

Form 3160-5 (February 2005)

#### **UNITED STATES** DEPARTMENT OF THE INTERIOR

AUG 25 2011

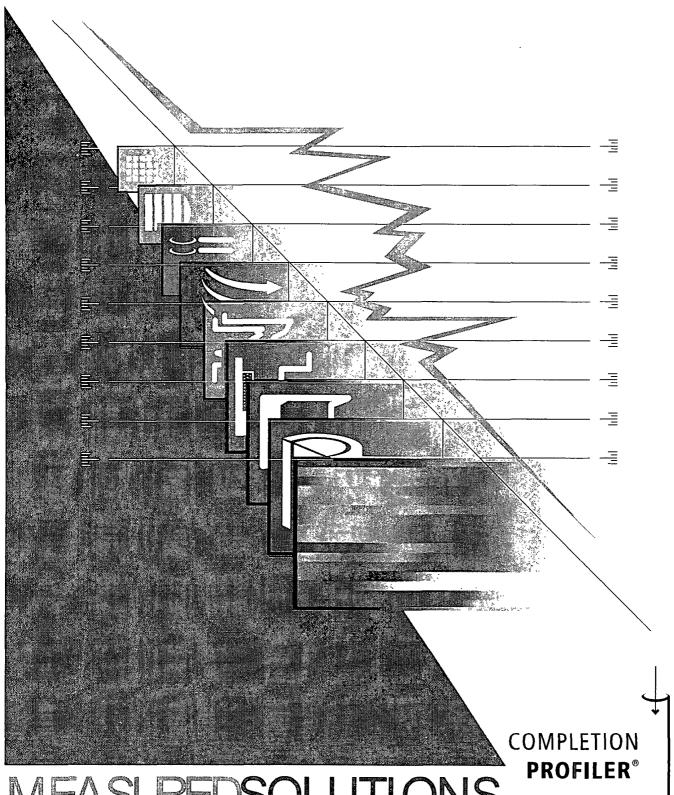
FORM APPROVED OMB No. 1004-0137

BUREAU OF LAND MANAGEMENT Farmington Field Office Expire Dureau of Land Manager 1951 Lease Serial No.

Expires: March 31, 2007

SUNDRY NOTICES AND REPORTS ON WELLS					NMSF-078771			
Do not use this form for proposals to drill or to re-enter an					6. If Indian, Allottee or Tribe Name			
abandoned well. Use Form 3160-3 (APD) for such proposals.					7. If Unit of CA/Agreement, Name and/or No			
1. Type of Well	BMIT IN TRIPLICATE	E – Other instructions of	n page 2.		If Unit of Ca Rosa Unit	A/Agreem	ent, Name and/or No	
1. Type of well					Well Name	and No		
Oil Well	Gas Well Ot	ther			Rosa Unit #			
2. Name of Operator	Gas Well	nor	•	9.	API Well No	0.		
Williams Production Compa	ny, LLC				30-039-3017			
3a. Address 3b. Phone No. (PO Box 640 Aztec, NM 87410 505-634-4208			: area code)	ВІ	anco MV / E	Basin DK	ploratory Area /Basin Mancos	
4. Location of Well (Footage, S 1845' FSL & 1735' FEL	Sec , T ,R.,M., or Survey SEC 26 31N 6W NMPI				. Country or o Arriba	Parish, St	ate	
12 CHEC	K THE APPROPRIATE	E BOX(ES) TO INDICAT	ΓE NATURE OF 1			HER DA	ГА	
TYPE OF SUBMISSION			TYPE OF A	CTION				
	Acidize	Deepen		luction (Start/R	esume)	∏ Wa	nter Shut-Off	
Notice of Intent	Alter Casing	Fracture Treat		lamation			ell Integrity	
	Casing Repair	New Construction	_			$\equiv$	ner REALLOCATION	
Subsequent Report	Change Plans	Plug and Abandon		Recomplete				
	Convert to	Plug and Abandoi	_	Temporarily Abandon		idon		
Final Abandonment Notice  13. Describe Proposed or Comp	Final Abandonment Notice   Convert to Injection			Water Disposal				
duration thereof. If the pro all pertinent markers and z subsequent reports must be recompletion in a new inte requirements, including rec	ones Attach the Bond une filed within 30 days fol aval, a Form 3160-4 mus clamation, have been con	nder which the work will llowing completion of the st be filed once testing has mpleted and the operator I	be performed or perior involved operations been completed, has determined that	rovide the Bor ns. If the opera Final Abandor at the site is rea	d No on file ation results in ament Notice dy for final	e with BL! in a multip es must be inspection	ole completion or filed only after all .)	
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### Williams Production Company Rosa Unit #5C



MEASUREDSOLUTIONS





Company Williams Production Company

Well Name | Rosa Unit #5C

Field Blanco Mesaverde/Basin Dakota

Location | Rio Arriba County, New Mexico

Customer Name | Michael Andrews

Date of Survey | June 21, 2011

Date of Analysis | August 22, 2011

Logging Engineer | Loren Healy

Analyst | Cole Hutchings

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful misconduct on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.





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### Survey Objectives

- Identify the source of water production.
- Identify gas producing intervals.
- Quantitative production profile.

### Logging Procedures

- Date	Time	Comment
06/21	14:00	Arrive on location
06/21	14:00	Gauge run start
06/21	14:45	Gauge run stop
06/21	14:44	Program Completion Profile String
06/21	14:54	Start GIH pass
06/21	15:15	Stop GIH pass
06/21	15:21	Start logging passes
06/21	17:57	Stop logging passes
06/21	18:01	Start out of well pass
06/21	18:20	Stop out of well pass
06/21	18:30	Start download
06/21	18:48	Stop download
06/21	19:15	Rig down

Interval Logged: [From 5,276 to 8,080 ft.]

60 ft/min 90 ft/min





#### Well Information

Casing: 5.5" 17.0 lb/ft surface to 8,232 ft PBTD: 8,190 ft surface to 5.229 ft Tubing: 2.375" 4.7 lb/ft Perforations: 5,408: 5,412: 5,418: 5,422: 5,426: 5,428: 5,430: 5,432: 5,434: 5,436: 5,454; 5,456; 5,465; 5,476; 5,483; 5,492; 5,495; 5,500; 5,502; 5,504; 5,506; 5,508; 5,510; 5,524; 5,526; 5,528; 5,546; 5,548; 5,550; 5,560; 5.562 ft (Cliff House/Menefee) 5,686; 5,688; 5,690; 5,692; 5,702; 5,706; 5,710; 5,712; 5,714; 5,720; 5,722; 5,724; 5,730; 5,733; 5,736; 5,740; 5,742; 5,744; 5,746; 5,748; 5.752: 5.756: 5.760: 5.766: 5.768: 5.772: 5.780: 5.784: 5.788: 5.792: 5,796; 5,801; 5,812; 5,814; 5,818; 5,831; 5,836; 5,839; 5,844; 5,847; 5,854; 5,859; 5,864; 5,866; 5,870; 5,872; 5,878; 5,884; 5,890; 5,892; 5,908; 5,910; 5,914; 5,920; 5,924; 5,928 ft (Point Lookout) 6,155; 6,165; 6,175; 6,185; 6,195; 6,215; 6,225; 6,235; 6,245; 6,255; 6,265; 6,275; 6,290; 6,295; 6,305 ft (Mancos - Stage 6) 6,530; 6,540; 6,550; 6,560; 6,570; 6,614; 6,625; 6,635; 6,645; 6,655; 6,665; 6,695; 6,705; 6,715; 6,750; 6,760; 6,770; 6,780 ft (Mancos – Stage 5) 6,845; 6,855; 6,865; 6,875; 6,885; 6,895; 6,905; 6,915; 6,925; 6,935; 6,945; 6,955; 6,965; 6,975; 6,985; 6,995; 7,005; 7,015 ft (Mancos - Stage 4) 7,055; 7,065; 7,075; 7,085; 7,100; 7,105; 7,115; 7,125; 7,135; 7,145; 7,155; 7,165; 7,175; 7,185; 7,195; 7,205; 7,220; 7,230; 7,240; 7.250 ft (Mancos – Stage 3) 7,275; 7,280; 7,285; 7,290; 7,295; 7,305; 7,315; 7,325; 7,335; 7,345; 7,355; 7,365; 7,370; 7,375; 7,380; 7,385; 7,390; 7,395; 7,400 ft (Mancos – Stage 2) 7,625; 7,630; 7,635; 7,640; 7,645; 7,650; 7,655; 7,660; 7,665; 7,670; 7,675 ft

(Mancos – Stage 1)





7,715; 7,720; 7,725; 7,730; 7,735; 7,740; 7,745; 7,750; 7,754; 7,759 ft (Greenhorn)

7,887; 7,894; 7,900; 7,906; 7,914; 7,924; 7,932; 7,936; 7,941; 7,953; 7,957; 7,970; 7,976; 7,980; 8,003; 8,008; 8,019; 8,081; 8,084 ft (Dakota)

Flowing tubing pressure at the time of logging: 225 psi

Daily average surface production reported at the time of logging:

gas: 930 Mscf/d

water: N/A bpd

#### **Tool String**

The 1 11/16" Completion Profiler string comprised the following sensors:

Battery housing; RS-232/CCL; Memory/CPU; Gamma Ray; Pressure/Temperature Combo; Centralizer; Induction Collar Locator; Fluid Density; Centralizer; Spinner Flowmeter.

### Well Log History

Log Date	Type of Survey
10/02/08	SpectraScan
10/16/08	SpectraScan
10/28/08	SpectraScan
11/24/08	SpectraScan
04/22/08	SpectraScan
05/13/08	SpectraScan
11/18/09	Completion Profiler





#### Results

The following table summarizes the production from each producing zone.

1			, .	GAS / WATER PR	ODUCTION P	ROFILE			
			Flow Rates Reported at STP						
Zone	e Interv	als	Q-Gas	Qp-Gas	Percent of	Q-Water	Qp-Water	Percent of	
	feet		MCFD	MCFD	Total	BFPD	BFPD	Total	
			00000		1000			100.04	
Surface	to	5408	929 Mcf/d		100 %	8 bpd		100 %	
M. C. 16 1 2 2 2	· ,	Cli	 ff`House/Menefée		11 %	· · · · · · · · · · · · · · · · · · ·		11 %	
5408		5562	929 Mcf/d	98 Mcf/d		8 bpd	1 bpd		
i izoj	. , .	• ,	Point Lookout &		60 %			⇒ 63.%·	
5686		5928	831 Mcf/d	561 Mcf/d		7 bpd	5 bpd	, Ac. 23, 24, 1	
	, ,	, W,	lancos - Stage 6		3 %		. (3 * -	4%	
6155	to	6305	271 Mcf/d	32 Mcf/d	3 /6	2 bpd	0 bpd	+ /°	
			lancos - Stage 5	1	4 %			<b>4</b> %	
6530	to	6780	238 Mcf/d	34 Mcf/d		2 bpd	0 bpd		
· · · · · · · · · · · · · · · · · · ·		Ì	lancos - Stage 4		5 %	, , , , , , , , , , , , , , , , , , , ,	,×	5 %	
6845	to	7015	205 Mcf/d	49 Mcf/d		1 bpd	0 bpd		
Jan Section		. N	lancos - Stage 3		2 %			2 %	
7055		7250	156 Mcf/d	16 Mcf/d		1 bpd	0 bpd		
, - 3× ,	,	N	lancos - Stage 2		1 %			1 %	
7275		7400	140 Mcf/d	6 Mcf/d		1 bpd	0 bpd		
			ancos - Stage 1	,	4 %			4 %	
7625	to	7675	134 Mcf/d	38 Mcf/d	4 76	1 bpd	0 bpd	4 76	
Star Star			Greenhorn	4 SGPS 45	0.07	, , , , , , , , , , , , , , , , , , , ,	1. 1. Just det	0 %	
7715		7759	96 Mcf/d	4 Mcf/d	0 %	1 bpd	0 bpd	0 %	
· · · · ·	<u>, , ,                                </u>		Dakota		9 %			6.%	
7887	to	8019	92 Mcf/d	88 Mcf/d		0 bpd	0 bpd		
Flow (	Contrib	ution f	rom Below Log De	oth	0 %			0 %	
8080		Below			0 %	0 bpd		0 %	