

8224

Kendrick

Exhibits

1 thru 13

4/23/1985

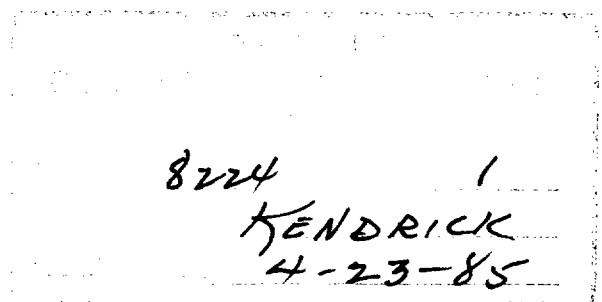
EXHIBIT NO. 1  
CASE NO. 8224

THIS IS A PORTION OF THE USGS QUADRANGLE FOR FLORA VISTA, NEW MEXICO. SHOWN IS A PORTION OF TOWNSHIP 30 NORTH, RANGE 12 WEST, SAN JUAN COUNTY.

THE SCALE IS ABOUT 2 INCHES PER MILE. THE SQUARES REPRESENT SECTIONS.

FROM LEFT TO RIGHT, THE FOLLOWING ITEMS HAVE BEEN MARKED THAT I WILL REFER TO:

1. IDENTIFIED BY THE BLACK DOT IN SECTION 29 IS THE B.M.N.S. WYPER #1 WELL.
2. IDENTIFIED IN GREEN IN SECTION 22 IS THE J. GLENN TURNER OSBORN #1 WELL.
3. IDENTIFIED IN LIGHT BLUE IS THE WATER WELL AREA OF THE FLORA VISTA WATER USERS ASSOCIATION IN THE SOUTHWEST QUARTER OF SECTION 23.
4. IDENTIFIED IN DARK BLUE IS A CAPPED WELL IN SECTION 23.
5. IDENTIFIED IN RED IS THE MANANA GAS, INC. MARY WHEELER #1E WELL.
6. IDENTIFIED IN YELLOW IS THE MONSANTO CHEMICAL COMPANY NWP UNIT #1 WELL.



USGS QUADRANGLE  
FLORA VISTA, N. MEX.  
N3645-W10800/7.5  
T30N, R12W





EXHIBIT NO. 2  
CASE NO. 8224

THIS IS A PORTION OF PLATE 1 OF USGS PROFESSIONAL PAPER 676 BY JAMES E. FASSETT AND JIM S. HINDS WHICH IS ENTITLED "GEOLOGY AND FUEL RESOURCES OF THE FRUITLAND FORMATION AND KIRTLAND SHALE OF THE SAN JUAN BASIN, NEW MEXICO AND COLORADO."

THE SQUARES ON THE MAP REPRESENT TOWNSHIPS. TOWNSHIP 30 NORTH, RANGE 12 WEST IS LOCATED BETWEEN FARMINGTON AND AZTEC.

THE OJO ALAMO OUTCROP IS DENOTED BY THE SYMBOL T<sub>oa</sub> AND IS SHOWN AS A CROSSHATCHED OR DIAGONALLY STRIPED PATTERN IN THE SOUTHWEST PORTION OF TOWNSHIP 30 NORTH, RANGE 12 WEST.

THE BLUFF ON THE SOUTH SIDE OF THE ANIMAS RIVER IN THE NORTHEAST QUARTER OF SECTION 27 AND NORTHWEST QUARTER OF SECTION 26 AS SHOWN ON THE TOPOGRAPHIC MAP IS THE OJO ALAMO FORMATION.

WATER FROM THE OJO ALAMO FORMATION IS KNOWN TO CONTAIN SULFATES.

THE FORMATION IMMEDIATELY BELOW THE OJO ALAMO IS THE KIRTLAND SHALE. THE OUTCROP IS IDENTIFIED Kk ON THIS EXHIBIT AND IS WEST OF THE OJO ALAMO OUTCROP.

FARMINGTON SANDSTONE DEPOSITS OCCUR WITHIN THE KIRTLAND SHALE AT VARIOUS VERTICAL AND HORIZONTAL POSITIONS AND IN VARIOUS THICKNESSES. THE SANDSTONES ARE DELTAIC DEPOSITS AND ARE USUALLY SANDBARS OR LENSES. THEY ARE SMALL IN AREAL EXTENT.

ANY PENETRATION BELOW THE OJO ALAMO SUBJECTS THE DRILLER TO THE POSSIBILITY OF ENCOUNTERING A FARMINGTON SANDSTONE DEPOSIT WHICH MAY CONTAIN OIL, GAS, OR WATER.

8224 2  
KENDRICK  
4-23-85

## USGS Professional Paper 676

PLATE 1

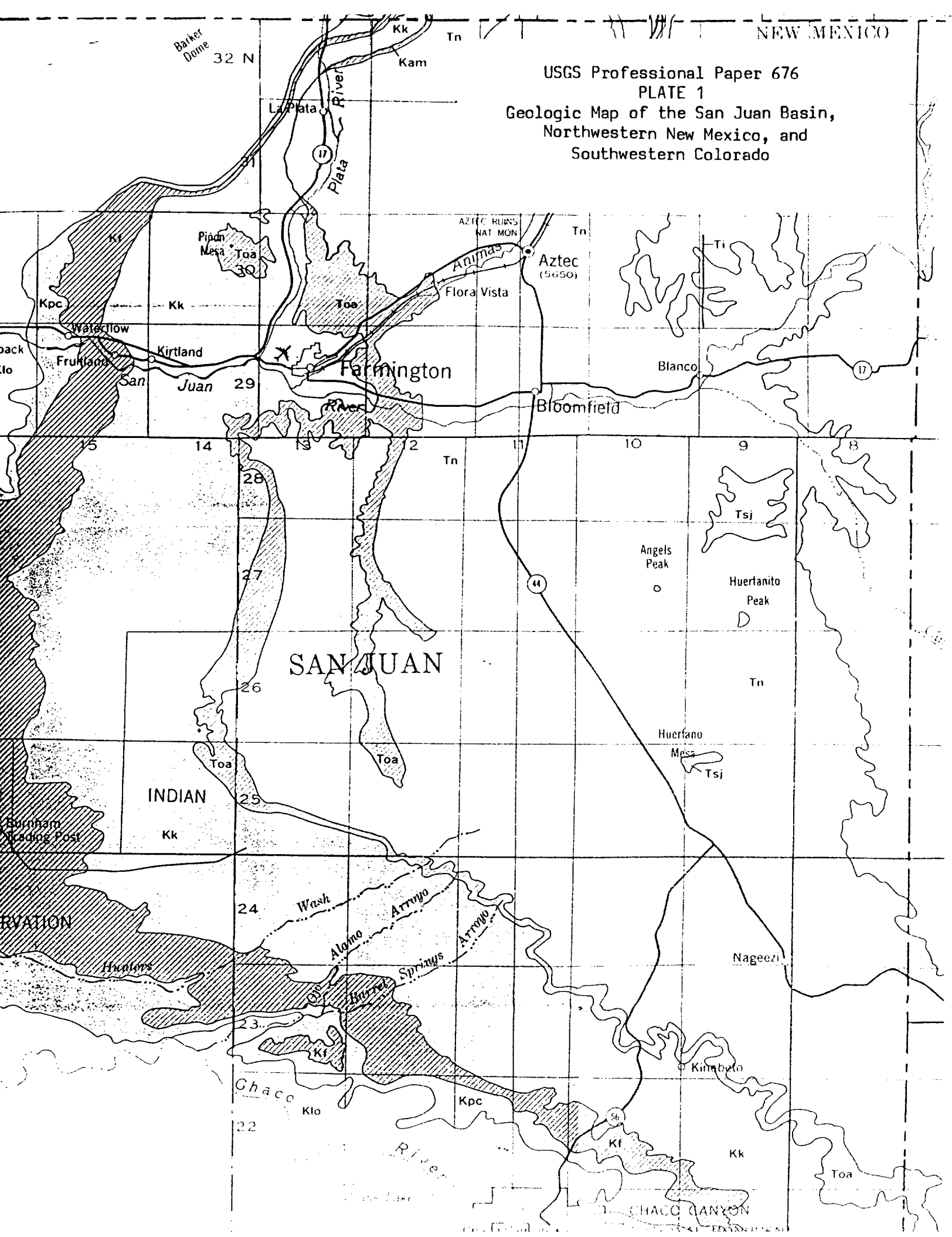


EXHIBIT NO. 3  
CASE NO. 8224

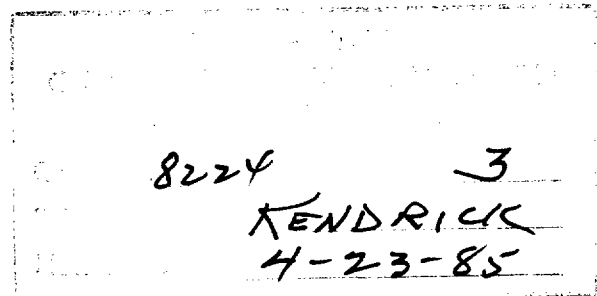
THIS IS THE HISTORY OF THE WYPER FARMINGTON OIL POOL AS PRESENTED IN THE FOUR CORNERS GEOLOGICAL SOCIETY PUBLICATION "OIL AND GAS FIELDS OF THE FOUR CORNERS AREA - VOLUME III."

THIS OIL WELL WAS NOT A PROLIFIC PRODUCER. HOWEVER, IT WAS LOCATED ABOUT ONE MILE SOUTH AND THREE MILES WEST OF THE FLORA VISTA WATER USERS ASSOCIATION'S WATER WELLS.

THE WYPER #1 WELL WAS LOCATED IN THE SOUTHEAST QUARTER OF SECTION 29.

OTHER FARMINGTON WELLS HAVE PRODUCED OIL AND/OR GAS IN FARMINGTON, NEAR AZTEC, EAST OF BLOOMFIELD, AND SOUTH OF FARMINGTON TO TOWNSHIP 25 NORTH.

THE SIGNIFICANCE OF THE OUTCROP MAP AND THIS HISTORY IS TO SHOW THAT THERE IS A POSSIBILITY THAT A FARMINGTON FORMATION MAY BE IMMEDIATELY BELOW THE ALLUVIUM. ANY WELL WHICH IS DRILLED BELOW THE ALLUVIUM MAY ENCOUNTER A FARMINGTON SANDSTONE WHICH MIGHT ALLOW THE PRODUCT TO CHARGE THE VARIOUS SANDBARS IN THE ALLUVIUM.



**WYPER FARMINGTON**

(Oil)

T. 30 N., R. 12 W., NMPM  
San Juan County, New Mexico

By: Elliott A. Riggs

Independent Petroleum Geologist

**GEOLOGY**

**Regional Setting:** Northwest San Juan Basin  
**Surface Formations:** Paleocene, Nacimiento Formation  
**Exploration Method Leading to Discovery:** Unknown  
**Type of Trap:** Stratigraphic  
**Producing Formation:** Cretaceous, Farmington Sandstone Member of the Kirtland Shale  
**Gross Thickness and Lithology of Reservoir Rocks:** 12 feet, sandstone  
**Geometry of Reservoir Rock:** Unknown  
**Other Significant Shows:** Shallower Farmington sandstone bed had a show of oil and gas  
**Oldest Stratigraphic Horizon Penetrated:** Farmington Sandstone

**Permeability:** Unknown**Water Saturation:** Unknown**Initial Field Pressure:** Unknown**Type of Drive:** Gas expansion**Gas Characteristics and Analysis:** Unknown**Oil Characteristics and Analysis:** Reported as 50 degree gravity**Associated Water Characteristics and Analysis:** Unknown**Original Gas, Oil, and Water Contact Datums:** Unknown**Estimated Primary Recovery:** 6,852 BO**Type of Secondary Recovery:** None**Estimated Ultimate Recovery:** 6,852 BO**Present Daily Average Production:** None**Market Outlets:** Unknown**DISCOVERY WELL****Name:** B.M.N.S. No. 1 Wyper**Location:** SW SE (990' FSL and 1,700' FEL) sec. 29, T. 30 N., R. 12 W.**Elevation (KB):** 5,486 feet**Date of Completion:** July 24, 1946**Total Depth:** 580 feet**Production Casing:** 5 1/2 inch to 542 feet**Perforations:** None, open-hole completion**Stimulation:** Unknown**Initial Potential:** Flow 12 BOD and 750 MCFGD**Bottom Hole Pressure:** Unknown**DRILLING AND COMPLETION PRACTICES**

Information on this well is scattered and diverse. The B.M.N.S. No. 1 Wyper, the discovery well, was drilled as a cable tool hole and ran 12 1/2" casing to 60 feet, 10" casing to 510 feet, and 5 1/2" casing to 542 feet. The well apparently produced from an open hole between 542 feet and 580 feet total depth. The well reportedly made a substantial amount of gas and initially flowed 50 percent water.

**RESERVOIR DATA****Productive Area:**

Proved: Unknown

Unproved: Unknown

Approved Spacing: 40 acres

No. of Producing Wells: 0

No. of Abandoned Wells: 1

No. of Dry Holes: 0

**Average Net Pay:** 12 feet**Porosity:** Unknown**FIELD COMMENTARY**

This well was drilled in July 1946 as a cable tool hole. The existing records are somewhat in conflict, but either two or three strings of casing were carried to 542 feet with the last one being 5 1/2 inch casing set and cemented at 542 feet. The well was then apparently drilled open hole to a total depth of 580 feet. The well was reported to have had an initial flowing potential of 12 barrels of oil per day plus 750 MCFGD. Production records are almost nonexistent but it would appear that between 1946 and January 1, 1949, the well made approximately 5,000 barrels of oil. Production records of the New Mexico Oil Conservation Commission estimated production from one well in 1949 at 1,800 barrels of oil with an all time cumulative of 6,852 barrels of oil. The records do not indicate any production from this well after January 1, 1950. The well site is currently just outside the eastern city limits of Farmington, east of the Memory Gardens Cemetery. The location spots on the maps about 400 feet south of Sonny's Custom Trailers, Inc. on the Old Aztec Highway turnoff south of Highway 550. The well was plugged and abandoned in May, 1951.

A copy of the cable tool sample log is as follows:

FORMATION	BOTTOM, FEET
Quick sand	80
Boulders	90
Sand blue shale	175
Wood	177
Sand gravel	181
Alamo	196
Sand	200
Alamo	206
Sandy blue shale	215
Grey sandy shale	250
Blue shale	261
Grey shale	285
Shell	295
Grey sandy shale	312
Brown shale	330

FORMATION	BOTTOM, FEET
Grey sandy shale	433
Green shale	440
Grey shale	525
Sand; First Farmington; show oil, gas	530
Blue shale	535
Grey shale, T. Pay 568'	568
Sand; Second Farmington; oil, gas	580 T.D.

## REFERENCES

New Mexico Oil & Gas Engineering Committee, annual production figures.  
 Riggs, E. A., personal files and geologic data.

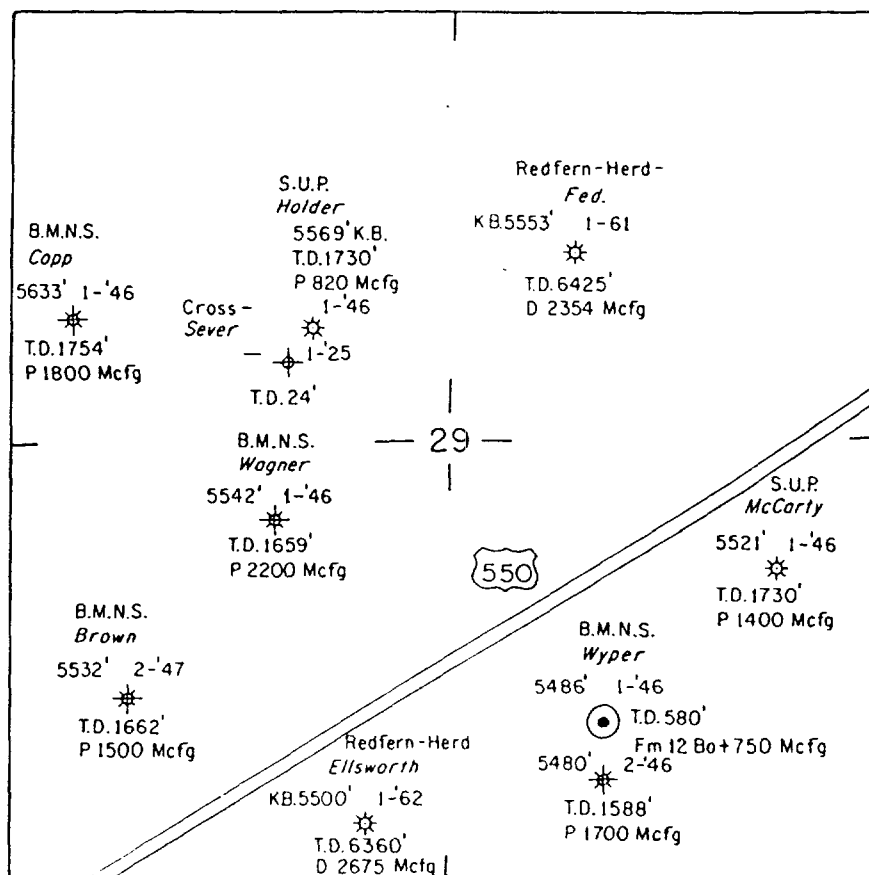
## WYPER FARMINGTON

NO. OF WELLS @ YR. END				PRODUCTION OIL IN BARRELS GAS IN MCF	
YEAR	TYPE	PROD.	ST/ABN	ANNUAL	CUMULATIVE
1946	Oil	1		Unknown	
	Gas				
1947	Oil	1		Unknown	
	Gas				
1948	Oil	1		Unknown	
	Gas				
1949	Oil	1		1,800 est	6,852
	Gas				
1950	Oil		1	0	6,852
	Gas				
1951	Oil		1	0	6,852
	Gas				

# WYPER FARMINGTON

## (OIL)

### SAN JUAN CO., NEW MEXICO



Fm = FARMINGTON COMPLETION

P = PICTURED CLIFFS "

D = DAKOTA "

DISCOVERY WELL

S 29-T30N-R12W

GEOLOGIST: Elliott A. Riggs

DRAFTING: James L. Hopkins



EXHIBIT NO. 4  
CASE NO. 8224

THE J. GLENN TURNER OSBORN #1 WELL IS LOCATED 900' FSL 790' FWL OF SECTION 22, TOWNSHIP 30 NORTH, RANGE 12 WEST. (ABOUT ONE MILE WEST OF THE LOCATION OF THE FLORA VISTA WATER USERS ASSOCIATION WATER WELLS.)

THIS WAS THE DISCOVERY WELL OF THE FLORA VISTA MESAVARDE GAS POOL. IT WAS SPUD JANUARY 5, 1961 AND WAS COMPLETED JANUARY 30, 1961.

WHILE MAKING A TRIP TO CHANGE BITS, THE WELL EXPERIENCED A BLOWOUT. WHEN THE BLOWOUT PREVENTER WAS CLOSED, THE GAS ERUPTED TO THE SURFACE AT SEVERAL LOCATIONS IN THE ANIMAS RIVER VALLEY.

I VISITED WITH A MR. MCCOY WHO LIVED IN THE NE/4 OF SECTION 28. HE TOLD ME THAT THE FROZEN SOD IN THE SWAMPY AREA OF HIS RANCH WOULD RISE IN BLISTER OR BUBBLE-LIKE STRUCTURES, THEN BREAK OPEN AND VENT THE GAS. HE DEMONSTRATED THE BUBBLES TO RISE TO ONE OR TWO FEET BEFORE THEY BROKE OPEN.

THIS BLOWOUT COULD HAVE RESULTED IN SHALLOW SAND OR GRAVEL BARS IN THE RIVER VALLEY BEING CHARGED WITH NATURAL GAS WHICH DID NOT ESCAPE UNTIL THE WATER WELLS WERE DRILLED.

DURING A FIELD TRIP ON MARCH 27TH, MR. KELLY AND MR. SIMPSON INSPECTED SOME WELLS ON WHAT WAS THE MCCOY RANCH. WHEN WE TURNED OFF THE PAVED ROAD AND PASSED A LARGE HOUSE AND A SWAMPY AREA TO INSPECT TWO WELLS NEAR THE RIVER, WE WERE ON THE RANCH. (ONE OF THESE WELLS WAS WHERE WE FOUND THE MONITOR PIPES HAD BEEN INSTALLED.)

CIL CO	EXHIBIT NO.
Case No. 8224	EXHIBIT No. 4
KENDRICK	
4-23-85	

EXHIBIT NO. 5  
CASE NO. 8224

THIS IS A FOUR-PAGE EXHIBIT WHICH DEALS WITH THE MONSANTO CHEMICAL COMPANY NWP UNIT #1 WELL, LOCATED 2075 FEET FROM THE SOUTH LINE AND 1850 FEET FROM THE WEST LINE OF SECTION 23, TOWNSHIP 30 NORTH, RANGE 12 WEST. THE WELL WAS NEAR THE EDGE OF THE ANIMAS RIVER APPROXIMATELY 1704 FEET UPSTREAM FROM THE MARY WHEELER #1E WELL.

THE FIRST TWO PAGES ARE COPIES OF LETTERS IN THE WELL FILE IN THE AZTEC OFFICE OF THE OIL CONSERVATION DIVISION. THEY ARE AN EXCHANGE OF LETTERS IN JULY AND AUGUST OF 1961 BETWEEN J. T. REAGAN OF THE MONSANTO CHEMICAL COMPANY AND A. R. KENDRICK OF THE OIL CONSERVATION COMMISSION REGARDING THE DISPOSAL OF PRODUCED WATER.

THE ANSWERING LETTER ADVISED THE MR. REAGAN THAT THE DISPOSAL OF 50 TO 100 BARRELS PER DAY OF PRODUCED WATER WITH A TOTAL DISSOLVED SOLIDS VALUE OF APPROXIMATELY 80,000 PPM IN AN EARTHEN PIT WOULD REQUIRE THAT THE PIT BE LINED TO PROTECT THE QUALITY OF WATER IN THE ANIMAS RIVER.

THE LAST TWO PAGES RELATE TO THE PLUGGING OF THE WELL.

PAGE 3 IS A COPY OF A LETTER FROM THE OIL CONSERVATION COMMISSION DISTRICT OFFICE TO THE OPERATOR OF THE WELL ADVISING THEM TO EITHER REPAIR OR PLUG THE WELL.

PAGE 4 IS THE SUBSEQUENT REPORT OF ABANDONMENT.

IF THERE WERE A CASING LEAK IN THIS WELL, IT POSSIBLY COULD HAVE CHARGED SOME OF THE RIVER GRAVEL OR SANDBARS, BUT WE HAVE NO EVIDENCE OF THAT.

FILE NO.	8224	5
NAME	KENDRICK	
DATE	4-23-85	

# LION OIL COMPANY

A DIVISION OF MONSANTO CHEMICAL COMPANY



PRODUCTION & EXPLORATION  
ROCKY MOUNTAIN REGION

1310 DENVER CLUB BLDG.  
DENVER 2, COLORADO  
PHONE ACOMA 2-5641

July 27, 1961

New Mexico Oil Conservation Commission  
1000 Rio Brazos Road  
Aztec, New Mexico

Attention: Mr. Al Kendrick

Gentlemen:

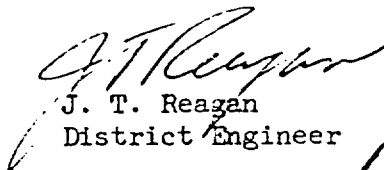
This is to confirm the telephone conversation on July 26, 1961, between Mr. Kendrick and myself regarding disposal of salt water produced from the Monsanto Chemical Company N. W. P. Unit No. 1, K Section 23, T30N, R12W, Basin Dakota Pool, San Juan County, New Mexico.

Resistivity measurements on water produced from the Mesaverde were 0.138 ohms at 78° F which indicates a salinity of 80,000 ppm. It is our intention to dispose of the water by evaporation in earthen pits. The amount of water produced will probably be in the range of 50 to 100 barrels per day.

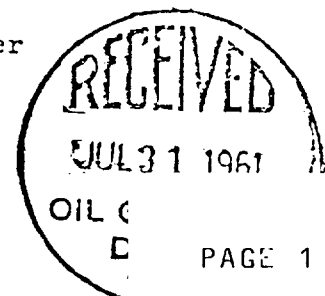
From our discussion, I understand the Commission would not object to this manner of disposal, but did wish to know the correct salinity. I would appreciate your confirmation on the approval to proceed with water disposal since it will have a good deal of bearing on the plans for operation of this well.

Very truly yours,

MONSANTO CHEMICAL COMPANY  
Lion Oil Company Division

  
J. T. Reagan  
District Engineer

JTR:wt



OIL CONSERVATION COMMISSION  
1000 RIO BRAZOS ROAD  
AZTEC, NEW MEXICO

August 1, 1961

Monsanto Chemical Company  
1310 Denver Club Building  
Denver 2, Colorado

Re: Salt Water Disposal,  
Monsanto Chemical Company  
#1 NWP Unit, K-23-30N-12W

Gentlemen:

Disposal of salt water produced by subject well in lined earthen pits as per your request of July 27, 1961 is hereby approved. Due to the large potential volumes we would like to inspect the pits upon completion to see that they are lined.

If we can be of further assistance, please contact us.

Yours very truly

A. R. Kendrick  
Engineer, District #3

ARK:ks



## OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO  
1000 RIO BRAZOS RD. - AZTEC

87410

DIRECTOR  
JOE D. RAMEY

LAND COMMISSIONER  
PHIL R. LUCERO



STATE GEOLOGIST  
EMERY C. ARNOLD

November 3, 1976

Monsanto Company  
1330 Midland National Bank Tower  
Midland, Texas 79701

Re: Monsanto Company, NWP #1 K-23-30N-12W San Juan County

Gentlemen:

The attached Inspection Ticket shows that the subject well is venting gas at the wellhead. The gas surges to where a bull plug has been removed, which may indicate it to be coming through water.

Waste of gas cannot be tolerated.

Initiate action to repair or to plug this well.

If there are questions, please contact us.

Yours very truly,

Original Signed by A. R. Kendrick

A. R. Kendrick  
Supervisor District #3

Enclosures: Memo # 3-70, Inspection Ticket

xc: OCC, Santa Fe

ARK:no

NO. OF COPIES RECEIVED	4
DISTRIBUTION	
SANTA FE	1
FILE	1
U.S.G.S.	
LAND OFFICE	
OPERATOR	2

# NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103  
Supersedes Old  
C-102 and C-103  
Effective 1-1-65

3a. Indicate Type of Lease  
State ☐ Fee ☒  
3. State Oil & Gas Lease No.

## SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR.  
USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. <input type="checkbox"/> OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER	7. Unit Agreement Name
2. Name of Operator Monsanto Chemical Company	8. Farm or Lease Name NWP Unit
3. Address of Operator 321 West Texas, Midland Texas 79701	9. Well No. 1
4. Location of Well UNIT LETTER <u>K</u> <u>2075</u> FEET FROM THE <u>South</u> LINE AND <u>1850</u> FEET FROM THE <u>West</u> LINE, SECTION <u>23</u> TOWNSHIP <u>30N</u> RANGE <u>12W</u> N.M.P.M.	10. Field and Pool, or Wildcat Basin Dakota, Blanco M.V.
15. Elevation (Show whether DF, RT, GR, etc.) 5491 GR	12. County San Juan

### Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO: SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOBS <input type="checkbox"/>	

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1503.

January 13, 1977

This well was plugged and abandoned in the following manner.

Set cement plugs in 5½" casing

6100-6485  
3275-3425  
2800-2850

1650-1750(Inside & outside)  
225-275(Inside & outside)  
10 sxs in surf. with dry hole marker.



For: Monsanto Chemical and Manana Gas, Inc.

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

James H. Walsh President, Walsh & Prod. Corp.

PAGE 4

APPROVED BY DR. R. Smith SUPERVISOR DIST. 10  
CONDITIONS OF APPROVAL, IF ANY:

7  
5 1977



EXHIBIT NO. 6  
CASE NO. 8224

THIS IS A MEMORANDUM I PICKED UP RECENTLY IN THE AZTEC OFFICE OF THE OIL CONSERVATION DIVISION. THE SUBJECT IS "STREAM CONTAMINATION."

THIS MEMORANDUM WAS ISSUED FEBRUARY 13, 1961. IT IS STILL IN EFFECT TODAY.

THIS MEMORANDUM WAS ISSUED WITHIN A MONTH OF THE BLOWOUT OF THE OSBORN WELL WHICH WAS MENTIONED EARLIER, BUT THIS DOES NOT REFER TO THE BLOWOUT PROBLEM. THE REASON FOR THIS MEMORANDUM WAS TO ALERT THE DRILLING PEOPLE THAT MORE CARE SHOULD BE EXERCISED WITH DRILLING FLUIDS INSOFAR AS WATER CONTAMINATION WAS CONCERNED.

AT ABOUT THE SAME TIME AS THIS MEMORANDUM WAS ISSUED, THE AZTEC OFFICE OF THE OIL CONSERVATION DIVISION ALSO UTILIZED SUMMER EMPLOYEES TO INSPECT WELL LOCATIONS NEAR THE RIVERS AND IRRIGATION CANALS TO SEE THAT ALL TANKS IN HAZARDOUS LOCATIONS WERE EQUIPPED WITH FIRE WALLS TO PREVENT SPILLAGE FROM CONTAMINATING THE WATER SUPPLIES OF THE SAN JUAN BASIN.

THE REASON THIS EXHIBIT HAS BEEN PRESENTED IS TO SHOW THAT THE OIL CONSERVATION COMMISSION OR DIVISION HAS NOT BEEN IGNORING THE QUALITY OF WATER IN THE SAN JUAN BASIN ALL THESE YEARS, BUT HAS TAKEN A POSITIVE, REALISTIC AND REASONABLE APPROACH TO PROTECT THE WATER.

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File	KENDRICK	
Index	4-23-85	

OIL CONSERVATION COMMISSION  
1000 Rio Brazos Road  
Aztec, New Mexico

MEMORANDUM

TO: ALL OPERATORS, SAN JUAN BASIN

FROM: EMERY C. ARNOLD, Supervisor, District #3

SUBJECT: Stream Contamination

The Oil Conservation Commission has recently had complaints from landowners and various other individuals regarding the careless handling of oil well drilling fluids by oil operators in District #3. Field inspection in various areas of the Basin by Commission personnel has verified this fact.

It is believed that most of the difficulties are arising from two practices: First, the failure to build reserve pits large enough to hold all drilling mud used in drilling the wells, so that excess mud and sludge is allowed to run off from the location. The second objectionable practice is that of attempting to fill and level drilling and reserve mud pits before the mud and waste has dried sufficiently. If the mud is still fluid this allows flowage away from the location. In some areas it has been observed that mud released in this manner has flowed into arroyos which are tributary to rivers and into irrigation canals or rivers, creating serious water pollution problems.

The Commission is, therefore, directing that all drilling and reserve pits must be built large enough to hold all drilling mud and waste fluids at each well location. It is also directed that these pits be fenced immediately after the completion of drilling in such a manner that livestock will not be able to reach the pits. Pits should remain fenced until such time as the material in the pits has dried sufficiently so that the pits may be covered and levelled without this operation causing mud flowage.

Operators are also reminded of Commission Rule 310, which requires that all oil or distillate tanks, the location of which, constitute an objectionable hazard be surrounded by a dike or fire wall having a capacity one-third larger than the capacity of the enclosed tanks. Any tank located within 1000 feet of a river or irrigation canal shall henceforth be deemed to be hazardous under this rule and will be required to have a fire wall or dike constructed.

The operator of record of each well will be held directly responsible for compliance with the above regulations and must notify service contractors accordingly.

All other action which can be taken to eliminate the possibility of stream contamination from substances used in drilling or produced from oil and gas wells should immediately be taken.

February 13, 1961

EXHIBIT NO. 7  
CASE NO. 8224

THIS IS A DRAWING OF THE SOUTHWEST QUARTER OF SECTION 23, TOWNSHIP 30 NORTH,  
RANGE 12 WEST TO SHOW BETTER DETAIL OF THE AREA.

I TRIED TO SCALE THE INFORMATION FROM THE FLORA VISTA QUADRANGE WHICH WAS THE  
BASIS FOR EXHIBIT NO. 1.

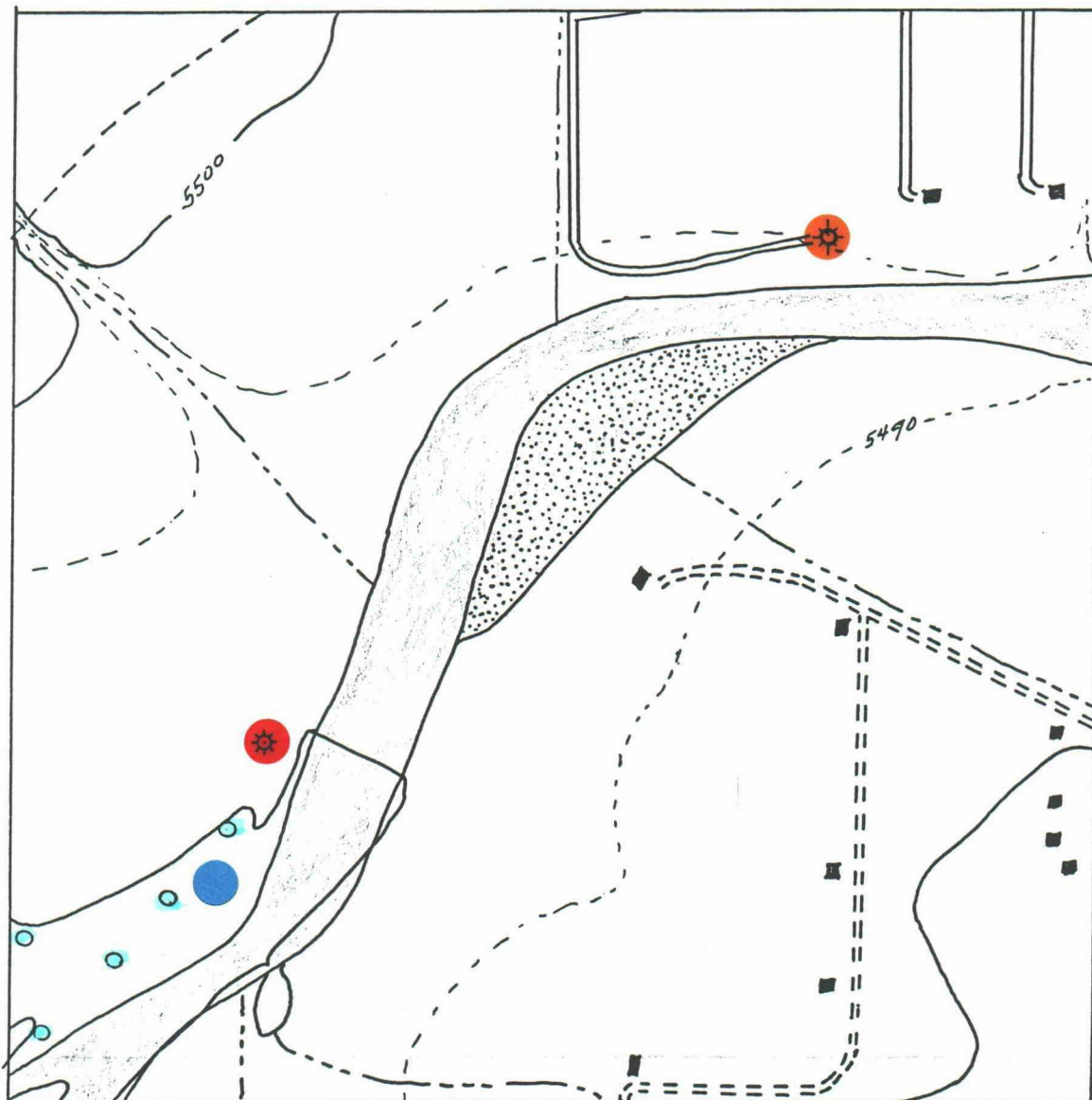
THE COLOR PATTERN IS THE SAME AS ON EXHIBIT NO 1:

1. THE LIGHT BLUE REPRESENTS THE WATER WELLS OF THE FLORA VISTA WATER USERS  
ASSOCIATION.
2. THE DARK BLUE IDENTIFIES A CAPPED WELL.
3. THE RED IDENTIFIES THE MANANA GAS, INC. MARY WHEELER #1E WELL.
4. THE YELLOW IDENTIFIES THE MONSANTO CHEMICAL COMPANY NWP UNIT #1 WELL.

8224

7  
KENDRICK  
4-23-85

SW $\frac{1}{4}$  SEC. 23, T30N, R12W



○ = WATER WELL

⊗ = GAS WELL

⊗ = PLUGGED GAS WELL

EXHIBIT NO. 8  
CASE NO. 8224

IDENTIFIED BY THE RED DOT ON EXHIBITS NO. 1 AND NO. 7 IS THE MANANA GAS, INC. MARY WHEELER #1E WELL. IT IS LOCATED 892 FEET FROM THE SOUTH LINE AND 624 FEET FROM THE WEST LINE OF SECTION 23. IT WAS SPUD JANUARY 28, 1980.

LETTERS FROM MR. CURTIS J. LITTLE AND MR. ED HARTMAN INDICATE THAT GAS WAS PRESENT WHEN THE SURFACE CASING WAS SET AND CEMENTED IN THE WELL WHEN THE TOTAL DEPTH WAS 225 FEET.

AFTER THE WELL WAS COMPLETED, I WITNESSED GAS BUBBLING TO THE SURFACE ALONG THE SIDE OF THE PIT AND ALONG THE RIVER BANK.

IN MY OPINION, THE ALLUVIUM WAS CHARGED BEFORE THE GAS WELL WAS STARTED.

8224 8  
KENDRICK  
4-23-85



CURTIS J. LITTLE

OIL AND GAS

TELEPHONE (505) 327-6176  
PETROLEUM PLAZA SUITE 175  
POST OFFICE BOX 1258  
FARMINGTON, NEW MEXICO 87499

April 11, 1985

A.R. Kendrick  
P.O. Box 516  
Aztec, NM 87410


Re: Mary Wheeler #1E  
892' FSL & 624' FWL  
Sec. 23-T30N-R12W  
San Juan County, New Mexico

Dear Sir:

My well record on subject well stated on February 1, 1980 that the total depth was 225 feet, and that a "sho gas outside csg. stopped when cement circulated. Pressure tested 500 lb. ok."

The original is in my files located in Suite 175 Petroleum Plaza Building, 3535 East 30th Street, Farmington, New Mexico 87401.

Very truly yours,



CURTIS J. LITTLE

CJL/kt

RECEIVED APR 12 1985

Manana Gas, Inc.

P. O. BOX 36990

ED HARTMAN, PRES.

ALBUQUERQUE, NEW MEXICO 87176

TELE: (505) 884-4863

(505) 884-0814

April 18, 1985

Mr. A. R. Kendrick  
% Tom Kellahin  
Attorney at Law  
P.O. Box 2265  
Santa Fe, N.M. 87504

Re: Oil Conservation Division  
Case # 8224  
Water Contamination

Dear Mr. Kendrick:

Confirming our telephone conversation today, Manana Gas, Inc. drilled and is now operating the Mary Wheeler # 1-E Dakota gas well located in the SW/4 of Sec. 23, T 30N, R 12W, in the Flora Vista area of San Juan County, New Mexico.

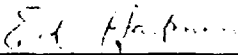
We had a show of gas when the surface pipe was set on this well until the pipe was cemented in place. After the pipe was cemented in place the shallow gas was no longer in evidence indicating that it had been effectively sealed off.

In this well, as in all other wells that Manana Gas operates in the San Juan Basin, we have taken every step possible to protect the environment consistent with producing the wells properly.

With best personal regards.

Very truly yours

Manana Gas, Inc.



\_\_\_\_\_  
President

EMH/nh

RECEIVED APR 19 1985

EXHIBIT NO. 9  
CASE NO. 8224

IDENTIFIED BY THE DARK BLUE DOT ON EXHIBITS NO. 1 AND NO. 7 THERE IS A PIECE OF CASING STICKING OUT OF THE GROUND WITH A STEEL PLATE WELDED ON TOP. IT IS ABOUT 50 FEET EAST OF ONE OF THE WATER WELLS AT FLORA VISTA.

I LEARNED THE FOLLOWING ABOUT THAT WELL:

1. THE WATER USERS ASSOCIATION DRILLED THE WELL.
2. THE DEPTH IS 23 FEET.
3. THEY STOPPED BECAUSE THEY ENCONTERED "GOOEY CLAY" AND STINKING WATER.
4. THEY WELDED A CAP ON IT AND LEFT IT.
5. IT WAS THE FIRST WELL THEY DRILLED.

APPARENTLY, THIS WELL IS NOT IN COMMUNICATION WITH THE WATER SUPPLY THAT IS BEING PRODUCED FROM THE WATER WELL APPROXIMATELY 50 FEET AWAY.

THIS HOLE MAY VERY WELL BE IN THE SAME SANDBAR WITH THE "CONTAMINATED" WELL. IT ALSO MAY BE IN THE SAME SANDBAR WITH MR. BOYER'S MONITORING WELL WHICH ENCOUNTERED THE STINKING WATER.

MR. CHAVEZ ALSO TOLD ME THAT PERSONNEL FROM HIS OFFICE HAD CHECKED THE CASING AND THE IMMEDIATE AREA FOR NATURAL GAS, BUT DID NOT FIND ANY.

THIS WELL AND AT LEAST THREE OTHER WATER WELLS WERE DRILLED BEFORE THE MANANA GAS, INC. MARY WHEELER #1E WELL WAS STARTED.

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KENDRICK  
4-23-85

EXHIBIT NO. 10  
CASE NO. 8224

COSTS

MAJOR COMPANIES CAN ABSORB SOME EXTRA COSTS IN THE OPERATIONS OF SOME OF THEIR WELLS BY SPREADING THE COSTS OVER THE AVERAGE OF THE WELLS IN AN AREA. SMALL OPERATORS CANNOT DO THAT. ESPECIALLY THOSE WHO ONLY OWN A FEW WELLS.

THE COST OF LINING AND MAINTAINING PITS WILL REDUCE THE ULTIMATE RECOVERY OF GAS FROM THE SAN JUAN BASIN BY CAUSING EARLIER ABANDONMENT OF WELLS.

THE RATIO OF GAS AND WATER PRODUCED FROM A WELL DOES NOT REFLECT THE AMOUNT OF GAS IN THE RESERVOIR. THE EARLY ABANDONMENT OF A WELL CAN LEAVE A SUBSTANTIAL AMOUNT OF GAS IN THE GROUND.

THE HIGHEST COST OF LINING THE PITS MAY NOT BE TO THE PRODUCERS; IT COULD VERY WELL BE THAT THE HIGHEST COST WILL BE TO THE PUBLIC BECAUSE OF THE LOSS OF THE PRODUCT THAT MAY BE LEFT IN THE GROUND.

8224	10
KENDRICK	
4-23-85	

EXHIBIT NO. 11  
CASE NO. 8224

ALTERNATE SOLUTION

REQUIRE LINED PITS FOR WELLS ON AN INDIVIDUAL WELL BASIS.

REQUIRE LINED PITS FOR WELLS THAT PRODUCE IN EXCESS OF 5 BARRELS OF WATER PER DAY.

ALLOW EXCEPTIONS WHEN THE OPERATOR DEMONSTRATES THAT THE WATER IS BELOW 10,000 PPM TOTAL DISSOLVED SOLIDS.

REQUIRE LINED PITS WHEN WELLS PRODUCES IN EXCESS OF THE EQUIVALENT OF 5 BARRELS TIMES 10,000 PPM TDS; WHETHER IT BE FROM 4.9 BARRELS OR FROM 0.10 BARRELS PER DAY.

IF THERE IS A QUESTION OF THE QUANTITY OR QUALITY OF THE PRODUCED WATER, REQUEST A WITNESSED PRODUCTION TEST AND ANALYSIS.

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KENDRICK

4-23-85

EXHIBIT NO. 12  
CASE NO. 8224

CONCLUSION

WE HAVE NO EVIDENCE THAT ANY WATER WELL HAS BEEN CONTAMINATED IN THE SAN JUAN BASIN BY THE IMPROPER DISPOSAL OF PRODUCED WATER, EVEN AFTER 40 YEARS OF PRODUCING OIL AND GAS WELLS.

THERE HAS BEEN SOME CONJECTURE ABOUT THAT AT FLORA VISTA, BUT IT DOES NOT CONSIDER ALL THE FACTS.

I HAVE SHOWN SOME EXAMPLES OF WHAT I THINK ARE MORE REALISTIC REASONS FOR THE WELL AT FLORA VISTA TO HAVE BEEN CONTAMINATED.

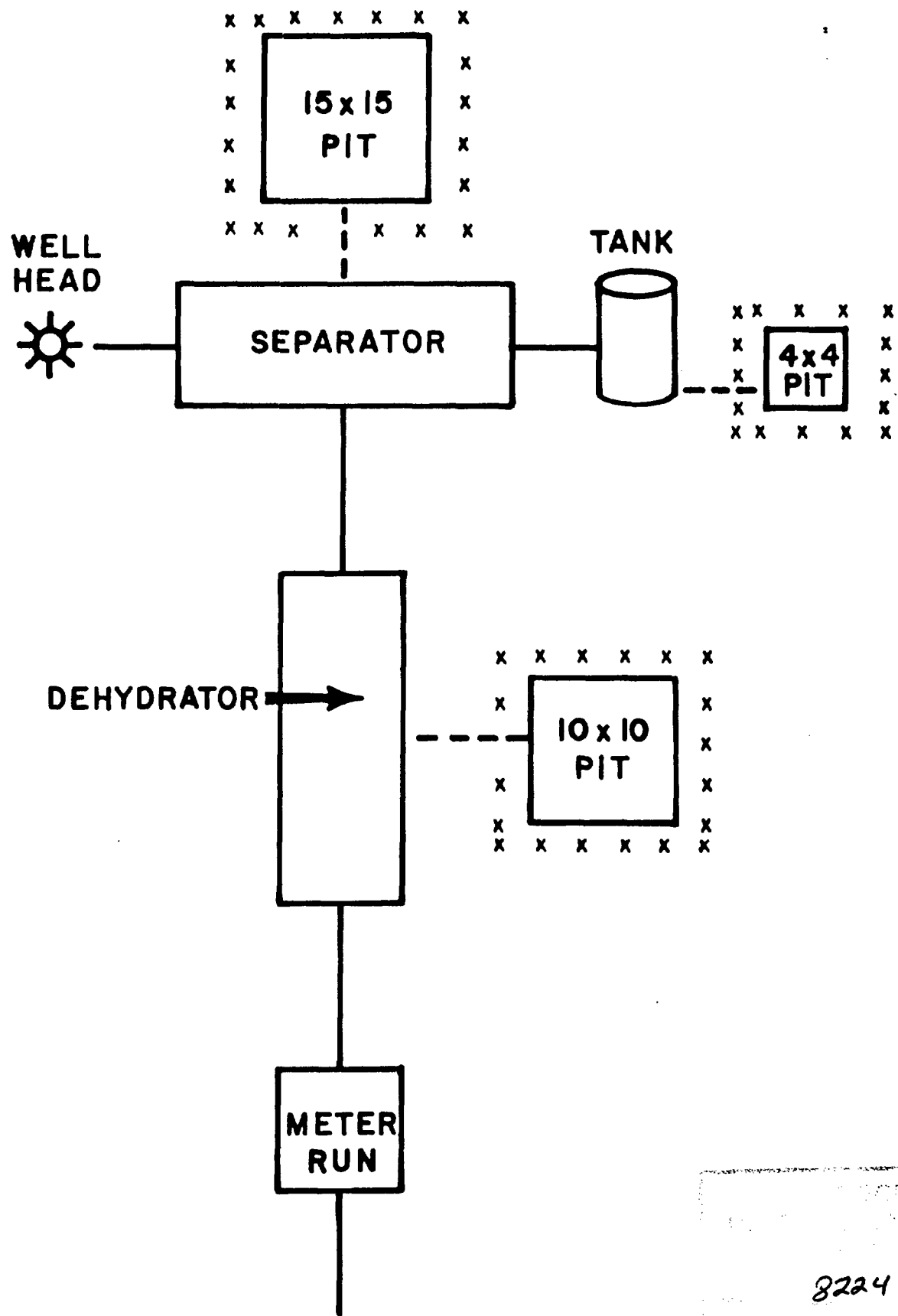
AS A GENERAL RULE, AS WATER PRODUCTION OF A WELL INCREASES, THE GAS PRODUCTION AND THE CASH FLOW DECREASES. THE ADDED EXPENSE OF LINING PITS WILL HASTEN DATE OF ABANDONMENT CAUSING PRODUCIBLE GAS TO BE LEFT IN THE GROUND.

HISTORICALLY, THE PRODUCED WATER IN THE SAN JUAN BASIN HAS BEEN OF MUCH BETTER QUALITY THAN THAT PRODUCED IN THE SOUTHEASTERN PART OF THE STATE. THEREFORE, THE PROBLEM DOES NOT WARRANT SUCH SEVERE REACTION HERE AS THERE.


IN MY OPINION, THE APPLICATION OF THE RULES HAS WORKED WELL OVER THE YEARS, AND CAN CONTINUE TO DO SO.

ENTERED THE	
OIL COMPANY'S PRODUCTION	
Case No.	8224
Exhibit No.	12
Produced by	KENDRICK
Received Date	4-23-85





8224 13  
AH Kendrick  
4/23/85

<b>Tenneco Oil</b> <b>Exploration and Production</b> <b>WESTERN ROCKY MOUNTAIN DIVISION</b>	
<b>TYPICAL GAS WELL INSTALLATION</b> <b>San Juan Basin, New Mexico</b>	
<b>FILE #</b>	