



OIL CONSERVATION DIVISION
RECEIVED

'89 OCT 23 AM 9 15

Amoco Production Company

Denver Region
1670 Broadway
P.O. Box 800
Denver, Colorado 80201
303-830-4040

October 13, 1989

Mr. Michael Stogner
New Mexico Oil Conservation Division
PO Box 2088
Santa Fe, NM 87504

File: NWA-707-986.511

Request for Administrative Approval
Directional Drilling
Gartner Gas Com "A" Well No. 1
Section 27-T30N-R8W
Basin Fruitland Coal Gas Pool
San Juan County, New Mexico

Amoco Production Company respectfully requests administrative approval to directionally drill the above captioned well from a surface location of 2250' FNL and 1960' FEL to a bottomhole location of 2250' FNL and 1758' FEL. The reason for directional drilling is the lack of a suitable drillsite due to topographical conditions and archeological sites within the "legal window".

Per our discussion, please incorporate our application for unorthodox location, File: NWA-648-986.511 dated September 6, 1989, for required exhibits and notice.

Attached is a schematic of the planned wellpath for this well.

Sincerely,

J.W. Hawkins
J.W. Hawkins

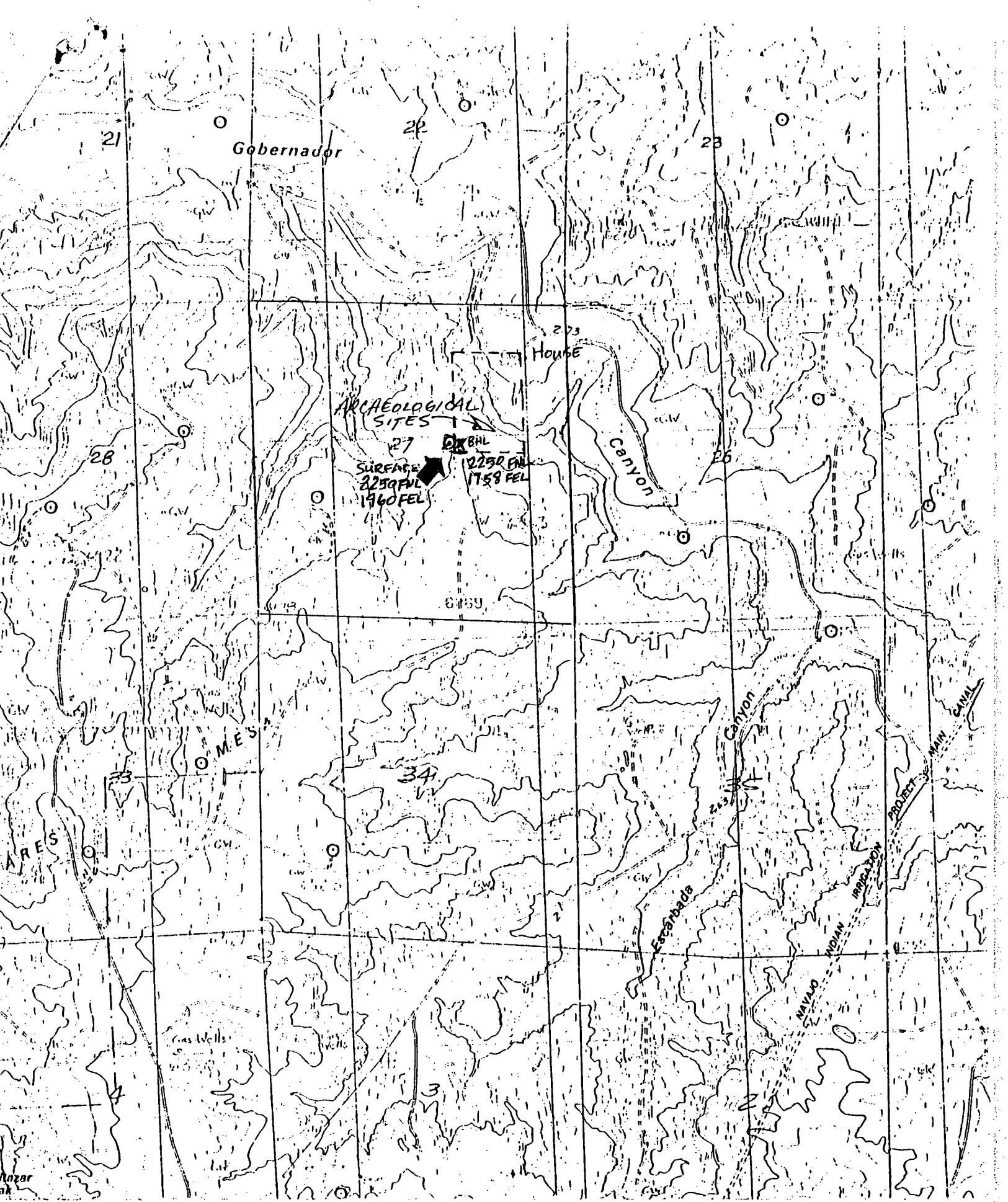
JWH/ae
Attachment

cc: Meridian Oil Inc.
PO Box 4289
Farmington, NM 87499
Attn: Robert J. Hopkins

K.J. Lund
J.L. Spitler
R.A. Steele

E.L. Busch
New Mexico Oil Conservation
Division, District III
1000 Rio Brazos Road
Aztec, NM 87410

5310
- 8840
1758
882
- 50
832



BUTTER CANYON
4 000

SURFACE

AMOCO PRODUCTION COMPANY
GARTNER GAS COM /A/ # 1
2250' F/NL 1960' F/EL (BHL 2250' F/NL 1758' F/EL)
SEC. 27, T30N, R8W, NMPM
SAN JUAN COUNTY, NEW MEXICO

INTERIOR-DEOLOGICAL SURVEY, 1961

ROAD LEG

Improved Road

9/13/89

Talked w/ J.W. Watkins

- Is submitting evidence and comments
on correlative Right ~~and~~ Issues
and Directional Drilling Issues
in all three locations.
Suggested that he address penalty
issue.

- Left Message for Bill to return call.

9/14/89

Talked w/ Don Edwards (BLM)

Original location was in a backroad
of a house (Fire surface (small section)
Told Bill more off ridge and in
contoured back out.



Amoco Production Company

Denver Region
1670 Broadway
P.O. Box 800
Denver, Colorado 80201
303-830-4040

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SEP 11 1989

OIL CONSERVATION DIV.
SANTA FE

September 6, 1989

Mr. William LeMay, Director
New Mexico Oil Conservation Division
PO Box 2088
Santa Fe, NM 87504

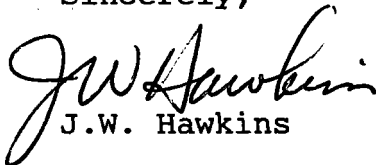
File: NWA-648-986.511

Request for Administrative Approval
Unorthodox Location
Gartner Gas Com "A" Well No. 1
Section 27-T30N-R8W
Basin Fruitland Coal Gas Pool
San Juan County, New Mexico

Amoco Production Company respectfully requests administrative approval for an unorthodox location for the Gartner Gas Com "A" Well No. 1 in the Basin Fruitland Coal Gas Pool. Amoco plans to drill the subject well at a location 2250' FNL and 1960' FEL of Section 27-T30N-R8W. This unorthodox location is necessitated by topographical conditions and the presence of archeological sites covering the orthodox location drilling window in the NE/4 of Section 27. Attached is a plat showing the proposed well location and the topographical conditions in Section 27 and a plat showing ownership of the offsetting spacing units.

A copy of this application will be sent to all offset operators by certified mail with a request that they furnish your Santa Fe office with a Waiver of Objection and return one copy to this office.

Sincerely,


J.W. Hawkins

WAIVER

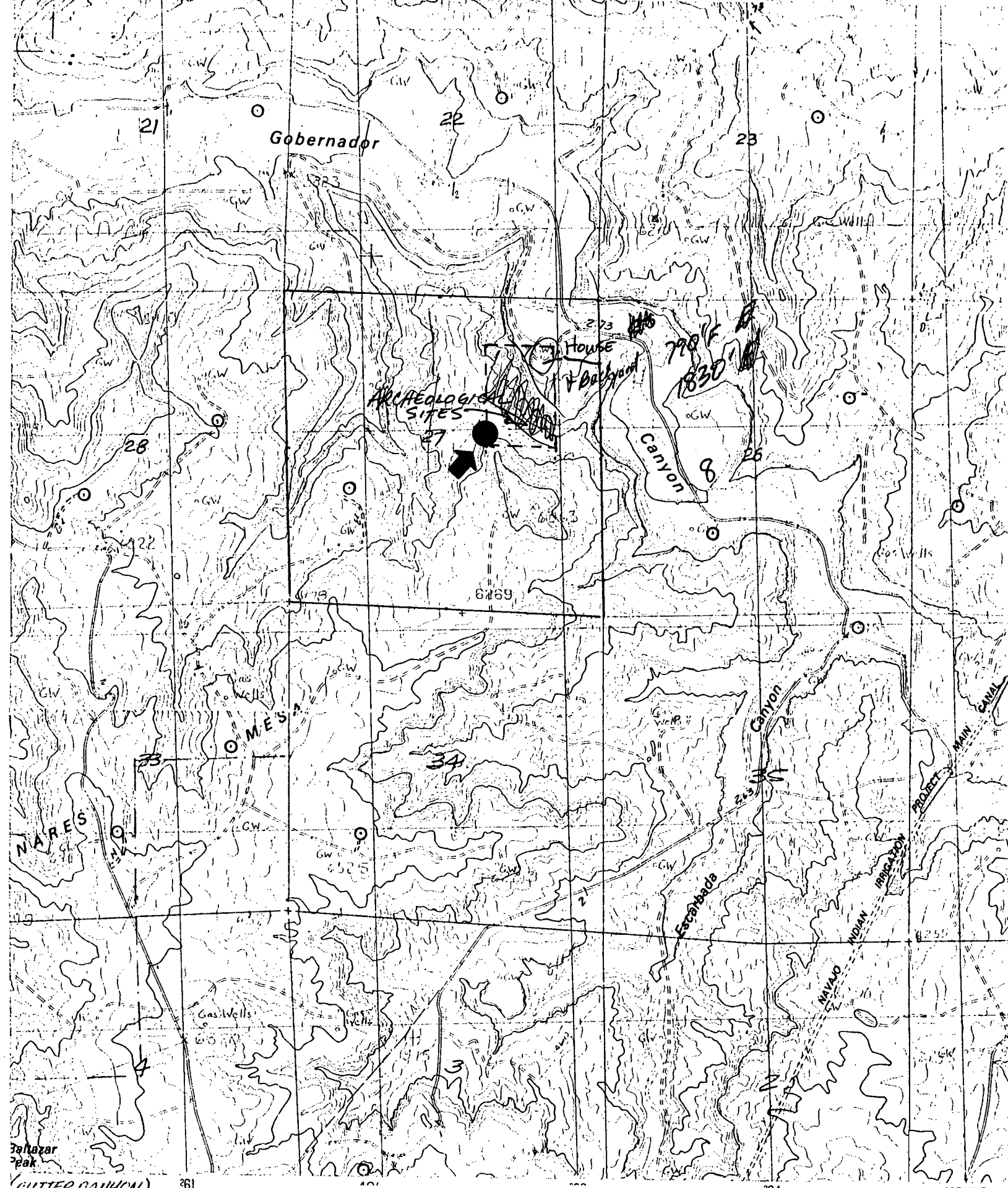
_____ hereby waives objection to Amoco Production Company's application for an unorthodox location for their Gartner Gas Com "A" Well No. 1 as proposed above.

By: _____ Date: _____

cc: K.J. Lund R.A. Steele
J.L. Spitler
Affected offset operators - see attached mailing list

Affected Offset Operators - Gartner Gas Com "A" Well No. 1

Meridian Oil, Inc.
PO Box 4289
Farmington, NM 87499



(CUTTER CANYON)

24 000

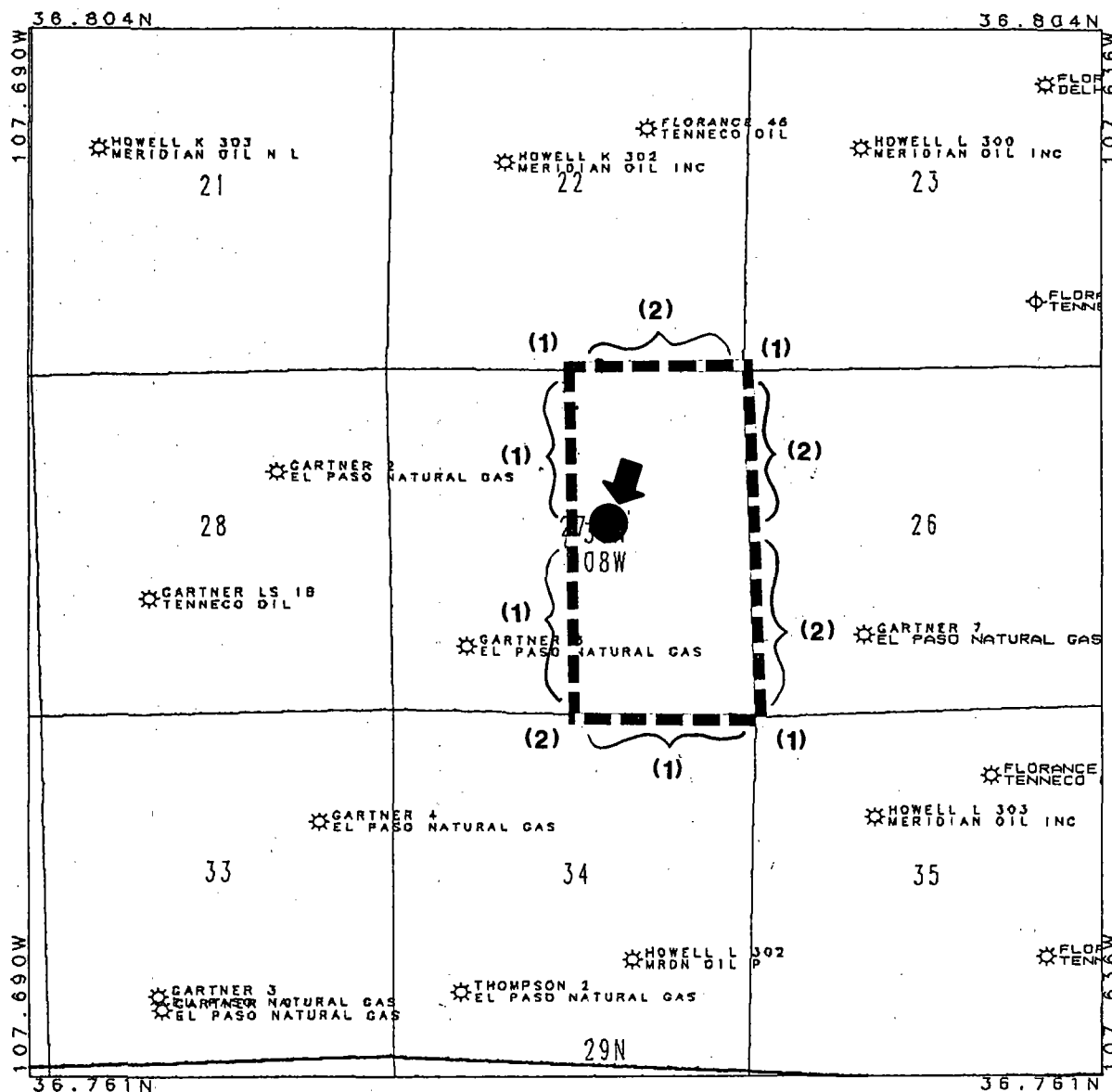
5000 6000 7000 8000 9000

AMOCO PRODUCTION COMPANY
 GARTNER GAS COM /A/ # 1
 2250' F/NL 1960' F/EL
 SEC. 27, T30N, R8W, NMPM
 SAN JUAN COUNTY, NEW MEXICO

INTERIOR-GEOLOGICAL SURVEY, U.S. GEOLOGICAL SURVEY

ROAD LEGEND

Improved Road



OFFSET OPERATORS:

(1) MERIDIAN OIL INC.

(2) AMOCO PRODUCTION

AMOCO PRODUCTION COMPANY
Nine Section - SJ Basin
Sec 27-T30N-R8W - New Mexico
LSE NAME GARTNER GAS COM /A/ 2250' FNL 1960' FEL
SCALE= 2,640 FEET/INCH AUG 02, 1989

All geological and geophysical data, including the interpretation thereof, appearing on this map is the private and confidential property of Amoco Production Company. The publication or reproduction thereof without the written permission of said Company is strictly prohibited.

2640FT 0FT 2640FT 5280FT 7920FT

Submit to Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator AMOCO PRODUCTION COMPANY			Lease GARTNER GAS COM /A/		Well No. # 1
Unit Letter G	Section 27	Township 30 NORTH	Range 8 WEST	County NMPM SAN JUAN	

Actual Footage Location of Well:

2250 feet from the **NORTH** line and **1960** feet from the **EAST** line
Ground level Elev. **6186** Producing Formation _____ Pool _____ Dedicated Acreage: _____ Acres

- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?
☐ Yes ☐ No If answer is "yes" type of consolidation _____
If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary).
No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.

OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature

Printed Name

Position

Company

Date

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

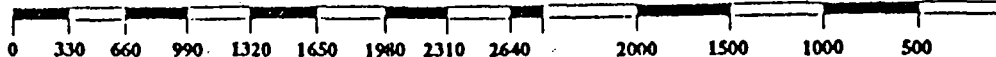
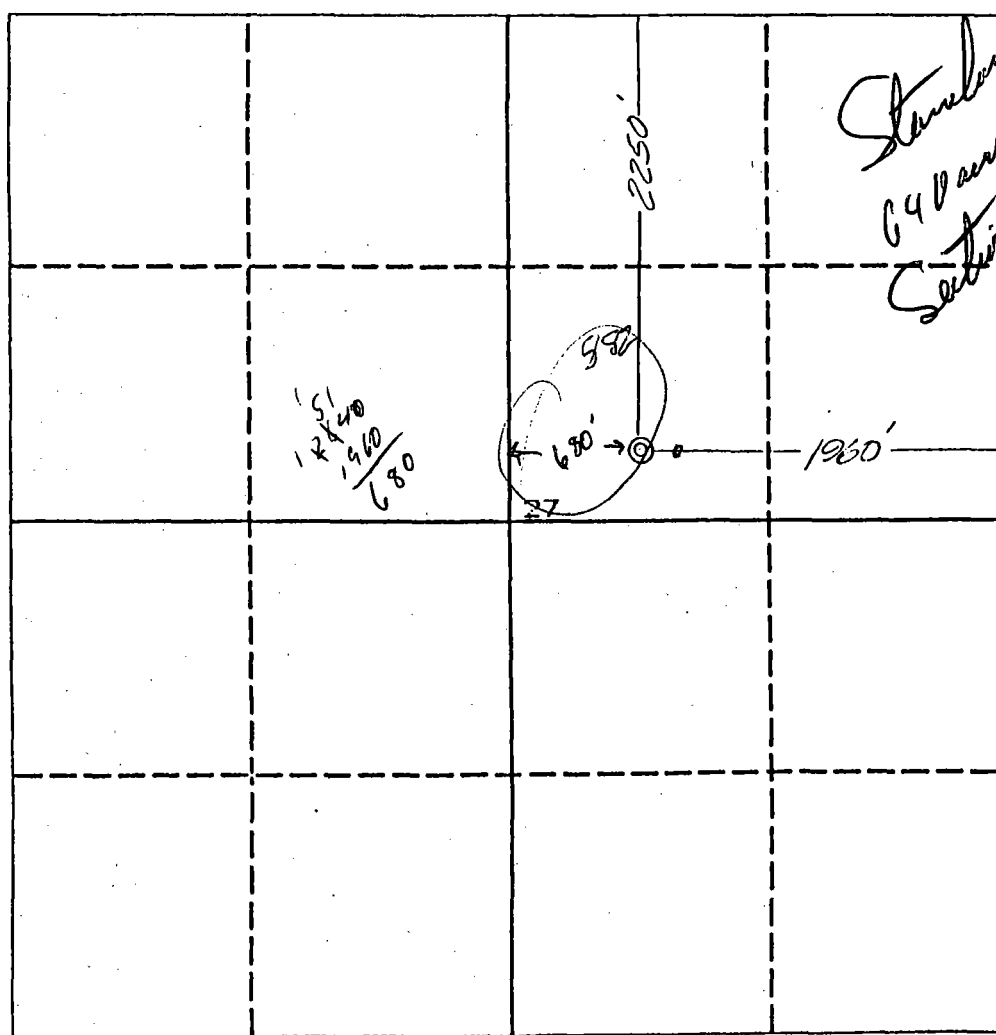
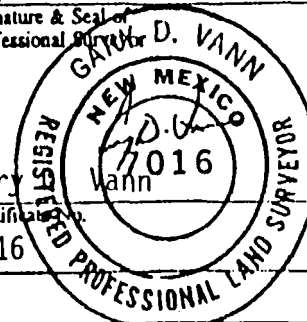
July 20, 1989

Signature & Seal of
Professional Surveyor

Gary

Certification No.

7016





STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE

GARREY CARRUTHERS
GOVERNOR

1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178

Date: 9-14-89

Oil Conservation Division
P.O. Box 2088
Santa Fe, NM 87504-2088

Re: Proposed MC _____
Proposed DHC _____
Proposed NSL X _____
Proposed SWD _____
Proposed WFX _____
Proposed PMX _____

Gentlemen:

I have examined the application dated 9-11-89
for the Amoco Prod. Co. CARTNER GAS CON'N #1
Operator Lease & Well No.

G-27-30N-8W and my recommendations are as follows:
Unit, S-T-R

Approved. Only if they can't move the
location.

Yours truly,

Ernest L. Bush

RECEIVED

SEP 18 1989

OIL CONSERVATION DIV.
SANTA FE



ARCHAEOLOGICAL CONSULTANTS

ROBERT W. BIGGS
303/259-1930

2803 MESA AVENUE
DURANGO, CO 81301

Antiquities Permit No. 46-2920-88-E
A.C. Project Report No. 742e,f

MEMORANDUM

Date: September 13, 1989

To: Dave Kayser, Compliance Archaeologist, Farmington Resource Area,
Bureau of Land Management, 1235 La Plata Highway, Farmington,
New Mexico 87401

John Schwarz, Amoco Production Company, Farmington Operations
Center, 2325 East 30th Street, Farmington, New Mexico 87401

From: Robert W. Biggs, Archaeological Consultants, 2803 Mesa Avenue,
Durango, Colorado 81301

Subject: Cultural Resource Survey for Amoco Production Company's Proposed
Gartner Gas Com A No. 1 Well Site and Alternate Well Site and Access
Road and the Florance P No. 3 Well Site and Alternate Well
Site and Access Road, San Juan County, New Mexico

Enclosed is the required number of copies of the reports for the cultural resource survey on the above projects conducted June 9, July 31, 1989. The surveyed areas are located on federally owned property under the jurisdiction of the Albuquerque District of the Bureau of Land Management. Two previously recorded sites NM-01-1284/3190 and NM-01-1284/3191 were found within the proposed project area of the Florance P No. 3 Well Site and Access Road. The sites were avoided by moving the location 2190 feet to the north and 300 feet to the east. One archaeological site was encountered and recorded in conjunction with the Gartner Gas Com A No. 1 Well Site. The location was moved 460 feet to the south and 130 feet to the west to avoid the site. No cultural resources are endangered by any of the proposed activities.



ARCHAEOLOGICAL CONSULTANTS

ROBERT W. BIGGS
303/259-1930

2803 MESA AVENUE
DURANGO, CO 81301

RECEIVED

SEP 21 1989

OIL CONSERVATION DIV.
SANTA FE

MEMORANDUM

Date: September 16, 1989

To: John Schwarz, Amoco Production Company, Farmington Operations Center, 2325 East 30th Street, Farmington, New Mexico 87401

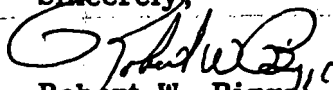
From: Robert W. Biggs, Archaeological Consultants, 2803 Mesa Avenue, Durango, Colorado 81301

Subject: Gartner Gas Com A No. 1 Alternate Well Site and the Florance P No. 3 Alternate Well Site, San Juan County, New Mexico

As per your request, this memorandum is to confirm that the restaking of the above wells in unorthodox locations was necessitated by the presence of significant cultural resources. The archaeological site encountered on the proposed Gartner Gas Com A No. 1 well pad is approximately 800 x 400 feet, and consists of cultural features indicating subsurface deposits. The site is, under 36 C.F.R. 64(d), considered eligible for inclusion in the National Register of Historic Places. Avoidance is the recommended action and preferred cultural resource management measure.

The archaeological sites encountered in the area of the Florance P No. 3 well are situated in the well pad construction zone and along the crest of the narrow ridge in near proximity to the only feasible access route. Protection of the sites by fencing was suggested. After consultation with the Farmington Resource Area Compliance Archaeologist, fencing was deemed unacceptable because of the proximity of the sites to construction activities and the sandy nature of the soils along the ridge crest. These sites are also considered eligible for inclusion in the National Register of Historic Places under 35 C.F.R. 64(d). Avoidance of the sites by moving the proposed location was the recommended action.

Sincerely,


Robert W. Biggs
Director

/jk

**SURVEY OF CULTURAL RESOURCES
FOR AMOCO PRODUCTION COMPANY'S
PROPOSED GARTNER GAS COM A NO. 1 WELL SITE AND
ALTERNATE WELL SITE AND ACCESS ROAD
SAN JUAN COUNTY, NEW MEXICO**

Prepared by

**Jamie A. Karlson
ARCHAEOLOGICAL CONSULTANTS
Durango, Colorado 81301**

Robert W. Biggs, Principal Investigator

September 13, 1989

Prepared for

**AMOCO PRODUCTION COMPANY
Farmington, New Mexico 87401**

Abstract

On June 9 and July 31, 1989, Jamie A. Karlson of Archaeological Consultants (Permit No. 46-2920-88-E) conducted a class III cultural resource survey of a well site and alternate well site and access road for Glen Benfield representing Amoco Production Company. The proposed project areas are situated in San Juan County, New Mexico, on federally owned lands under the jurisdiction of the Farmington Resource Area of the Albuquerque District of the Bureau of Land Management. A total of 17.02 acres was inventoried. One archaeological site, AC742f-1, was encountered in conjunction with the proposed well site. The site was avoided by moving the proposed location 460 feet to the south and 130 feet to the west. Since site AC742f-1 was avoided and since no cultural resources were found at the proposed alternate location or along the access route, no further action is recommended unless subsurface cultural deposits or features are encountered during construction.

**SURVEY OF CULTURAL RESOURCES
FOR AMOCO PRODUCTION COMPANY'S
PROPOSED GARTNER GAS COM A NO. 1 WELL SITE
AND ALTERNATE WELL SITE AND ACCESS ROAD
SAN JUAN COUNTY, NEW MEXICO**

A survey of archaeological and historical resources was conducted for Amoco Production Company's proposed Gartner Gas Com A No. 1 Well Site and Alternate Well Site and Access Road. The proposed location and access road are situated on federally owned property under the jurisdiction of the Farmington Resource Area of the Albuquerque District of the Bureau of Land Management.

On June 9 and July 31, 1989, Jamie A. Karlson of Archaeological Consultants accompanied Glen Benfield representing Amoco Production Company to the location.

The inspection was conducted in order to comply with legal provisions contained in the Act for Preservation of American Antiquities of 1906 (34 Stat. 225, 16, U.S.C. 431 et seq.); the National Historic Preservation Act of 1966 (80 Stat. 915, 16 U.S.C. 470 et seq.); the National Environmental Policy Act of 1969 (83 Stat. 852, 42, U.S.C. 431 et seq.); Executive Order 11593; the Archaeological and Historical Preservation Act of 1974 (88 Stat. 174, 16 U.S.C. 469 et seq.); the Archaeological Resources Protection Act of 1979 (93 Stat. 721, 16 U.S.C. 470 et seq.); and the American Indian Religious Freedom Act of 1979 (92 Stat. 469, 42, U.S.C. 1996 et seq.).

The survey was conducted under the terms of the Department of the Interior Antiquities Permit No. 46-2920-88-E. In accordance with these terms, the Farmington Resource Area Office was notified prior to the initiation of field work. A file search was conducted June 9 and August 15, 1989, through the office of the Area archaeologist of the Bureau of Land Management for previously recorded cultural resources located within the proposed project area.

SURVEY METHODS

The area of the proposed location, an area 600 feet x 550 feet around the proposed alternate location, and areas extending 60 feet on both sides of the flagged centerline of the proposed access route were examined for surface evidence of archaeological and historical resources which would be subject to direct impacts by preparation of the drilling pad, pits, access road, or by drilling activities. The well pad dimensions are 300 x 230 feet. The proposed pad, a construction zone of 100 feet, and a surrounding buffer zone were walked and examined by the archaeologist walking a series of parallel transects spaced approximately 10 to 12 meters apart. The proposed access road was examined by the archaeologist walking a zig-zag transect crossing the flagged centerline at 10 to 12m intervals. An approximate total of 17.02 acres was surveyed, while adjacent areas were given a cursory inspection for

cultural resources which might be subject to indirect impacts from construction or drilling activities. No archaeological materials were collected.

RESULTS OF SURVEY

The file search indicated approximately six sites within a one-mile radius of the project area. The sites are Anasazi Basketmaker III-Pueblo I sites and Navajo Gobernador phase sites. The site nearest the project area, NM-01-35032, lies approximately 500 feet to the south and will not be affected. One site currently listed in the National Register of Historic Places is within the proximity of the work area. Christmas Tree Ruin (LA11097) lies approximately 3000 feet to the northeast and across Gobernador Canyon from the project area. One archaeological site, AC742f-1 was recorded in conjunction with this survey. The proposed location was moved 460 feet to the south and 130 feet to the west to avoid the site. No surface evidence of archaeological or historical resources was found at the proposed alternate location or along the access route. No evidence of cultural resources in adjacent areas was found which might be subject to indirect impacts from preparation of the well site or drilling activities. Specific data concerning location, terrain, environment, and cultural resources follow.

GARTNER GAS COM A NO. 1 WELL SITE (Figure 1)

- Location:** The proposed well site is located 1790 feet FNL and 1830 feet FEL in the SW $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 27, Township 30 North, Range 8 West, New Mexico Principal Meridian, San Juan County, New Mexico (Archuleta, New Mexico, U.S.G.S. quadrangle map), UTM centerpoint: 13: 262620E 4074120N.
- Terrain:** The proposed location is situated on Manzanares Mesa along the top of an unnamed mesa overlooking Gobernador Canyon to the north and east. The average elevation of the project area is 6157 feet above sea level.
- Flora:** The flora consists of Pinyon-juniper forest with mountain mahogany, broom snakeweed, Mormon tea, and grasses.
- Surface Area:** The soils consist of sandy clay-loams with sandstone outcrops and boulders and bedrock exposures along the canyon rim. The area is presently used for energy development.
- Cultural Materials:** One archaeological site, AC742f-1, was encountered.

SITE AC742f-1

Location: The NE $\frac{1}{4}$ and the W $\frac{1}{4}$ of the SW $\frac{1}{4}$ of the NE $\frac{1}{4}$, Section 27, Township 30 North, Range 8 West, New Mexico Principal Meridian, San Juan County, New Mexico, UTM centerpoint: 13: 262600E 4074180N.

Site Size: 240x 120m

Site Description: The site is situated on Manzanares Mesa on the top of an unnamed mesa overlooking Gobernador Canyon to the north and east. The site consists of of a large ceramic/lithic scatter with artifact concentrations, one hearth, one probable hearth, a charcoal stain eroding out of the bank of a small arroyo, and an alignment of sandstone rocks. Feature 1 is a probable hearth, consisting of a small charcoal stain surrounded by plain grayware sherds; Features 2, 3, and 4 are small lithic concentrations, consisting of chert and quartzite unifacially modified flake tools, utilized flakes and debitage situated in and around arroyos along the northern margin of the site. Feature 5 is a concentration of plain grayware sherds; Feature 6 is a small concentration of black-on-red sherds. Feature 7 is a hearth consisting of oxidized sandstone rocks and charcoal with an associated artifact scatter consisting of grayware sherds, black-on-red sherds, chert, quartzite and obsidian flakes. Feature 8 is an alignment of a single course of sandstone rocks approximately 3m in length, function unknown. Feature 9 is a charcoal stain washing out of the bank of a small arroyo with a concentration of grayware sherds.

Vegetation: Site vegetation includes pinyon pine, juniper, grasses, and Mormon tea.

Artifacts Observed: The plain grayware sherds observed have irregular exterior surfaces that have been wiped, some few appear to have been smoothed. Interior surfaces have been wiped. Temper ranges from fine to very fine grain size particles which appear to be sand or crushed sandstone. The graywares are probably

Dinetah gray. The redware sherds are thin walled, exterior surfaces and some interior surfaces have been polished. The vessels have been decorated with a black, probably mineral, paint and are possibly Rio Grande glazewares. A single yellow sherd, with polished surfaces, and no visible temper, a possible Jeddito Black-on-yellow sherd was observed. Lithic artifacts include one small quartzite biface, chert and quartzite unifacially modified flake tools, utilized flakes of chert quartzite and obsidian, and debitage.

Cultural

Affiliation/Date:

Probably Navajo, Gobernador phase ca. A.D. 1694-1750.

Character of

Deposits/Depth:

Undetermined.

National Register

Potential:

The site is a Category 2 site and is considered eligible for inclusion in the National Register of Historic Places under 36 C.F.R. 64(d).

Management

Recommendations:

The site was avoided by moving the proposed location 460 feet to the south and 130 feet to the west.

GARTNER GAS COM A NO. 1 ALTERNATE WELL SITE AND ACCESS ROAD

Location:

The proposed well site is located 2250 feet FNL and 1960 feet FEL in the SW $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 27 (Figures 1 and 2), Township 30 North, Range 8 West, New Mexico Principal Meridian, San Juan County, New Mexico (Archuleta, New Mexico U.S.G.S. quadrangle map), UTM centerpoint: 13: 262620E 4073980N.

Access Alignments:

The proposed access road is approximately 1800 feet long and crosses portions of the NW $\frac{1}{4}$ of the SE $\frac{1}{4}$ and the SW $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 27 from an existing road from an existing well (UTM coordinates: 13: 262680E 4073580N).

Terrain:

The proposed location and access road are situated on Manzanares Mesa on steep northwest-facing slopes overlooking an unnamed tributary canyon draining into Gobernador Canyon to the north. The average elevation of the project area is 6186 feet above sea level.

Flora: The flora consists of Pinyon-juniper forest with mountain mahogany, broom snakeweed, Mormon tea, and grasses.

Surface Area: The soils consist of sandy clay-loams with sandstone outcrops and boulders. The area is presently used for energy development.

Cultural Materials: None observed.

RECOMMENDATIONS

Since site AC742f-1 was avoided by moving the proposed location 460 feet to the south and 130 feet to the west, and no since evidence of archaeological or historical resources which would be endangered by well site preparation or drilling activities was found at the alternate location or along the access road, no further action is deemed necessary unless subsurface cultural features or deposits are exposed during construction. Should subsurface archaeological materials be encountered during preparation of the well site or construction of the access road, it is recommended that work be halted in the area of the finds and the Farmington Resource Area archaeologist be notified immediately. Further construction in the area of these finds should be suspended until the materials are examined and evaluated by a qualified archaeologist.

**SURVEY OF CULTURAL RESOURCES
FOR AMOCO PRODUCTION COMPANY'S
PROPOSED GARTNER GAS COM A NO.1
WELL SITE AND ALTERNATE WELL SITE
AND ACCESS ROAD**

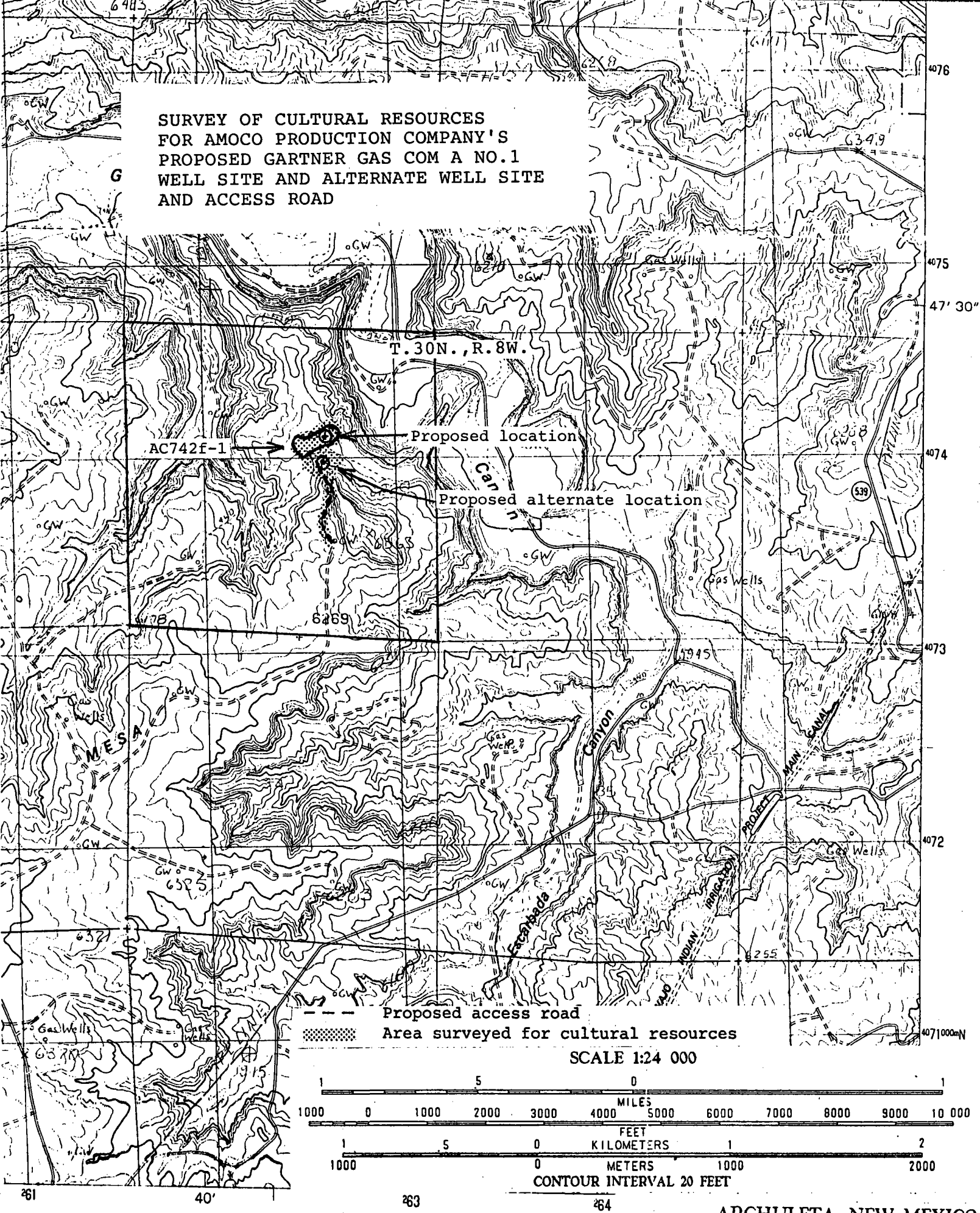
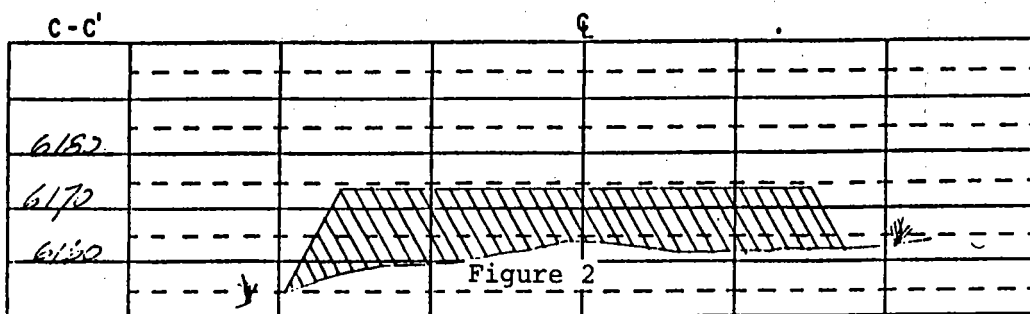
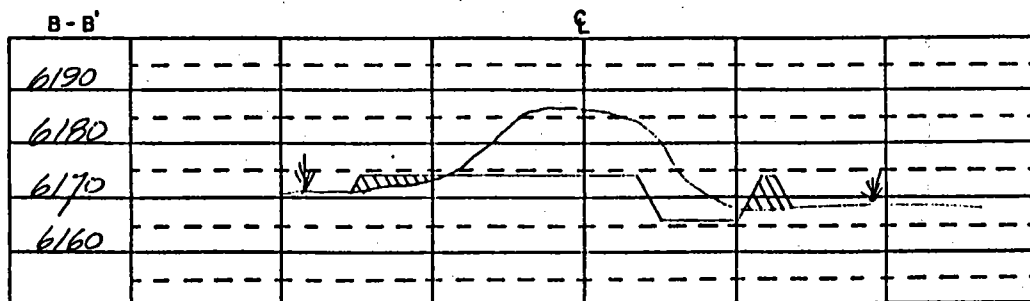
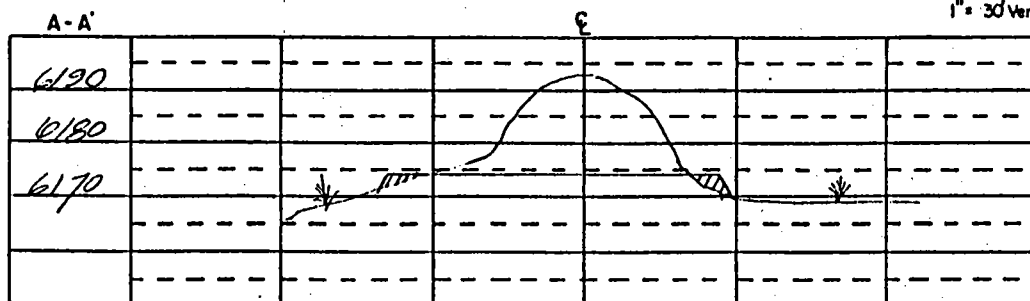
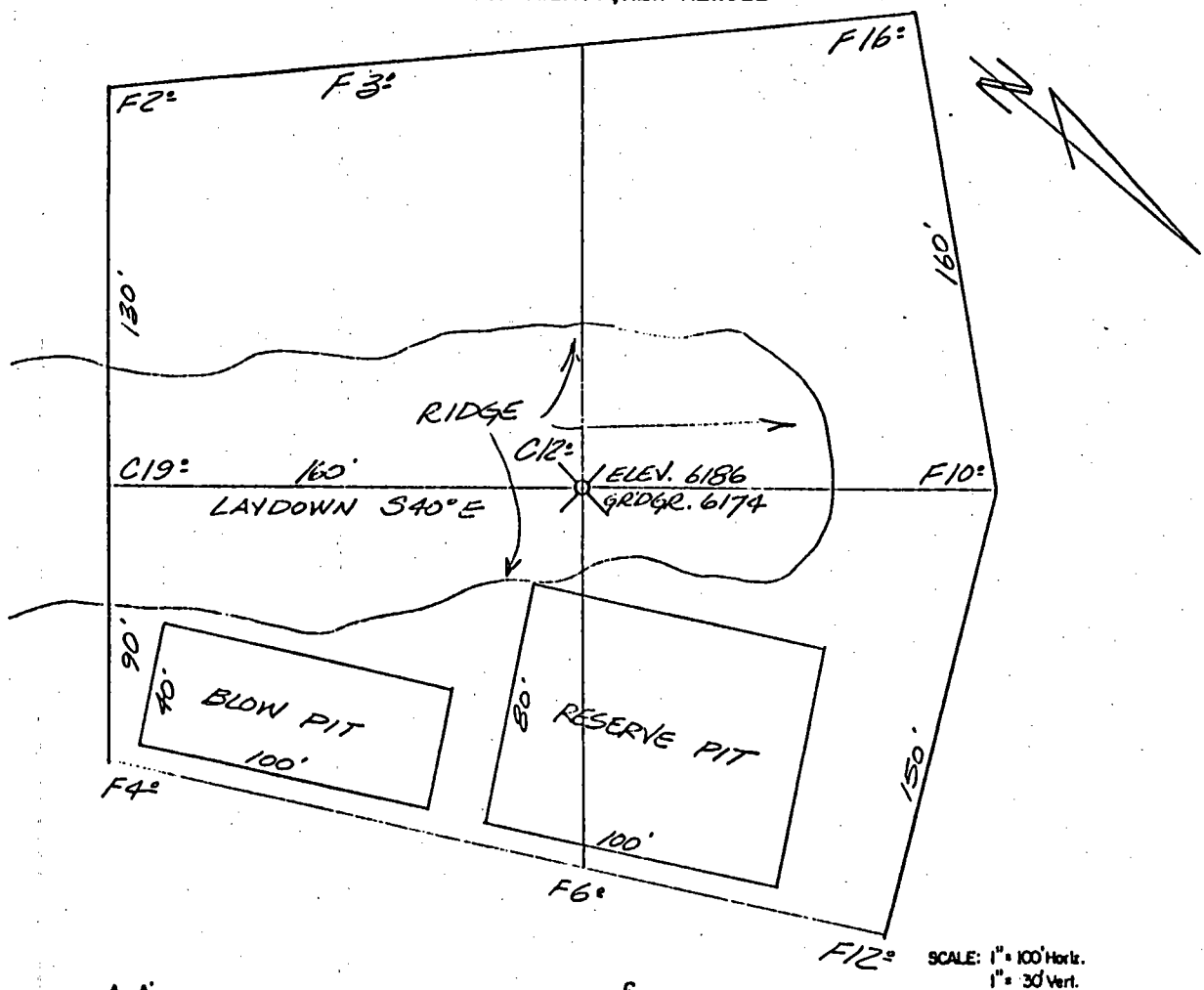
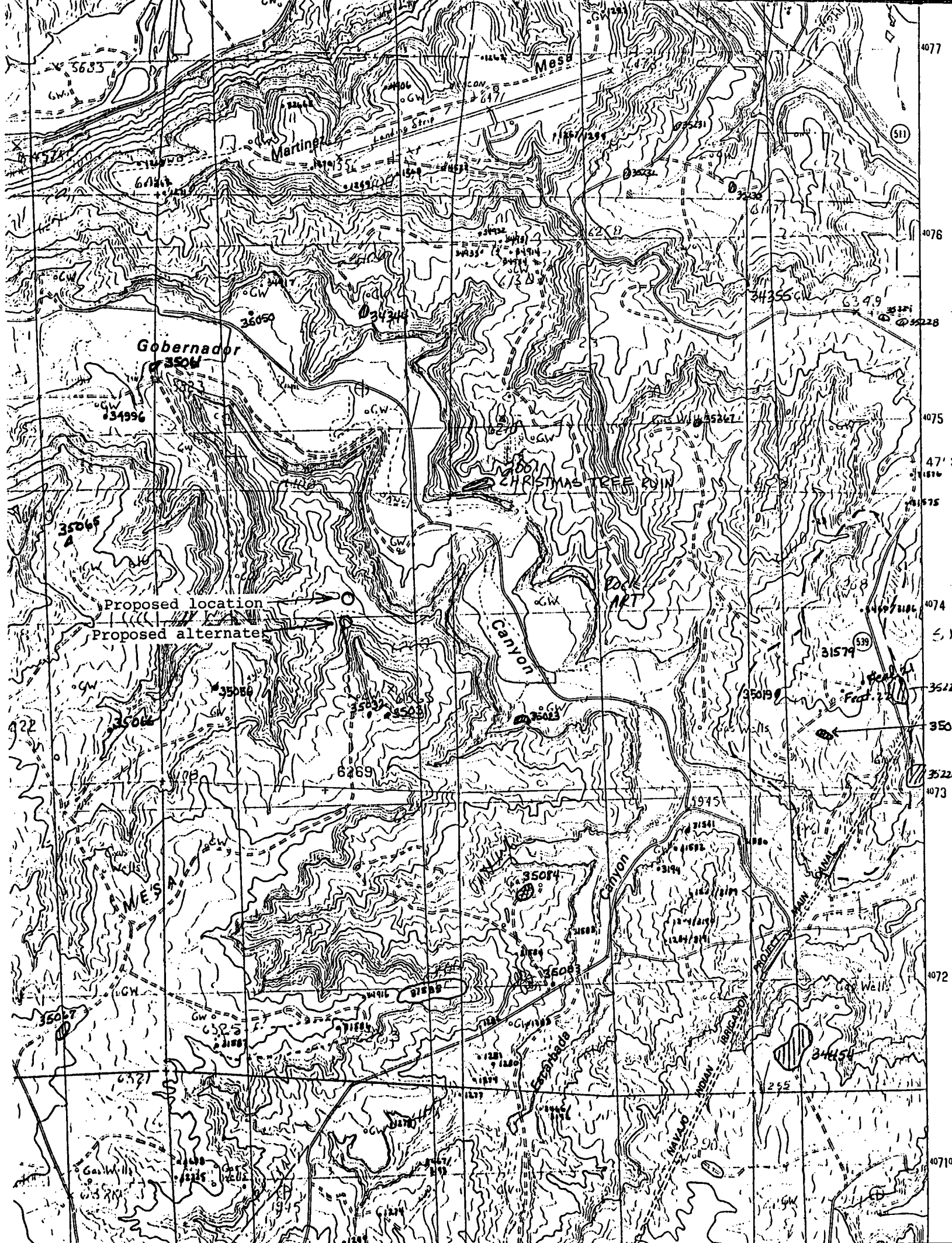


Figure 1

**ARCHULETA, NEW MEXICO
PROVISIONAL EDITION 1985**

AMOCO PRODUCTION COMPANY
 GARTNER GAS COM /A/ # 1
 2250' F/NL 1960' F/EL
 SEC. 27, T30N, R8W, NMPM
 SAN JUAN COUNTY, NEW MEXICO





APPENDIX

**LABORATORY OF ANTHROPOLOGY,
MUSEUM OF NEW MEXICO
ARCHAEOLOGICAL SITE SURVEY FORM**

LABORATORY OF ANTHROPOLOGY, MUSEUM OF NEW MEXICO
 ARCHEOLOGICAL SITE SURVEY FORM

LA No. _____ Site Name _____ Other Inst.# _____ I.O. _____

MNM Proj.# _____ UTM: Zone 1 3 E 2 6 2 6 6 6 N 4 0 7 4 1 8 0 _____Legal Desc. T 30 N S R 8 E W Sec. 27NE $\frac{1}{4}$ and W $\frac{1}{4}$ of the SW $\frac{1}{4}$ of the _____ 1/4 of the _____ 1/4Unplatted _____ Grant _____ Owner & Address Farmington Resource Area, Bureau of Land Management*Map Reference: Archuleta, New Mexico Date: 1985 prov. ed scale: 7.5'County San Juan State New Mexico Nearest Named Drainage Gobernador CanyonLocational Desc.: Recognized Landmarks The site is situated on Manzanares Mesa on a narrow mesa, along the northern base of a large, steeply rising hill. The site overlooks Gobernador Canyon to the north and east.Site Type: CampsiteSite Size: Length 240 Width 120m Elevation (# of Feet) 6157Topographic Setting (Location & Access): From Blanco, New Mexico, travel 17.21 miles on U.S. Highway 64. Turn North and travel a distance of 2.30 miles. Turn north-east and travel along pipeline right-of-way approximately 2.43 miles. The site lies to the north of the pipeline right-of-way.

<input type="checkbox"/> arroyo/wash	<input type="checkbox"/> flood plain/	<input type="checkbox"/> plain/flat
<input type="checkbox"/> base of cliff	<input type="checkbox"/> valley bottom	<input type="checkbox"/> playa
<input type="checkbox"/> bench	<input type="checkbox"/> hill top	<input type="checkbox"/> ridge
<input type="checkbox"/> blowout	<input type="checkbox"/> hill slope	<input type="checkbox"/> saddle
<input type="checkbox"/> canyon rim	<input type="checkbox"/> low rise	<input type="checkbox"/> base talus slope
<input type="checkbox"/> cave	<input checked="" type="checkbox"/> mesa	<input type="checkbox"/> terrace
<input type="checkbox"/> cliff/scarp	<input type="checkbox"/> mountain	other (specify) _____
<input type="checkbox"/> constricted cyn	<input type="checkbox"/> mt. front/foothill	_____
<input type="checkbox"/> dune	<input type="checkbox"/> open canyon floor	_____

Local Vegetation Pinyon pine, juniper, grasses, Mormon teaEcological Zone: forest _____ woodland X scrubland _____ grassland _____
 desertscrub _____ marshland _____ other (specify) _____

*Form must be accompanied by photocopy portion of USGS map showing T., R., scale and quad name.

Soil Type: rocky___ gravelly___ sandy X clayey___ other___Local Outcrops: sandstone X shale___ limestone___ basalt___ tuff___
other (specify) _____Nature and Depth of Fill: UndeterminedArch. Status: Amount and Type of Work Past and Present Recorded, mapped,
and photographed in conjunction with survey of Gartner Gas Com A No. 1 well site

National and/or State Register Status:

- ☐ On State Register
- ☐ On National and State Register
- ☐ Recommended for National by State, on State Register
- ☐ Recommended for National and State Register
- ☐ In District, National and State
- ☐ In District, National
- ☐ In District, State
- ☐ Recommended and rejected
- ☐ Insufficiently evaluated, potential unknown
- ☐ Not nominated
- ☐ The site is Category 2 and considered National Register eligible

Condition of Site: intact___ grazed___ eroded X mech. disturbance___
vandalized___ other___Mitigation: avoid X monitor___ test___ excavate___ not required___Surveyed for Amoco Production CompanyRecord Form: Surv. Forms X Excav. Forms___ Sketch Map X Photos XLoc. of Forms, Maps, Photos Archaeological Consultants, Durango, Colorado

Negatives, Farmington Resource Area, Bureau of Land Management

Surface and/or Subsurface Collections: yes___ no X Strategy___Location of Collected Artifacts N/A

Previous Collections?___ When___ Repository___

Is there another site close by? No LA or Field Identif.#___Artifact Density: 0, 10's, (100's), 1000's.

Time Diagnostic Artifacts:

Rio Grande glazeware ceramics

No. of Temporal Components_____

(Earliest to Latest)

Temporal Component (1)

Features F. 1- possible hearth and grayware sherd concentration; F. 2,3,4 - lithic concentrations; F. 5- grayware sherd concentration; F. 6- Black-on-red sherd concentration; F. 7- hearth and ceramic/lithic concentration; F. 8 stone alignment; F. 9 -charcoal stain and grayware sherd concentration.

Culture Navajo Period Phase Gobernador

Site Function: Campsite Best Date ca A.D. 1694-1750

Method of Date: _____

Temporal Component (2)

Features

Culture	Period	Phase
---------	--------	-------

Site Function _____ Best Date _____

Method of Date _____

Temporal Component (3)

Features

Culture _____ Period _____

Phase _____

Site Function _____ Best Date _____

Method of Date _____

Additional Temporal Components

Published Reference:

Date 9/13/89Institution Archaeological Consultants

Author and Title J. Karlson- Survey of Cultural Resources for Amoco Proudction Company's Proposed Gartner Gas Com A No. 1 Well Site and Alternate Well Site and Access Road, San Juan County, New Mexico

Remarks: The site is situated on Manzanares Mesa on the top of an unnamed mesa overlooking Gobernador Canyon to the north and east. The site consists of a large ceramic/lithic scatter with artifact concentrations, one hearth, one probable hearth, a charcoal stain eroding out of the bark of a small arroyo, and an alinment of sand-

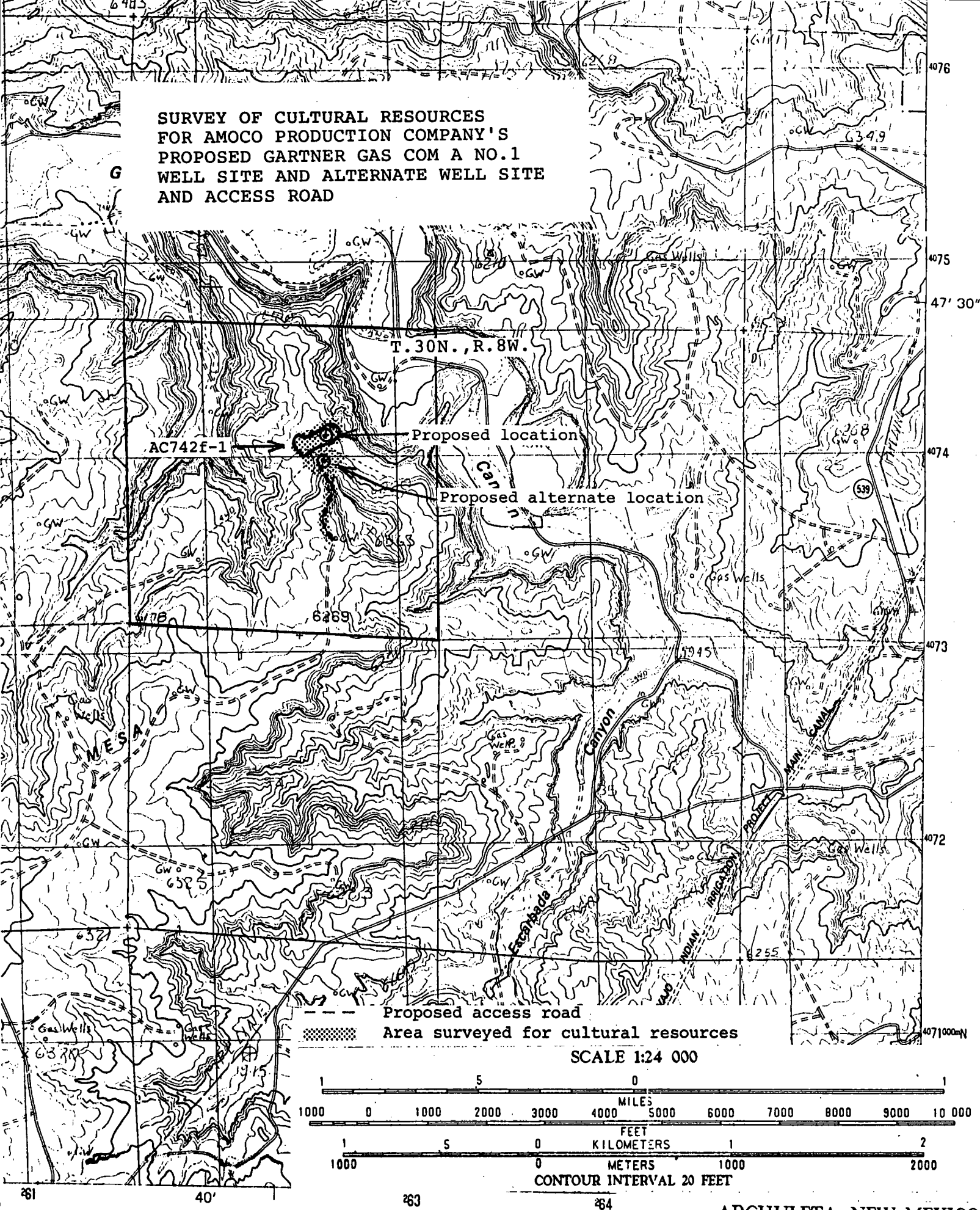
stone rocks. Feature 1 is a probable hearth, consisting of a small charcoal stain surrounded by plain grayware sherds; Features 2, 3, and 4 are small lithic concentrations consisting of chert and quartzite flake tools, utilized flakes, and debitage situated in and around arroyos along the northern margin of the site. Feature 5 is a concentration of plain grayware sherds; Feature 6 is a concentration of black-on-red sherds. Feature 7 is a hearth consisting of oxidized sandstone rocks and an associated artifact scatter consisting of grayware sherds, black-on-red sherds, chert, quartzite, and obsidian flakes. Feature 8 is an alignment of a single course of sandstone rocks approximately 3m in length, function unknown. Feature 9 is a charcoal stain washing out of the bank of a small arroyo with a concentration of grayware sherds.

Artifacts observed include plain grayware sherds with irregular exterior surfaces that have been wiped, some few appear to have been smoothed. Interior surfaces have been wiped. Temper ranges from fne to very fine grain size particles which appear to be sand to crushed sandstone. The graywares are probably Dinetah gray. The redware sherds are thin walled, exterior surfaces and some interior surfaces have been polished. The vessles have been decorated with a black, probably mineral, paint and are possibly Rio Grande glazewares. A single yellow sherd with polished furfaces and no visible temper, a possible Jeddito Black-on-yellow sherd was observed. Lithic artifacts include one small, trianqular biface, chert and quartzite unifacially modified flake tools, utilized flakes of chert, quartzite and obsidian, and debitage.

Field Recorder J. Karlson Date 7/31/89

Lab Recorder _____ Date _____

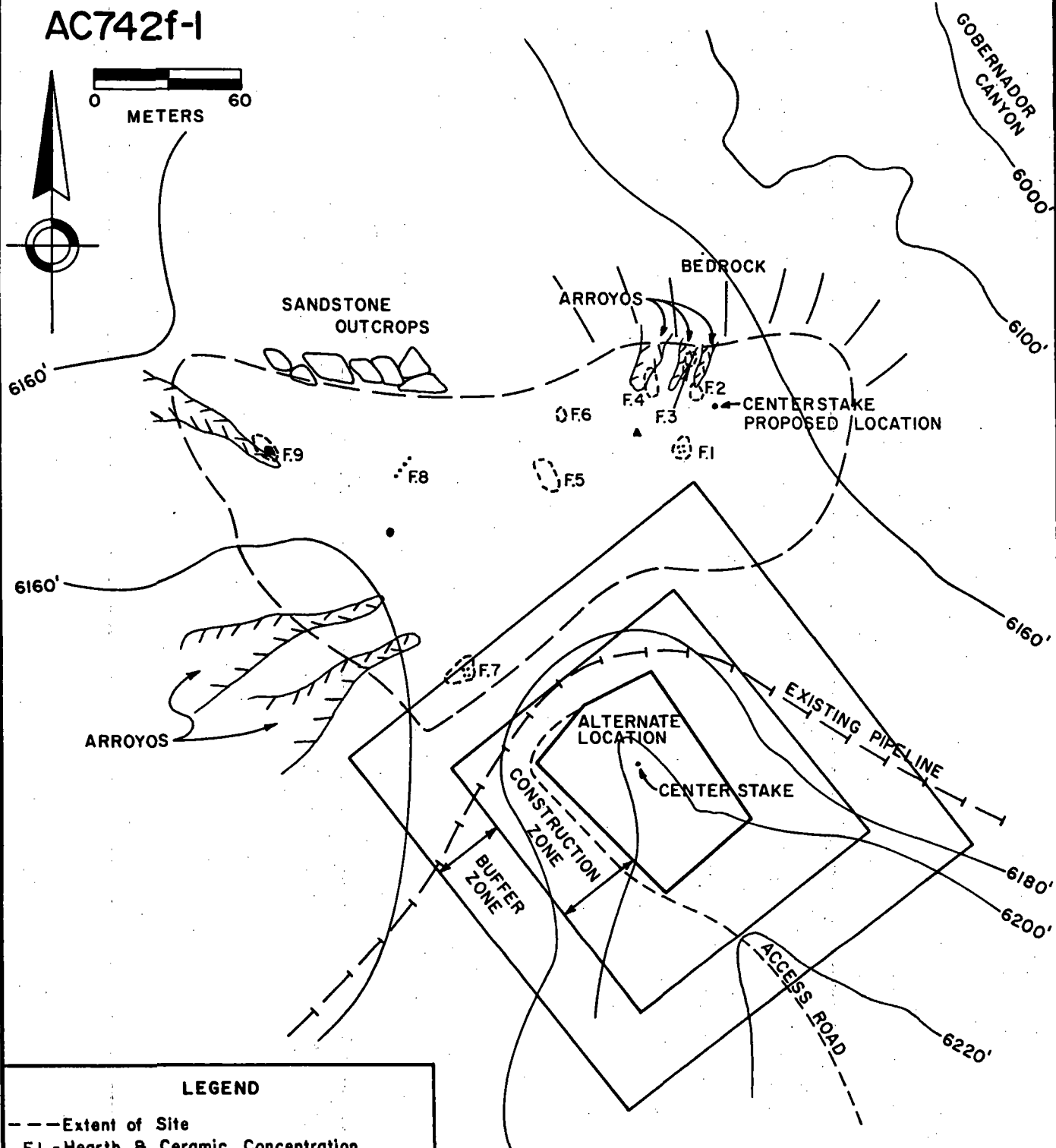
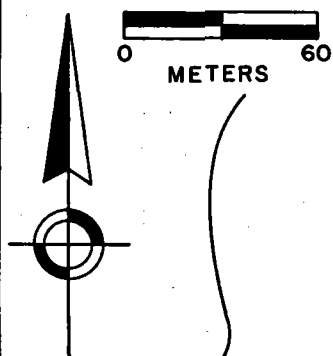
**SURVEY OF CULTURAL RESOURCES
FOR AMOCO PRODUCTION COMPANY'S
PROPOSED GARTNER GAS COM A NO.1
WELL SITE AND ALTERNATE WELL SITE
AND ACCESS ROAD**



**ARCHULETA, NEW MEXICO
PROVISIONAL EDITION 1985**

Figure 1

AC742f-1



LEGEND

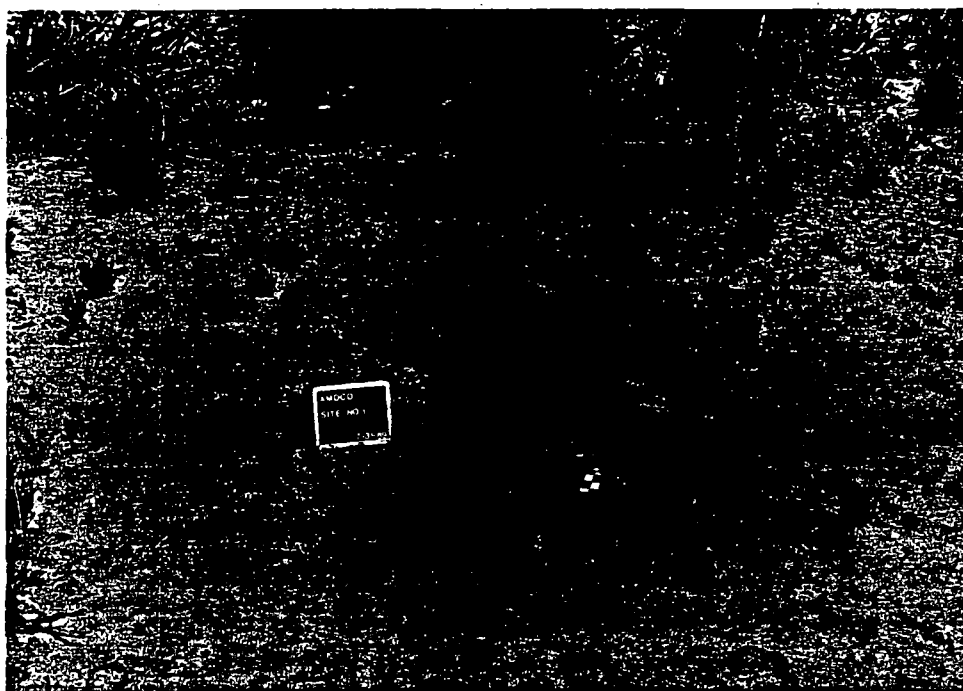
- Extent of Site
- F1 - Hearth & Ceramic Concentration
- F2,3, & 4 - Lithic Concentrations
- F5 - Grayware Concentration
- F6 - Redware Concentration
- F7 - Hearth & Artifact Concentration
- F8 - Sandstone Rock Alignment
- F9 - Charcoal Stain & Ceramic Concentration
- ▲ - Biface
- - Jeddito Black-on-Yellow Sherd



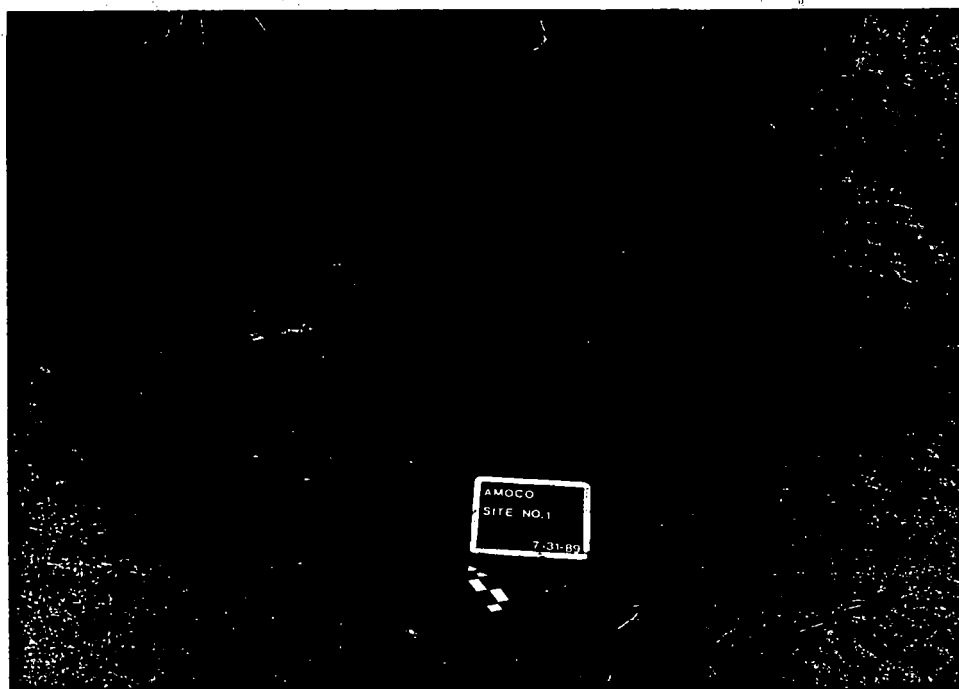
Site AC742f-1. Feature 7, a hearth and associated artifact scatter consisting of Dinetah gray sherds, Rio Grande glazeware, chert, quartzite, and obsidian flakes. View is to the north.



Site AC742f-1. Feature 9, charcoal eroding out of the bank of a small arroyo and associated grayware sherds, possibly Dinetah gray. View is to the north.



Site AC742f-1. Feature 7, a hearth and associated artifact scatter consisting of Dinetah gray sherds, Rio Grande glazeware, chert, quartzite, and obsidian flakes. View is to the north.



Site AC742f-1. Feature 9, charcoal eroding out of the bank of a small arroyo and associated grayware sherds, possibly Dinetah gray. View is to the north.

SURVEY OF CULTURAL RESOURCES
FOR AMOCO PRODUCTION COMPANY'S
PROPOSED FLORANCE P NO. 3 WELL SITE AND
ALTERNATE WELL SITE AND ACCESS ROAD
SAN JUAN COUNTY, NEW MEXICO

Prepared by

Jamie A. Karlson
ARCHAEOLOGICAL CONSULTANTS
Durango, Colorado 81301

Robert W. Biggs, Principal Investigator

September 13, 1989

Prepared for

AMOCO PRODUCTION COMPANY
Farmington, New Mexico 87401

Abstract

On June 9 and July 31, 1989, Jamie A. Karlson of Archaeological Consultants (Permit No. 46-2920-88-E) conducted a class III cultural resource survey of a well site and access road and alternate well site and access road for Glen Benfield representing Amoco Production Company. The proposed project areas are situated in San Juan County, New Mexico, on federally owned lands under the jurisdiction of the Farmington Resource Area of the Albuquerque District of the Bureau of Land Management. Previously recorded sites NM-01-1284/3190 and NM-01-1284/3191 were within the proposed project area, in the construction zone of the proposed location and adjacent to the access road. Moving the location to avoid the sites was recommended. The location was moved 2190 feet to the north and 300 feet to the east. A total of 7.57 acres was inventoried. Since no cultural resources were found at the proposed alternate location, no further action is recommended unless subsurface cultural deposits or features are encountered during construction.

SURVEY OF CULTURAL RESOURCES
FOR AMOCO PRODUCTION COMPANY'S
PROPOSED FLORANCE P NO. 3 WELL SITE AND
ALTERNATE WELL SITE AND ACCESS ROAD
SAN JUAN COUNTY, NEW MEXICO

A survey of archaeological and historical resources was conducted for Amoco Production Company's proposed Florance P No. 3 Well Site and Alternate Well Site and Access Road. The proposed locations and access roads are situated on federally owned property under the jurisdiction of the Farmington Resource Area of the Albuquerque District of the Bureau of Land Management.

On June 9 and July 31, 1989, Jamie A. Karlson of Archaeological Consultants accompanied Glen Benfield representing Amoco Production Company to the location.

The inspection was conducted in order to comply with legal provisions contained in the Act for Preservation of American Antiquities of 1906 (34 Stat. 225, 16, U.S.C. 431 et seq.); the National Historic Preservation Act of 1966 (80 Stat. 915, 16 U.S.C. 470 et seq.); the National Environmental Policy Act of 1969 (83 Stat. 852, 42, U.S.C. 431 et seq.); Executive Order 11593; the Archaeological and Historical Preservation Act of 1974 (88 Stat. 174, 16 U.S.C. 469 et seq.); the Archaeological Resources Protection Act of 1979 (93 Stat. 721, 16 U.S.C. 470 et seq.); and the American Indian Religious Freedom Act of 1979 (92 Stat. 469, 42, U.S.C. 1996 et seq.).

The survey was conducted under the terms of the Department of the Interior Antiquities Permit No. 46-2920-88-E. In accordance with these terms, the Farmington Resource Area Office was notified prior to the initiation of field work. A file search was conducted June 9 and July 10, 1989 through the office of the Area archaeologist of the Bureau of Land Management for previously recorded cultural resources located within the proposed project area.

SURVEY METHODS

An area 600 feet x 550 feet around the proposed alternate location, which includes the area of the proposed access road, was examined for surface evidence of archaeological and historical resources which would be subject to direct impacts by preparation of the drilling pad, pits, access road, or by drilling activities. The well pad dimensions 280 x 230 feet. The proposed pad, a construction zone of 50 feet, and a surrounding buffer zone of 100 feet were examined by the archaeologist walking a series of parallel transects spaced approximately 10 to 12 meters apart, vegetation permitting. An approximate total of 7.57 acres was surveyed, while adjacent areas were given a cursory inspection for cultural resources which might be subject to indirect impacts from construction or drilling activities. No archaeological materials were collected.

RESULTS OF SURVEY

The file search indicated approximately thirteen previously recorded sites within a one-mile radius of the project area. The sites include Anasazi Basketmaker III-Pueblo I pithouses and surface structures, Anasazi campsites and ceramic/lithic scatters; Navajo Gobernador phase campsites; campsites with associated artifact scatters of undetermined cultural affiliation and date; a lithic scatter, and an Archaic site. Sites NM-01-1284/3190 and NM-01-1284/3191 were within the proposed project area. The location of these previously sites was field verified and were found to be in the construction zone of the proposed location, and adjacent to the proposed access road. Moving the location to avoid the sites was recommended. The proposed location was moved 2190 feet to the north and 300 feet to the east to avoid these sites. The site nearest the alternate location, NM-01-31581, a hearth and ceramic scatter, lies 500 feet to the southwest and will not be affected.

No sites currently listed in the National Register of Historic Places are within the proximity of the work area. No surface evidence of archaeological or historical resources was found at the proposed alternate location or along the access route. No evidence of cultural resources in adjacent areas was found which might be subject to indirect impacts from preparation of the well site or drilling activities. Specific data concerning location, terrain, environment, and cultural resources follow.

FLORANCE P NO. 3 WELL SITE AND ACCESS ROAD (Figure 1)

- Location:** The proposed well site is located 2290 feet FNL and 1110 feet FEL in the SE $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 35, Township 30 North, Range 8 West, (Archuleta, New Mexico U.S.G.S. quadrangle map) New Mexico Principal Meridian, San Juan County, New Mexico UTM centerpoint: 13: 264420E 4072360N
- Access Alignments:** The proposed access road is approximately 1000 feet long and crosses portions of the NE $\frac{1}{4}$ of the SE $\frac{1}{4}$ and the SE $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 35, Township 30 North, Range 8 West, from an existing road, UTM coordinates: 13: 264420E 4072160N.
- Terrain:** The proposed location and access road are situated along the crest of an unnamed ridge between Escarbada Canyon to the west, and Gobernador Canyon to the north and east. The average elevation of the project area is 6100 feet above sea level.
- Flora:** The flora consists of sparse Pinyon-juniper forest at the edge of Big Sagebrush shrublands with grasses, yucca, broom snakeweed, and Mormon tea.
- Surface Area:** The soils consist of sand dunes, and sandy loams with bedrock exposures. The area is currently used for energy development.

Cultural Materials: Previously recorded sites NM-01-1284/3190 and NM-01-1284/3191 were within the proposed project area, in the construction zone of the proposed location, and adjacent to the proposed access road. The proposed location was moved 2190 feet to the north and 300 feet to the east to avoid these sites.

FLORANCE P NO. 3 ALTERNATE WELL SITE AND ACCESS ROAD

Location: The proposed well site is located 230 feet FNL and 900 feet FEL in the NE $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 35, Township 30 North, Range 8 West (Archuleta, New Mexico U.S.G.S. quadrangle map), New Mexico Principal Meridian, San Juan County, New Mexico (Figures 1 and 2), UTM centerpoint: 13: 264520E 4073000N.

Access Alignments: The proposed access road is approximately 100 feet long and crosses portions of the NE $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 35 from an existing road from an existing road (UTM coordinates: 13: 264500E 4072960N).

Terrain: The proposed location and access road are situated in the flood plain in the canyon bottomlands at the confluence of Escarbada Canyon with Gobernador Canyon. The average elevation of the project area is 5946 feet above sea level.

Flora: The flora consists of extremely dense Big Sagebrush shrublands with grasses and broom snakeweed.

Surface Area: The soils consist of sand and sandy loams. The area is presently used for energy development.

Cultural Materials: Broken glass, recent hearths, aluminum cans and assorted modern trash extend across the proposed project area.

RECOMMENDATIONS

Since no evidence of archaeological or historical resources which would be endangered by well site preparation or drilling activities was found at the alternate location or along the access road, no further action is deemed necessary unless subsurface cultural features or deposits are exposed during construction. Should subsurface archaeological materials be encountered during preparation of the well site or construction of the access road, it is recommended that work be halted in the area of the finds and the Farmington Resource Area archaeologist be notified immediately. Further construction in the area of these finds should be suspended until the materials are examined and evaluated by a qualified archaeologist.

**SURVEY OF CULTURAL RESOURCES
FOR AMOCO PRODUCTION COMPANY'S
PROPOSED FLORANCE P NO. 3
WELL SITE AND ALTERNATE WELL
SITE AND ACCESS ROAD**

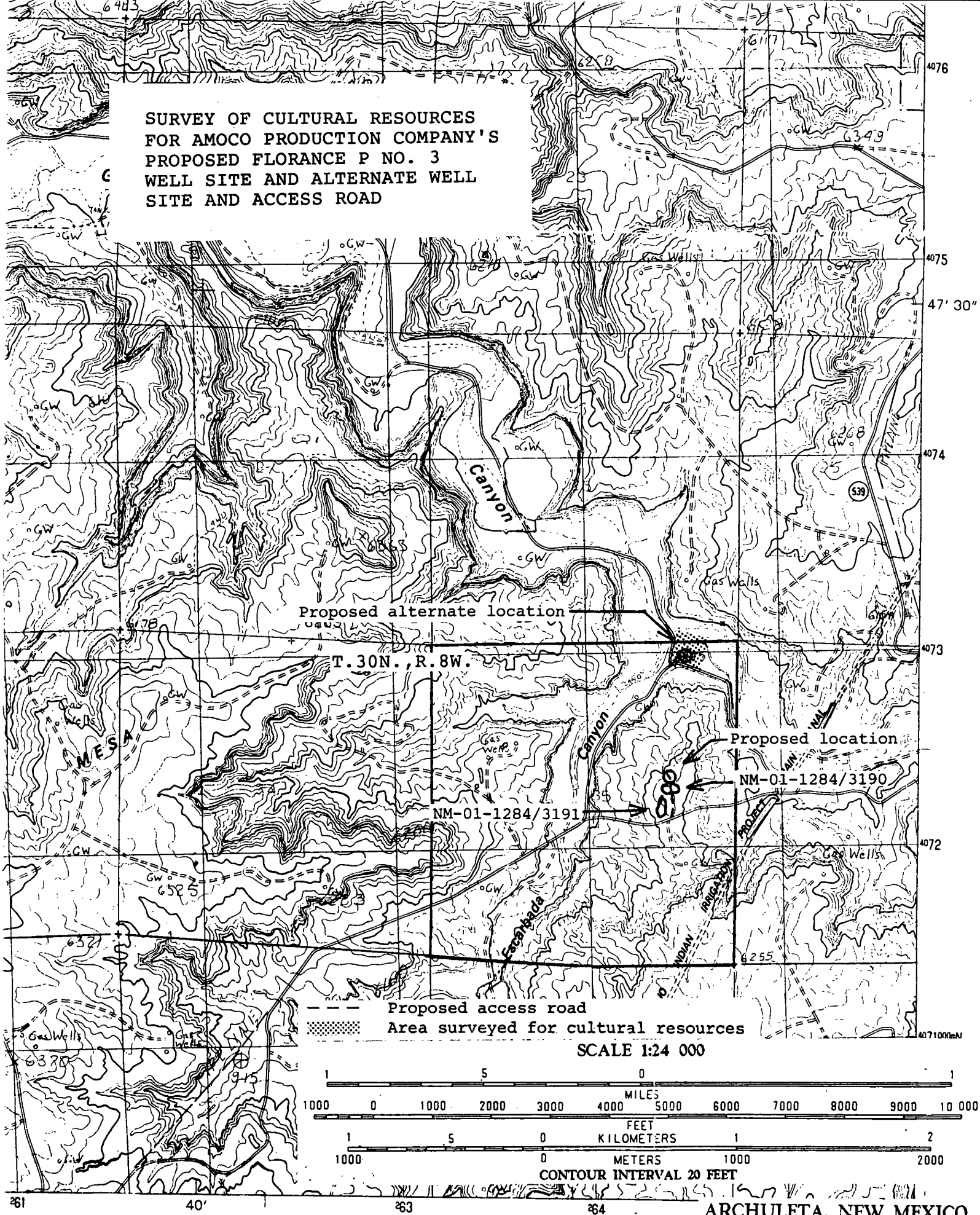
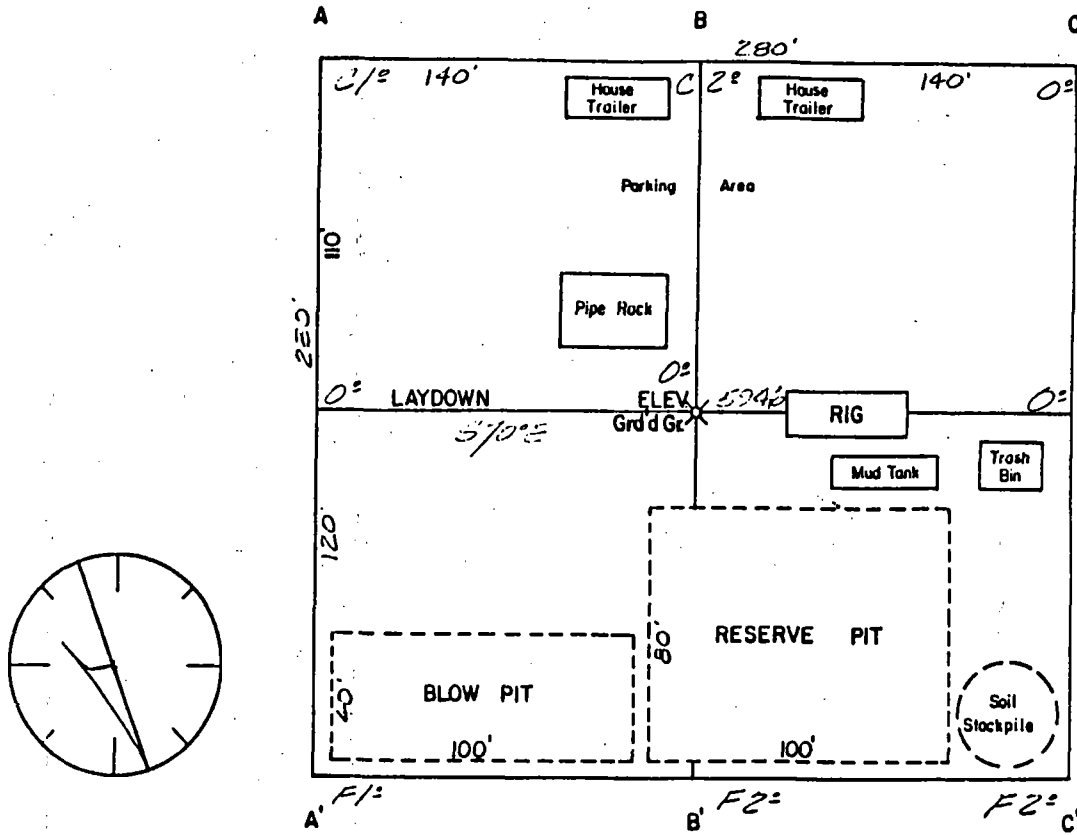
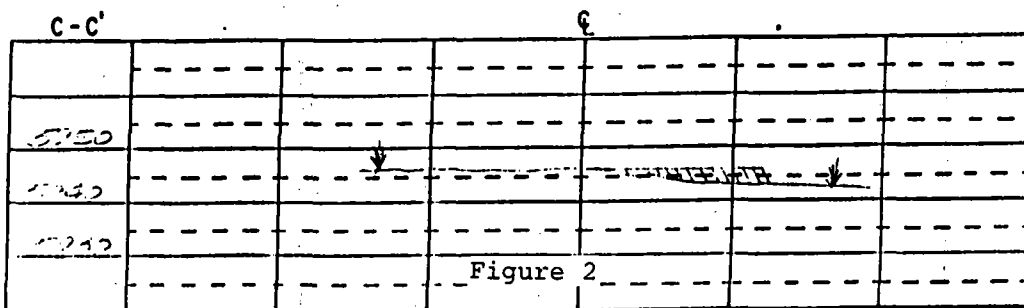
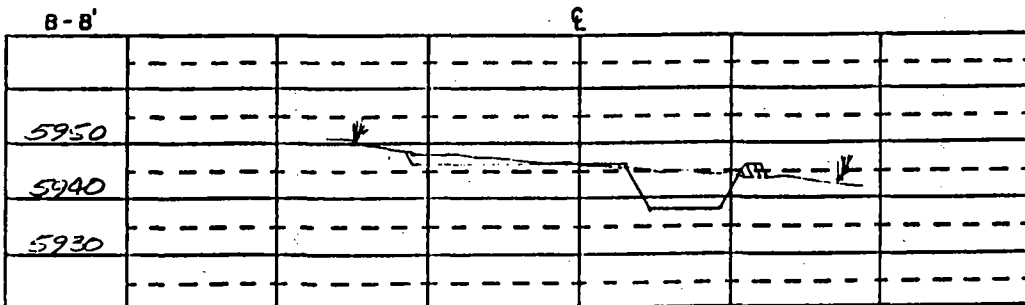
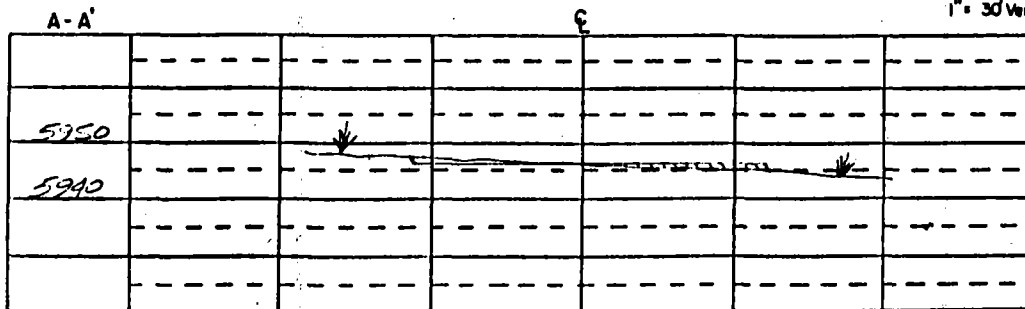


Figure 1

AMOCO PRODUCTION COMPANY
 FLORANCE /P/ # 3
 230' F/NL 900' F/EL
 SEC. 35, T30N, R8W, NMPM
 SAN JUAN COUNTY, NEW MEXICO



SCALE: 1" = 100' Horiz.
 1" = 30' Vert.





MERIDIAN OIL

September 22, 1989

New Mexico Oil Conservation Division
ATTN: Mr. William LeMay, Director
PO Box 2088
Santa Fe, NM 87504

RECEIVED

SEP 25 1989

OIL CONSERVATION DIV.
SANTA FE

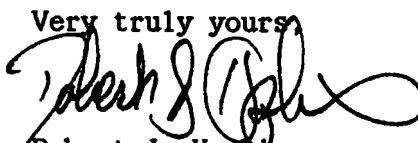
RE: Unorthodox Location Waiver
Gartner Gas Com A #1
Section 27, T-30-N, R-8-W
San Juan County, New Mexico

Gentlemen:

Enclosed, please find a copy of Amoco's Unorthodox Location Waiver for the referenced well. This waiver has been executed by S.W. Nance, our Regional Engineering Manager.

If further information is needed, please advise.

Very truly yours



Robert J. Hopkins
Senior Landman

RJH:ch
Enclosure



Amoco Production Company

Denver Region
1670 Broadway
P.O. Box 800
Denver, Colorado 80201
303-830-4040

September 6, 1989

Mr. William LeMay, Director
New Mexico Oil Conservation Division
PO Box 2088
Santa Fe, NM 87504

File: NWA-648-986.511

Request for Administrative Approval
Unorthodox Location
Gartner Gas Com "A" Well No. 1
Section 27-T30N-R8W
Basin Fruitland Coal Gas Pool
San Juan County, New Mexico



Amoco Production Company respectfully requests administrative approval for an unorthodox location for the Gartner Gas Com "A" Well No. 1 in the Basin Fruitland Coal Gas Pool. Amoco plans to drill the subject well at a location 2250' FNL and 1960' FEL of Section 27-T30N-R8W. This unorthodox location is necessitated by topographical conditions and the presence of archeological sites covering the orthodox location drilling window in the NE/4 of Section 27. Attached is a plat showing the proposed well location and the topographical conditions in Section 27 and a plat showing ownership of the offsetting spacing units.

A copy of this application will be sent to all offset operators by certified mail with a request that they furnish your Santa Fe office with a Waiver of Objection and return one copy to this office.

Sincerely,

J.W. Hawkins

WAIVER

Meridian Oil Inc. hereby waives objection to Amoco Production Company's application for an unorthodox location for their Gartner Gas Com "A" Well No. 1 as proposed above.

By: SW Nance Date: 9/22/89

Steven W. Nance, Regional Engineering Manager

cc: K.J. Lund R.A. Steele

J.L. Spitler

Affected offset operators - see attached mailing list



STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE

GARREY CARRUTHERS
GOVERNOR

1000 RIO GRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-8178

OIL CONSERVATION DIVISION
RECEIVED
'89 NOV 8 AM 9 42

Date: 10-30-89

ATTN:
Mike Sfogner

Oil Conservation Division
P.O. Box 2088
Santa Fe, NM 87504-2088

Re: Proposed MC _____
Proposed DHC _____
Proposed NSL _____
Proposed SWD _____
Proposed WFX _____
Proposed PMX _____

Gentlemen:

DD A

I have examined the application dated 10-20-89
for the AMOCO GARTNER GAS COIL A #1
Operator Lease & Well No.

G-2T-30M-8W and my recommendations are as follows:
Unit, S-T-R

Approved

Yours truly,

Ernie Basal