DATE IN	SUSPENSE	ENGINEER	LOGGED IN	TYPE	APP NO.
6-1-04	6-21-04	Stogner	~~6-3-04~~ 6-1-04	NSL	pSEM0415530509

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -
1220 South St. Francis Drive, Santa Fe, NM 87505

(OXY)

ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

(1)

RECEIVED
JUN - 1 2004
Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication
☑ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify SWR 107 (J)

[2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or ✓Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners
No Royalty Interest owners on unratified tracts within 1/4 mile of proposed wells.

[B] ☐ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☐ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

[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.**~~

David Stewart		Sr. Reg. Analyst	5/28/04
Print or Type Name	Signature	Title	Date

david_stewart@oxy.com
e-mail Address

OXY USA INC.

PO Box 50250
Midland, TX 79710-0250

May 27, 2004

New Mexico Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Attention: Roy Johnson

Re: ***Application for Administrative Approval of Unorthodox Well Locations***
Bravo Dome Carbon Dioxide Gas Unit
Harding, Union and Quay Counties, New Mexico

Dear Mr. Johnson:

OXY USA Inc., as operator of the Bravo Dome Carbon Dioxide Gas Unit ("BDCDGU"), respectfully requests administrative approval pursuant to Order No. 10576 for eleven unorthodox gas well locations within the subject unit. To support this request, the following information is submitted for your review:

1. Table of well information showing location and API number of the existing well in the 640 acre spacing and proration unit, the location of the proposed well, the distance between the two wells, the distance to section line, the distance to quarter-quarter, the well location with respect to unratified tracts, and a narrative explaining the reason for NSL location.
2. OCD Forms C-101 and C-102 for each proposed well
3. Isopach Map, which also shows the location of all BDCDGU wells in the area where the proposed wells are located..

There are no affected offset parties on unratified tracts within ¼ mile of the proposed unorthodox gas well locations. The reason for locating these wells at a non-standard location is the need to drill them 1. proximity to fault, 2. higher porosity*net height pay, 3. topography, and/or 4. close proximity to the existing gathering system to minimize costs. Approval of these unorthodox locations will promote conservation by enhancing the recovery of carbon dioxide from these areas of the reservoir and thereby prevent waste. If you need anything else, please don't hesitate to call me at 915-685-5717.

Sincerely,

David Stewart
Sr. Regulatory Analyst
OXY USA Inc.

Attachments

CC:

Proposed Well - NSL					Existing Well in same spacing unit								
Well Name & Number	Location	Unit	S-T-R	County	Well Name & Number	Location	Unit	API Number	Spacing Unit Size	Distance between wells in same spacing unit	Distance to Outer Boundary of Section	Distance Qtr/Qtr	Well Location with respect to unratified tracts
BDCDGU 2133-172	1002 S 1650 E	O	17-21N-33E	HARDING	BDCDGU 2133-171	1980 N 1980 W	F	30-021-20136	640	2829	1002	324	N/A
1) 30-021-20337	SECOND WELL IN THIS SECTION, EXISTING WELL 21 33 17 1F, THIS WELL IS SET IN THIS LOCATION IN ORDER TO STAY IN AN AREA OF HIGHER POROSITY*NET HEIGHT PAY(PHI*H) WHEN COMPARE TO THE OFFSETTING SECTIONS.												
BDCDGU 2133-212	660 S 330 W	M	21-21N-33E	HARDING	BDCDGU 2133-211	1926 N 2008 E	G	30-021-20269	640	3989	330	330	N/A
2) 30-021-20334	SECOND WELL IN THIS SECTION, EXISTING WELL 21 33 21 1G, THIS WELL IS SET IN THIS LOCATION IN ORDER TO DRAIN THE WESTERN CORNER OF THIS SECTION PLUS THE ADJOINING AREA . ABOVE AVERAGE OFFSET RATES HAVE ALSO IMPACTED THIS CHOICE OF LOCATION AND IN ADDITION TRYING TO OFFSET EXISTING WELL EQUALLY AND VICINITY TO PIPELINE ARE CONTRIBUTING FACTORS IN THE CHOICE OF THIS LOCATION												
BDCDGU 2233-021	762 N 2544 W	C	2-22N-33E	UNION	---	---	---	---	640	N/A	762	165	greater than 1320'
(3) 30-059-20462 initial well in the Section	PROPOSED WELL IS IN THE "C" LOCATION BECAUSE THIS WELL IS THE FIRST TEST ON THE WEST SIDE OF THE FAULT THAT BOUNDS PRODUCTION IN SECTIONS 23 33, 22 33, 22 34 21 34 ON THE WEST. THE "C" LOCATION WAS CHOSEN FOR ITS PROXIMITY TO THE FAULT SINCE IN THE OFFSET AREAS TO THE EAST, WELLS CLOSE TO THE FAULT HAVE HAD HIGHER RATES THAN EXPECTED BASED ON PHI*H. THIS WELL TRIES TO PROVE POSSIBLY 6 ADDITIONAL LOCATIONS TO THE WEST AND CONFIRMS THE PAY INFORMATION ON NORTHERN EDGE OF THE FIELD. UNIT LETTER 'I' IS NOT IN THE UNIT.												
BDCDGU 2234-052	1650 N 330 W	E	5-22N-34E	UNION	BDCDGU 2234-051	1650 S 1650 E	J	30-059-20259	640	3848	330	330	greater than 1320'
(4) 30-059-20464	SECOND WELL IN THIS SECTION, EXISTING WELL 2234-051J, THIS WELL IS SET IN THIS LOCATION IN ORDER TO KEEP THE WELL IN THE HIGHER PHI*H LOCATION. WE ARE ALSO TRYING TO STAY EQUALLY APART FROM THE EXISTING WELL AND AN INFILL WELL 22 34 06 2 D. UNIT LETTER 'F' IS NOT DRILLABLE IN THIS SECTION DUE TO TOPOGRAPHY (WET CREEK).												
BDCDGU 2234-062	990 N 990 W	D	6-22N-34E	UNION	BDCDGU 2234-061	2075 S 2031 W	K	30-059-20322	640	2447	990	332	N/A
(5) 30-059-20452	SECOND WELL IN THIS SECTION, EXISTING WELL 22 34-061K, LOCATION OF THIS WELL WAS CHOSEN TRYING TO STAY AS CLOSE AS POSSIBLE TO THE THICKER PORTION OF THE RESERVOIR IN THIS AREA AND BALANCE THE OFFSET DISTANCE WITH TWO EXISTING WELLS, 2234-061K AND 2234-051J AND THREE ADDITIONAL NEW WELLS, 2334-311K, 2334-321L AND 2234-052 E												
BDCDGU 2234-072	2310 N 990 E	H	7-22N-34E	UNION	BDCDGU 2234-071	1980 N 1980 W	F	30-059-20128	640	2333	990	335	N/A
(6) 30-059-20453	SECOND WELL IN THIS SECTION, EXISTING WELL 2234-07 1J, THIS WELL IS SET IN THIS LOCATION IN ORDER TO DRAIN THE EASTERN PORTION OF THE SECTION, STAYING IN A HIGH PHI*H AREA (33 FEET, SOME OF THE BEST IN THIS PORTION OF THE FIELD) AND EVENLY DISTANT FROM 3 EXISTING WELLS (22 34 07 1J, 22 34 08 1K AND 2234 18 1G).												
BDCDGU 2234-182	330 N 990 W	D	18-22N-34E	UNION	BDCDGU 2234-181	1961 N 1979 E	G	30-059-20338	640	2821	330	330	N/A
(7) 30-059-20454	SECOND WELL IN THIS SECTION, EXISTING WELL 2234-181G, THIS WELL IS SET IN THIS LOCATION IN ORDER TO TAKE ADVANTAGE OF THE HIGH PHI* H AND LEAVE ENOUGH ROOM FOR A POSSIBLE ADDITIONAL LOCATION IN THE SOUTHEAST CORNER OF THIS SECTION. PROXIMITY TO FAULT TO THE WEST MIGHT ENHANCE PRODUCTIVITY AS WE HAVE OBSERVED IN OTHER WELLS IN THE AREA.												
BDCDGU 2333-252	504 S 1454 W	N	25-23N-33E	UNION	BDCDGU 2333-251 (P&A)	1980 N 1980 W	F	30-059-20127	640	2845	504	129	N/A
(8)	SECOND WELL IN THIS SECTION, EXISTING WELL 23 33 25 1F, THIS WELL IS SET IN THIS LOCATION IN ORDER TO STAY CLOSE TO THE HIGHER PHI*H AND TO THE FAULT JUST TO THE WEST. ITS PROXIMITY TO THE FAULT MIGHT BE AN ADVANTAGE SINCE WELLS IN SIMILAR POSITION IN THIS AREA HAVE HAD ABOVE AVERAGE PRODUCTION.												

Proposed Well - NSL					Existing Well in same spacing unit								
Well Name & Number	Location	Unit	S-T-R	County	Well Name & Number	Location	Unit	API Number	Spacing Unit Size	Distance between wells in same spacing unit	Distance to Outer Boundary of Section	Distance Qtr/Qtr	Well Location with respect to unratified tracts
BDCDGU 2333-261	660 N 330 E	A	26-23N-33E	UNION	---	---	---	---	640	N/A	330	330	N/A
(9)	PROPOSED WELL IS IN THE "A" LOCATION BECAUSE OF FAULTING TO THE WEST WHICH LIMITS THE LOCATIONS IN THIS SECTION. IF THE WELL IS TO STAY IN THE SAME FAULT BLOCK AS OFFSET CURRENT PRODUCING WELLS. IN ADDITION WE ARE TESTING THE THEORY BEHIND SOME OBSERVATION FROM WELLS IN SECTION 22 34 WHERE WELLS IN PROXIMITY TO A FAULT HAVE PRODUCED AT HIGHER RATES THAN EXPECTED BASED ON PHI*H.												
BDCDGU 2333-362	660 S 1980 W	N	36-23N-33E	UNION	BDCDGU 2333-361 (P&A)	1980 S 1980 E	J	30-059-20033	640	1867	660	659	N/A
(10)	SECOND WELL IN THIS SECTION, EXISTING WELL 23 33 36 1J, THIS WELL IS SET IN THIS LOCATION IN ORDER TO STAY CLOSE TO THE HIGHER PHI*H AND TO THE FAULT JUST TO THE WEST. ITS PROXIMITY TO THE FAULT MIGHT BE AN ADVANTAGE SINCE WELLS IN SIMILAR POSITION IN THIS AREA HAVE HAD ABOVE AVERAGE PRODUCTION.												
BDCDGU 2334-301	1650 S 660 W	L	30-23N-34E	UNION	---	---	---	---	640	N/A	660	352	N/A
(11)	WELL IS TO BE CONSIDERED AN EXTENSION WELL SINCE NO PRODUCTION TO THE EAST. WELL IS IN L LOCATION TRYING TO STAY WITHIN THE PHI*H VALUES THAT HAVE BEEN IDENTIFIED AS NEED TO OBTAIN A SUCCESSFUL WELL. CURRENT INTERPRETATION HAS THE ORTHODOX LOCATION IN WHAT IS CONSIDERED MARGINAL OR NON PRODUCTIVE ACREAGE.												

NOTE : A REVIEW OF APPROXIMATELY 350 WELL DRILLED OVER THE YEARS IN THE BRAVO DOME UNIT HAS REINFORCED THE CONCEPT THAT PHI*H IS ONE OF THE CONTRIBUTORS TO WELL PERFORMANCE HENCE THE USE OF THIS VARIABLE TO PICK INFILL AND EXTENSION LOCATIONS.