



1700 Broadway Suite 1450 Denver Colorado 80290
(303) 860-0509 Fax (303) 830-2546

REPORT OF SUB-SURFACE DIRECTIONAL SURVEY

Amoco Production Company
COMPANY

France #1
WELL NAME

San Juan County, New Mexico
LOCATION

JOB NUMBER
410-4041

TYPE OF SURVEY
DMWD

DATE
January 16, 1994

SURVEYED BY
Mike Robbins\Max Lund

OFFICE
DENVER

RECEIVED

FEB 25 1994

OIL CON. DIV
DIST. 3

AMOCO PRODUCTION COMPANY



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RECEIVED

FEB 25 1994

CON. DIV.
DIST. 3

SURVEY CERTIFICATION SHEET

Amoco Production Company

Company

S23-30N-8W

Lease

410-4041

Job #

France #1

Well #

January 16, 1993

Date

San Juan County, New Mexico

County and State

Surveyed from a depth of

6834 feet to 7470 feet MD

Wellbore assumed vertical @ 6785'

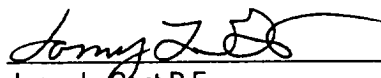
Type of Survey

DMWD

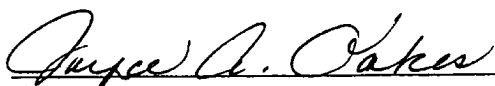
Directional Supervisor/Surveyor

Mike Robbins\Max Lund

The data and calculations for this survey have been checked by me and conform to the standards and procedures set forth by Baker Hughes INTEQ. This report represents a true and correct Directional Survey of this well based on the original data obtained at the well site.


Jonny L. Gent P.E.
Technical Support Engineer

This document has been subscribed and affirmed, or sworn to before me in the county of Denver, state of Colorado, this 18th day of January, 1994.


Notary

My commission expires Aug. 4, 1996

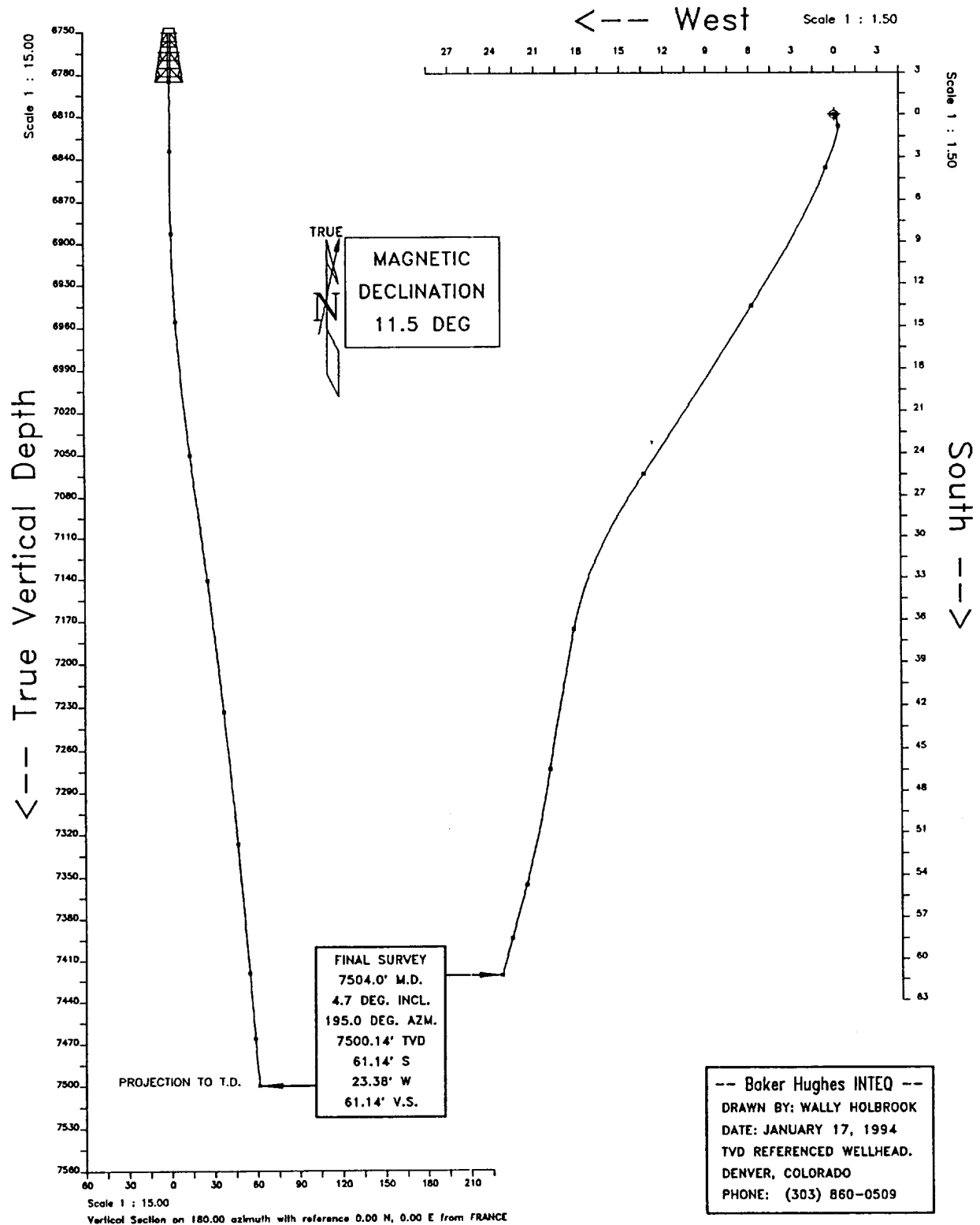
AMOCO PRODUCTION COMPANY

Structure : SEC.23-T30N-R8W

Well : #1

Field : SAN JUAN COUNTY

Location : NEW MEXICO.



AMICO PRODUCTION COMPANY
SEC.23-T30N-R8W

#1
FRANCE
SAN JUAN COUNTY
NEW MEXICO.

S U R V E Y L I S T I N G

by
Baker Hughes Inteq

Your ref : MWD SURVEYS
Our ref : svy2969
License :

Date printed : 17-Jan-94
Date created : 17-Jan-94
Last revised : 17-Jan-94

Field is centred on n36 40 0.000,w107 45 0
Structure is centred on n36 43 0.000,w107 40 0

Slot location is n36 43 0.000,w107 40 0.000
Slot Grid coordinates are N 2080164.231, E 548849.205
Slot local coordinates are 0.00 N 0.00 E
Reference North is True North

AMOCO PRODUCTION COMPANY
SEC.23-T30N-R8W,#1
SAN JUAN COUNTY,NEW MEXICO.

SURVEY LISTING Page 1
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Measured Depth	Inclin. Degrees	Azimuth Degrees	True Vert. Depth	R E C T A N G U L A R C O O R D I N A T E S		Dogleg Deg/100Ft	Vert Sect
6785.00	0.00	0.00	6785.00	0.00 N	0.00 E	0.00	0.00
6834.00	0.40	141.60	6834.00	0.13 S	0.11 E	0.82	0.13
6893.00	1.00	174.60	6893.00	0.81 S	0.28 E	1.18	0.81
6956.00	4.70	201.00	6955.91	3.77 S	0.59 W	6.08	3.77
7051.00	8.80	211.90	7050.23	13.57 S	5.83 W	4.50	13.57
7143.00	8.80	213.30	7141.15	25.43 S	13.41 W	0.23	25.43
7236.00	6.60	190.80	7233.33	36.63 S	18.32 W	3.97	36.63
7330.00	5.50	188.70	7326.80	46.39 S	20.01 W	1.19	46.39
7423.00	4.90	194.30	7419.42	54.64 S	21.67 W	0.84	54.64
7470.00	4.70	195.00	7466.25	58.45 S	22.66 W	0.44	58.45
7504.00	4.70	195.00	7500.14	61.14 S	23.38 W	0.00	61.14 PROJECTION TO T.D.

All data is in feet unless otherwise stated
Coordinates from FRANCE and TVD from wellhead.
Vertical section is from wellhead on azimuth 180.00 degrees.
Declination is 11.65 degrees, Convergence is 0.10 degrees.
Calculation uses the minimum curvature method.
Presented by Baker Hughes Inteq

AMOCO PRODUCTION COMPANY
SEC.23-T30N-R8W,#1
SAN JUAN COUNTY,NEW MEXICO.

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				Comments in wellpath =====
MD	TVD	Rectangular Coords.		Comment
7504.00	7500.14	61.14 S	23.38 W	PROJECTION TO T.D.

All data is in feet unless otherwise stated
Coordinates from FRANCE and TVD from wellhead.
Bottom hole distance is 65.46 on azimuth 200.93 degrees from wellhead.
Vertical section is from wellhead on azimuth 180.00 degrees.
Declination is 11.65 degrees, Convergence is 0.10 degrees.
Calculation uses the minimum curvature method.
Presented by Baker Hughes Inteq