NM1 - 8

INSPECTIONS & DATA

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

August 18, 1997

CERTIFIED MAIL
RETURN RECEIPT NO. P-326-936-325

Mr. Tony Schmitz
T-N-T Construction, Inc.
HCR 74, Box 115
Lyndrith, New Mexico 87029

RE: Evaporation Pond, Treating Plant and Landfarm Inspection (NM-01-0008)
T-N-T Construction, Inc.
Evaporation Pond and Treating Plant Location NE/4 SE/4 of Section 7, Township 25 North, Range 3 West, NMPM, Rio Arriba County, New Mexico
Landfarm Location SW/4 SE/4 and SE/4 SW/4 of Section 5, Township 25 North, Range 3 West, NMPM, Rio Arriba County, New Mexico

Dear Mr. Schmitz:

The New Mexico Oil Conservation Division (OCD), inspected T-N-T Construction, Inc. (T-N-T) evaporation pond, treating plant and landfarm waste management facility on June 9, 1997. The T-N-T evaporation pond and treating plant is located in the NE/4 SE/4 of Section 7, Township 25 North, Range 3 West, NMPM, Rio Arriba County, New Mexico and the T-N-T landfarm is located in the SW/4 SE/4 and SE/4 SW/4 of Section 5, Township 25 North, Range 3 West, NMPM, Rio Arriba County, New Mexico.

Overall the OCD found T-N-T to have a well maintained facility. The OCD inspection and current file review of T-N-T indicates some permit deficiencies. Attachment 1 lists the permit deficiencies found at T-N-T during the inspection and the new Rule 711 requirements that are not on file. Attachment 2 contains photographs taken during the inspection. T-N-T shall provide OCD with a detailed description of how the corrections will be made and a time table of when each of the corrections will be completed. A response is required by T-N-T to these deficiencies by October 24, 1997.

Pursuant to Order R-10411-B the OCD General Rule 711 has been revised. The OCD is currently in the process of re-permitting all surface waste management facilities under the new Rule 711. T-N-T's waste management facility is included under the new Rule 711. A copy of Order R-10411-B along with the new bond forms is included with this report. A permit application, Form C-137 (Attachment 3), shall be filed with the OCD according to the instructions in Attachment 1, Section 21.

Please be advised that the bonding requirements have changed under the new Rule 711. The

bonded amount will be based upon the estimated closure costs that the State of New Mexico would incur if a third party contractor were to remediate the facility (see Rule 711.B.1.i and 711.B.3). T-N-T must have a new bond in place for the approved estimated closure amount prior to receiving a new waste management facility permit.

If you have any questions please do not hesitate to contact me at (505) 827-7153.

Sincerely,

Martyne J. Kieling
Environmental Geologist

Attachments
xc: Aztec OCD Office

ATTACHMENT 1
INSPECTION REPORT
JUNE 9, 1997
T-N-T CONSTRUCTION, INC.
(NE/4 SE/4 of Section 7, and SW/4 SE/4 and SE/4 SW/4 of Section 5,
Township 25 North, Range 3 West, NMPM)
RIO ARRIBA COUNTY, NEW MEXICO

1. Pond Freeboard: Liner markings or some other device shall be installed to accurately measure freeboard. Pond freeboard shall be a minimum two (2) feet below the top of the lowest point on the levee. The pond must be maintained below freeboard level at all times.

   Pond one and two are lacking freeboard markers that accurately measure the two (2) foot freeboard height (see pictures 9, 10, 11, 13 and 14). The water level on pond one was above freeboard .

2. Pond Levee: The top of the levee shall be level, ponding of water should not occur, and the outside grade of the levee should be maintained to minimize erosion and maintain proper levee width.

   The levee top and sides were in excellent condition (see pictures 9, 10, 11, 12, and 14).

3. Leak Detection System: The top of the leak detection monitor well must be above the top of the levee. The monitor well should be covered. In addition, the leak detection monitor well shall be inspected no less than two times per month.

   The top of the leak detection monitor well was below the levee (see picture 12). The monitor well casing should be extended to a height above the levee to ensure that any system leaks do not have a direct route to the environment via the monitor well. Reporting shows that the monitor well has been inspected regularly. The appearance of any additional fluids within the monitor well should be sampled and comparison analysis made to the contents within the pond.

4. Sludge Build-up: Any sludge build-up in the bottom of the pond in excess of twelve inches (12") will be removed and disposed of at an OCD approved disposal facility.

   Sludge thickness at the bottom of the pond should be measured.

5. Security: The facility shall be secured when no attendant is present, to prevent any

unauthorized dumping. Securing the facility may included locks on tank valves, a perimeter fence and locked gate or other similar security measures.

Facility has a perimeter fence and locking gate.

6. Signs: The facility shall have a sign in a conspicuous place at the facility. The sign shall be maintained in legible condition and shall be legible from at least fifty (50) feet and contain the following information: a) name of facility, b) location by quarter-quarter section, township and range, and c) emergency phone number.

Both Facilities have a clearly labeled signs posted within view.

7. Drum Storage: All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums should be stored on their sides with the bungs in and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets should also be stored on an impermeable pad and curb type containment.

Empty drums and/or drums containing fluids were located at the facility (see pictures 6, 7 and 8). All drums/buckets containing fluids should be placed on an impermeable pad with curbing.

All drums and chemical containers should be clearly labeled to identify their contents and other emergency information necessary if they were to rupture, spill or ignite.

8. Process Area: All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.

Overall yard maintenance practices at the facility were good. However, the compressors at pond one and two (see picture 14) have quite a bit of spilled or splattered oil and grease. The spills should be cleaned up and pad and curb or drip pan containment must be installed.

9. Above Ground Tanks: All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new facilities or modifications to existing facilities must place the tank on an impermeable type pad within the berm so that leaks can be identified.

The berms around the above ground tanks at the evaporation pond need to be checked. Additional berming or repairs are needed (see pictures 6, 7 and 8).

10. Open Top Tanks and Pits: To protect migratory birds, all tanks exceeding 16 feet in diameter, and exposed pits and ponds shall be screened, netted or covered.

The evaporation ponds were oil free except for a small amount of oil on the north side of pond one that requires skimming (see pictures 1, 2, and 3). Netting is not required on evaporation ponds one and two as long as they are kept oil free. The open top separating tanks should be screened or netted (see pictures 6, 7 and 8).

11. Above Ground Saddle Tanks: Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure.

NA There were no above ground saddle tanks at the facility.

12. Tank Labeling: All tanks, drums and containers should be clearly labeled to identify their contents and other emergency information necessary if the tank were to rupture, spill or ignite.

The above ground tanks and drums are not labeled as to their contents or the hazards of the contents (see picture 6, 7 and 8).

13. Below Grade Tanks/Sumps: All below grade tanks, sumps, and pits must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design. All pre-existing sumps and below grade tanks must demonstrate integrity on an annual basis. Integrity tests include pressure testing and/or visual inspection of cleaned out tanks or sumps, or other OCD approved methods.

The below grade sumps located at tank valves and below grade tanks (see picture 6) must have annual integrity testing. Testing might include cleaning and visually inspecting the bottom of the sumps and tank. The below grade mixing tank located at the landfarm facility should be inspected annually (see picture 1)

14. Underground Process/Wastewater Lines: All underground process/wastewater pipelines must be tested to demonstrate their mechanical integrity at present and then every 5 years thereafter. Companies may propose various methods for testing such as pressure testing or other OCD approved methods.

Any underground process/wastewater lines must have a mechanical integrity testing proposal.

15. Housekeeping: All systems designed for spill collection/prevention should be inspected frequently to ensure proper operation and to prevent overtopping or system failure.

The facility tanks were free of over toping stains (see picture 6, 7 and 8). Overall yard maintenance and spill prevention/cleanup was good. The landfarm area was well maintained.

16. Trash and Potentially Hazardous Materials: All trash and potentially hazardous materials should be properly disposed of.

There was very little trash at the facility, with the exception of the unmarked drums and buckets (see picture 6, 7, and 8). The landfarm was free of plastic liner fragments (see pictures 1, 2, 3, 4 and 5)

17. Spill Reporting: All spills/releases shall be reported pursuant to OCD Rule 116 and WQCC 1203 to the appropriate OCD District Office.

There were no spills evident at this facility.

18. Berming : An adequate berm will be constructed and maintained to prevent runoff and runon for that portion of the landfarm facility containing contaminated soils.

Landfarm cell berms are in good shape and well maintained (see pictures 2, 3, 4, and 5).

19. Soil Spreading, Disking and Lift Thickness: All contaminated soils received at the facility will be spread and disked within 72 hours of receipt. Soils will be spread on the surface in six inch lifts or less. Soils will be disked a minimum of one time every two weeks (biweekly) to enhance biodegradation of contaminants.

At the time of inspection, contaminated soils had been disked accordingly (see pictures 2, 3, 4, and 5).

20. Free Liquids: No free liquids or soils with free liquids will be accepted at the landfarm facility.

NA There were no free liquids or soils with free liquids at the landfarm.

21. Application Requirements for Permit Under the New Rule 711: An application, Form C-137, for a permit renewal shall be filed in DUPLICATE with the Santa Fe Office of the Division and ONE COPY with the Hobbs OCD district office. The application shall comply with Division guidelines and shall include:

(a) The names and addresses of the applicant and all principal officers of the business if different from the applicant;

Please submit with C-137 application.

(b) A plat and topographic map showing the location of the facility in relation to governmental surveys (1/4 1/4 section , township, and range), highways or roads giving access to the facility site, watercourses, water sources, and dwellings within one (1) mile of the site;

This is already on file with the OCD.

(c) The names and addresses of the surface owners of the real property on which the management facility is sited and surface owners of the real property of record within one mile of the site;

This is already on file with the OCD.

(d) A description of the facility with a diagram indicating location of fences and cattle guards, and detailed construction/installation diagrams of any pits, liner, dikes, piping, sprayers, and tanks on the facility;

Please submit an updated map of the processing and evaporation pond facility including upright tanks, open top separation tanks, berms, piping and all three evaporation ponds.

(e) A plan for management of approved wastes;

This is already on file with the OCD.

(f) A contingency plan for reporting a cleanup of spills or releases;

This is already on file with the OCD.

(g) A routine inspection and maintenance plan to ensure permit compliance;

This is already on file with the OCD.

(h) A Hydrogen Sulfide (H_2S) Prevention and Contingency Plan to protect public health;

This is already on file with the OCD.

(i) A closure Plan including a cost estimate sufficient to close the facility to protect public health and the environment; said estimate to be based upon the use of equipment normally available to a third party contractor;

Please submit with C-137 application.

(j) Geological/hydrological evidence, including depth to and quality of groundwater beneath the site, demonstrating that disposal of oil field wastes will not adversely impact fresh water;

This is already on file with the OCD.

(l) Certification by an authorized representative of the applicant that information submitted in the application is true, accurate and complete to the best of the applicant's knowledge.

Please submit with C-137 application.

TNT 711 FACILITY INSPECTION (PHOTOS BY OCD)

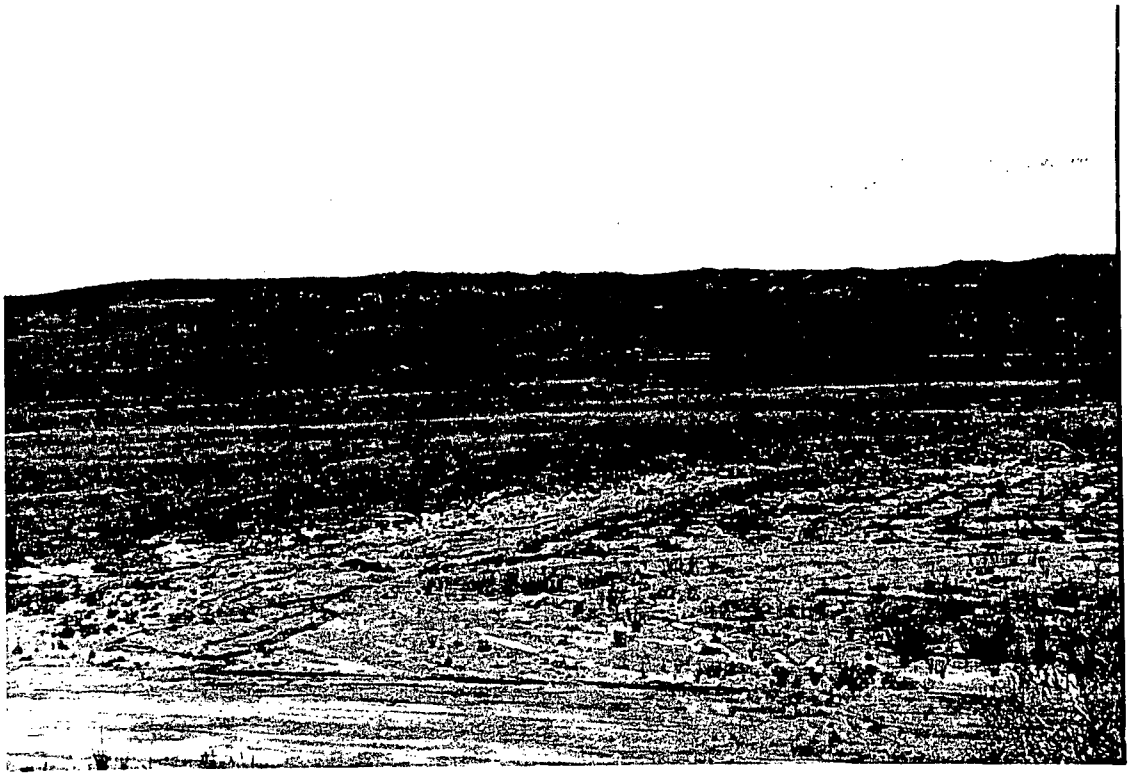
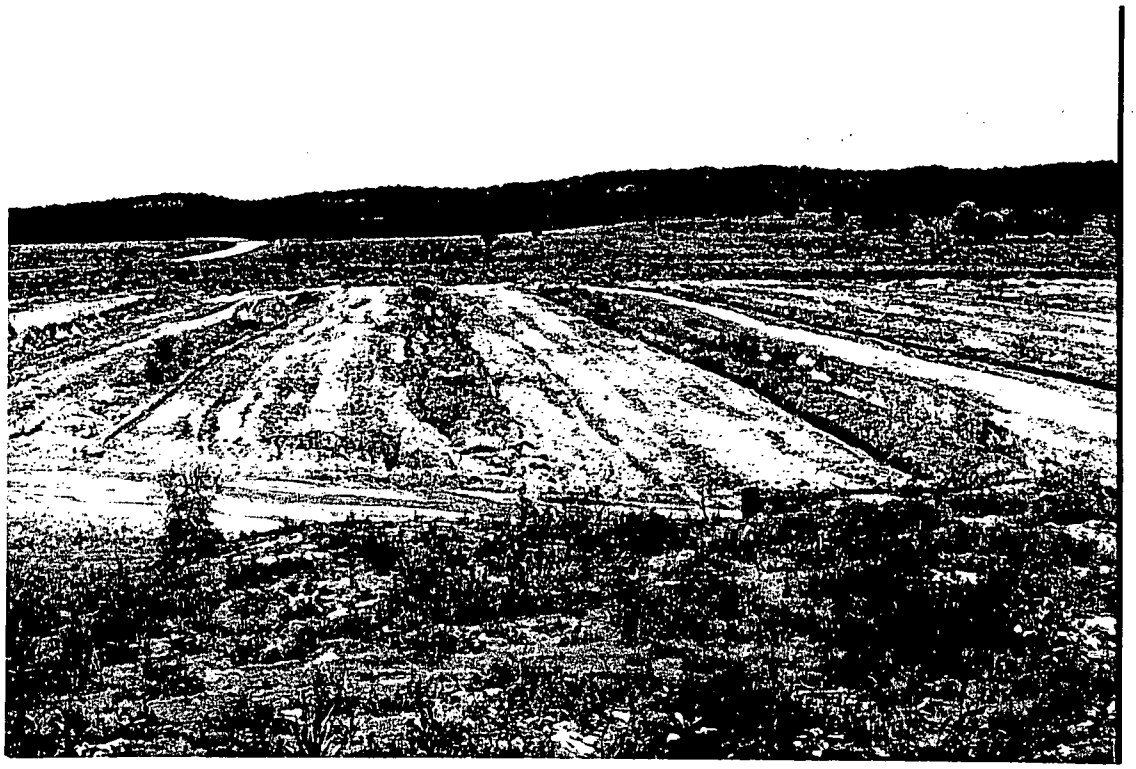


PHOTO NO. 3 DATE: 06/09/97

PHOTO NO. 4 DATE: 06/09/97

TNT 711 FACILITY INSPECTION (PHOTOS BY OCD)



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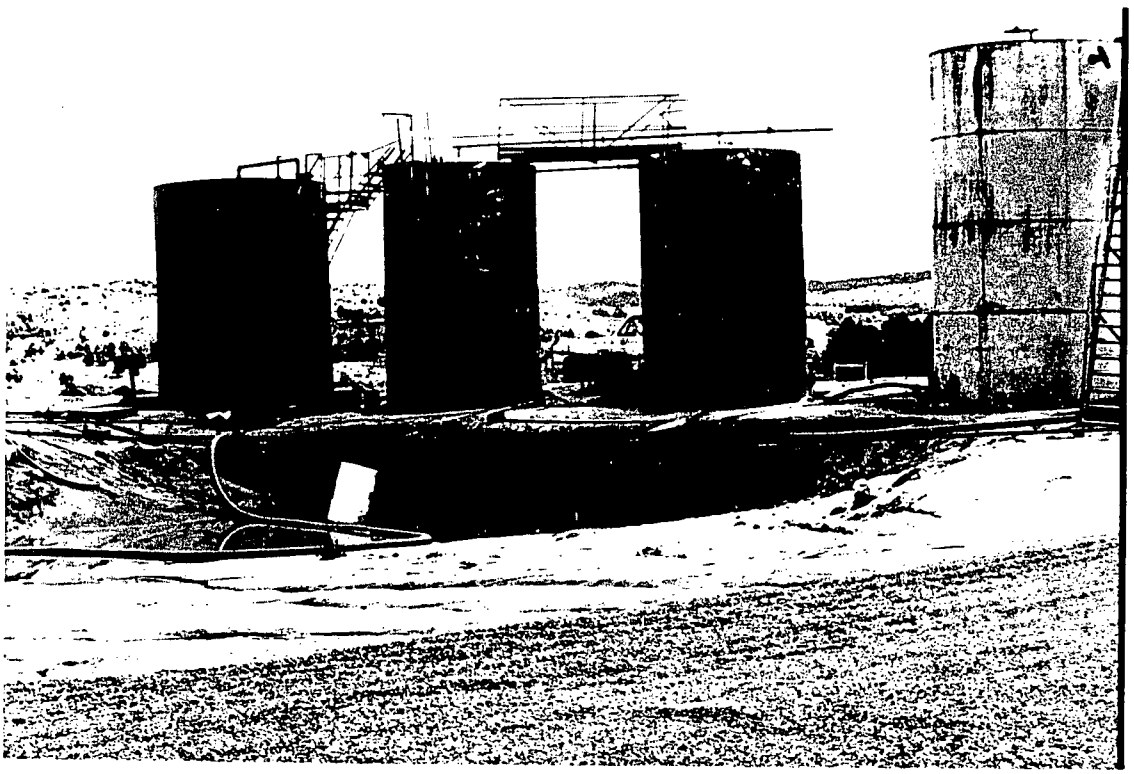


PHOTO NO. 6 DATE: 06/09/97

TNT 711 FACILITY INSPECTION (PHOTOS BY OCD)

PHOTO NO. 7 DATE: 06/09/97

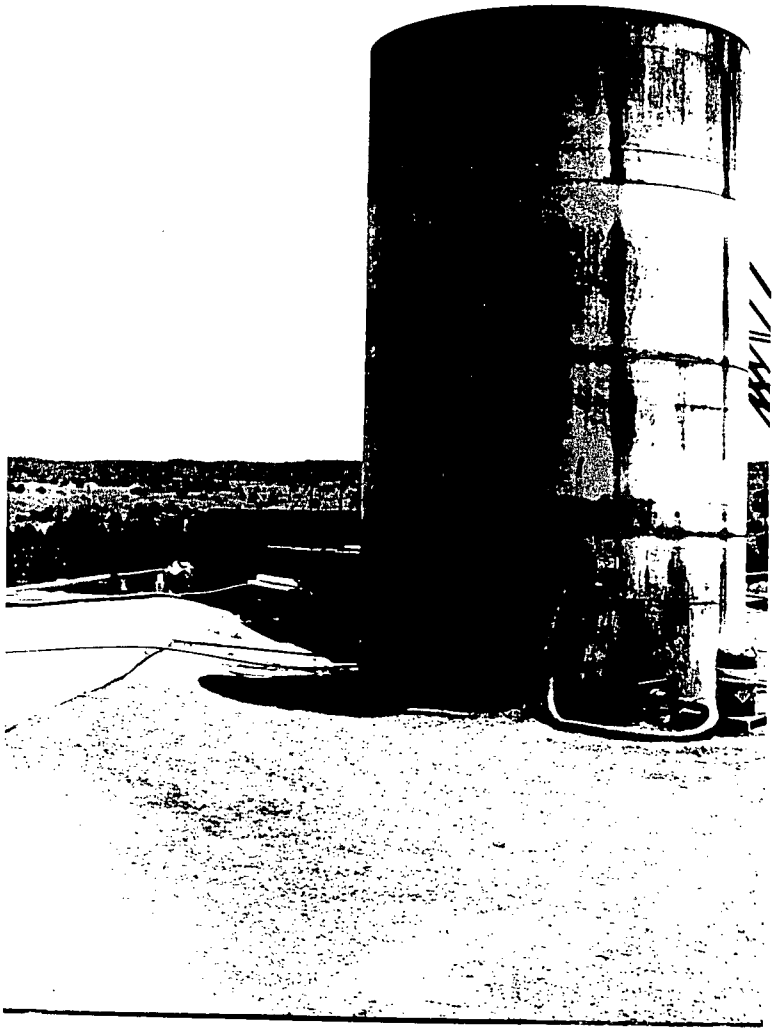


PHOTO NO. 8 DATE: 06/09/97

TNT 711 FACILITY INSPECTION (PHOTOS BY OCD)

PHOTO NO. 9 DATE: 06/09/97

PHOTO NO. 10 DATE: 06/09/97

TNT 711 FACILITY INSPECTION (PHOTOS BY OCD)

PHOTO NO. 11 DATE: 06/09/97

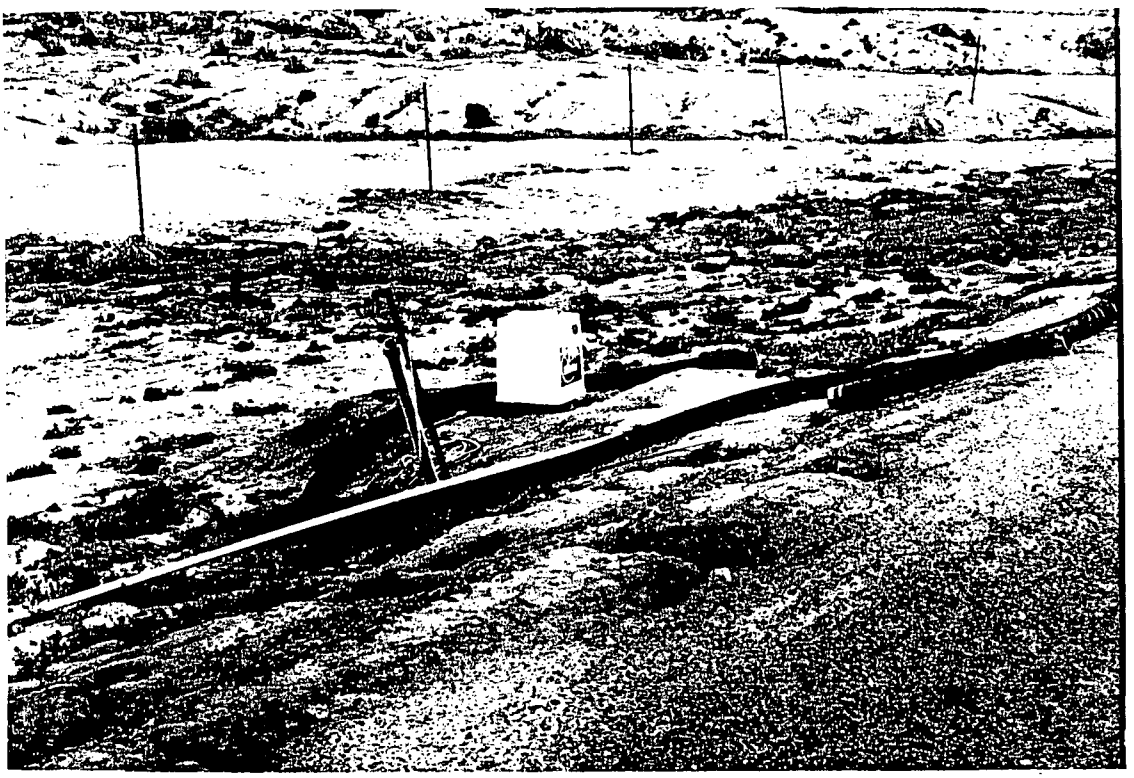


PHOTO NO. 12 DATE: 06/09/97

TNT 711 FACILITY INSPECTION (PHOTOS BY OCD)

PHOTO NO. 13 DATE: 06/09/97

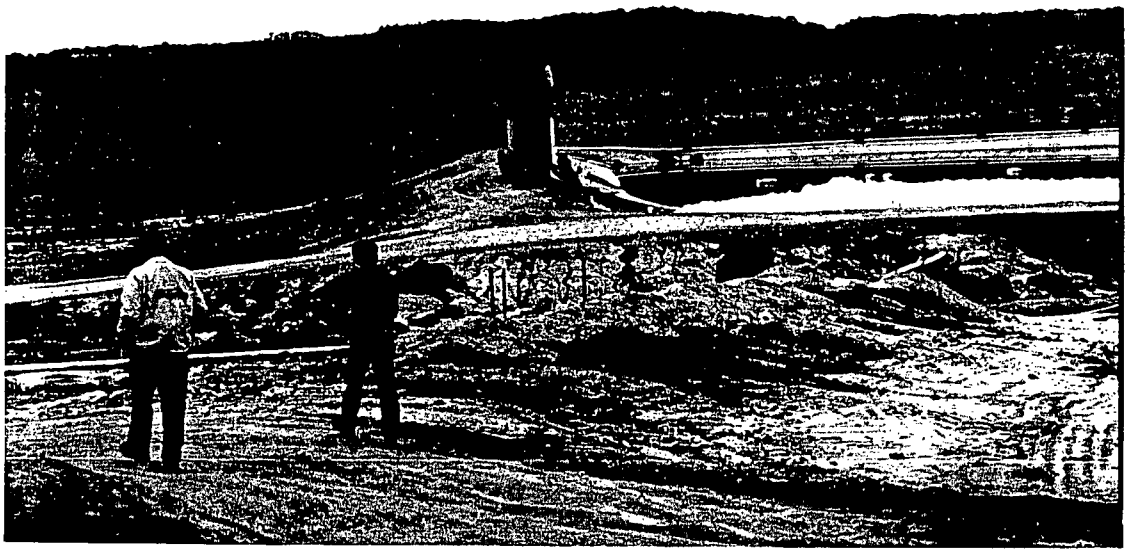


PHOTO NO. 14 DATE: 06/09/97

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

July 11, 2000

CERTIFIED MAIL
RETURN RECEIPT NO. Z-559-573-322

Mr. Tony Schmitz
T-n-T Construction, Inc.
HCR 74 P.O. Box 115
Lyndrith, New Mexico 87029

RE: Surface Waste Management Facility Inspection Report: Permit NM-01-0008
T-n-T Construction, Inc.
SE/4 Section 7 and SW/4 Section 8 (evaporation ponds), and the
SW/4 SE/4 and SE/4 SW/4 Section 5 and the NE/4 NW/4 Section 8 (landfarm),
Township 25 North, Range 3 West , NMPM, Rio Arriba County, New Mexico

Dear Mr. Schmitz:

The New Mexico Oil Conservation Division (OCD) inspected the T-n-T Environmental, Inc. (T-n-T) commercial surface waste management facility at the above location on May 15, 2000.

The OCD inspection and file review of T-n-T indicates that T-n-T is deficient in several permit conditions. Attachment 1 lists the permit deficiencies during the inspection and file review. Attachment 2 contains photographs taken during the inspection. T-n-T shall provide OCD with a detailed description of how the corrections will be made and a timetable of when each of the corrections will be completed. T-n-T must respond to the permit deficiencies Notice of Violation by August 11, 2000.

A review T-n-T's financial assurance finds that the OCD does not have a bond in place. A $62,500 bond was due August 6, 1999. Please be advised that the financial assurance amount must be increased to $125,000 by August 6, 2000. If you do not have a copy of the OCD surface waste management facility financial assurance forms you may obtain them from the OCD web site http://www.emnrd.state.nm.us/ocd/.

If you have any questions please contact Martyne Kieling at (505) 827-7153.

Sincerely,

Martyne J. Kieling
Environmental Geologist

Attachments
xc: Aztec OCD Office

ATTACHMENT 1
INSPECTION REPORT
PERMIT NM-01-0008
T-n-T ENVIONRMENTAL, INC.
SE/4 Section 7 and SW/4 Section 8 (evaporation ponds), and the
SW/4 SE/4 and SE/4 SW/4 Section 5 and the NE/4 NW/4 Section 8 (landfarm),
Township 25 North, Range 3 West , NMPM,
Rio Arriba County, New Mexico
(July 11, 2000)

1. Fencing and Signs: The facility will be fenced and have a sign at the entrance. The sign shall be maintained in good condition and shall be legible from at least fifty (50) feet and contain the following information : a) name of facility, b) location by section, township and range, and c) emergency phone number.

   Facility is secured with fence and locking gate and has a sign at the entrance. The Landfarm sign was blocked by plants and tires (see photo 1).

   T-n-T must maintain the sign so that it is visible.

2. Berming: An adequate berm will be constructed and maintained to prevent runoff and runon for that portion of the facility containing contaminated soils.

   The landfarm facility berms are in good condition (see Photo 2, 3, and 4).

3. Soil Spreading, Disking and Lift Thickness: All contaminated soils received at the facility will be spread and disked within 72 hours of receipt. Soils will be spread on the surface in six inch lifts or less. Soils will be disked to enhance biodegradation of contaminants.

   At the time of inspection, soils had been spread and disked accordingly (see Photo 2, 3, and 4).

4. Treatment zone monitoring: Quarterly treatment zone monitoring results must be submitted to the OCD office within (30) days of receipt from the laboratory.

   The OCD has not received any treatment zone analysis reports since October of 1996.

   T-n-T is in violation of Permit NM-01-0008 and must submit treatment zone monitoring results for all quarters back to 1996.

5. Trash and Potentially Hazardous Materials: All trash and potentially hazardous materials should be properly disposed of.

The facility was tidy except for the tires at the entrance sign. and there was no trash or debris present (see photos 1, 2, 3, and 4).

6. Above Ground Tanks: All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new facilities or modifications to existing facilities must place the tank on an impermeable pad within the berm so that leaks can be identified.

The Above ground tanks located at the landfarm are not in the original permit or facility description (see photo 6). Additional tanks including those in photo 9 and 10 were not in the original permit or facility description. The OCD has not received a request to modify Permit NM-01-0008 to add these tanks to the process. This is a violation of Permit NM-01-0008, Facility and Evaporation Pond Operations, Condition 6 and 10.

T-n-T must request to modify the landfarm and produced water facility operations. A Form C-137 is enclosed. Please submit an updated facility map showing details of all tankage, pipeing, and operating systems. Please include the tank volume and the material held within (ie produced water, oil, drilling mud or type of chemical)

Above ground tanks located at the landfarm are not bermed to hold the required volume(see photo 6). Many of the above ground tanks at the produced water facility were not bermed (see photo 9, 10, 13, 14, 15, and 16).

T-n-T must install berms around all tanks or tank areas.

7. Sumps and Valve Catchments: All sumps and catchments must be kept empty so that leaks can be identified and to prevent overflow onto the ground. All pre-existing below grade sumps or catchments must demonstrate integrity on an annual basis. Integrity tests must include visual inspections of cleaned out sumps or catchments.

Valve catchments and buried sumps contained oil and fluid (see photos 11 and 12). The catchments must be emptied each time a truck unloads. Facility inspections must be conducted on at least a daily basis and sumps and catchments emptied. Sumps and catchments should be cleaned and inspected for integrity on an annual basis. Soil contaminated by over flow or leaking sumps and catchments must be cleaned up and remediated by on site remediation or landfarming at the facility landfarm.

8. Equipment Maintenance: Equipment, tanks, pipe valves and connections must be inspected on a regular basis and repairs made as needed.

N/A no leeks were observed.

9. Evaporation Pond Inspection and Maintanece: The pond must be inspected on a weekly basis or immediately following any consequential rainstrom or windstorm. If any defects are noted repairs must be made as soon as possible .

The evaporation pond spray system must be inspected and modified to assure that it is working correctly. The sprayers have been releasing spray to the exterior berms around the pond (see photo 18). Evaporation and enhanced evaporation must be confined within the lined berm area.

T-n-T must propose a modification to their current design to avoid overspray of produced water.

10. Pond Freeboard: The pond shall have a minimum freeboard of 1½ feet. A device shall be installed or a marker painted on the pond liners to accurately measure freeboard.

Free board marking was not visible (see photos 17 and 18).

T-n-T must mark the liner or install some devise to note the 1½ foot freeboard.

11. Pond Sludge Thickness: Sludge thickness in the base of the pond will be measured annually. Any build-up in excess of 12 inches will be removed and landfarmed.

No records have been kept as to the last time sludge was measured or removed.

T-n-T must measure each pond yearly and remove sludge if in excess of 12 inches.

12. Leak Detection System Inspection: The leak detection system must be inspected monthly and if fluid is present samples of the fluid will be compared with the fluids in the pond. Results must be recorded and maintained for OCD review.

A record inspection shows that the leak detection system has been monitored weekly and that the monoitor wells have been checked monthly.

According to Permit NM-01-0008 an annual report of these test must be sent to the Santa Fe office for annual review by July 6th of each year.

13. Drum Storage: All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums should be stored on their sides with the bungs in and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets should also be stored on an impermeable pad and curb type containment.

Drums and buckets containing chemicals and other materials were not stored on impermeable secondary containment (see photos 7, 8, 13 and 14) . Empty drums were not properly stored.

All drums and chemical containers should be clearly labeled to identify their contents and other emergency information necessary if they were to rupture, spill or ignite.

Some containers were clearly labeled others were not (see photo 8).

T-n-T must store and contain all drums properly.

14. Above Ground Saddle Tanks: Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure.

One saddle tank was not clearly labeled and did not secondary containment (see photo 13). Saddle tanks must be placed on impermeable pad and curb type containment.

15. Tank Labeling: All tanks, drums and containers should be clearly labeled to identify their contents and other emergency information necessary if the tank were to rupture, spill or ignite.

Tanks were not numbered and were not clearly labeled to identify their contents and hazards (see photos 6, 9, 10, 13, 14, 15 and 16). Placards or stencils must be placed on all tanks.

16. Migratory Bird Protection: All tanks exceeding 16 feet in diameter and exposed pits, ponds or lagoons must be screened, netted, covered or otherwise rendered not hazardous to migratory birds.

Open top tanks and steel pits were not netted, screened or covered (see photos 5, 10 and 14).

17. Spill Reporting: All spills/releases shall be reported pursuant to OCD Rule 116 to the appropriate OCD District Office.

At the time of inspection, there were no spills evident at this facility.

18. Regular Facility Inspections: Facility inspections and maintenance must be conducted on at least a daily basis and immediately following each consequential rainstorm or windstorm.

The current permit NM-01-0008 requires these inspections be recorded. Daily facility inspection records have not been kept. Biweekly disking records for the landfarm have been kept.

19. H_2S Screening: H_2S screening must be recorded and maintained.

The current permit NM-01-0008 requires H_2S screening and record keeping to be performed twice per day at 4 points at each pond.

20. Waste Acceptance and Disposal Documentation: Comprehensive records of all material disposed of aththe facility must be maintained for each load. Documentation may include: 1) generator; 2) origin; 3) date received; 4) quantity; 5) certification; 6) NORM status declaration; 7) transporter; 8) exact cell location; and 9) any addition of treatment chemicals.

Records of waste received indicate waste acceptance and disposal records are being kept and maintained as required.

TnT Land Farm

Inspection

6/9/97

TnT Land Farm

Inspection 6/9/97

TnT Land Farm

Inspection 6/9/97

TnT LandFarm

InSpection 6/9/97

T nT Land Farm

Inspection 6/9/97

TnT Inspection

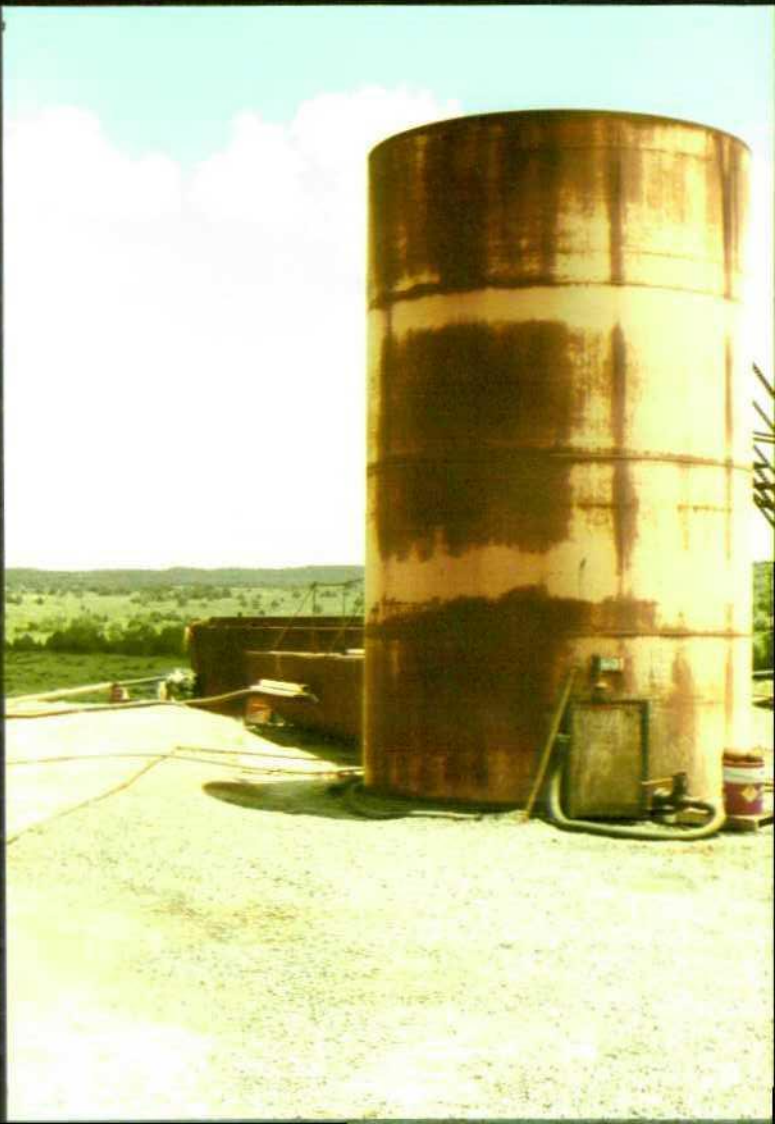
Treating Plant / Evap Ponds

6/9/97

TnT Inspection

6/9/97

Treating Plant / Evap Ponds



TnT Inspection 6/9/97

Treating Plant / Evap Ponds

Tn T Inspection 6/9/97

Treating Plant / Evap Ponds

TnT Inspection 6/9/97

Treating Plant & Evap Ponds

TnT Inspection 6/9/97

Treating Plant / Evap Ponds

TnT Inspection 6/9/97

Treating Plant / Evap Ponds

TnT treating Plant Evap Ponds

Inspection 6/9/97

TnT Inspection 6/9/97

Evap Ponds

Photo 1 May 15, 2000
Landfarm entrance sign

Photo 2 May 15, 2000
Landfarm looking east.

Photo 3 May 15, 2000
Landfarm looking south

Photo 4 May 15, 2000
Landfarm looking east.

Photo 1 May 15, 2000
Stabilization trough.

Photo 6 May 15, 2000
Stabilization holding tanks.

Photo 7 May 15, 2000
Drum storage without secondary containment.

Photo 8 May 15, 2000
Drum and container storage without secondary containment.

Photo 9 May 15, 2000
Tanks without secondary containment

Photo 10 May 15, 2000
Open top tank without secondary containment.

Photo 11 May 15, 2000
Buried sumps containing liquid.

Photo 12 May 15, 2000
Buried sumps containing liquid.

Photo 13 May 15, 2000
Produced water receiving area. Looking east

Photo 14 May 15, 2000
Produced water receiving area. Looking s.east

Photo 15 May 15, 2000
Produced water receiving area. Looking south

Photo 16 May 15, 2000
Produced water receiving area.

Photo 17 May 15, 2000
Evaporation pond 1 containing free oil.

Photo 18 May 15, 2000
Evaporation pond 3 Salt overspray

93 521-07-034 B

CHAIN OF CUSTODY RECORD

Inter- Mountain Laboratories, Inc.

Client/Project Name	Project Location	ANALYSES / PARAMETERS
OCD	Schmitz Evaporation	
Sampler: (Signature)	**Chain of Custody Tape No.**	

FILE COPY

Sample No./ Identification	Date	Time	Lab Number	Matrix	No. of Containers	VOA 602	+			Remarks
050793 1145	050793	11:45	2533	H_2O	4	3	✓			pond #1
050793 1115	050793	11:15	2534	H_2O	4	3	✓			pond #1 leak detection
050793 1045	050793	10:45	2535	H_2O	4	3	✓			pond #2
050793 1015	050793	10:15	2536	H_2O	4	3	✓			pond #2 monitor well #2

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Denny D. Foust	05/07/93	15:30		050793	15:30
Relinquished by: (Signature)	**Date**	**Time**	**Received by: (Signature)**	**Date**	**Time**
Relinquished by: (Signature)	**Date**	**Time**	**Received by laboratory: (Signature)**	**Date**	**Time**

Inter-Mountain Laboratories, Inc.

10718

☐ 1633 Terra Avenue, Sheridan, Wyoming 82801, Telephone (307) 672-8945

☐ 1714 Phillips Circle, Gillette, Wyoming 82716, Telephone (307) 682-8945

☐ 2506 West Main Street, Farmington, NM 87401, Telephone (505) 326-4737

☐ 910 Technology Blvd. Suite B, Bozeman, Montana 59715, Telephone (406) 586-8450

☐ Route 3, Box 256, College Station, TX 77845, Telephone (409) 776-8945

☐ 3304 Longmire Drive, College Station, TX 77845, Telephone (409) 774-4999

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Client:	**OIL CONSERVATION DIVISION**		
Sample ID:	0507931145	Date Reported:	05/26/93
Laboratory ID:	2533	Date Sampled:	05/07/93
Sample Matrix:	Water	Time Sampled:	1145
Condition:	Cool/Intact	Date Received:	05/07/93

Parameter	Analytical Result	Units		Units
Lab pH	8.0	s.u.		
Lab Conductivity @ 25° C	24,300	umhos/cm		
Total Dissolved Solids @ 180°C	15,800	mg/L		
Total Dissolved Solids (Calc)	14,400	mg/L		
Total Alkalinity as CaCO3	1,190	mg/L		
Total Hardness as CaCO3	597	mg/L		
Bicarbonate as HCO3	1,450	mg/L	23.78	meq/L
Carbonate as CO3	0	mg/L	0.00	meq/L
Hydroxide as OH	0	mg/L	0.00	meq/L
Chloride	7,620	mg/L	215.07	meq/L
Sulfate	411	mg/L	8.57	meq/L
Calcium	164	mg/L	8.19	meq/L
Magnesium	46	mg/L	3.75	meq/L
Potassium	238	mg/L	6.09	meq/L
Sodium	5,160	mg/L	224.45	meq/L
Cations			242.47	meq/L
Anions			247.43	meq/L
Cation/Anion Difference			1.01	%

Reference: U.S.E.P.A. 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
"Standard Methods For The Examination Of Water And Waste Water", 17th ed., 1989.

Reviewed by

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Client:	**OIL CONSERVATION DIVISION**		
Sample ID:	0507931115	Date Reported:	05/26/93
Laboratory ID:	2534	Date Sampled:	05/07/93
Sample Matrix:	Water	Time Sampled:	1115
Condition:	Cool/Intact	Date Received:	05/07/93

Parameter	Analytical Result	Units		Units
Lab pH	7.6	s.u.		
Lab Conductivity @ 25° C	23,300	umhos/cm		
Total Dissolved Solids @ 180°C	15,000	mg/L		
Total Dissolved Solids (Calc)	13,700	mg/L		
Total Alkalinity as CaCO3	1,340	mg/L		
Total Hardness as CaCO3	777	mg/L		
Bicarbonate as HCO3	1,630	mg/L	26.73	meq/L
Carbonate as CO3	0	mg/L	0.00	meq/L
Hydroxide as OH	0	mg/L	0.00	meq/L
Chloride	7,420	mg/L	209.21	meq/L
Sulfate	123	mg/L	2.57	meq/L
Calcium	211	mg/L	10.52	meq/L
Magnesium	61	mg/L	5.01	meq/L
Potassium	191	mg/L	4.88	meq/L
Sodium	4,900	mg/L	213.14	meq/L
Cations			233.55	meq/L
Anions			238.52	meq/L
Cation/Anion Difference			1.05	%

Reference: U.S.E.P.A. 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
"Standard Methods For The Examination Of Water And Waste Water", 17th ed., 1989.

Reviewed by

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Client:	**OIL CONSERVATION DIVISION**		
Sample ID:	0507931045	Date Reported:	05/26/93
Laboratory ID:	2535	Date Sampled:	05/07/93
Sample Matrix:	Water	Time Sampled:	1045
Condition:	Cool/Intact	Date Received:	05/07/93

Parameter	Analytical Result	Units		Units
Lab pH	7.9	s.u.		
Lab Conductivity @ 25° C	27,600	umhos/cm		
Total Dissolved Solids @ 180°C	19,000	mg/L		
Total Dissolved Solids (Calc)	17,000	mg/L		
Total Alkalinity as CaCO3	1,470	mg/L		
Total Hardness as CaCO3	537	mg/L		
Bicarbonate as HCO3	1,790	mg/L	29.34	meq/L
Carbonate as CO3	0	mg/L	0.00	meq/L
Hydroxide as OH	0	mg/L	0.00	meq/L
Chloride	8,890	mg/L	250.68	meq/L
Sulfate	379	mg/L	7.89	meq/L
Calcium	132	mg/L	6.61	meq/L
Magnesium	50	mg/L	4.12	meq/L
Potassium	338	mg/L	8.63	meq/L
Sodium	6,340	mg/L	275.55	meq/L
Cations			294.92	meq/L
Anions			287.90	meq/L
Cation/Anion Difference			1.20	%

Reference: U.S.E.P.A. 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
"Standard Methods For The Examination Of Water And Waste Water", 17th ed., 1989.

Reviewed by

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Client:	**OIL CONSERVATION DIVISION**		
Sample ID:	0507931015	Date Reported:	05/26/93
Laboratory ID:	2536	Date Sampled:	05/07/93
Sample Matrix:	Water	Time Sampled:	1015
Condition:	Cool/Intact	Date Received:	05/07/93

Parameter	Analytical Result	Units		Units
Lab pH	7.2	s.u.		
Lab Conductivity @ 25° C	25,000	umhos/cm		
Total Dissolved Solids @ 180°C	17,800	mg/L		
Total Dissolved Solids (Calc)	14,200	mg/L		
Total Alkalinity as CaCO3	201	mg/L		
Total Hardness as CaCO3	6,440	mg/L		
Bicarbonate as HCO3	245	mg/L	4.02	meq/L
Carbonate as CO3	0	mg/L	0.00	meq/L
Hydroxide as OH	0	mg/L	0.00	meq/L
Chloride	8,310	mg/L	234.52	meq/L
Sulfate	523	mg/L	10.89	meq/L
Calcium	1,470	mg/L	73.15	meq/L
Magnesium	677	mg/L	55.68	meq/L
Potassium	15	mg/L	0.37	meq/L
Sodium	3,050	mg/L	132.67	meq/L
Cations			261.87	meq/L
Anions			249.43	meq/L
Cation/Anion Difference			2.43	%

Reference: U.S.E.P.A. 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
"Standard Methods For The Examination Of Water And Waste Water", 17th ed., 1989.

Reviewed by

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Oil Conservation Division

Case Narrative

On May 7, 1993, four water samples were submitted to Inter-Mountain Laboratories - Farmington for analysis. The samples were received cool and intact and were designated "Schmitz Evaporation". Analyses for Purgeable Aromatics were performed on the water samples as per the accompanying chain of custody form.

BTEX analysis was performed by EPA Method 5030, Purge and Trap, and EPA Method 602.2, Purgeable Aromatics, using an OI Analytical 4560 Purge and Trap and a Hewlett-Packard 5890 Gas Chromatograph, equipped with a photoionization detector. Target analytes were detected in three of the four samples at levels above the stated detection limits, as indicated on the report sheets.

It is the policy of this laboratory to employ, whenever possible, preparatory and analytical methods which have been approved by regulatory agencies. The methods used in the analysis of the samples reported herein are found in Standard Methods for Analysis of Water and Waste Water, 1992 and The Federal Register, Vol. 49, N0. 209, October, 1984.

Quality control reports appear at the end of the analytical package and may be identified by title. If there are any questions regarding the information presented in this package, please feel free to call at your convenience.

Sincerely,

Dr. Denise A. Bohemier,
Organic Lab Supervisor

OCD2533

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

PURGEABLE AROMATICS

Oil Conservation Division

Project ID:	Schmitz Evaporation	Report Date:	05/18/93
Sample ID:	507931145	Date Sampled:	05/07/93
Lab ID:	2533	Date Received:	05/07/93
Sample Matrix:	Water	Date Analyzed:	05/14/93
Preservative:	Cool, HCl		
Condition:	Intact		

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	24.1	1.00
Toluene	46.7	1.00
Chlorobenzene	ND	1.00
Ethylbenzene	2.53	1.00
m,p-Xylenes	28.3	2.00
o-Xylene	6.61	1.00
1,3-Dichlorobenzene	ND	1.00
1,4-Dichlorobenzene	ND	1.00
1,2-Dichlorobenzene	ND	1.00

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Toluene-d8	91	88 -110%
Bromofluorobenzene	90	86 -115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

Analyst

Review

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

PURGEABLE AROMATICS

Oil Conservation Division

Project ID:	Schmitz Evaporation	Report Date:	05/17/93
Sample ID:	507931115	Date Sampled:	05/07/93
Lab ID:	2534	Date Received:	05/07/93
Sample Matrix:	Water	Date Analyzed:	05/12/93
Preservative:	Cool, HCl		
Condition:	Intact		

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	121	10.0
Toluene	139	10.0
Chlorobenzene	ND	10.0
Ethylbenzene	ND	10.0
m,p-Xylenes	33.6	20.0
o-Xylene	10.1	10.0
1,3-Dichlorobenzene	ND	10.0
1,4-Dichlorobenzene	ND	10.0
1,2-Dichlorobenzene	ND	10.0

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Toluene-d8	96	88 -110%
Bromofluorobenzene	94	86 -115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

Analyst

Review

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

PURGEABLE AROMATICS

Oil Conservation Division

Project ID:	Schmitz Evaporation	Report Date:	05/18/93
Sample ID:	507931045	Date Sampled:	05/07/93
Lab ID:	2535	Date Received:	05/07/93
Sample Matrix:	Water	Date Analyzed:	05/14/93
Preservative:	Cool, HCl		
Condition:	Intact		

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	155	10.0
Toluene	299	10.0
Chlorobenzene	ND	10.0
Ethylbenzene	17.6	10.0
m,p-Xylenes	161	20.0
o-Xylene	45.1	10.0
1,3-Dichlorobenzene	ND	10.0
1,4-Dichlorobenzene	ND	10.0
1,2-Dichlorobenzene	ND	10.0

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Toluene-d8	103	88 -110%
Bromofluorobenzene	100	86 -115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

Analyst

Review

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

PURGEABLE AROMATICS

Oil Conservation Division

Project ID:	Schmitz Evaporation	Report Date:	05/17/93
Sample ID:	507931015	Date Sampled:	05/07/93
Lab ID:	2536	Date Received:	05/07/93
Sample Matrix:	Water	Date Analyzed:	05/12/93
Preservative:	Cool, HCl		
Condition:	Intact		

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	ND	0.20
Toluene	ND	0.20
Chlorobenzene	ND	0.20
Ethylbenzene	ND	0.20
m,p-Xylenes	ND	0.40
o-Xylene	ND	0.20
1,3-Dichlorobenzene	ND	0.20
1,4-Dichlorobenzene	ND	0.20
1,2-Dichlorobenzene	ND	0.20

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Toluene-d8	98	88 -110%
Bromofluorobenzene	94	86 -115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

Analyst

Review

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

PURGEABLE AROMATICS

Quality Control Report

Method Blank Analysis

Sample Matrix: Water
Lab ID: MB34101

Report Date: 05/17/93
Date Analyzed: 05/12/93

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	ND	0.20
Toluene	ND	0.20
Chlorobenzene	ND	0.20
Ethylbenzene	ND	0.20
m,p-Xylenes	ND	0.40
o-Xylene	ND	0.20
1,3-Dichlorobenzene	ND	0.20
1,4-Dichlorobenzene	ND	0.20
1,2-Dichlorobenzene	ND	0.20

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Toluene-d8	97	88 -110%
Bromofluorobenzene	93	86 -115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

Analyst

Review

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

PURGEABLE AROMATICS

Quality Control Report

Method Blank Analysis

Sample Matrix: Water
Lab ID: MB34103

Report Date: 05/17/93
Date Analyzed: 05/14/93

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	ND	0.20
Toluene	ND	0.20
Chlorobenzene	ND	0.20
Ethylbenzene	ND	0.20
m,p-Xylenes	ND	0.40
o-Xylene	ND	0.20
1,3-Dichlorobenzene	ND	0.20
1,4-Dichlorobenzene	ND	0.20
1,2-Dichlorobenzene	ND	0.20

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Toluene-d8	90	88 -110%
Bromofluorobenzene	88	86 -115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

Analyst

Review

. Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Purgeable Aromatics

Duplicate Analysis

Lab ID:	2542Dup	Report Date:	05/17/93
Sample Matrix:	Water	Date Sampled:	05/10/93
Preservative:	Cool, HCl	Date Received:	05/10/93
Condition:	Intact	Date Analyzed:	05/12/93

Target Analyte	Original Conc. (ug/L)	Duplicate Conc. (ug/L)	Acceptance Range (ug/L)
Benzene	1,520	1,370	1185 - 1710
Toluene	4,660	4,290	3670 - 5280
Chlorobenzene	ND	ND	NA
Ethylbenzene	180	199	124 - 256
m,p-Xylenes	3,540	3,260	NE
o-Xylene	925	845	NE
1,3-Dichlorobenzene	ND	ND	NA
1,4-Dichlorobenzene	ND	ND	NA
1,2-Dichlorobenzene	ND	ND	NA

ND - Analyte not detected at the stated detection limit.
NA - Not applicable or not calculated.
NE - Duplicate acceptance range not established by the EPA.

	Surrogate	Percent Recovery	Acceptance Limits
Quality Control:	Toluene-d8	98	88 - 110%
	Bromofluorobenzene	94	86 - 115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

Analyst

Review

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Purgeable Aromatics

Duplicate Analysis

Lab ID:	2535Dup	Report Date:	05/17/93
Sample Matrix:	Water	Date Sampled:	05/07/93
Preservative:	Cool, HCl	Date Received:	05/07/93
Condition:	Intact	Date Analyzed:	05/14/93

Target Analyte	Original Conc. (ug/L)	Duplicate Conc. (ug/L)	Acceptance Range (ug/L)
Benzene	155	149	124 - 180
Toluene	299	285	240 - 350
Chlorobenzene	ND	ND	NA
Ethylbenzene	17.6	17.5	10 - 26
m,p-Xylenes	161	147	NE
o-Xylene	45.1	41.9	NE
1,3-Dichlorobenzene	ND	ND	NA
1,4-Dichlorobenzene	ND	ND	NA
1,2-Dichlorobenzene	ND	ND	NA

ND - Analyte not detected at the stated detection limit.
NA - Not applicable or not calculated.
NE - Duplicate acceptance range not established by the EPA.

	Surrogate	Percent Recovery	Acceptance Limits
Quality Control:	Toluene-d8	96	88 - 110%
	Bromofluorobenzene	94	86 - 115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

Analyst

Review

Inter;Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Purgeable Aromatics

Matrix Spike Analysis

Lab ID:	2541Spk	Report Date:	05/17/93
Sample Matrix:	Water	Date Sampled:	05/10/93
Preservative:	Cool, HCl	Date Received:	05/10/93
Condition:	Intact	Date Analyzed:	05/12/93

Target Analyte	Spike Added (ug/L)	Original Conc. (ug/L)	Spiked Sample Conc. (ug/L)	% Recovery	Acceptance Limits (%)
Benzene	10	1.20	11.1	99%	39 -150
Toluene	10	ND	9.69	97%	46 - 148
Chlorobenzene	10	ND	9.76	98%	55 - 135
Ethylbenzene	10	0.43	10.3	98%	32 - 160
m,p-Xylenes	20	ND	19.8	98%	NE
o-Xylene	10	0.20	10.0	98%	NE
1,3-Dichlorobenzene	10	ND	9.65	97%	50 - 141
1,4-Dichlorobenzene	10	ND	9.63	96%	42 - 143
1,2-Dichlorobenzene	10	ND	9.52	95%	37 - 154

ND - Analyte not detected at the stated detection limit.
NA - Not applicable or not calculated.
NE - Spike acceptance range not established by the EPA.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Toluene-d8	100	88 - 110%
Bromofluorobenzene	100	86 - 115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

Analyst

Review

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Purgeable Aromatics

Matrix Spike Analysis

Lab ID:	2546Spk	Report Date:	05/17/93
Sample Matrix:	Water	Date Sampled:	05/10/93
Preservative:	Cool, HCl	Date Received:	05/10/93
Condition:	Intact	Date Analyzed:	05/14/93

Target Analyte	Spike Added (ug/L)	Original Conc. (ug/L)	Spiked Sample Conc. (ug/L)	% Recovery	Acceptance Limits (%)
Benzene	10	0.57	10.5	99%	39 -150
Toluene	10	ND	10.0	100%	46 - 148
Chlorobenzene	10	ND	9.84	98%	55 - 135
Ethylbenzene	10	0.33	10.3	100%	32 - 160
m,p-Xylenes	20	ND	20.1	100%	NE
o-Xylene	10	ND	10.1	100%	NE
1,3-Dichlorobenzene	10	ND	10.1	101%	50 - 141
1,4-Dichlorobenzene	10	ND	10.0	100%	42 - 143
1,2-Dichlorobenzene	10	ND	10.1	101%	37 - 154

ND - Analyte not detected at the stated detection limit.
NA - Not applicable or not calculated.
NE - Spike acceptance range not established by the EPA.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Toluene-d8	103	88 - 110%
Bromofluorobenzene	104	86 - 115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

Analyst

Review

Inter-Mountain Laboratories, Inc.

3304 Longmire
College Station, Texas 77845

RECEIVED
OCT 10 1991
OIL CONSERVATION DIV.
SANTA FE

METHOD 8020
VOLATILE AROMATIC HYDROCARBONS

Client:	**OIL CONSERVATION DIVISION**		
Project Name:	TNT Disposal (Pond #2, R&B)	Report Date:	10/04/91
Sample ID:	9109181900	Date Sampled:	09/18/91
Sample Number:	F7251 / C3946	Date Received:	09/20/91
Sample Matrix:	Water	Date Analyzed:	10/02/91
Preservative:	Cool, HgCl2		
Condition:	Intact		

Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	164	10.0
Toluene	450	10.0
Ethylbenzene	28.4	10.0
p,m-Xylene	151	10.0
o-Xylene	58.0	10.0
Chlorobenzene	ND	10.0
1,3-Dichlorobenzene	ND	10.0
1,4-Dichlorobenzene	ND	10.0
1,2-Dichlorobenzene	ND	10.0

ND - Analyte not detected at stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Toluene-d8	99%	85-110%
4-Bromofluorobenzene	94%	80-105%

Reference: Method 5030, Purge and Trap
Method 8020, Aromatic Volatile Organics
SW-846, Test Methods for Evaluating Solid Wastes, United States Environmental Protection Agency, September 1986.

Comments:

WM Rogers
Analyst

Review

Inter-Mountain Laboratories, Inc.

3304 Longmire
College Station, Texas 77845

CASE NARRATIVE

On 20 August, 1991, one water sample was received by Inter-Mountain Laboratories - College Station, Texas. The sample was identified as "TNT Disposal". Analysis was performed for parameters from Methods 8010 and 8020 as specified by the Chain of Custody forms accompanying the sample.

It is the policy of this laboratory to employ, whenever possible, analytical methods which have been approved by regulatory agencies. Extraction and analysis protocols are taken from "Test Methods for Evaluating Solid Waste", SW-846, USEPA, 1986, and "Chemical Analysis of Water and Waste", USEPA, 1978, and other appropriate references. All reports in this package indicate the analytical methods utilized and any observations made during the procedures.

Hewlett-Packard Gas Chromatographs were used for the analyses to determine the volatile. Results of the analyses indicated the presence of 8020 target compounds in sample.

Quality Control reports are included in the package for your use and can be identified by report title notation.

Ulonda M. Rogers
Project Manager

OCD3946

Inter-Mountain Laboratories, Inc.

3304 Longmire
College Station, Texas 77845

METHOD 8010
HALOGENATED VOLATILE HYDROCARBONS

Client: **OIL CONSERVATION DIVISION**
Project Name: TNT Disposal
Sample ID: 9109181900
Sample Number: F7251 / C3946
Sample Matrix: Water
Preservative: Cool, HgCl2
Condition: Intact

Report Date: 10/04/91
Date Sampled: 09/18/91
Date Received: 09/20/91
Date Analyzed: 10/02/91

Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Bromodichloromethane	ND	10.0
Bromoform	ND	10.0
Bromomethane	ND	10.0
Carbon tetrachloride	ND	10.0
Chlorobenzene	ND	10.0
Chloroethane	ND	10.0
2-Chloroethylvinyl ether	ND	10.0
Chloroform	ND	10.0
Chloromethane	ND	10.0
Dibromochloromethane	ND	10.0
1,2-Dichlorobenzene	ND	10.0
1,3-Dichlorobenzene	ND	10.0
1,4-Dichlorobenzene	ND	10.0
Dichlorodifluoromethane	ND	10.0
1,1-Dichloroethane	ND	10.0
1,2-Dichloroethane	ND	10.0
1,1-Dichloroethene	ND	10.0
trans-1,2-Dichloroethene	ND	10.0
1,2-Dichloropropane	ND	10.0
cis-1,3-Dichloropropene	ND	10.0
trans-1,3-Dichloropropene	ND	10.0
Methylene Chloride	ND	10.0
1,1,2,2-Tetrachloroethane	ND	10.0
Tetrachloroethene	ND	10.0
1,1,1-Trichloroethane	ND	10.0
1,1,2-Trichloroethane	ND	10.0
Trichloroethene	ND	10.0
Trichlorofluoromethane	ND	10.0
Vinyl chloride	ND	10.0

ND - Analyte not detected at stated detection limit.

Inter-Mountain Laboratories, Inc.

3304 Longmire
College Station, Texas 77845

METHOD 8010
HALOGENATED VOLATILE HYDROCARBONS
Page 2 - Quality Control

Client:	**OIL CONSERVATION DIVISION**		
Project Name:	TNT Disposal	Report Date:	10/04/91
Sample ID:	9109181900	Date Sampled:	09/18/91
Sample Number:	F7251 / C3946	Date Received:	09/20/91
Sample Matrix:	Water	Date Analyzed:	10/02/91
Preservative:	Cool, HgCl2		
Condition:	Intact		

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Toluene-d8	NA	85-110%
4-Bromofluorobenzene	NA	80-105%

Reference: Method 5030, Purge and Trap
Method 8010, Halogenated Volatile Organics
SW-846, Test Methods for Evaluating Solid Wastes, United States Environmental Protection Agency, September 1986.

Comments: NA - Surrogates not added to reduce interferences.

Analyst

Review

Inter-Mountain Laboratories, Inc.

3304 Longmire
College Station, Texas 77845

QUALITY CONTROL REPORT - METHOD BLANK
Method 8020 - VOLATILE AROMATIC HYDROCARBONS

Client:	**OIL CONSERVATION DIVISION**		
Project Name:	TNT Disposal	Report Date:	10/04/91
Sample ID:	Method Blank	Date Sampled:	NA
Sample Number:	MB10/03/91V1	Date Received:	NA
Sample Matrix:	Water	Date Analyzed:	10/03/91
Preservative:	Cool		
Condition:	Intact		

Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	ND	0.5
Toluene	ND	0.5
Ethylbenzene	ND	0.5
p,m-Xylene	ND	0.5
o-Xylene	ND	0.5
Chlorobenzene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

ND - Analyte not detected at stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Toluene-d8	93%	85-110%
4-Bromofluorobenzene	89%	80-105%

Reference: Method 5030, Purge and Trap
Method 8020, Aromatic Volatile Organics
SW-846, Test Methods for Evaluating Solid Wastes, United States Environmental Protection Agency, September 1986.

Comments:

U M Rogers
Analyst

Charles Ballard
Review

Inter·Mountain Laboratories, Inc.

3304 Longmire
College Station, Texas 77845

QUALITY CONTROL REPORT - METHOD BLANK
Method 8010 - HALOGENATED VOLATILE HYDROCARBONS

Client:	**OIL CONSERVATION DIVISION**		
Project Name:	TNT Disposal	Report Date:	10/04/91
Sample ID:	Method Blank	Date Sampled:	NA
Sample Number:	MB10/03/91V1	Date Received:	NA
Sample Matrix:	Water	Date Analyzed:	10/03/91
Preservative:	Cool		
Condition:	Intact		

Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Bromodichloromethane	ND	0.5
Bromoform	ND	0.5
Bromomethane	ND	0.5
Carbon tetrachloride	0.9	0.5
Chlorobenzene	ND	0.5
Chloroethane	ND	0.5
2-Chloroethylvinyl ether	ND	0.5
Chloroform	ND	0.5
Chloromethane	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
Dichlorodifluoromethane	ND	0.5
1,1-Dichloroethane	ND	0.5
1,2-Dichloroethane	ND	0.5
1,1-Dichloroethene	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
Methylene Chloride	4.6	0.5
1,1,2,2-Tetrachloroethane	ND	5.0
Tetrachloroethene	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Trichloroethene	ND	0.5
Trichlorofluoromethane	ND	0.5
Vinyl chloride	ND	0.5

ND - Analyte not detected at stated detection limit.

Inter·Mountain Laboratories, Inc.

3304 Longmire
College Station, Texas 77845

QUALITY CONTROL REPORT - METHOD BLANK
Method 8010 - HALOGENATED VOLATILE HYDROCARBONS
Page 2 - Quality Control

Client:	**OIL CONSERVATION DIVISION**		
Project Name:	TNT Disposal	Report Date:	10/04/91
Sample ID:	Method Blank	Date Sampled:	NA
Sample Number:	MB10/03/91V1	Date Received:	NA
Sample Matrix:	Water	Date Analyzed:	10/03/91
Preservative:	Cool		
Condition:	Intact		

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Toluene-d8	93%	85-110%
4-Bromofluorobenzene	89%	80-105%

Reference: Method 5030, Purge and Trap
Method 8010, Halogenated Volatile Organics
SW-846, Test Methods for Evaluating Solid Wastes, United States Environmental Protection Agency, September 1986.

Comments: Presence of Carbon tetrachloride and Methylene Chloride in blank may be traced to surrogate solvent.

Analyst

Review

Inter·Mountain Laboratories, Inc.

3304 Longmire
College Station, Texas 77845

QUALITY CONTROL REPORT - MATRIX DUPLICATE
Method 8020 - AROMATIC VOLATILE HYDROCARBONS

Sample Number:	C3946 DUP	Date Sampled:	09/18/91
Sample Matrix:	Water	Date Received:	09/20/91
Preservative:	Cool, HgCl2	Date Analyzed:	10/02/91
Condition:	Intact		

Analyte	Sample Result (ug/L)	Duplicate Result (ug/L)	Percent Difference
Benzene	164	161	1.6%
Toluene	450	373	18.7%
Ethylbenzene	28.4	24.3	15.5%
p,m - Xylene	134	118	12.1%
o - Xylene	62.3	46.8	7.2%
Chlorobenzene	ND	ND	NA
1,3-Dichlorobenzene	ND	ND	NA
1,4-Dichlorobenzene	ND	ND	NA
1,2-Dichlorobenzene	ND	ND	NA

ND - Analyte not detected at stated detection limit.
NA - Not applicable

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Toluene-d8	95%	85-110%
4-Bromofluorobenzene	91%	80-105%

Reference: Method 5030, Purge and Trap
Method 8020, Aromatic Volatile Organics
SW-846, Test Methods for Evaluating Solid Wastes, United States Environmental Protection Agency, September 1986.

Comments:

Analyst

Review

Inter·Mountain Laboratories, Inc.

3304 Longmire
College Station, Texas 77845

QUALITY CONTROL REPORT - MATRIX SPIKE
Method 8010 - HALOGENATED VOLATILE HYDROCARBONS

Sample Number:	C3783SPK	Date Sampled:	09/05/91
Sample Matrix:	Water	Date Received:	09/07/91
Preservative:	HCl, Cool	Date Analyzed:	10/03/91
Condition:	Intact		

Analyte	Spike Added (ug/L)	Sample Result (ug/L)	Spike Result (ug/L)	Percent Recovery	Acceptance Limit
Carbon tetrachloride	5.0	ND	4.7	94%	43-143%
Chlorobenzene	5.0	ND	4.6	93%	38-150%
Chloroform	5.0	ND	5.3	107%	49-133%
Dibromochloromethane	5.0	ND	4.3	87%	24-191%
1,1-Dichloroethane	5.0	ND	4.9	98%	47-132%
1,1-Dichloroethene	5.0	ND	5.3	106%	28-167%
1,2-Dichloropropane	5.0	ND	5.3	106%	44-156%
Tetrachloroethene	5.0	ND	4.8	96%	26-162%
1,1,2-Trichloroethane	5.0	ND	5.3	107%	39-136%
Trichloroethene	5.0	ND	4.8	95%	35-146%
Trichlorofluoromethane	5.0	ND	5.0	100%	21-156%

ND - Analyte not detected at stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Toluene-d8	96%	85-110%
4-Bromofluorobenzene	89%	80-105%

Reference:

Method 5030, Purge and Trap
Method 8010, Halogenated Volatile Organics
SW-846, Test Methods for Evaluating Solid Wastes, United States Environmental Protection Agency, September 1986.

Comments:

Analyst

Review

CHAIN OF CUSTODY RECORD

Inter- Mountain Laboratories, Inc.

Client/Project Name	Project Location	ANALYSES / PARAMETERS
Oil Conservation Div	TNT Disposal	
Sampler: (Signature)	**Chain of Custody Tape No.**	
Hank F. Boyd		

Sample No./ Identification	Date	Time	Lab Number	Matrix	No. of Containers	8050 BTEX				Remarks
910918/900	9/18/91	1900	7251	Water	2	✓				TNT Disposal Pond (Preserved w/ ice, $HgCl_2$)

MFF

ADT 09/19/91

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
H. F. Boyd	9/19/91	1620	ADT 09/19/91		
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
ADT 09/19/91					
Relinquished by: (Signature)	Date	Time	Received by laboratory: (Signature)	Date	Time
			Tony Tristano	09/19/91	1620

Inter-Mountain Laboratories, Inc.

☐ 1633 Terra Avenue Sheridan, Wyoming 82801 Telephone (307) 672-8945	☐ 1714 Phillips Circle Gillette, Wyoming 82716 Telephone (307) 682-8945	☒ 2506 West Main Street Farmington, NM 87401 Telephone (505) 326-4737	☐ 910 Technology Blvd. Suite B Bozeman, Montana 59715 Telephone (406) 586-8450	☐ Route 3, Box 256 College Station, TX 77845 Telephone (409) 776-8945	☐ 3304 Longmire Drive College Station, TX 77845 Telephone (409) 774-4999

04239

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

ANALYSIS REQUEST FORM

Contract Lab TML Contract No.

OCD Sample No. 9108142025

Collection Date	Collection Time	Collected by—Person/Agency
9/08/14	2025	Boyer/OCD

SITE INFORMATION

Sample location ~~Sam~~ TNT Disposal

Collection Site Description West Monitor Well, Pond 1

Sample from hand pump for dewatering monitor well

Township, Range, Section, Tract: | | + | | + | + | |

SEND FINAL REPORT TO ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

SAMPLING CONDITIONS

☐ Bailed ☒ Pump
☐ Dipped ☐ Tap

Water level	–
Discharge	–
Sample type	–
pH(00400)	–
Conductivity (Uncorrected)	µmho
Water Temp. (00010)	–
Conductivity at 25° C	µmho

SAMPLE FIELD TREATMENT— *Check proper boxes*

No. of samples submitted: 2

2 ☒ **NF:** Whole sample (Non-filtered)
☐ **F:** Filtered in field with 0.45 µ membrane filter
☐ **PF:** Pre-filtered w/45 µ membrane filter

1 ☒ **NA:** No acid added
☐ **A:** HCL
☐ **A:** 2ml H_2SO_4/L added
☐ **A:** 5ml conc. HNO_3 added
☐ **A:** 4ml fuming HNO_3 added
1 ☒ MM $HgCl_2$

FIELD COMMENTS:

LAB ANALYSIS REQUESTED:

ITEM	DESC	METHOD	ITEM	DESC	METHOD	ITEM	DESC	METHOD
☒ 001	VOA	8020	☐ 013	PHENOL	604	☐ 026	Cd	7130
☐ 002	VOA	602	☐ 014	VOC	8240	☐ 027	Pb	7421
☐ 003	VOH	8010	☐ 015	VOC	624	☐ 028	Hg(L)	7470
☐ 004	VOH	601	☐ 016	SVOC	8250	☐ 031	Se	7740
~~☒ 005~~	~~SUITE~~	8010-8020	☐ 017	SVOC	625	☐ 032	ICAP	6010
☐ 006	SUITE	601-602	☐ 018	VOC	8260	☒ 033	CATIONS/ANIONS	
☐ 007	HEADSPACE		☐ 019	SVOC	8270	☐ 034	N SUITE	
☐ 008	PAH	8100	☐ 020	O&G	9070	☐ 035	NITRATE	
☐ 009	PAH	610	☐ 022	AS	7060	☐ 036	NITRITE	
☐ 010	PCB	8080	☐ 023	Ba	7080	☐ 037	AMMONIA	
☐ 011	PCB	608	☐ 024	Cr	7190	☐ 038	TKN	
☐ 012	PHENOL	8040	☐ 025	Cr6	7198	☐	OTHER	

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

CLIENT: NMOCD
ID: TNT Disposal
SITE: Monitor well pond 1
LAB NO: F6948

DATE REPORTED: 09/17/91
DATE RECEIVED: 08/16/91
DATE COLLECTED: 08/14/91

Lab pH (s.u.)	7.31
Lab conductivity, umhos/cm	24400
Lab resistivity, ohm-m	0.41
Total dissolved solids (180), mg/L	17600
Total dissolved solids (calc), mg/L	15700
Total alkalinity as CaC03, mg/L	410
Total hardness as CaC03, mg/L	6470
Sodium absorption ratio	17.6
Fluoride, mg/L	0.03

	mg/L	meq/L
Bicarbonate as HC03	500	8.2
Carbonate as C03	0	0
Chloride	7090	200
Sulfate	3080	64.2
Calcium	1040	52
Magnesium	941	77.4
Potassium	10.4	0.27
Sodium	3260	142
Major cations		271
Major anions		272
Cation/anion difference		0.22 %

Wanda Orso
Water Lab Manager

Inter·Mountain
Laboratories, Inc.

2506 West Main Street
Farmington, New Mexico 87401
Tel. (505) 326-4737

VOLATILE AROMATIC HYDROCARBONS

Client:	NMOCD	Report Date:	09-26-91
Sample ID:	TNT Monitor	Date Sampled:	08-14-91
Laboratory Number:	6948	Date Received:	08-16-91
Analysis Requested:	8020	Date Analyzed:	08-28-91
Sample Matrix:	Water	Preservative:	Cool & HgCl2
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Det. Limit (ug/L)
Benzene	ND	0.5
Toluene	ND	0.5
Chlorobenzene	ND	0.5
Ethylbenzene	ND	0.5
p,m-Xylene	ND	0.5
o-Xylene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

SURROGATE RECOVERIES:

Parameter	Percent Recovery
Bromofluorobenzene	98.7 %

Method: Method 8020, Aromatic Volatile Organics, SW-846, USEPA, (Sept. 1986).

ND - Parameter not detected at the stated detection limit.

Comments:

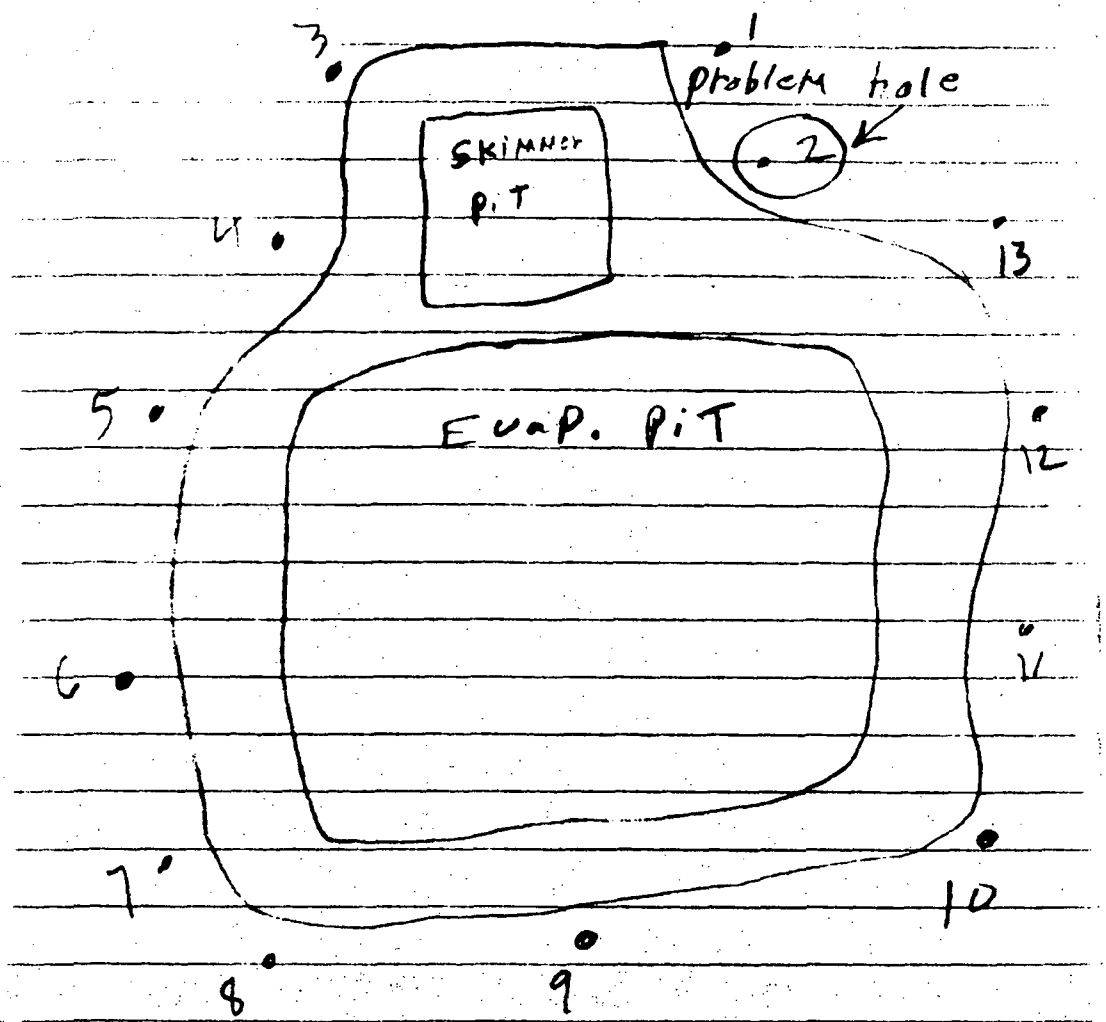
Tony Tristano
Analyst

All other wells dry

#3 - 6" water -.12

#6 - 8' water - .13 Bailed to 18"

8-24 - 6' [redacted] - 2 days .44 #2



STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

ANALYSIS REQUEST FORM

Contract Lab TML Contract No.

OCD Sample No. 9 1 0814 2011

Collection Date	Collection Time	Collected by —Person/Agency
9/10/14	2011	BOYER / OCD

/OCD

SITE INFORMATION

Sample location TNT Disposal

Collection Site Description Main Pond (pond #2)
Sample from South center of Pond
VOA from spray/recirculation pipe
Others dipped from pond

Township, Range, Section, Tract: | | + | | + | + | | |

SEND FINAL REPORT TO ▸ ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

SAMPLING CONDITIONS

☐ Bailed ☐ Pump
☒ Dipped ☒ Tap VOA

pH(00400) 9 Strip

Water Temp. (00010) 24 C

Water level

Discharge

Sample type Grab

Conductivity (Uncorrected) 29,500 µmho

Conductivity at 25° C µmho

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 3

3 ☒ **NF:** Whole sample (Non-filtered)
☐ **F:** Filtered in field with 0.45 µ membrane filter
☐ **PF:** Pre-filtered w/45 µ membrane filter

1 ☒ **NA:** No acid added
☐ **A:** HCL
☐ **A:** 2ml H_2SO_4/L added
1 ☒ **A:** 5ml conc. HNO_3 added VOA
☐ **A:** 4ml fuming HNO_3 added
1 ☒ $HgCl_2$

FIELD COMMENTS:

LAB ANALYSIS REQUESTED:

ITEM	DESC	METHOD	ITEM	DESC	METHOD	ITEM	DESC	METHOD
☐ 001	VOA	8020	☐ 013	PHENOL	604	☐ 026	Cd	7130
☐ 002	VOA	602	☐ 014	VOC	8240	☐ 027	Pb	7421
☐ 003	VOH	8010	☐ 015	VOC	624	☒ 028	Hg(L)	7470
☐ 004	VOH	601	☐ 016	SVOC	8250	☒ 031	Se	7740
☒ 005	SUITE	8010-8020	☐ 017	SVOC	625	☒ 032	ICAP	6010
☐ 006	SUITE	601-602	☐ 018	VOC	8260	☒ 033	CATIONS/ANIONS	
☐ 007	HEADSPACE		☐ 019	SVOC	8270	☐ 034	N SUITE	
☐ 008	PAH	8100	☐ 020	O&G	9070	☐ 035	NITRATE	
☐ 009	PAH	610	☒ 022	AS	7060	☐ 036	NITRITE	
☐ 010	PCB	8080	☐ 023	Ba	7080	☐ 037	AMMONIA	
☐ 011	PCB	608	☐ 024	Cr	7190	☐ 038	TKN	
☐ 012	PHENOL	8040	☐ 025	Cr6	7198	☐	OTHER	

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

CLIENT: NMOCD
ID: 9108142011
SITE: TNT Main Pond (Pond #2 A273)
LAB NO: F6947

DATE REPORTED: 09/17/91
DATE RECEIVED: 08/16/91
DATE COLLECTED: 08/14/91

Lab pH (s.u.)	8.44
Lab conductivity, umhos/cm	31300
Lab resistivity, ohm-m	0.319
Total dissolved solids (180), mg/L	19700
Total dissolved solids (calc), mg/L	16500
Total alkalinity as CaC03, mg/L	1710
Total hardness as CaC03, mg/L	238
Sodium absorption ratio	168
Fluoride, mg/L	1.21

	mg/L	meq/L
Bicarbonate as HC03	1980	32.5
Carbonate as C03	54.9	1.83
Chloride	8580	242
Sulfate	259	5.4
Calcium	41.4	2.07
Magnesium	32.7	2.69
Potassium	567	14.5
Sodium	5970	260
Major cations		279
Major anions		282
Cation/anion difference		0.5 %

. Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

CLIENT: NMOCD
ID: 9108142011
SITE: TNT Main Pond (Pond #2)
LAB NO: F6947

DATE REPORTED: 09/17/91
DATE RECEIVED: 08/16/91
DATE COLLECTED: 08/14/91

Trace metals by AA (dissolved concentration), mg/L

	Analytical Result:	Detection Limit:
Arsenic (As)	ND	<0.005
Cadmium (Cd)	ND	<0.002
Mercury (Hg)	ND	<0.001
Lead (Pb)	ND	<0.02
Selenium (Se)	ND	<0.005

Trace metals by ICAP (dissolved concentration), mg/L

	Analytical Result:	Detection Limit:
Silver (Ag)	ND	<0.01
Aluminum (Al)	0.1	<0.1
Boron (B)	3.26	<0.01
Barium (Ba)	1.7	<0.5
Beryllium (Be)	ND	<0.005
Calcium (Ca)	35.5	<0.5
Cobalt (Co)	ND	<0.02
Chromium (Cr)	ND	<0.02
Copper (Cu)	ND	<0.01
Iron (Fe)	1.21	<0.05
Potassium (K)	595.8	<0.1
Manganese (Mn)	0.07	<0.02
Molybdenum (Mo)	ND	<0.02
Magnesium (Mg)	36.7	<0.5
Sodium (Na)	6667	<0.5
Nickel (Ni)	ND	<0.01
Antimony (Sb)	ND	<0.05
Silicon (Si)	15.1	<0.05
Thallium (Tl)	ND	<0.1
Vanadium (V)	ND	<0.05
Zinc (Zn)	ND	<0.01

ND - Analyte "not detected" at the stated detection limit.

Wanda Orso
Water Lab Manager

Inter-Mountain Laboratories, Inc.

2506 West Main Street
Farmington, New Mexico 87401
Tel. (505) 326-4737

VOLATILE AROMATIC HYDROCARBONS

Client:	NMOCD	Report Date:	09-26-91
Sample ID:	TNT Main Pond	Date Sampled:	08-14-91
Laboratory Number:	6947 (Pond #2)	Date Received:	08-16-91
Analysis Requested:	8020	Date Analyzed:	09-11-91
Sample Matrix:	Water	Preservative:	Cool & HgCl2
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Det. Limit (ug/L)
Benzene	72.0	0.5
Toluene	81.9	0.5
Chlorobenzene	ND	0.5
Ethylbenzene	ND	0.5
p,m-Xylene	63.7	0.5
o-Xylene	26.0	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

SURROGATE RECOVERIES:

Parameter	Percent Recovery
4-Bromofluorobenzene	90.2 %

Method: Method 8020, Aromatic Volatile Organics, SW-846, USEPA, (Sept. 1986).

ND - Parameter not detected at the stated detection limit.

Comments:

Tony Tristano
Analyst

imi
Inter·Mountain
Laboratories, Inc.

2506 West Main Street
Farmington, New Mexico 87401
Tel. (505) 326-4737

Case Narrative

On August 16, 1991 a sample set consisting of four samples was received by Inter-Mountain Laboratories - Farmington, NM. Enclosed is a copy of the chain of custody indicating the requested analysis. The turn around time for these samples is 15 days and is reflected in the analytical price. Since the holding time for TNT Main Pond expired while the sample was in our custody there will be no charge for the analysis for the re-sampled sample which is identified as TNT Disposal.

It is the policy of this laboratory to employ, whenever possible, analytical methods which have been approved by regulatory agencies. The methods which we use are referenced in SW-846, "Test Methods for Evaluating Solid Waste", USEPA, 1986; "Chemical Analysis of Water and Waste", USEPA, 1978; and other references as applicable. All reports in this package have the analytical methods and the references footnoted.

A Hewlett-Packard Gas Chromatograph was used for the analysis which determined the presence of target 8020 compounds in samples Flora Vista Trench, Giant Seep, and TNT Disposal Pond.

Quality Assurance reports have been included in this package. These reports can be identified by the title of the report.

Please feel free to call if you have any questions.

Tony Tristano

Tony Tristano
Senior Analytical Chemist

CHAIN OF CUSTODY RECORD

imi Inter-Mountain Laboratories, Inc.

Client/Project Name	Project Location	ANALYSES / PARAMETERS
OCD		
Sampler: (Signature) Darrell Boyer	Chain of Custody Tape No.	

Sample No./ Identification	Date	Time	Lab Number	Matrix	No. of Containers	8010/8020	8020	Gen chem	ICAP	Remarks
TNT Main Pond	910814	2011	6947	water	4	X		X	X	
~~TNT Disposal~~	~~910~~									
TNT Monitor	910814	2025	6948	water	3		X	X		
Flora Vista Trench	910815	1105	6949	water	2		X			
Giant Seep	910815	1550	6950	water	4		X	X		ALSO Nitrogen Suite

NFE AAT 08/16/91

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
A.T. Boyer	8/16/91	0850	AAT 08/16/91		
Relinquished by: (Signature) AAT 08/16/91	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by laboratory: (Signature) Tony Tristano	Date	Time

Inter-Mountain Laboratories, Inc.

04016

☐ 1633 Terra Avenue Sheridan, Wyoming 82801 Telephone (307) 672-8945	☐ 1714 Phillips Circle Gillette, Wyoming 82716 Telephone (307) 682-8945	☒ 2506 West Main Street Farmington, NM 87401 Telephone (505) 326-4737	☐ 910 Technology Blvd. Suite B Bozeman, Montana 59715 Telephone (406) 586-8450	☐ Route 3, Box 256 College Station, TX 77845 Telephone (409) 776-8945	☐ 3304 Longmire Drive College Station, TX 77845 Telephone (409) 774-4999

SCIENTIFIC LABORATORY DIVISION
ORGANIC ANALYSIS REQUEST FORM
Organic Section - Phone: 841-2570

754 WP4

88-1496-C

REPORT TO: DAVID BOYER
N.M. OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, NM 87504-2088

S.L.D. No. OR-
DATE REC. 9/15/88
PRIORITY 3
PHONE(S): 827-5812

COLLECTION CITY: Lindrith ; COUNTY: Rio Arriba

COLLECTION DATE/TIME CODE: (Year-Month-Day-Hour-Minute) |8|8|0|9|1|2|1|6|5|0|

LOCATION CODE: (Township-Range-Section-Tracts) |2|5|N+0|3|W+0|8+3|1|—| (10N06E24342)

USER CODE: |8|2|2|3|5| SUBMITTER: David Boyer CODE: |2|6|0|

SAMPLE TYPE: WATER [X], SOIL [ ], FOOD [ ], OTHER:

This form accompanies 2 Septum Vials, ____ Glass Jugs, and/or ____

RECEIVED
NOV 17 1988
OIL CONSERVATION DIVISION
SANTA FE

Samples were preserved as follows:

- [ ] NP: No Preservation; Sample stored at room temperature.
- [X] P-Ice Sample stored in an ice bath (Not Frozen).
- [ ] P-AA Sample Preserved with Ascorbic Acid to remove chlorine residual.
- [X] P-HCl Sample Preserved with Hydrochloric Acid (2 drops/40 ml)

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 Headspace (1-5 Carbons)
- [X] (754) Aromatic & Halogenated Purgeables
- [ ] (765) Mass Spectrometer Purgeables
- [ ] (766) Trihalomethanes
- [ ] (774) SDWA VOC's I (8 Regulated +)
- [ ] (775) SDWA VOC's II (EDB & DBCP)

Other Specific Compounds or Classes

- [ ] _____
- [ ] _____

EXTRACTABLE SCREENS

- [ ] (751) Aliphatic Hydrocarbons
- [ ] (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=____; Conductivity=14,800 umho/cm at 16.5 °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.)
T-N-T Disposal pond, produced water (Pond #1 WB)

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities.(signature collector): D.F. Boyer Method of Shipment to the Lab: State Car

CHAIN 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 [ ] OR Seals Intact: Yes [ ] No [ ]

Signatures' ____ ____

For OCD use: Date owner notified: 12/2/88 Phone or (Letter)? Initials WB

ANALYSES PERFORMED

LAB. No.: OR- 1496

THIS PAGE FOR LABORATORY RES[illegible]S ONLY

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

PURGEABLE SCREENS

- ☐ (753) Aliphatic Headspace (1-5 Carbons)
- ☒ (754) Aromatic & Halogenated Purgeables
- ☐ (765) Mass Spectrometer Purgeables
- ☐ (766) Trihalomethanes
- ☐ (774) SDWA VOC's I (8 Regulated +)
- ☐ (775) SDWA VOC's II (EDB & DBCP)

Other Specific Compounds or Classes

- ☐ _____
- ☐ _____

EXTRACTABLE SCREENS

- ☐ (751) Aliphatic Hydrocarbons
- ☐ (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]
aromatic purgeables	N.D.		
halogenated purgeables	N.D.		
* DETECTION LIMIT * ✱	12.5 ppb	+ 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) Not Sealed ☐ 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: 9/16/88. Analyst's signature: Mary C. Eden

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

Reviewers signature: K Meyerhofer

New Mexico Health and En[illegible]ment Department
SCIENTIFIC LABORATORY [illegible]ISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

859
WNN

GE[illegible]ERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED 9/15/88 | LAB NO. WC 3689 | USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235

Collection DATE 88/09/12
Collection TIME 1650
Collected by — Person/Agency Boyer /OCD

SITE INFORMATION ►
Sample location TNT Disposal Pond, produced water
Collection site description T-N-T Lindrith

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

RECEIVED
NOV 22 1988
OIL CONSERVATION DIVISION
SANTA FE

Station/well code 25N, 03W, 08.31
Owner

SAMPLING CONDITIONS

☐ Bailed ☐ Pump ☒ Dipped ☐ Tap	Water level	Discharge	Sample type Grab
pH (00400)	Conductivity (Uncorrected) 14,880 µmho	Water Temp. (00010) 16.5 °C	Conductivity at 25°C (00094) µmho

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 µmembrane filter | ☐ A: 2 ml H_2SO_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
☒ Conductivity (Corrected) 25°C (00095)	28824	µmho	9/19
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☒ Other: Lab pH	6.30		11/7
☐ Other:			
☐ Other:			

$A-H_2SO_4$		Units	Date analyzed
☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

From NF, NA Sample:

			Date Analyzed
☒ Calcium	60	mg/l	10/12
☒ Potassium	880	mg/l	10/12
☒ Magnesium	66.5	mg/l	10/12
☒ Sodium	6380	mg/l	10/12
☒ Bicarbonate	1536	mg/l	11/7
☒ Chloride	9500	mg/l	9/20
☒ Sulfate	960	mg/l	9/20
☒ Total Solids	20714	mg/l	9/20
☒ CO_3	Ø		11/7
☒ Br	19.60 mg/l		9/22
☒ Cation/Anion Balance			

Analyst | Date Reported 11/14/88 | Reviewed by [illegible]

Laboratory remarks 10/ab * Report Cl, SO4, TDS by phone by 10/4 KPB
10950

FOR OCD USE -- Date Owner Notified 12/5/88 Phone or Letter? ______ Initals KPB

CATIONS				ANIONS			
ANALYTE	MEQ.	PPM	DET. LIMIT	ANALYTE	MEQ.	PPM	DET. LIMIT
Ca	2.99	60.00	<3.0	HC03	25.17	1536.00	<1.0
Mg	5.46	66.50	<0.3	SO4	20.00	960.00	<10.0
Na	277.51	6380.00	<10.0	CL	267.98	9500.00	<5.0
K	22.51	880.00	<0.3				
Mn	0.00	0.00		NO3	0.00	0.00	< 0.
Fe	0.00	0.00		C03	0.00	0.00	< 1.
				NH3	0.00	0.00	< 0.
				PO4	0.00	0.00	< 0.
SUMS	308.47	7386.50			313.16	11996.00	

Total Dissolved Solids= 20714

Ion Balance = 98.51%

WC No. = 8803689

Date out/By 6/11/14

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106

HEAVY METAL ANALYSIS FORM

Telephone: (505)841-2553

Date Received	9/15/88	Lab No. ICAP424	User Code	☐ 82235	☒ Other:

COLLECTION DATE & TIME: yy 88 | mm 09 | dd 12 | hh 16 | mm 50

COLLECTED BY: Boyd

COLLECTION SITE DESCRIPTION: N. Disposal Pond

TO:

OWNER: T-N-T, Lindrith

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg., PO Box 2088
SANTA FE, NM 87504-2088

ATTN: D. Boyd
TELEPHONE: 827-5812

SITE LOCATION:
County: Rio Arriba

Township, Range, Section, Tract: (10N06E24342)
D15W4013W4018+31/1~

STATION/ WELL CODE:

LATITUDE, LONGITUDE:

SAMPLING CONDITIONS:

☒ Bailed ☐ Pump
☒ Dipped ☐ Tap

Water Level:

Discharge:

Sample Type: Grab

pH(00400)	Conductivity(Uncorr.)	Water Temp.(00010)	Conductivity at 25°C (00094)
	14,800 µmho	16.5 °C	µmho

FIELD COMMENTS: Sample from N. end of pond

SAMPLE FIELD TREATMENT
Check proper boxes:

☒ WPN: Water Preserved w/HNO_3 Non-Filtered

☐ WPF: Water Preserved w/HNO_3 Filtered

LAB ANALYSIS REQUESTED:

☒ ICAP Scan
Mark box next to metal if AA is required.

ANALYTICAL RESULTS (MG/L)

ELEMENT	ICAP VALUE		AA VALUE
Aluminum	0.2		
Barium	0.7		
Beryllium	<0.1		
Boron	2.7		
Cadmium	<0.1	☐	
Calcium	47.		
Chromium	<0.1	☐	
Cobalt	<0.05		
Copper	<0.1		
Iron	0.2		
Lead	<0.1	☐	
Magnesium	47.		
Manganese	<0.05		
Molybdenum	<0.1		
Nickel	<0.1		

ELEMENT	ICAP VALUE		AA VALUE
Silicon	2.1		
Silver	<0.1	☐	
Strontium	8.1		
Tin	<0.1		
Vanadium	<0.1		
Zinc	<0.1		
Arsenic		☐	
Selenium		☐	
Mercury		☐	
		☐	
		☐	
		☐	
		☐	
		☐	
		☐	

LAB COMMENTS: Dup

For OCD Use:
Date Owner Notified: 12/2/88
Phone or Letter?
Initials: AFB

ICAP Analyst JA

Date Analyzed 10/12/88

Reviewer Jim Ashby

Date Received 10/18/88

754 wpv

SCIENTIFIC LABORATORY DIVISION

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

HEALTH ENVIRONMENT — STATE OF NEW MEXICO

87-1704-C

REPORT TO: David Boyer
N.M. Oil Conservation Division
P. O. Box 2088
Santa Fe, N.M. 87504-2088
PHONE(S): 827-5812
SUBMITTER: David Boyer

S.L.D. No. OR- 1704
DATE REC. 10-30-87
PRIORITY 3
USER CODE: 32235
CODE: 260

SAMPLE COLLECTION CODE: (YYMMDDHHMMIII) 871029121230 <SB

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

COUNTY: RIO ARRIBA ; CITY: LINDRITH CODE:_____

LOCATION CODE: (Township-Range-Section-Tracts) _____+_____+_____+_____ (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: TNT EVAPORATION PIT

FIELD DATA:

pH= 8 ; Conductivity= 21000 umho/cm at 12.5 °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.)

SE CORNER MAIN PIT (Pond #1 NAB)

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities.(signature collector): _____ Method of Shipment to the Lab: Hand Carried

This form accompanies 2 Septum Vials, 1 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-$Na_2S_2O_3$ Sample Preserved with Sodium Thiosulfate to remove chlorine residual.

CHAIN 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 3/1 Phone or Letter? Person Initials JB

ANALYSES PERFORMED

LAB. No.: OR- 1704

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]
Aromatic purgeables			
benzene	222		
toluene	375		
ethylbenzene	T.R.		
p-xylene	28		
m-xylene	100		
o-xylene	41		
[acetone] +	1425		
halogenated purgeables	N.D.		
* DETECTION LIMIT *	* 25 ug/L	+ DETECTION LIMIT +	+ 700 ug/L

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: 11/2/87 Analyst's signature: Nancy C. Glen

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

Reviewers signature: L Meyerhein

.859-WNN

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 11 6 87	LAB NO. WC-5043	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 10 29 87	SITE INFORM-ATION ►	Sample location TNT EVAPORATION PIT	
Collection TIME 1230		Collection site description SE CORNER OF PIT	
Collected by — Person/Agency OLSON / BAILEY / 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

Station/ well code

Owner

SAMPLING CONDITIONS

☐ Bailed ☒ Dipped ☐ Pump ☐ Tap	Water level	Discharge	Sample type Grab
pH (00400) 8	Conductivity (Uncorrected) 21000 µmho	Water Temp. (00010) 12.5 °C	Conductivity at 25°C (00094) µmho

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 µmembrane filter ☐ **A:** 2 ml H_2SO_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
☒ Conductivity (Corrected) 25°C (00095)	23110	µmho	12/3
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☒ Other: Lab pH	7.66		12/5
☐ Other:			
☐ Other:			

A-H_2SO_4			
☐ Nitrate-N + , Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

From E, NA Sample: Hd 650

			Date Analyzed
☒ Calcium	176	mg/l	12/15
☒ Potassium	741	mg/l	12/21
☒ Magnesium	39	mg/l	"
☒ Sodium	4830	mg/l	12/4
☒ Bicarbonate	1368	mg/l	12/15
☒ Chloride	9050	mg/l	12/16
☒ Sulfate	1285	mg/l	12/16
☒ Total Solids	19172	mg/l	12/15
☒ Bromide	40.0	mg/L	1/15/88
☐			
☒ Cation/Anion Balance			

Analyst	Date Reported	Reviewed by
	1 19 88	CG

Laboratory remarks

FOR OCD USE -- Date Owner Notified 3/1 Phone or Letter? Phone Initals JB

CATIONS				ANIONS			
ANALYTE	MEQ.	PPM	DET. LIMIT	ANALYTE	MEQ.	PPM	DET. LIMIT
Ca	9.78	196.00	<3.0	HC03	22.42	1368.00	<1.0
Mg	3.20	39.00	<0.3	SO4	26.77	1285.00	<10.0
Na	210.09	4830.00	<10.0	CL	255.29	9050.00	<5.0
K	18.95	741.00	<0.3				
Mn	0.00	0.00		NO3	0.00	0.00	< 0.
Fe	0.00	0.00		C03	0.00	0.00	< 1.
				NH3	0.00	0.00	< 0.
				PO4	0.00	0.00	< 0.
SUMS	242.03	5806.00			304.48	11703.00	

Total Dissolved Solids= 19170

Ion Balance = 79.49%

WC No. = 8705043

Date out/By 1/24

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106

HEAVY [redacted]TAL ANALYSIS FORM

Telephone: (505)841-2553

Date Received	11/4/87	Lab No. ICP-910	User Code	☐ 82235	☐ Other:

COLLECTION DATE & TIME: yy 87 | mm 10 | dd 29 | hh 12 | mm 30

COLLECTED BY: OLSON / BAILEY

COLLECTION SITE DESCRIPTION: TNT EVAPORATION PIT
SE CORNER

TO:

OWNER: TONY SCHMITZ

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg., PO Box 2088
SANTA FE, NM 87504-2088

SITE LOCATION:
County:

Township, Range, Section, Tract: (10N06E24342)
25N+ 3W+ +

ATTN: DAVID BOYER
TELEPHONE: 827-5812

STATION/ WELL CODE:

LATITUDE, LONGITUDE: -

SAMPLING CONDITIONS:

☐ Bailed ☒ Dipped ☐ Pump ☐ Tap	Water Level:	Discharge:	Sample Type: GRAB

pH(00400)	Conductivity(Uncorr.)	Water Temp.(00010)	Conductivity at 25°C (00094)
8	21000 µmho	12.5 °C	µmho

FIELD COMMENTS: Pre-filtered only

SAMPLE FIELD TREATMENT Check proper boxes:		LAB ANALYSIS REQUESTED:
☐ **WPN:** Water Preserved w/HNO_3 Non-Filtered	☒ **WPF:** Water Preserved w/HNO_3 Filtered (Pre)	☒ **ICAP Scan** Mark box next to metal if AA is required.

ANALYTICAL RESULTS (MG/L)

ELEMENT	ICAP VALUE		AA VALUE
Aluminum	0.2		
Barium	1.1		
Beryllium	<0.1		
Boron	2.2		
Cadmium	<0.1	☐	
Calcium	160.		
Chromium	<0.1	☒	0.035
Cobalt	<0.05		
Copper	<0.1		
Iron	0.4		
Lead	<0.1	☒	<0.01
Magnesium	40.		
Manganese	0.54		
Molybdenum	<0.1		
Nickel	<0.1		

ELEMENT	ICAP VALUE		AA VALUE
Silicon	12.		
Silver	<0.1	☐	
Strontium	9.5		
Tin	<0.1		
Vanadium	<0.1		
Zinc	<0.1		
Arsenic		☒	0.130
Selenium		☐	
Mercury		☐	
		☐	
		☐	
		☐	
		☐	
		☐	
		☐	

LAB COMMENTS: DIGEST 11/16/87

For OCD Use:
Date Owner Notified: 3/1
Phone or Letter? Person
Initials: JB

ICAP Analyst JB **Reviewer** [signature]
Date Analyzed 11/24/87 **Date Received** 2/9/88

SCIENTIFIC LABORATORY DIVISION
ORGANIC ANALYSIS REQUEST FORM
Organic Section - Phone: 841-2570

754 WP4

88-1494-C

REPORT TO: DAVID BOYER
N.M. OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, NM 87504-2088

S.L.D. No. OR-
DATE REC. 9/15/88
PRIORITY 3
PHONE(S): 827-5812

COLLECTION CITY: Lindrith ; COUNTY: ~~So~~ Rio Arriba

COLLECTION DATE/TIME CODE: (Year-Month-Day-Hour-Minute) |8|8|0|9|1|2|1|6|0|4|

LOCATION CODE: (Township-Range-Section-Tracts) |2|5|N|+|0|3|W|+|0|8|+|3|1|1|—| (10N06E24342)

USER CODE: |8|2|2|3|5| SUBMITTER: David Boyer CODE: |2|6|0|

SAMPLE TYPE: WATER [X], SOIL [ ], FOOD [ ], OTHER:

RECEIVED
NOV 17 1988
OIL CONSERVATION DIVISION
SANTA FE

This form accompanies 2 Septum Vials, ____ Glass Jugs, and/or ____
Samples were preserved as follows:

- [X] NP: No Preservation; Sample stored at room temperature.
- [ ] P-Ice Sample stored in an ice bath (Not Frozen).
- [ ] P-AA Sample Preserved with Ascorbic Acid to remove chlorine residual.
- [X] P-HCl Sample Preserved with Hydrochloric Acid (2 drops/40 ml)

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 Headspace (1-5 Carbons)
- [X] (754) Aromatic & Halogenated Purgeables
- [ ] (765) Mass Spectrometer Purgeables
- [ ] (766) Trihalomethanes
- [ ] (774) SDWA VOC's I (8 Regulated +)
- [ ] (775) SDWA VOC's II (EDB & DBCP)

Other Specific Compounds or Classes

- [ ] _____
- [ ] _____

EXTRACTABLE SCREENS

- [ ] (751) Aliphatic Hydrocarbons
- [ ] (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=____; Conductivity=7100 umho/cm at 11.5 °C; Chlorine Residual=____ mg/l

Dissolved Oxygen=____ mg/l; Alkalinity=____ mg/l; Flow Rate____ ____/____

Depth to water 28.4 ft.; Depth of well 44.5 ft.; Perforation Interval ____-____ ft.; Casing:____

Sampling Location, Methods and Remarks (i.e. odors, etc.)
MW #2, T-N-T Disposal, Lindrith

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities.(signature collector): W T Boyer Method of Shipment to the Lab: State Car

CHAIN 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 [ ] OR Seals Intact: Yes [ ] No [ ]

Signatures' _____ _____

For OCD use: Date owner notified: 12/2/88 Phone or (Letter)? Initials WTB

ANALYSES PERFORMED

LAB. No.: OR- 1494

THIS PAGE FOR LABORATORY RESULTS ONLY

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

PURGEABLE SCREENS

- ☐ (753) Aliphatic Headspace (1-5 Carbons)
- ☑ (754) Aromatic & Halogenated Purgeables
- ☐ (765) Mass Spectrometer Purgeables
- ☐ (766) Trihalomethanes
- ☐ (774) SDWA VOC's I (8 Regulated +)
- ☐ (775) SDWA VOC's II (EDB & DBCP)

Other Specific Compounds or Classes

- ☐ _____
- ☐ _____

EXTRACTABLE SCREENS

- ☐ (751) Aliphatic Hydrocarbons
- ☐ (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]
aromatic purgeables	N.D.		
halogenated purgeables	N.D.		
* DETECTION LIMIT * *	.5 ppb	+ 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) Not Sealed ☐ 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: 9/16/88. Analyst's signature: Mary C. Eder

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

Reviewers signature: K Meyer Mes

859
WNN

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 9 15 88	LAB NO. WC 3690	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235

Collection DATE 880912
Collection TIME 1604
Collected by — Person/Agency Boyer /OCD

SITE INFORMATION ►
Sample location MW #2, T-N-T Disposal
Collection site description Lindrith

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

Station/well code 25N, 03W, 08.31
Owner

SAMPLING CONDITIONS

☒ Bailed ☐ Pump ☐ Dipped ☐ Tap	Water level 28.4	Discharge —	Sample type Grab
pH (00400)	Conductivity (Uncorrected) 7100 µmho	Water Temp. (00010) 11.5 °C	Conductivity at 25°C (00094) µmho

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 µmembrane filter	☐ A: 2 ml H_2SO_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
☒ Conductivity (Corrected) 25°C (00095)	16315	µmho	9/19
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☒ Other: pH (Lab)	7.83		10/20
☐ Other:			
☐ Other:			

A-H_2SO_4		Units	Date analyzed
☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

From NF, NA Sample:

			Date Analyzed
☒ Calcium	532	mg/l	10/12
☒ Potassium	20	mg/l	10/12
☒ Magnesium	66.5	mg/l	10/12
☒ Sodium	3205	mg/l	10/12
☒ Bicarbonate	113	mg/l	10/20
☒ Chloride	5995	mg/l	9/20
☒ Sulfate	128	mg/l	9/20
☒ Total Solids	11332	mg/l	9/20
☒ CO_3	Ø		10/20
☒ Br	0.60	mg/l	9/22
☒ Cation/Anion Balance			

Analyst	Date Reported	Reviewed by
	10/25/88	

Laboratory remarks To lab: Report Cl, SO4, TDS by Phone by 10/4 DGB
5995

FOR OCD USE -- Date Owner Notified 12/2/88 Phone or (Letter)? Initals DGB

CATIONS				ANIONS			
ANALYTE	MEQ.	PPM	DET. LIMIT	ANALYTE	MEQ.	PPM	DET. LIMIT
Ca	26.55	532.00	<3.0	HC03	1.85	113.00	<1.0
Mg	5.46	66.50	<0.3	SO4	2.67	128.00	<10.0
Na	139.41	3205.00	<10.0	CL	169.11	5995.00	<5.0
K	0.51	20.00	<0.3				
Mn	0.00	0.00		NO3	0.00	0.00	< 0.
Fe	0.00	0.00		C03	0.00	0.00	< 1.
				NH3	0.00	0.00	< 0.
				PO4	0.00	0.00	< 0.
SUMS	171.93	3823.50			173.63	6236.00	

Total Dissolved Solids= 11332

Ion Balance = 99.02%

WC No. = 8803690

Date out/By CS 10/4/5

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106

HEAVY METAL ANALYSIS FORM

Telephone: (505)841-2553

Date Received	9/15/88	Lab No.	ICAP 423	User Code	☒ 82235 ☐ Other:

COLLECTION DATE & TIME: yy 88 | mm 09 | dd 12 | hh 16 | mm 04

COLLECTED BY: Boyer/OCD

COLLECTION SITE DESCRIPTION: MW #2, TNT Disposal

TO:

OWNER:

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg., PO Box 2088
SANTA FE, NM 87504-2088

ATTN: D. Boyer
TELEPHONE: 827-5812

SITE LOCATION:
County: Rio Arriba

Township, Range, Section, Tract: (10N06E24342)
215W+015K+018+311

STATION/ WELL CODE:

LATITUDE, LONGITUDE: -

SAMPLING CONDITIONS:

☒ Bailed ☐ Dipped ☐ Pump ☐ Tap	Water Level: 28.4	Discharge:	Sample Type: Grab

pH(00400)	Conductivity(Uncorr.)	Water Temp.(00010)	Conductivity at 25°C (00094)
	7100 µmho	11.5 °C	µmho

FIELD COMMENTS:

SAMPLE FIELD TREATMENT Check proper boxes:		LAB ANALYSIS REQUESTED:
☒ WPN: Water Preserved w/HNO_3 Non-Filtered	☐ WPF: Water Preserved w/HNO_3 Filtered	☒ ICAP Scan Mark box next to metal if AA is required.

ANALYTICAL RESULTS (MG/L)

ELEMENT	ICAP VALUE	AA VALUE	ELEMENT	ICAP VALUE	AA VALUE
Aluminum	4.3		Silicon	5.0	
Barium	0.7		Silver	<0.1 ☐	
Beryllium	<0.1		Strontium	12.	
Boron	0.3		Tin	<0.1	
Cadmium	<0.1 ☐		Vanadium	<0.1	
Calcium	520.		Zinc	0.1	
Chromium	<0.1 ☐		Arsenic	☐	
Cobalt	<0.05		Selenium	☐	
Copper	<0.1		Mercury	☐	
Iron	4.8			☐	
Lead	<0.1 ☐			☐	
Magnesium	53.			☐	
Manganese	0.21			☐	
Molybdenum	<0.1			☐	
Nickel	<0.1			☐	

LAB COMMENTS: Digest

For OCD Use:
Date Owner Notified: 12/2/88
Phone or Letter?
Initials: DSK

ICAP Analyst JAA
Date Analyzed 10/12/88

Reviewer J. Ashley
Date Received 10/18/88

SCIENTIFIC LABORATORY DIVISION
ORGANIC ANALYSIS REQUEST FORM
Organic Section - Phone: 841-2570

754/ WPU

88-1063-C

REPORT TO: DAVID BOYER
N.M. OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, NM 87504-2088

S.L.D. No. OR- 1063 #4B
DATE REC. 7-1-88
PRIORITY
PHONE(S): 827-5812

COLLECTION CITY: LINDRITH ; COUNTY: Rio ARRIBA

COLLECTION DATE/TIME CODE: (Year-Month-Day-Hour-Minute) | 8 | 8 | 0 | 6 | 2 | 9 | 0 | 8 | 0 | 0 |

LOCATION CODE: (Township-Range-Section-Tracts) | 2 | 5 | N + 0 | 3 | W + 0 | 8 + 3 | 2 | | (10N06E24342)

USER CODE: | 8 | 2 | 2 | 3 | 5 | SUBMITTER: David Boyer CODE: | 2 | 6 | 0 |

SAMPLE TYPE: WATER |X|, SOIL |_|, FOOD |_|, OTHER:

This 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-AA Sample Preserved with Ascorbic Acid to remove chlorine residual.
- ☒ P-HCl Sample Preserved with Hydrochloric Acid (2 drops/40 ml)

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 Headspace (1-5 Carbons)
- ☒ (754) Aromatic & Halogenated Purgeables
- ☐ (765) Mass Spectrometer Purgeables
- ☐ (766) Trihalomethanes
- ☐ (774) SDWA VOC's I (8 Regulated +)
- ☐ (775) SDWA VOC's II (EDB & DBCP)

Other Specific Compounds or Classes

- ☐ _____
- ☐ _____

EXTRACTABLE SCREENS

- ☐ (751) Aliphatic Hydrocarbons
- ☐ (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: T-N-T MONITOR WELL 2

FIELD DATA:

pH=_____; Conductivity= 11000 umho/cm at 13 °C; Chlorine Residual=_____mg/l

Dissolved Oxygen=_____mg/l; Alkalinity=_____mg/l; Flow Rate_____ _____/_____

Depth to water 39.35 ft.; Depth of well 44.26 ft.; Perforation Interval _____-_____ft.; Casing:_____

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

MW WEST of SKIMMER PIT

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities.(signature collector):_____ Method of Shipment to the Lab:_____

CHAIN 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 ☐ OR Seals Intact: Yes ☐ No ☐

Signatures _____ _____

For OCD use: Date owner notified: 12/2/88 Phone or (Letter)? Initials DR

ANALYSES PERFORMED LAB. #: OR- 1063

THIS PAGE FOR LABORATORY RESULTS ONLY

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

PURGEABLE SCREENS

- ☐ (753) Aliphatic Headspace (1-5 Carbons)
- ☒ (754) Aromatic & Halogenated Purgeables
- ☐ (765) Mass Spectrometer Purgeables
- ☐ (766) Trihalomethanes
- ☐ (774) SDWA VOC's I (8 Regulated +)
- ☐ (775) SDWA VOC's II (EDB & DBCP)

Other Specific Compounds or Classes

- ☐ _____
- ☐ _____

EXTRACTABLE SCREENS

- ☐ (751) Aliphatic Hydrocarbons
- ☐ (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]
aromatic purgeables	~~see remarks~~	N.D.	
halogenated purgeables	N.D.		
* DETECTION LIMIT *	.5 ug/L	+ 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: ~~Four compounds in the C3 substituted benzene region~~

CERTIFICATE OF ANALYTICAL PERSONNEL

Seal(s) Not Sealed ☐ 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: 7/4/85. Analyst's signature: Mary C. Glen

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

Reviewers signature: K Meyerhein

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

459 WNW

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED 7/1/88 LAB NO. WC-2434

USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235

Collection DATE 6/29/88

Collection TIME 0800

SITE INFORMATION ►

Sample location T-N-T MONITOR WELL 2

Collection site description MW WEST OF SKIMMER PIT

Collected by — Person/Agency ANDERSON / BAILEY / 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

Station/ well code

Owner

SAMPLING CONDITIONS

☒ Bailed ☐ Dipped ☐ Pump ☐ Tap	Water level 39.35	Discharge	Sample type
pH (00400)	Conductivity (Uncorrected) 11000 µmho	Water Temp. (00010) 13 °C	Conductivity at 25°C (00094) µmho

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 µmembrane filter ☐ **A:** 2 ml H_2SO_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
☐ Conductivity (Corrected) 25°C (00095)	µmho	
☐ Total non-filterable residue (suspended) (00530)	mg/l	
☐ Other:		
☐ Other:		
☐ Other:		

A-H_2SO_4		
☐ Nitrate-N +, Nitrate-N total (00630)	mg/l	
☐ Ammonia-N total (00610)	mg/l	
☐ Total Kjeldahl-N ( )	mg/l	
☐ Chemical oxygen demand (00340)	mg/l	
☐ Total organic carbon ( )	mg/l	
☐ Other:		
☐ Other:		

From NF, NA Sample:

			Date Analyzed
☒ Calcium	600	mg/l	7/25
☒ Potassium	13	mg/l	7/28
☒ Magnesium	117.1	mg/l	7/25
☒ Sodium	3346	mg/l	7/26
☒ Bicarbonate	166	mg/l	8/1
☒ Chloride	6000	mg/l	8/12
☒ Sulfate	134	mg/l	8/12
☒ Total Solids	13012	mg/l	7/20
☐			
☐			
☒ Cation/Anion Balance			

Analyst | Date Reported 8/10/88 | Reviewed by

Laboratory remarks
TDDN +

FOR OCD USE -- Date Owner Notified 12/5/88 Phone or (Letter)? _____ Initals DWB

CATIONS				ANIONS			
ANALYTE	MEQ.	PPM	DET. LIMIT	ANALYTE	MEQ.	PPM	DET. LIMIT
Ca	29.94	600.00	<3.0	HC03	2.72	166.00	<1.0
Mg	9.61	117.00	<0.3	SO4	2.79	134.00	<10.0
Na	145.54	3346.00	<10.0	CL	169.25	6000.00	<5.0
K	0.33	13.00	<0.3				
Mn	0.00	0.00		NO3	0.00	0.00	< 0.
Fe	0.00	0.00		C03	0.00	0.00	< 1.
				NH3	0.00	0.00	< 0.
				PO4	0.00	0.00	< 0.
SUMS	185.42	4076.00			174.76	6300.00	

Total Dissolved Solids= 13012

Ion Balance = 106.10%

WC No. = 8802434

Date out/By CD 8/18/88

SCIENTIFIC LABORATORY DIVISION
ORGANIC ANALYSIS REQUEST FORM
Organic Section - Phone: 841-2570

754 WP4

88-1497-C

REPORT TO: DAVID BOYER
N.M. OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, NM 87504-2088

S.L.D. No. OR-
DATE REC. 9/15/88
PRIORITY 3
PHONE(S): 827-5812

COLLECTION CITY: Lindrith ; COUNTY: Rio Arriba

COLLECTION DATE/TIME CODE: (Year-Month-Day-Hour-Minute) |8|8|0|9|1|2|1|6|3|5|

LOCATION CODE: (Township-Range-Section-Tracts) |2|5|N+|0|3|W+|0|8+|3|K|1| (10N06E24342)

USER CODE: |8|2|2|3|5| SUBMITTER: David Boyer CODE: |2|6|0|

SAMPLE TYPE: WATER [X], SOIL [ ], FOOD [ ], OTHER:

This form accompanies 2 Septum Vials, ____ Glass Jugs, and/or ____

RECEIVED
NOV 17 1988
OIL CONSERVATION DIVISION
SANTA FE

Samples were preserved as follows:

- [ ] NP: No Preservation; Sample stored at room temperature.
- [X] P-Ice Sample stored in an ice bath (Not Frozen).
- [ ] P-AA Sample Preserved with Ascorbic Acid to remove chlorine residual.
- [X] P-HCl Sample Preserved with Hydrochloric Acid (2 drops/40 ml)

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 Headspace (1-5 Carbons)
- [X] (754) Aromatic & Halogenated Purgeables
- [ ] (765) Mass Spectrometer Purgeables
- [ ] (766) Trihalomethanes
- [ ] (774) SDWA VOC's I (8 Regulated +)
- [ ] (775) SDWA VOC's II (EDB & DBCP)

Other Specific Compounds or Classes

- [ ] _____
- [ ] _____

EXTRACTABLE SCREENS

- [ ] (751) Aliphatic Hydrocarbons
- [ ] (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=____; Conductivity=420 umho/cm at 12 °C; Chlorine Residual=____mg/l

Dissolved Oxygen=____mg/l; Alkalinity=____mg/l; Flow Rate____ ____/____

Depth to water 19.8 ft.; Depth of well 28.1 ft.; Perforation Interval ____-____ft.; Casing:____

Sampling Location, Methods and Remarks (i.e. odors, etc.)
MW #6, T-N-T Disposal, Lindrith

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities.(signature collector): D. Boyer Method of Shipment to the Lab: State Car

CHAIN 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 [ ] OR Seals Intact: Yes [ ] No [ ]

Signatures' _____ _____

For OCD use: Date owner notified: 12/2/88 Phone or Letter? Initials MB

ANALYSES PERFORMED

LAB. No.: OR- 1497

THIS PAGE FOR LABORATORY RESULTS ONLY

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

PURGEABLE SCREENS

- ☐ (753) Aliphatic Headspace (1-5 Carbons)
- ☒ (754) Aromatic & Halogenated Purgeables
- ☐ (765) Mass Spectrometer Purgeables
- ☐ (766) Trihalomethanes
- ☐ (774) SDWA VOC's I (8 Regulated +)
- ☐ (775) SDWA VOC's II (EDB & DBCP)

Other Specific Compounds or Classes

- ☐ _____
- ☐ _____

EXTRACTABLE SCREENS

- ☐ (751) Aliphatic Hydrocarbons
- ☐ (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]
aromatic purgeables	N.D.		
halogenated purgeables	N.D.		
* DETECTION LIMIT * ✱	.5 ppb	+ 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) Not Sealed ☐ 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: 9/16/88. Analyst's signature: Mary C. Eden

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

Reviewers signature: K Meyerhen

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

859 WNW

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED 9 15 88 | LAB NO. WC 3688 | USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235

Collection DATE 8 8 09 12 | Collection TIME 1635 | Collected by — Person/Agency Boyer /OCD

SITE INFORMATION ►

Sample location T-N-T Lundeen MW #6

Collection site description

RECEIVED
NOV 22 1988
OIL CONSERVATION DIVISION
SANTA FE

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

Station/well code 25N, 3W, 8.31

Owner

SAMPLING CONDITIONS

19.8

☒ Bailed ☐ Pump ☐ Dipped ☐ Tap	Water level 6.92'	Discharge —	Sample type Grab
pH (00400)	Conductivity (Uncorrected) 2120 µmho	Water Temp. (00010) 12 °C	Conductivity at 25°C (00094) µmho

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 µmembrane filter ☐ A: 2 ml H_2SO_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
☒ Conductivity (Corrected) 25°C (00095)	3698	µmho	9/19
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☒ Other: Lab pH	8.43		11/7
☐ Other:			
☐ Other:			

A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

From ☒ F, NA Sample:

			Date Analyzed
☒ Calcium	36	mg/l	10/12
☒ Potassium	4	mg/l	10/7
☒ Magnesium	27.5	mg/l	10/12
☒ Sodium	855	mg/l	10/7
☒ Bicarbonate	861	mg/l	11/7
☒ Chloride	38.9	mg/l	9/20
☒ Sulfate	1160	mg/l	9/20
☒ Total Solids	2802	mg/l	9/20
☒ CO_3	18.1		11/7
☒ RN	1.98	mg/L	9/22
☒ Cation/Anion Balance			

Analyst	Date Reported	Reviewed by
	11 14 88	

Laboratory remarks To lab - Report Cl, SO_4, TDS by phone by 10/4 WJB

FOR OCD USE -- Date Owner Notified 12/2/88 Phone or Letter? _____ Initals

34

CATIONS				ANIONS			
ANALYTE	MEQ.	PPM	DET. LIMIT	ANALYTE	MEQ.	PPM	DET. LIMIT
Ca	1.80	36.00	<3.0	HC03	14.11	861.00	<1.0
Mg	2.26	27.50	<0.3	SO4	24.17	1160.00	<10.0
Na	37.19	855.00	<10.0	CL	1.10	38.90	<5.0
K	0.10	4.00	<0.3				
Mn	0.00	0.00		NO3	0.00	0.00	< 0.
Fe	0.00	0.00		C03	0.00	0.00	< 1.
				NH3	0.00	0.00	< 0.
				PO4	0.00	0.00	< 0.
SUMS	41.35	922.50			39.37	2059.90	

Total Dissolved Solids= 2802

Ion Balance = 105.01%

WC No. = 8803688

Date out/By 11/14/88

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106

HEAVY METAL ANALYSIS FORM

Telephone: (505)841-2553

Date Received	9/15/88	Lab No.	ICAP 422	User Code	☒ 82235	☐ Other:

COLLECTION DATE & TIME: yy 88 | mm 09 | dd 12 | hh 16 | mm 35

COLLECTED BY: Boyer/OCD

COLLECTION SITE DESCRIPTION: MW #6, TNT Disposal Landfarm

TO:

OWNER:

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg., PO Box 2088
SANTA FE, NM 87504-2088

ATTN: D. Boyer
TELEPHONE: 827-5812

SITE LOCATION:
County: Rio Arriba

Township, Range, Section, Tract: (10N06E24342)
2|5|N+0|3|W+0|8+3|1|~

STATION/ WELL CODE:

LATITUDE, LONGITUDE:

SAMPLING CONDITIONS:

☒ Bailed ☐ Dipped	☐ Pump ☐ Tap	Water Level: 19.81	Discharge:	Sample Type: Grab

pH(00400)	Conductivity(Uncorr.)	Water Temp.(00010)	Conductivity at 25°C (00094)
	2120 µmho	12 °C	µmho

FIELD COMMENTS:

SAMPLE FIELD TREATMENT Check proper boxes:		LAB ANALYSIS REQUESTED:
☒ WPN: Water Preserved w/HNO_3 Non-Filtered	☐ WPF: Water Preserved w/HNO_3 Filtered	☒ ICAP Scan Mark box next to metal if AA is required.

ANALYTICAL RESULTS (MG/L)

ELEMENT	ICAP VALUE	AA	AA VALUE	ELEMENT	ICAP VALUE	AA	AA VALUE
Aluminum	2.0			Silicon	3.9		
Barium	<0.1			Silver	<0.1	☐	
Beryllium	<0.1			Strontium	1.1		
Boron	0.3			Tin	<0.1		
Cadmium	<0.1	☐		Vanadium	<0.1		
Calcium	46.			Zinc	0.1		
Chromium	<0.1	☐		Arsenic		☐	
Cobalt	<0.05			Selenium		☐	
Copper	<0.1			Mercury		☐	
Iron	2.1					☐	
Lead	<0.1	☐				☐	
Magnesium	15.					☐	
Manganese	0.08					☐	
Molybdenum	<0.1					☐	
Nickel	<0.1					☐	

LAB COMMENTS: Digest

For OCD Use:
Date Owner Notified: 10/2/88
Phone or Letter?
Initials: AHB

ICAP Analyst JAA
Date Analyzed 10/12/88

Reviewer
Date Received 10/18/88

*754 WPU

SCIENTIFIC LABORATORY DIVISION

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

STATE OF NEW MEXICO
ENVIRONMENT

87-1717-C

REPORT TO: David Boyer
N.M. Oil Conservation Division
P. O. Box 2088
Santa Fe, N.M. 87504-2088

S.L.D. No. OR-
DATE REC. 10-30-87
PRIORITY 3

PHONE(S): 827-5812 USER CODE: 3 2 2 3 5

SUBMITTER: David Boyer CODE: 2 6 0

SAMPLE COLLECTION CODE: (YYMMDDHHMMIII) 87 10 26 17 00 JR

SAMPLE TYPE: WATER [X], SOIL [ ], FOOD [ ], OTHER: _____ CODE: _____

COUNTY: RIO ARRIBA ; CITY: LINDRITH CODE: _____

LOCATION CODE: (Township-Range-Section-Tracts) _____ (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)
- [X] (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=_____; Conductivity=_____umho/cm at _____°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.)

TNT
ENE MID WELL (MW #7(?) DCB)

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities.(signature collector): JR Method of Shipment to the Lab: Hand

This form accompanies 3 Septum Vials, _____ Glass Jugs, and/or _____ _____

Samples were preserved as follows:

- [X] NP: No Preservation; Sample stored at room temperature.
- [ ] P-Ice Sample stored in an ice bath (Not Frozen).
- [ ] P-$Na_2S_2O_3$ Sample Preserved with Sodium Thiosulfate to remove chlorine residual.

CHAIN OF CUSTODY

I certify that this sample was transferred from _____ to _____

at (location) _____ on ____/____/____ - DEC 18 and that

the statements in this block are correct. Evidentiary Seals: Not Sealed [ ] Seals Intact: Yes [ ] No [X]

Signatures _____ _____

RECEIVED DEC 18 OIL CONSERVATION DIVISION

For OCD Use: Date Owner Notified 3/1 Phone or Letter? Person Initials JR

ANALYSES PERFORMED

LAB. No.: OR- 1717

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]
aromatic purgeables *			
[acetone] +	152		
halogenated purgeables *	N.D.		
* DETECTION LIMIT *	1 ug/L	+ DETECTION LIMIT +	50 ug/L

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: 11/3/87 Analyst's signature: Gary C. Edes

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 Meyerhen

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

WNW 859

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED 10 30 87	LAB NO. WC 4946	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 10 26 87	SITE INFORM-ATION	Sample location TNT	
Collection TIME 1700		Collection site description ENE MID WELL	
Collected by — Person/Agency OLSON / BAILEY / 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

Station/ well code

Owner

SAMPLING CONDITIONS

☒ Bailed ☐ Dipped ☐ Pump ☐ Tap	Water level	Discharge	Sample type
pH (00400)	Conductivity (Uncorrected) μmho	Water Temp. (00010) °C	Conductivity at 25°C (00094) μmho

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 μmembrane filter ☐ A: 2 ml H_2SO_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
☒ Conductivity (Corrected) 25°C (00095)	3518	μmho	12/5
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☐ Other:			
☐ Other:			
☐ Other:			

A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

From NF, NA Sample: Hd 108

			Date Analyzed
☒ Calcium	20.8	mg/l	
☒ Potassium	3.5	mg/l	12/18
☒ Magnesium	13.7	mg/l	
☒ Sodium	945	mg/l	12/18
☒ Bicarbonate	907	mg/l	12/14
☒ Chloride	30.4	mg/l	12/4
☒ Sulfate	1140	mg/l	12/10
☒ Total Solids	2.55e	mg/l	12/15
☐ (CO_3^{-2})	5	mg/l	12/14
☐			
☒ Cation/Anion Balance			

Analyst	Date Reported	Reviewed by
	12/22/87	CE

Laboratory remarks

FOR OCD USE -- Date Owner Notified 3/1 Phone or Letter? Phone Initals VK

CATIONS				ANIONS			
ANALYTE	MEQ.	PPM	DET. LIMIT	ANALYTE	MEQ.	PPM	DET. LIMIT
Ca	1.04	20.80	<3.0	HC03	14.86	907.00	<1.0
Mg	1.13	13.70	<0.3	SO4	23.75	1140.00	<10.0
Na	41.10	945.00	<10.0	CL	0.86	30.4	<5.0
K	0.09	3.51	<0.3				
Mn	0.00	0.00		NO3	0.00	0.00	< 0.
Fe	0.00	0.00		C03	0.00	0.00	< 1.
				NH3	0.00	0.00	< 0.
				PO4	0.00	0.00	< 0.
SUMS	43.36	983.01			39.47	2077.40	

Total Dissolved Solids= 2552

Ion Balance = 109.85%

WC No. = 8704946

Date out/By CE 12/7/87

754
WPH

SCIENTIFIC LABORATORY DIVISION

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

HEALTH ENVIRONMENT — STATE OF NEW MEXICO

87-1714-C

REPORT TO: David Boyer
N.M. Oil Conservation Division
P. O. Box 2088
Santa Fe, N.M. 87504-2088

S.L.D. No. OR-

DATE REC. 10-30-87

PRIORITY 3

PHONE(S): 327-5812

USER CODE: 8 2 2 3 5

SUBMITTER: David Boyer

CODE: 2 6 0

SAMPLE COLLECTION CODE: (YYMMDDHHMMIII) 87 10 26 17 10 FJB

SAMPLE TYPE: WATER ☐, SOIL ☐, FOOD ☐, OTHER: _____ CODE: ___

COUNTY: RIO ARRIBA ; CITY: LINDRITH CODE: _____

LOCATION CODE: (Township-Range-Section-Tracts) ___ + ___ + ___ + ___ (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: TNT N CENT. MW (MW # 9(?) DRB)

FIELD DATA:

pH=_____; Conductivity=_____umho/cm at _____°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.)

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities.(signature collector): _____ Method of Shipment to the Lab: Hand

This 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-$Na_2S_2O_3$ Sample Preserved with Sodium Thiosulfate to remove chlorine residual.

CHAIN 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 3/1 Phone or Letter? Phone Initials JB

ANALYSES PERFORMED

LAB. No.: OR- 1714

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]
aromatic purgeables *			
[acetone] +	660		
halogenated purgeables *	N.D.		
* DETECTION LIMIT *	10 ppb	+ DETECTION LIMIT +	500 ppb

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: 11/6/87 Analyst's signature: Mary C. Eden

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

Reviewers signature: K Meyerhen

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

859 WNW

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED	10 30 87	LAB NO.	WC4942	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER:	82235
Collection DATE	10 26 87	SITE INFORMATION ►		Sample location	TNT
Collection TIME	1710			Collection site description	N. CENT. MONITOR WELL
Collected by — Person/Agency	OLSON/ BAILEY /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

Station/ well code

Owner

SAMPLING CONDITIONS

☒ Bailed ☐ Pump ☐ Dipped ☐ Tap	Water level	Discharge	Sample type
pH (00400)	Conductivity (Uncorrected) µmho	Water Temp. (00010) °C	Conductivity at 25°C (00094) µmho

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 µmembrane filter ☐ **A:** 2 ml H_2SO_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
☒ Conductivity (Corrected) 25°C (00095)	859	µmho	12/5
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☐ Other:			
☐ Other:			
☐ Other:			

A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

From NF, NA Sample: pH 7.0

			Date Analyzed
☒ Calcium	19.2	mg/l	12/15
☒ Potassium	3.12	mg/l	12/18
☒ Magnesium	5.4	mg/l	12/15
☒ Sodium	223	mg/l	12/18
☒ Bicarbonate	449	mg/l	12/14
☒ Chloride	11.9	mg/l	12/14
☒ Sulfate	79.4	mg/l	"
☒ Total Solids	795	mg/l	12/15
☐			
☐			
☒ Cation/Anion Balance			

Analyst	Date Reported	Reviewed by
	12/22/87	CO

Laboratory remarks

FOR OCD USE -- Date Owner Notified 3/1 Phone or Letter? Phone Initals JB

CATIONS				ANIONS			
ANALYTE	MEQ.	PPM	DET. LIMIT	ANALYTE	MEQ.	PPM	DET. LIMIT
Ca	0.96	19.20	<3.0	HC03	7.36	449.00	<1.0
Mg	0.44	5.40	<0.3	SO4	1.65	79.40	<10.0
Na	9.70	223.00	<10.0	CL	0.34	11.9	<5.0
K	0.08	3.12	<0.3				
Mn	0.00	0.00		NO3	0.00	0.00	< 0.
Fe	0.00	0.00		C03	0.00	0.00	< 1.
				NH3	0.00	0.00	< 0.
				PO4	0.00	0.00	< 0.
SUMS	11.18	250.72			9.35	540.30	

Total Dissolved Solids= 795
Ion Balance = 119.61%

WC No. = 8704942
Date out/By 12/22

754 wp4

SCIENTIFIC LABORATORY DIVISION

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

STATE OF NEW MEXICO

87-1715-C

REPORT TO: David Boyer
N.M. Oil Conservation Division
P. O. Box 2088
Santa Fe, N.M. 87504-2088

S.L.D. No. OR-

DATE REC. 10-30-87

PRIORITY 3

PHONE(S): 327-5812

USER CODE: 3 2 2 3 5

SUBMITTER: David Boyer

CODE: 2 6 0

SAMPLE COLLECTION CODE: (YYMMDDHHMMIII) 87 10 26 17 25 95

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

COUNTY: RIO ARRIBA ; CITY: LINDRITH CODE: _____

LOCATION CODE: (Township-Range-Section-Tracts) _____ (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: TNT W CENT. MW [MW 11 (?) DUP]

FIELD DATA:

pH=_____; Conductivity=_____umho/cm at _____°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.)

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities.(signature collector): _____ Method of Shipment to the Lab: Hand

This 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-$Na_2S_2O_3$ Sample Preserved with Sodium Thiosulfate to remove chlorine residual.

CHAIN 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 _____ _____

RECEIVED DEC 19 1987 OCD SANTA FE

For OCD Use: Date Owner Notified 3/1 Phone or Letter? Person Initials JB

ANALYSES PERFORMED

LAB. No.: OR- 1715

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]
aromatics purgeables *			
[acetone]	62		
halogenated purgeables*	N.D.		
* DETECTION LIMIT *	1 ug/L	+ DETECTION LIMIT +	50 ug/L

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: 11/3/87 Analyst's signature: Mary C. Eden

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

Reviewers signature: K Meyerhein

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

859 WNW

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED 10 30 87	LAB NO. WC 4947	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 10 26 87	SITE INFORMATION ►	Sample location TNT	
Collection TIME 1725		Collection site description W CENT MW	
Collected by — Person/Agency OLSON/BAILEY /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

Station/ well code

Owner

SAMPLING CONDITIONS

☒ Bailed ☐ Dipped ☐ Pump ☐ Tap	Water level	Discharge	Sample type
pH (00400)	Conductivity (Uncorrected) μmho	Water Temp. (00010) °C	Conductivity at 25°C (00094) μmho

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 μmembrane filter ☐ A: 2 ml H_2SO_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
☒ Conductivity (Corrected) 25°C (00095)	1154	μmho	12/5
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☐ Other:			
☐ Other:			
☐ Other:			

A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

From ____, NA Sample: Hd 60

			Date Analyzed
☒ Calcium	16	mg/l	
☒ Potassium	1.95	mg/l	12/18
☒ Magnesium	4.9	mg/l	
☒ Sodium	239	mg/l	12/18
☒ Bicarbonate	335	mg/l	12/14
☒ Chloride	4.10	mg/l	12/4
☒ Sulfate	2490	mg/l	12/4
☒ Total Solids	1136	mg/l	12/15
☐			
☐			
☒ Cation/Anion Balance			

Analyst	Date Reported	Reviewed by
	12 22 87	

Laboratory remarks

FOR OCD USE -- Date Owner Notified 3/1 Phone or Letter? Phone Initals JB

CATIONS				ANIONS			
ANALYTE	MEQ.	PPM	DET. LIMIT	ANALYTE	MEQ.	PPM	DET. LIMIT
Ca	0.80	16.00	<3.0	HC03	5.49	335.00	<1.0
Mg	0.40	4.90	<0.3	SO4	5.19	249.00	<10.0
Na	10.40	239.00	<10.0	CL	0.28	10.0	<5.0
K	0.05	1.95	<0.3				
Mn	0.00	0.00		NO3	0.00	0.00	< 0.
Fe	0.00	0.00		C03	0.00	0.00	< 1.
				NH3	0.00	0.00	< 0.
				PO4	0.00	0.00	< 0.
SUMS	11.65	261.85			10.96	594.00	

Total Dissolved Solids= 1136
Ion Balance = 106.27%

WC No. = 8704947
Date out/By CG 12/27

Inter-Mountain Laboratories, Inc.

2506 West Main Street
Farmington, New Mexico 87401
Tel. (505) 326-4737

CLIENT: NMOCD
ID: 9009041620
SITE: MW-13 TW1
LAB NO: F4922

DATE REPORTED: 09/20/90
DATE RECEIVED: 09/06/90
DATE COLLECTED: 09/04/90

Trace metals by AA (dissolved concentration), mg/l

	Analytical Result:	Detection Limit:
Arsenic (As)	ND	<0.005
Cadmium (Cd)	ND	<0.002
Lead (Pb)	ND	<0.005
Selenium (Se)	ND	<0.0002

Trace metals by ICAP (dissolved concentration), mg/l

	Analytical Result:	Detection Limit:
Silver (Ag)	ND	<0.01
Aluminum (Al)	ND	<0.1
Boron (B)	0.27	<0.01
Barium (Ba)	0.08	<0.05
Cobalt (Co)	ND	<0.01
Chromium (Cr)	ND	<0.02
Copper (Cu)	0.01	<0.01
Iron (Fe)	ND	<0.05
Manganese (Mn)	0.17	<0.02
Molybdenum (Mo)	ND	<0.01
Nickel (Ni)	ND	<0.01
Antimony (Sb)	1.1	<0.05
Silicon (Si)	4.3	<0.05
Thallium (Tl)	ND	<0.2
Vanadium (V)	ND	<0.1
Zinc (Zn)	0.31	<0.01

ND - Analyte "not detected" at the stated detection limit.

C. Neal Schaeffer
Lab Director

Inter·Mountain
Laboratories, Inc.

2506 West Main Street
Farmington, New Mexico 87401
Tel. (505) 326-4737

CLIENT:	NMOCD	DATE REPORTED:	09/27/90
ID:	9009041620	DATE ANALYZED:	09/12/90
SITE:	MW-13	DATE RECEIVED:	09/06/90
LAB NO:	F4922	DATE COLLECTED:	09/04/90

Analysis Requested: Purgeable aromatics in water.

Parameter	Concentration	Units
Benzene	ND (0.2)	ug/l
Toluene	ND (0.2)	ug/l
Ethylbenzene	ND (0.2)	ug/l
m/p-Xylene	ND (0.2)	ug/l
o-Xylene	ND (0.2)	ug/l
1,4-Dichlorobenzene	ND (0.2)	ug/l
1,3-Dichlorobenzene	ND (0.2)	ug/l
1,2-Dichlorobenzene	ND (0.2)	ug/l
Chlorobenzene	ND (0.2)	ug/l
Surrogate recovery	97.2 %	

Method:
8020 Aromatic Volatile Organics, SW-846, USEPA (1982).
602 Purgeable Aromatics, 40 CFR, Part 136.

(Detection limit in parenthesis.)
ND - Parameter not detected at the stated detection limit.

C. Neal Schaeffer
Senior Chemist

Inter-Mountain Laboratories, Inc.

2506 West Main Street
Farmington, New Mexico 87401
Tel. (505) 326-4737

CLIENT:	NMOCD	DATE REPORTED:	09/20/90
ID:	9009041620		
SITE:	MW-13	DATE RECEIVED:	09/06/90
LAB NO:	F4922	DATE COLLECTED:	09/04/90

Lab pH (s.u.)	7.79	
Lab conductivity, umhos/cm	21300	
Lab resistivity, ohm-m	0	
Total dissolved solids (180), mg/l	20010	
Total dissolved solids (calc), mg/l	17130	
Total alkalinity as CaCO3, mg/l	584	
Total acidity as CaCO3, mg/l	0	
Total hardness as CaCO3, mg/l	6850	
Sodium absorption ratio	19	
	mg/l	meq/l
Bicarbonate as HCO3	714	12
Carbonate as CO3	0	0
Chloride	7940	224
Sulfate	3020	63
Calcium	1080	54
Magnesium	1010	83
Potassium	22	1
Sodium	3700	161
Major cations		298
Major anions		299
Cation/anion difference		0 %

Inter-Mountain Laboratories, Inc.

2506 West Main Street
Farmington, New Mexico 87401
Tel. (505) 326-4737

OIL CONSERVATION DIVISION
RECEIVED
'90 OCT 1 AM 11 15

CLIENT: NMOCD
ID: 9009041620
SITE: MW-13 TNT
LAB NO: F4922

DATE REPORTED: 09/27/90
DATE ANALYZED: 09/12/90
DATE RECEIVED: 09/06/90
DATE COLLECTED: 09/04/90

Analysis Requested: Purgeable halocarbons in water.

Parameter	Concentration
Chloromethane, ug/l	ND (1.0)
Bromomethane, ug/l	ND (1.0)
Dichlorodifluoromethane, ug/l	ND (1.0)
Vinyl chloride, ug/l	ND (1.0)
Chloroethane, ug/l	ND (1.0)
Dichloromethane (methylene chloride)	ND (1.0)
Trichlorofluoromethane, ug/l	ND (1.0)
1,1-dichloroethene, ug/l	ND (1.0)
1,1-dichloroethane, ug/l	ND (1.0)
trans-1,2-dichloroethene, ug/l	ND (1.0)
cis-1,2-dichloroethene, ug/l	ND (1.0)
Chloroform, ug/l	ND (1.0)
1,2-dichloroethane, ug/l	ND (1.0)
1,1,1-trichloroethane, ug/l	ND (1.0)
Carbon tetrachloride, ug/l	ND (1.0)
Bromodichloromethane, ug/l	ND (1.0)
Bromochloromethane, ug/l	ND (1.0)
1,2-Dichloropropane, ug/l	ND (1.0)
1,3-Dichloropropane, ug/l	ND (1.0)
1,2-Dibromoethane, ug/l	ND (1.0)
1,2-Dibromo-3-chloropropane, ug/l	ND (1.0)
Trichloroethene, ug/l	ND (1.0)
Dibromochloromethane, ug/l	ND (1.0)
1,1,2-Trichloroethane, ug/l	ND (1.0)
1,1-dichloropropene, ug/l	ND (1.0)
2-chloroethyl vinyl ether, ug/l	ND (1.0)
Bromoform, ug/l	ND (1.0)
1,1,1,2-tetrachloroethane, ug/l	ND (1.0)
1,1,2,2-tetrachloroethane, ug/l	ND (1.0)
Tetrachloroethene, ug/l	ND (1.0)
Chlorobenzene, ug/l	ND (1.0)
1,3-dichlorobenzene, ug/l	ND (1.0)
1,2-dichlorobenzene, ug/l	ND (1.0)
1,4-dichlorobenzene, ug/l	ND (1.0)
bis(2-cloroisopropyl)ether, ug/l	ND (1.0)
Bromobenzene, ug/l	ND (1.0)
2-Chlorotoluene, ug/l	ND (1.0)
Dibromomethane, ug/l	ND (1.0)
1,2,3-Trichloropropane, ug/l	ND (1.0)

Method:
601 Purgeable Halocarbons, 40 CFR Part 136, USEPA (1984).
8010 Halogenated Volatile Organics, SW-846, USEPA (1982).
(Detection limit in parenthesis.)
ND - Parameter not detected at the stated detection limit.

C. Neal Schaeffer
Senior Chemist

Inter·Mountain Laboratories, Inc.

OIL CONSERVATION DIVISION
RECEIVED
90 MAR 5 AM 9 42

CLIENT: OCD - TNT
SAMPLE: 8907[illegible]
SITE: MW-13
LAB NO: F1834

DATE REPORTED: 08/21/89
DATE RECEIVED: 08/01/89
DATE COLLECTED: 07/31/89

Lab pH	8.10
Lab Conductivity, umhos/cm	16204
Lab resistivity, ohm-m	0.6171
Total Dissolved Solids (180), mg/l	13970
Total Dissolved Solids (calc), mg/l	13089
Total Alkalinity as CaCO3, mg/l	245.63
Total Acidity as CaCO3, mg/l	0.00
Total Hardness as CaCO3, mg/l	4262.48
Sodium Absorption Ratio	21.28
Fluoride, mg/l	0.16

	mg/l	meq/l
Bicarbonate as HCO3	299.67	4.91
Carbonate as CO3	0.00	0.00
Chloride	5934.33	167.40
Sulfate	2407.27	50.15
Calcium	912.56	45.54
Magnesium	482.91	39.71
Potassium	11.20	0.29
Sodium	3193.60	138.91
Major Cations		224.45
Major Anions		222.46
Cation/Anion Difference		0.44 %

C. Neal Schaeffer
Senior Chemist

From IML by Phone

HCO_3	300
CO_3	0
CL	6000
SO4	2400
Ca	900
Mg	480
K	11
Na	3200
TDS (180)	14,000

T-N-T Disposal 7/31/89

(1) Monitor well 13 had slicks
No odor of H_2S or aromatics
Salty taste
Makes ~5 gallons/day.

First water ~7/20. Old
mud pit has water
due to rainfall init
being dried out.

Tony will ~~pull~~ pump out
and core and see
if water stops, if not
will have to work on
pond.
Sample SO1 +/- IML 1834
8907311745

(2) New pond ready to go
except for monitor wells.
* Jim Gurney told to contact
us before drilling, told
Tony not to spray or add
slicks to new pond until
wells in * 325-8181

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

STATE OF NEW MEXICO
ENVIRONMENT

RECEIVED
SEP 1 1986
OIL CONSERVATION DIVISION
SANTA FE

86-0932-C

REPORT TO: DAVID BOYER
NM OIL CONSERVATION DIV
STATE LAND OFFICE BLDG, PO BOX 2088
SANTA FE, NM 87504-2088

S.L.D. No. OR-_____
DATE REC. 8-15-86
PRIORITY _____

PHONE(S): 827-5812
USER CODE: 82235
SUBMITTER: DAVID BOYER
CODE: 2601

SAMPLE COLLECTION CODE: (YYMMDDHHMMIII) 860818071035 DMS

SAMPLE TYPE: WATER [X], SOIL [ ], FOOD [ ], OTHER:_____ CODE: ___

COUNTY: RIO ARRIBA; CITY: LINDRITH CODE: ___

LOCATION CODE: (Township-Range-Section-Tracts) 25N+03W+18+23 (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

- [X] (753) Aliphatic Purgeables (1-3 Carbons)
- [X] (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: SCHALK OJITO #1 DAKOTA FM. PRODUCED WATER

FIELD DATA:

pH=_____; Conductivity=26000umho/cm at 58-60 °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.)

UNICHEM HB 410 USED TO TREAT WELL

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities.(signature collector): [signature] Method of Shipment to the Lab: Hand Carried

This form accompanies 2 Septum Vials, _____ Glass Jugs, and/or _____ _____

Samples were preserved as follows:

- [ ] NP: No Preservation; Sample stored at room temperature.
- [X] P-Ice Sample stored in an ice bath (Not Frozen).
- [ ] P-$Na_2S_2O_3$ Sample Preserved with Sodium Thiosulfate to remove chlorine residual.

CHAIN 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 _____ _____

ANALYSES PERFORMED

LAB. NO. OR- 932

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]
benzene	10000		
toluene	19000		
ethylbenzene	720		
p-xylene	1200		
m-xylene	5100		
o-xylene	1800		
halogenated purgeables	none detected		
* DETECTION LIMIT * ✳	20 ppb	+ 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: This sample had a small bubble of headspace.

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 on this page accurately reflect the analytical results for this sample.

Date(s) of analysis: 16 Aug 86. Analyst's 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: _____

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 | 15 | 86 LAB NO. WC-3690 USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235

Collection DATE 8 | 7 | 86

Collection TIME 1055

Collected by — Person/Agency BOYER/OCD

SITE INFORMATION ►

Sample location SCHACK ONITO #1

Collection site description S T25N R3W 2160 FNL + 1900 FEL

DAKOTA FM PRODUCED WATER

RECEIVED
SEP 22 1986
OIL CONSERVATION DIVISION
SANTA FE

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

Station/well code

Owner

SAMPLING CONDITIONS

☐ Bailed ☒ Pump ☐ Dipped ☐ Tap	Water level	Discharge	Sample type
pH (00400)	Conductivity (Uncorrected) 26000 µmho	Water Temp. (00010) 58-60°C	Conductivity at 25°C (00094) µmho

Field comments UNICHEM HC 4110 USED TO TREAT WELL

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted 1

☒ NF: Whole sample (Non-filtered) ☐ F: Filtered in field with 0.45 µmembrane filter ☐ A: 2 ml H_2SO_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

NF, NA	Units	Date analyzed	F, NA		Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)	µmho		☒ Calcium (00915)	194.4	mg/l	8-27
			☒ Magnesium (00925)	40.2	mg/l	"
			☒ Sodium (00930)	5400	mg/l	"
			☒ Potassium (00935)	110	mg/l	"
☐ Total non-filterable residue (suspended) (00530)	mg/l		☒ Bicarbonate (00440)	438	mg/l	8/22
☒ Other: pH (Lab)	7.35	8/22	☒ Chloride (00940)	7569	mg/l	9/4
☐ Other:			☒ Sulfate (00945)	1176	mg/l	9/23
☐ Other:			☒ Total filterable residue (dissolved) (70300)	14,598	mg/l	8/18
			☒ Other: CO_3			

NF, A-H_2SO_4			F, A-H_2SO_4		
☐ Nitrate-N +, Nitrate-N total (00630)	mg/l		☐ Nitrate-N +, Nitrate-N dissolved (00631)	mg/l	
☐ Ammonia-N total (00610)	mg/l		☐ Ammonia-N dissolved (00608)	mg/l	
☐ Total Kjeldahl-N ( )	mg/l		☐ Total Kjeldahl-N ( )	mg/l	
☐ Chemical oxygen demand (00340)	mg/l		☐ Other:		
☐ Total organic carbon ( )	mg/l				
☐ Other:					
☐ Other:					

Analyst | Date Reported 9 | 15 | 86 | Reviewed by

Laboratory remarks

SLD 726 (12/84)

FOR OCD USE -- Date Owner Notified 10/31 Phone or (letter?) _____ Initials JB

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

PN

HEAVY METALS

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED 8 15 86	LAB NO. HM-1549	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 8 7 86	SITE INFORMATION ►	Sample location SCHACK ONITO #1	
Collection TIME 1055		Collection site description 8 T25N R3W	
Collected by — Person/Agency BOYER/OCD		DAKOTA FM PRODUCED WATER	

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

RECEIVED
SEP 11 1986
OIL CONSERVATION DIVISION
SANTA FE

Station/ well code

Owner

SAMPLING CONDITIONS

☐ Bailed ☒ Pump ☐ Dipped ☐ Tap	Water level	Discharge	Sample type
pH (00400)	Conductivity (Uncorrected) 26000 µmho	Water Temp. (00010) 60 °C	Conductivity at 25°C (00094) µmho

Field comments

Unichem HR-410 used to treat well

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted 1

☒ NF: Whole sample (Non-filtered) ☐ F: Filtered in field with 0.45 µmembrane filter ☐ A: 2 ml H_2SO_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

~~NF, NA~~ NF, A	Units	Date analyzed	F, NA	Units	Date analyzed
☒ ~~Conductivity (Corrected) 25°C (00095)~~	µmho		Calcium (00915)	mg/l	
☒ ICAP			Magnesium (00925)	mg/l	
☐ Total non-filterable residue (suspended) (00530)	mg/l		Sodium (00930)	mg/l	
☒ Other: As			Potassium (00935)	mg/l	
☒ Other: Se			Bicarbonate (00440)	mg/l	
☒ Other: Hg			Chloride (00940)	mg/l	
			Sulfate (00945)	mg/l	
			Total filterable residue (dissolved) (70300)	mg/l	
			☐ Other:		

NF, A-H_2SO_4

☐ Nitrate-N +, Nitrate-N total (00630)	mg/l	
☐ Ammonia-N total (00610)	mg/l	
☐ Total Kjeldahl-N ( )	mg/l	
☐ Chemical oxygen demand (00340)	mg/l	
☐ Total organic carbon ( )	mg/l	
☐ Other:		
☐ Other:		

F, A-H_2SO_4

☐ Nitrate-N +, Nitrate-N dissolved (00631)	mg/l	
☐ Ammonia-N dissolved (00608)	mg/l	
☐ Total Kjeldahl-N ( )	mg/l	
☐ Other:		

Analyst	Date Reported	Reviewed by

Laboratory remarks

Sample Digested

SLD 726 (12/84)

FOR OCD USE -- Date Owner Notified 10/31 Phone or (letter)? _____ Initials JB

Lab Number: HM 1549 Sample Code: Schalk

Date Submitted: 8/15/86 Date Analyzed: 8/27/86

By: Boyer Reviewed By: Jim Kelly

Date Reported: 8/29/86

Element	ICAP VALUE(MG/L)	AA VALUE(MG/L)
Aluminum	<0.1	
Barium	0.8	
Berylium	<0.1	
Boron	2.7	
Cadmium	<0.1	
Calcium	220.	
Chromium	<0.1	
Cobalt	<0.1	
Copper	<0.1	
Iron	25.	
Lead	<0.1	
Magnesium	23.	
Manganese	0.35	
Molybdenum	<0.1	
Nickel	<0.1	
Silicon	11.	
Silver	<0.1	
Strontium	12.	
Tin	<0.1	
Vanadium	<0.1	
Zinc	<0.1	
Arsenic		<0.005
Selenium		<0.005
Mercury		<0.0005

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 15 86	LAB NO. WC-3689	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 8 7 86	SITE INFORMATION ►	Sample location: SCHALK WELL 41-2	
Collection TIME 1035		Collection site description: SCHALK 41-2 25N R3W MESA VERDE FM	
Collected by — Person/Agency: BOYER /OCD			

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SEND FINAL REPORT TO ►
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NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87504-2088
Attn: David Boyer
Phone: 827-5812

Station/ well code:
Owner:

SAMPLING CONDITIONS

☐ Bailed ☒ Pump ☐ Dipped ☐ Tap	Water level	Discharge	Sample type
pH (00400)	Conductivity (Uncorrected) 3700 µmho	Water Temp. (00010) 26 °C	Conductivity at 25°C (00094) µmho

Field comments: WELL SOAPED TO IMPROVE PRODUCTION; SAMPLE FOAMY BUT SETTLED AND DECANTED

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 H_2SO_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

NF, NA		Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)		µmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☒ Other: pH (Lab)	6.92		8/18
☐ Other:			
☐ Other:			

F, NA		Units	Date analyzed
☒ Calcium (00915)	14	mg/l	8-27
☒ Magnesium (00925)	1.2	mg/l	"
☒ Sodium (00930)	1541	mg/l	"
☒ Potassium (00935)	15.9	mg/l	"
☒ Bicarbonate (00440)	787	mg/l	8/18
☒ Chloride (00940)	2047	mg/l	9/9
☒ Sulfate (00945)	< 1.0	mg/l	8/22
☒ Total filterable residue (dissolved) (70300)	4898	mg/l	8/19
☒ Other: CO_3	0		8/18

NF, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, A-H_2SO_4		
☐ Nitrate-N +, Nitrate-N dissolved (00631)		mg/l
☐ Ammonia-N dissolved (00608)		mg/l
☐ Total Kjeldahl-N ( )		mg/l
☐ Other:		

Analyst	Date Reported	Reviewed by
	9 15 86	CO

Laboratory remarks:

SLD 726 (12/84)

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

PN

HEAVY METALS

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED 8 15 86	LAB NO. HM-1548	USER CODE L 59800 T 59800 XX	OTHER: 82235
Collection DATE 8 7 86	SITE INFORMATION	Sample location SCHALK WELL 41-2	
Collection TIME 1035		Collection site description SCHALK 41-2 S T25N R3W MESA VERDE FM.	
Collected by — Person/Agency BOYER/OCD			

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

Attn: David Boyer

Phone: 827-5812

Station/ well code

Owner

SAMPLING CONDITIONS

☐ Bailed ☒ Pump ☐ Dipped ☐ Tap	Water level	Discharge	Sample type
pH (00400)	Conductivity (Uncorrected) 3700 µmho	Water Temp. (00010) 26 °C	Conductivity at 25°C (00094) µmho

Field comments: WELL SOAPED TO IMPROVE PRODUCTION; SAMPLE FOAMY BUT SETTLED AND DECANTED

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 1

☒ NF: Whole sample (Non-filtered) ☐ F: Filtered in field with 0.45 µmembrane filter ☐ A: 2 ml H_2SO_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

NF, NA NF, A	Units	Date analyzed
~~☒ Conductivity (Corrected) 25°C (00095)~~	µmho	
☒ ICAP		
☐ Total non-filterable residue (suspended) (00530)	mg/l	
☒ Other: As		
☒ Other: Se		
☒ Other: Hg		

F, NA	Units	Date analyzed
☐ Calcium (00915)	mg/l	
☐ Magnesium (00925)	mg/l	
☐ Sodium (00930)	mg/l	
☐ Potassium (00935)	mg/l	
☐ Bicarbonate (00440)	mg/l	
☐ Chloride (00940)	mg/l	
☐ Sulfate (00945)	mg/l	
☐ Total filterable residue (dissolved) (70300)	mg/l	
☐ Other:		

NF, A-H_2SO_4	Units	Date analyzed
☐ Nitrate-N +, Nitrate-N total (00630)	mg/l	
☐ Ammonia-N total (00610)	mg/l	
☐ Total Kjeldahl-N ( )	mg/l	
☐ Chemical oxygen demand (00340)	mg/l	
☐ Total organic carbon ( )	mg/l	
☐ Other:		
☐ Other:		

F, A-H_2SO_4	Units	Date analyzed
☐ Nitrate-N +, Nitrate-N dissolved (00631)	mg/l	
☐ Ammonia-N dissolved (00608)	mg/l	
☐ Total Kjeldahl-N ( )	mg/l	
☐ Other:		

Analyst | Date Reported 8 29 86 | Reviewed by

Laboratory remarks: Sample Digested

SLD 726 (12/84)

FOR OCD USE -- Date Owner Notified 10/31 Phone or (letter)? TM Initials JB

Lab Number: FM 1548

Sample Code: Schalk Well 41-2

Date Submitted: 8/15/86

Date Analyzed: 8/27/86

By: Boyer

Reviewed By: Jim Ashby

Date Reported: 8/29/86

Element	ICAP VALUE(MG/L)	AA VALUE(MG/L)
Aluminum	<0.1	
Barium	1.6	
Berylium	<0.1	
Boron	0.6	
Cadmium	<0.1	
Calcium	12.	
Chromium	<0.1	
Cobalt	<0.1	
Copper	<0.1	
Iron	11.	
Lead	<0.1	
Magnesium	1.7	
Manganese	0.13	
Molybdenum	<0.1	
Nickel	<0.1	
Silicon	1.1	
Silver	<0.1	
Strontium	1.3	
Tin	<0.1	
Vanadium	<0.1	
Zinc	<0.1	
Arsenic		<0.005
Selenium		<0.005
Mercury		<0.0005