

STATE OF NEW MEXICO



SCIENTIFIC LABORATORY DIVISION

700 Camino de Salud NE, Albuquerque, New Mexico 87106
(505) 841-2500

REPORT TO: DAVID G. ROYER
NEW MEXICO OIL CONSERVATION DIV.
P.O. BOX 2088
SANTA FE, NM 87501

S.L.D. No.: OR-650-A
DATE REC.: 7/15/85
PHONE 827-5812
USER CODE: 82235

CONTAINERS WHICH ACCOMPANY THIS FORM ARE COLLECTIVELY REFERED TO AS SAMPLE.

SUBMITTER: NM OCS CODE
LOCATION: CHASE OIL CO PINON #2 CODE 14W 08E 26
SOURCE: MUD PIT CODE
COLLECTED: 7/2/85 BY BAILEY CODE 8507021406OR
SAMPLE TYPE: WATER SOIL OTHER CODE
NEAREST CITY: GALISTEO CODE

pH= 9.95; Conductivity= umho/cm at °C; Chlorine Residual=
Dissolved Oxygen= mg/l; Alkalinity= ; Flow Rate=

Sampling Location, Methods and Remarks (i.e. odors, etc.)
PLASTIC LINED MUD PIT. MUD WT. 8.9 lbs/gal. VIS 36 sec.
BENTONITE MUD WITH CMC STARCH, SODA ASH, NaOH ADDITIVES

I certify that the statements in this block accurately reflect the results of my field analyses, observations and activities.

Method of shipment to the Laboratory Hand carried

This form accompanies 1 Septum Vials, Glass Jugs,

Containers are marked as follows to indicate preservation (circle):
NP: No preservation; sample stored at room temperature.
P-Ice: Sample stored in an ice bath (not frozen).
P-Na₂S₂O₃: Sample preserved with Na₂S₂O₃ to remove chlorine residual.

I (we) certify that this sample was transferred from to at (location) on (date & time) and that the statements in this block are correct

Evidentiary Seals: Not Sealed Intact: Yes No
Signatures

(we) certify that this sample was transferred from to at (location) on (date & time) and that the statements in this block are correct

Evidentiary Seals: Not Sealed Intact: Yes No
Signatures

ANALYSES REQUESTED

LAB. No.: ORG-650

PLEASE CHECK THE APPROPRIATE BOXES BELOW TO INDICATE THE TYPE OF ANALYTICAL SCREENS REQUIRED. WHENEVER POSSIBLE LIST SPECIFIC COMPOUNDS SUSPECTED OR REQUIRED.

QUALITATIVE	QUANTITATIVE	PURGEABLE SCREENS	QUALITATIVE	QUANTITATIVE	EXTRACTABLE SCREENS
<input type="checkbox"/>	<input type="checkbox"/>	AROMATIC HYDROCARBON SCREEN	<input type="checkbox"/>	<input type="checkbox"/>	CHLORINATED HYDROCARBON PESTICIDES
<input type="checkbox"/>	<input type="checkbox"/>	HALOGENATED HYDROCARBON SCREEN	<input type="checkbox"/>	<input type="checkbox"/>	CHLOROPHENOXY ACID HERBICIDES
<input type="checkbox"/>	<input type="checkbox"/>	GAS CHROMATOGRAPH/MASS SPECTROMETER	<input type="checkbox"/>	<input type="checkbox"/>	HYDROCARBON FUEL SCREEN
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	ORGANOPHOSPHATE PESTICIDES
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	POLYCHLORINATED BIPHENYLS (PCB's)
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	POLYNUCLEAR AROMATIC HYDROCARBONS
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	TRIAZINE HERBICIDES
<input type="checkbox"/>	<input type="checkbox"/>	SPECIFIC COMPOUNDS	<input type="checkbox"/>	<input type="checkbox"/>	SPECIFIC COMPOUNDS
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	

REMARKS:

ANALYTICAL RESULTS

COMPOUND	[PPBI]	COMPOUND	[PPB]
<i>halogenated purgeable</i>	<i>none detected</i>		
<i>Benzene</i>	<i>N.D.*</i>		
<i>Toluene</i>	<i>N.D.</i>		
<i>Ethylbenzene</i>	<i>N.D.</i>		
<i>p-Xylene</i>	<i>N.D.</i>		
<i>m-Xylene</i>	<i>N.D.</i>		
<i>o-Xylene</i>	<i>N.D.</i>		
		* DETECTION LIMIT	<i>50 ug/m³</i>

REMARKS: *all samples should be submitted in duplicate. Slightly unsaturated hydrocarbons also detected by aromatic screen at < 5 ppb.*

CERTIFICATE OF ANALYTICAL PERSONNEL

Seal(s) Intact: Yes NO . Seal(s) broken by: _____ date: _____
 I certify that I followed standard laboratory procedures on handling and analysis of this sample unless otherwise noted and that the statements in this block and the analytical data on this page accurately reflect the analytical results for this sample.
 Date(s) of analysis: *8 July 85*. Analyst's signature: *[Signature]*
 I certify that I have reviewed and concur with the analytical results for this sample and with the statements in this block. Reviewers signature: *[Signature]*



SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

NN

GENERAL WATER CHEMISTRY
and NITROGEN ANALYSIS

DATE RECEIVED	07/05/85	LAB NO.	2349	USER CODE	<input type="checkbox"/> 59300 <input type="checkbox"/> 59600 <input checked="" type="checkbox"/> OTHER: 82235
Collection DATE	7/2/85	SITE INFORMATION	Sample location: CHASE OIL CO. PIÑON #2 ORTIZ MINE		
Collection TIME	1406		LEASE SEC 26 T14N R9E		
Collected by — Person/Agency		Collection site description			
NM 200 BAILEY		PLASTIC LINED MUD PIT			

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87501

RECEIVED
SEP 06 1985

Oil CONSERVATION DIVISION
SANTA FE

Attn: David Boyer

SAMPLING CONDITIONS:

<input type="checkbox"/> Bailed	<input type="checkbox"/> Pump	Water level	Discharge	Sample type
<input checked="" type="checkbox"/> Dipped	<input type="checkbox"/> Tap			
pH (00400)	9.95	Conductivity (Uncorrected):	Water Temp. (00010):	Conductivity at 25°C (00094):
		µmho	°C	µmho
Field comments: MUD WT 8.9 lbs/gal VIS 36 sec. BENTONITE MUD WITH CMC, STARCH, SOCA ASH, NaOH ADDITIVES				

SAMPLE FIELD TREATMENT — Check proper boxes

No. of samples submitted:	<input checked="" type="checkbox"/> NF: Whole sample (Non-filtered)	<input type="checkbox"/> F: Filtered in field with 0.45 µm membrane filter	<input type="checkbox"/> A: 2 mL H ₂ SO ₄ /L added
<input checked="" type="checkbox"/> NA: No acid added <input type="checkbox"/> Other-specify:			

ANALYTICAL RESULTS from SAMPLES:

NF, NA	Units	Date analyzed	NF, NA	Units	Date analyzed
<input checked="" type="checkbox"/> Conductivity (Corrected) 25°C (00095)	2000 µmho	8/2	<input checked="" type="checkbox"/> Calcium (00915)	100 mg/l	8/21
<input checked="" type="checkbox"/> Total non-filterable residue (suspended) (00630)			<input checked="" type="checkbox"/> Magnesium (00925)	25.4 mg/l	"
<input checked="" type="checkbox"/> Other: pH	7.4	8/26	<input checked="" type="checkbox"/> Sodium (00930)	506 mg/l	8-13
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Potassium (00935)	5.85 mg/l	8-13
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Bicarbonate (00440)	1194 mg/l	8/26
			<input checked="" type="checkbox"/> Chloride (00940)	62.7 mg/l	8/27
			<input checked="" type="checkbox"/> Sulfate (00945)	235.8 mg/l	8/14
			<input checked="" type="checkbox"/> Total filterable residue (dissolved) (70300)	1570 mg/l	8/27
			<input checked="" type="checkbox"/> Other: F CO ₂	1.76	7/31
				None	
NF, A-H, SO ₄ HNO ₃			F, A-H, SO ₄		
<input type="checkbox"/> Nitrate-N + Nitrate-N total (00630)	mg/l		<input type="checkbox"/> Nitrate-N + Nitrate-N dissolved (00631)	mg/l	
<input type="checkbox"/> Ammonia-N total (00610)	mg/l		<input type="checkbox"/> Ammonia-N dissolved (00608)	mg/l	
<input type="checkbox"/> Total Kjeldahl-N ()	mg/l		<input type="checkbox"/> Total Kjeldahl-N ()	mg/l	
<input type="checkbox"/> Chemical oxygen demand (00340)	mg/l		<input type="checkbox"/> Other:		
<input type="checkbox"/> Total organic carbon ()	mg/l				
<input type="checkbox"/> Other:			Analyst	Date Reported	Reviewed by
<input type="checkbox"/> Other:				8/28/85	W. Alan

Laboratory remarks



DATE RECEIVED	07/25/85	LAB NO.	MM-1247	USER CODE	<input type="checkbox"/> 59300 <input type="checkbox"/> 59600 <input checked="" type="checkbox"/> OTHER: 82235
Collection DATE	7/2/85	SITE INFORMATION	Sample location		
Collection TIME	1406		CHACE OIL CO. PIÑON #2 ORTIZ MINE LEASE SEC 26 T14N R8E		
Collected by — Person/Agency		Collection site description			
NM 200 BAILEY		PLASTIC LINED MUD PIT			

SEND FINAL REPORT TO

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87501

Attn: David Boyer

SAMPLING CONDITIONS

<input type="checkbox"/> Bailed	<input type="checkbox"/> Pump	Water level	Discharge	Sample type
<input checked="" type="checkbox"/> Dipped	<input type="checkbox"/> Tap			
pH (00400)	9.95	Conductivity (Uncorrected)	Water Temp. (00010)	Conductivity at 25°C (00094)
		µmho	°C	µmho

Field comments: MUD WT 8.9 lbs/gal VIS 36 SEC. BENTONITE MUD WITH CMC, STARCH, SOCA ASH, NaOH ADDITIVES

SAMPLE FIELD TREATMENT — Check proper boxes

No. of samples submitted	<input checked="" type="checkbox"/> NF: Whole sample (Non-filtered)	<input type="checkbox"/> F: Filtered in field with 0.45 µm membrane filter	<input checked="" type="checkbox"/> A: 2 ml H ₂ SO ₄ /L added
<input type="checkbox"/> NA: No acid added <input type="checkbox"/> Other-specify:			

ANALYTICAL RESULTS from SAMPLES

Units	Date analyzed	F, NA	Units	Date analyzed
<input checked="" type="checkbox"/> Conductivity (Corrected) 25°C (00095)	_____ µmho	<input type="checkbox"/> Calcium (00915)	_____ mg/l	_____
<input type="checkbox"/> Total non-filterable residue (suspended) (00530)	_____ mg/l	<input type="checkbox"/> Magnesium (00925)	_____ mg/l	_____
<input checked="" type="checkbox"/> Other: IC AP SEAR	_____	<input type="checkbox"/> Sodium (00930)	_____ mg/l	_____
<input type="checkbox"/> Other:	_____	<input type="checkbox"/> Potassium (00935)	_____ mg/l	_____
<input type="checkbox"/> Other:	_____	<input type="checkbox"/> Bicarbonate (00440)	_____ mg/l	_____
		<input type="checkbox"/> Chloride (00940)	_____ mg/l	_____
		<input type="checkbox"/> Sulfate (00945)	_____ mg/l	_____
		<input type="checkbox"/> Total filterable residue (dissolved) (70300)	_____ mg/l	_____
		<input type="checkbox"/> Other:	_____	_____
NF, A-H₂SO₄		F, A-H₂SO₄		
<input type="checkbox"/> Nitrate-N +, Nitrate-N total (00630)	_____ mg/l	<input type="checkbox"/> Nitrate-N +, Nitrate-N dissolved (00631)	_____ mg/l	_____
<input type="checkbox"/> Ammonia-N total (00610)	_____ mg/l	<input type="checkbox"/> Ammonia-N dissolved (00608)	_____ mg/l	_____
<input type="checkbox"/> Total Kjeldahl-N ()	_____ mg/l	<input type="checkbox"/> Total Kjeldahl-N ()	_____ mg/l	_____
<input type="checkbox"/> Chemical oxygen demand (00340)	_____ mg/l	<input type="checkbox"/> Other:	_____	_____
<input type="checkbox"/> Total organic carbon ()	_____ mg/l			
<input type="checkbox"/> Other:	_____	Analyst	Date Reported	Reviewed by
<input type="checkbox"/> Other:	_____		8/28/85	Jim Bailey

Laboratory remarks: _____
Sample digested

Lab Number: HM-1247

Sample Code: CHACI OIL CO. Area #2
PLASTIC Lined mud Pit

Date Submitted: 7/5/85

Date Reported: 8/22/85

By: BAILEY

By: Jim Bailey

<u>Determination</u>	<u>Concentration (µg/ml)</u>
Aluminum	<u>630</u>
Barium	<u>130</u>
Beryllium	<u><0.5</u>
Boron	<u>0.5</u>
Cadmium	<u><0.5</u>
Calcium	<u>1550</u>
Chromium	<u><0.5</u>
Cobalt	<u><0.5</u>
Copper	<u><0.5</u>
Iron	<u>450</u>
Lead	<u>3.0</u>
Magnesium	<u>200</u>
Manganese	<u>15.</u>
Molybdenum	<u><0.5</u>
Nickel	<u><0.5</u>
Silicon	<u>4.5</u>
Silver	<u><0.5</u>
Strontium	<u>3.5</u>
Tin	<u>0.5</u>
Vanadium	<u>0.5</u>
Yttrium	<u><0.5</u>
Zinc	<u>2.0</u>



SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

NN

GENERAL WATER CHEMISTRY
and NITROGEN ANALYSIS

DATE RECEIVED 07/05/85 LAB NO. WC-3396 USER CODE 59300 59600 OTHER: 82235

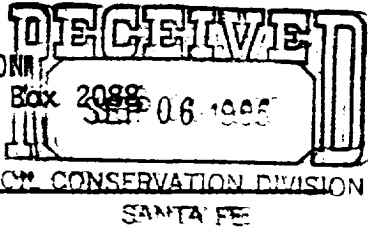
Collection DATE 7/2/85 SITE INFORMATION CHASE OIL CO. PINON #2 ORTIZ MINE LEASE

Collection TIME 1422 SEP 26 TIAN RBE

Collected by — Person/Agency: BAILEY / NM OCS Collection site description: WATER TANK USED TO STORE WATER HAULED FROM SANTA FE.

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg., P.O. Box 2088
Santa Fe, NM 87501

Attr: David Boyer



Station/well code _____
Owner _____

SAMPLING CONDITIONS

Bailed Pump Water level _____ Discharge _____ Sample type _____
 Dipped Tap

pH (00400) _____ Conductivity (Uncorrected) _____ μmho Water Temp. (00010) _____ $^{\circ}\text{C}$ Conductivity at 25 $^{\circ}\text{C}$ (00094) _____ μmho

Field comments: WATER USED TO MIX MUD FOR DRILLING WELL
PRESENT WELL DEPTH 2977'

SAMPLE FIELD TREATMENT — Check proper boxes:

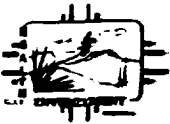
No. of samples submitted: _____ NF: Whole sample (Non-filtered); F: Filtered in field with 0.45 μm membrane filter; A: 2 ml H_2SO_4 /L added

NA: No acid added; Other-specify: _____

ANALYTICAL RESULTS from SAMPLES

NF, NA	Units	Date analyzed	NF, NA	Units	Date analyzed
<input checked="" type="checkbox"/> Conductivity (Corrected) 25 $^{\circ}\text{C}$ (00095)	μmho	8/11	<input checked="" type="checkbox"/> Calcium (00915)	mg/l	8/21
<input checked="" type="checkbox"/> Total non-filterable residue (suspended) (00530)	mg/l		<input checked="" type="checkbox"/> Magnesium (00925)	mg/l	
<input checked="" type="checkbox"/> Other: pH		8/26	<input checked="" type="checkbox"/> Sodium (00930)	mg/l	8-13
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Potassium (00935)	mg/l	8-13
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Bicarbonate (00440)	mg/l	8/26
			<input checked="" type="checkbox"/> Chloride (00940)	mg/l	8/27
			<input checked="" type="checkbox"/> Sulfate (00945)	mg/l	8/14
			<input checked="" type="checkbox"/> Total filterable residue (dissolved) (70300)	mg/l	8/27
			<input checked="" type="checkbox"/> Other: CO_3	mg/l	7/31
NF, A-H $_2$ SO $_4$					8/26
<input type="checkbox"/> Nitrate-N +, Nitrate-N total (00630)	mg/l		<input type="checkbox"/> Nitrate-N +, Nitrate-N dissolved (00631)	mg/l	
<input type="checkbox"/> Ammonia-N total (00810)	mg/l		<input type="checkbox"/> Ammonia-N dissolved (00608)	mg/l	
<input type="checkbox"/> Total Kjeldahl-N ()	mg/l		<input type="checkbox"/> Total Kjeldahl-N ()	mg/l	
<input type="checkbox"/> Chemical oxygen demand (00340)	mg/l		<input type="checkbox"/> Other:		
<input type="checkbox"/> Total organic carbon ()	mg/l				
<input type="checkbox"/> Other:			Analyst	Date Reported	Reviewed by
<input type="checkbox"/> Other:				8/27/85	John

Laboratory remarks _____



New Mexico Health and Environment Department
 SCIENTIFIC LABORATORY DIVISION
 700 Camino de Salud NE
 Albuquerque, NM 87106 — (505) 841-2555

JM

**GENERAL WATER CHEMISTRY
 and NITROGEN ANALYSIS**

DATE RECEIVED <u>07/25/85</u>	LAB NO. <u>7M-1248</u>	USER CODE <input type="checkbox"/> 59300 <input type="checkbox"/> 59600 <input checked="" type="checkbox"/> OTHER: 82235
Collection DATE <u>7/2/85</u>	SITE INFORMATION	Sample location <u>CHASE OIL CO. PINON #2 ORTIZ MINE LEASE</u>
Collection TIME <u>1422</u>		<u>SEC 26 T14N R8E</u>
Collected by — Person/Agency <u>BAILEY / NMOCN</u>		Collection site description <u>WATER TANK USED TO STORE WATER HAULED FROM SANTA FE.</u>

SEND FINAL REPORT TO

ENVIRONMENTAL BUREAU
 NM OIL CONSERVATION DIVISION
 State Land Office Bldg, PO Box 2088
 Santa Fe, NM 87501

RECEIVED
 AUG 28 1985
 OIL CONSERVATION DIVISION
 SANTA FE

Attr: David Boyer

SAMPLING CONDITIONS

<input type="checkbox"/> Bailed	<input type="checkbox"/> Pump	Water level	Discharge	Sample type
<input type="checkbox"/> Dipped	<input checked="" type="checkbox"/> Tap			
pH (00400)	Conductivity (Uncorrected) <u> </u> μ mho	Water Temp. (00010) <u> </u> °C	Conductivity at 25°C (00094) <u> </u> μ mho	
Field comments <u>WATER USED TO MIX MUD FOR DRILLING WELL</u> <u>PRESENT WELL DEPTH 2977'</u>				

SAMPLE FIELD TREATMENT — Check proper boxes

No. of samples submitted	<input checked="" type="checkbox"/> NF: Whole sample (Non-filtered)	<input type="checkbox"/> F: Filtered in field with 0.45 μ membrane filter	<input checked="" type="checkbox"/> A: 2 ml H ₂ SO ₄ /L added <u>HNO₃</u>
<input type="checkbox"/> NA: No acid added <input type="checkbox"/> Other-specify: _____			

ANALYTICAL RESULTS from SAMPLES

NF: <u>HNO₃</u>	Units	Date analyzed	F, NA	Units	Date analyzed
<input type="checkbox"/> Conductivity (Corrected) 25°C (00095)	<u> </u> μ mho		<input type="checkbox"/> Calcium (00915)	<u> </u> mg/l	
<input type="checkbox"/> Total non-filterable residue (suspended) (00530)	<u> </u> mg/l		<input type="checkbox"/> Magnesium (00925)	<u> </u> mg/l	
<input checked="" type="checkbox"/> Other: <u>ICAP SCAN</u>			<input type="checkbox"/> Sodium (00930)	<u> </u> mg/l	
<input type="checkbox"/> Other:			<input type="checkbox"/> Potassium (00935)	<u> </u> mg/l	
<input type="checkbox"/> Other:			<input type="checkbox"/> Bicarbonate (00440)	<u> </u> mg/l	
			<input type="checkbox"/> Chloride (00940)	<u> </u> mg/l	
			<input type="checkbox"/> Sulfate (00945)	<u> </u> mg/l	
			<input type="checkbox"/> Total filterable residue (dissolved) (70300)	<u> </u> mg/l	
			<input type="checkbox"/> Other:		
NF, A-H₂SO₄			F, A-H₂SO₄		
<input type="checkbox"/> Nitrate-N +, Nitrate-N total (00630)	<u> </u> mg/l		<input type="checkbox"/> Nitrate-N +, Nitrate-N dissolved (00631)	<u> </u> mg/l	
<input type="checkbox"/> Ammonia-N total (00610)	<u> </u> mg/l		<input type="checkbox"/> Ammonia-N dissolved (00608)	<u> </u> mg/l	
<input type="checkbox"/> Total Kjeldahl-N ()	<u> </u> mg/l		<input type="checkbox"/> Total Kjeldahl-N ()	<u> </u> mg/l	
<input type="checkbox"/> Chemical oxygen demand (00340)	<u> </u> mg/l		<input type="checkbox"/> Other:		
<input type="checkbox"/> Total organic carbon ()	<u> </u> mg/l				
<input type="checkbox"/> Other:			Analyst	Date Reported <u>8/16/85</u>	Reviewed by <u>J.F. Bailey</u>
<input type="checkbox"/> Other:			Laboratory remarks		

ICAP - SCREEN

Lab Number: HM 1248

Sample Code: Chase Oil Co. Piton #2

Date Submitted: 7/5/85

Date Reported: 8/16/85

By: NMOCD

By: Jinalsky

<u>Determination</u>	<u>Concentration (µg/ml)</u>
Aluminum	<u><0.1</u>
Barium	<u>0.1</u>
Beryllium	<u><0.1</u>
Boron	<u><0.1</u>
Cadmium	<u><0.1</u>
Calcium	<u>18.</u>
Chromium	<u><0.1</u>
Cobalt	<u><0.1</u>
Copper	<u><0.1</u>
Iron	<u>0.1</u>
Lead	<u><0.1</u>
Magnesium	<u>2.3</u>
Manganese	<u><0.05</u>
Molybdenum	<u><0.1</u>
Nickel	<u><0.1</u>
Silicon	<u>7.7</u>
Silver	<u><0.1</u>
Strontium	<u>0.2</u>
Tin	<u><0.1</u>
Vanadium	<u><0.1</u>
Yttrium	<u><0.1</u>
Zinc	<u><0.1</u>



700 Camino de Salud NE
Albuquerque, NM 87105 — (505) 841-2555

GENERAL WATER CHEMISTRY
and NITROGEN ANALYSIS

DATE RECEIVED	8/12/85	LAB NO.	WC-3993	USER CODE	<input type="checkbox"/> 59300 <input type="checkbox"/> 59600 <input checked="" type="checkbox"/> OTHER: 82235
Collection DATE	8/8/85	SITE INFORMATION	Sample location		
Collection TIME	1010		OWEN RANCH CORRAL FAUCET		
Collected by — Person/Agency		Collection site description			
BAILEY/DCJ		WELL TO T.O. HORSE RANCH WATER TASTES MUSTY. PUMP CONNECTIONS COATED WITH WHITE SCALE			

SEND FINAL REPORT TO

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, P.O. Box 20888
Santa Fe, NM 87501

RECEIVED
SEP 06 1985
OIL CONSERVATION DIVISION
SANTA FE

CORRAL FAUCET CLOSEST TO WELL
SALISTEO CREEK AREA

Attn: David Boyer

SAMPLING CONDITIONS

<input type="checkbox"/> Bailed	<input type="checkbox"/> Pump	Water level	16'	Discharge	200 gpm	Sample type
<input type="checkbox"/> Dipped	<input checked="" type="checkbox"/> Tap	pH (00400)	6.97	Conductivity (Uncorrected)	710 µmho	Water Temp. (00010)
					22 °C	Conductivity at 25°C (00094)
						µmho

Field comments: SEPTIC FIELD 7300' DOWNGRADIENT. COMPLAINS OF SULFUR SMELL. O/G WELL BEING DRILLED 1/4 MI UPGRADIENT. LINDO PITS

SAMPLE FIELD TREATMENT — Check proper boxes:

No. of samples submitted: 1

NF: Whole sample (Non-filtered) F: Filtered in field with 0.45 µm membrane filter A: 2 ml H₂SO₄ added

NA: No acid added Other-specify:

ANALYTICAL RESULTS from SAMPLES

NF, NA	Units	Date analyzed	F, NA	Units	Date analyzed
<input type="checkbox"/> Conductivity (Corrected) 25°C (00095)	µmho		<input checked="" type="checkbox"/> Calcium (00915)	117.6 mg/l	8/27
<input type="checkbox"/> Total non-filterable residue (suspended) (00530)	mg/l		<input checked="" type="checkbox"/> Magnesium (00925)	62.5 mg/l	"
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Sodium (00930)	138.0 mg/l	8-13
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Potassium (00935)	39.0 mg/l	8-13
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Bicarbonate (00440)	242 mg/l	8/26
			<input checked="" type="checkbox"/> Chloride (00940)	19.9 mg/l	8/27
			<input checked="" type="checkbox"/> Sulfate (00945)	515 mg/l	8/27
			<input checked="" type="checkbox"/> Total filterable residue (dissolved) (70300)	1088 mg/l	8/27
			<input checked="" type="checkbox"/> Other: CO ₂	None	
			<input checked="" type="checkbox"/> F, A-H ₂ SO ₄	1.07	8/20
<input type="checkbox"/> Nitrate-N + Nitrate-N total (00630)	mg/l		<input type="checkbox"/> Nitrate-N + Nitrate-N dissolved (00631)	mg/l	
<input type="checkbox"/> Ammonia-N total (00610)	mg/l		<input type="checkbox"/> Ammonia-N dissolved (00608)	mg/l	
<input type="checkbox"/> Total Kjeldahl-N ()	mg/l		<input type="checkbox"/> Total Kjeldahl-N ()	mg/l	
<input type="checkbox"/> Chemical oxygen demand (00340)	mg/l		<input type="checkbox"/> Other:		
<input type="checkbox"/> Total organic carbon ()	mg/l				
<input type="checkbox"/> Other:			Analyst	Date Reported	Reviewed by
<input type="checkbox"/> Other:				8/28/85	Dean

Laboratory remarks



SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud, NE
Albuquerque, NM 87106 (505) 841-2555

GENERAL WATER CHEMISTRY
and NITROGEN ANALYSIS

DATE RECEIVED: 8/12/85 LAB NO: 3994 USER CODE: 59300 59600 OTHER: 82235
 Collection DATE: 8/8/85 SITE INFORMATION: OWEN RANCH CORRAL FAUCET
 Collection TIME: 1010 Collection site description: WELL TO T.O. - HORSE RANCH. WATER TASTES MUSTY; PUMP CONNECTIONS COATED WITH WHITE SCALE
 Collected by - Person/Agency: BAILEY/DCD

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87501
Attn: David Boyer

CORRAL FAUCET CLOSEST TO WELL
SALISTRO CREEK AREA

SAMPLING CONDITIONS:

Bailed Pump Dipped Tap Water level: 16' Discharge: 200 gpm Sample type:
 pH (00400): 6.97 Conductivity (Uncorrected): 710 μ mho Water Temp: (00010): 22 °C Conductivity at 25 °C (00094): μ mho
 Field comments: SEPTIC FIELD > 300' DOWNGRADIENT. COMPLAINS OF SULFUR SMELL. O/G WELL BEING DRILLED 1/4 MI. UPSRADIENT. LINDO PITS

SAMPLE FIELD TREATMENT - Check proper boxes:

No. of samples submitted: 1 NF: Whole sample (Non-filtered) F: Filtered in field with 0.45 μ m membrane filter A: 2 ml H₂SO₄/L added
 NA: No acid added Other-specify:

ANALYTICAL RESULTS from SAMPLES:

NF, NA	Units	Date analyzed	F, NA	Units	Date analyzed
<input type="checkbox"/> Conductivity (Corrected) 25 °C (00095)	μ mho		<input type="checkbox"/> Calcium (00815)	mg/l	
<input type="checkbox"/> Total non-filterable residue (suspended) (00530)	mg/l		<input type="checkbox"/> Magnesium (00925)	mg/l	
<input type="checkbox"/> Other:			<input type="checkbox"/> Sodium (00930)	mg/l	
<input type="checkbox"/> Other:			<input type="checkbox"/> Potassium (00935)	mg/l	
<input type="checkbox"/> Other:			<input type="checkbox"/> Bicarbonate (00440)	mg/l	
			<input type="checkbox"/> Chloride (00940)	mg/l	
			<input type="checkbox"/> Sulfate (00945)	mg/l	
			<input type="checkbox"/> Total filterable residue (dissolved) (70300)	mg/l	
			<input type="checkbox"/> Other:		
NF, A-H ₂ SO ₄			F, A-H ₂ SO ₄		
<input type="checkbox"/> Nitrate-N +, Nitrate-N total (00630)	mg/l		<input checked="" type="checkbox"/> Nitrate-N +, Nitrate-N dissolved (00631)	0.23 mg/l	8/23
<input type="checkbox"/> Ammonia-N total (00610)	mg/l		<input checked="" type="checkbox"/> Ammonia-N dissolved (00608)	< 0.1 mg/l	8/26
<input type="checkbox"/> Total Kjeldahl-N ()	mg/l		<input checked="" type="checkbox"/> Total Kjeldahl-N ()	< 0.1 mg/l	8/27
<input type="checkbox"/> Chemical oxygen demand (00340)	mg/l		<input type="checkbox"/> Other:		
<input type="checkbox"/> Total organic carbon ()	mg/l				
<input type="checkbox"/> Other:					
<input type="checkbox"/> Other:					
Laboratory remarks			Analyst	Date Reported	Reviewed by
				8/27/85	Callan



DATE RECEIVED: 8/28/85 LAB NO. 411-1437 USER CODE: 59300 59600 OTHER: 82235

Collection DATE: 8/8/85 SITE INFORMATION: OWEN RANCH CORRAL FAUCET

Collection TIME: 1010

Collection site description: WELL 70' T.O. HORSE RANCH. WATER TASTES MUSTY; PUMP CONNECTIONS COATED WITH WHITE SCALE

Collected by — Person/Agency: BAILEY/DCO

Station/well code: CORRAL FAUCET CLOSEST TO WELL

Owner: GALISTEO CREEK AREA

ENVIRONMENTAL BUREAU
 NM OIL CONSERVATION DIVISION
 State Land Office Bldg, PO Box 2088
 Santa Fe, NM 87501

SEND FINAL REPORT TO
 Attn: David Boyer

SAMPLING CONDITIONS

Bailed Pump Water level: 16' Discharge: 200 gpm Sample type

Dipped Tap

pH (00400): 6.97 Conductivity (Uncorrected): 710 μ mho Water Temp. (00010): 22 °C Conductivity at 25 °C (00094): μ mno

Field comments: SEPTIC FIELD > 300' DOWNGRADIENT. COMPLAINS OF SULFUR SMELL. O/G WELL BEING DRILLED 1/4 MI UPGRAIDENT. LINED PITS

SAMPLE FIELD TREATMENT — Check proper boxes

No. of samples submitted: 1 NF: Whole sample (Non-filtered) F: Filtered in field with 0.45 μ m membrane filter A: 4 ml H₂SO₄/L added HNO₃

NA: No acid added Other-specify:

ANALYTICAL RESULTS from SAMPLES

Units	Date analyzed	F. NA	Units	Date analyzed
<input type="checkbox"/> Conductivity (Corrected) 25 °C (00095) μ mho		<input type="checkbox"/> Calcium (00915) mg/l		
<input type="checkbox"/> Total non-filterable residue (suspended) (00530) mg/l		<input type="checkbox"/> Magnesium (00925) mg/l		
<input checked="" type="checkbox"/> Other: ICAP SCAN		<input type="checkbox"/> Sodium (00930) mg/l		
<input type="checkbox"/> Other:		<input type="checkbox"/> Potassium (00935) mg/l		
<input type="checkbox"/> Other:		<input type="checkbox"/> Bicarbonate (00440) mg/l		
		<input type="checkbox"/> Chloride (00940) mg/l		
		<input type="checkbox"/> Sulfate (00945) mg/l		
		<input type="checkbox"/> Total filterable residue (dissolved) (70300) mg/l		
		<input type="checkbox"/> Other:		
NF. A-H ₂ SO ₄		F. A-H ₂ SO ₄		
<input type="checkbox"/> Nitrate-N + Nitrate-N total (00630) mg/l		<input type="checkbox"/> Nitrate-N +, Nitrate-N dissolved (00631) mg/l		
<input type="checkbox"/> Ammonia-N total (00610) mg/l		<input type="checkbox"/> Ammonia-N dissolved (00608) mg/l		
<input type="checkbox"/> Total Kjeldahl-N () mg/l		<input type="checkbox"/> Total Kjeldahl-N () mg/l		
<input type="checkbox"/> Chemical oxygen demand (00340) mg/l		<input type="checkbox"/> Other:		
<input type="checkbox"/> Total organic carbon () mg/l				
<input type="checkbox"/> Other:				
<input type="checkbox"/> Other:				
Laboratory remarks		Analyst	Date Reported: 8/26/85	Reviewed by: Jim Bailey

ICAP SCREEN

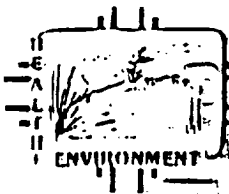
Lab Number: HM 1437
 Date Submitted: 8/12/85
 By: Bailey

Sample Code: Owen Ranch Coural
Faucet
 Date Reported: 8/26/85
 By: Jim Bailey
 Date Analyzed: 8/21/85

<u>Determination</u>	<u>Concentration (µg/ml)</u>
Aluminum	<u><0.1</u>
Barium	<u><0.1</u>
Beryllium	<u><0.1</u>
Boron	<u>0.2</u>
Cadmium	<u><0.1</u>
Calcium	<u>120.</u>
Chromium	<u><0.1</u>
Cobalt	<u><0.1</u>
Copper	<u><0.1</u>
Iron	<u><0.1</u>
Lead	<u><0.1</u>
Magnesium	<u>42.</u>
Manganese	<u><0.05</u>
Molybdenum	<u><0.1</u>
Nickel	<u><0.1</u>
Silicon	<u>10.</u>
Silver	<u><0.1</u>
Strontium	<u>1.6</u>
Tin	<u><0.1</u>
Vanadium	<u><0.1</u>
Yttrium	<u><0.1</u>
Zinc	<u><0.1</u>

ATOMIC ABSORPTION ANALYSES

<u>Determination</u>	<u>Concentration (µg/ml)</u>
Arsenic	<u> </u>
Selenium	<u> </u>
Mercury	<u> </u>



STATE OF NEW MEXICO

SCIENCE LABORATORY DIVISION

700 Camino de Salud NE
Albuquerque, NM 87106 841-2570

SEP 06 1985

REPORT TO:
PLEASE PRINT

DAVID G. BOYER DIVISION
NEW MEXICO OIL CONSERVATION DIV.
P.O. BOX 2088
SANTA FE, NM 87501

S.L.D. No.: OR-821-AB
DATE REC.: 8/09/85
SLD PRIORITY #:

PHONE(S):

827-5812

USER CODE: 8|2|2|3|5

SUBMITTER:

DAVID BOYER

SUBMITTER CODE: | | | |

SAMPLE TYPE:

WATER , SOIL , OTHER DAKLINE FLUID

SAMPLE TYPE CODE: | | |

COLLECTED:

8/8/85-10:50 BY JB/RJ
DATE TIME INITIALS

CODE: 8|5|0|8|0|8|1|0|5|0
Y Y M M D D H H M M I I I

SOURCE:

PHASE OIL CO. PINON UNIT #2

CODE: | + | + | | | | | | | | | |
AQUIFER DEPTH

NEAREST CITY:

SANTA FE - CERRILLOS

CODE: | | | | | | | | | |

LOCATION:

MUD PIT ARAPAHO RISE II

CODE: | | | | | | | | | | | | | | | | | | | |
TOWNSHIP RANGE SECTION TRACTS

pH= 7.07; Conductivity= 1500 umho/cm at 27 °C; Chlorine Residual=

Dissolved Oxygen= mg/l; Alkalinity= ; Flow Rate=

Sampling Location, Methods and Remarks (i.e. odors, etc.)
O/G WELL BEING DRILLED 1/4 MI UPGRADIENT FROM OWEN RANCH. MUD
ADDITIVE GEL, STARCH TREE BARK, SOAP ASH, PARAFORMALDEHYDE, CAUSTIC SOAP.
HYDRAULIC + ENGINE OILS ON PIT SURFACE; SURFACE CASING CEMENTED; PITS
LINED WITH PLASTIC

I certify that the statements in this block accurately reflect the results
of my field analyses, observations and activities. James Boyle

Method of shipment to the Laboratory Hand Carried

This form accompanies 2 Septum Vials, Glass Jugs,
Containers are marked as follows to indicate preservation:

- NP: No preservation; sample stored at room temperature.
- P-Ice Sample stored in an ice bath (not frozen).
- P-Na₂S₂O₃; Sample preserved with Na₂S₂O₃ to remove chlorine residual.

I (we) certify that this sample was transferred from _____
to _____ at (location) _____ on

_____/_____/_____-_____: _____ and that the statements in this block are correct.

Evidentiary Seals: Not Sealed Seals Intact: Yes No

Signatures _____

(we) certify that this sample was transferred from _____
to _____ at (location) _____ on

_____/_____/_____-_____: _____ and that the statements in this block are correct.

Evidentiary Seals: Not Sealed Seals Intact: Yes No

Signatures _____



New Mexico Health and Environment Department
 SCIENTIFIC LABORATORY DIVISION
 700 Camino de Salud NE
 Albuquerque, NM 87106 — (505) 841-2555

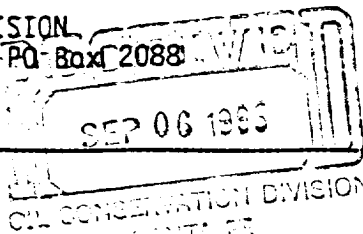
GENERAL WATER CHEMISTRY
 and NITROGEN ANALYSIS

DATE RECEIVED	8/12/85	LAB NO.	WC-2445	USER CODE	<input type="checkbox"/> 59300 <input type="checkbox"/> 59600 <input checked="" type="checkbox"/> OTHER: 82235
Collection DATE	8/8/85	SITE INFORMATION	Sample location		
Collection TIME	1050		CHASE OIL CO ARAPAHO RIG II		
Collected by — Person/Agency		Collection site description			
BAILEY 1000		LINED MUD PIT			

SEND FINAL REPORT TO

ENVIRONMENTAL BUREAU
 NM OIL CONSERVATION DIVISION
 State Land Office Bldg, PO Box 2088
 Santa Fe, NM 87501

Attn: David Boyer



Station/well code

Owner

SAMPLING CONDITIONS

<input type="checkbox"/> Bailed	<input type="checkbox"/> Pump	Water level	Discharge	Sample type	
<input checked="" type="checkbox"/> Dipped	<input type="checkbox"/> Tap				
pH (00400)	7.07	Conductivity (Uncorrected)	1500 μ mho	Water Temp. (00010)	27 $^{\circ}$ C
				Conductivity at 25 $^{\circ}$ C (00094)	μ mho

Field comments:

O/G WELL BEING DRILLED 1/4 MI. UPGRADIENT FROM OWEN RANCH.
 MUD ADDITIVES: GEL, STARCH, TREE BARK, SODA ASH, PARA FORMALDEHYDE, CAUSTIC SODA

SAMPLE FIELD TREATMENT — Check proper boxes

No. of samples submitted	1	<input checked="" type="checkbox"/> NF: Whole sample (Non-filtered)	<input type="checkbox"/> F: Filtered in field with 0.45 μ m membrane filter	<input type="checkbox"/> A: 2 ml H ₂ SO ₄ /L added
<input checked="" type="checkbox"/> NA: No acid added <input type="checkbox"/> Other-specify:				

ANALYTICAL RESULTS from SAMPLES

NF. NA	Units	Date analyzed	F. NA	Units	Date analyzed
<input type="checkbox"/> Conductivity (Corrected) 25 $^{\circ}$ C (00095)	μ mho		<input checked="" type="checkbox"/> Calcium (00915)	6.4 mg/l	8/21
<input type="checkbox"/> Total non-filterable residue (suspended) (00530)	mg/l		<input checked="" type="checkbox"/> Magnesium (00925)	1.54 mg/l	8/21
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Sodium (00930)	1150 mg/l	8/28
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Potassium (00935)	6.63 mg/l	8/28
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Bicarbonate (00440)	1689 mg/l	8/26
			<input checked="" type="checkbox"/> Chloride (00940)	290 mg/l	8/26
			<input checked="" type="checkbox"/> Sulfate (00945)	304 mg/l	8/27
			<input checked="" type="checkbox"/> Total filterable residue (dissolved) (70300)	3155 mg/l	8/28
			<input checked="" type="checkbox"/> Other: CO ₂	None	
NF. A-H ₂ SO ₄			<input checked="" type="checkbox"/> Other: F	0.66	8/27
<input type="checkbox"/> Nitrate-N + Nitrate-N total (00630)	mg/l		F. A-H ₂ SO ₄		
<input type="checkbox"/> Ammonia-N total (00610)	mg/l		<input type="checkbox"/> Nitrate-N + Nitrate-N dissolved (00631)	mg/l	
<input type="checkbox"/> Total Kjeldahl-N ()	mg/l		<input type="checkbox"/> Ammonia-N dissolved (00608)	mg/l	
<input type="checkbox"/> Chemical oxygen demand (00340)	mg/l		<input type="checkbox"/> Total Kjeldahl-N ()	mg/l	
<input type="checkbox"/> Total organic carbon ()	mg/l		<input type="checkbox"/> Other:		
<input type="checkbox"/> Other:			Analyst	Date Reported	Reviewed by
<input type="checkbox"/> Other:				8/27/85	Clean

Laboratory remarks



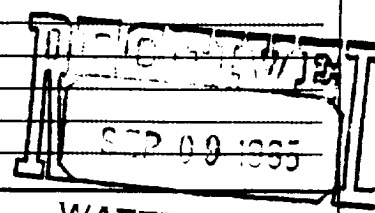
New Mexico Health and Environment Department
 SCIENTIFIC LABORATORY DIVISION
 700 Camino de Salud NE
 Albuquerque, NM 87106 — (505) 841-2555

**GENERAL WATER CHEMISTRY
 and NITROGEN ANALYSIS**

ANALYSIS

DATE RECEIVED	8/12/85	LAB NO.	HM-1438	USER CODE	<input type="checkbox"/> 59300 <input type="checkbox"/> 59600 <input checked="" type="checkbox"/> OTHER: 82235
Collection DATE	8/8/85	SITE INFORMATION	Sample location		
Collection TIME	1050		CHASE OIL CO ARAPAHO RIG II		
Collected by — Person/Agency		Collection site description			
BAILEY / OCO		LINED MUD PIT, SAMPLE FILTERED THRU 142 mm MEMBRANE			

SEND FINAL REPORT TO
 ENVIRONMENTAL BUREAU
 NM OIL CONSERVATION DIVISION
 State Land Office Bldg, PO Box 2088
 Santa Fe, NM 87501
 Attn: David Boyer



Station/well code
 Owner
**WATER SUPPLY
 REGULATION SECTION**

SAMPLING CONDITIONS

<input type="checkbox"/> Bailed	<input type="checkbox"/> Pump	Water level	Discharge	Sample type
<input checked="" type="checkbox"/> Dipped	<input type="checkbox"/> Tap			
pH (00400)	7.07	Conductivity (Uncorrected)	1500 µmho	Water Temp. (00010)
				27 °C
				Conductivity at 25°C (00094)
				µmho

Field comments:
 O/G WELL BEING DRILLED 1/4 MI. UPRADIANT FROM OWEN RANCH.
 MUD ADDITIVES: GEL, STARCH, TREE BARK, SODA ASH, PARA FORMALDEHYDE, CAUSTIC SODA

SAMPLE FIELD TREATMENT — Check proper boxes

No. of samples submitted	1	<input checked="" type="checkbox"/> NF: Whole sample (Non-filtered)	<input type="checkbox"/> F: Filtered in field with 0.45 µmembrane filter	<input checked="" type="checkbox"/> A: 4 ml H ₂ O ₂ /L added H ₂ O ₂
<input type="checkbox"/> NA: No acid added <input type="checkbox"/> Other-specify:				

ANALYTICAL RESULTS from SAMPLES

NF, A-H ₂ SO ₄	Units	Date analyzed	F, NA	Units	Date analyzed
<input type="checkbox"/> Conductivity (Corrected) 25°C (00095)	µmho		<input type="checkbox"/> Calcium (00915)	mg/l	
<input type="checkbox"/> Total non-filterable residue (suspended) (00530)	mg/l		<input type="checkbox"/> Magnesium (00925)	mg/l	
<input checked="" type="checkbox"/> Other: 1 CAP SCAN			<input type="checkbox"/> Sodium (00930)	mg/l	
<input type="checkbox"/> Other:			<input type="checkbox"/> Potassium (00935)	mg/l	
<input type="checkbox"/> Other:			<input type="checkbox"/> Bicarbonate (00440)	mg/l	
			<input type="checkbox"/> Chloride (00940)	mg/l	
			<input type="checkbox"/> Sulfate (00945)	mg/l	
			<input type="checkbox"/> Total filterable residue (dissolved) (70300)	mg/l	
			<input type="checkbox"/> Other:		
NF, A-H ₂ SO ₄			F, A-H ₂ SO ₄		
<input type="checkbox"/> Nitrate-N +, Nitrate-N total (00630)	mg/l		<input type="checkbox"/> Nitrate-N +, Nitrate-N dissolved (00631)	mg/l	
<input type="checkbox"/> Ammonia-N total (00610)	mg/l		<input type="checkbox"/> Ammonia-N dissolved (00608)	mg/l	
<input type="checkbox"/> Total Kjeldahl-N ()	mg/l		<input type="checkbox"/> Total Kjeldahl-N ()	mg/l	
<input type="checkbox"/> Chemical oxygen demand (00340)	mg/l		<input type="checkbox"/> Other:		
<input type="checkbox"/> Total organic carbon ()	mg/l				
<input type="checkbox"/> Other:					
<input type="checkbox"/> Other:					
Analyst		Date Reported	Reviewed by		
		8/28/85	JAA		

RECEIVED

SEP 11 1985

LIQUID WASTE/GROUND WATER SURVEILLANCE

Laboratory remarks: digested 8/20/85

