

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0135
Expires: November 30, 2000

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

1. Type of Well ☐ Oil Well ☒ Gas Well ☐ Other		5. Lease Serial No. NMSF079244
2. Name of Operator AMOCO PRODUCTION COMPANY		6. If Indian, Allottee or Tribe Name EASTERN NAVAJO
3a. Address P. O. BOX 3092 HOUSTON, TX 77253		7. If Unit or CA/Agreement, Name and/or No. NMMN78391C
3b. Phone No. (include area code) Ph: 281.366.4491		8. Well Name and No. GALLEGOS CANYON 227E
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 20 T28N R12W Mer NENW 0990FNL 1540FWL 36.65219 N Lat, 108.13818 W Lon		9. API Well No. 30-045-23899-00-S1
		10. Field and Pool, or Exploratory UNNAMED
		11. County or Parish, and State SAN JUAN COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
☒ Notice of Intent	☐ Acidize ☐ Deepen ☐ Production (Start/Resume) ☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing ☐ Fracture Treat ☐ Reclamation ☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair ☐ New Construction ☐ Recomplete ☒ SUBCOM
	☐ Change Plans ☐ Plug and Abandon ☐ Temporarily Abandon
	☐ Convert to Injection ☐ Plug Back ☐ Water Disposal

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Amoco Production Company request permission to complete the subject well into the Kutz Pictured Cliffs, West Pool and commingle production downhole with the existing Basin Dakota Pool as per the attached procedure. The Basin Dakota (71599) & the Kutz Pictured Cliffs Pools (79680) Pools are Pre-Approved for Downhole Commingling per NMOCD CASE NO. 12520, ORDER NO. R-11567 effective 04/26/2001. Although the interest owners are not identical between these two Pools, this same order, established approval for subsequent applications for the downhole commingling of production in wellbores within the Gallegos Canyon Unit without notice to the unit interest owners, therefore, additional notification is required prior to downhole commingling approval. Production is proposed to be allocated based on the subtraction method using the projected future decline for production from the Dakota. That production shall serve as a base for production subtracted from the total production for the commingled well. The balance of the production will be attributed to the Pictured Cliffs. Attached is the future production decline estimates for the Dakota. Commingling Production Downhole in the subject well from the proposed pools with not reduce the value of the total remaining production.

DHC408AZ 5-22-1

14. I hereby certify that the foregoing is true and correct. Electronic Submission #4223 verified by the BLM Well Information System For AMOCO PRODUCTION COMPANY, sent to the Farmington Committed to AFMSS for processing by Maurice Johnson on 05/17/2001 (01MXJ1889SE)	
Name (Printed/Typed) (None Specified)	Title
Signature	Date 05/14/2001

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By <u>J. L. Lovato</u>	Title	Date <u>MAY 24</u>
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED **

RECEIVED

Gallegos Canyon Unit 227E

Future Production Decline Estimate (Monthly Factor .336%)

Month	Gas Volume
Jan-2000	60
Feb-2000	90
Mar-2000	58
Apr-2000	62
May-2000	104
Jun-2000	94
Jul-2000	69
Aug-2000	62
Sep-2000	60
Oct-2000	62
Nov-2000	50
Dec-2000	69
Jan-2001	64
Feb-2001	0
Mar-2001	188
Apr-2001	118
May-2001	118
Jun-2001	117
Jul-2001	117
Aug-2001	117
Sep-2001	116
Oct-2001	116
Nov-2001	116
Dec-2001	116
Jan-2002	115
Feb-2002	115
Mar-2002	115
Apr-2002	114
May-2002	114
Jun-2002	114
Jul-2002	113
Aug-2002	113
Sep-2002	113
Oct-2002	112
Nov-2002	112
Dec-2002	112

$\ln(Q_i/Q_j) = -dt$
 $Q_i = 62 \text{ MCFD (04/2000)}$
 $Q_j = 60 \text{ MCFD (09/2000)}$
 $t = 6 \text{ months (.41666 yrs)}$
 $d = 0.32 \text{ annual decline}$
 $0.027 \text{ monthly decline (0.32/12)}$

Corrected Volumes
 $60/62 = .96774$
 $.968 * .41666 = .40322$
 0.033601667

Well Shut in

Month	Gas Volume
Jan-2003	112
Feb-2003	111
Mar-2003	111
Apr-2003	111
May-2003	110
Jun-2003	110
Jul-2003	110
Aug-2003	110
Sep-2003	109
Oct-2003	109
Nov-2003	109
Dec-2003	108
Jan-2004	108
Feb-2004	108
Mar-2004	108
Apr-2004	107
May-2004	107
Jun-2004	107
Jul-2004	106
Aug-2004	106
Sep-2004	106
Oct-2004	106
Nov-2004	105
Dec-2004	105
Jan-2005	105
Feb-2005	105
Mar-2005	104
Apr-2005	104
May-2005	104
Jun-2005	103
Jul-2005	103
Aug-2005	103
Sep-2005	103
Oct-2005	102
Nov-2005	102
Dec-2005	102

Month	Gas Volume
Jan-2006	101
Feb-2006	101
Mar-2006	101
Apr-2006	100
May-2006	100
Jun-2006	100
Jul-2006	99
Aug-2006	99
Sep-2006	99
Oct-2006	98
Nov-2006	98
Dec-2006	98
Jan-2007	97
Feb-2007	97
Mar-2007	97
Apr-2007	96
May-2007	96
Jun-2007	96
Jul-2007	95
Aug-2007	95
Sep-2007	95
Oct-2007	94
Nov-2007	94
Dec-2007	94
Jan-2008	93
Feb-2008	93
Mar-2008	93
Apr-2008	92
May-2008	92
Jun-2008	92
Jul-2008	91
Aug-2008	91
Sep-2008	91
Oct-2008	90
Nov-2008	90
Dec-2008	90

Gallegos Canyon Unit 227E
Future Production Decline Estimate (Monthly Factor .336%)

Month	Gas Volume
Jan-2009	90
Feb-2009	89
Mar-2009	89
Apr-2009	89
May-2009	88
Jun-2009	88
Jul-2009	88
Aug-2009	87
Sep-2009	87
Oct-2009	87
Nov-2009	87
Dec-2009	86
Jan-2010	86
Feb-2010	86
Mar-2010	85
Apr-2010	85
May-2010	85
Jun-2010	84
Jul-2010	84
Aug-2010	84
Sep-2010	84
Oct-2010	83
Nov-2010	83
Dec-2010	83
Jan-2011	82
Feb-2011	82
Mar-2011	82
Apr-2011	82
May-2011	81
Jun-2011	81
Jul-2011	81
Aug-2011	80
Sep-2011	80
Oct-2011	80
Nov-2011	80
Dec-2011	79

Month	Gas Volume
Jan-2012	79
Feb-2012	79
Mar-2012	79
Apr-2012	78
May-2012	78
Jun-2012	78
Jul-2012	78
Aug-2012	77
Sep-2012	77
Oct-2012	77
Nov-2012	77
Dec-2012	77
Jan-2013	76
Feb-2013	76
Mar-2013	76
Apr-2013	76
May-2013	75
Jun-2013	75
Jul-2013	75
Aug-2013	75
Sep-2013	74
Oct-2013	74
Nov-2013	74
Dec-2013	74
Jan-2014	74
Feb-2014	73
Mar-2014	73
Apr-2014	73
May-2014	73
Jun-2014	72
Jul-2014	72
Aug-2014	72
Sep-2014	72
Oct-2014	72
Nov-2014	71
Dec-2014	71

Month	Gas Volume
Jan-2015	71
Feb-2015	71
Mar-2015	71
Apr-2015	70
May-2015	70
Jun-2015	70
Jul-2015	70
Aug-2015	70
Sep-2015	69
Oct-2015	69
Nov-2015	69
Dec-2015	69
Jan-2016	68
Feb-2016	68
Mar-2016	68
Apr-2016	68
May-2016	68
Jun-2016	67
Jul-2016	67
Aug-2016	67
Sep-2016	67
Oct-2016	67
Nov-2016	66
Dec-2016	66
Jan-2017	66
Feb-2017	66
Mar-2017	66
Apr-2017	65
May-2017	65
Jun-2017	65
Jul-2017	65
Aug-2017	65
Sep-2017	64
Oct-2017	64
Nov-2017	64
Dec-2017	64

Month	Gas Volume
Jan-2018	64
Feb-2018	63
Mar-2018	63
Apr-2018	63
May-2018	62
Jun-2018	62
Jul-2018	62
Aug-2018	61
Sep-2018	61
Oct-2018	61
Nov-2018	60
Dec-2018	60
Jan-2019	60
Feb-2019	60
Mar-2019	59
Apr-2019	59
May-2019	59
Jun-2019	58
Jul-2019	58
Aug-2019	58
Sep-2019	58
Oct-2019	57
Nov-2019	57
Dec-2019	57
Jan-2020	56
Feb-2020	56
Mar-2020	56
Apr-2020	56
May-2020	55
Jun-2020	55
Jul-2020	55
Aug-2020	54
Sep-2020	54
Oct-2020	54
Nov-2020	54
Dec-2020	53

Gallegos Canyon Unit 227E
Future Production Decline Estimate (Monthly Factor .336%)

Month	Gas Volume
Jan-2021	53
Feb-2021	53
Mar-2021	53
Apr-2021	52
May-2021	52
Jun-2021	52
Jul-2021	52
Aug-2021	51
Sep-2021	51
Oct-2021	51
Nov-2021	50
Dec-2021	50
Jan-2022	50
Feb-2022	50
Mar-2022	49
Apr-2022	49
May-2022	49
Jun-2022	49
Jul-2022	49
Aug-2022	48
Sep-2022	48
Oct-2022	48
Nov-2022	48
Dec-2022	47
Jan-2023	47
Feb-2023	47
Mar-2023	47
Apr-2023	46
May-2023	46
Jun-2023	46
Jul-2023	46
Aug-2023	45
Sep-2023	45
Oct-2023	45
Nov-2023	45
Dec-2023	45

Month	Gas Volume
Jan-2024	44
Feb-2024	44
Mar-2024	44
Apr-2024	44
May-2024	43
Jun-2024	43
Jul-2024	43
Aug-2024	43
Sep-2024	43
Oct-2024	42
Nov-2024	42
Dec-2024	42
Jan-2025	42
Feb-2025	42
Mar-2025	41
Apr-2025	41
May-2025	41
Jun-2025	41
Jul-2025	40
Aug-2025	40
Sep-2025	40
Oct-2025	40
Nov-2025	40
Dec-2025	39
Jan-2026	39
Feb-2026	39
Mar-2026	39
Apr-2026	39
May-2026	39
Jun-2026	38
Jul-2026	38
Aug-2026	38
Sep-2026	38
Oct-2026	38
Nov-2026	37
Dec-2026	37

Month	Gas Volume
Jan-2027	37
Feb-2027	37
Mar-2027	37
Apr-2027	36
May-2027	36
Jun-2027	36
Jul-2027	36
Aug-2027	36
Sep-2027	36
Oct-2027	35
Nov-2027	35
Dec-2027	35
Jan-2028	35
Feb-2028	35
Mar-2028	34
Apr-2028	34
May-2028	34
Jun-2028	34
Jul-2028	34
Aug-2028	34
Sep-2028	33
Oct-2028	33
Nov-2028	33
Dec-2028	33
Jan-2029	33
Feb-2029	33
Mar-2029	32
Apr-2029	32
May-2029	32
Jun-2029	32
Jul-2029	32
Aug-2029	32
Sep-2029	32
Oct-2029	31
Nov-2029	31
Dec-2029	31

Month	Gas Volume
Jan-2030	31
Feb-2030	31
Mar-2030	30
Apr-2030	30
May-2030	30
Jun-2030	30
Jul-2030	30
Aug-2030	30
Sep-2030	30
Oct-2030	29
Nov-2030	29
Dec-2030	29
Jan-2031	29
Feb-2031	29
Mar-2031	29
Apr-2031	29
May-2031	28
Jun-2031	28
Jul-2031	28
Aug-2031	28
Sep-2031	28
Oct-2031	28
Nov-2031	28
Dec-2031	27
Jan-2032	27
Feb-2032	27
Mar-2032	27
Apr-2032	27
May-2032	27
Jun-2032	27
Jul-2032	26
Aug-2032	26
Sep-2032	26
Oct-2032	26
Nov-2032	26
Dec-2032	26

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240
DISTRICT II
311 South First., Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, New Mexico 87505

Form C-102
Revised October 18, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-045-23899	Pool Code 71599 & 79680	Pool Name Basin Dakota & Kutz Pictured Cliffs, West
Property Code 000570	Property Name Gallegos Canyon Unit	Well Number 227E
OGRID No. 000778	Operator Name AMOCO PRODUCTION COMPANY	5578'

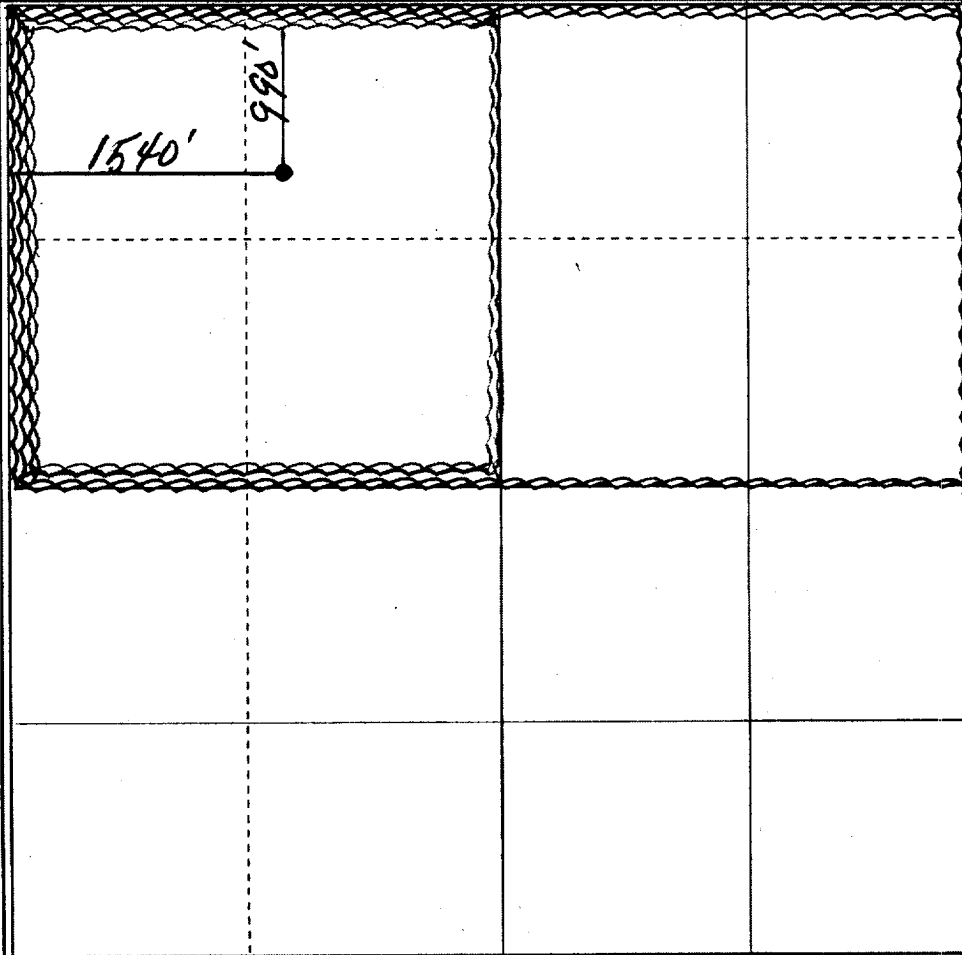
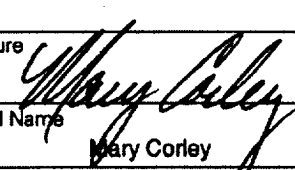
Surface Location

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West Line	County
UNIT C	20	28N	12W		990'	NORTH	1540'	WEST	San Juan

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 Acreage: 320 DK 160 PC		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**

	OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</i> Signature  Printed Name Mary Corley Position Sr. Regulatory Analyst Date 05/02/2001
	SURVEY CERTIFICATION <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 knowledge and belief.</i> 09/13/1979 Date of Survey Signature & Seal of Professional Surveyor Fred B Kerr Jr Certificate No. 3950

GCU Well Work Procedure

Well Name:	GCU #227E
Date:	2/22/01
SAP Number	X5-xxxxx

Objective:

Recomplete in Pictured Cliffs and downhole commingle with Dakota.

Pertinent Information:

Location:	Sec.20, T28N-R12W	Horizon:	Dakota/PC
County:	San Juan	API #:	30-045-23899
State:	New Mexico	Engr:	John Papageorge
Lease:	SF-079244	Phone:	W (281)366-5721
Meter No.	93248		H (713)464-5053
Well Flac:	97593201		

Note: Prior to scheduling rig, confirm that surface facility modifications have been initiated.

1. Check anchors. MIRU.
2. Check and record tubing, casing and bradenhead pressures.
3. Blow down wellhead, kill if necessary with 2% KCL water.
4. Nipple down wellhead, nipple up and pressure test BOP.
5. Tag for fill. Tally out of hole with tubing. Visually inspect. Replace tubing as required.
6. RIH with bit and scraper. Clean out to PBTD as necessary.
7. Set CIBP via tubing at approximately 5800'. Load hole with 2%KCL and pressure test to 500#.
8. Run CBL/GR/CCL across Pictured Cliffs interval to verify zonal isolation. (Note:DV tool at 4286') Fax results to John Papageorge @ 281-366-7099.
9. Set RBP approximately 150' below bottom of proposed perforations and pressure test.
10. Perforate the following interval with 4JSPF, 120 deg. phasing: **PC 1354-1394**.
11. RU frac equipment and install WH isolation tool. Fracture stimulate down casing according to schedule 'A'.
12. Flow back frac load until well dies. Release packer and POOH.
13. RIH with bit and tubing. Clean out fill. Pull RBP and drill out CIBP to commingle with Dakota.
14. TIH with 2 3/8" tbg, rods, and pump. Land 1 joint below Dakota perms if possible.
15. RDMO. Hook up to pumping unit.
16. Pump to recover load and test.

GCU #227E

Wellbore Diagram

990' FNL x 1540' FWL

Sec. 20, T28N, R12W

San Juan Co., NM

