

Submit 3 Copies To Appropriate District Office  
District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Ave., Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources

Form C-103  
March 4, 2004

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

WELL API NO.  
30-045-31785  
5. Indicate Type of Lease - Federal  
STATE ☐ FEE ☐  
6. State Oil & Gas Lease No.  
Federal Lease SF-078110

SUNDRY NOTICES AND REPORTS ON WELLS  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:  
Oil Well ☐ Gas Well ☒ Other

2. Name of Operator  
Dugan Production Corp.

3. Address of Operator  
P. O. Box 420, Farmington, NM 87499-0420

(505)325-1821

7. Lease Name or Unit Agreement Name

Federal I

8. Well Number  
101

9. OGRID Number  
006515

10. Pool name or Wildcat  
Basin FR Coal & Harper Hill FR Sand PC

4. Well Location

Unit Letter N : 660 feet from the South line and 2085 feet from the West line  
Section 1 Township 29N Range 14W NMPM San Juan County

11. Elevation (Show whether DR, RKB, RT, GR, etc.)  
5525' GL

Pit or Below-grade Tank Application (For pit or below-grade tank closures, a form C-144 must be attached)

Pit Location: UL        Sect        Twp        Rng        Pit type        Depth to Groundwater        Distance from nearest fresh water well         
Distance from nearest surface water        Below-grade Tank Location UL        Sect        Twp        Rng        ;  
feet from the        line and        feet from the        line

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐  
PULL OR ALTER CASING ☐ MULTIPLE COMPLETION ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☐  
CASING TEST AND CEMENT JOB ☐

OTHER: Downhole commingling ☒

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.  
This well was spudded on 3-28-05 and 5-1/2" casing cemented at 1332'. The Basin Fruitland Coal was perforated 1061'-70', 1092'-96', 1157'-64' & 1172'-80'. The Harper Hill Fruitland Sand-PC was perforated 1074'-79' and 1184'-90'. Both intervals were fracture stimulated on 6-30-05 using 77,663 gallons gelled water and 160,669 lbs 20/40 sand. It is proposed that both intervals be downhole commingled to clean up stimulation fluids and then produced.
- 1&2. NMOCD Order R-11363 established the Basin Fruitland Coal (71629) and Harper Hill Fruitland Sand-PC (78160) as pre-approved pools for downhole commingling.
3. Perforated intervals: Basin Fruitland Coal 1061'-70', 1092'-96', 1157'-64', 1172'-80. Harper Hill Fruitland Sand-PC 1074'-79'; 1184'-90'.
4. Proposed allocation method: Fixed factors based upon an analysis of production from both pools in a 16 section area adjacent or close to the subject well (Ref. Attachment No. 1). A total of 14 FR Coal wells, 27 PC wells and 6 downhole commingled wells were evaluated.
- | Proposed Allocation | Fruitland Coal | Fruitland Sand/Pictured Cliffs |
|---------------------|----------------|--------------------------------|
| Gas                 | - 53%          | 47%                            |
| Water               | - 53%          | 47%                            |
5. Both pools are anticipated to produce high volumes of water & the proposed downhole commingling is necessary to economically & efficiently produce both zones. In addition, this well is located within the city limits of Farmington and the downhole commingling will allow both zones to be produced using only one set of artificial lift equipment. The value of production from either pool, will not be reduced, but will be maximized as a result of this downhole commingling.
6. The ownership (working, royalty and overriding) is identical for both zones. Dugan Production holds 100% of the working interest and all royalty is Federal (Lease No. SF-078110).
7. A copy of this sundry is being sent to the Bureau of Land Management.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE John D. Roe TITLE Engineering Manager DATE July 21, 2005  
Type or print name John D. Roe E-mail address: johnroe@duganproduction.com Telephone No. 505-325-1821  
(This space for State use)

APPROVED BY [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 2 DATE JUL 25 2005  
Conditions of approval, if any: DHC 1947

**Attachment No. 1**  
**Offset Well Production**  
**Dugan's Federal I Wells No. 101, Com 102 & King Com No. 2**  
**Sections 1, 11 & 12; T-29N; R-14W**  
**San Juan County, New Mexico**

Operator ①	Well	Location UL-S-T-R	# Months Produced	10/04 DHC ③ %FC/%PC	Average Production - mcf/mo & (# of mo. If less than 12) ②									
					Fruitland Coal					Fruitland Sand-PC				
					1st 12 months	2nd 12 months	3rd 12 months	4th 12 months	5th 12 months	1st 12 months	2nd 12 months	3rd 12 months	4th 12 months	5th 12 months
LANCE	RPC 18 #3	N-18-29N-13W	27	50/50 ④	1,376	1,588	1,477 (3)			1,376	1,588	1,477 (3)		
LANCE	Ropco 18 #4	P-18-29N-13W	5		14,023 (5)									
ROC	Fawkes #1	P-18-29N-13W	353							3,247	3,487	4,582	4,123	4,097
DPC	Federal I #100	B-1-29N-14W	41		1,435	1,594	1,744	2,266 (5)		5,129	4,079	4,297	4,365	3,485
DPC	Federal I #4/4R	C-1-29N-14W	413							1,959	2,774	3,007	3,088	3,524
DPC	Federal I #6	G-1-29N-14W	76							3,176	3,200	3,373	2,518	3,082
DPC	Federal I #5/5R	J-1-29N-14W	380							4,100	3,440	2,455	1,776 (8)	
DPC	Com #2/2R	A-2-29N-14W	44							8,985	4,757	6,564	5,029	3,293
DPC	Com #4	C-2-29N-14W	61											
DPC	Com #1	J-2-29N-14W	81		4,368	8,887	6,841	5,401	4,243					
DPC	Com #3	J-2-29N-14W	155							1,046	596	1,017	972	1,092
DPC	Com #91	L-2-29N-14W	56		4,880	3,135	2,136	1,722	1,100 (8)					
LANCE	WF Federal 3 #1	D-3-29N-14W	50							3,356	5,207	4,382	4,629	4,765 (2)
DPC	Federal I #99	H-3-29N-14W	57		6,283	5,501	6,216	4,513	3,461 (9)	8,486	5,033	2,811	2,215	1,902 (6)
DPC	Federal I #7	J-3-29N-14W	55											
LANCE	WF Federal 3 #2	L-3-29N-14W	50		5,341	4,701	4,615	3,668	3,837 (2)					
DPC	Federal I #98	B-10-29N-14W	55		5,226	3,397	2,247	1,669	1,428 (7)					
LANCE	Ropco 10 #1	D-10-29N-14W	24							3,317	2,653			
DPC	Federal I #10	J-10-29N-14W	30							4,971	3,022	1,330 (6)		
LANCE	Ropco 10 #2	K-10-29N-14W	42	50/50 ⑤	1,775	2,064	2,866 (3)			3,574	1,916	2,057	2,489 (6)	
DPC	King Com #90	B-11-29N-14W	55		812	710	413	491	501 (7)					
DPC	Federal I #8	C-11-29N-14W	54							7,973	5,978	4,002	6,236	4,551 (6)
DPC	Federal I #90	E-11-29N-14W	30		2,564	4,374	4,455 (6)							
LANCE	Navajo 13 #1	A-13-29N-14W	24	74/26 ⑥	2,827	2,326 (7)				3,356	2,175			
MSPC	Navajo Tribal H #15	E-13-29N-14W	41							997	1,420	1,349	1,112 (5)	
LANCE	Navajo 13 #2	E-13-29N-14W	24							3,381	4,868			
LANCE	Navajo Tribal H #5	M-13-29N-14W	54	50/50 ⑦	1,929	3,517	2,752	2,850	2,868 (6)	1,929	3,517	2,752	2,850	2,668 (6)
LANCE	Navajo Tribal H #12	E-14-29N-14W	42							1,352	2,345	2,583	1,998 (6)	
LANCE	Navajo 14 #2	H-14-29N-14W	8							5,426 (8)				
LANCE	WF Navajo 14 #1	I-14-29N-14W	36							10,079	8,161	9,919		
LANCE	Berally 14 #3	K-14-29N-14W	27							2,761	4,420	4,688 (3)		
LANCE	WF Federal 34 #3	A-34-30N-14W	56	49/51 ⑧	4,449	2,189	4,048	4,076	4,270 (8)	6,157	7,131	5,611	5,775	4,993 (8)
LANCE	WF Federal 34 #2	N-34-30N-14W	57	49/51 ⑨	5,634	8,266	10,750	5,147	2,086 (9)	666	532	406	1,178	2,171 (9)
LANCE	WF Federal 34 #1	O-34-30N-14W	64							7,416	7,683	6,231	4,737	5,713
DPC	Aztec 35 #3	D-35-30N-14W	90							1,509	1,240	749	498	573
DPC	Jiggs #1	E-35-30N-14W	51							4,127	5,276	3,860	1,686	1,439
DPC	Winifred #2	G-35-30N-14W	126							799	1,044	434	529	862
DPC	Tabor Com #90	H-35-30N-14W	56		3,486	5,315	8,266	4,999	5,776					
DPC	Jiggs #2	I-35-30N-14W	55							4,584	4,793	6,602	4,522	4,146 (7)
LANCE	Aztec #4	N-35-30N-14W	280							2,003	1,517	1,017	1,268	1,126
LANCE	Perf #90	N-35-30N-14W	27		2,825	6,233	6,695 (3)			200 (6)	---	---	---	---
LADD	Aztec 35 #5	O-35-30N-14W	6							1,937	4,865	4,738	5,569 (10)	
DPC	Stella Needs a Com #2	D-36-30N-14W	46		3,913	2,924	4,800	4,420	6,064					
DPC	Camp David Com #1	G-36-30N-14W	89		5,993	11,941 (2)								
DPC	Camp David Com #1S	I-36-30N-14W	14											
DPC	O'Henry #1	N-36-30N-14W	89		1,009	724	995	1,921	2,262					

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**Dugan's Federal I Wells No. 101, Com 102 & King Com No. 2**  
**Sections 1, 11 & 12; T-29N; R-14W**  
**San Juan County, New Mexico**

Operator ①	Well	Location UL-S-T-R O-36-30N-14W	# Months Produced 46	10/04 DHC ③ %FC/%PC	Average Production - mcf/mo & (# of mo. If less than 12) ②									
					Fruitland Coal					Fruitland Sand-PC				
					1st 12 months	2nd 12 months	3rd 12 months	4th 12 months	5th 12 months	1st 12 months	2nd 12 months	3rd 12 months	4th 12 months	5th 12 months
DPC	Camp David Com #2		Total all wells		80,188	79,386	71,316	43,143	37,696	121,632	113,876	96,316	72,273	53,482
			# wells		20	19	17	13	12	33	31	28	24	18
			Average/well		4,009	4,178	4,195	3,319	3,141	3,686	3,673	3,440	3,014	2,971
			% of FC & PC		52.1	53.1	54.9	52.4	51.4	47.8	46.9	45.1	47.6	48.6
			Avg. 1st 5 yrs		52.9					47.1				
			Total excluding DHC wells		62,198	59,436	49,423	31,070	28,672	104,574	97,017	84,013	59,981	43,650
			# wells		14	13	12	10	9	27	25	23	20	15
			Average/well		4,443	4,572	4,119	3,107	3,186	3,873	3,881	3,653	2,999	2,910
			% of FC & PC		53.4	54.1	53.0	50.9	52.3	46.6	45.9	47.0	49.1	47.7
			Avg. 1st 5 yrs		52.9					47.1				

① - DPC - Dugan Production Corp., LADD - Ladd Petroleum Corp., LANCE - Lance Oil & Gas Co., ROC - Richardson Operating Co.

② - Production data from Dmghs/PI and ONGARD thru October, 2004 for ROC & LANCE and thru 2/05 for DPC.

All data normalized to 1st month of production. Fruitland Coal production from the Basin Fruitland Coal pool (771629) and Fruitland Sand-PC production from the Harper Hill (78160) and Twin Mounds (86620)

Fruitland Sand-Pictured Cliffs pools, plus West Kutz Pictured Cliffs pool (79680).

③ - Downhole commingling factors for October 2004. % of total gas from Fruitland Coal and % of total gas from Fruitland Sand/Pictured Cliffs

④ - RPC 18 Well No. 3 (API No. 30-045-30943) - DHC-894AZ approved 9-10-02 authorizes downhole commingling of Basin Fruitland Coal with West Kutz Pictured Cliffs.

Fixed allocation factor of 50/50. Used for production 8/02 thru 10/04.

⑤ - Ropco 10 Well No. 2 (API No. 30-045-30448) - DHC-908AZ approved 9/23/02 authorizes downhole commingling of Basin Fruitland Coal with Harper Hill Fruitland Sand-Pictured Cliffs.

Fixed allocation factor of 50/50 used for production 8/02 thru 9/04.

⑥ - Navajo 13 Well No. 1 (API No. 30-045-30652) - DHC-965AZ approved 11/02 authorizes downhole commingling of Basin Fruitland Coal with West Kutz Pictured Cliffs. Fixed allocation factor of 49% Fruitland Coal and 51% Pictured Cliffs proposed and fixed allocation factor of 50/50 used for production 5/03 thru 9/04. On 11/15/04, Richardson Operating

proposed new fixed allocation factors of 78.3% Fruitland Coal and 21.7% Pictured Cliffs.

⑦ - Navajo Tribal H No. 5 (API No. 30-045-13101) - Administrative Order DHC-2478 dated 10/12/99 authorized downhole commingling of Basin Fruitland Coal with West Kutz Pictured Cliffs.

Allocation factors to be based upon an exponential decline of 18%/year for the PC (PC volume=PC base rate x e<sup>-u</sup>) and by subtraction for the Fruitland Coal. A fixed allocation

allocation factor of 50/50 has been used for all production 5/00 thru 10/04.

⑧ - WF Federal 34 Well No. 3 (API No. 30-045-29881) - Administrative Order DHC-2699 dated 4/3/00 authorizes the downhole commingling of Basin Fruitland Coal with Harper Hill

Fruitland Sand-Pictured Cliffs. Allocation factors to be based upon an exponential decline of 7%/year for the Pictured Cliffs (PC volume=PC base rate x e<sup>-u</sup>) and by subtraction for the

Fruitland Coal. Allocation factors for production changes monthly and annual averages are: 2000 = 44.6% Coal & 55.4% PC; 2001 = 26.2% Coal & 73.8% PC;

2002 = 38.1% Coal & 61.9% PC; 2003 = 40.8% Coal & 59.2% PC; 1st 9 months 2004 = 49.0% Coal & 51.0% PC.

⑨ - WF Federal 34 No. 2 (API No. 30-045-29882) - Administrative Order DHC-2608 dated 2/1/00 authorizes the downhole commingling of Basin Fruitland Coal with Harper Hill

Fruitland Sand-Pictured Cliffs. Allocation factors to be based upon an exponential decline of 7%/year for the PC (PC volume = PC base rate x e<sup>-u</sup>) and by subtraction for the coal.

Allocation factors for production changes monthly and annual averages are: 2000 = 89.4% Coal & 10.6% PC; 2001 = 94.0% Coal & 6.0% PC; 2002 = 96.4% Coal & 3.6% PC;

2003 = 81.4% Coal & 18.6% PC; 2004 = 49.0% Coal & 51.0% PC.