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RECEIVED DHC NA

DISTRICT I  
1625 N. French Dr., Hobbs, NM 88240  
DISTRICT II  
811 South First St., Artesia, NM 88210  
DISTRICT III  
1000 Rio Brazos Rd, Aztec, NM 87410  
DISTRICT IV  
2040 S. Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department  
OIL CONSERVATION DIVISION  
2040 S. Pacheco  
Santa Fe, New Mexico 87505-6429  
APPLICATION FOR DOWNHOLE COMMINGLING

Form C-107-A  
Revised August 1999  
NOV 12 2002  
APPROVAL PROCESS:  
Administrative  
Hearing  
EXISTING WELLBORE  
 YES  NO

Operator Murchison Oil & Gas, Inc. Address 1100 Mira Vista Blvd., Plano, Texas 75093

Lease Big Cat State Com #1 Well No. G Sec. 11, T-17S, R-28E Unit Lr. - Sec - Twp - Rge Eddy County County

GRID NO. 016363 Property Code 29051 API NO. 30-015-32091 Spacing Unit Lease Types: (check 1 or more) Federal  State  (and/or) Fee

The following facts are submitted in support of downhole commingling	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	UNDES - North Empire - ABO	North Anderson (W)	
2. Top and Bottom of Pay Section (Perforations)	ABO 6772-6805 96365	Wolfcamp 7528-7540 97185	
3. Type of production (Oil or Gas)	Oil	Oil	
4. Method of Production (Flowing or Artificial Lift)	Pumping	Pumping	
5. Bottomhole Pressure	a. (Current)	a. 150	a.
Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated Or Measured Original	b. (Original)	b. 10 BOPD 10 MCFD	b.
6. Oil Gravity (EAPI) or Gas BTU Content	42	42	
7. Producing or Shut-In?	Shut-in	Producing	
Production Marginal? (yes or no)	Yes	Yes	
* If Shut-In, give date and oil/gas/water rates of last production	Date: Rates:	Date: Rates:	Date: Rates:
Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data	Date: Rates:	Date: Rates:	Date: Rates:
* If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: Rates:	Date: Rates:	Date: Rates:
8. Fixed Percentage Allocation Formula - % for each zone (total of %'s to equal 100%)	Oil: % Gas: %	Oil: % Gas: %	Oil: % Gas: %

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 providing rate projections or other required data.
10. Are all working, overriding, and royalty interests identical in all commingled zones?  Yes  No  
If not, have all working, overriding, and royalty interests been notified by certified mail?  Yes  No
11. Will cross-flow occur?  Yes  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 reliable.  Yes  No (If No, attach explanation)
12. Are all produced fluids from all commingled zones compatible with each other?  Yes  No
13. Will the value of production be decreased by commingling?  Yes  No (If Yes, 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.  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 acreage 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 working, overriding, and royalty interests for uncommon interest cases.  
 \* Any additional statements, data, or documents required to support commingling.

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

SIGNATURE Tommy W. Folsom TITLE Production Manager DATE 10/25/02

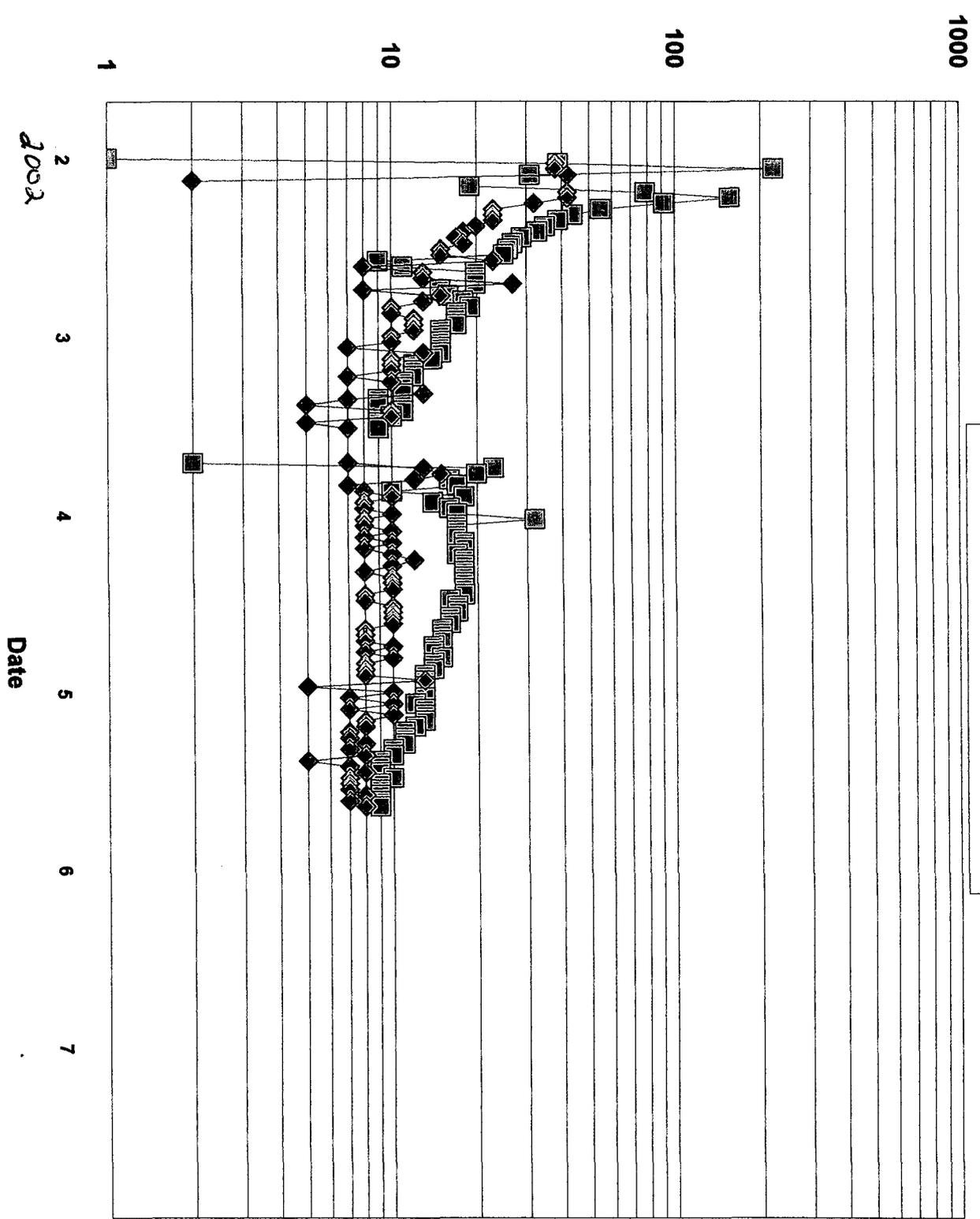
TYPE OR PRINT NAME Tommy W. Folsom TELEPHONE NO. (505) 628-3932

MURCHISON OIL AND GAS, INC.  
BIG CAT STATE COM. #1  
NMOCD ATTACHMENT TO FORM C-107-A

1. A C-102 is attached, it is understood that the spacing unit for each formation is 40 acres.
2. The current producing formation is from the Wolfcamp formation 7,528' to 7,540' production was started on 01/14/02, and has not been on production for a year. The current production is 10 BOPD, 10 MCFD and 30 BWPD. A production curve is attached.
3. We have not completed the ABO formation at this time. We would like to complete it and commingle it with the Wolfcamp. We will conduct a production test of the ABO during the workover by swab test. We would like to then commingle the two formations during the same workover to reduce the cost of working on the well two separate times.
4. There is no offset production from the ABO to this well. However there is ABO production that is near to this area and looks similar in log character. It is felt that the ABO in this well will start production at 30 to 40 BOPD, 40 to 50 MCFPD, and 1 to 2 BWPD on pump.

# BIG CAT No. 1

Oil Production - bpd Gas Production - Mcfd



2002 2003 2004 2005 2006 2007  
Date

 Gas Production  
 Oil Production

Cum Gas Production - 2 MMcf  
 Cum Oil Production - 1 MBbl

MURCHISON OIL AND GAS, INC.  
Big Cat State Com #1  
Section 11, T-17S, R-28E  
1500' FNL and 1980' FEL  
Eddy County, New Mexico

**ABO COMPLETION PROCEDURE**  
OCTOBER 22,2002

**CASING:**

Surface	13 3/8" - 61# J-55	@	205'	Cmt Cir.
Intermediate	9 5/8" - 47# N-80	@	2,200'	Cmt Cir.
Production Csg Cir.	5 1/2" - 17# N-80	@	10,446'	Cmt

**TUBING DETAIL:**

2 7/8" N-80 IN WELL 7,549'

**REFERENCE LOGS:**

CNLDGR & ALL, Micro-CFLGR dated 12/26/01

**PERFORATIONS:**

WOLFCAMP 7,528' TO 7,540'

**ELEVATION:**

K. B. 3628' G.L. 3,612' KB Correction - 16'

**EQUIPMENT:**

There is 7,549' of 2 7/8" tbg in the hole along with a tbg anchor, rods and a pump. The production facilities are in place to include two 300 Bbl steel oil tanks, one 500 Bbl fiberglass water tank, and a 4 x 20 three phase treater.

**DISCUSSION:**

The well is currently producing around 10 BOPD, 10 MCFD, and 30 BWPD in a pumping operation. It is felt that the ABO 6772' to 6805' should be completed and commingled with the current Wolfcamp production. The oil gravity should be comparable and water from either zone should not have any adverse conditions to the other zone. The Wolfcamp is a Lime Stone and the Abo is Dolomite. It is expected tha the Abo could start production at 30 to 40 BOPD, 40 to 50 MCFD with water production. This commingled with the current production would help make this well more economical.

**PROCEDURE:**

1. RUPU, matting boards and PU. POOH w/ rods and pump, NUBOP and POOH w/ tbg.
  2. TIH w/ RBP and set at 7000'  $\pm$  . Test RBP and csg to 2000 psi, POOH w/ tbg and pour 3 sacks sand on RBP.
  3. RU wireline company and perforate ABO 6,772' to 6,805' w/ 4" csg gun 90 degree phasing at 4 JSPF. Total 33' - 132 holes.
  4. TIH w/ 2 jts tail pipe, packer and tbg, spot 200 gals 15% HCL NEFE across perforations. Pull up hole and clear acid from behind packer, set packer and break down formation.
  5. Open by pass on packer and spot acid down tbg, acid treat w/ 3500 gals 15% HCL NEFE dropping 150 - 1.3 RCN ball sealers evenly spaced in treatment.
  6. RU swab and swab test well.
  7. If required frac treat w/ 35K 20/40 ottwa sand in crosslink delayed Viking system.
  8. Swab for clean up and production test.
  9. File pressure and production data with NMOCD. Clean off top of RBP and pull same for commingled production.
  10. Release packer and POOH w/ tbg and packer. TIH w/ RBP fishing tool, circulate ball sealers and sand off RBP. Latch on to RBP release and POOH w/ same.
- NOTE: ( If the well will not circulate Bull Dog Bailor can be used to clean off RBP)
11. TIH w/ tbg, anchor and bottom hole assembly, set anchor w/ 12 points tension, set SN below bottom set of perforations, and anchor above top set of perforations.
  12. ND BOP and NU well head. TIH w/ rods and pump, place well on production

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III  
1000 Rio Brazos Rd., Artec, NM 87410

DISTRICT IV  
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

**OIL CONSERVATION DIVISION**  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

API Number <b>30-015-32091</b>		Pool Code	Pool Name
Property Code <b>29051</b>	Property Name <b>BIG CAT STATE</b>		Well Number <b>1</b>
OGRID No. <b>016363</b>	Operator Name <b>MURCHISON OIL &amp; GAS, INC.</b>		Elevation <b>3612</b>

**Surface Location**

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	11	17 S	28 E		1500	NORTH	1980	EAST	EDDY

**Bottom Hole Location If Different From Surface**

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres		Joint or Infill	Consolidation Code		Order No.				

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

	<p><b>OPERATOR CERTIFICATION</b></p> <p><i>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</i></p> <p><i>Tommy W. Folsom</i> Signature</p> <p><b>Tommy W. Folsom</b> Printed Name</p> <p><b>Production Manager</b> Title</p> <p><b>10/25/02</b> Date</p>
	<p><b>SURVEYOR CERTIFICATION</b></p> <p><i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i></p> <p><b>NOVEMBER 6, 2001</b></p> <p>Date Surveyed <span style="float: right;">LMP</span></p> <p>Signature &amp; Seal of Professional Surveyor</p> <p><i>Ronald J. Eidsen</i> <b>11/07/01</b></p> <p><b>01-11-1203</b></p> <p>Certificate No. <b>RONALD J. EIDSON 3239</b> <b>GARY EIDSON 12641</b></p>

GEODETIC COORDINATES  
NAD 27 NMEZ  
Y=674067.8  
X=558022.8  
LAT = 32°51'10.63" N  
LONG = 104°08'39.81" W

District I  
PO Box 1960, Hobbs, NM 88241-1960  
District II  
PO Drawer DD, Artesia, NM 88211-0719  
District III  
1000 Rio Brava Rd., Aztec, NM 87410  
District IV  
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

Form C-104  
Revised February 10, 1994  
Instructions on back  
Submit to Appropriate District Office  
5 Copies

AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

Operator name and Address MURCHISON OIL & GAS, INC. 1100 MIRA VISTA BLVD. PLANO, TX. 75093-4698		OCRID Number 015363
		Reason for Filing Code NW
API Number 30 - 0 15-32091	Pool Name Anderson; Wolf camp, North	Pool Code 97183
Property Code 99051	Property Name BIG CAT STATE COM	Well Number 1

II. Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South Line	Feet from the	East/West Line	County
G	11	17S	28E		1500	NORTH	1980	EAST	EDDY

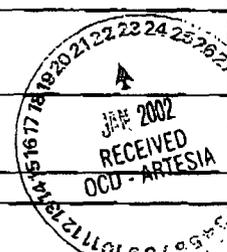
Bottom Hole Location

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

Law Code	Producing Method Code	Gas Capabilities Code	C-129 Perm Number	C-129 Effective Date	C-129 Expiration Date
S	F	WOPL			

III. Oil and Gas Transporters

Transporter OCRID	Transporter Name and Address	POD	O/G	POD ULSTR Location and Description
139633	DUKE ENERGY	2821453	G	G SEC 11 -T17S - R28E
15694	NAVAJO CRUDE OIL PRODUCING P.O. DRAWER 159 ARTESIA, NM. 88240	2821451	D	G SEC 11 -T17S - R28E



IV. Produced Water

POD	POD ULSTR Location and Description
2821453	G SEC 11 T17S R28E

V. Well Completion Data

Spud Date	Ready Date	TD	PBTD	Perforations
11/21/01	1/14/02	10446'	10350'	7528-7540

Well Size	Casing & Tubing Size	Depth Set	Sacks Cement
17-1/2"	13-3/8"	205'	235 SXS
12-1/4"	9-5/8"	2200'	1100 SXS
8-1/2"	5-1/2"	10446'	3530 SXS

VI. Well Test Data

Date New Oil	Gas Delivery Date	Test Date	Test Length	Tbg. Pressure	Gas Pressure
1/14/02	WOPL	1/14/02	8 HR	0 PSI	0 PSI

Choke Size	Oil	Water	Gas	ADP	Test Method
OPEN	16	63	16	N/A	S

I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: *Michael S. Daugherty*  
Printed name: MICHAEL S. DAUGHERTY  
Title: VICE PRESIDENT OPERATIONS  
Date: 1/15/02 Phone: (972) 931-0700

OIL CONSERVATION DIVISION  
ORIGINAL SIGNED BY TIM W. GUNN  
DISTRICT II SUPERVISOR

Approved by:  
Title:  
Approval Date: FEB 12 2002

If this is a change of operator fill in the OCRID number and name of the previous operator

Previous Operator Signature	Printed Name	Title	Date