

BP Amoco



Amoco Production Company
San Juan Operations Center
200 Amoco Court
Farmington, New Mexico 87401

June 15, 1999

NMOCD
1000 Rio Brazos Road
Aztec, NM 87410

Attention: Charlie Perrin

GCU 307 & 328-MIT Proposal

L-30-29N-12W N-33-29N-12W

Amoco Production Company proposes to offer for your approval a MIT explanation per the attached engineering memo. Wellbore diagrams are also provided to better illustrate our reasoning. Thank you for your consideration.

Buddy Shaw

Buddy Shaw
Environmental Coordinator
(505) 326-9219

ATTACHMENTS

RECEIVED
JUN 15 1999
OIL CON. DIV.
DIST. 3

*ERNIE, FRANK CHARLIE
discussed & OK*

*6-17-99
Charlie*

M E M O R A N D U M

DATE: June 14, 1999
TO: Buddy Shaw
FROM: Gary Munson
RE: Mechanical Integrity Testing of Dual Producing / Water Disposal Wells -- GCU Wells No. 307 and No. 328

Mechanical integrity testing of the subject dual producing / water disposal wells is effectively accomplished by monitoring the production of producing horizon. In these cases, the Fruitland or Pictured Cliffs (PC) formation is the producing zone and the Mesa Verde formation is the water disposal zone. A packer isolates the producing and water disposal zones. Water disposal and gas production are accomplished using individual tubing strings to each zone (Attachments).

If a failure of mechanical integrity occurs in either the water disposal tubing string or the packer, water will be released into the producing side (Fruitland / PC formation) of the well. Because these Fruitland / PC wells are typically low pressure and volume, the well will likely log off immediately or increasing water production will occur. Either of these two events will trigger a further investigation into the cause of the water production which will require testing the water disposal tubing and finally the packer and seal assembly if necessary.

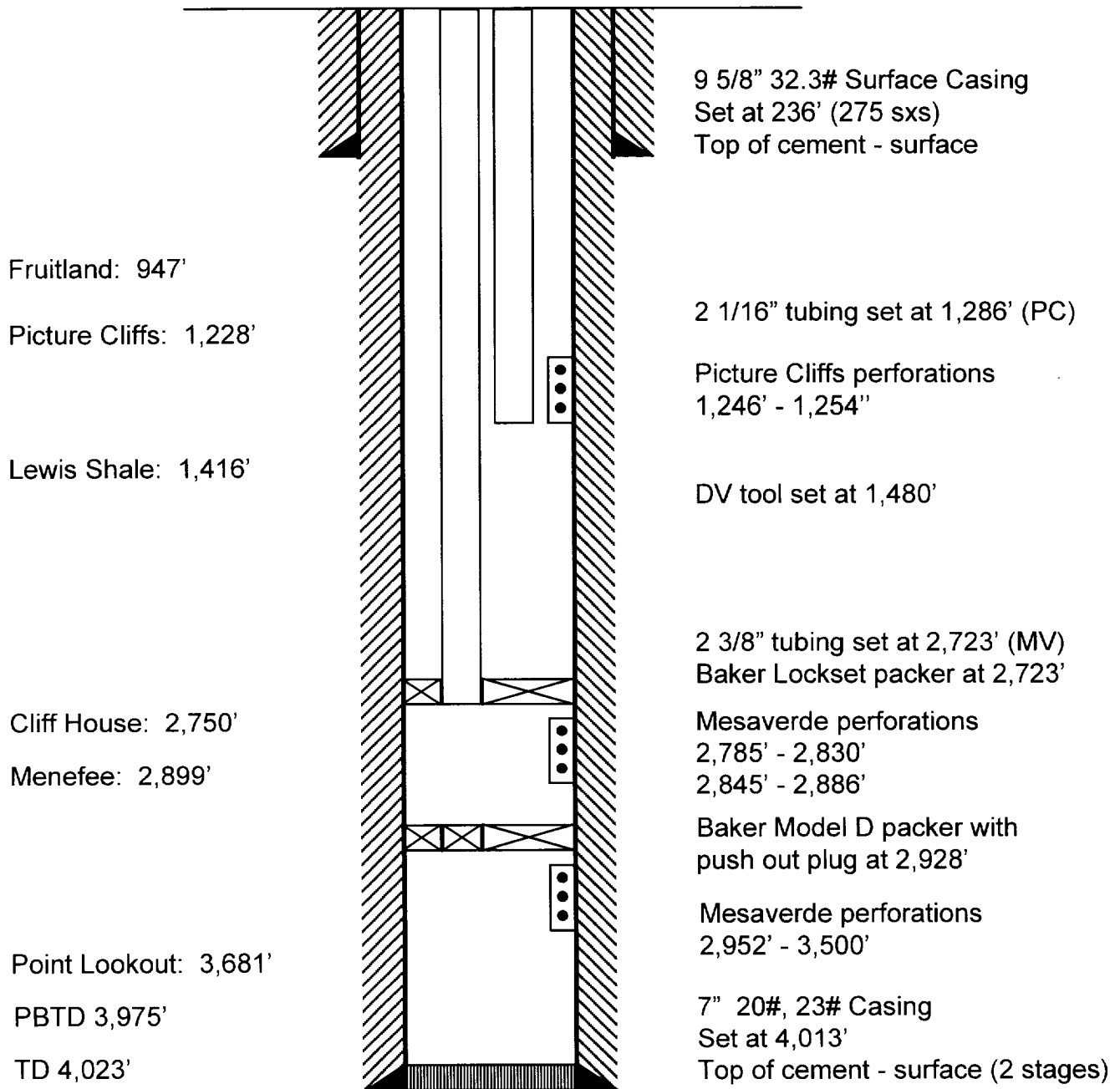
This type of well configuration actually lends itself to a continuous mechanical integrity test as long as the upper zone is producing. This is really analogous to continuously monitoring annulus pressure as is typically done on single completion water disposal wells. In the dual completion, the upper zone production is monitored rather than pressure.

If the upper producing zone is shut-in for any reason, periodic pressure surveys and/or fluid levels on the shut-in producing side will be necessary to assure mechanical integrity.

An excellent example of using the upper Fruitland zone as a mechanical integrity monitor recently occurred on the GCU No. 328. In February 1999, our field people noticed that the Fruitland ceased producing and water from the producing side of the well was carrying over to the pipeline. Shutting down the water disposal pumps eliminated the carry over. As a result of these observations, the well was pulled, a tubing leak found, and the water disposal string was replaced.

GCU 307 SWD
L30 T29N-R12W, 1455' FSL, 510' FWL
API 3004524248

Wellbore Schematic



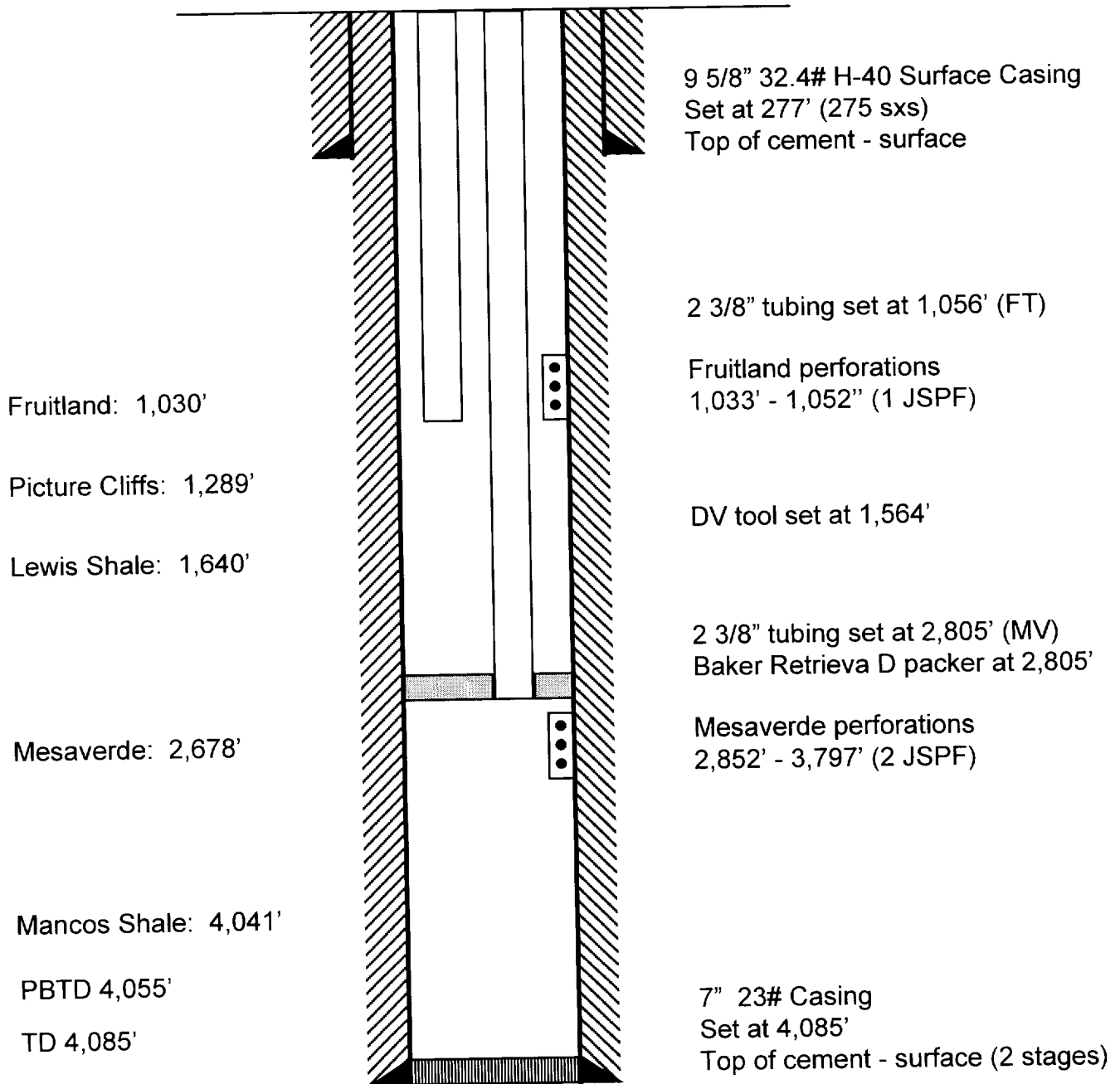
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6/14/99
GOM/jkr

GCU 328 SWD (FT/MV)

N33 T29N-R12W, 1070' FSL, 1520' FWL
API 3004524735
I-149-IND-8486

Wellbore Schematic



Not to scale

6/9/99
GOM/jkr