In Lie	u of
Form	3160
(June	1990)

# UNITED STATES DEPARTMENT OF INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED Budget Bureau No 1004-0135 Expires March 31, 1993

#### SUNDRY NOTICE AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir. Use "APPLICATION TO DRILL" for permit for such proposals

5. Lease Designation and Serial No NMSF-078772

6. If Indian, Allottee or Tribe Name

	SUBMIT IN TRIPLICATE	RECEIVE	D	If Unit or CA, Agreement Designation Rosa Unit
1.	Type of Well Oil Well Gas Well X Other	AUG 26 2010		Well Name and No Rosa Unit 164C
2.	Name of Operator WILLIAMS PRODUCTION COMPANY	Farmington Field Of Bureau of Land Manag	ice emeni	API Well No. 30-039-30109
3.	Address and Telephone No PO Box 640 Aztec, NM 87410-0640		10	Field and Pool, or Exploratory Area Blanco MV/Basin MC/ Basin DK
4.	Location of Well (Footage, Sec., T., R, M, or Survey Description) Sur: 1840' FSL & 865' FEL – BHL: 204' FSL & 929' FEL, SEC 1, 31	N, 6W	11.	County or Parish, State Rio Arriba, New Mexico

CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION TYPE OF ACTION Notice of Intent Abandonment Change of Plans Recompletion New Construction Subsequent Report Non-Routine Fracturing Plugging Back Casing Repair Water Shut-Off Final Abandonment Altering Casing Conversion to Injection X Other Reallocation Dispose Water (Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

Williams E&P has run Protechnic's Completion profiler tool for allocation purposes on the Rosa Unit #164C. Based on the results obtained, Williams proposes the following allocation:

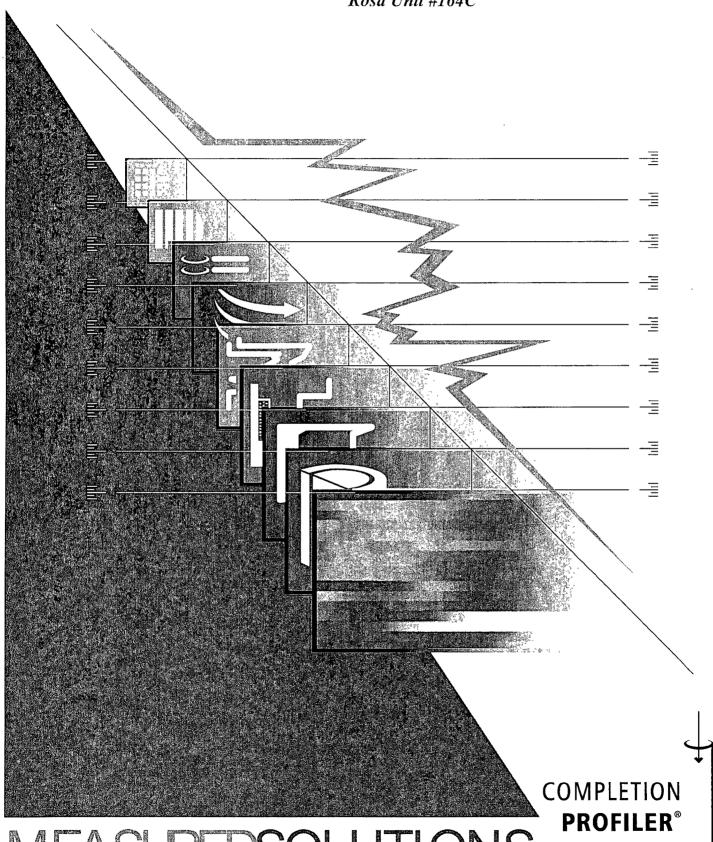
	Mesaverde Mancos	75% 9%	3849	N <sub>457</sub>	Mcf/d Mcf/d	OIL CONS. DIV.
	Dakota  Total	16% 100%	DKr 2°	93 <b>603</b>	Mcf/d Mcf/d	DIST. 3
14.	I hereby certify that the foregoing is true and of Signed  Larry Higgins	correct	Title Permit Supervisor	D	Pate <u>8/25/10</u>	
	(This space for Federal or State office use)  Approved by Joe Hewith  Conditions of approval, if any:	·	Title <b>600</b>			Date <u>\$-</u> 27-10

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



Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work)\*

#### Williams Production Company Rosa Unit #164C



MEASUREDSOLUTIONS





Company | Williams Production Company

Well Name | Rosa Unit #164C

Field | Blanco Mesaverde/Basin Dakota

Location | Rio Arriba County, New Mexico

Customer Name | Justin Stolworthy

Date of Survey | August 4, 2010

Date of Analysis | August 17, 2010

Logging Engineer | Jeff White

A CONTRACTOR OF THE PROPERTY O

Analyst | Derrick George

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
08/04	14:15	Arrive on location
08/04	13:00	Gauge run start
08/04	14:00	Gauge run stop
08/04	14:57	Program Completion Profile String
08/04	15:09	Start GIH pass
08/04	15:30	Stop GIH pass
08/04	16:00	Start logging passes
08/04	19:33	Stop logging passes
08/04	19:41	Start out of well pass
08/04	20:02	Stop out of well pass
08/04	20:08	Start download
08/04	20:35	Stop download
08/04	21:00	Rig down

Interval Logged: [From 5,511 to 8,359 ft.]

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





#### Well Information

5.500" 17.0 lb/ft Casing: surface to 8,463 ft PBTD: 8,464 ft

Tubing: 2.375" 4.7 lb/ft surface to 5.441 ft

Perforations: 5,604; 5,606; 5,608; 5,650; 5,652; 5,684; 5,686; 5,706; 5,708; 5,716;

> 5,718; 5,720; 5,816; 5,818; 5,820; 5,822; 5,824; 5,850; 5,852; 5,854; 5,868; 5,870; 5,872; 5,874; 5,876; 5,878; 5,880; 5,882; 5,884; 5,886; 5,888; 5,890; 5,896; 5,898; 5,900; 5,902; 5,904; 5,906; 5,908; 5,910; 5,912; 5,914; 5,916; 5,964; 5,966; 5,968; 5,970; 5,972; 5,978; 5,980;

5,982; 5,990; 5,992; 5,994; 5,996; 5,998 ft (Stage 5 - Cliff House/Menefee)

6.044; 6,048; 6,052; 6,066; 6,070; 6,074; 6,078; 6,082; 6,086; 6,090; 6,094; 6,098; 6,102; 6,106; 6,110; 6,114; 6,118; 6,122; 6,126; 6,130; 6,134; 6,138; 6,142; 6,146; 6,150; 6,154; 6,158; 6,162; 6,166; 6,170;

6,174; 6,178; 6,182; 6,186; 6,190; 6,194; 6,198; 6,202; 6,206; 6,328; 6,330; 6,332; 6,334; 6,336; 6,348; 6,350; 6,352; 6,354; 6,358; 6,360;

6,362; 6,368; 6,370; 6,372; 6,408; 6,410; 6,412 ft

(Stage 4 - Point Lookout)

7,204; 7,214; 7,230; 7,259; 7,267; 7,282; 7,294; 7,309; 7,319; 7,329; 7,337; 7,347; 7,359; 7,369; 7,379; 7,389; 7,399; 7,409; 7,417; 7,429;

7,441; 7,448; 7,458; 7,466; 7,476 ft (Stage 3 - Upper Mancos)

7,554; 7,560; 7,566; 7,579; 7,588; 7,594; 7,600; 7,606; 7,612; 7,618; 7,623; 7,632; 7,641; 7,649; 7,653; 7,660; 7,667; 7,677; 7,684; 7,690 ft (Stage 2 - Lower Mancos)

8,303; 8,306; 8,309; 8,312; 8,315; 8,345; 8,348; 8,351; 8,354; 8,357; 8,360; 8,363; 8,366; 8,369; 8,372; 8,378; 8,386; 8,389; 8,392; 8,397; 8,400; 8,403; 8,411; 8,414; 8,417; 8,423; 8,426; 8,433; 8,438; 8,441 ft

(Stage 1 - Dakota)

Flowing tubing pressure at the time of logging: 240 psi

Daily average surface production reported at the time of logging:

gas: 600 Mscf/d water: 5 bpd





#### **Tool String**

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

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





#### Results

The following table summarizes the production from each producing zone.

					R PRODUCTION			
Zone	Inte	rvals	Q-Water	Qp-Water	Percent of	Q-Gas	Qp-Gas	Percent of
	feet		BFPD	BFPD	Total	MCFD	MCFD	Total
Surface	to	5604	5 bpd		100 %	604 Mcf/d		100 %
		Stage	e 4 - Cliff House	Menefee	17 %		,	37 %
5604	to	5998	5 bpd	1 bpd		604 Mcf/d	226 Mcf/d	
4	^ ;	Çiri St	age 4 - Point Lo	okout	15%	, , ,	7 / , ,	38 %
6044	to	6412	4 bpd	1 bpd		378 Mcf/d	231 Mcf/d	
ñ.		,}∴, ेeSt	age;3 - Upper Ma	ančos .	45 %		* * * *	7 %
7204	to	7476	3 bpd	2 bpd		147 Mcf/d	43 Mcf/d	
·	* ***	St	age 2 - Lower M	ancos	4 %	· · · · · · · · · · · · · · · · · · ·	1 5 5	2 %
7554	to	7690	1 bpd	0 bpd		103 Mcf/d	10 Mcf/d	
	Stage 1 - Dakota			12 %			10 %	
8303	to	8357	1 bpd	1 bpd		93 Mcf/d	59 Mcf/d	
Flow C	Contr	ibution fi	rom Below Log I	 Depth	7 %		,	6 %
8359	to	Below	0 bpd		7 %	34 Mcf/d		6 %