



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

July 14, 1997

Burlington Resources
P. O. Box 4289
Farmington, NM 87499-4289
Attention: Peggy Bradfield

Administrative Order TX-272

Dear Ms. Bradfield:

Reference is made to your request for an exception to the tubing setting requirements as contained in Division Rule 107 (d) (3) for the below-named wells.

Pursuant to the authority granted me by Rule 107 (d) (4), you are hereby authorized to make tubingless completions in the following wells:

Well Name, Number and Location:

Lodewick Well No. 4, API No. 30-045-06417, Unit A, Section 19, Township 27 North, Range 9 West, NMPM, San Juan County, New Mexico.

Cleveland Well No. 4, API No. 30-045-06328, Unit N, Section 21, Township 27 North, Range 9 West, NMPM, San Juan County, New Mexico.

Fifield Well No. 1, API No. 30-045-60212, Unit D, Section 21, Township 30 North, Range 11 West, NMPM, San Juan County, New Mexico.

Fuller Well No. 1, API No. 30-045-09392, Unit C, Section 22, Township 30 North, Range 11 West, NMPM, San Juan County, New Mexico.

Ross Well No. 1, API No. 30-045-09361, Unit G, Section 23, Township 30 North, Range 11 West, NMPM, San Juan County, New Mexico.

Huerfanito Unit Well No. 62, API No. 30-045-05965, Unit D, Section 11, Township 26 North, Range 9 West, NMPM, San Juan County, New Mexico.

PVZV2005730611

Thompson A Well No. 1, API No. 30-045-05721, Unit P, Section 24, Township 26 North, Range 9 West, NMPM, San Juan County, New Mexico.

Huerfanito Unit Well No. 15, API No. 30-045-06070, Unit A, Section 2, Township 26 North, Range 9 West, NMPM, San Juan County, New Mexico.

Kessler Well No. 2, API No. 30-045-09112, Unit P, Section 25, Township 30 North, Range 11 West, NMPM, San Juan County, New Mexico.

Kessler Well No. 1, API No. 30-045-09388, Unit A, Section 24, Township 30 North, Range 11 West, NMPM, San Juan County, New Mexico.

Brookhaven Com D Well No. 5, API No. 30-045-06150, Unit E, Section 36, Township 27 North, Range 8 West, NMPM, San Juan County, New Mexico.

Canyon Largo Unit Well No. 28, API No. 30-039-06173, Unit D, Section 5, Township 25 North, Range 6 West, NMPM, Rio Arriba County, New Mexico.

Lackey Hubbell Well No. 1, API No. 30-045-07216, Unit D, Section 29, Township 28 North, Range 10 West, NMPM, San Juan County, New Mexico.

Sanchez A Com Well No. 1, API No. 30-045-07480, Unit H, Section 16, Township 28 North, Range 9 West, NMPM, San Juan County, New Mexico.

Hancock Well No. 1, API No. 30-045-07143, Unit L, Section 30, Township 26 North, Range 9 West, NMPM, San Juan County, New Mexico.

Fannin Well No. 1, API No. 30-045-08606, Unit B, Section 7, Township 29 North, Range 10 West, NMPM, San Juan County, New Mexico.

Mangum Well No. 2, API No. 30-045-07806, Unit K, Section 28, Township 29 North, Range 11 West, NMPM, San Juan County, New Mexico.

White Kutz Well No. 2, API No. 30-045-07339, Unit E, Section 21, Township 28 North, Range 10 West, NMPM, San Juan County, New Mexico.

Luthy Well No. 2, API No. 30-045-06025, Unit K, Section 1, Township 26 North, Range 8 West, NMPM, San Juan County, New Mexico.

Morris Well No. 2, API No. 30-045-06651, Unit J, Section 10, Township 27 North,

Range 10 West, NMPM, San Juan County, New Mexico.

Ballard Well No. 8, API No. 30-045-05859, Unit H, Section 15, Township 26 North, Range 9 West, NMPM, San Juan County, New Mexico.

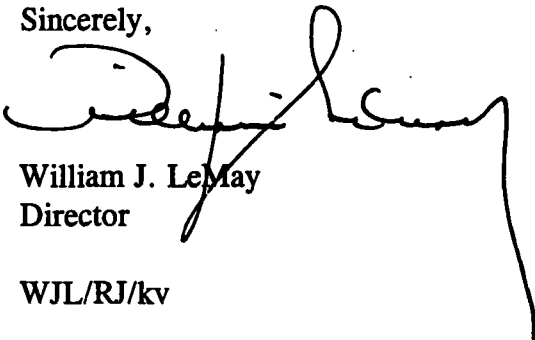
Payne A Well No. 1, API No. 30-045-05818, Unit M, Section 13, Township 26 North, Range 9 West, NMPM, San Juan County, New Mexico.

Conditions:

The operator shall place adequate cement prior to running 3 ½" casing, or alternatively at the time of plugging and abandonment to insure that the Ojo Alamo Formation is completely sealed off with cement. The methodology to be employed shall be approved by the Division's Aztec office prior to commencement of any remedial work.

The Division reserves the right to rescind this authority in the event that waste appears to be resulting therefrom.

Sincerely,



William J. LeMay
Director

WJL/RJ/kv

cc: Oil Conservation Division - Aztec

BURLINGTON RESOURCES

SAN JUAN DIVISION

June 24, 1997

New Mexico Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

Att: Mr. Roy Johnson

Dear Mr. Johnson:

This is an application for variance to Rule 107 Section J. We intend to workover and drill additional hole in the following wells in the Pictured Cliffs formation, run 3 1/2" casing and cement, and run no tubing.

Lodewick #4	Fulcher Kutz Pictured Cliffs	A 19-27-09	30-045-06417
Cleveland #4	Fulcher Kutz Pictured Cliffs	N 21-27-09	30-045-06328
Fifield #1	Aztec Pictured Cliffs	D 21-30-11	30-045-60212
Fuller #1	Aztec Pictured Cliffs	C 22-30-11	30-045-09392
Ross #1	Aztec Pictured Cliffs	G 23-30-11	30-045-09361
Huerfanito Unit #62	Ballard Pictured Cliffs	D 11-26-09	30-045-05965
Thompson A #1	Ballard Pictured Cliffs	P 24-26-09	30-045-05721
Huerfanito Unit #15	Ballard Pictured Cliffs	A 02-26-09	30-045-06070
Kessler #2	Aztec Pictured Cliffs	P 25-30-11	30-045-09112
Kessler #1	Aztec Pictured Cliffs	A 24-30-11	30-045-09388
Brookhaven Com D #5	So. Blanco Pictured Cliffs	E 36-27-08	30-045-06150
Canyon Largo Unit #28	So. Blanco Pictured Cliffs	D 05-25-06	30-039-06173
Lackey Hubbell #1	Fulcher Kutz Pictured Cliffs	D 29-28-10	30-045-07216
Sanchez A Com #1	Aztec Pictured Cliffs	H 16-28-09	30-045-07480
Hancock #1	Aztec Pictured Cliffs	L 30-26-09	30-045-07143
Fannin #1	Aztec Pictured Cliffs	B 07-29-10	30-045-08606
Mangum #2	Fulcher Kutz Pictured Cliffs	K 28-29-11	30-045-07806
White Kutz #2	Fulcher Kutz Pictured Cliffs	E 21-28-10	30-045-07339
Luthy #2	So. Blanco Pictured Cliffs	K 01-26-08	30-045-06025
Morris #2	Fulcher Kutz Pictured Cliffs	J 10-27-10	30-045-06651
Ballard #8	Ballard Pictured Cliffs	H 15-26-09	30-045-05859
Payne A #1	Ballard Pictured Cliffs	M 13-26-09	30-045-05818

These tubingless completions are desirable as they allow Burlington to economically produce reserves from the tight, low pressure Pictured Cliffs formation. Significant cost savings are realized using this method. The 3 1/2" casing string will allow the wells to produce at a higher rate than can be realized through smaller tubulars, and also carry less risk during any subsequent workover operations.

New Mexico Oil Conservation Division
Page Two
June 24, 1997
Tubingless Completion Application

All the listed wells meet the following criteria:

- are in proven fields
- are less than 5000' total depth
- do not have corrosive or pressure problems
- are not dual completions
- will not produce any liquids or condensate (dry gas only)

Attached is a pertinent data sheet and wellbore schematic for each well. Please let me know if you require any additional information for these wells.

Sincerely,

BURLINGTON RESOURCES

A handwritten signature in cursive script, appearing to read "Peggy Bradfield", is written over the printed name.

Peggy Bradfield
Regulatory/Compliance Administrator

xc: NMOCD Aztec District Office

Lodewick #4
Pertinent Data Sheet

Location: 990' FNL & 990' FEL, Unit A, Section 19, T27N, R9W, San Juan County, New Mexico

Latitude: 36°-33.89'

Longitude: 107°-49.40'

Field: Fulcher Kutz PC

Elevation: 6454' GL
6464' KB

TD: 2420'

PBTD: 2420'

Spud Date: 11/21/50

Compl Date: 12/12/50

DP #: 50194A

Lease: (Fed) NM 4230-300

GW: 100%

Initial Potential: Initial Potential = 1,750 MCF/D, SICP = 575 psi

NRI: 70.31551%

Prop#: 012619701

Casing Record:

<u>Hole Size</u>	<u>Csg Size</u>	<u>Wt. & Grade</u>	<u>Depth Set</u>	<u>Cement</u>	<u>Cement (Top)</u>
12-1/4"	8-5/8"	32#	150'	75 sx.	Circ Cmt
e7-7/8"	5-1/2"	14#	2328'	130 sx.	1563' @ 75% Eff.
e4-3/4"	3-1/2"	7.7# WC-70	2459	360 sx.	Circ Cmt

Cement Record:

- Cemented with 360 sx. 50/50 Class "B" Pozmix w/2% gel, 6.5 ppg gilsonite, 0.2% Halad-344, 3% KCL

Formation Tops:

Ojo Alamo:	1383'
Kirtland Shale:	1540'
Fruitland:	2132'
Pictured Cliffs:	2320'

Logging Record:

Stimulation: 269 bbl of 25# linear gel, 396,000 scf N2, 95,000# 20/40 Arizona sand @ 43 BPM

Workover History: None

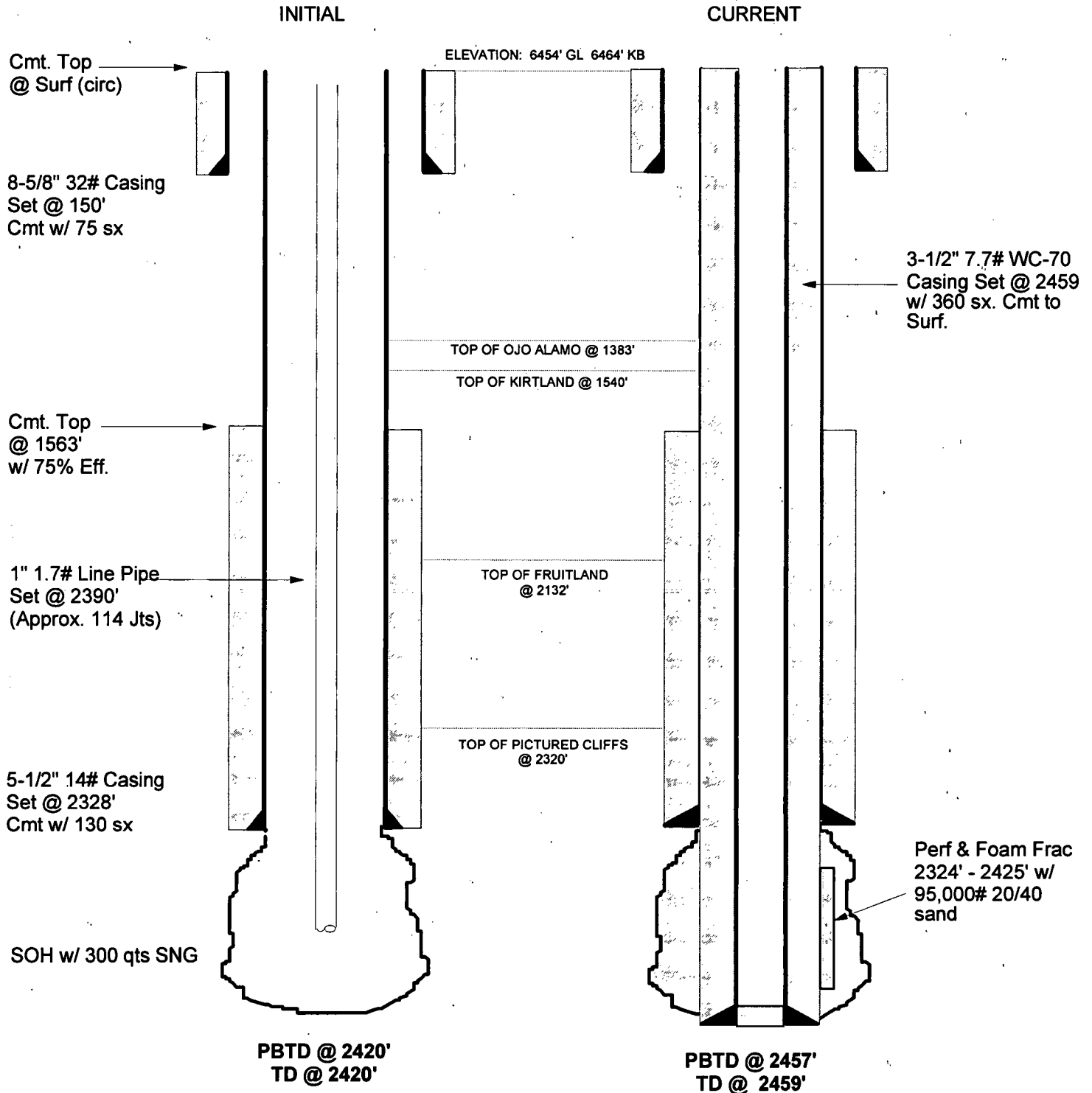
Production History: 8/96 PC capacity: 16 MCF/D. 8/96 PC cum: 875 MMCF.

Pipeline: EPNG

Lodewick #4

Section 19A, T-27-N, R-9-W
San Juan County, NM

FULCHER KUTZ PICTURED CLIFFS WELLBORE SCHEMATIC



Cleveland #4
Pertinent Data Sheet

Location: 990' FSL & 1650' FWL, Unit N, Section 21, T27N, R9W, San Juan County, New Mexico

Latitude: 36°-33.35'

Longitude: 107°-47.79'

Field: Fulcher Kutz PC

Elevation: 6253' GL
6263' KB

TD: 2176'

PBTD: 2176'

Spud Date: 6/15/55

Compl Date: 8/20/55

DP #: 49322A

Lease: (Fed) NM 4511

GW: 100%

NRI: 85%

Prop#: 012632900

Initial Potential: Initial Potential = 2,774 MCF/D, SICP = 632 psi

Casing Record:

<u>Hole Size</u>	<u>Csg Size</u>	<u>Wt. & Grade</u>	<u>Depth Set</u>	<u>Cement</u>	<u>Cement (Top)</u>
e12-1/4"	8-5/8"	24# J-55	105'	80 sx.	Circ Cmt
e7-7/8"	5-1/2"	14# J-55	2110'	100 sx.	1521' @ 75% Eff.
e4-3/4"	3-1/2"	7.7# WC-70	2267'	218 sx.	Circ Cmt

Cement Record:

- Cemented with 218 sx. of 50/50 Class "B" Pozmix w/ 2% gel, 6-1/2 ppg gilsonite, 0.3% KCL, 0.2% Halad-344

Formation Tops:

Ojo Alamo:	1145'
Kirtland Shale:	1310'
Fruitland:	1885'
Pictured Cliffs:	2085'

Logging Record:

Stimulation: 282 bbl 25# linear gel, 429,000 scf N2, 95,000# 20/40 Arizona sand @ 42 BPM

Workover History: None

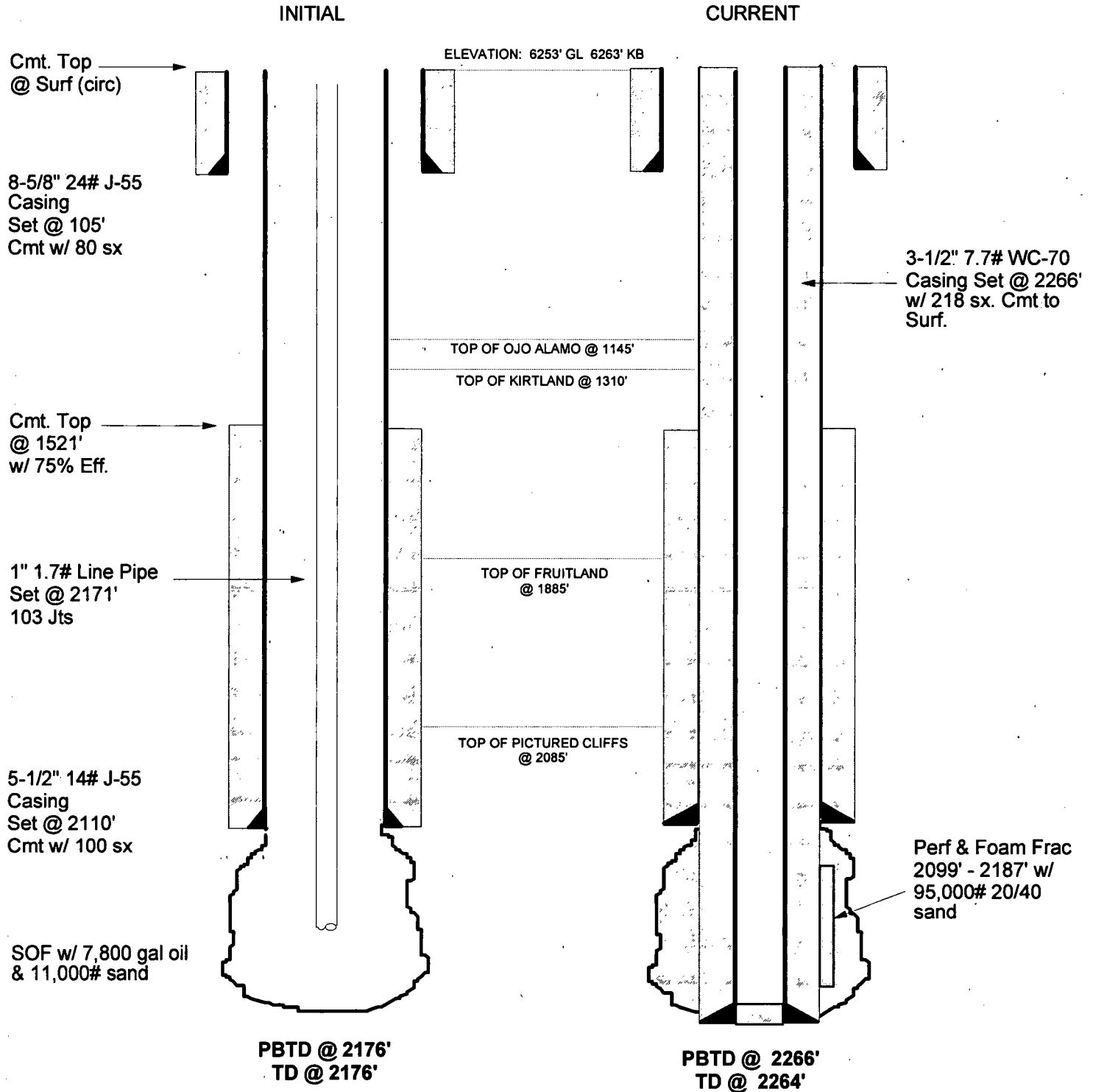
Production History: 8/96 PC capacity: 14 MCF/D. 8/96 PC cum: 617 MMCF.

Pipeline: EPNG

Cleveland #4

Section 21N, T-27-N, R-9-W
San Juan County, NM

FULCHER KUTZ PICTURED CLIFFS WELLBORE SCHEMATIC



Fifield #1
Pertinent Data Sheet

Location: 990' FNL & 1150' FWL, Unit D, Section 21, T30N, R11W, San Juan County, New Mexico

Latitude: 36°-48.14'

Longitude: 108°-.029'

Field: Aztec PC

Elevation: 5731' GL
5741' KB

TD: 2178'

PBTD: 2178'

Spud Date: 3/26/54

Compl Date: 4/30/54

DP #: 48928A

Lease: (Private) NM 701-300

GWl: 100%

NRI: 85%

Prop#: 012648300

Initial Potential: Initial Potential = 1,527 MCF/D, SICP = 647 psi

Casing Record:

<u>Hole Size</u>	<u>Csg Size</u>	<u>Wt. & Grade</u>	<u>Depth Set</u>	<u>Cement</u>	<u>Cement (Top)</u>
13-3/4"	9-5/8"	36# J-55	119'	100 sx.	Circ Cmt
8-3/4"	5-1/2"	15.5# J-55	2112'	150 sx.	1410' (TS)
4-3/4"	3-1/2"	7.7# WC-70	2240'	185 sx.	Circ Cmt

Cement Record:

- Cemented w/ 185 sx. 50/50 Class "B" Pozmix w/2% gel, 6.5 pps gilsonite, 0.2% Halad-344, 3% KCL

Formation Tops:

Ojo Alamo:	1250'
Kirtland Shale:	1283'
Fruitland:	1777'
Pictured Cliffs:	2112'

Logging Record: ES, TS, ML

Stimulation: 236 bbl 25# linear gel, 343,153 scf N2, 78,000 lb. 20/40 Arizona sand @ 42 BPM

Workover History: None

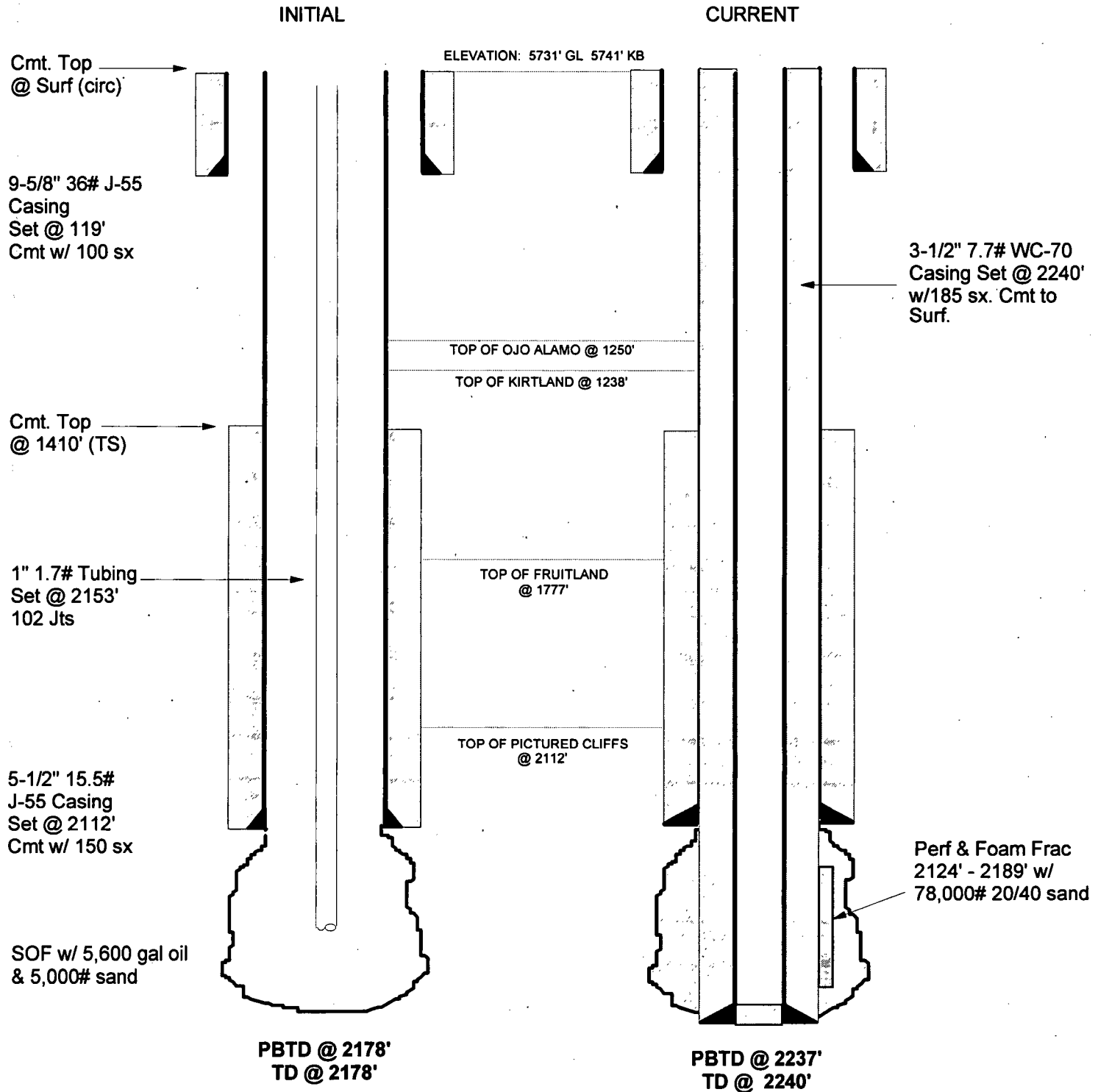
Production History: 8/96 PC capacity: 9 MCF/D. 8/96 PC cum: 538 MMCF.

Pipeline: EPNG

Fifield #1

Section 21D, T-30-N, R-11-W
San Juan County, NM

AZTEC PICTURED CLIFFS WELLBORE SCHEMATIC



Fuller #1
Pertinent Data Sheet

Location: 990' FNL & 1650' FWL, Unit C, Section 22, T30N, R11W, San Juan County, New Mexico

Latitude: 36°-48.14' **Longitude:** 107°-58.89'

Field: Aztec PC **Elevation:** 5791' DF
5801' KB **TD:** 2239'
PBTD: 2239'

Spud Date: 4/20/53 **Compl Date:** 6/11/53 **DP #:** 48595A
Lease: (Private) NM 711-01
GWl: 100%
NRI: 81.25%
Prop#: 012594800

Initial Potential: Initial Potential = 1,686 MCF/D, SICP = 655 psi

Casing Record:

<u>Hole Size</u>	<u>Csg Size</u>	<u>Wt. & Grade</u>	<u>Depth Set</u>	<u>Cement</u>	<u>Cement (Top)</u>
13-3/4"	9-5/8"	25# Armco	131'	100 sx.	Circ Cmt
7-7/8"	5-1/2"	15.5# J-55	2187'	150 sx.	1400' (TS)
4-3/4"	3-1/2"	7.7# WC-70	2240'	180sx.	Circ Cmt

Cement Record:

- Cemented w/ 180 sx. 50/50 Class "B" Pozmix w/ 2% gel, 6.5 pps gilsonite, 0.2% Halad-344, 3% KCL

Formation Tops:

Ojo Alamo:	800'
Kirtland Shale:	905'
Fruitland:	1825'
Pictured Cliffs:	2185'

Logging Record: Geoelectric, TS

Stimulation: 264 bbl of 25# linear gel, 390,135 scf N2, 82,000# 20/40 Arizona sand @ 41 BPM

Workover History: 10/95: MIRU. TOOH w/ 1" tubing. TIH with new 1-1/4" tubing. Return to prod.

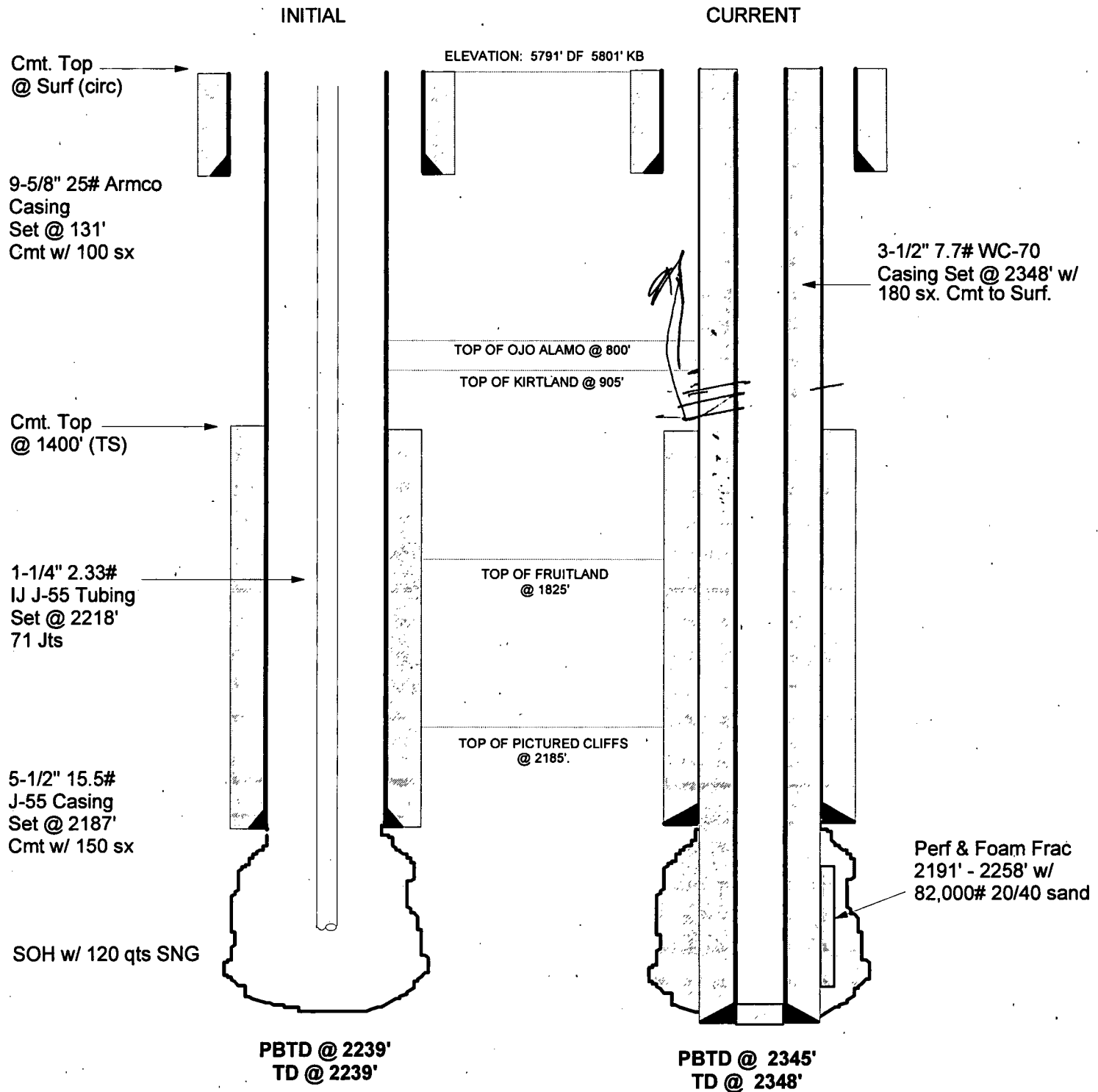
Production History: 8/96 PC capacity: 21 MCF/D. 8/96 PC cum: 751 MMCF.

Pipeline: EPNG

Fuller #1

Section 22C, T-30-N, R-11-W
San Juan County, NM

AZTEC PICTURED CLIFFS WELLBORE SCHEMATIC



Ross #1
Pertinent Data Sheet

Location: 1625' FNL & 1650' FEL, Unit G, Section 23, T30N, R11W, San Juan County, New Mexico

Latitude: 36°-48.02'

Longitude: 107°-57.40'

Field: Aztec PC

Elevation: 6037' GL
6047' KB

TD: 2535'

PBTD: 2535'

Spud Date: 4/9/55

Compl Date: 6/24/55

DP #: 49156A

Lease: (Fed) NM 742

GWI: 100%

Initial Potential: Initial Potential = 5,548 MCF/D, SICP = 679 psi

NRI: 81.25%

Prop#: 072021300

Casing Record:

<u>Hole Size</u>	<u>Csg Size</u>	<u>Wt. & Grade</u>	<u>Depth Set</u>	<u>Cement</u>	<u>Cement (Top)</u>
e13-3/4"	9-5/8"	25# Armco	130'	100 sx.	Circ Cmt
e7-7/8"	5-1/2"	15.5# J-55	2471'	150 sx.	1790' (TS)
4-3/4"	3-1/2"	7.7# WC-70	2606'	240 sx.	Circ Cmt

Cement Record:

- Cemented w/ 240 sx. Class "B" Pozmix w/ 2% gel, 6.5 pps gilsonite, 0.2% Halad-344, 3% KCL

Formation Tops:

Ojo Alamo:	1105'
Kirtland Shale:	1220'
Fruitland:	2155'
Pictured Cliffs:	2469'

Logging Record: ES, ML, TS

Stimulation: 212 bbl 25# linear gel, 314,000 scf N2, 80,000# 20/40 Arizona sand @ 41 BPM

Workover History: 7/95: MIRU. TOOH w/ 1" tubing. Rerun new 1-1/4" tubing. Return to prod.

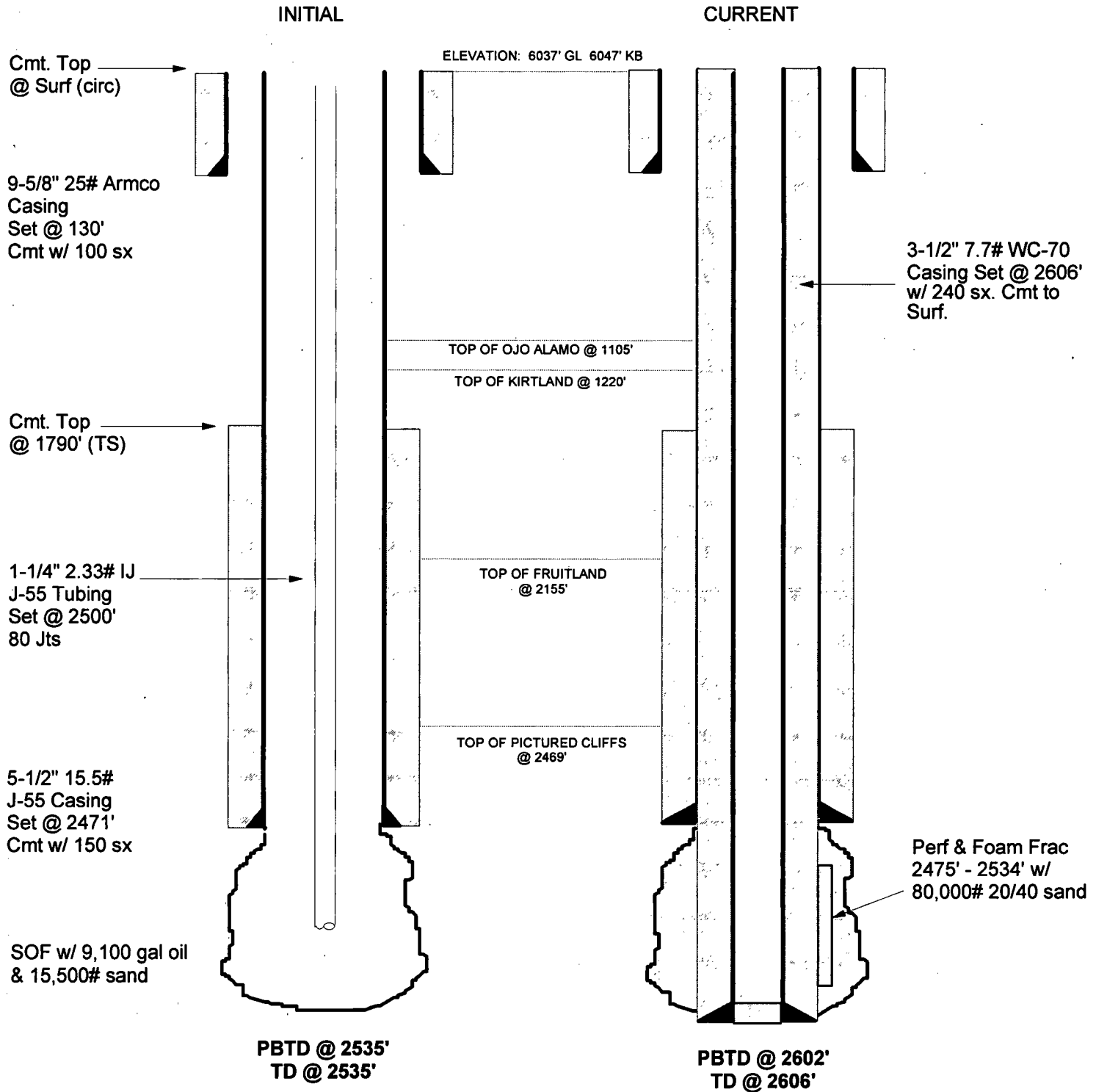
Production History: 8/96 PC capacity: 55 MCF/D. 8/96 PC cum: 1,008 MMCF.

Pipeline: EPNG

Ross #1

Section 23G, T-30-N, R-11-W
San Juan County, NM

AZTEC PICTURED CLIFFS WELLBORE SCHEMATIC



Huerfanito Unit #62
Pertinent Data Sheet

Location: 990' FNL & 1190' FWL, Unit D, Section 11, T26N, R9W, San Juan County, New Mexico

Latitude: 36°-30.43'

Longitude: 107°-45.77'

Field: Ballard PC

Elevation: 6201' GL
6211' KB

TD: 1997'

PBTD: 1997'

Spud Date: 11/8/54

Compl Date: 11/30/54

DP #: 49062A

Lease: (Fed) HTO PC

GWl: 84.737693%

NRI: 71.817090%

Prop#: 007970800

Initial Potential: Initial Potential = 615 MCF/D, SICP = 626 psi

Casing Record:

<u>Hole Size</u>	<u>Csg Size</u>	<u>Wt. & Grade</u>	<u>Depth Set</u>	<u>Cement</u>	<u>Cement (Top)</u>
12-1/4"	8-5/8"	24# CF&I J-55	104'	100 sx.	Circ Cmt
7-7/8"	5-1/2"	14# CF&I J-55	1932'	100 sx.	1352' @ 75% Eff.
4-3/4"	3-1/2"	7.7# WC-70	2077'	241 sx.	Circ Cmt

Cement Record:

- Cemented w/ 241 sx. Class "B" Pozmix, 2% gel, 6.5 pps gilsonite, 0.2% Halad-344, 3% KCL

Formation Tops:

Ojo Alamo:	1049'
Kirtland Shale:	1234'
Fruitland:	1736'
Pictured Cliffs:	1927'

Logging Record:

Stimulation: 303 bbl. 25# linear gel, 327,000 scf N2, 95,000 # 20/40 Arizona sand @ 40 BPM

Workover History: None

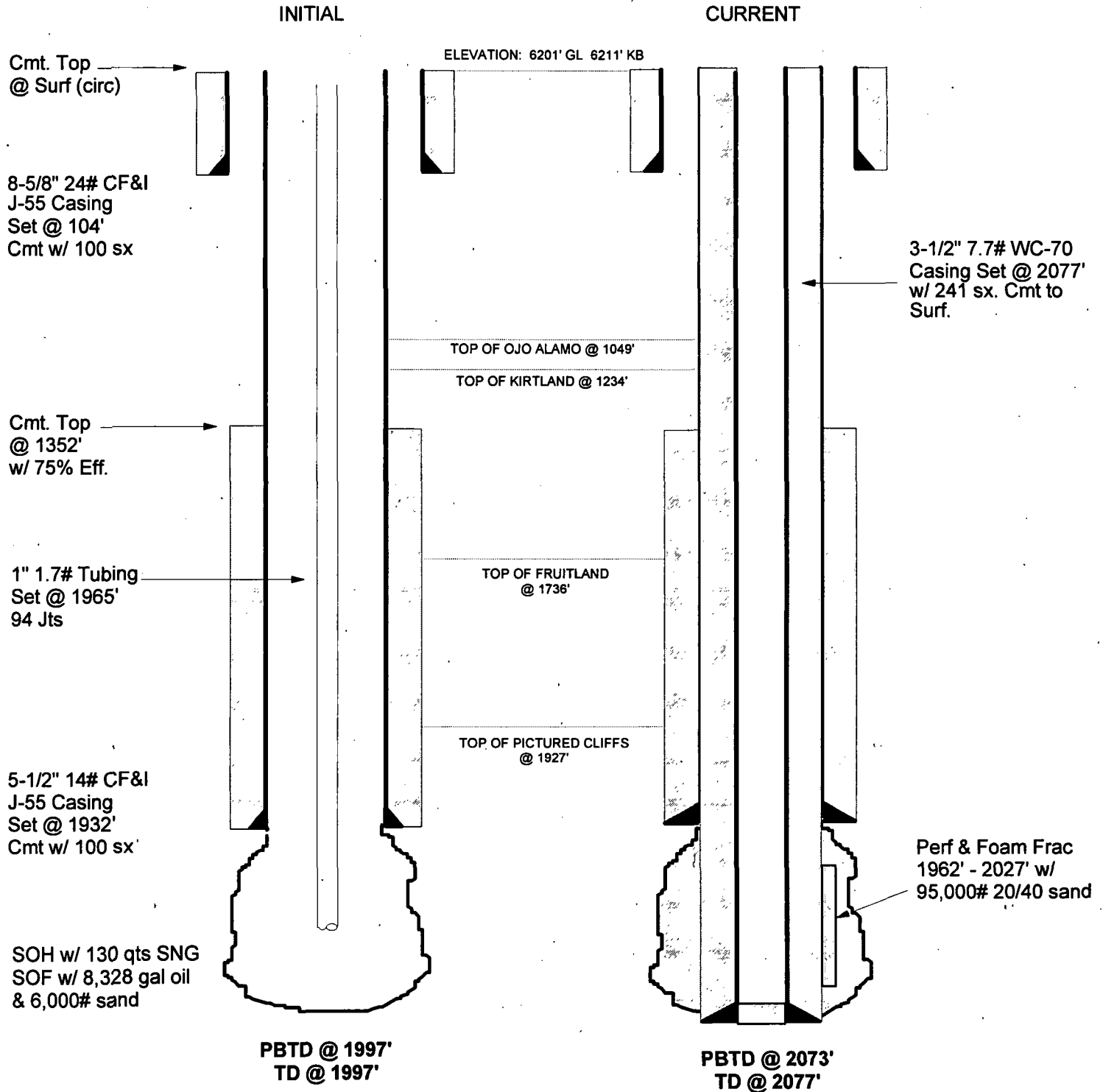
Production History: 8/96 PC capacity: 31 MCF/D. 8/96 PC cum: 726 MMCF.

Pipeline: EPNG

Huerfanito Unit #62

Section 11D, T-26-N, R-9-W
San Juan County, NM

BALLARD PICTURED CLIFFS WELLBORE SCHEMATIC



Thompson A #1
Pertinent Data Sheet

Location: 845' FSL & 1100' FEL, Unit P, Section 24, T26N, R9W, San Juan County, New Mexico

Latitude: 36°-28.12' **Longitude:** 107°-44.12'

Field: Ballard PC **Elevation:** 6248' GL
6258' KB **TD:** 1990'
PBTD: 1980'

Spud Date: 8/17/55 **Compl Date:** 9/28/55 **DP #:** 50997A
Lease: (Private) NM 4111-300
GW: 67.5%
NRI: 50.70937%
Prop#: 012615600

Initial Potential: Initial Potential = 13,153 MCF/D, SICP = 627 psi

Casing Record:

<u>Hole Size</u>	<u>Csg Size</u>	<u>Wt. & Grade</u>	<u>Depth Set</u>	<u>Cement</u>	<u>Cement (Top)</u>
13-3/4"	9-5/8"	25# Armco	133'	100 sx.	Circ Cmt
8-3/4"	5-1/2"	15.5# J-55	1904'	150 sx.	1298' @ 75% Eff.
e4-3/4"	3-1/2"	7.7# WC-70	2070'	255 sx.	Circ Cmt

Cement Record:

- Cemented w/ 255 sx. Class "B" 50/50 Pozmix w/ 2% gel, 6.5 pps gilsonite, 0.2% Halad-344, 3% KCL

Formation Tops:

Ojo Alamo:	1121'
Kirtland Shale:	1225'
Fruitland:	1638'
Pictured Cliffs:	1900'

Logging Record: ES

Stimulation: 295 bbl of 25# linear gel, 387,000 scf N2, 85,000 lb. 20/40 Arizona sand @ 40 BPM

Workover History: None

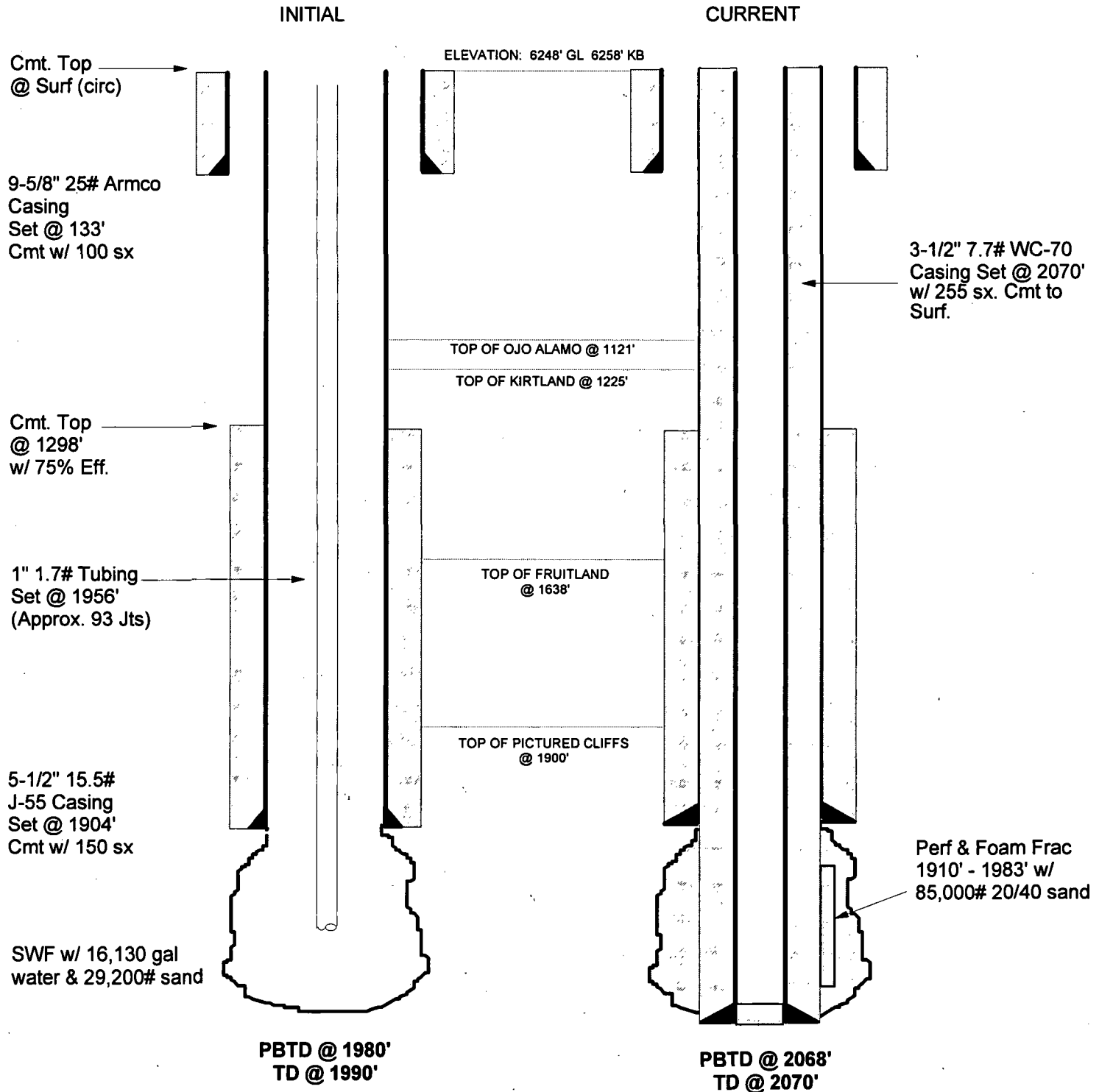
Production History: 8/96 PC capacity: 47 MCF/D. 8/96 PC cum: 2,489 MMCF.

Pipeline: EPNG

Thompson A #1

Section 24P, T-26-N, R-9-W
San Juan County, NM

BALLARD PICTURED CLIFFS WELLBORE SCHEMATIC



Huerfanito Unit #15
Pertinent Data Sheet

Location: 990' FNL & 990' FEL, Unit A, Section 2, T26N, R9W, San Juan County, New Mexico

Latitude: 36°-31.29

Longitude: 107°-45.15

Field: Ballard PC

Elevation: 6277' GL
6287' KB

TD: 2133'

PBTD: 2133'

Spud Date: 6/24/55

Compl Date: 7/15/55

DP #: 49314A

Lease: (State) NM 4525

GWl: 84.737693%

NRI: 71.817090%

Prop#: 007970800

Initial Potential: Initial Potential = 910 MCF/D, SICP = 656 psi

Casing Record:

<u>Hole Size</u>	<u>Csg Size</u>	<u>Wt. & Grade</u>	<u>Depth Set</u>	<u>Cement</u>	<u>Cement (Top)</u>
11"	8-5/8"	24# J-55	101'	80 sx.	Circ Cmt
7-7/8"	5-1/2"	14# J-55	2043'	100 sx.	1454' @ 75% Eff.
e4-3/4"	3-1/2"	7.7# WC-70	2189'	150 sx.	Circ Cmt.

Cement Record:

- Cemented w/ 150 sx. Class "B" 50/50 Pozmix w/ 2% gel, 6.5 pps gilsonite, 0.2% Halad-344, 3% KCL

Formation Tops:

Ojo Alamo:	1192'
Kirtland Shale:	1340'
Fruitland:	1840'
Pictured Cliffs:	2045'

Logging Record:

Stimulation: 254 bbl of 25 3 linear gel, 325,000 scf N2, 100,000 # 20/40 Arizona sand @ 38 BPM

Workover History: None

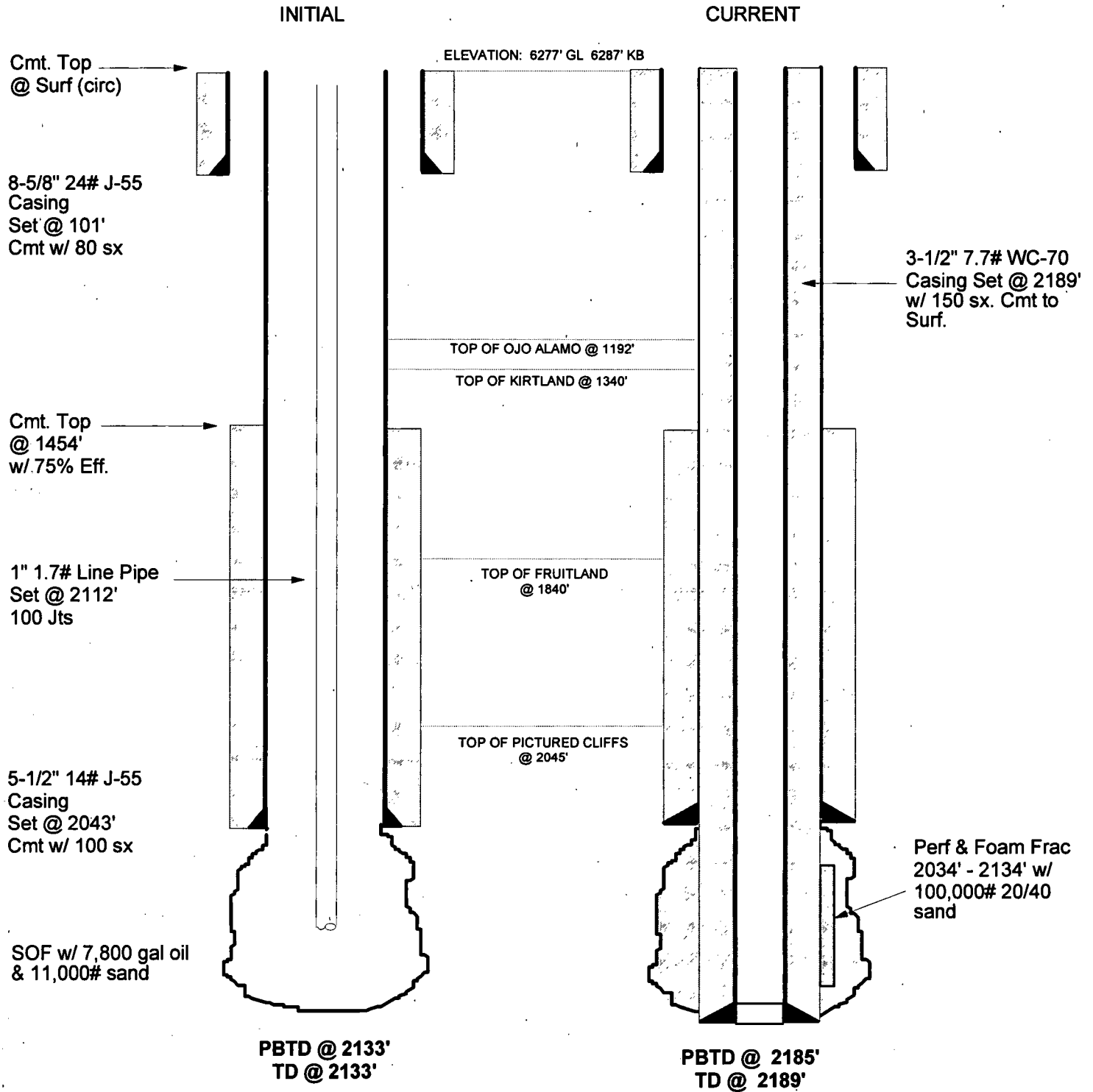
Production History: 8/96 PC capacity: 26 MCF/D. 8/96 PC cum: 859 MMCF.

Pipeline: EPNG

Huerfanito Unit #15

Section 2A, T-26-N, R-9-W
San Juan County, NM

BALLARD PICTURED CLIFFS WELLBORE SCHEMATIC



Kessler #2
Pertinent Data Sheet

Location: 990' FSL & 990' FEL, Unit P, Section 25, T30N, R11W, San Juan County, New Mexico

Latitude: 36°-46.70

Longitude: 107°-56.20

Field: Aztec PC

Elevation: 5987' GL
5997' KB

TD: 2430'
PBTD: 2430'

Spud Date: 3/24/53

Compl Date: 10/12/53

DP #: 48953A

Lease: (Fed) NM 716-300

GWl: 100%

Initial Potential: Initial Potential = 2,420 MCF/D, SICP = 676 psi

NRI: 85%

Prop#: 012595300

Casing Record:

<u>Hole Size</u>	<u>Csg Size</u>	<u>Wt. & Grade</u>	<u>Depth Set</u>	<u>Cement</u>	<u>Cement (Top)</u>
e13-3/4"	9-5/8"	25# Armco	125'	112 sx.	Circ Cmt
e7-7/8"	5-1/2"	17# J-55	2387'	150 sx.	1725' (TS)
e4-3/4"	3-1/2"	7.7# WC-70	2530'	195 sx.	Circ Cmt

Cement Record:

- Cemented w/ 195 sx. Class "B" 50/50 Pozmix, 2% gel, 6.5 pps gilsonite, 0.2% Halad-344, 3% KCL

Formation Tops:

Ojo Alamo:	1055'
Kirtland Shale:	1178'
Fruitland:	1969'
Pictured Cliffs:	2397'

Logging Record: Es, Ts

Stimulation: 173 bbl. of 25# linear gel, 250,500 scf N2, 60,000# 20/40 Arizona sand @ 42 BPM

Workover History: 8/95: MIRU. TOOH w/ 1" tubing. Left 6' of 1" in hole. TIH w/ new 1-1/4" tubing. Return to production.

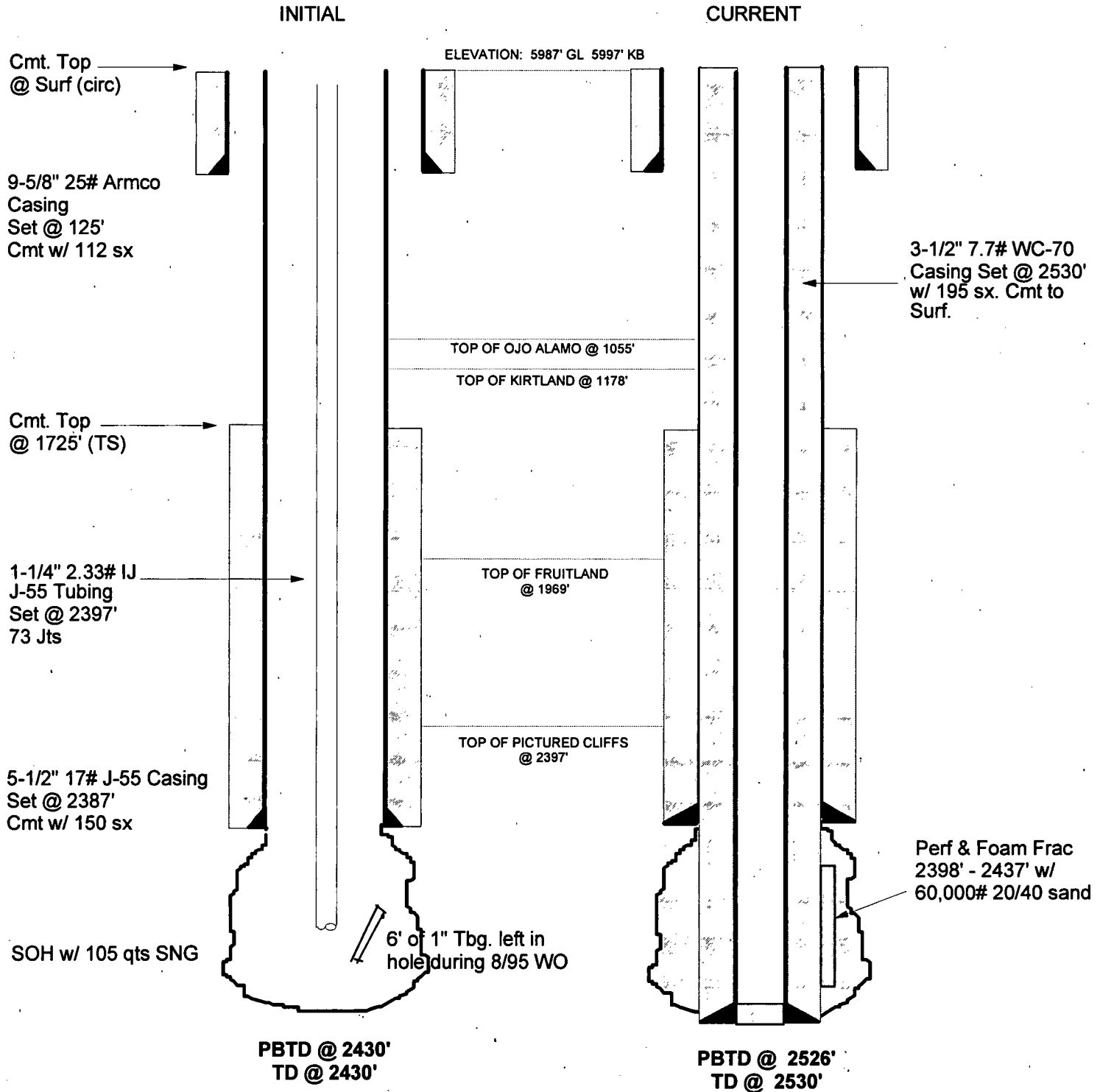
Production History: 8/96 PC capacity: 31 MCF/D. 8/96 PC cum: 781 MMCF.

Pipeline: EPNG

Kessler #2

Section 25P, T-30-N, R-11-W
San Juan County, NM

AZTEC PICTURED CLIFFS WELLBORE SCHEMATIC



Kessler #1
Pertinent Data Sheet

Location: 990' FNL & 990' FEL, Unit A, Section 24, T30N, R11W, San Juan County, New Mexico

Latitude: 36° - 48.06' **Longitude:** 107° - 56.12'

Field: Aztec PC **Elevation:** 6280' DF
6281' KB **TD:** 2798'
PBTD: 2798'

Spud Date: 11/7/51 **Compl Date:** 12/11/51 **DP #:** 48722A
Lease: Fed: NM 716-01
GWI: 100%
NRI: 85%
Prop#: 072018100

Initial Potential: Initial Potential = 2,930 MCF/D, SICP=655 psi

Casing Record:

<u>Hole Size</u>	<u>Csg Size</u>	<u>Wt. & Grade</u>	<u>Depth Set</u>	<u>Cement</u>	<u>Cement (Top)</u>
e12-1/4"	9-5/8"	Larkin	105'	75 sx.	Circ Cmt
e8-3/4"	7"	20#	2730'	200 sx.	1193' @ 75% Eff.
e6-1/4"	3-1/2"	7.7# WC-70	2863'	432 sx.	Circ Cmt

Cement Record:

- Cemented w/ 432 sx Class "B" 50/50 Pozmix, 2% gel, 6.5 pps gilsonite, 0.2% Halad-344, 3% KCL

Formation Tops:

Ojo Alamo:	1382'
Kirtland Shale:	1483'
Fruitland:	2368'
Pictured Cliffs:	2727'

Logging Record:

Workover History: 9/95: Pull 1" Tbg. Replace w/ new 1 1/4" Tbg.

Production History: 7/96 PC capacity: 0 MCF/D. 7/96 PC cum: 1,381MMCF.

Pipeline: EPNG

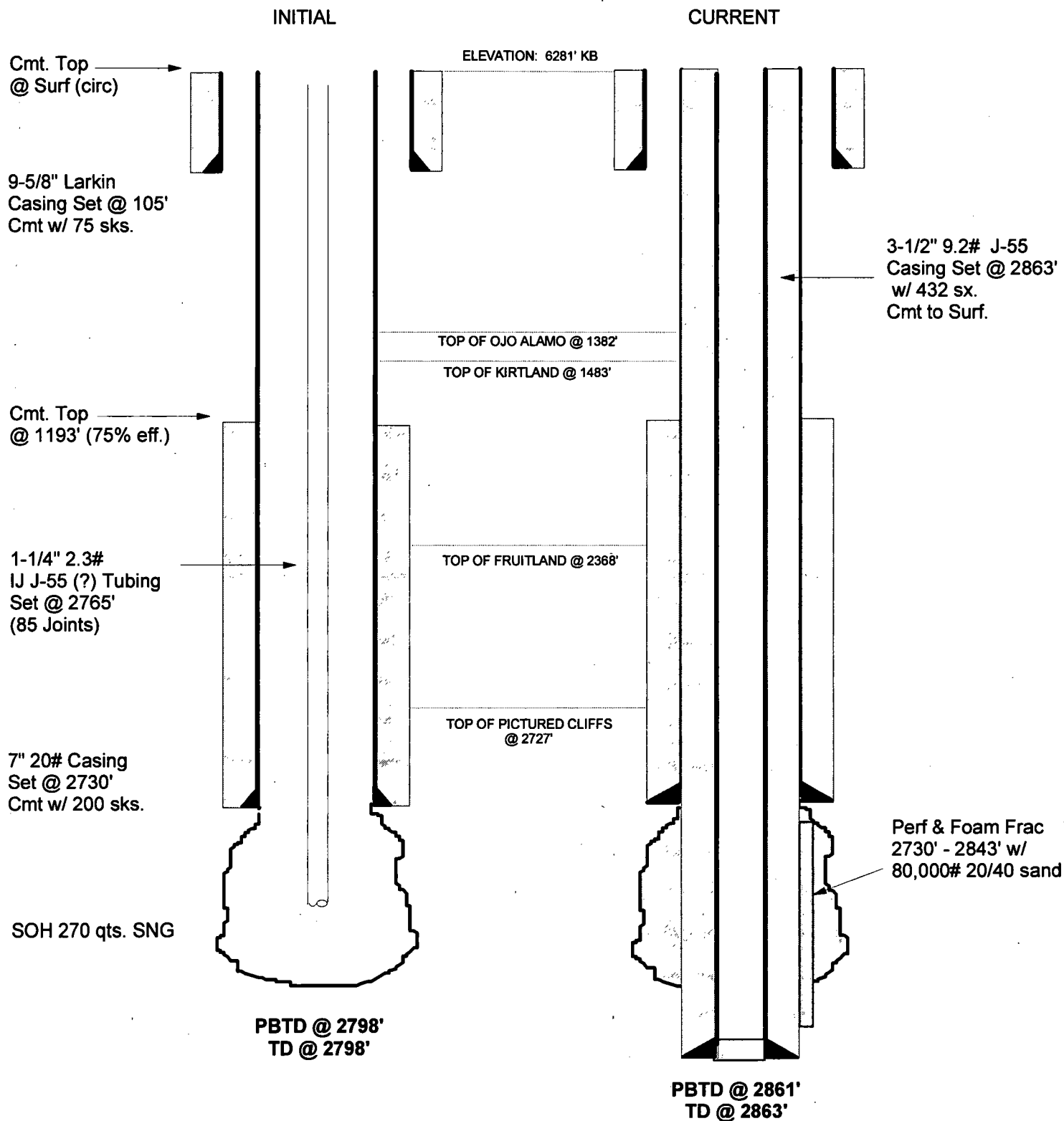
Workover Record: 12/96

- Perforated the Pictured Cliffs @ 2730', 2736', 2742', 2748', 2754', 2760', 2766', 2772', 2778', 2784', 2790', 2796', 2802'.
- Stimulated the Pictured Cliffs with 367,180 scf N₂, 386 bbl. of 25# linear gel and 80,000 lb. of 20/40 Arizona sand @ 48 BPM.

Kessler #1

Section 24A, T-30-N, R-11-W
San Juan County, NM

AZTEC PICTURED CLIFFS WELLBORE SCHEMATIC



Brookhaven Com D #5
Pertinent Data Sheet

Location: 1650' FNL & 890' FWL, Unit E, Section 36, T27N, R8W, San Juan County, New Mexico

Latitude: 36°-31.95' **Longitude:** 107°-38.41'

Field: South Blanco PC **Elevation:** 6039' GL
6050' KB **TD:** 2195'
PBTD: 2195'

Spud Date: 11/9/53 **Compl Date:** 11/26/53 **DP #:** 48823A
Lease: (State) NM 391

Initial Potential: Initial Potential = 4,545 MCF/D, SICP = 867 psi **GWI:** 51.32446%
NRI: 44.13506%
Prop#: 012582800

Casing Record:

<u>Hole Size</u>	<u>Csg Size</u>	<u>Wt. & Grade</u>	<u>Depth Set</u>	<u>Cement</u>	<u>Cement (Top)</u>
13-3/4"	9-5/8"	25.4# Armco	134'	100 sx.	Circ Cmt
7-7/8"	5-1/2"	15.5# J-55	2150'	150 sx.	1250' (TS)
e4-3/4"	3-1/2"	7.7# WC-70	2297'	178 sx.	Circ Cmt

Cement Record:

- Cemented w/ 178 sx. Class "B" 50/50 Pozmix w/ 2% gel, 6.5 pps gilsonite, 0.2% Halad-344, 3% KCL

Formation Tops:

Ojo Alamo:	1198'
Kirtland Shale:	1467'
Fruitland:	1950'
Pictured Cliffs:	2149'

Logging Record: ES & ML 134'-2161

Stimulation: 252 bbl. of 25# linear gel, 320,000 scf N2, 100,000 # 20/40 Arizona sand @ 42.5 BPM

Workover History: None

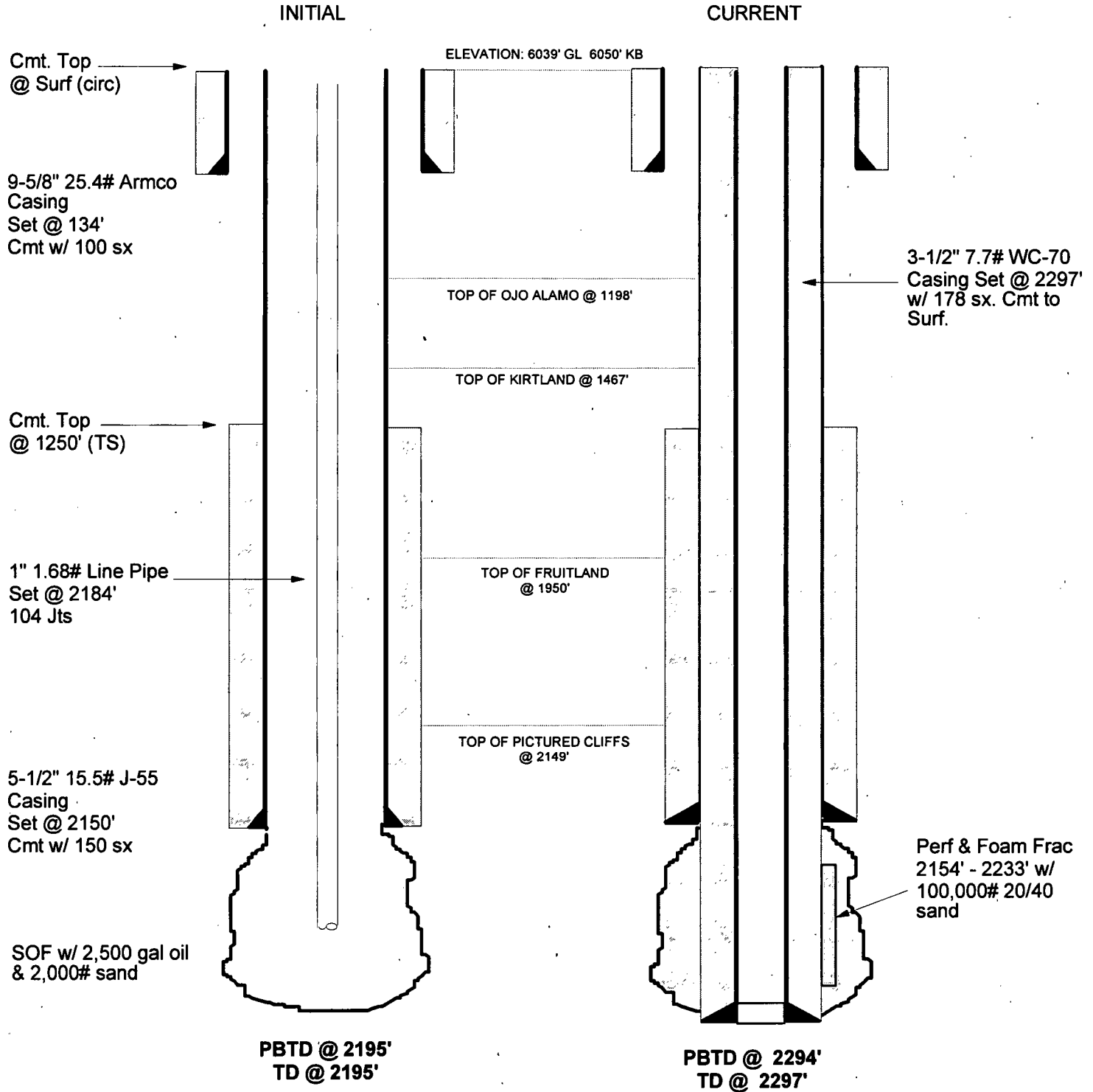
Production History: 8/96 PC capacity: 36 MCF/D. 8/96 PC cum: 2,431 MMCF.

Pipeline: EPNG

Brookhaven Com D #5

Section 36E, T-27-N, R-8-W
San Juan County, NM

SOUTH BLANCO PICTURED CLIFFS WELLBORE SCHEMATIC



Canyon Largo Unit # 28
Pertinent Data Sheet

Location: 990' FNL & 1115' FWL, Unit D, Section 5, T25N, R6W, Rio Arriba County, New Mexico

Latitude: 36-25-57

Longitude: 107-29-43

Field: South Blanco PC

Elevation: 6741' GL
6751' KB

TD: 2855'
PBTD: 2855'

Spud Date: 4/22/55

Compl Date: 5/9/55

DP #: 49273A

Lease: (Fed) NM 6210-01

GWl: 89.23456%

Initial Potential: Initial Potential = 4,666 MCF/D, SICP = 830 psi

NRI: 73.89781%

Prop#: 007972000

Casing Record:

<u>Hole Size</u>	<u>Csg Size</u>	<u>Wt. & Grade</u>	<u>Depth Set</u>	<u>Cement</u>	<u>Cement (Top)</u>
12-1/4"	9-5/8"	32# H-40	248'	150 sx.	Circ Cmt
8-3/4"	7"	20# J-55	2810'	150 sx.	1792' @ 75% Eff.
6-1/8"	3-1/2"	7.7# WC-70	2957'	478 sx.	Circ Cmt

Cement Record:

- Cemented w/ 478 sx. Class "B" 50/50 Pozmix w/ 2% gel, 6.5 pps gilsonite, 0.2% Halad-344, 3% KCL

Formation Tops:

Ojo Alamo:	2240'
Kirtland Shale:	2337'
Fruitland:	2565'
Pictured Cliffs:	2807'

Logging Record:

Stimulation: 198 bbl of 25# linear gel, 286,000 scf N2, 68,000 # 20/40 Arizona sand @ 43 BPM

Workover History: 6/73: MIRU. TOOH with 2-7/8" tbg. Rerun 1-1/4" tbg. Return to production.

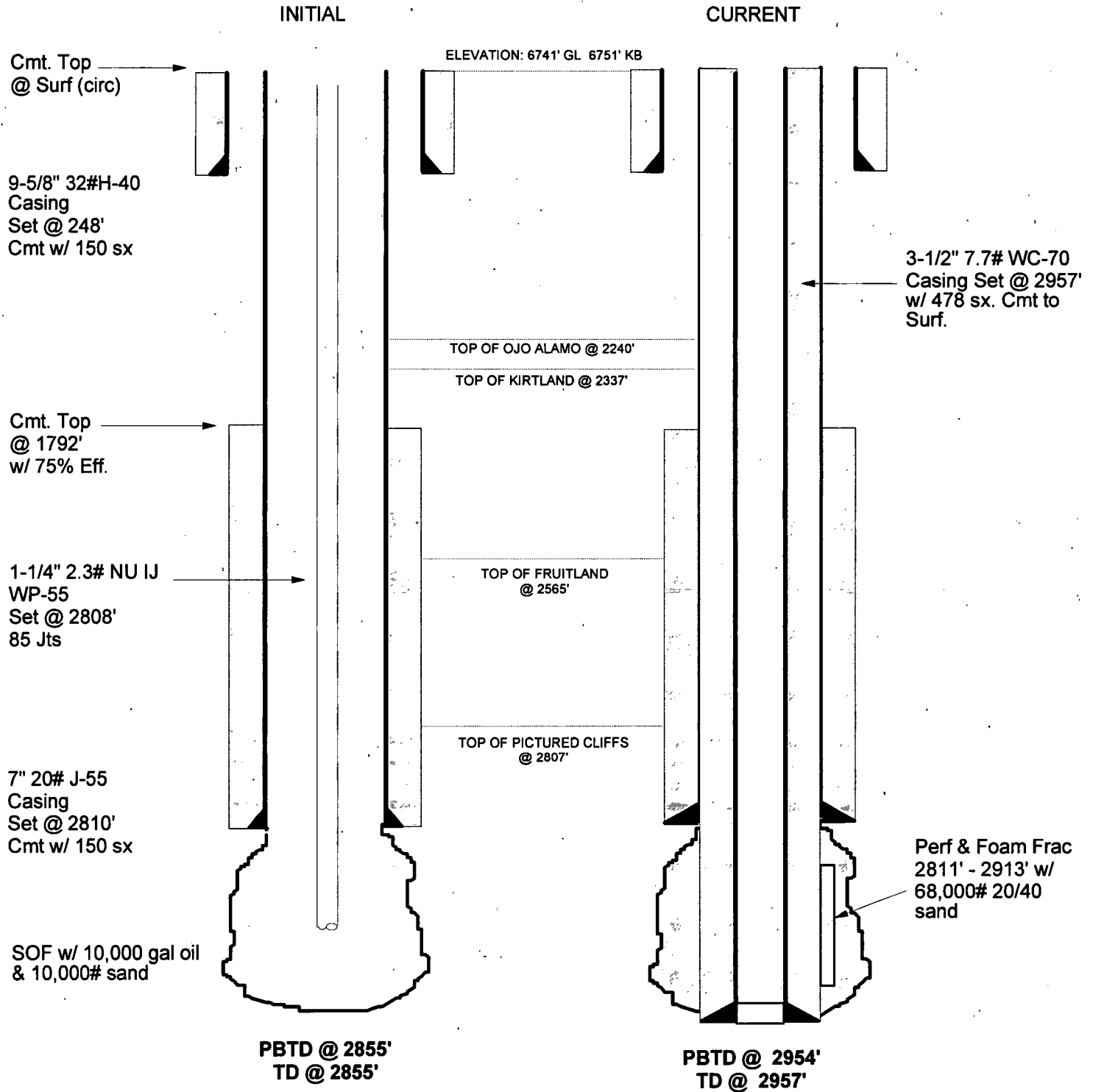
Production History: 8/96 PC capacity: 8 MCF/D. 8/96 PC cum: 1,232 MMCF.

Pipeline: EPNG

Canyon Largo Unit #28

Section 5D, T-25-N, R-6-W
Rio Arriba County, NM

SOUTH BLANCO PICTURED CLIFFS WELLBORE SCHEMATIC



Lackey Hubbell # 1
Pertinent Data Sheet

Location: 990' FNL & 990' FWL, Unit D, Section 29, T28N, R10W, San Juan County, New Mexico

Latitude: 36°-38.26' **Longitude:** 107°-55.44'

Field: Fulcher Kutz PC **Elevation:** 6008' GL
6018' KB **TD:** 2150'
PBTD: 2112'

Spud Date: 3/29/47 **Compl Date:** 4/28/47 **DP #:** 42050
Lease: (Fed) NM 273

Initial Potential: Initial Potential = 887 MCF/D, SICP = 495 psi
PC Restim = 236 MCF/D, SICP = 246 psi **GW:** 100%
NRI: 84.625%
Prop#: 0023040

Casing Record:

<u>Hole Size</u>	<u>Csg Size</u>	<u>Wt. & Grade</u>	<u>Depth Set</u>	<u>Cement</u>	<u>Cement (Top)</u>
e17"	15-1/2"	70#	69'	10 sx.	Circ Cmt
e8-3/4"	7"	26#	2000'	50 sx.	1661' @ 75% Eff.
6-1/4"	3-1/2"	6.9#	2105'	180 sx.	Circ Cmt

Tubing Record: None

Formation Tops:

Ojo Alamo:	799'
Kirtland Shale:	1034'
Fruitland:	1721'
Pictured Cliffs:	2002'

Logging Record: IES

Stimulation: SOH w/ 60 qts SNG
C&F 2004'-2014' & 2040'-2054' (48-0.40" holes) w/ 18,480 gal slickwater, 10,000# 20/40,
and 10,000# 10/20. Dropped 30 ball sealers during frac.

212 bbl of 25# linear gel, 188,000 scf N2, 93,000 # 20/40 Arizona sand @ 60 BPM

Workover History: 4/67: MIRU. TOOH with 1" tbg. Clean-out to 2112'***. Run and cement 3-1/2"
tubing. Perf and SWF PC interval. Rerun 1" tbg. Return to production.

NOTE: Drilled on junk from 2100-2112'

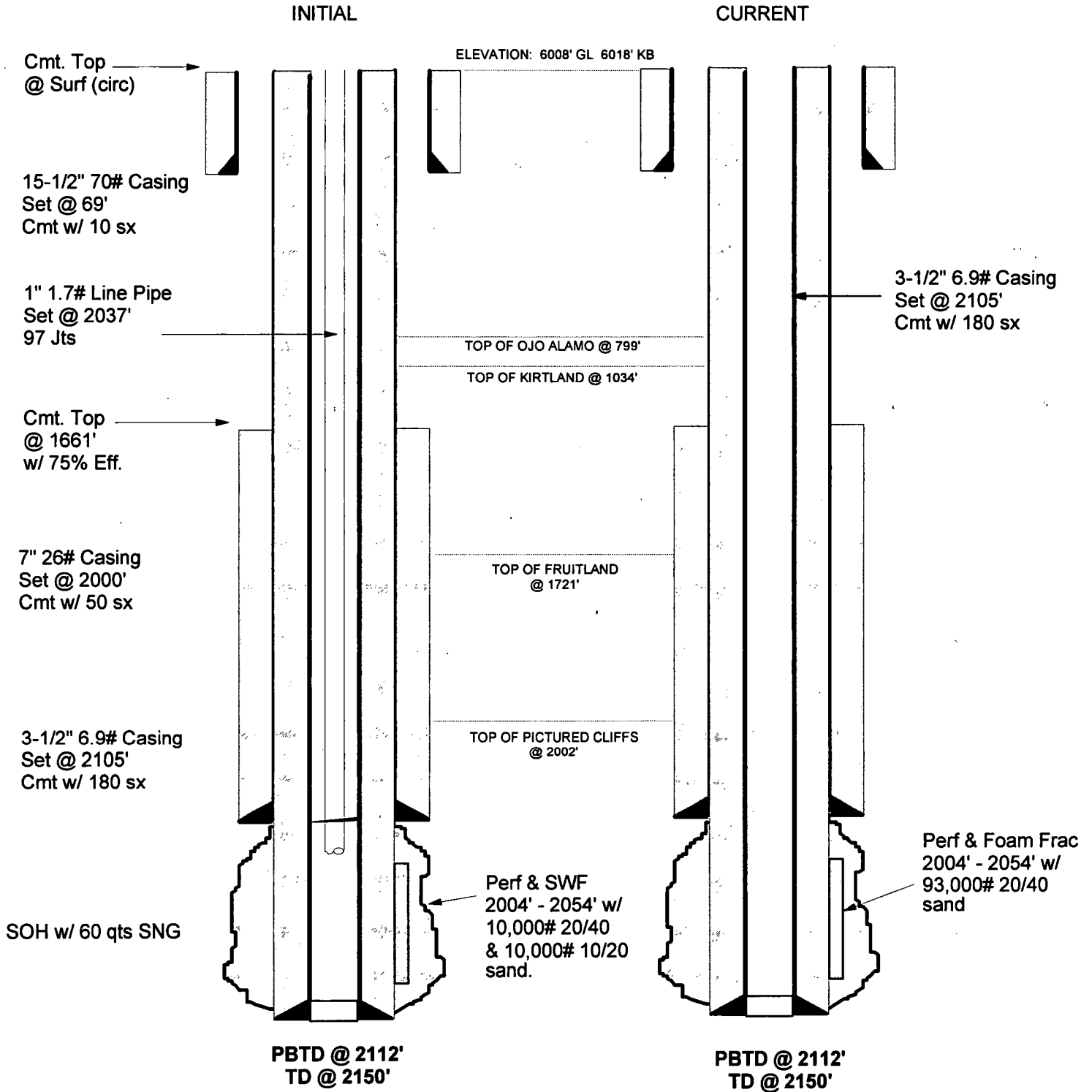
Production History: 8/96 PC capacity: 0 MCF/D. 8/96 PC cum: 1,299 MMCF.

Pipeline: WFS

Lackey Hubbell #1

Section 29D, T-28-N, R-10-W
San Juan County, NM

FULCHER KUTZ PICTURED CLIFFS WELLBORE SCHEMATIC



Sanchez A Com #1
Pertinent Data Sheet

Location: 1650' FNL & 690' FEL, Unit H, Section 16, T28N, R9W, San Juan County, New Mexico

Latitude: 36°-39.88 **Longitude:** 107°-47.22

Field: Aztec PC **Elevation:** 6488' GL
6498' KB **TD:** 2645'
PBTD: 2645'

Spud Date: 9/20/55 **Compl Date:** 10/5/55 **DP #:** 32100A
Lease: (State) NM 4121-220
GW: 100%
NRI: 86.25%
Prop#: 071231900

Initial Potential: Initial Potential = 2,828 MCF/D, SICP = 739 psi

Casing Record:

<u>Hole Size</u>	<u>Csg Size</u>	<u>Wt. & Grade</u>	<u>Depth Set</u>	<u>Cement</u>	<u>Cement (Top)</u>
12-3/4"	9-5/8"	36# J-55	194'	125 sx.	Circ Cmt
8-3/4"	5-1/2"	15.5# J-55	2578'	100 sx.	2174' @ 75% Eff.
e4-3/4"	3-1/2"	7.7# WC-70	2736'	376 sx.	Circ Cmt

Cement Record:

- Cemented w/ 376 sx. Class "B" 50/50 Pozmix w/ 2% gel, 6.5 pps gilsonite, 0.2% Halad-344, 3% KCL

Formation Tops:

Ojo Alamo:	1583'
Kirtland Shale:	1657'
Fruitland:	2308'
Pictured Cliffs:	2573'

Logging Record:

Stimulation: 284 bbl of 25# linear gel, 484,000 scf N2, 95,000 # 20/40 Arizona sand @ 39 BPM

Production History: 8/96 PC capacity: 57 MCF/D. 8/96 PC cum: 667 MMCF.

Pipeline: WFS

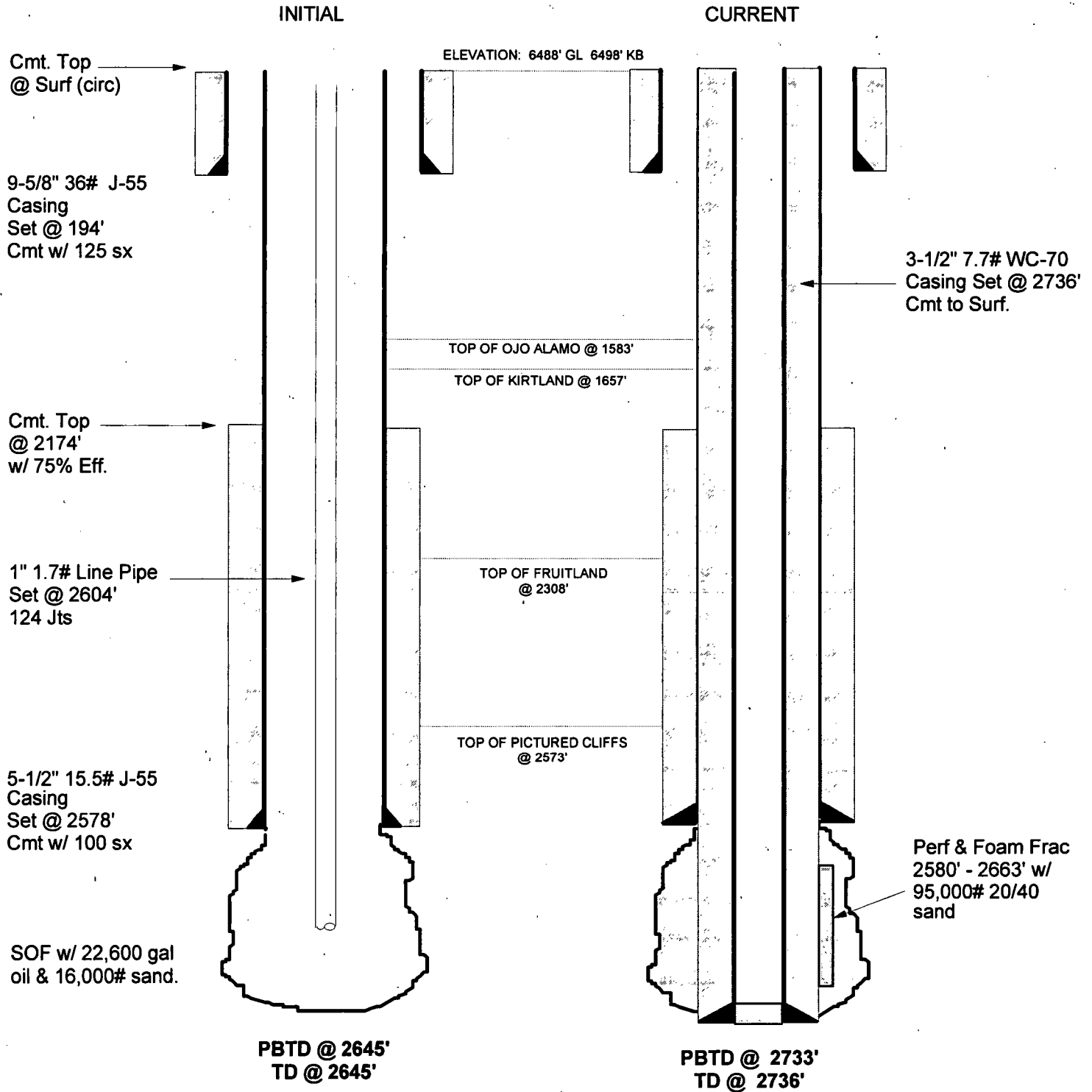
Workover Record: 5/97

- Perforated the lower Pictured Cliffs @ 2633', 2639', 2645', 2649', 2655', 2658', 2663'.
- Perforated the upper Pictured Cliffs @ 2580', 2582', 2584', 2589', 2596', 2601', 2607', 2611', 2614', 2620', 2623'.
- Stimulated the Pictured Cliffs w/ 484, scf N2, 284 bbl of 25# linear gel and 95,000 lb. 20/40 Arizona sand @ 39 BPM.

Sanchez A Com #1

Section 16H, T-28-N, R-9-W
San Juan County, NM

AZTEC PICTURED CLIFFS WELLBORE SCHEMATIC



Hancock # 1
Pertinent Data Sheet

Location: 1650' FSL & 990' FWL, Unit L, Section 30, T28N, R9W, San Juan County, New Mexico

Latitude: 36°-37.81' **Longitude:** 107°-50.05'

Field: Aztec PC **Elevation:** 5937' GL
5944' KB **TD:** 2110'
PBSD: 2110'

Spud Date: 3/19/52 **Compl Date:** 3/24/52 **DP #:** 50890A
Lease: (Fed) NM 321
GWI: 86.5%
NRI: 71.36250%
Prop#: 012575900

Initial Potential: Initial Potential = 857 MCF/D, SICP = 656 psi

Casing Record:

<u>Hole Size</u>	<u>Csg Size</u>	<u>Wt. & Grade</u>	<u>Depth Set</u>	<u>Cement</u>	<u>Cement (Top)</u>
e12-1/4"	8-5/8"	28# J-55	108'	60 sx.	Circ Cmt
e7-7/8"	5-9/16"	14.65# Line Pipe	2018'	100 sx.	1415' (TS)
e4-3/4"	3-1/2"	7.7# WC-70	2164'	216 sx.	Circ Cmt

Cement Record:

- Cemented w/ 216 sx. 50/50 Class "B" Pozmix w/ 2% gel, 6.5 pps gilsonite, 0.2% Halad-344, 3% KCL

Formation Tops:

Ojo Alamo:	1055'
Kirtland Shale:	1115'
Fruitland:	1745'
Pictured Cliffs:	2015'

Logging Record: ES, ML 108'-2018'

Stimulation: 260 bbl of 25# linear gel, 321,628 scf N2, 90,000 # 20/40 Arizona sand @ 40 BPM

Workover History: None

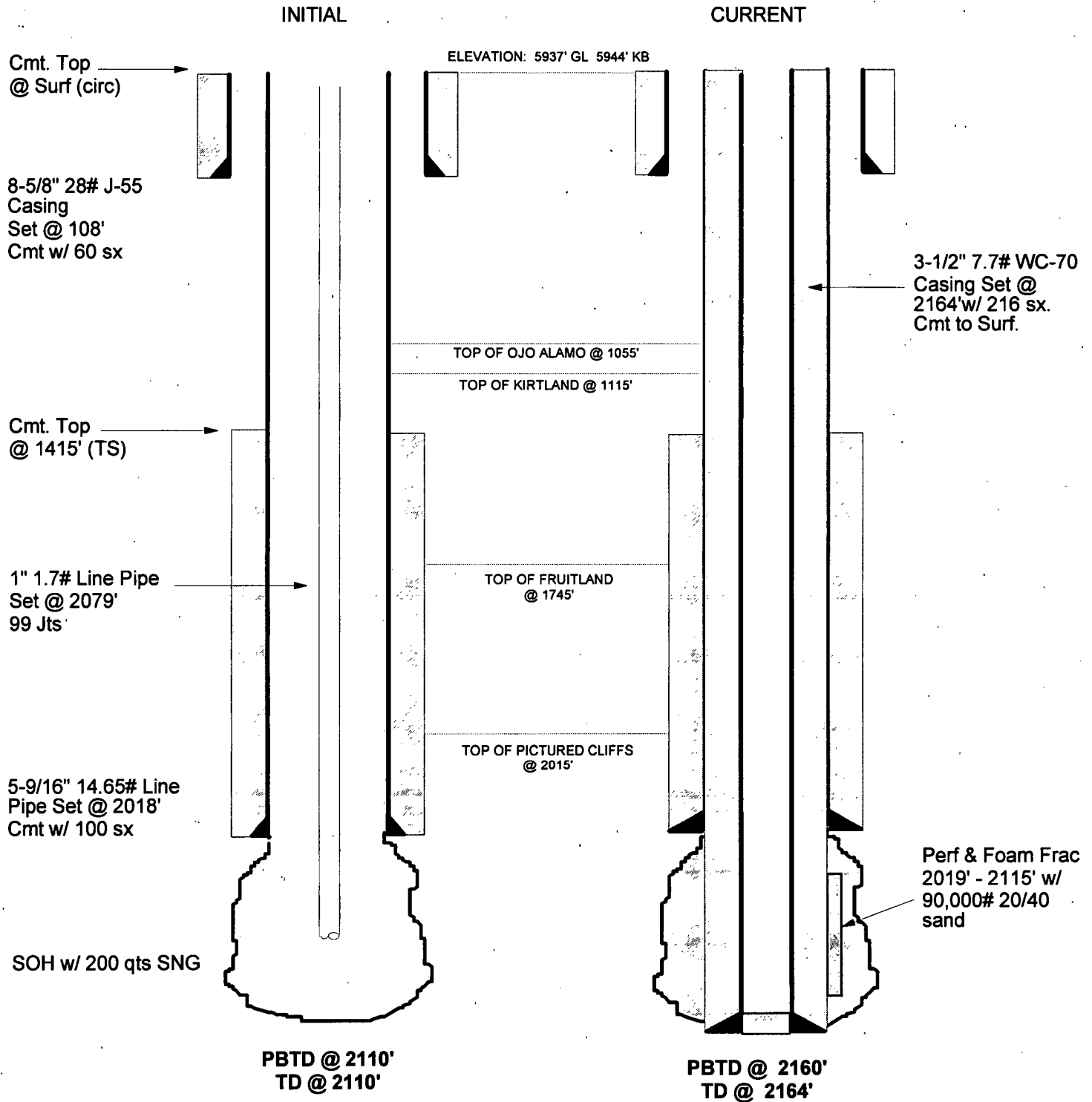
Production History: 8/96 PC capacity: 5 MCF/D. 8/96 PC cum: 512 MMCF.

Pipeline: EPNG

Hancock #1

Section 30L, T-28-N, R-9-W
San Juan County, NM

AZTEC PICTURED CLIFFS WELLBORE SCHEMATIC



Fannin #1
Pertinent Data Sheet

Location: 830' FNL & 1785' FEL, Unit B, Section 7, T29N, R10W, San Juan County, New Mexico

Latitude: 36°-44.72

Longitude: 107°-55.35

Field: Aztec PC

Elevation: 5753' GL
5763' KB

TD: 2143'

PBTD: 2143

Spud Date: 10/18/56

Compl Date: 11/2/56

DP #: 49802A

Lease: (Fed) NM 4791-01

GWl: 100%

NRI: 79.5%

Prop#: 012652000

Initial Potential: Initial Potential = 1,923 MCF/D, SICP = 586 psi

Casing Record:

<u>Hole Size</u>	<u>Csg Size</u>	<u>Wt. & Grade</u>	<u>Depth Set</u>	<u>Cement</u>	<u>Cement (Top)</u>
e12-1/4"	8-5/8"	24# J-55	94'	60 sx.	Circ Cmt
e7-7/8"	5"	11.5# J-55	2108'	100 sx.	1603' @ 75% Eff.
e4-3/4"	3-1/2"	7.7# WC-70	2265'	200 sx.	Circ Cmt

Cement Record:

- Cemented w/ 200 sx. 50/50 Class "B" Pozmix w/ 2% gel, 6.5 pps gilsonite, 0.2% Halad-344, 3% KCL

Formation Tops:

Ojo Alamo:	860'
Kirtland Shale:	980'
Fruitland:	1835'
Pictured Cliffs:	2105'

Logging Record:

Stimulation: 279 bbl of 25# linear gel, 267,000 scf N2, 95,000 # 20/40 Arizona sand @ 40 BPM

Workover History: None

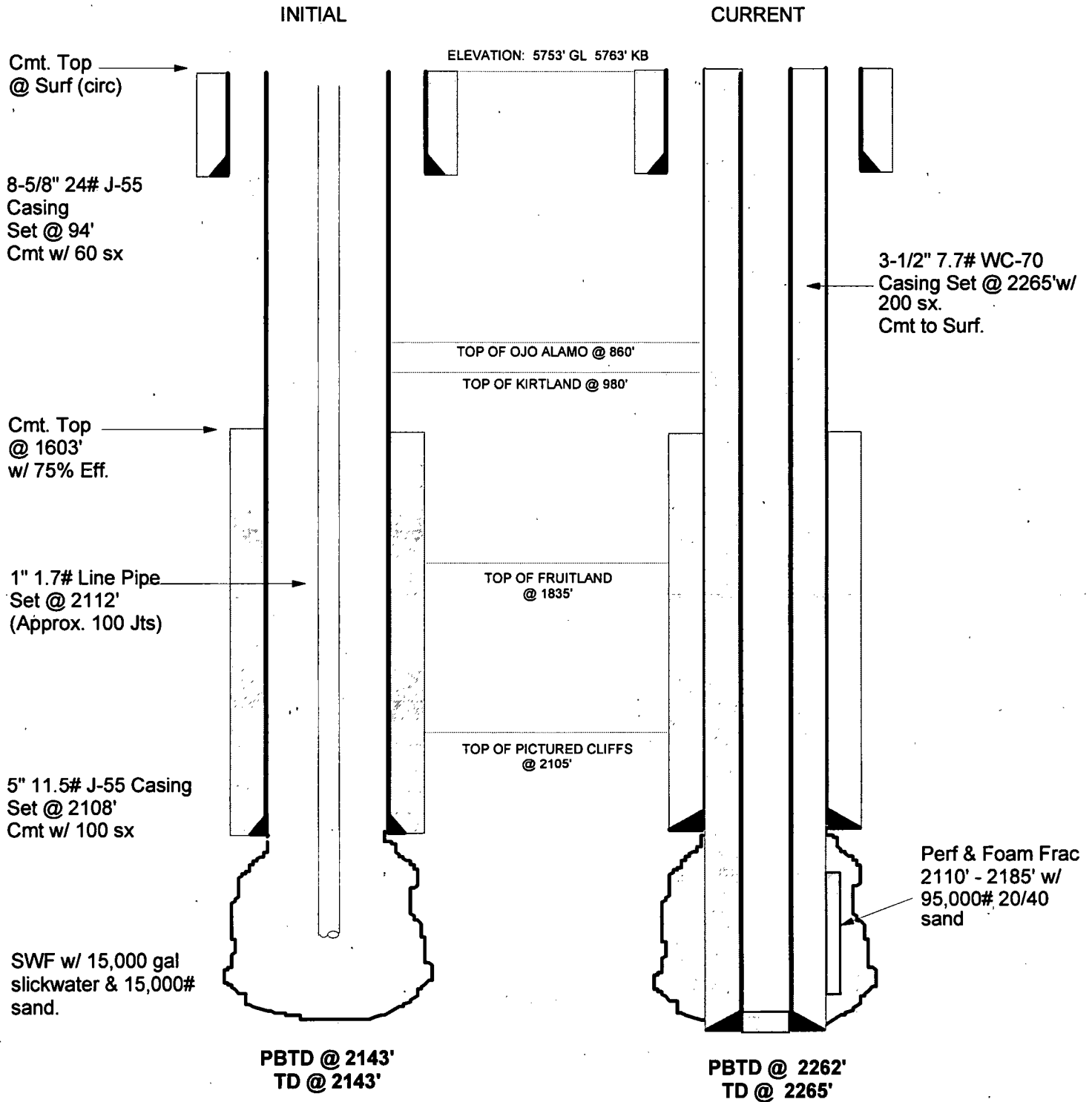
Production History: 8/96 PC capacity: 0 MCF/D. 8/96 PC cum: 1,032 MMCF.

Pipeline: EPNG

Fannin #1

Section 7B, T-29-N, R-10-W
San Juan County, NM

AZTEC PICTURED CLIFFS WELLBORE SCHEMATIC



Mangum # 2
Pertinent Data Sheet

Location: 1650' FSL & 1650' FWL, Unit K, Section 28, T29N, R11W, San Juan County, New Mexico

Latitude: 36°41.64' **Longitude:** 107°-59.98'

Field: Fulcher Kutz PC **Elevation:** 5438' GL
5448' KB **TD:** 1625'
PBTD: 1621'

Spud Date: 6/19/47 **Compl Date:** 7/22/47 **DP #:** 46228
Lease: (Fed) NM 9407

Initial Potential: Initial Potential = 3,500 MCF/D, SICP = 454 psi

GWI: 100%
NRI: 87.5%
Prop#: 0023006

Casing Record:

<u>Hole Size</u>	<u>Csg Size</u>	<u>Wt. & Grade</u>	<u>Depth Set</u>	<u>Cement</u>	<u>Cement (Top)</u>
e17"	15-1/2"	60#	43'	10 sx.	Circ Cmt
e7-7/8"	5-1/2"	14#	1540'	30 sx.	1363' @ 75% Eff.
e4-3/4"	3-1/2"	7.7# WC-70	1661'	125 sx.	Circ Cmt

Cement Record:

- Cemented w/ 125 sx 50/50 Class "B" Pozmix w/ 2% gel, 6.5 pps gilsonite, 0.2% Halad-344, 3% KCL

Formation Tops:

Ojo Alamo:	395'
Kirtland Shale:	455'
Fruitland:	1284'
Pictured Cliffs:	1537'

Logging Record:

Stimulation: 280 bbl of 25# linear gel, 327,960 scf N₂, 90,000 # 20/40 Arizona sand @ 44 BPM

Production History: 8/96 PC capacity: 34 MCF/D. 8/96 PC cum: 1,564 MMCF.

Pipeline: WFS

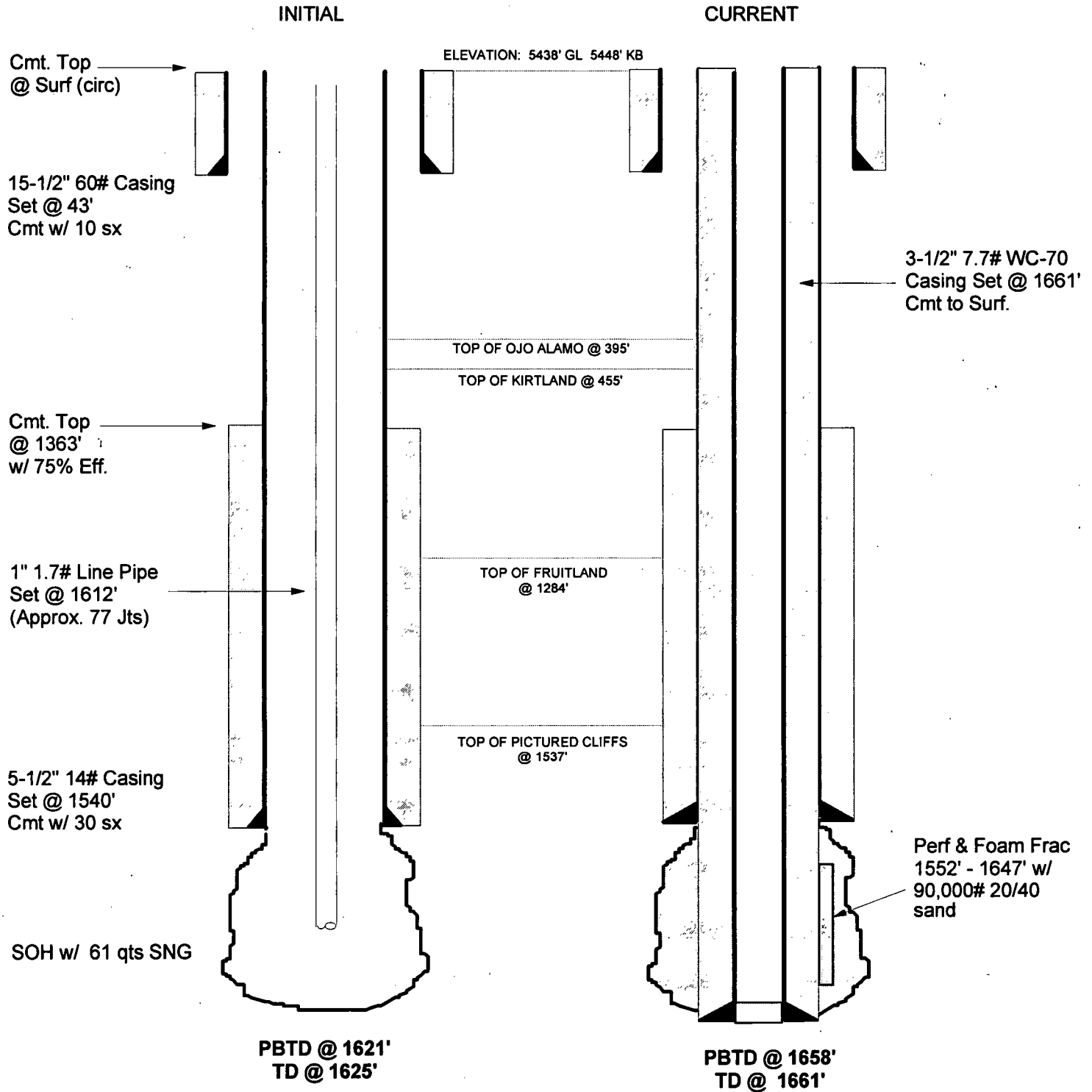
Workover Record: 4/97

- Perforated the lower Pictured Cliffs @ 1600', 1605', 1614', 1620', 1625', 1639', 1644', 1647'.
- Perforated the upper Pictured Cliffs @ 1552', 1558', 1563', 1568', 1574', 1578', 1580', 1584', 1590', 1595'.
- Stimulated the Pictured Cliffs w/ 327,960 scf N₂, 280 bbl of 25# linear gel and 90,000 lb. 20/40 Arizona sand @ 44 BPM.

Mangum #2

Section 28K, T-29-N, R-11-W
San Juan County, NM

FULCHER KUTZ PICTURED CLIFFS WELLBORE SCHEMATIC



White Kutz #2
Pertinent Data Sheet

Location: 1600' FNL & 890' FWL, Unit E, Section 21, T28N, R10W, San Juan County, New Mexico

Latitude: 36°-39.02' **Longitude:** 107°-54.38'

Field: Fulcher Kutz PC **Elevation:** 5922' GL
5923' KB **TD:** 1983'
PBTD: 1983'

Spud Date: 9/3/55 **Compl Date:** 9/27/55 **DP #:** 51013A
Lease: Fed: NM 237
GWl: 100%
NRI: 70.375%
Prop#: 072010800

Initial Potential: Initial Potential = 1,990 MCF/D, SICP = 593 psi

Casing Record:

<u>Hole Size</u>	<u>Csg Size</u>	<u>Wt. & Grade</u>	<u>Depth Set</u>	<u>Cement</u>	<u>Cement (Top)</u>
e12-1/4"	8-5/8"	32# J-55	96'	75 sx.	Circ Cmt
e7-7/8"	5-1/2"	15.5# J-55	1957'	75 sx.	1639' @ 75% Eff.
e4-3/4"	3-1/2"	7.7# WC-70	2126'	190 sx	Circ Cmt

Cement Record:

- Cemented w/ 190 sx. 50/50 Class "B" Pozmix w/ 2% gel, 6.5 pps gilsonite, 0.2% Halad-344, 3% KCL

Formation Tops:

Ojo Alamo:	835'
Kirtland Shale:	1015'
Fruitland:	1620'
Pictured Cliffs:	1954'

Logging Record:

Stimulation: 280 bbl of 25 # linear gel, 378,000 scf N2, 114,000# 20/40 Arizona sand @ 42 BPM

Workover History: None

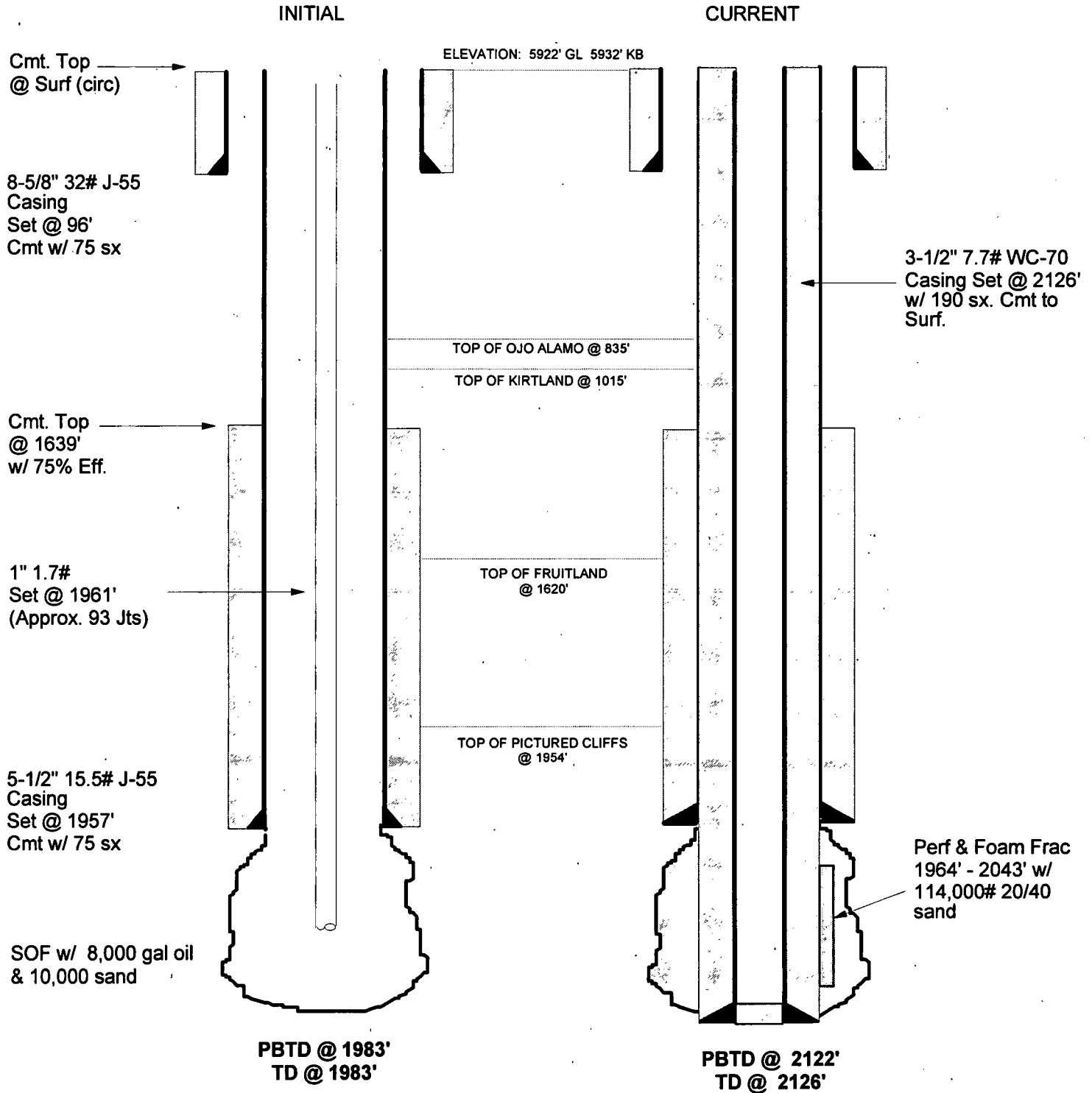
Production History: 7/96 PC capacity: 32 MCF/D. 7/96 PC cum: 845 MMCF.

Pipeline: EPNG

White Kutz #2

Section 21E, T-28-N, R-10-W
San Juan County, NM

FULCHER KUTZ PICTURED CLIFFS WELLBORE SCHEMATIC



Luthy #2
Pertinent Data Sheet

Latitude: 36 Deg, 30 Min, 45 Sec **Longitude:** 107 Deg, 38 Min, 17 Sec

Location: 1650' FSL & 1490' FWL, Unit K, Section 1, T26N, R8W, San Juan County, New Mexico

Field: South Blanco PC **Elevation:** 6157' DF
6158' KB **TD:** 2260'
PBTD: 2252'

Spud Date: 6/11/52 **Compl Date:** 11/26/52 **DP #:** 48433A
Lease: Fed: NM 907-01

Initial Potential: Initial Potential = 196 MCF/D, SICP=843 psi

GWI: 100%
NRI: 82.5%
Prop#: 012601902

Casing Record:

<u>Hole Size</u>	<u>Csg Size</u>	<u>Wt. & Grade</u>	<u>Depth Set</u>	<u>Cement</u>	<u>Cement (Top)</u>
e13-3/8"	10-3/4"	40#	97'	98 sx.	Circ Cmt
e8-3/4"	7"	20#	2176'	100 sx.	1497' @ 75% Eff.
e6-1/8"	3-1/2"	7.7# WC-70	2270'	350 sx.	Circ Cmt

Cement Record:

- Cemented w/ 350 sx. 50/50 Class "B" Pozmix w/2% gel, 6.5 pps gilsonite, 0.2% Halad-344, 3% KCL

Formation Tops:

Ojo Alamo:	1422'
Kirtland Shale:	1497'
Fruitland:	1939'
Pictured Cliffs:	2163'

Logging Record:

Stimulation: 339 bbl of 25# linear gel, 352,529 scf N2, 78,000 # 20/40 Arizona sand @ 52 BPM

Workover History: None

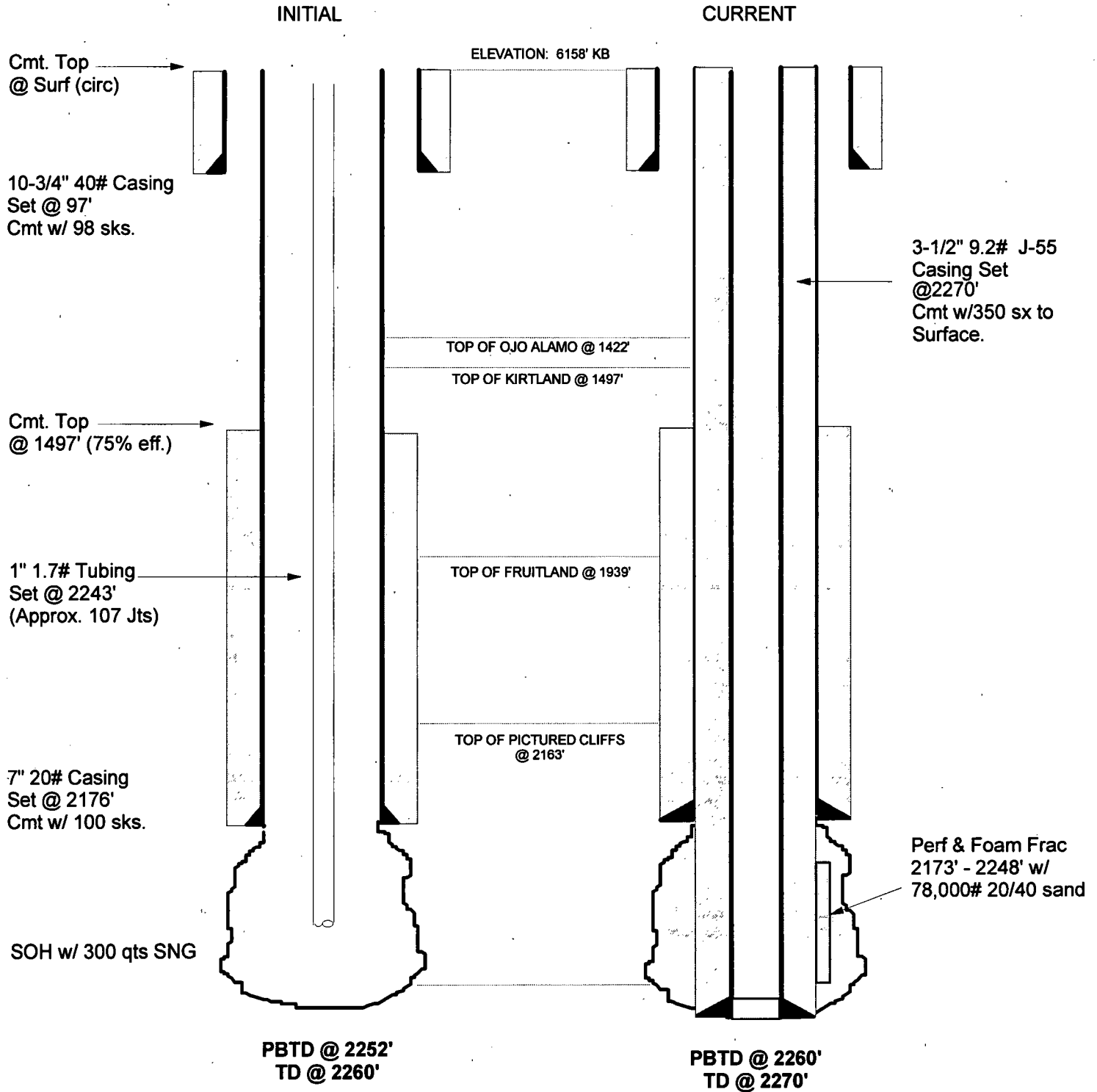
Production History: 7/96 PC capacity: 9 MCF/D. 7/96 PC cum: 147 MMCF.

Pipeline: EPNG

Luthy #2

Section 1K, T-26-N, R-8-W
San Juan County, NM

SOUTH BLANCO PICTURED CLIFFS WELLBORE SCHEMATIC



Morris #2
Pertinent Data Sheet

Location: 1650' FSL & 1750' FEL, Unit J, Section 10, T27N, R10W, San Juan County, New Mexico

Latitude: 36°-35.21' **Longitude:** 107°-52.76'

Field: Fulcher-Kutz PC

Elevation: 6268' GL
6278' KB

TD: 2222'
PBTD: 2180'

Spud Date: 6/27/52

Compl Date: 6/3/54

DP #: 50863A
Lease: (Fed) NM 222-300

Initial Potential: Initial Potential = 802 MCF/D, SICP = 551 psi

GWI: 100%
NRI: 65.625%
Prop#: 012603100

Casing Record:

<u>Hole Size</u>	<u>Csg Size</u>	<u>Wt. & Grade</u>	<u>Depth Set</u>	<u>Cement</u>	<u>Cement (Top)</u>
e12-1/4"	9-5/8"	36# H-40	97'	88 sx.	Circ Cmt
e7-7/8"	5-1/2"	17# J-55	2137'	160 sx.	1195' @ 75% Eff.
e4-3/4"	3-1/2"	7.7# WC-70	2257'	264 sx.	Circ Cmt

Cement Record:

- Cemented w/ 264 sx. 50/50 Class"B" Pozmix w/ 2% gel, 6.5 pps gilsonite, 0.2% Halad-344, 3% KCL

Formation Tops:

Ojo Alamo:	1144'	Estimated
Kirtland Shale:	1290'	Estimated
Fruitland:	1846'	Estimated
Pictured Cliffs:	2142'	Estimated

Logging Record: None

Stimulation: 225 bbl of 25# linear gel, 266,600 scf N2, 80,000 # 20/40 Arizona sand @ 40 BPM

Workover History: 5/54: MIRU. Set Model "C" retainer at 2146' with 1/2 sk calseal at 2143'. Dumped 500# Hydromite & squeezed into formation to shut off water production. C/O to 2180'. SOF with 4,200# sand. Ran 1" tubing and returned to production.

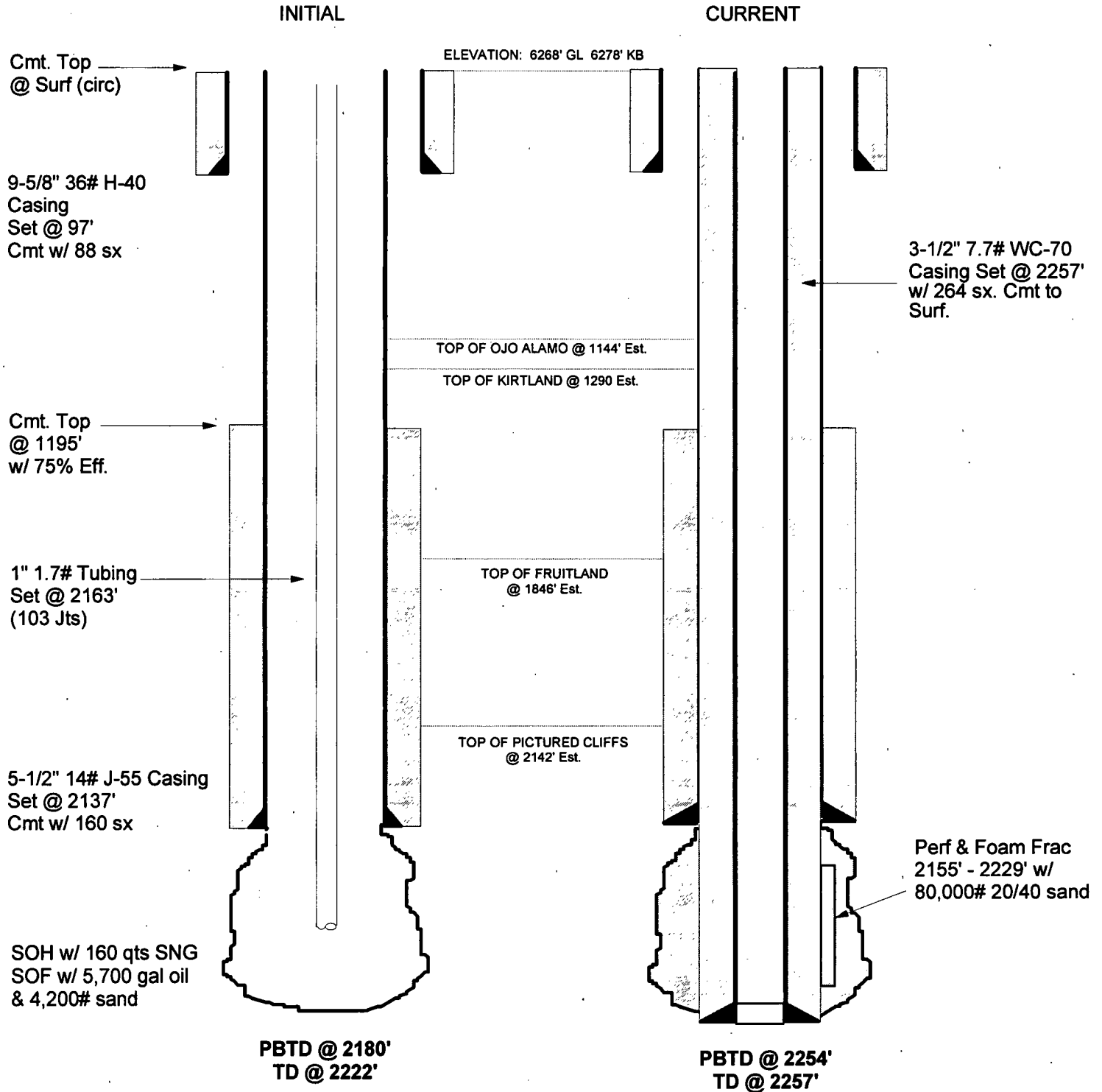
Production History: 10/96 PC capacity: 36 MCF/D. 10/96 PC cum: 333 MMCF.

Pipeline: EPNG

Morris #2

Section 10 J, T-27-N, R-10-W
San Juan County, NM

Fulcher-Kutz PICTURED CLIFFS WELLBORE SCHEMATIC



Ballard #8
Pertinent Data Sheet

Location: 1650' FNL & 990' FEL, Unit H, Section 15, T26N, R09W, San Juan County, New Mexico

Latitude: 36°-29.45' **Longitude:** 107°-46.22'

Field: Ballard PC **Elevation:** 6287' GL
6297' KB **TD:** 1994'
PBTD: 1994'

Spud Date: 7/20/54 **Compl Date:** 8/18/54 **DP #:** 48974A
Lease: NM 4516-300 (Fed)
GWl: 100%
NRI: 64.183%
Prop#: 0-126334-00

Initial Potential: Initial Potential = 2640 MCF/D, SICP = 644 psi

Casing Record:

<u>Hole Size</u>	<u>Csg Size</u>	<u>Wt. & Grade</u>	<u>Depth Set</u>	<u>Cement</u>	<u>Cement (Top)</u>
12-1/4"	8-5/8"	24#	101'	100 sx.	Circ Cmt
7-7/8"	5-1/2"	14# J-55	1952'	100 sx.	1363' @ 75% Eff.
4-3/4"	3-1/2"	7.7# WC-70	2082'	195 sx.	Circ Cmt

Cement Record:

- Cemented w/ 195 sx. 50/50 Class "B" Pozmix w/ 2% gel, 6.5 pps gilsonite, 0.2% Halad-344, 3% KCL

Formation Tops:

Ojo Alamo:	1121'
Kirtland Shale:	1247'
Fruitland:	1686'
Pictured Cliffs:	1941'

Logging Record:

Stimulation: 246 bbl of 25# linear gel, 322,000 scf N2, 85,000 # 20/40 Arizona sand @ 42 BPM

Workover History: None

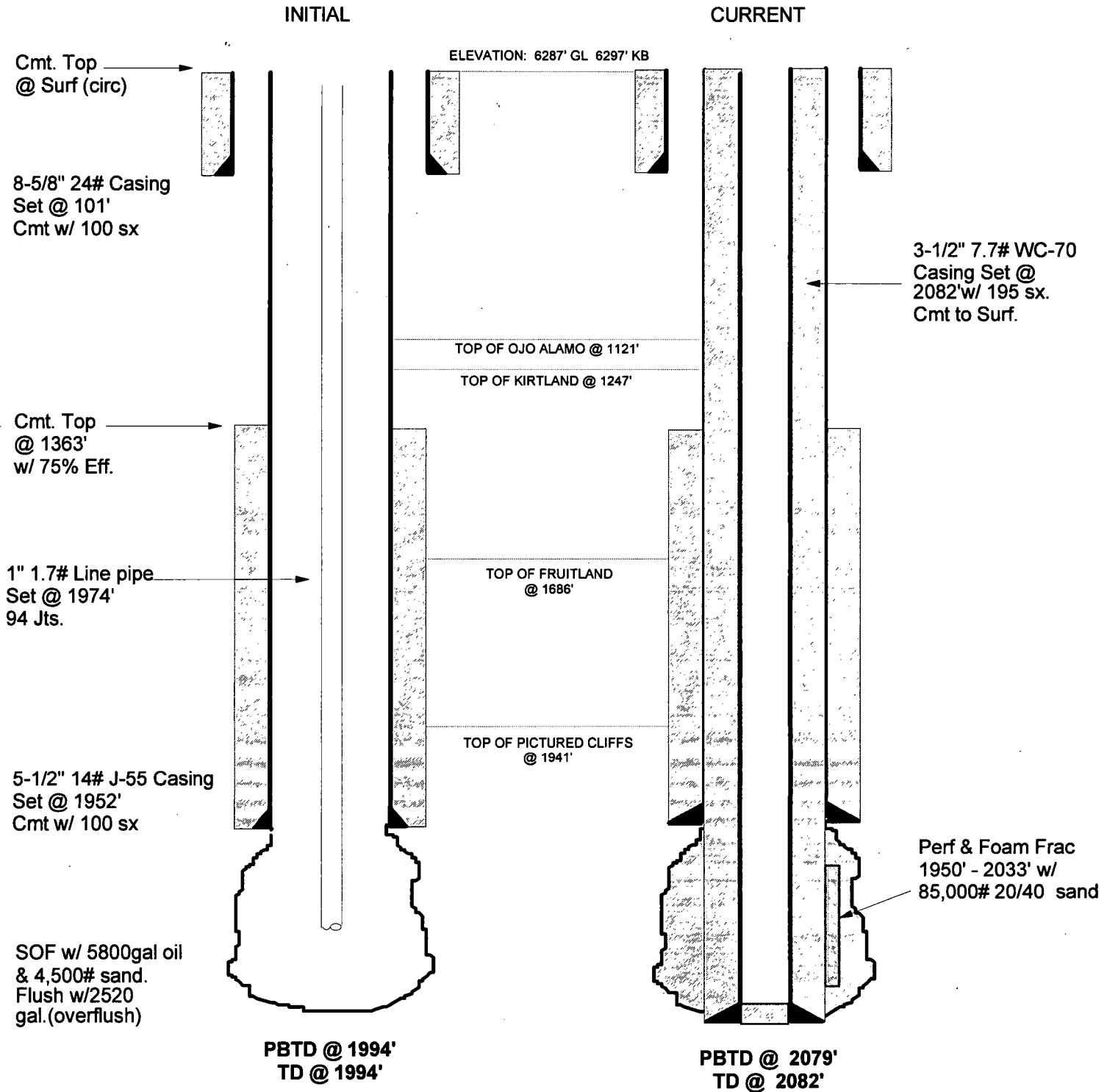
Production History: 8/96 PC capacity: 66 MCF/D. 8/96 PC cum: 2153 MMCF.

Pipeline: EPNG

Ballard #8

Section 15 H, T-26-N, R-9-W
San Juan County, NM

BALLARD PICTURED CLIFFS WELLBORE SCHEMATIC



Payne A #1
Pertinent Data Sheet

Location: 990' FSL & 1090' FWL, Unit M, Section 13, T26N, R9W, San Juan County, New Mexico

Latitude: 36°-29.01

Longitude: 107°-44.74

Field: Ballard PC

Elevation: 6326' GL
6336' KB

TD: 2109'

PBTD: 2109'

Spud Date: 1/10/54

Compl Date: 1/29/54

DP #: 48985A

Lease: (Fed) NM 4113-U01

GWl: 67.5%

Initial Potential: Initial Potential = 2,836 MCF/D, SICP = 649 psi **NRI:** 50.70937%

Prop#: 012615800

Casing Record:

<u>Hole Size</u>	<u>Csg Size</u>	<u>Wt. & Grade</u>	<u>Depth Set</u>	<u>Cement</u>	<u>Cement (Top)</u>
13-3/4"	9-5/8"	36# H-40	94'	125 sx.	Circ Cmt
e7-7/8"	5-1/2"	15.5# CF&I J-55	2012'	175 sx.	982' @ 75% Eff.
e4-3/4"	3-1/2"	7.7# WC-70	2144'	255 sx.	Circ Cmt

Cement Record:

- Cemented w/ 255 sx. Class "B" 50/50 Pozmix w/ 2% gel, 6.5 pps gilsonite, 0.2% Halad-344, 3% KCL

Formation Tops:

Ojo Alamo:	1210'
Kirtland Shale:	1357'
Fruitland:	1607'
Pictured Cliffs:	2007'

Logging Record: GR/N

Stimulation: 290 bbl. of 25# linear gel, 364,000 scf N2, 85,000 lb. 20/40 Arizona sand @ 40 BPM

Workover History: None

Production History: 8/96 PC capacity: 14 MCF/D. 8/96 PC cum: 953 MMCF.

Pipeline: EPNG

Payne A #1

Section 13M, T-26-N, R-9-W
San Juan County, NM

BALLARD PICTURED CLIFFS WELLBORE SCHEMATIC

