

**NM1 - 8**

**GENERAL  
CORRESPONDENCE**

**YEAR(S):**

**2014-2016**

State of New Mexico  
Energy, Minerals and Natural Resources Department

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**Susana Martinez**  
Governor

**David Martin**  
Cabinet Secretary

**Brett F. Woods, Ph.D.**  
Deputy Cabinet Secretary

**David R. Catanach, Division Director**  
Oil Conservation Division



September 29, 2015

Craig and Tony Schmitz  
T-n-T Environmental, Inc.  
HCR 74 Box 113  
Lindrieth, New Mexico 87029

**RE: Cell 2 Soil Reuse Denial Clarification Letter  
T-n-T Environmental, Inc.  
Permit NM1-008 (Evaporation Ponds and Landfarm)  
Location: SE/4 of Section 7 and SW/4 of Section 8 (evaporation ponds) and the  
SW/4 SE/4 and SE/4 NW/4 of Section 5 and NE/4 NW/4 of 8 (landfarm), Township  
25 North, Range 3 West, NMPM, Rio Arriba County, New Mexico**

Dear Mr. Schmitz:

The Oil Conservation Division (OCD) has received and completed the review of T-n-T Environmental, Inc.'s (T-n-T) letter, dated September 21, 2015, requesting for OCD to clarify its denial to remove the soils within Cell 2 to reuse the soils for the stabilization/solidification of incoming liquid waste and to reuse the soils for rebuilding and maintaining landfarm cell berm integrity.

As stated in OCD's September 10, 2015 review "OCD is also unable to consider the request "to remove the soils within Cell 2 to reuse the soils for the stabilization/solidification of incoming liquid waste and to reuse the soils for rebuilding and maintaining landfarm cell berm integrity." OCD was unable to locate a condition with the existing that specifically addressed such actions. Pursuant to Paragraph (1) of 19.15.36.15.G NMAC, "If the operator achieves the closure performance standards specified in Subsection F of 19.15.36.15 NMAC, then the operator may either leave the treated soils in place, or, with prior division approval, dispose or reuse of the treated soils in an alternative manner." The laboratory analytical results provided with the submittal are insufficient for OCD to consider the request. Future reuse request should include the estimated volume of soils proposed for removal and reuse and a written description of how the soils will be managed and where they will be stockpiled within the facility."

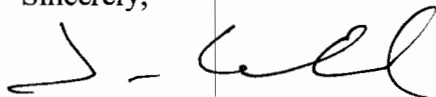
Pursuant to Subsection F of 19.15.36.15 NMAC, "The operator shall demonstrate compliance with the closure performance standards by collecting and analyzing a minimum of one composite soil sample, consisting of four discrete samples. (1) Benzene, as determined by EPA SW-846 method 8021B or 8260B, shall not exceed 0.2 mg/kg. (2) Total BTEX, as determined by EPA SW-846 method 8021B or 8260B, shall not exceed 50 mg/kg. (3) The GRO and DRO combined fractions, as determined by EPA SW-846 method 8015M, shall not exceed 500 mg/kg. TPH, as determined by EPA method 418.1 or other EPA method approved by the division, shall

not exceed 2500 mg/kg. (4) Chlorides, as determined by EPA method 300.1, shall not exceed 500 mg/kg if the landfarm is located where ground water is less than 100 feet but at least 50 feet below the lowest elevation at which the operator will place oil field waste or 1000 mg/kg if the landfarm is located where ground water is 100 feet or more below the lowest elevation at which the operator will place oil field waste. (5) The concentration of constituents listed in Subsections A and B of 20.6.2.3103 NMAC shall be determined by EPA SW-846 methods 6010B or 6020 or other methods approved by the division. If the concentration of those constituents exceed the PQL or background concentration, the operator shall either perform a site specific risk assessment using EPA approved methods and shall propose closure standards based upon individual site conditions that protect fresh water, public health, safety and the environment, which shall be subject to division approval or remove pursuant to Paragraph (2) of Subsection G of 19.15.36.15 NMAC.” The laboratory results provided in the August 27, 2015 request did not include results for all of the “constituents listed in Subsections A and B of 20.6.2.3103 NMAC” as “determined by EPA SW-846 methods 6010B or 6020.” The request also did not provide the comparison to “the PQL or background concentration.” OCD recommends that T-n-T obtain the most recent versions of EPA methods 6010 and/or 6020 and compare the analytes listed in the EPA methods to the “constituents listed in Subsections A and B of 20.6.2.3103 NMAC” to determine which 12 metals require demonstrating. Please ensure OCD has accepted the background concentrations and/or PQLs for the constituents prior to the request.

T-n-T’s August 27, 2015 request included results for major cations and anions instead of the “constituents listed in Subsections A and B of 20.6.2.3103 NMAC” as “determined by EPA SW-846 methods 6010B or 6020.” The laboratory analytical results provided with the submittal were insufficient for OCD to consider the request, because they did not include all the constituents required for the demonstration and the comparison to “the PQL or background concentration.” Future reuse request should include the estimated volume of soils proposed for removal and reuse and a written description of how the soils will be managed and where they will be stockpiled within the facility.

Might I suggest that T-n-T consider retaining appropriately skilled and experienced assistance in developing and executing a compliance monitoring program. If there are any questions regarding this matter, please do not hesitate to contact Brad Jones of my staff at (505) 476-3487 or [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us).

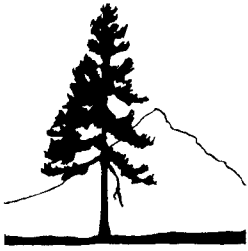
Sincerely,



Jim Griswold  
Environmental Bureau Chief

JG/baj

cc: OCD District III Office, Aztec



T-n-T Environmental

HCR 74 Box 113 - Lindriith, NM 87029  
OCD Permit • NM 01 0008

2015-09-24 10:00

2015-09-24 10:00

September 21, 2015,

Attn: Brad Jones

OCD

1220 South St. Francis Drive  
Santa Fe, N M 87505

RE: O.C.D September 10, 2015 letter

Dear Mr. Brad Jones

T-n-T sent OCD a letter dated August 27, 2015 requesting treatment zone closure performance standards on cell # 2. This letter is in response to your letter dated Sept. 10, 2015

As to your statement OCD is unable to consider the request for "for closure status". T-n-T was not asking for closure of cell #2 as you can see in the August 27, 2015 letter the intent for the use of the soil was plainly described, T-n-T was requesting to reuse the soils as stated and has meet the treatment zone closure performance standards.

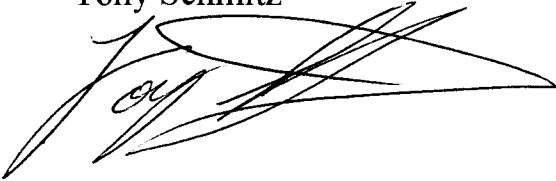
In your letter T-n-T was approved to add an additional 6" lift but was denied to reuse soil for stabilization/solidification on incoming liquid waste and to reuse the soils for rebuilding and maintaining cell berm integrity. Your reason for denial was due to "the laboratory analytical results provided with the submittal are insufficient for OCD to consider the request". With this letter and future denials would you please be more specific on what part of the denied request is insufficient. As in your letter dated Sept. 10, 2015 what laboratory analytical results are insufficient? IE: type of test, Results of the test, wrong test, missing test etc.?

Sincerely,

Craig Schmitz

A handwritten signature in black ink, appearing to be 'Craig Schmitz', written in a cursive style with a long horizontal stroke extending to the right.

Tony Schmitz

A handwritten signature in black ink, appearing to be 'Tony Schmitz', written in a cursive style with multiple overlapping strokes and a long horizontal stroke extending to the right.

State of New Mexico  
Energy, Minerals and Natural Resources Department

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**Susana Martinez**  
Governor

**David Martin**  
Cabinet Secretary

**Brett F. Woods, Ph.D.**  
Deputy Cabinet Secretary

**David R. Catanach, Division Director**  
Oil Conservation Division



September 10, 2015

Craig and Tony Schmitz  
T-n-T Environmental, Inc.  
HCR 74 Box 113  
Lindrith, New Mexico 87029

**RE: Cell Closure, Soil Reuse, and Additional Lift Request Review – Cell 2  
T-n-T Environmental, Inc.  
Permit NM1-008 (Evaporation Ponds and Landfarm)  
Location: SE/4 of Section 7 and SW/4 of Section 8 (evaporation ponds) and the  
SW/4 SE/4 and SE/4 NW/4 of Section 5 and NE/4 NW/4 of 8 (landfarm), Township  
25 North, Range 3 West, NMPM, Rio Arriba County, New Mexico**

Dear Mr. Schmitz:

The Oil Conservation Division (OCD) has received and completed the review of T-n-T Environmental, Inc.'s (T-n-T) letter, dated August 27, 2015, requesting closure status of Cell 2, to remove the soils within Cell 2 to reuse the soils for the stabilization/solidification of incoming liquid waste and to reuse the soils for rebuilding and maintaining landfarm cell berm integrity. It also requested permission to add an additional six-inch lift to the above referenced landfarm cell.

OCD is unable to consider the request for "closure status." In accordance with the closure conditions of the existing permit, NM1-008, would require the operator submit a closure plan to the OCD for approval and states that "Closure will be pursuant to all OCD requirements in effect at the time of closure, and any other applicable local, state and/or federal regulations." Pursuant to 19.15.36.18.A NMAC, OCD would also have to consider the "cessation of operations" of Cell 2. OCD has not received or approved a closure plan for Cell 2 and the laboratory results do not demonstrate compliance to the treatment zone closure performance standards of Subsection F of 19.15.36.15 NMAC. Since T-n-T is also requesting the approval to apply an additional six-inch lift to Cell 2, OCD does not believe this is T-n-T's intent to pursue or seek closure of Cell 2.

OCD is also unable to consider the request "to remove the soils within Cell 2 to reuse the soils for the stabilization/solidification of incoming liquid waste and to reuse the soils for rebuilding and maintaining landfarm cell berm integrity." OCD was unable to locate a condition with the existing that specifically addressed such actions. Pursuant to Paragraph (1) of 19.15.36.15.G NMAC, "If the operator achieves the closure performance standards specified in Subsection F of 19.15.36.15 NMAC, then the operator may either leave the treated soils in place, or, with prior division approval, dispose or reuse of the treated soils in an alternative manner." The laboratory analytical results provided with the submittal are insufficient for OCD to consider the request. Future reuse request should include the estimated volume of soils proposed for removal and

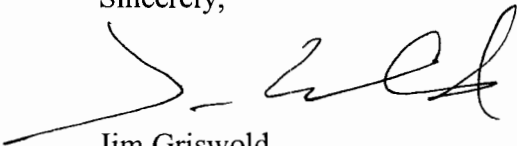
reuse and a written description of how the soils will be managed and where they will be stockpiled within the facility.

In accordance with Condition 7, under the heading Landfarm Operations, of the existing permit, "Successive lifts of contaminated soils or drilling mud may not be spread until a laboratory measurement of total petroleum hydrocarbons (TPH) in the previous lift is less than 100 parts per million (ppm), the sum of all aromatic hydrocarbons (BTEX) is less than 50 ppm, and benzene is less than 10 ppm. Comprehensive records of the laboratory analyses and the sampling locations must be maintained at the facility. Authorization from the OCD must be obtained prior to application of successive lifts and/or removal of the remediated soils." Pursuant to Subsection D of 19.15.36.15 NMAC, the operator must also demonstrate "that the chloride concentration, as determined by EPA method 300.1, does not exceed 500 mg/kg if the landfarm is located where ground water is less than 100 feet but at least 50 feet below the lowest elevation at which the operator will place oil field waste or 1000 mg/kg if the landfarm is located where ground water is 100 feet or more below the lowest elevation at which the operator will place oil field waste." Based upon the analytical results provided, OCD hereby grants T-n-T approval to apply an additional six-inch lift of contaminated soils to Cell 2.

Please be advised that approval of this request does not relieve T-n-T of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve T-n-T of its responsibility to comply with any other applicable governmental authority's rules and regulations.

If there are any questions regarding this matter, please do not hesitate to contact Brad Jones of my staff at (505) 476-3487 or [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us).

Sincerely,

A handwritten signature in black ink, appearing to read 'Jim Griswold', is written over a horizontal line.

Jim Griswold  
Environmental Bureau Chief

JG/baj

cc: OCD District III Office, Aztec



T-n-T Environmental

HCR 74 Box 113 - Lindriith, NM 87029  
OCD Permit • NM 01 0008

RECEIVED OCD

2015 SEP-3 P 3: 20

August 27, 2015

Attn: Brad Jones

OCD

1220 South St. Francis Drive  
Santa Fe, N M 87505

RE: Cell 2 closure request

Dear Mr. Brad Jones

T-n-T Environmental is requesting closure status for cell #2 to stock pile for mixing of liquid material and to use in our land farm to maintain cell dikes. We are also requesting to add an additional six inch lift.

This sample consists of one four point composite sample.

Enclosed are the lab results and map for cell #2 to meet closure standards.

Sincerely,

Craig Schmitz

Tony Schmitz



Hwy 537

T-NUT ENVIRONMENTAL INC

70 COTO RD

LAUDERHILL FL 33409

HAND FARM MAP

PERMIT 33401-0008

SEC. 548 T25N T3W

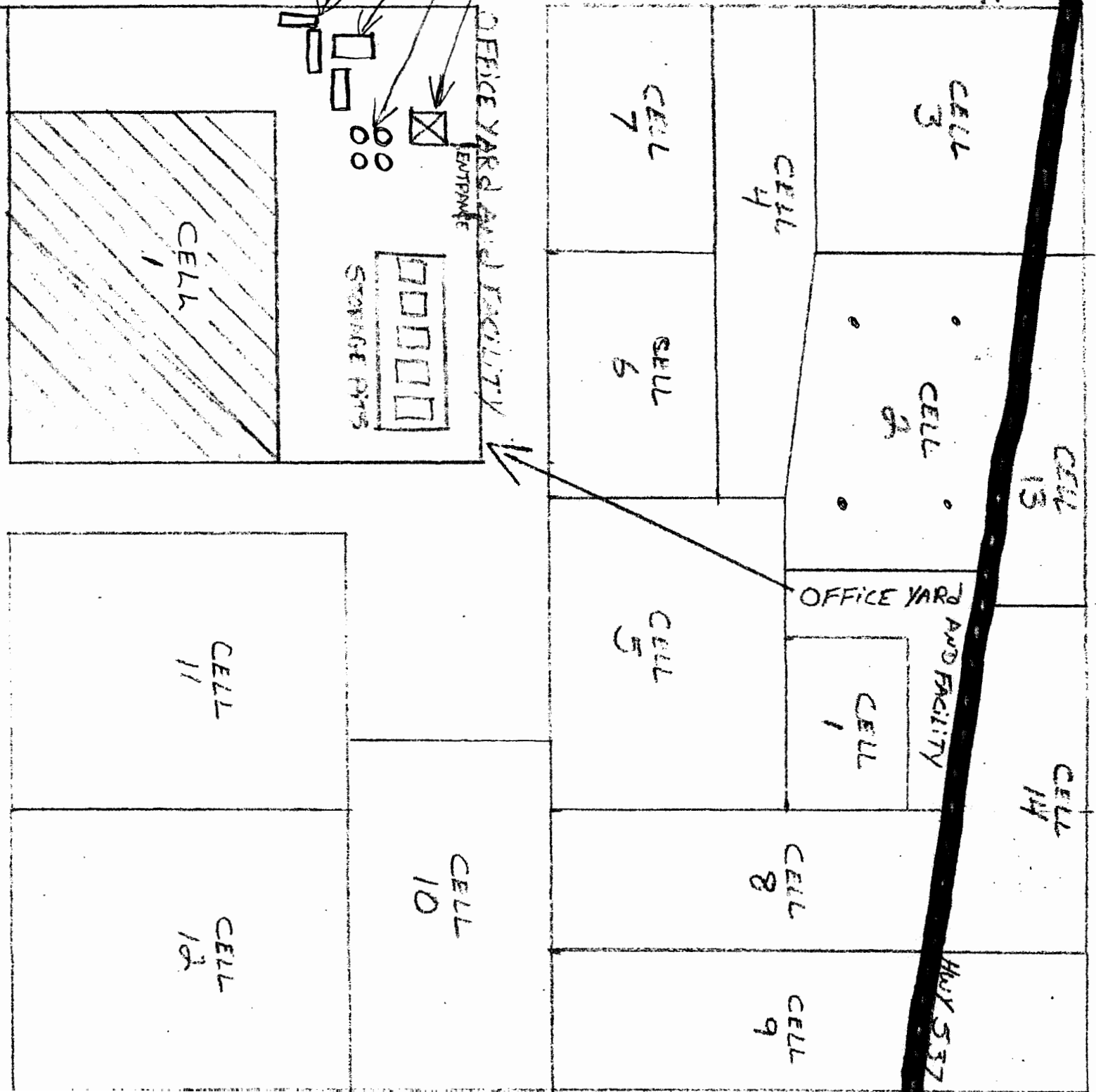
OFFICE

STORAGE TANK'S

SETTLING TROUGH

DRAIN DITCH

DATE 2015



August 26, 2015

CRAIG SCHMITZ

T-N-T ENVIRONMENTAL

70 OJITO ROAD

LINDRITH, NM 87029

RE: LANDFARM

Enclosed are the results of analyses for samples received by the laboratory on 08/07/15 10:44.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Total Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**T-N-T ENVIRONMENTAL  
70 OJITO ROAD  
LINDRITH NM, 87029Project: LANDFARM  
Project Number: NOT GIVEN  
Project Manager: CRAIG SCHMITZ  
Fax To: (575) 774-9116Reported:  
26-Aug-15 10:08

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TREATMENT CLOSURE CELL #2	H502056-01	Soil	03-Aug-15 08:00	07-Aug-15 10:44

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

### Analytical Results For:

T-N-T ENVIRONMENTAL  
70 OJITO ROAD  
LINDRITH NM, 87029

Project: LANDFARM  
Project Number: NOT GIVEN  
Project Manager: CRAIG SCHMITZ  
Fax To: (575) 774-9116

Reported:  
26-Aug-15 10:08

### TREATMENT CLOSURE CELL #2

H502056-01 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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#### Cardinal Laboratories

#### Inorganic Compounds

Alkalinity, Bicarbonate	496		5.00	mg/kg	1	5080504	AP	11-Aug-15	310.1	
Alkalinity, Carbonate	32.0		0.00	mg/kg	1	5080504	AP	11-Aug-15	310.1	
Chloride	96.0		16.0	mg/kg	4	5081108	AP	12-Aug-15	4500-Cl-B	
Conductivity	1250		0.250	uS/cm	1	5081103	AP	11-Aug-15	120.1	
pH*	9.39		0.100	pH Units	1	5081104	AP	11-Aug-15	9045	
Sulfate	431		100	mg/kg	10	5081106	AP	11-Aug-15	375.4	
Alkalinity, Total*	528		4.00	mg/kg	1	5080504	AP	11-Aug-15	310.1	

#### Volatile Organic Compounds by EPA Method 8021

Benzene*	ND		0.050	mg/kg	50	5080705	MS	08-Aug-15	8021B	
Toluene*	ND		0.050	mg/kg	50	5080705	MS	08-Aug-15	8021B	
Ethylbenzene*	ND		0.050	mg/kg	50	5080705	MS	08-Aug-15	8021B	
Total Xylenes*	ND		0.150	mg/kg	50	5080705	MS	08-Aug-15	8021B	
Total BTEX	ND		0.300	mg/kg	50	5080705	MS	08-Aug-15	8021B	

Surrogate: 4-Bromofluorobenzene (PID) 120 % 85.6-137 5080705 MS 08-Aug-15 8021B

#### Petroleum Hydrocarbons by GC FID

GRO C6-C10	ND		10.0	mg/kg	1	5080701	MS	07-Aug-15	8015B	
DRO >C10-C28	13.1		10.0	mg/kg	1	5080701	MS	07-Aug-15	8015B	
EXT DRO >C28-C35	ND		10.0	mg/kg	1	5080701	MS	07-Aug-15	8015B	

Surrogate: 1-Chlorooctane 113 % 47.2-157 5080701 MS 07-Aug-15 8015B

Surrogate: 1-Chlorooctadecane 130 % 52.1-176 5080701 MS 07-Aug-15 8015B

#### Green Analytical Laboratories

#### General Chemistry

% Dry Solids	87.1		%	1	B508228	MAJ	20-Aug-15	EPA160.3/25 40C	H1	
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#### Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 T-N-T ENVIRONMENTAL  
 70 OJITO ROAD  
 LINDRITH NM, 87029

 Project: LANDFARM  
 Project Number: NOT GIVEN  
 Project Manager: CRAIG SCHMITZ  
 Fax To: (575) 774-9116

 Reported:  
 26-Aug-15 10:08

**TREATMENT CLOSURE CELL #2**  
**H502056-01 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Green Analytical Laboratories**
**Total Metals by ICP**

Arsenic	ND		10.0	mg/kg dry	100	B508252	JGS	24-Aug-15	EPA6010 B	
Barium	381		1.00	mg/kg dry	100	B508252	JGS	24-Aug-15	EPA6010 B	
Cadmium	ND		5.00	mg/kg dry	100	B508252	JGS	24-Aug-15	EPA6010 B	
Calcium	19400		100	mg/kg dry	100	B508252	JGS	24-Aug-15	EPA6010 B	
Chromium	12.5		5.00	mg/kg dry	100	B508252	JGS	24-Aug-15	EPA6010 B	
Lead	ND		10.0	mg/kg dry	100	B508252	JGS	24-Aug-15	EPA6010 B	
Magnesium	3250		100	mg/kg dry	100	B508252	JGS	24-Aug-15	EPA6010 B	
Potassium	1660		200	mg/kg dry	100	B508252	JGS	24-Aug-15	EPA6010 B	
Selenium	ND		20.0	mg/kg dry	100	B508252	JGS	24-Aug-15	EPA6010 B	
Silver	ND		5.00	mg/kg dry	100	B508252	JGS	24-Aug-15	EPA6010 B	
Sodium	1080		200	mg/kg dry	100	B508252	JGS	24-Aug-15	EPA6010 B	

**Total Mercury by CVAA**

Mercury	0.718		0.109	mg/kg dry	475	B508168	JGS	17-Aug-15	EPA7471	
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Cardinal Laboratories

\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 T-N-T ENVIRONMENTAL  
 70 OJITO ROAD  
 LINDRITH NM, 87029

 Project: LANDFARM  
 Project Number: NOT GIVEN  
 Project Manager: CRAIG SCHMITZ  
 Fax To: (575) 774-9116

 Reported:  
 26-Aug-15 10:08

**Inorganic Compounds - Quality Control**
**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5080504 - General Prep - Wet Chem**
**Blank (5080504-BLK1)**

Prepared &amp; Analyzed: 05-Aug-15

Alkalinity, Carbonate	ND	0.00	mg/kg							
Alkalinity, Bicarbonate	ND	5.00	mg/kg							
Alkalinity, Total	ND	4.00	mg/kg							

**LCS (5080504-BS1)**

Prepared &amp; Analyzed: 05-Aug-15

Alkalinity, Carbonate	ND	0.00	mg/kg				80-120			
Alkalinity, Bicarbonate	126	5.00	mg/kg				80-120			
Alkalinity, Total	104	4.00	mg/kg	100		104	80-120			

**LCS Dup (5080504-BSD1)**

Prepared &amp; Analyzed: 05-Aug-15

Alkalinity, Carbonate	ND	0.00	mg/kg				80-120		20	
Alkalinity, Bicarbonate	131	5.00	mg/kg				80-120	3.89	20	
Alkalinity, Total	108	4.00	mg/kg	100		108	80-120	3.77	20	

**Batch 5081103 - General Prep - Wet Chem**
**LCS (5081103-BS1)**

Prepared &amp; Analyzed: 11-Aug-15

Conductivity	489		uS/cm	500		97.8	80-120			
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**Duplicate (5081103-DUP1)**

Source: H501986-01

Prepared &amp; Analyzed: 11-Aug-15

Conductivity	277000	0.250	uS/cm		320000			14.3	20	
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**Batch 5081104 - General Prep - Wet Chem**
**LCS (5081104-BS1)**

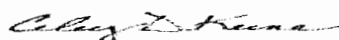
Prepared &amp; Analyzed: 11-Aug-15

pH	7.11		pH Units	7.00		102	90-110			
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Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 T-N-T ENVIRONMENTAL  
 70 OJITO ROAD  
 LINDRITH NM, 87029

 Project: LANDFARM  
 Project Number: NOT GIVEN  
 Project Manager: CRAIG SCHMITZ  
 Fax To: (575) 774-9116

 Reported:  
 26-Aug-15 10:08

**Inorganic Compounds - Quality Control**
**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5081104 - General Prep - Wet Chem**

<b>Duplicate (5081104-DUP1)</b>		<b>Source: H502001-01</b>		<b>Prepared &amp; Analyzed: 11-Aug-15</b>						
pH	7.76	0.100	pH Units		7.73			0.387	20	

**Batch 5081106 - General Prep - Wet Chem**

<b>Blank (5081106-BLK1)</b>		<b>Prepared &amp; Analyzed: 11-Aug-15</b>								
Sulfate	ND	10.0	mg/kg							

<b>LCS (5081106-BS1)</b>		<b>Prepared &amp; Analyzed: 11-Aug-15</b>								
Sulfate	20.0	10.0	mg/kg	20.0		99.8	80-120			

<b>LCS Dup (5081106-BSD1)</b>		<b>Prepared &amp; Analyzed: 11-Aug-15</b>								
Sulfate	21.3	10.0	mg/kg	20.0		106	80-120	6.55	20	

**Batch 5081108 - 1:4 DI Water**

<b>Blank (5081108-BLK1)</b>		<b>Prepared &amp; Analyzed: 12-Aug-15</b>								
Chloride	ND	16.0	mg/kg							

<b>LCS (5081108-BS1)</b>		<b>Prepared &amp; Analyzed: 12-Aug-15</b>								
Chloride	416	16.0	mg/kg	400		104	80-120			

<b>LCS Dup (5081108-BSD1)</b>		<b>Prepared &amp; Analyzed: 12-Aug-15</b>								
Chloride	416	16.0	mg/kg	400		104	80-120	0.00	20	

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

T-N-T ENVIRONMENTAL  
70 OJITO ROAD  
LINDRITH NM, 87029

Project: LANDFARM  
Project Number: NOT GIVEN  
Project Manager: CRAIG SCHMITZ  
Fax To: (575) 774-9116

Reported:  
26-Aug-15 10:08

**Volatile Organic Compounds by EPA Method 8021 - Quality Control**
**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5080705 - Volatiles**
**Blank (5080705-BLK1)**

Prepared &amp; Analyzed: 07-Aug-15

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0612		mg/kg	0.0500		122	85.6-137			

**LCS (5080705-BS1)**

Prepared &amp; Analyzed: 07-Aug-15

Benzene	1.96	0.050	mg/kg	2.00		98.1	73-130			
Toluene	1.97	0.050	mg/kg	2.00		98.3	77-117			
Ethylbenzene	2.15	0.050	mg/kg	2.00		107	71.9-119			
Total Xylenes	5.93	0.150	mg/kg	6.00		98.8	76.2-112			
Surrogate: 4-Bromofluorobenzene (PID)	0.0544		mg/kg	0.0500		109	85.6-137			

**LCS Dup (5080705-BSD1)**

Prepared &amp; Analyzed: 07-Aug-15

Benzene	2.12	0.050	mg/kg	2.00		106	73-130	7.49	6.59	QR-02
Toluene	2.12	0.050	mg/kg	2.00		106	77-117	7.62	6.92	QR-02
Ethylbenzene	2.34	0.050	mg/kg	2.00		117	71.9-119	8.36	8.3	QR-02
Total Xylenes	6.44	0.150	mg/kg	6.00		107	76.2-112	8.29	8.93	
Surrogate: 4-Bromofluorobenzene (PID)	0.0544		mg/kg	0.0500		109	85.6-137			

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Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

T-N-T ENVIRONMENTAL  
70 OJITO ROAD  
LINDRITH NM, 87029

Project: LANDFARM  
Project Number: NOT GIVEN  
Project Manager: CRAIG SCHMITZ  
Fax To: (575) 774-9116

Reported:  
26-Aug-15 10:08

**Petroleum Hydrocarbons by GC FID - Quality Control**
**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5080701 - General Prep - Organics**
**Blank (5080701-BLK1)**

Prepared &amp; Analyzed: 07-Aug-15

GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C35	ND	10.0	mg/kg							
Total TPH C6-C28	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	56.4		mg/kg	50.0		113	47.2-157			
Surrogate: 1-Chlorooctadecane	67.8		mg/kg	50.0		136	52.1-176			

**LCS (5080701-BS1)**

Prepared: 07-Aug-15 Analyzed: 10-Aug-15

GRO C6-C10	201	10.0	mg/kg	200		101	72.5-115			
DRO >C10-C28	180	10.0	mg/kg	200		89.8	81.3-118			
Total TPH C6-C28	381	10.0	mg/kg	400		95.3	80-113			
Surrogate: 1-Chlorooctane	58.9		mg/kg	50.0		118	47.2-157			
Surrogate: 1-Chlorooctadecane	66.2		mg/kg	50.0		132	52.1-176			

**LCS Dup (5080701-BSD1)**

Prepared &amp; Analyzed: 07-Aug-15

GRO C6-C10	201	10.0	mg/kg	200		101	72.5-115	0.129	10.1	
DRO >C10-C28	179	10.0	mg/kg	200		89.7	81.3-118	0.142	15.3	
Total TPH C6-C28	381	10.0	mg/kg	400		95.1	80-113	0.135	12.1	
Surrogate: 1-Chlorooctane	59.7		mg/kg	50.0		119	47.2-157			
Surrogate: 1-Chlorooctadecane	64.1		mg/kg	50.0		128	52.1-176			

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

T-N-T ENVIRONMENTAL  
70 OJITO ROAD  
LINDRITH NM, 87029

Project: LANDFARM  
Project Number: NOT GIVEN  
Project Manager: CRAIG SCHMITZ  
Fax To: (575) 774-9116

Reported:  
26-Aug-15 10:08

**Total Metals by ICP - Quality Control**
**Green Analytical Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B508252 - EPA 3050**
**Blank (B508252-BLK1)**

Prepared &amp; Analyzed: 24-Aug-15

Cadmium	ND	0.050	mg/kg dry
Barium	ND	0.010	mg/kg dry
Silver	ND	0.050	mg/kg dry
Lead	ND	0.100	mg/kg dry
Sodium	ND	2.00	mg/kg dry
Arsenic	ND	0.100	mg/kg dry
Calcium	ND	1.00	mg/kg dry
Chromium	ND	0.050	mg/kg dry
Magnesium	ND	1.00	mg/kg dry
Potassium	ND	2.00	mg/kg dry
Selenium	ND	0.200	mg/kg dry

**LCS (B508252-BS1)**

Prepared &amp; Analyzed: 24-Aug-15

Magnesium	20.2	1.00	mg/kg dry	20.0	101	85-115
Silver	0.094	0.050	mg/kg dry	0.100	93.9	85-115
Cadmium	1.82	0.050	mg/kg dry	2.00	91.1	85-115
Lead	1.94	0.100	mg/kg dry	2.00	97.2	85-115
Chromium	2.00	0.050	mg/kg dry	2.00	100	85-115
Arsenic	3.90	0.100	mg/kg dry	4.00	97.5	85-115
Calcium	3.95	1.00	mg/kg dry	4.00	98.8	85-115
Selenium	7.70	0.200	mg/kg dry	8.00	96.2	85-115
Sodium	6.43	2.00	mg/kg dry	6.48	99.2	85-115
Barium	1.90	0.010	mg/kg dry	2.00	95.1	85-115
Potassium	7.86	2.00	mg/kg dry	8.00	98.3	85-115

**LCS Dup (B508252-BSD1)**

Prepared &amp; Analyzed: 24-Aug-15

Silver	0.093	0.050	mg/kg dry	0.100	93.0	85-115	0.992	20
Potassium	8.07	2.00	mg/kg dry	8.00	101	85-115	2.62	20
Magnesium	20.3	1.00	mg/kg dry	20.0	102	85-115	0.278	20
Arsenic	3.89	0.100	mg/kg dry	4.00	97.2	85-115	0.337	20
Cadmium	1.80	0.050	mg/kg dry	2.00	90.0	85-115	1.19	20
Calcium	3.99	1.00	mg/kg dry	4.00	99.7	85-115	0.927	20
Sodium	6.46	2.00	mg/kg dry	6.48	99.8	85-115	0.555	20

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**T-N-T ENVIRONMENTAL  
70 OJITO ROAD  
LINDRITH NM, 87029Project: LANDFARM  
Project Number: NOT GIVEN  
Project Manager: CRAIG SCHMITZ  
Fax To: (575) 774-9116Reported:  
26-Aug-15 10:08**Total Metals by ICP - Quality Control****Green Analytical Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B508252 - EPA 3050****LCS Dup (B508252-BSD1)**

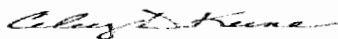
Prepared &amp; Analyzed: 24-Aug-15

Chromium	1.98	0.050	mg/kg dry	2.00		99.1	85-115	0.945	20	
Barium	1.88	0.010	mg/kg dry	2.00		94.1	85-115	1.08	20	
Selenium	7.55	0.200	mg/kg dry	8.00		94.4	85-115	1.89	20	
Lead	1.92	0.100	mg/kg dry	2.00		96.0	85-115	1.31	20	

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

**Analytical Results For:**

T-N-T ENVIRONMENTAL  
70 OJITO ROAD  
LINDRITH NM, 87029

Project: LANDFARM  
Project Number: NOT GIVEN  
Project Manager: CRAIG SCHMITZ  
Fax To: (575) 774-9116

Reported:  
26-Aug-15 10:08

**Total Mercury by CVAA - Quality Control**

**Green Analytical Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B508168 - EPA 7471</b>										
<b>Blank (B508168-BLK1)</b>				Prepared & Analyzed: 17-Aug-15						
Mercury	ND	0.0002	mg kg wet							
<b>LCS (B508168-BS1)</b>				Prepared & Analyzed: 17-Aug-15						
Mercury	0.0023	0.0002	mg kg wet	0.00200		115	85-115			
<b>LCS Dup (B508168-BSD1)</b>				Prepared & Analyzed: 17-Aug-15						
Mercury	0.0023	0.0002	mg kg wet	0.00200		117	85-115	0.905	20	BS1

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*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
H1	Sample was received several days after collected and subsequently analyzed past hold time.
BS1	Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high. Will re-analyze per client request.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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**Celey D. Keene, Lab Director/Quality Manager**



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State of New Mexico  
Energy, Minerals and Natural Resources Department

---

**Susana Martinez**  
Governor

**David Martin**  
Cabinet Secretary

**Brett F. Woods, Ph.D.**  
Deputy Cabinet Secretary

**David R. Catanach, Division Director**  
Oil Conservation Division



July 27, 2015

Craig Schmitz  
T-n-T Environmental, Inc.  
HCR 74 Box 113  
Lindrieth, New Mexico 87029

**RE: Cell Clearance, Soils Reuse, and Additional Lift Request Review – Cells 3, 5, 8, 9, and 13  
T-n-T Environmental, Inc.  
Permit NM1-008 (Evaporation Ponds and Landfarm)  
Location: SE/4 of Section 7 and SW/4 of Section 8 (evaporation ponds) and the SW/4 SE/4 and  
SE/4 NW/4 of Section 5 and NE/4 NW/4 of 8 (landfarm), Township 25 North, Range 3 West,  
NMPM, Rio Arriba County, New Mexico**

Dear Mr. Schmitz:

The Oil Conservation Division (OCD) has received and completed the review of T-n-T Environmental, Inc.'s (T-n-T) letter, dated July 20, 2015, requesting to remove the soils within Cells 3, 5, 8, 9, and 13 and reuse the soils for the stabilization/solidification of incoming liquid waste and to reuse the soils for rebuilding and maintaining landfarm cell berm integrity. It also requested permission to add an additional six-inch lift to the above referenced landfarm cells.

OCD must deny the request. On June 25, 2015, OCD mailed a response to clarify the acreage and footprint that was approved and permitted by OCD on September 8, 1992. OCD's position regarding the permitted acreage of the facility is based upon and supported by the original June 1, 1992 permit application and material dated August 4, 1992, submitted as supplements to the application, both signed and submitted by Tony Schmitz. OCD permitted a 20.5 acre facility in which only approximately 18.17 acres was assessed and surveyed for the proposed bermed landfarm area. This area currently incorporates Cells 1 and 2, and includes the office yard area. Since OCD did not receive any new information demonstrating that T-n-T pursued a modification to expand the landfarm facility footprint since the initial permitting of 1992, then only Cells 1 and 2 are subject to consideration of an additional lift, reuse, and the receipt of new material. Please submit a closure and post-closure care for all landfarm cells outside of the OCD permitted boundary within 60 days of the date of this letter.

If there are any questions regarding this matter, please do not hesitate to contact me at (505) 476-3487 or [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us).

Sincerely,

Brad A. Jones  
Environmental Engineer

BAJ/baj

Cc: OCD District III Office, Aztec

T-n-T Environmental  
HCR 74 Box 113  
Lindrith, NM 87029

50-100-000  
JUL 22 12 30 PM

July.20, 2015

OCD  
Attn: Brad Jones  
1220 S. Saint Francis  
Santa Fe, NM 87505

RE: Cell Clearance

T-n-T Environmental is requesting clearance of cell # 3,5,8,9,13 to stockpile for mixing purposes of liquid material and to use on our dikes in land farm to maintain dike integrity. We are also requesting permission to add an additional 6 inch lift. These samples were taken using a five point composite method,

Enclosed is the Lab test results for cell # 3,5,8,9,13 that meet the closure standards.

Thank you,

  
Craig Schmitz  
T-n-T Environmental



**Analytical Results For:**

T-N-T ENVIRONMENTAL  
CRAIG SCHMITZ  
70 OJITO ROAD  
LINDRITH NM, 87029  
Fax To: (575) 774-9116

Received: 04/28/2015  
Reported: 05/04/2015  
Project Name: LANDFARM  
Project Number: TREATMENT  
Project Location: NOT GIVEN

Sampling Date: 04/22/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: TREATMENT CELL #3 (H501104-03)**

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/01/2015	ND	2.06	103	2.00	1.67	
<b>Toluene*</b>	<b>0.209</b>	0.050	05/01/2015	ND	1.84	91.8	2.00	0.791	
Ethylbenzene*	<0.050	0.050	05/01/2015	ND	1.80	89.9	2.00	0.832	
Total Xylenes*	<0.150	0.150	05/01/2015	ND	5.91	98.4	6.00	0.707	
Total BTX	<0.300	0.300	05/01/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 108 % 61-154

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/29/2015	ND	198	99.1	200	0.969	
<b>DRO &gt;C10-C28</b>	<b>966</b>	10.0	04/29/2015	ND	205	103	200	0.492	

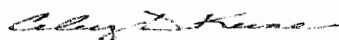
Surrogate: 1-Chlorooctane 94.2 % 47.2-157

Surrogate: 1-Chlorooctadecane 97.6 % 52.1-176

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 T-N-T ENVIRONMENTAL  
 CRAIG SCHMITZ  
 70 OJITO ROAD  
 LINDRITH NM, 87029  
 Fax To: (575) 774-9116

 Received: 04/28/2015  
 Reported: 05/04/2015  
 Project Name: LANDFARM  
 Project Number: TREATMENT  
 Project Location: NOT GIVEN

 Sampling Date: 04/22/2015  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: TREATMENT CELL #5 (H501104-05)**

BTEX 8021B		mg/kg	Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/01/2015	ND	2.06	103	2.00	1.67	
<b>Toluene*</b>	<b>0.511</b>	0.050	05/01/2015	ND	1.84	91.8	2.00	0.791	
Ethylbenzene*	<0.050	0.050	05/01/2015	ND	1.80	89.9	2.00	0.832	
Total Xylenes*	<0.150	0.150	05/01/2015	ND	5.91	98.4	6.00	0.707	
<b>Total BTEX</b>	<b>0.511</b>	0.300	05/01/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 105 % 61-154

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/29/2015	ND	198	99.1	200	0.969	
<b>DRO &gt;C10-C28</b>	<b>2070</b>	10.0	04/29/2015	ND	205	103	200	0.492	

Surrogate: 1-Chlorooctane 93.2 % 47.2-157

Surrogate: 1-Chlorooctadecane 125 % 52.1-176

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

T-N-T ENVIRONMENTAL  
CRAIG SCHMITZ  
70 OJITO ROAD  
LINDRITH NM, 87029  
Fax To: (575) 774-9116

Received: 04/28/2015  
Reported: 05/04/2015  
Project Name: LANDFARM  
Project Number: TREATMENT  
Project Location: NOT GIVEN

Sampling Date: 04/22/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: TREATMENT CELL #8 (H501104-08)**

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/01/2015	ND	2.06	103	2.00	1.67	
<b>Toluene*</b>	<b>0.727</b>	0.050	05/01/2015	ND	1.84	91.8	2.00	0.791	
Ethylbenzene*	<0.050	0.050	05/01/2015	ND	1.80	89.9	2.00	0.832	
Total Xylenes*	<0.150	0.150	05/01/2015	ND	5.91	98.4	6.00	0.707	
<b>Total BTEX</b>	<b>0.727</b>	0.300	05/01/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 107 % 61-154

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/29/2015	ND	200	99.8	200	2.51	
<b>DRO &gt;C10-C28</b>	<b>409</b>	10.0	04/29/2015	ND	205	102	200	3.34	

Surrogate: 1-Chlorooctane 103 % 47.2-157

Surrogate: 1-Chlorooctadecane 106 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 T-N-T ENVIRONMENTAL  
 CRAIG SCHMITZ  
 70 OJITO ROAD  
 LINDRITH NM, 87029  
 Fax To: (575) 774-9116

 Received: 04/28/2015  
 Reported: 05/04/2015  
 Project Name: LANDFARM  
 Project Number: TREATMENT  
 Project Location: NOT GIVEN

 Sampling Date: 04/22/2015  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: TREATMENT CELL #9 (H501104-09)**

BTEX 8021B		mg/kg	Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/01/2015	ND	2.06	103	2.00	1.67	
<b>Toluene*</b>	<b>0.692</b>	0.050	05/01/2015	ND	1.84	91.8	2.00	0.791	
Ethylbenzene*	<0.050	0.050	05/01/2015	ND	1.80	89.9	2.00	0.832	
Total Xylenes*	<0.150	0.150	05/01/2015	ND	5.91	98.4	6.00	0.707	
<b>Total BTEX</b>	<b>0.692</b>	0.300	05/01/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 107 % 61-154

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/29/2015	ND	200	99.8	200	2.51	
<b>DRO &gt;C10-C28</b>	<b>318</b>	10.0	04/29/2015	ND	205	102	200	3.34	


Surrogate: 1-Chlorooctane 98.7 % 47.2-157

Surrogate: 1-Chlorooctadecane 102 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 T-N-T ENVIRONMENTAL  
 CRAIG SCHMITZ  
 70 OJITO ROAD  
 LINDRITH NM, 87029  
 Fax To: (575) 774-9116

 Received: 04/28/2015  
 Reported: 05/04/2015  
 Project Name: LANDFARM  
 Project Number: TREATMENT  
 Project Location: NOT GIVEN

 Sampling Date: 04/22/2015  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: TREATMENT CELL #13 (H501104-13)**

BTEX 8021B		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/01/2015	ND	2.03	101	2.00	5.73	
Toluene*	<b>0.412</b>	0.050	05/01/2015	ND	2.25	112	2.00	5.72	
Ethylbenzene*	<0.050	0.050	05/01/2015	ND	2.05	103	2.00	5.17	
<b>Total Xylenes*</b>	<b>0.167</b>	0.150	05/01/2015	ND	6.19	103	6.00	5.71	
<b>Total BTEX</b>	<b>0.579</b>	0.300	05/01/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 109 % 61-154

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/29/2015	ND	200	99.8	200	2.51	
DRO >C10-C28	<10.0	10.0	04/29/2015	ND	205	102	200	3.34	

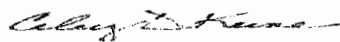
Surrogate: 1-Chlorooctane 100 % 47.2-157

Surrogate: 1-Chlorooctadecane 99.5 % 52.1-176

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\*==Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

T-N-T ENVIRONMENTAL  
CRAIG SCHMITZ  
70 OJITO ROAD  
LINDRITH NM, 87029  
Fax To: (575) 774-9116

Received: 04/28/2015  
Reported: 05/01/2015  
Project Name: LANDFARM  
Project Number: TREATMENT CELL  
Project Location: NOT GIVEN

Sampling Date: 04/20/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: TREATMENT CELL #1 (H501106-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	480	16.0	04/29/2015	ND	400	100	400	7.69	

**Sample ID: TREATMENT CELL #2 (H501106-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	04/29/2015	ND	400	100	400	7.69	

**Sample ID: TREATMENT CELL #3 (H501106-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	448	16.0	04/29/2015	ND	400	100	400	7.69	

**Sample ID: TREATMENT CELL #4 (H501106-04)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	496	16.0	04/29/2015	ND	400	100	400	7.69	

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

T-N-T ENVIRONMENTAL  
CRAIG SCHMITZ  
70 OJITO ROAD  
LINDRITH NM, 87029  
Fax To: (575) 774-9116

Received: 04/28/2015  
Reported: 05/01/2015  
Project Name: LANDFARM  
Project Number: TREATMENT CELL  
Project Location: NOT GIVEN

Sampling Date: 04/20/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: TREATMENT CELL #5 (H501106-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	04/29/2015	ND	400	100	400	7.69	

**Sample ID: TREATMENT CELL #6 (H501106-06)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	560	16.0	04/29/2015	ND	416	104	400	0.00	

**Sample ID: TREATMENT CELL #7 (H501106-07)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	672	16.0	04/29/2015	ND	416	104	400	0.00	

**Sample ID: TREATMENT CELL #8 (H501106-08)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	544	16.0	04/29/2015	ND	416	104	400	0.00	

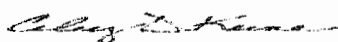
**Sample ID: TREATMENT CELL #9 (H501106-09)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	04/29/2015	ND	416	104	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 T-N-T ENVIRONMENTAL  
 CRAIG SCHMITZ  
 70 OJITO ROAD  
 LINDRITH NM, 87029  
 Fax To: (575) 774-9116

 Received: 04/28/2015  
 Reported: 05/01/2015  
 Project Name: LANDFARM  
 Project Number: TREATMENT CELL  
 Project Location: NOT GIVEN

 Sampling Date: 04/20/2015  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: TREATMENT CELL #10 (H501106-10)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	04/29/2015	ND	416	104	400	0.00	

**Sample ID: TREATMENT CELL #11 (H501106-11)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	04/29/2015	ND	416	104	400	0.00	

**Sample ID: TREATMENT CELL #12 (H501106-12)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	448	16.0	04/29/2015	ND	416	104	400	0.00	

**Sample ID: TREATMENT CELL #13 (H501106-13)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	04/29/2015	ND	416	104	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager



State of New Mexico  
Energy, Minerals and Natural Resources Department

---

**Susana Martinez**  
Governor

**David Martin**  
Cabinet Secretary

**Brett F. Woods, Ph.D.**  
Deputy Cabinet Secretary

**David R. Catanach, Division Director**  
Oil Conservation Division



July 24, 2015

Craig Schmitz  
T-n-T Environmental, Inc.  
HCR 74 Box 113  
Lindrith, New Mexico 87029

**RE: Cell Clearance, Soils Reuse, and Additional Lift Request Review – Cell 2  
T-n-T Environmental, Inc.  
Permit NM1-008 (Evaporation Ponds and Landfarm)  
Location: SE/4 of Section 7 and SW/4 of Section 8 (evaporation ponds) and the SW/4  
SE/4 and SE/4 NW/4 of Section 5 and NE/4 NW/4 of 8 (landfarm), Township 25 North,  
Range 3 West, NMPM, Rio Arriba County, New Mexico**

Dear Mr. Schmitz:

The Oil Conservation Division (OCD) has received and completed the review of T-n-T Environmental, Inc.'s (T-n-T) letter, dated July 20, 2015, requesting to remove the soils within Cell 2 and reuse the soils for the stabilization/solidification of incoming liquid waste and to reuse the soils for rebuilding and maintaining landfarm cell berm integrity. It also requested permission to add an additional six-inch lift to Cell 2.

Based upon the laboratory data provided in the request, OCD must deny the request to remove the soils within Cell 2 for reuse in the stabilization/solidification of incoming liquid waste and to reuse the soils for rebuilding and maintaining landfarm cell berm integrity. The laboratory data provided with the request only demonstrated results for BTEX, GRO and DRO combined fractions, and chlorides. Pursuant to Paragraph (1) of 19.15.36.15.G NMAC, "If the operator achieves the closure performance standards specified in Subsection F of 19.15.36.15 NMAC, then the operator may either leave the treated soils in place, or, with prior division approval, dispose or reuse of the treated soils in an alternative manner." Pursuant to Subsection F of 19.15.36.15 NMAC, "The operator shall demonstrate compliance with the closure performance standards by collecting and analyzing a minimum of one composite soil sample, consisting of four discrete samples. (1) Benzene, as determined by EPA SW-846 method 8021B or 8260B, shall not exceed 0.2 mg/kg. (2) Total BTEX, as determined by EPA SW-846 method 8021B or 8260B, shall not exceed 50 mg/kg. (3) The GRO and DRO combined fractions, as determined by EPA SW-846 method 8015M, shall not exceed 500 mg/kg. TPH, as determined by EPA method 418.1 or other EPA method approved by the division, shall not exceed 2500 mg/kg. (4) Chlorides, as determined by EPA method 300.1, shall not exceed 500 mg/kg if the landfarm is located where ground water is less than 100 feet but at least 50 feet below the lowest elevation at which the operator will place oil field waste or 1000 mg/kg if the

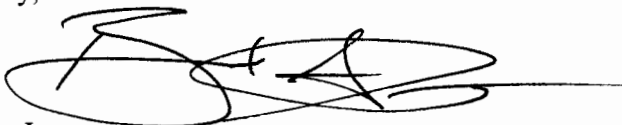
landfarm is located where ground water is 100 feet or more below the lowest elevation at which the operator will place oil field waste. (5) The concentration of constituents listed in Subsections A and B of 20.6.2.3103 NMAC shall be determined by EPA SW-846 methods 6010B or 6020 or other methods approved by the division. If the concentration of those constituents exceed the PQL or background concentration, the operator shall either perform a site specific risk assessment using EPA approved methods and shall propose closure standards based upon individual site conditions that protect fresh water, public health, safety and the environment, which shall be subject to division approval or remove pursuant to Paragraph (2) of Subsection G of 19.15.36.15 NMAC.” Part 36 specifies EPA Method 418.1 as the required vadose zone analyses for TPH. OCD is willing to accept an equivalent method to EPA Method 418.1 that is capable of demonstrating a carbon range from C<sub>6</sub> to C<sub>36</sub> (e.g. Method 8015 for GRO/DRO/MRO or ORO).

In accordance with Condition 7, under the heading *Landfarm Operation*, “Successive lifts of contaminated soils or drilling mud may not be spread until a laboratory measurement of total petroleum hydrocarbons (TPH) in the previous lift is less than 100 parts per million (ppm), the sum of all aromatic hydrocarbons (BTEX) is less than 50 ppm, and benzene is less than 10 ppm. Comprehensive records of the laboratory analyses and the sampling locations must be maintained at the facility. Authorization from the OCD must be obtained prior to application of successive lifts and/or removal of the remediated soils. District approval must be obtained in order to remove reconditioned mud from the facility.” Pursuant to Subsection D of 19.15.36.15 NMAC, “The operator shall conduct treatment zone monitoring to ensure that prior to adding an additional lift the TPH concentration of each lift, ... and that the chloride concentration, as determined by EPA method 300.1, does not exceed 500 mg/kg if the landfarm is located where ground water is less than 100 feet but at least 50 feet below the lowest elevation at which the operator will place oil field waste or 1000 mg/kg if the landfarm is located where ground water is 100 feet or more below the lowest elevation at which the operator will place oil field waste.” Based upon the analytical results provided, OCD hereby grants T-n-T approval to apply an additional six-inch lift of contaminated soils to landfarm Cell 2. Also, please note that with the addition of successive lifts T-n-T must initiate tilling and treatment zone monitoring and resume vadose zone monitoring. The vadose zone monitoring depth must be adjusted to reach the 2-3 foot zone below the original native ground surface.

Please be advised that approval of this request does not relieve T-n-T of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve T-n-T of its responsibility to comply with any other applicable governmental authority's rules and regulations.

If there are any questions regarding this matter, please do not hesitate to contact me at (505) 476-3487 or [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us).

Sincerely,



Brad A. Jones  
Environmental Engineer

BAJ/baj

Cc: OCD District III Office, Aztec

T-n-T Environmental  
HCR 74 Box 113  
Lindrith, NM 87029

July.20, 2015

OCD  
Attn: Brad Jones  
1220 S. Saint Francis  
Santa Fe, NM 87505

RE: Cell Clearance

T-n-T Environmental is requesting clearance of cell # 2 to stockpile for mixing purposes of liquid material and to use on our dikes in land farm to maintain dike integrity. We are also requesting permission to add an additional 6 inch lift. These samples were taken using a five point composite method,

Enclosed is the Lab test results for cell # 2 that meet the closure standards.

Thank you,

  
Craig Schmitz  
T-n-T Environmental

**Analytical Results For:**

 T-N-T ENVIRONMENTAL  
 CRAIG SCHMITZ  
 70 OJITO ROAD  
 LINDRITH NM, 87029  
 Fax To: (575) 774-9116

 Received: 04/28/2015  
 Reported: 05/04/2015  
 Project Name: LANDFARM  
 Project Number: TREATMENT  
 Project Location: NOT GIVEN

 Sampling Date: 04/22/2015  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: TREATMENT CELL #2 (H501104-02)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/01/2015	ND	2.06	103	2.00	1.67	
<b>Toluene*</b>	<b>0.068</b>	0.050	05/01/2015	ND	1.84	91.8	2.00	0.791	
Ethylbenzene*	<0.050	0.050	05/01/2015	ND	1.80	89.9	2.00	0.832	
Total Xylenes*	<0.150	0.150	05/01/2015	ND	5.91	98.4	6.00	0.707	
Total BTEX	<0.300	0.300	05/01/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 105 % 61-154

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/29/2015	ND	198	99.1	200	0.969	
<b>DRO &gt;C10-C28</b>	<b>87.0</b>	10.0	04/29/2015	ND	205	103	200	0.492	

Surrogate: 1-Chlorooctane 92.1 % 47.2-157

Surrogate: 1-Chlorooctadecane 86.1 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 T-N-T ENVIRONMENTAL  
 CRAIG SCHMITZ  
 70 OJITO ROAD  
 LINDRITH NM, 87029  
 Fax To: (575) 774-9116

 Received: 04/28/2015  
 Reported: 05/01/2015  
 Project Name: LANDFARM  
 Project Number: TREATMENT CELL  
 Project Location: NOT GIVEN

 Sampling Date: 04/20/2015  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: TREATMENT CELL #1 (H501106-01)**

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	480	16.0	04/29/2015	ND	400	100	400	7.69	

**Sample ID: TREATMENT CELL #2 (H501106-02)**

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	04/29/2015	ND	400	100	400	7.69	

**Sample ID: TREATMENT CELL #3 (H501106-03)**

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	448	16.0	04/29/2015	ND	400	100	400	7.69	

**Sample ID: TREATMENT CELL #4 (H501106-04)**

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	496	16.0	04/29/2015	ND	400	100	400	7.69	

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analysis. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

State of New Mexico  
Energy, Minerals and Natural Resources Department

---

**Susana Martinez**  
Governor

**David Martin**  
Cabinet Secretary

**Brett F. Woods, Ph.D.**  
Deputy Cabinet Secretary

**David R. Catanach, Division Director**  
Oil Conservation Division



July 2, 2015

Craig Schmitz  
T-n-T Environmental, Inc.  
HCR 74 Box 113  
Lindrieth, New Mexico 87029

**RE: 2014 Treatment and Zone Monitoring Report Review  
T-n-T Environmental, Inc.  
Permit NM1-008 (Evaporation Ponds and Landfarm)  
Location: SE/4 of Section 7 and SW/4 of Section 8 (evaporation ponds) and the  
SW/4 SE/4 and SE/4 NW/4 of Section 5 and NE/4 NW/4 of 8 (landfarm), Township  
25 North, Range 3 West, NMPM, Rio Arriba County, New Mexico**

Dear Mr. Schmitz:

The Oil Conservation Division (OCD) has completed the review of T-n-T Environmental, Inc.'s (T-n-T) monitoring reports, one with a cover letter dated June 17, 2014 which includes vadose zone results from a sample event that occurred May 17, 2015 and facility background data and a second report that includes treatment zone results from a May 19, 2014 sampling event and the resubmittal of the vadose zone results from the May 17, 2015 event. The review of the 2014 monitoring data has resulted in the discovery of some issues that must be addressed in order for T-n-T to remain compliant with Permit NM1-008 and Part 36.

The first report, with a cover letter dated June 17, 2014, states "The 711 permit requires 1 vadose zone report per year, the part 36 has it every 5 years so we don't know which one to do or is it both?" Since there was not a clear lead in to this sentence, OCD can only assume that the sentence is discussing the annual vadose zone sampling event required by permit and the 5 year vadose zone monitoring requirement of Paragraph (3) of 19.15.36.15.E NMAC. OCD clarified this issue in a letter dated June 30, 2011 and titled "*Compliance with the Transitional Provisions of the Surface Waste Management Facilities rule (Rule 36) and Treatment and Vadose Monitoring Requirements at Existing Landfarms.*" The letter states that the 5 year vadose zone monitoring requirement of Paragraph (3) of 19.15.36.15.E NMAC must be completed in addition to the sampling required by the permit. Please review OCD's letter dated June 30, 2011 titled "*Compliance with the Transitional Provisions of the Surface Waste Management Facilities rule (Rule 36) and Treatment and Vadose Monitoring Requirements at Existing Landfarms*" for expectation of compliance. The chain of custody provided with the vadose zone results from the May 17, 2015 sampling event demonstrate that the sampling event was performed in compliance to Permit NM1-008. The chain of custody requested analysis for TPH (418.1), BTEX (8021B), Chlorides (SM 4500), cations and anions, and 8 RCRA metals and only one sample was obtained from each landfarm cell. Pursuant to Paragraph (3) of 19.15.36.15.E NMAC, "Five year

monitoring program. The operator shall collect and analyze a minimum of four randomly selected, independent samples from the vadose zone, using the methods specified below for the constituents listed in Subsections A and B of 20.6.2.3103 NMAC at least every five years and shall compare each result to the higher of the PQL or the background soil concentrations to determine whether a release has occurred.” As underlined in the above reference of Paragraph (3) of 19.15.36.15.E NMAC, the “methods specified below for the constituents listed in Subsections A and B of 20.6.2.3103 NMAC” are those identified in Subsection F of 19.15.36.15 NMAC: such as “determined by EPA SW-846 methods 6010B or 6020 or other EPA method approved by the division...” Please perform the five year vadose zone monitoring program demonstration on all of the active landfarm cells and submit the sampling results and comparison to background and/or PQLs demonstrating compliance of Paragraph (3) of 19.15.36.15.E NMAC by EPA SW-846 methods 6010B or 6020.

The submittal of vadose zone monitoring results does not constitute a demonstration of compliance to the vadose zone monitoring assessment requirements. Pursuant to 19.15.36.15.E NMAC, the operator is required to compare the vadose results “to the higher of the PQL or the background soil concentrations to determine whether a release has occurred.” The cover letter of the first report did not discuss the laboratory results from the May 19, 2014 vadose zone sampling event or the comparison to the supplied facility background data to determine whether a release has occurred. The vadose zone assessment was not completed. OCD’s letter dated April 10, 2014 and titled “*December 2013 Treatment and Vadose Zone Monitoring Report Review*” identified OCD’s expectation of compliance to the vadose zone comparison assessment to background for determination of a release and the submittal of an updated facility sampling location map for each sampling event, which were not provided.

OCD’s review of the vadose zone laboratory data resulted in the discovery TPH by EPA Method 418.1 was performed with a reporting limit of 100 mg/kg. A typical reporting limit for EPA Method 418.1 is 20 mg/kg. Please ensure that the laboratories are using appropriate and reasonable reporting limits and do not exceed background. Also, OCD is willing to accept an equivalent method to EPA Method 418.1 that is capable of demonstrating a carbon range from C<sub>6</sub> to C<sub>36</sub> (e.g. Method 8015 for GRO/DRO/MRO or ORO).

The cover letter of the first report did not explain the submittal of the background data or how it would be used. The 1996 background data for Cells 1, 2, and 3 only provides results for DRO and BTEX, QA/QC, and the chain of custody were not included. The 1997 background data for Cell 4 provided results for major cations and anions and the RCRA 8 metals (no TPH or BTEX), the chain of custody were not included. The December 2008 data submitted for Cell 5 is identified as “the first vadose results.” If this is true, then Cell 5 was activated after Cell 6 in which background was established 1.5 years earlier in May 2007. After February 14, 2007 (the effective date of Part 36) and in accordance with Subsection B of 19.15.36.20 NMAC, “Major modification of an existing surface waste management facility and a new landfarm cells constructed at an existing surface waste management facility shall comply with the requirements provided in 19.15.36 NMAC.” Pursuant to Subsection B of 19.15.36.15 NMAC, “Background testing. Prior to beginning operation of a new landfarm or to opening a new cell at an existing landfarm at which the operator has not already established background, the operator shall take, at a minimum, 12 composite background soil samples, with each consisting of 16 discrete samples

from areas that previous operations have not impacted at least six inches below the original ground surface, to establish background soil concentrations for the entire surface waste management facility. The operator shall analyze the background soil samples for TPH, as determined by EPA method 418.1 or other EPA method approved by the division; BTEX, as determined by EPA SW-846 method 8021B or 8260B; chlorides; and other constituents listed in Subsections A and B of 20.6.2.3103 NMAC, using approved EPA methods.” The background data submitted for Cells 5 through 14 were not performed as required under Part 36. OCD is unsure if it can accept the data submitted for Cell 5, especially if it was activated before Cell 6. The May 2007 background data for Cell 6 provided results for GRO, DRO, BTEX, and major cations and anions, the QA/QC and the chain of custody were not included. Chloride was detected at 419 mg/kg in Cell 6, when reported as background in Cell 4 and Cells 7 through 14 to be less than 16 mg/kg. The December 2008 background data for Cells 7-10 provided results for DRO, BTEX, major cations and anions, and the RCRA 8 metals, the QA/QC and the chain of custody were not included. The June 2009 background data for Cells 11 and 12 provided results for DRO, BTEX, major cations and anions, and the RCRA 8 metals, the QA/QC and the chain of custody were not included. The April 2010 background data for Cells 13 and 14 provided 12 sample results for GRO, DRO, BTEX, and chlorides for each landfarm cell, the QA/QC and the chain of custody were not included. Currently, T-n-T does not have the complete background data to perform the vadose zone assessments (quarterly, annual, and 5-year) and remain in compliance with Part 36 and Permit NM1-008. Part 36 specifies EPA Method 418.1 as the required vadose zone analyses for TPH. OCD is willing to accept an equivalent method to EPA Method 418.1 that is capable of demonstrating a carbon range from C<sub>6</sub> to C<sub>36</sub> (e.g. Method 8015 for GRO/DRO/MRO or ORO). To remain compliant to Part 36 and the existing permit, background needs to be established and the vadose zone assessment comparison demonstrated to OCD. Please submit a background sampling plan to OCD under a separate cover, for OCD’s consideration of approval to update the existing background data set or to establish a facility background/PQL data set and complete the vadose zone assessments.

OCD performed a preliminary assessment of Cell 4 in comparing the sampling results of May 17, 2014 to the 1997 background data. The comparison demonstrated exceedances for barium at 120 mg/kg (1997 background of 2.52 mg/L), calcium at 3770 mg/kg (1997 background of 39.3 mg/L), chromium at 18.1 mg/kg (1997 background of <0.01 mg/L), magnesium at 4380 mg/kg (1997 background of 8.27 mg/L), and potassium at 2140 mg/kg (1997 background of 2.61 mg/L). Other constituents such as chloride, sulfate, arsenic, cadmium, lead, selenium, silver, sodium, and mercury were analyzed at reporting limits greater than established background or nominal detection limit and are not valid for the demonstration.

The second report, which includes treatment zone results from a May 19, 2014 sampling event, demonstrated chloride in the treatment zone of Cell 7 at 1280 mg/kg. Based upon OCD’s review of the administrative file (OCD Online), ground water has been reported at a depth of approximately 150 feet below the ground surface. Pursuant to the landfarm waste acceptance criteria of Subsection A of 19.15.36.15 NMAC, “Soils and drill cuttings placed in a landfarm shall be sufficiently free of liquid content to pass the paint filter test, and shall not have a chloride concentration exceeding 500 mg/kg if the landfarm is located where ground water is less than 100 feet but at least 50 feet below the lowest elevation at which the operator will place oil field waste or exceeding 1000 mg/kg if the landfarm is located where ground water is 100 feet or



more below the lowest elevation at which the operator will place oil field waste." A letter provided with this submittal states "The chloride is a little high in Cell 7 so we are in the process of identifying the areas that is high. We will keep you informed with the progress." OCD has not received any follow up information regarding this issue nor has OCD received a plan to isolate and remove soils from the treatment zone that exceed the waste acceptance criteria and the closure standard for chlorides. Please provide OCD follow up information regarding the high chloride soil in the treatment zone and a plan to isolate and remove soils from the treatment zone that exceed the waste acceptance criteria and the closure standard for chlorides. T-n-T's monitoring report summary sheet, stapled to the front of the second report, identifies the vadose zone results as a "Quarterly Vadose Zone Monitoring" event and provides 3 submittal due dates (instead of 4) for 4 quarterly sampling events. Please update the monitoring report summary sheet to reflect 4 quarterly sampling events. Please review the chain of custody of the May 17, 2014 sampling event. It confirms that major cations and anions and RCRA metals were requested along with TPH (by 418.1), BTEX, and chlorides. This was an annual sampling event, but it was not identified as such. The monitoring report summary sheet also documented the inspection of the ponds. Pond 1 was reported to have water detected in the leak detection system. It states "Last part of winter had water, water is below hole now. Scheduled for repair." Pursuant to Condition 15, under the heading *FACILITY AND EVAPORATION POND OPERATION* of Permit NM1-008, "The leak detection sump at Pond One (1) and Pond Three (3) must be inspected weekly; results must be recorded and maintained for OCD review. If fluid is present in the leak detection system the fluids in the pond and leak detection system must be analyzed for total dissolved solids (TDS). Upon discovery, all fluids must be removed from the leak detection system and the system must be kept free of fluids. If the pond and leak detection fluids are similar the OCD Santa Fe and appropriate District offices must be notified within 48 hours. Within 72 hours of discovery, the permittee must submit a plan to the OCD Santa Fe and appropriate District offices for review and approval that describes what procedures will be taken to investigate and repair the leak." OCD has not received the required plan to investigate and repair the leak since the June 2014 submittal. Please submit the required plan that describes what procedures will be taken to investigate and repair the leak in the pond for OCD's consideration of approval and to demonstrate compliance to the conditions of Permit NM1-008. OCD has also not received any additional semi-annual treatment zone monitoring results or quarterly vadose zone monitoring results for 2014. Please provide OCD the missing semi-annual treatment zone monitoring results and quarterly vadose zone monitoring results for 2014.

Please perform the five year vadose zone monitoring program demonstration on all of the active landfarm cells and submit the sampling results and comparison to background and/or PQLs demonstrating compliance of Paragraph (3) of 19.15.36.15.E NMAC by EPA SW-846 methods 6010B or 6020 within 60 days of the date of this letter. Please submit all future vadose zone (native soils) sampling results demonstrating TPH by EPA Method 418.1 or an equivalent method capable of demonstrating a carbon range from C<sub>6</sub> to C<sub>36</sub>. Please ensure that the laboratory's reporting limit does not exceed the established background and/or PQLs for all future vadose zone sampling events. Please identify the depth in which sample are obtained on the laboratory chain of custody for all future vadose zone sampling events. Please submit a background sampling plan in accordance with Subsection B of 19.15.36.15 NMAC to OCD under a separate cover, for OCD's consideration of approval to update the existing background data set within 30 days of the date of this letter. If statistics are proposed in the demonstration,

please provide references from EPA statistical guidance documents to support proposed statistical methods. Please provide OCD follow up information regarding the high chloride soil in the treatment zone and a plan to isolate and remove soils from the treatment zone that exceed the waste acceptance criteria and the closure standard for chlorides within 30 days of the date of this letter. Please submit the required plan that describes what procedures will be taken to investigate and repair the leak in the pond for OCD's consideration of approval and to demonstrate compliance to the conditions of Permit NM1-008 within 30 days of the date of this letter. Also, please submit to OCD the missing semi-annual treatment zone monitoring results and the other 3 quarterly vadose zone monitoring results for 2014 within 30 days of the date of this letter.

OCD has implemented some new policies for submittal. For future submittals, please include a cover letter from the owner/operator, on the owner's/operator's company letterhead, that recognizes the owner/operator has reviewed the submittal, signed by the owner/operator. Also, please provide an updated facility map, for each individual sampling event, that identifies the individual landfarm cells within the facility boundary and indicate the approximate location within the landfarm cells in which the samples were obtained. If there are any questions regarding this matter, please do not hesitate to contact me at (505) 476-3487 or [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us).

Sincerely,

A handwritten signature in black ink, appearing to read 'BAJ', with a long horizontal line extending to the right.

Brad A. Jones  
Environmental Engineer

BAJ/baj

Cc: OCD District III Office, Aztec

State of New Mexico  
Energy, Minerals and Natural Resources Department

---

Susana Martinez  
Governor

David Martin  
Cabinet Secretary

Brett F. Woods, Ph.D.  
Deputy Cabinet Secretary

David R. Catanach, Division Director  
Oil Conservation Division



June 25, 2015

Tony Schmitz  
T-n-T Environmental, Inc.  
HCR 74 Box 113  
Lindrith, New Mexico 87029

**RE: Facility Permitted Acreage  
T-n-T Environmental, Inc.  
Permit NM1-008 (Evaporation Ponds and Landfarm)  
Location: SE/4 of Section 7 and SW/4 of Section 8 (evaporation ponds) and the  
SW/4 SE/4 and SE/4 NW/4 of Section 5 and NE/4 NW/4 of 8 (landfarm), Township  
25 North, Range 3 West, NMPM, Rio Arriba County, New Mexico**

Dear Mr. Schmitz:

The Oil Conservation Division (OCD) has received and completed the review of T-n-T Environmental, Inc.'s (T-n-T) letter, dated June 6, 2015, stating T-n-T's disagreement of OCD's position regarding the acreage approved by OCD for surface waste management facility under Permit NM1-008 as the T-n-T Environmental Landfarm. Based upon the letter, it is T-n-T's position that by OCD's use of the legal description (Section, Township, Range) in correspondence regarding the surface waste management facility equates to recognition of the permitted acreage for landfarm operations. OCD wishes to clarify that OCD use of the legal description has been to identify the location of the facility, as identified as such in the heading of this letter.

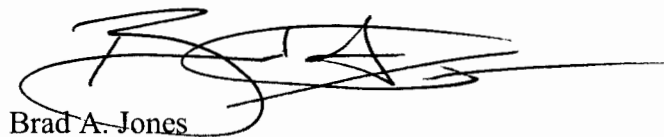
OCD's position regarding the permitted acreage of the facility is based upon and supported by the original June 1, 1992 permit application and material dated August 4, 1992, submitted as supplements to the application, both signed and submitted by Tony Schmitz. Line 3 of the 1992 permit application provides the legal description next to the heading *LOCATION*. Section III, *Location of Disposal Site*, states "The 20.5 acre remediation site is specifically located on parts of a 120 acre tract described as: SW 1/4, SE 1/4, SEC. 5, T.25N., R.3W.; SE 1/4, SW 1/4, SEC. 5, T.25N., R.3W.; NE 1/4, NW 1/4, SEC. 8, T.25N., R.3W in Rio Arriba County, New Mexico, see Figure 1. The facility is generally located 8 miles NW of Lindrith, New Mexico near Highway 537 on the 'Schmitz Ranch, N. Mex.' Quadrangle, a 1:24000" (7.5 Minute Series) USGS topographic sheet, see Figure 1 and Exhibit A, a survey map of the proposed facility." Please see the attached copy of the 1992 permit application. Page 7 of the 1992 permit application illustrates the proposed facility boundary by fence line and the proposed bermed

landfarm area. On page 11 of the 1992 permit application, the assessment of the amount of stormwater generated during a 100-year storm event was calculated to demonstrate 20.5 acres. Exhibit A, a survey map of the proposed facility, demonstrates a total of approximately 18.17 acres assessed for the proposed bermed landfarm area. The survey did not provide an assessment for the proposed facility boundary. The supplement material, dated August 4, 1992, provides Exhibits A, B, and D that identify the same location and footprint as identified in the June 1, 1992 permit application. Please see the attached copy of the supplement material, dated August 4, 1992.

The first paragraph of OCD's September 8, 1992 Rule 711 permit approval states "The permit application for the TNT Construction, Inc. Landfarm located in the SW/4 SE/4 and SE/4 SW/4 of Section 5 and the NE/4 NW/4 of Section 8, Township 25 North, Range 3 West, NMPM, Rio Arriba County, New Mexico, is hereby approved in accordance with the Oil Conservation Division (OCD) Rule 711 under the conditions contained in the enclosed attachment. The application consists of the original application dated June 1, 1992, and the materials dated August 4, 1992, submitted as supplements to the application." The first sentence is clear that the landfarm is "located in the" the identified legal description and does not give or identify the legal description as "the permitted acreage" as proposed in the June 6, 2015 correspondence. The first sentence is also clear that the "permit application" is approved.

A review of the administrative files (OCD Online) does not indicate any modification to the 1992 permit with respect to the landfarm facility footprint. If T-n-T has pursued a modification to expand the landfarm facility footprint since the initial permitting of 1992, please provide OCD copies of T-n-T's permit modification requests and OCD's associated approvals. Until such documentation can be provided, OCD stands behind the information that T-n-T submitted in its 1992 permit application and OCD approved. If there are any questions regarding this matter, please do not hesitate to contact me at (505) 476-3487 or [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us).

Sincerely,



Brad A. Jones  
Environmental Engineer

BAJ/baj

Attach: June 1, 1992 - Application For A Remediation Facility  
August 4, 1992 - Additional Information Request, dated 7-23-92

Cc: OCD District III Office, Aztec (w/o attach)

# **APPLICATION FOR A SOIL REMEDATION FACILITY**

**RECEIVED**

**JUN 04 1992**

**OIL CONSERVATION DIV.  
SANTA FE**

**SW 1/4, SE 1/4, SEC, 5, T.25N., R.3W.  
SE 1/4, SW 1/4, SEC, 5, T.25N., R.3W.  
NE 1/4, NW 1/4, SEC. 8, T.25N., R.3W.  
IN  
RIO ARriba COUNTY, NEW MEXICO**

**June 1, 1992**

**T-N-T CONSTRUCTION, INC.  
STAR ROUTE  
LINDRITH, NEW MEXICO 87029  
(505) 774-6663**

10 90

State of New Mexico  
Energy, Minerals and Natural Resources Department  
OIL CONSERVATION DIVISION  
P.O. Box 2088  
Santa Fe, NM 87501

**APPLICATION FOR SURFACE WASTE DISPOSAL FACILITY**

(Refer to OCD Guidelines for assistance in completing the application.)

- I. Type: ☐ Produced Water ☐ Drilling Muds ☐ Treating Fluids  
☐ Solids ☐ Other Soil Remediation Facility  
(land farm)
- II. OPERATOR: TNT Construction, Inc.  
ADDRESS: Star Route Lindrith, NM 87029  
CONTACT PERSON: Tony Schmitz PHONE: (505) 774-6663
- III. LOCATION: SW SE 5 25N 3W SEE  
/4 /4 Section 5 Township 25N Range 3W Attached  
Submit large scale topographic map showing exact location. ATTACHED Map
- IV. IS THIS AN EXPANSION OF AN EXISTING FACILITY? ☐ Yes ☒ No
- V. Attach the name and address of the landowner of the disposal facility site and landowners of record within one-half mile of the site.
- VI. Attach description of the facility with a diagram indicating location of fences, pits, dikes, and tanks on the facility.
- VII. Attach detailed engineering designs with diagrams prepared in accordance with Division guidelines for the construction/installation of the following: pits or ponds; leak-detection systems; aerations systems; enhanced evaporation (spray) systems; waste treating systems and security systems.
- VIII. Attach a contingency plan for reporting and clean-up of spills or releases.
- IX. Attach a routine inspection and maintenance plan to ensure permit compliance.
- X. Attach a closure plan.
- XI. Attach geological/hydrological evidence demonstrating that disposal of oil field wastes will not adversely impact fresh water.
- XII. Attach proof that the notice requirements of OCD Rule 711 have been met. (Commercial facilities only.)
- XIII. Attach a contingency plan in the event of a release of H<sub>2</sub>S.
- XIV. Attach such other information as is necessary to demonstrate compliance with any other OCD rules, regulations and/or orders.
- SEE ATTACHED REPORT-----
- XV. CERTIFICATION

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: TONY L SCHMITZ Title: PRESIDENT  
Signature: [Signature] Date: 6-1-92

DISTRIBUTION: Original and one copy to Santa Fe with one copy to appropriate Division District Office.

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**APPLICATION FOR CONSTRUCTION AND OPERATION OF A SOIL  
REMEDATION FACILITY IN SECTIONS 5 AND 8,  
T.25N., R.3W.,  
RIO ARriba COUNTY, NEW MEXICO**

The following information and application are submitted by TNT Construction, Inc. (TNT) to the New Mexico Oil Conservation Division (OCD) for review and approval. The information addresses material required by the New Mexico Oil Conservation Division in the '**Guidelines For Application For Waste Storage/Disposal Facility Permits (revised 11-90)**', rule 711.

The purpose of this report is to detail information as required for OCD authorization to operate this site for soil remediation.

**I. TYPE OF OPERATION:**

T-N-T Construction, Inc. (TNT) proposes to construct and operate a commercial soil remediation facility for bioremediating hydrocarbon contaminated soils. These hydrocarbon contaminated soils, solids, and sludges will have been excavated from production, exploration, and processing activities within the area as a result of their mediation efforts. Only substances classified as non-hazardous by RCRA Subtitle C exemption or by characteristic testing will be accepted at the facility. Solids from operations not currently exempt under RCRA Subtitle C will be tested for appropriate hazardous constituents prior to disposal with approval from the OCD. TNT proposes to clean up these hydrocarbon contaminated soils through soil bioremediation techniques.

**II. OPERATOR:**

T-N-T Construction, Inc. (a New Mexico Corporation)  
Star Route  
Lindrith, NM 87029  
505-774-6663

The following are representatives for TNT Construction, Inc. at the above aforementioned telephone number and address:

Tony L. Schmitz, President  
Tony Schmitz, Vice President  
Craig Schmitz, Board Member

**III. LOCATION OF DISPOSAL SITE:**

The 20.5 acre remediation site is specifically located on parts of a 120 acre tract described as:

SW 1/4, SE 1/4, SEC. 5, T.25N., R.3W.;  
SE 1/4, SW 1/4, SEC. 5, T.25N., R.3W.;  
NE 1/4, NW 1/4, SEC. 8, T.25N., R.3W  
in Rio Arriba County, New Mexico,  
see Figure 1.

The facility is generally located 8 miles NW of Lindrith, New Mexico near Highway 537 on the 'Schmitz Ranch, N. Mex.' Quadrangle, a 1:24000" (7.5 Minute Series) USGS topographic sheet, see Figure 1. and Exhibit A., a survey map of the proposed facility.

#### **IV. EXPANSION REQUEST:**

Not applicable.

#### **V. LAND OWNERSHIP:**

The remediation facility is located on fee acreage owned by TNT Construction, Inc., Tony L. Schmitz, President, Star Route, Lindrith, NM 87029. The boundary of lands owned by Tony L. Schmitz are designated by a broad dashed line on Figure 1. There is one other land owner within 1/2 mile of the proposed facility other than lands held by TNT and Schmitz Ranch, see Appendix for letter of notification. TNT is owned and operated by the Schmitz family.

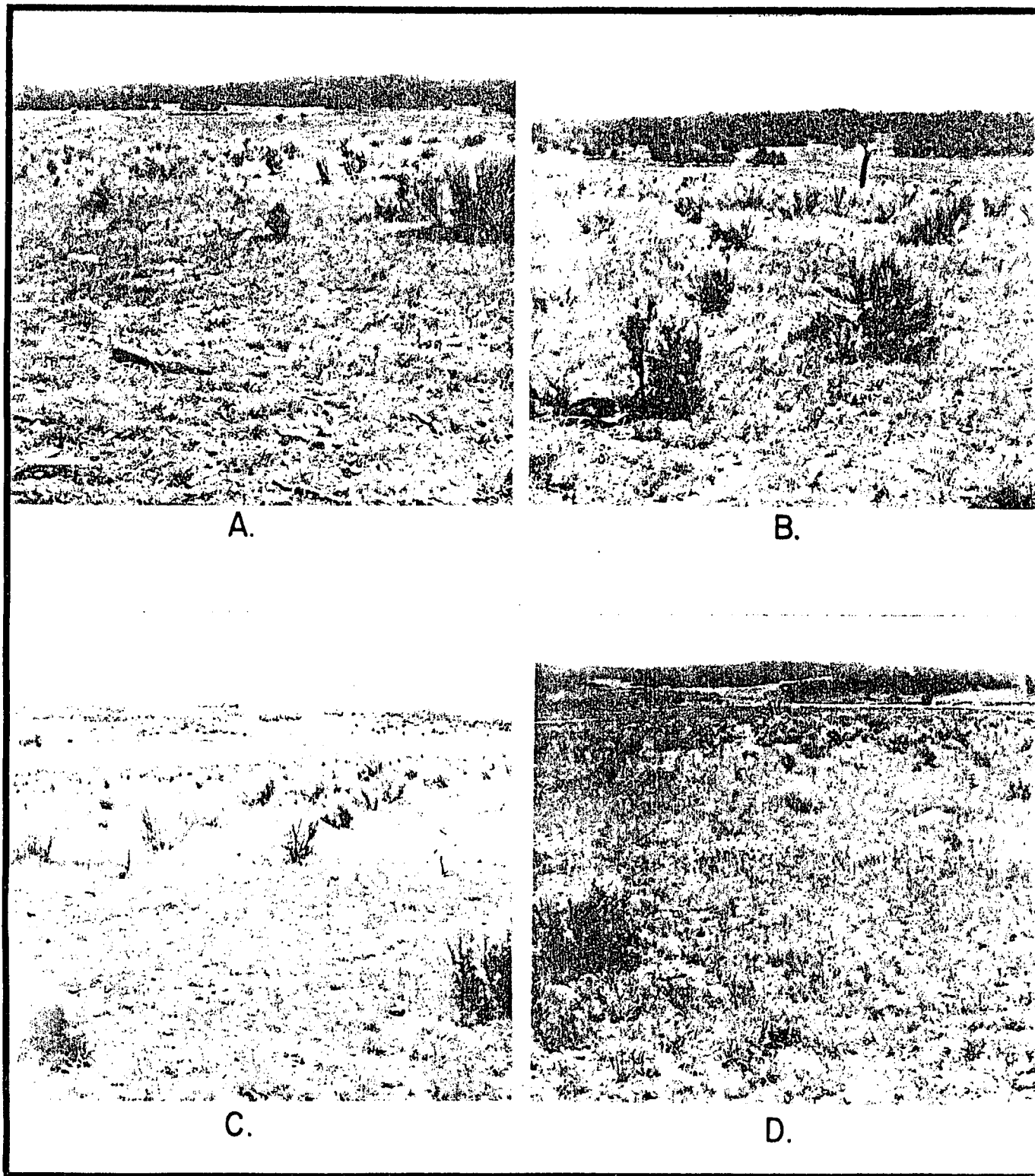
The surface of the proposed facility is presently covered by sparse to moderate growth of weeds, grass, and sage brush, see Figure 2. The property is presently undeveloped pasture land. Drainage/washes that pass near the margins of the proposed facility are one to three feet deep and are grass covered. A fence, located along the east side of the proposed property and along Highway 537, is presently being replaced this spring by a government highway agency. Highway 537 is being widened and resurfaced through the Schmitz Ranch, north to Dulce, NM.

#### **VI. STORAGE/DISPOSAL FACILITIES DESCRIPTION:**

The proposed facility will be used to bioremediate hydrocarbon contaminated soils from point sources within the general area, specifically the southern portion of the San Juan Basin in Rio Arriba, Sandoval, and San Juan Counties, New Mexico. Hydrocarbon contaminated soils will come primarily from oil/gas production pits undergoing remediation.

The facility will consist of nearly flat land completely enclosed by a three (3) foot minimum high berm to contain or prevent the entering of any rain, melted snow or any other surface waters into or onto the facility or areas where hydrocarbon contaminated soils are stored or spread, see Exhibit A. A higher berm of 3-6 feet will be built where ponding of water may occur on the down slope side of the facility. Exhibit A. is a surveyed map of the proposed facility showing the location of the Highway 537, proposed entrance road, surface impoundments, soil receiving area, berms, ponding areas for run-off water, fence lines, and other survey data.





**Figure 2.** Four photographs of the proposed site taken from the west side of the site looking across the proposed facility. (A) Upper-Left, a view to the north ; (B) Upper-Right, a view to the northeast; (C) Lower-Left, a view to the southeast; and (D) Lower-Right, a view to the south.

## VII. ENGINEERING DESIGN:

The facilities will consist of a receiving area for stock piling the above described contaminated soils waiting to be spread on the ground in layers no deeper than six (6) inches and disked or tilled on a monthly basis. Any contaminated soil brought to the land farm facility will be certified by laboratory analysis. Material brought to the land farm by the owner/operator (TNT) will have been tested prior to delivery and acceptance. Material brought to the land farm by others will be accompanied by a laboratory certification identifying the constituents of the material to be remediated or be tested by TNT through an independent laboratory prior to remediation. Only solids that are non-hazardous by RCRA Subtitle C exemption or by characteristic testing will be accepted at the facility. Solids from operations not currently exempt under RCRA Subtitle C will be tested for appropriate hazardous constituents prior to disposal and submitted to the OCD for approval to dispose such solids.

Areas or 'cells' will be dedicated to soils of similar contamination. Contaminated soils will be disked or tilled by tractor or similar equipment based on degree of contamination, but at least monthly. Sludges, tank bottoms, and waxes will be mixed with clean soils or peat to dilute the contamination so as to enhance the bioremediation process and total remediation of the contained hydrocarbon. An independent laboratory analysis of each area or 'cell' will be conducted periodically in order to monitor effectiveness of the remediation programs. 'Bugs' or bacteria may be utilized and introduced to the contaminated soil, should the remediation process be shown not to be progressing at a satisfactory pace.

No solids will be spread on previously spread solids until a laboratory measurement of total petroleum hydrocarbons (TPH) in the previous lift is less than 100 ppm and the sum of all aromatic hydrocarbons is less than 50 ppm, and benzene is less than 10 ppm. Comprehensive records of the laboratory analyses and the sampling locations will be maintained by TNT. Authorization from the OCD will be obtained prior to application of successive lifts.

An attendant will be present when the facility is open for receipt of contaminated soils. At all other times the facility will be locked and secured to prevent unauthorized dumping. Comprehensive records of all material disposed of at the facility will be maintained. The records for each load will include:

1. Origin of contaminated soil and operator
2. Analysis for hazardous constituents, if required
3. Transporter of contaminated soils
4. Date received at the facility

Surface, stock or drinking water may be used periodically to increase the moisture content to 5-15% of the total weight of the contaminated soil, so as to moisten the soil and promote bacterial growth, resulting in improved bioremediation times. Water (non-waste water) may be applied to the surface

of soils already spread on the ground. Water would be distributed by either the use of irrigation sprinkler systems or by water truck with sprinkling devices. Nitrogen/phosphate fertilizers may be utilized as a nutrient to enhance bacterial growth, and improve the remediation time of contaminated soils. Soil samples would be taken on a periodic basis to test effectiveness of any enhanced bioremediation processes employed within the facility.

Berm construction would be in accordance with normal earth work practices. Fill dirt used in the construction of the berms will be compacted in horizontal lifts to the finished grade of three (3) feet or more. Lift thicknesses will be compatible with compaction equipment used to achieve uniform densities. Lift thicknesses will be in intervals of about nine (9) inches. A 3:1 (horizontal to vertical) slope will be maintained on the outside slopes of the berm during construction. A slope no steeper than 2:1 (horizontal-vertical) grade will be maintained on the inside of the berm, see Figure 3. The berms will be constructed of tightly compacted shale/clay and shall be at least 18 inches wide at the top. No fill dirt will be placed which is frozen or where in-place soil is frozen.

Clay soils at the proposed facility are similar to clays at the waste water facility, 5/8 mile to the southwest, which were tested for permeability and exhibited a permeability coefficient of  $3.8$  to  $9.8 \times 10^8$  centimeters/second or about .04 feet per year (Western Technologies report dated May 2, 1988. These clay rich soils should prevent any downward migration of surface water or associated contaminated materials resulting from the remediation process.

A receiving area for temporary storage of contaminated soils will be excavated, lined with plastic/fabric, and covered with 3 feet of clay/dirt.

A positive drainage system will be provided around the outside base (toe) of the berm on the north, west, and east sides to prevent erosion from possible run-off waters outside of the facility. A barbed wire fence shall be constructed and maintained in good condition around the facility perimeter. Adequate space will be provided for maintenance and the passage of vehicles along the perimeter of the facility. A fence already exists along the west side of the facility. A gate and cattle guard will be installed on the road entering the facility. The fence shall be constructed so as to prevent any livestock from entering the facility area. Fences shall not be constructed on the berms, see Figure 3.

A sign not less than 12" X 24" with lettering of not less than two (2") inches shall be posted in a conspicuous place at the entrance to the facility. The sign will be maintained in legible condition and shall identify the operator of the soil remediation facility, the location of the facility by quarter-quarter, section, township, range; and emergency telephone numbers.

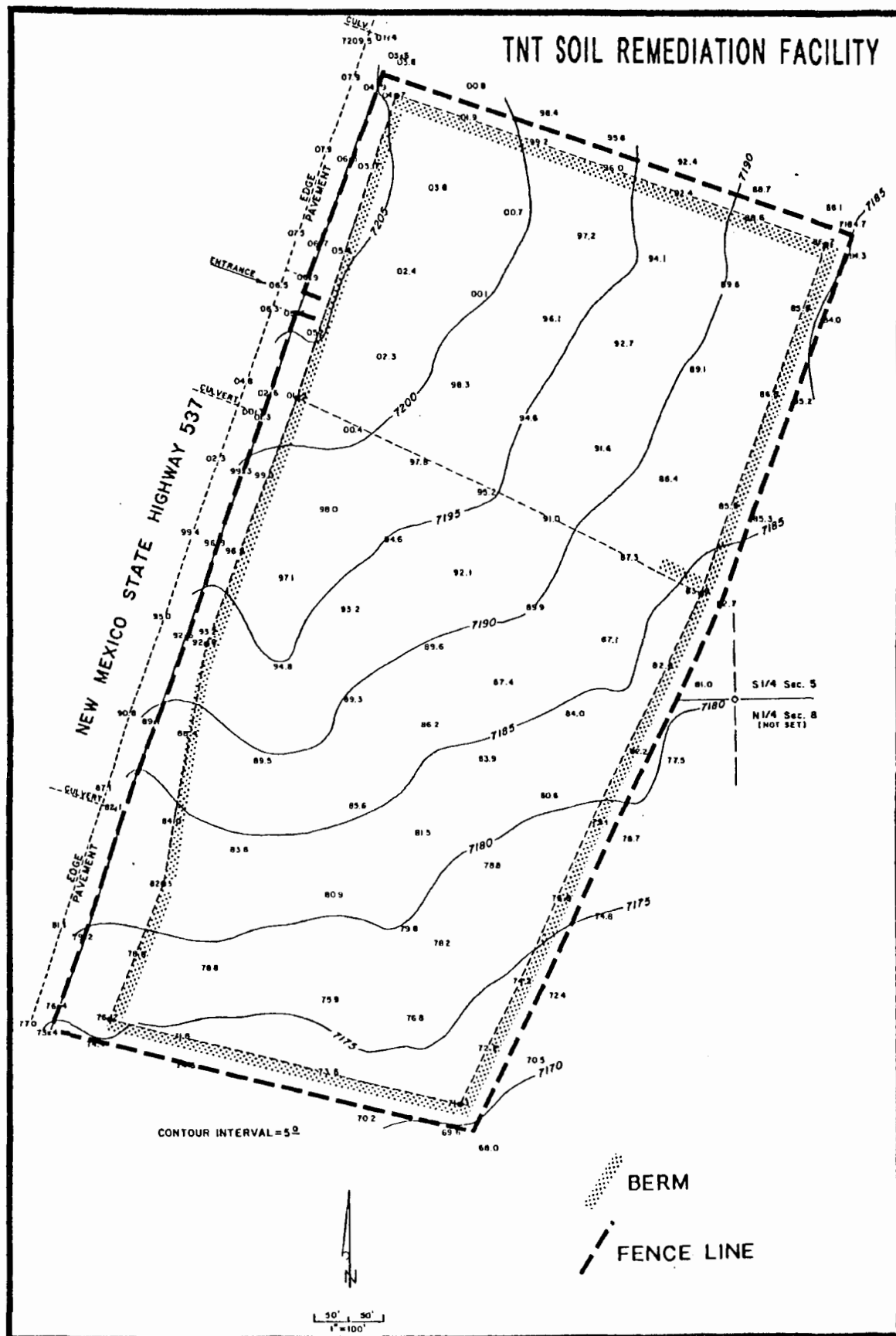


Figure 3. A photo reduction of the surveyed facility showing berms (stippled), Fence lines (heavy dashed line), and the entrance to the proposed facility.

### **Agencies to be Notified:**

Rio Arriba County Fire Marshal -- (505) 588-7254  
New Mexico State Police -- (505) 289-3443  
Rio Arriba County Sheriff -- (505) 588-7271

## **VIII. CONTINGENCY PLANS**

There are no existing drainages within the planned facility. Drainages outside the berm perimeter will be properly contoured to control erosion. Since the facility is located on a gentle hill and no significant arroyas or other surface drainages are near by, it would be highly unlikely that water would ever enter or breach the perimeter berm. The berm perimeter shall be maintained in such a manner as to prevent erosion. Inspections of the outside berm area shall be made after any rainfall of any consequence.

Any surface water containing possible hydrocarbons released due to berm failure, from the facility as a result of heavy rains and subsequent run-off, would be removed from the area of release and returned to the facility for remediation, should the area of release be determined to be contaminated through sampling techniques.

No spills are anticipated at the facility since no waste water or liquids are to be processed at the facility. Run-off from seasonal rain storms and snow melt will be contained within the facility by the perimeter berm. The berm will be at least four (4) feet high in the areas where rain fall and subsequent run-off will pond within the facility even during potential 100 year storms. Studies have shown that once contaminated soils have been spread in a six (6") lift and properly tilled, rain water run-off crossing remediated soils picks up little or no hydrocarbons. Necessary dirt equipment will be on or near the facility at all times. In the event of a release from the facility the OCD Director or staff will be notified within two (2) working days.

## **IX. ROUTINE INSPECTION AND MAINTENANCE PLAN**

Berms, dikes, fences, and remediation areas will be inspected periodically. Any repairs or general maintenance will be performed immediately. Records of dates, kinds of inspections, and types of repairs shall be maintained. Perimeter berms will be maintained in such a manner to prevent erosion from within or outside the berm perimeter.

TNT shall keep and make available for inspection records for each calendar month on the source, location, volume, and type of soil waste, analysis for hazardous constituents (if required), date of disposal, and hauling company that disposes of contaminated soils to the facility. Such records will be maintained for a period of two (2) years from date of disposal at the facility.



Disposal at the facility shall occur only when an attendant is on duty. The facility shall be secured when no attendant is present. When loads of soil can be monitored or otherwise isolated for inspection before disposal, an attendant may not be at the facility.

#### **X. CLOSURE:**

All plans and specifications shall be submitted to and approved by the OCD prior to closure. The OCD will be notified when the facility discontinues the acceptance of soils for a period of six months or more, or when the facility is to be dismantled/permanently closed.

Upon closure of the facility no new material will be accepted. Existing soil remediation programs will continue until soil remediation programs meet OCD standards and are verified by independent laboratory testing. TNT will remove all such buildings, tanks, equipment or hardware that would not be used in normal ranching operations. The area will be seeded with natural grasses and allowed to return to its natural state or the lands may be used for pasture or growing crops by the Schmitz Ranch. Berms will be leveled and returned to their natural contours and reseeded. Any berms needed in the ranching operation for control of erosion or ponding of water for stock use will be salvaged. A representative of the OCD will inspect the site to determine that restoration is adequate or in compliance with future ranching activities.

#### **XI. SITE CHARACTERISTICS - FRESH WATER PROTECTION DEMONSTRATION:**

The proposed land farm/remediation facility will not adversely impact the ground water in the area. The following is a list of water, streams (perennial or intermittent), water wells, and surface water storage facilities within the general area of the proposed facility, see **Figure 4**.

1. **Surface Water** - The nearest surface water is located along Canon de Los Qjitos 3/4 miles to the south, an intermittent stream with numerous man made stock ponds along its length on the Schmitz Ranch. The Canon do los Qjitos is a tributary of the Canada Larga and Largo Canyon intermittent streams. Largo Canyon empties into the San Juan River some 70+ miles down stream from the proposed facility.
2. **Other Facilities** - Two waste disposal ponds are located 5/8 of a mile to the southwest of the proposed remediation facility and are presently operated by TNT.
3. **Water Wells** - One water well is located 3/4 of a mile to the east in the SW 1/4, SW 1/4, Sec. 4, T. 25 N., R. 3 W. and another well one mile to the south in SW 1/4, SW 1/4, Sec. 8, T. 25 N., R. 3 W. Both wells are owned and maintained by the Schmitz Ranch and used for domestic or stock use.

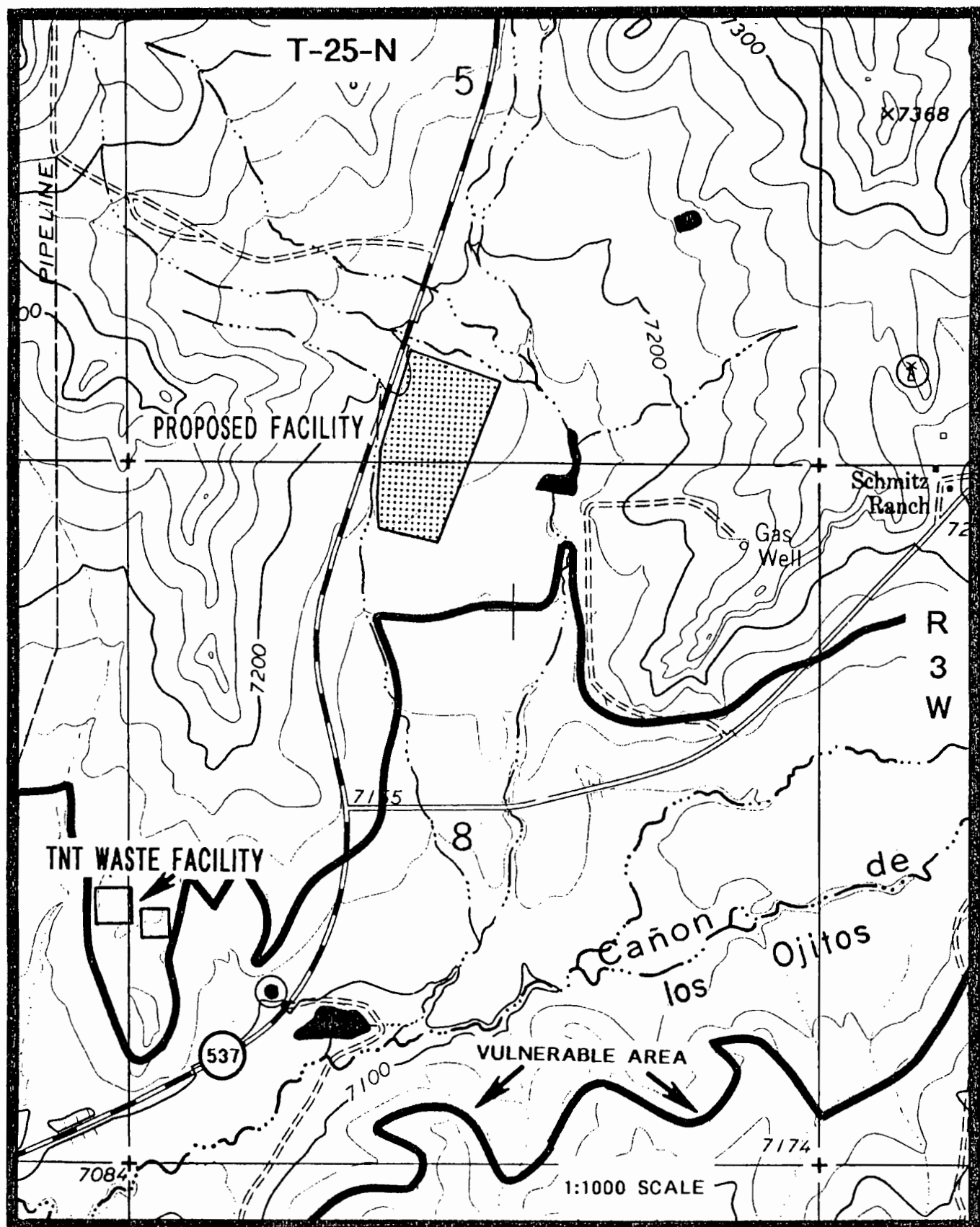


Figure 4. A photo enlargement of Sections 5 and 8 from the 'Schmitz Ranch N. Mex.' Quadrangle Sheet. Water wells are represented by 1/4 inch circles, primary intermittent streams are highlighted, stock ponds are shaded, and a heavy black line denotes the boundary of the vulnerable area.

4. **Ground Water** - Ground water was not encountered at or near the surface to a depth of 300 feet in either well or any other well within the general area, during drilling or completion. Monitor wells and stratigraphic test wells drilled at the waste disposal facility 5/8 of a mile to the southwest did not encounter fresh water. This drilling, coupled with the water depths encountered in the two water wells described above, suggests that the water table in the area is at a depth of more than 300 feet and in some cases at a depth of 900 feet.

5. **Stock Ponds** - A stock pond (reservoir) is located 800 feet to the east of the proposed facility and would be an additional barrier for some water over-flow resulting from an unlikely breach of the berm along the east sides of the facility.

6. **Flood Control** - The facility is located on nearly flat ground at and along the flanks of a gently dipping hill with about 5-10 feet of maximum relief from one side of the facility to the other. Annual rain fall is about 3-6 inches per year in the general area and is considered to be a semi-arid to arid environment. Topographically, surface water run-off from the proposed facility would be primarily to the east and to the south with some run-off to the north, see **Figure 5**. Run-off waters would pond at numerous locations along the berm, rather than one central location. Multiple ponding areas would improve the containment ability of the perimeter berm by dispersing run-off waters.

The amount of water generated during a 100 year storm would be confined by the berm located along the east and south sides of the facility. Assuming 43,560 square feet in an acre and a rain fall of two (2) inches during a six (6) hour period with 50% estimated as run-off, then approximately 74,181 cubic feet of water would be required to be contained along the berm on the south and east side of facility during a 100 year storm.

$$(20.5 \text{ acres}) \times (43,560 \text{ sq. ft/acre}) \times (.1666 \text{ ft. water}) \times (.50) = 74,181 \text{ cubic feet of water}$$

With a dike height of four (4+) feet along the south and east side, 6 feet in the south corner of the facility (5 feet maximum water depth in south corner), an average water depth of two (2) feet along the south side and 1.5 feet in the northeast corner, the berm would have a holding capacity of approximately 185,000 cubic feet of water or a run-off equivalent to 5+ inches of rain in 24 hours during a projected 100 year storm.

7. **Geology** - The San Jose Formation (Eocene Age) is the youngest Tertiary rock unit found within the San Juan Basin and occurs at the surface throughout a great deal of the central part of the San Juan Basin and the entire study area. The San Jose consists of interbedded shales, sandstones, and mudstones of continental origin with a maximum thickness of 2700 feet in the basin center or about 1000-1500 feet in the study area.

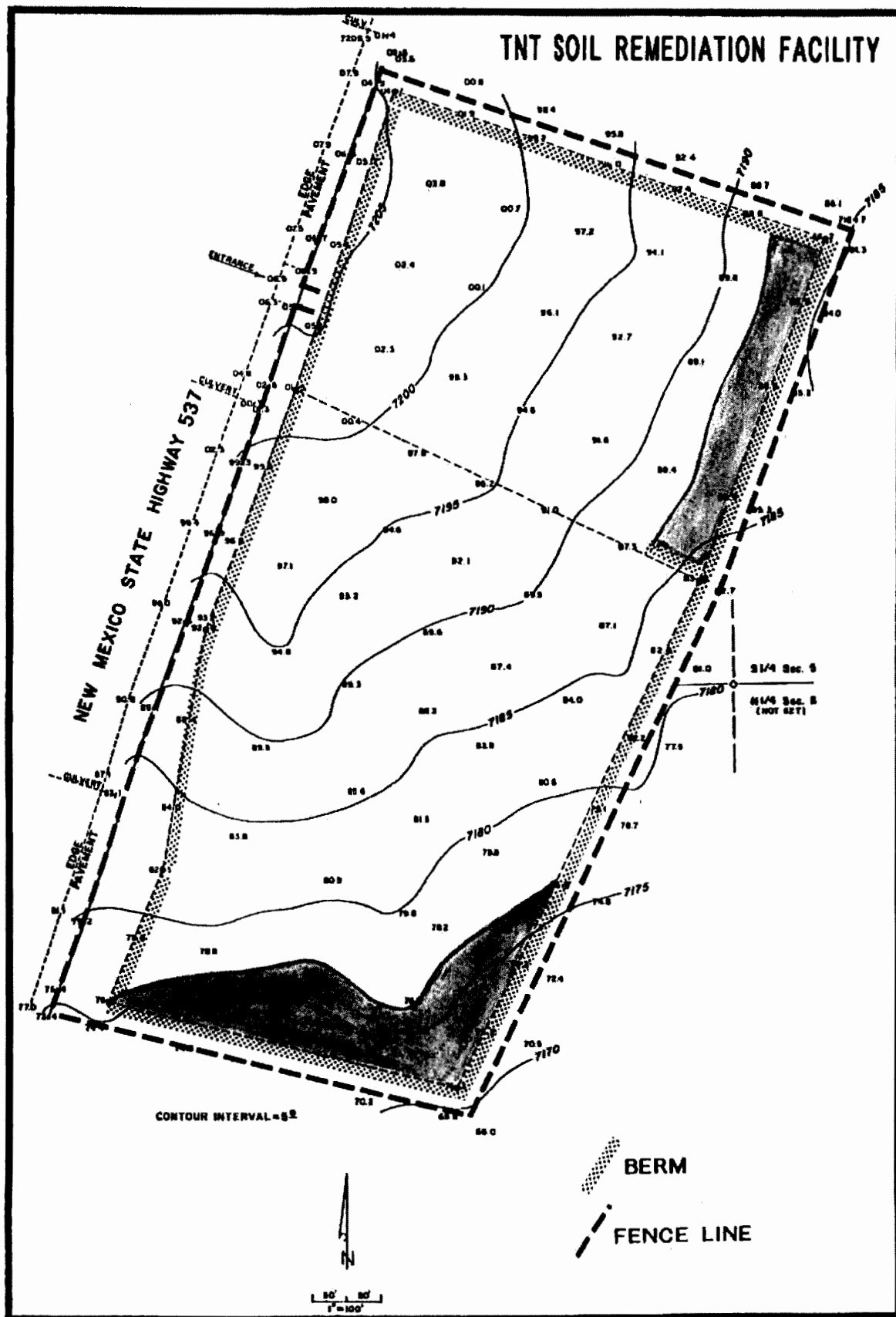


Figure 5. A diagram showing the location of ponding areas (blue) along the perimeter berm (stippled) where normal or 100 year run-off waters are projected to pool.

Tan to brown verigated clay-shale/mudstones with sporadic sandstone lenses make up the stratigraphy of the general land farm location and beds dip to the north at about 1 degree. The abundance of swelling clay/mudstones containing abundant bentonite is attested to by the familiar popcorn weathering habit of these units within the area. Illite, montmorillonite, and bentonite are the major constituents of the clay/mudstone portion of the San Jose Formation at the proposed facility. No sandstones crop out on the grounds of the proposed facility nor are their any outcrops visible up dip to the south toward Canyon de los Ojitos, which might underlie the land farm. No surface alluvium deposits exist on the property.

#### **XII. PROOF OF NOTICE:**

One land owner ~~other~~ of record other than the applicants (Tony Schmitz/TNT) have title to lands within 1/2 mile of the proposed land farm facility, see **Figure 1**. The north half of sections 4 and 5 are held by Mrs. Clarence Vogel of Albuquerque, NM. No one lives on the property and is used for graising of farm animals.

#### **XIII. CONTINGENCY PLAN FOR H<sub>2</sub>S:**

No hydrogen sulphide problems are expected due to the nature of the waste facility. However, monitoring for H<sub>2</sub>S will be conducted by facility personnel and should concentrations of 5-9 ppm be encountered by testing , appropriate chemical treatment programs will be implemented.

#### **XIV. ADDITIONAL INFORMATION:**

Two copies of the application will be provided to the OCD office in Santa Fe, NM and one copy to the District OCD office in Aztec, NM. Additional copies will be available from TNT, upon request. .

A registered professional engineer will submit as-built plans for the proposed facility as soon after construction as possible.

Before commencing construction, TNT shall post a surety or cash bond in the amount of \$25,000, in a form approved by the Division, conditioned upon compliance with statues of the State of New Mexico and rules of the OCD, and satisfactory clean up of the facility upon cessation of operation, in accordance with the basic closure plan herein submitted. TNT will notify the Division of any material change affecting the bond filed for this facility and will, in any case, report the status of the bond annually to the Division.

If the foregoing information contained within this application is acceptable to the New Mexico Oil Conservation Division, please notify TNT Construction, Inc. upon approval. Should there be additional information needed to commence construction and operation please notify TNT personnel as soon as convenient, TNT (505) 774-6663 or Jim Gurney (505) 325-8181.

I, James W. Gurney, consulting geologist, certify that I am familiar with the information contained in and submitted with this application and that such information is true, accurate, and complete to the best of my knowledge.

the best of my knowledge, James W. Gunning Geologist 6-1-92  
Name Title Date

\_\_\_\_\_  
Name Title Date

# APPENDIX

TNT Construction, Inc  
Star Route  
Lindrith, NM 87029

June 1, 1992

Mrs. Clarence Vogel  
1401 Sigma Chi St.  
Albuquerque, NM 87104

Re: Permit Application to State of New Mexico Oil Conservation Division for operation of a land Farm Facility:

Dear Mrs. Vogel,

TNT Construction, Inc. (Tony Schmitz family) is applying to the State of New Mexico Oil Conservation Division (OCD) for a permit allowing TNT to operate a land Farm Facility. OCD Rule 711, requires that land owners, located within one half mile of the proposed facility be notified of pending applications by the applicant. The proposed facility is just less than one-half mile to the south of your lands in the north-half of Section 5, in Township 25 North, Range 3 West in Rio Arriba County, New Mexico., please see the attached land map.

The proposed land farm is specifically in SW 1/4, SE 1/4, SEC. 5, T.25N., R.3W.; SE 1/4, SW 1/4, SEC. 5, T.25N., R.3W.; NE 1/4, NW 1/4, SEC. 8, T.25N., R.3W. in Rio Arriba County, New Mexico.

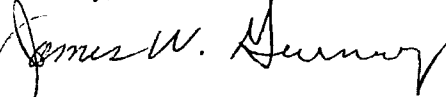
The land farm intends to accept non hazardous oil field waste solids and soils as described in RCRA Subtitle C or by characteristic testing analysis. The material will be applied to the land surface and natralized by atmospheric exposure and by organisms contained within the soils. Berms will surround the facility in order to prevent and materials from leaving the facility as a result of excess rain-fall. Note that the facility is topographically lower than your acreage to the north and should pose no problems with surface run-off, see the attached land map. The facility will also be fenced. The operation from a cosmetic view point will appear no different than land prepared for the planting of crops. Once the soils and solids are remediated (decontaminated) the soils can be used as top soil, fill, or any other use where normal dirt or soil might be utilized. The process utilized at the facility has been and is now an established technology for remediating hydrocarbon contaminated soils.

Please direct any comments to:

New Mexico Oil Conservation Divison, State Land Office Building  
P. O. Box 2088 Santa Fe , New Mexico 87504-2088

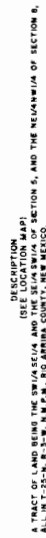
Thank you for your cooperation.

Sincerely,



James W. Gurney  
Geologist for TNT Construction, Inc.



Sec 508, Y25N, R3W, NMPM  
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30' 50' 100'

STATE OF NEW MEXICO

(continued)

I, EDGAR L. RISENHOVER, BEING FIRST DULY SWORN, UPON MY OATH, STATE THAT I AM THE REGISTERED PROFESSIONAL LAND SURVEYOR WHO MADE THE MAP OF THE TOWN OF CONSTRUCTION SOIL REMEDIATION FACILITY AND THAT SUCH MAP CONSISTING OF 1 SHEET WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS BY ME OR UNDER MY DIRECTION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND IN ACCORDANCE WITH NEW MEXICO MINIMUM STANDARDS.

Ernest J. Risenhoover  
ERNEST J. RISENHOOVER

LICENSE NO K979

CLASSIFIED AND SWORN BEFORE ME THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 1992.

100

Gamma of: Rheinbaben

NOTARY PUBLIC



EDGAR L. RISENPOWER  
PROFESSIONAL ENGINEER

FROM BOUNDED RATIONALITY  
TO BOUNDED RATIONALITY  
NEW MEASURES OF RATIONALITY



DEPARTMENT OF HEALTH AND HUMAN SERVICES  
NATIONAL SURVEY

565 CR 1191  
FARMINGTON, N

FARMINGTON, N.

## CONSTRUCTION

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1"=100'

REV

## REMEDIATION FACILITIES

APPROVED BY \_\_\_\_\_

445

1111X-1



# TNT Construction, Inc.

HCR 74 - Box 115  
Lindrith, NM 87029  
(505) 774-6663

August 4, 1992

Re: Commercial Landfarm Request  
Additional Information Request, dated 7-23-92  
TNT Construction, Inc.  
Rio Arriba County, NM

Kathy M. Brown, Geologist  
New Mexico Oil Conservation Division  
Box 2088  
Santa Fe, New Mexico 87504

Dear Kathy Brown:

The following information is in response to your letter dated July 23, 1992 as submitted to Tony L. Schmitz, TNT Construction, Inc.

- 1a. TNT proposes to construct a lined receiving area for temporary storage of contaminated soils. Any contaminated soils received at the facility which are located outside of the lined receiving area will be spread and disked within 72 hours of receipt, see response 5a for more information on receiving area.
- 1b. All contaminated soils will be spread in 6 inch lifts or less and will be disked a minimum of one time every two weeks (biweekly) to enhance biodegradation of contaminants.
- 1c. TNT will receive a certified statement from the 'waste generator' that all of the contaminants in the soil received by TNT are from RCRA Subtitle C exempt wastes.
- 1d. OCD approval will be obtained prior to the addition of any substances to enhance biodegradation of soils landfarmed (i.e. chemicals/fertilizers, manure, nutrients, bacteria/bugs). There will be no ponding, pooling, or run-off of water during the application of non-waste water to the surface.
- 1e. No free liquids or soils with free liquids will be accepted at the facility.
- 1f. When loads of soil are received at the TNT facility an attendant will be on duty.
2. Attached is a map of all private residences within 1 mile of the proposed facility (see **Exhibit A**). There is only one residence within one mile of the landfarm facility, the Schmitz Ranch, where the Tony Schmitz family resides. The Schmitz Ranch is

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OIL CONSERVATION DIV.  
SANTA FE

located on fee lands owned by Tony Schmitz. A map showing the surface ownership and boundaries of lands within one mile of the landfarm facility is attached (see Exhibit A). The only land owner within 1/2 mile of the landfarm, other than Tony Schmitz, is Mrs. Clarence Vogel, 1410 Sigma Chi St., Albuquerque, NM 87104.

3. TNT submitted a letter to the sole landowner of record (Mrs. Clarence Vogel) within 1/2 mile of the proposed landfarm notifying them of the landfarm application on June 6, 1962 and the original certified mail return receipt is attached. A copy of the letter sent to Mrs. Vogel can be found in the original Landfarm Application - Appendix.
4. TNT in accordance with OCD Rule 116 "will notify the Division of any fire, break, spill, or blowout occurring at any injection or disposal facility .... such facility". TNT commits to notifying the Division of any fire, break, spill or blowout in accordance with the provisions set forth in OCD Rule 116.C.
- 5a. Attached is a diagram showing the location of the receiving area, cross-hatched (see Exhibit B and C). The receiving area will be about 35 by 80 feet in size. Contaminated soils received at the facility will, most often, be dumped within a designated cell and spread within 72 hours.
- 5b. Attached is a photo reduction of the landfarm survey map showing the berm location on all four sides of the facility (see Exhibit D). In section VII, page 6 in the Application TNT states that the berm will be constructed to a finished grade of three (3) feet or more. TNT has taken a conservative approach to how high the berm needs to be in areas of possible ponding due to rain run-off during normal or potential 100 year storms and has intentionally raised those berms in those areas.

The height of the berm is based on topographic elevations, potential ponding requirements, and a second 6 inch lift sometime in the future. The height of the berm will be:

North Side 3+ feet along the north side of the facility;

East Side 4 feet high along the north end of the east side, 3+ feet along the center portion of the east side, and from 3-7 feet high along the south end of the east side of the facility;

South Side 3- 7 feet high (west to east) along the south side of the facility;

West Side 3+ feet along the entire west side of the facility.

About 90-100 feet of the berm on the south side at the southeast corner should be 6-7 feet high and about 100-110 feet of berm should be 6 feet along the east side at the southeast corner of the facility. TNT intends to keep the top of the berm level (at a constant elevation) along most of the south side of the facility. Therefore, as ground

elevations change the actual height of the berm will change accordingly, the elevation of the top of the berm along most of the south side and about 300 feet of the east berm will remain constant. The projected berm heights are shown with hollow numbers on the attached map (see Exhibit D).

- 5c. There are no pipelines underlying the proposed landfarm facility.
- 5d. Two small portable building (100-200 square feet) will be located within the 'yard' area of the proposed facility for attendants use and storage of non-hazardous supplies, tools, and sampling equipment (see Exhibit B).

If fertilizers and/or bacterial substances are utilized to enhance bioremediation, OCD approval will be requested as stated in paragraph 1d. The physical nature and volume of said substances that might be used is not known at this time. OCD approval will be obtained prior to the addition of any substances to enhance biodegradation of soils landfarmed (ie. chemicals/ fertilizers, manure, nutrients, bacteria/bugs). Storage, spill prevention and containment measures would be addressed at that time with the Division.

A 50 bbl water tank will be placed above ground within the 'yard' area near the west berm as shown on Exhibit B. Only non-waste (stock-surface run-off) water will be stored in the tank, which will be used for irrigation of the contaminated soil lifts.

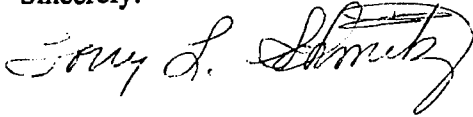
- 6. Because a landfarm is designated to remediate contaminated soils and not transfer contaminants into the underlying native soil and/or ground water, TNT will monitor a treatment zone not to exceed two (2) feet beneath the landfarm. TNT commits to the following conditions as required by the OCD:
  - 6a. A background sample must be taken for each cell prior to placement of any contaminated soils in the cell. A minimum of one random soil sample will be taken from each individual cell six (6) months after the first contaminated soils are received in the cell and then annually thereafter. The sample will be taken at two to three (2-3) feet below the native ground surface.
  - 6b. The soil samples will be analyzed for total petroleum hydrocarbons (TPH) and volatile aromatic organics (BTEX) using approved EPA methods. The results will be submitted to the OCD Santa Fe Office within thirty (30) days of receipt from the laboratory.
  - 6c. After obtaining the soil samples the boreholes will be filled with an impermeable material such as bentonite cement.
  - 6d. Any cells that have moisture added to them will be analyzed on a quarterly basis following the requirements above.
- 7. TNT commits to close the facility in accordance with all OCD rules and regulations

in effect at the time of closure. This includes achieving the soil standard level which is in effect at closure time.

Before commencing construction a surety bond in the amount of \$25,000 in a form approved by the Division will be posted by TNT.

If additional information is needed or the material is presented is unclear or insufficient please call as soon as possible.

Sincerely.

A handwritten signature in cursive script, appearing to read "Tony L. Schmitz".

Tony L. Schmitz  
President

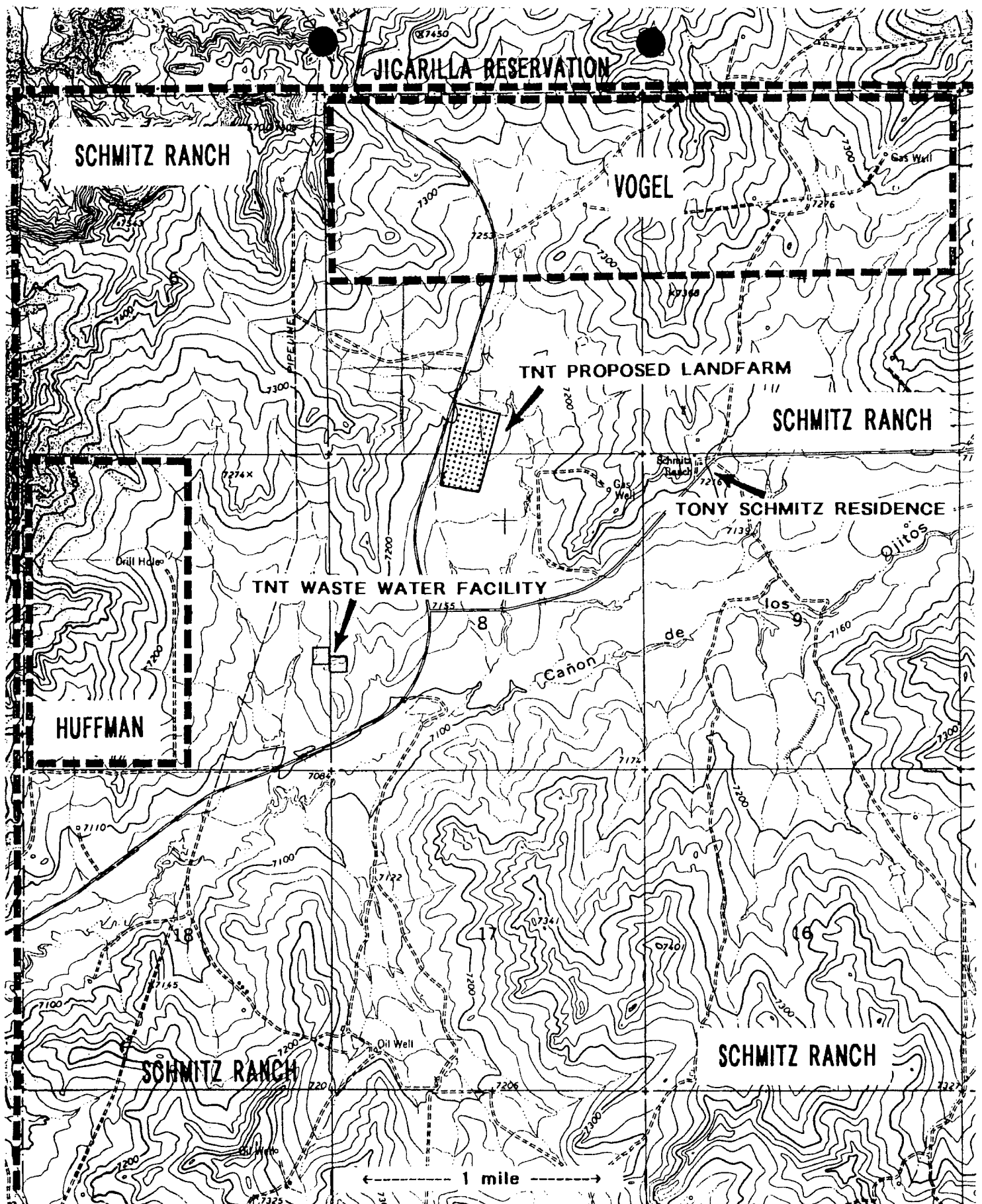
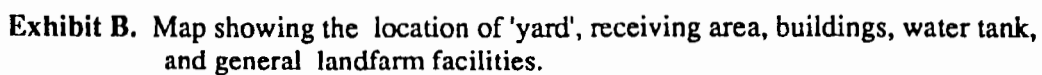
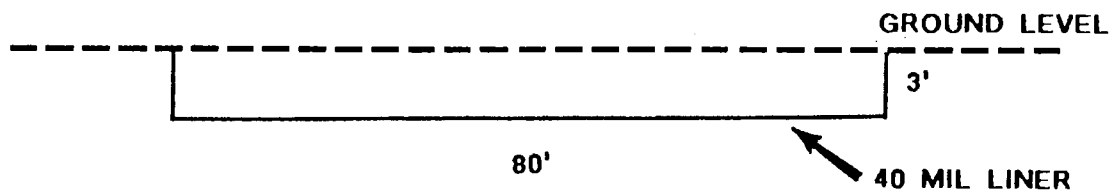
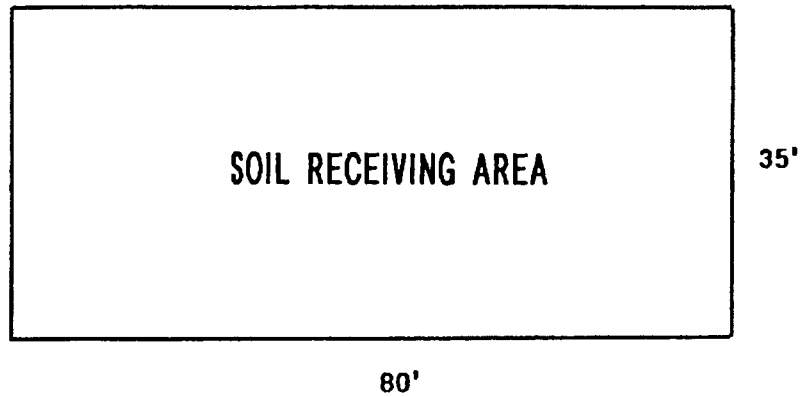


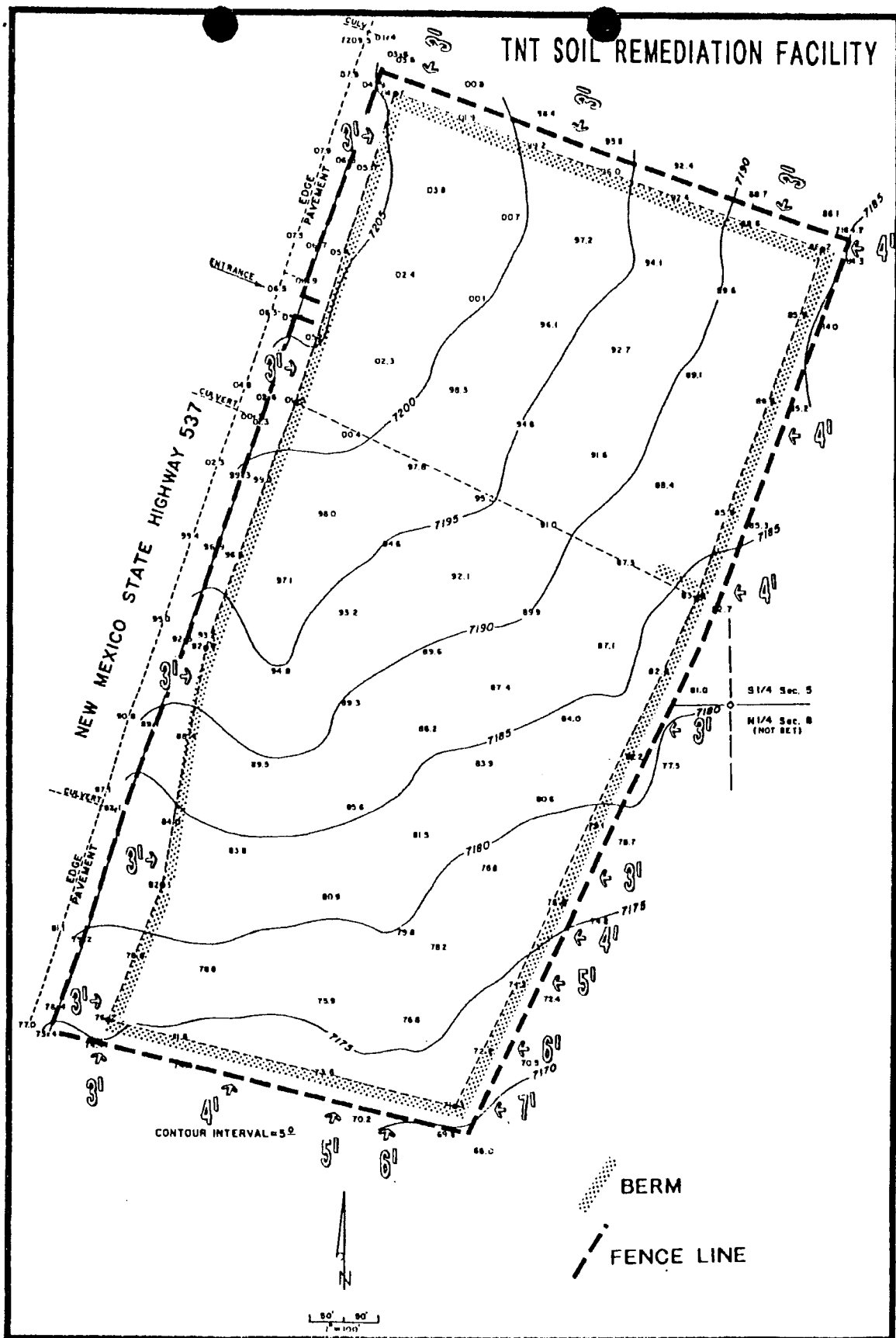
Exhibit A. A photocopy of the Schmitz Ranch, NM topographic sheet showing boundary lines of property ownership and the only residence within one mile of the proposed landfarm.







**Exhibit C.** Diagram showing the size of the poposed lined soil receiving area.



**Exhibit D.** Map of landfarm facility showing berm (stippled), and the projected height of the berm in feet (hollow numbers) around the perimeter of the facility.



T-n-T Environmental

HCR 74 Box 113 - Lindrith, NM 87029  
OCD Permit • NM 01 0008

RECEIVED OCD

2015 JUN -8 P 3:19

June 6, 2015

New Mexico Oil Conservation Division  
Attn: Jim Griswold  
Environmental Bureau Chief  
1220 South St. Francis Drive  
Santa Fe, N M 87505

RE: SWMF Permit #NM-01-0008, T-n-T Environmental Land Farm

Dear Mr. Griswold,

T-n-T Environmental respectfully disagrees with Mr. Brad Jones of your staff regarding the permitted and bonded acreage of our SWMF land farm. From recent correspondence and communication with Mr. Jones, it appears that he considers our permitted and bonded acreage to be approximately 22 acres. For example, in his October 1, 2013 letter in condition #3, Mr. Jones instructed us to only accept material in cells 1 and 2, the acreage he is referring to, implying that any other location is outside of the permitted area.

However, from the time of the initial approval of our permit by NMOCD, the acreage included in the permit consists of 120 acres. The following information is offered in support of that fact. Copies of the referenced documents are attached to this letter.

- The September 8, 1992 letter signed by NMOCD Director William J. LeMay is the original permit. It gives the legal description of the permitted acreage as SW/4 SE/4 and SE/4 SW/4 of Section 5 and the NE/4 NW/4 of Section 8, Township 25 North, Range 3 West, consisting of 120 acres. Operating conditions are attached.
- The October 14, 1996 letter addressed to Mr. Denny Foust of NMOCD District III, conveys the background testing results for cells 1, 2, 3, and 4. At the time, this information was all that was needed to construct new cells within the permitted land farm. This demonstrates that cells 1, 2, 3 and 4 were acknowledged by NMOCD as permitted acreage.
- The August 18, 1997 letter signed by Environmental Geologist Martyne Kieling is a letter of an onsite inspection of our facilities with the same legal description of the permitted acreage of 120 acres.

- The July 6, 1999 letter signed by NMOCD Director Lori Wrotenbery is a permit renewal approval for the same legal description of the permitted acreage of 120 acres, three quarter/quarter Sections, accompanied by more detailed operating conditions and an increase in our financial assurance amount.
- The July 11, 2000 letter signed by Environmental Geologist Martyne Kieling is a letter of an onsite inspection of our facilities with the same legal description of the permitted acreage of 120 acres.
- The May 11, 2001 letter also signed by NMOCD Director Lori Wrotenbery is a permit approval giving the same legal description of 120 acres, conditions, and a final financial assurance amount.
- The January 23, 2003 letter signed by Assistant General Counsel David K. Brooks is an approval for the \$148,690.00 cash bond for T-n-T SWMF, referencing the legal description of SE/4 Section 7 and SW/4 Section 8 and the SW/4 SE/4 and SW/4 Section 5 and the NE/4 NW/4 Section 8 Township 25 North, Range 3 West.
- The August 19, 2004 letter signed by NMOCD Environmental Bureau Chief Roger C. Anderson is a notice of violation with the same legal description as listed above, 120 acres.
- The March 4, 2005 letter signed by NMOCD Director Mark E. Fesmire Administrative Modification of the permit prohibiting the acceptance of salt contaminated oilfield wastes has conditions attached that define the land farm as 120 acres.
- The June 30, 2011 letter signed by NMOCD Director Jami Bailey citing compliance with Rule 36 Transitional provisions incorrectly refers to Section 8, Township 25 North, Range 03 West, NMPM.
- The October 1, 2013 letter signed by Environmental Engineer Brad A. Jones, correctly identifies the permitted land farm as consisting of SW/4SE/4 and SE/4NW/4 of Section 5 and NE/4NW/4 of 8(sic) landfarm, Township 25 North, Range 3 West, NMPM, Rio Arriba County, New Mexico.

In summary, NMOCD originally and continuously identified the permitted acreage of T-n-T land farm as 120 acres, described specifically as SW/4 SE/4 and SE/4 SW/4 of Section 5 and the NE/4 NW/4 of Section 8, Township 25 North, Range 03 West. These documents support that we have continued to operate within our permitted and bonded acreage.

It was our understanding that all we needed to add cells under our permit was to submit background samples to NMOCD. T-n-T is permitted and bonded for 120 acres and any expansion discussed we viewed as anything outside of the 120 bonded acres. Until Mr. Jones' letter of October 1, 2013, we have found no correspondence indicating anything different.

We are looking forward to this matter being resolved so that T-n-T land farm and NMOCD can move on to other items.

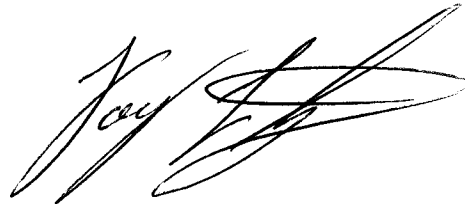
Sincerely,

Craig Schmitz

A handwritten signature in black ink, appearing to be 'Craig Schmitz', with a long, sweeping horizontal stroke extending to the right.

xc: Mr. Brad Jones

Tony Lee Schmitz

A handwritten signature in black ink, appearing to be 'Tony Lee Schmitz', with a stylized, cursive script and a large, looping flourish at the end.



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION



BRUCE KING  
GOVERNOR  
  
ANITA LOCKWOOD  
CABINET SECRETARY

September 8, 1992

POST OFFICE BOX 2088  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO 87504  
(505) 827-5800

CERTIFIED MAIL  
RETURN RECEIPT NO. P-670-683-664

Mr. Tony L. Schmitz  
TNT Construction, Inc.  
Star Route  
Lindrith, New Mexico 87029

RE: TNT Construction, Inc. Landfarm Application  
OCD Rule 711 Permit Approval

Dear Mr. Schmitz:

The permit application for the TNT Construction, Inc. Landfarm located in the SW/4 SE/4 and SE/4 SW/4 of Section 5 and the NE/4 NW/4 of Section 8, Township 25 North, Range 3 West, NMPM, Rio Arriba County, New Mexico, is hereby approved in accordance with the Oil Conservation Division (OCD) Rule 711 under the conditions contained in the enclosed attachment. The application consists of the original application dated June 1, 1992, and the materials dated August 4, 1992, submitted as supplements to the application.

The operation, monitoring and reporting shall be as specified in the enclosed attachment. All modifications and alternatives to the approved landfarming methods must receive prior OCD approval. You are required to notify the Director of any facility expansion or process modification and to file the appropriate materials with the Division.

Please be advised approval of this facility does not relieve you of liability should your operation result in actual pollution of surface or ground waters or the environment actionable under other laws and/or regulations.

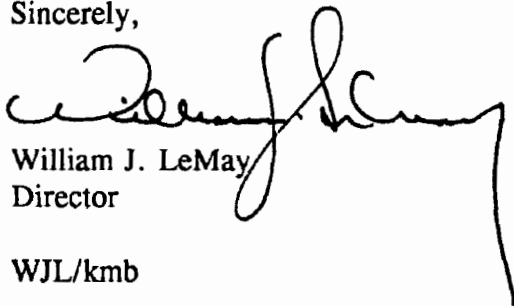
Please be advised that all tanks exceeding 16 feet in diameter and exposed pits, ponds or lagoons must be screened, netted or otherwise rendered nonhazardous to migratory birds.

Mr. Tony Schmitz  
September 8, 1992  
Page 2

This permit approval is for a period of five (5) years. This approval will expire on September 8, 1997 and you should submit an application for renewal in ample time before that date. The Division shall have the authority to administratively change this permit to protect fresh water, human health and the environment.

If you have any questions, please do not hesitate to contact Kathy Brown at (505) 827-5884.

Sincerely,

A handwritten signature in black ink, appearing to read 'William J. LeMay', is written over the printed name and title.

William J. LeMay  
Director

WJL/kmb

Attachment

xc: Denny Foust, OCD Aztec Office

**ATTACHMENT TO OCD 711 PERMIT APPROVAL**  
**TNT CONSTRUCTION, INC.**  
**COMMERCIAL LANDFARM**  
(September 8, 1992)

**LANDFARM OPERATION**

1. All contaminated soils received at the facility will be spread and disked within 72 hours of receipt.
2. Soils will be spread on the surface in six inch lifts or less.
3. Soils will be disked a minimum of one time every two weeks (biweekly) to enhance biodegradation of contaminants.
4. Successive lifts of contaminated soils will not be spread until a laboratory measurement of Total Petroleum Hydrocarbons (TPH) in the previous lift is less than 100 parts per million (ppm), and the sum of all aromatic hydrocarbons (BTEX) is less than 50 ppm, and the benzene is less than 10 ppm. Comprehensive records of the laboratory analyses and the sampling locations will be maintained at the facility. Authorization from the OCD will be obtained prior to application of successive lifts.
5. Only solids which are exempt from the RCRA Subtitle C regulations or non-hazardous by characteristic testing will be accepted at the facility. Solids from operations not currently exempt under RCRA Subtitle C or mixed exempt/non-exempt solids will be tested for appropriate hazardous constituents. Test results must be submitted to the OCD along with a request to receive the non-exempt solids, and a written OCD approval (case specific) must be obtained prior to disposal. Any non-oilfield wastes which are RCRA Subtitle C exempt or are non-hazardous by characteristic testing will only be accepted on a case-by-case basis and with prior OCD approval.
6. Moisture will be added as necessary to control blowing dust and to enhance bioremediation. There will be no ponding, pooling or run-off of water allowed. Any ponding of precipitation will be removed within seventy-two (72) hours of discovery.
7. Enhanced bio-remediation through the application of microbes (bugs) will only be permitted after prior approval from the OCD. Request for application of microbes must include the location of the area designated for the bio-remediation program, composition of additives, and the method, amount and frequency of application.
8. No free liquids or soils with free liquids will be accepted at the facility.
9. Comprehensive records of all material disposed of at the facility will be maintained at the facility. The records for each load will include: 1) the origin, 2) analysis for hazardous constituents if required, 3) transporter, and 4) exact cell location and method of remediation.



### TREATMENT ZONE MONITORING

1. One (1) background soil sample will be taken from the center portion of the landfarm two (2) feet below the native ground surface. The sample will be analyzed for total petroleum hydrocarbons (TPH), general chemistry, and heavy metals using approved EPA methods.
2. A treatment zone not to exceed two (2) feet beneath the land farm will be monitored. A minimum of one random soil sample will be taken from each individual cell, with no cell being larger than five (5) acres, six (6) months after the first contaminated soils are received in the cell and then quarterly thereafter. The sample will be taken at two to three (2-3) feet below the native ground surface.
3. The soil samples will be analyzed for TPH, volatile aromatic organics (BTEX) quarterly and general chemistry and heavy metals annually using approved EPA methods.
4. After obtaining the soil samples the boreholes will be filled with an impermeable material such as bentonite cement.

### REPORTING

1. Analytical results from the treatment zone monitoring will be submitted to the OCD Santa Fe Office within thirty (30) days of receipt from the laboratory.
2. The OCD will be notified of any break, spill, blow out, or fire or any other circumstance that could constitute a hazard or contamination in accordance with OCD Rule 116.

### BOND

Pursuant to OCD Rule 711 a surety or cash bond in the amount of \$25,000, in a form approved by the Division, is required prior to commencing construction of the commercial surface disposal facility.

### CLOSURE

When the facility is to be closed no new material will be accepted. Existing soils will be remediated until they meet the OCD standards in effect at the time of closure. The area will then be reseeded with natural grasses and allowed to return to its natural state. Closure will be pursuant to all OCD requirements in effect at the time of closure.

Roger Anderson  
10/21/96

T-N-T Construction Inc.  
HCR 74 Box 113  
Lindrith, N.M 87029

10/14/96

Mr. Denny Foust  
Oil Conservation Division  
1000 Rio Brazos Rd.  
Aztec, N.M. 87410

RECEIVED  
OCT 1 8 1996

OIL CON. DIV.  
DEPT. 3

Dear Mr. Foust:

Enclosed is the annual background test for the entire T-N-T land farm cell's #1,2,3 that you requested and that we are required to have on file.

If you have any question's please call us.

Sincerely,

Tony Lee Schmitz  
President

cc: OCD Santa Fe

# VOLATILE AROMATIC HYDROCARBONS

## TNT Landfarm

Project ID: Not Given  
Sample ID: Cell #2 Quarterly Test  
Lab ID: 0396G01648  
Sample Matrix: Soil  
Condition: Cool/Intact

Report Date: 09/04/96  
Date Sampled: 08/10/96  
Date Received: 08/15/96  
Date Extracted: NA  
Date Analyzed: 08/21-22/96

Target Analyte	Concentration (ppb)	Detection Limit (ppb)
Benzene	ND	10.0
Toluene	ND	10.0
Ethylbenzene	ND	10.0
m,p-Xylenes	ND	10.0
o-Xylene	ND	10.0

ND - Analyte not detected at the stated detection limit.

<b>Quality Control:</b>	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	Bromofluorobenzene	93.1%	75 -125%

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

**Comments:**

Analyst

Review

**INTER-MOUNTAIN LABORATORIES, INC.**

2506 West Main Street  
Farmington, New Mexico 87401

2506 W. Main Street  
Farmington, New Mexico 87401

(505) 326-4737

09/28/94

Packing Slip: 729

Division: 03

Customer: T-N-T Construction

Customer No: 0000580

Customer P.O.:

Attn: Darlene Schmitz

Sales Code	Description	Quantity	Price	Amount
	Cell-1,2,3,4- Background Area#2			
	Rcd: 09/06/94 Lab# G01455-84			
	PS# 729			
301300	TPH - Method 418.1	30.00	55.00	1650.00
301700	BETX-Soil	30.00	90.00	2700.00
302650	TCLP Metals Analysis	1.00	120.00	120.00
302600	TCLP Metals Extraction	1.00	90.00	90.00
399999	Analytical Suite	1.00	24.00	24.00
	NPK			
900060	Sales Tax 6%	1.00	272.18	272.18

Total: \$4856.18

Packing Slip is for internal use only,  
Invoice will be sent from Corporate Office.



**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

Mr. Tony Schmitz

August 18, 1997

Page 2

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,

A handwritten signature in cursive script, reading "Martyne J. Kieling".

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 include 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<sub>2</sub>S) 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**

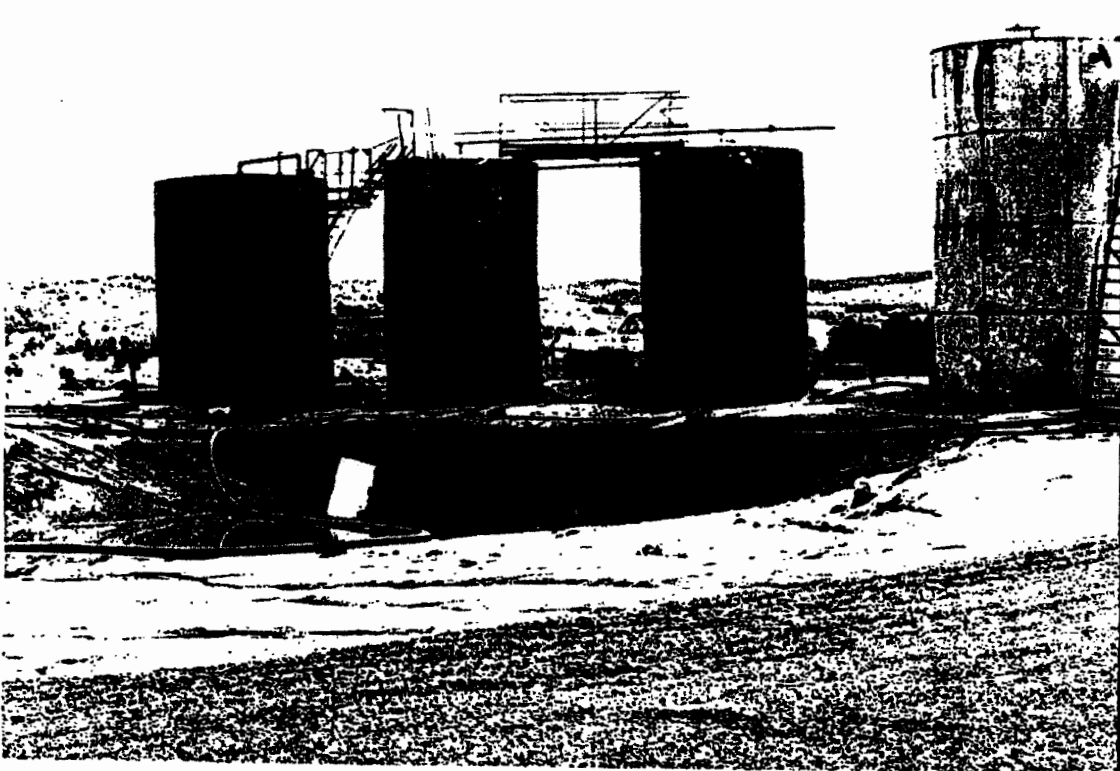


**PHOTO NO. 4      DATE: 06/09/97**

**TNT 711 FACILITY INSPECTION (PHOTOS BY OCD)**



**PHOTO NO. 5      DATE: 06/09/97**



**PHOTO NO. 6      DATE: 06/09/97**



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
2040 S. PACHECO  
SANTA FE, NEW MEXICO 87505  
(505) 827-7131

July 6, 1999

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. P-326-936-525**

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

**RE:   OCD Rule 711 Permit Approval NM-01-0008**  
**T-n-T Construction, Inc.**  
**Commercial Surface Waste Management Facility**  
**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 permit application for the T-n-T Construction, Inc. (T-n-T) commercial surface waste management facility located in the 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 **is hereby approved** in accordance with New Mexico Oil Conservation Division (OCD) Rule 711 under the conditions contained in the enclosed attachment. **This permit approval is conditional upon the receipt and approval by the Director of financial assurance in the amount of \$250,000.** According to the schedule outlined in the financial assurance section of the enclosed attachment, 25% of the \$250,000 financial assurance (\$62,500) is required within thirty (30) days of the date of this permit approval letter. The application consists of the permit application Form C-137 dated October 13, 1997, supplemental materials dated November 8, 1997, materials submitted in conjunction with the original permit dated January 19, 1987, and materials submitted in conjunction with subsequent permit modifications dated March 8, 1988; December 7, 1988; April 24, 1990; September 26, 1991; September 8, 1992; November 16, 1993; April 8, 1994; May 30, 1995; and June 27, 1996.

The construction, operation, monitoring and reporting shall be as specified in the enclosed

Mr. Tony Schmitz  
July 6, 1999  
Page 2

attachment. All modifications and alternatives to the approved treatment, evaporation and landfill methods must receive prior OCD approval. T-n-T is required to notify the Director of any facility expansion or process modification and to file the appropriate materials with the Division.

Please be advised approval of this facility permit does not relieve T-n-T Construction, Inc. of liability should your operation result in actual pollution of surface water, ground water, or the environment. In addition, OCD approval does not relieve T-n-T Construction, Inc. of responsibility for compliance with other federal, state or local laws and/or regulations.

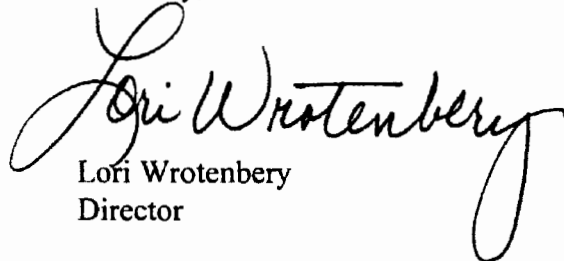
Please be advised that all tanks exceeding 16 feet in diameter and exposed pits, ponds or lagoons must be screened, netted or otherwise rendered non-hazardous to migratory birds. In addition, OCD Rule 310 prohibits oil from being stored or retained in earthen reservoirs or open receptacles.

The T-n-T Commercial Surface Waste Management Facility Permit NM-01-0008 will be reviewed at least once every five (5) years from the date of this approval letter. The facility is subject to periodic inspections by the OCD.

Enclosed are two copies of the conditions of approval. **Please sign and return one copy to the OCD Santa Fe Office within five working days of receipt of this letter.**

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

Sincerely,

A handwritten signature in cursive script, reading "Lori Wrotenbery". The signature is written in black ink and is positioned to the left of the printed name and title.

Lori Wrotenbery  
Director

LW/mjk

xc with attachments:  
Aztec OCD Office



**ATTACHMENT TO OCD 711 PERMIT APPROVAL  
PERMIT NM-01-0008  
T-n-T CONSTRUCTION, INC.  
SURFACE WASTE MANAGEMENT FACILITY  
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 of Section 8 (landfarm),  
Township 25 North, Range 3 West, NMPM,  
Rio Arriba County, New Mexico  
(July 6, 1999)**

**FACILITY AND EVAPORATION POND OPERATION**

1. The facility must be fenced and have a sign at each entrance. The sign must be legible from at least fifty (50) feet and contain the following information: a) name of the facility; b) location by section, township and range; and c) emergency phone number.
2. Disposal may occur only when an attendant is on duty. The facility must be secured when no attendant is present.
3. No produced water may be received at the facility unless the transporter has a valid Form C-133, Authorization to Move Produced Water, on file with the Division.
4. All produced water must be unloaded into tanks. The produced water must reside in the tank system long enough to allow for oil and sediment separation. Oil recovered must be stored in above-ground storage tanks. Per Division General Rule 310, oil shall not be stored or retained in earthen reservoirs or in open receptacles.
5. All existing above-ground tanks located at the facility and containing materials other than fresh water must be bermed to contain one and one-third the volume of the largest tank or all interconnected tanks, whichever is greater. All above-ground tanks must be labeled as to contents and hazards.
6. All new or replacement above-ground tanks containing materials other than fresh water must be placed on an impermeable pad and be bermed so that the area will hold one and one-third the volume of the largest tank or all interconnected tanks, whichever is greater.
7. Below-grade sumps and below-tanks must be cleaned and visually inspected annually. Results must be recorded and maintained for OCD review. If sump/tank integrity has failed the OCD must be notified within 48 hours of discovery and the sump/tank contents must be removed and the contaminated soil must be removed and land farmed at the facility landfarm or disposed of at an OCD-approved facility. Soil remediation must follow OCD surface impoundment closure guidelines. The permittee must submit a report to the OCD Santa Fe and appropriate District offices that describes the investigation and remedial actions taken.

8. All new or replacement below-grade sumps and below-grade tanks at the facility must have secondary impermeable containment with leak detection monitoring. The monitoring system must be inspected for fluids weekly. Results must be recorded and maintained for OCD review. If fluids are present they must be checked and the analyses must be furnished to the OCD Santa Fe and appropriate District offices.
9. The produced water receiving and treatment area must be inspected daily for tank, piping and berm integrity.
10. Any design changes to the produced water receiving, treatment and evaporation area must be submitted to the OCD Santa Fe office for approval.
11. The ponds must have a minimum freeboard of one and a half (1½) feet. A device must be installed in the pond to accurately measure freeboard.
12. The ponds may not contain any oil.
13. Pond inspection and maintenance must be conducted on at least a daily basis and immediately following each consequential rainstorm or windstorm. The OCD Santa Fe and appropriate District office must be notified within 48 hours if any defect is noted. Repairs must be made as soon as possible. If the defect will jeopardize the integrity of the pond additional wastes may not be placed into the pond until repairs have been completed.
14. The leak detection sump at Pond One (1) and Pond Three (3) must be inspected weekly; results must be recorded and maintained for OCD review. If fluid is present in the leak detection system the fluids in the pond and leak detection system must be analyzed for total dissolved solids (TDS). Upon discovery all fluids must be removed from the leak detection system and the system must be kept free of fluids. If the pond and leak detection fluids are similar the OCD Santa Fe and appropriate District offices must be notified within 48 hours. Within 72 hours of discovery, the permittee must submit a plan to the OCD Santa Fe and appropriate District offices for review and approval that describes what procedures will be taken to investigate and repair the leak.
15. The monitor wells surrounding Pond Two (2) must be inspected monthly; results must be recorded and maintained for OCD review. If fluid is present in the monitor wells the fluids in the pond and monitor wells must be analyzed for total dissolved solids (TDS). Upon discovery all fluids must be removed from the monitor wells and the system must be kept free of fluids. If the pond and monitor well fluids are similar the OCD Santa Fe and appropriate District offices must be notified within 48 hours. Within 72 hours of discovery, the permittee must submit a plan to the OCD Santa Fe and appropriate District offices for review and approval that describes what procedures will be taken to investigate and repair the leak.
16. Sludge thickness in the base of each pond must be measured annually within 25 feet of the inlet. Any sludge build-up in the bottom of the pond in excess of twelve (12) inches must be removed and remediated at the facility landfarm or disposed of at an OCD-approved facility.
17. To protect migratory birds, all tanks exceeding 16 feet in diameter and exposed pits, ponds or

lagoons must be screened, netted, covered or otherwise rendered nonhazardous to migratory birds.

18. Liquid reduction technologies that may be used to eliminate pond waters include evaporation and enhanced evaporation..
19. The spray system for enhanced evaporation must be operated such that all spray remains within the confines of the lined portion of the pond.
20. Adequate freeboard must be maintained on all settling pits to prevent overflow.
21. Drilling mud must be unloaded into the settling pit and any free oil will be removed from the drilling mud prior to removal of the mud from the settling pit. Oil recovered must be stored in above ground closed top storage tanks.
22. Free water must be removed from the drilling mud prior to removal of the mud from the settling pit. The water must be stored in above ground closed top tanks and may be spread on the landfarm for dust control and to enhance bio-remediation.

#### **H<sub>2</sub>S PREVENTION & CONTINGENCY PLAN**

- I. In order to prevent development of harmful concentrations of H<sub>2</sub>S, the following procedures must be followed:
  - a. All incoming loads of produced water must be tested for hydrogen sulfide (H<sub>2</sub>S) concentrations. Any loads with measurable H<sub>2</sub>S concentrations must be treated in a closed system. The treatment reaction must be driven to completion to eliminate all measurable H<sub>2</sub>S prior to disposal into the ponds.
  - b. Daily tests must be conducted and records made and maintained of the pH levels in each pond, and if the pH falls below 8.0 remedial steps must be taken immediately to raise the pH.
  - c. Weekly tests must be conducted and records made and retained at the facility of the dissolved oxygen concentrations in each pond. The dissolved oxygen levels in the ponds must be determined according to the following procedures:
    - i. The sample for each test must be taken one foot from the bottom of the pond;
    - ii. The location of each test must vary around the pond; and
    - iii. If any test shows a dissolved residual oxygen level of less than 0.5 ppm, immediate steps must be undertaken to oxygenate the pond and create a residual oxygen level to at least 0.5 ppm. Remedial measures may include adding chemicals or increased aeration.

- d. Weekly tests must be conducted and records made and retained at the facility of the dissolved sulfide concentrations in each pond.
  - e. At least 1000 gallons of a  $H_2S$  treatment chemical will be stored on-site and may not be retained for a period in excess of the manufacturer's stated shelf life. Expired  $H_2S$  treatment chemicals may be disposed of in the ponds.
2. Tests of ambient  $H_2S$  levels must be conducted twice per day. Test results must be recorded and retained. The tests must be conducted at four (4) locations around each pond at the top of the berm. The wind speed and direction must be recorded in conjunction with each test.
- a. If an  $H_2S$  reading of 1.0 ppm or greater is obtained:
    - i. a second reading must be taken on the downwind berm within one hour;
    - ii. the dissolved oxygen and dissolved sulfide levels of the pond must be tested immediately and the need for immediate treatment determined; and
    - iii. tests for  $H_2S$  levels must be made at the fence line down wind from the problem pond.
  - b. If two (2) consecutive  $H_2S$  readings of 1.0 ppm or greater are obtained:
    - i. the operator must notify the Aztec office of the OCD immediately;
    - ii. the operator must commence hourly monitoring on a 24-hour basis; and
    - iii. the operator must obtain daily analysis of dissolved sulfides in the pond.
  - c. If an  $H_2S$  reading of 10.0 ppm or greater at the facility fence line is obtained:
    - i. the operator must immediately notify the Aztec office of the OCD and the following public safety agencies:  
  
New Mexico State Police  
Rio Arriba County Sheriff; and  
Rio Arriba County Fire Marshall
    - ii. the operator must notify of all persons residing within one-half ( $\frac{1}{2}$ ) mile of the fence line and assist public safety officials with evacuation as requested.

#### **LANDFARM OPERATION**

- I. Disposal may occur only when an attendant is on duty. The facility must be secured when no attendant is present.

2. All contaminated soils received at the landfarm must be spread and disked within 72 hours of receipt.
3. Soils must be spread on the surface in six-inch lifts or less.
4. Soils must be disked a minimum of one time every two weeks (biweekly) to enhance biodegradation of contaminants
5. Drilling muds processed at the facility settling pit must be spread on the surface in six-inch lifts or less and disked within 72 hours of receipt.
6. Exempt contaminated soils must be placed in the landfarm so that they are physically separate (*i.e.*, bermed) from non-exempt contaminated soils. There may be no mixing of exempt and non-exempt soils.
7. Successive lifts of contaminated soils or drilling mud may not be spread until a laboratory measurement of total petroleum hydrocarbons (TPH) in the previous lift is less than 100 parts per million (ppm), the sum of all aromatic hydrocarbons (BTEX) is less than 50 ppm, and benzene is less than 10 ppm. Comprehensive records of the laboratory analyses and the sampling locations must be maintained at the facility. Authorization from the OCD must be obtained prior to application of successive lifts and/or removal of the remediated soils. District approval must be obtained in order to remove reconditioned mud from the facility.
8. Moisture may be added as necessary to enhance bioremediation and to control blowing dust. Water collected from the settling of drilling mud may be used for this purpose. There may be no ponding, pooling or run-off of water allowed. Any ponding of precipitation must be removed within twenty-four (24) hours of discovery.
9. Enhanced bio-remediation through the application of microbes (bugs) and/or fertilizers may only be permitted after prior approval from the OCD. Requests for application of microbes or fertilizers must include the location of the area designated for the program, the composition of additives, and the method, amount and frequency of application.
10. The plastic-lined temporary storage soil receiving area must be inspected monthly. The protective three (3) feet of clay soil covering the plastic-lined receiving area must be maintained. Additional clean clay soil may be added as needed for maintenance.
11. The below-grade steel holding and treating trough must be used for the stabilization and absorption of liquids and sludges received by the landfarm facility. The trough must be inspected inside and outside annually and records of such inspections must be made available for OCD inspection.
12. Contaminated soils must not be placed within twenty (20) feet of any pipelines crossing the landfarm. In addition, no equipment may be operated within ten (10) feet of a pipeline. All pipelines crossing the facility must have surface markers identifying the location of the pipelines.

13. The portion of the facility containing contaminated soils must be bermed to prevent runoff and runoff. A perimeter berm no less than three (3) feet above grade with the eastern and southern berm extending to four to six (4 to 6) feet above grade must be constructed and maintained such that it is capable of containing precipitation from a one-hundred year flood for the specific region.

### **TREATMENT ZONE MONITORING**

1. One (1) background soil sample must be taken from the center portion of the landfarm two (2) feet below the native ground surface prior to operation. The sample must be analyzed for total petroleum hydrocarbons (TPH), major cations/anions, volatile aromatic organics (BTEX), and eight (8) RCRA heavy metals using EPA-approved methods.
2. A treatment zone not to exceed three (3) feet beneath the landfarm native ground surface must be monitored. A minimum of one random soil sample must be taken from each individual cell, with no cell being larger than five (5) acres, six (6) months after the first contaminated soils are received in the cell and then quarterly thereafter. The sample must be taken at two (2) to three (3) feet below the native ground surface.
3. The soil samples must be analyzed using EPA-approved methods for total petroleum hydrocarbons (TPH) and volatile aromatic organics (BTEX) quarterly and for major cations/anions and eight (8) RCRA heavy metals annually.
4. After obtaining the soil samples the boreholes must be filled with an impermeable material such as cement or bentonite.

### **WASTE ACCEPTANCE CRITERIA**

1. The facility is authorized to accept only:
  - a. Oilfield wastes that are exempt from RCRA Subtitle C regulations and that do not contain Naturally Occurring Radioactive Material (NORM) regulated pursuant to 20 NMAC 3.1 Subpart 1403. All loads of these wastes received at the facility shall be accompanied by a "Generator Certificate of Waste Status" signed by the generator.
  - b. "Non-hazardous" non-exempt oilfield wastes on a case-by-case basis after conducting a hazardous waste characterization including corrosivity, reactivity, ignitability, and toxic constituents. The samples for these analyses must be obtained from the wastes prior to removal from the generator's facility and without dilution in accordance with EPA SW-846 sampling procedures. All "non-hazardous" non-exempt wastes received at the facility must be accompanied by:
    - i. An approved OCD Form C-138 "Request For Approval To Accept Solid Waste."
    - ii. A "Generator Certificate of Waste Status" signed by the generator.

- iii. A verification of waste status issued by the appropriate agency, for wastes generated outside OCD jurisdiction. The agency verification is based on specific information on the subject waste submitted by the generator and demonstrating the non-hazardous classification of the waste.
  - c. Non-oilfield wastes that are non-hazardous if ordered by the Department of Public Safety in a public health emergency. OCD approval must be obtained prior to accepting the wastes.
2. At no time may any OCD-permitted surface waste management facility accept wastes that are determined to be RCRA Subtitle C hazardous wastes by either listing or characteristic testing.
  3. The transporter of any wastes to the facility must supply a certification that wastes delivered are those wastes received from the generator and that no additional materials have been added.
  4. No produced water may be received at the facility from motor vehicles unless the transporter has a valid Form C-133, "Authorization to Move Produced Water" on file with the Division.
  5. No mud may be accepted at the facility without prior approval from the OCD District Supervisor to move the mud from the drilling location. All drilling muds will be received directly into the settling pit for oil and water separation. Other mud acceptance and application methods may be allowed on a case-by-case basis. The facility must obtain OCD District Supervisor approval for alternate application methods prior to acceptance of the mud. There will be no ponding, pooling or run-off of muds allowed.
  6. Each incoming load of drilling mud must be accompanied by the following information: a) well operator name; b) the well name and location from which the mud was transported; c) transporter; d) description of mud program including mud composition, volume and type of chemicals added; and e) exact cell location where the material is to be remediated.

#### **REPORTING AND RECORD KEEPING**

1. Results of the daily visual inspection of the facility must be recorded and maintained for OCD review.
2. Results of the weekly testing of the leak detection sumps at Pond One (1) and Pond Three (3) must be recorded and a report must be submitted to the OCD Santa Fe office for annual review **by July 6 of each year.**
3. Results of the weekly inspections of the below-grade tank and sump secondary containment systems must be recorded and maintained for OCD review.
4. Results of the monthly testing of the monitor wells surrounding Pond Two (2) must be recorded and a report must be submitted to the OCD Santa Fe office for annual review **by July 6 of each year.**

5. Analytical results from the quarterly treatment zone monitoring must be submitted to the OCD Santa Fe office **within thirty (30) days** of receipt from the laboratory.
6. Loads of drilling mud which contain miscellaneous hydrocarbons exceeding 2/10 of 1% of the total volume of mud must be accompanied by an OCD-approved Form C-117A from the well operator. Accumulations of miscellaneous hydrocarbons must be reported monthly on Form C-112 and the sale and transportation of these hydrocarbons must be permitted only by an approved Form C-104.
7. Results of the testing at the evaporation pond for H<sub>2</sub>S, pH, dissolved sulfides, and dissolved oxygen must be recorded and maintained for OCD review.
8. Results of annual inspection on below-grade sumps and below-grade tanks, and annual measurements of sludge thickness in the pond must be recorded and maintained for OCD review.
9. The applicant must notify the **OCD Aztec District office within 24 hours** of any fire, break, leak, spill, blowout or any other circumstance that could constitute a hazard or contamination in accordance with OCD Rule 116.
10. All records of testing and monitoring must be retained for a period of five (5) years.
11. The OCD must be notified prior to the installation of any pipelines or wells or other structures within the boundaries of the facility.
12. Comprehensive records of all material disposed of at the facility must be maintained at the facility. The records for each load will include: 1) generator; 2) origin; 3) date received; 4) quantity; 5) certification of non-exempt status and analysis for hazardous constituents and or additional documentation to certify non hazardous status; 6) NORM status declaration; 7) transporter; 8) exact cell location; and 9) any addition of microbes, moisture, fertilizers, *etc.*

#### **FINANCIAL ASSURANCE**

1. Financial assurance in the amount of **\$250,000** in the form of a surety or cash bond or a letter of credit, which is approved by the Division, is required from T-n-T Construction, Inc. for the commercial surface waste management facility.

**By August 6, 1999** T-n-T Construction, Inc. must submit 25% of the financial assurance in the amount of **\$62,500**.

**By August 6, 2000** T-n-T Construction, Inc. must submit 50% of the financial assurance in the amount of **\$125,000**.

**By August 6, 2001** T-n-T Construction, Inc. must submit 75% of the financial assurance in the amount of **\$187,500**.



**By August 6, 2002** T-n-T Construction, Inc. must submit 100% of the financial assurance in the amount of **\$250,000.**

2. The facility is subject to periodic inspections by the OCD. The conditions of this permit and the facility will be reviewed by the OCD no later than five (5) years from the date of this approval. In addition the closure cost estimate will be reviewed according to prices and remedial work estimates at the time of review. The financial assurance may be adjusted to incorporate any closure cost changes.

### **CLOSURE**

1. The OCD Santa Fe and Aztec offices must be notified when operation of the facility is discontinued for a period in excess of six (6) months or when the facility is to be dismantled. Upon cessation of operations for six (6) consecutive months, the operator must complete cleanup of constructed facilities and restoration of the facility site within the following six (6) months, unless an extension of time is granted by the Director.
2. A closure plan to include the following closure procedures must be submitted to the OCD for approval:
  - a. When the facility is to be closed no new material will be accepted.
  - b. All evaporation ponds will be allowed to evaporate. Any water not evaporated will be hauled to an OCD-approved facility. The ponds will be surveyed for NORM.
  - c. The soils beneath the evaporation pond, liquids receiving and treatment area and landfarm will be characterized as to total petroleum hydrocarbons (TPH) volatile aromatic organics (BTEX) content to determine potential migration of contamination.
  - d. All above and below grade tanks will be emptied and any waste will be hauled to an OCD-approved facility. The empty tanks will be removed.
  - e. Contaminated soils or existing landfarm soils will be remediated until they meet the OCD standards in effect at the time of closure or removed to an OCD-approved facility.
  - f. The area will be contoured, seeded with native grasses and allowed to return to its natural state. If the landowner desires to keep existing structures, berms, or fences for future alternative uses the structures, berms, or fences may be left in place.
  - g. Closure will be pursuant to all OCD requirements in effect at the time of closure, and any other applicable local, state and/or federal regulations.

T-n-T Construction, Inc.  
711 Permit NM-01-0008  
July 6, 1999  
Page 10

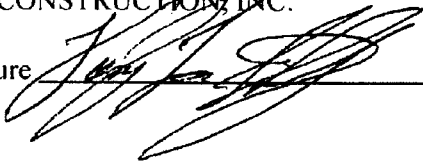
**CERTIFICATION**

T-n-T Construction, Inc., by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. T-n-T Construction, Inc. further acknowledges that these conditions and requirements of this permit may be changed administratively by the Division for good cause shown as necessary to protect ground water, surface water, human health and the environment.

Accepted:

T-n-T CONSTRUCTION, INC.

Signature



Title

*PRES.*

Date

*7/23/99*



# 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 ENVIRONMENTAL, 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 runoff 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, piping, 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 leaks were observed.

9. Evaporation Pond Inspection and Maintenance: The pond must be inspected on a weekly basis or immediately following any consequential rainstorm 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 device 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 monitor 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 6<sup>th</sup> 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 diskings records for the landfarm have been kept.**

19. H<sub>2</sub>S Screening: H<sub>2</sub>S screening must be recorded and maintained.

**The current permit NM-01-0008 requires H<sub>2</sub>S 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 at the 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.**



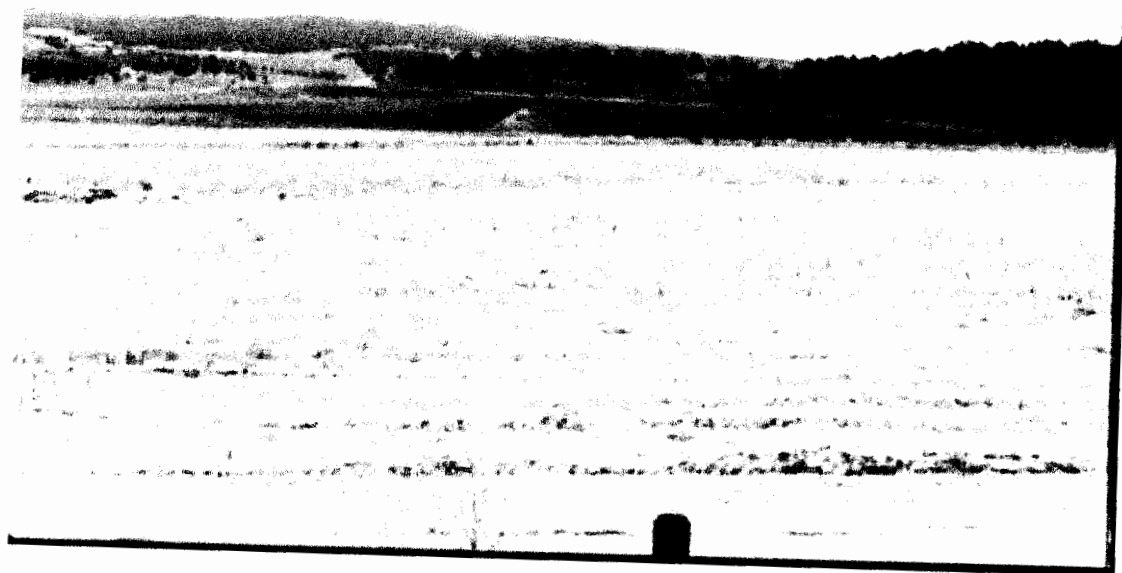


THX Land Farm

Inspection

6/9/97

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TnT Land Farm

Inspection 6/9/97



TnT Land Farm

Inspection 6/9/97



Int Land Farm

Inspection 6/9/97





TNT Land Farm

Inspection 6/9/97



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON

Governor

Jennifer A. Salisbury

Cabinet Secretary

May 11, 2001

Lori Wrotenbery

Director

Oil Conservation Division

**CERTIFIED MAIL**

**RETURN RECEIPT NO. 7099-3220-0000-5051-2344**

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

**RE:   OCD Rule 711 Permit Approval WM-1-008  
      T-n-T Environmental, Inc.  
      Commercial Surface Waste Management Facility  
      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 permit application for the T-n-T Environmental, Inc. (T-n-T) commercial surface waste management facility located in the 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 **is hereby approved** in accordance with New Mexico Oil Conservation Division (OCD) Rule 711 under the conditions contained in the enclosed attachment. **This permit modification approval is conditional upon the receipt and approval by the Director of financial assurance in the amount of \$148,690.** According to the schedule outlined in the financial assurance section of the enclosed attachment, **50% of the \$148,690 financial assurance (\$74,345) is required within thirty (30) days** of the date of this permit approval letter. The application consists of the letter requesting a change to the closure method dated July 7, 2000, permit application Form C-137 dated October 13, 1997, supplemental materials dated November 8, 1997, materials submitted in conjunction with the original permit dated January 19, 1987, and materials submitted in conjunction with subsequent permit modifications dated March 8, 1988; December 7, 1988; April 24, 1990; September 26, 1991; September 8, 1992; November 16, 1993; April 8, 1994; May 30, 1995; and June 27, 1996. This modification supercedes Permit NM-01-0008 approved July 6, 1999.

The construction, operation, monitoring and reporting shall be as specified in the enclosed attachment. All modifications and alternatives to the approved treatment, evaporation and landfill methods must receive prior OCD approval. T-n-T is required to notify the Director of any facility expansion or process modification and to file the appropriate materials with the Division.

Please be advised approval of this facility permit does not relieve T-n-T Environmental, Inc. of liability should your operation result in actual pollution of surface water, ground water, or the environment. In addition, OCD approval does not relieve T-n-T Environmental, Inc. of responsibility for compliance with other federal, state or local laws and/or regulations.

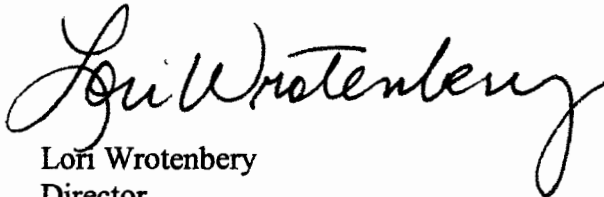
Please be advised that all tanks exceeding 16 feet in diameter and exposed pits, ponds or lagoons must be screened, netted or otherwise rendered non-hazardous to migratory birds. In addition, OCD Rule 310 prohibits oil from being stored or retained in earthen reservoirs or open receptacles.

The T-n-T Commercial Surface Waste Management Facility Permit WM-1-008 will be reviewed at least once every five (5) years from the date of this approval letter. The facility is subject to periodic inspections by the OCD.

Enclosed are two copies of the conditions of approval. **Please sign and return one copy to the OCD Santa Fe Office within five working days of receipt of this letter.**

If you have any questions please do not hesitate to contact Martyne J. Kieling at (505) 476-3488.

Sincerely,

A handwritten signature in cursive script, reading "Lori Wrotenbery".

Lori Wrotenbery  
Director

LW/mjk

xc with attachments:  
Aztec OCD Office

P G E E  
JUN 18 2001  
EVAPORATION POND

**ATTACHMENT TO OCD 711 PERMIT APPROVAL  
PERMIT NM-01-0008  
T-n-T ENVIRONMENTAL, INC.  
SURFACE WASTE MANAGEMENT FACILITY  
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 of Section 8 (landfarm),  
Township 25 North, Range 3 West, NMPM,  
Rio Arriba County, New Mexico  
(May 11, 2001)**

**FACILITY AND EVAPORATION POND OPERATION**

1. The facility must be fenced and have a sign at each entrance. The sign must be legible from at least fifty (50) feet and contain the following information: a) name of the facility; b) location by section, township and range; and c) emergency phone number.
2. Disposal may occur only when an attendant is on duty. The facility must be secured when no attendant is present.
4. No produced water may be received at the facility unless the transporter has a valid Form C-133, Authorization to Move Produced Water, on file with the Division.
5. All produced water must be unloaded into tanks. The produced water must reside in the tank system long enough to allow for oil and sediment separation. Oil recovered must be stored in above-ground storage tanks. Per Division General Rule 310, oil shall not be stored or retained in earthen reservoirs or in open receptacles.
6. All existing above-ground tanks located at the facility and containing materials other than fresh water must be bermed to contain one and one-third the volume of the largest tank or all interconnected tanks, whichever is greater. All above-ground tanks must be labeled as to contents and hazards.
7. All new or replacement above-ground tanks containing materials other than fresh water must be placed on an impermeable pad and be bermed so that the area will hold one and one-third the volume of the largest tank or all interconnected tanks, whichever is greater.
8. Below-grade sumps and below-tanks must be cleaned and visually inspected annually. Results must be recorded and maintained for OCD review. If sump/tank integrity has failed the OCD must be notified within 48 hours of discovery and the sump/tank contents must be removed and the contaminated soil must be removed and land farmed at the facility landfarm or disposed of at an OCD-approved facility. Soil remediation must follow OCD surface impoundment closure guidelines. The permittee must submit a report to the OCD Santa Fe and appropriate District offices that describes the investigation and remedial actions taken.
9. All new or replacement below-grade sumps and below-grade tanks at the facility must have secondary impermeable containment with leak detection monitoring. The monitoring system must be inspected for fluids weekly. Results must be recorded and maintained for OCD review. If fluids are present they must be checked and the analyses must be furnished to the OCD Santa Fe and appropriate District offices.

10. The produced water receiving and treatment area must be inspected daily for tank, piping and berm integrity.
11. Any design changes to the produced water receiving, treatment and evaporation area must be submitted to the OCD Santa Fe office for approval.
12. The ponds must have a minimum freeboard of one and a half (1½) feet. A device must be installed in the pond to accurately measure freeboard.
13. The ponds may not contain any oil.
14. Pond inspection and maintenance must be conducted on at least a daily basis and immediately following each consequential rainstorm or windstorm. The OCD Santa Fe and appropriate District office must be notified within 48 hours if any defect is noted. Repairs must be made as soon as possible. If the defect will jeopardize the integrity of the pond additional wastes may not be placed into the pond until repairs have been completed.
15. The leak detection sump at Pond One (1) and Pond Three (3) must be inspected weekly; results must be recorded and maintained for OCD review. If fluid is present in the leak detection system the fluids in the pond and leak detection system must be analyzed for total dissolved solids (TDS). Upon discovery all fluids must be removed from the leak detection system and the system must be kept free of fluids. If the pond and leak detection fluids are similar the OCD Santa Fe and appropriate District offices must be notified within 48 hours. Within 72 hours of discovery, the permittee must submit a plan to the OCD Santa Fe and appropriate District offices for review and approval that describes what procedures will be taken to investigate and repair the leak.
16. The monitor wells surrounding Pond Two (2) must be inspected monthly; results must be recorded and maintained for OCD review. If fluid is present in the monitor wells the fluids in the pond and monitor wells must be analyzed for total dissolved solids (TDS). Upon discovery all fluids must be removed from the monitor wells and the system must be kept free of fluids. If the pond and monitor well fluids are similar the OCD Santa Fe and appropriate District offices must be notified within 48 hours. Within 72 hours of discovery, the permittee must submit a plan to the OCD Santa Fe and appropriate District offices for review and approval that describes what procedures will be taken to investigate and repair the leak.
17. Sludge thickness in the base of each pond must be measured annually within 25 feet of the inlet. Any sludge build-up in the bottom of the pond in excess of twelve (12) inches must be removed and remediated at the facility landfarm or disposed of at an OCD-approved facility.
18. To protect migratory birds, all tanks exceeding 16 feet in diameter and exposed pits, ponds or lagoons must be screened, netted, covered or otherwise rendered nonhazardous to migratory birds.
19. Liquid reduction technologies that may be used to eliminate pond waters include evaporation and enhanced evaporation..

20. The spray system for enhanced evaporation must be operated such that all spray remains within the confines of the lined portion of the pond.
21. Adequate freeboard must be maintained on all settling pits to prevent overflow.
22. Drilling mud must be unloaded into the settling pit and any free oil will be removed from the drilling mud prior to removal of the mud from the settling pit. Oil recovered must be stored in above ground closed top storage tanks.
23. Free water must be removed from the drilling mud prior to removal of the mud from the settling pit. The water must be stored in above ground closed top tanks and may be spread on the landfarm for dust control and to enhance bio-remediation.

#### **H<sub>2</sub>S PREVENTION & CONTINGENCY PLAN**

1. In order to prevent development of harmful concentrations of H<sub>2</sub>S, the following procedures must be followed:
  - a. All incoming loads of produced water must be tested for hydrogen sulfide (H<sub>2</sub>S) concentrations. Any loads with measurable H<sub>2</sub>S concentrations must be treated in a closed system. The treatment reaction must be driven to completion to eliminate all measurable H<sub>2</sub>S prior to disposal into the ponds.
  - b. Daily tests must be conducted and records made and maintained of the pH levels in each pond, and if the pH falls below 8.0 remedial steps must be taken immediately to raise the pH.
  - c. Weekly tests must be conducted and records made and retained at the facility of the dissolved oxygen concentrations in each pond. The dissolved oxygen levels in the ponds must be determined according to the following procedures:
    1. The sample for each test must be taken one foot from the bottom of the pond;
    2. The location of each test must vary around the pond; and
    3. If any test shows a dissolved residual oxygen level of less than 0.5 ppm, immediate steps must be undertaken to oxygenate the pond and create a residual oxygen level to at least 0.5 ppm. Remedial measures may include adding chemicals or increased aeration.
  - d. Weekly tests must be conducted and records made and retained at the facility of the dissolved sulfide concentrations in each pond.
2. At least 1000 gallons of a H<sub>2</sub>S treatment chemical will be stored on-site and may not be retained for a period in excess of the manufacturer's stated shelf life. Expired H<sub>2</sub>S treatment chemicals may be disposed of in the ponds.

3. Tests of ambient H<sub>2</sub>S levels must be conducted twice per day. Test results must be recorded and retained. The tests must be conducted at four (4) locations around each pond at the top of the berm. The wind speed and direction must be recorded in conjunction with each test.
  - a. If an H<sub>2</sub>S reading of 1.0 ppm or greater is obtained:
    - i. a second reading must be taken on the downwind berm within one hour;
    - ii. the dissolved oxygen and dissolved sulfide levels of the pond must be tested immediately and the need for immediate treatment determined; and
    - iii. tests for H<sub>2</sub>S levels must be made at the fence line down wind from the problem pond.
  - b. If two (2) consecutive H<sub>2</sub>S readings of 1.0 ppm or greater are obtained:
    - i. the operator must notify the Aztec office of the OCD immediately;
    - ii. the operator must commence hourly monitoring on a 24-hour basis; and
    - iii. the operator must obtain daily analysis of dissolved sulfides in the pond.
  - c. If an H<sub>2</sub>S reading of 10.0 ppm or greater at the facility fence line is obtained:
    - i. the operator must immediately notify the Aztec office of the OCD and the following public safety agencies:

New Mexico State Police  
Rio Arriba County Sheriff; and  
Rio Arriba County Fire Marshall
    - ii. the operator must notify of all persons residing within one-half (½) mile of the fence line and assist public safety officials with evacuation as requested.

#### **LANDFARM OPERATION**

1. Disposal may occur only when an attendant is on duty. The facility must be secured when no attendant is present.
2. All contaminated soils received at the landfarm must be spread and disked within 72 hours of receipt.
3. Soils must be spread on the surface in six-inch lifts or less.



4. Soils must be disked a minimum of one time every two weeks (biweekly) to enhance biodegradation of contaminants.
5. Drilling muds processed at the facility settling pit must be spread on the surface in six-inch lifts or less and disked within 72 hours of receipt.
6. Exempt contaminated soils must be placed in the landfarm so that they are physically separate (*i.e.*, bermed) from non-exempt contaminated soils. There may be no mixing of exempt and non-exempt soils.
7. Successive lifts of contaminated soils or drilling mud may not be spread until a laboratory measurement of total petroleum hydrocarbons (TPH) in the previous lift is less than 100 parts per million (ppm), the sum of all aromatic hydrocarbons (BTEX) is less than 50ppm, and benzene is less than 10 ppm. Comprehensive records of the laboratory analyses and the sampling locations must be maintained at the facility. Authorization from the OCD must be obtained prior to application of successive lifts and/or removal of the remediated soils. District approval must be obtained in order to remove reconditioned mud from the facility.
8. Moisture may be added as necessary to enhance bioremediation and to control blowing dust. Water collected from the settling of drilling mud may be used for this purpose. There may be no ponding, pooling or run-off of water allowed. Any ponding of precipitation must be removed within twenty-four (24) hours of discovery.
9. Enhanced bio-remediation through the application of microbes (bugs) and/or fertilizers may only be permitted after prior approval from the OCD. Requests for application of microbes or fertilizers must include the location of the area designated for the program, the composition of additives, and the method, amount and frequency of application.
10. The plastic-lined temporary storage soil receiving area must be inspected monthly. The protective three (3) feet of clay soil covering the plastic-lined receiving area must be maintained. Additional clean clay soil may be added as needed for maintenance.
11. The below-grade steel holding and treating trough must be used for the stabilization and absorption of liquids and sludges received by the landfarm facility. The trough must be inspected inside and outside annually and records of such inspections must be made available for OCD inspection.
12. Contaminated soils must not be placed within twenty (20) feet of any pipelines crossing the landfarm. In addition, no equipment may be operated within ten (10) feet of a pipeline. All pipelines crossing the facility must have surface markers identifying the location of the pipelines.
13. The portion of the facility containing contaminated soils must be bermed to prevent runoff and runon. A perimeter berm no less than three (3) feet above grade with the eastern and southern berm extending to four to six (4 to 6) feet above grade must be constructed and maintained such

that it is capable of containing precipitation from a one-hundred year flood for the specific region.

### **TREATMENT ZONE MONITORING**

1. One (1) background soil sample must be taken from the center portion of the landfarm two (2) feet below the native ground surface prior to operation. The sample must be analyzed for total petroleum hydrocarbons (TPH), major cations/anions, volatile aromatic organics (BTEX), and eight (8) RCRA heavy metals using EPA-approved methods.
2. A treatment zone not to exceed three (3) feet beneath the landfarm native ground surface must be monitored. A minimum of one random soil sample must be taken from each individual cell, with no cell being larger than five (5) acres, six (6) months after the first contaminated soils are received in the cell and then quarterly thereafter. The sample must be taken at two (2) to three (3) feet below the native ground surface.
3. The soil samples must be analyzed using EPA-approved methods for total petroleum hydrocarbons (TPH) and volatile aromatic organics (BTEX) quarterly and for major cations/anions and eight (8) RCRA heavy metals annually.
4. After obtaining the soil samples the boreholes must be filled with an impermeable material such as cement or bentonite.

### **WASTE ACCEPTANCE CRITERIA**

1. The facility is authorized to accept only:
  - a. Oilfield wastes that are exempt from RCRA Subtitle C regulations and that do not contain Naturally Occurring Radioactive Material (NORM) regulated pursuant to 20 NMAC 3.1 Subpart 1403. All loads of these wastes received at the facility shall be accompanied by a "Generator Certificate of Waste Status" signed by the generator.
  - b. "Non-hazardous" non-exempt oilfield wastes on a case-by-case basis after conducting a hazardous waste characterization including corrosivity, reactivity, ignitability, and toxic constituents. The samples for these analyses must be obtained from the wastes prior to removal from the generator's facility and without dilution in accordance with EPA SW-846 sampling procedures. All "non-hazardous" non-exempt wastes received at the facility must be accompanied by:
    - i. An approved OCD Form C-138 "Request For Approval To Accept Solid Waste."
    - ii. A "Generator Certificate of Waste Status" signed by the generator.

- iii. A verification of waste status issued by the appropriate agency, for wastes generated outside OCD jurisdiction. The agency verification is based on specific information on the subject waste submitted by the generator and demonstrating the non-hazardous classification of the waste.
  - c. Non-oilfield wastes that are non-hazardous if ordered by the Department of Public Safety in a public health emergency. OCD approval must be obtained prior to accepting the wastes.
- 2. At no time may any OCD-permitted surface waste management facility accept wastes that are determined to be RCRA Subtitle C hazardous wastes by either listing or characteristic testing.
  - 3. The transporter of any wastes to the facility must supply a certification that wastes delivered are those wastes received from the generator and that no additional materials have been added.
  - 4. No produced water may be received at the facility from motor vehicles unless the transporter has a valid Form C-133, "Authorization to Move Produced Water" on file with the Division.
  - 5. No mud may be accepted at the facility without prior approval from the OCD District Supervisor to move the mud from the drilling location. All drilling muds will be received directly into the settling pit for oil and water separation. Other mud acceptance and application methods may be allowed on a case-by-case basis. The facility must obtain OCD District Supervisor approval for alternate application methods prior to acceptance of the mud. There will be no ponding, pooling or run-off of muds allowed.
  - 6. Each incoming load of drilling mud must be accompanied by the following information: a) well operator name; b) the well name and location from which the mud was transported; c) transporter; d) description of mud program including mud composition, volume and type of chemicals added; and e) exact cell location where the material is to be remediated.

#### **REPORTING AND RECORD KEEPING**

- 1. Results of the daily visual inspection of the facility must be recorded and maintained for OCD review.
- 2. Results of the weekly testing of the leak detection sumps at Pond One (1) and Pond Three (3) must be recorded and a report must be submitted to the OCD Santa Fe office for annual review **by July 6 of each year.**
- 3. Results of the weekly inspections of the below-grade tank and sump secondary containment systems must be recorded and maintained for OCD review.
- 4. Results of the monthly testing of the monitor wells surrounding Pond Two (2) must be recorded and a report must be submitted to the OCD Santa Fe office for annual review **by July 6 of each year.**

5. Analytical results from the quarterly treatment zone monitoring must be submitted to the OCD Santa Fe office **within thirty (30) days** of receipt from the laboratory.
6. Loads of drilling mud which contain miscellaneous hydrocarbons exceeding 2/10 of 1% of the total volume of mud must be accompanied by an OCD-approved Form C-117A from the well operator. Accumulations of miscellaneous hydrocarbons must be reported monthly on Form C-112 and the sale and transportation of these hydrocarbons must be permitted only by an approved Form C-104.
7. Results of the testing at the evaporation pond for H<sub>2</sub>S, pH, dissolved sulfides, and dissolved oxygen must be recorded and maintained for OCD review.
8. Results of annual inspection on below-grade sumps and below-grade tanks, and annual measurements of sludge thickness in the pond must be recorded and maintained for OCD review.
9. The applicant must notify the **OCD Aztec District office within 24 hours** of any fire, break, leak, spill, blowout or any other circumstance that could constitute a hazard or contamination in accordance with OCD Rule 116.
10. All records of testing and monitoring must be retained for a period of five (5) years.
11. The OCD must be notified prior to the installation of any pipelines or wells or other structures within the boundaries of the facility.
12. Comprehensive records of all material disposed of at the facility must be maintained at the facility. The records for each load will include: 1) generator; 2) origin; 3) date received; 4) quantity; 5) certification of non-exempt status and analysis for hazardous constituents and or additional documentation to certify non hazardous status; 6) NORM status declaration; 7) transporter; 8) exact cell location; and 9) any addition of microbes, moisture, fertilizers, *etc.*

#### **FINANCIAL ASSURANCE**

1. Financial assurance in the amount of **\$148,690** in the form of a surety or cash bond or a letter of credit, which is approved by the Division, is required from T-n-T Environmental, Inc. for the commercial surface waste management facility.

**By August 6, 1999** T-n-T Environmental, Inc. must submit 25% of the financial assurance in the amount of **\$37,172**.

**By August 6, 2000** T-n-T Environmental, Inc. must submit 50% of the financial assurance in the amount of **\$74,345**.

**By August 6, 2001** T-n-T Environmental, Inc. must submit 75% of the financial assurance in the amount of **\$111,517**.

**By August 6, 2002** T-n-T Environmental, Inc. must submit 100% of the financial assurance in the amount of **\$148,690**.

2. The facility is subject to periodic inspections by the OCD. The conditions of this permit and the facility will be reviewed by the OCD no later than five (5) years from the date of this approval. In addition the closure cost estimate will be reviewed according to prices and remedial work estimates at the time of review. The financial assurance may be adjusted to incorporate any closure cost changes.

### **CLOSURE**

1. The OCD Santa Fe and Aztec offices must be notified when operation of the facility is discontinued for a period in excess of six (6) months or when the facility is to be dismantled. Upon cessation of operations for six (6) consecutive months, the operator must complete cleanup of constructed facilities and restoration of the facility site within the following six (6) months, unless an extension of time is granted by the Director.
2. A closure plan to include the following closure procedures must be submitted to the OCD for approval:
  - a. When the facility is to be closed no new material will be accepted.
  - b. All evaporation ponds will be allowed to evaporate. Any water not evaporated will be hauled to an OCD-approved facility. The ponds will be surveyed for NORM.
  - c. The soils beneath the evaporation pond, liquids receiving and treatment area and landfarm will be characterized as to total petroleum hydrocarbons (TPH) volatile aromatic organics (BTEX) content to determine potential migration of contamination.
  - d. All above and below grade tanks will be emptied and any waste will be hauled to an OCD-approved facility. The empty tanks will be removed.
  - e. Contaminated soils or existing landfarm soils will be remediated until they meet the OCD standards in effect at the time of closure or removed to an OCD-approved facility.
  - f. The area will be contoured, seeded with native grasses and allowed to return to its natural state. If the landowner desires to keep existing structures, berms, or fences for future alternative uses the structures, berms, or fences may be left in place.
  - g. Closure will be pursuant to all OCD requirements in effect at the time of closure, and any other applicable local, state and/or federal regulations.

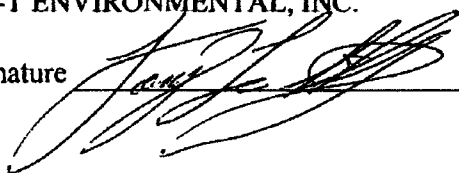
**CERTIFICATION**

T-n-T Environmental, Inc., by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. T-n-T Environmental, Inc. further acknowledges that these conditions and requirements of this permit may be changed administratively by the Division for good cause shown as necessary to protect ground water, surface water, human health and the environment.

Accepted:

T-n-T ENVIRONMENTAL, INC.

Signature



Title

PR-5.

Date

6/12/01



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

Joanna Prukop  
Cabinet Secretary

January 23, 2003

**Lori Wrotenbery**  
Director

**Oil Conservation Division**

**CERTIFIED MAIL**

**RETURN RECEIPT NO. 7001-1940-0004-3929-8898**

Mr. Tony Schmitz  
T-n-T Environmental, Inc.  
HCR 74 P.O. Box 113  
Lyndrith, New Mexico 87029

**RE: \$5,250.14 Cash Bond and Assignment for  
Commercial Surface Waste Management Facility Permit NM-01-0008  
T-n-T Environmental, Inc., Principal  
Four Corners Community Bank, Surety  
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  
Certificate Of Deposit No. 651**

Dear Mr. Schmitz:

The New Mexico Oil Conservation Division hereby approves the above-referenced Commercial Surface Waste Management Facility cash bond and assignment of cash collateral deposit. T-n-T Environmental now has a total of \$148,690 in cash bonds for the above permitted facility

Sincerely,

David K. Brooks  
Assistant General Counsel, EMNRD

DKB:mjk

Enclosure: Copy of cash bond and assignment of cash collateral deposit

xc with attachment:

Aztec OCD Office  
Sheila Schauer, Four Corners Community Bank



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

August 19, 2004

## NOTICE OF VIOLATION

**Mark E. Fesmire, P.E.**

Director

Oil Conservation Division

### CERTIFIED MAIL

RETURN RECEIPT NO: 7001-1940-0004-3929-8447

Mr. Tony Schmitz  
T-n-T Environmental, Inc.  
HCR 74, P.O. Box 115  
Lindrieth, NM 87029

RE: Violation of a Condition of Permit #NM-01-008 issued under Oil Conservation Division Rule 711 [19.15.9.711.B NMAC]  
Violation of New Mexico Statute NMSA 1978, 70-2-31.B(2), False Entries

Dear Mr. Schmitz:

On August 2, 2004, New Mexico Oil Conservation Division (OCD) Deputy Inspector Denny Foust inspected the commercial oilfield waste disposal facility operated by T-n-T Environmental, Inc. (TNT) located in the SE/4 Section 7 and SW/4 Section 8 and the SW/4 SE/4 and SE/4 SW/4 Section 5 and the NE/4 NW/4 of Section 8, Township 25 North, Range 3 West, NMPM, Rio Arriba County, New Mexico.

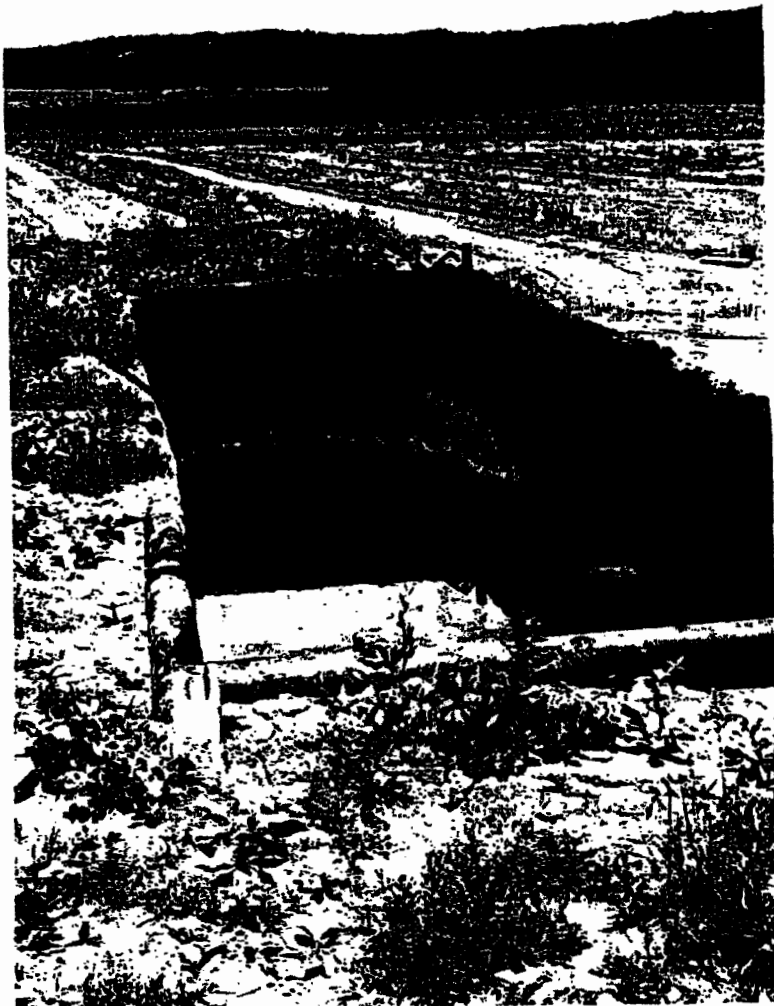
OCD Rule 711 states, in pertinent part, "...all commercial and centralized facilities including facilities in operation on the effective date of Section 19.15.9.711 NMAC...shall be permitted by the Division". Permit # NM-01-008 issued to TNT on May 11, 2001, includes conditions under which TNT must operate the facility.

This OCD inspection of the facility and facility records revealed the following:

1. From July 20, 2004, through August 2, 2004, there was no pH testing paper or other pH testing equipment available at the facility with which to test the water in the evaporation ponds.
2. Condition number 1.b of the permit section titled H<sub>2</sub>S PREVENTION AND CONTINGENCY PLAN states in pertinent part, "Daily tests must be conducted and records made and maintained of the pH levels in each pond, . . ." TNT did not perform the tests required under the permit, a violation of TNT's permit conditions.
3. The pH level of the water in the evaporation ponds was falsely recorded as 7.0 from July 20, 2004, through July 31, 2004, on records maintained at the facility. During Denny Foust's inspection on July 20, 2004, Mr. Foust observed that the pH levels were recorded as 7.0 through July 27, 2004, seven days in the future. This is a violation as follows: New Mexico Statute NMSA 1978, 70-2-31.B states in pertinent part, "It is unlawful . . . for any person to knowingly and willfully... do any of the following for the purpose of evading or violating the Oil and Gas Act or any rule, regulation, or order of the division issued pursuant to that act: . . . make or cause



**TNT 711 FACILITY INSPECTION (PHOTOS BY OCD)**



**PHOTO NO. 1 DATE: 06/09/97**

**PHOTO NO. 2 DATE: 06/09/97**



to be made any false entry in any record, account or memorandum required by the Oil and Gas Act or by any rule, regulation or order of the commission or division issued pursuant to that act. .

TNT's conduct warrants issuance of this "Notice of Violation" and assessment of civil penalties pursuant to Section 70-2-31(A), NMSA 1978 for violations of the OCD Rules and Permit, and the statute described above. Section 70-2-31(A) authorizes penalties of up to one thousand dollars (\$1,000) per day per violation for any knowing or willful violation of any provision of the "Oil and Gas Act" or any Rule or Order issued pursuant to the Act. In the case of a continuing violation, each day of violation constitutes a separate violation. Section 70-2-31(A).

In view of the seriousness and duration of these violations, the Environmental Bureau of the OCD believes a penalty of \$2,000 and a definite commitment to future corrective action are essential. This penalty is based on \$1,000 for each of the violations cited.

Unless the matter can be satisfactorily resolved, we will request an enforcement hearing before an OCD Hearing Examiner, where we will recommend issuance of a formal order requiring compliance with the Oil and Gas Act and OCD Rules, a civil penalty, and corrective action. Please note that because the permit condition and statute at issue were violated on multiple occasions, if this matter goes to hearing, the OCD may seek a penalty greater than the \$2,000 penalty proposed in this notice.

Please contact this office within ten (10) days to schedule an administrative conference to discuss this matter. Failure to do so may result in an additional penalty. OCD's participation in this conference, and TNT's subsequent agreement to the fines proposed will prevent OCD from pursuing this matter further. OCD legal counsel may be present for this conference and you may bring legal counsel if you desire.

If you have questions, you may contact me at 505-476-3490.

Sincerely,



Roger C. Anderson  
Environmental Bureau Chief  
[rcanderson@state.nm.us](mailto:rcanderson@state.nm.us)

RCA/ceem

Cc: OCD Aztec District  
Gail MacQuesten  
NOV File  
File NM-01-008



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

7001 1940 0004 7920 7421

March 4, 2005

**Mark E. Fesmire, P.E.**

Director

Oil Conservation Division

T-N-T Environmental, Inc.  
HCR 74 P.O. Box 115  
Lindrieth, NM 87029

Permit Number: NM-1-0008

Re: Administrative Modification of Landfarm Permits

The Oil Conservation Division (OCD) issued the landfarm permit identified above under OCD Rule 711. As explained in the public notice given prior to the issuance of the permit, the permit was for landfarming to remediate hydrocarbon-contaminated soils. The language of the permit, however, is broader, allowing the facility to accept oilfield contaminated solids which are either exempt from the Federal RCRA Subtitle C (hazardous waste) regulations or are "nonhazardous" by characteristic testing. If this language were interpreted to allow the landfarm to accept oilfield waste contaminated with salts, the salts could compromise the biodegradation capacity of the landfarm. And because salts leach more easily than hydrocarbons, the landfarm may pose a greater threat to groundwater.

According to the terms of the permit identified above, the OCD may change the permit conditions administratively for good cause shown as necessary to protect fresh water, human health and the environment. The OCD has determined that it is necessary to protect fresh water, human health and the environment to modify the permit as follows:

**Effective immediately, the NMOCD permitted landfarm identified above is prohibited from accepting oilfield waste contaminated with salts.**

If the landfarm identified above wishes to accept oilfield waste contaminated with salts, you will need to file an application to modify the permit pursuant to OCD Rule 711.B(1) and follow the notice requirements of OCD Rule 711.B(2). If you have already filed a complete application for permit modification with this office and complied with the notice requirements, the OCD will process the application promptly.

Landfarms that wish to accept oilfield wastes contaminated with salts while their application for permit modification is pending may apply to the Division Director for an emergency order under OCD Rule 1202. Applications for emergency orders will be considered on a case-by-case basis.

This notice is being sent to all entities operating landfarm facilities in New Mexico permitted pursuant to OCD Rule 711, as shown on the attached list.

If you have any questions, please contact Ed Martin at (505) 476-3492 or [emartin@state.nm.us](mailto:emartin@state.nm.us).

Very truly yours,

Mark E. Fesmire, P.E.



# New Mexico Energy, Minerals and Natural Resources Department

**Susana Martinez**  
Governor

**John H. Bemis**  
Cabinet Secretary-Designate

**Brett F. Woods, Ph.D.**  
Deputy Cabinet Secretary

**Jami Bailey**  
Division Director  
Oil Conservation Division



June 30, 2011

Craig Schmitz  
T-N-T Environmental Inc.  
HCR 74 Box 113  
Lindrith, New Mexico 87029

RE: Compliance with the Transitional Provisions of the Surface Waste Management Facilities rule (Rule 36) and Treatment and Vadose Monitoring Requirements at Existing Landfarms  
T-N-T Environmental Inc.  
Permit NM-1-008  
Location: Section 8, Township 25 North, Range 3 West, NMPM  
Rio Arriba County, New Mexico

Dear Owner/Operator:

The Oil Conservation Division (OCD) has received several landfarm monitoring reports which indicate Owner/Operators are not conducting the required sampling and assessment of the monitoring data required by existing permit conditions and the applicable requirements of the Surface Waste Management Facilities rule 19.15.36 NMAC (Rule 36). OCD wishes to remind such Owner/Operators that the requirements of Rule 36 have been in effect since February 14, 2007 and compliance is required. This letter is provided to help Owner/Operators understand the most common deficiencies regarding compliance in general operations, sampling of landfarms at existing surface waste management facilities, and the reporting of such results.

**I. Transitional Provisions, Existing Surface Waste Management Facilities:**

The transitional provision of Rule 36.20.A states that existing surface waste management facilities *shall comply with the operational, waste acceptance, and closure requirements* provided in the new rule, unless specifically addressed in the current permit, order, waiver, exception, or agreement granted in writing from OCD. Where the language in the existing permit is silent (i.e., where a specified requirement of Rule 36 is not addressed within the existing permit or in writing from OCD), the operational, waste acceptance, and closure provisions of Rule 36 apply and



supplement the conditions of the existing permit. Examples of how this transitional provision would be applied to Owner/Operators of existing landfarms are as follows:

**A. Treatment Zone Monitoring (contaminated soils being remediated):**

Most Owner/Operators of existing landfarms have common language or conditions specified within their permits. For this example, two of the following common permit conditions demonstrate how an Owner/Operator would request the necessary modification of their existing permit.

In an existing landfarm permit:

1. Soils will be spread on the surface in six-inch lifts or less.
2. Successive lifts of contaminated soils may not be spread until a laboratory measurement of:
  - a. total petroleum hydrocarbons (TPH) in the previous lift is less than 100 parts per million (ppm);
  - b. the sum of all aromatic hydrocarbons (BTEX) is less than 50 ppm; and
  - c. benzene is less than 10 ppm.
  - d. Comprehensive records of the laboratory analyses and the sampling locations must be maintained at the facility. Authorization from the OCD must be obtained prior to application of successive lifts and/or removal of the remediated soils.

In addition to the above permit conditions, an Owner/Operator also has to implement the following additional requirements of Rule 36:

- Chloride testing and limits (See 19.15.36.15.D NMAC)

<b>If ground water is between 50' and 100' below the bottom of the oil field waste:</b>	<b>If ground water is more than 100' below the bottom of the oil field waste:</b>
Chloride concentration cannot exceed 500 mg/kg	Chloride concentration cannot exceed 1000 mg/kg

- The following test methods would have to be utilized: TPH concentration of each lift determined by EPA SW-846 method 8015M or EPA method 418.1 or other EPA method approved by the division, and chloride concentration, determined by EPA method 300.1. (See 19.15.36.15.D NMAC)
- The sampling protocol and frequency: *"The operator shall collect and analyze at least one composite soil sample, consisting of four discrete samples, from the treatment zone at least semi-annually using the methods specified below for TPH and chlorides."* (See 19.15.36.15.D NMAC)
- The maximum thickness of remediated soils for closure: *"The maximum thickness of treated soils in a landfarm cell shall not exceed two feet or approximately 3000 cubic yards per acre. When that thickness is reached, the operator shall not place additional oil field waste in the landfarm cell until it has demonstrated by monitoring the treatment zone at least semi-*

*annually that the contaminated soil has been treated to the standards specified in Subsection F of 19.15.36.15 NMAC or the contaminated soils have been removed to a division-approved surface waste management facility.” (See 19.15.36.15.D NMAC)*

**Therefore, in order to remain in compliance with existing permit conditions and Rule 36 the Owner/Operator shall ensure that:**

1. Soils will be spread on the surface in **six-inch** lifts or less, and the addition of any remediated soils is not allowed until:
  - a. TPH concentration of each lift, as determined by EPA SW-846 method 8015M or EPA method 418.1 or other EPA method approved by the division, does not exceed **100 mg/kg (ppm)**,
  - b. the sum of all aromatic hydrocarbons (BTEX) is less than **50 ppm**,
  - c. benzene is less than **10 ppm**, and
  - d. the chloride concentration, as determined by EPA method 300.1, does not exceed **500 mg/kg or 1000 mg/kg**. (See depth to ground water restrictions above.)
2. The Owner/Operator shall collect and analyze at least **one** composite soil sample, consisting of **four** discrete samples, from the treatment zone at least **semi-annually** using the methods specified above for TPH and chlorides.
3. The maximum thickness of treated soils in a landfarm cell shall not exceed **two feet** or approximately **3000 cubic yards per acre**. When that thickness is reached, the Owner/Operator shall not place additional oil field waste in the landfarm cell until it has demonstrated by monitoring the treatment zone at least semi-annually that the contaminated soil has been treated to the standards specified in Rule 36.15.F or the contaminated soils have been removed to a division-approved surface waste management facility. Owner/Operators **must** obtain authorization from the OCD prior to application of successive lifts and/or removal of the remediated soils.

The requirements of Rule 36 that would require an Owner/Operator to submit a modification request regarding treatment zone monitoring to an existing landfarm are as follows:

- “The operator shall spread contaminated soils on the surface in **eight-inch or less lifts** or approximately 1000 cubic yards per acre per eight-inch lift.” (See 19.15.36.15.D NMAC)
- “TPH concentration of each lift, as determined by EPA SW-846 method 8015M or EPA method 418.1 or other EPA method approved by the division, **does not exceed 2500 mg/kg**.” (See 19.15.36.15.D NMAC)

**B. Vadose Zone Monitoring (native soils beneath the contaminated soils being remediated):**

In regards to vadose zone monitoring (commonly referred to by the misnomer of “Treatment Zone Monitoring” within existing landfarm permits), most Owner/Operators of existing surface waste management facilities that operate landfarms have common language or conditions specified within their permits. For this example two of the most common permit conditions regarding the vadose zone will be used to demonstrate how an Owner/Operator would comply with the

transitional provision of Rule 36.20.A, and what requirements of the rule would require an Owner/Operator to submit a request to modify an existing permit.

Two of the most common conditions in an existing landfarm permit are as follows:

1. A treatment zone not to exceed **three (3) feet** beneath the landfarm native ground surface must be monitored. A minimum of one random soil sample must be taken from each individual cell, with no cell being larger than five (5) acres, **six (6) months** after the first contaminated soils are received in the cell and then **quarterly** thereafter. The sample must be taken at two (2) to three (3) feet below the native ground surface.
2. The soil samples must be analyzed using EPA-approved methods for total petroleum hydrocarbons (TPH) and volatile aromatic organics (BTEX) **quarterly** and for major cations/anions and Water Quality Control Commission (WQCC) metals **annually**.

Based upon the transitional provision of Rule 36.20.A, an Owner/Operator would have to implement and integrate the following **additional requirements** while complying with the conditions specified above.

- The testing for chlorides and the comparison of the results to background: *"The operator shall collect and analyze a minimum... using the methods specified below for TPH, BTEX and chlorides and shall compare each result to the higher of the PQL or the background soil concentrations to determine whether a release has occurred."* (See 19.15.36.15.E(2) NMAC).
  - i. *Note:* The "methods specified below for TPH, BTEX and chlorides" are those identified in Subsection F of 19.15.36.15 NMAC: "Total BTEX, as determined by EPA SW-846 method 8021B or 8260B..." (See 19.15.36.15.F(2) NMAC); "TPH, as determined by EPA method 418.1 or other EPA method approved by the division..." (See 19.15.36.15.F(3) NMAC); and "Chlorides, as determined by EPA method 300.1..." (See 19.15.36.15.F(3) NMAC).
- The five year monitoring program: *"The operator shall collect and analyze a minimum of four randomly selected, independent samples from the vadose zone, using the methods specified below for the constituents listed in Subsections A and B of 20.6.2.3103 NMAC at least every five years and shall compare each result to the higher of the PQL or the background soil concentrations to determine whether a release has occurred."* (See 19.15.36.15.E(3) NMAC).
  - ii. *Note:* The "methods specified below for the constituents listed in Subsections A and B of 20.6.2.3103 NMAC" are those identified in Subsection F of 19.15.36.15 NMAC: "The concentration of constituents listed in Subsections A and B of 20.6.2.3103 NMAC shall be determined by EPA SW-846 methods 6010B or 6020 or other methods approved by the division." (See 19.15.36.15.F(5) NMAC)



- The release response: *"If vadose zone sampling results show that the concentrations of TPH, BTEX or chlorides exceed the higher of the PQL or the background soil concentrations, then the operator shall notify the division's environmental bureau of the exceedance, and shall immediately collect and analyze a minimum of four randomly selected, independent samples for TPH, BTEX, chlorides and the constituents listed in Subsections A and B of 20.6.2.3103 NMAC. The operator shall submit the results of the re-sampling event and a response action plan for the division's approval within 45 days of the initial notification. The response action plan shall address changes in the landfarm's operation to prevent further contamination and, if necessary, a plan for remediating existing contamination."* (See 19.15.36.15.E(5) NMAC)

The requirements of Rule 36 that would require an Owner/Operator to submit a modification request regarding vadose zone monitoring to an existing landfarm are as follows:

- *"The operator shall take the vadose zone samples from soils between three and four feet below the cell's original ground surface."* (See 19.15.36.15.E(1) NMAC)
- *"The operator shall collect and analyze a minimum of four randomly selected, independent samples from the vadose zone at least semi-annually..."* (See 19.15.36.15.E(2) NMAC)

**C. Transitional Provisions, New Landfarm Cells Constructed at an Existing Surface Waste Management Facility:**

The transitional provision, Rule 36.20.B, states "Major modification of an existing surface waste management facility and new landfarm cells constructed at an existing surface waste management facility shall comply with the requirements provided in 19.15.36 NMAC." In this case, an Owner/Operator is required to consider the siting criteria and operational requirements regarding landfarms specified in Rule 36.13; the specific requirements applicable to landfarms specified in Rule 36.15; and the closure and post closure requirements regarding landfarms of Rule 36.18. The existing permit conditions would not be applicable to new landfarm cells at the existing facility, but would continue to apply to landfarm cells that were constructed prior to the February 14, 2007 effective date of Rule 36.

**II. Compliance with Additional Operational Requirements:**

Other regulatory requirements that Owner/Operators of existing surface waste management facilities that operate landfarms should be aware of and consider when operating its facility are as follows:

**A. Reuse of remediated soils:**

Most existing surface waste management facility permits regarding landfarming do not specify the constituents and concentrations that must be achieved for reuse of treated or remediated soils. Rule 36 has a provision that specifically addresses the conditions of approval for reuse of treated soils. Rule 36.15.G(1), disposition of treated soils, states *"If the operator achieves the closure performance standards specified in Subsection F of 19.15.36 NMAC, then the operator may either leave the treated soils in place, or, with prior division approval, dispose or reuse of the treated soils in an alternative manner."*



In accordance with the treatment zone closure performance standards of Rule 36.15.F, "the operator shall continue treatment until the contaminated soil has been remediated to the higher of the background concentrations or the following closure performance standards. The operator shall demonstrate compliance with the closure performance standards by collecting and analyzing a minimum of one composite soil sample, consisting of four discrete samples.

(1) Benzene, as determined by EPA SW-846 method 8021B or 8260B, shall not exceed **0.2 mg/kg**.

(2) Total BTEX, as determined by EPA SW-846 method 8021B or 8260B, shall not exceed **50 mg/kg**.

(3) The gasoline range organics (GRO) and diesel range organics (DRO) combined fractions, as determined by EPA SW-846 method 8015M, shall not exceed **500 mg/kg**. TPH, as determined by EPA method 418.1 or other EPA method approved by the division, shall not exceed **2500 mg/kg**.

(4) Chlorides, as determined by EPA method 300.1, shall not exceed **500 mg/kg** if the landfarm is located where ground water is less than **100 feet** but at least **50 feet** below the lowest elevation at which the operator will place oil field waste or **1000 mg/kg** if the landfarm is located where ground water is **100 feet** or more below the lowest elevation at which the operator will place oil field waste.

(5) The concentration of constituents listed in Subsections A and B of 20.6.2.3103 NMAC shall be determined by EPA SW-846 methods 6010B or 6020 or other methods approved by the division. If the concentration of those constituents exceed the PQL or background concentration, the operator shall either perform a site specific risk assessment using EPA approved methods and shall propose closure standards based upon individual site conditions that protect fresh water, public health, safety and the environment, which shall be subject to division approval or remove pursuant to Paragraph (2) of Subsection G of 19.15.36.15 NMAC."

#### **B. Waste Acceptance:**

Based upon conversations with several landfarm Owner/Operators, it has come to OCD's attention that the proper waste acceptance protocol is not being implemented at all applicable facilities. In accordance with Rule 36.15.A, "Only soils and drill cuttings predominantly contaminated by petroleum hydrocarbons shall be placed in a landfarm. The division may approve placement of tank bottoms in a landfarm if the operator demonstrates that the tank bottoms do not contain economically recoverable petroleum hydrocarbons. Soils and drill cuttings placed in a landfarm shall be sufficiently free of liquid content to pass the paint filter test, and shall not have a chloride concentration exceeding **500 mg/kg** if the landfarm is located where ground water is less than **100 feet** but at least **50 feet** below the lowest elevation at which the operator will place oil field waste or exceeding **1000 mg/kg** if the landfarm is located where ground water is **100 feet** or more below the lowest elevation at which the operator will place oil field waste. The person tendering oil field waste for treatment at a landfarm shall certify, on form C-138, that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content, and that the samples have been found to conform to these requirements. The landfarm's operator shall not accept oil field waste for landfarm treatment unless accompanied by this certification."

All landfarm Owner/Operators should be implementing the above referenced requirements in order to ensure compliance to the transitional and waste acceptance provisions of Rule 36. Please note that pursuant to Rule 36.7.A(3), a landfarm *"means a discrete area of land designated and used for the remediation of petroleum hydrocarbon-contaminated soils and drill cuttings."* Landfarm Owner/Operators should ensure that the waste material accepted for remediation at their facilities contains petroleum hydrocarbons. Acceptance of any other waste material could be considered disposal.

Please note that if you are currently implementing the protocols identified above, OCD appreciates your efforts to continually remain in compliance with the regulations. As for Owner/Operators that are not currently in compliance, the goal of OCD is to get you back on track and in compliance. OCD anticipates observing the changes identified above in the submittal of the results of the next sampling event. If there are any questions regarding this matter, please do not hesitate to contact Mr. Brad A. Jones of my staff at (505) 476-3487 or [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us).

Sincerely,



Jami Bailey  
Division Director  
Oil Conservation Division

JB/baj

cc: OCD District III Office, Aztec

State of New Mexico  
Energy, Minerals and Natural Resources Department

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**Susana Martinez**  
Governor

**David Martin**  
Cabinet Secretary-Designate

**Brett F. Woods, Ph.D.**  
Deputy Cabinet Secretary

**Jami Bailey, Division Director**  
Oil Conservation Division



October 1, 2013

Craig Schmitz  
T-n-T Environmental, Inc.  
HCR 74 Box 113  
Lindrieth, New Mexico 87029

**RE: High Chloride Soil Identification, Isolation, and Removal Plan  
T-n-T Environmental, Inc.  
Permit NM1-008 (Evaporation Ponds and Landfarm)  
Location: SE/4 of Section 7 and SW/4 of Section 8 (evaporation ponds) and the  
SW/4 SE/4 and SE/4 NW/4 of Section 5 and NE/4 NW/4 of 8 (landfarm),  
Township 25 North, Range 3 West, NMPM, Rio Arriba County, New Mexico**

Dear Mr. Schmitz:

The Oil Conservation Division (OCD) has reviewed T-n-T Environmental, Inc.'s (T-n-T) request, dated September 12, 2013 and received by OCD via email on September 23, 2013, to grant approval of a plan to identify, isolate, and removal of high chloride (greater than 1000 mg/kg) soils within the treatment zone of Cells 4, 6, 7, and 11 at the OCD permitted landfarm (Surface Waste Management Facility Permit NM-1-008). OCD hereby approves the plan with the following conditions:

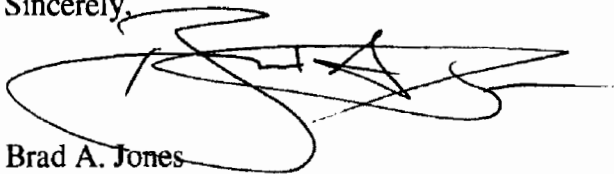
1. In the last protocol, 6B, the continued assessment of the treatment zone (soils under remediation) shall cease when the vadose zone (native soils) is encountered.
  - a. Any soils in the treatment zone identified to have a chloride concentration exceeding 1000 mg/kg shall be contained, excavated, and removed as described in Protocols 6 and 6A of the plan.
2. If any soils in the treatment zone identified having a chloride concentration exceeding 1000 mg/kg are discovered placed above the vadose zone, T-n-T shall sample the vadose zone to determine if a release has occurred.
3. In accordance with Permit NM1-008, T-n-T shall only accept new soils for remediation in the Cells 1 and 2.
  - a. T-n-T shall cease accepting new soils for remediation in all other landfarm cells that existing outside of the permitted boundary.
  - b. T-n-T shall continue to disk the soils and perform vadose zone monitoring of the landfarm cells that existing outside of the permitted boundary.
  - c. T-n-T shall continue to comply with the permit conditions of NM1-008 and the transitional provisions of Section 20 of 19.15.36 NMAC for Cells 1 and 2.

T-n-T Environmental, Inc.  
Permit NM-1-008  
October 1, 2013  
Page 2 of 2

Please be advised that approval of this request does not relieve T-n-T of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve T-n-T of its responsibility to comply with any other applicable governmental authority's rules and regulations.

If there are any questions regarding this matter, please do not hesitate to contact me at (505) 476-3487 or [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us).

Sincerely,

A handwritten signature in black ink, appearing to read 'Brad A. Jones', with a large, stylized flourish extending from the end of the signature.

Brad A. Jones  
Environmental Engineer

BAJ/baj

Cc: OCD District III Office, Aztec

State of New Mexico  
Energy, Minerals and Natural Resources Department

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**Susana Martinez**  
Governor

**David Martin**  
Cabinet Secretary

**Brett F. Woods, Ph.D.**  
Deputy Cabinet Secretary

**David R. Catanach, Division Director**  
Oil Conservation Division



June 23, 2015

Craig Schmitz  
T-n-T Environmental, Inc.  
HCR 74 Box 113  
Lindrieth, New Mexico 87029

**RE: Part 35 Request Review**  
**T-n-T Environmental, Inc.**  
**Permit NM1-008 (Evaporation Ponds and Landfarm)**  
**Location: SE/4 of Section 7 and SW/4 of Section 8 (evaporation ponds) and the SW/4 SE/4 and SE/4 NW/4 of Section 5 and NE/4 NW/4 of 8 (landfarm), Township 25 North, Range 3 West, NMPM, Rio Arriba County, New Mexico**

Dear Mr. Schmitz:

The Oil Conservation Division (OCD) has received and completed the review of T-n-T Environmental, Inc.'s (T-n-T) letter, dated April 27, 2015, requesting to dispose of approximately 300 cubic yards of chloride and petroleum contaminated soil from Cells 4 and 7 into the San Juan County Regional Landfill (NMED Permit 241102). OCD's review of the submittal resulted in the discovery of the absence of any laboratory data for Cell provided in the request, the absence of any laboratory analysis performed on the Cell 4 sample for chlorides to justify the chloride contamination, and the reported detection of diesel range organics (DRO) at 1220 mg/kg.

Pursuant to Subparagraph (c) of 19.15.35.8.D.(3) NMAC, "To be eligible for disposal pursuant to 19.15.35.8 NMAC, the concentration of substances the testing facility identifies during testing shall not exceed the following limits: TPH: 1000 mg/kg;..." OCD hereby denies T-n-T's request to dispose of chloride and petroleum contaminated soil at San Juan County Regional Landfill (NMED Permit 241102) pursuant to Part 35.

If there are any questions regarding this matter, please do not hesitate to contact me at (505) 476-3487 or [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us).

Sincerely,

  
Brad A. Jones  
Environmental Engineer

BAJ/baj

Cc: OCD District III Office, Aztec



T-n-T Environmental

HCR 74 Box 113 - Lindrith, NM 87029  
OCD Permit - NM 01 0008

RECEIVED OCD

2015 MAY -4 P 3:06

April 27, 2015

Brad A. Jones  
Environmental Engineer  
Environmental Bureau  
NM Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, NM 87505

RE: Disposal of Chloride and Hydrocarbon Contaminated Soils at the San Juan County Landfill Operated by Waste Management, Inc.

Dear Mr. Jones:

In accordance with 19.15.35.8 NMAC, Disposal of Certain Non-domestic Waste at Solid Waste Facilities, this request is being submitted for your approval to dispose of *300 cubic yards* of chloride and hydrocarbon contaminated soil from *cells #4 and #7* at T-n-T Environmental, Inc. Landfarm, located in portions of Sections 5 and 8, Township 25 North, Range 03 West, NMPM, Rio Arriba County, New Mexico.

Approximately *300 cubic yards* of dirt must be removed from the two cells to bring chloride concentrations below 1000 ppm, an acceptable level under the T-n-T Landfarm permit requirements. These soils resulted from various oilfield operations primarily involving hydrocarbon releases.

A composite sample was collected from each of *cells #4 and #7*. The samples were analyzed by Cardinal Laboratories of Hobbs, NM for BTEX components utilizing Method 8021B, Total Petroleum Hydrocarbons GRO-DRO by Method 8015M and TCLP by Extraction Method 1311 with analysis by Methods 8260B and 8270 for Volatiles and Semi-Volatiles. RCI is shown on page 4 of the laboratory analytical reports for each cell.

In accordance with Paragraph (3-n), Subsection C of 19.15.35.8 NMAC, T-n-T Environmental requests approval to dispose of the contaminated soil at Waste Management's special waste permitted facility, San Juan County Regional Landfill. NMED Permit Number: 241102.

If you have any questions or require additional information, please contact me at 505-320-2130. Respectfully submitted,

Craig Schmitz  
T-n-T Environmental  
HCR 74 Box 113-Lindrith, NM 87029

NMOCD Permit 01 0008

Attachments (2): Analysis for Cell #4 and Analysis for Cell #7.

October 28, 2014

CRAIG SCHMITZ

T-N-T ENVIRONMENTAL

70 OJITO ROAD

LINDRITH, NM 87029

RE: LANDFARM

Enclosed are the results of analyses for samples received by the laboratory on 10/10/14 11:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Total Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Coli-ert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Celey D. Keene

Lab Director/Quality Manager


**Analytical Results For:**T-N-T ENVIRONMENTAL  
70 OJITO ROAD  
LINDRITH NM, 87029Project: LANDFARM  
Project Number: NOT GIVEN  
Project Manager: CRAIG SCHMITZ  
Fax To: (575) 774-9116Reported:  
28-Oct-14 10:32

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
CELL #4	H403122-01	Soil	07-Oct-14 14:30	10-Oct-14 11:40
CELL #4	H403122-02	Soil	07-Oct-14 14:30	10-Oct-14 11:40

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

 T-N-T ENVIRONMENTAL  
 70 OJITO ROAD  
 LINDRITH NM, 87029

 Project: LANDFARM  
 Project Number: NOT GIVEN  
 Project Manager: CRAIG SCHMITZ  
 Fax To: (575) 774-9116

 Reported:  
 28-Oct-14 10:32

**CELL #4**  
**H403122-01 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**
**Volatile Organic Compounds by EPA Method 8021**

<b>Benzene*</b>	ND		0.050	mg/kg	50	4101313	ms	14-Oct-14	8021B	
<b>Toluene*</b>	ND		0.050	mg/kg	50	4101313	ms	14-Oct-14	8021B	
<b>Ethylbenzene*</b>	ND		0.050	mg/kg	50	4101313	ms	14-Oct-14	8021B	
<b>Total Xylenes*</b>	ND		0.150	mg/kg	50	4101313	ms	14-Oct-14	8021B	
<b>Total BTEX</b>	ND		0.300	mg/kg	50	4101313	ms	14-Oct-14	8021B	
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			101 %	61-154		4101313	ms	14-Oct-14	8021B	

**Petroleum Hydrocarbons by GC FID**

<b>GRO C6-C10</b>	ND		10.0	mg/kg	1	4101306	ms	13-Oct-14	8015B	
<b>DRO &gt;C10-C28</b>	1220		10.0	mg/kg	1	4101306	ms	13-Oct-14	8015B	
<i>Surrogate: 1-Chlorooctane</i>			85.0 %	47.2-157		4101306	ms	13-Oct-14	8015B	
<i>Surrogate: 1-Chlorooctadecane</i>			116 %	52.1-176		4101306	ms	13-Oct-14	8015B	

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

### Analytical Results For:

T-N-T ENVIRONMENTAL  
70 OJITO ROAD  
LINDRITH NM, 87029

Project: LANDFARM  
Project Number: NOT GIVEN  
Project Manager: CRAIG SCHMITZ  
Fax To: (575) 774-9116

Reported:  
28-Oct-14 10:32

**CELL #4**  
**H403122-02 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

Ignitability	> 140			°F	1	4082912	AP	16-Oct-14	ASTM D 93-80	
pH*	7.33		0.100	pH Units	1	4101402	AP	14-Oct-14	9045	
Reactive Cyanide	ND		0.100	mg/kg	1	4101601	AP	16-Oct-14	9010	
Reactive Sulfide	0.320		0.0100	mg/kg	1	4101601	AP	16-Oct-14	9030	

**TCLP Semivolatile Organic Compounds by GCMS**

Pyridine	ND	0.025	mg/L	5	4100605	MS	14-Oct-14	1311/8270C	
1,4-Dichlorobenzene	ND	0.050	mg/L	5	4100605	MS	14-Oct-14	1311/8270C	
2-Methylphenol	ND	0.005	mg/L	5	4100605	MS	14-Oct-14	1311/8270C	
4-Methylphenol	ND	0.005	mg/L	5	4100605	MS	14-Oct-14	1311/8270C	
Hexachloroethane	ND	0.005	mg/L	5	4100605	MS	14-Oct-14	1311/8270C	
Nitrobenzene	ND	0.005	mg/L	5	4100605	MS	14-Oct-14	1311/8270C	
Hexachlorobutadiene	ND	0.005	mg/L	5	4100605	MS	14-Oct-14	1311/8270C	
2,4,6-Trichlorophenol	ND	0.005	mg/L	5	4100605	MS	14-Oct-14	1311/8270C	
2,4,5-Trichlorophenol	ND	0.005	mg/L	5	4100605	MS	14-Oct-14	1311/8270C	
2,4-Dinitrotoluene	ND	0.005	mg/L	5	4100605	MS	14-Oct-14	1311/8270C	
Hexachlorobenzene	ND	0.025	mg/L	5	4100605	MS	14-Oct-14	1311/8270C	
Pentachlorophenol	ND	0.025	mg/L	5	4100605	MS	14-Oct-14	1311/8270C	
Surrogate: 2-Fluorophenol		12.1 %	21-100		4100605	MS	14-Oct-14	1311/8270C	S-AC
Surrogate: Phenol-d5		21.3 %	10-94		4100605	MS	14-Oct-14	1311/8270C	
Surrogate: Nitrobenzene-d5		63.9 %	35-114		4100605	MS	14-Oct-14	1311/8270C	
Surrogate: 2-Fluorobiphenyl		49.1 %	43-116		4100605	MS	14-Oct-14	1311/8270C	
Surrogate: 2,4,6-Tribromophenol		66.9 %	10-123		4100605	MS	14-Oct-14	1311/8270C	
Surrogate: Terphenyl-d14		81.5 %	33-141		4100605	MS	14-Oct-14	1311/8270C	

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

### Analytical Results For:

T-N-T ENVIRONMENTAL  
70 OJITO ROAD  
LINDRITH NM, 87029

Project: LANDFARM  
Project Number: NOT GIVEN  
Project Manager: CRAIG SCHMITZ  
Fax To: (575) 774-9116

Reported:  
28-Oct-14 10:32

**CELL #4**  
**H403122-02 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**TCLP PCBs by GCMS/ECD**

**SUB-SS**

PCB 1016	ND		2.00	ug/L	1	4102804	CK	16-Oct-14	1311/8082	
PCB 1221	ND		2.00	ug/L	1	4102804	CK	16-Oct-14	1311/8082	
PCB 1232	ND		2.00	ug/L	1	4102804	CK	16-Oct-14	1311/8082	
PCB 1242	ND		2.00	ug/L	1	4102804	CK	16-Oct-14	1311/8082	
PCB 1248	ND		2.00	ug/L	1	4102804	CK	16-Oct-14	1311/8082	
PCB 1254	ND		2.00	ug/L	1	4102804	CK	16-Oct-14	1311/8082	
PCB 1260	ND		2.00	ug/L	1	4102804	CK	16-Oct-14	1311/8082	

Surrogate: Tetrachloro-meta-xylene 46.5 % 35-140 4102804 CK 16-Oct-14 1311/8082

**TCLP Volatile Organic Compounds by EPA Method 1311/8260B**

Vinyl chloride	ND		0.050	mg/L	100	4101405	MS	14-Oct-14	1311/8260B	
2-Butanone	ND		0.250	mg/L	100	4101405	MS	14-Oct-14	1311/8260B	
1,1-Dichloroethene	ND		0.050	mg/L	100	4101405	MS	14-Oct-14	1311/8260B	
Chloroform	ND		0.050	mg/L	100	4101405	MS	14-Oct-14	1311/8260B	
Carbon tetrachloride	ND		0.050	mg/L	100	4101405	MS	14-Oct-14	1311/8260B	
Benzene	ND		0.050	mg/L	100	4101405	MS	14-Oct-14	1311/8260B	
1,2-Dichloroethane	ND		0.050	mg/L	100	4101405	MS	14-Oct-14	1311/8260B	
Trichloroethene	ND		0.050	mg/L	100	4101405	MS	14-Oct-14	1311/8260B	
Tetrachloroethene	ND		0.050	mg/L	100	4101405	MS	14-Oct-14	1311/8260B	
Chlorobenzene	ND		0.050	mg/L	100	4101405	MS	14-Oct-14	1311/8260B	
1,4 Dichlorobenzene	ND		0.050	mg/L	100	4101405	MS	14-Oct-14	1311/8260B	

Surrogate: Dibromofluoromethane 108 % 88.3-113 4101405 MS 14-Oct-14 1311/8260B

Surrogate: Toluene-d8 95.8 % 90.3-115 4101405 MS 14-Oct-14 1311/8260B

Surrogate: 4-Bromofluorobenzene 93.9 % 87.2-114 4101405 MS 14-Oct-14 1311/8260B

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

T-N-T ENVIRONMENTAL  
70 OJITO ROAD  
LINDRITH NM, 87029

Project: LANDFARM  
Project Number: NOT GIVEN  
Project Manager: CRAIG SCHMITZ  
Fax To: (575) 774-9116

Reported:  
28-Oct-14 10:32

**CELL #4**  
**H403122-02 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**
**TCLP Pesticides by EPA Method 1311/8081A**
**SUB-SS**

gamma-BHC (Lindane)	ND		1.00	ug/L	1	4102802	CK	18-Oct-14	1311/8081A	
Heptachlor	ND		1.00	ug/L	1	4102802	CK	18-Oct-14	1311/8081A	
Heptachlor epoxide	ND		1.00	ug/L	1	4102802	CK	18-Oct-14	1311/8081A	
gamma-Chlordane	ND		1.00	ug/L	1	4102802	CK	18-Oct-14	1311/8081A	
alpha-Chlordane	ND		1.00	ug/L	1	4102802	CK	18-Oct-14	1311/8081A	
Endrin	ND		1.00	ug/L	1	4102802	CK	18-Oct-14	1311/8081A	
Methoxychlor	ND		5.00	ug/L	1	4102802	CK	18-Oct-14	1311/8081A	
Toxaphene	ND		20.0	ug/L	1	4102802	CK	18-Oct-14	1311/8081A	
<i>Surrogate: Tetrachloro-meta-xylene</i>										
			37.9 %		35-140	4102802	CK	18-Oct-14	1311/8081A	

**TCLP Herbicides by EPA Method 1311/8151A**
**SUB-SS**

2,4-Dichlorophenoxyacetic acid	ND		0.50	ug/L	1	4102805	CK	20-Oct-14	1311/8151	
2,4,5-TP (Silvex)	ND		0.20	ug/L	1	4102805	CK	20-Oct-14	1311/8151	
<i>Surrogate: 2,4-DCAA</i>										
			50.6 %		35-150	4102805	CK	20-Oct-14	1311/8151	

**Green Analytical Laboratories**
**TCLP Metals by ICP**

Arsenic	ND		0.100	mg/L	1	B410173	JGS	17-Oct-14	EPA200.7/60 10 B	
Barium	0.311		0.010	mg/L	1	B410173	JGS	17-Oct-14	EPA200.7/60 10 B	
Cadmium	ND		0.050	mg/L	1	B410173	JGS	17-Oct-14	EPA200.7/60 10 B	
Chromium	ND		0.050	mg/L	1	B410173	JGS	17-Oct-14	EPA200.7/60 10 B	
Lead	ND		0.100	mg/L	1	B410173	JGS	17-Oct-14	EPA200.7/60 10 B	
Selenium	ND		0.200	mg/L	1	B410173	JGS	17-Oct-14	EPA200.7/60 10 B	

**Cardinal Laboratories**
**\*=Accredited Analyte**

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**T-N-T ENVIRONMENTAL  
70 OJITO ROAD  
LINDRITH NM, 87029Project: LANDFARM  
Project Number: NOT GIVEN  
Project Manager: CRAIG SCHMITZ  
Fax To: (575) 774-9116Reported:  
28-Oct-14 10:32**CELL #4**  
**H403122-02 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Green Analytical Laboratories****TCLP Metals by ICP**

Silver	ND		0.050	mg/L	1	B410173	JGS	17-Oct-14	EPA200.7/60 10 B	
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**TCLP Mercury by CVAA**

Mercury	0.0002		0.0002	mg/L	1	B410206	JGS	22-Oct-14	245.1	
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Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 T-N-T ENVIRONMENTAL  
 70 OJITO ROAD  
 LINDRITH NM, 87029

 Project: LANDFARM  
 Project Number: NOT GIVEN  
 Project Manager: CRAIG SCHMITZ  
 Fax To: (575) 774-9116

 Reported:  
 28-Oct-14 10:32

**Inorganic Compounds - Quality Control**
**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4082912 - NO PREP**
**LCS (4082912-BS1)**

Prepared &amp; Analyzed: 27-Aug-14

Ignitability	80.0		°F	77.0		104	97.5-105			
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**Duplicate (4082912-DUP1)**

Source: H402560-01

Prepared &amp; Analyzed: 27-Aug-14

Ignitability	> 140		°F			0.00			20	
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**Batch 4101402 - NO PREP**
**LCS (4101402-BS1)**

Prepared &amp; Analyzed: 14-Oct-14

pH	7.11		pH Units	7.00		102	90-110			
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**Duplicate (4101402-DUP1)**

Source: H403055-01

Prepared &amp; Analyzed: 14-Oct-14

pH	6.46	0.100	pH Units			6.49		0.463	20	
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**Batch 4101601 - General Prep - Wet Chem**
**Blank (4101601-BLK1)**

Prepared &amp; Analyzed: 16-Oct-14

Reactive Sulfide	ND	0.0100	mg/kg							
Reactive Cyanide	ND	0.100	mg/kg							

**Duplicate (4101601-DUP1)**

Source: H402950-01

Prepared &amp; Analyzed: 16-Oct-14

Reactive Sulfide	ND	0.0100	mg/kg			0.00			20	
Reactive Cyanide	ND	0.100	mg/kg			0.00			20	

Cardinal Laboratories

\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

T-N-T ENVIRONMENTAL  
70 OJITO ROAD  
LINDRITH NM, 87029

Project: LANDFARM  
Project Number: NOT GIVEN  
Project Manager: CRAIG SCHMITZ  
Fax To: (575) 774-9116

Reported:  
28-Oct-14 10:32

**TCLP Semivolatile Organic Compounds by GCMS - Quality Control**
**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4100605 - SW846-3510**
**Blank (4100605-BLK1)**

Prepared: 06-Oct-14 Analyzed: 14-Oct-14

Pyridine	ND	0.005	mg/L
1,4-Dichlorobenzene	0.005	0.005	mg/L
2-Methylphenol	ND	0.001	mg/L
4-Methylphenol	ND	0.001	mg/L
Hexachloroethane	ND	0.001	mg/L
Nitrobenzene	ND	0.001	mg/L
Hexachlorobutadiene	ND	0.001	mg/L
2,4,6-Trichlorophenol	ND	0.001	mg/L
2,4,5-Trichlorophenol	ND	0.001	mg/L
2,4-Dinitrotoluene	ND	0.001	mg/L
Hexachlorobenzene	ND	0.005	mg/L
Pentachlorophenol	ND	0.005	mg/L

Surrogate: 2-Fluorophenol	0.0321		mg/L	0.0500	64.2	21-100
Surrogate: Phenol-d5	0.0132		mg/L	0.0500	26.4	10-94
Surrogate: Nitrobenzene-d5	0.0427		mg/L	0.0500	85.3	35-114
Surrogate: 2-Fluorobiphenyl	0.0324		mg/L	0.0500	64.8	43-116
Surrogate: 2,4,6-Tribromophenol	0.0455		mg/L	0.0500	91.0	10-123
Surrogate: Terphenyl-d14	0.0491		mg/L	0.0500	98.1	33-141

**LCS (4100605-BS1)**

Prepared: 06-Oct-14 Analyzed: 14-Oct-14

Pyridine	0.003	0.005	mg/L	0.0100	25.9	30-130	BS2
1,4-Dichlorobenzene	0.010	0.005	mg/L	0.0100	102	30-130	
2-Methylphenol	0.005	0.001	mg/L	0.0100	51.8	30-130	
4-Methylphenol	0.009	0.001	mg/L	0.0200	46.2	30-130	
Hexachloroethane	0.003	0.001	mg/L	0.0100	34.9	30-130	
Nitrobenzene	0.007	0.001	mg/L	0.0100	67.2	30-130	
Hexachlorobutadiene	0.004	0.001	mg/L	0.0100	35.0	30-130	
2,4,6-Trichlorophenol	0.006	0.001	mg/L	0.0100	62.6	30-130	
2,4,5-Trichlorophenol	0.006	0.001	mg/L	0.0100	62.1	30-130	
2,4-Dinitrotoluene	0.007	0.001	mg/L	0.0100	69.9	30-130	
Hexachlorobenzene	0.006	0.005	mg/L	0.0100	63.3	30-130	
Pentachlorophenol	0.007	0.005	mg/L	0.0100	69.5	30-130	

**Cardinal Laboratories**

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

### Analytical Results For:

T-N-T ENVIRONMENTAL  
70 OJITO ROAD  
LINDRITH NM, 87029

Project: LANDFARM  
Project Number: NOT GIVEN  
Project Manager: CRAIG SCHMITZ  
Fax To: (575) 774-9116

Reported:  
28-Oct-14 10:32

### TCLP Semivolatile Organic Compounds by GCMS - Quality Control

#### Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch 4100605 - SW846-3510

##### LCS (4100605-BS1)

Prepared: 06-Oct-14 Analyzed: 14-Oct-14

Surrogate: 2-Fluorophenol	0.0320		mg/L	0.0500		63.9	21-100			
Surrogate: Phenol-d5	0.0132		mg/L	0.0500		26.5	10-94			
Surrogate: Nitrobenzene-d5	0.0473		mg/L	0.0500		94.6	35-114			
Surrogate: 2-Fluorobiphenyl	0.0404		mg/L	0.0500		80.8	43-116			
Surrogate: 2,4,6-Tribromophenol	0.0512		mg/L	0.0500		102	10-123			
Surrogate: Terphenyl-d14	0.0563		mg/L	0.0500		113	33-141			

##### LCS Dup (4100605-BS2)

Prepared: 06-Oct-14 Analyzed: 14-Oct-14

Pyridine	0.003	0.005	mg/L	0.0100		28.1	30-130	8.15	20	BS2
1,4-Dichlorobenzene	0.010	0.005	mg/L	0.0100		102	30-130	0.295	20	
2-Methylphenol	0.006	0.001	mg/L	0.0100		56.6	30-130	8.86	20	
4-Methylphenol	0.009	0.001	mg/L	0.0200		45.8	30-130	0.652	20	
Hexachloroethane	0.004	0.001	mg/L	0.0100		35.6	30-130	1.99	20	
Nitrobenzene	0.007	0.001	mg/L	0.0100		65.2	30-130	3.02	20	
Hexachlorobutadiene	0.003	0.001	mg/L	0.0100		33.5	30-130	4.38	20	
2,4,6-Trichlorophenol	0.006	0.001	mg/L	0.0100		61.6	30-130	1.61	20	
2,4,5-Trichlorophenol	0.006	0.001	mg/L	0.0100		62.7	30-130	0.962	20	
2,4-Dinitrotoluene	0.007	0.001	mg/L	0.0100		72.5	30-130	3.65	20	
Hexachlorobenzene	0.007	0.005	mg/L	0.0100		66.4	30-130	4.78	20	
Pentachlorophenol	0.007	0.005	mg/L	0.0100		70.9	30-130	1.99	20	
Surrogate: 2-Fluorophenol	0.0380		mg/L	0.0500		76.0	21-100			
Surrogate: Phenol-d5	0.0146		mg/L	0.0500		29.3	10-94			
Surrogate: Nitrobenzene-d5	0.0450		mg/L	0.0500		90.0	35-114			
Surrogate: 2-Fluorobiphenyl	0.0390		mg/L	0.0500		78.0	43-116			
Surrogate: 2,4,6-Tribromophenol	0.0488		mg/L	0.0500		97.6	10-123			
Surrogate: Terphenyl-d14	0.0533		mg/L	0.0500		107	33-141			

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Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

 T-N-T ENVIRONMENTAL  
 70 OJITO ROAD  
 LINDRITH NM, 87029

 Project: LANDFARM  
 Project Number: NOT GIVEN  
 Project Manager: CRAIG SCHMITZ  
 Fax To: (575) 774-9116

 Reported:  
 28-Oct-14 10:32

**TCLP PCBs by GCMS/ECD - Quality Control**
**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4102804 - EPA 3510C**
**Blank (4102804-BLK1)**

Prepared: 15-Oct-14 Analyzed: 16-Oct-14

PCB 1016	ND	2.00	ug L							
PCB 1221	ND	2.00	ug L							
PCB 1232	ND	2.00	ug L							
PCB 1242	ND	2.00	ug L							
PCB 1248	ND	2.00	ug L							
PCB 1254	ND	2.00	ug L							
PCB 1260	ND	2.00	ug L							
Surrogate: Tetrachloro-meta-xylene	3.66		ug L	10.0		36.6	40-130			

**LCS (4102804-BS1)**

Prepared: 15-Oct-14 Analyzed: 16-Oct-14

PCB 1016	7.12		ug L	10.0		71.2	40-130			
PCB 1260	11.4		ug L	10.0		114	40-130			
Surrogate: Tetrachloro-meta-xylene	5.63		ug L	10.0		56.3	40-130			

**LCS Dup (4102804-BSD1)**

Prepared: 15-Oct-14 Analyzed: 16-Oct-14

PCB 1016	7.96		ug L	10.0		79.6	40-130	11.1	30	
PCB 1260	13.0		ug L	10.0		130	40-130	13.1	30	
Surrogate: Tetrachloro-meta-xylene	6.21		ug L	10.0		62.1	40-130			

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

T-N-T ENVIRONMENTAL  
70 OJITO ROAD  
LINDRITH NM, 87029

Project: LANDFARM  
Project Number: NOT GIVEN  
Project Manager: CRAIG SCHMITZ  
Fax To: (575) 774-9116

Reported:  
28-Oct-14 10:32

**Volatile Organic Compounds by EPA Method 8021 - Quality Control**
**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC Limits	RPD	RPD Limit	Notes
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**Batch 4101313 - Volatiles**
**Blank (4101313-BLK1)**

Prepared: 13-Oct-14 Analyzed: 14-Oct-14

Benzene	ND	0.050	mg/kg						
Toluene	ND	0.050	mg/kg						
Ethylbenzene	ND	0.050	mg/kg						
Total Xylenes	ND	0.150	mg/kg						
Total BTEX	ND	0.300	mg/kg						

Surrogate: 4-Bromofluorobenzene (PID) ND mg/kg 0.0500 99.8 61-154

**LCS (4101313-BS1)**

Prepared: 13-Oct-14 Analyzed: 14-Oct-14

Benzene	1.88	0.050	mg/kg	2.00		93.9	77.1-114		
Toluene	1.79	0.050	mg/kg	2.00		89.4	67-114		
Ethylbenzene	1.70	0.050	mg/kg	2.00		85.1	63.5-121		
Total Xylenes	5.06	0.150	mg/kg	6.00		84.3	62.4-125		

Surrogate: 4-Bromofluorobenzene (PID) 0.0485 mg/kg 0.0500 97.0 61-154

**LCS Dup (4101313-BSD1)**

Prepared: 13-Oct-14 Analyzed: 14-Oct-14

Benzene	1.97	0.050	mg/kg	2.00		98.6	77.1-114	4.94	16.4
Toluene	1.88	0.050	mg/kg	2.00		94.0	67-114	4.98	16.2
Ethylbenzene	1.78	0.050	mg/kg	2.00		89.2	63.5-121	4.62	17
Total Xylenes	5.30	0.150	mg/kg	6.00		88.3	62.4-125	4.69	17

Surrogate: 4-Bromofluorobenzene (PID) 0.0485 mg/kg 0.0500 97.1 61-154

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Celey D. Keene, Lab Director/Quality Manager

### Analytical Results For:

T-N-T ENVIRONMENTAL  
70 OJITO ROAD  
LINDRITH NM, 87029

Project: LANDFARM  
Project Number: NOT GIVEN  
Project Manager: CRAIG SCHMITZ  
Fax To: (575) 774-9116

Reported:  
28-Oct-14 10:32

### Petroleum Hydrocarbons by GC FID - Quality Control

#### Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%RDC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch 4101306 - General Prep - Organics

##### Blank (4101306-BLK1)

Prepared & Analyzed: 13-Oct-14

GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C35	ND	10.0	mg/kg							
Total TPH C6-C28	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	48.0		mg/kg	50.0		96.1	47.2-157			
Surrogate: 1-Chlorooctadecane	53.3		mg/kg	50.0		107	52.1-176			

##### LCS (4101306-BS1)

Prepared & Analyzed: 13-Oct-14

GRO C6-C10	171	10.0	mg/kg	200		85.6	72.5-115			
DRO >C10-C28	177	10.0	mg/kg	200		88.4	81.3-118			
Total TPH C6-C28	348	10.0	mg/kg	400		87.0	80-113			
Surrogate: 1-Chlorooctane	47.7		mg/kg	50.0		95.4	47.2-157			
Surrogate: 1-Chlorooctadecane	52.7		mg/kg	50.0		105	52.1-176			

##### LCS Dup (4101306-BSD1)

Prepared & Analyzed: 13-Oct-14

GRO C6-C10	178	10.0	mg/kg	200		88.8	72.5-115	3.64	10.1	
DRO >C10-C28	187	10.0	mg/kg	200		93.4	81.3-118	5.45	15.3	
Total TPH C6-C28	364	10.0	mg/kg	400		91.1	80-113	4.56	12.1	
Surrogate: 1-Chlorooctane	50.3		mg/kg	50.0		101	47.2-157			
Surrogate: 1-Chlorooctadecane	55.3		mg/kg	50.0		111	52.1-176			

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

T-N-T ENVIRONMENTAL  
70 OJITO ROAD  
LINDRITH NM, 87029

Project: LANDFARM  
Project Number: NOT GIVEN  
Project Manager: CRAIG SCHMITZ  
Fax To: (575) 774-9116

Reported:  
28-Oct-14 10:32

**TCLP Volatile Organic Compounds by EPA Method 1311/8260B - Quality Control**
**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4101405 - Volatiles**
**Blank (4101405-BLK1)**

Prepared &amp; Analyzed: 14-Oct-14

Vinyl chloride	ND	0.0005	mg/L
2-Butanone	ND	0.002	mg/L
1,1-Dichloroethene	ND	0.0005	mg/L
Chloroform	ND	0.0005	mg/L
Carbon tetrachloride	ND	0.0005	mg/L
Benzene	ND	0.0005	mg/L
1,2-Dichloroethane	ND	0.0005	mg/L
Trichloroethene	ND	0.0005	mg/L
Tetrachloroethene	ND	0.0005	mg/L
Chlorobenzene	ND	0.0005	mg/L
1,4 Dichlorobenzene	ND	0.0005	mg/L

Surrogate: Dibromofluoromethane	0.0102		mg/L	0.0100	102	88.3-113
Surrogate: Toluene-d8	0.00977		mg/L	0.0100	97.7	90.3-115
Surrogate: 4-Bromofluorobenzene	0.00956		mg/L	0.0100	95.6	87.2-114

**LCS (4101405-BS1)**

Prepared &amp; Analyzed: 14-Oct-14

Vinyl chloride	0.020	0.0005	mg/L	0.0200	101	63.7-137
2-Butanone	0.019	0.002	mg/L	0.0200	93.4	74.4-131
1,1-Dichloroethene	0.014	0.0005	mg/L	0.0200	71.2	53.4-144
Chloroform	0.019	0.0005	mg/L	0.0200	96.8	74.6-122
Carbon tetrachloride	0.019	0.0005	mg/L	0.0200	96.8	73.8-132
Benzene	0.019	0.0005	mg/L	0.0200	94.7	73.1-134
1,2-Dichloroethane	0.019	0.0005	mg/L	0.0200	96.1	67.2-136
Trichloroethene	0.019	0.0005	mg/L	0.0200	96.4	79-127
Tetrachloroethene	0.020	0.0005	mg/L	0.0200	101	66.5-143
Chlorobenzene	0.020	0.0005	mg/L	0.0200	98.0	89.9-115
1,4 Dichlorobenzene	0.020	0.0005	mg/L	0.0200	101	65.3-138

Surrogate: Dibromofluoromethane	0.00996		mg/L	0.0100	99.6	88.3-113
Surrogate: Toluene-d8	0.00938		mg/L	0.0100	93.8	90.3-115
Surrogate: 4-Bromofluorobenzene	0.00984		mg/L	0.0100	98.4	87.2-114

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 T-N-T ENVIRONMENTAL  
 70 OJITO ROAD  
 LINDRITH NM, 87029

 Project: LANDFARM  
 Project Number: NOT GIVEN  
 Project Manager: CRAIG SCHMITZ  
 Fax To: (575) 774-9116

 Reported:  
 28-Oct-14 10:32

**TCLP Volatile Organic Compounds by EPA Method 1311/8260B - Quality Control**
**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4101405 - Volatiles**
**LCS Dup (4101405-BSD1)**

Prepared &amp; Analyzed: 14-Oct-14

Vinyl chloride	0.020	0.0005	mg/L	0.0200		102	63.7-137	0.834	14.8	
2-Butanone	0.019	0.002	mg/L	0.0200		93.4	74.4-131	0.0535	10.5	
1,1-Dichloroethene	0.014	0.0005	mg/L	0.0200		70.4	53.4-144	0.989	15.2	
Chloroform	0.019	0.0005	mg/L	0.0200		95.8	74.6-122	1.09	10.5	
Carbon tetrachloride	0.019	0.0005	mg/L	0.0200		94.8	73.8-132	2.09	11.1	
Benzene	0.019	0.0005	mg/L	0.0200		93.0	73.1-134	1.81	8.2	
1,2-Dichloroethane	0.019	0.0005	mg/L	0.0200		95.9	67.2-136	0.208	9.4	
Trichloroethene	0.019	0.0005	mg/L	0.0200		95.4	79-127	1.09	11.6	
Tetrachloroethene	0.020	0.0005	mg/L	0.0200		102	66.5-143	0.246	12.7	
Chlorobenzene	0.019	0.0005	mg/L	0.0200		95.0	89.9-115	3.06	11.7	
1,4 Dichlorobenzene	0.019	0.0005	mg/L	0.0200		93.6	65.3-138	7.25	13.8	
Surrogate: Dibromofluoromethane	0.0107		mg/L	0.0100		107	88.3-113			
Surrogate: Toluene-d8	0.00942		mg/L	0.0100		94.2	90.3-115			
Surrogate: 4-Bromofluorobenzene	0.00973		mg/L	0.0100		97.3	87.2-114			

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Celey D. Keene, Lab Director/Quality Manager

### Analytical Results For:

T-N-T ENVIRONMENTAL  
70 OJITO ROAD  
LINDRITH NM, 87029

Project: LANDFARM  
Project Number: NOT GIVEN  
Project Manager: CRAIG SCHMITZ  
Fax To: (575) 774-9116

Reported:  
28-Oct-14 10:32

### TCLP Pesticides by EPA Method 1311/8081A - Quality Control

#### Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%RDC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch 4102802 - EPA 3510C

##### Blank (4102802-BLK1)

Prepared: 15-Oct-14 Analyzed: 18-Oct-14

gamma-BHC (Lindane)	ND	1.00	ug L							
Heptachlor	ND	1.00	ug L							
Heptachlor epoxide	ND	1.00	ug L							
gamma-Chlordane	ND	1.00	ug L							
alpha-Chlordane	ND	1.00	ug L							
Endrin	ND	1.00	ug L							
Methoxychlor	ND	5.00	ug L							
Toxaphene	ND	20.0	ug L							

Surrogate: Tetrachloro-meta-xylene	3.56		ug L	10.0		35.6	35-140			
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##### LCS (4102802-BS1)

Prepared: 15-Oct-14 Analyzed: 18-Oct-14

gamma-BHC (Lindane)	6.85		ug L	10.0		68.5	40-120			
Heptachlor	6.04		ug L	10.0		60.4	40-120			
Endrin	5.71		ug L	10.0		57.1	40-120			

Surrogate: Tetrachloro-meta-xylene	3.51		ug L	10.0		35.1	35-140			
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##### Matrix Spike (4102802-MS1)

Source: H403121-02

Prepared: 15-Oct-14 Analyzed: 18-Oct-14

gamma-BHC (Lindane)	7.17		ug L	10.0	ND	71.7	20-120			
Heptachlor	6.57		ug L	10.0	ND	65.7	20-120			
Endrin	6.30		ug L	10.0	ND	63.0	20-120			

Surrogate: Tetrachloro-meta-xylene	3.64		ug L	10.0		36.4	35-140			
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##### Matrix Spike Dup (4102802-MSD1)

Source: H403121-02

Prepared: 15-Oct-14 Analyzed: 18-Oct-14

gamma-BHC (Lindane)	7.26		ug L	10.0	ND	72.6	20-120	1.25	30	
Heptachlor	5.51		ug L	10.0	ND	55.1	20-120	17.5	30	
Endrin	5.69		ug L	10.0	ND	56.9	20-120	10.2	30	

Surrogate: Tetrachloro-meta-xylene	3.66		ug L	10.0		36.6	35-140			
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Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 T-N-T ENVIRONMENTAL  
 70 OJITO ROAD  
 LINDRITH NM, 87029

 Project: LANDFARM  
 Project Number: NOT GIVEN  
 Project Manager: CRAIG SCHMITZ  
 Fax To: (575) 774-9116

 Reported:  
 28-Oct-14 10:32

**TCLP Herbicides by EPA Method 1311/8151A - Quality Control**
**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 4102805 - EPA 3510C</b>										
<b>Blank (4102805-BLK1)</b>				Prepared: 16-Oct-14 Analyzed: 20-Oct-14						
2,4-Dichlorophenoxyacetic acid	ND	0.50	ug/L							
2,4,5-TP (Silvex)	ND	0.20	ug/L							
Surrogate: 2,4-DC:1:1	4.33		ug/L	10.0		43.3	35-150			
<b>LCS (4102805-BS1)</b>				Prepared: 16-Oct-14 Analyzed: 20-Oct-14						
2,4-Dichlorophenoxyacetic acid	ND	0.50	ug/L				20-150			
2,4,5-TP (Silvex)	4.46		ug/L	5.00		89.2	20-150			
Surrogate: 2,4-DCAA	8.70		ug/L	10.0		87.0	35-150			
<b>LCS Dup (4102805-BSD1)</b>				Prepared: 16-Oct-14 Analyzed: 20-Oct-14						
2,4-Dichlorophenoxyacetic acid	ND	0.50	ug/L				20-150		30	
2,4,5-TP (Silvex)	3.48		ug/L	5.00		69.6	20-150	24.7	30	
Surrogate: 2,4-DCAA	6.16		ug/L	10.0		61.6	35-150			

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 T-N-T ENVIRONMENTAL  
 70 OJITO ROAD  
 LINDRITH NM, 87029

 Project: LANDFARM  
 Project Number: NOT GIVEN  
 Project Manager: CRAIG SCHMITZ  
 Fax To: (575) 774-9116

 Reported:  
 28-Oct-14 10:32

**TCLP Metals by ICP - Quality Control**
**Green Analytical Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B410173 - EPA 1311**
**Blank (B410173-BLK1)**

Prepared &amp; Analyzed: 17-Oct-14

Chromium	ND	0.050	mg/L							
Barium	ND	0.010	mg/L							
Silver	ND	0.050	mg/L							
Selenium	ND	0.200	mg/L							
Arsenic	ND	0.100	mg/L							
Cadmium	ND	0.050	mg/L							
Lead	ND	0.100	mg/L							

**LCS (B410173-BS1)**

Prepared &amp; Analyzed: 17-Oct-14

Arsenic	3.94	0.100	mg/L	4.00		98.6	85-115			
Silver	0.095	0.050	mg/L	0.100		94.8	85-115			
Selenium	8.14	0.200	mg/L	8.00		102	85-115			
Lead	2.05	0.100	mg/L	2.00		102	85-115			
Chromium	2.00	0.050	mg/L	2.00		100	85-115			
Cadmium	2.03	0.050	mg/L	2.00		101	85-115			
Barium	1.92	0.010	mg/L	2.00		96.1	85-115			

**LCS Dup (B410173-BSD1)**

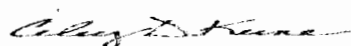
Prepared &amp; Analyzed: 17-Oct-14

Barium	1.96	0.010	mg/L	2.00		97.8	85-115	1.71	20	
Selenium	8.26	0.200	mg/L	8.00		103	85-115	1.54	20	
Chromium	2.03	0.050	mg/L	2.00		102	85-115	1.63	20	
Cadmium	2.06	0.050	mg/L	2.00		103	85-115	1.64	20	
Silver	0.096	0.050	mg/L	0.100		96.4	85-115	1.61	20	
Arsenic	4.01	0.100	mg/L	4.00		100	85-115	1.62	20	
Lead	2.06	0.100	mg/L	2.00		103	85-115	0.801	20	

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Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

 T-N-T ENVIRONMENTAL  
 70 OJITO ROAD  
 LINDRITH NM, 87029

 Project: LANDFARM  
 Project Number: NOT GIVEN  
 Project Manager: CRAIG SCHMITZ  
 Fax To: (575) 774-9116

 Reported:  
 28-Oct-14 10:32

**TCLP Mercury by CVAA - Quality Control**  
**Green Analytical Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD Limit	Notes
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**Batch B410206 - EPA 245.1/7470**
**Blank (B410206-BLK1)**

Prepared: 21-Oct-14 Analyzed: 22-Oct-14

Mercury	ND	0.0002	mg/L					
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**LCS (B410206-BS1)**

Prepared: 21-Oct-14 Analyzed: 22-Oct-14

Mercury	0.0021	0.0002	mg/L	0.00200	107	85-115		
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**LCS Dup (B410206-BSD1)**


Prepared: 21-Oct-14 Analyzed: 22-Oct-14

Mercury	0.0021	0.0002	mg/L	0.00200	104	85-115	2.99	20
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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

Z-01	> 180
SUB-SS	Analysis subcontracted to SunStar Laboratories, Inc.
S-AC	Acid surrogate recovery outside of control limits. The data was accepted based on valid recovery of remaining two acid surrogates.
BS2	Blank spike recovery below laboratory acceptance criteria. Results for analyte potentially biased low.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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**Cardinal Laboratories**

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



# CHAIN OF CUSTODY RECORD

Page \_\_\_\_\_ of \_\_\_\_\_

Client: T.A. T  
Contact: Gregory  
Address: HR 24 BOX 113  
Lock, H. NM 87629  
Phone Number: 505 586 8130  
Email: \_\_\_\_\_

NOTES:  
1) Ensure proper container packaging.  
2) Ship samples promptly following collection.  
3) Designate Sample Reject Disposition.  
PO# \_\_\_\_\_  
Project Name: \_\_\_\_\_

Table 1 - Matrix Type  
1 = Surface Water, 2 = Ground Water  
3 = Soil Sediment, 4 = Prod. W., 5 = Oil  
6 = Waste, 7 = Other (Specify) \_\_\_\_\_

FOR USE ONLY  
GAL JOB # \_\_\_\_\_

Sampler's Signature: \_\_\_\_\_

Lab Name: Green Analytical Laboratories (970) 247-4220 FAX (970) 247-4227  
Address: 75 Suttle Street, Durango, CO 81303 www.greenanalytical.com

Analyses Required

Sample ID	Date	Time	Collected by: (Init.)	Miscellaneous				Preservatives				Other (Specify)	Analyses Required					Comments
				Matrix Type From Table 1	No. of Containers	Sample Filtered? Y/N	Unpreserved (Ice Only)	HNO3	HCL	H2SO4	NAOH							
1403122																		
1 Cell # 4	10-7-14	2:30pm	TS	3	1	N	✓	—	—	—	—	—	✓	BE TX	✓	✓	✓	Received one
2 Cell # 4	10-7-14	2:30pm	TS	3	4	N	✓	—	—	—	—	—	✓	TPH	✓	✓	✓	Received one
3.																		One Broken
4.																		
5.																		
6.																		
7.																		
8.																		
9.																		
10.																		
Relinquished by:	Date: 10-8-14	Time: 3:08	Received by:	Date: 10/8/14	Time: 13:08	Received by:	Date: 10/8/14	Time: 13:08	Received by:	Date: 10/8/14	Time: 13:08	Received by:	Date: 10/8/14	Time: 13:08	Received by:	Date: 10/8/14	Time: 13:08	Received by:
Relinquished by:	Date: 10/9/14	Time: 16:00	Received by:	Date: 10/9/14	Time: 16:00	Received by:	Date: 10/9/14	Time: 16:00	Received by:	Date: 10/9/14	Time: 16:00	Received by:	Date: 10/9/14	Time: 16:00	Received by:	Date: 10/9/14	Time: 16:00	Received by:
Relinquished by:	Date: 10/15/14	Time: 11:40	Received by:	Date: 10/15/14	Time: 11:40	Received by:	Date: 10/15/14	Time: 11:40	Received by:	Date: 10/15/14	Time: 11:40	Received by:	Date: 10/15/14	Time: 11:40	Received by:	Date: 10/15/14	Time: 11:40	Received by:

\* Sample Reject: [ ] Return [ ] Dispose [ ] Store (30 Days)

**Jones, Brad A., EMNRD**

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**From:** Jones, Brad A., EMNRD  
**Sent:** Wednesday, October 22, 2014 10:00 AM  
**To:** 'Denny Foust'  
**Cc:** Griswold, Jim, EMNRD; 'Craig Schmitz'  
**Subject:** RE: Fertilizer Ammendment to TnT Landfarm  
**Attachments:** 2014 1022 Request for use of fertilizer approval.pdf

Please see the attached approval letter. A hardcopy has been placed in the mail. If you have any questions regarding this matter, please do not hesitate to contact me.

Brad

**Brad A. Jones**  
*Environmental Engineer*  
*Environmental Bureau*  
*NM Oil Conservation Division*  
*1220 S. St. Francis Drive*  
*Santa Fe, New Mexico 87505*  
*E-mail: [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us)*  
*Office: (505) 476-3487*  
*Fax: (505) 476-3462*

---

**From:** Denny Foust [<mailto:denny.foust@soudermiller.com>]  
**Sent:** Tuesday, October 14, 2014 10:09 AM  
**To:** Jones, Brad A., EMNRD  
**Cc:** Griswold, Jim, EMNRD; 'Craig Schmitz'  
**Subject:** Fertilizer Ammendment to TnT Landfarm

Mr. Jones:

I hope this clarifies the original request to add fertilizer once a year to cells 3-14 at the TnT Landfarm.

A signature line has been provided for your convenience.

**Denny Foust**  
**Senior Geologist**  
**Souder, Miller & Associates**  
**[denny.foust@soudermiller.com](mailto:denny.foust@soudermiller.com)**  
**505-325-5667 (office)**  
**505-801-9727 (cell)**  
**505-327-1496 (fax)**

State of New Mexico  
Energy, Minerals and Natural Resources Department

---

**Susana Martinez**  
Governor

**David Martin**  
Cabinet Secretary

**Brett F. Woods, Ph.D.**  
Deputy Cabinet Secretary

**Jami Bailey, Division Director**  
Oil Conservation Division



October 22, 2014

**Tony Schmitz**  
T-n-T Environmental, Inc.  
HCR 74 Box 113  
Lindrieth, New Mexico 87029

**RE: Request To Use Fertilizer For Enhanced Bio-Remediation  
T-n-T Environmental, Inc.  
Permit NM1-008 (Evaporation Ponds and Landfarm)  
Location: SE/4 of Section 7 and SW/4 of Section 8 (evaporation ponds) and the  
SW/4 SE/4 and SE/4 NW/4 of Section 5 and NE/4 NW/4 of 8 (landfarm), Township  
25 North, Range 3 West, NMPM, Rio Arriba County, New Mexico**

Dear Mr. Schmitz:

The Oil Conservation Division (OCD) has received and completed the review of an email request, submitted by Souder, Miller, & Associates on T-n-T Environmental, Inc.'s (T-n-T) behalf dated October 14, 2014, to apply fertilizer to landfarm Cells 3-14 for enhanced bio-remediation. Based upon the information provided, the above-referenced request is hereby approved with the following understandings and conditions:

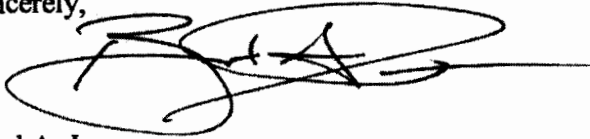
1. T-n-T is approved to utilize and apply fertilizer to landfarm Cells 3-14 for enhanced bio-remediation at an application rate not to exceed two (2) pounds of nitrogen per 1000 square feet in the treatment zone (soils to be remediated);
2. T-n-T shall apply the fertilizer by the method of a commercial spreader, followed by tilling; and
3. T-n-T is approved to apply the fertilizer "once annually until remediation levels are achieved," as proposed in the October 14, 2014 request.

Please be advised that approval of this request does not relieve T-n-T of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve T-n-T of its responsibility to comply with any other applicable governmental authority's rules and regulations.

Mr. Schmitz  
T-n-T Environmental, Inc.  
Permit NM1-008  
October 22, 2014  
Page 2 of 2

If there are any questions regarding this matter, please do not hesitate to contact me at (505) 476-3487 or [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us).

Sincerely,

A handwritten signature in black ink, appearing to read 'Brad A. Jones', enclosed within a large, loopy oval shape.

Brad A. Jones  
Environmental Engineer

BAJ/baj

cc:   OCD District III Office, Aztec  
      Denny Foust, Souder, Miller, & Associates, 401 W. Broadway, Farmington, NM 87401

**Jones, Brad A., EMNRD**

---

**From:** Denny Foust <denny.foust@soudermiller.com>  
**Sent:** Tuesday, October 14, 2014 10:09 AM  
**To:** Jones, Brad A., EMNRD  
**Cc:** Griswold, Jim, EMNRD; 'Craig Schmitz'  
**Subject:** Fertilizer Ammendment to TnT Landfarm  
**Attachments:** BAJ 2nd Revision Reply October 14 2014 TnT.pdf

Mr. Jones:

I hope this clarifies the original request to add fertilizer once a year to cells 3-14 at the TnT Landfarm.

A signature line has been provided for your convenience.

**Denny Foust**  
**Senior Geologist**  
**Souder, Miller & Associates**  
**denny.foust@soudermiller.com**  
**505-325-5667 (office)**  
**505-801-9727 (cell)**  
**505-327-1496 (fax)**



October 14, 2014

Brad A. Jones  
Environmental Engineer  
New Mexico Oil Conservation Division  
1220 S. Saint Francis Drive  
Santa Fe, New Mexico 87505

Submitted via email to:  
[brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us)

RE: T-n-T Environmental Landfarm NMOCD Permit #NM1-008, Fertilizer Application.

Dear Mr. Jones:

As authorized in the NMOCD letter dated October 1, 2013, T-n-T Environmental (TnT) will continue to remediate oilfield contaminated soils located outside Cells 1 and 2. To aid in remediation, TnT intends to add 2 pounds of nitrogen per 1000 square feet in a fall fertilization program, based on recommended rates for late fall application to grasses. This will be accomplished using the preferred granular 24-4-12 fertilizer at an application rate of 363 pounds per acre. The selected granular fertilizer contains 24 pounds of nitrogen, with 4 pounds of phosphorus and 12 pounds of potassium per hundred weight of fertilizer. The 24-4-12 analysis meets the preferred agronomy profile for soil health and is the preferred application. If it is unavailable another high nitrogen granular fertilizer will be used at a rate of 2 pounds of nitrogen per 1,000 square feet. The nitrogen should take advantage of the winter moisture to spread throughout the remediating soils and be in place to aid the growth of bacteria that will breakdown hydrocarbons as the soil temperature increases in the spring. Application rates may be adjusted to obtain the targeted rate of 2 pounds nitrogen per 1000 square feet based on the composition of the available fertilizer.

Example 1: A 46-0-0 granular fertilizer contains 46 pounds of nitrogen per hundred weight of fertilizer and will cover 23,000 square feet at 2 pounds of nitrogen per thousand square feet. The applications rate will be 190 pounds per acre to for a rate of 2 pounds of nitrogen per 1000 square feet.

Example 2: A 20-5-10 granular fertilizer contains 20 pounds of nitrogen, 5 pounds of phosphorus and 10 pounds of potassium per 100 hundred weight of fertilizer and will cover 10,000 square feet at 2 pounds of nitrogen per 1000 square feet. The application rate will be 436 pounds per acre for a rate of 2 pounds of nitrogen per acre.

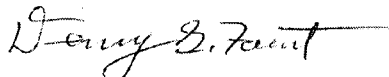
A commercial fertilizer spreader will be used for application followed by tilling. Application is anticipated once annually for cells 3-14 until remediation levels are achieved. The 2 pounds of nitrogen per 1000 square feet application rate was selected because that concentration will be absorbed in the soil and not readily leach.

Since addition of remediation amendments requires a signature from NMOCD we have provided an approval statement and signature line below for your convenience.



Testing and lab analysis of the treatment and vadose zone will continue as approved in the October 1, 2013 letter cited above.

Sincerely  
Souder Miller and Associates



Denny G. Foust  
Geologist

NMOCD approves the application of granular fertilizer at a rate of approximately 2 pounds of nitrogen per 1,000 square feet.

Acknowledged By: \_\_\_\_\_ Date: \_\_\_\_\_

Title: \_\_\_\_\_

EC: Craig Schmitz, TnT

Jim Griswold, NMOCD

Attachment: Brad Jones E-MAIL Reply to October 1, 2014 Electronic request

**ATTACHMENT:**

**Denny,**

OCD has completed the review of the request, dated and emailed to OCD on October 1, 2014, to use nitrogen/fertilizer to enhance remediation at the T-n-T Environmental Landfarm (Permit NM1-008). Condition 9, page 5 of the 2001 permit under the heading *Landfarm Operation*, states “Enhanced bio-remediation through the application of microbes (bugs) and/or fertilizers may only be permitted after prior approval from the OCD. Requests for application of microbes or fertilizers must include the location of the area designated for the program, the composition of additives, and the method, amount and frequency of application.” Please include the application method of the proposed fertilizer and the frequency of application, as required by the condition. The proposed “fall fertilization program based on rates for late fall application to grasses” does not clarify the frequency of application. Please specific. OCD is unsure if one or two considerations are being proposed. The second paragraph of the request proposes “2# nitrogen /1000 square feet” (no other additives identified for composition) and/or “363#/acre of granular 24-4-12 fertilizer or adjusted for a rate of 2# nitrogen /1000 square feet...” The approval statement proposes “granular fertilizer at a rate of approximately 2# of nitrogen per 1000 square feet or approximately 363# of granular fertilizer per acre.” Please clarify if the “granular fertilizer” discussed throughout the proposal will only have a fertilizer grade of 24-4-12 (N-P-K). Please resubmit the request via email for OCD’s consideration of approval. If you have any questions regarding this matter, please do not hesitate to contact me.

**Brad**

*Brad A. Jones*

*Environmental Engineer*

*EMNRD Oil Conservation Division*

*1220 S. Saint Francis Drive*

*Santa Fe, New Mexico 87505*

*E-mail: [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us)*

State of New Mexico  
Energy, Minerals and Natural Resources Department

---

**Susana Martinez**  
Governor

**David Martin**  
Cabinet Secretary

**Brett F. Woods, Ph.D.**  
Deputy Cabinet Secretary

**Jami Bailey, Division Director**  
Oil Conservation Division



October 14, 2014

Tony Schmitz  
T-n-T Environmental, Inc.  
HCR 74 Box 113  
Lindrieth, New Mexico 87029

**RE: Instrument and Procedure for Chloride Screening Review  
T-n-T Environmental, Inc.  
Permit NM1-008 (Evaporation Ponds and Landfarm)  
Location: SE/4 of Section 7 and SW/4 of Section 8 (evaporation ponds) and the  
SW/4 SE/4 and SE/4 NW/4 of Section 5 and NE/4 NW/4 of 8 (landfarm), Township  
25 North, Range 3 West, NMPM, Rio Arriba County, New Mexico**

Dear Mr. Schmitz:

The Oil Conservation Division (OCD) has completed the review of T-n-T Environmental, Inc.'s (T-n-T) request, dated October 13, 2014, to utilize the Hach Chloride Test Kit (silver nitrate) CDS-DT for screening incoming waste material to comply with the waste acceptance requirements of 19.15.36.15.A NMAC and to isolate and remove existing high chloride soils within the treatment zone of the existing landfarm cells. Based upon the information provided, the above-referenced request is hereby approved with the following understandings and conditions:

1. T-n-T is approved to utilize the Hach Chloride Teat Kit (silver nitrate) CDS-DT for screening of incoming waste material to comply with the waste acceptance requirements of 19.15.36.15.A NMAC;
2. T-n-T shall perform a chloride test for waste acceptance, by use of the Hach Chloride Teat Kit (silver nitrate) CDS-DT, on a two point composite sample from each individual load of incoming waste material;
3. T-n-T shall comply with the waste acceptance criteria and protocols of 19.15.36.15.A NMAC, including passing the paint filter test, prior to placement of the oil filed waste into the landfarm cell;
4. T-n-T is approved to utilize the Hach Chloride Teat Kit (silver nitrate) CDS-DT to isolate and remove existing high chloride soils within the treatment zone of the existing

Mr. Schmitz  
T-n-T Environmental, Inc.  
Permit NM1-008  
October 14, 2014  
Page 2 of 2

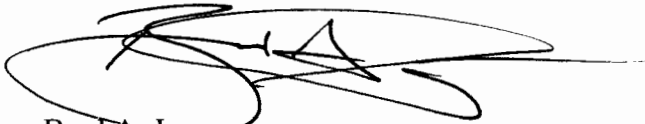
landfarm cells based upon the September 12, 2013 High Chloride Soil Identification, Isolation, and Removal Plan, approved by OCD on October 1, 2013; and

5. T-n-T shall continue laboratory analytical testing for chlorides as required of the operational monitoring of the treatment zone and vadose zone.

Please be advised that approval of this request does not relieve T-n-T of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve T-n-T of its responsibility to comply with any other applicable governmental authority's rules and regulations.

If there are any questions regarding this matter, please do not hesitate to contact me at (505) 476-3487 or [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us).

Sincerely,

A handwritten signature in black ink, appearing to read 'Brad A. Jones', with a large, sweeping loop at the end.

Brad A. Jones  
Environmental Engineer

BAJ/baj

cc: OCD District III Office, Aztec

**Jones, Brad A., EMNRD**

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**From:** tony Schmitz <schmitzent@yahoo.com>  
**Sent:** Monday, October 13, 2014 2:12 PM  
**To:** Jones, Brad A., EMNRD  
**Subject:** Instrument and Procedure Proposed for Chloride Screening  
**Attachments:** chloride testing letter.pdf

Mr, Jones;

Please see attached.

*Thanks*

*Tony Schmitz*

*T-N-T Environmental Inc.*

*HCR 74 Box 113*

*Lindrith NM, 87029*

*Cell # 505-320-2737*

*Office # 575-774-6504*

*Have a Blessed Day*



## T-n-T Environmental

HCR 74 Box 113 - Lindrieth, NM 87029  
OCD Permit • NM 01 0008

October 13, 2014

Brad A. Jones

Environmental Engineer  
New Mexico Oil Conservation Division  
1220 S. Saint Francis Drive  
Santa Fe, New Mexico 87505

Submitted via email to:  
[brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us)

RE: Instrument and Procedure Proposed for Chloride Screening

Dear Mr. Jones:

T-n-T Environmental (TnT) plans to purchase a Hach Chloride Test Kit CDS-DT to screen contaminated materials before acceptance into the T-n-T Environmental Land Farm under New Mexico Oil Conservation Permit NM1-008. Testing will be performed on a two point composite sample from each individual load. Sampling and testing will be done by TnT attendants as a screening process to exclude materials exceeding 1000 mg/kg chlorides. The instrument will also be used to screen for material exhibiting concentrations exceeding 1000 mg/kg chlorides currently in the land farm. Material found to exceed that level will be segregated and hauled to a permitted landfill facility for disposal.

TnT requests approval from New Mexico Oil Conservation Division (NMOCD) of the proposed procedure and instrument for screening materials for chlorides. Upon receipt of written NMOCD approval, TnT will proceed with implementation of this procedure beginning with acquisition of the digital titration Hach Chloride Test Kit cited above.

TnT will continue laboratory analytical testing for chlorides as required for monitoring of the treatment zone and vadose zone.

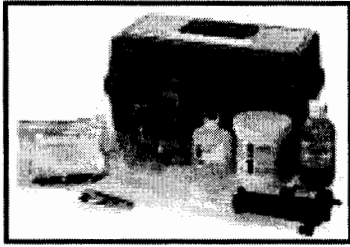
We appreciate your prompt attention to this request

Regards,

  
Tony Schmitz  
Owner  
T-n-T Environmental

TS/dgf

EC: Jim Griswold, Chief, Environmental Bureau, NMOCD  
Souder, Miller & Associates  
T-n-T File



## Chloride Test Kit, Model CDS-DT

Product #: 2580600  
USD Price: \$278.00  
Available

**⚠ Hazardous**

Items with this mark may be considered hazardous under some shipping conditions.

If necessary, we will change your selected shipping method to accommodate these items.

The single-parameter Model CDS-DT uses the Hach Digital Titrator with Silver Nitrate Titrant Cartridges to determine chloride concentrations. Kit includes Digital Titrator, reagents and labware, manual and carrying case. Range: 10-10,000 mg/L. Contains approximately 100 tests.

**Hach Digital Titrator offers higher levels of precision and accuracy than drop count procedures, with reproducibility comparable to a buret titration**

**Rugged titration device is ideal for field use, with no glass burets required**

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### Specifications

Case Style:	F
Method Name:	Digital Titrator/ Silver nitrate
Model:	CDS-DT
Number of tests:	100
Parameter:	Chloride- As $\text{Cl}^-$
Platform :	Digital Titrator
Range:	10 to 10,000 mg/L $\text{Cl}^-$
Range 2:	to
Ship Wt. (lbs):	4

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### What's in the box

Includes three reagents, flask, cylinders, clippers, bottle, digital titrator, delivery tube, instruction sheet, and carrying case.

State of New Mexico  
Energy, Minerals and Natural Resources Department

Susana Martinez  
Governor

David Martin  
Cabinet Secretary

Brett F. Woods, Ph.D.  
Deputy Cabinet Secretary

Jami Bailey, Division Director  
Oil Conservation Division



April 10, 2014

Craig Schmitz  
T-n-T Environmental, Inc.  
HCR 74 Box 113  
Lindrieth, New Mexico 87029

**RE: December 2013 Treatment and Vadose Zone Monitoring Report Review  
T-n-T Environmental, Inc.  
Permit NM1-008 (Evaporation Ponds and Landfarm)  
Location: SE/4 of Section 7 and SW/4 of Section 8 (evaporation ponds) and the  
SW/4 SE/4 and SE/4 NW/4 of Section 5 and NE/4 NW/4 of 8 (landfarm), Township  
25 North, Range 3 West, NMPM, Rio Arriba County, New Mexico**

Dear Mr. Schmitz:

The Oil Conservation Division (OCD) has completed the review of T-n-T Environmental, Inc.'s (T-n-T) December 2013 Treatment and Vadose Zone Monitoring Report. The vadose zone results were not compared to the background results in order to determine if a release had occurred and if additional follow-up actions are required to be completed. The annual sampling did not include performing laboratory analysis for RCRA metals as specified in the permit. The five year vadose sampling event has not been implemented and demonstrated. Also, the incorrect test method for TPH was utilized and demonstrated in regards to vadose zone monitoring.

The December 2013 Treatment and Vadose Zone Monitoring Report annual sampling event did not include performing laboratory analysis for RCRA metals as specified in the permit. T-n-T's May 11, 2001 surface waste management facility permit (NM1-008) states "The soil samples must be analyzed using EPA-approved methods for total petroleum hydrocarbons (TPH) and volatile aromatic organics (BTEX) quarterly and for major cations/anions and eight (8) RCRA heavy metals annually." The sampling check-off box coversheet did not identify metals as constituent tested and metals were not requested on the chain of custody record. Please perform the required analysis for all future annual sampling events to remain in compliance with the permit.

In regards to utilizing the proper TPH test method for vadose zone monitoring, in accordance with Paragraph (2) of 19.15.36.15.E NMAC the operator shall analyze the samples from the vadose zone "using the methods specified below for TPH, BTEX and chlorides and shall compare each result to the higher of the PQL or the background soil concentrations to determine



whether a release has occurred." The "methods specified below for TPH, BTEX and chlorides" are those identified in Subsection F of 19.15.36.15 NMAC: such as "TPH, as determined by EPA method 418.1 or other EPA method approved by the division..." Pursuant to the Transitional Provisions of Subsection A of 19.15.36.20.NMAC, "Existing surface waste management facilities shall comply with the operational, waste acceptance and closure requirements provided in 19.15.36 NMAC, except as otherwise specifically provided in the applicable permit or order, or in a specific waiver, exception or agreement that the division has granted in writing to the particular surface waste management facility." The most common vadose zone monitoring (commonly referred to, but incorrectly as "Treatment Zone Monitoring" within existing landfarm permits) condition in an existing landfarm permit is as follows: "The soil samples must be analyzed using EPA-approved methods for total petroleum hydrocarbons (TPH) and volatile aromatic organics (BTEX) quarterly and for major cations/anions and eight (8) RCRA heavy metals annually." The permit condition only identified the constituent and does not specify the test method. Part 36 specifies EPA Method 418.1 as the required vadose zone analyses for TPH. Please submit all future vadose zone sampling results demonstrating TPH by EPA Method 418.1.

In accordance with Paragraph (1) of 19.15.36.15.E NMAC, "The operator shall monitor the vadose zone beneath the treatment zone in each landfarm cell." Pursuant to Paragraph (3) of 19.15.36.15.E NMAC, "The operator shall collect and analyze a minimum of four randomly selected, independent samples from the vadose zone, using the methods specified below for the constituents listed in Subsections A and B of 20.6.2.3103 NMAC at least every five years and shall compare each result to the higher of the PQL or the background soil concentrations to determine whether a release has occurred." OCD has reviewed the administrative file and has been unable to locate the five year vadose sampling demonstration. Part 36 became effective February 14, 2007. The five year sampling event is due, please provide. Regarding the five year sampling event, please do not perform laboratory analysis for all the constituents listed in Subsections A and B of 20.6.2.3103 NMAC. As underlined in the above reference of Paragraph (1) of 19.15.36.15.E NMAC, the "methods specified below for the constituents listed in Subsections A and B of 20.6.2.3103 NMAC" are those identified in Subsection F of 19.15.36.15 NMAC: such as "determined by EPA SW-846 methods 6010B or 6020 or other EPA method approved by the division..." Please perform the five year monitoring program on all of the active landfarm cells and submit all future sampling results demonstrating compliance of Paragraph (3) of 19.15.36.15.E NMAC by EPA SW-846 methods 6010B or 6020.

The December 2013 Treatment and Vadose Zone Monitoring Report only included the laboratory results from the sampling event. The requirements of Subsection E of 19.15.36.15 NMAC are clear that the operator "shall compare each result to the higher of the PQL or the background soil concentrations to determine whether a release has occurred." The rest of the vadose zone assessment was not completed to determine if a release has occurred and/or if the required additional testing and a response action plan of Paragraph (5) of 19.15.36.15.E NMAC are required. Please complete the required comparison assessment.

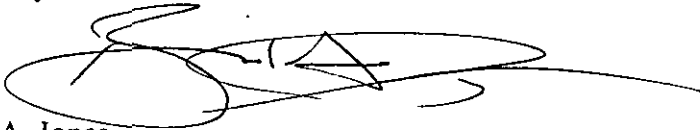
Please note that the submittal of treatment zone monitoring results alone does not constitute a request for a successive/additional lift. The permit condition specifies "Authorization from the OCD must be obtained prior to application of successive lifts and/or removal of remediated soils." OCD requires such request to be made under a separate cover from other reporting and

Mr. Schmitz  
T-n-T Environmental, Inc.  
Permit NM1-008  
April 10, 2014  
Page 3 of 3

include the supporting analytical results and an updated facility map that illustrates and identifies the individual landfarm cells within the facility boundary and indicate the approximate location within the landfarm cells in which the samples were obtained.

Please complete the required actions of 19.15.36.15.E NMAC and provide OCD with the sampling results compared to background or PQL within 45 days of receipt of this letter. Please perform the five year monitoring program on all of the active landfarm cells. Please submit future vadose zone sampling results demonstrating TPH by EPA Method 418.1 and compliance to Paragraph (3) of 19.15.36.15.E NMAC by EPA SW-846 methods 6010B or 6020. As required in the permit, please perform laboratory analysis and submit the results for the "eight (8) RCRA heavy metals annually" for all future vadose zone sampling events. Also, please provide an updated facility map that identifies the individual landfarm cells within the facility boundary and indicate the approximate location within the landfarm cells in which the samples were obtained. If there are any questions regarding this matter, please do not hesitate to contact me at (505) 476-3487 or [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us).

Sincerely,

A handwritten signature in black ink, appearing to read 'Brad A. Jones', with a large, stylized flourish extending to the right.

Brad A. Jones  
Environmental Engineer

BAJ/baj

cc: OCD District III Office, Aztec