



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

854
WNN

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED	10/9/87	LAB NO.	WC 4680	USER CODE	☐ 59300 ☐ 59600 ☒ OTHER: 82235
Collection DATE	10/7/87	SITE INFORMATION	Sample location	32N 6W sec 9	
Collection TIME	1100			Collection site description	
Collected by — Person/Agency			unlined produced water pit		
O'Leary, Anderson			/OCD		

SEND
FINAL
REPORT
TO

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87504-2088

Attn: David Boyer

Phone: 827-5812

EG-32-6

Station/
well code Navajo Lake 32-B#1
Owner Sovereign Oil Co.

SAMPLING CONDITIONS

☐ Bailed ☒ Dipped	☐ Pump ☐ Tap	Water level	Discharge	Sample type
pH (00400)	9.5	Conductivity (Uncorrected)	17	Conductivity at 25°C (00094)
		33000 μ mho		grab
Field comments				

SAMPLE FIELD TREATMENT — Check proper boxes

No. of samples submitted	1	☒ NF: Whole sample (Non-filtered)	☐ F: Filtered in field with 0.45 μ membrane filter	☐ A: 2 ml H ₂ SO ₄ /L added
☒ NA: No acid added		☐ Other-specify:		☐ A: 5ml conc. HNO ₃ added ☐ A: 4ml fuming HNO ₃ added

ANALYTICAL RESULTS from SAMPLES

NA	Units	Date analyzed	From NF, NA Sample:	Date Analyzed
☒ Conductivity (Corrected) 25°C (00095)	μ mho	12/3	☒ Calcium	32 mg/l 11/23
☐ Total non-filterable residue (suspended) (00530)	mg/l		☒ Potassium	54.6 mg/l 11/16
☐ Other:			☒ Magnesium	29 mg/l 11/23
☐ Other:			☒ Sodium	12880 mg/l 11/16
☐ Other:			☒ Bicarbonate	192 mg/l 11/23
A-H₂SO₄			☒ Chloride	11,000 mg/l 12/4
☐ Nitrate-N +, Nitrate-N total (00630)	mg/l		☒ Sulfate	25 mg/l "
☐ Ammonia-N total (00610)	mg/l		☒ Total Solids	25186 mg/l 12/2
☐ Total Kjeldahl-N ()	mg/l		☐	
☐ Chemical oxygen demand (00340)	mg/l		☐	
☐ Total organic carbon ()	mg/l		☒ Cation/Anion Balance	
☐ Other:			Analyst	Date Reported
☐ Other:				12/10/87

Laboratory remarks

Other constituents? Interference from in NaCl

FOR OCD USE -- Date Owner Notified _____ Phone or Letter? _____ Initials _____

CATIONS			DET.
ANALYTE	MEQ.	PPM	LIMIT
Ca	1.60	32.00	<3.0
Mg	2.38	29.00	<0.3
Na	560.24	12880.00	<10.0
K	1.40	54.60	<0.3
Mn	0.00	0.00	
Fe	0.00	0.00	
SUMS	565.62	12995.60	
Total Dissolved Solids=			28186
Ion Balance =			180.39%

ANIONS			DET.
ANALYTE	MEQ.	PPM	LIMIT
HCO3	3.15	192.00	<1.0
SO4	0.10	5.00	<10.0
CL	310.30	11000.0	<5.0
NO3	0.00	0.00	< 0.
CO3	0.00	0.00	< 1.
NH3	0.00	0.00	< 0.
PO4	0.00	0.00	< 0.
	313.55	11197.00	

WC No. = 8704680
Date out/By 62 1/5/87

REPORT TO:

David Boyer

N.M. Oil Conservation

P. O. Box 2088

Santa Fe, N.M. 87504-2088

327-5812

PHONE(S):

SUBMITTER:

David Boyer

S.L.D. No. OR-

1620

DATE REC.

10-9-87

87-1620-C

DEC 14 1987

PRIORITY

3

USER CODE:

3 2 2 3 5

CODE:

12 6 0

SAMPLE COLLECTION CODE: (YYMMDDHHMMIII)

1871100711102WCO

SAMPLE TYPE: WATER ☒ SOIL ☐ FOOD ☐ OTHER: _____

CODE: _____

COUNTY: San Juan

CITY: North Navajo Lake

CODE: _____

LOCATION CODE: (Township-Range-Section-Tracts)

13 2 N + 0 6 W + 0 9 + 1 3 0 (10N06E24342)

ANALYSES REQUESTED: Please check the appropriate box(es) below to indicate the type of analytical screens required. Whenever possible list specific compounds suspected or required.

PURGEABLE SCREENS☒ (753) Aliphatic Purgeables (1-3 Carbons)☒ (754) Aromatic & Halogenated Purgeables☐ (765) Mass Spectrometer Purgeables☐ (766) Trihalomethanes

Other Specific Compounds or Classes _____

EXTRACTABLE SCREENS☐ (751) Aliphatic Hydrocarbons☐ (760) Organochlorine Pesticides☐ (755) Base/Neutral Extractables☐ (758) Herbicides, Chlorophenoxy acid☐ (759) Herbicides, Triazines☐ (760) Organochlorine Pesticides☐ (761) Organophosphate Pesticides☐ (767) Polychlorinated Biphenyls (PCB's)☐ (764) Polynuclear Aromatic Hydrocarbons☐ (762) SDWA Pesticides & Herbicides

Remarks:

FIELD DATA:

pH= 9.5; Conductivity= 33000 umho/cm at 17 °C; Chlorine Residual= _____ mg/l

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

Depth to water _____ ft.; Depth of well _____ ft.; Perforation Interval _____ ft.; Casing: _____

Sampling Location, Methods and Remarks (i.e. odors, etc.)

Sovereign Oil Co. - Navajo Lake 32-6#1 produced water pit.

32-6#1 (Gas is under sig. Pict. CL 553)

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities. (signature collector): With AllenMethod of Shipment to the Lab: handThis form accompanies 2 Septum Vials, _____ Glass Jugs, and/or _____

Samples were preserved as follows:

☐ NP: No Preservation; Sample stored at room temperature.☒ P-Ice: Sample stored in an ice bath (Not Frozen).☐ P-Na₂S₂O₃: Sample Preserved with Sodium Thiosulfate to remove chlorine residual.**CITAIN OF CUSTODY**

I 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 _____

For OCD Use: Date Owner Notified _____

Phone or Letter? _____

Initials _____

THIS PAGE FOR LABORATORY RESULTS ONLY

This sample was tested using the analytical screening method(s) checked below:

PURGEABLE SCREENS

- ☐ (753) Aliphatic Purgeables (1-3 Carbons)
☒ (754) Aromatic & Halogenated Purgeables
☐ (765) Mass Spectrometer Purgeables
☐ (766) Trihalomethanes
 Other Specific Compounds or Classes

☐ _____
☐ _____
☐ _____
☐ _____
☐ _____

EXTRACTABLE SCREENS

- ☐ (751) Aliphatic Hydrocarbons
☐ (760) Organochlorine Pesticides
☐ (755) Base/Neutral Extractables
☐ (758) Herbicides, Chlorophenoxy acid
☐ (759) Herbicides, Triazines
☐ (760) Organochlorine Pesticides
☐ (761) Organophosphate Pesticides
☐ (767) Polychlorinated Biphenyls (PCB's)
☐ (764) Polynuclear Aromatic Hydrocarbons
☐ (762) SDWA Pesticides & Herbicides

ANALYTICAL RESULTS

COMPOUND(S) DETECTED	CONC. [PPB]	COMPOUND(S) DETECTED	CONC. [PPB]
<i>aromatic purgeables</i>	<i>N.D.</i>		
<i>halogenated purgeables</i>	<i>N.D.</i>		
* DETECTION LIMIT *	<i>11-756</i>	+ DETECTION LIMIT +	

ABBREVIATIONS USED:

N D = NONE DETECTED AT OR ABOVE THE STATED DETECTION LIMIT

T R = DETECTED AT A LEVEL BELOW THE STATED DETECTION LIMIT (NOT CONFIRMED)

[RESULTS IN BRACKETS] ARE UNCONFIRMED AND/OR WITH APPROXIMATE QUANTITATION

LABORATORY REMARKS: _____

CERTIFICATE OF ANALYTICAL PERSONNEL

Seal(s) Intact: Yes ☐ No ☒ Seal(s) broken by: *not sealed* date: _____

I certify that I followed standard laboratory procedures on handling and analysis of this sample unless otherwise noted and that the statements on this page accurately reflect the analytical results for this sample.

Date(s) of analysis: *10/15/87* Analyst's signature: *Theresa E. Brown*

I certify that I have reviewed and concur with the analytical results for this sample and with the statements in this block.

Reviewers signature: *R. Meyerheim*