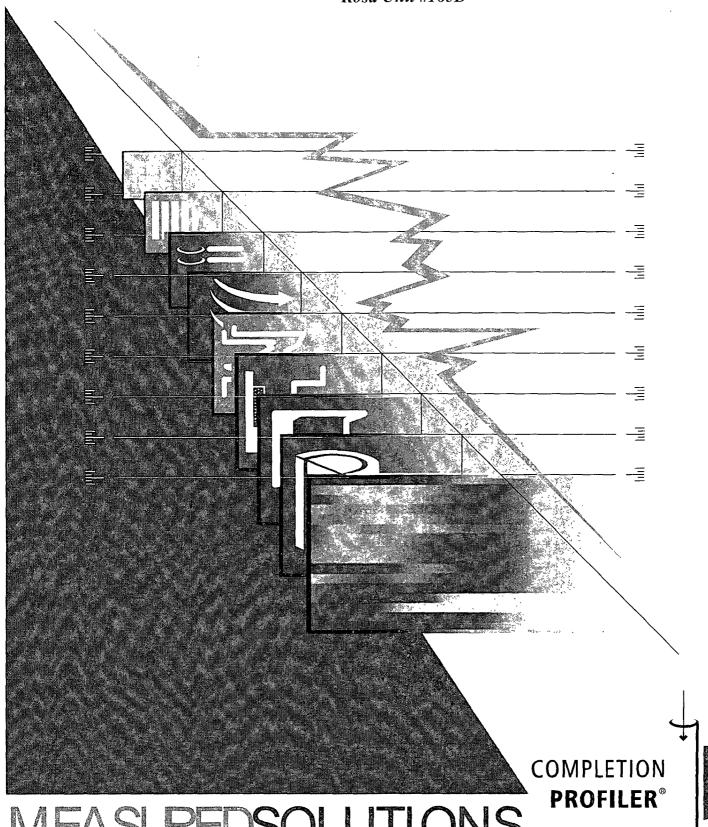
In Lieu Form 3 (June 1	B160 DEPARTM	TED STATES ENT OF INTERIOR LAND MANAGEMENT		FORM APPROVED Budget Bureau No 1004-0135 Expires March 31, 1993		
Do no		O REPORTS ON WELLS or reentry to a different reservoir  Use "APPLICATION	5.	<ol> <li>Lease Designation and Serial No. NMSF-078766</li> </ol>		
	TO DRILL" for perr			If Indian, Allottee or Tribe Name		
	SUBMIT IN	TRIPLICATE	7.	If Unit or CA, Agreement Designation Rosa Unit		
1.	Type of Well Oil Well Gas Well X Other		8.	Well Name and No. Rosa Unit 165D		
2.	Name of Operator WILLIAMS PRODUCTION COMPANY		9	API Well No. 30-039-30690		
3.	Address and Telephone No PO Box 640 Aztec, NM 87410-0640 505-6:	10.	Field and Pool, or Exploratory Area BLANCO MV/BASIN DK/BASIN MC			
4.	Location of Well (Footage, Sec , T., R., M , c SUR 1280' FNL & 1635' FWL BHL 737' FNL & 1039' FWL SEC 25 311		11.	County or Parish, State Rio Arriba, New Mexico		
	CHECK APPROPRIA	ATE BOX(s) TO INDICATE NATURE OF NOTICE, R	EPORT, O	R OTHER DATA		
	TYPE OF SUBMISSION	TYPE OF SUBMISSION TYP				
	Notice of Intent  X Subsequent Report  Final Abandonment	Abandonment Recompletion Plugging Back Casing Repair Altering Casing X Other <u>REALLOCATION</u>		Change of Plans New Construction Non-Routine Fracturing Water Shut-Off Conversion to Injection Dispose Water		
J.				(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form)		
13.		Clearly state all pertinent details, and give pertinent dates s and measured and true vertical depths for all markers a		estimated date of starting any proposed work If well is		
	ams E&P has run Protechnic's Complet ams proposes the following allocation:	ion profiler tool for allocation purposes on the	ne Rosa U	Init #165D. Based on the results obtained,		
				S101722324257623		
	Mesaverde	77% 38		d LECEIVED 3031		
	Mancos	12% 57		190 01 2011 31		
	Dakota	11% 54		d PE SUNS DIV DIST		
	Total	100% 49	01 Mcf/	d CONS DIN DIST 3 CONS DIN DIS		

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfüllig-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

### Williams Production Company Rosa Unit #165D







Company | Williams Production Company

Well Name | Rosa Unit 165D

Field | Blanco Mesaverde/Basin Dakota

Location | Rio Arriba County, New Mexico

Customer Name | Michael Andrews

Date of Survey | June 1, 2011

Date of Analysis | June 6, 2011

Logging Engineer | Loren Healy

Analyst | Mark Warren

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
6-1	6:20	Arrive on location
6-1	5:20	Gauge Run Start
6-1	6:00	Gauge Run Stop
6-1	7:30	Program Completion Profile String
6-1	7:57	Start GIH pass
6-1	8:18	Stop GIH pass
6-1	8:30	Start logging passes
6-1	11:01	Stop logging passes
6-1	11:06	Start out of well pass
6-1	11:26	Stop out of well pass
6-1	11:31	Start download
6-1	11:45	Stop download
6-1	12:00	Rig Down

Interval Logged: [From 5,400 to 8,069 ft.]

60 ft/min 90 ft/min 120 ft/min





#### Well Information

Casing:

5.50" 17.0 lb/ft

surface to 8,123 ft PBTD: 8,120 ft

Tubing:

2.38" 4.7 lb/ft

surface to 5,276 ft

Perforations:

5,534; 5,536; 5,538; 5,544; 5,546; 5,548; 5,578; 5,580; 5,582; 5,584; 5,586; 5,588; 5,596; 5,598; 5,600; 5,602; 5,604; 5,606; 5,608; 5,610; 5,624; 5,626; 5,628; 5,630; 5,638; 5,640; 5,642; 5,644; 5,646; 5,648; 5,650; 5,652; 5,654; 5,656; 5,716; 5,718; 5,720; 5,722; 5,754; 5,756; 5,750; 5,

5,758; 5,760; 5,762; 5,764; 5,766; 5,768 ft (Stage 5 - Cliffhouse/Menefee)

5,800; 5,804; 5,808; 5,812; 5,816; 5,820; 5,824; 5,828; 5,832; 5,836; 5,840; 5,844; 5,848; 5,856; 5,860; 5,864; 5,868; 5,874; 5,878; 5,882; 5,886; 5,890; 5,894; 5,898; 5,926; 5,928; 5,930; 5,942; 5,944; 5,946; 5,948; 5,950; 5,964; 5,966; 5,968; 5,974; 5,976; 5,980; 5,982; 5,998; 6,000; 6,002; 6,004; 6,024; 6,026; 6,028; 6,020; ft.

6,000; 6,002; 6,004; 6,024; 6,026; 6,028; 6,030 ft

(Stage 4 - Point Lookout)

6,960; 6,970; 6,980; 6,990; 7,000; 7,010; 7,020; 7,030; 7,040; 7,050; 7,060; 7,070; 7,080; 7,090; 7,100; 7,110; 7,120; 7,130; 7,140; 7,150; 7,160; 7,180; 7,190; 7,200 ft (Stage 3 - Upper Manage)

7,160; 7,180; 7,190; 7,200 ft (Stage 3 - Upper Mancos)

7,270; 7,275; 7,280; 7,287; 7,291; 7,300; 7,309; 7,315; 7,324; 7,331; 7,339; 7,350; 7,360; 7,375; 7,379; 7,384; 7,392; 7,400; 7,410; 7,420; 7,430; 7,434; 7,440 ft (Stage 2 - Lower Mancos)

8,018; 8,021; 8,024; 8,027; 8,030; 8,033; 8,036; 8,062; 8,065; 8,068; 8,071; 8,074; 8,077; 8,087; 8,090; 8,097; 8,100; 8,107; 8,110; 8,113; 8,115; 8,117 ft (Stage 1 - Dakota)

Flowing tubing pressure at the time of logging: 67 psi

Daily average surface production reported at the time of logging:

gas: 510 Mscf/d

water: 2 bpd





#### **Tool String**

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

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

1777年中央企业的企业的企业。 1777年中央企业的企业的企业。





### Results

The following table summarizes the production from each frac interval.

				GAS / WATER PR	ODUCTION F	ROFILE	\$	
				Flow Rates	Reported at STI	P		
Zone	e Inte	rvals	Q-Gas	Qp-Gas	Percent of	Q-Water	Qp-Water	Percent of
ļ 	feet		MCFD	MCFD	Total	BFPD	BFPD	Total
Surface	to	5534	491 Mcf/d		100 %	5 bpd		100 %
		Cliffho	use/Menefee - Stag	e 5	44 %			42 %
5534	to	5768	491 Mcf/d	214 Mcf/d		5 bpd	2 bpd	
	[, 20, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3,	Poin	t:Lookout - Stage /		34 %			33 %
5800	to	6030	277 Mcf/d	166 Mcf/d		3 bpd	2 bpd	
	1 ( 1 ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (	Uppe	r Mancos - Stage	1 3	8 %			8 %
6960	to	7200	111 Mcf/d	37 Mcf/d		1 bpd	0 bpd	
<u> </u>		Lowe	er Mancos - Stage	<b>2</b>	4%		Carrier of the state of the	6.%
7270	to	7440	74 Mcf/d	20 Mcf/d		1 bpd	0 bpd	
	10 m	; <u>,</u> ,	 Dakota - Stage 1	A Company of the Comp	11%			10 %
8018	to	8068	54 Mcf/d	53 Mcf/d		1 bpd	1 bpd	
Flow	Conti	ibution f	rom Below/Log De	pthick of the	0,%			0 %
8069	to	Below	1 Mcf/d		0 %	0 bpd		0 %