



WATER-RIGHT DOCKET

Guadalupe Mountains National Park

Docket No: 2

PINE SPRINGS - FRIJOLES WELL

State Water Rights Documentation

01-14-1975: letter to texas water development board from regional director regarding well schedule (gw-1) with location map and t

SOUTHWEST REGION
P. O. Box 728
Santa Fe, New Mexico 87501

L54-PS
GUMO/Wtr. Dkt.

JAN 14 1975

Ground Water Division
Texas Water Development Board
P. O. Box 12386
Austin, Texas 78711

Attention: Mr. James R. Wall

Gentlemen:

Enclosed herewith are the Well Schedule (GW-1) with location map and two Chemical Water Analysis Reports (GW-2) with attached laboratory analysis for the Frijoles Area, Guadalupe Mountains National Park well drilled in April 1973. You are requested to register and assign a state well number to the Pine Springs-Frijoles well No. 1.

Your cooperation and assistance are appreciated. For further information, please contact D. M. Aughenbaugh in this office at 505-988-6415.

Sincerely yours,

(Sgd.) JOSEPH C. RUMBURG, JR.

Regional Director,
Southwest Region

Enclosures.

cc:

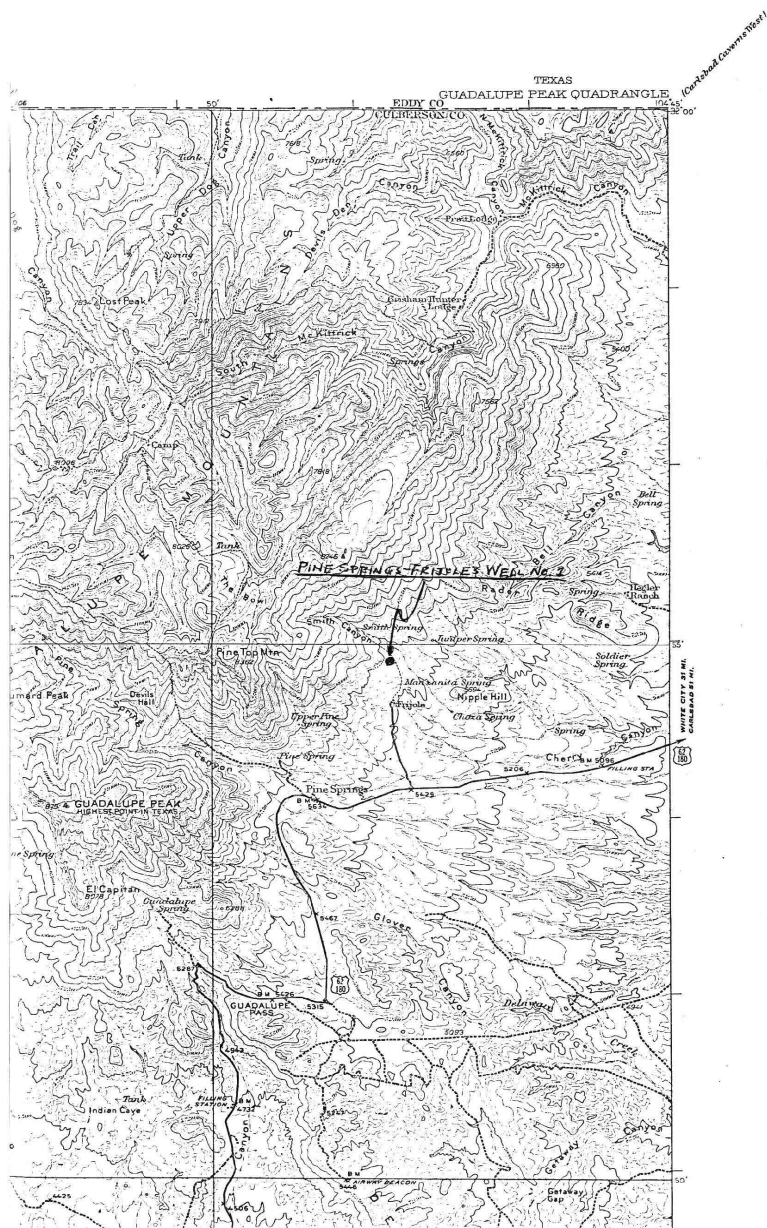
Assistant to the Regional Director, Texas w/copy of enc.

PSN, SWRO w/copy of enc.

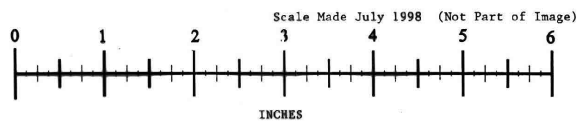
Aughenbaugh, PSP w/copy of enc.

Aguilar, PSP

DMAughenbaugh:ja - 1/14/75



THIS MAP AVAILABLE WITH OR WITHOUT SHADED RELIEF OVERPRINT
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225 OR WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST



TEXAS WATER DEVELOPMENT BOARD

WELL SCHEDULE

Aquifer Delaware Basin

Field No. _____

State Well No. _____

Owner's Well No. Pine Springs-Frijoles County Culberson

No. 1

1. Location: 1/4, 1/4 Sec., Block _____, Survey _____
See attached map

2. Owner: U.S. Government National Park Service Address: P. O. Box 728, Santa Fe, NM
Tenant: _____ Address: _____
Driller: W.L. Van Noy Drilling Co. Address: P. O. Box 7, Oil Center, NM

3. Elevation of ground level is 5685 ft. above msl, determined by D. Aughenbaugh

4. Drilled: April 19-June 1 1973; Dug, Cable Tool, Rotary, Cable Tool

5. Depth: Rept. 750.0 ft. Meas. 748.0 ft.

6. Completion: Open Hole, Straight Wall, Underreamed, Gravel Packed Straight Wall

7. Pump: Mfr. Reda Type 5 HP Submersible
No. Stages 51, Bore Diam. _____ in., Setting 630.0 ft.
Column Diam. 2 in., Length Tailpipe 626.0 ft.

8. Motor: Fuel Electric Make & Model Reda HP. 5

9. Yield: Flow _____ gpm, Pump 3.8 gpm, Meas., Rept., Est. Measured

10. Performance Test: Date 9/16-23/74 Length of Test 161 hrs. Made by DMA
Static Level 266.0 ft. Pumping Level 630.0 ft. Drawdown 345.0 ft.
Production 3.8 gpm Specific Capacity 0.011 gpm/ft.

11. Water Level: *176.0 ft. meas. Feb. 3 1974 above top of 10" Dig. Casing which is 1.0 ft. above surface.
251.0 ft. meas. June 1 1973 below top of 10" Dig. Casing which is 1.0 ft. below surface.
266.0 ft. meas. Sept. 16 1974 above top of 6" Dig. Casing which is 1.5 ft. above surface.
ft. meas. 19 above which is _____ ft. above surface.
below

12. Use: Dom., Stock, Public Supply, Ind., Irr., Waterflooding, Observation, Not Used, Not Used

13. Quality: (Remarks on taste, odor, color, etc.) Bad taste, sulfur, gray color
Temp. 66 °F, Date sampled for analysis 5/31/74 Laboratory _____
Temp. 68 °F, Date sampled for analysis 6/1/74 Laboratory CEP
Temp. _____ °F, Date sampled for analysis _____ Laboratory _____

14. Other data available as circled: Driller's Log, Radioactivity Log, Electric Log,
Formation Samples, Pumping Test, _____

15. Record by: D. M. Aughenbaugh Date Sept. 23 1974
Source of Data Field recorded and calculated

16. Remarks: The bore was backfilled and sealed at elevation 662.50, acidized and fractured with 1600 gallons of acid before installation of the 6-inch steel casing. See attached copy of U.S. Geologic Survey Map, Guadalupe Peak Quadrangle for location of well (HL-47-02-8XX).

CASING & BLANK PIPE			
Cemented From		ft. to	
Diam. (in.)	Type	Setting, ft.	
		from	to
10"	Steel Welded	-1.0	+62.0
6"	Steel Welded	-1.5	662.50

WELL SCREEN			
Screen Openings			
Diam. (in.)	Type	Setting, ft.	
		from	to
6"	1/4" Slotted	442.50	662.50

*Item 11: Measurement made prior to backfilling and sealing well to elevation 662.50 feet.

Texas State Department of Health Laboratories
1100 West 49th Street
Austin 5, Texas

County Culberson

State Well No. - -

Well No. 1

Date Collected 9/18/74

By D. M. Aughenbaugh

Location Frijoles Area, Guadalupe Mountains National Park

Source (type of well) 6" Cable Tool owner National Park Service

Date Drilled April 19 - June 1, 1973 Depth 748.0' ft. WBF Delaware Basin

Producing intervals	Water level	266.00	ft.
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Sampled after pumping	46	hrs.	Yield	3.8	GPM	meas.	Temperature	69	°F
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Point of collection Discharge orifice Appearance Gray colored
clear - turbid - colored

Use	Not used	Remarks	See attached copy of CEP lab report, dated 9/26/74.
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FOR LABORATORY USE ONLY

CHEMICAL ANALYSIS

Laboratory No. _____ Date Received _____ Date Reported _____

PPM

PPM

EPM

Silica	Carbonate
100	100
90	90
80	80
70	70
60	60
50	50
40	40
30	30
20	20
10	10
0	0

Calcium	Bicarbonate
---------	-------------

Magnesium	Sulfate
-----------	---------

Sodium _____ Chloride

	Total	Fluoride
1. Total		
2. Fluoride		
3. Total		
4. Fluoride		
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100. Fluoride		

☐ Potassium	Nitrate
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☐ Manganese %Na pH Total _____

☐ Boron SAR 1/Dissolved Solids (sum)

☐ Total Iron	RSC	Phenolphthalein Alkalinity as C as CO ₂
100	100	100

☐ (other) _____ Total Alkalinity as C NaCO_3 _____

Specific Conductance (micromhos/cm³) _____ Total Hardness as CaCO₃ _____

Diluted Conductance (micromhos/cm³) x

"☐ " Items will be analyzed if checked. Analyst

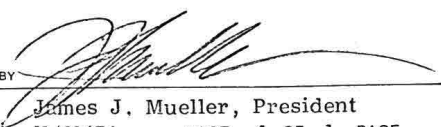
Total Iron requires separate sample. Checked by _____

1/ The bicarbonate reported in this analysis is converted by computation (multiplying by 0.4917) to an equivalent amount of carbonate, and the carbonate figure is used in the computation of this sum.

CUSTOMER National Park Service, Southwest Region
 ATTENTION Mr. Augenbaugh
 ADDRESS P. O. Box 728
 CITY Santa Fe, New Mexico 87501
 INVOICE NO. 410115

REPORT OF ANALYSIS

SAMPLES RECEIVED 9/26/74		CUSTOMER ORDER NUMBER	
TYPE OF ANALYSIS Water Analysis -			
<u>Sample Identification</u>	<u>Date Collected</u>	<u>Analysis</u>	<u>mg/l</u>
Pine Springs -	9/18/74	Calcium	150
Frijoles Well -		Chloride	234
Guadalupe Mtns.		Color	< 5 c.u.
		Fluoride	2.99
		Hardness	703
		Iron	0.06
		Magnesium	53
		Manganese	0.1
		Nitrate (as N)	< 0.1
		pH	7.39
		Phosphorus (as P)	0.48
		Potassium	3.0
		Silica	20 ppm
		Sodium	69
		Total Solids	1168
		Total Dissolved Solids	1182
		Sulfate	192
		Carbonate	< 0.2
		Bicarbonate	287.2

APPROVED BY 
 James J. Mueller, President
 11/01/74 PAGE 1 OF 1 PAGE



Controls for Environmental Pollution, Inc.

4925 Paseo • P. O. Box 5351 • Santa Fe, New Mexico 87501 • Telephone 505/982-9841

CHEMICAL WATER ANALYSIS REPORT

Typewrite (Black ribbon) or Print Plainly
(soft pencil or black ink)
Do not use ball point pen

Texas State Department of Health Laboratories
1100 West 49th Street
Austin 5, Texas

Send report to:

Ground Water Division
Texas Water Development Board
P. O. Box 12386
Austin, Texas 78711

County Culberson

State Well No. -

Well No. 1

Date Collected 6/1/73

By D. M. Aughenbaugh

Location Frijoles Area, Guadalupe Mountains National Park

Source (type of well) 6" Cable Tool Owner National Park Service

Date Drilled April 19 - June 1, 1973 depth 748.0' ft. WBF Delaware Basin

Producing intervals - Water level 251.0 ft.

Sampled after bailing 2 hrs. Yield 10.0 GPM need est. Temperature 67 °F

Point of collection bailer from 575.0 ft. Appearance dark gray - colored
clear - turbid - colored

Use Not used Remarks See attached copy of CEP lab report, dated 6/15/73.

FOR LABORATORY USE ONLY

CHEMICAL ANALYSIS

Laboratory No. - Date Received - Date Reported -

	PPM	EPM		PPM	EPM
Silica	<u>-</u>		Carbonate	<u>-</u>	
Calcium	<u>-</u>		Bicarbonate	<u>-</u>	
Magnesium	<u>-</u>		Sulfate	<u>-</u>	
Sodium	<u>-</u>		Chloride	<u>-</u>	
Total	<u>-</u>		Fluoride	<u>-</u>	
☐ Potassium	<u>-</u>		Nitrate	<u>-</u>	
☐ Manganese	<u>-</u>	<u>Na</u>	pH	<u>-</u>	Total <u>-</u>
☐ Boron	<u>-</u>	SAR <u>-</u>	1/Dissolved Solids (sum)	<u>-</u>	
☐ Total Iron	<u>-</u>	RSC <u>-</u>	Phenolphthalein Alkalinity as C eCO_3	<u>-</u>	
☐ (other)	<u>-</u>		Total Alkalinity as C eCO_3	<u>-</u>	
Specific Conductance (micromhos/cm ³)	<u>-</u>		Total Hardness as C eCO_3	<u>-</u>	
Diluted Conductance (micromhos/cm ³)	<u>-</u>	<u>x</u>			

☐ " items will be analyzed if checked.

Total Iron requires separate sample.

Analyst -

Checked by -

1/ The bicarbonate reported in this analysis is converted by computation (multiplying by 0.4917) to an equivalent amount of carbonate, and the carbonate figure is used in the computation of this sum.

CUSTOMER: National Park Service
 ATTENTION D. Aughenbaugh
 ADDRESS P. O. Box 728
 CITY Santa Fe, New Mexico 87501
 INVOICE NO. 306134

REPORT OF ANALYSIS

SAMPLES RECEIVED	06-15-73	CUSTOMER ORDER NUMBER	PX-7000-3-0049
TYPE OF ANALYSIS Water Quality Analysis - 1 sample			
<i>Sample No. 3 (6-1-73: 10:15 AM)</i>			
<u>Sample Identification</u>	<u>Analysis</u>	<u>Report Units</u>	
Guadalupe Mtn. N. P.	Calcium	60.6 mg/l	
Well: Pine Springs	Chloride	21.9 mg/l	
Frijoles	Color	15 Color Units	
Well Dia: 8"Ø	Fluoride	0.28 mg/l	
By D. M. Aughenbaugh	Hardness	239 mg/l	
Depth of Hole 750'	Iron	1.38 mg/l	
Water from bailer end	Magnesium	37.2 mg/l	
of bailing operation,	Manganese	0.08 mg/l	
water level elevation	Nitrate (as N)	0.33 mg/l	
575 feet.	pH	7.80 pH Units	
Temp. of water 69°F	Phosphorus (as P)	0.31 mg/l	
Conductance measured	Potassium	3.21 mg/l	
750 mg/l	Silica	51 mg/l	
	Sodium	77.6 mg/l	
	Total Solids	1,292 mg/l	
	Total Dissolved Solids	520 mg/l	
	Sulfate	159 mg/l	
	Carbonate	0.0 mg/l	
	Bicarbonate	227 mg/l	
APPROVED BY <i>James J. Mueller</i> James J. Mueller, President 06-22-73 PAGE 1 OF 1 PAGE			



Controls for Environmental Pollution, Inc.

1925 Rosina • P. O. Box 5351 • Santa Fe, New Mexico 87501 • Telephone 505/982-9841

Other Supporting Information

Plates SEIVED

90% SOUTHWEST REGIONAL OFFICE

AUG 10 1978

	Actual	Comp	Uncomp	Due
D				1900 SHERWOOD WAY SAN ANGELO, TEXAS 76901
B				915 944-2120
A				V. STEVE REED
Q				
P				
PA				
MC				
WA				
PS				

om

Mr. Garland Moore
National Park Service
1100 Old Santa Fe Trail
P. O. Box 728
Santa Fe, New Mexico 87501

Dear Mr. Moore,

Enclosed please find the sample descriptions of drill cuttings from the Guadalupe Mountain area of Culberson County, Texas and the Amistad Dam area of Val Verde County, Texas.

An attempt has been made to categorize the formation names by lithology and drill site locations as follows:

<u>LOCATION</u>	<u>WELL NAME</u>	<u>FORMATIONS</u>
Val Verde Co., Texas	"Rough Canyon"	Cretaceous; Georgetown (Salmon Peak Limestone)
Culberson Co., Texas (Guadalupe Mountain Area)	"McKittrick Canyon"	Permian-Guadalupian Carlsbad Formation 0-76'
Culberson Co., Texas	"Frijole Well"	Quaternary deposits 0-150' Delaware Mountain Group Bell Canyon Formation 150-725'
Culberson Co., Texas	"Glover Well"	Quaternary 0-200' Guadalupian Age: Delaware Mountain Group - Cherry Canyon 200 to 300'+; Brushy Canyon 300 to 1660'+ Leonard Age: Bone Springs 1660' to 2570'+
Culberson Co., Texas (Guadalupe Mountains)	"Signal Peak Well"	Permian-Guadalupian Age: Delaware Mountain Group Brushy Canyon 0-900' Leonard Age Bone Spring 900-1240'

(x) L54

Lucas

L54

Ames

Mr. Garland Moore
Page 2

If you have any further questions concerning these descriptions
or formation identifications, please advise.

Very truly yours,

ED L. REED & ASSOCIATES

Chester F. Skrabacz

Chester F. Skrabacz

CFS/cm

Enclosures

ED L. REED & ASSOCIATES
CONSULTING HYDROLOGISTS

CLIENT NATIONAL PARK SERVICE S.W.L. _____
 LOCATION GUADALUPE MOUNTAINS CASING _____
 DATE July 4, 1978 PERFORATIONS _____
 WELL NUMBER Pine Springs, Frijoles Well TD 720' DRILLER _____

SAMPLE DESCRIPTION

INTERVAL	DESCRIPTION	POROSITY
0- 10	75% tan bentonitic - clay with fine sand; 25% limestone gravel	
10- 15	100% tan-gray bentonitic clay with fine sand	
15- 20	100% gray sandy clay and argillaceous sand (bentonitic) micaceous	
20- 50	100% tan silty clay, with gravel of limestone (bentonitic)	
50- 85	100% gray-tan bentonitic clays and fine sands (micaceous) & limestone gravel	
85-100	100% gray fine sand with bentonitic clay and gravels of black sandstone and white limestone	
100-125	100% gray to dark brown bentonitic clay and fine sand; small gravel	
125-150	100% white-cream bentonitic clay (calcareous) with limestone gravel	
150-175	80% light brown limestone; fossiliferous, slightly vuggy to siliceous; 20% black silty shale	Slight
175-190	As above; limestone (black carbonaceous - micaceous - sandy shale)	
190-215	100% sandstone; white, poorly assorted, fine grained, cemented	Slight
215-225	80% as above; 20% black silty-carbonaceous shale	Slight
225-250	100% sand and sandstone, fine-medium-coarse, white, quartzitic; loose to cemented	Fair
250-270	As above;	Slight
270-295	90% sandstone; white to tan fine-medium, quartzitic, cemented slightly calcareous; 10% black silty shale	Slight
295-315	Missing	
315-325	60% brown-tan dense limestone; 20% sandstone; 20% black silty shale	
325-360	70% black silty carbonaceous shale; 30% brown dense limestone	
360-375	100% gray white fine cemented sandstone	
375-385	30% sandstone; 70% black calcareous shale and limestone	
385-410	70% sandstone; 30% shale	
410-425	100% sandstone, white and cemented	
425-450	75% black sandy carbonaceous shale slight calcareous; 25% gray sandstone	
450-480	80% black brown shale, limestone; 20% gray sandstone	
480-500	100% brown limestone, slight fossiliferous and siliceous; some black silty shale	
500-540	40% brown siliceous limestone; 60% brown black carbonaceous - micaceous shale some gray sandstone	
540-545	50% brown carbonaceous shale; 20% sandstone; 30% white gypsum (and some quartz veins)	
545-550	Very fine sample - 80% tan, very fine crystals; 10% black shale; 10% gypsum and quartz	
550-555	100% sandstone; quartzitic with various minerals (mica and feldspar?), angular fine-medium grain	Fair
555-620	60% black carbonaceous-micaceous shale; 40% brown siliceous limestone, some pyrite, quartz ind.	None
620-640	As above; with some gray cemented sandstone	
640-650	100% black carbonaceous-micaceous-slightly calcareous (slightly crystalized rock) shale	
650-700	100% dull brown dense argillaceous limestone	

SAMPLE DESCRIPTION

Page 2 of 2

Form 10-273
(Sept. 1968)UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICEEQUIPMENT AGREEMENT
(Rental or Hire)DATE Jan 5, 1976The undersigned W. LEROY PERRY, DELL CITY TX, 79837
(Name and Address)hereby agrees to rent or hire to the National Park Service at GUADALUPE MTN. N.P.
(Location)subject to the general conditions on the reverse hereof, the following described equipment (or animals) at the rate(s)
specified; payable MONTHLY.
(Monthly, Quarterly, Lump Sum, Etc.)

DESCRIPTION	RATE	PER
1. Drilling 1000'-1500' *	\$ 12.00	hr.
2. Developing well by hailing	\$ 30.00	hr.
3. TEST PUMPING	\$ 30.00	hr.
4. STANDBY TIME	\$ 30.00	hr.
* Condition - If drilling rate is less than 2' per hour for 36 hr. drilling time, the price will be adjusted to \$30.00/hr.	\$	
	\$	
	\$	

PURPOSE FOR WHICH RENTED OR HIRED:

Down hole problems - Contractor and Government will negotiate on charges for recovery.

OTHER CONSIDERATIONS:

- a. Lubricants, fuel and/or feed will be furnished by ☐ Government ☒ Contractor.
- b. Operator(s) will be furnished by ☐ Government ☒ Contractor.

APPROXIMATE PERIOD

From Jan 1 - 1976 To June 30, 1976

APPROPRIATION AND/OR PROJECT

7180-7001-500 \$10,000

OWNER

W. Leroy Perry (Signature) (Date) 1/6/76 (Date)

THE RATES OFFERED IN THIS SCHEDULE ARE BELIEVED TO BE REASONABLE AND ARE ACCEPTED.

Delmar DeLoach (Supervisor) (Date)

Docket Information

Number of Documents in Docket 13

Documents Dated from 1/14/1975 to 8/7/1978

Docket Compiled: 4/7/2011