Formerly 9–331) DEPARTMEN BUREAU OF	NY (10) NORTHWEST P CITY, UTAH 84158-0	N WELLS the to a different reservoir. Cel PIPELINE CORP.)	5. LEASE DESIGNATION AND BERIA SF-078893 6. IF INDIAN, ALLOTTEE OR TRIBE 7. UNIT AGREEMENT NAME ROSA UNIT 8. FARM OR LEASE NAME ROSA UNIT 9. WELL NO. #105 10. FIELD AND POOL, OR WILDCAT UND. GALLUP/BASIN [] 11. EEC., T., B., M., OR BLK, AND BURYEY OR AREA	NAME
14. PERMIT NO. 15.	ELEVATIONS (Show whether DF, R	T, CR, etc.)	SEC. 22 P, T31N, R4 12. COUNTY OR PARISH 13. STATE RIO ARRIBA NM	
TEST WATER SHUT-OFF PULL C FRACTURE TREAT MULTII SHOOT OR ACIDIZE ABANDO	PLE COMPLETE ON SEE PLANS SEE (Clearly state all pertinent drilled, give subsurface location) NTLY ABANDON THIS I	WATER SHUT-OFF FRACTURE TREATMENT SHOOTING OR ACIDIZING (Other) (Note: Report resu Completion or Record details, and give pertinent dat us and measured and true veri	DEPAIRING WELL ALTERING CASING ABANDONMENT* Duits of multiple completion on Well Expletion Report and Log form.) tes, including estimated date of starterical depths for all markers and zone TACHED PROCEDURE.	INCODIVEO
18. I hereby certify that the foregoing is true	and correct	ENGINEER	DATE 9/2/92	
(This space for Federal or State office use APPROVED BY CONDITIONS OF APPROVAL, IF ANY:) TITLE		APPROV DATE AS AMEN	DED

*See Instructions on Reverse Side

AREA MANAGER

ROSA UNIT #105 GL P&A PROCUDURE

- 1. MOL RU Service Unit. Notify BLM 24 hrs. prior to MOL.
- 2. Hold safety meeting and discuss procedure.
- 3. PU a Baker cement retainer on 2-3/8" tubing and TIH. Set retainer at 8680'.
- 4. Squeeze Dakota perforations with 41 sx (48 cu.ft.) of classs "B" cement and spot 24 sx (28 cu.ft.) inside the casing (100% excess outside and 50% excess inside the casing). Sting out of and leave 5 sx on top of the retainer. Pull 2 joints.
- 5. Load hole with 7 BBLS of 9#/gal. mud from 8620' to 8182'. TOH.
- 6. PU a Baker cement retainer on 2-3/8" tubing and TIH. Set retainer at 7688'.
- 7. Squeeze Gallup perforations with 171 sx (202 cu.ft.) of classs "B" cement and spot 55 sx (65 cu.ft.) inside the casing (100% excess outside and 50% excess inside the casing). Sting out of and leave 5 sx on top of the retainer. Pull 2 joints.
- 8. Spot 14 BBLS of 9#/gal. mud from 7628'to 6727'. TOH to 6727'.
- 9. Spot plug #3: 84 sx (99 cu.ft.) from 6727' to 5970' (50% excess to cover from 50' below the Point Lookout to 50' above the Cliff House). TOH to 5970'.
- 10. Spot 29 BBLS of 9#/gal. mud from 5970' to 4109'. TOH to 4109'.
- 11. Spot plug #4: 42 sx (50 cu.ft.) from 4109' to 3790' (50% excess to cover from 50' below the Pictured Cliffs to 50' above the Fruitland). TOH to 3790'.
- 12. Spot 1.5 BBLS of 9#/gal. mud from 3790' to 3702'. TOH to 3702'.
- 13. Spot plug #5: 43 sx (51 cu.ft.) from 3702, to 3369' (50% excess to cover from 50' below the Ojo Alamo to 50' above the Ojo Alamo). TOH to 3369'.
- 14. Spot 46 BBLS of 9#/gal. mud from 3369' to 483'. TOH.
- 15. Perforate at 483' (50' below surface casing shoe).
- 16. Establish circulation from the bradenhead and pump cement until the surface is circulated (estimate 350 sx).
- 17. Cut-off wellhead and install P&A marker. Release rig.

Mark McCallister

Sr. Engineer, Production & Drilling

file:#105p&a

WILLIAMS PRODUCTION COMPANY

PLUG AND ABANDON					1	file:\$#1	06ta
LEASE NAME: Ros		WELL NO			FIELD: Unde	esignate	d
LOCATION: NW/4	SW/4, Sec. 24, T31N,	RO4W COUNTY:	Rio Arr	iba	STATE: Ne	• Mexico	
FORMATION: Gall	up	TOTAL D	EPTH: 888	31	TOTAL DAYS	: 3	
					TED COST :		
					TOTAL :		
WELLHEAD EQUIPM	FNT:			-8000	-8000 :		
Surface Produ	ction Equipment			-9000	-9000 :		
TOTAL TANGIBLE	COSTS				-17000 :		0
DRILLING COSTS-							
Service Unit		ays 200			:		-
Rig Moving Co	osts			4000	10000 :		- 0
CEMENTING (Ceme	ent,Pump Trucks and I	Drayage)			·=		
Squeeze Jobs	& Plugs			12000			
Cement Retair				900	12900 :		_ 0
SPECIAL SERVICE	S						
Perforating				1500			
MATERIALS							
Drilling Mud	and Chemicals			2600			_
Water				1000			
Tank Rental				1500		·	
Hauling				1800		:	_
Tubular Insp				3000			•
Miscellaneou	s: Pipe dope, Stripp	oing rubbers, e	etc. 	500	10400		_ 0
ACCESS and LOC	ATION and CLEANUP			2000	2000	:	
SUPERVISION, L	EGAL etc			1350	1350	:	
					38150	 -	0
TOTAL INTANGIB	LE COST						
		Total Direct Co			21150	:	0
	\$	Plus 5% Conting	gency		1058		
		Total Cost			22208		•
		Total WPC Cost			0	:	0
WORKING INTERE	ST			COCTE OF	U V Each n	articin	ntina
	oduction Company		estimated	Day Daan	ortionate S	hare of	Actual
			Well Cost	Subject	to Operati	ng Agre	ement
	00/1//03				r's A pprova		
	08/14/92	- Date		raicie	. 3 Approve		
Prepared By Approved By	Mark McCallister	By					
who over by							

WILLIAMS PRODUCTION COMPANY

PLUG AND ABANDON						file:\$#1	05p&a
LEASE NAME: Rosa Unit	WELL	NO.:			FIELD: Und		
LOCATION: SE/4 SE/4, Sec. 22, T31M	, RO4W COUNT	Y: R	io Arriba	1	STATE: Ne	w Mexico	
FORMATION: Gallup/Dakota	TOTAL	DEPT	H: 9049'		TOTAL DAYS	: 3	
		•			TED COST :		
					TOTAL :		
AND AND POLICEPT				-8000	-8000 :	!	
OTHER EQUIPMENT: Surface Production Equipment				-9000	-9000	·	
TOTAL TANGIBLE COSTS					-17000		0
DRILLING COSTS							
Service Unit 3	Days 20	000 \$	/Day	6000		·	_
Rig Moving Costs				4000		: :	_ 0
CEMENTING (Cement, Pump Trucks and	Drayage)						
Squeeze Jobs & Plugs				11800		<u> </u>	_
Cement Retainer: 2				1800	13600	:	- 0
SPECIAL SERVICES		-			-		
Perforating				1500	1500	:	<u> </u>
MATERIALS							
Drilling Mud and Chemicals				2300		:	_
Water				1000		:	_
Tank Rental				1500		:	_
Hauling				1800		:	_
Tubular Inspection				3000			
Miscellaneous: Pipe dope, Stri	pping rubbers,	etc.		500 	7100	:	_
ACCESS and LOCATION and CLEANUP-				2000		:	
SUPERVISION, LEGAL etc				1350	1350	:	
TOTAL INTANGIBLE COST				-	35550		0
	Total Direct				18550		0
	Plus 5% Conti	ingen	су		928	:	
	Total Cost				19478	:	
	Total WPC Cos	st				:	0
WORKING INTEREST							
Williams Production Company	0%	ES	TIMATED C	osts o	VLYEach	particip	ating
Others		Ow	ner to Pa	y Prop	ortionate to Operat	Share of	Actual
Date08/14/92	·			Partne	r's Approv	al	
Prepared By Mark McCallister	Date	e					
Approved By	Ву						

DATA SHEET

WELLNAME: Rosa unit #105 GL/DK

FIELD: Und. GL/Basin DK

LOCATION: SE/4 SE/4 Sec. 22, T31N R04W

ELEVATION: 7212'GR KB = 13'

COUNTY: Rio Arriba STATE: New Mexico

TOTAL DEPTH: 8950' PBTD = 9050'

DATE COMPLETED: 03/08/85

CASING RECORD	: CASING SIZE	: WT. & GRADE :	DEPTH SET :	CEMENT :	: TOP CEMENT :
	:	_::.	:.		::
Surface		_:_54.50# K-55_:			
		: 11.6# N-80:			

WELLHEAD EQUIPMENT Casinghead: 11" 5000# WKM

Tubinghead: 11" 5000# X 6" 5000#

Spool:

Bonnett: 6" 5000# X 2-3/8"EUE

TUBING EQUIPMENT: 272 Joints of 2-3/8" 4.7# J-55 @ 8844' KB. Baker R-3 Packer @ 8233' Baker sliding sleeve @ 8230' (on top of pkr). Seating nipple on bottom of bottom joint.

FORMATION TOPS	Ojo Alamo	34191	Menefee	63181
	Kirtland	36521	Point Lookout	66771
	Fruitland	38401	Gallup	73681
	Pictured Cliffs	40591	Greenhorn	85321
	Lewis	41701	Graneros	86061
	Cliff House	60201	Dakota	87281

LOGGING RECORD: GR/DIL & CDL/CNL

PERFORATIONS: DK: 8730' to 8750', 8768' to 8798', 8804' to 8836' w/ 2spf.

GL: 7738' to 7858', 7926' to 8182' w/ 1spf.

STIMULATION: DK: 195,000# 20/40 in 50# X-LNK GEL

GL: 195,000# 20/40 in 50# GEL

PRODUCTION HISTORY: This well has never been turned over to WPX or tied in to the pipeline. There is no production history. Amoco reported a gauge

of 2141 MCF/D for the Gallup and no flow from the Dakota.

file:#105data

SE/4 SE/4 SEC. 22, T31N, R04W RIO ARRIBA CO., NM ELEV. = 7212' GR.

FRAC: 195,000# 20/40 Sand

in 50# X-Link Gel

KB = 13'

ROSA UNIT #105 GL/DK

_ 13-3/8" 54.50# K-55 € 433" CASINGHEAD: 11" 5000# TUBINGHEAD: 11"5000 X 6" 5000# BONNETT: 6" 5000# X 2-3/8" TOPS: DV TOOL € 5798' OJO ALAMO: 34191 36521 KIRTLAND: 38401 FRUITLAND: PICTURED CLIFFS: 40591 LEWIS: 4170 CLIFF HOUSE: 6020' 63181 MENEFEE: 66771 POINT LOOKOUT: MANCOS: 7016' FRAC: 195,000# 20/40 Sand in 50# Gel GALLUP: 73681 1 7738' 85321 GREENHORN:] ispf GRANEROS: 8606' 3 8182' 87281 DAKOTA: 89841 MORRISON: Baker Sliding Sleeve @ 8230' XXIIXX Baker R-3 Packer @ 8233' -- 272 joints of 2-3/8" 4.7# J-55 Landed # 8844' w/ SN on Bottom

CASING STRING	HOLE SIZE	CASING SIZE	CEMENT	CEMENT VOLUME	TOP OF CEMENT
SURFACE PRODUCTION STG 1 PRODUCTION STG 2	17-1/2" 7-7/8"	13-3/8" 4-1/2" DV @ 5798'	350 sx 950 sx 1100 sx	417 cu.ft. 1121 cu.ft. 1298 cu.ft.	Surface 5798' (DV TOOL) Surface

PBTD @ 8960'

1 8750' 2spf

_ 4-1/2" 11.6# N-80 @ 9049'

3 8836'

UNITED STATES DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT FARMINGTON RESOURCE AREA 1235 LA PLATA HIGHWAY FARMINGTON, NEW MEXICO 87401

Attachment to Notice of

Re: Permanent Abandonment

Intention to Abandon

Well: 105 Rosa Vair

CONDITIONS OF APPROVAL

- 1. Plugging operations authorized are subject to the attached "General Requirements for Permanent Abandonment of Wells on Federal Leases."
- 2. Which Kelly with the Farmington Office is to be notified at least 24 hours before the plugging operations commence (505)
- 3. Blowout prevention equipment is required.
- 4. The following modifications to your plugging program are to be made (when applicable):

Spet a play from 1870-1770 + 50% excess to come the Nacimiento Tyn

Office Hours: 7:45 a.m. to 4:30 p.m.

GENERAL REQUIREMENTS FOR PERMANENT ABANDONMENT OF WELLS ON FEDERAL AND INDIAN LEASES FARMINGTON RESOURCE AREA

- 1. Secure prior approval either on a Sundry Notice (Form 3160-5) or verbally from the Fluids Drilling & Production Section at this office before changing the approved plugging program.
- 2. Plugging equipment used shall have separate mixing and displacement pumps and a calibrated tank to assure proper displacement of plugs. The Operator is responsible for providing all measuring devices needed to assure proper measurement of materials being used.
- 3. A proper tank or pit will be used to contain all fluids pumped from the well during plugging operations. Unattended pits are to be fenced.
- 4. All cement plugs are to be placed through tubing (or drillpipe) and shall be a minimum of 100 feet in length with 50% excess inside casing or 100% excess when plug is set in open hole or squeezed into perforations. 15.6#/gal slurry weight is to be used when using class B neat cement or when CaCl₂ is used. Use the recommended slurry weight of other type cements when they are used (Class C, Pozzolan etc.).
- 5. Any cement plugs placed when well is not full of fluid, or when well may be taking fluid, (i.e. across perfs-unless bridge plug or retainer is used, across bad csg., or fresh water formations) will be tagged (touched) after cement has set to verify proper location.
 - 5a. Testing The first plug below the surface plug shall generally be tested by either tagging the plug with the working pipe string, or pressuring to a minimum pump (surface) pressure of 1000 psig, with no more than a 10 percent drop during a 15-minute period (cased hole only). If the integrity of any other plug is questioned, it must be tested in the same manner. Also, any cement plug which is the only isolating medium for a fresh water interval or a zone containing a valuable mineral deposit should be tested by tagging with the drill string.
- 6. Mud must be placed between plugs. Plugging mud is to be made up with a minimum of 15 lbs/bbl of sodium bentonite, and a nonfermenting polymer.

 Minimum consistency of plugging mud must be 9 lbs/gal and with a minimum viscosity of 50 sec/qt. Fresh water is to be utilized for mixing mud.
- 7. Following the placement of a cement plug, the withdrawl rate for at least the length of the cement plug shall not exceed 30 ft/min, in order to minimize the contamination of the plug.

- 8. Within 30 days after plugging work is completed, file a Sundry Notice (Subsequent Report of Abandonment, Form 3160-5), in quintuplicate with Area Manager, Bureau of Land Management, 1235 La Plata Highway, Farmington, NM 87401. The report should give in detail the manner in which the plugging work was carried out, the extent (by depths) of cement plugs placed, and the size and location (by depths) of casing left in the well. Show date well was plugged.
- 9. All permanently abandoned wells are to be marked with a regulation marker (4" pipe extending 4' above the ground line) containing the information as specified in 43 CFR 3162.6(d). Unless otherwise approved.
- 10. After plugging work is completed the surface is to be rehabilitated in accord with instructions from the Fluids Surface Management Section of the Farmington Resource Area Office.

All above are minimum requirements. The period of liability under the bond of record will not be terminated until the lease is inspected and surface work approved.

Please advise this office when the well location is ready for final inspection.

Failure to comply with the above conditions of approval may result in an assessment for noncompliance and/or a Shut-in Order being issued pursuant to 43 CFR 3163.1.

You are further advised that any instructions, orders or decisions issued by the Bureau of Land Management are subject to administrative review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4 and 43 CFR 4.700.