		UNITED STATES ARTMENT OF THE IN REAU OF LAND MANA		- -CEN/ER	· `	
-	Sundry	y Notices and Rep	orts on Well	ls	, i	
. Type of We	ell			1 −3 PM I armington, I	_	Lease Number NM-02861 If Indian, All. Tribe Name
					7.	Unit Agreement 1
. Address & PO Box 42	Phone No. of C 289, Farmington of Well, Footage	OIL & GAS COMPAN Operator n, NM 87499 (505 ge, Sec., T, R, M , T-27-N, R-9-W,) 326-9700			Lodewick 4
	ubmission otice of Intendubsequent Repo:	Recomp rt Pluggi	letion ng Back	Change New Con Non-Rou	struct	tion Fracturing
B. Descril		Alteri — Other Completed Operat ne subject well according			ion to	o Injection
3. Descril	be Proposed or	Other Completed Operat	ng Casing	Convers	ion to	o Injection
is intended to p	be Proposed or	Completed Operat The subject well according to the foregoing in the subject was a subject with the foregoing in the subject was a subject well according to the foregoing in the subject was a subject well according to the subject well according t	ions ions	ed procedure	and we	ellbore diagram.

MMOCD

Lodewick #4 - Pictured Cliffs PLUG AND ABANDONMENT PROCEDURE

990' FNL & 990' FEL NE, Section 19, T27N, R09W Latitude: N36° 33.906', Longitude: W107° 49.356' AIN #5019401 9/22/2003

All cement volumes use 100% excess outside pipe and 50' excess inside pipe. The stabilizing wellbore fluid will be 8.3 ppg, sufficient to balance all exposed formation pressures. All cement will be ASTM Type II, mixed at 15.6 ppg with a 1.18 cf/sx yield.

- 1. Install and test location rig anchors. Prepare blow pit. Comply with all NMOCD, BLM and BROG safety regulations. MOL and RU daylight pulling unit. Conduct safety meeting for all personnel on location. NU relief line and blow down well; kill with water as necessary. ND wellhead and NU BOP. Test BOP.
- 2. PU, tally and prepare 1-1/4 or 1-1/2" IJ tubing workstring. Round-trip 3-1/2" wireline gauge ring to 2274'.
- 3. Plug #1 (Pictured Cliffs perforations and Fruitland top, 2274' 2082'): Set a 3-1/2" wireline CIBP at 2274'. TIH with tubing and tag CIBP. Load casing with water and circulate well clean. Pressure test casing to 500#. If casing does not test, then spot or tag subsequent plugs as necessary. Mix 11 sxs cement and spot a balanced plug inside casing above the CIBP to isolate the Pictured Cliffs perforations and to cover the Fruitland top. PUH to 1700' and reverse circulate the well clean. TOH with tubing.
- 4. Plug #2 (Kirtland and Ojo Alamo tops, 1600' 1305'): Perforate 4 bi-wire squeeze holes at 1600' through both the 3-1/2" and 5-1/2" casings. Attempt to establish rate into squeeze holes if the casing pressure tested. Note: the second casing repair squeeze in 1997 may have fill this annulus. If able to pump into squeeze holes then, mix and pump 46 sxs cement, squeeze 30 sxs outside the 5-1/2" casing from 1600' to 1500' to cover the Kirtland and leave 16 sxs inside casing to cover through the Ojo Alamo top, displace cement to 1200'. WOC and then tag cement. If the casing does not pressure test prior to perforating then set a 3-1/2" cement retainer at 1550' and cement with the tubing.
- 5. Plug #3 (9-5/8" casing shoe, 188' Surface): Perforate 2 bi-wire squeeze holes through 3-1/2" casing at 188'. Establish circulation out the 3-1/2" x 5-1/2" intermediate annulus with water. Mix and pump approximately 55 sxs cement down 3-1/2" casing to circulate good cement out 3-1/2" x 5-1/2" annulus. Shut well in and WOC.

6. ND BOP and cut off casing below surface. Install P&A marker with cement to comply with regulations. RD, move off location, cut off anchors and restore location.

Recommended:

Operations Engineer

Approved: Approved: Approved

Drilling Superintendent

Doug Mussett

Office: 599-4067

Pager: 326-8515

Sundry Required:

Lease Operator: Lonnie Cunningham

Cell: 330-2635 Pager: 324-7692

Specialist:

Johnny Cole

Cell: 320-2521 Pager: 326-8718

Foreman:

Joel Lee

Cell: 320-2490 Pager: 326-8697 Office: 326-6109

Lodewick #4

Current

AIN #5019401

Fulcher-Kutz Pictured Cliffs

NE, Section 19, T-27-N, R-9-W, San Juan County, NM API # 30-045-06417

Today's Date: 9/16/03 Long: W 107° 49.356' / Lat: N 36° 33.906'

Spud: 11/21/50 Completed: 12/13/50

Elevation: 6449' GL

12-1/4" hole

Casing leaks from 934' to 1489'; Sqz'd with 309 cf, circulated to surface, drill out to 1045'; sqz'd again

with 472 cf and drill out to 1341' (1997)

Ojo Alamo @ 1355'

Kirtland @ 1550'

Fruitland @ 2085'

Pictured Cliffs @ 2319'

7-7/8" hole

4-3/4" hole

TD 2487'

8-5/8" 32# Casing set @ 150'

Cmt w/75 sxs (Circulated to Surface)

TOC outside 3-1/2" csg @ 480' ('97 CBL)

WELL HISTORY

Mar '97: Pull 1" tubing, drill to 2423'. Dump 75 sxs sand in bottom of 5-1/2" casing. Isolate holes in casing from 934' to 1489'. Set CR at 888' and squeeze 309 cf cement, circulate 2 bbls to surface. DO to 1341', re-squeeze with 472 cf. DO to 1341' and then drill to new TD 2487'. Set 3-1/2" casing at 2457' and cement. Ran CBL, TOC at 440'. Perf and frac PC zone, blow well and CO. No tubing landed.

TOC outside 5-1/2" @ 1654' (Calc, 75%)

5-1/2" 14# Casing set @ 2318' Cement with 130 sxs

Pictured Cliffs Perforations: 2324' – 2425'

3-1/2" 9.2#&7.7# Casing set @ 2457' Cement with 360 sxs (457 cf)

Lodewick #4

Proposed P&A

AIN #5019401

Fulcher-Kutz Pictured Cliffs

NE, Section 19, T-27-N, R-9-W, San Juan County, NM API # 30-045-06417 Long: W 107° 49.356' / Lat: N 36° 33.906'

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Ojo Alamo @ 1355'

Kirtland @ 1550'

Fruitland @ 2085'

Pictured Cliffs @ 2319'

7-7/8" hole

4-3/4" hole

9-5/8" 36# Casing set @ 138' Cmt w/75 sxs (Circulated to Surface)

Plug #3: 188' - Surface Cement with 55 sxs. Inside 3-1/2" x 5-1/2" Annulus and in 3-1/2" casing.

TOC outside 3-1/2" @ 440' ('97 CBL)

Plug #2: 1600' - 1305' Cement with 46 sxs. 1600' to 1500' outside with 30 sxs and inside from 1600' to 1305' with 16 sxs.

Perforate @ 1600'

TOC outside 5-1/2" @ 1654' (Calc, 75%)

Plug #1: 2274' - 2082' Cement with 11 sxs

Set CIBP at 2774'

5-1/2" 14# Casing set @ 2318' Cement with 130 sxs

Pictured Cliffs Perforations: 2324' - 2425'

3-1/2" 9.2#&7.7# Casing set @ 2457' Cement with 360 sxs (457 cf)

