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OPERATOR	1

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-101
Revised 1-1-65

API 30-045-21987

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work		7. Unit Agreement Name	
b. Type of Well OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>		8. Farm or Lease Name Howell J	
2. Name of Operator El Paso Natural Gas Company		9. Well No. 3A	
3. Address of Operator PO Box 990, Farmington, NM 87401		10. Field and Pool, or Wildcat Blanco Mesa Verde	
4. Location of Well UNIT LETTER <u>0</u> LOCATED <u>900</u> FEET FROM THE <u>South</u> LINE AND <u>1750</u> FEET FROM THE <u>East</u> LINE OF SEC. <u>11</u> TWP. <u>30N</u> RGE. <u>8W</u> NMPM		12. County San Juan	
19. Proposed Depth 5165'		19A. Formation Mesa Verde	
20. Rotary or C.T. Rotary		21. Elevations (Show whether DF, RT, etc.) 5705' GL	
21A. Kind & Status Plug. Bond statewide		21B. Drilling Contractor	
22. Approx. Date Work will start			

23.

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
13 3/4"	9 5/8"	32.3#	200'	223 cu.ft.	circulate
8 3/4"	7"	20.0#	2945'	334 cu.ft.	cover Ojo Alamo
6 1/4"	4 1/2"	10.5#	2795-5165'	412 cu.ft.	2795'

Selectively perforate and sandwater fracture the Mesa Verde formation.

A 3000 psi WP and 6000 psi test double gate preventer equipped with blind and pipe rams will be used for blow out prevention on this well.

The E/2 of Section 11 is dedicated to this well.
Dedicated & Accepted,

EXPIRES May 2, 1976

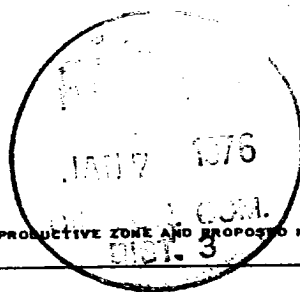
IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

Signed Don Reeves Title Div. Drilling Engineer Date January 6, 1976

(This space for State Use)

APPROVED BY AK Hendrick TITLE SUPERVISOR DIST. #3 DATE 2-2-76
CONDITIONS OF APPROVAL, IF ANY:



**NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102
Supersedes C-123
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

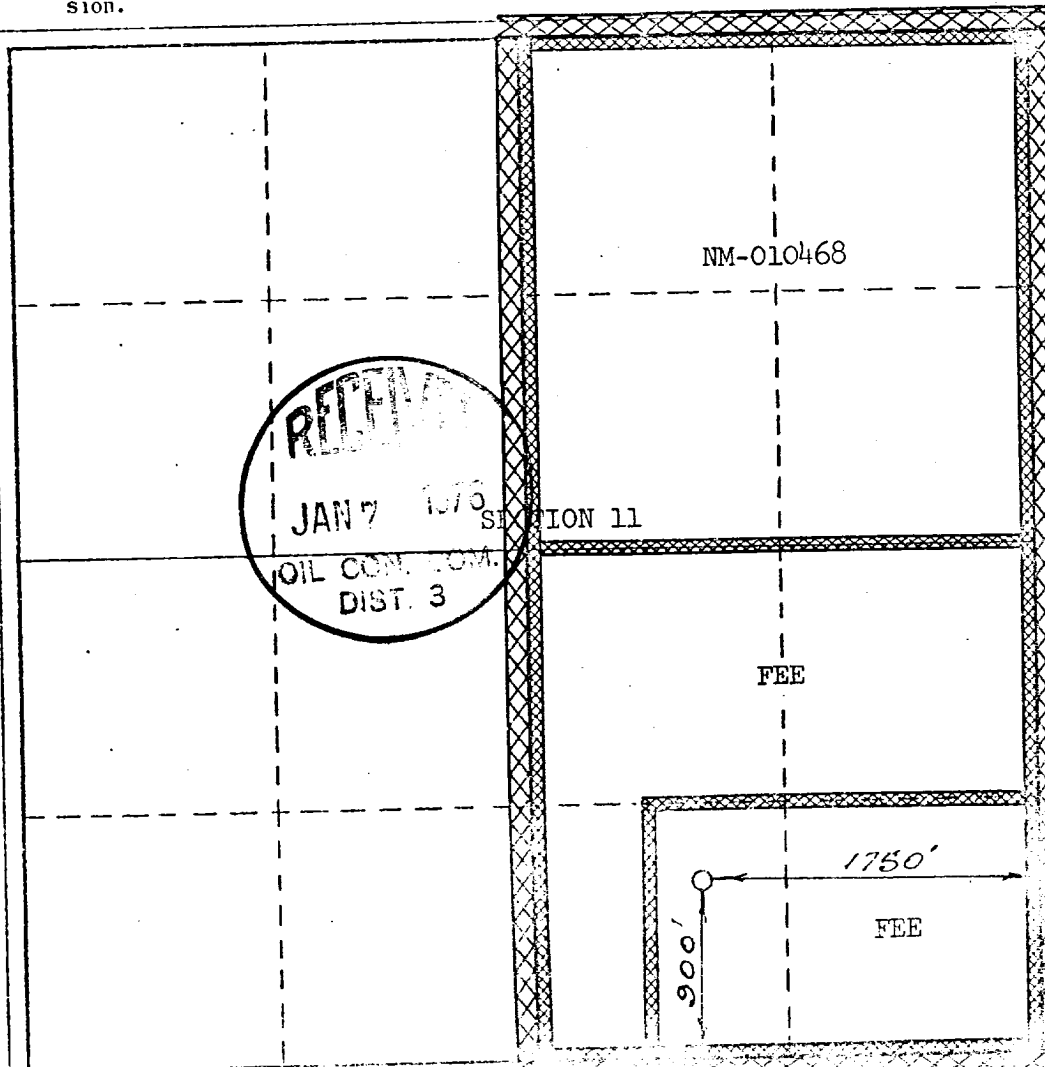
Operator EL PASO NATURAL GAS COMPANY			Lease HOWELL J (FEE)		Well No. 3A
Unit Letter 0	Section 11	Township 30-N	Range 8-W	County SAN JUAN	
Actual Footage Location of Well: <div style="display: flex; justify-content: space-between;"> 900 feet from the SOUTH line and 1750 feet from the EAST line </div>					
Ground Level Elev. 5705	Producing Formation MESA VERDE	Pool BLANCO MESA VERDE		Dedicated Acreage: 320.00 ✓ Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests 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 interests, has been approved by the Commission.



CERTIFICATION

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

Original Signed By

Donald R. Read

Name

Div. Drilling Engineer

Position

El Paso Natural Gas Co.

Company

January 6, 1976

Date

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

NOVEMBER 25, 1975

Registered Professional Engineer and/or Land Surveyor

[Signature]

Certificate No. **1760**

0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000

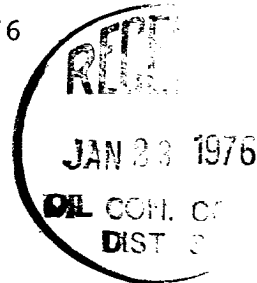
Wellfile *EPNG*
Howell J #3A
11-30N-8W
El Paso Natural Gas Company

El Paso, Texas 79978

January 23, 1976

ADDRESS REPLY TO
POST OFFICE BOX 990
FARMINGTON, NEW MEXICO 87401

Mr. Alan Benefiel
U.S. Bureau of Reclamation
Durango, Colorado 81301



Dear Mr. Benefiel:

This letter is to clarify the results of the discussions concerning the drilling of El Paso Natural Gas Company's well, Howell J #3A, SE/4 Section 11, T-30-N, R-8-W, San Juan County, New Mexico.

El Paso has moved the stake, which will be the location of the bore hole, the maximum distance from the river that will conform to State regulations and a safe and prudent drilling operation. The straight line distance from the bore hole stake to the nearest point of river water, at its present level, is 180 feet.

The location will be built around the stake in a square area approximately 200 feet by 200 feet. The location will be leveled and built up using available materials in the immediate vicinity as indicated by you during the "on site" meeting of January 20, 1976. A dirt work contractor will be used to build the location under El Paso Natural Gas Company supervision. A "flapper gate" culvert will be installed on the access road, and a plastic lined "reserve pit" will be built of sufficient size to contain the liquids, which will be non-toxic in nature, used in the drilling of this well.

A drilling contractor will be employed to drill this well, under supervision by El Paso Natural Gas Company. The actual drilling operations should be completed during a total of fifteen days.

After drilling operations are finished, the liquids used in drilling the well will be hauled away from the site. A steel tank to contain produced hydrocarbons and a fiberglass tank to contain produced water will be permanently installed inside a dike to prevent any possible spill from access to the river. The "reserve pit" will be filled and leveled and the entire drill site cleaned, leveled and seeded.

Mr. Benefiel

-2

We appreciate your concern about the drilling of this well in an area of multiple interests. El Paso Natural Gas Company will continue to conduct our operations in such a manner as to disrupt the local environments to a minimum.

Please contact me or John Ahlm if any of the above statements are contrary to your understanding from the various discussions and meetings.

Yours truly,

EL PASO NATURAL GAS COMPANY

A handwritten signature in cursive script, reading "Carl E. Matthews".

Carl E. Matthews
Division Production Manager

CEM:pb

cc: A. R. Kendrick, New Mexico Oil Conservation Commission
Warren McNall, New Mexico Game & Fish
DeLasso Loos, Blackwood & Nichols Company
Jerry Long, U.S. Geological Survey

January 14, 1976

Meeting to Discuss
Gas Well Drilling Below
Navajo Dam

<u>Name</u>	<u>Representing</u>
Alan Benefiel	U.S. Bureau of Reclamation, Durango, Colorado
John A. Ahlm	El Paso Natural Gas, Farmington, New Mexico
Glenn Bessinger	U.S. Bureau of Reclamation, Durango, Colorado
A.R. Kendrick	New Mexico OCC, Aztec, New Mexico
Warren McNall	New Mexico Game & Fish, Santa Fe, New Mexico
DeLasso Loos	Blackwood & Nichols Co., Durango, Colorado
Carl Matthews	El Paso Natural Gas Co., Farmington, New Mexico
Larry Van Ryan	El Paso Natural Gas Co., Farmington, New Mexico
Roy Crutchfield	U.S. Bureau of Reclamation, Durango, Colorado
Jerry Long	U.S. Geological Survey, Durango, Colorado



RIO GRANDE CHAPTER
New Mexico Council

12325 Princess Jeanne NE
Albuquerque, New Mexico 87112
January 9, 1976

406C-76-1045

Due: 1-22-76

400

Received USBR DGO CO		
OFFICIAL FILE COPY		
JAN 13 '76		
Date	Initials	Code
1/13	2/25	812
		700
1/13	2/25	150
		150
1-13 m/BC P.M. D.J.		

Mr. Alan Benefiel
Bureau of Reclamation
Box 640
Durango, Colorado 81301

Dear Mr. Benefiel:

We are aware that a natural gas well was recently drilled in the floodplain of the Rio San Juan, a short distance below Navajo Dam. Further, we are also aware of immediate plans to drill another well in that floodplain along that portion of the river which is managed as a special regulation fishery. To our knowledge, this second well is in Section 11 over a privately owned mineral right, and the well site was chosen by El Paso Natural Gas Company. We are informed that another well is planned for Section 13 and also is to be located in the floodplain, closer to the dam than either of the first two wells mentioned above. This location apparently is on a federal mineral right, but we do not know who is responsible for choosing that site.

As you well know, the floodplain area below the dam, at least as far downstream as Gobernador Wash, is a delicate high-use recreation area, much of which is to be developed as a recreational park. That stretch of the river is considered by many sportsmen to be finest trout fishery in the Southwest.

We were surprised and distressed to find the first well drilled in the floodplain. We feel that the Section 11 well site that has been surveyed should be relocated out of and a safe distance from the floodplain. We also feel very strongly that no more wells should be planned for the floodplain nor anywhere else in the high use recreation area.

Our organization's membership includes individuals who possess expertise in environmental and engineering disciplines which can be applied to assisting you by reviewing engineering reports and environmental assessments pertaining to well locations. We are willing to work with you to find an acceptable site for the relocation of the well which is planned for Section 11.

Mr. Alan Benefiel

It has been generally recognized and accepted by the public that there are costs associated with conservation measures. The relocation of gas wells is not without cost, but the public benefit derived from relocation will far outweigh the expense.

We anxiously await the opportunity to assist you in evaluating and studying the present plans and the alternatives to those plans. Thank you for your kind attention to our message.

Very truly yours,



Farrell J. Perdreauville, Chairman
New Mexico Council

copy to:

Senator Montoya

Senator Domenici

Congressman Lujan

John C. White, Regional Administrator

Region VI, U.S. Environmental Protection Agency

New Mexico Environmental Improvement Agency

William S. Huey, Director

New Mexico Department of Game and Fish

Harold Hessing, President

Jemez Chapter of Trout Unlimited (Los Alamos)

Donald Spatz, President

Rio Grande Chapter of Trout Unlimited (Albuquerque)

John Talbot, President

Truchas Chapter of Trout Unlimited (Santa Fe)



December 30, 1975

Mr. Alan Benefiel
Bureau of Reclamation
Box 640
Durango, Colorado 81301

406-C 75-1038
1-16-76 400.

Received USBRDGO CO OFFICIAL FILE COPY		
JAN 2 '76		
Date	Initials	Code
1/2	WHL	330
1/5	CR	400
	GB	150
1-13 m/bc P.M. Dg.		

Dear Mr. Benefiel:

Our organization has been made aware of a proposal for a gas well site on the San Juan River about 1 1/2 miles below Navajo Dam. We now understand this site is located on U.S.B.R. property and would locate the well about 50 feet from the river.

Siting of the well this near the river in this location seems counter to the trend your group with the N.M. Department of Game & Fish, N.M. State Parks and the U.S. Bureau of Land Management have set, to make this area of high fishing quality and wildlife habitat. Drilling activity, well head construction and later routine vehicle entry all are potential major pollution threats and disturbances. If such a major intrusion is being planned an environmental impact assessment and statement should undoubtedly be issued. Our organization has been a supporter of the special regulations which we feel have made the trout fishery there tops in the State, if not in the Southwest. We also supported elimination of vehicular traffic from the river bank. We now strongly object to any threat to these quality fish and game habitats.

It would seem that the well site could be moved to the bluff south of the river and the gas reservoir tapped by offset drilling.

Please advise us of your action on this proposed gas well.

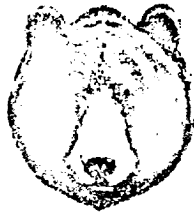
Yours truly,

D. H. Weingarten

D. H. Weingarten, Pres.
Albuquerque Wildlife Federation
12413 Placid N.E.
Albuquerque, New Mexico 87112

Affiliated With The National Wildlife Federation

State of New Mexico



GOVERNOR

JERRY APODACA

DIRECTOR AND SECRETARY
TO THE COMMISSION

WILLIAM S. HUEY

STATE GAME COMMISSION

F. URREA, JR., CHAIRMAN
ALBUQUERQUE

EDWARD MUNOZ
GALLUP

ROBERT H. FORREST
CARLSBAD

J. W. JONES
ALBUQUERQUE

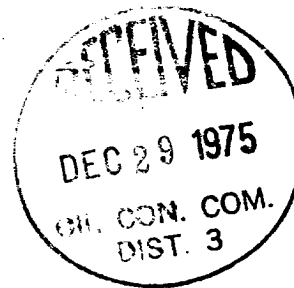
ROBERT P. GRIFFIN
SILVER CITY

DEPARTMENT OF GAME AND FISH

STATE CAPITOL
SANTA FE
87503

December 23, 1975

Mr. Arthur Zimmerman, Director
Bureau of Land Management
State Land Office
Santa Fe, New Mexico 87503



Dear Art:

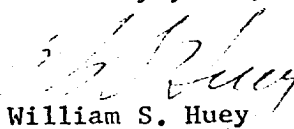
Please recall my letter of December 11, 1975, concerning a planned gas well located approximately 1-1/2 miles below Navajo Dam.

From the information we received, we understood that BLM controlled the surface rights on this property belonging to U. S. Bureau of Reclamation. On Wednesday, December 17, 1975, personnel from our Department met with representatives from the U. S. Bureau of Reclamation, U.S.G.S., El Paso Natural Gas Company, and the State Oil Conservation Commission at the well site. The meeting disclosed that Bureau of Land Management did not control the surface rights for these lands, and therefore, your agency was not involved in negotiations with the drilling company concerning surface damages. The mineral rights are privately owned.

It's our current understanding that Bureau of Reclamation is responsible for the surface rights and their personnel will prepare an environmental analysis concerning this proposed well site. Hopefully, their analysis will reflect the need to resituate the well in an area that does not threaten the aesthetic values of the area nor pose a pollution threat to this important recreational fishery.

Should you have any additional questions concerning this well site, please advise.

Sincerely yours,

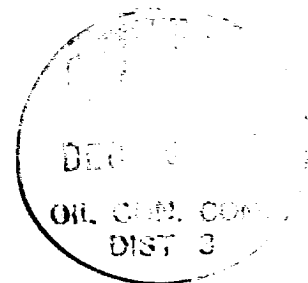

William S. Huey
Director

- Mr. Arthur Zimmerman

- 2 -

December 23, 1975

cc: Al Kendrick, OCC ✓
Sam Graft, State Park & Recreation Commission
Joe Ramey, Director, OCC
John Wright, EIA
Alan Benefiel, USBR, Durango
Herb Davis, USBR, Navajo Dam
Bill Parish, El Paso Natural Gas
John F. Eichelmann, Jr., El Paso Natural Gas, Santa Fe
Pete Domenici
Joe Montoya
Manuel Lujan
Harold Runnels



State of New Mexico



DEPARTMENT OF GAME AND FISH

STATE CAPITOL
SANTA FE
87503

STATE GAME COMMISSION

F. URREA, JR., CHAIRMAN
ALBUQUERQUE

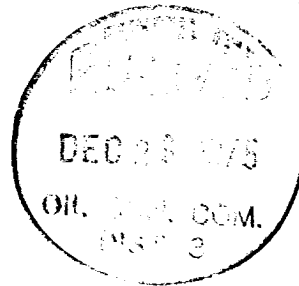
EDWARD MUNOZ
GALLUP

ROBERT H. FORREST
CARLSBAD

J. W. JONES
ALBUQUERQUE

ROBERT P. GRIFFIN
SILVER CITY

December 23, 1975



Mr. Alan Benefiel
Bureau of Reclamation
Box 640
Durango, Colorado 81301

Dear Mr. Benefiel:

Mr. Warren McNall with our Department recently met with you, representatives of the El Paso Natural Gas Company, and representatives from the New Mexico State Oil Conservation Commission to discuss a recently surveyed gas well site located on U. S. B. R. property approximately 1-1/2 miles downstream from Navajo Dam.

It was Mr. McNall's interpretation following the meeting that El Paso Natural Gas Company had not contacted proper representatives with U. S. B. R. to negotiate ways of minimizing environmental damage to this particular area. It was also Mr. McNall's impression that U. S. B. R. would prepare an environmental summary concerning the well site which would be available for our Department's review prior to preparing the well pad.

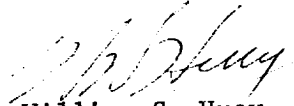
As stated in my letter of December 11, 1975, to Mr. Arthur Zimmerman, BLM, we are extremely concerned about the location of this well. The National Park Service's tailwater recreation development plan has a trail scheduled to be situated where the gas well pad has been surveyed. We also feel 50 feet distance from the river is much too close for this well especially in view of the Corps of Engineer's 50-year flood predications for the San Juan River downstream from Navajo Dam. We strongly object to the physical appearance of a gas well in this section of the San Juan River and the potential water pollution threat. We urge you to seriously consider all environmental damages in preparing your environmental summary for the site and would strongly recommend that the well and associated above ground structures be situated back from the rim of the river bluff approximately 400 feet east-southeast of the current site.

December 23, 1975

Since there is a possibility of other wells being placed downstream from Navajo Dam on U. S. B. R. property, we feel it most urgent that a firm policy be established by Bureau of Reclamation for preventing serious environmental damage caused by any new well.

Mr. McNall will be available to work with you on this problem.

Sincerely yours,


William S. Huey
Director

cc: Al Kendrick, OCC ✓
Sam Graft, State Park & Recreation Commission
Joe Ramey, Director, OCC
John Wright, EIA
Herb Davis, USBR, Navajo Dam
Bill Parish, El Paso Natural Gas
John F. Eichelmann, Jr., El Paso Natural Gas
Pete Domenici
Joe Montoya
Manuel Lujan
Harold Runnels
Ed Wiscombe, USBR, Grand Junction, Colo.
Dave Crandall, USBR, Salt Lake City, Utah



State of New Mexico

GOVERNOR

JERRY APODACA

DIRECTOR AND SECRETARY
TO THE COMMISSION

WILLIAM S. HUEY



DEPARTMENT OF GAME AND FISH

STATE CAPITOL
SANTA FE
87503

STATE GAME COMMISSION

F. URREA, JR., CHAIRMAN
ALBUQUERQUE

EDWARD MUNOZ
GALLUP

ROBERT H. FORREST
CARLSBAD

J. W. JONES
ALBUQUERQUE

ROBERT P. GRIFFIN
SILVER CITY

December 11, 1975

Mr. Arthur Zimmerman, Director
Bureau of Land Management
Federal Bldg., U. S. Post Office
Santa Fe, New Mexico 87501

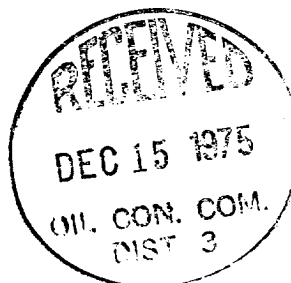
Dear Mr. Zimmerman:

It has come to our attention that a new gas well presumably belonging to El Paso Natural Gas will soon be drilled on the south bank of the San Juan River approximately 1-1/4 miles below Navajo Dam (north of church). Although this land belongs to Bureau of Reclamation, it is our understanding that Bureau of Land Management controls surface activities.

This particular section of the San Juan River is what we consider the "Blue Ribbon" portion of the San Juan and is characterized by a great abundance of trophy-size trout, very restricted vehicle access, and water of exceptionally high quality. Waterfowl use the area for resting and nesting. The riparian vegetation is rapidly returning following scars left from the construction of Navajo Dam. The National Park Service is currently designing an elaborate park system for the tailwater area below Navajo Dam which does include foot trails through the riparian habitat for approximately 2-1/2 miles below Navajo Dam.

From the information we have received to date, we strongly object to the placement of a gas well in this section of the San Juan River. The aesthetic values of the river bottom lands will be reduced, vehicle entry will be increased because of the road leading to the gas well, and an increased threat of water pollution resulting from the well will forever be present.

We would certainly appreciate the opportunity of meeting with you or your representatives to discuss the necessity of the well location at its current site. We would hope to meet with you prior to any drilling pad preparation.



Mr. Arthur Zimmerman

- 2 -

December 11, 1975

Please advise me if our concern is not warranted.

Very truly yours,

William S. Huey, Director

A handwritten signature in dark ink, appearing to read "Harold Olson". The signature is fluid and cursive, with the first name "Harold" being more prominent than the last name "Olson".

By: Harold Olson
Ass't. Director - Operations

cc: Al Kendrick, OCC
Joe Raney, Director OCC
John Wright, EIA
Alan Benefiel, USBR, Durango
Herb Davis, USBR, Navajo Dam
Bill Parish, El Paso Natural Gas
John F. Eichelmann, Jr., El Paso Natural Gas

well file

EPNG

Howell J #3A

0-11-30N-8W



United States Department of the Interior

BUREAU OF RECLAMATION

UPPER COLORADO REGION
WESTERN COLORADO PROJECTS OFFICE
P.O. BOX 640
DURANGO, COLORADO 81301

IN REPLY
REFER TO: 400
120.1/715.1

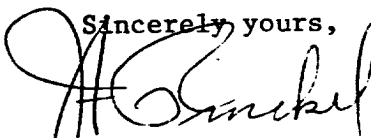
FEB 19 1976

Carl E. Matthews
Division Production Manager
El Paso Natural Gas Company
El Paso, Texas 79978

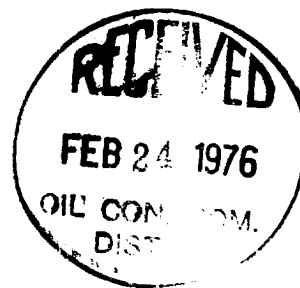
Dear Mr. Matthews:

Enclosed is an environmental assessment on the proposed gas well, Howell J #3A, to be drilled by your company in the tailwater area of Navajo Dam. This assessment has been prepared to explain the precautions and procedures that will be followed in drilling the well so as to keep environmental damage to a minimum. If you have any comments on the precautions or procedures explained, please give them to us by February 25, 1976.

Sincerely yours,


J. E. Smith
Projects Manager

Enclosure



ENVIRONMENTAL ASSESSMENT
FOR
DRILLING OF A NATURAL GAS WELL
NAVAJO DAM & RESERVOIR
COLORADO RIVER STORAGE PROJECT



INTRODUCTION

This report assesses anticipated environmental impacts of drilling a natural gas well. The location of the well will be $1\frac{1}{2}$ miles below Navajo Dam (see Exhibit A) and is to be drilled by the El Paso Natural Gas Company. The land (surface rights) was purchased by the Bureau of Reclamation in connection with construction of the Dam. Subsurface (mineral) rights were not acquired in this particular area of the Reservoir boundary. El Paso holds a valid right to tap and capture the gas; a right not subordinate to surface rights. In addition, El Paso has certain recognized rights or easement over the surface including prudent access, work area and means (right-of-way) to transport the gas to market.

New rules have been recently promulgated by the New Mexico Oil and Gas Commission allowing additional drilling of wells in 640 acre sections underlaid by certain geologic formations. Two wells are currently producing in the same section as the planned new well. The new well must be located so as not to draw from the same gas "pool" as the other two while, at the same time, creating the least environmental disturbance. With this in mind, several meetings were held between El Paso, New Mexico Game and Fish Department, New Mexico Oil and Gas Commission, U.S. Geological Survey and Bureau of Reclamation to consider alternatives. During this process the site described below was agreed upon as best serving the interest of all involved.

A. DESCRIPTION OF THE PROPOSAL

The drill site is located within an old borrow area used during construction of Navajo Dam. Straight line distance from the San Juan River is about 180 feet. To avoid flooding during normal operation of the Dam and to provide a work area, a 200 foot square pad four feet high will be constructed. Material for the pad will consist of processed cobble that was not used in the Dam and is stockpiled in the immediate vicinity. Silt, deposited over the borrow area during times of high flow, will be placed over the cobble to give a workable surface and to allow vegetation. The source of the silt is also in the immediate vicinity.

Access to the site will be gained over an existing road off State Highway 511 presently used to service another well in the area. A haul road used during construction will then be used. To make this road usable again, it will be necessary to replace a culvert. Any fill material needed around the culvert would be taken from the old borrow area. Upon the recommendation

of the Bureau of Reclamation, with the concurrence of the State Fish and Game Department, El Paso will install a one way flap gate on the culvert. This will prevent water from backing into the borrow area during times of high flow thus creating a bog. Also, it will prevent rough fish from entering the area to spawn.

During the drilling operation, which should not last over two weeks, all equipment will be restricted to the pad. This equipment includes the drilling rig, mud pumps, generators, pipe rack, fuel and water storage tanks, and a tool house. Precautionary measures will be taken to prevent oil and other fuel spills. Proper sanitary facilities will be provided for the drilling crew. A temporary plastic-lined reserve pit will be constructed in the pad to contain all liquids used in the drilling process. Following completion of drilling the nontoxic liquids will be hauled away from the site and the pit filled and leveled.

When drilling is complete, El Paso will clean up the area and take measures as necessary to establish vegetation on the pad and any other disturbed area. The bore hole will be properly cased and the necessary valves will be placed over the well head. A steel tank to hold produced hydrocarbons plus a fiberglass tank to hold produced water will be installed on the pad. A dike will be placed around the tanks to prevent spillage into the water course. Another permanent fixture will be a control/meter house, "dog house." All above ground features will be painted a color that blends with the surroundings. In case of flooding, all facilities will be removed from site that would either be lost or could cause pollution. It should be possible for the Bureau of Reclamation to predict reservoir spills in sufficient time to allow this undertaking.

A pipeline will be constructed connecting the well to an existing feeder pipe (see Exhibit A & B). The approximately $\frac{1}{4}$ mile of pipe will be buried along an abandoned county road alignment. All disturbed areas will then be reshaped and seeded.

Public access off Highway 511 is currently blocked by a locked gate and will remain so. El Paso will maintain the access road off the highway which will be used for servicing the existing and planned wells only.

B. DESCRIPTION OF THE ENVIRONMENT

The area is located in northwestern New Mexico about 38 miles northeast of Farmington. The drill site is within the San Juan River valley bounded by 600 feet high bluffs composed of buff colored sandstone. The riverbed consists of igneous cobbles, gravel and boulders derived from terraced benches of alluvial deposits located throughout the area.

The climate is mild semi-arid characterized by light precipitation, abundant sunshine and low relative humidity. Annual precipitation is between 10 and 14 inches. Temperatures vary from over 100° F in summer to below 0° F in winter.

Vegetation is predominately pinyon-juniper along the canyon walls. Within the valley sagebrush, saltbrush, winterfat shrub and rabbitbrush are common. Understory grasses include western wheatgrass and blue gramma. Riparian vegetation is typified by salt cedar, willow and cottonwood trees.

Wildlife species found in the area include deer, coyote, beaver and raccoon. A large number of waterfowl also utilize the River especially during fall and winter. The six mile reach of the San Juan below the Dam is noted for its excellent trout fishery. Recreational use of the area is largely centered around the fishery and waterfowl hunting. There are currently no developed recreational facilities along the River. However, two sites are planned for extensive development in the near future; the planned well being located about mid-point between the sites.

There are no sites listed in the National Register of Historic Places that will be affected. Archeological resources in the specific area would have been removed or destroyed when the borrow was removed during construction of the Dam. All soil for a depth of 5 to 20 feet was excavated.

C. ENVIRONMENTAL IMPACTS OF THE PROPOSED DEVELOPMENT

Temporary impacts associated with the drilling of the gas well are:

Disturbance of the soil and vegetation during construction of the pad, pipeline and culvert would occur. The result will be increased potential hazards from water and wind erosion and the removal of a relatively small amount of wildlife habitat. The area will be re-seeded, however, the harsh climate will make it difficult to establish vegetative cover.

There will be noise and air pollution associated with the drilling process. Vehicular traffic and drill rig engines will create noise, dust and exhaust fumes that will temporarily displace some wildlife. Also, these same distractions may not be compatible to public use of the area.

Longer-termed impacts that will result from the plans are:

Intrusion into the landscape of the permanent physical features. With public use of the area expected to increase these features will take away from the experience sought.

The flap gate installed will halt some rough fish and mosquito reproduction. A more substantial vegetative succession should also be fostered within the old borrow area diked from the river by the existing road.

D. ALTERNATIVES TO THE PROPOSED ACTION

The drill hole site is physically restricted by existing wells and State regulations. Originally, El Paso desired to drill at a site about 100 feet closer to the river and in a more open (visually) area.

The only prudent access to the drill site is over the existing road as proposed. Otherwise, substantial work must be accomplished to construct a new permanent road with its inherent environmental disturbance.

A more direct routing for the pipeline was considered. The result would be a more visible excavation scar and the breaking of new ground whereas the route planned makes fuller use of an abandoned roadway.

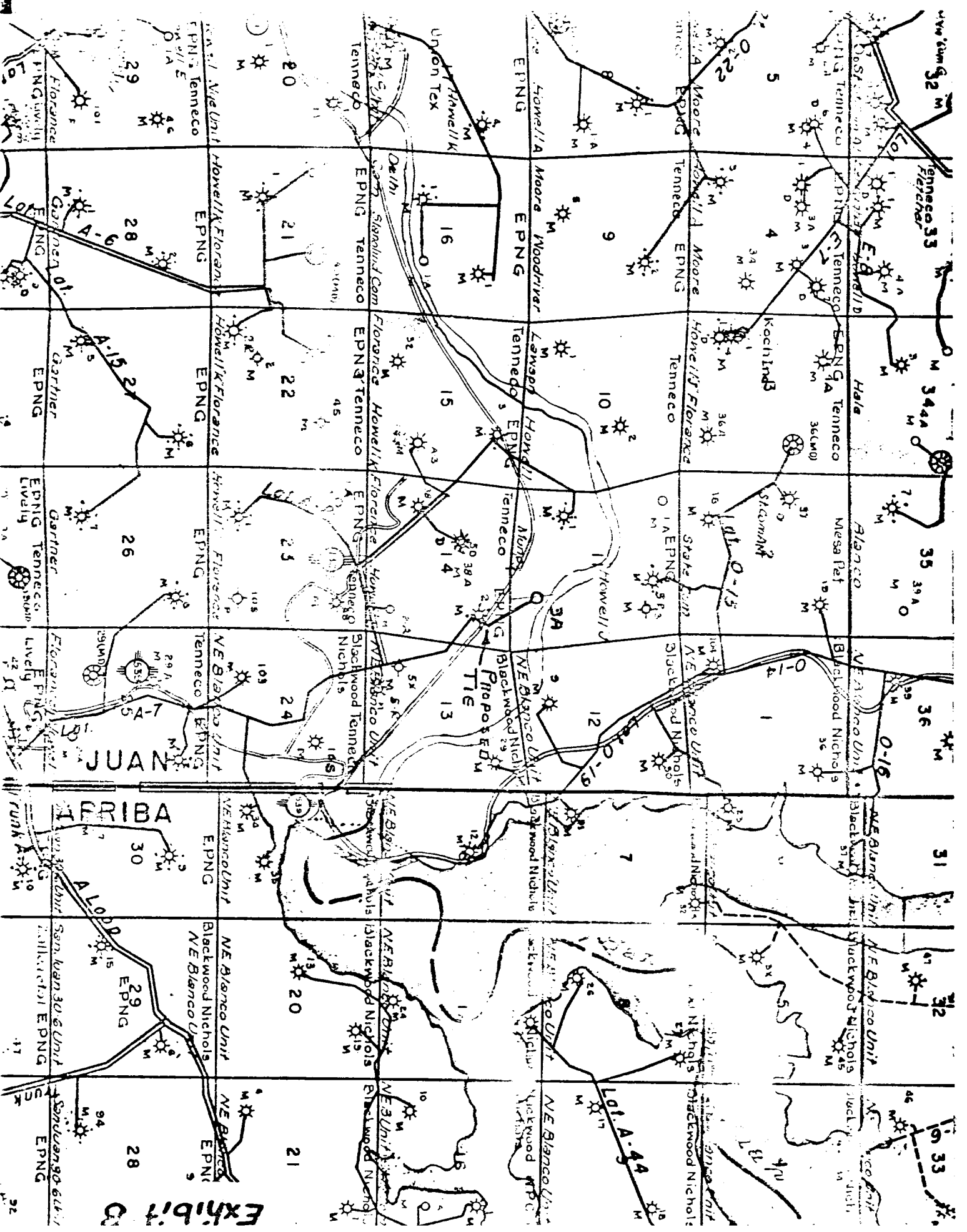
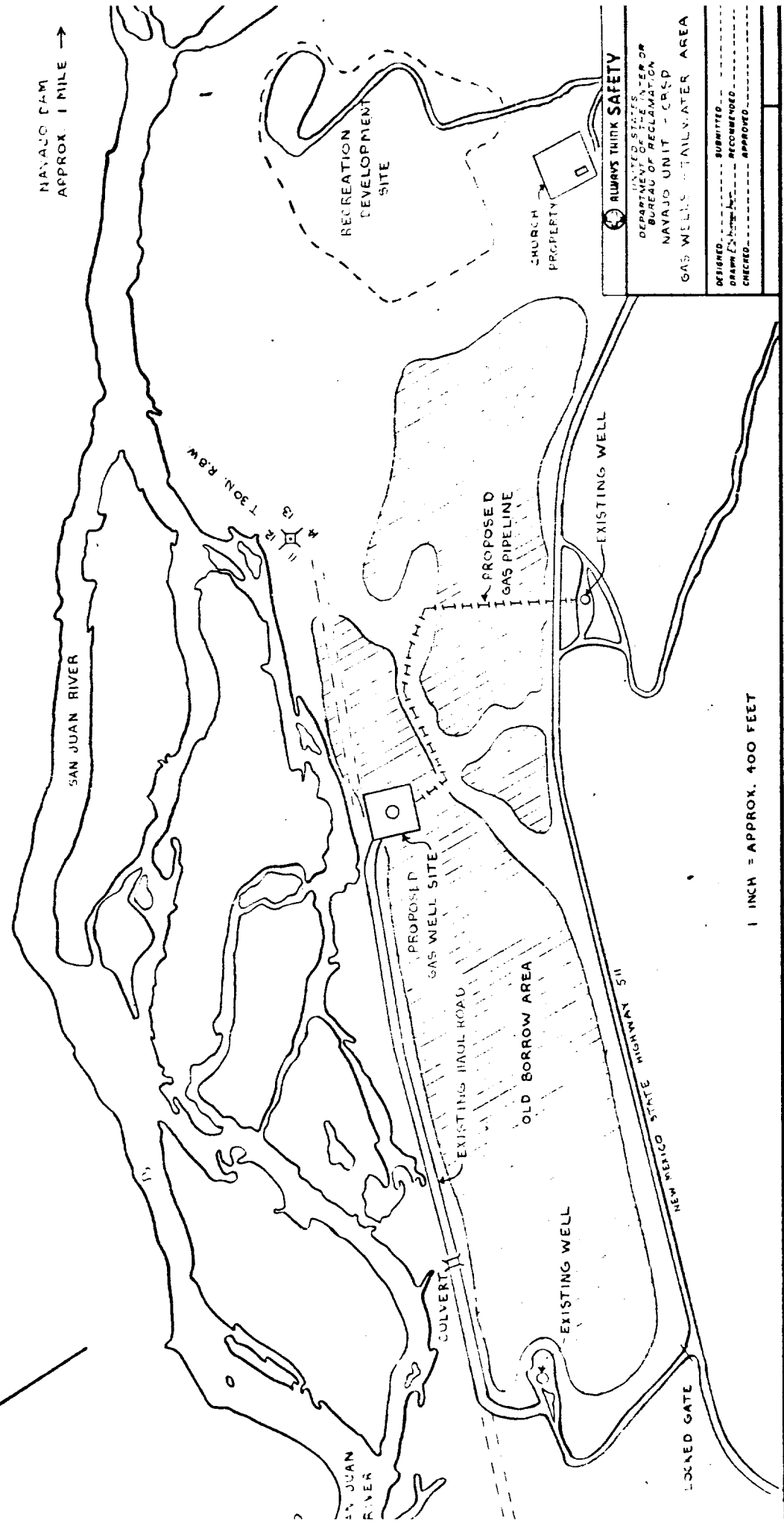
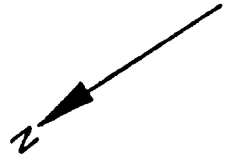


Exhibit C



ALWAYS THINK SAFETY	
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF RECLAMATION	
NAVAJO UNIT - CRSP	
GAS WELLS TAILWATER AREA	
DESIGNED	SUBMITTED
DRAWN	RECOMMENDED
CHECKED	APPROVED