

MARKWEST RESOURCES, INC.
FULLERTON FEDERAL 15 #41 GD
A Sec. 15 – T27N – R11W, San Juan County, N.M.
800' FNL & 800' FEL

DK CLEANOUT
Pertinent Data Sheet

Field: Basin Dakota & So. Kutz Gallup **Elevation:** 6297' GL
Spud Date: 2/16/99 KB=13' **TD:** 6724'
Gallup Completion Date: 4/15/99 **PBTD:** 6679'
DK Completion Date: 7/12/99

CASING PROGRAM:

<u>Hole Size</u>	<u>Csg Size</u>	<u>Wt. & Grade</u>	<u>Depth Set</u>	<u>Cement</u>	<u>TOC</u>
12-1/4"	8-5/8"	24#	335'	210 sx	Circ. 15 bbls Cmt
7-7/8"	5-1/2"	15.5# J-55	6724'	295 sx	Circ. 3 bbls Cmt
		DV Tool @	5230'	1150 sx	Circ. 40 bbls Cmt
<u>Tubing Record:</u>					TOC @ 418' - CBL
	2-3/8"	4.7# J-55	6503'		

Formation Tops:

Ojo Alamo	954'	Cliffhouse	3650'
Kirtland	1054'	Point Lookout	4092'
Fruitland	1752'	Gallup	5601'
Pictured Cliffs	2040'	Dakota	6505'

Logging Record: Induction, Density-Neutron, Microlog, CBL

Stimulation: Drill out DV w/bit & scraper. Parted tbg & fished. **Found csg leak @ ~5610'** & spotted 25 sx cmt.

Perf DK w/14-0.38" holes @ 6514', 15', 16', 30', 31', 32', 80', 81', 82', 83', 90', 91', 92', 93'. BD under pkr w/1000 gal 7.5% HCL acid & 28 perf balls. Balloff @ 4200 psi. Set pkr on 2-7/8" tbg @ 5726' & frac DK down tbg & 5-1/2" csg w/120,000# 20/40 ottawa sand in 25# X-linked gel. AIR=30 BPM. Max. Pressure = 5190#. ISICP=340#.

Perf Gallup @ 5948'-58' w/3-0.43" spf. BD under pkr w/1000 gal 7.5% HCL acid. Frac Gallup down 2-7/8" tbg w/32,300# 20/40 sand in 25# X-linked gel – screened off. AIR=20 BPM. Avg. Press.= 3421#. Swab Gallup 4 days. Refrac Gallup down 2-3/8" tbg w/70,000# 20/40 sand in 25# X-linked gel. AIR=15 BPM. Ave. Pressure=5625#. Land 2-3/8" tbg @ 5915'. Complete as single Gallup well. DK below RBP @ 6177'.

Workover History: 7/9/99: Retrieve RBP @ 6177'. CO to 6679'. Land 2-3/8" tbg @ 6503'.

Production History: DK cum = 62 MMCF & 357 BO. Gallup cum = 9 MMCF & 1019 BO. Total well capacity = 150 MCF/D, 2.5 BOPD, & 1 BWPD. 4/25/01: Installed test wellhead compressor – no production increase so placed well back on piston. 5/10/01: Production suddenly dropped to 0 MCF/D. Swabbed well – tbg plugged w/sand.

PISTON STUCK IN 2-3/8" TBG

MARKWEST RESOURCES, INC.
FULLERTON FEDERAL 15 #41 GD
A Sec. 15 – T27N – R11W, San Juan County, N.M.
800' FNL & 800' FEL
DK 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. Blow well down. If necessary, kill well w/ water'
3. ND WH, NU BOP. TIH to tag bottom & strap OH w/2-3/8" tbg.
4. If necessary, TIH w/3-7/8" bit on 2-3/8" tbg & CO to PBTD 6679' w/air/mist. TOH.
5. Rabbit in hole w/2-3/8" tbg & land @ 6590' 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
WELLHEAD	CAMERON	505-327-3402

WELLBORE DIAGRAM

DK CLEANOUT

FULLERTON FEDERAL 15 #41 GD

800' FNL & 800' FEL (A) Sec. 15 T-27N, R11W

Basin Dakota & South Kutz Gallup

San Juan County, New Mexico

PMP 5/23/01

Hole Size: 12-1/4"

Casing: 8-5/8", 24# @ 335'

w/210 sx cmt.

Circ. 15 bbls cmt

TOC @ 418' -- CBL

TOC @ DV 5230' -- CBL

DV Tool @ 5230'. Cmt'ed
w/1150 sx Cmt. Circ. 40
sx Cmt to surface.

Csg leak @ 5610' spot 25 sx cmt

Perf Gallup 5948'-58' w/3-0.43" spf.
Frac w/32,300# sand in 25# X-linked gel,
screened out. Refrac w/70,000# sand
in 25# X-linked gel.

2-3/8" 4.7# J-55 tbg
@ 6503'.

PISTON STUCK IN TBG

Hole Size: 7-7/8"

5-1/2", 15.5# J-55 @ 6724'

w/295 sx cmt. Circ. 3 bbls

Cmt.

Perf DK @ 6514'-93' & frac w/120,000#
sand in 25# X-linked gel.

6679' PBTB

6724' TD

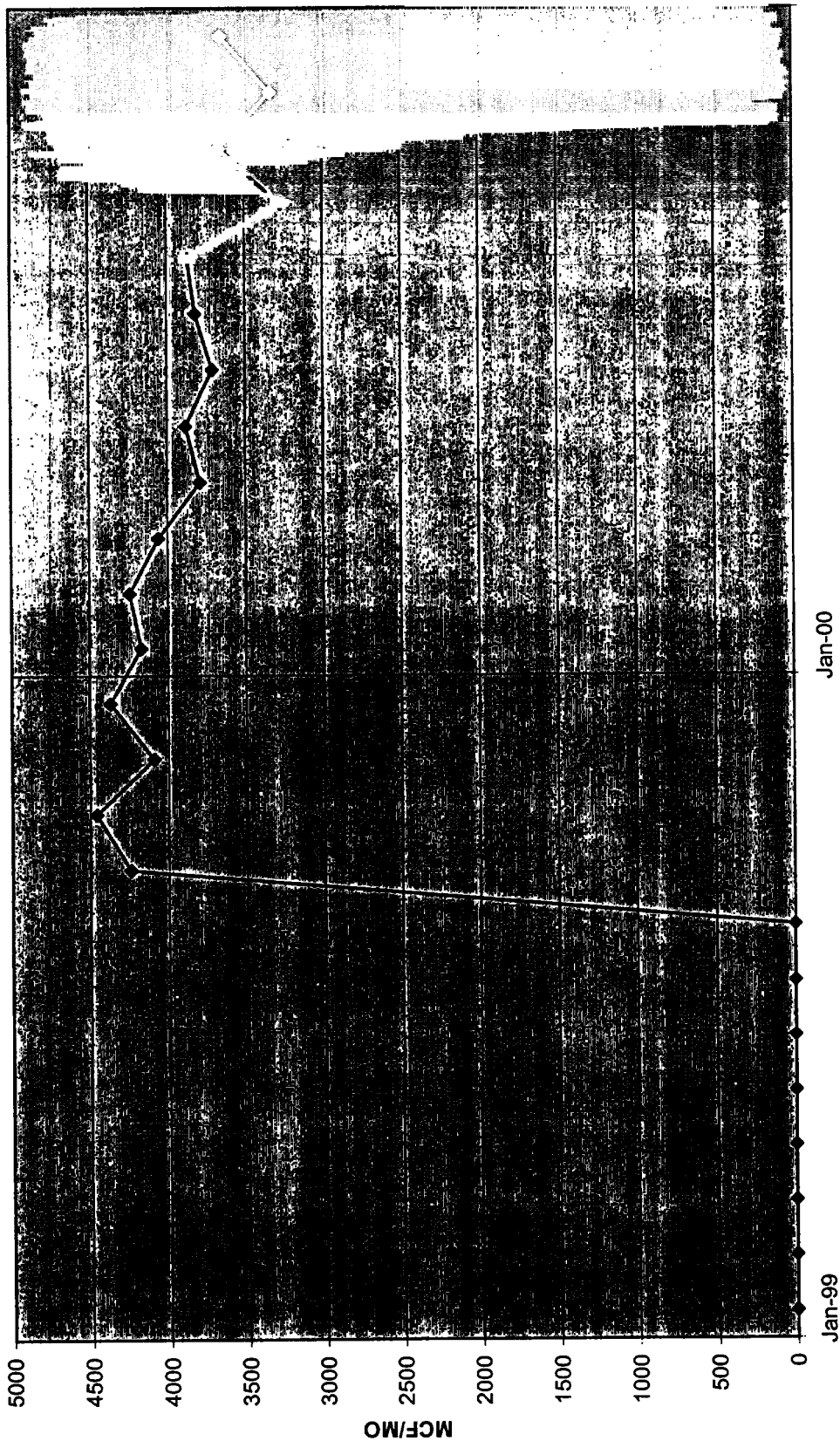
DK CUM = 62 MMCF & 357 BO

FULLERTON FED. 15 #41 GD

GALLUP CUM = 9 MMCF & 1019 BO

A 15 27 11 DAKOTA

SOUTH KUTZ GALLUP



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

PROSPECT: ANGEL PEAK
WELL NAME : FULLERTON FEDERAL 15 #41 GD
COUNTY :San Juan
STATE : New Mexico
LOCATION : A Sec.15 T27N R11W
OPERATOR : MarkWest Resources

AFE #
WELL #: 15 #41 GD
PROPOSED DEPTH: 6724' FT
OBJECTIVE : DAKOTA & GALLUP
DATE : 5/23/01
COMMENCEMENT DATE : 6/25/01

OVERALL PLAN: CLEAN OUT TO PBTD6679' & REPAIR PLUGGED TBG

STEPS

- 1 CHECK FOR FILL & PULL TBG
- 2 CLEAN OUT DK TO PBTD 6679'
- 3 RABBIT TBG IN HOLE & REPLACE ALL BAD JTS
- 4 LAND 2-3/8" TBG @ 6590'
- 5 RETURN WELL TO COMMINGLED GALLUP/DK PRODUCTION

CURRENT DK PRODUCTION (FROM CSG)
ESTIMATED DK UPLIFT:

0 MCF/D
150 MCF/D

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

SUMMARY OF ESTIMATED COSTS

1980	INTANGIBLE WORKOVER COSTS		DAKOTA
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 (5 Days \$3,000/day)		\$15,000
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		\$2,500
	COMPRESSION		\$5,000
217	ROUSTABOUT LABOR		\$500
218	MISC. (bits, float, strippers)		\$500
220	BATTERY CONSTRUCTION		
	HOT OILER		\$4,000
328	CONTINGENCIES (20%)		\$6,100
	SUBTOTAL INTANGIBLE WORKOVER		\$36,600
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		\$37,083
	TOTAL AFE		\$37,083

PMP

APPROVALS:

MARKWEST RESOURCES, INC.

TITLE

MARKWEST RESOURCES, INC.

TITLE

MARKWEST HYDROCARBON, INC.

TITLE