	28 08	SUSPENS	ENGINEER		<b>\$ 05</b>	DHC	PKV	R0802	84	8183	;
4 ng				ABOVE THIS LINE FO	DR DIVISION USE ONLY -	<del>399</del>	Ψ ····································				
		Ν	IEW MEXICO O - En 1220 South St. F	gineering Bur	reau -						
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т	HIS CHECKI	LIST IS MA	NDATORY FOR ALL ADM WHICH REQUI	INISTRATIVE APPLI RE PROCESSING AT				ULES AND	) REG	SULATION	1
Applic	[DH	on-Stan C-Down [PC-Poo [	dard Location] [NS hole Commingling]	[CTB-Lease C DLS - Off-Lease pansion] [PM] r Disposal] [II	Commingling] Storage] [Ol X-Pressure Mai Pl-Injection Pre	[PLC-Po LM-Off-Lo ntenanc essure Ir	ool/Lease C ease Measu e Expansio icrease]	omming   rement] n]	ling] 		
[1]	ТҮРЕ	<b>OF AP</b> [A]	PLICATION - Chec Location - Spacing	Unit <u>- S</u> imultane		ł					
		Check [B]	One Only for [B] or Commingling - Stor X DHC C CT	age - Measurem		ols [	] OLM		2008		
		[C]	Injection - Disposal	- Pressure Incre 1X 🔲 SWD				,	- I N N	REC	
		[D]	Other: Specify					ſ	28		74 - - 
[2]	NOTII	FICATI [A]	ON REQUIRED TO Working, Roya					, 	pm 1	IVE	an a
		[B]	Offset Operato	rs, Leaseholders	s or Surface Ow	ner		r C	20	D	7
		[C]	Application is	One Which Req	uires Published	Legal N	lotice				•••
		[D]	X Notification and U.S. Bureau of Land M	I/or Concurrent anagement - Commission	Approval by Bl ner of Public Lands, Stat	LM or S te Land Offic	LO e				
		[E]	For all of the a	bove, Proof of N	Notification or F	Publicati	on is Attach	ed, and/	or,		
		[F]	Waivers are A	ttached							

•

# [3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that**no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Cherry Hlava	Cherry Hava	<b>Regulatory Analyst</b>	01/25/2008
Print or Type Name	Signature	Title	Date
	3	hlavacl@bp.com	×

e-mail Address

<b>D</b>	
District	
DISUICE	
	_

1625 N. French Drive, Hobbs, NM 88240

District II 1301 W. Grand Avenue, Artesia, NM 88210

District III

Well 1000 Rio Brazos Road, Azace, NM 87410

District IV

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

APPLICATION TYPE

**Oil Conservation Division** 1220 South St. Francis Dr.

Santa Fe, New Mexico 87505

\_\_X\_Single Establish Pre-Approved Pools EXISTING WELLBORE

### APPLICATION FOR DOWNHOLE COMMINGLING

EXISTING WELLBORE
<u>X</u> Yes No

#### **BP** America Production Company

P.O. Box 3092 Houston Tx 77253

Operator

Lease Gooch Well No. 2 Unit Letter-Section-Township-Range Unit G Section 29 T28N, R08W County San Juan

OGRID No.<u>000778</u> Property Code <u>000608</u> API No.<u>30-045-23360</u> Lease Type: <u>X</u> Federal State Fee

Address

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Blance Otero Chacra	Blanco Mesaverde	Basin Dakota
Pool Code	82329	72319	71599
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	To Be Determined	To Be Determined	6578' – 6682'
Method of Production (Flowing or Artificial Lift)	Artificial Lift	Artificial Lift	Artificial Lift
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)	530	425	590
Oil Gravity or Gas BTU (Degree API or Gas BTU)	1165	1145	1177
Producing, Shut-In or New Zone	New Zone	New Zone	Producing
Date and Oil/Gas/Water Rates of Last Production. (Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.)	Date: Rates:	Date: Rates:	Date: 1/6/08 Rates: 24.7 mcfd
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil Gas 0/0 %	Oil Gas Gas Gas %	Oil Bused on Decure % %

#### **ADDITIONAL DATA**

Are all working, royalty and overriding royalty interests identical in all commingled zones? If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? $/-10-0^{\circ}8$	YesNoX YesX No
Are all produced fluids from all commingled zones compatible with each other?	Yes_X No
Will commingling decrease the value of production?	Yes 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 <u>X</u> No
NMOCD Reference Case No. applicable to this well: 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.)	

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, royalty and overriding royalty interests for uncommon interest cases.

Any additional statements, data or documents required to support commingling.

#### PRE-APPROVED POOLS

If application is to establish Pre-Approved Pools, the following additional information will be required:

List of other orders approving downhole commingling within the proposed Pre-Approved Pools

List of all operators within the proposed Pre-Approved Pools

Proof that all operators within the proposed Pre-Approved Pools were provided notice of this application.

Bottomhole pressure data.

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

SIGNATURE_	Cherry	Hlava	
	1	<i>'</i>	

TYPE OR PRINT NAME <u>Cherry Hlava</u>

TELEPHONE NO. (281) <u>366-4081</u>

E-MAIL ADDRESS <u>hlavacl@bp.com</u>

Submit 3 Copies To Appropriate District Office	State of New Mexic Energy, Minerals and Natural		Form C-103 May 27, 2004
District I 1625 N. French Dr., Hobbs, NM 88240 District II		WE	LL API NO. 045-23360
1301 W. Grand Ave., Artesia, NM 88210 District III	OIL CONSERVATION D 1220 South St. Francis	IVISION 5 I	ndicate Type of Lease
1000 Rio Brazos Rd., Aztec, NM 87410 District IV	Santa Fe, NM 8750		STATE FEE State Oil & Gas Lease No.
1220 S. St. Francis Dr., Santa Fe, NM 87505			
* SUNDRY NOT	ICES AND REPORTS ON WELLS SALS TO DRILL OR TO DEEPEN OR PLUG I		Lease Name or Unit Agreement Name
	CATION FOR PERMIT" (FORM C-101) FOR S		Gooch
1. Type of Well: Oil Well	Gas Well 🛛 Other	8. 1	Well Number 2
2. Name of Operator		9. (	OGRID Number
BP America Production Compan 3. Address of Operator	y Attn: Cherry Hlava	10	778 Pool name or Wildcat
P.O. Box 3092 Houston, TX 772	53		sin DK Blanco MV & Otero Chacra
4. Well Location			
Unit Letter G : 185	0feet from the NORTH line and		
Section 29	Township <b>28N</b> Range (		MPM San Juan County
<u>Section</u> 29		KB, KI, GR, elc.)	
Pit or Below-grade Tank Application			
	aterDistance from nearest fresh water		
Pit Liner Thickness: mil		bbls; Construc	
	Appropriate Box to Indicate Natu		
PERFORM REMEDIAL WORK	— — — — — — — — — — — — — — — — — — — —	REMEDIAL WORK	ALTERING CASING
PULL OR ALTER CASING		ASING/CEMENT JOE	
OTHER: Tri-Mingling		OTHER:	
13. Describe proposed or comp	eleted operations. (Clearly state all pert		pertinent dates, including estimated date
of starting any proposed we or recompletion.	ork). SEE RULE 1103. For Multiple (	Completions: Attach v	vellbore diagram of proposed completion
BP America requests permission	to complete the subject well into be	oth the Mesaverde 8	Chacra formations and tri-
commingle production downhole	with the existing Basin Dakota.		
Pools are Pre Approved by order	<del>`R-11636: Basin Dakota (71599), I</del>	<del>Blanco Mesaverdo (</del>	72319) & Otero Chacra (82329)
Interest owners are identical between receipt requested on Ja	ween the MV & CH but different in th n. 10, 2008.	he DK therefore no	tification was sent certified mail
	ated based on a fixed percentage.		
	nto the Chacra. Flow back to stabil H, perform a combined stream test		
	mine the flow rate for the MV & CH.		
	e in the subject well from the proposed ified of the DHC via form 3160-5 for		the value of the total remaining
<b>Commingling Production Downho</b>	ole in the subject well from the propo	osed pools will not rec	luce the value of the total remaining
production.	above is two and complete to the back	of my knowladge and	holiof teacher and the second
			belief. I further certify that any pit or below- (attached) alternative OCD-approved plan .

SIGNATURE Cherry Hlava		TITLE Regulatory Analyst	DATE 01/25/2008		
Type or print name For State Use Only	Cherry Hlava	E-mail address: hlavacl@bp.com	Telephone No. 281-366-4081		
APPROVED BY:		TITLE	DATE		

## **SJ Basin Recompletion & DHC Procedure**

Well Name	: Gooch 2		
API #:	30-045-23360		
Location:	T28N-R8W-Sec 29		
County:	San Juan	Flac W	ell: 979502
State:	New Mexico	Engr:	Cristin Cammon
Horizon:	Chacra/ Mesa Verde	/Dakota _	cristin.cammon@bp.com
		ph (28)	1) 366-5721

# **Objective:** Perforate and fracture stimulate Mesa Verde and Chacra horizons, and downhole tri-mingle with the existing Dakota.

- 1. TOH with completion. Set CBP over DK.
- 2. Run CBL and RST log.
- 3. Perforate and fracture MV in the 1<sup>st</sup> stage. Set CBP over MV.
- 4. Perforate and fracture CH in 2<sup>nd</sup> stage. Flow test CH.
- 5. Clean out down to MV. Flow test CH and MV.
- 6. Clean out to TD. Land tubing and return well to production.
- 7. Downhole tri-mingle Mesa Verde, Chacra, and Dakota

#### Well History:

This well has been producing from the Dakota since 1979, with a cumulative production of 0.63BCF and is producing approximately 20 mcfd to date. The 2 3/8" tubing is landed at 6578'. The well is currently on plunger lift.

The objective is to recomplete this well to include the Mesa Verde horizon and Chacra horizon, and to commingle production downhole with the existing Dakota horizon. The job scope is to perforate and stimulate the Mesa Verde formation in one stage, then perforate and stimulate the Chacra formation in a second stage, clean out to TD, and commingle Mesa Verde, Chacra and Dakota production after performing a 24 hour test on both the Chacra only and Chacra and Mesa Verde together. The anticipated uplift is 240 mcfd. A composite bridge plug will be set at 5000' to isolate the Dakota throughout the recomplete.

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#### **Procedure:**

- 1. Perform pre-rig site inspection. Check for: size of location, Gas Taps, other wells, other operators, running equipment, wetlands, wash (dikes req.), H2S, barriers needed for equipment, Landowner issues, location of pits (buried lines in pits), Raptor nesting, critical location, check anchors. Verify rig anchors are in place and tested. Check ID wellhead; if earth pit is required have One Call made 48 hours prior to digging.
- 2. Perform second site visit after lines are marked to ensure all lines clear marked pit locations. Planning and Scheduling to ready location for rig.
- 3. RU slickline unit or wireline unit. Pressure test lubricator and equipment. RIH and tag TD. Record TD along with indicated fluid level. RIH and set **two** barriers (CIBP, tbg collar stop w/plug, or plug set in nipple) for isolation in tubing string.
- 4. Check and record tubing, casing, and bradenhead pressures. Ensure production casing has double casing valves installed. Double valve all casing strings.
- 5. MIRU workover rig. LO/TO all necessary equipment including but not limited to: meter run, Automation, Separators and water lines.
- 6. Blow down well. Kill with 2% KCL water ONLY if necessary.
- 7. Check all casing strings to ensure no pressure exists on any annulus. The operations of removal of wellhead and installation of BOP's will be performed under a dispensation for one (1) barrier on the backside.
- 8. ND Wellhead. NU BOPs and diversion spool with 3" outlets and 3" pipe to the blow tank. Install two-way plug in tubing hanger and pressure test BOPs to 200 psi above BHP. Monitor flowing casing pressure with gauge (with casing flowing to blow tank) throughout workover.
- 9. Install stripping head, unseat and pull tubing hanger up above pipe rams, shut-in pipe rams, remove stripping rubber. Strip tubing hanger OOH. Re-install stripping rubber.
- 10. TOH 2 3/8" production tubing currently set at 6578', lay down tubing. Using approved "Under Balance Well Control Tripping Procedure". Visually inspect tubing while POOH, note any signs of pitting or corrosion and please document with pictures. Measure tubing out of hole. Recover isolation plugs from tubing.
- 11. TIH w/ 4-1/2" scraper. Check the distance between the top of the blind rams and the length of the bottom hole assembly that is being run. If the BHA is too long then the well has to be top killed and monitored prior to opening bind rams. RIH and scrape pipe to PBTD (~6721'). POOH. Lay down bit and scraper.
- 12. RU E-line equipment. Pressure test lubricator and equipment.
- 13. Pick up composite bridge plug and TIH. Set composite bridge plug at +/- 5000'. (Ensure plug is not set opposite a casing collar by doing a few passes at +/- 5000' with the CCL and then determine the setting depth.) Pressure test bridge plug to ensure it is holding. Fill casing w/ 2% KCl. POOH.

- 14. Log well w/ CBL log and RST log from 6000' to 3000' (liner top). Contact engineer after determining TOC in 4 1/2" liner to discuss perforation placement or need for remedial cement squeeze if cement coverage is inadequate for the pay-add or if integrity of casing appears sub-par. Contact operations geologist, Mark Durio, for final perf interval selection from the RST.
- 15. Pressure test 4 ½" 10.5# K-55 liner to ~3200 psi (75% of burst is 3592 psi). Monitor outer annulus pressure closely. (To perform pressure test, RIH with tension set packer, set packer in casing just below lowest casing valve and test casing to desired pressure.)

#### Stage One: Mesa Verde

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- 16. Prepare for explosive operations. Follow Schlumberger Explosive SOP including radio silence, suspension of welding operations, and isolation of electrical devices from the work area. Perform Pre-job Safety Meeting to review JSA and procedures. If someone has On Star on their vehicle they cannot enter closer than 300 foot. On Star cannot be turned off. PLEASE take special caution. This is in conjunction with all cell phones, pagers, radios and any electronic devise that transmits a signal.
- 17. RIH with **3-1/8**" **High Shot Density casing gun loaded with Power Jet charges at 1 SPF 60 Degree Phasing** (total estimated holes will be 90) w/lubricator and perforate Menefee and Pt. Lookout formation.

#### Perforated intervals will be:

Point Lookout Upper Main Sand: 4475' – 4575'; 100ft gross interval 1 interval at 1 shot every other foot for 50 holes • 4475' – 4575'

Menefee Channels (4): 4260' - 4400'; 140ft gross interval 2 intervals at 1 shot every other foot for 40 holes

4360' – 4400'

4260' – 4300'

# NOTE: Final perf intervals will be determined after the RST log. Verify final perf intervals with engineer/geologist.

POOH with perforating guns.

- 18. Hold Risk Assessment (JHA) meeting prior to initiating pumping services.
- 19. RU 10,000 psi frac isolation equipment (Stinger Isolation Tool).
- 20. RU Schlumberger frac equipment. **NOTE:** Frac tanks should be filled with fresh water, the KCI will be added on the fly.
- 21. Pressure test iron to Stinger frac valve at 5000 psi for 10 minutes. Function test treating line check valve during the prime and pressure test operation.
- 22. The frac is expected to pump at approximately 3000 psi. Maximum allowable treating pressure will be **3200 psi**.

- 23. Set stagger pump trips to **3200-3400 psi**. Function test pump trips individually.
- 24. Install and monitor production casing and treating pressure during entire job in frac van via pressure transducers on production casing and treating line. Be sure to monitor the casing annulus pressure throughout the duration of stimulation treatment.
- 25. Spearhead 1000 gal 15% HCL, establish injection rate, and proceed with fracture stimulation according to Schlumberger schedule.
- 26. Fracture treat Mesa Verde down casing as per Schlumberger schedule. Treat well at a **maximum surface pressure of 3200 psi during frac job**.
- 27. Maintain surface pressures less than 3200 psi during frac job. Flush frac with foam. Fill out GWSI scorecard.

#### Stage Two: Chacra

- 28. Rig-up electric line equipment. Pick up composite bridge plug and perforation gun assembly.
- 29. RIH with plug/gun assembly. Set composite bridge plug at **3900'.**
- 30. Perforate the Chacra with **3-1/8**" **High Shot Density casing gun loaded with Power Jet charges at 1 SPF 60 Degree Phasing** (total estimated holes will be 80) w/lubricator and perforate Chacra formation.

#### Perforated intervals will be:

Chacra (Upper & Lower Sands): 3150 - 3360'; 210' gross interval 1 interval at 1 shot every other foot for 80 holes • 3160' - 3320'

- 31. POOH with plug/gun assembly and check firing rate of guns. Immediately report to Houston if firing rate less than 100% to determine if additional runs need to be made.
- 32. Hold Risk Assessment (JHA) meeting prior to initiating pumping services
- 33. RU wellhead isolation tool and Schlumberger equipment. Pressure test iron to Stinger frac valve at 5000 psi.
- 34. The frac is expected to pump at approximately 2900 psi. Maximum allowable treating pressure will be 3200 psi.
- 35. Set stagger pump trips to **3200-3400 psi**.
- 36. Frac the Chacra interval as per Schlumberger schedule.

#### Flowback:

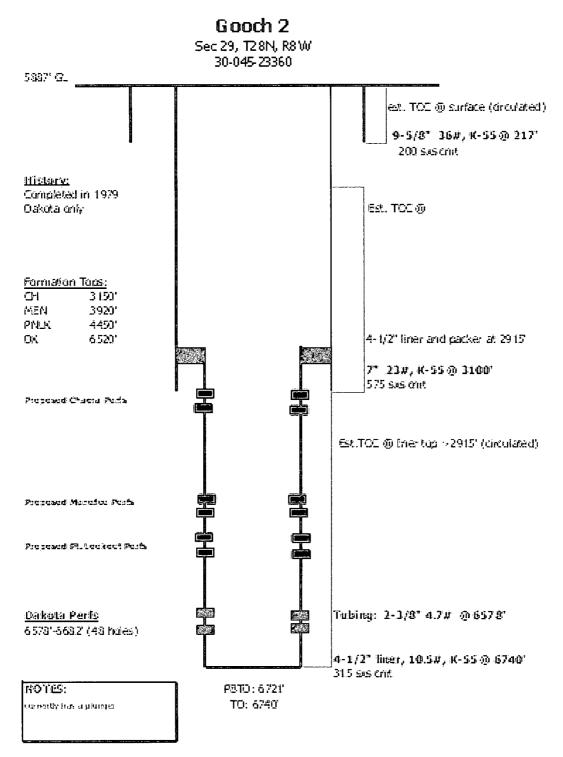
37. Flowback Chacra frac immediately. Flow well through choke manifold on 1/4", 1/2" and 3/4" chokes slowly increasing drawdown until well dies or stabilizes. This is to aid in reducing sand flowback. Recommend 8 hours of flow for each choke size.

- 38. Rig up air package/unit, pressure test all lines (Testing procedure to be supplied from air company). TIH with 2 3/8" tubing with notched collar (muleshoe) and float check valve.
- 39. Cleanout fill to frac plug set at +/- 3900'.
- 40. POOH with tubing and float.
- 41. RIH with tubing and wireline retrievable pump through plug. Hang off tubing at +/- 3250'. Retrieve plug.
- 42. Flow test the Chacra for 24 hrs for regulatory, allocation, and deliverability purposes.

43. POOH with tubing.

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- 44. TIH w/ tubing and bit for 4-1/2" casing. Drill out CBP set at 3900'. Cleanout to CBP set at 5000'.
- 45. RIH with tubing and wireline retrievable pump through plug. Hang off tubing at +/- 4450'. Retrieve plug.
- 46. Flow test the Chacra and Mesaverde for 24 hrs for regulatory, allocation, and deliverability purposes.
- 47. POOH with tubing.
- 48. TIH w/ tubing and bit for 4-1/2" casing. Drill out CBP set at 5000'. Cleanout to PBTD at 6721'.
- 49. RIH with 2-3/8" production tubing (with muleshoe, F-nipple with plug, 4 ft pup, X-nipple with plug).
- 50. Land 2-3/8" production tubing at +/- 6680' or depth determined from logs. Lock down 2 3/8" tubing hanger and bonnet.
- 51. Pressure test tubing to 500 psi with air unit, make sure tubing spool valves are open. Care should be taken during pressure testing of the tubing due to potential problem caused if tubing parts close to surface or above the hanger. Check all casing string for pressure. The operations of removal of wellhead and installation of BOP's will be performed under a dispensation for one (1) barrier on the backside.
- 52. ND BOP's. NU Wellhead. During Master valve placement ensure the top of hanger has spacer nipple in place to bottom of bonnet flange so plunger equipment will not hang up through tree. Pressure test Wellhead.
- 53. RU WL unit. Run gauge ring for 2-3/8" tubing. Pull plugs. Set tubing stop for plunger and communicate plunger equipment status to IC room personnel.
- 54. RD WL unit.
- 55. Test well for air. Hook up well to surface facilities and return well to production and downhole commingle Mesa Verde and Dakota.



updated: 10/15/2007 CC

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#### C102Report

District I

District II

District III

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3470 Fax: (505) 476-3462

Form C-102	
Permit 51714	

#### **State of New Mexico** 1625 N. French Dr., Hobbs, NM 88240 Phone:(505) 393-6161 Fax:(505) 393-0720 **Energy, Minerals and Natural Resources Oil Conservation Division** 1301 W. Grand Ave., Artesia, NM 88210 Phone:(505) 748-1283 Fax:(505) 748-9720 1220 S. St Francis Dr. 1000 Rio Brazos Rd., Aztec, NM 87410 Santa Fe, NM 87505 Phone: (505) 334-6178 Fax: (505) 334-6170

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

I. API Number	umber 2. Pool Code 3. Poo		l Name
30-045-23360	72319	BLANCO-MESAVER	DE (PRORATED GAS)
4. Property Code 608	5. Property Name GOOCH		6. Well No. 002
7. OGRID No. 778	8. Operator Name BP AMERICA PRODUCTION COMPANY		9. Elevation

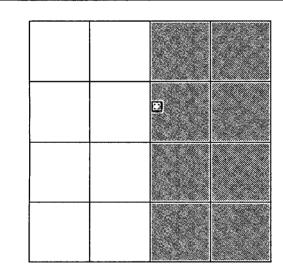
#### **10. Surface Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
G	29	28N	08W		1850	N	2510	Е	SAN JUAN

#### 11. Bottom Hole Location If Different From Surface

			n Dottom	ALONG				A LOL			
UL - Lot	Section	Township	Range	Lot	Idn	Feet From	N/S L	ine	Feet From	E/W Line	County
	cated Acres	13. J	oint or Infill		14	. Consolidation (	Code			15. 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



#### **OPERATOR CERTIFICATION**

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location(s) or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

E-Signed By: Cherry Alava Title: Regulatory Analy 57 Date: 1-8-2008

#### SURVEYOR CERTIFICATION

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. Surveyed By: Fred Kerr

Date of Survey: 9/23/1978 Certificate Number: 3950

#### C102Report

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3470 Fax: (505) 476-3462

District I	State of New Mexico	Form C-102 Permit 51714
1625 N. French Dr., Hobbs, NM 88240 Phone:(505) 393-6161 Fax:(505) 393-0720	Energy, Minerals and Natural Resources	T of line 3 1 / 1 /
District II		
1301 W. Grand Ave., Artesia, NM 88210 Phone:(505) 748-1283 Fax:(505) 748-9720	Oil Conservation Division	
District III	1220 S. St Francis Dr.	
1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170	Santa Fe, NM 87505	
District IV		

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number	2. Pool Code	3.1	Pool Name
30-045-23360	82329	OTERO C	HACRA (GAS)
4. Property Code 608	-	perty Name DOCH	6. Well No. 002
7. OGRID No. 778		rator Name DUCTION COMPANY	9. Elevation

### 10. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
G	29	28N	08W		1850	N	2510	E	SAN JUAN

#### 11. Bottom Hole Location If Different From Surface

		1.	L. Dottom	HUN			nerent	1101	In Surface		
UL - Lot	Section	Township	Range	Lot	Idn	Feet From	N/S L	ine	Feet From	E/W Line	County
	cated Acres 0.00	13. J	oint or Infill		14	. Consolidation (	Code			15. 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

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### **OPERATOR CERTIFICATION**

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location(s) or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

E-Signed By: Charry Hlava Title: Regulatory Analy 5T Date: 1-7-2008

#### SURVEYOR CERTIFICATION

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. Surveyed By: Fred Kerr

Date of Survey: 9/23/1978 Certificate Number: 3950

#### NEW MEXICO OIL CONSERVATION COMMISSION WELL LOCATION AND ACREAGE DEDICATION PLAT

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Form C+102 Supervodex (+128 Effective 1-j-05

30-045-23	360	All distances mu	at he from the oute	r houndaries of	the Section.	
TENNECC OII	COUPINY		COOC!	1		800 m.
"Jost Letter	Section T	Jidanwo	Fault		County	<u>_</u>
· C Actual Fostage Loss	29	23N		3W	San Juan	
1850	leet from the Nor	th hn	n and 2510	tee	t from the Sast	ltar
Ground Level Elev. 5887	Preaucing Format Dakota	ton	Fool Basin	n Dakota		Desicales Acresse: 320 Acres
1. Outline the	e acreage dedicated	to the subje	ct well by col	ored pencil o	r hachure marks on	the plat below.
2. If more the interest an		dicated to the	well, outline	each and ide	ntify the ownership	thereof (both as to working
	ommunitization, unil	ization, force-	pooling. etc?			of all owners been consoli-
X Yes	No If answ	ver is "ves," t	pe of consolid	ation <u>Comm</u>	unitization in	progress.
this form if No allowab	necessary.) le will be assigned	to the well unt	il all interests	have been c	onsolidated (by co	nmunitization, unitization.
sion.	ing, or otherwise) or	until a non-sta	hdard unit, ell		n interests, has bee	n approved by the Commis-
	역 이 명 및 학원 이 방 (2 월 월 월 명 명 )					CERTIFICATION
			·			
			: 1			certify that the information con- erein is true and complete to the
	ł	850			best of r	ny knowledge and belief.
ΨΕΝΝΕΟΟ	USA SF 080112		TENNECO USU	NM 02540		J.a. Kuch
	- +	~				mentel Approximeter
	1		1		Position	eco Oil Company
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			1			ber 20, 1978
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			: د په در در ه ه ه ه ه ه و و	و ها ها ها ها ها ها ه	م و # # # 4 <sup>2</sup>	
	1	29	i			certify that the well location
	i I		j			this plat was plotted from field
	l I		1			actual surveys made by me or supervision, and that the same
	I		1			and correct to the best of my
			 		knowledg	e and belief.
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	1	79	. 1		Date Survey	ind and in the second sec
	JAN 15	OM.	1		Septen	Victor 23 Con 1970
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			1		Frad R	CKIT TO
						Contrant 18
0 530 660 390	1322 XEED 1000 2	310 J642	2000 9800	1000 803	<u> </u>	A FERR, IR

					<b>20</b>	Basin Dakota 30-045-	ota Daily 45-23366	Daily Rates 23360						
		Month (	Gas Volume		Month	Gas Volume	Month	Gas Volume	Month	Sas Volume	Month B	as Volume	Month Ba	Sas Volume
In(Qf/Qi) =	dt	1	704		Jul-2010	591	Jul-2013	497	Jul-2016	418	Jul-2019	351	Jul-2022	295
Qf=	707	Jul-2007	200		Aug-2010	589	Aug-2013	495	Aug-2016	416	Aug-2019	350	Aug-2022	294
Qi=	2305	Aug-2007	269		Sep-2010	586	Sep-2013	492	Sep-2016	414	Sep-2019	348	Sep-2022	292
rate=	23	Sep-2007	693		Oct-2010	583	Oct-2013		Oct-2016	412	Oct-2019	346	Oct-2022	291
time=	245	Oct-2007	069		Nov-2010	580	Nov-2013		Nov-2016	410	Nov-2019	345	Nov-2022	290
dt=	-1.1818053	Nov-2007	687		Dec-2010	577	Dec-2013		Dec-2016	408	Dec-2019	343	Dec-2022	288
decline=	-0.0048237	Dec-2007	684		Jan-2011	575	Jan-2014		Jan-2017	406	Jan-2020	341	Jan-2023	287
		Jan-2008	680		Feb-2011	572	Feb-2014	481	Feb-2017	404	Feb-2020	340	Feb-2023	285
		Feb-2008	677		Mar-2011	569	Mar-2014	478	Mar-2017	402	Mar-2020	338	Mar-2023	284
	.   	Mar-2008	674		Apr-2011	566	Apr-2014	476	Apr-2017	400	Apr-2020	336	Apr-2023	283
		Apr-2008	670		May-2011	564	May-2014	474	May-2017	398	May-2020	335	May-2023	281
   	   	May-2008	667		Jun-2011	561	Jun-2014	471	Jun-2017	396	Jun-2020	333	Jun-2023	280
		Jun-2008	664		Jul-2011	558	Jul-2014	469	Jul-2017	394	Jul-2020	332	Jul-2023	279
		Jul-2008	661		Aug-2011	555	Aug-2014	ľ	Aug-2017	393	Aug-2020	330	Aug-2023	277
	   	Aug-2008	658		Sep-2011	553	Sep-2014		Sep-2017	391	Sep-2020	328	Sep-2023	276
		Sep-2008	654		Oct-2011	550	Oct-2014		Oct-2017	389	Oct-2020	327	Oct-2023	275
		Oct-2008	651	1	Nov-2011	548	Nov-2014	460	Nov-2017	387	Nov-2020	325	Nov-2023	273
		Nov-2008	648	· · ·	Dec-2011	545	Dec-2014		Dec-2017		Dec-2020	324	Dec-2023	272
~		Dec-2008	645		Jan-2012	542	Jan-2015		Jan-2018		Jan-2021	322	Jan-2024	271
		Jan-2009	642	4 <sup>- 14</sup>	Feb-2012	540	Feb-2015		Feb-2018	381	Feb-2021	321	Feb-2024	269
		Feb-2009	629		Mar-2012	537	Mar-2015	451	Mar-2018		Mar-2021	319	Mar-2024	268
		Mar-2009	636		Apr-2012	534	Apr-2015	449	Apr-2018		Apr-2021	317	Apr-2024	267
		Apr-2009	633		May-2012	532	May-2015	447	May-2018		May-2021	316	May-2024	266
		May-2009	630		Jun-2012	529	Jun-2015	445	Jun-2018	374	Jun-2021	314	Jun-2024	264
		Jun-2009	627		Jul-2012	527	Jul-2015		Jul-2018	372	Jul-2021	313	Jul-2024	263
		Jul-2009	624		Aug-2012	524	Aug-2015		Aug-2018	370	Aug-2021	311	Aug-2024	262
		Aug-2009	621		Sep-2012	522	Sep-2015	439	Sep-2018	369	Sep-2021	310	Sep-2024	260
		Sep-2009	618		Oct-2012	519	Oct-2015	436	Oct-2018	367	Oct-2021	308	Oct-2024	259
		Oct-2009	615		Nov-2012	517	Nov-2015		Nov-2018	365	Nov-2021	307	Nov-2024	258
		Nov-2009	612		Dec-2012	514	Dec-2015		Dec-2018	363	Dec-2021	305	Dec-2024	257
		Dec-2009	609		Jan-2013	512	Jan-2016	430	Jan-2019	362	Jan-2022	304	Jan-2025	256
		Jan-2010	909		Feb-2013	209	Feb-2016		Feb-2019	360	Feb-2022	302	Feb-2025	254
		Mar-2010	603		Mar-2013	202	Mar-2016	426	Mar-2019	358	Mar-2022	301	Mar-2025	253
		Apr-2010	600		Apr-2013	504	Apr-2016		Apr-2019		Apr-2022	300	Apr-2025	252
		May-2010	597		May-2013	502	May-2016		May-2019	355	May-2022	298	May-2025	251
		Jun-2010	594		Jun-2013	500	Jun-2016	420	Jun-2019		Jun-2022	297	Jun-2025	249

, <sup>16</sup>.

Gooch #2 Future Production Decline Estimate Basin Dakata Daily Rates

1/11/2008

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