

WATER CONTAMINATION STUDY

CAPATAZ OPERATING, INC.

P.O. Drawer 10549

Midland, Texas 79702

(915)620-8820 / fax (915)620-8842

05/14/01

RECEIVED
MAY 18 2001

Mr. William Olson
New Mexico Energy Minerals & Natural Resources Department
Oil Conservation Division
1220 South Francis Drive
Santa Fe, New Mexico 87505

Re: Case No. 5051-4270
House #1 Well Site
Lea County, New Mexico

Dear Mr. Olson;

Your correspondence of April 12, 2001, Ms. Donna Williams letter of December 5, 2000 and our numerous telephone conversations have advised this office that the surface tenant residing in the mobile home/s located south of the Capataz Operating, Inc. #1 House well (Photo #1) have complained to the NMOCD about poor water quality in the shallow water well which services the mobile home/s (Photo #2). We understand that the tenant, Mr. J.R. Brinkley first complained about elevated chlorides, nitrates and TDS in the well water while Mr. Jerry Sexton was the Hobbs NMOCD District Director, roughly six years ago.

The NMOCD has designated the Seay Exploration/Capataz Operating #1 House well as a possible source for the chlorides found in the Brinkley well because of the mobile homes relative proximity to the House well (Photo #3). In October of 1990 Seay Exploration began drilling operations on the captioned well. Surface casing was set to a depth of 1700' and cement was circulated around the entire casing string to protect ground water. On November 1, 1990 4 1/2" casing was run to 7750' and cemented with 800 sacks of 50/50 Pozmix "H". Subsequently, the well was completed in March of 1991 as a Drinkard and Blinebry producing well. In early 1994 Capataz Operating became operator of the lease.

Pursuant to your correspondence and our conversations regarding the Brinkley well, Capataz has collected and had analyzed soil samples taken from different depths within the area of the House well's drilling pits. The first sample was collected on April 14, 2001 and was gathered using a shovel and muscle power. Due to the soil conditions in the sample hole we were unable to dig deeper than 18". The attached Exhibit "A" reports the analysis of samples from 5", 12" and 18" (Photo #4). The chlorides in the 12" and 18' samples suggested that we had dug into the body of the old pit and that deeper sampling was required. Accordingly, a backhoe was contracted to excavate at the same location. The initial backhoe operation was successful in penetrating only to a depth of 48", at which point a solid caliche barrier was encountered. The backhoe worked for nearly three hours in an unsuccessful effort to dig through the caliche. Samples were collected at 36" and 48" and the backhoe was moved to a position some 30' further south (Photo #5). Digging at the more southerly location we successfully retrieved a sample from a depth of roughly 14'. Exhibits "B" and "C" are copies of the soil analysis from the deeper penetrations and clearly show a trend toward a reduction in chlorides as depth increases.

Based upon the results of these sample analysis, the arid nature of this portion of New Mexico (annual rainfall 14.6"), the drought southeastern New Mexico has experienced for the last seven years, the length of time required for fluid to penetrate soil and the short period of time between Seay's drilling the well and Brinkleys original complaint, the evidence collected suggests it is unlikely that the House #1 well has made any contribution to the Brinkley's perched water zone problem.

There are number of questions that this problem has generated. With elevated nitrates and high total dissolved solids it would seem that an organic source may be responsible for Brinkley's water quality. Has there been a test of the integrity of the water well casing? Has Brinkley's livestock operation (see horse pens location relative to his residence Photo #2) been a source of the problem. Where is the Brinkley septic system in relationship to his water well and for how many years has the system been in operation? Additionally, numerous other potential sources of significant size and long term existence can be found in the area. Enclosed for your

review is an aerial photograph (Photo #6) of the potential sources proximate to and often up gradient from the Brinkley property. On the aerial photo you will see the location of the City of Hobbs effluent disposal site, the Rhino Environmental "Soil Farm", the disposal facility for Lea County Septic Tank Service, Jenex Operation's oil reclamation site as well as the notable surface disturbance and soil contamination related to the old House field wells located due north of the Brinkley property. In short there are numerous potential on site and off site sources for the poor quality of water found in the shallow interval from which Brinkley produces his household and livestock water.

I hope the information provided herein is helpful to the effort you are making to determine the source responsible for the condition of Mr. Brinkley's water. We think you will find that Seay Exploration and Capataz Operating have made a concerted effort to comply with the NMOC's rules and regulations related to the use of surface drilling pits and the protection of ground water. From the evidence we have gathered and presented to you, it would appear that our efforts in this regard have been successful and that our House No.1 operations are not likely to be the source of the problem.

Please let us know if we can be of further assistance.

Sincerely,

Capataz Operating, Inc.



H. Scott Davis
President

EXHIBIT "A"

CAPROCK LABORATORIES, INC.
3312 BANKHEAD HIGHWAY
MIDLAND, TEXAS 79701
(915) 689-7252

COMPANY: Scott Davis
SAMPLE ID.: As Noted

JOB NUMBER: 0104092
DATE RECEIVED: Apr. 23, 2001
DATE REPORTED: Apr. 14, 2001
REPORTED TO: Scott Davis

SUMMARY OF SOIL ANALYSIS

SAMPLE IDENTIFICATION	5"	12"	18"
LABORATORY NUMBER	04092-1	04092-2	04092-3
TOTAL SALTS, mg/Kg	499	198,826	173,805

Method: Water Extraction/TDS Meter
Sample: Soil

Analyst:


James L. Pritchard, Lab Manager

EXHIBIT "B"

CAPROCK LABORATORIES, INC.
3312 BANKHEAD HIGHWAY
MIDLAND, TEXAS 79701
(915) 689-7252

COMPANY: Scott Davis
SAMPLE ID.: As Noted

JOB NUMBER: 0105038
DATE RECEIVED: May 07, 2001
DATE REPORTED: May 10, 2001
REPORTED TO: Scott Davis

SUMMARY OF SOIL ANALYSIS

SAMPLE IDENTIFICATION	36"	48"
LABORATORY NUMBER	05038-1	05038-2
TOTAL SALTS, mg/Kg	19,555	7,361

Method: Water Extraction/TDS Meter
Sample: Soil

Analyst: 
James L. Pritchard, Lab Manager

EXHIBIT "C"

CAPROCK LABORATORIES, INC.
3312 BANKHEAD HIGHWAY
MIDLAND, TEXAS 79701
(915) 689-7252

COMPANY: Scott Davis
SAMPLE ID.: As Noted

JOB NUMBER: 0105014
DATE RECEIVED: May 02, 2001
DATE REPORTED: May 02, 2001
REPORTED TO: Scott Davis

SUMMARY OF SOIL ANALYSIS

SAMPLE IDENTIFICATION	14'
LABORATORY NUMBER	05014-1
TOTAL SALTS, mg/Kg	1,511

Method: Water Extraction/TDS Meter
Sample: Soil

Analyst:


James L. Pritchard, Lab Manager

PHOTO #1

Capataz House #1. View to North- Northwest

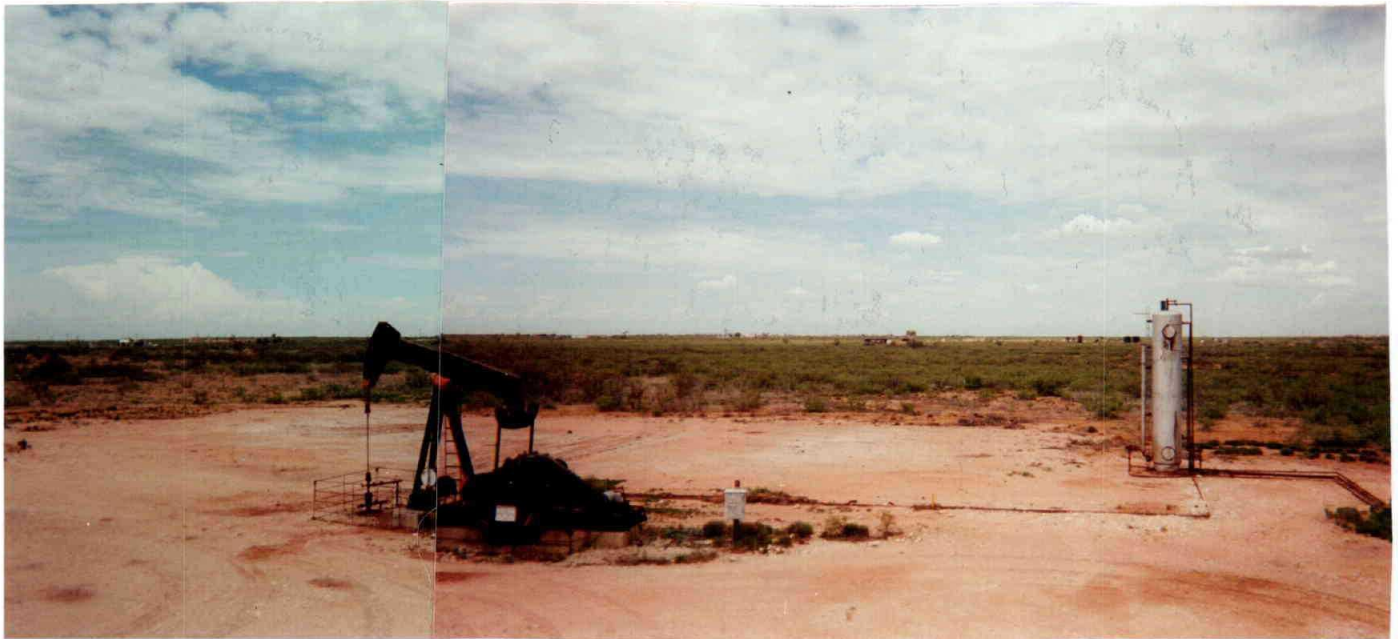


PHOTO #2

View from Capataz House #1 to Brinkley residence, barn & livestock pens.



LIVESTOCK
PENS

APPROXIMATE WATER
WELL LOCATION

RESIDENCE

PHOTO #3

View looking east toward Capataz House #1, Pierce House #1 and Brinkley residence, barn & livestock pens.



CAPATAZ HOUSE #1

PIERCE - HOUSE #1

BRINKLEY RESIDENCE,
BARN & LIVESTOCK PENS

PHOTO #4

Capataz House #1 well site view from west side of site.

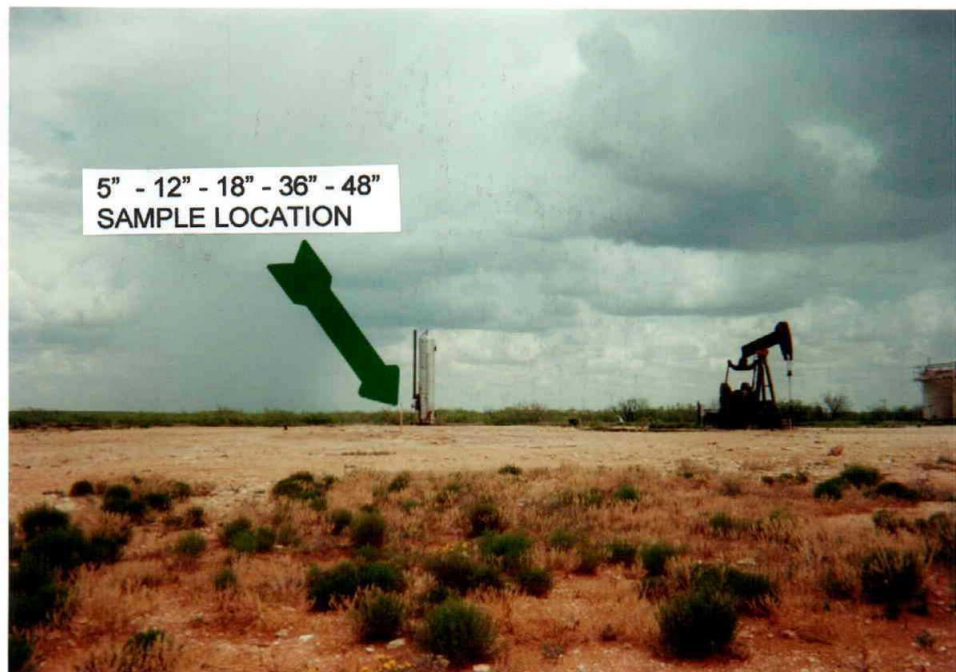


PHOTO #5

View from Capataz House #1 South-Southwest toward Brinkley residence, barn
& livestock pens.



PHOTO #6
Aerial Photo - House Site Area

CITY OF HOBBS
EFFLUENT DISPOSAL SITE

OLD HOUSE FIELD
CALICHE PITS & CONTAMINATED SITES

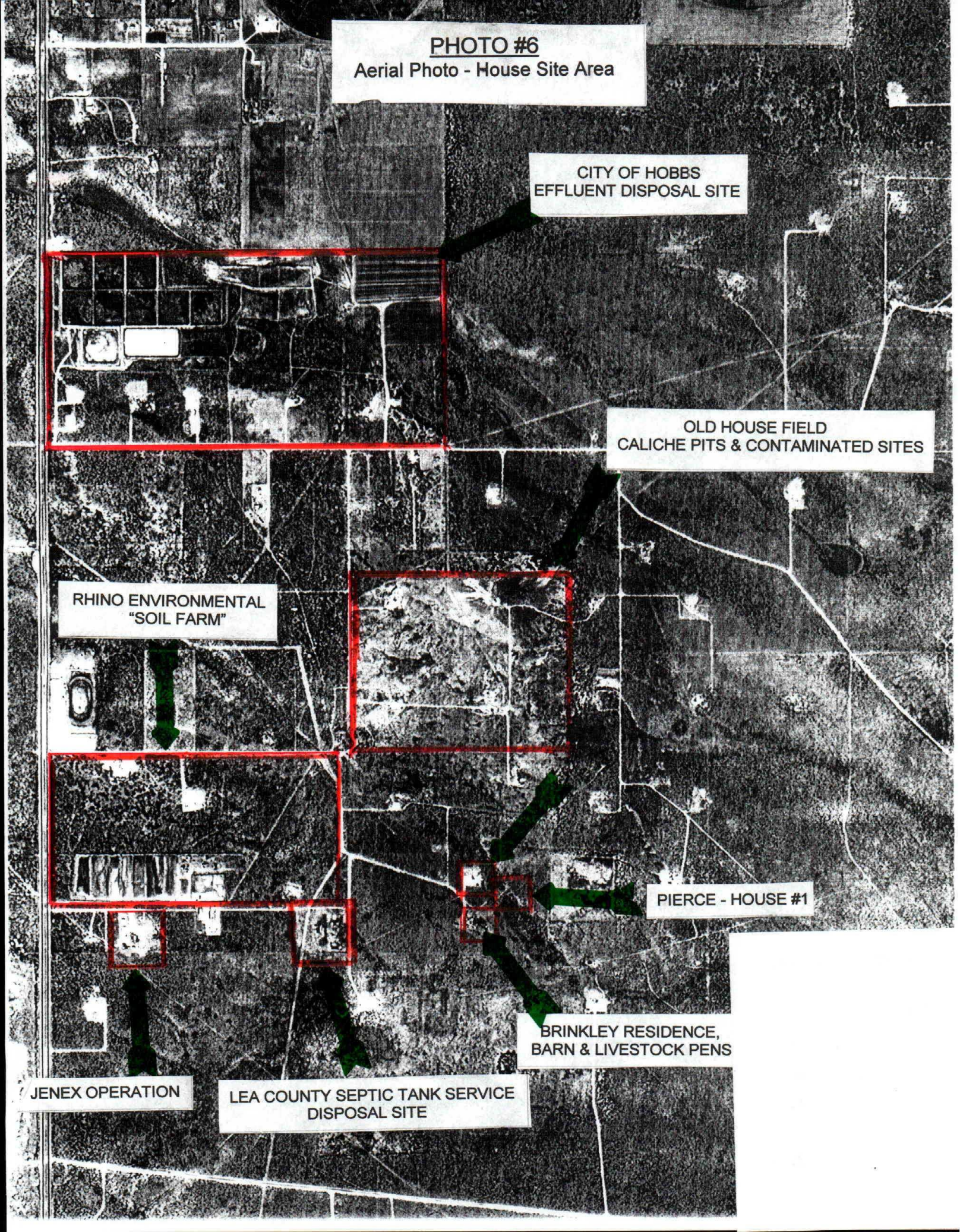
RHINO ENVIRONMENTAL
"SOIL FARM"

PIERCE - HOUSE #1

BRINKLEY RESIDENCE,
BARN & LIVESTOCK PENS

JENEX OPERATION

LEA COUNTY SEPTIC TANK SERVICE
DISPOSAL SITE





NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON

Governor

Jennifer A. Salisbury

Cabinet Secretary

Lori Wrotenbery

Director

Oil Conservation Division

April 12, 2001

CERTIFIED MAIL

RETURN RECEIPT NO. 5051-4270

Mr. Steve Nelser
Capataz Operating, Inc.
P.O. Drawer 10549
Midland, Texas 79702

**RE: CASE #1R0051
HOUSE #1 WELL SITE
LEA COUNTY, NEW MEXICO**

Dear Mr. Nelser:

On December 5, 2000, the New Mexico Oil Conservation Division (OCD) Hobbs District Office informed Capataz Operating, Inc. (Capataz) that the OCD was investigating groundwater contamination adjacent to Capataz's House #1 well site located in Unit D, Section 13, Township 20 South, Range 38 East, NMPM, Lea County, New Mexico. In this correspondence, the OCD required that Capataz investigate the extent of contamination related to a former reserve pit at the site and required that a site assessment and/or remediation plan be submitted to the OCD by December 27, 2000. The OCD has no record of receiving such a plan.

In order to rectify this deficiency, the OCD requires that Capataz submit a plan to investigate the extent of contamination related to the former reserve pit at Capataz's House #1 well site. The plan shall be submitted to the OCD Santa Fe Office by May 12, 2001 with a copy provided to the OCD Hobbs District Office. Failure to submit an investigation plan will result in the OCD requiring a formal abatement plan pursuant to OCD Rule 19.

If you have any questions, please call me at (505) 476-3491.

Sincerely,

William C. Olson
Hydrologist
Environmental Bureau

xc: Chris Williams, OCD Hobbs District Supervisor
J.R. Brinkley



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

* Brinkley

Lori Wrotenbery
Director
Oil Conservation Division

December 5, 2000

Capataz Operating, Inc.
Attn: Steve Nelser
P.O. Drawer 10549
Midland, Texas 79702

Re: House Well #1
UL D-Sec 13-T20S-R38E

Mr. Nelser:

Through an inspection the New Mexico Oil Conservation Division (NMOCD) has become aware of a pit, reserve pit, located just northwest of House Well #1 that is being operated by Capataz Operating, Inc. (Capataz). The NMOCD has reason to believe that there is existing groundwater contamination in this area. Due to this information and the depth to groundwater in the area being approximately 42 feet, the NMOCD hereby requests Capataz to perform a site investigation and submit a remediation plan. Rule 19.B, Abatement Standards and Requirements states that the vadose zone shall be abated so that water contaminants in the vadose zone will not with reasonable probability contaminate ground water or surface water, in excess of the standards through leaching, percolation, or other transport mechanisms, or as the water table elevation fluctuates.

Due to the contamination at the above referenced location the NMOCD hereby requires the following:

1. Capataz shall perform vertical and horizontal extent at the above referenced location to determine the extent of the contamination in the pit area.
2. Capataz shall perform a site assessment and determine cleanup standards, using the guidelines for assistance. For your use a copy of the guidelines are included.
3. Capataz shall submit to the NMOCD a site assessment and/or a remediation plan, with the findings of the investigation included, by December 27th, 2000, for approval.

If you have any further questions, or need any assistance please do not hesitate to write or call me at (505) 393-6161 ext...113.

Sincerely,

Donna Williams
Environmental Engineer Specialist

cc: Roger Anderson - Environmental Bureau Chief
Chris Williams - District I Supervisor

**New Mexico Office of the State Engineer
Well Reports and Downloads**

Township: Range: Sections:

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) ☐ Non-Domestic ☐ Domestic
☒ All

[Well Data Report](#)

[Avg Depth to Water Report](#)

[Water Column Report](#)

[Clear Form](#)

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[Help](#)

AVERAGE DEPTH OF WATER REPORT 12/05/2000

Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	(Depth Water in Feet)		
								Min	Max	Avg
CP	20S	38E	33				1	35	35	35
L	20S	38E	02				14	38	57	44
L	20S	38E	03				2	25	45	35
L	20S	38E	05				2	24	34	29
L	20S	38E	06				5	53	67	62
L	20S	38E	07				1	80	80	80
L	20S	38E	08				1	60	60	60
L	20S	38E	10				3	30	52	43
L	20S	38E	11				6	31	90	47
L	20S	38E	12				3	46	65	54
L	20S	38E	13				1	42	42	42
L	20S	38E	14				1	38	38	38
L	20S	38E	18				1	50	50	50
L	20S	38E	26				1	65	65	65

Record Count: 42