2C **Proposed Wellbore**

Elevation: 7179' GR, 7191' KB

9-5/8", 36#, J-55, STC, set @ 301'

Cement w/ 180 sx Class G

Cement to Surface

800'FSL, 1700'FEL, Location:

SE/4, Sec 5, T26N, R4W,

Rio Arriba County, NM

Field:

Dakota / Gallup / Mesaverde

Zone: Perfs: Dakota / Gallup / Mesaverde Proposed: Mesaverde 5654' - 627

Proposed: Gallup 7622' - 7634'

Proposed: Dakota 8094' - 8286'

4-1/2", 11.6#, N-80, Liner set @ 3937' to 8394', circulated preflush, pressure tested to 3,000 psi

7", 23#, N-80, LTC, set @ 4230', Cement w/ 600 sx 50/50/B POZ

Proposed Mesaverde Perforations: 5654' - 6272'

Proposed Gallup Perforations: 7622' - 7634'

Proposed Dakota Perforations: 8094' - 8286'

- 4-1/2", 11.6#, N-80, Liner set @ 3937' to 8394', cement w/ 390 sx 50/50/STD/POZ

TD: 8394'

Statement of Notification

Hoyt #2C "E", Section 5, T26N – R4W Rio Arriba County, New Mexico

The interested parties in the three (3) pools (Dakota, Gallup and Mesaverde) affected by this commingle have been sent a copy of this application via certified mail, return receipt requested.

Joe Mazotti

Regulatory Agent for Patina San Juan, Inc.

Statement of Commingling

Hoyt #2C "E", Section 5, T26N – R4W Rio Arriba County, New Mexico

The commingling of the Basin Dakota, Gallup and Blanco Mesaverde pools in this wellbore will not reduce the value of the remaining production. Commingling these pools should increase the value of the remaining reserves due to using the remaining reservoir energy in both zones to produce the well.

Commingling operations conducted on other similar wells have resulted in increased production rates and greater reserve than producing the zones separately.

PATINA SAN JUAN, INC.

| CERTIF | IED MAIL No. P | | |
|---|--|--|--|
| Noven | nber 10, 2004 | | |
| WORK | ING INTEREST OWNER | | |
| RE: | Application to Down-Hole Commingle Hoyt #2C SE/4, Section 5, T26N – R4W Rio Arriba County, New Mexico | | |
| To Wh | om It May Concern: | | |
| Energy comm | evember 10, 2004, Patina San Juan Inc. (Patina) submitted to the State of New Mexico, y, Minerals and Natural Resources Oil Conservation Division an application to down-hole ningle the subject well. Patina plans to down-hole commingle the Dakota, Gallup and verde pools in this wellbore. The well will be initially completed in the three formations. | | |
| Enclosed is a complete copy of the application. Any objections must be submitted in writing to the State of New Mexico, Energy, Minerals and Natural Resources Oil Conservation Division, Santa Fe, NM within twenty (20) days of receipt of this letter. | | | |
| Please contact Gary Olhman at 303.389.3600 with any questions or concerns. | | | |
| Sincer | ely, | | |
| Joe M Agent | azotti for Patina San Juan | | |
| Enclos | sure | | |
| | | | |