

MARKWEST RESOURCES, INC.
FULLERTON FEDERAL #2J PC (#5)
B Sec. 15 – T27N – R11W, San Juan County, N.M.
Surface Loc. 660' FNL & 1980 FEL

PC CLEANOUT
Pertinent Data Sheet

Field: West Kutz PC **Elevation:** 6325' GL **TD:** 6794'
Spud Date: 12/22/58 **KB=11'** **PBTD:** 2250'
DK Completion Date: 1/22/59
PC Recompletion Date: 1/4/88

CASING PROGRAM:

<u>Hole Size</u>	<u>Csg Size</u>	<u>Wt. & Grade</u>	<u>Depth Set</u>	<u>Cement</u>	<u>TOC</u>
13-3/4"	9-5/8"	25.4#	300'	290 sx	Circ. to Surface
8-3/4"	5-1/2"	14&15.5# J-55	6791'	550 sx	1738' – CBL

Tubing Record:

2-3/8" 4.7# J-55 2111' (SN & notched collar on bottom)

Formation Tops:

Ojo Alamo	992'	Cliffhouse	4037'
Kirtland	1085'	Point Lookout	4517'
Fruitland	1720'	Gallup	5630'
Pictured Cliffs	2070'	Dakota	6580'

Logging Record: Induction, GRN, & Microlog – 1959, CBL - 12/21/87

Stimulation: Perf DK w/1 spf @ 6627'-40' & frac w/40,000# sand in oil.

Workover History: 2/24/75: Located csg leak between 3910'-4156'. Sq w/40 sx cmt, drilled out & tested to 800#. 5/2/84: Set CIBP @ 6580' & cap w/4 cf cmt & tested csg to 500#. Completed TA. 1/4/88: Plug back to 2250'. Ran CBL – TOC @ 1738'. Perfed PC @ 2060'-2138' w/2 spf. Acidized w/1500 gal 15% acid & fraced w/42,000# 12/20 sand in 70Q foam. PC ISICP = 226 PSI @ 1922'. 7/26/94: Tag fill @ 2152'. Lower tbq to 2111' & swab well in.

Production History: DK cum = 1258 MMCF & 9193 BO. PC cum = 448 MMCF. Production recently has risen from 50 MCF/D to 100 MCF/D due to the use of liquid soap. Production suddenly dropped from 300 MCF/D to 130 MCF/D in 1994 (just before the w/o).

MARKWEST RESOURCES, INC.
FULLERTON FEDERAL #2J PC (#5)
B Sec. 15 – T27N – R11W, San Juan County, N.M.
Surface Loc. 660' FNL & 1980 FEL
PC CLEANOUT

GENERAL

* Prior to rig-up and commencement of operations, review the attached general wellsite stipulations.
* All information concerning the workover operations of this well shall remain **confidential** and shall not be released without the written consent of MarkWest Resources.

1. MOL & RU, test anchors, set pump, 1 frac tank & air equipment. **All water to be 2% KCL or filtered produced PC or FRTC water.**
2. Kill well w/ water or set blanking plug in 2-3/8" SN @ 2110'
3. ND WH, NU BOP. TIH to tag bottom & strapOH w/2-3/8" tbg.
4. If necessary, TIH w/4-3/4" bit & CO to 2200' w/air/mist. TOH.
5. Rabbit in hole w/2-3/8" tbg & land @ 2135' w/SN one jt above open ended bottom. Replace all bad tbg jts.
6. ND BOP, NU WH. Unload & blow well as needed & place on line.

EQUIPMENT & VENDORS LIST

ITEM:	VENDOR	PHONE #
RIG:	KEY ENERGY SERVICES	970-563-9053 505-327-0416
RIG SUPERVISOR:	MIKE CONFER	505-599-7461 505-330-2022
ENGR. CONSULTANT 4573	MIKE PIPPIN	505-327- 505-330-0495
DOWNHOLE TOOLS:	BAKER	505-325-0216
TRUCKING:	SUNCO	505-327-0416
FRAC TANKS:	RED TOP	
WELLHEAD	CAMERON	505-327-3402

WELLBORE DIAGRAM

PC CLEANOUT

FULLERTON FEDERAL #2J PC (#5)

660' FNL & 1980' FEL (B) Sec. 15 T-27N, R11W

West Kutz Pictured Cliffs

San Juan County, New Mexico

PMP 5/14/01

Hole Size: 13-3/4"

Casing: 9-5/8", 25.4# @ 300'
w/290 sx cmt.

Circ cmt to surface

2-3/8" 4.7# J-55 tbg
@ 2111' w/SN & notched
collar on bottom.

TOC @ 1738' - CBL

PBTD @ 2250'

Perf PC @ 2060'-2138' w/2 spf.
Fraced w/42,000# 12/20 sand
in 70Q foam.

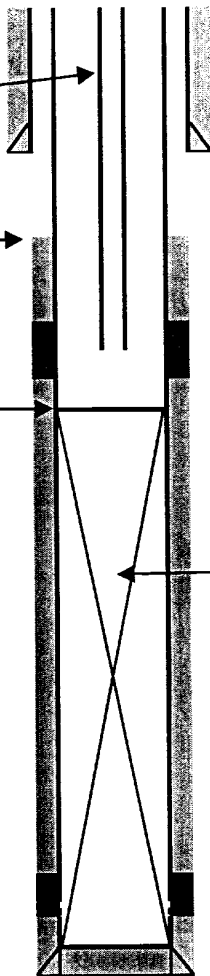
1988: Plugged Back to 2250'
Per State Specs

Hole Size: 8-3/4"

5-1/2", 14&15.5# @ 6791'
w/550 sx cmt.

Perf DK @ 6627'-40' & frac w/40,000# sand in oil.

6791' TD



MARKWEST RESOURCES, INC.
155 INVERNESS DRIVE WEST, SUITE 200
ENGLEWOOD, COLORADO 80112

PROSPECT: ANGEL PEAK
WELL NAME : FULLERTON FEDERAL #2J PC (#5)
COUNTY :San Juan
STATE : New Mexico
LOCATION : B Sec.15 T27N R11W
OPERATOR : MarkWest

AFE #
WELL #: 2J
PROPOSED DEPTH: 2250' FT
OBJECTIVE : PICTURED CLIFFS
DATE : 5/15/01
COMMENCEMENT DATE : 6/16/01

OVERALL PLAN: CLEAN OUT PC & REPAIR TBG

STEPS

- 1 CHECK FOR FILL & PULL TBG
- 2 CLEAN OUT PC TO 2200'
- 3 RABBIT TBG IN HOLE & REPLACE ALL BAD JTS
- 4 RETURN WELL TO PRODUCTION

CURRENT PC PRODUCTION (FROM CSG)
ESTIMATED PC UPLIFT:

90 MCF/D
150 MCF/D

INCREMENTAL ECONOMICS
RATE OF RETURN
PAYOUT
P/I (\$/\$N @10%)

SUMMARY OF ESTIMATED COSTS

1980	INTANGIBLE WORKOVER COSTS	PICTURED CLIFFS
101	LOCATION	\$1,000
103	LABOR (WELDING, ETC.)	
104	ACIDIZING	
106	CASING CREW	
108	CEMENT	
109	PIPE INSPECTION	
201	WATER DISPOSAL	\$500
202	WORKOVER RIG (4 Days \$3,000/day)	\$12,000
203	PERFORATIONS	
203	CASED HOLE LOGS	
204	FUEL & WATER	\$500
205	FRAC WATER	
206	FRAC	
207	EQUIPMENT & TOOL RENTAL	\$500
209	FLOW TESTING	
210	TRANSPORTATION	\$500
212	COMPANY SUPERVISION	\$2,000
	COMPRESSION	\$4,000
217	ROUSTABOUT LABOR	\$500
218	MISC. (bits, float, strippers)	\$500
220	BATTERY CONSTRUCTION	
328	CONTINGENCIES (20%)	\$4,400
	SUBTOTAL INTANGIBLE WORKOVER	\$26,400
1910	TANGIBLE WORKOVER COSTS	
102	TUBING 200' OF 2-3/8" 4.7# J-55 EU @ \$2.10/FT	\$420
102	TUBING 200' FO 3-1/2" 9.2# J-55 NUE @ \$3.85/FT	
152	WELLHEAD & VALVES	
208	DOWNHOLE VALVES & NIPPLES	
210	TREATER/SEPARATOR	
211	TANK BATTERY	
212	METERS	
213	SURFACE FITTINGS & FLOW LINE	
214	BUILDINGS	
215	FENCES-CATTLE GUARD	
216	OTHER (80 HP Wellhead Compressor)	
217	ANCHORS	
	CONTINGENCIES (15%)	\$63
	SUBTOTAL TANGIBLE WORKOVER	\$483
	TOTAL WORKOVER COSTS	\$26,883
	TOTAL AFE	\$26,883

PMP

APPROVALS:

MARKWEST RESOURCES, INC.

TITLE

MARKWEST RESOURCES, INC.

TITLE

MARKWEST HYDROCARBON, INC.

TITLE