

## **Williams Production RMT Company Natural Gas Well MV1-23 History of Exploration and Production**

This document provides a narrative history of exploration and production activities associated with Well MV 1-23 and the associated leasehold. This document is provided in a compact disk format which includes linked references to the well file information most relevant to COGCC's inquiry. In addition to those documents linked to the text of this history of Well MV 1-23, we have included on the CD a number of additional documents which, in total, make up the documentation available to Williams Production RMT Company ("Williams") for Well MV 1-23. Williams continues to search all file resources available to it to ensure that all documents related to Well MV 1-23 have been captured.

Well Name :        MV1-23

Well Location:    NW1/4 NW1/4 Section 23, Township 6 South,  
Range 97W, Garfield County, CO - 605' FNL and  
275' FWL



### **Exploration and Completion History**

Williams MV1-23 Well was originally drilled by Barrett Energy Company in 1984 and named "Crystal Creek A-2 well". The well was originally drilled to a depth of 9877 feet. After attempting completions in several zones, the well was ultimately completed uphole in the Wasatch in August 1987 as a gas well.

Spud Date	6/29/84
Drill Contractor	VECO Rig #5
Total Depth - 9877 feet	8/12/84
PBTD – 9743 feet	
Shut-in	11/27/84 to 6/24/85
Completion Date (Wasatch)	10/24/85
Shut-in waiting on pipeline	10/24/85 to 9/29/87
Wellhead and Pipeline Hook-up	8/10/87 to 9/30/87



See documents [00018](#), [00041](#), [00043](#), [00044](#), [00045](#), [00047](#), [00049](#), [00050](#)

## **Casing and Cementing**

Conductor pipe was set at 40 feet.

Surface casing (20 joints of new 8 5/8" 24# J55 casing) was set at 843.44 feet (856.44 feet K.B.). The surface casing was cemented (185 sacks Lite 3% CC 1/4# Flowseal followed with 90 sacks Class G 2% CC 1/4# Flowseal) on 7/2/84 with cement showing to surface.

Production casing (52 joints of new 5 1/2" N-80 20#, 188 joints new 5 1/2" N-80 17#, and 1 joint new 5 1/2" N-80 20#, total 7734.36 feet) was set at 9875 feet K.B. and cemented on 8/15/84. Casing cement was pressure tested to 5500# for 15 minutes on 9/8/84. Correlation and Cement Bond Logs run.



See document [0016](#)

## **Perfs, Frac, and Squeeze Jobs**

Lower Cameo (9/84)	Perfs 9326 to 9628 feet Frac w/ 224,000# 20/40 Sand; 2650 bbl Gel w/ CO2 flush
Upper Cameo (10/84)	Perfs 8408 to 8799 feet Frac w/ 295,000# Sand; 2850 bbl Gel w/ CO2 flush Cement squeeze @ 8436, 8561, 8640, 8744 (465 sx cmt)
Mesaverde (11/84)	Perfs 6905 to 7027 feet Frac w/ 114,000# 20/40 Sand; 1150 bbl Gel and CO2 Cement squeeze @ 6890, 6986, 7034 (285 sx cmt)
Wasatch (9/85)	Perfs 4405 to 4417 feet Frac w/ 36,500# 20/40 Sand; 418 bbl Gel w/ 225,000 scf N2



See documents [00009](#), [00015](#), [00031](#), [00037](#), [00039](#), [00046](#), [00059](#)

## **Well Integrity**

Williams personnel conducted braden head testing on the MV 1-23 on 8/04/08. The pressure reading was zero. Williams personnel also conducted braden head testing on two nearby wells (WGV 21-23 and the WGV 22-23) that were not listed on the NOAV. The results of these casing pressure tests were also zero.

COGCC personnel will be conducting braden head testing at the MV 1-23, the WGV 21-23, and the WGV 22-23 wells on 8/11/08.

### **Mud and Reserve Pits**

Originally two small mud pits adjacent to a reserve pit of approximate size 15' x 15' x 6' depth were located at the well site at the time of drilling. The mud pits were cleaned and reclaimed when the drill rig was released in October, 1984. Neither the mud pits nor the reserve pit were lined. An inspection by COGCC on August 25, 1997 indicated that the reserve pit was "dry."



See documents [00078](#), [00035](#), [00063](#).

- Drilling muds and fluids. Mud log records indicate that only conventional non-hydrocarbon based drilling muds were ever utilized.



See documents [00060](#), [00061](#), [00062](#).

- Condensate: Based on a review of the exploration and production records, no gas condensate has ever been placed in the reserve pit.

Photographs of the approximate reserve pit location as it currently exists *can be provided to the COGCC upon request*.

### **Tanks/Containers**

The following tanks are located at the site:

- One (1) 200 bbl produced water tank, which is partially buried, inactive/empty.
- No above-ground tanks belonging to Williams.
- One (1) 200 bbl above-ground tank belonging to Nonsuch.
  - Installed as a precautionary measure at the request of Brad Moss to capture slugs of fluid from third party gas prior to entering the pipeline
  - Installed in 2007; fairly new, in good condition and inside secondary containment

## **Spills**

No spills or releases are known or indicated in records as having ever occurred from operation of the MV 1-23 well.



See document [00063](#).

## **Well MV1-23 Production History**

First production and gas sale was in September 1987. Last production and sale occurred in November 1999. The well has been shut-in from November 1999 to the present.

First Sale	9/28/87
Last Production and Sale	11/99
Shut-in	11/99 to Present



See documents [00046](#), [00050](#), [00051](#), [00057](#), [00064](#), [00066](#).

## **Recent E&P Related Activities**

### **Downslope Trench**

Marathon Oil Company is installing a pipeline from their pad location (immediately below the MV 1-23) to a sales line located on the main road. They are running an open trench for the pipeline immediately adjacent to and below the MV 1-23 location that appears to extend to bedrock with an estimated depth of approximately 20 feet below the surface of the MV1-23 location. The trench has not yet been completed and only extends partially below our location at the present time. Based on observations of that part of the trench that is open, there are no signs or evidence of spills/releases in the form of impacted water present in the trench that might be originating from the up-gradient MV 1-23 location.

### **Freshwater Impoundment**

A lined water impoundment dam was permitted and constructed in 2006 on the MV 1-23 lease location. The pit was excavated in-place and the perimeter berm was built with spoil material (mostly rock) from the excavation. This impoundment holds only clean freshwater taken directly from Parachute Creek via a pipe and pump system. This impoundment is used as a supply of freshwater for other localized Williams E&P activities and is not related to the MV1-23 well.

The pit was used to store freshwater for only a short period of time before it was shutdown by the State Engineers Office (SEO) due to the dam height not complying requirements for a non-jurisdictional structure. Work has since been undertaken by Williams to bring the dam into compliance, and based on an SEO inspection on August 5, 2008 the pit can now be used as intended. However, the SEO has requested that Williams not use the pit until written authorization is received from the SEO.



See documents [00067](#), [00068](#).