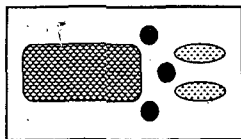


**NM1 - \_\_\_\_\_**

**GENERAL  
CORRESPONDENCE**

**YEAR(S):  
2002 - 2006**





# **BASIN DISPOSAL, INC.**

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"

P.O. BOX 100 - AZTEC, NEW MEXICO 87410 - PHONE: (505) 334-3013

2006 JUN 2 PM 12 01

May 25, 200~~6~~<sup>6</sup>

Oil Conservation Division  
Attn.: Ed Martin  
1220 South St. Francis Dr.  
Santa Fe, NM 87505  
FAX (505) 476-3462

RE: Permit NM-01-0005, Basin Disposal Facility  
Reporting and Record Keeping, Paragraph 1

Dear Mr. Martin,

This is a follow-up to my submittal for January – April 2006 on May 22, 2006. In response to that, you mentioned that you did not have a report for 2005. This letter transmits the report for 2005.

If you need anything else from me, please feel free to contact me via phone at 505-334-3013 or email at [bdcinc@diggii.net](mailto:bdcinc@diggii.net).

Sincerely,

John Volkerding, PhD  
General Manager



[illegible]





UNLOCK YOUR POTENTIAL

**Key Energy Services, Inc.**

Four Corners Division  
5651 US Highway 64  
P.O. Box 900  
Farmington, NM 87499

Phone: 505-327-4935  
Fax: 505-327-4962

May 1, 2006      First Quarter 2006

Ed Martin  
Environmental Engineer  
New Mexico OCD  
1220 S. St. Francis Dr.  
Santa Fe, New Mexico 87504

NM-1-005

Denny Foust  
Environmental Geologist  
New Mexico OCD  
Aztec, New Mexico 87410

**RE: Key Energy Landfarm Subsurface Report**

Mr. Martin:

Please find attached our Quarterly Treatment Zone Analysis.  
Included is a simple drawing of the locations the samples were taken.  
If you require additional information, please contact me at the Facility  
334-6186 or email at [mtalovich@keyenergy.com](mailto:mtalovich@keyenergy.com)

Best Regards:

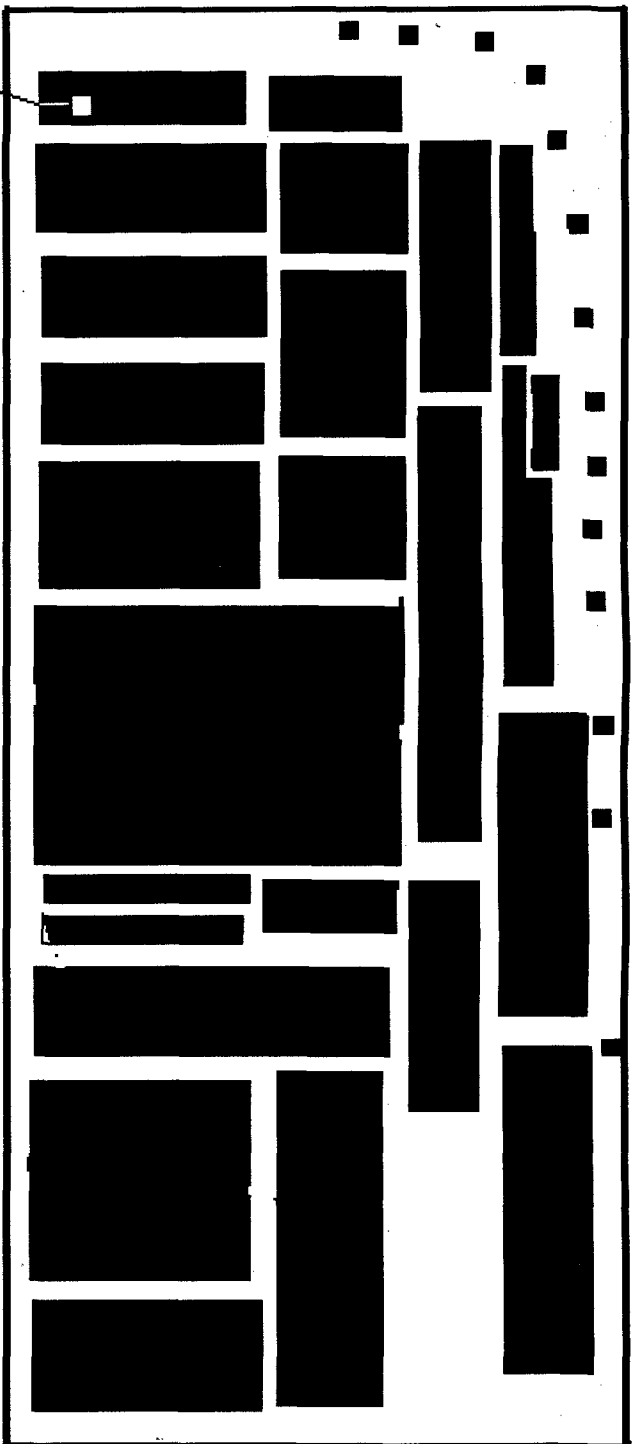
Michael Talovich  
Disposal Manager  
Key Energy Services

cc: Mr. Fuller KEY  
Mr. Foust NMOCD



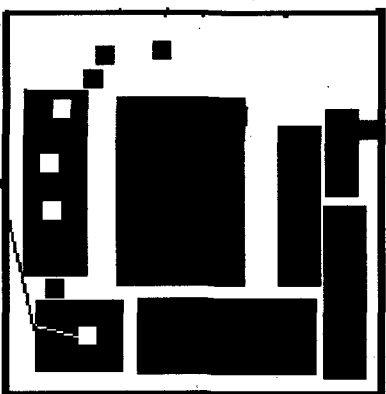
MAY 1 2006

NORTH



CELL #2 SAMPLE POINT

CELL #1 SAMPLE POINT





# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

RECEIVED  
APR 27 2006

April 26, 2006

BY:.....

Mr. Mike Talovich  
Key Energy Service, Inc.  
P.O. Box 900  
Farmington, NM 87499

Phone: (505) 327-0416

Client No.: 98065-004

Dear Mr. Talovich,

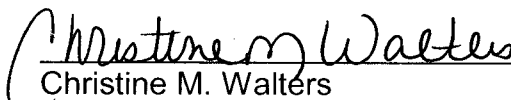
Enclosed are the analytical results for the samples collected from the location designated as "Landfarm; Cell #1 & Cell #2". Two soil samples were collected by Key Energy Service designated personnel on 4/19/06, and received by the Envirotech laboratory on 4/19/06 for Total Petroleum Hydrocarbons (TPH) per USEPA Method 8015 and BTEX per USEPA Method 8021.

The samples were documented on Envirotech Chain of Custody No. 15829. The samples were assigned Laboratory Nos. 36868 (Cell #1) and 36869 (Cell #2) for tracking purposes.

The samples were analyzed 4/24/06 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,  
**Envirotech, Inc.**

  
Christine M. Walters  
Laboratory Coordinator / Environmental Scientist

enc.

CMW/cmw

C:/files/labreports/key.wpd



**EPA METHOD 8015 Modified  
Nonhalogenated Volatile Organics  
Total Petroleum Hydrocarbons**

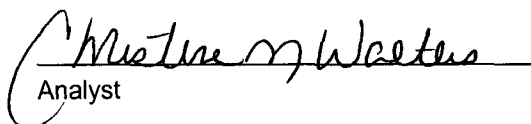
Client:	Key Energy	Project #:	98056-004
Sample ID:	Cell #1	Date Reported:	04-24-06
Laboratory Number:	36868	Date Sampled:	04-19-06
Chain of Custody No:	15829	Date Received:	04-19-06
Sample Matrix:	Soil	Date Extracted:	04-21-06
Preservative:	Cool	Date Analyzed:	04-24-06
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

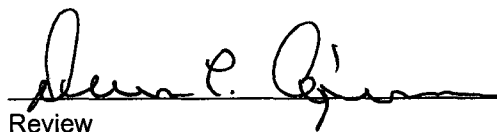
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	0.7	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	0.7	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Landfarm Cell #1 ; Cell #2.**

  
Analyst

  
Review



**EPA METHOD 8015 Modified  
Nonhalogenated Volatile Organics  
Total Petroleum Hydrocarbons**

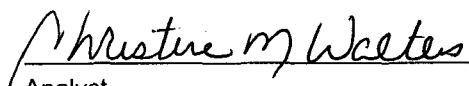
Client:	Key Energy	Project #:	98056-004
Sample ID:	Cell #2	Date Reported:	04-24-06
Laboratory Number:	36869	Date Sampled:	04-19-06
Chain of Custody No:	15829	Date Received:	04-19-06
Sample Matrix:	Soil	Date Extracted:	04-21-06
Preservative:	Cool	Date Analyzed:	04-24-06
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

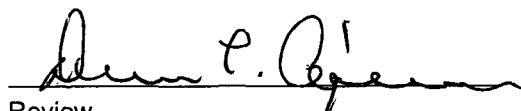
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	1.9	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	1.9	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Landfarm Cell #1 ; Cell #2.**

  
Analyst

  
Review



EPA Method 8015 Modified  
Nonhalogenated Volatile Organics  
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	04-24-06 QA/QC	Date Reported:	04-24-06
Laboratory Number:	36868	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	04-24-06
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	02-04-05	1.0268E+003	1.0278E+003	0.10%	0 - 15%
Diesel Range C10 - C28	02-04-05	1.0411E+003	1.0432E+003	0.20%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

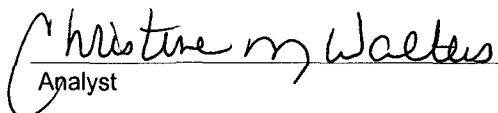
Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	0.7	0.7	0.0%	0 - 30%
Diesel Range C10 - C28	ND	ND	0.0%	0 - 30%

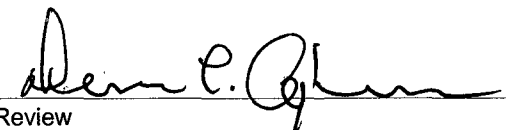
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	0.7	250	251	100.0%	75 - 125%
Diesel Range C10 - C28	ND	250	250	100.0%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: QA/QC for Samples 36868 - 36872 and 36893 - 36896.

  
Analyst

  
Review



EPA METHOD 8021  
AROMATIC VOLATILE ORGANICS

Client:	Key Energy	Project #:	98056-004
Sample ID:	Cell #1	Date Reported:	04-24-06
Laboratory Number:	36868	Date Sampled:	04-19-06
Chain of Custody:	15829	Date Received:	04-19-06
Sample Matrix:	Soil	Date Analyzed:	04-24-06
Preservative:	Cool	Date Extracted:	04-21-06
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	1.8
Toluene	114	1.7
Ethylbenzene	108	1.5
p,m-Xylene	253	2.2
o-Xylene	133	1.0
Total BTEX	608	

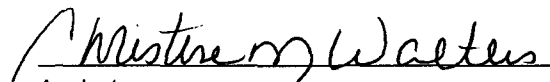
ND - Parameter not detected at the stated detection limit.

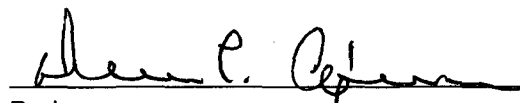
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	98.0 %
	1,4-difluorobenzene	98.0 %
	Bromochlorobenzene	98.0 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Landfarm Cell #1; Cell #2.

  
Analyst

  
Review



Client:	Key Energy	Project #:	98056-004
Sample ID:	Cell #2	Date Reported:	04-24-06
Laboratory Number:	36869	Date Sampled:	04-19-06
Chain of Custody:	15829	Date Received:	04-19-06
Sample Matrix:	Soil	Date Analyzed:	04-24-06
Preservative:	Cool	Date Extracted:	04-21-06
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	3.0	1.8
Toluene	501	1.7
Ethylbenzene	315	1.5
p,m-Xylene	725	2.2
o-Xylene	337	1.0
<b>Total BTEX</b>	<b>1,880</b>	

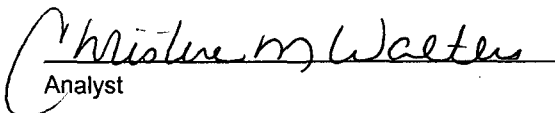
ND - Parameter not detected at the stated detection limit.

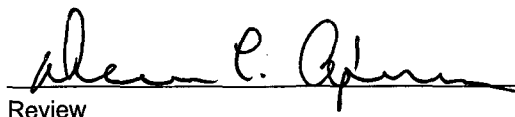
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	97.0 %
	1,4-difluorobenzene	97.0 %
	Bromochlorobenzene	97.0 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Landfarm Cell #1; Cell #2.

  
Analyst

  
Review



# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	04-24-BTEX QA/QC	Date Reported:	04-24-06
Laboratory Number:	36868	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	04-24-06
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff.	Blank Conc	Detect. Limit
		Accept. Range 0 - 15%			
Benzene	3.1951E+006	3.2016E+006	0.2%	ND	0.2
Toluene	9.7555E+007	9.7751E+007	0.2%	ND	0.2
Ethylbenzene	5.6919E+007	5.7033E+007	0.2%	ND	0.2
p,m-Xylene	1.8307E+008	1.8343E+008	0.2%	ND	0.2
o-Xylene	9.2314E+007	9.2499E+007	0.2%	ND	0.1

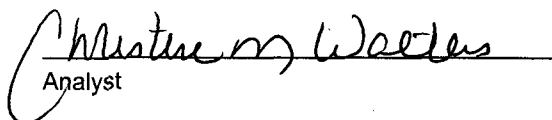
Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	ND	ND	0.0%	0 - 30%	1.8
Toluene	114	114	0.0%	0 - 30%	1.7
Ethylbenzene	108	108	0.0%	0 - 30%	1.5
p,m-Xylene	253	253	0.0%	0 - 30%	2.2
o-Xylene	133	133	0.0%	0 - 30%	1.0

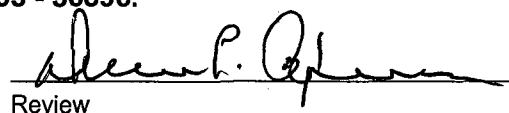
Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	ND	50.0	49.9	99.8%	39 - 150
Toluene	114	50.0	163	99.6%	46 - 148
Ethylbenzene	108	50.0	157	99.4%	32 - 160
p,m-Xylene	253	100	352	99.7%	46 - 148
o-Xylene	133	50.0	182	99.4%	46 - 148

ND - Parameter not detected at the stated detection limit.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.  
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: QA/QC for Samples 36868 - 36872, 36893 - 36896.

  
Analyst

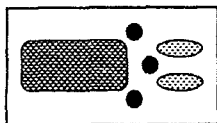
  
Review



15829

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# **BASIN DISPOSAL, INC.**

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"  
P.O. BOX 100 - AZTEC, NEW MEXICO 87410 - PHONE: (505) 334-3013

## **RECEIVED**

**November 29, 2006**

**DEC 04 2006**

**Oil Conservation Division  
Attn: Brad Jones  
1220 South St. Francis Dr.  
Santa Fe, NM 87505  
FAX (505) 476-3462**

**Oil Conservation Division  
1220 S. St. Francis Drive  
Santa Fe, NM 87505**

**RE: Follow Up to November 10, 2006 Letter of Evaluation of Catastrophic Failure of Receiving and Process Tanks and Result to Pond Level**

**Dear Mr. Jones,**

**During the inspection on November 6, 2006, Basin personnel pointed out that the produced water receiving and processing tanks are bermed and lined such that in the event of a leak the produced water in those tanks would flow into the pond. The OCD asked what would be the impact to the pond level in the unlikely event of a catastrophic failure of all the produced water receiving and process tanks such that their entire volume entered the pond at the same time.**

**After my November 10, 2006 response, the OCD followed up with two additional questions:**

- 1. What is the total depth of the evaporation pond**
- 2. What would be the impact from the volume of the 12 tanks that were set temporarily on the north band of the pond as mentioned in my October 18, 2006 letter.**

**The total volume of the permanent tanks is 7,400 barrels. The total volume of the temporary tanks would be 4,800 barrels. Depending on the level of the pond, the volume per foot ranges from 6,977 to 10,887 bbl/ft. At the pond's current level of 8 feet the approximate number of barrels per foot is 9,663. A volume of 12,200 barrels entering the pond when its level is 8 feet would cause the pond level to rise to a level of approximately 9.2 feet.**

**The pond depth was measured and is 13' 1". The permit requires a 2' freeboard. Thus, the maximum allowable water level in the pond is 11' 1'.**



With a pond level of 9' 11" or below, even in the unlikely event of a simultaneous catastrophic failure of the receiving and processing tanks as well as the 12 temporary tanks, the pond level would remain within the compliance requirement of not exceeding 11' 1". With the 12 temporary tanks removed a pond level of 10' 4" would ensure that even in the unlikely event of a simultaneous catastrophic failure of the receiving and processing tanks the the pond level would remain within the compliance requirement of not exceeding 11' 1".

If you need anything else from me, please feel free to contact me on my cell phone at 505-320-2840 or email at [bdcinc@diggii.net](mailto:bdcinc@diggii.net) .

Sincerely,

A handwritten signature in black ink, appearing to read 'J. Volkerding', with a long horizontal flourish extending to the right.

**John Volkerding, PhD**  
**General Manager**

**Attach (Diagram and Table)**



Diagram Showing Produced Water Receiving and Processing Tanks

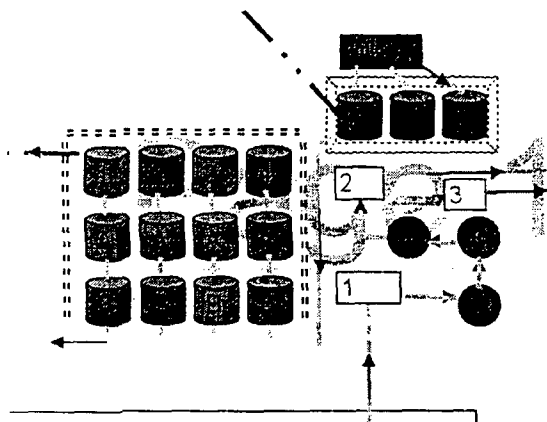


Table Showing Pond Volume as Function of Depth

### BASIN DISPOSAL INC STORAGE VOLUME

Depth (ft)	Volume (BBLs/foot)	Total Volume (BBLs)
Sump		4530
1	6977	11507
2	7333	18841
3	7697	26538
4	8069	34607
5	8448	43055
6	8835	51890
7	9230	61120
8	9633	70752
9	10043	80795
10	10461	91256
11	10887	102143
<b>11.1</b>		<b>107749</b>
12	11430	113573
13.1	11784	119533



# BASIN DISPOSAL, INC.

SPECIALIZING IN DISPOSAL OF PROPOSED LACED AND OTHER WASTE  
P.O. BOX 1000 - ALBUQUERQUE, NEW MEXICO 87103-1000

29 November, 2006

Brad Jones  
EMNRD/OCD  
Environmental Bureau  
1220 South St. Francis Dr.,  
Santa Fe, New Mexico 87505

NM 1805

RE: Pond Cleaning using Sludge Sled  
Rescinding Request for Temporary Pond for Cleaning

Dear Mr. Jones:

On October 11, 2006 the OCD granted approval for Basin Disposal to:

- Implement the use of a truck mounted auger to pull sludge from the bottom of the evaporation pond
- Construct a temporary pit to divert water from the evaporation pond in order to remove sludge from the evaporation pond.

Since that time, the water level in the pond has risen to a level that has made the use of the auger system impractical. Basin proposes the following for cleaning sludge from the evaporation pond:

- Utilize the Sled Sludge system developed by Sediment Control Systems Inc for the Army Corp of Engineers for removing the sludge during periods of higher pond water levels
- Retain authorization to use the truck mounted auger system for removing the sludge during periods of lower pond water levels
- Rescind authorization to use a temporary pit divert water from the evaporation pond in order to remove sludge from the evaporation pond.

The Sled Sludge was developed for the US Army Corp of Engineers to remove sludge from their ponds in conditions where draining or lowering the pond level was impractical. It has been in use by the Army Corp of Engineers since 1998 and was documented in the following publication:

Hardy, Susan E., and C. James Martel (1998) Removing sludge from wastewater lagoons with a sludge sled. FEAP (Facilities Engineering Applications Program) User Guide. U.S. Army Center Public Works, Alexandria, VA, 6 p. (MP 5123)

Basin Disposal selected the Sled Sludge because it can remove sludge while the evaporation pond in operation because it is designed to minimize resuspension of bottom sediment. When the bottom sediment is resuspended it clogs the filtration system. The cleaning can be done such that a steady-state condition can be achieved thus eliminating the need for a complete sludge removal operation. This will eliminate the need to divert water into a temporary pit.



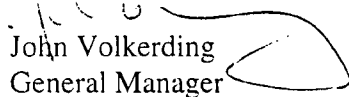
The pump from the Sludge Sled will pull the sludge from the bottom, carry the sludge via a conveyor to a sealed pipe connected to a sealed lay-down tank, a liner will be placed under the course of the sealed pipe and under the sealed lay-down tank to ensure no sludge lands on the soil. We will then use our water hauling trucks to remove the sludge from the lay-down tank to transport the sludge to the Industrial Ecosystem Inc (IEI) facility for disposal.

Like the auger system, our goal and belief is that the Sludge Sled will eliminate the need for additional pits or tanks and will allow for a continual sludge removal process throughout the year. We see this as an improvement with pollution prevention potential over the previous methods. Coupled with the auger system, the Sludge Sled can be used during high pond water levels and the auger during lower pond water levels.

Since the cleaning operation can be achieved while leaving the evaporation pond in operation, there is no need for a temporary pit. Basin Disposal therefore rescinds its request for authorization to use a temporary pit.

If you have any questions, please feel free to phone me at 334-3013 or 320-2840 or via email at [bdinc@digii.net](mailto:bdinc@digii.net).

Sincerely;

  
John Volkerding  
General Manager

Attach: Sludge Sled Information

Cc: Aztec OCD Office



District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-137  
Revised June 10, 2003  
Submit Original Plus 1  
Copy to Santa Fe  
1 Copy Appropriate  
District Office

**APPLICATION FOR WASTE MANAGEMENT FACILITY**

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

☒ Commercial

☐ Centralized

1. Type: ☐ Evaporation ☒ Injection ☐ Other  
☐ Solids/Landfarm ☐ Treating Plant

2. Operator: BASIN DISPOSAL, INC.

Address: PO BOX 100, AZTEC, NM 87410 (MAILING)  
100 MONTANA AVE., BLOOMFIELD, NM (PHYSICAL)

Contact Person: JOHN VOLKERDING Phone: 505-334-3013

3. Location: SE /4 NW /4 Section 3 Township 29N Range 11W  
Submit large scale topographic map showing exact location

4. Is this a modification of an existing facility? ☒ Yes ☐ No
5. Attach the name and address of the landowner of the facility site and landowners of record within one mile of the site.
6. Attach description of the facility with a diagram indicating location of fences, pits, dikes, and tanks on the facility.
7. Attach designs 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, security systems, and landfarm facilities.
8. Attach a contingency plan for reporting and clean-up for spills or releases.
9. Attach a routine inspection and maintenance plan to ensure permit compliance.
10. Attach a closure plan.
11. Attach geological/hydrological evidence demonstrating that disposal of oil field wastes will not adversely impact groundwater. Depth to and quality of ground water must be included.
12. Attach proof that the notice requirements of OCD Rule 711 have been met.
13. Attach a contingency plan in the event of a release of H<sub>2</sub>S.
14. Attach such other information as necessary to demonstrate compliance with any other OCD rules, regulations and orders.

15. CERTIFICATION

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

Name: JOHN VOLKERDING Title: GENERAL MANAGER

Signature:  Date: 11/29/2006

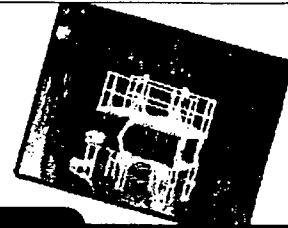
E-mail Address: BDINC@DIGH.NET



## SEDIMENT CONTROL SYSTEMS INC.

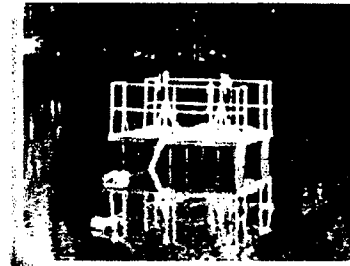
454 SHAKER BLVD. ENFIELD, NH 03748 PHONE: 603-632-7594 E-MAIL: CLAMESMARTEL@VERIZON.NET

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### Home

Remove sludge from your lagoon or pond with the patented Sludge Sled, a new and simple sludge removal system. It can remove sludge while a wastewater lagoon remains in operation. No shutdown is necessary because the Sludge Sled is designed to minimize resuspension of bottom sediment. The Sled is positioned over the sediment by a float that also serves as a platform to raise and lower the Sled for maintenance. The Sludge Sled system is light enough to be moved by hand, so it can be operated by in-house personnel. Best of all, it is relatively inexpensive compared to other dredging systems. Dredging is done on an annual basis, a steady-state condition can be achieved thus eliminating the need for a complete sludge removal operation.



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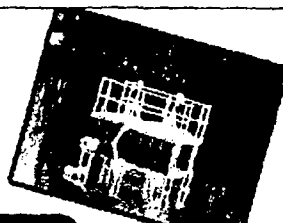
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**SEDIMENT CONTROL SYSTEMS INC.**

454 SHAKER BLVD. ENFIELD, NH 03748 PHONE: 603-632-7564 E-MAIL: CJAMESMARTEL@VERIZON.NET

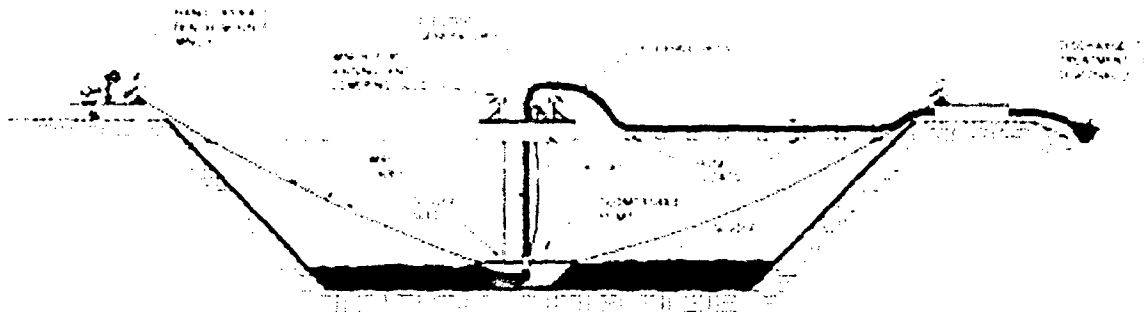
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## About Us



**Sediment Control Systems (SCS) Inc.** is a new company that makes the "Sludge Sled", a patented (#6,854,709) small dredge that removes sediment from all kinds of liquid impoundments including lagoons, ponds, and settling basins. This technology was developed by Dr. C. James Martel, PE and Mr. Dennis J. Lambert who have over **40 years** of combined experience in sludge removal and waste treatment. **SCS Inc.** will work with you to size and adapt the Sludge Sled system to your unique needs and circumstances. Sludge Sleds have been used to remove sediment from sewage lagoons, a paper mill waste lagoon, a woolen mill lagoon and a trout pond.



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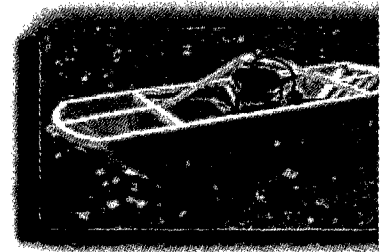


## SEDIMENT CONTROL SYSTEMS INC.

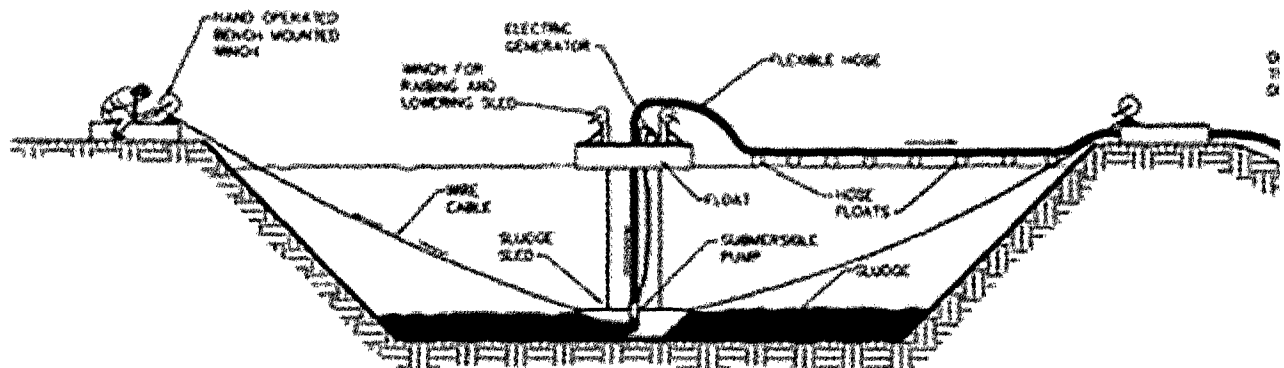
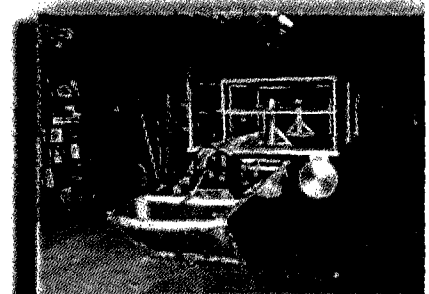
454 SHAKER BLVD. ENFIELD, NH 03748 PHONE: 603-632-7594 E-MAIL: CJAMESMARTEL@VERIZON.NET

[HOME](#) | [ABOUT US](#) | [CONTACT US](#)

### About Us



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**Chavez, Carl J, EMNRD**

---

**From:** Chavez, Carl J, EMNRD  
**Sent:** Tuesday, November 21, 2006 8:36 AM  
**To:** 'John Volkerding'; Price, Wayne, EMNRD; Jones, Brad A., EMNRD; Powell, Brandon, EMNRD  
**Cc:** Perrin, Charlie, EMNRD  
**Subject:** RE: Minor Modification to NM-01-005

Mr. Volkerding:

The OCD has reviewed your e-mail message below with attached letters dated November 17 and 20, 2006, requesting a minor modification to Basin Disposal, Inc.'s permit. In addition, the OCD discussed Mr. Price's concerns last Friday with you about the number of tanks and whether the modification is considered minor or major in scale.

Subsequently, Basin Disposal has scaled down the number of tanks and has agreed to construct a more permanent solution to the increased production during the Winter months. Consequently, the **OCD has determined that the modification is minor** and for a temporary period of 6 months effective November 20, 2006. This minor modification will be attached to the existing Basin Disposal, Inc. Permit. In addition, the sampling mentioned on page 2, second paragraph from the bottom of the page, in the November 20, 2006 letter, should actually be "below" the liner.

Basin Disposal, Inc. shall view this minor modification acceptable for a temporary period only and a more permanent major modification or solution to the increased produced water problem will be implemented before next Winter's anticipated production increase.

Please be advised that NMOCD approval of this minor modification does not relieve Basin Disposal, Inc. of responsibility should your operations fail to adequately investigate and remediate contamination that poses a threat to ground water, surface water, human health and the environment. In addition, the NMOCD approval does not relieve Basin Disposal, Inc. of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Thank you for your cooperation in this matter.

---

**From:** John Volkerding [mailto:bdinc@digii.net]  
**Sent:** Monday, November 20, 2006 5:55 PM  
**To:** Chavez, Carl J, EMNRD; Price, Wayne, EMNRD; Jones, Brad A., EMNRD; Powell, Brandon, EMNRD  
**Subject:** Minor Modification to NM-01-005

Carl;

Attached is a pdf version of the minor permit modification we discussed on the phone on 11/20/06. I also have attached the application that made on 11/17/06 for your reference.

As I mentioned on the phone, the 11/17/06 modification was deemed to not qualify for a minor modification due to the size of the request (i.e. forty-two 400 bbl frac tanks). The attached request is reduced to only 25 temporary frac tanks.

Given the number of irate phone calls I have received from producers in the region because we have cut off many of them from bringing in water which has caused them to reduce production, I appreciate your willingness to consider this request.

As I explained on the phone, in looking at the files over the past several years, it appears that Basin has routinely found itself in a situation requesting temporary tanks or pits during the winter months. To avoid that in the future, I am working on an application for a major modification to the facility to construct an additional double lined evaporation pond with leak detection to provide for increased surge capacity and upon advice from the OCD it will be designed with increased evaporation capability. The attached temporary request will allow us to get through this year's winter months as we work on that major modification for next year.

If you need any additional information, please feel free to ask. Have a Happy Thanksgiving! John

11/21/2006



**Chavez, Carl J, EMNRD**

**From:** John Volkerding [bdinc@digii.net]  
**Sent:** Monday, November 20, 2006 5:55 PM  
**To:** Chavez, Carl J, EMNRD; Price, Wayne, EMNRD; Jones, Brad A., EMNRD; Powell, Brandon, EMNRD  
**Subject:** Minor Modification to NM-01-005

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If you need any additional information, please feel free to ask. Have a Happy Thanksgiving! John

John Volkerding, PhD  
General Manager  
Basin Disposal Inc  
PO Box 100, 906 S Main  
Aztec, NM 87410  
505-334-3013 (Office), 505-632-8936 (Plant)  
505-320-2840 (Cell), 505-334-8729 (Fax)

11/21/2006



# BASIN DISPOSAL, INC.

SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD  
PO BOX 100 AZTEC, NEW MEXICO 87410 PHONE 505 824-1111

17 November, 2006

Brad Jones  
EMNRD/OCD  
Environmental Bureau  
1220 South St. Francis Dr.,  
Santa Fe, New Mexico 87505

RE: Minor Permit Modification  
Temporary Frac Tanks  
Produced Water Storage

Dear Mr. Jones;

Following up to letter of November 1, 2006, the inspection conducted November 6, 2006, and our telephone conversation on November 15, 2006 this letter updates our request.

In researching the capacity needs for the area, it appears we may need as many as forty-two (42) 400 barrel (BBL) frac tanks. It is our belief that having the water stored at one continuously monitored location, the water disposal location, as opposed to being stored at numerous unmanned pits in the field provides for increased protection of fresh water, public health and the environment by increasing the level of stewardship for that water.

We request authorization for a minor permit modification to set forty-two (42) 400 BBL tanks for the temporary storage of produced water. Twelve (12) of these tanks will be the tanks discussed in my October 18, 2006 letter to the OCD. These 12 tanks will be moved such that all 42 tanks are located in one single bermed and lined area. The tanks will not be connected in any way. We propose to place a few inches of soil on top of the liner prior to placing the tanks in order to protect the liner.

Per permit requirement: *"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."* Basin Disposal proposes to place the tanks in a bermed area lined with a 20 mil liner of a size to contain one and one-third the total tank volume.

In evaluating the site, the location that provides the greatest protection of fresh water, public health and the environment is the area where the temporary pond was being constructed. An area 150' by 300' by 5 feet deep has already been constructed. Once lined with a 20 mil liner, the area will contain a volume of 40,076 bbls. One and one-third the volume of the requested 42 tanks is 22,400 bbls. The 42 temporary frac tanks will be inspected daily for tank, piping and berm integrity.



Using this area, instead of constructing another location, will minimize the disturbance of the surface soil. Also, Basin Disposal has been in discussions with the OCD about our plan to request a major modification to the facility to construct a permanent pond in the location the current temporary pond was being excavated. Utilizing that area for tank storage will allow Basin Disposal to use the work that has already been done. If Basin Disposal is not allowed to use that area and required to backfill the area constructed for the temporary pond, and then excavate the exact same area under the permit application for the additional permanent pond, Basin Disposal will be subjected to a considerable financial penalty.

If the area is allowed to be used for the storage of the temporary frac tanks, Basin Disposal will submit a letter rescinding the request to build the temporary pond.

Basin Disposal, Inc. shall ensure all proposed tanks are identified by a sign posted not more than 50 feet from the tanks which is made of durable construction and with lettering large enough to be legible under normal conditions at a distance of 50 feet with: the name of the operator, and the location of the tank(s) by unit letter, section, township, and range.

The tanks will be on site for a period of six months. After which time, the tanks will be cleaned and removed. Samples from the soil above the liner will be taken and analyzed for:

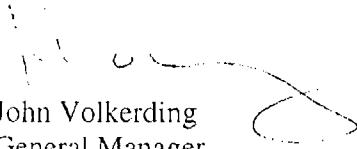
Aromatic Volatiles by GC/PID (SW8021B)

Diesel Range Organics/Gasoline Range Organics (SW8015B)

Basin Disposal, Inc. will submit an additional separate financial assurance in the amount of \$15,000 within 30 days of the Division's approval of this request. Upon OCD-approved closure of the temporary frac tank storage, Basin will request that this separate financial assurance be released. Basin Disposal, Inc. currently has financial assurance in the amount of \$144,155 (OCD Ltr Dated 2/20/06).

If you have any questions, please feel free to phone me at 334-3013 or 320-2840 or via email at [bdinc@digii.net](mailto:bdinc@digii.net).

Sincerely;

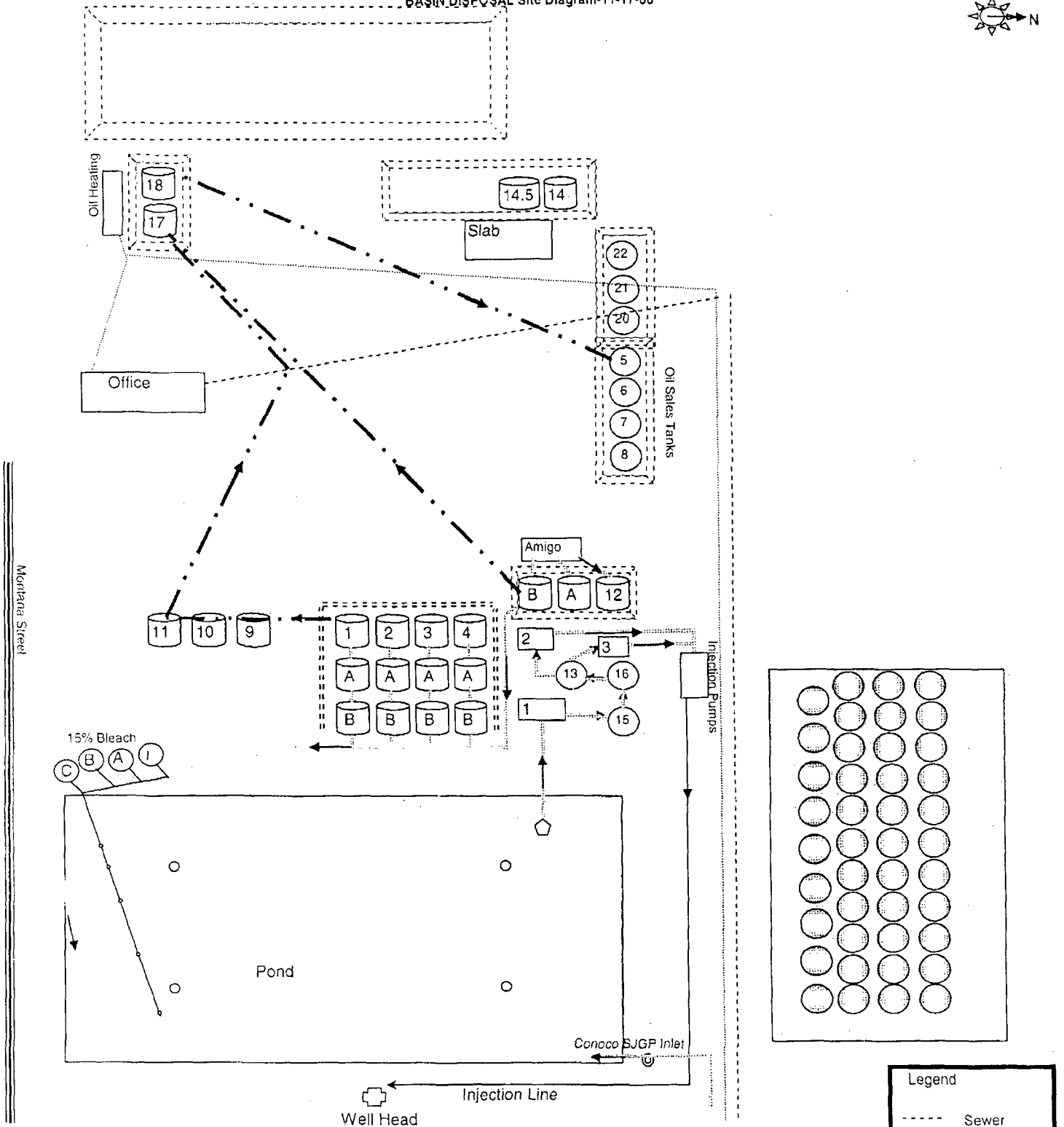
  
John Volkerding  
General Manager

Encl: Site Diagram  
OCD Ltr 2/20/06  
C-137 (two copies)

Cc: Aztec OCD Office



# BASIN DISPOSAL Site Diagram-11-17-06



Filter House 1: 20um filters  
 Filter Houses 2 3: 5um filters





# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

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

Director

Oil Conservation Division

February 20, 2006

Ms. Cathy Messenger  
Citizens Bank  
P.O. Box 4140  
Farmington, NM 87499-4140

RE: \$144,155 Financial Assurance for Commercial Surface  
Waste Management Facility Permit NM-01-0005  
Basin Disposal, Inc., Principal  
Citizens Bank of Farmington, Financial Institution  
Irrevocable Letter of Credit #2254

Dear Ms. Messenger:

The New Mexico Oil Conservation Division (NMOCD) hereby approves the above-referenced irrevocable letter of credit.

The NMOCD also approves the release of irrevocable letter of credit #2223, the original of which is enclosed.

Sincerely,

David K. Brooks  
Assistant General Counsel

Copy: NMOCD, Aztec  
Mr. Jerry Sandel, Basin Disposal, Inc.

RECEIVED  
MAR 03 2006



District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-137  
Revised June 10, 2003

Submit Original Plus 1  
Copy to Santa Fe  
1 Copy Appropriate  
District Office

**APPLICATION FOR WASTE MANAGEMENT FACILITY**

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

☒ Commercial

☐ Centralized

1. Type: ☐ Evaporation ☒ Injection ☐ Other  
☐ Solids/Landfarm ☐ Treating Plant

2. Operator: BASIN DISPOSAL, INC.

Address: PO BOX 100, AZTEC, NM 87410 (MAILING)  
100 MONTANA AVE., BLOOMFIELD, NM (PHYSICAL)

Contact Person: JOHN VOLKERDING Phone: 505-334-3013

3. Location: SE /4 NW /4 Section 3 Township 29N Range 11W  
Submit large scale topographic map showing exact location

4. Is this a modification of an existing facility? ☒ Yes ☐ No

5. Attach the name and address of the landowner of the facility site and landowners of record within one mile of the site.

6. Attach description of the facility with a diagram indicating location of fences, pits, dikes, and tanks on the facility.

7. Attach designs 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, security systems, and landfarm facilities.

8. Attach a contingency plan for reporting and clean-up for spills or releases.

9. Attach a routine inspection and maintenance plan to ensure permit compliance.

10. Attach a closure plan.

11. Attach geological/hydrological evidence demonstrating that disposal of oil field wastes will not adversely impact groundwater. Depth to and quality of ground water must be included.

12. Attach proof that the notice requirements of OCD Rule 711 have been met.

13. Attach a contingency plan in the event of a release of H<sub>2</sub>S.

14. Attach such other information as necessary to demonstrate compliance with any other OCD rules, regulations and orders.

**15. CERTIFICATION**

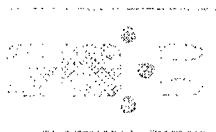
I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: JOHN VOLKERDING Title: GENERAL MANAGER

Signature: [Signature] Date: 11/17/2006

E-mail Address: BDINC@DIGINET





# BASIN DISPOSAL, INC.

SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD  
P.O. BOX 400 - AZTEC, NEW MEXICO 87410 - PHONE (505) 334-3015

20 November, 2006

Carl J. Chávez  
EMNRD/ OCD  
Environmental Bureau  
1220 South St. Francis Dr.,  
Santa Fe, New Mexico 87505

RE: Minor Permit Modification  
Temporary Frac Tanks  
Produced Water Storage

Dear Mr. Chávez;

This letter is a follow up to my telephone conversations with Mr. Brad Jones on November 15 and Mr. Wayne Price on November 17 and with yourself on November 20, 2006.

During my conversation with Mr. Jones, we discussed that Basin Disposal, Inc. would submit an application for temporarily setting frac tanks for produced water storage due to the increase in water coming to our facility during the winter months. The proposal of setting frac tanks on a temporary basis under a minor modification was viewed with more acceptance than using the temporary pond that had been approved for the purpose of allowing us to clean the permanent pond. On November 17, I submitted that application (attached) and requested authorization to set forty-two 400 barrel tanks.

Mr. Price and I spoke on November 17 about the application and whether this could be considered an emergency. I explained that I could not classify this as an emergency from the perspective of Basin Disposal because I could ensure that our facility remain in compliance by continuing to dramatically restrict the amount of water accepted. I shared that from the perspective of the producers in the region our inability to accept their water was considered an emergency because wells would have to be shut in and processing curtailed, during the winter which is a high demand period of the year. I conveyed that we had received several complaints from producers about the situation. After considering our request, Mr. Price replied that due to the size of the expansion setting this many tanks would be considered a major modification to Basin's permit.

Because of the time sensitive nature of setting these tanks and the timeline involved in obtaining a major modification, Basin Disposal would be precluded from accepting water during the high demand season, if a major modification were pursued. During yours and my conversation on November 20 it was asked whether Basin Disposal could change the request to a smaller volume. I stated that if we were allowed to set twenty-five 400 barrel frac tanks, we would be able to meet the majority of the needs of the producers.

In this letter, we request authorization for a minor permit modification to set twenty-five (25) 400 BBL tanks for the temporary storage of produced water. This expansion constitutes only a 10% increase in our storage capacity and would help producers to not be forced to shut in wells.



Twelve (12) of the 25 tanks will be the tanks discussed in my October 18, 2006 letter to the OCD, thus only thirteen (13) additional tanks will be set on-site under this application. All 25 tanks will be located in one single bermed and lined area. The tanks will not be connected in any way. We propose to place a few inches of soil on top of the liner prior to placing the tanks in order to protect the liner.

Per permit requirement: *"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."* Basin Disposal proposes to place the tanks in a bermed area lined with a 20 mil liner of a size to contain one and one-third the total tank volume.

In evaluating the site, the location that provides the greatest protection of fresh water, public health and the environment is the area where the temporary pond was being constructed. An area 150' by 300' by 5 feet deep has already been constructed. We propose to create a lined and bermed area at that location with the dimensions of approximately 150' x 150' yielding a lined and bermed volume of 16,000 barrels. One and one-third the volume of the requested 25 tanks is 13,000 bbls. The 25 temporary frac tanks will be inspected daily for tank, piping and berm integrity.

Using this area, instead of constructing another location, will minimize the disturbance of the surface soil. Also, Basin Disposal has been in discussions with the OCD about our plan to request a major modification to the facility to construct a permanent double-lined pond equipped with a leak detection system and increased evaporative capability. Utilizing that area for tank storage will allow Basin Disposal to use the work that has already been done. If Basin Disposal is not allowed to use that area and required to backfill the area constructed for the temporary pond, and then excavate the exact same area under the permit application for the additional permanent pond, Basin Disposal will be subjected to a considerable financial penalty.

If the area is allowed to be used for the storage of the temporary frac tanks, Basin Disposal will submit a letter rescinding the request to build and use the temporary pond.

Basin Disposal, Inc. shall ensure all proposed tanks are identified by a sign posted not more than 50 feet from the tanks which is made of durable construction and with lettering large enough to be legible under normal conditions at a distance of 50 feet with: the name of the operator, and the location of the tank(s) by unit letter, section, township, and range.

The proposed tanks will be on site for a maximum period of six months. Basin Disposal will strongly endeavor to remove the tanks prior to that date. Samples from the soil above the liner will be taken and analyzed for:

Aromatic Volatiles by GC/PID (SW8021B)

Diesel Range Organics/Gasoline Range Organics (SW8015B)

Basin Disposal, Inc. will submit an additional separate financial assurance in the amount of \$15,000 within 30 days of the Division's approval of this request. Upon OCD-approved closure of the temporary frac tank storage, Basin will request that this separate financial assurance be released. Basin Disposal, Inc. currently has financial assurance in the amount of \$144,155 (OCD Ltr Dated 2/20/06).



District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
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District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-137  
Revised June 10, 2003

Submit Original Plus 1  
Copy to Santa Fe  
1 Copy Appropriate  
District Office

**APPLICATION FOR WASTE MANAGEMENT FACILITY**

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

☒ Commercial

☐ Centralized

1. Type: ☐ Evaporation ☒ Injection ☐ Other  
☐ Solids/Landfarm ☐ Treating Plant

2. Operator: BASIN DISPOSAL, INC.

Address: PO BOX 100, AZTEC, NM 87410 (MAILING)  
100 MONTANA AVE., BLOOMFIELD, NM (PHYSICAL)

Contact Person: JOHN VOLKERDING Phone: 505-334-3013

3. Location: SE /4 NW /4 Section 3 Township 29N Range 11W  
Submit large scale topographic map showing exact location

4. Is this a modification of an existing facility? ☒ Yes ☐ No

5. Attach the name and address of the landowner of the facility site and landowners of record within one mile of the site.

6. Attach description of the facility with a diagram indicating location of fences, pits, dikes, and tanks on the facility.

7. Attach designs 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, security systems, and landfarm facilities.

8. Attach a contingency plan for reporting and clean-up for spills or releases.

9. Attach a routine inspection and maintenance plan to ensure permit compliance.

10. Attach a closure plan.

11. Attach geological/hydrological evidence demonstrating that disposal of oil field wastes will not adversely impact groundwater. Depth to and quality of ground water must be included.

12. Attach proof that the notice requirements of OCD Rule 711 have been met.

13. Attach a contingency plan in the event of a release of H<sub>2</sub>S.

14. Attach such other information as necessary to demonstrate compliance with any other OCD rules, regulations and orders.

15. CERTIFICATION

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

Name: JOHN VOLKERDING Title: GENERAL MANAGER

Signature: [Signature] Date: 11/20/2006

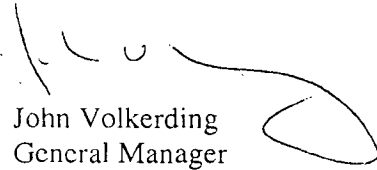
E-mail Address: BDINC@DIGII.NET



Basin Disposal, Inc. respectfully requests that the OCD consider and approve this request. Approval will allow Basin Disposal to accept enough water on a temporary basis to keep producers from having to curtail production and shut in wells. Also, it is our belief that having the water stored at one continuously monitored location, the water disposal location, as opposed to being stored at numerous unmanned pits and tanks in the field provides for increased protection of fresh water, public health and the environment by increasing the level of stewardship for that water.

If you have any questions, please feel free to phone me at 334-3013 or 320-2840 or via email at [bdinc@digii.net](mailto:bdinc@digii.net).

Sincerely;

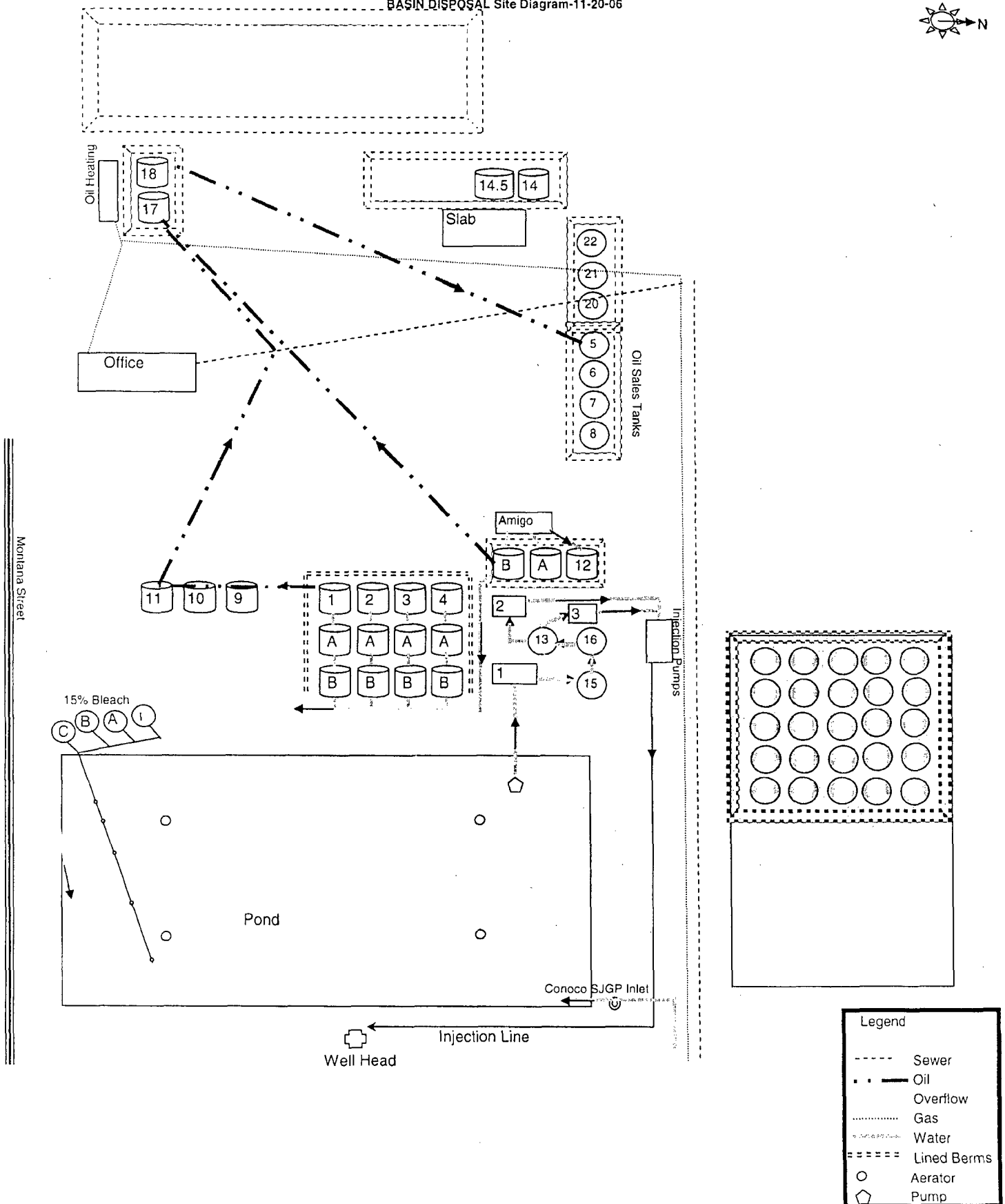
  
John Volkerding  
General Manager

Encl: Site Diagram  
C-137 (two copies)

Cc: Aztec OCD Office

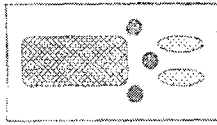


# BASIN DISPOSAL Site Diagram-11-20-06



Filter House 1: 20um filters  
 Filter Houses 2 3: 5um filters





# BASIN DISPOSAL, INC.

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"

P.O. BOX 100 - AZTEC, NEW MEXICO 87410 - PHONE: (505) 334-3013

November 10, 2006

RECEIVED

NOV 16 2006

Per.....

Oil Conservation Division  
Attn: Brad Jones  
1220 South St. Francis Dr.  
Santa Fe, NM 87505  
FAX (505) 476-3462

**RE: Evaluation of Catastrophic Failure of Receiving and Process Tanks  
And Result to Pond Level**

Dear Mr. Jones,

During the inspection on November 6, 2006, Basin personnel pointed out that the produced water receiving and processing tanks are bermed and lined such that in the event of a leak the produced water in those tanks would flow into the pond. The OCD asked what would be the impact to the pond level in the unlikely event of a catastrophic failure of all the produced water receiving and process tanks such that their entire volume entered the pond at the same time.

The total volume of these tanks is 7400 barrels. Depending on the level of the pond, the volume per foot ranges from 6977 to 10887 bbl/ft. At the pond's current level of 10.5 feet. The approximate number of barrels per foot is 10,674. A volume of 7400 barrels entering the pond when its level is 10.5 feet would cause the pond level to rise to a level of 11.2 feet.

With a pond level of 10.8 feet or below, even in the unlikely event of a simultaneous catastrophic failure of the receiving and processing tanks, the pond level would remain within the compliance requirement of not exceeding 11.5 feet.

If you need anything else from me, please feel free to contact me on my cell phone at 505-320-2840 or email at [bdcinc@diggii.net](mailto:bdcinc@diggii.net).

Sincerely,

John Volkerding, PhD  
General Manager

Attach (Diagram and Table)

RECEIVED

NOV 16 2006

Per.....]



Diagram Showing Produced Water Receiving and Processing Tanks

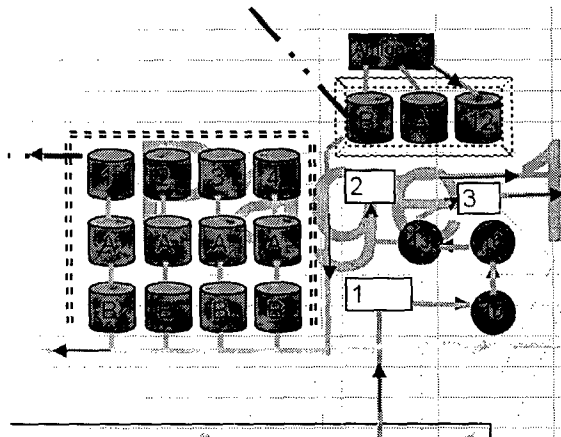
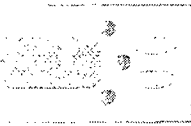


Table Showing Pond Volume as Function of Depth

BASIN DISPOSAL INC  
STORAGE VOLUME

Depth (ft)	Volume (BBLS/foot)	Total Volume (BBLS)
Sump		4530
1	6977	11507
2	7333	18841
3	7697	26538
4	8069	34607
5	8448	43055
6	8835	51890
7	9230	61120
8	9633	70752
9	10043	80795
10	10461	91256
11	10887	102143
<b>11.5</b>		<b>107749</b>
12	11430	113573





# BASIN DISPOSAL, INC.

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"  
P.O. BOX 100 • AZTEC, NEW MEXICO 87410 • PHONE: (505) 334-3013

November 11, 2006

Oil Conservation Division  
Attn: Brad Jones  
1220 South St. Francis Dr.  
Santa Fe, NM 87505  
FAX (505) 476-3462

RE: History of Permitted Temporary Soil Storage Area

Dear Mr. Jones,

During the inspection on November 5, 2006 the OCD personnel expressed concern over the temporary soil storage area. In speaking with Denny Foust, formerly of the District III OCD Office, about the confusion surrounding the soil storage area I learned that it was permitted by the OCD as a permanent unit. During the inspection of November 5, 2006 there was a question whether Basin Disposal had operated the unit in violation of its permit and according to Mr. Foust the answer is that Basin Disposal was authorized to operate the unit on a permanent basis and that the term "temporary" denoted the fact that soil could not remain at that location for more than 30 days.

Attached are copies of documents that illustrate the fact the soil storage area was a permitted unit and allowed to be in permanent operation.

The first mention of a soil storage area was in June 1999 and Attachment A shows that based on a phone conversation of June 4, 1999, Martyne J. Kieling of the OCD required that Basin Disposal cease soil storage until a minor permit modification for a lined and bermed soil storage area be issued. Attachments, B, C, D, E are the submittals by Basin Disposal for this lined and bermed area dated June 1999.

A term that is used consistently throughout the documents is "temporary soil storage area". The OCD today is interpreting that phrase to mean the unit itself was permitted on a temporary basis. Basin Disposal's position is that the unit itself was a permanently permitted area with the requirement that soil could only be stored at the unit temporarily. The documentation supports Basin Disposal's position which is outlined below.

Attachment F is the permit modification approval dated July 6, 1999 authorizing the construction and operation of the "Temporary Soil Storage Area." At no point in the permit is there a condition that the soil storage area shall be closed at some specific time, thereby implying it is a permanent addition to the facility. The only requirement with a time frame is Condition 4 under "Temporary Soil Storage Area Operation" which states "Soil storage may not exceed 30 days."

2006 NOV 16 AM 8 46  
2006 NOV 16 AM 8 46



The permit language implies that the storage area is permanent and could only hold soil for 30 day time periods.

During the inspection of November 5, 2006 the OCD implied that Attachment G was requesting an extension of the use of the soil storage area. That May 5, 2000 letter requests extension for two temporary sludge pits that were located north of the pond. This is evidenced by Attachment H, Page 1 which requests the construction of two sludge pits north of the pond in February 1999 and Attachment H, Page 2 showing the location of those sludge pits. Attachment G also makes a clear distinction between the sludge pits and the soil storage area by stating "We are also using the west pit to hold some of the dirt until it can be moved." Since the soil storage area is located to the west, that reference distinguishes the soil storage area from the sludge pits located to the north.

The OCD inspected Basin Disposal on May 1, 2000 with the results documented in Attachment I dated August 7, 2000. Attachment I, Page 5, Item 19 verifies that Attachment G spoke about granting an extension for Pits 1 & 2 located north of the pond. Attachment I, Page 5, Item 20 shows that the soil storage area was a separate unit and confirms it is a permanent unit with the word "temporary" describing that time period soil may be on site and not that the storage area was temporary by stating "Soil was stored properly on containment area....Soil disposal transfer records showed that the soils were removed in January, April, and May of 2000 to Tierra Environmental." If the 30 days referred to the time period the soil storage area was allowed to operate by having it operating in January 2000 through the inspection date in May 2000, the OCD would have stated the area was in violation. It did not make that statement and instead stated "Soil was stored properly.."

Attachment J dated December 28, 2000 is a permit modification approval that again lists the Temporary Soil Storage Area. If the OCD had intended the area only be allowed temporarily, since it was first approved in June 1999 by December 2000 the OCD would have required its closure. It did not require its closure thereby implying the soil storage was permitted permanently.

In Attachment K, Page 1, on February 26, 2001 Basin Disposal discusses the addition of two (2) temporary pits for the temporary storage of produced water due to the high volumes of water being received and mentions one (1) temporary pit used for cleaning the pond. The pits were situated on the north side of the pond, in the same area as the temporary pond we recently requested, as shown by Attachment K, Page 2.

On March 7, 2001 the OCD granted approval for these pits and required they be closed by May 7, 2001.

Attachment M dated May 17, 2001 shows these pits were emptied and removed.

The OCD inspected Basin Disposal on May 29, 2001 with the results documented in Attachment N dated January 29, 2002. The inspection report noted that "The temporary soil storage area had contaminated soil spilled outside of the lined and bermed area." And quoted the permit which states "Stored soil must be kept three (3) feet from the base of the berm to ensure that the



contaminated soils are located above the lined area.”. By the OCD noting an operational violation of the temporary soil storage area in May 2001, with the area being constructed in 1999, the OCD acknowledges the permanent nature of the soil storage area.

Attachment O dated February 12, 2002 documents the corrections of the deficiencies noted in Attachment N.

The OCD inspected Basin Disposal on March 5, 2002 with the results documented in Attachment P dated April 3, 2002. Page 1 states “Soil and sludge generated at Basin Disposal was managed well within the lined temporary soil storage area”. Page 3 shows a picture of the solidification process. The letter does state that the temporary pit to the north of the pond was  $\frac{3}{4}$  closed and it was required to be closed by June 1, 2002. This temporary pit is separate and distinct from the soil storage area since the pit is located to the north and the soil storage area located to the west.

On May 20, 2003 in Attachment Q, Basin Disposal proposed to clean the pond and utilize the soil stabilization/storage area. On May 27, 2003 in Attachment R, the OCD approved the use of the temporary soil storage area. Had the OCD intended for the soil storage area to be constructed on a temporary basis, it would not have again stated it concurred with its use four years after its construction. Again the OCD did not state a requirement for the closure of the temporary soil storage area.

Attachment S, Page 1 from Edwin Martin dated March 5, 2005, approved changes to Basin Disposal and continued to acknowledge the approved existence of the dirt storage area as evidenced by the site diagram, Attachment S, Page 2. Had the OCD intended for the dirt storage area to be temporary, it would have required its removal with the permit modification.

Attachment T, Page 1 from Edwin Martin dated June 5, 2005, approved changes to Basin Disposal and continued to acknowledge the approved existence of the dirt storage area as evidenced by the site diagram, Attachment T, Page 2. Had the OCD intended for the dirt storage area to be temporary, it would have required its removal with the permit modification.

Attachment U, Page 1 from Roger Anderson dated January 16, 2006, approved changes to Basin Disposal and continued to acknowledge the approved existence of the dirt storage area as evidenced by the site diagram, Attachment U, Page 2. Had the OCD intended for the dirt storage area to be temporary, it would have required its removal with the permit modification.

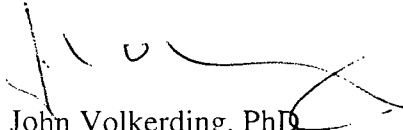
To summarize the findings from these documents:

1. The OCD permitted and approved on a permanent basis the “temporary soil storage area” in 1999.
2. The term “temporary” referred to the length of time soil could be stored and not the length of time the area could be operated.
3. As recent as 2006 the OCD acknowledged the continued existence of the soil storage area.
4. At no time did the OCD require closure of the soil storage area.
5. The continued operation of the soil storage area is not a violation of Basin’s permit.



I appreciate the opportunity to clarify Basin Disposal's understanding and the history of the soil storage area. If you need anything else from me, please feel free to contact me on my cell phone at 505-320-2840 or email at [bdcinc@diggii.net](mailto:bdcinc@diggii.net).

Sincerely,



John Volkerding, PhD  
General Manager

### Attachments

<u>Attachement</u>	<u>Date</u>	<u>Document</u>
A	6/7/1999	Letter from Martyne Keiling to Basin concerning soil storage/treatment
B	6/16/1999	Letter from Basin to Martyne Keiling requesting soil storage area
C	6/16/1999	C-137 for soil storage area
D	6/16/1999	Cross Section of storage area
E	6/16/1999	Site Diagram with soil storage area
F (2 pages)	7/6/1999	Permit authorizing the Soil Storage Area
G	5/5/2000	Letter from Basin to Martyne Keiling requesting extension on sludge pits
H (2 Pages)	2/15/1999	Letter and Map for the sludge pits that are subject of Attach G
I (5 Pages)	8/7/2000	Letter from Martyne Keiling to Basin on inspection conducted 5/16/2000
J (2 Pages)	12/28/2000	Permit which continues to allow the Soil Storage Area
K (2 pages)	2/26/2001	Letter from Basin to Martyne requesting 2 pits for temporary water storage and 1 for cleaning the pond
L	3/7/2001	Letter from Martyne Keiling to Basin allowing three pits
M	5/17/2001	Letter from Basin to Martyne Keiling stating all three pits are closed
N (2 Pages)	1/29/2002	Letter from Martyne Keiling to Basin on inspection conducted 5/29//2001
O	2/12/2002	Letter showing closure of the deficiencies from inspection
P (3 pages)	4/3/2002	Letter from Martyne Keiling to Basin on inspection conducted 4/3//2002
Q	5/20/2003	Letter from Basin to Martyne Keiling concerning cleaning the pond and requesting to use the soil storage area
R (2 Pages)	5/27/2003	Letter from Martyne Keiling authorizing the use of the soil storage area
S (2 Pages)	3/2/2005	Letter from Ed Martin permitting oil tank, pump house and moving Tank #19 with site diagram attached showing soil storage area
T (2 Pages)	7/5/2005	Letter from Ed Martin permitting filtration changes with site diagram attached showing soil storage area
U (2 Pages)	1/16/2006	Letter from Roger Anderson permitting lay-down pit with site diagram attached showing soil storage area



<u>Date</u>	<u>Document</u>	<u>Attachement</u>
6/7/1999	Letter from Martyne Keiling to Basin concerning soil storage/treatment	A
6/16/1999	Letter from Basin to Martyne Keiling requesting soil storage area	B
6/16/1999	C-137 for soil storage area	C
6/16/1999	Cross Section of storage area	D
6/16/1999	Site Diagram with soil storage area	E
7/6/1999	Permit authorizing the Soil Storage Area	F (2 pages)
5/5/2000	Letter from Basin to Martyne Keiling requesting extension on sludge pits	G
2/15/1999	Letter and Map for the sludge pits that are subject of Attach G	H (2 Pages)
8/7/2000	Letter from Martyne Keiling to Basin on inspection conducted 5/16/2000	I (5 Pages)
12/28/2000	Permit which continues to allow the Soil Storage Area	J (2 Pages)
2/26/2001	Letter from Basin to Martyne requesting 2 pits for temporary water storage and 1 for cleaning the pond	K (2 pages)
3/7/2001	Letter from Martyne Keiling to Basin allowing three pits	L
5/17/2001	Letter from Basin to Martyne Keiling stating all three pits are closed	M
1/29/2002	Letter from Martyne Keiling to Basin on inspection conducted 5/29//2001	N (2 Pages)
2/12/2002	Letter showing closure of the deficiencies from inspection	O
4/3/2002	Letter from Martyne Keiling to Basin on inspection conducted 4/3//2002	P (3 pages)
5/20/2003	Letter from Basin to Martyne Keiling concerning cleaning the pond and requesting to use the soil storage area	Q
5/27/2003	Letter from Martyne Keiling authorizing the use of the soil storage area	R (2 Pages)
3/2/2005	Letter from Ed Martin permitting oil tank, pump house and moving Tank #19 with site diagram attached showing soil storage area	S (2 Pages)
7/5/2005	Letter from Ed Martin permitting filtration changes with site diagram attached showing soil storage area	T (2 Pages)
1/16/2006	Letter from Roger Anderson permitting lay-down pit with site diagram attached showing soil storage area	U (2 Pages)





NEW MEXICO ENERGY, MINERALS  
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
2040 South Pacheco Street  
Santa Fe, New Mexico 87508  
(505) 827-7131

June 7, 1999

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. P-326-936-542**

JUN 9 1999

Mr. Jerry Sandel  
Basin Disposal, Inc.  
P.O. Box 100  
Aztec, New Mexico 87401

**RE: Follow up to Telephone Conversation 6-4-99**  
**Basin Disposal, Inc. Permit NO. NM-01-0005**  
**Commercial Surface Waste Management Facility**  
**SE/4 NW/4 of Section 3, Township 29 North, Range 11 West, NMPM,**  
**San Juan County, New Mexico**

Dear Mr. Sandel:

It has come to the attention of the New Mexico Oil Conservation Division (OCD) that waste sludge/oily water from the treatment of produced water is being mixed with soil and stock-piled for drying directly on the land surface at Basin Disposal, Inc. (Basin). In addition, the contaminated soil has contained free water. Permit No. NM-01-0005 does not include storage or treatment of wastes *ie., solid or liquid* directly on the ground surface nor does it include treatment of contaminated soils onsite *ie., landfarming or composting*.

Basin shall stop at once all storage or treatment of soils directly on the ground surface. Contaminated soils presently stockpiled at the facility will be removed by June 14, 1999 to an OCD-approved facility for remediation/disposal.

If Basin wishes to continue this waste handling process a permit modification must be applied for. Basin may request a minor permit modification for a temporary contaminated soils storage area that is lined and bermed or a major permit modification to treat contaminated soils on site through landfarming or composting. Enclosed is Form C-137 to be used for any permit modifications.

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

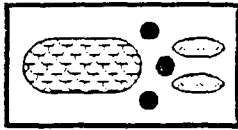
Sincerely,

Martyne J. Kieling  
Environmental Geologist

xc: Aztec District office

- Attachment A -





# **BASIN DISPOSAL, INC.**

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"

P. O. BOX 100 • AZTEC, NEW MEXICO 87410 • PHONE: (505) 334-3013

June 16, 1999

Martyne Kieling  
NMOCD  
2040 S. Pacheco  
Santa Fe, NM 87505

RE: Temporary lined storage area

Dear Martyne,

Basin Disposal would like to request a minor permit modification for a temporary contaminated soils storage area. We would like to propose that an area at the west end of our boundary have a 20 mil liner placed on the ground with 3 feet of soil placed on top, which will be packed down, this area will also have a 2 foot berm placed around it. The size of this area will be approximately 300 feet by 300 feet. As needed soil will be taken to a OCD approved facility. Thank you for your consideration of this manner.

Sincerely,

Keith Johnson  
General Manager

NEW MEXICO OIL CONSERVATION DIVISION APPROVED DISPOSAL SITE  
LOCATED 3 MILES NORTH OF BLOOMFIELD, NM ON WEST SIDE OF NM HWY 44

- Attachment B -



District I - (505) 393-6161  
P.O. Box 1980  
Hobbs, NM 88241-1980  
District II - (505) 748-1283  
811 S. First  
Artesia, NM 88210  
District III - (505) 334-6178  
1000 Rio Brazos Road  
Aztec, NM 87410  
District IV - (505) 827-7131

New Mexico  
Energy Minerals and Natural Resources Department  
Oil Conservation Division  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505  
(505) 827-7131

Form C-1  
Originated 8/2  
Revised 6/2  
Submit Orig  
Plus 1 C  
to Santa  
1 Copy to appropri  
District Of

APPLICATION FOR WASTE MANAGEMENT FACILITY  
(Refer to the OCD Guidelines for assistance in completing the application)

☒ Commercial

☐ Centralized

1. Type: ☐ Evaporation ☒ Injection ☐ Other \_\_\_\_\_

☐ Solids/Landfarm ☐ Treating Plant

2. Operator: Basin Disposal

Address: P.O. Box 100 Aztec NM or 6 CR5046 Bloomfield

Contact Person: Keith Johnson Phone: 632-8936

3. Location: 4 /4 Section \_\_\_\_\_ Township \_\_\_\_\_ Range \_\_\_\_\_  
Submit large scale topographic map showing exact location

4. Is this a modification of an existing facility? ☒ Yes ☐ No

5. Attach the name and address of the landowner of the facility site and landowners of record within one mile of the site.

6. Attach description of the facility with a diagram indicating location of fences, pits, dikes, and tanks on the facility.

7. Attach designs 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, security systems, and landfarm facilities.

8. Attach a contingency plan for reporting and clean-up for spills or releases.

9. Attach a routine inspection and maintenance plan to ensure permit compliance.

10. Attach a closure plan.

11. Attach geological/hydrological evidence demonstrating that disposal of oil field wastes will not adversely impact groundwater. Depth to and quality of ground water must be included.

12. Attach proof that the notice requirements of OCD Rule 711 have been met.

13. Attach a contingency plan in the event of a release of H<sub>2</sub>S.

14. Attach such other information as necessary to demonstrate compliance with any other OCD rules, regulations and orders.

15. CERTIFICATION

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

Name: Keith Johnson

Title: General Manager

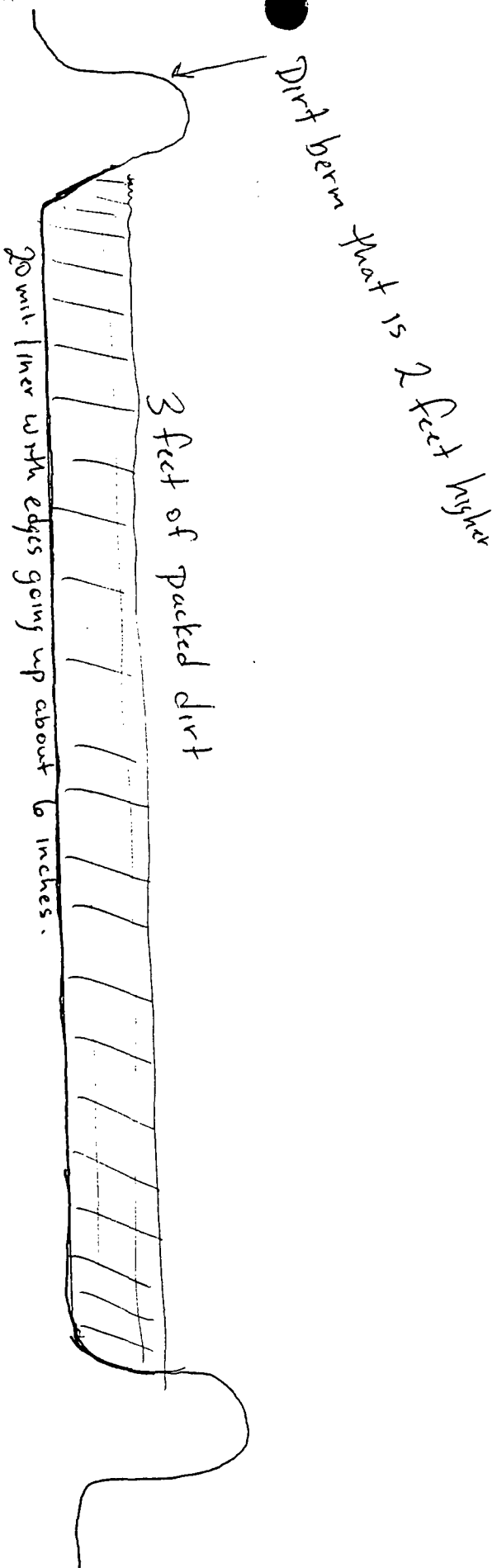
Signature: [Signature]

Date: 6-17-99

Attachment C



Basin Disposal -  
Cross section of temporary storage area  
for soil





Approximately 300'x300'

Temporary  
Storage  
Area

Scrubber #16  
Hot oil Tank

Berm

propane Tank

Berm

Below  
grade  
concrete  
slab

Berm

For mixing  
dirty oil

Tank #16 is New Hot oil Tank Fence

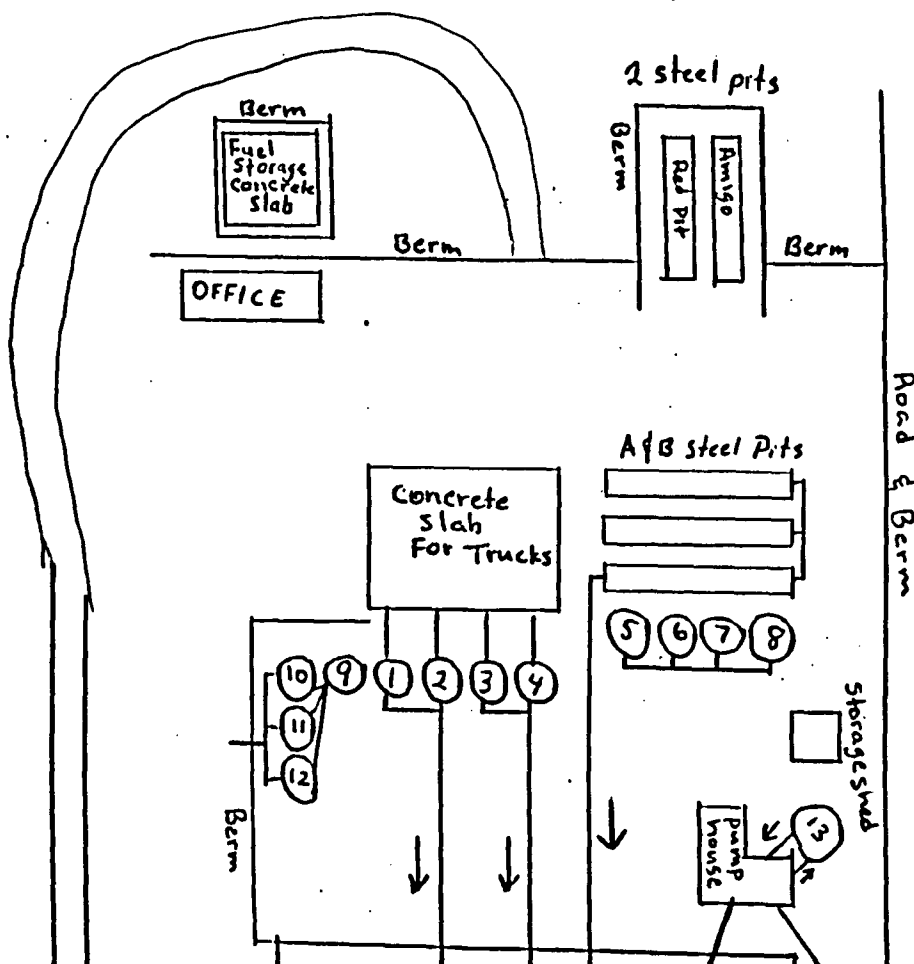
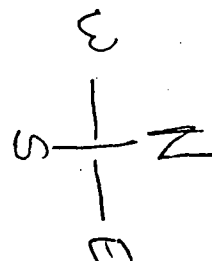


Exhibit F





ATTACHMENT TO OCD 711 PERMIT MODIFICATION APPROVAL  
PERMIT NM-01-0005  
BASIN DISPOSAL, INC.  
WASTE MANAGEMENT FACILITY  
SE/4 NW/4 of Section 3, Township 29 North, Range 11 West, NMPM,  
San Juan County, New Mexico  
(July 6, 1999)

TEMPORARY SOIL STORAGE AREA CONSTRUCTION

1. Construction must commence on the temporary soil storage area within one (1) year of the permit modification approval date.
2. The temporary soil storage area will be approximately 300 x 300 feet. The ground surface must be excavated to approximately one (1) foot below grade and must be cleared of all rocks, sticks and other hard objects that could puncture the plastic liner.
3. A 20 mm plastic liner must be placed in the bottom of the excavated area with the edges of the liner turned up at least one (1) foot to contain any vertical or horizontal contaminant migration.
4. Compacted soil not less than three (3) feet deep must be placed on top of the liner to protect it from heavy equipment.
5. A berm must be constructed surrounding the storage area. The berm will be two (2) feet above the interior grade and four (4) feet above the exterior grade (See diagram).
6. A ramped entrance for equipment must be constructed and maintained to preserve the berm height and integrity.

TEMPORARY SOIL STORAGE AREA OPERATION

1. The temporary soil storage area is authorized to accept only contaminated soils generated at Basin Disposal, Inc.
2. Contaminated soils created during the solidification of tank bottoms must be stored in the temporary soil storage area prior to transfer to an OCD-permitted landfarm facility.
3. Stored soil must be kept three (3) feet from the base of the berm to ensure that the contaminated soils are located above the lined area (See diagram).
4. Soil storage may not exceed 30 days. Soil volume, destination and date of removal must be

Attachment F, Page 1



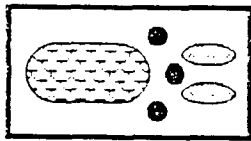
recorded and maintained for OCD review.

5. The soil storage area must be inspected daily. Results of inspections must be recorded and maintained for OCD review.
6. There will be no ponding or pooling or run-off of free liquids including precipitation within the temporary storage area. Any ponding of precipitation must be removed within 24 hours of discovery.
7. Upon any odor generation the facility must notify the OCD Santa Fe and Aztec offices and begin an investigation to determine the appropriate remedial actions. Actions may include the immediate removal of contaminated soils to an OCD-approved landfarm. A report regarding the odor generation and remedial actions taken must be filed with the OCD Santa Fe and Aztec offices.
8. The berm height and integrity along with the liner integrity must be maintained.
9. The temporary contaminated soil storage area must be inspected daily. Results of the daily visual inspection and any maintenance and upkeep must be recorded and maintained for OCD review.

#### **FACILITY AND EVAPORATION POND OPERATION**

1. The facility must be fenced and have a sign at the 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





# **Basin Disposal, Inc.**

*"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"*  
P. O. BOX 100 • AZTEC, NEW MEXICO 87410 • PHONE (505) 334-3013

May 5, 2000

Oil Conservation Division  
Martyne Kieling  
2040 S. Pacheco  
Santa Fe, NM 87505

re: Temporary pits

Dear Martyne,

I would like to request an extension of our permit for the temporary sludge pits. We had hoped to have finished by now but we still have more to haul off. Could we extend it for another 180 days. We have no more liquids left, it has all been mixed with dirt. We are also using the west pit to hold some of this dirt until we can get it moved. If you have any questions please call me at 325-6336 or 320-2840. Thank you and we look forward to your visit on the 16th.

Sincerely,

Keith Johnson  
General Manager

- Attachment G -





**Basin Disposal, Inc.**  
"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"  
P. O. BOX 100 • AZTEC, NEW MEXICO 87410 • PHONE: (505) 334-3013

February, 15, 1999

Martyne Kieling  
Oil Conservation Division  
2040 S. Pacheco  
Santa Fe, NM 87505

RE: Cleaning Basin's Pond

Dear Martyne,

We would like to request a portion of the land north of us to be included in our permit so that we can use it on a temporary basis, see exhibit A, we would fence this area and use it to help facilitate the cleaning of the pond. What we would like to propose is that we build two temporary pits approximately 150' x 300' x 4' each. We would use at least a 20 ml liner. The pond would be pumped down to about 2' and the remaining water would then be pumped over to pit #1. As new trucks come in their water would be pumped to pit #1 and then back to the injection pump. When the sludge is exposed we would bring in large pumps and pump all the sludge to pit #2. We will totally clean the pond so that a repair crew can come in and inspect the liner and make any necessary repairs. Once that is completed then the water in pit #1 will then be pumped back to the main pond and that liner will be immediately disposed of. We anticipate that this part of the process will take from 10 to 14 days. Pit #2 will probable take most of the summer to finish drying but should be dry enough to remove before the summer is over. We would like to begin putting this together by the middle of April to the 1st of May. Please call me if you need any further detail or have any suggestions.

Sincerely,

Keith W. Johnson  
General Manager

cc: Denny Foust

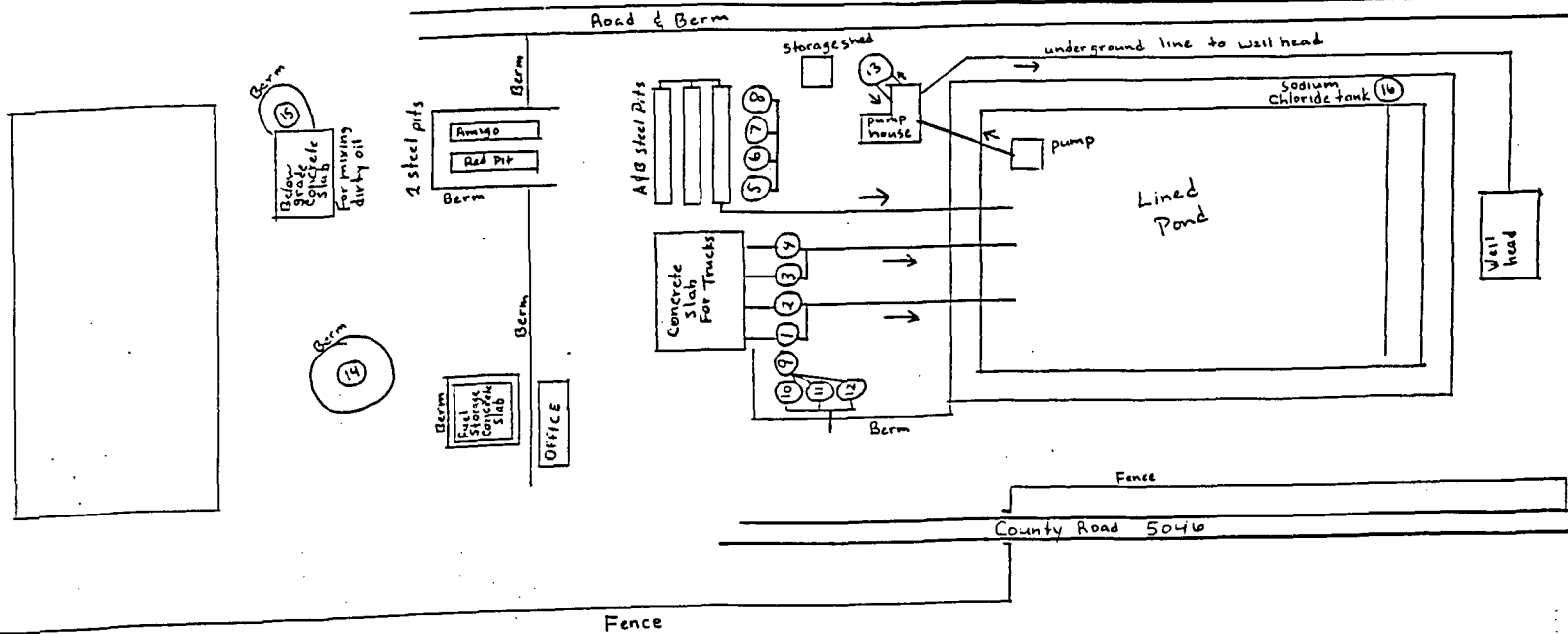
*Attachment H, Page 1*



Approximately 10 acres

pit #1

pit #2







AUG 08 2000

# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON  
Governor  
Jennifer A. Salisbury  
Cabinet Secretary

Lori Wrotenberg  
Director  
Oil Conservation Division

August 7, 2000

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. 7099-3220-0000-5051-982**

Mr. Jerry Sandel  
Basin Disposal, Inc.  
P.O. Box 100  
Aztec, New Mexico 87401

*response on back*

**RE: Surface Waste Management Facility Inspection Report: Permit NM-01-0005  
Basin Disposal, Inc.  
Commercial Surface Waste Management Facility  
SE/4 NW/4 of Section 3, Township 29 North, Range 11 West, NMPM,  
San Juan County, New Mexico**

Dear Mr. Sandel:

The New Mexico Oil Conservation Division (OCD) inspected the Basin Disposal, Inc. (Basin) commercial surface waste management facility at the above location on May 16, 2000.

The OCD inspection and file review of Basin indicates that Basin 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. (Basin 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. Basin must respond to the permit deficiencies Notice of Violation by September 7, 2000.)

A review of Basin's financial assurance finds that Basin's \$140,000 Letter of Credit No. 2216 is current and active.

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

*make sure Denny gets  
Cenoco modification for tank*

Sincerely,

*Martyn J. Kielling*  
Martyn J. Kielling  
Environmental Geologist

Attachments  
xc: Aztec OCD Office



ATTACHMENT 1  
INSPECTION REPORT  
PERMIT NM-01-0005  
BASIN DISPOAL, INC.

SE/4 NW/4 of Section 3, Township 29 North, Range 11 West, NMPM,  
San Juan County, New Mexico  
(August 7, 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.**

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

**Berms are in good condition.**

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

**The facility was tidy there was no trash or debris present (see photos 1, 2, 3, 4, 5, 6, 7, and 8).**

4. 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 facility are bermed. The tanks surrounding the evaporation pond and solidification pit are bermed to direct spills toward the evaporation pond or into the solidification pit (see photo 1, 5 and 8).**

5. 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.

**Truck unloading sump was empty.**

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



The operator performs and records facility inspections twice daily. No leaks or spills were observed during this inspection.

7. Evaporation Pond Inspection and Maintenance: The pond must be inspected on a daily 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 was running, the pumps were working two feet off the bottom of the pond and no overspray was observed.

Some oil and/or floating coal dust was observed. Material was being skimmed (see photo 4). Booms across the pond were keeping oil from spreading across the pond and to minimize the skimming work.

8. 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 visible.

9. 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.

Pond was drained and sludge was removed in 1999.

10. Leak Detection System Inspection: The leak detection system must be inspected daily 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 daily and that the monitor well has been pumped dry monthly. Water within the leak detection system rises to no more than 2.5 feet and appears to be condensate from moisture trapped within the layers from a past leak.

Get in ASHP  
X  
According to Permit NM-01-0005 an annual report of these test must be sent to the Santa Fe office for annual review by May 17<sup>th</sup> of each year. The report has not been received.

11. 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.

No Drums were present.



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.

N/A

12. 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.

**Saddle tanks were had containment and were labeled.**

13. 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 numbered and were clearly labeled to identify their contents and hazards.**

14. 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 steel pits were not netted, screened or covered. Basin must screen, net, or cover these exposed pits.**

15. 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.**

16. 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-01-0005 requires these inspections be recorded. Facility inspections have been performed twice daily and records have been kept.**

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

**The current permit NM-01-0005 requires H<sub>2</sub>S screening and record keeping to be performed twice per day at 4 points around the pond. Facility H<sub>2</sub>S screening has been performed and records maintained. Currently chemical treatment occurs four times a day with approximately 25 gallons of chemical.**

18. 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.**

19. Temporary Evaporation Pits: Two temporary pits may be constructed and used only for temporary storage of produced water from the produced water treatment and evaporation system. Sludge within the pits must be removed and disposed of at an OCD-approved facility will be dried and removed and the pits will be removed and sludge.

**Pit #1 is closed (see photo 3). Pit #2 is full of solidified sludge and is being held prior to disposal (see photos 6 and 7). Pit # 2 was originally permitted for 180 days. Basin in a letter dated May 5, 2000, has requested that the time be extended for an additional 180 days to allow for the removal of the solids. The OCD is currently processing this permit modification.**

20. Temporary Soil Storage Area: Soil storage may not exceed 30 days. Soil volume, destination and date of removal must be recorded and maintained for OCD review.

**Soil was stored properly on containment area and there was no ponding of liquids present. Soil disposal transfer records showed that soils were removed in January, April and May of 2000 to Tierra Environmental Inc. Soil storage may not exceed 30 days.**

21. New Construction: Any design changes to the produced water receiving, treatment and evaporation area must be submitted to the OCD Santa Fe office for approval.

**An additional tank has been installed: Tank 18, a 500 bbls tank, is used to heat oil. Basin notified OCD of these changes in a letter dated November 2, 1999. This was a volume change to the current system not a process change.**



**ATTACHMENT TO OCD 711 PERMIT MODIFICATION APPROVAL**  
**PERMIT NM-01-0005**  
**BASIN DISPOSAL, INC.**  
**WASTE MANAGEMENT FACILITY**  
**SE/4 NW/4 of Section 3, Township 29 North, Range 11 West, NMPM,**  
**San Juan County, New Mexico**  
**(December 28, 2000)**

**TEMPORARY SOIL STORAGE AREA CONSTRUCTION**

1. Construction must commence on the temporary soil storage area within one (1) year of the permit modification approval date.
2. The temporary soil storage area will be approximately 300 x 300 feet. The ground surface must be excavated to approximately one (1) foot below grade and must be cleared of all rocks, sticks and other hard objects that could puncture the plastic liner.
3. A 20 mm plastic liner must be placed in the bottom of the excavated area with the edges of the liner turned up at least one (1) foot to contain any vertical or horizontal contaminant migration.
4. Compacted soil not less than three (3) feet deep must be placed on top of the liner to protect it from heavy equipment.
5. A berm must be constructed surrounding the storage area. The berm will be two (2) feet above the interior grade and four (4) feet above the exterior grade.
6. A ramped entrance for equipment must be constructed and maintained to preserve the berm height and integrity.

**TEMPORARY SOIL STORAGE AREA OPERATION**

1. The temporary soil storage area is authorized to accept only contaminated soils generated at Basin Disposal, Inc.
2. Contaminated soils created during the solidification of tank bottoms must be stored in the temporary soil storage area prior to transfer to an OCD-permitted landfarm facility.
3. Stored soil must be kept three (3) feet from the base of the berm to ensure that the contaminated soils are located above the lined area.
4. Soil storage may not exceed 30 days. Soil volume, destination and date of removal must be recorded and maintained for OCD review.

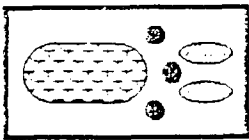


5. The soil storage area must be inspected daily. Results of inspections must be recorded and maintained for OCD review.
6. There will be no ponding or pooling or run-off of free liquids including precipitation within the temporary storage area. Any ponding of precipitation must be removed within 24 hours of discovery.
7. Upon any odor generation the facility must notify the OCD Santa Fe and Aztec offices and begin an investigation to determine the appropriate remedial actions. Actions may include the immediate removal of contaminated soils to an OCD-approved landfarm. A report regarding the odor generation and remedial actions taken must be filed with the OCD Santa Fe and Aztec offices.
8. The berm height and integrity along with the liner integrity must be maintained.
9. The temporary contaminated soil storage area must be inspected daily. Results of the daily visual inspection and any maintenance and upkeep must be recorded and maintained for OCD review.

#### **FACILITY AND EVAPORATION POND OPERATION**

1. The facility must be fenced and have a sign at the 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.





# BASIN DISPOSAL, INC.

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"

P. O. BOX 100 • AZTEC, NEW MEXICO 87410 • PHONE (505) 334-3013

February 26, 2001

Martyne Kieling  
1220 S. St. Francis Dr.  
Santa Fe, New Mexico 87504

RE: Modification Request for temporary pits

Dear Martyne,

Due to the amount of produced water that has been coming into our facility we need to ask for approval of the use of three temporary pits. Over the past 3 years we have seen a steady increase of water that has been coming to our facility; the past 3 months the increase has been quite dramatic and our pond has risen to nearly its freeboard limit. We had anticipated the loss of some business due to customer changes and some companies drilling injection wells but that loss never materialized and instead even more came in. A week or so ago we began to put together a plan to increase again the amount that we are injecting by putting two pumps in tandem. But we started too late and we have received more water than we can deal with. Key Energy has agreed to allow some of our loads to come to their facility but they are limited to only a few loads a day and we are already going over what they originally wanted to accept. So any day that could stop. We already have the one temporary pit that is to be used to clean the pond this summer and we would like to construct two more that would only hold water and once we get our pumps all online we will begin to immediately pump that water to our main pond for injection and as soon as it is dry we will pull out those liners and dispose of them and break down the berms. We anticipate the use of these pits to last no longer than 30 days. Altogether we would like to have 60 days to get them empty and cleaned up. I am also including a drawing of our facility and where these pits will be placed. The dilemma that we face is that there is no other place that we can send this water. So we need to see if we can get this approved as soon as possible. Thank you for your consideration of this matter. If you have any questions please call me at 320-2840 or 325-6336.

Sincerely,

Keith Johnson  
General Manager

- Attachment K, Page 1 -



Approximately  
10 acres

Fence

County Road 50416

Fence

OFFICE

Berm  
Fuel Storage  
Concrete  
Slab

Berm  
(2)

Berm  
Below  
grade  
concrete  
slab  
for mixing  
dirty oil

x steel pits

Berm  
Fuel  
oil pit

Berm

Road & Berm

A/B steel pits

Concrete  
slab  
for Trucks

Berm  
(1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12)

Storage shed  
Pump house

pump

Lined  
pond

Sodium  
chloride tank (15)

Well head

underground line to well head

PIT 2  
110' x 130' x 4'

PIT 1  
150' x 300'

PIT 3  
90' x 300' x 4'





## NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON

Governor

Jennifer A. Salisbury

Cabinet Secretary

March 7, 2001

Lori Wrotenbery

Director

Oil Conservation Division

**CERTIFIED MAIL**

**RETURN RECEIPT NO. 7099-3220-0000-5051-2139**

Mr. Jerry Sandel  
Basin Disposal, Inc.  
P.O. Box 100  
Aztec, New Mexico 87401

**RE: Temporary Produced Water Storage  
Basin Disposal, Inc.  
SE/4 NW/4 of Section 3, Township 29 North, Range 11 West, NMPM,  
San Juan County, New Mexico**

Dear Mr. Sandel:

The application to construct and use two temporary, single-lined, produced water storage pits at Basin Disposal, Inc.'s (Basin) commercial surface waste management facility is **hereby approved**. The request for temporary storage consists of the application Form C-137 dated February 26, 2001.

**This approval is conditional upon the receipt and approval by the Director of an additional separate financial assurance in the amount of \$10,000, which may be canceled upon OCD-approved closure.** Currently Basin has financial assurance in the amount of \$144,155.

In addition, the temporary pits 2 and 3 are authorized to receive produced water only until April 7, 2001; those pits must be emptied, cleaned and closed by May 7, 2001. If similar authorization is requested in the future, please be advised that OCD may require a double-lined, leachate collection system and public notice and opportunity for hearing.

The construction, operation, monitoring and reporting shall be pursuant to Basin's permit dated December 28, 2000. Basin 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 OCD approval here in shall not relieve Basin Disposal, Inc. of liability should your operation result in actual pollution of surface water, ground water, or the environment. In addition, OCD approval shall not relieve Basin Disposal, Inc. of

- Attachment L -





# BASIN DISPOSAL, INC.

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"

P. O. BOX 100 • AZTEC, NEW MEXICO 87410 • PHONE: (505) 334-3013

May 17, 2001

Oil Conservation Division  
Martyne Kieling  
PO Box 6429  
Santa Fe, NM 87504-6429

Dear Martyne,

This letter is to inform you that the two temporary pits have been emptied and removed and that the other pit that will be used for cleaning the pond has also been emptied. With your approval we would like to cancel the bond that we have for closing those pits. There are two other items I wanted to let you know about; first we are moving one of our oil tanks out of the system, it is tank #12. It will most likely be used in our KCL plant. Second, we are looking at a different system to treat our pond instead of the sodium chlorite. There is a company called MIOX Systems and they use rock salt to produce a low grade chlorine. It is generally used in city water systems but this would allow us to constantly treat the water that is going into the pond, and it doesn't evaporate as quickly and it doesn't have as much chlorine odor as the sodium chlorite, plus it will cost a lot less each year. If you have any questions please call me.

Sincerely,

Keith Johnson  
General Manager

- Attachment M -





# NEW MEXICO ENERGY, MINERALS and **FEB** NATURAL RESOURCES DEPARTMENT **4 REC'D**

GARY E. JOHNSON  
Governor  
Carol Leach  
Acting Cabinet Secretary

Lori Wrotenbery  
Director  
Oil Conservation Division

January 29, 2002

**CERTIFIED MAIL**

**RETURN RECEIPT NO. 7099-3220-0000-5051-2894**

Mr. Jerry Sandel  
Basin Disposal, Inc.  
P.O. Box 100  
Aztec, New Mexico 87401

**RE: Surface Waste Management Facility Inspection Report: Permit NM-01-0005**  
**Basin Disposal, Inc.**  
**Commercial Surface Waste Management Facility**  
**SE/4 NW/4 of Section 3, Township 29 North, Range 11 West, NMPM,**  
**San Juan County, New Mexico**

Dear Mr. Sandel:

The New Mexico Oil Conservation Division (OCD) inspected Basin Disposal, Inc. (Basin) on May 29, 2001. The OCD found the facility to be well maintained and have good security. A records check was performed and all documentation was in order. A review of Basin's financial assurance finds that Basin's \$140,000 Letter of Credit No. 2216 is current and active. An additional \$10,000 surety bond for the temporary produced water storage pits is also on file.

At the time of the inspection The OCD found the temporary produced water storage pits 2 and 3 to be closed in accordance with the OCD approval letter dated March 7 2001 and Basin's letter dated May 17, 2001. The OCD hereby approves the closure of the temporary produced water storage pits 2 and 3.

In addition the OCD identified the following permit deficiencies during the inspection that require attention:

1. Berming around the oil storage tanks and along the southern edge of the produced water tanks was missing, eroded or had been removed and not replaced.

**Permit NM-01-0005, Page 2, Facility and Evaporation Pond Operation,**

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.



**Permit NM-01-0005, Page 3, Facility and Evaporation Pond Operation,**

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.
2. The sump on the north side of the pump house is new from the last inspection performed in May 2000 and did not have a secondary liner or leak detection. This sump should be checked often and emptied, especially after rainstorms because it is located below the eve of the pump house and can potentially catch large volumes of rainwater from the roof of the building.

**Permit NM-01-0005, Page 3, Facility and Evaporation Pond Operation,**

7. Below-grade sumps must be cleaned and visually inspected annually. Results must be recorded and maintained for OCD review. If sump integrity has failed the OCD must be notified within 48 hours of discovery and the sump contents and contaminated soil must be removed and disposed of at an OCD-approved facility. Soil remediation must follow OCD surface impoundment closure guidelines. Basin Disposal 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 a leak detection monitoring system. Monitoring of the secondary containment 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.
3. The temporary soil storage area had contaminated soil spilled outside of the lined and bermed area.


**Permit NM-01-0005, Page 1, Temporary Soil Storage Area Operation,**

3. Stored soil must be kept three (3) feet from the base of the berm to ensure that the contaminated soils are located above the lined area.

Basin 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. Basin must respond to the permit deficiencies by March 4, 2002.

If you have any questions please contact me at (505) 476-3488

Sincerely,

  
Martyne J. Kieling  
Environmental Geologist

xc with Attachments: Aztec OCD Office

**- Attachment N, Page 2 -**



February 12 , 2002

Martyne Kieling  
NMOCD  
PO Box 6429  
Santa Fe, NM 87504

RE: Surface Waste Management Facility Inspection Report: Permit NM-01-0005

Dear Martyne,

Thank you for the follow up letter regarding our permit deficiencies during your last inspection. Shortly after your visit we had these areas all taken care of. Item # 1 - we have replaced the berming which had been removed while we were moving out one of those tanks. Item #2 - we have placed a liner underneath the sump and leak detection has also been installed. Item #3 -Any soil that had spilled over the berm has been cleaned up and the piles were moved at least 3 feet away from the berm. We look forward to your next visit this coming summer. If there is any other information that you need please call me.

Sincerely,

Keith Johnson  
General Manager

cc: Denny Foust

- Attachment 0 -





# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON

Governor  
Betty Rivera  
Cabinet Secretary

Lori Wrotenbery  
Director  
Oil Conservation Division

April 3, 2002

**CERTIFIED MAIL**

**RETURN RECEIPT NO. 7001-1940-0004-7923-4030**

Mr. Jerry Sandel  
Basin Disposal, Inc.  
P.O. Box 100  
Aztec, New Mexico 87401



**RE: Surface Waste Management Facility Inspection Report: Permit NM-01-0005  
Basin Disposal, Inc.  
Commercial Surface Waste Management Facility  
SE/4 NW/4 of Section 3, Township 29 North, Range 11 West, NMPM,  
San Juan County, New Mexico**

Dear Mr. Sandel:

The New Mexico Oil Conservation Division (OCD) inspected Basin Disposal, Inc. (Basin) on March 5, 2002. A records check was performed and all documentation was in order. A review of Basin's financial assurance finds that Basin's \$140,000 Letter of Credit No. 2216 is current and active.

Basin has implemented new measures of checking waste delivered to prevent oil, excess sludge, and H<sub>2</sub>S from entering their disposal system (Photo 1). The Evaporation pond was oil free and well below freeboard (Photos 4 and 7). Most of the process tanks at the facility have been raised and placed on concrete containment with poly liners and concrete beams (Photo 3). The OCD found that the closure of the lined temporary pit north of the facility is three-quarters closed (Photo 6). Please note that according to Permit NM-01-0005 this pit must be closed by June 1, 2002. Soil and sludge generated at Basin Disposal was managed well within the lined temporary soil storage area. Sludge was being solidified during the inspection and there was no free liquid present (Photo 8). Over all the OCD found the facility to be well maintained and have good security.

The OCD identified the following permit deficiencies during the inspection that require attention:

1. There was no berm or impermeable pad or containment around a small poly storage tank said to hold bleach/Clorox and the tank was not visibly labeled.



**Basin must place the chemical tank on an impermeable containment pad with berm and label the tank as to contents and hazards.**

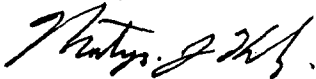
Permit NM-01-0005, Facility and Evaporation Pond Operation, Item 5: All existing above-ground tanks located at the facility and containing materials other than fresh water must be bermed to contain one and one-third the volume of the largest tank or all interconnected tanks, whichever is greater. All above-ground tanks must be labeled as to contents and hazards.

Permit NM-01-0005, Facility and Evaporation Pond Operation, Item 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.

Basin 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. Basin must respond to the permit deficiencies by April 19, 2002.

If you have any questions please contact me at (505) 476-3488

Sincerely,



Martyne J. Kieling  
Environmental Geologist

xc with Attachments: Aztec OCD Office

**- Attachment P, Page 2 -**



Basin Disposal, Inc. Permit NM-02-0005  
March 5, 2002

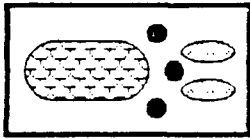


Photo 7: Evaporation pond is oil free and well below freeboard. Sprayers were actively circulating water. View of east end of pond.



Photo 8: Mixer is solidifying sludge from the closure of the temporary pit. Material is then shipped to Tierra Environmental for landfarming.





# BASIN DISPOSAL, INC.

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"

P. O. BOX 100 • AZTEC, NEW MEXICO 87410 • PHONE: (505) 334-3013

May 20, 2003

Martyne Kieling  
Oil Conservation Division  
1220 S. Saint Francis Drive  
Santa Fe, NM 87505

re: Pond cleaning

Dear Ms. Kieling,

It is that time again to clean our pond and we would like to propose a different method than what we have used in the past. It will allow us to clean out the sludge quickly and efficiently plus not leave any on site when we are done. What we are proposing would be to use the soil stabilization area that is already lined and bermed. We would place an additional bermed area within the larger berm that would allow Riley Industrial to dump the sludge into. We would use at least two excavators to mix the sludge with dirt and to load the dump trucks. We will then be sending them to the landfarm(s). The dump trucks will be bringing back previously remediated soil that we can use to mix with the sludge. Each day we will ensure that no liquids will be left overnight. While the pond is being cleaned we will be using 39 frac tanks to take the place of the pond, we will also berm them so that any overflows will be run into the pond. We would like to begin cleaning the pond on June 2, 2003 with a completion time of June 30. Once we are done we will begin releasing the frac tanks. If you have any questions please call me at (505) 320-2840.

Sincerely,

Keith Johnson  
General Manager

- Attachment Q -





# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

Joanna Prukop  
Cabinet Secretary

May 27, 2003

Lori Wrotenbery  
Director

Oil Conservation Division

Mr. Jerry Sandel  
Basin Disposal, Inc.  
P.O. Box 100  
Aztec, New Mexico 87401

RECEIVED

MAY 30 2003

**RE: Pond Cleaning**  
**Basin Disposal, Inc.**  
**SE/4 NW/4 of Section 3, Township 29 North, Range 11 West, NMPM,**  
**San Juan County, New Mexico**

Dear Mr. Sandel:

The New Mexico Oil Conservation Division (OCD) has received Basin Disposal, Inc. (Basin) proposal dated May 20, 2003 regarding pond cleaning. The proposal describes how Basin will use a portion of the lined and bermed soil storage area to mix and solidify sludge from the pond area and the installation of 39 frac tanks beside the pond to take the place of the pond fluid capacity during the cleaning procedures. This proposal has been reviewed and is hereby approved with the following conditions.

1. Sludge from Basin's pond will be mixed and stabilized within the temporary soil storage area.
2. Liquids and sludge with free liquids will not be stored in the temporary soil storage containment area overnight.
3. Stabilized sludge will be removed to an OCD permitted landfarm.
4. Clean soil or OCD approved remediated soil may be backhauled from an OCD permitted landfarm to Basin for stabilization purposes.
5. Temporary tanks will be used for temporary storage while the pond is cleaned.
6. The tanks will be placed next to the evaporation pond and will be bermed so that any accidental release or overflow will run into the pond.
7. The evaporation pond clean out project will be completed and the facility restored to normal operations by June 30, 2003.
8. Basin will submit a final report that documents the volume of sludge removed from the evaporation pond and the volume of stabilized material that was hauled to the landfarm(s) for remediation by July 31, 2003.

To better understand the process changes that have been incorporated over the last few years at Basin, the OCD would appreciate any comparison information with regards to the previous pond cleanouts. This information may include the length of time since the



last pond clean out, how long the new V bottom tanks have been in service and how Basin would compare this cleanout process to the last two cleanouts with regards to time, sludge volume and the variation in cost associated with the methods that have been used.

Construction, operation, monitoring and reporting shall be pursuant to Basin's permit dated December 28, 2000. Basin 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 OCD approval here in shall not relieve Basin Disposal, Inc. of liability should your operation result in actual pollution of surface water, ground water, or the environment. In addition, OCD approval shall not relieve Basin Disposal, Inc. of responsibility for compliance with all applicable federal, state or local laws and/or regulations.

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

Sincerely,



Roger C. Anderson  
Environmental Bureau Chief

RCA/mjk

xc: Aztec OCD Office





# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

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

Director

Oil Conservation Division

March 2, 2005

Mr. Keith Johnson  
Basin Disposal, Inc.  
P.O. Box 100  
Aztec, NM 87410

Dear Mr. Johnson:

The New Mexico Oil Conservation Division (NMOCD) has received your C-137 requesting a modification to NMOCD permit number NM-1-0005 for the surface waste management facility operated by Basin Disposal, Inc. (Basin).

This modification contains three parts:

1. The addition of one (1) 500-bbl tank to the oil sales tanks
2. The addition of a new pump house
3. The movement of tank #19 from the southwest corner of the pond and placement of tank #19 next to tank #15

These modifications are shown on the diagrams attached to your modification request.

This request is hereby approved with the understanding that Basin will perform the modifications according to the narrative and the diagrams attached to Form C-137.

NMOCD approval of this request does not relieve Basin of responsibility should its operations cause contamination of surface water, groundwater, or the environment. Nor does it relieve Basin of its responsibility to comply with any other federal, state or local laws and regulations.

NEW MEXICO OIL CONSERVATION DIVISION

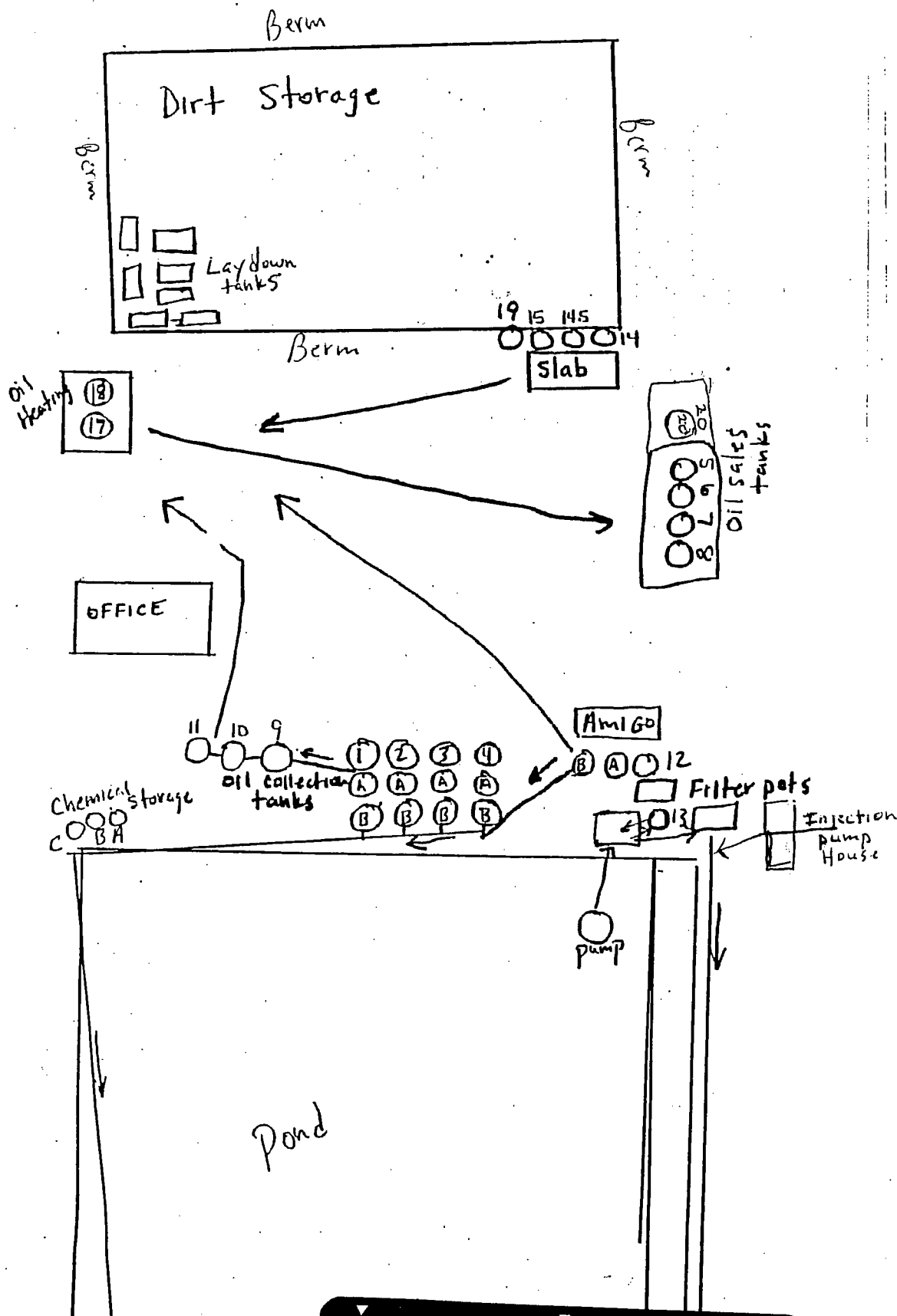
Edwin E. Martin  
Environmental Engineer

Cc: Denny Foust, NMOCD,

- Attachment 5, Page 1 -



# Facility Diagram Exhibit E







# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

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

Director

Oil Conservation Division

July 5, 2005

JUL - 7 2005

Mr. Keith Johnson  
Basin Disposal, Inc.  
P.O. Box 100  
Aztec, NM 87410

Re: Form C-137, Dated June 22, 2005 Requesting a  
Minor Modification to the Waste Management Facility  
Permitted by the New Mexico Oil Conservation Division  
Permit Number NM-1-005

Dear Mr. Johnson:

The New Mexico Oil Conservation Division (NMOCD) has received and reviewed the application described above. In summary, this application is a modification to the form C-137 dated February 18, 2005 as follows:

1. To improve the filter system, Basin Disposal, Inc. (Basin) wishes to move tanks #15 and #20 and tie them in with tank #13.
2. Basin also wishes to change tank #20 to tank #16.

This minor modification is hereby approved with the understanding that Basin will perform the modifications according to the narrative and the diagrams attached to the above-referenced application.

NMOCD approval does not relieve Basin of responsibility should its operations cause contamination of surface water, groundwater, or the environment. Nor does it relieve Basin of its responsibility to comply with the rules and regulations of any other federal, state, or local governmental entity.

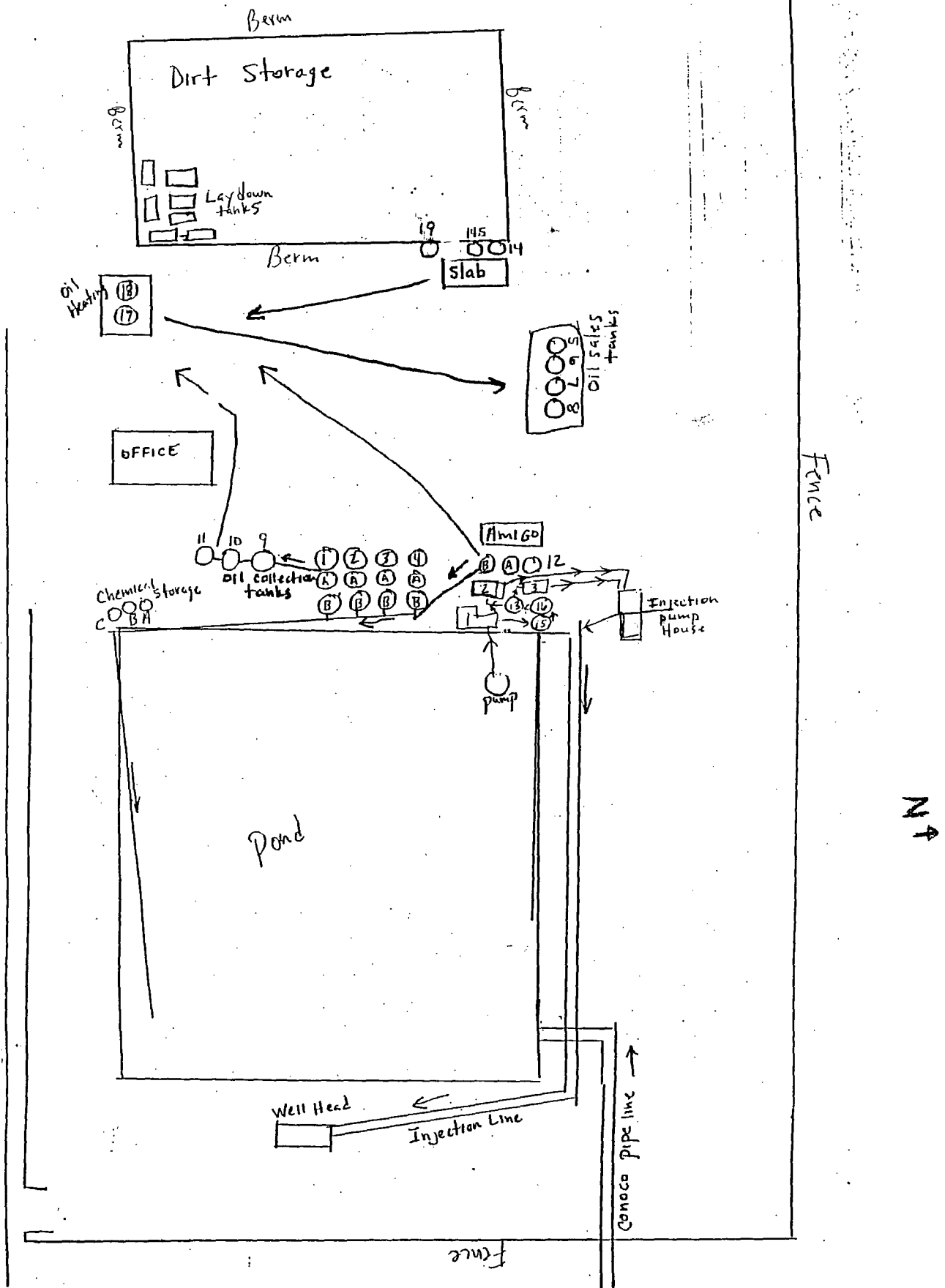
NEW MEXICO OIL CONSERVATION DIVISION

Edwin E. Martin  
Environmental Bureau

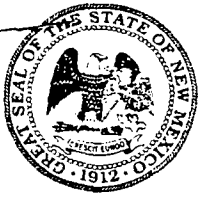
Cc: NMOCD, Aztec

- Attachment T, Page 1 -









# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

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

Director

Oil Conservation Division

January 19, 2006

Mr. Keith Johnson  
Basin Disposal, Inc.  
P.O. Box 100  
Aztec, NM 87410

RE: Form C-137 for Basin Disposal, Inc. to Modify  
Their Commercial Surface Waste Management Facility Permit  
Number NM-1-005 for the Facility Located in the  
SE/4 NW/4 of Section 3, Township 29 North, Range 11 West  
NMPM, San Juan County, New Mexico

Dear Mr. Johnson:

The New Mexico Oil Conservation Division (NMOCD) has received and reviewed the application referenced above. This minor modification request is hereby approved under the following conditions and understandings:

1. Basin will modify the lay-down pit as shown in the attachment to the application
2. Basin intends to install a burner tube in one end of the pit to recover more oil and break out more water from the sludge.
3. Basin will operate such modification under all of the terms and conditions placed on the facility by permit number NM-1-005.

NMOCD approval does not relieve Basin Disposal, Inc. (Basin) of liability should its operations at this facility prove to have been harmful to fresh water, public health or the environment. Nor does it relieve Basin of its responsibility to comply with the rules and regulations of any other governmental entity.

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

NEW MEXICO OIL CONSERVATION DIVISION

Roger C. Anderson  
Environmental Bureau Chief

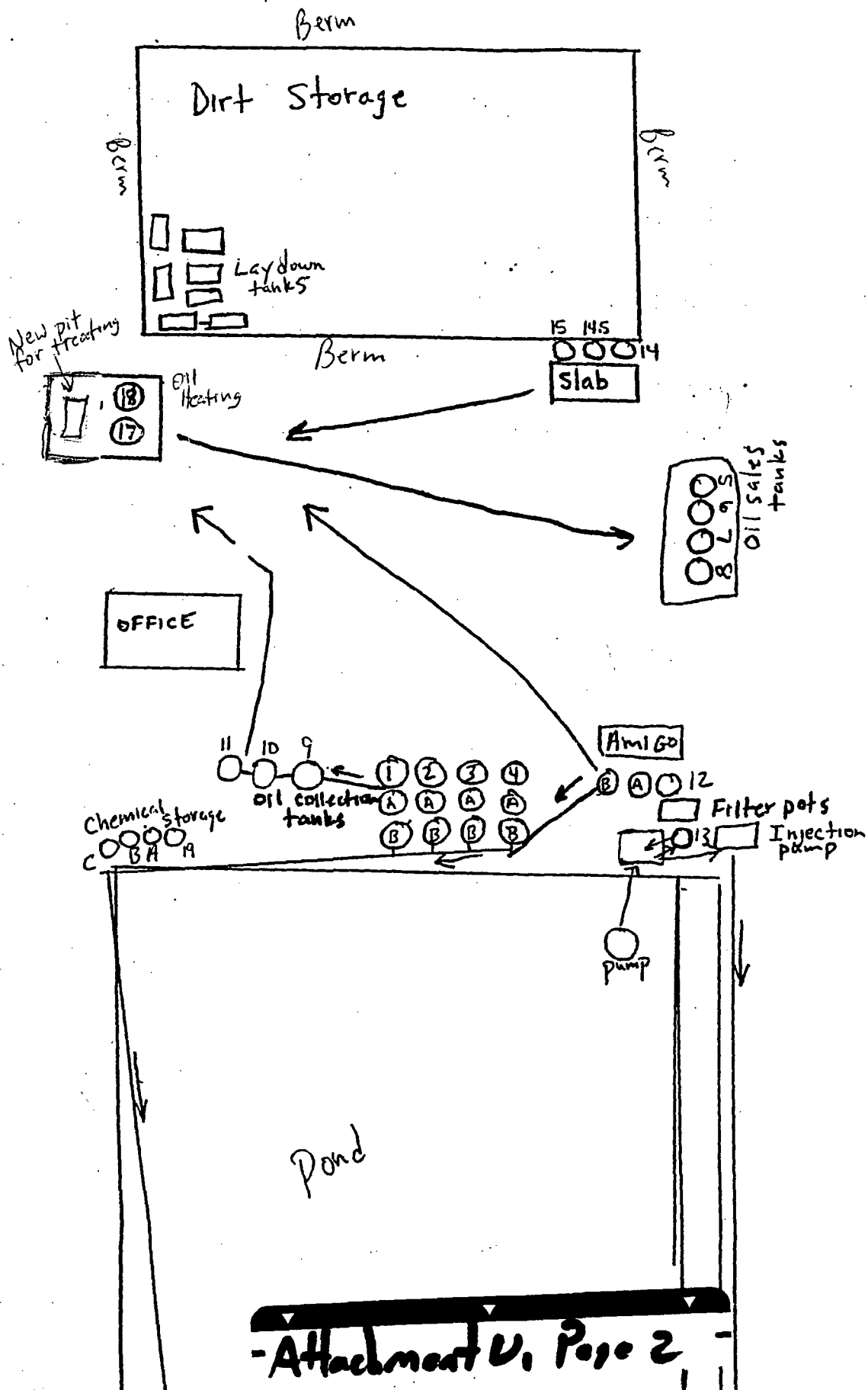
Copy: NMOCD, Aztec

- Attachment U, Page 1 -



Fence

# Facility Diagram Exhibit E





**Jones, Brad A., EMNRD**

---

**From:** John Volkerding [bdinc@digii.net]  
**Sent:** Friday, November 10, 2006 4:06 PM  
**To:** Jones, Brad A., EMNRD; Powell, Brandon, EMNRD; Price, Wayne, EMNRD  
**Subject:** Volume of Produced Water Receiving and Processing Tanks  
**Attachments:** Inspection Response 11-10-06.doc

Hi;

Attached is a letter addressing the question about the impact to the pond level in the unlikely event of a catastrophic failure of all the produced water receiving and process tanks such that their entire volume entered the pond at the same time.

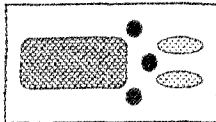
I will put the hard copy in the mail. Thanks, John



John Volkerding, PhD  
General Manager  
Basin Disposal Inc  
PO Box 100, 906 S Main  
Aztec, NM 87410  
505-334-3013 (Office), 505-632-8936 (Plant)  
505-320-2840 (Cell), 505-334-8729 (Fax)

11/13/2006





# **BASIN DISPOSAL, INC.**

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"

P.O. BOX 100 - AZTEC, NEW MEXICO 87410 - PHONE: (505) 334-3013

November 10, 2006

Oil Conservation Division  
Attn: Brad Jones  
1220 South St. Francis Dr.  
Santa Fe, NM 87505  
FAX (505) 476-3462

**RE: Evaluation of Catastrophic Failure of Receiving and Process Tanks  
And Result to Pond Level**

Dear Mr. Jones,

During the inspection on November 6, 2006, Basin personnel pointed out that the produced water receiving and processing tanks are bermed and lined such that in the event of a leak the produced water in those tanks would flow into the pond. The OCD asked what would be the impact to the pond level in the unlikely event of a catastrophic failure of all the produced water receiving and process tanks such that their entire volume entered the pond at the same time.

The total volume of these tanks is 7400 barrels. Depending on the level of the pond, the volume per foot ranges from 6977 to 10887 bbl/ft. At the pond's current level of 10.5 feet. The approximate number of barrels per foot is 10,674. A volume of 7400 barrels entering the pond when its level is 10.5 feet would cause the pond level to rise to a level of 11.2 feet.

With a pond level of 10.8 feet or below, even in the unlikely event of a simultaneous catastrophic failure of the receiving and processing tanks, the pond level would remain within the compliance requirement of not exceeding 11.5 feet.

If you need anything else from me, please feel free to contact me on my cell phone at 505-320-2840 or email at [bdcinc@diggii.net](mailto:bdcinc@diggii.net).

Sincerely,

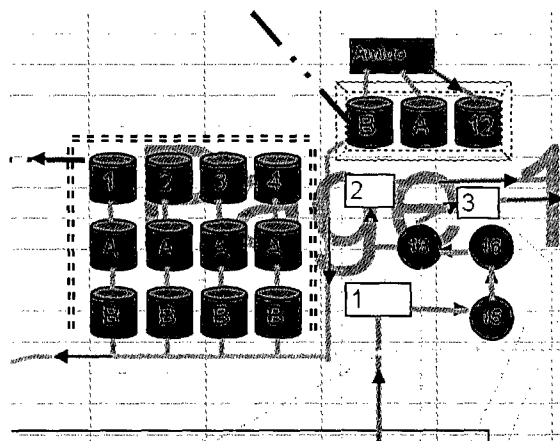
John Volkerding, PhD  
General Manager

Attach (Diagram and Table)

*Does that satisfy  
the free board reqt  
specified in permit?*



**Diagram Showing Produced Water Receiving and Processing Tanks**



**Table Showing Pond Volume as Function of Depth**

**BASIN DISPOSAL INC  
STORAGE VOLUME**

Depth (ft)	Volume (BBLS/foot)	Total Volume (BBLS)
Sump		4530
1	6977	11507
2	7333	18841
3	7697	26538
4	8069	34607
5	8448	43055
6	8835	51890
7	9230	61120
8	9633	70752
9	10043	80795
10	10461	91256
11	10887	102143
<b>11.5</b>		<b>107749</b>
12	11430	113573



**Jones, Brad A., EMNRD**

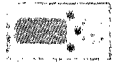
---

**From:** John Volkerding [bdinc@digii.net]  
**Sent:** Saturday, November 11, 2006 3:17 PM  
**To:** Price, Wayne, EMNRD; Jones, Brad A., EMNRD; Powell, Brandon, EMNRD  
**Subject:** Follow Up  
**Attachments:** Temp Soil Storage Area Ltr 11-11-06.pdf

Hi;

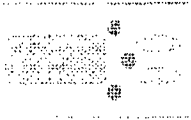
Attached is a letter addressing the question about the history of the temporary soil storage area.

I will put the hard copy in the mail. Thanks, John



John Volkerding, PhD  
General Manager  
Basin Disposal Inc  
PO Box 100, 906 S Main  
Aztec, NM 87410  
505-334-3013 (Office), 505-632-8936 (Plant)  
505-320-2840 (Cell), 505-334-8729 (Fax)





# **BASIN DISPOSAL, INC.**

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"

P.O. BOX 100 - AZTEC, NEW MEXICO 87410 - PHONE: (505) 334-3010

November 11, 2006

Oil Conservation Division  
Attn: Brad Jones  
1220 South St. Francis Dr.  
Santa Fe, NM 87505  
FAX (505) 476-3462

RE: History of Permitted Temporary Soil Storage Area

Dear Mr. Jones,

During the inspection on November 5, 2006 the OCD personnel expressed concern over the temporary soil storage area. In speaking with Denny Foust, formerly of the District III OCD Office, about the confusion surrounding the soil storage area I learned that it was permitted by the OCD as a permanent unit. During the inspection of November 5, 2006 there was a question whether Basin Disposal had operated the unit in violation of its permit and according to Mr. Foust the answer is that Basin Disposal was authorized to operate the unit on a permanent basis and that the term "temporary" denoted the fact that soil could not remain at that location for more than 30 days.

Attached are copies of documents that illustrate the fact the soil storage area was a permitted unit and allowed to be in permanent operation.

The first mention of a soil storage area was in June 1999 and Attachment A shows that based on a phone conversation of June 4, 1999, Martyne J. Kielsing of the OCD required that Basin Disposal cease soil storage until a minor permit modification for a lined and bermed soil storage area be issued. Attachments, B, C, D, E are the submittals by Basin Disposal for this lined and bermed area dated June 1999.

A term that is used consistently throughout the documents is "temporary soil storage area". The OCD today is interpreting that phrase to mean the unit itself was permitted on a temporary basis. Basin Disposal's position is that the unit itself was a permanently permitted area with the requirement that soil could only be stored at the unit temporarily. The documentation supports Basin Disposal's position which is outlined below.

Attachment F is the permit modification approval dated July 6, 1999 authorizing the construction and operation of the "Temporary Soil Storage Area." At no point in the permit is there a condition that the soil storage area shall be closed at some specific time, thereby implying it is a permanent addition to the facility. The only requirement with a time frame is Condition 4 under "Temporary Soil Storage Area Operation" which states "Soil storage may not exceed 30 days."



The permit language implies that the storage area is permanent and could only hold soil for 30 day time periods.

During the inspection of November 5, 2006 the OCD implied that Attachment G was requesting an extension of the use of the soil storage area. That May 5, 2000 letter requests extension for two temporary sludge pits that were located north of the pond. This is evidenced by Attachment H, Page 1 which requests the construction of two sludge pits north of the pond in February 1999 and Attachment H, Page 2 showing the location of those sludge pits. Attachment G also makes a clear distinction between the sludge pits and the soil storage area by stating "We are also using the west pit to hold some of the dirt until it can be moved." Since the soil storage area is located to the west, that reference distinguishes the soil storage area from the sludge pits located to the north.

The OCD inspected Basin Disposal on May 1, 2000 with the results documented in Attachment I dated August 7, 2000. Attachment I, Page 5, Item 19 verifies that Attachment G spoke about granting an extension for Pits 1 & 2 located north of the pond. Attachment I, Page 5, Item 20 shows that the soil storage area was a separate unit and confirms it is a permanent unit with the word "temporary" describing that time period soil may be on site and not that the storage area was temporary by stating "Soil was stored properly on containment area....Soil disposal transfer records showed that the soils were removed in January, April, and May of 2000 to Tierra Environmental." If the 30 days referred to the time period the soil storage area was allowed to operate by having it operating in January 2000 through the inspection date in May 2000, the OCD would have stated the area was in violation. It did not make that statement and instead stated "Soil was stored properly.."

Attachment J dated December 28, 2000 is a permit modification approval that again lists the Temporary Soil Storage Area. If the OCD had intended the area only be allowed temporarily, since it was first approved in June 1999 by December 2000 the OCD would have required its closure. It did not require its closure thereby implying the soil storage was permitted permanently.

In Attachment K, Page 1, on February 26, 2001 Basin Disposal discusses the addition of two (2) temporary pits for the temporary storage of produced water due to the high volumes of water being received and mentions one (1) temporary pit used for cleaning the pond. The pits were situated on the north side of the pond, in the same area as the temporary pond we recently requested, as shown by Attachment K, Page 2.

On March 7, 2001 the OCD granted approval for these pits and required they be closed by May 7, 2001.

Attachment M dated May 17, 2001 shows these pits were emptied and removed.

The OCD inspected Basin Disposal on May 29, 2001 with the results documented in Attachment N dated January 29, 2002. The inspection report noted that "The temporary soil storage area had contaminated soil spilled outside of the lined and bermed area." And quoted the permit which states "Stored soil must be kept three (3) feet from the base of the berm to ensure that the



contaminated soils are located above the lined area.”. By the OCD noting an operational violation of the temporary soil storage area in May 2001, with the area being constructed in 1999, the OCD acknowledges the permanent nature of the soil storage area.

Attachment O dated February 12, 2002 documents the corrections of the deficiencies noted in Attachment N.

The OCD inspected Basin Disposal on March 5, 2002 with the results documented in Attachment P dated April 3, 2002. Page 1 states “Soil and sludge generated at Basin Disposal was managed well within the lined temporary soil storage area”. Page 3 shows a picture of the solidification process. The letter does state that the temporary pit to the north of the pond was  $\frac{3}{4}$  closed and it was required to be closed by June 1, 2002. This temporary pit is separate and distinct from the soil storage area since the pit is located to the north and the soil storage area located to the west.

On May 20, 2003 in Attachment Q, Basin Disposal proposed to clean the pond and utilize the soil stabilization/storage area. On May 27, 2003 in Attachment R, the OCD approved the use of the temporary soil storage area. Had the OCD intended for the soil storage area to be constructed on a temporary basis, it would not have again stated it concurred with its use four years after its construction. Again the OCD did not state a requirement for the closure of the temporary soil storage area.

Attachment S, Page 1 from Edwin Martin dated March 5, 2005, approved changes to Basin Disposal and continued to acknowledge the approved existence of the dirt storage area as evidenced by the site diagram, Attachment S, Page 2. Had the OCD intended for the dirt storage area to be temporary, it would have required its removal with the permit modification.

Attachment T, Page 1 from Edwin Martin dated June 5, 2005, approved changes to Basin Disposal and continued to acknowledge the approved existence of the dirt storage area as evidenced by the site diagram, Attachment T, Page 2. Had the OCD intended for the dirt storage area to be temporary, it would have required its removal with the permit modification.

Attachment U, Page 1 from Roger Anderson dated January 16, 2006, approved changes to Basin Disposal and continued to acknowledge the approved existence of the dirt storage area as evidenced by the site diagram, Attachment U, Page 2. Had the OCD intended for the dirt storage area to be temporary, it would have required its removal with the permit modification.

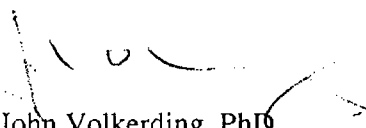
To summarize the findings from these documents:

1. The OCD permitted and approved on a permanent basis the “temporary soil storage area” in 1999.
2. The term “temporary” referred to the length of time soil could be stored and not the length of time the area could be operated.
3. As recent as 2006 the OCD acknowledged the continued existence of the soil storage area.
4. At no time did the OCD require closure of the soil storage area.
5. The continued operation of the soil storage area is not a violation of Basin’s permit.



I appreciate the opportunity to clarify Basin Disposal's understanding and the history of the soil storage area. If you need anything else from me, please feel free to contact me on my cell phone at 505-320-2840 or email at [bdcinc@diggii.net](mailto:bdcinc@diggii.net).

Sincerely,

  
John Volkerding, PhD  
General Manager

#### Attachments

<u>Attachment</u>	<u>Date</u>	<u>Document</u>
A	6/7/1999	Letter from Martyne Keiling to Basin concerning soil storage/treatment
B	6/16/1999	Letter from Basin to Martyne Keiling requesting soil storage area
C	6/16/1999	C-137 for soil storage area
D	6/16/1999	Cross Section of storage area
E	6/16/1999	Site Diagram with soil storage area
F (2 pages)	7/6/1999	Permit authorizing the Soil Storage Area
G	5/5/2000	Letter from Basin to Martyne Keiling requesting extension on sludge pits
H (2 Pages)	2/15/1999	Letter and Map for the sludge pits that are subject of Attach G
I (5 Pages)	8/7/2000	Letter from Martyne Keiling to Basin on inspection conducted 5/16/2000
J (2 Pages)	12/28/2000	Permit which continues to allow the Soil Storage Area
K (2 pages)	2/26/2001	Letter from Basin to Martyne requesting 2 pits for temporary water storage and 1 for cleaning the pond
L	3/7/2001	Letter from Martyne Keiling to Basin allowing three pits
M	5/17/2001	Letter from Basin to Martyne Keiling stating all three pits are closed
N (2 Pages)	1/29/2002	Letter from Martyne Keiling to Basin on inspection conducted 5/29/2001
O	2/12/2002	Letter showing closure of the deficiencies from inspection
P (3 pages)	4/3/2002	Letter from Martyne Keiling to Basin on inspection conducted 4/3/2002
Q	5/20/2003	Letter from Basin to Martyne Keiling concerning cleaning the pond and requesting to use the soil storage area
R (2 Pages)	5/27/2003	Letter from Martyne Keiling authorizing the use of the soil storage area
S (2 Pages)	3/2/2005	Letter from Ed Martin permitting oil tank, pump house and moving Tank #19 with site diagram attached showing soil storage area
T (2 Pages)	7/5/2005	Letter from Ed Martin permitting filtration changes with site diagram attached showing soil storage area
U (2 Pages)	1/16/2006	Letter from Roger Anderson permitting lay-down pit with site diagram attached showing soil storage area



<u>Date</u>	<u>Document</u>	<u>Attachement</u>
6/7/1999	Letter from Martyne Keiling to Basin concerning soil storage/treatment	A
6/6/1999	Letter from Basin to Martyne Keiling requesting soil storage area	B
6/6/1999	C-137 for soil storage area	C
6/6/1999	Cross Section of storage area	D
6/6/1999	Site Diagram with soil storage area	E
7/6/1999	Permit authorizing the Soil Storage Area	F (2 pages)
5/5/2000	Letter from Basin to Martyne Keiling requesting extension on sludge pits	G
2/15/1999	Letter and Map for the sludge pits that are subject of Attach G	H (2 Pages)
8/7/2000	Letter from Martyne Keiling to Basin on inspection conducted 5/16/2000	I (5 Pages)
12/28/2000	Permit which continues to allow the Soil Storage Area	J (2 Pages)
2/26/2001	Letter from Basin to Martyne requesting 2 pits for temporary water storage and 1 for cleaning the pond	K (2 pages)
3/7/2001	Letter from Martyne Keiling to Basin allowing three pits	L
5/17/2001	Letter from Basin to Martyne Keiling stating all three pits are closed	M
1/29/2002	Letter from Martyne Keiling to Basin on inspection conducted 5/29/2001	N (2 Pages)
2/12/2002	Letter showing closure of the deficiencies from inspection	O
4/3/2002	Letter from Martyne Keiling to Basin on inspection conducted 4/3/2002	P (3 pages)
5/20/2003	Letter from Basin to Martyne Keiling concerning cleaning the pond and requesting to use the soil storage area	Q
5/27/2003	Letter from Martyne Keiling authorizing the use of the soil storage area	R (2 Pages)
3/2/2005	Letter from Ed Martin permitting oil tank, pump house and moving Tank #19 with site diagram attached showing soil storage area	S (2 Pages)
7/5/2005	Letter from Ed Martin permitting filtration changes with site diagram attached showing soil storage area	T (2 Pages)
1/16/2006	Letter from Roger Anderson permitting lay-down pit with site diagram attached showing soil storage area	U (2 Pages)





NEW MEXICO ENERGY, MINERALS  
& NATURAL RESOURCES DEPARTMENT

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

June 7, 1999

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. P-326-936-542**

JUN 9 RECD

Mr. Jerry Sandel  
Basin Disposal, Inc.  
P.O. Box 100  
Aztec, New Mexico 87401

RE: Follow up to Telephone Conversation 6-4-99  
Basin Disposal, Inc. Permit NO. NM-01-0005  
Commercial Surface Waste Management Facility  
SE/4 NW/4 of Section 3, Township 29 North, Range 11 West, NMPM,  
San Juan County, New Mexico

Dear Mr. Sandel:

It has come to the attention of the New Mexico Oil Conservation Division (OCD) that waste sludge/oily water from the treatment of produced water is being mixed with soil and stock-piled for drying directly on the land surface at Basin Disposal, Inc. (Basin). In addition, the contaminated soil has contained free water. Permit No. NM-01-0005 does not include storage or treatment of wastes *ie., solid or liquid* directly on the ground surface nor does it include treatment of contaminated soils onsite *ie., landfarming or composting*.

Basin shall stop at once all storage or treatment of soils directly on the ground surface. Contaminated soils presently stockpiled at the facility will be removed by June 14, 1999 to an OCD-approved facility for remediation/disposal.

If Basin wishes to continue this waste handling process a permit modification must be applied for. Basin may request a minor permit modification for a temporary contaminated soils storage area that is lined and bermed or a major permit modification to treat contaminated soils on site through landfarming or composting. Enclosed is Form C-137 to be used for any permit modifications.

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

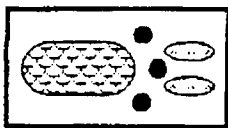
Sincerely,

Martyne J. Kielling  
Environmental Geologist

xc: Aztec District office

- Attachment A -





# **BASIN DISPOSAL, INC.**

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"

P. O. BOX 100 • AZTEC, NEW MEXICO 87410 • PHONE: (505) 334-3013

June 16, 1999

Martyne Kieling  
NMOCD  
2040 S. Pacheco  
Santa Fe, NM 87505

RE: Temporary lined storage area

Dear Martyne,

Basin Disposal would like to request a minor permit modification for a temporary contaminated soils storage area. We would like to propose that an area at the west end of our boundary have a 20 mil liner placed on the ground with 3 feet of soil placed on top, which will be packed down, this area will also have a 2 foot berm placed around it. The size of this area will be approximately 300 feet by 300 feet. As needed soil will be taken to a OCD approved facility. Thank you for your consideration of this manner.

Sincerely,

Keith Johnson  
General Manager

NEW MEXICO OIL CONSERVATION DIVISION APPROVED DISPOSAL SITE  
LOCATED 3 MILES NORTH OF BLOOMFIELD, NM ON WEST SIDE OF NM HWY 44

- Attachment B -



District I - (505) 393-6161  
P.O. Box 1980  
Hobbs, NM 88241-1980  
District II - (505) 748-1283  
811 S. First  
Artesia, NM 88210  
District III - (505) 334-6178  
1000 Rio Brazos Road  
Aztec, NM 87410  
District IV - (505) 827-7131

New Mexico  
Energy Minerals and Natural Resources Department  
Oil Conservation Division  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505  
(505) 827-7131

Form C-1  
Originated 8/78  
Revised 6/2

Submit Orig  
Plus 1 C  
to Santa  
1 Copy to appropriate  
District Of

APPLICATION FOR WASTE MANAGEMENT FACILITY

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

☒ Commercial

☐ Centralized

1. Type: ☐ Evaporation ☒ Injection ☐ Other \_\_\_\_\_

☐ Solids/Landfarm ☐ Treating Plant

2. Operator: Basin Disposal

Address: P.O. Box 100 Aztec NM or 6 CR5046 Bloomfield

Contact Person: Keith Johnson Phone: 632-8936

3. Location: \_\_\_\_\_ A \_\_\_\_\_ /4 Section \_\_\_\_\_ Township \_\_\_\_\_ Range \_\_\_\_\_

Submit large scale topographic map showing exact location

4. Is this a modification of an existing facility? ☒ Yes ☐ No

5. Attach the name and address of the landowner of the facility site and landowners of record within one mile of the site.

6. Attach description of the facility with a diagram indicating location of fences, pits, dikes, and tanks on the facility.

7. Attach designs 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, security systems, and landfarm facilities.

8. Attach a contingency plan for reporting and clean-up for spills or releases.

9. Attach a routine inspection and maintenance plan to ensure permit compliance.

10. Attach a closure plan.

11. Attach geological/hydrological evidence demonstrating that disposal of oil field wastes will not adversely impact groundwater. Depth to and quality of ground water must be included.

12. Attach proof that the notice requirements of OCD Rule 711 have been met.

13. Attach a contingency plan in the event of a release of H<sub>2</sub>S.

14. Attach such other information as necessary to demonstrate compliance with any other OCD rules, regulations and orders.

15. CERTIFICATION

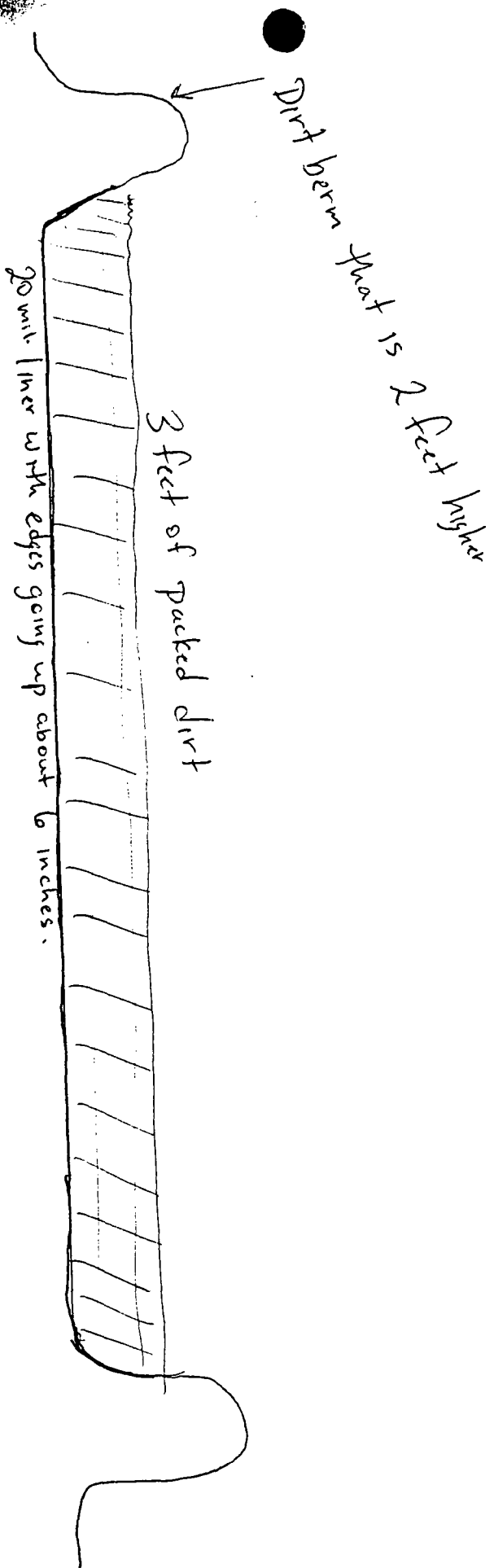
I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: Keith Johnson Title: General Manager

Signature: [Signature] Date: 6-17-99



Basin Disposal -  
Cross section of temporary storage area  
for soil





Approximately 300'x300'

Temporary Storage Area

Scrubbl #16  
Hot oil Tank

Propane Tank

Berm

Below grade concrete slab  
For mixing dirty oil

Berm

Berm

Fuel Storage Concrete Slab

OFFICE

Berm

2 steel pits

Berm

Berm

Road & Berm

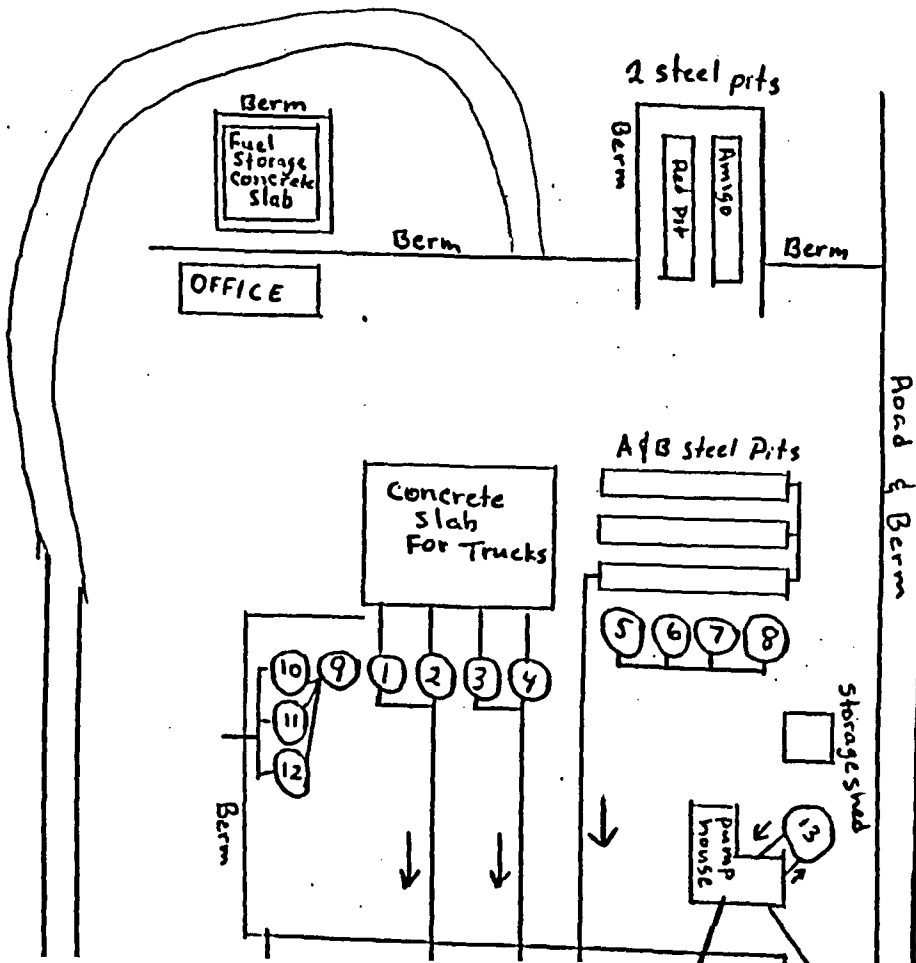
Fence

Exhibit F

N  
W  
E  
S

Tank #16 is New Hot Oil Tank Fence

S



- Attachment E -



**ATTACHMENT TO OCD 711 PERMIT MODIFICATION APPROVAL  
PERMIT NM-01-0005  
BASIN DISPOSAL, INC.  
WASTE MANAGEMENT FACILITY  
SE/4 NW/4 of Section 3, Township 29 North, Range 11 West, NMPM,  
San Juan County, New Mexico  
(July 6, 1999)**

**TEMPORARY SOIL STORAGE AREA CONSTRUCTION**

1. Construction must commence on the temporary soil storage area within one (1) year of the permit modification approval date.
2. The temporary soil storage area will be approximately 300 x 300 feet. The ground surface must be excavated to approximately one (1) foot below grade and must be cleared of all rocks, sticks and other hard objects that could puncture the plastic liner.
3. A 20 mm plastic liner must be placed in the bottom of the excavated area with the edges of the liner turned up at least one (1) foot to contain any vertical or horizontal contaminant migration.
4. Compacted soil not less than three (3) feet deep must be placed on top of the liner to protect it from heavy equipment.
5. A berm must be constructed surrounding the storage area. The berm will be two (2) feet above the interior grade and four (4) feet above the exterior grade (See diagram).
6. A ramped entrance for equipment must be constructed and maintained to preserve the berm height and integrity.

**TEMPORARY SOIL STORAGE AREA OPERATION**

1. The temporary soil storage area is authorized to accept only contaminated soils generated at Basin Disposal, Inc.
2. Contaminated soils created during the solidification of tank bottoms must be stored in the temporary soil storage area prior to transfer to an OCD-permitted landfarm facility.
3. Stored soil must be kept three (3) feet from the base of the berm to ensure that the contaminated soils are located above the lined area (See diagram).
4. Soil storage may not exceed 30 days. Soil volume, destination and date of removal must be

*Attachment F, Page 1*



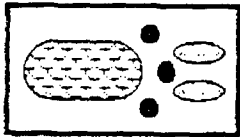
recorded and maintained for OCD review.

5. The soil storage area must be inspected daily. Results of inspections must be recorded and maintained for OCD review.
6. There will be no ponding or pooling or run-off of free liquids including precipitation within the temporary storage area. Any ponding of precipitation must be removed within 24 hours of discovery.
7. Upon any odor generation the facility must notify the OCD Santa Fe and Aztec offices and begin an investigation to determine the appropriate remedial actions. Actions may include the immediate removal of contaminated soils to an OCD-approved landfarm. A report regarding the odor generation and remedial actions taken must be filed with the OCD Santa Fe and Aztec offices.
8. The berm height and integrity along with the liner integrity must be maintained.
9. The temporary contaminated soil storage area must be inspected daily. Results of the daily visual inspection and any maintenance and upkeep must be recorded and maintained for OCD review.

#### **FACILITY AND EVAPORATION POND OPERATION**

1. The facility must be fenced and have a sign at the 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





# **BASIN DISPOSAL, INC.**

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"  
P. O. BOX 100 • AZTEC, NEW MEXICO 87410 • PHONE: (505) 334-3013

May 5, 2000

Oil Conservation Division  
Martyne Kieling  
2040 S. Pacheco  
Santa Fe, NM 87505

re: Temporary pits

Dear Martyne,

I would like to request an extension of our permit for the temporary sludge pits. We had hoped to have finished by now but we still have more to haul off. Could we extend it for another 180 days. We have no more liquids left, it has all been mixed with dirt. We are also using the west pit to hold some of this dirt until we can get it moved. If you have any questions please call me at 325-6336 or 320-2840. Thank you and we look forward to your visit on the 16th.

Sincerely,

Keith Johnson  
General Manager

- **Attachment G** -



District I - (505) 393-6161  
P.O. Box 1980  
Hobbs, NM 88241-1980  
District II - (505) 748-1283  
811 S. First  
Artesia, NM 88210  
District III - (505) 334-6178  
1000 Rio Brazos Road  
Aztec, NM 87410  
District IV - (505) 827-7131

New Mexico  
Energy Minerals and Natural Resources Department  
Oil Conservation Division  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505  
(505) 827-7131

Form C-13  
Originated 8/85  
Revised 6/255

Submit Origin  
Plus 1 Copy  
to Santa Fe  
1 Copy to appropriate  
District Office

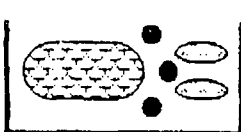
APPLICATION FOR WASTE MANAGEMENT FACILITY  
(Refer to the OCD Guidelines for assistance in completing the application)

- ☒ Commercial ☐ Centralized
1. Type: ☐ Evaporation ☒ Injection ☐ Other \_\_\_\_\_  
☐ Solids/Landfarm ☐ Treating Plant
2. Operator: Basin Disposal  
Address: P.O. Box 100 Aztec NM or 6 CR5046 Bloomfield  
Contact Person: Keith Johnson Phone: 632-8936
3. Location: \_\_\_\_\_/4 Section \_\_\_\_\_ Township \_\_\_\_\_ Range \_\_\_\_\_  
Submit large scale topographic map showing exact location
4. Is this a modification of an existing facility? ☒ Yes ☐ No
5. Attach the name and address of the landowner of the facility site and landowners of record within one mile of the site.
6. Attach description of the facility with a diagram indicating location of fences, pits, dikes, and tanks on the facility.
7. Attach designs 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, security systems, and landfarm facilities.
8. Attach a contingency plan for reporting and clean-up for spills or releases.
9. Attach a routine inspection and maintenance plan to ensure permit compliance.
10. Attach a closure plan.
11. Attach geological/hydrological evidence demonstrating that disposal of oil field wastes will not adversely impact groundwater. Depth to and quality of ground water must be included.
12. Attach proof that the notice requirements of OCD Rule 711 have been met.
13. Attach a contingency plan in the event of a release of H<sub>2</sub>S.
14. Attach such other information as necessary to demonstrate compliance with any other OCD rules, regulations and orders.
15. CERTIFICATION

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

Name: Keith Johnson Title: General Manager  
Signature: [Signature] Date: 6-17-99





**Basin Disposal, Inc.**

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"

P. O. BOX 100 • AZTEC, NEW MEXICO 87410 • PHONE: (505) 334-3013

February, 15, 1999

Martyne Kieling  
Oil Conservation Division  
2040 S. Pacheco  
Santa Fe, NM 87505

RE: Cleaning Basin's Pond

Dear Martyne,

We would like to request a portion of the land north of us to be included in our permit so that we can use it on a temporary basis, see exhibit A, we would fence this area and use it to help facilitate the cleaning of the pond. What we would like to propose is that we build two temporary pits approximately 150' x 300' x 4' each. We would use at least a 20 ml liner. The pond would be pumped down to about 2' and the remaining water would then be pumped over to pit #1. As new trucks come in their water would be pumped to pit #1 and then back to the injection pump. When the sludge is exposed we would bring in large pumps and pump all the sludge to pit #2. We will totally clean the pond so that a repair crew can come in and inspect the liner and make any necessary repairs. Once that is completed then the water in pit #1 will then be pumped back to the main pond and that liner will be immediately disposed of. We anticipate that this part of the process will take from 10 to 14 days. Pit #2 will probable take most of the summer to finish drying but should be dry enough to remove before the summer is over. We would like to begin putting this together by the middle of April to the 1st of May. Please call me if you need any further detail or have any suggestions.

Sincerely,

Keith W. Johnson  
General Manager

cc: Denny Foust

*Attachment H, Page 1*





NEW MEXICO ENERGY, MINERALS and  
NATURAL RESOURCES DEPARTMENT

AUG 08 2000

GARY E. JOHNSON

Governor

Jennifer A. Salisbury

Cabinet Secretary

Lori Wrotenbery

Director

Oil Conservation Division

August 7, 2000

**CERTIFIED MAIL**

**RETURN RECEIPT NO. 7099-3220-0000-5051-982**

Mr. Jerry Sandel  
Basin Disposal, Inc.  
P.O. Box 100  
Aztec, New Mexico 87401

*response on back*

**RE: Surface Waste Management Facility Inspection Report: Permit NM-01-0005  
Basin Disposal, Inc.  
Commercial Surface Waste Management Facility  
SE/4 NW/4 of Section 3, Township 29 North, Range 11 West, NMPM,  
San Juan County, New Mexico**

Dear Mr. Sandel:

The New Mexico Oil Conservation Division (OCD) inspected the Basin Disposal, Inc. (Basin) commercial surface waste management facility at the above location on May 16, 2000.

The OCD inspection and file review of Basin indicates that Basin 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. (Basin 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. Basin must respond to the permit deficiencies Notice of Violation by September 7, 2000.)

A review of Basin's financial assurance finds that Basin's \$140,000 Letter of Credit No. 2216 is current and active.

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

*make sure Denny gets  
canola modification for tank*

Sincerely,

*Martyn J. Kieling*

Martyn J. Kieling  
Environmental Geologist

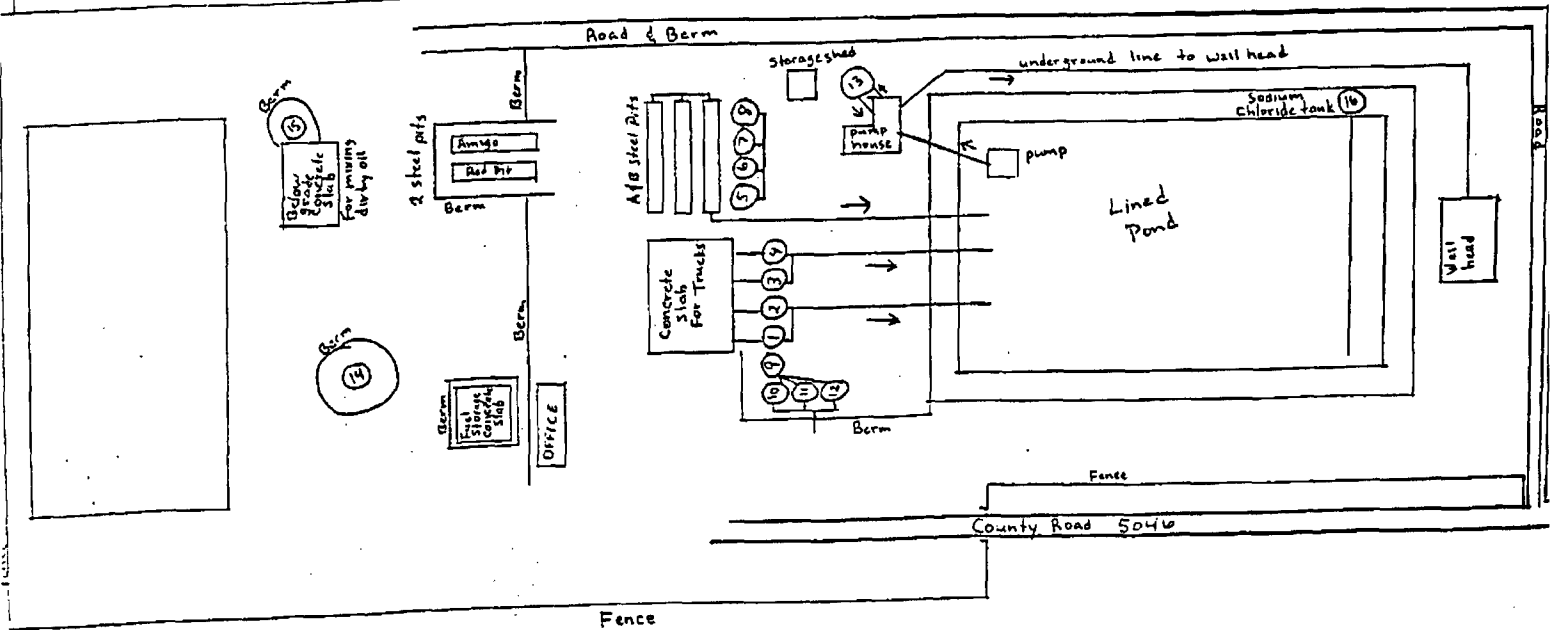
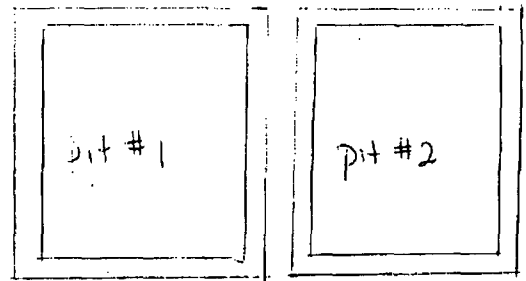
Attachments

xc: Aztec OCD Office

*Attachment I, Page 1*



Approximately 10 acres



Attachment H, Page 2



ATTACHMENT 1  
INSPECTION REPORT  
PERMIT NM-01-0005  
BASIN DISPOAL, INC.

SE/4 NW/4 of Section 3, Township 29 North, Range 11 West, NMPM,  
San Juan County, New Mexico  
(August 7, 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.**

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

**Berms are in good condition.**

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

**The facility was tidy there was no trash or debris present (see photos 1, 2, 3, 4, 5, 6, 7, and 8).**

4. 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 facility are bermed. The tanks surrounding the evaporation pond and solidification pit are bermed to direct spills toward the evaporation pond or into the solidification pit (see photo 1, 5 and 8).**

5. 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.

**Truck unloading sump was empty.**

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

*Attachment I, Page 2*



The operator performs and records facility inspections twice daily. No leaks or spills were observed during this inspection.

7. Evaporation Pond Inspection and Maintenance: The pond must be inspected on a daily 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 was running, the pumps were working two feet off the bottom of the pond and no overspray was observed.

Some oil and/or floating coal dust was observed. Material was being skimmed (see photo 4). Booms across the pond were keeping oil from spreading across the pond and to minimize the skimming work.

8. 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 visible.

9. 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.

Pond was drained and sludge was removed in 1999.

10. Leak Detection System Inspection: The leak detection system must be inspected daily 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 daily and that the monitor well has been pumped dry monthly. Water within the leak detection system rises to no more than 2.5 feet and appears to be condensate from moisture trapped within the layers from a past leak.

Get in ASHP \*  
According to Permit NM-01-0005 an annual report of these test must be sent to the Santa Fe office for annual review by May 17<sup>th</sup> of each year. The report has not been received.

11. 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.

No Drums were present.



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.

N/A

12. 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.

**Saddle tanks were had containment and were labeled.**

13. 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 numbered and were clearly labeled to identify their contents and hazards.**

14. 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 steel pits were not netted, screened or covered. Basin must screen, net, or cover these exposed pits.**

15. 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.**

16. 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-01-0005 requires these inspections be recorded. Facility inspections have been performed twice daily and records have been kept.**

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

**The current permit NM-01-0005 requires H<sub>2</sub>S screening and record keeping to be performed twice per day at 4 points around the pond. Facility H<sub>2</sub>S screening has been performed and records maintained. Currently chemical treatment occurs four times a day with approximately 25 gallons of chemical.**

18. 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.



**ATTACHMENT TO OCD 711 PERMIT MODIFICATION APPROVAL**  
**PERMIT NM-01-0005**  
**BASIN DISPOSAL, INC.**  
**WASTE MANAGEMENT FACILITY**  
**SE/4 NW/4 of Section 3, Township 29 North, Range 11 West, NMPM,**  
**San Juan County, New Mexico**  
**(December 28, 2000)**

**TEMPORARY SOIL STORAGE AREA CONSTRUCTION**

1. Construction must commence on the temporary soil storage area within one (1) year of the permit modification approval date.
2. The temporary soil storage area will be approximately 300 x 300 feet. The ground surface must be excavated to approximately one (1) foot below grade and must be cleared of all rocks, sticks and other hard objects that could puncture the plastic liner.
3. A 20 mm plastic liner must be placed in the bottom of the excavated area with the edges of the liner turned up at least one (1) foot to contain any vertical or horizontal contaminant migration.
4. Compacted soil not less than three (3) feet deep must be placed on top of the liner to protect it from heavy equipment.
5. A berm must be constructed surrounding the storage area. The berm will be two (2) feet above the interior grade and four (4) feet above the exterior grade.
6. A ramped entrance for equipment must be constructed and maintained to preserve the berm height and integrity.

**TEMPORARY SOIL STORAGE AREA OPERATION**

1. The temporary soil storage area is authorized to accept only contaminated soils generated at Basin Disposal, Inc.
2. Contaminated soils created during the solidification of tank bottoms must be stored in the temporary soil storage area prior to transfer to an OCD-permitted landfarm facility.
3. Stored soil must be kept three (3) feet from the base of the berm to ensure that the contaminated soils are located above the lined area.
4. Soil storage may not exceed 30 days. Soil volume, destination and date of removal must be recorded and maintained for OCD review.

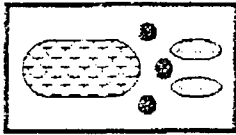


5. The soil storage area must be inspected daily. Results of inspections must be recorded and maintained for OCD review.
6. There will be no ponding or pooling or run-off of free liquids including precipitation within the temporary storage area. Any ponding of precipitation must be removed within 24 hours of discovery.
7. Upon any odor generation the facility must notify the OCD Santa Fe and Aztec offices and begin an investigation to determine the appropriate remedial actions. Actions may include the immediate removal of contaminated soils to an OCD-approved landfarm. A report regarding the odor generation and remedial actions taken must be filed with the OCD Santa Fe and Aztec offices.
8. The berm height and integrity along with the liner integrity must be maintained.
9. The temporary contaminated soil storage area must be inspected daily. Results of the daily visual inspection and any maintenance and upkeep must be recorded and maintained for OCD review.

#### **FACILITY AND EVAPORATION POND OPERATION**

1. The facility must be fenced and have a sign at the 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.





# BASIN DISPOSAL, INC.

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"  
P.O. BOX 100 • AZTEC, NEW MEXICO 87410 • PHONE (505) 334-3013

February 26, 2001

Martyne Kieling  
1220 S. St. Francis Dr.  
Santa Fe, New Mexico 87504

RE: Modification Request for temporary pits

Dear Martyne,

Due to the amount of produced water that has been coming into our facility we need to ask for approval of the use of three temporary pits. Over the past 3 years we have seen a steady increase of water that has been coming to our facility; the past 3 months the increase has been quite dramatic and our pond has risen to nearly its freeboard limit. We had anticipated the loss of some business due to customer changes and some companies drilling injection wells but that loss never materialized and instead even more came in. A week or so ago we began to put together a plan to increase again the amount that we are injecting by putting two pumps in tandem. But we started too late and we have received more water than we can deal with. Key Energy has agreed to allow some of our loads to come to their facility but they are limited to only a few loads a day and we are already going over what they originally wanted to accept. So any day that could stop. We already have the one temporary pit that is to be used to clean the pond this summer and we would like to construct two more that would only hold water and once we get our pumps all online we will begin to immediately pump that water to our main pond for injection and as soon as it is dry we will pull out those liners and dispose of them and break down the berms. We anticipate the use of these pits to last no longer than 30 days. Altogether we would like to have 60 days to get them empty and cleaned up. I am also including a drawing of our facility and where these pits will be placed. The dilemma that we face is that there is no other place that we can send this water. So we need to see if we can get this approved as soon as possible. Thank you for your consideration of this matter. If you have any questions please call me at 320-2840 or 325-6336.

Sincerely,

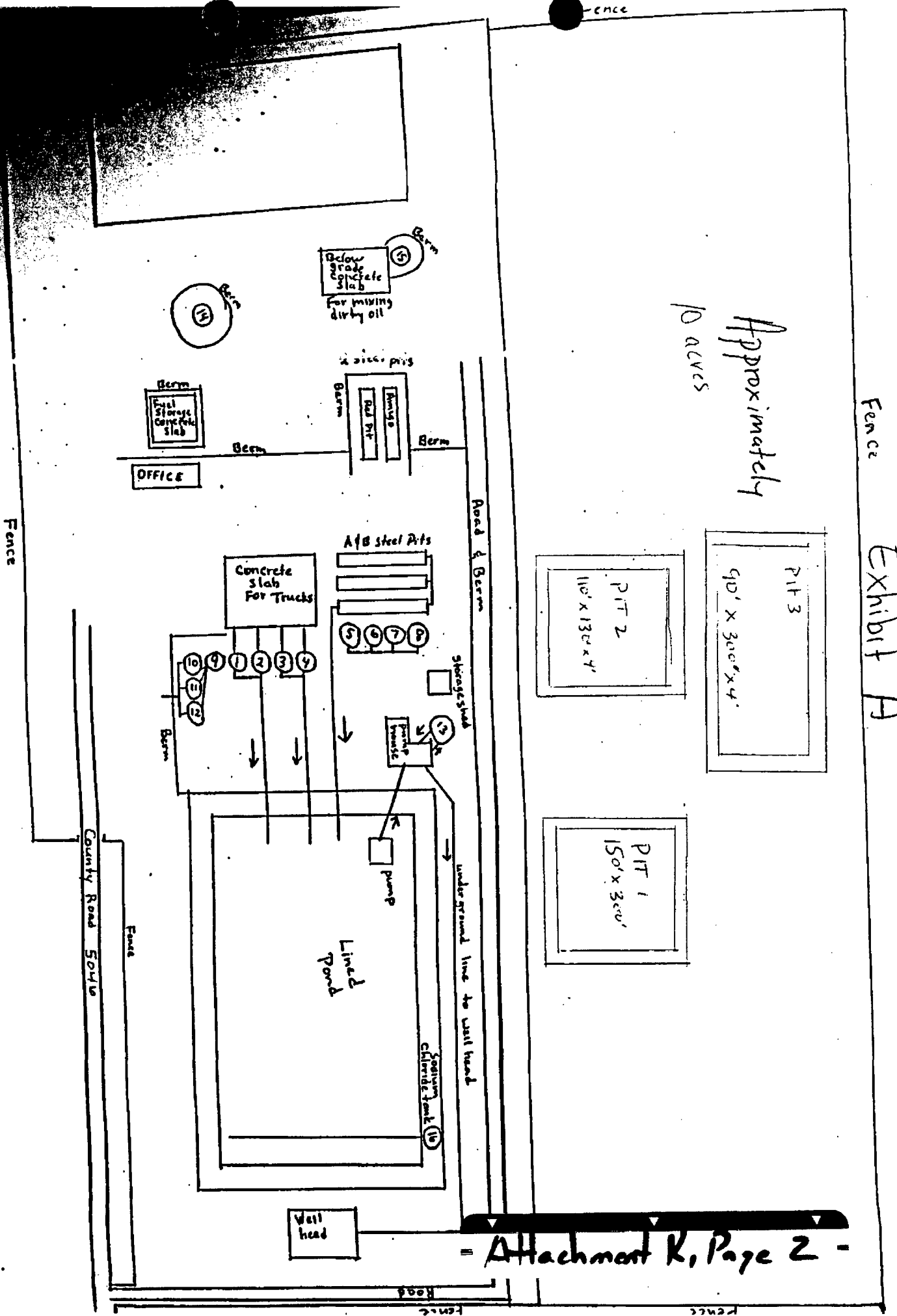
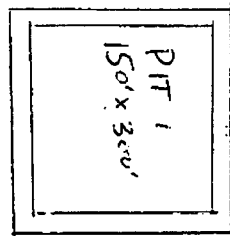
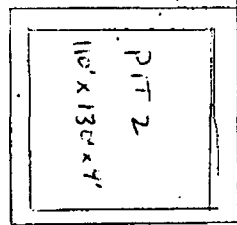
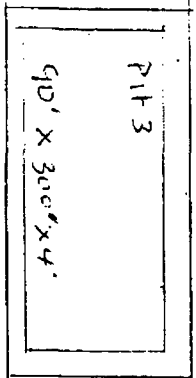
Keith Johnson  
General Manager

- Attachment K, Page 1 -



# Fence Exhibit A

Approximately 10 acres







## NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**GARY E. JOHNSON**

Governor

**Jennifer A. Salisbury**

Cabinet Secretary

March 7, 2001

**Lori Wrotenberg**

Director

Oil Conservation Division

**CERTIFIED MAIL**

**RETURN RECEIPT NO. 7099-3220-0000-5051-2139**

Mr. Jerry Sandel  
Basin Disposal, Inc.  
P.O. Box 100  
Aztec, New Mexico 87401

**RE: Temporary Produced Water Storage  
Basin Disposal, Inc.  
SE/4 NW/4 of Section 3, Township 29 North, Range 11 West, NMPM,  
San Juan County, New Mexico**

Dear Mr. Sandel:

The application to construct and use two temporary, single-lined, produced water storage pits at Basin Disposal, Inc.'s (Basin) commercial surface waste management facility is hereby approved. The request for temporary storage consists of the application Form C-137 dated February 26, 2001.

**This approval is conditional upon the receipt and approval by the Director of an additional separate financial assurance in the amount of \$10,000, which may be canceled upon OCD-approved closure. Currently Basin has financial assurance in the amount of \$144,155.**

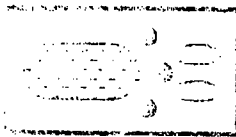
In addition, the temporary pits 2 and 3 are authorized to receive produced water only until April 7, 2001; those pits must be emptied, cleaned and closed by May 7, 2001. If similar authorization is requested in the future, please be advised that OCD may require a double-lined, leachate collection system and public notice and opportunity for hearing.

The construction, operation, monitoring and reporting shall be pursuant to Basin's permit dated December 28, 2000. Basin 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 OCD approval here in shall not relieve Basin Disposal, Inc. of liability should your operation result in actual pollution of surface water, ground water, or the environment. In addition, OCD approval shall not relieve Basin Disposal, Inc. of

- Attachment L -





# BASIN DISPOSAL, INC.

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"

P. O. BOX 100 • AZTEC, NEW MEXICO 87410 • PHONE: (505) 334-3013

May 17, 2001

Oil Conservation Division  
Martyne Kieling  
PO Box 6429  
Santa Fe, NM 87504-6429

Dear Martyne,

This letter is to inform you that the two temporary pits have been emptied and removed and that the other pit that will be used for cleaning the pond has also been emptied. With your approval we would like to cancel the bond that we have for closing those pits. There are two other items I wanted to let you know about; first we are moving one of our oil tanks out of the system, it is tank #12. It will most likely be used in our KCL plant. Second, we are looking at a different system to treat our pond instead of the sodium chlorite. There is a company called MIOX Systems and they use rock salt to produce a low grade chlorine. It is generally used in city water systems but this would allow us to constantly treat the water that is going into the pond, and it doesn't evaporate as quickly and it doesn't have as much chlorine odor as the sodium chlorite, plus it will cost a lot less each year. If you have any questions please call me.

Sincerely,

Keith Johnson  
General Manager

- Attachment M -

NEW MEXICO OIL CONSERVATION DIVISION APPROVED DISPOSAL SITE  
LOCATED 3 MILES NORTH OF BLOOMFIELD, NM ON WEST SIDE OF NM HWY 44





# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

FEB 4 2002

GARY E. JOHNSON  
Governor  
Carol Leach  
Acting Cabinet Secretary

Lori Wrotenbery  
Director  
Oil Conservation Division

January 29, 2002

**CERTIFIED MAIL**

**RETURN RECEIPT NO. 7099-3220-0000-5051-2894**

Mr. Jerry Sandel  
Basin Disposal, Inc.  
P.O. Box 100  
Aztec, New Mexico 87401

**RE: Surface Waste Management Facility Inspection Report: Permit NM-01-0005  
Basin Disposal, Inc.  
Commercial Surface Waste Management Facility  
SE/4 NW/4 of Section 3, Township 29 North, Range 11 West, NMPM,  
San Juan County, New Mexico**

Dear Mr. Sandel:

The New Mexico Oil Conservation Division (OCD) inspected Basin Disposal, Inc. (Basin) on May 29, 2001. The OCD found the facility to be well maintained and have good security. A records check was performed and all documentation was in order. A review of Basin's financial assurance finds that Basin's \$140,000 Letter of Credit No. 2216 is current and active. An additional \$10,000 surety bond for the temporary produced water storage pits is also on file.

At the time of the inspection The OCD found the temporary produced water storage pits 2 and 3 to be closed in accordance with the OCD approval letter dated March 7 2001 and Basin's letter dated May 17, 2001. The OCD hereby approves the closure of the temporary produced water storage pits 2 and 3.

In addition the OCD identified the following permit deficiencies during the inspection that require attention:

1. Berming around the oil storage tanks and along the southern edge of the produced water tanks was missing, eroded or had been removed and not replaced.

**Permit NM-01-0005, Page 2, Facility and Evaporation Pond Operation,**

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.

- Attachment N, Page 1 -



**Permit NM-01-0005, Page 3, Facility and Evaporation Pond Operation,**

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.
2. The sump on the north side of the pump house is new from the last inspection performed in May 2000 and did not have a secondary liner or leak detection. This sump should be checked often and emptied, especially after rainstorms because it is located below the eve of the pump house and can potentially catch large volumes of rainwater from the roof of the building.

**Permit NM-01-0005, Page 3, Facility and Evaporation Pond Operation,**

7. Below-grade sumps must be cleaned and visually inspected annually. Results must be recorded and maintained for OCD review. If sump integrity has failed the OCD must be notified within 48 hours of discovery and the sump contents and contaminated soil must be removed and disposed of at an OCD-approved facility. Soil remediation must follow OCD surface impoundment closure guidelines. Basin Disposal 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 a leak detection monitoring system. Monitoring of the secondary containment 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.
3. The temporary soil storage area had contaminated soil spilled outside of the lined and bermed area.


**Permit NM-01-0005, Page 1, Temporary Soil Storage Area Operation,**

3. Stored soil must be kept three (3) feet from the base of the berm to ensure that the contaminated soils are located above the lined area.

Basin 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. Basin must respond to the permit deficiencies by March 4, 2002.

If you have any questions please contact me at (505) 476-3488

Sincerely,

  
Martyne J. Kielling  
Environmental Geologist

xc with Attachments: Aztec OCD Office

- Attachment N, Page 2 -



February 12 , 2002

Martyne Kieling  
NMOCD  
PO Box 6429  
Santa Fe, NM 87504

RE: Surface Waste Management Facility Inspection Report: Permit NM-01-0005

Dear Martyne,

Thank you for the follow up letter regarding our permit deficiencies during your last inspection. Shortly after your visit we had these areas all taken care of. Item # 1 - we have replaced the berming which had been removed while we were moving out one of those tanks. Item #2 - we have placed a liner underneath the sump and leak detection has also been installed. Item #3 -Any soil that had spilled over the berm has been cleaned up and the piles were moved at least 3 feet away from the berm. We look forward to your next visit this coming summer. If there is any other information that you need please call me.

Sincerely,

Keith Johnson  
General Manager

cc: Denny Foust

Attachment 0





# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON  
Governor  
Betty Rivera  
Cabinet Secretary

Lori Wrotenbery  
Director  
Oil Conservation Division

April 3, 2002

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. 7001-1940-0004-7923-4030**

Mr. Jerry Sandel  
Basin Disposal, Inc.  
P.O. Box 100  
Aztec, New Mexico 87401



**RE: Surface Waste Management Facility Inspection Report: Permit NM-01-0005  
Basin Disposal, Inc.  
Commercial Surface Waste Management Facility  
SE/4 NW/4 of Section 3, Township 29 North, Range 11 West, NMPM,  
San Juan County, New Mexico**

Dear Mr. Sandel:

The New Mexico Oil Conservation Division (OCD) inspected Basin Disposal, Inc. (Basin) on March 5, 2002. A records check was performed and all documentation was in order. A review of Basin's financial assurance finds that Basin's \$140,000 Letter of Credit No. 2216 is current and active.

Basin has implemented new measures of checking waste delivered to prevent oil, excess sludge, and H<sub>2</sub>S from entering their disposal system (Photo 1). The Evaporation pond was oil free and well below freeboard (Photos 4 and 7). Most of the process tanks at the facility have been raised and placed on concrete containment with poly liners and concrete beams (Photo 3). The OCD found that the closure of the lined temporary pit north of the facility is three-quarters closed (Photo 6). Please note that according to Permit NM-01-0005 this pit must be closed by June 1, 2002. Soil and sludge generated at Basin Disposal was managed well within the lined temporary soil storage area. Sludge was being solidified during the inspection and there was no free liquid present (Photo 8). Over all the OCD found the facility to be well maintained and have good security.

The OCD identified the following permit deficiencies during the inspection that require attention:

1. There was no berm or impermeable pad or containment around a small poly storage tank said to hold bleach/Clorox and the tank was not visibly labeled.



**Basin must place the chemical tank on an impermeable containment pad with berm and label the tank as to contents and hazards.**

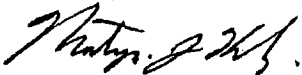
Permit NM-01-0005, Facility and Evaporation Pond Operation, Item 5: All existing above-ground tanks located at the facility and containing materials other than fresh water must be bermed to contain one and one-third the volume of the largest tank or all interconnected tanks, whichever is greater. All above-ground tanks must be labeled as to contents and hazards.

Permit NM-01-0005, Facility and Evaporation Pond Operation, Item 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.

Basin 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. Basin must respond to the permit deficiencies by April 19, 2002.

If you have any questions please contact me at (505) 476-3488

Sincerely,



Martyne J. Kieling  
Environmental Geologist

xc with Attachments: Aztec OCD Office

**Attachment P, Page 2-**



Basin Disposal, Inc. Permit NM-02-0005  
March 5, 2002

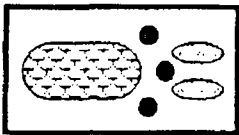


Photo 7: Evaporation pond is oil free and well below freeboard. Sprayers were actively circulating water. View of east end of pond.



Photo 8: Mixer is solidifying sludge from the closure of the temporary pit. Material is then shipped to Tierra Environmental for landfarming.





# BASIN DISPOSAL, INC.

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"

P. O. BOX 100 • AZTEC, NEW MEXICO 87410 • PHONE: (505) 334-3013

May 20, 2003

Martyne Kieling  
Oil Conservation Division  
1220 S. Saint Francis Drive  
Santa Fe, NM 87505

re: Pond cleaning

Dear Ms. Kieling,

It is that time again to clean our pond and we would like to propose a different method than what we have used in the past. It will allow us to clean out the sludge quickly and efficiently plus not leave any on site when we are done. What we are proposing would be to use the soil stabilization area that is already lined and bermed. We would place an additional bermed area within the larger berm that would allow Riley Industrial to dump the sludge into. We would use at least two excavators to mix the sludge with dirt and to load the dump trucks. We will then be sending them to the landfarm(s). The dump trucks will be bringing back previously remediated soil that we can use to mix with the sludge. Each day we will ensure that no liquids will be left overnight. While the pond is being cleaned we will be using 39 frac tanks to take the place of the pond, we will also berm them so that any overflows will be run into the pond. We would like to begin cleaning the pond on June 2, 2003 with a completion time of June 30. Once we are done we will begin releasing the frac tanks. If you have any questions please call me at (505) 320-2840.

Sincerely,

Keith Johnson  
General Manager

- Attachment Q -





# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**  
Cabinet Secretary

May 27, 2003

**Lori Wrotenbery**

Director

Oil Conservation Division

Mr. Jerry Sandel  
Basin Disposal, Inc.  
P.O. Box 100  
Aztec, New Mexico 87401

RECEIVED

MAY 30 2003

**RE: Pond Cleaning**  
**Basin Disposal, Inc.**  
**SE/4 NW/4 of Section 3, Township 29 North, Range 11 West, NMPM,**  
**San Juan County, New Mexico**

Dear Mr. Sandel:

The New Mexico Oil Conservation Division (OCD) has received Basin Disposal, Inc. (Basin) proposal dated May 20, 2003 regarding pond cleaning. The proposal describes how Basin will use a portion of the lined and bermed soil storage area to mix and solidify sludge from the pond area and the installation of 39 frac tanks beside the pond to take the place of the pond fluid capacity during the cleaning procedures. This proposal has been reviewed and is hereby approved with the following conditions.

1. Sludge from Basin's pond will be mixed and stabilized within the temporary soil storage area.
2. Liquids and sludge with free liquids will not be stored in the temporary soil storage containment area overnight.
3. Stabilized sludge will be removed to an OCD permitted landfarm.
4. Clean soil or OCD approved remediated soil may be backhauled from an OCD permitted landfarm to Basin for stabilization purposes.
5. Temporary tanks will be used for temporary storage while the pond is cleaned.
6. The tanks will be placed next to the evaporation pond and will be bermed so that any accidental release or overflow will run into the pond.
7. The evaporation pond clean out project will be completed and the facility restored to normal operations by June 30, 2003.
8. Basin will submit a final report that documents the volume of sludge removed from the evaporation pond and the volume of stabilized material that was hauled to the landfarm(s) for remediation by July 31, 2003.

To better understand the process changes that have been incorporated over the last few years at Basin, the OCD would appreciate any comparison information with regards to the previous pond cleanouts. This information may include the length of time since the



Mr. Jerry Sandel  
May 27, 2003  
Page 2

last pond clean out, how long the new V bottom tanks have been in service and how Basin would compare this cleanout process to the last two cleanouts with regards to time, sludge volume and the variation in cost associated with the methods that have been used.

Construction, operation, monitoring and reporting shall be pursuant to Basin's permit dated December 28, 2000. Basin 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 OCD approval here in shall not relieve Basin Disposal, Inc. of liability should your operation result in actual pollution of surface water, ground water, or the environment. In addition, OCD approval shall not relieve Basin Disposal, Inc. of responsibility for compliance with all applicable federal, state or local laws and/or regulations.

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

Sincerely,



Roger C. Anderson  
Environmental Bureau Chief

RCA/mjk

xc: Aztec OCD Office

- Attachment R, Page 2 -





# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

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

Director

Oil Conservation Division

March 2, 2005

Mr. Keith Johnson  
Basin Disposal, Inc.  
P.O. Box 100  
Aztec, NM 87410

Dear Mr. Johnson:

The New Mexico Oil Conservation Division (NMOCD) has received your C-137 requesting a modification to NMOCD permit number NM-1-0005 for the surface waste management facility operated by Basin Disposal, Inc. (Basin).

This modification contains three parts:

1. The addition of one (1) 500-bbl tank to the oil sales tanks
2. The addition of a new pump house
3. The movement of tank #19 from the southwest corner of the pond and placement of tank #19 next to tank #15

These modifications are shown on the diagrams attached to your modification request.

This request is hereby approved with the understanding that Basin will perform the modifications according to the narrative and the diagrams attached to Form C-137.

NMOCD approval of this request does not relieve Basin of responsibility should its operations cause contamination of surface water, groundwater, or the environment. Nor does it relieve Basin of its responsibility to comply with any other federal, state or local laws and regulations.

NEW MEXICO OIL CONSERVATION DIVISION

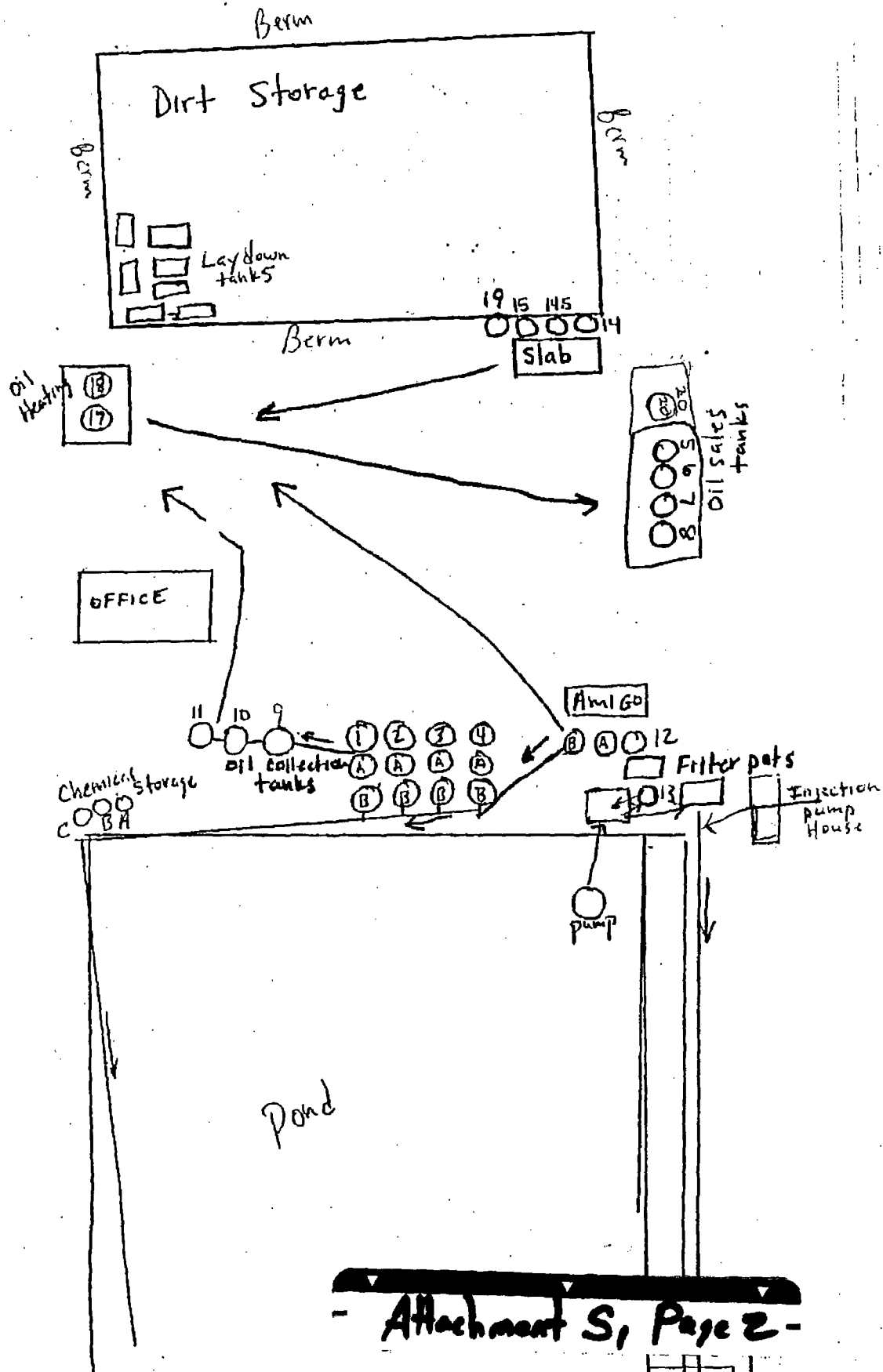
Edwin E. Martin  
Environmental Engineer

Cc: Denny Foust, NMOCD,

- Attachment 5, Page 1 -



Facility Diagram  
Exhibit E







# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

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

Director

**Oil Conservation Division**

July 5, 2005

JUL - 7 2005

Mr. Keith Johnson  
Basin Disposal, Inc.  
P.O. Box 100  
Aztec, NM 87410

Re: Form C-137, Dated June 22, 2005 Requesting a  
Minor Modification to the Waste Management Facility  
Permitted by the New Mexico Oil Conservation Division  
Permit Number NM-1-005

Dear Mr. Johnson:

The New Mexico Oil Conservation Division (NMOCD) has received and reviewed the application described above. In summary, this application is a modification to the form C-137 dated February 18, 2005 as follows:

1. To improve the filter system, Basin Disposal, Inc. (Basin) wishes to move tanks #15 and #20 and tie them in with tank #13.
2. Basin also wishes to change tank #20 to tank #16.

This minor modification is hereby approved with the understanding that Basin will perform the modifications according to the narrative and the diagrams attached to the above-referenced application.

NMOCD approval does not relieve Basin of responsibility should its operations cause contamination of surface water, groundwater, or the environment. Nor does it relieve Basin of its responsibility to comply with the rules and regulations of any other federal, state, or local governmental entity.

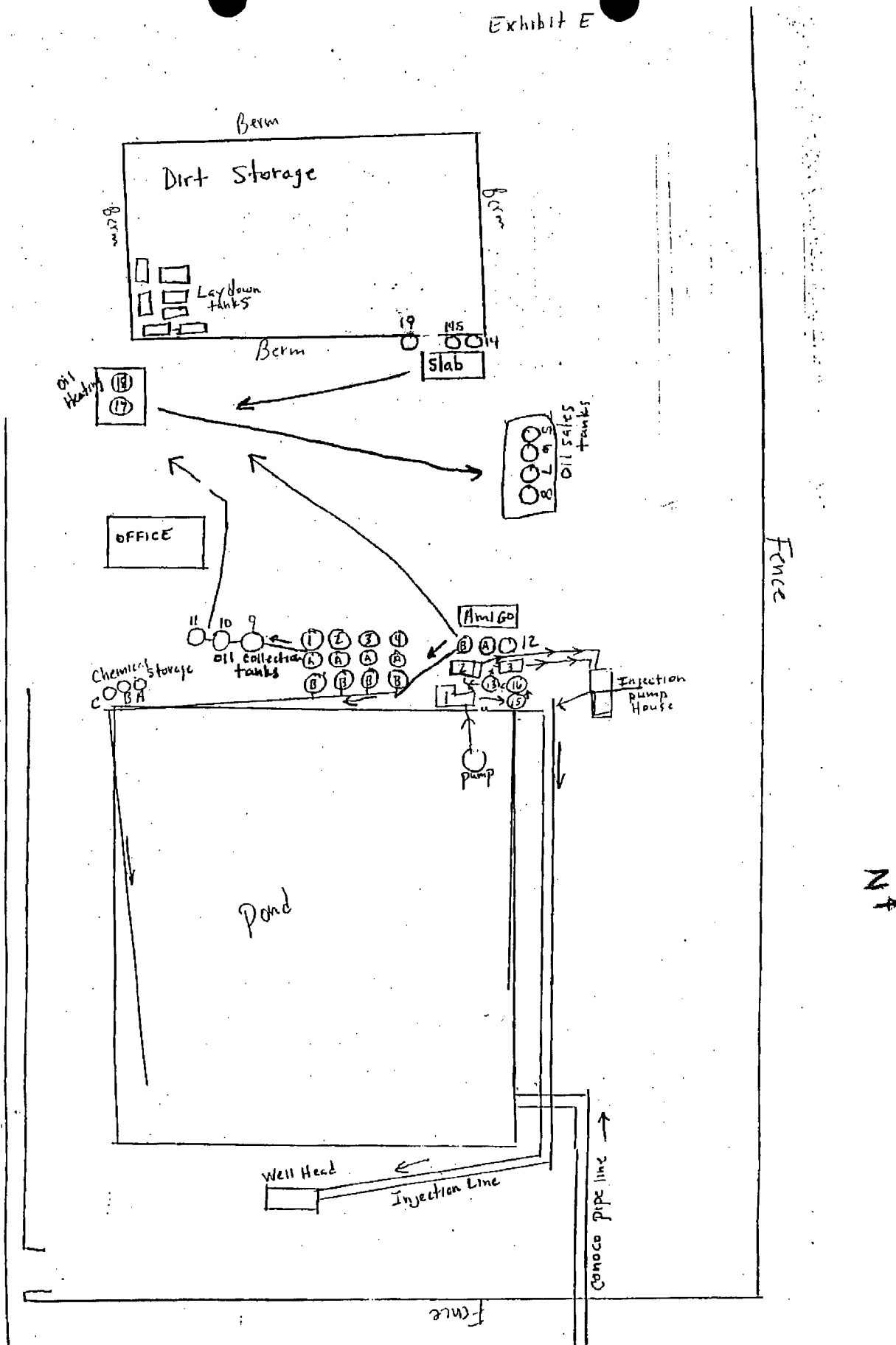
NEW MEXICO OIL CONSERVATION DIVISION

Edwin E. Martin  
Environmental Bureau

Cc: NMOCD, Aztec

**- Attachment T, Page 1 -**









# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

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

Director

**Oil Conservation Division**

January 19, 2006

RECEIVED  
JAN 25 2006

Mr. Keith Johnson  
Basin Disposal, Inc.  
P.O. Box 100  
Aztec, NM 87410

RE: Form C-137 for Basin Disposal, Inc. to Modify  
Their Commercial Surface Waste Management Facility Permit  
Number NM-1-005 for the Facility Located in the  
SE/4 NW/4 of Section 3, Township 29 North, Range 11 West  
NMPM, San Juan County, New Mexico

Dear Mr. Johnson:

The New Mexico Oil Conservation Division (NMOCD) has received and reviewed the application referenced above. This minor modification request is hereby approved under the following conditions and understandings:

1. Basin will modify the lay-down pit as shown in the attachment to the application
2. Basin intends to install a burner tube in one end of the pit to recover more oil and break out more water from the sludge.
3. Basin will operate such modification under all of the terms and conditions placed on the facility by permit number NM-1-005.

NMOCD approval does not relieve Basin Disposal, Inc. (Basin) of liability should its operations at this facility prove to have been harmful to fresh water, public health or the environment. Nor does it relieve Basin of its responsibility to comply with the rules and regulations of any other governmental entity.

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

NEW MEXICO OIL CONSERVATION DIVISION

Roger C. Anderson  
Environmental Bureau Chief

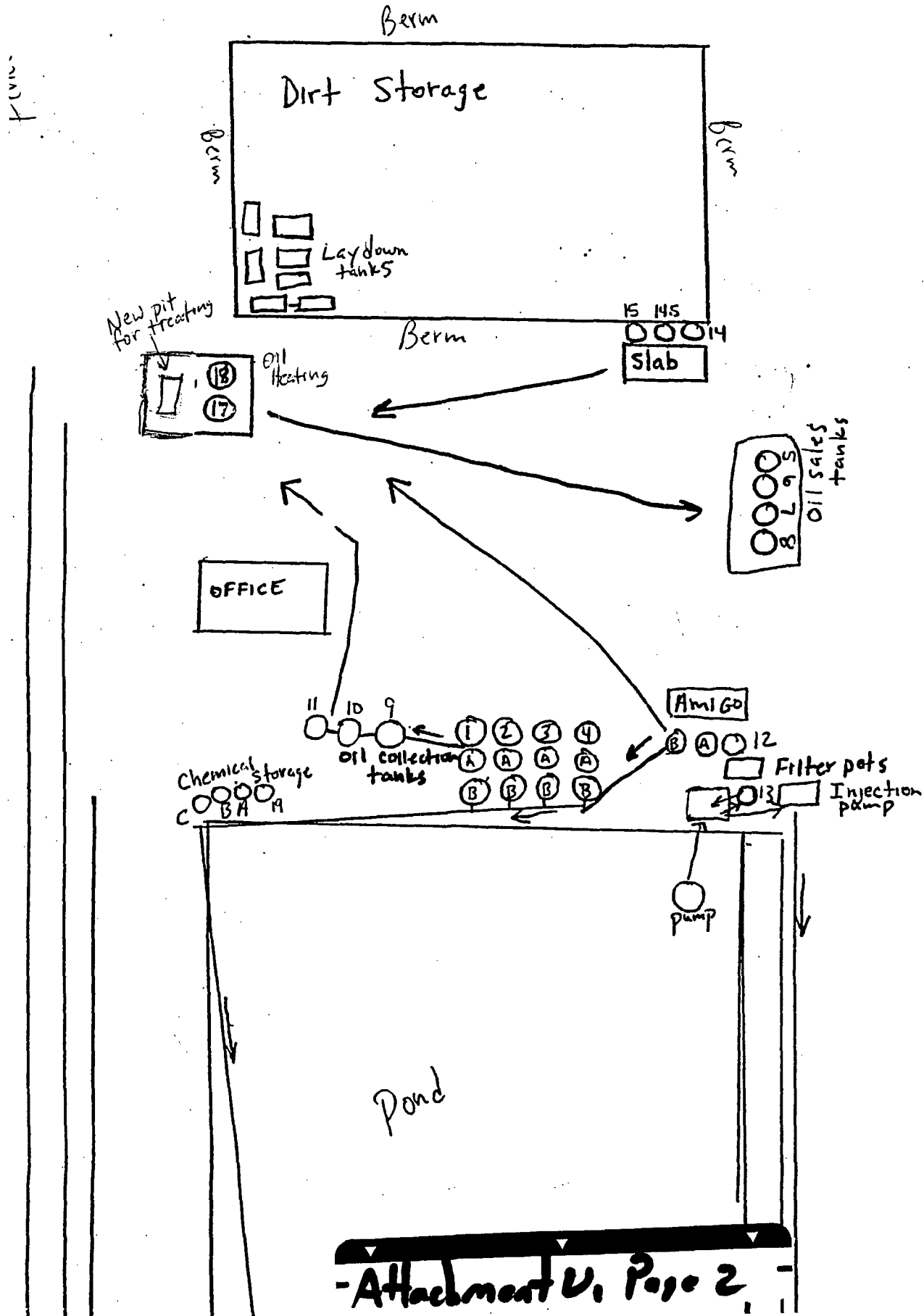
Copy: NMOCD, Aztec

- Attachment U, Page 1 -



Fence

# Facility Diagram Exhibit E





**Jones, Brad A., EMNRD**

---

**From:** John Volkerding [bdinc@digii.net]  
**Sent:** Friday, November 10, 2006 4:06 PM  
**To:** Jones, Brad A., EMNRD; Powell, Brandon, EMNRD; Price, Wayne, EMNRD  
**Subject:** Volume of Produced Water Receiving and Processing Tanks  
**Attachments:** Inspection Response 11-10-06.doc

Hi;

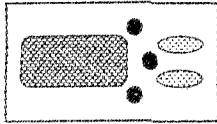
Attached is a letter addressing the question about the impact to the pond level in the unlikely event of a catastrophic failure of all the produced water receiving and process tanks such that their entire volume entered the pond at the same time.

I will put the hard copy in the mail. Thanks, John



John Volkerding, PhD  
General Manager  
Basin Disposal Inc  
PO Box 100, 906 S Main  
Aztec, NM 87410  
505-334-3013 (Office), 505-632-8936 (Plant)  
505-320-2840 (Cell), 505-334-8729 (Fax)





# BASIN DISPOSAL, INC.

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"

P.O. BOX 100 - AZTEC, NEW MEXICO 87410 - PHONE: (505) 334-3013

November 10, 2006

Oil Conservation Division  
Attn: Brad Jones  
1220 South St. Francis Dr.  
Santa Fe, NM 87505  
FAX (505) 476-3462

RE: Evaluation of Catastrophic Failure of Receiving and Process Tanks  
And Result to Pond Level

Dear Mr. Jones,

During the inspection on November 6, 2006, Basin personnel pointed out that the produced water receiving and processing tanks are bermed and lined such that in the event of a leak the produced water in those tanks would flow into the pond. The OCD asked what would be the impact to the pond level in the unlikely event of a catastrophic failure of all the produced water receiving and process tanks such that their entire volume entered the pond at the same time.

The total volume of these tanks is 7400 barrels. Depending on the level of the pond, the volume per foot ranges from 6977 to 10887 bbl/ft. At the pond's current level of 10.5 feet. The approximate number of barrels per foot is 10,674. A volume of 7400 barrels entering the pond when its level is 10.5 feet would cause the pond level to rise to a level of 11.2 feet.

With a pond level of 10.8 feet or below, even in the unlikely event of a simultaneous catastrophic failure of the receiving and processing tanks, the pond level would remain within the compliance requirement of not exceeding 11.5 feet.

If you need anything else from me, please feel free to contact me on my cell phone at 505-320-2840 or email at [bdcinc@diggii.net](mailto:bdcinc@diggii.net).

Sincerely,

John Volkerding, PhD  
General Manager

Attach (Diagram and Table)

*Does that satisfy  
the Board report  
specified in permit?*





Depth (ft)	Volume (BBLs/foot)	Total Volume (BBLs)
Sump		4530
1	6977	11507
2	7333	18841
3	7697	26538
4	8069	34607
5	8448	43055
6	8835	51890
7	9230	61120
8	9633	70752
9	10043	80795
10	10461	91256
11	10887	102143
<b>11.5</b>		<b>107749</b>
12	11430	113573



**Jones, Brad A., EMNRD**

---

**From:** John Volkerding [bdinc@digii.net]  
**Sent:** Saturday, November 11, 2006 3:17 PM  
**To:** Price, Wayne, EMNRD; Jones, Brad A., EMNRD; Powell, Brandon, EMNRD  
**Subject:** Follow Up  
**Attachments:** Temp Soil Storage Area Ltr 11-11-06.pdf

Hi;

Attached is a letter addressing the question about the history of the temporary soil storage area.

I will put the hard copy in the mail. Thanks, John



John Volkerding, PhD  
General Manager  
Basin Disposal Inc  
PO Box 100, 906 S Main  
Aztec, NM 87410  
505-334-3013 (Office), 505-632-8936 (Plant)  
505-320-2840 (Cell), 505-334-8729 (Fax)





## **BASIN DISPOSAL, INC.**

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"

P.O. BOX 100 • AZTEC, NEW MEXICO 87410 • PHONE: (505) 334-3010

November 11, 2006

Oil Conservation Division  
Attn: Brad Jones  
1220 South St. Francis Dr.  
Santa Fe, NM 87505  
FAX (505) 476-3462

RE: History of Permitted Temporary Soil Storage Area

Dear Mr. Jones,

During the inspection on November 5, 2006 the OCD personnel expressed concern over the temporary soil storage area. In speaking with Denny Foust, formerly of the District III OCD Office, about the confusion surrounding the soil storage area I learned that it was permitted by the OCD as a permanent unit. During the inspection of November 5, 2006 there was a question whether Basin Disposal had operated the unit in violation of its permit and according to Mr. Foust the answer is that Basin Disposal was authorized to operate the unit on a permanent basis and that the term "temporary" denoted the fact that soil could not remain at that location for more than 30 days.

Attached are copies of documents that illustrate the fact the soil storage area was a permitted unit and allowed to be in permanent operation.

The first mention of a soil storage area was in June 1999 and Attachment A shows that based on a phone conversation of June 4, 1999, Martyne J. Kielling of the OCD required that Basin Disposal cease soil storage until a minor permit modification for a lined and bermed soil storage area be issued. Attachments B, C, D, E are the submittals by Basin Disposal for this lined and bermed area dated June 1999.

A term that is used consistently throughout the documents is "temporary soil storage area". The OCD today is interpreting that phrase to mean the unit itself was permitted on a temporary basis. Basin Disposal's position is that the unit itself was a permanently permitted area with the requirement that soil could only be stored at the unit temporarily. The documentation supports Basin Disposal's position which is outlined below.

Attachment F is the permit modification approval dated July 6, 1999 authorizing the construction and operation of the "Temporary Soil Storage Area." At no point in the permit is there a condition that the soil storage area shall be closed at some specific time, thereby implying it is a permanent addition to the facility. The only requirement with a time frame is Condition 4 under "Temporary Soil Storage Area Operation" which states "Soil storage may not exceed 30 days."



The permit language implies that the storage area is permanent and could only hold soil for 30 day time periods.

During the inspection of November 5, 2006 the OCD implied that Attachment G was requesting an extension of the use of the soil storage area. That May 5, 2000 letter requests extension for two temporary sludge pits that were located north of the pond. This is evidenced by Attachment H, Page 1 which requests the construction of two sludge pits north of the pond in February 1999 and Attachment H, Page 2 showing the location of those sludge pits. Attachment G also makes a clear distinction between the sludge pits and the soil storage area by stating "We are also using the west pit to hold some of the dirt until it can be moved." Since the soil storage area is located to the west, that reference distinguishes the soil storage area from the sludge pits located to the north.

The OCD inspected Basin Disposal on May 1, 2000 with the results documented in Attachment I dated August 7, 2000. Attachment I, Page 5, Item 19 verifies that Attachment G spoke about granting an extension for Pits 1 & 2 located north of the pond. Attachment I, Page 5, Item 20 shows that the soil storage area was a separate unit and confirms it is a permanent unit with the word "temporary" describing that time period soil may be on site and not that the storage area was temporary by stating "Soil was stored properly on containment area....Soil disposal transfer records showed that the soils were removed in January, April, and May of 2000 to Tierra Environmental." If the 30 days referred to the time period the soil storage area was allowed to operate by having it operating in January 2000 through the inspection date in May 2000, the OCD would have stated the area was in violation. It did not make that statement and instead stated "Soil was stored properly.."

Attachment J dated December 28, 2000 is a permit modification approval that again lists the Temporary Soil Storage Area. If the OCD had intended the area only be allowed temporarily, since it was first approved in June 1999 by December 2000 the OCD would have required its closure. It did not require its closure thereby implying the soil storage was permitted permanently.

In Attachment K, Page 1, on February 26, 2001 Basin Disposal discusses the addition of two (2) temporary pits for the temporary storage of produced water due to the high volumes of water being received and mentions one (1) temporary pit used for cleaning the pond. The pits were situated on the north side of the pond, in the same area as the temporary pond we recently requested, as shown by Attachment K, Page 2.

On March 7, 2001 the OCD granted approval for these pits and required they be closed by May 7, 2001.

Attachment M dated May 17, 2001 shows these pits were emptied and removed.

The OCD inspected Basin Disposal on May 29, 2001 with the results documented in Attachment N dated January 29, 2002. The inspection report noted that "The temporary soil storage area had contaminated soil spilled outside of the lined and bermed area." And quoted the permit which states "Stored soil must be kept three (3) feet from the base of the berm to ensure that the



contaminated soils are located above the lined area.” By the OCD noting an operational violation of the temporary soil storage area in May 2001, with the area being constructed in 1999, the OCD acknowledges the permanent nature of the soil storage area.

Attachment O dated February 12, 2002 documents the corrections of the deficiencies noted in Attachment N.

The OCD inspected Basin Disposal on March 5, 2002 with the results documented in Attachment P dated April 3, 2002. Page 1 states “Soil and sludge generated at Basin Disposal was managed well within the lined temporary soil storage area”. Page 3 shows a picture of the solidification process. The letter does state that the temporary pit to the north of the pond was  $\frac{3}{4}$  closed and it was required to be closed by June 1, 2002. This temporary pit is separate and distinct from the soil storage area since the pit is located to the north and the soil storage area located to the west.

On May 20, 2003 in Attachment Q, Basin Disposal proposed to clean the pond and utilize the soil stabilization/storage area. On May 27, 2003 in Attachment R, the OCD approved the use of the temporary soil storage area. Had the OCD intended for the soil storage area to be constructed on a temporary basis, it would not have again stated it concurred with its use four years after its construction. Again the OCD did not state a requirement for the closure of the temporary soil storage area.

Attachment S, Page 1 from Edwin Martin dated March 5, 2005, approved changes to Basin Disposal and continued to acknowledge the approved existence of the dirt storage area as evidenced by the site diagram, Attachment S, Page 2. Had the OCD intended for the dirt storage area to be temporary, it would have required its removal with the permit modification.

Attachment T, Page 1 from Edwin Martin dated June 5, 2005, approved changes to Basin Disposal and continued to acknowledge the approved existence of the dirt storage area as evidenced by the site diagram, Attachment T, Page 2. Had the OCD intended for the dirt storage area to be temporary, it would have required its removal with the permit modification.

Attachment U, Page 1 from Roger Anderson dated January 16, 2006, approved changes to Basin Disposal and continued to acknowledge the approved existence of the dirt storage area as evidenced by the site diagram, Attachment U, Page 2. Had the OCD intended for the dirt storage area to be temporary, it would have required its removal with the permit modification.

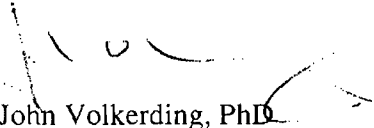
To summarize the findings from these documents:

1. The OCD permitted and approved on a permanent basis the “temporary soil storage area” in 1999.
2. The term “temporary” referred to the length of time soil could be stored and not the length of time the area could be operated.
3. As recent as 2006 the OCD acknowledged the continued existence of the soil storage area.
4. At no time did the OCD require closure of the soil storage area.
5. The continued operation of the soil storage area is not a violation of Basin’s permit.



I appreciate the opportunity to clarify Basin Disposal's understanding and the history of the soil storage area. If you need anything else from me, please feel free to contact me on my cell phone at 505-320-2840 or email at [bdcinc@diggii.net](mailto:bdcinc@diggii.net).

Sincerely,

  
John Volkerding, PhD  
General Manager

#### Attachments

<u>Attachment</u>	<u>Date</u>	<u>Document</u>
A	6/7/1999	Letter from Martyne Keiling to Basin concerning soil storage/treatment
B	6/16/1999	Letter from Basin to Martyne Keiling requesting soil storage area
C	6/16/1999	C-137 for soil storage area
D	6/16/1999	Cross Section of storage area
E	6/16/1999	Site Diagram with soil storage area
F (2 pages)	7/6/1999	Permit authorizing the Soil Storage Area
G	5/5/2000	Letter from Basin to Martyne Keiling requesting extension on sludge pits
H (2 Pages)	2/15/1999	Letter and Map for the sludge pits that are subject of Attach G
I (5 Pages)	8/7/2000	Letter from Martyne Keiling to Basin on inspection conducted 5/16/2000
J (2 Pages)	12/28/2000	Permit which continues to allow the Soil Storage Area
K (2 pages)	2/26/2001	Letter from Basin to Martyne requesting 2 pits for temporary water storage and 1 for cleaning the pond
L	3/7/2001	Letter from Martyne Keiling to Basin allowing three pits
M	5/17/2001	Letter from Basin to Martyne Keiling stating all three pits are closed
N (2 Pages)	1/29/2002	Letter from Martyne Keiling to Basin on inspection conducted 5/29//2001
O	2/12/2002	Letter showing closure of the deficiencies from inspection
P (3 pages)	4/3/2002	Letter from Martyne Keiling to Basin on inspection conducted 4/3//2002
Q	5/20/2003	Letter from Basin to Martyne Keiling concerning cleaning the pond and requesting to use the soil storage area
R (2 Pages)	5/27/2003	Letter from Martyne Keiling authorizing the use of the soil storage area
S (2 Pages)	3/2/2005	Letter from Ed Martin permitting oil tank, pump house and moving Tank #19 with site diagram attached showing soil storage area
T (2 Pages)	7/5/2005	Letter from Ed Martin permitting filtration changes with site diagram attached showing soil storage area
U (2 Pages)	1/16/2006	Letter from Roger Anderson permitting lay-down pit with site diagram attached showing soil storage area





NEW MEXICO ENERGY, MINERALS  
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505  
(505) 827-7151

June 7, 1999

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. P-326-936-542**

JUN 9 RECD

Mr. Jerry Sandel  
Basin Disposal, Inc.  
P.O. Box 100  
Aztec, New Mexico 87401

RE: Follow up to Telephone Conversation 6-4-99  
Basin Disposal, Inc. Permit NO. NM-01-0005  
Commercial Surface Waste Management Facility  
SE/4 NW/4 of Section 3, Township 29 North, Range 11 West, NMPM,  
San Juan County, New Mexico

Dear Mr. Sandel:

It has come to the attention of the New Mexico Oil Conservation Division (OCD) that waste sludge/oily water from the treatment of produced water is being mixed with soil and stock-piled for drying directly on the land surface at Basin Disposal, Inc. (Basin). In addition, the contaminated soil has contained free water. Permit No. NM-01-0005 does not include storage or treatment of wastes *ie., solid or liquid* directly on the ground surface nor does it include treatment of contaminated soils onsite *ie., landfarming or composting*.

Basin shall stop at once all storage or treatment of soils directly on the ground surface. Contaminated soils presently stockpiled at the facility will be removed by June 14, 1999 to an OCD-approved facility for remediation/disposal.

If Basin wishes to continue this waste handling process a permit modification must be applied for. Basin may request a minor permit modification for a temporary contaminated soils storage area that is lined and bermed or a major permit modification to treat contaminated soils on site through landfarming or composting. Enclosed is Form C-137 to be used for any permit modifications.

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

Sincerely,

Martyne J. Kieling  
Environmental Geologist

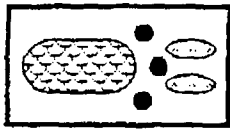
xc: Aztec District office

- Attachment A -



<u>Date</u>	<u>Document</u>	<u>Attachment</u>
6/7/1999	Letter from Martyne Keiling to Basin concerning soil storage/treatment	A
6/6/1999	Letter from Basin to Martyne Keiling requesting soil storage area	B
6/16/1999	C-137 for soil storage area	C
6/16/1999	Cross Section of storage area	D
6/16/1999	Site Diagram with soil storage area	E
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5/5/2000	Letter from Basin to Martyne Keiling requesting extension on sludge pits	G
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4/3/2002	Letter from Martyne Keiling to Basin on inspection conducted 4/3/2002	P (3 pages)
5/20/2003	Letter from Basin to Martyne Keiling concerning cleaning the pond and requesting to use the soil storage area	Q
5/27/2003	Letter from Martyne Keiling authorizing the use of the soil storage area	R (2 Pages)
3/2/2005	Letter from Ed Martin permitting oil tank, pump house and moving Tank #19 with site diagram attached showing soil storage area	S (2 Pages)
7/5/2005	Letter from Ed Martin permitting filtration changes with site diagram attached showing soil storage area	T (2 Pages)
1/16/2006	Letter from Roger Anderson permitting lay-down pit with site diagram attached showing soil storage area	U (2 Pages)





# **BASIN DISPOSAL, INC.**

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"

P. O. BOX 100 • AZTEC, NEW MEXICO 87410 • PHONE: (505) 334-3013

June 16, 1999

Martyne Kieling  
NMOCD  
2040 S. Pacheco  
Santa Fe, NM 87505

RE: Temporary lined storage area

Dear Martyne,

Basin Disposal would like to request a minor permit modification for a temporary contaminated soils storage area. We would like to propose that an area at the west end of our boundary have a 20 mil liner placed on the ground with 3 feet of soil placed on top, which will be packed down, this area will also have a 2 foot berm placed around it. The size of this area will be approximately 300 feet by 300 feet. As needed soil will be taken to a OCD approved facility. Thank you for your consideration of this manner.

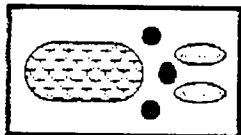
Sincerely,

Keith Johnson  
General Manager

NEW MEXICO OIL CONSERVATION DIVISION APPROVED DISPOSAL SITE  
LOCATED 3 MILES NORTH OF BLOOMFIELD, NM ON WEST SIDE OF NM HWY 44

- Attachment B -





# **BASIN DISPOSAL, INC.**

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"  
P.O. BOX 100 • AZTEC, NEW MEXICO 87410 • PHONE: (505) 334-3013

May 5, 2000

Oil Conservation Division  
Martyne Kieling  
2040 S. Pacheco  
Santa Fe, NM 87505

re: Temporary pits

Dear Martyne,

I would like to request an extension of our permit for the temporary sludge pits. We had hoped to have finished by now but we still have more to haul off. Could we extend it for another 180 days. We have no more liquids left, it has all been mixed with dirt. We are also using the west pit to hold some of this dirt until we can get it moved. If you have any questions please call me at 325-6336 or 320-2840. Thank you and we look forward to your visit on the 16th.

Sincerely,

Keith Johnson  
General Manager

- **Attachment G** -



District I - (505) 393-6161  
P.O. Box 1980  
Hobbs, NM 88241-1980  
District II - (505) 748-1283  
811 S. First  
Artesia, NM 88210  
District III - (505) 334-6178  
1000 Rio Brazos Road  
Aztec, NM 87410  
District IV - (505) 827-7131

New Mexico  
Energy Minerals and Natural Resources Department  
Oil Conservation Division  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505  
(505) 827-7131

Form C-13  
Originated 8/8/9  
Revised 6/25/9

Submit Original  
Plus 1 Copy  
to Santa Fe  
1 Copy to appropriate  
District Office

APPLICATION FOR WASTE MANAGEMENT FACILITY  
(Refer to the OCD Guidelines for assistance in completing the application)

☒ Commercial

☐ Centralized

1. Type: ☐ Evaporation ☒ Injection ☐ Other \_\_\_\_\_  
☐ Solids/Landfarm ☐ Treating Plant

2. Operator: Basin Disposal

Address: P.O. Box 100 Aztec NM or 6 CR5046 Bloomfield

Contact Person: Keith Johnson Phone: 632-8936

3. Location: \_\_\_\_\_/4 Section \_\_\_\_\_ Township \_\_\_\_\_ Range \_\_\_\_\_  
Submit large scale topographic map showing exact location

4. Is this a modification of an existing facility? ☒ Yes ☐ No

5. Attach the name and address of the landowner of the facility site and landowners of record within one mile of the site.

6. Attach description of the facility with a diagram indicating location of fences, pits, dikes, and tanks on the facility.

7. Attach designs 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, security systems, and landfarm facilities.

8. Attach a contingency plan for reporting and clean-up for spills or releases.

9. Attach a routine inspection and maintenance plan to ensure permit compliance.

10. Attach a closure plan.

11. Attach geological/hydrological evidence demonstrating that disposal of oil field wastes will not adversely impact groundwater. Depth to and quality of ground water must be included.

12. Attach proof that the notice requirements of OCD Rule 711 have been met.

13. Attach a contingency plan in the event of a release of H<sub>2</sub>S.

14. Attach such other information as necessary to demonstrate compliance with any other OCD rules, regulations and orders.

15. CERTIFICATION

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

Name: Keith Johnson

Title: General Manager

Signature: [Signature]

Date: 6-17-99





**Basin Disposal, Inc.**

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"

P. O. BOX 100 • AZTEC, NEW MEXICO 87410 • PHONE: (505) 334-3013

February, 15, 1999

Martyne Kieling  
Oil Conservation Division  
2040 S. Pacheco  
Santa Fe, NM 87505

RE: Cleaning Basin's Pond

Dear Martyne,

We would like to request a portion of the land north of us to be included in our permit so that we can use it on a temporary basis, see exhibit A, we would fence this area and use it to help facilitate the cleaning of the pond. What we would like to propose is that we build two temporary pits approximately 150' x 300' x 4' each. We would use at least a 20 ml liner. The pond would be pumped down to about 2' and the remaining water would then be pumped over to pit #1. As new trucks come in their water would be pumped to pit #1 and then back to the injection pump. When the sludge is exposed we would bring in large pumps and pump all the sludge to pit #2. We will totally clean the pond so that a repair crew can come in and inspect the liner and make any necessary repairs. Once that is completed then the water in pit #1 will then be pumped back to the main pond and that liner will be immediately disposed of. We anticipate that this part of the process will take from 10 to 14 days. Pit #2 will probable take most of the summer to finish drying but should be dry enough to remove before the summer is over. We would like to begin putting this together by the middle of April to the 1st of May. Please call me if you need any further detail or have any suggestions.

Sincerely,

Keith W. Johnson  
General Manager

cc: Denny Foust

*Attachment H, Page 1*





AUG 08 2000

# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON  
Governor  
Jennifer A. Salisbury  
Cabinet Secretary

Lori Wrotenbery  
Director  
Oil Conservation Division

August 7, 2000

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. 7099-3220-0000-5051-982**

Mr. Jerry Sandel  
Basin Disposal, Inc.  
P.O. Box 100  
Aztec, New Mexico 87401

*response on back*

**RE: Surface Waste Management Facility Inspection Report: Permit NM-01-0005**  
**Basin Disposal, Inc.**  
**Commercial Surface Waste Management Facility**  
**SE/4 NW/4 of Section 3, Township 29 North, Range 11 West, NMPM,**  
**San Juan County, New Mexico**

Dear Mr. Sandel:

The New Mexico Oil Conservation Division (OCD) inspected the Basin Disposal, Inc. (Basin) commercial surface waste management facility at the above location on May 16, 2000.

The OCD inspection and file review of Basin indicates that Basin 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. (Basin 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. Basin must respond to the permit deficiencies Notice of Violation by September 7, 2000.)

A review of Basin's financial assurance finds that Basin's \$140,000 Letter of Credit No. 2216 is current and active.

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

*make sure Denny gets  
Cenoco modification for tank*

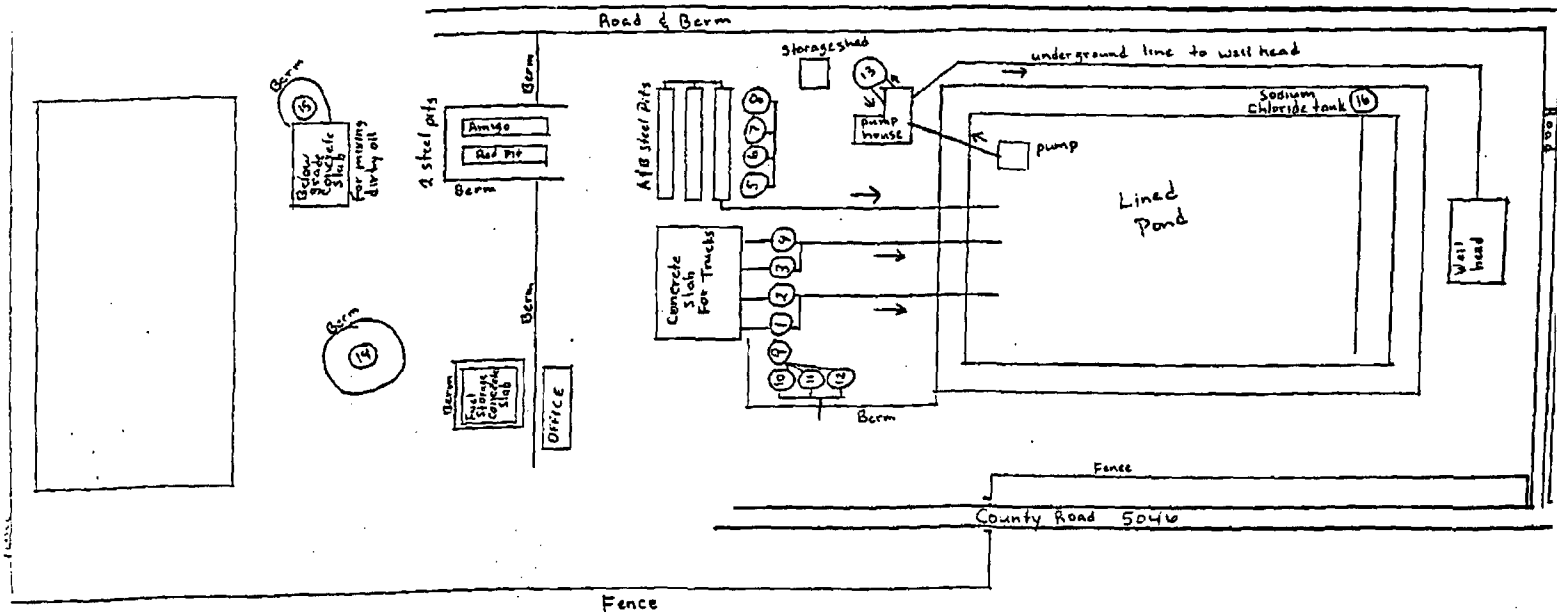
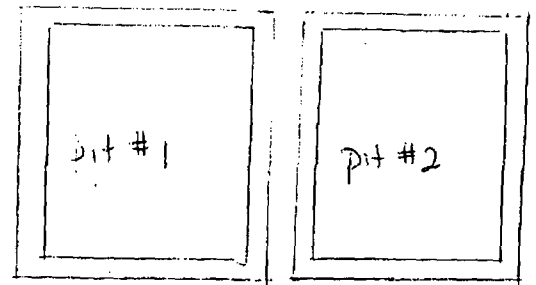
Sincerely,

*Martyne J. Kieling*  
Martyne J. Kieling  
Environmental Geologist

Attachments  
xc: Aztec OCD Office



Approximately 10 acres



Attachment H, Page 2



ATTACHMENT 1  
INSPECTION REPORT  
PERMIT NM-01-0005  
BASIN DISPOAL, INC.

SE/4 NW/4 of Section 3, Township 29 North, Range 11 West, NMPM,  
San Juan County, New Mexico  
(August 7, 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.**

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

**Berms are in good condition.**

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

**The facility was tidy there was no trash or debris present (see photos 1, 2, 3, 4, 5, 6, 7, and 8).**

4. 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 facility are bermed. The tanks surrounding the evaporation pond and solidification pit are bermed to direct spills toward the evaporation pond or into the solidification pit (see photo 1, 5 and 8).**

5. 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.

**Truck unloading sump was empty.**

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

*Attachment I, Page 2*



The operator performs and records facility inspections twice daily. No leaks or spills were observed during this inspection.

7. Evaporation Pond Inspection and Maintenance: The pond must be inspected on a daily 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 was running, the pumps were working two feet off the bottom of the pond and no overspray was observed.

Some oil and/or floating coal dust was observed. Material was being skimmed (see photo 4). Booms across the pond were keeping oil from spreading across the pond and to minimize the skimming work.

8. 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 visible.

9. 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.

Pond was drained and sludge was removed in 1999.

10. Leak Detection System Inspection: The leak detection system must be inspected daily 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 daily and that the monitor well has been pumped dry monthly. Water within the leak detection system rises to no more than 2.5 feet and appears to be condensate from moisture trapped within the layers from a past leak.

Get in ASHP \*  
According to Permit NM-01-0005 an annual report of these test must be sent to the Santa Fe office for annual review by May 17<sup>th</sup> of each year. The report has not been received.

11. 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.

No Drums were present.



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.

N/A

12. 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.

**Saddle tanks were had containment and were labeled.**

13. 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 numbered and were clearly labeled to identify their contents and hazards.**

14. 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 steel pits were not netted, screened or covered. Basin must screen, net, or cover these exposed pits.**

15. 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.**

16. 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-01-0005 requires these inspections be recorded. Facility inspections have been performed twice daily and records have been kept.**

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

**The current permit NM-01-0005 requires H<sub>2</sub>S screening and record keeping to be performed twice per day at 4 points around the pond. Facility H<sub>2</sub>S screening has been performed and records maintained. Currently chemical treatment occurs four times a day with approximately 25 gallons of chemical.**

18. 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.**

19. Temporary Evaporation Pits: Two temporary pits may be constructed and used only for temporary storage of produced water from the produced water treatment and evaporation system. Sludge within the pits must be removed and disposed of at an OCD-approved facility will be dried and removed and the pits will be removed and sludge.

**Pit #1 is closed (see photo 3). Pit #2 is full of solidified sludge and is being held prior to disposal (see photos 6 and 7). Pit # 2 was originally permitted for 180 days. Basin in a letter dated May 5, 2000, has requested that the time be extended for an additional 180 days to allow for the removal of the solids. The OCD is currently processing this permit modification.**

20. Temporary Soil Storage Area: Soil storage may not exceed 30 days. Soil volume, destination and date of removal must be recorded and maintained for OCD review.

**Soil was stored properly on containment area and there was no ponding of liquids present. Soil disposal transfer records showed that soils were removed in January, April and May of 2000 to Tierra Environmental Inc. Soil storage may not exceed 30 days.**

21. New Construction: Any design changes to the produced water receiving, treatment and evaporation area must be submitted to the OCD Santa Fe office for approval.

**An additional tank has been installed: Tank 18, a 500 bbls tank, is used to heat oil. Basin notified OCD of these changes in a letter dated November 2, 1999. This was a volume change to the current system not a process change.**



**ATTACHMENT TO OCD 711 PERMIT MODIFICATION APPROVAL**  
**PERMIT NM-01-0005**  
**BASIN DISPOSAL, INC.**  
**WASTE MANAGEMENT FACILITY**  
**SE/4 NW/4 of Section 3, Township 29 North, Range 11 West, NMPM,**  
**San Juan County, New Mexico**  
**(December 28, 2000)**

**TEMPORARY SOIL STORAGE AREA CONSTRUCTION**

1. Construction must commence on the temporary soil storage area within one (1) year of the permit modification approval date.
2. The temporary soil storage area will be approximately 300 x 300 feet. The ground surface must be excavated to approximately one (1) foot below grade and must be cleared of all rocks, sticks and other hard objects that could puncture the plastic liner.
3. A 20 mm plastic liner must be placed in the bottom of the excavated area with the edges of the liner turned up at least one (1) foot to contain any vertical or horizontal contaminant migration.
4. Compacted soil not less than three (3) feet deep must be placed on top of the liner to protect it from heavy equipment.
5. A berm must be constructed surrounding the storage area. The berm will be two (2) feet above the interior grade and four (4) feet above the exterior grade.
6. A ramped entrance for equipment must be constructed and maintained to preserve the berm height and integrity.

**TEMPORARY SOIL STORAGE AREA OPERATION**

1. The temporary soil storage area is authorized to accept only contaminated soils generated at Basin Disposal, Inc.
2. Contaminated soils created during the solidification of tank bottoms must be stored in the temporary soil storage area prior to transfer to an OCD-permitted landfarm facility.
3. Stored soil must be kept three (3) feet from the base of the berm to ensure that the contaminated soils are located above the lined area.
4. Soil storage may not exceed 30 days. Soil volume, destination and date of removal must be recorded and maintained for OCD review.

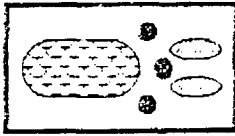


5. The soil storage area must be inspected daily. Results of inspections must be recorded and maintained for OCD review.
6. There will be no ponding or pooling or run-off of free liquids including precipitation within the temporary storage area. Any ponding of precipitation must be removed within 24 hours of discovery.
7. Upon any odor generation the facility must notify the OCD Santa Fe and Aztec offices and begin an investigation to determine the appropriate remedial actions. Actions may include the immediate removal of contaminated soils to an OCD-approved landfarm. A report regarding the odor generation and remedial actions taken must be filed with the OCD Santa Fe and Aztec offices.
8. The berm height and integrity along with the liner integrity must be maintained.
9. The temporary contaminated soil storage area must be inspected daily. Results of the daily visual inspection and any maintenance and upkeep must be recorded and maintained for OCD review.

#### **FACILITY AND EVAPORATION POND OPERATION**

1. The facility must be fenced and have a sign at the 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.





# BASIN DISPOSAL, INC.

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"  
P.O. BOX 100 • AZTEC, NEW MEXICO 87410 • PHONE (505) 334-3013

February 26, 2001

Martyne Kieling  
1220 S. St. Francis Dr.  
Santa Fe, New Mexico 87504

RE: Modification Request for temporary pits

Dear Martyne,

Due to the amount of produced water that has been coming into our facility we need to ask for approval of the use of three temporary pits. Over the past 3 years we have seen a steady increase of water that has been coming to our facility; the past 3 months the increase has been quite dramatic and our pond has risen to nearly its freeboard limit. We had anticipated the loss of some business due to customer changes and some companies drilling injection wells but that loss never materialized and instead even more came in. A week or so ago we began to put together a plan to increase again the amount that we are injecting by putting two pumps in tandem. But we started too late and we have received more water than we can deal with. Key Energy has agreed to allow some of our loads to come to their facility but they are limited to only a few loads a day and we are already going over what they originally wanted to accept. So any day that could stop. We already have the one temporary pit that is to be used to clean the pond this summer and we would like to construct two more that would only hold water and once we get our pumps all online we will begin to immediately pump that water to our main pond for injection and as soon as it is dry we will pull out those liners and dispose of them and break down the berms. We anticipate the use of these pits to last no longer than 30 days. Altogether we would like to have 60 days to get them empty and cleaned up. I am also including a drawing of our facility and where these pits will be placed. The dilemma that we face is that there is no other place that we can send this water. So we need to see if we can get this approved as soon as possible. Thank you for your consideration of this matter. If you have any questions please call me at 320-2840 or 325-6336.

Sincerely,

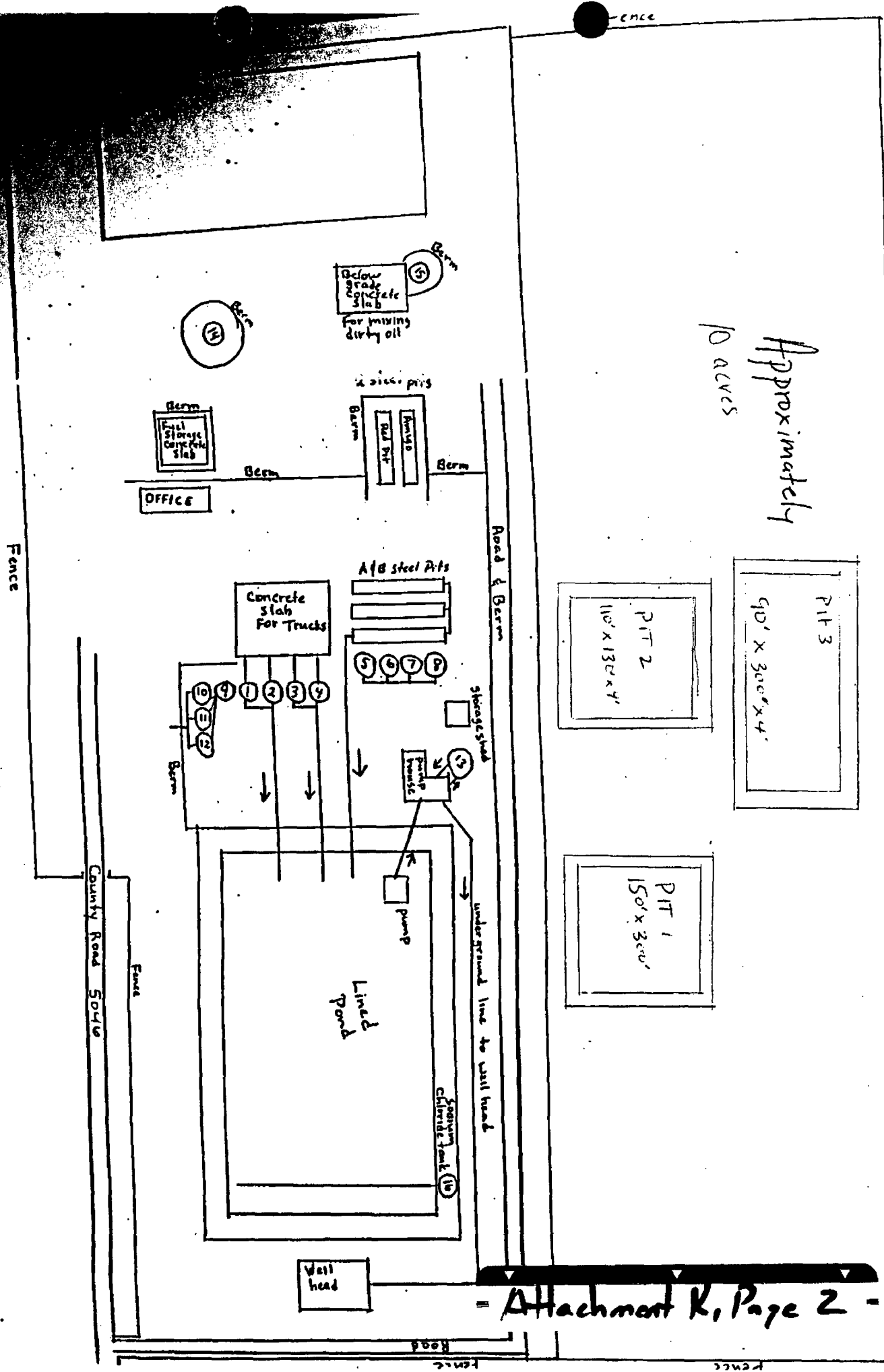
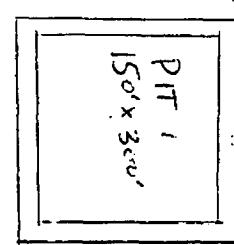
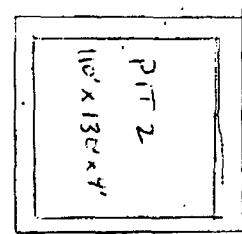
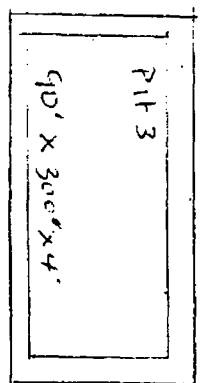
Keith Johnson  
General Manager

- Attachment K, Page 1 -



# Fence Exhibit A

Approximately  
10 acres







## NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON  
Governor  
Jennifer A. Salisbury  
Cabinet Secretary

March 7, 2001

Lori Wrotenberg  
Director  
Oil Conservation Division

**CERTIFIED MAIL**

**RETURN RECEIPT NO. 7099-3220-0000-5051-2139**

Mr. Jerry Sandel  
Basin Disposal, Inc.  
P.O. Box 100  
Aztec, New Mexico 87401

**RE: Temporary Produced Water Storage  
Basin Disposal, Inc.  
SE/4 NW/4 of Section 3, Township 29 North, Range 11 West, NMPM,  
San Juan County, New Mexico**

Dear Mr. Sandel:

The application to construct and use two temporary, single-lined, produced water storage pits at Basin Disposal, Inc.'s (Basin) commercial surface waste management facility is hereby approved. The request for temporary storage consists of the application Form C-137 dated February 26, 2001.

**This approval is conditional upon the receipt and approval by the Director of an additional separate financial assurance in the amount of \$10,000, which may be canceled upon OCD-approved closure. Currently Basin has financial assurance in the amount of \$144,155.**

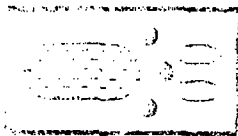
In addition, the temporary pits 2 and 3 are authorized to receive produced water only until April 7, 2001; those pits must be emptied, cleaned and closed by May 7, 2001. If similar authorization is requested in the future, please be advised that OCD may require a double-lined, leachate collection system and public notice and opportunity for hearing.

The construction, operation, monitoring and reporting shall be pursuant to Basin's permit dated December 28, 2000. Basin 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 OCD approval here in shall not relieve Basin Disposal, Inc. of liability should your operation result in actual pollution of surface water, ground water, or the environment. In addition, OCD approval shall not relieve Basin Disposal, Inc. of

- Attachment L -





# BASIN DISPOSAL, INC.

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"

P. O. BOX 100 • AZTEC, NEW MEXICO 87410 • PHONE: (505) 334-3013

May 17, 2001

Oil Conservation Division  
Martyne Kieling  
PO Box 6429  
Santa Fe, NM 87504-6429

Dear Martyne,

This letter is to inform you that the two temporary pits have been emptied and removed and that the other pit that will be used for cleaning the pond has also been emptied. With your approval we would like to cancel the bond that we have for closing those pits. There are two other items I wanted to let you know about; first we are moving one of our oil tanks out of the system, it is tank #12. It will most likely be used in our KCL plant. Second, we are looking at a different system to treat our pond instead of the sodium chlorite. There is a company called MIOX Systems and they use rock salt to produce a low grade chlorine. It is generally used in city water systems but this would allow us to constantly treat the water that is going into the pond, and it doesn't evaporate as quickly and it doesn't have as much chlorine odor as the sodium chlorite, plus it will cost a lot less each year. If you have any questions please call me.

Sincerely,

Keith Johnson  
General Manager

- Attachment M -

NEW MEXICO OIL CONSERVATION DIVISION APPROVED DISPOSAL SITE  
LOCATED 3 MILES NORTH OF BLOOMFIELD, NM ON WEST SIDE OF NM HWY 44





# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

FEB 4 2002

GARY E. JOHNSON  
Governor  
Carol Leach  
Acting Cabinet Secretary

Lori Wrotenbery  
Director  
Oil Conservation Division

January 29, 2002

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. 7099-3220-0000-5051-2894**

Mr. Jerry Sandel  
Basin Disposal, Inc.  
P.O. Box 100  
Aztec, New Mexico 87401

**RE: Surface Waste Management Facility Inspection Report: Permit NM-01-0005**  
**Basin Disposal, Inc.**  
**Commercial Surface Waste Management Facility**  
**SE/4 NW/4 of Section 3, Township 29 North, Range 11 West, NMPM,**  
**San Juan County, New Mexico**

Dear Mr. Sandel:

The New Mexico Oil Conservation Division (OCD) inspected Basin Disposal, Inc. (Basin) on May 29, 2001. The OCD found the facility to be well maintained and have good security. A records check was performed and all documentation was in order. A review of Basin's financial assurance finds that Basin's \$140,000 Letter of Credit No. 2216 is current and active. An additional \$10,000 surety bond for the temporary produced water storage pits is also on file.

At the time of the inspection The OCD found the temporary produced water storage pits 2 and 3 to be closed in accordance with the OCD approval letter dated March 7 2001 and Basin's letter dated May 17, 2001. The OCD hereby approves the closure of the temporary produced water storage pits 2 and 3.

In addition the OCD identified the following permit deficiencies during the inspection that require attention:

1. Berming around the oil storage tanks and along the southern edge of the produced water tanks was missing, eroded or had been removed and not replaced.

**Permit NM-01-0005, Page 2, Facility and Evaporation Pond Operation,**

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.



**Permit NM-01-0005, Page 3, Facility and Evaporation Pond Operation,**

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.
2. The sump on the north side of the pump house is new from the last inspection performed in May 2000 and did not have a secondary liner or leak detection. This sump should be checked often and emptied, especially after rainstorms because it is located below the eve of the pump house and can potentially catch large volumes of rainwater from the roof of the building.

**Permit NM-01-0005, Page 3, Facility and Evaporation Pond Operation,**

7. Below-grade sumps must be cleaned and visually inspected annually. Results must be recorded and maintained for OCD review. If sump integrity has failed the OCD must be notified within 48 hours of discovery and the sump contents and contaminated soil must be removed and disposed of at an OCD-approved facility. Soil remediation must follow OCD surface impoundment closure guidelines. Basin Disposal 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 a leak detection monitoring system. Monitoring of the secondary containment 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.
3. The temporary soil storage area had contaminated soil spilled outside of the lined and bermed area.


**Permit NM-01-0005, Page 1, Temporary Soil Storage Area Operation,**

3. Stored soil must be kept three (3) feet from the base of the berm to ensure that the contaminated soils are located above the lined area.

Basin 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. Basin must respond to the permit deficiencies by March 4, 2002.

If you have any questions please contact me at (505) 476-3488

Sincerely,

  
Martyne J. Kieling  
Environmental Geologist

xc with Attachments: Aztec OCD Office

- Attachment N, Page 2 -



February 12 , 2002

Martyne Kieling  
NMOCD  
PO Box 6429  
Santa Fe, NM 87504

RE: Surface Waste Management Facility Inspection Report: Permit NM-01-0005

Dear Martyne,

Thank you for the follow up letter regarding our permit deficiencies during your last inspection. Shortly after your visit we had these areas all taken care of. Item # 1 - we have replaced the berming which had been removed while we were moving out one of those tanks. Item #2 - we have placed a liner underneath the sump and leak detection has also been installed. Item #3 -Any soil that had spilled over the berm has been cleaned up and the piles were moved at least 3 feet away from the berm. We look forward to your next visit this coming summer. If there is any other information that you need please call me.

Sincerely,

Keith Johnson  
General Manager

cc: Denny Foust

- Attachment 0 -





# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON

Governor

Betty Rivera

Cabinet Secretary

Lori Wrotenbery

Director

Oil Conservation Division

April 3, 2002

**CERTIFIED MAIL**

**RETURN RECEIPT NO. 7001-1940-0004-7923-4030**

Mr. Jerry Sandel  
Basin Disposal, Inc.  
P.O. Box 100  
Aztec, New Mexico 87401



**RE: Surface Waste Management Facility Inspection Report: Permit NM-01-0005  
Basin Disposal, Inc.  
Commercial Surface Waste Management Facility  
SE/4 NW/4 of Section 3, Township 29 North, Range 11 West, NMPM,  
San Juan County, New Mexico**

Dear Mr. Sandel:

The New Mexico Oil Conservation Division (OCD) inspected Basin Disposal, Inc. (Basin) on March 5, 2002. A records check was performed and all documentation was in order. A review of Basin's financial assurance finds that Basin's \$140,000 Letter of Credit No. 2216 is current and active.

Basin has implemented new measures of checking waste delivered to prevent oil, excess sludge, and H<sub>2</sub>S from entering their disposal system (Photo 1). The Evaporation pond was oil free and well below freeboard (Photos 4 and 7). Most of the process tanks at the facility have been raised and placed on concrete containment with poly liners and concrete beams (Photo 3). The OCD found that the closure of the lined temporary pit north of the facility is three-quarters closed (Photo 6). Please note that according to Permit NM-01-0005 this pit must be closed by June 1, 2002. Soil and sludge generated at Basin Disposal was managed well within the lined temporary soil storage area. Sludge was being solidified during the inspection and there was no free liquid present (Photo 8). Over all the OCD found the facility to be well maintained and have good security.

The OCD identified the following permit deficiencies during the inspection that require attention:

1. There was no berm or impermeable pad or containment around a small poly storage tank said to hold bleach/Clorox and the tank was not visibly labeled.



**Basin must place the chemical tank on an impermeable containment pad with berm and label the tank as to contents and hazards.**

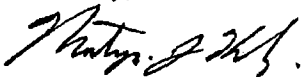
Permit NM-01-0005, Facility and Evaporation Pond Operation, Item 5: All existing above-ground tanks located at the facility and containing materials other than fresh water must be bermed to contain one and one-third the volume of the largest tank or all interconnected tanks, whichever is greater. All above-ground tanks must be labeled as to contents and hazards.

Permit NM-01-0005, Facility and Evaporation Pond Operation, Item 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.

Basin 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. Basin must respond to the permit deficiencies by April 19, 2002.

If you have any questions please contact me at (505) 476-3488

Sincerely,



Martyne J. Kieling  
Environmental Geologist

xc with Attachments: Aztec OCD Office

- Attachment P, Page 2 -



Basin Disposal, Inc. Permit NM-02-0005  
March 5, 2002

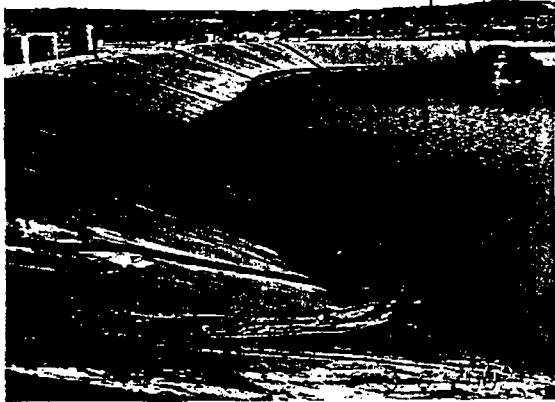
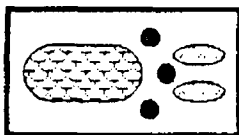


Photo 7: Evaporation pond is oil free and well below freeboard. Sprayers were actively circulating water. View of east end of pond.



Photo 8: Mixer is solidifying sludge from the closure of the temporary pit. Material is then shipped to Tierra Environmental for landfarming.





# BASIN DISPOSAL, INC.

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"

P. O. BOX 100 • AZTEC, NEW MEXICO 87410 • PHONE: (505) 334-3013

May 20, 2003

Martyne Kieling  
Oil Conservation Division  
1220 S. Saint Francis Drive  
Santa Fe, NM 87505

re: Pond cleaning

Dear Ms. Kieling,

It is that time again to clean our pond and we would like to propose a different method than what we have used in the past. It will allow us to clean out the sludge quickly and efficiently plus not leave any on site when we are done. What we are proposing would be to use the soil stabilization area that is already lined and bermed. We would place an additional bermed area within the larger berm that would allow Riley Industrial to dump the sludge into. We would use at least two excavators to mix the sludge with dirt and to load the dump trucks. We will then be sending them to the landfarm(s). The dump trucks will be bringing back previously remediated soil that we can use to mix with the sludge. Each day we will ensure that no liquids will be left overnight. While the pond is being cleaned we will be using 39 frac tanks to take the place of the pond, we will also berm them so that any overflows will be run into the pond. We would like to begin cleaning the pond on June 2, 2003 with a completion time of June 30. Once we are done we will begin releasing the frac tanks. If you have any questions please call me at (505) 320-2840.

Sincerely,

Keith Johnson  
General Manager

- Attachment Q -





# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

May 27, 2003

**Lori Wrotenbery**

Director

Oil Conservation Division

Mr. Jerry Sandel  
Basin Disposal, Inc.  
P.O. Box 100  
Aztec, New Mexico 87401

RECEIVED

MAY 30 2003

**RE: Pond Cleaning**  
**Basin Disposal, Inc.**  
**SE/4 NW/4 of Section 3, Township 29 North, Range 11 West, NMPM,**  
**San Juan County, New Mexico**

Dear Mr. Sandel:

The New Mexico Oil Conservation Division (OCD) has received Basin Disposal, Inc. (Basin) proposal dated May 20, 2003 regarding pond cleaning. The proposal describes how Basin will use a portion of the lined and bermed soil storage area to mix and solidify sludge from the pond area and the installation of 39 frac tanks beside the pond to take the place of the pond fluid capacity during the cleaning procedures. This proposal has been reviewed and is hereby approved with the following conditions.

1. Sludge from Basin's pond will be mixed and stabilized within the temporary soil storage area.
2. Liquids and sludge with free liquids will not be stored in the temporary soil storage containment area overnight.
3. Stabilized sludge will be removed to an OCD permitted landfarm.
4. Clean soil or OCD approved remediated soil may be backhauled from an OCD permitted landfarm to Basin for stabilization purposes.
5. Temporary tanks will be used for temporary storage while the pond is cleaned.
6. The tanks will be placed next to the evaporation pond and will be bermed so that any accidental release or overflow will run into the pond.
7. The evaporation pond clean out project will be completed and the facility restored to normal operations by June 30, 2003.
8. Basin will submit a final report that documents the volume of sludge removed from the evaporation pond and the volume of stabilized material that was hauled to the landfarm(s) for remediation by July 31, 2003.

To better understand the process changes that have been incorporated over the last few years at Basin, the OCD would appreciate any comparison information with regards to the previous pond cleanouts. This information may include the length of time since the



Mr. Jerry Sandel  
May 27, 2003  
Page 2

last pond clean out, how long the new V bottom tanks have been in service and how Basin would compare this cleanout process to the last two cleanouts with regards to time, sludge volume and the variation in cost associated with the methods that have been used.

Construction, operation, monitoring and reporting shall be pursuant to Basin's permit dated December 28, 2000. Basin 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 OCD approval here in shall not relieve Basin Disposal, Inc. of liability should your operation result in actual pollution of surface water, ground water, or the environment. In addition, OCD approval shall not relieve Basin Disposal, Inc. of responsibility for compliance with all applicable federal, state or local laws and/or regulations.

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

Sincerely,



Roger C. Anderson  
Environmental Bureau Chief

RCA/mjk

xc: Aztec OCD Office

- Attachment R, Page 2 -





# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

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

Director

Oil Conservation Division

March 2, 2005

Mr. Keith Johnson  
Basin Disposal, Inc.  
P.O. Box 100  
Aztec, NM 87410

Dear Mr. Johnson:

The New Mexico Oil Conservation Division (NMOCD) has received your C-137 requesting a modification to NMOCD permit number NM-1-0005 for the surface waste management facility operated by Basin Disposal, Inc. (Basin).

This modification contains three parts:

1. The addition of one (1) 500-bbl tank to the oil sales tanks
2. The addition of a new pump house
3. The movement of tank #19 from the southwest corner of the pond and placement of tank #19 next to tank #15

These modifications are shown on the diagrams attached to your modification request.

This request is hereby approved with the understanding that Basin will perform the modifications according to the narrative and the diagrams attached to Form C-137.

NMOCD approval of this request does not relieve Basin of responsibility should its operations cause contamination of surface water, groundwater, or the environment. Nor does it relieve Basin of its responsibility to comply with any other federal, state or local laws and regulations.

NEW MEXICO OIL CONSERVATION DIVISION

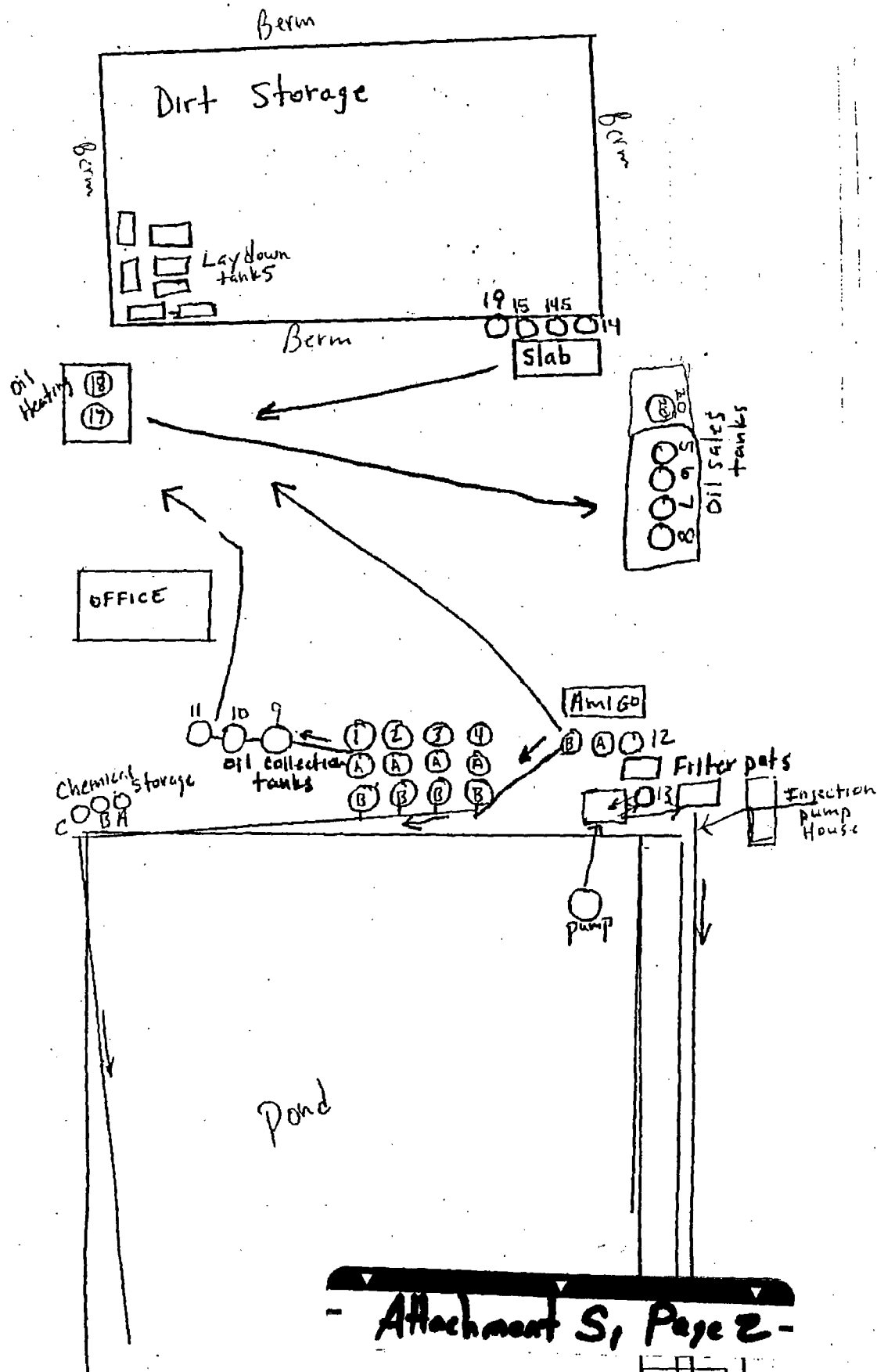
Edwin E. Martin  
Environmental Engineer

Cc: Denny Foust, NMOCD,

- Attachment 5, Page 1 -



# Facility Diagram Exhibit E







# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

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

Director

Oil Conservation Division

July 5, 2005

JUL - 7 2005

Mr. Keith Johnson  
Basin Disposal, Inc.  
P.O. Box 100  
Aztec, NM 87410

Re: Form C-137, Dated June 22, 2005 Requesting a  
Minor Modification to the Waste Management Facility  
Permitted by the New Mexico Oil Conservation Division  
Permit Number NM-1-005

Dear Mr. Johnson:

The New Mexico Oil Conservation Division (NMOCD) has received and reviewed the application described above. In summary, this application is a modification to the form C-137 dated February 18, 2005 as follows:

1. To improve the filter system, Basin Disposal, Inc. (Basin) wishes to move tanks #15 and #20 and tie them in with tank #13.
2. Basin also wishes to change tank #20 to tank #16.

This minor modification is hereby approved with the understanding that Basin will perform the modifications according to the narrative and the diagrams attached to the above-referenced application.

NMOCD approval does not relieve Basin of responsibility should its operations cause contamination of surface water, groundwater, or the environment. Nor does it relieve Basin of its responsibility to comply with the rules and regulations of any other federal, state, or local governmental entity.

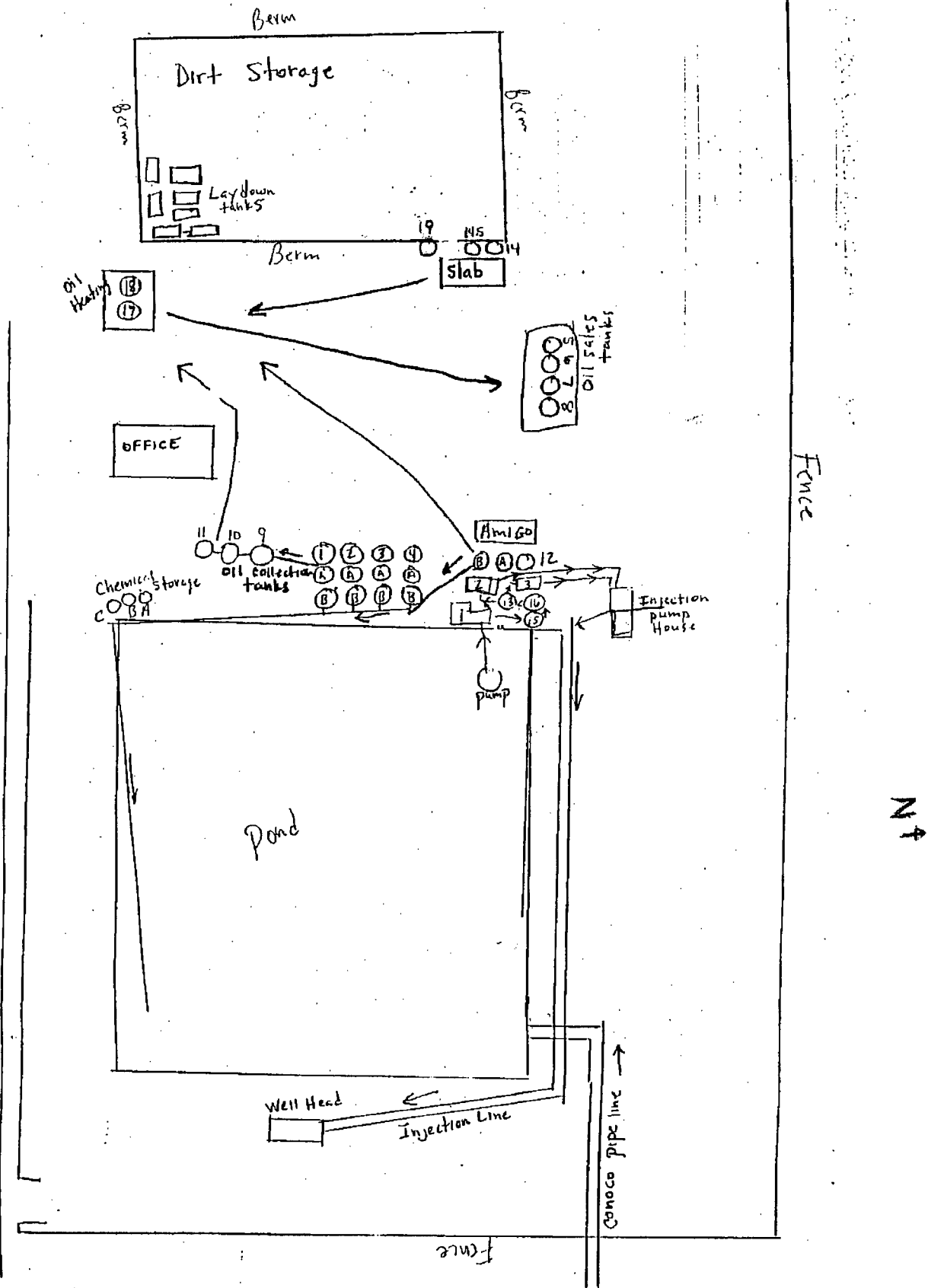
NEW MEXICO OIL CONSERVATION DIVISION

Edwin E. Martin  
Environmental Bureau

Cc: NMOCD, Aztec

- Attachment T, Page 1 -









# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

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

Director

Oil Conservation Division

January 19, 2006

RECEIVED  
JAN 25 2006

Mr. Keith Johnson  
Basin Disposal, Inc.  
P.O. Box 100  
Aztec, NM 87410

RE: Form C-137 for Basin Disposal, Inc. to Modify  
Their Commercial Surface Waste Management Facility Permit  
Number NM-1-005 for the Facility Located in the  
SE/4 NW/4 of Section 3, Township 29 North, Range 11 West  
NMPM, San Juan County, New Mexico

Dear Mr. Johnson:

The New Mexico Oil Conservation Division (NMOCD) has received and reviewed the application referenced above. This minor modification request is hereby approved under the following conditions and understandings:

1. Basin will modify the lay-down pit as shown in the attachment to the application
2. Basin intends to install a burner tube in one end of the pit to recover more oil and break out more water from the sludge.
3. Basin will operate such modification under all of the terms and conditions placed on the facility by permit number NM-1-005.

NMOCD approval does not relieve Basin Disposal, Inc. (Basin) of liability should its operations at this facility prove to have been harmful to fresh water, public health or the environment. Nor does it relieve Basin of its responsibility to comply with the rules and regulations of any other governmental entity.

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

NEW MEXICO OIL CONSERVATION DIVISION

Roger C. Anderson  
Environmental Bureau Chief

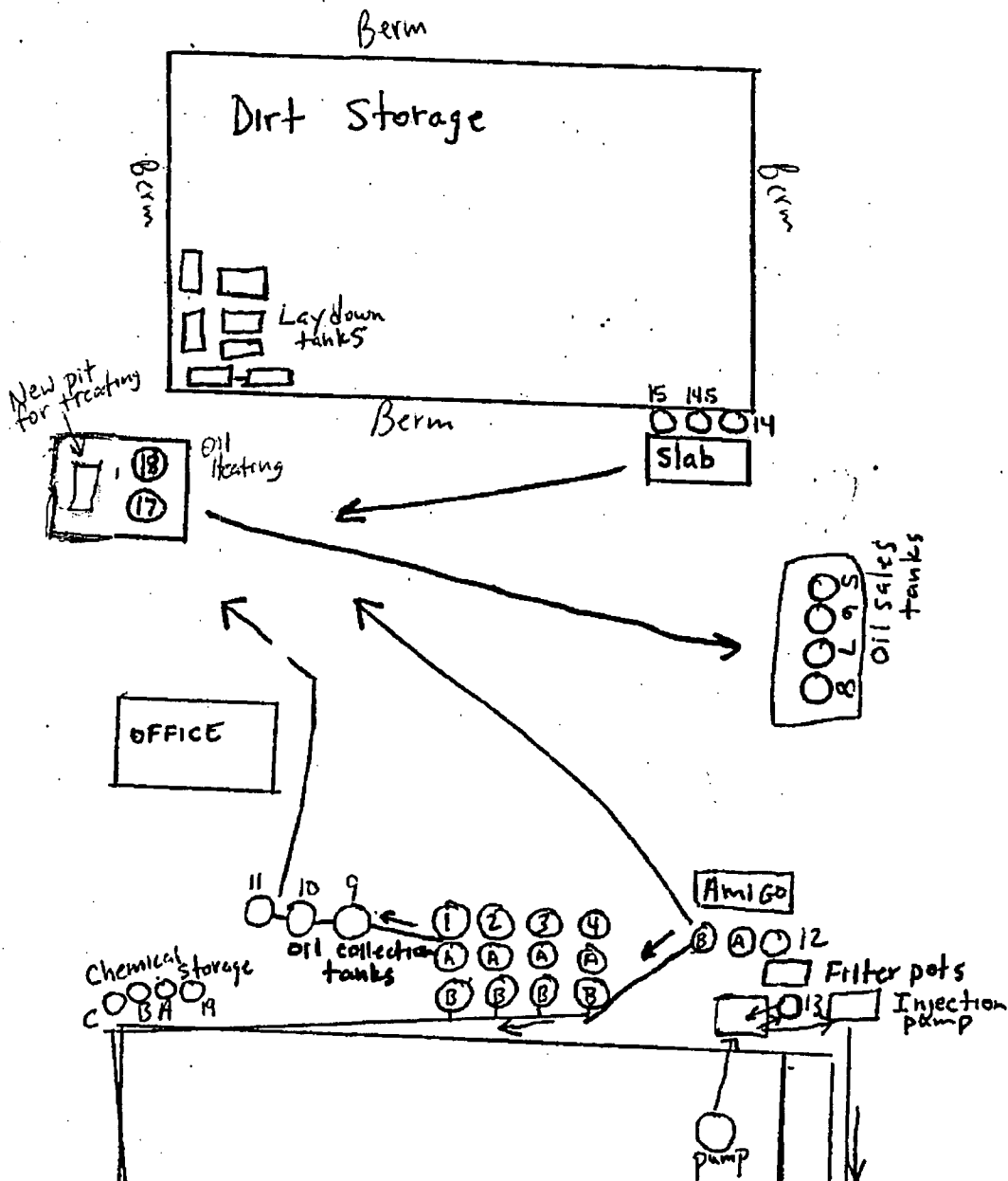
Copy: NMOCD, Aztec

**Attachment U, Page 1**



Fence

# Facility Diagram Exhibit E



Fence



**Jones, Brad A., EMNRD**

---

**From:** John Volkerding [bdinc@digii.net]  
**Sent:** Friday, November 10, 2006 11:00 AM  
**To:** 'John Volkerding'; Price, Wayne, EMNRD; Jones, Brad A., EMNRD; Powell, Brandon, EMNRD  
**Subject:** RE: Follow Up  
**Attachments:** Volumes.pdf

Wayne, Brad, Brandon;

Hope you had a good holiday. I definitely miss that about working for the State.

Attached is a spreadsheet showing volumes by company for June – October 2006. On average we are able to inject about 12,500 bbls per day. The spreadsheet shows where breakeven in terms of water. In order to maintain our pond level without adding tanks or another pond, all the companies below the line would have to be cut off from bringing in water, i.e. they would need to shut in their wells. If the companies above the line shut in some of theirs then the line could be extended down a bit. I have spoken with XTO, Conoco, Williams, Energen, BP, and Enervest about them needing to curtail the amount of water they bring in.

I had not gotten a response back on OCD's thoughts on the dimensions for a permanent pond nor on the idea of utilizing the Army Corp of Engineer system for cleaning the pond. I will do official applications for those and just wanted to incorporate any ideas you might have.

The frac tanks next to the pond storing produced water are being emptied as we speak, about 1-2 tanks a day so they can be removed. An idea I had brainstorming and I am not sure how the OCD would feel about it – we have the 150 x 300 foot 20 mil liner for the temporary pond that we won't be using for that purpose, we could build a bermed area with that liner underneath to set tanks on a temporary basis.

We have replaced the liner under the diesel fuel tank and tanks 14 and 14.5. I will send pictures. We had not and still have not replaced the liner under the tanks 6,7,8 for oil storage because we cannot lift the tanks to do that until they are empty and are still having difficulty getting Petrosource or Giant to pick it up. That liner was purchased in August but because of the inability to get oil picked up we had not been able to replace that liner.

I just wanted to keep you informed of our efforts, thanks! John

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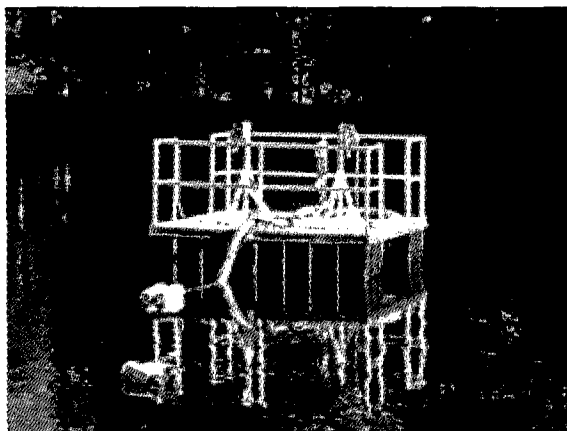
**From:** John Volkerding [mailto:bdinc@digii.net]  
**Sent:** Tuesday, November 07, 2006 10:38 AM  
**To:** 'John Volkerding'; 'Price, Wayne, EMNRD'; 'Jones, Brad A., EMNRD'; 'Powell, Brandon, EMNRD'  
**Subject:** RE: Follow Up

An Addendum

Pondering options for cleaning the pond without a temporary pit I have researched the following:

## SLUDGE SLED SYSTEM



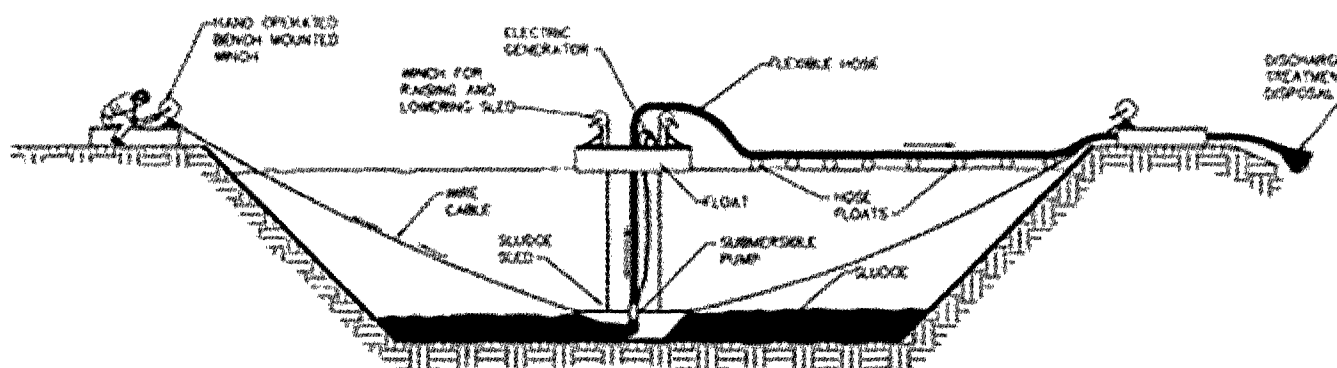


FLOAT

## SLUDGE SLED

### It includes:

- a 3 ft wide by 8ft long by 2 ft high welded aluminum sludge sled,
- a 2.5 hp, 230 v, 1 phase, 3 in. discharge pump capable of 150 gpm at 20 ft. of head,
- an 8 ft by 8ft float with two lifting winches and side rails,
- two bench mounted shore winches, capable of handling 400 ft. of cable each,



**Sediment Control Systems (SCS)** makes the "Sludge Sled", a patented (#6,854,709) small dredge that removes sediment from all kinds of liquid impoundments including lagoons, ponds, and settling basins. This technology was developed by Dr. C. James Martel, PE and Mr. Dennis J. Lambert who have over **40 years** of combined experience in sludge removal and waste treatment. **SCS Inc.** Sludge Sleds have been used to remove sediment from sewage lagoons, a paper mill waste lagoon, a woolen mill lagoon and a trout pond. It has been used at multiple Army Corp of Engineer locations.

To me this looks like a proven technology for cleaning a pond without having to worry about the water level. Like



the proposed auger system the discharge would go to a water truck for disposal at the Industrial Ecosystems landfill.

I wanted to let you know we do have a plan for pond cleaning and see what you thought before submitting the application. Thanks, John

---

**From:** John Volkerding [mailto:bdinc@digii.net]  
**Sent:** Monday, November 06, 2006 3:53 PM  
**To:** 'Price, Wayne, EMNRD'; 'Jones, Brad A., EMNRD'; 'Powell, Brandon, EMNRD'  
**Subject:** Follow Up

Hi All;

I wanted to tell you how much I appreciate you coming by and inspecting the facility. It was definitely a little painful, but it was very informative and helpful.

I wanted to follow up on the temporary pond with some questions. Based on the issues surrounding it, my mgt has asked me to scrap that entirely and focus on permitting a permanent, double lined pond with leak detection. I will be hiring an engineering firm to help design that - way out of my league. I have some questions to help me.

1. Ideally, the application would be for a pond of similar dimensions to the current one which is on the order of 150' by 300' and 12' deep. Is there a problem that is foreseeable in requesting a pond along those dimensions. I want to make sure we apply for something that can actually be authorized.
2. If you foresee problems with that size, do you have suggested dimensions that would work?
3. If going deeper than the temporary pond is currently (i.e. 150 by 300 by 5 feet) is a possibility I wondered about the soil testing (SW-846 Method 8260, WQCC metals, General Chemistry). Should that be done at the deeper depth instead to establish background?

I imagine as we continue on the permitting for a permanent pond, I may have some questions that are stupid, let me apologize in advance for those.

Thank you again for your help, take care, John



John Volkerding, PhD  
General Manager  
Basin Disposal Inc  
PO Box 100, 906 S Main  
Aztec, NM 87410  
505-334-3013 (Office), 505-632-8936 (Plant)  
505-320-2840 (Cell), 505-334-8729 (Fax)



## Break Even

(Based on June through October 2006)

CUSTOMER/SOLD TO	BBLS	BBLS/DAY	SUM BBL/DAY	
XTO ENERGY	609,614	3,984	3,984	
BP AMERICA	205,785	1,345	5,329	
ENERGEN RESOURCES	158,405	1,035	6,365	
WILLIAMS E&P	150,034	981	7,345	
CONOCOPHILLIPS	124,050	811	8,156	
ENTERPRISE	103,160	674	8,830	
CHEVRON/TEXACO	80,102	524	9,354	
BURLINGTON RESOURCES	71,509	467	9,821	
DEVON ENERGY PRODUCTION	61,655	403	10,224	
SAMSON RESOURCES	49,230	322	10,546	
MCELVAIN OIL & GAS	46,790	306	10,852	
YATES PETROLEUM	45,450	297	11,149	
CONOCOPHILLIPS SAN JUAN GP	29,695	194	11,343	
CAULKINS OIL COMPANY	20,720	135	11,478	
TEPPCO	17,430	114	11,592	
CDX GAS	16,335	107	11,699	
DOMINION EXPLORATION	16,120	105	11,804	
SG INTERESTS	14,720	96	11,901	
MANANA OIL & GAS	14,720	96	11,997	
SCHALK DEVELOPMENT	14,668	96	12,093	
RED CEDAR GATHERING	12,330	81	12,173	
MOUNTAIN STATES PETRO	11,575	76	12,249	
SAN JUAN RESOURCES	11,091	72	12,321	
KOCH EXPLORATION	10,390	68	12,389	
RED WILLOW PRODUCTION	10,255	67	12,456	
SYNERGY	9,720	64	12,520	
PEOPLES ENERGY	8,855	58	12,578	Break Even Volume
INDUSTRIAL ECOSYSTEMS	8,171	53	12,631	12,500 bbl/day
M & G DRILLING	7,910	52	12,683	
PABLO OPER	7,900	52	12,735	
GOSNEY & SONS	7,860	52	12,786	
HANOVER	7,535	49	12,835	
PATINA	7,210	47	12,882	
MERRION OIL	7,210	47	12,930	
MARALEX RESOURCES	6,880	45	12,975	
LANCE OIL	6,630	43	13,018	
HOLCOMB OIL & GAS	6,400	42	13,060	
ENERVEST	5,950	39	13,099	
COLEMAN OIL AND GAS	5,810	38	13,137	
PHOENIX HYDROCARBON	5,785	38	13,174	
DJ SIMMONS	5,740	38	13,212	
THOMPSON ENG.	5,695	37	13,249	
ELM RIDGE RESOURCES	5,680	37	13,286	
RODDY PRODUCTION	5,455	36	13,322	
HORACE MCKAY	4,680	31	13,353	
RC RESOURCES	4,525	30	13,382	
QUESTAR EXPLORATION AND PRODUCTION	3,840	25	13,407	
GREAT WESTERN DRILLING	3,742	24	13,432	
RESOURCE DEVELOPMENT	3,280	21	13,453	
GILBREATH (NORMAN GILBREATH)	3,200	21	13,474	
POGO PRODUCTION	2,950	19	13,493	
HUNNINGTON ENERGY	2,800	18	13,512	
VERNON FAULCONER	2,625	17	13,529	
EL PAMCO	2,545	17	13,545	
MURCHINSON	2,435	16	13,561	
NORMAN GILBREATH	2,240	15	13,576	
BENSON MONTIN GREER (BMG)	2,215	14	13,590	
BASIN MINERALS	1,880	12	13,603	
FLINT ENG	1,420	9	13,612	
CHAPARRAL OIL	1,415	9	13,621	
KUKUI OPERATING	1,400	9	13,630	
NOBLE ENERGY	1,360	9	13,639	
BLACK HILLS	1,200	8	13,647	
WALSH ENG.	1,080	7	13,654	
M & M PRODUCTION	1,040	7	13,661	
HALLADOR	1,030	7	13,668	
RED WOLF PRODUCTION	960	6	13,674	
FOUR STAR OIL & GAS	880	6	13,680	
PRO NEW MEXICO ENERGY	780	5	13,685	
ROCANVILLE	720	5	13,690	
DUGAN PRODUCTION	620	4	13,694	
SAN JUAN SERVICES	550	4	13,697	
WESTERN MINERALS	480	3	13,700	
WB HAMILTON	480	3	13,703	
LIVELY EXPLORATION	383	3	13,706	
V & R PROD.	380	2	13,708	
A PLUS WELL SERVICE	320	2	13,711	
BLUE DOLPHIN	320	2	13,713	
ARAPAHOE DRILLING	240	2	13,714	
ENERDYNE	240	2	13,716	
SIERRA CHEMICAL	230	2	13,717	
PINNACLE	230	2	13,719	
ARGUIJO	210	1	13,720	
CAROLYN CLARK WIGGINS	160	1	13,721	
WIGGINS OIL	160	1	13,722	
WESTERN LARGO CORP.	160	1	13,723	
FULLER PETROLEUM	160	1	13,724	
ROCKY MOUNTAIN STATES	160	1	13,725	



CUSTOMER/SOLD TO	BBLs	BBLs/DAY	SUM BBL/DAY
PURE RESOURCES	160	1	13,726
BRECK OPERATING	160	1	13,727
RUNNING HORSE	150	1	13,728
JL EVERETT	120	1	13,729
RM ENERGY	120	1	13,730
CLAUDE SMITH	80	1	13,731
ELLEDGE OIL & GAS	80	1	13,731
ELK SAN JUAN	80	1	13,732
STAR AQUITION	80	1	13,732
EBBERTS	80	1	13,733
BC & D	80	1	13,733
HO-AD	80	1	13,734
TRIPLE S	80	1	13,734
TURNER PRODUCTION	80	1	13,735
JC FISHER	80	1	13,735
KIMBALL OIL	80	1	13,736
FOUR CORNERS	80	1	13,736
NERDLHC	80	1	13,737
WESTERN EXPLORATION	80	1	13,737
PARKO	80	1	13,738
EDWIN SMITH	80	1	13,738
PARAWON OPERATING	70	0	13,739
FOUR STATES	60	0	13,739
<b>Grand Total</b>	<b>2,102,104</b>	<b>13,739</b>	



**Jones, Brad A., EMNRD**

---

**From:** John Volkerding [bdinc@digii.net]  
**Sent:** Thursday, November 02, 2006 9:22 AM  
**To:** Jones, Brad A., EMNRD  
**Subject:** Question

Brad;

I am off to a meeting and have a tough question for you.

To do the requested 42 tanks is being considered a major mod. To do one tank would likely be considered a minor mod. Here is the hard question – can OCD provide guidance on how many tanks we could get approved as a minor mod?

I ask mainly because I am just trying to explore all options and imagine I will be asked this in my meeting.

Thanks, John

11/2/06

Spoke with John, ~~Volkerding~~ stated that the consideration for the status of a modification is based on the activities at the site. There is no set limit based on the number of tanks. ~~END~~

11/2/2006



District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-137  
Revised June 10, 2003

Submit Original Plus 1  
Copy to Santa Fe  
1 Copy Appropriate  
District Office

## APPLICATION FOR WASTE MANAGEMENT FACILITY

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

☒ Commercial

☐ Centralized

1. Type: ☐ Evaporation ☒ Injection ☐ Other  
☐ Solids/Landfarm ☐ Treating Plant

2. Operator: BASIN DISPOSAL, INC.

Address: PO BOX 100, AZTEC, NM 87410 (MAILING)  
100 MONTANA AVE., BLOOMFIELD, NM (PHYSICAL)

Contact Person: JOHN VOLKERDING Phone: 505-334-3013

3. Location: SE /4 NW /4 Section 3 Township 29N Range 11W

Submit large scale topographic map showing exact location

4. Is this a modification of an existing facility? ☒ Yes ☐ No
5. Attach the name and address of the landowner of the facility site and landowners of record within one mile of the site.
6. Attach description of the facility with a diagram indicating location of fences, pits, dikes, and tanks on the facility.
7. Attach designs 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, security systems, and landfarm facilities.
8. Attach a contingency plan for reporting and clean-up for spills or releases.
9. Attach a routine inspection and maintenance plan to ensure permit compliance.
10. Attach a closure plan.
11. Attach geological/hydrological evidence demonstrating that disposal of oil field wastes will not adversely impact groundwater. Depth to and quality of ground water must be included.
12. Attach proof that the notice requirements of OCD Rule 711 have been met.
13. Attach a contingency plan in the event of a release of H<sub>2</sub>S.
14. Attach such other information as necessary to demonstrate compliance with any other OCD rules, regulations and orders.

### 15. CERTIFICATION

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

Name: JOHN VOLKERDING Title: GENERAL MANAGER

Signature: [Signature] Date: 11/1/2006

E-mail Address: BDINC@DIGIL.NET

*W/1/06 - Basin Disposal has decided to postpone the submittal in order to assess other options. JVS*



# BASIN DISPOSAL, INC.

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"

P.O. BOX 100 - AZTEC, NEW MEXICO 87410 - PHONE: (505) 334-3013

1 November, 2006

Brad Jones  
EMNRD/OCD  
Environmental Bureau  
1220 South St. Francis Dr.,  
Santa Fe, New Mexico 87505

RE: Minor Permit Modification  
Temporary Frac Tanks  
Produced Water Storage

Dear Mr. Jones:

In speaking with many of the major production companies, to include Williams, XTO, BP, Conoco, and Energen, each is needing to immediately reduce the level of the water in their reserve pits in the field in order to comply with the BLM and Forest Service requirements to close their pits for the winter. This has, and will continue to, cause a tremendous increase in the amount of water coming to Basin Disposal.

In researching the capacity needs for the area, it appears we may need as many as forty-two (42) 400 barrel (BBL) frac tanks. It is our belief that having the water stored at one continuously monitored location at the disposal location, as opposed to being stored at numerous unmanned pits in the field provides for increased environmental protection by increasing the level stewardship for that water and minimizing the transportation of that water.

We request authorization for a minor permit modification to set forty-two (42) 400 BBL tanks for the temporary storage of produced water. Twelve (12) of these tanks will be the tanks discussed in my October 18, 2006 letter to the OCD. These 12 tanks will be moved such that all 42 tanks are located in one single bermed area. The tanks will not be connected in any way.

Per permit requirement: *"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."* The tanks will be located in the lined and bermed soil storage area to the west of the oil treating tanks. The dimensions of this lined and bermed area are 300 feet x 300 feet x 2 feet (180,000 ft<sup>2</sup>, 32,000 bbls). The area has a 20 mil liner which is covered with 3 feet of soil for protection of the liner.

*bermed area will be constructed if a*

The 42 temporary frac tanks will be inspected daily for tank, piping and berm integrity.

Basin Disposal, Inc. shall ensure all proposed tanks are identified by a sign posted not more than 50 feet from the tanks which is made of durable construction and with lettering large enough to be legible under normal conditions at a distance of 50 feet with: the name of the operator, and the location of the tank(s) by unit letter, section, township, and range.



The tanks will be on site for a period of six months. After which time, the tanks will be cleaned and removed. Samples from the soil above the liner will be taken and analyzed for:

Aromatic Volatiles by GC/PID (SW8021B)

Diesel Range Organics/Gasoline Range Organics (SW8015B)

If necessary, the soil will be remediated based on the analytical results.

Basin Disposal, Inc. will submit an additional separate financial assurance in the amount of \$15,000 (\$3,000 for environmental sampling, \$12,000 for soil disposal) within 30 days of the Division's approval of this request. Upon OCD-approved closure of the temporary frac tank storage, Basin will request that this separate financial assurance be released. Basin Disposal, Inc. currently has financial assurance in the amount of \$144,155 (OCD Ltr Dated 2/20/06).

If you have any questions, please feel free to phone me at 334-3013 or 320-2840 or via email at [bdinc@digii.net](mailto:bdinc@digii.net).

Sincerely;

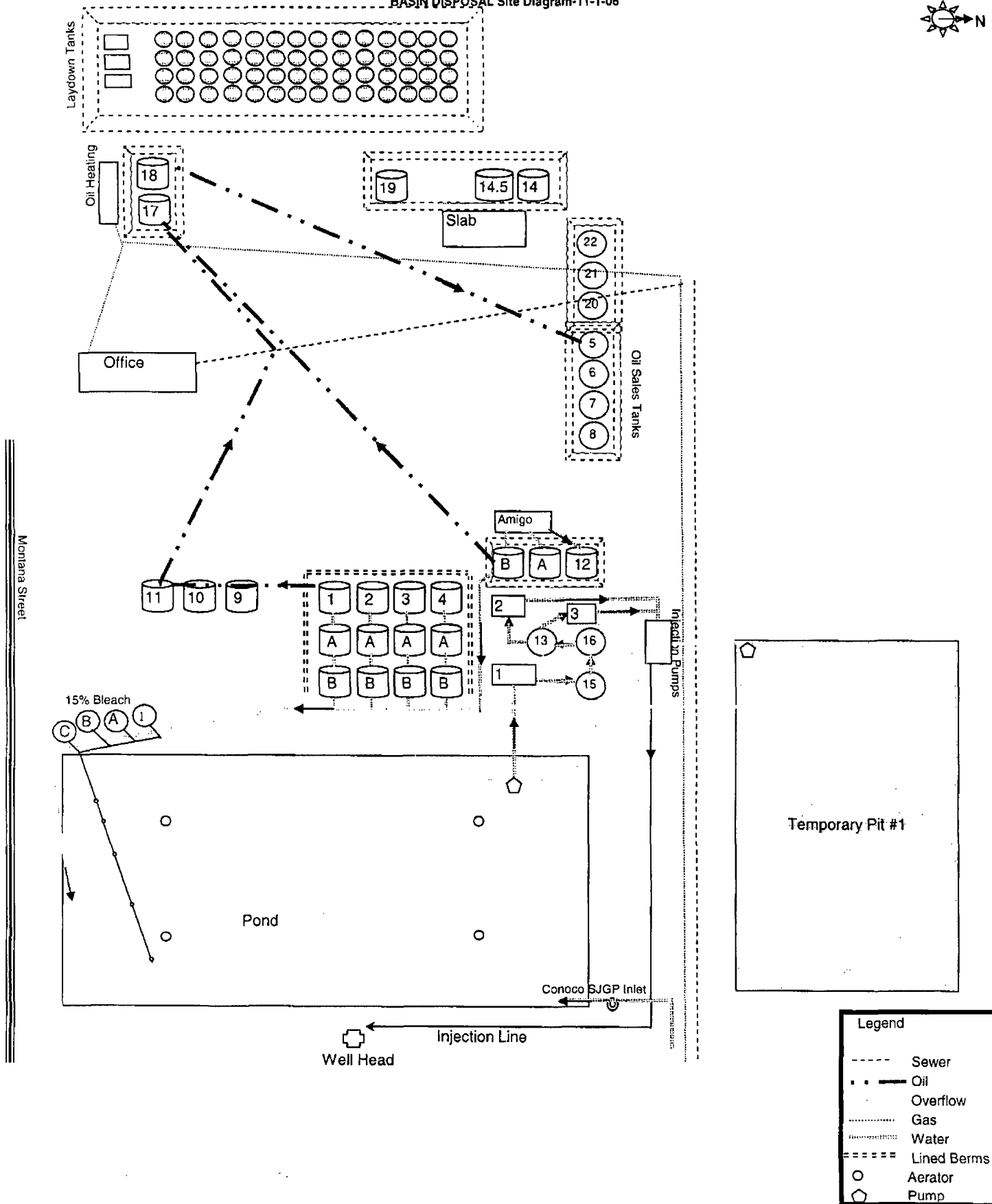
John Volkerding  
General Manager

Encl: Site Diagram  
OCD Ltr 2/20/06  
C-137

Cc: Aztec OCD Office



# BASIN DISPOSAL Site Diagram-11-1-06







# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

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

Director

Oil Conservation Division

February 20, 2006

Ms. Cathy Messenger  
Citizens Bank  
P.O. Box 4140  
Farmington, NM 87499-4140

RE: \$144,155 Financial Assurance for Commercial Surface  
Waste Management Facility Permit NM-01-0005  
Basin Disposal, Inc., Principal  
Citizens Bank of Farmington, Financial Institution  
Irrevocable Letter of Credit #2254

Dear Ms. Messenger:

The New Mexico Oil Conservation Division (NMOCD) hereby approves the above-referenced irrevocable letter of credit.

The NMOCD also approves the release of irrevocable letter of credit #2223, the original of which is enclosed.

Sincerely,

David K. Brooks  
Assistant General Counsel

Copy: NMOCD, Aztec  
Mr. Jerry Sandel, Basin Disposal, Inc.

RECEIVED  
MAR 03 2006



**Jones, Brad A., EMNRD**

---

**From:** John Volkerding [bdinc@digii.net]  
**Sent:** Tuesday, October 24, 2006 9:16 AM  
**To:** Jones, Brad A., EMNRD  
**Cc:** Price, Wayne, EMNRD; Powell, Brandon, EMNRD; Perrin, Charlie, EMNRD; Sanchez, Daniel J., EMNRD  
**Subject:** RE: Permit Violation

Brad;

I understand and we will work to ensure we stay in compliance in the future.

I wanted to give you an update.

The temporary frac tanks used for oil storage have all been emptied. They will be removed this week depending on when we can schedule trucking companies to pick them up.

I have contacted BP, Conoco, Burlington, Devon, Dugan, Elm Ridge, Energen, Key, Lance, Maralex, Patina, and XTO (companies that GO-TECH listed as having SWD wells) to reiterate that as much water that can go to their own wells should, so as to reduce the volume of water coming to Basin Disposal, Inc. We have restricted all water coming to Basin Disposal, Inc. from SG Interests and Yates Petroleum, as well as all Colorado-based companies. HydroPure, a local hauler working for Colorado companies, has stated that they will be forced to lay off drivers due to the cutbacks and we explained that we were sorry and at this point we did not have a choice.

So far, only Burlington has stated that their McGrath Well can pick up some additional volume (approx 1200 BBLS/day). Key and Dugan have stated that they cannot as they have too much water as well. The others are still pondering the issue. I will let you know what the remaining operators say they can do.

Thank you, John

---

**From:** Jones, Brad A., EMNRD [mailto:brad.a.jones@state.nm.us]  
**Sent:** Thursday, October 19, 2006 2:36 PM  
**To:** John Volkerding  
**Cc:** Price, Wayne, EMNRD; Powell, Brandon, EMNRD; Perrin, Charlie, EMNRD; Sanchez, Daniel J., EMNRD  
**Subject:** Permit Violation

John,

The New Mexico Oil Conservation Division (NMOCD) hereby acknowledges that Basin Disposal will be selling oil stored in the five temporary frac tanks to Petro Source in order to resolve the permit violation of improper storage and containment of recovered oil, in conflict with the conditions specified in your permit (# NM-1-005). This action must not occur again unless granted or approved by NMOCD.

As for the temporary storage of produced water, the NMOCD requires that the Basin Disposal satisfy the storage and containment requirements, as specified in Permit # NM-1-005, within 20 days of receipt of this email.

Please be aware that future violations of this nature may be reason for NMOCD to issue a notice of violation including civil penalties.

10/26/2006



Please be advised that this acknowledgement does not relieve the owner/operator of responsibility should operations pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve the owner/operator of responsibility for compliance with any NMOCD, federal, state, or local laws and/or regulations.

**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:** John Volkerding [mailto:bdinc@digii.net]  
**Sent:** Wednesday, October 18, 2006 2:35 PM  
**To:** Jones, Brad A., EMNRD  
**Subject:** Petro Source

Brad;

We would like to start selling our oil to Petro Source, in addition to Giant, since Giant has been unable to pick up our oil in a timely manner. That has caused us some problems in terms of oil storage. Having another vendor to use would allow us greater flexibility to minimize our oil on site.

Attached is a letter that outlines that request. I will put the hard copy in the mail.

Please let me know if you need anything else, thanks, John

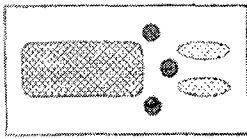


John Volkerding, PhD  
General Manager  
Basin Disposal Inc  
PO Box 100, 906 S Main  
Aztec, NM 87410  
505-334-3013 (Office), 505-632-8936 (Plant)  
505-320-2840 (Cell), 505-334-8729 (Fax)

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10/26/2006





# **● BASIN DISPOSAL, INC. ●**

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD  
P.O. BOX 100 - AZTEC, NEW MEXICO 87410 - PHONE: (505) 334-3013

18 October, 2006

Brad Jones  
EMNRD/OCD  
Environmental Bureau  
1220 South St. Francis Dr.,  
Santa Fe, New Mexico 87505

## **RECEIVED**

OCT 23 2006

RE: Temporary Frac Tanks  
Oil Storage

Oil Conservation Division  
1220 S. St. Francis Drive  
Santa Fe, NM 87505

Dear Mr. Jones;

As has been explained in our letter to request permission to sell our oil to Petro Source, over the past year, Basin Disposal, Inc. has had difficulty in having Giant Refining regularly pick up our oil.

We are entering the winter, which is our heavy water disposal and therefore heavy oil collection season.

Because of the delays experienced due to Giant coupled with the fact that oil continues to come to the facility on a daily basis, in an effort to remain in compliance with the permit requirement:

12. The pond may not contain any free oil.

We have been forced to add 5 temporary frac tanks to store the collected oil until: Giant picks up the oil, we are able to set the recently permitted 400 bbl tanks, and we receive permission to sell our oil to Petro Source.

The berm around the recently permitted storage tanks has had the concrete forms poured, dirt placed and the liner laid. We are waiting for a heavy construction crane to lift the tanks into position inside the berm so they can be used, this is scheduled for October 20, 2006.. The contents of three of the five temporary frac tanks can then be moved into the newly permitted tanks. Until we are able to have our oil picked up there is no place for the contents of the remaining two temporary frac tanks to go.

I have attached a diagram showing the temporary frac tanks for oil storage.

In reviewing the Rules, our current situation is similar to that described in:

*19.15.2.50 NMAC D.(1): Emergency actions. Permit not required. In an emergency an operator may construct a pit without a permit to contain fluids, solids, or wastes if an immediate danger to fresh water, public health, or the environment exists.*

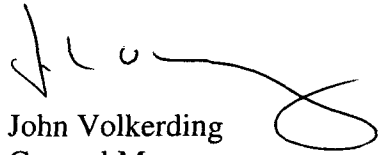
While we have not constructed a pit, we have installed temporary frac tanks to contain fluids to prevent an immediate danger from the release of oil into the environment. We will have the tanks removed within 24 hours of cessation of use.



I hope that the OCD concurs with this approach as I have been unable to devise an alternative.

If you have any questions, please feel free to phone me at 334-3013 or 320-2840 or via email at [bdinc@digii.net](mailto:bdinc@digii.net).

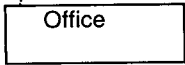
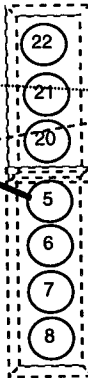
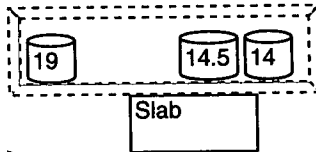
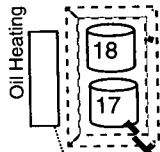
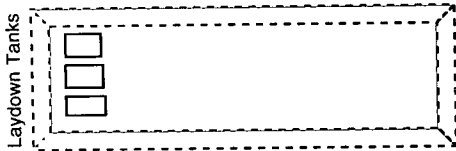
Sincerely;

A handwritten signature in black ink, appearing to read 'J. Volkerding', with a large, stylized loop at the end.

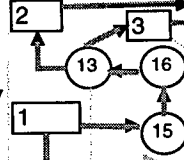
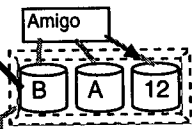
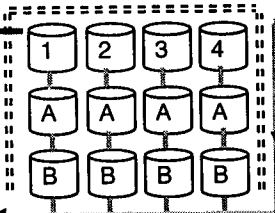
John Volkerding  
General Manager



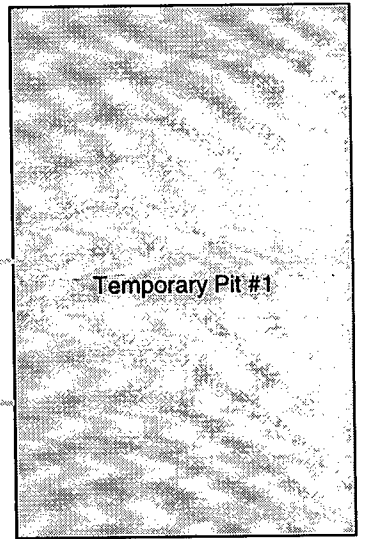
# BASIN DISPOSAL SITE DIAGRAM - AUGUST 2006



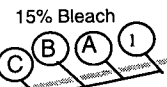
Temporary  
O.I.  
Tanks



Injection Pumps



Temporary Pit #1

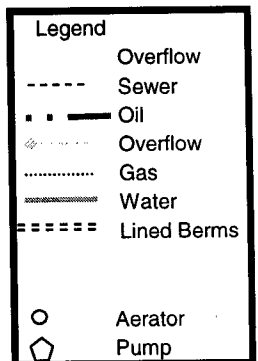


Pond

Conoco SJGP Inlet

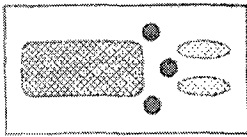
Well Head  
Injection Line

Temporary  
Water  
Tanks



Filter House 1: 20um filters  
Filter Houses 2 3: 5um filters





# **● BASIN DISPOSAL, INC. ●**

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD  
P.O. BOX 100 - AZTEC, NEW MEXICO 87410 - PHONE: (505) 334-3013

18 October, 2006

Brad Jones  
EMNRD/OCD  
Environmental Bureau  
1220 South St. Francis Dr.,  
Santa Fe, New Mexico 87505

RE: Temporary Frac Tanks  
Produced Water Storage

Dear Mr. Jones;

Over the past several months we have been restricting our receipt of flowback and reserve pit water in anticipation of the permit modification to allow the use of the auger to clean the pond.

Upon receipt of the permit, we tested the auger and it does pull sludge. However, the pond is at a depth of 10 feet and with the current level of water in the pond, the auger pulls too much water for disposal at IEI.

In evaluating alternatives, it appears that with the timing of the issuance of the permit being at the beginning of winter and with the production companies needing to close their pits and with our need to clean the pond and with the pond's current 10 ft level, we do not see a choice but to use the temporary pond alternative in the permit. We have scheduled Foutz and Bursum for the dirt work and have a liner meeting the permit specifications set to arrive on October 31, 2006.

Many of the major production companies, to include Williams, XTO, BP, Conoco, and Energen are needing to immediately reduce the level of the water in their pits in the field because of the recent wet weather causing the levels to potentially overflow their pits. Also, these companies need to comply with the BLM and Forest Service requirements to close their pits for the winter. This has caused a tremendous increase in the amount of water coming to Basin Disposal. For example, on October 17, 230 trucks unloaded at our facility compared to a "normal day" of 165 trucks.

Since our pond is at 10 feet our permitted maximum is 11.5 feet, we have set 12 temporary 400 bbl frac tanks on the north side of the pond to handle the water coming in from reserve pit locations that we have been holding off taking for months.

The bottom line is everyone in the San Juan Basin is trying to empty their pits for the winter and there is just too much water. The tanks are on the north side of the pond and bermed on the north, east, and west side so if they were to leak the water will flow into the pond.



In reviewing the Rules, our current situation is similar to that described in:

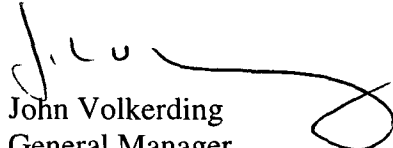
19.15.2.50 NMAC D.(1): *Emergency actions. Permit not required. In an emergency an operator may construct a pit without a permit to contain fluids, solids, or wastes if an immediate danger to fresh water, public health, or the environment exists.*

While we have not constructed a pit, we have installed temporary frac tanks to contain fluids to prevent an immediate danger from the release of produced water into the environment either on location or at our facility. We will have the tanks removed within 24 hours of cessation of use.

I hope that the OCD concurs with this approach as I have been unable to devise an alternative other than to stop accepting water which would effectively shutdown the oil and gas production in the San Juan Basin as there are not other disposal alternatives for the volume of water generated.

If you have any questions, please feel free to phone me at 334-3013 or 320-2840 or via email at [bdinc@digii.net](mailto:bdinc@digii.net).

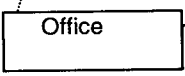
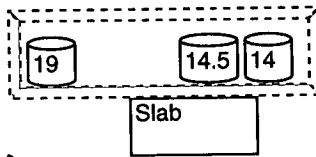
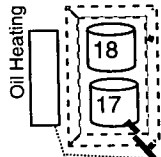
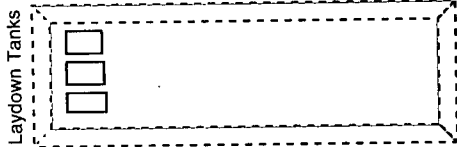
Sincerely;

  
John Volkerding  
General Manager

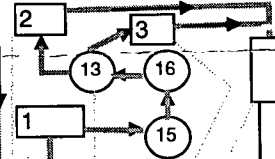
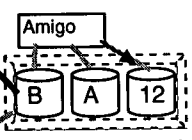
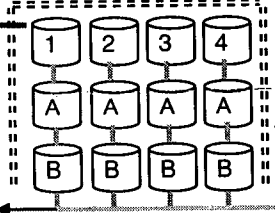
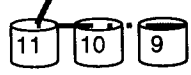


# BASIN DISPOSAL SITE DIAGRAM - AUGUST 2006

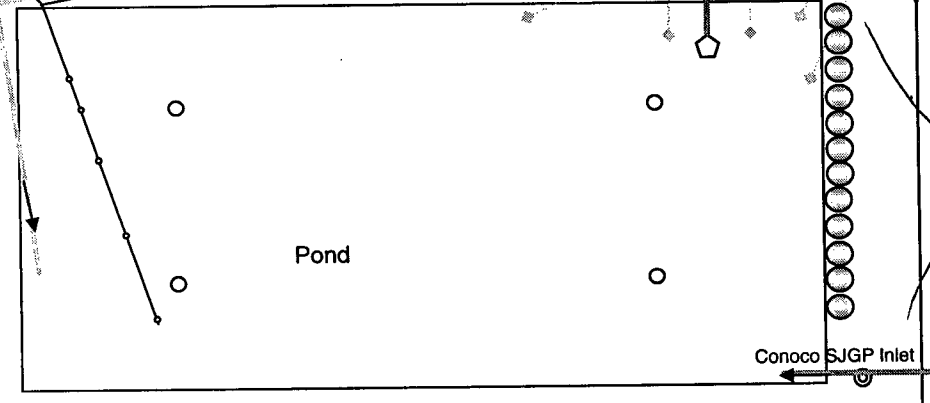
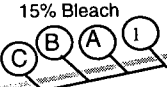
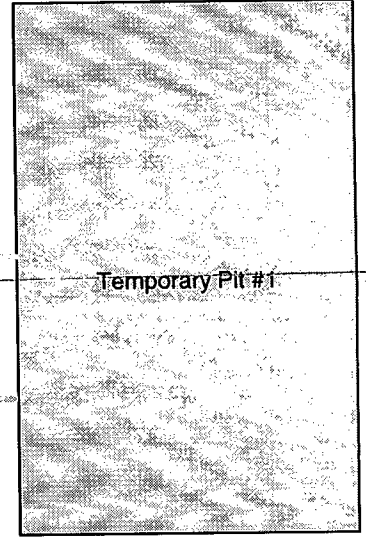
N →



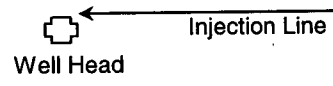
*Temporary Oil Tanks*



Injection Pumps



Conoco SJGP Inlet

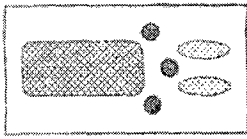


*Temporary Water Tanks*

Legend	
----	Overflow
----	Sewer
----	Oil
----	Overflow
----	Gas
----	Water
----	Lined Berms
○	Aerator
□	Pump

Filter House 1: 20um filters  
Filter Houses 2 3: 5um filters





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"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"  
P.O. BOX 100 - AZTEC, NEW MEXICO 87410 - PHONE: (505) 334-3013

2006 OCT 20 PM 3 31

18 October, 2006

Brad Jones  
EMNRD/OCD  
Environmental Bureau  
1220 South St. Francis Dr.,  
Santa Fe, New Mexico 87505

RE: Sale of Oil to Petro Source

Dear Mr. Jones;

Over the past year, Basin Disposal, Inc. has had difficulty in having Giant Refining regularly pick up our oil.

One of the reasons has been, as they have explained, that they have one GC/MS and its priority is to analyze plant product for compliance with EPA's ultra low sulfur diesel requirements. Giant has stated it will not accept the results from other analytical laboratories. Also, Giant requires that only Giant personnel collect the samples to be analyzed. As such, getting our oil analyzed for organic chlorides has been slow and taken upwards of a month.

After the samples have been collected and analyzed, the oil must be picked up by Giant trucks. They also have had a hard time keeping truck drivers so picking up the oil has also been slow, on the order of weeks.

With the merger of Giant and Western Refining, they have stated they may be looking at making some changes that should help. With the fire at the Ciniza plant and with that oil coming to the Bloomfield plant for refining, I imagine that for the next 9 months things will not improve dramatically. We are entering the winter, which is our heavy oil collection season.

On our end, we have been looking at having our oil picked up by another company who is also willing to take the oil sludge that we have had to take to IEI in the past, which will reduce a waste stream. That company is Petro Source and they will be taking the oil to their Rifle, Colorado facility. Petro Source is willing to dedicate two trucks to handling our oil and they do not have organic chloride concentration requirements. In speaking with the Aztec OCD office, it was suggested we may need to seek permission to have Petro Source purchase our oil. This letter requests that permission.

If you have any questions, please feel free to phone me at 334-3013 or 320-2840 or via email at [bdinc@digii.net](mailto:bdinc@digii.net).

Sincerely,

John Volkerding

General Manager



**Jones, Brad A., EMNRD**

---

**From:** Jones, Brad A., EMNRD  
**Sent:** Thursday, October 19, 2006 2:36 PM  
**To:** 'John Volkerding'  
**Cc:** Price, Wayne, EMNRD; Powell, Brandon, EMNRD; Perrin, Charlie, EMNRD; Sanchez, Daniel J., EMNRD  
**Subject:** Permit Violation

<b>Tracking:</b>	<b>Recipient</b>	<b>Delivery</b>
	'John Volkerding'	
	Price, Wayne, EMNRD	Delivered: 10/19/2006 2:37 PM
	Powell, Brandon, EMNRD	Delivered: 10/19/2006 2:37 PM
	Perrin, Charlie, EMNRD	Delivered: 10/19/2006 2:37 PM
	Sanchez, Daniel J., EMNRD	Delivered: 10/19/2006 2:37 PM

John,

The New Mexico Oil Conservation Division (NMOCD) hereby acknowledges that Basin Disposal will be selling oil stored in the five temporary frac tanks to Petro Source in order to resolve the permit violation of improper storage and containment of recovered oil, in conflict with the conditions specified in your permit (# NM-1-005). This action must not occur again unless granted or approved by NMOCD.

As for the temporary storage of produced water, the NMOCD requires that the Basin Disposal satisfy the storage and containment requirements, as specified in Permit # NM-1-005, within 20 days of receipt of this email.

Please be aware that future violations of this nature may be reason for NMOCD to issue a notice of violation including civil penalties.

Please be advised that this acknowledgement does not relieve the owner/operator of responsibility should operations pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve the owner/operator of responsibility for compliance with any NMOCD, federal, state, or local laws and/or regulations.

**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*



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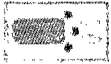
**From:** John Volkerding [mailto:bdinc@digii.net]  
**Sent:** Wednesday, October 18, 2006 2:35 PM  
**To:** Jones, Brad A., EMNRD  
**Subject:** Petro Source

Brad;

We would like to start selling our oil to Petro Source, in addition to Giant, since Giant has been unable to pick up our oil in a timely manner. That has caused us some problems in terms of oil storage. Having another vendor to use would allow us greater flexibility to minimize our oil on site.

Attached is a letter that outlines that request. I will put the hard copy in the mail.

Please let me know if you need anything else, thanks, John



John Volkerding, PhD  
General Manager  
Basin Disposal Inc  
PO Box 100, 906 S Main  
Aztec, NM 87410  
505-334-3013 (Office), 505-632-8936 (Plant)  
505-320-2840 (Cell), 505-334-8729 (Fax)



**Jones, Brad A., EMNRD**

---

**From:** John Volkerding [bdinc@digii.net]  
**Sent:** Wednesday, October 18, 2006 2:35 PM  
**To:** Jones, Brad A., EMNRD  
**Subject:** Petro Source  
**Attachments:** Petro Source Ltr 10-18-06.doc

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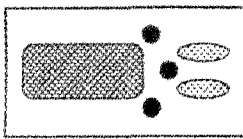
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10/19/2006





# **BASIN DISPOSAL, INC.**

*"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"*  
P.O. BOX 100 - AZTEC, NEW MEXICO 87410 - PHONE: (505) 334-3013

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Sincerely;  
John Volkerding

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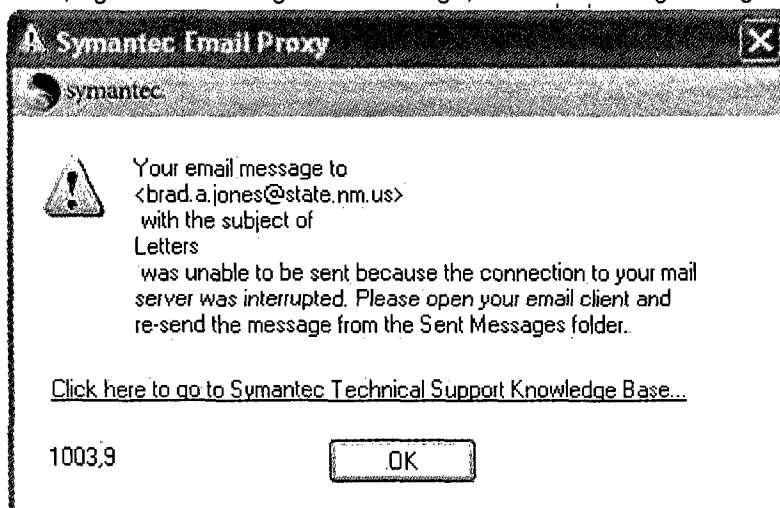
**From:** John Volkerding [bdinc@digii.net]  
**Sent:** Thursday, October 19, 2006 7:55 AM  
**To:** Jones, Brad A., EMNRD  
**Subject:** FW: Letters  
**Attachments:** 10-18-06 Letters.pdf

Brad; Let me see if my email is wake yet today. John

---

**From:** John Volkerding [mailto:bdinc@digii.net]  
**Sent:** Wednesday, October 18, 2006 4:33 PM  
**To:** 'John Volkerding'; 'brad.a.jones@state.nm.us'  
**Subject:** RE: Letters

Brad; I got the following error message, so I am sending this again.



If you get it twice, please ignore the second one. John

---

**From:** John Volkerding [mailto:bdinc@digii.net]  
**Sent:** Wednesday, October 18, 2006 4:29 PM  
**To:** 'brad.a.jones@state.nm.us'  
**Subject:** Letters

Brad;

We are facing what I would classify as a potential emergency.

The attached letters address our need for temporary frac tanks for oil storage and water storage. Other than taking these approaches, I see no alternative other than to shut down, i.e. stop accepting water. That would cause production in the San Juan Basin to come to a stand still and/or cause companies to find un-permitted means to dispose of their water because there is not the capacity between Key, McGrath or any of the other permitted disposal facilities to pick up the differential volume.

To try and plan for the future and what I imagine will only be increased produced water production (as wells age

10/19/2006



the ratio water to oil/gas increases) and drilling is still constant - I am wondering about the idea of adding another pond. It would do several things:

- a. If we filtered the water before it went into the second pond we would have a volume of cleaner water to use for any future recycling efforts,
- b. Another pond would provide a greater surge volume capacity to handle pump or well issues, if they arise
- c. Another pond would allow more settling time before going down the well which would enhance oil recovery
- d. Another pond would provide greater operational flexibility and make pond cleaning easier
- e. Another pond would let us take reserve pit water more regularly and would avoid the surge we are feeling now
- f. It could actually help in H<sub>2</sub>S and odor control by minimizing dirty water in one pond and having cleaner water in the other pond

It is possible that with the filtration or other separation method between the ponds we could actually reclaim the coal fines as a resource instead of a waste product, but to do that I think another pond would be needed just from a volume stand point. So I see some operational, environmental, and pollution prevention possibilities with another pond but in addition to meeting any and all OCD requirements we would try and go above and beyond to address any citizen issues. I imagine, as with Merrion's efforts - there would probably be some public opposition to another pond. This would be something for 2007 and would likely take a fair amount of time as it would be a major mod, I imagine. Do you have any thoughts on whether it is a good or bad idea?

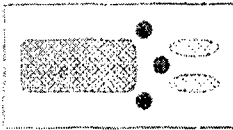
If you need anything, need to come here, need me to go to SF, anything - please let me know.

Thanks, John



John Volkerding, PhD  
General Manager  
Basin Disposal Inc  
PO Box 100, 906 S Main  
Aztec, NM 87410  
505-334-3013 (Office), 505-632-8936 (Plant)  
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"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"  
P.O. BOX 100 - AZTEC, NEW MEXICO 87410 - PHONE: (505) 334-3013

18 October, 2006

Brad Jones  
EMNRD/OCD  
Environmental Bureau  
1220 South St. Francis Dr.,  
Santa Fe, New Mexico 87505

RE: Temporary Frac Tanks  
Oil Storage

Dear Mr. Jones;

As has been explained in our letter to request permission to sell our oil to Petro Source, over the past year, Basin Disposal, Inc. has had difficulty in having Giant Refining regularly pick up our oil.

We are entering the winter, which is our heavy water disposal and therefore heavy oil collection season.

Because of the delays experienced due to Giant coupled with the fact that oil continues to come to the facility on a daily basis, in an effort to remain in compliance with the permit requirement:  
12. The pond may not contain any free oil.

We have been forced to add 5 temporary frac tanks to store the collected oil until: Giant picks up the oil, we are able to set the recently permitted 400 bbl tanks, and we receive permission to sell our oil to Petro Source.

The berm around the recently permitted storage tanks has had the concrete forms poured, dirt placed and the liner laid. We are waiting for a heavy construction crane to lift the tanks into position inside the berm so they can be used, this is scheduled for October 20, 2006.. The contents of three of the five temporary frac tanks can then be moved into the newly permitted tanks. Until we are able to have our oil picked up there is no place for the contents of the remaining two temporary frac tanks to go.

I have attached a diagram showing the temporary frac tanks for oil storage.

In reviewing the Rules, our current situation is similar to that described in:

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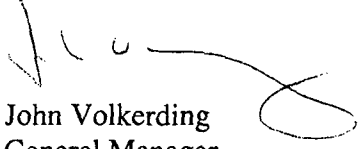
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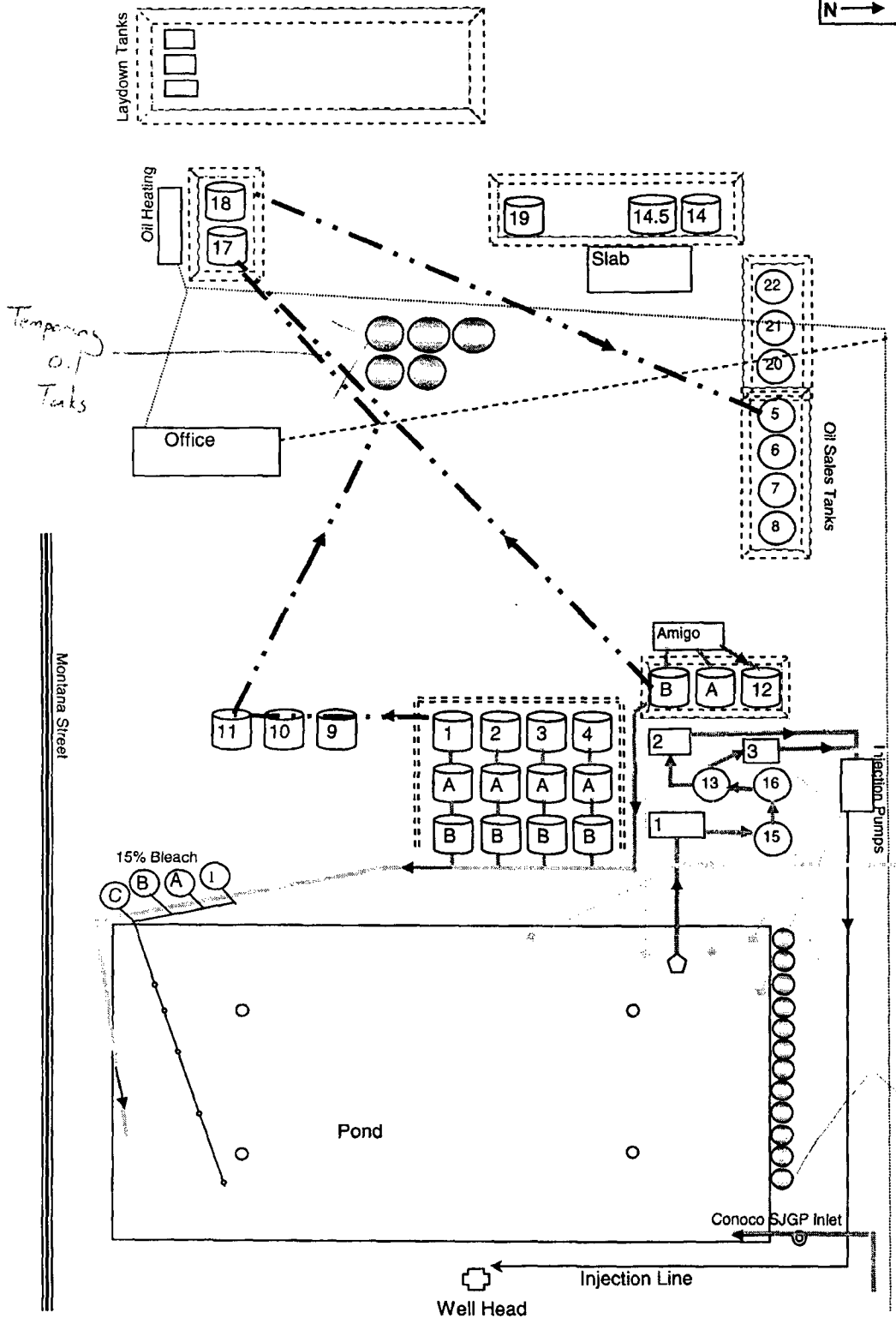
Sincerely;

A handwritten signature in dark ink, appearing to read 'John Volkerding', with a long, sweeping horizontal stroke extending to the right.

John Volkerding  
General Manager

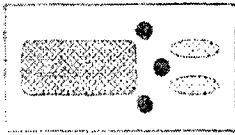


# BASIN DISPOSAL SITE DIAGRAM - AUGUST 2006



Filter House 1: 20um filters  
Filter Houses 2 3: 5um filters





# **BASIN DISPOSAL, INC.**

*SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD*  
P.O. BOX 100 - AZTEC, NEW MEXICO 87410 - PHONE: (505) 334-3013

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In evaluating alternatives, it appears that with the timing of the issuance of the permit being at the beginning of winter and with the production companies needing to close their pits and with our need to clean the pond and with the pond's current 10 ft level, we do not see a choice but to use the temporary pond alternative in the permit. We have scheduled Foutz and Bursum for the dirt work and have a liner meeting the permit specifications set to arrive on October 31, 2006.

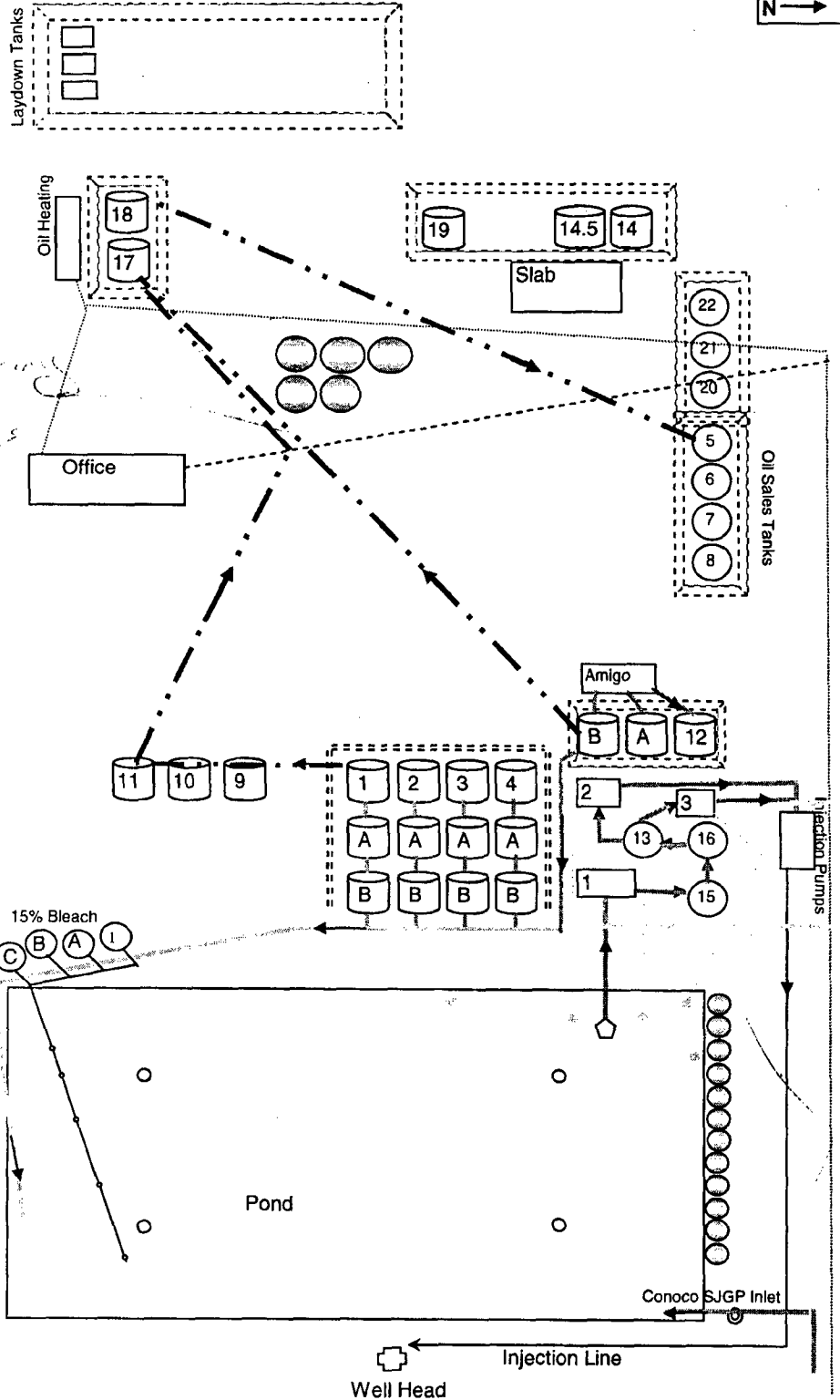
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The bottom line is everyone in the San Juan Basin is trying to empty their pits for the winter and there is just too much water. The tanks are on the north side of the pond and bermed on the north, east, and west side so if they were to leak the water will flow into the pond.



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Filter House 1: 20um filters  
Filter Houses 2 3: 5um filters



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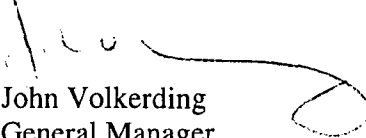
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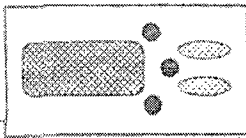
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General Manager





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P.O. BOX 100 - AZTEC, NEW MEXICO 87410 - PHONE: (505) 334-3013

3 October, 2006

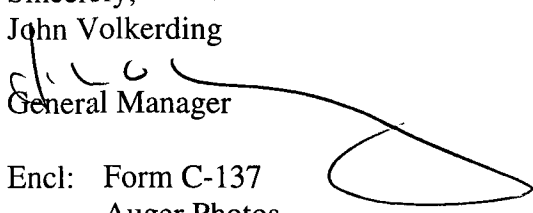
Brad Jones  
Energy, Minerals & Natural Resources Dept.  
Oil Conservation Division  
Environmental Bureau  
1220 South St. Francis Dr.,  
Santa Fe, New Mexico 87505

RE: Revision to Letter Dated 9/21/06  
Form C-137, Minor Modification  
Permit NM-1-005

Dear Mr. Jones;

Thank you for the feedback on the previous submissions. This letter should incorporate and answer all the questions and concerns raised by OCD during its review of the September 21, 2006 letter.

If you have any questions, please feel free to phone me at 334-3013 or 320-2840 or via email at [bdinc@digii.net](mailto:bdinc@digii.net).

Sincerely;  
John Volkerding  
  
General Manager

Encl: Form C-137  
Auger Photos  
Site Diagram, as proposed above

Cc: Aztec OCD Office  
Santa Fe, OCD Office



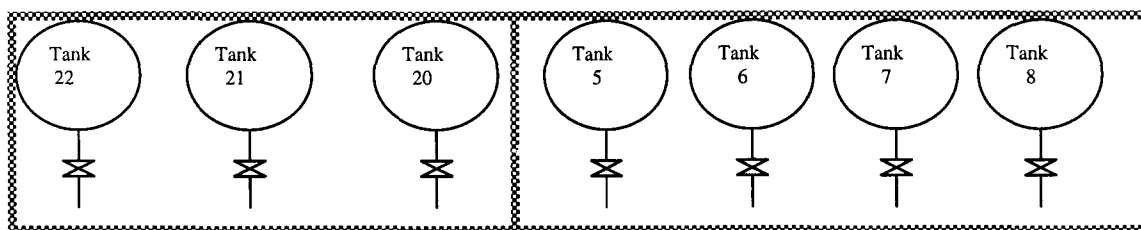
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We propose to replace Tank 5 with an identical new tank and to add three additional 400 barrel tanks (#20-#22) to the west of Tank 5. We propose to relocate the current Tank 5 to our KCl plant to store water and re-label it KCL #10.

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The berm will be constructed with wooden forms filled with concrete, covered with dirt, and then topped with a liner.

The facility is manned 24 hours per day 7 days per week and any leak or release would be immediately noticed and remedied.

In evaluating the requirements of NMAC 19.15.5.310.B we shall ensure all proposed tanks are identified by a sign posted not more than 50 feet from the tanks which is made of durable construction and with lettering large enough to be legible under normal conditions at a distance of 50 feet with: the name of the operator, and the location of the tank(s) by unit letter, section, township, and range.



## **Modification 2, Auger Pond Cleaning System**

Under the facility's permit, sludge is required to be maintained at a thickness of no more than 12 inches. As such, periodic cleaning of the pond is required. During Basin Disposal's past pond cleaning efforts several different methods have been used requiring the installation of additional tanks and/or temporary pits. The permit section entitled "Temporary Pit Construction and Closure" was placed in the permit to accommodate those cleaning efforts.

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The pond is constructed such that it slopes from west to east. This design causes the sludge to accumulate on the eastern side of the pond. The auger system would be used along the east side of the pond to remove the sludge. The auger and conveyor process will be conducted within the boundaries of the lined pond so any water or sludge that may leak from that portion of system will be returned immediately to the pond. The truck, sealed pipe, and lay-down tank will all be installed on a covered liner such as to collect any water or sludge in the unlikely event of a leak. The equipment will be manned at all times the cleaning is in progress and any unlikely releases will be immediately cleaned up.

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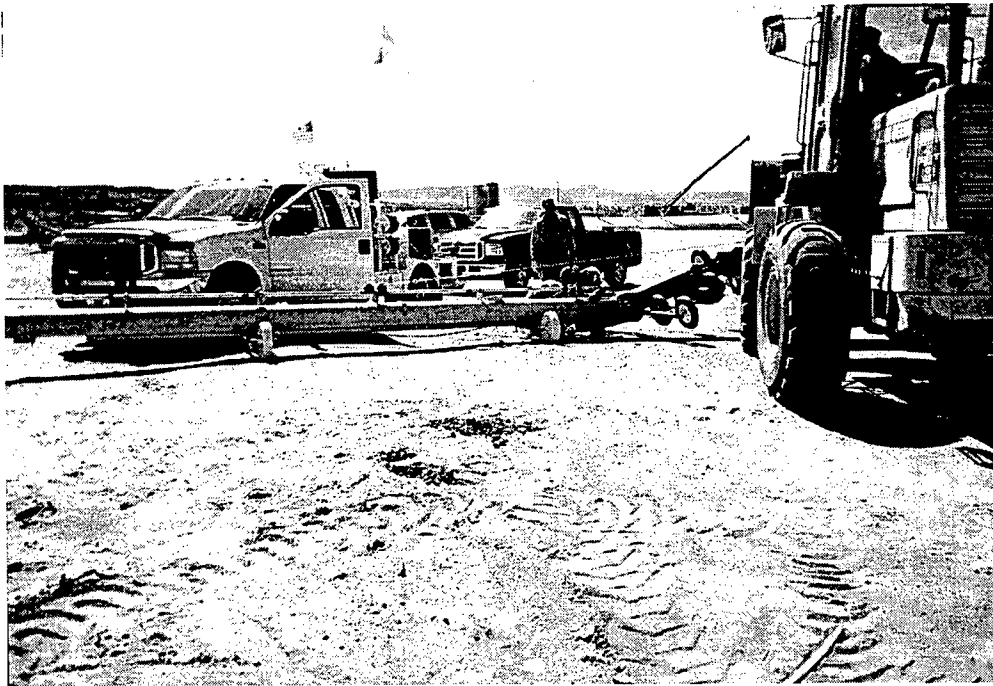
Pit inspection and maintenance will be conducted on a daily basis or immediately following a consequential rainstorm or windstorm. If any defect is noted the OCD Santa Fe and appropriate District offices must be notified within 24 hours. Within 48 hours of discovery, Basin will submit a plan to the OCD Santa Fe and appropriate District offices that describes what procedures will be taken to investigate and repair any defect. Repairs will be made as soon as possible. If the defect will jeopardize the integrity of the pit additional wastes will not be placed into the temporary pit and existing waste will be removed from the pit until repairs have been completed.

The temporary pit will be decommissioned within 360 days of installation. The liner will be removed and disposed of at an OCD-approved facility. The OCD Santa Fe and District office will be notified in writing of pit closure.

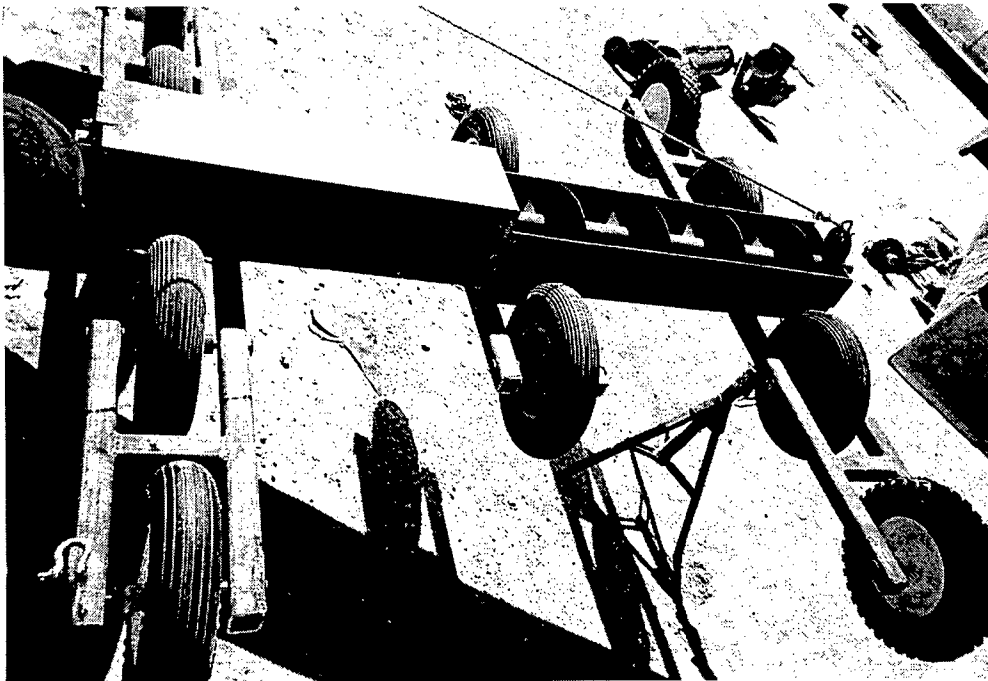
This option is requested only as a contingency if the auger system will not work with the evaporation pond full of water. The OCD will be notified in advance if the contingency plan is to be implemented



## Basin Disposal Auger, 8/15/06

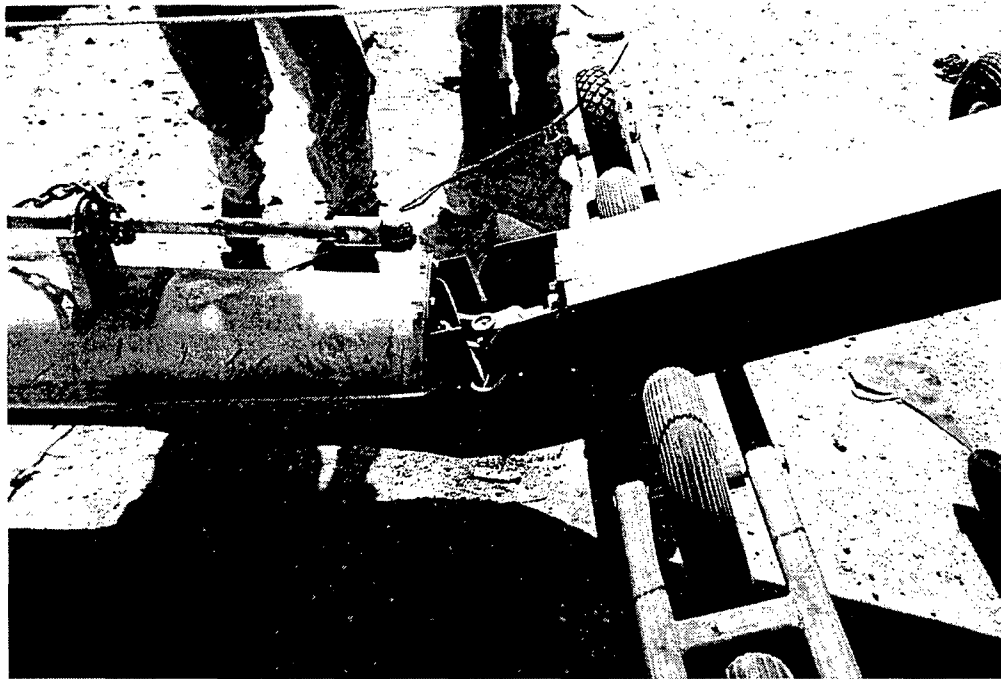


“Full Picture” of Auger. The black end will be in the pond and collect the sludge, which will be conveyed up the yellow pipe. The wheel will distribute the weight to ensure the liner is not subject to too much weight at any one location and will keep the metal components from coming into contact with the liner.



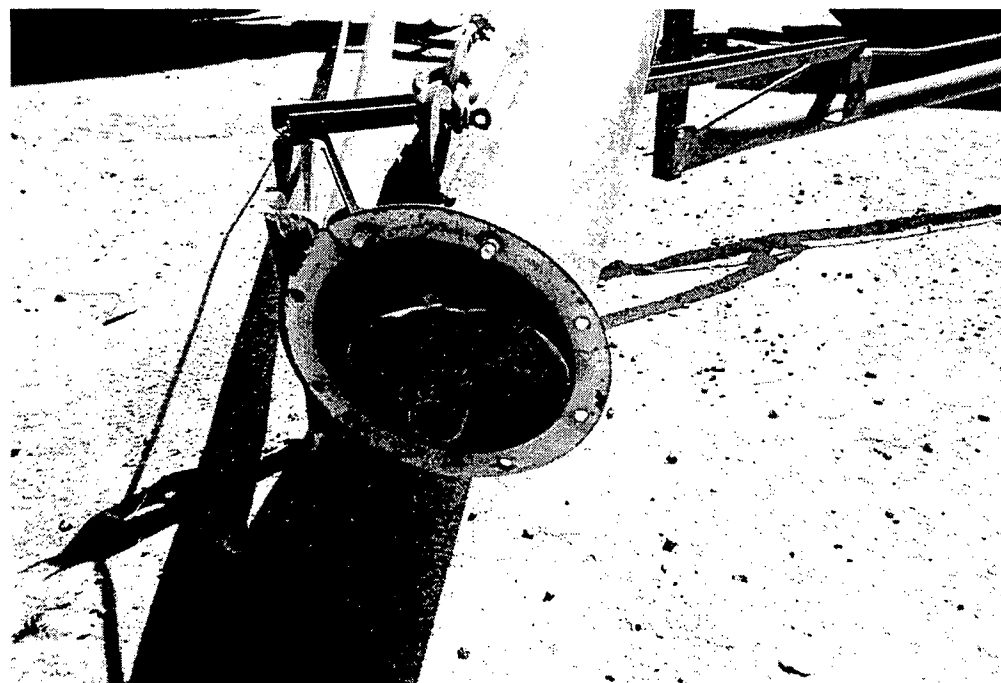
The collection end. There are 10 wheels to ensure the weight is adequately distributed. The top of the collection end is open to trap the sludge which is pulled up the pipe by the auger.





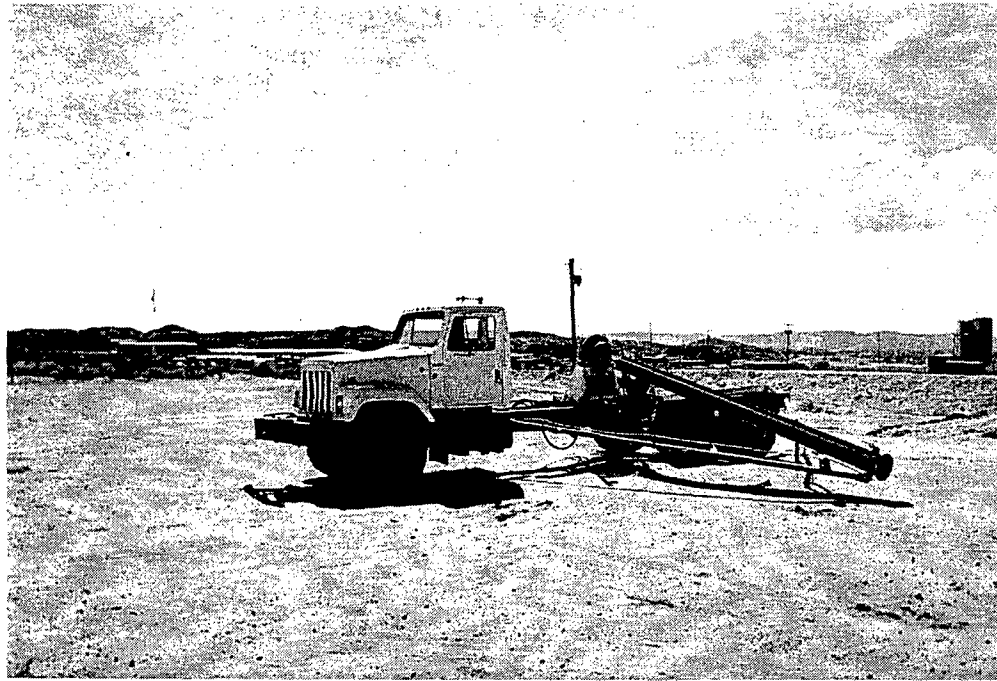
The collection end and first pipe connect. The connection is hinged to allow for flexibility and the change in pitch between the bottom and sides of the pond. . There are 10 wheels to ensure the weight is adequately distributed.

The top of the collection end is open to trap the sludge which is pulled up the pipe by the auger.

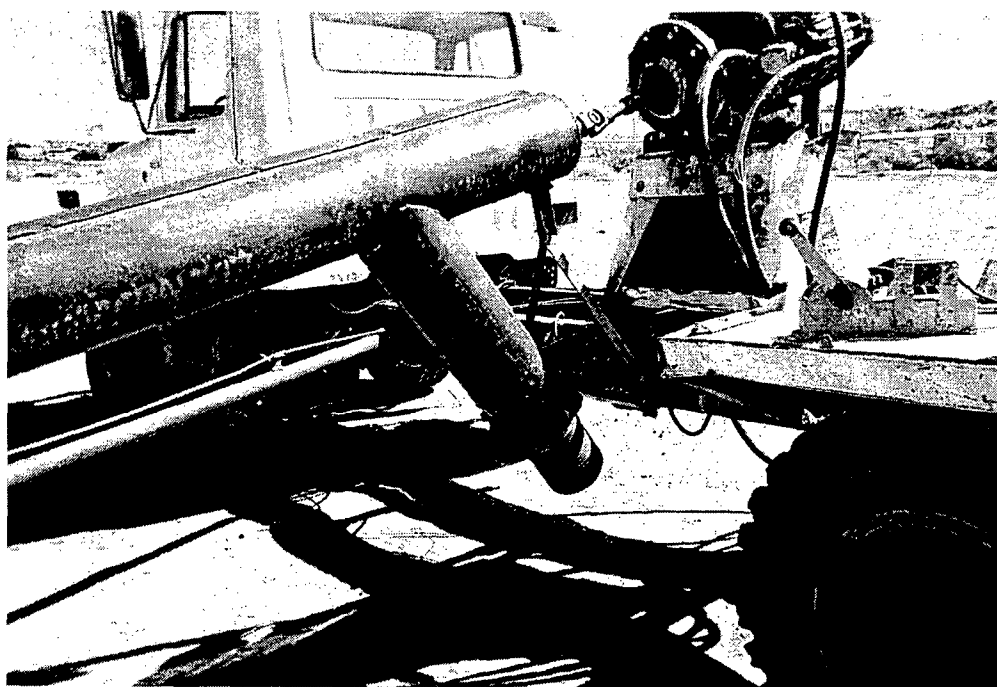


The end of the first pipe showing the auger. At this point the pipe connects to the pipe mounted on the truck.



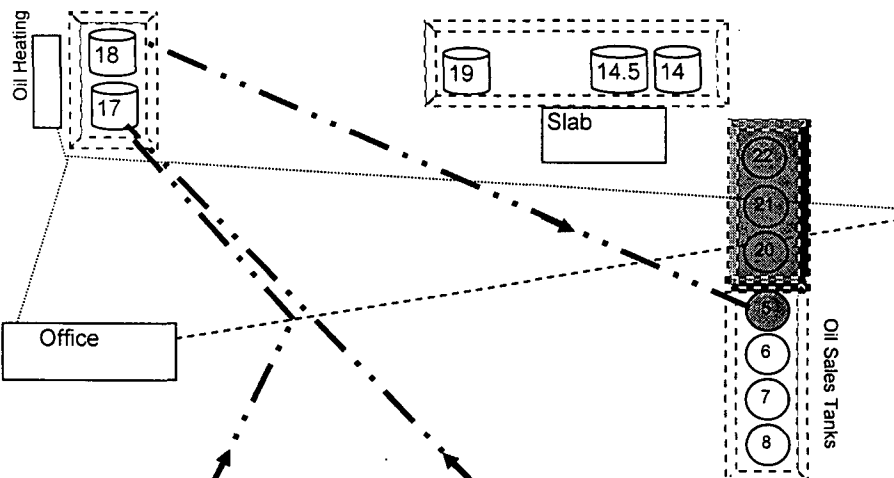
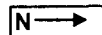
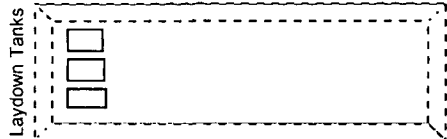


The truck showing the pipe mounted to the truck. The orange arms are for support. There is a motor on the bed of the truck that will engage the auger to turn it..

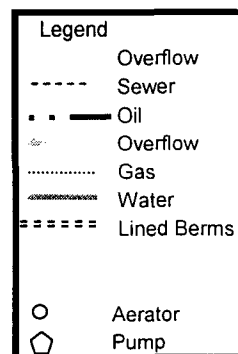
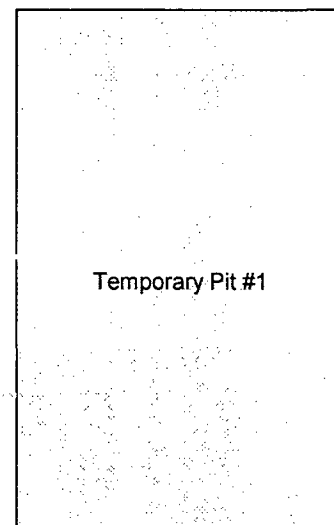
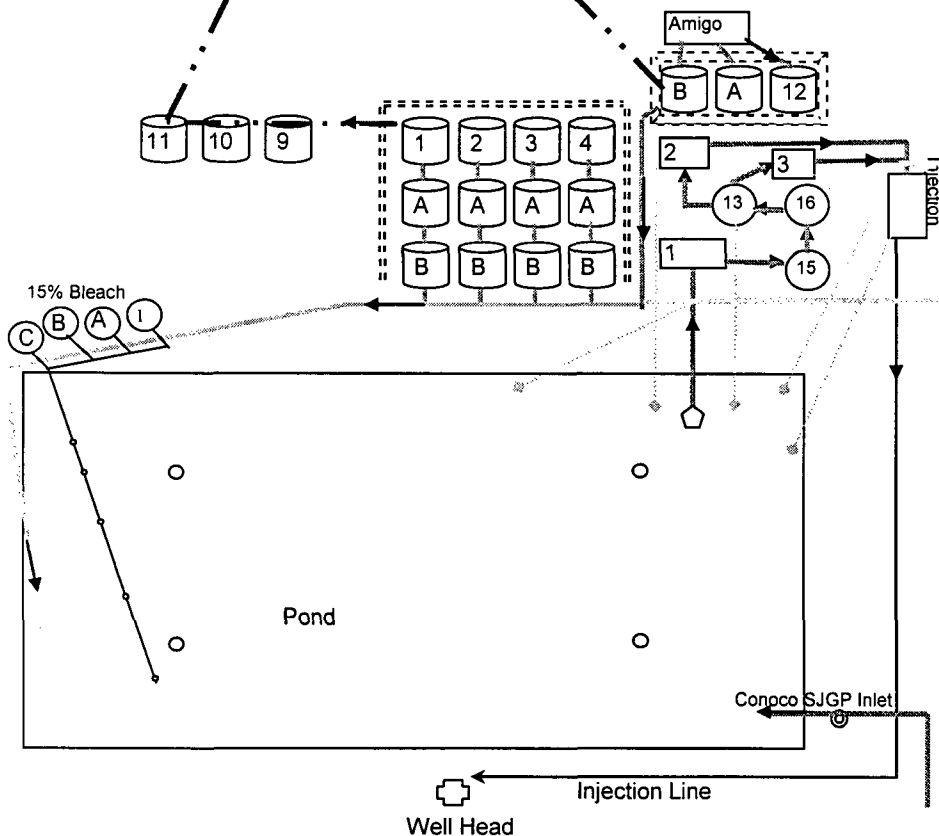


A closeup of the motor and end of the pipe. The pipe coming off the bottom is where the sludge will drain into a flexible pipe that will be run to a laydown tank with a 160 barrel capacity. The two Basin Disposal water trucks each have a 80 barrel capacity. So sludge can be removed from the pond at 160 barrels per hour and taken to IEI.





Montana Street





District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-137  
Revised June 10, 2003

Submit Original Plus 1  
Copy to Santa Fe  
1 Copy Appropriate  
District Office

## APPLICATION FOR WASTE MANAGEMENT FACILITY

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

☒ Commercial

☐ Centralized

1. Type: ☐ Evaporation ☒ Injection ☐ Other  
☐ Solids/Landfarm ☐ Treating Plant

2. Operator: BASIN DISPOSAL, INC.

Address: PO BOX 100, AZTEC, NM 87410 (MAILING)  
100 MONTANA AVE., BLOOMFIELD, NM (PHYSICAL)

Contact Person: JOHN VOLKERDING Phone: 505-334-3013

3. Location: SE /4 NW /4 Section 3 Township 29N Range 11W  
Submit large scale topographic map showing exact location

4. Is this a modification of an existing facility? ☒ Yes ☐ No

5. Attach the name and address of the landowner of the facility site and landowners of record within one mile of the site.

6. Attach description of the facility with a diagram indicating location of fences, pits, dikes, and tanks on the facility.

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14. Attach such other information as necessary to demonstrate compliance with any other OCD rules, regulations and orders.

### 15. CERTIFICATION

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

Name: JOHN VOLKERDING Title: GENERAL MANAGER

Signature: [Signature] Date: 10/3/04

E-mail Address: BDINC@DIIII.NET





# BASIN DISPOSAL, INC.

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"  
P.O. BOX 100 - AZTEC, NEW MEXICO 87410 • PHONE: (505) 334-3013

**FAX NUMBER (505) 334-8729**

## FAX MESSAGE

**DATE: 10/3/2006**

**TO: OCD**

**Brad Jones, 505-476-3462**

**ATTN:**

**TRANSMISSION CONSISTS OF COVER SHEET PLUS 4 PAGES**

### MESSAGES:

Brad: Here is a faxed copy of the revised letter and C137. I will put the original in the mail. Thanks, John

**IF THERE IS ANY PROBLEM WITH THE TRANSMISSION PLEASE  
CALL (505) 334-3013 or 320-2840 (cell) [bdinc@dlqii.net](mailto:bdinc@dlqii.net)**

**SIGNED:**

**Thanks, John Volkerding, General Manager**





# **Basin Disposal, Inc.**

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"  
P.O. BOX 100 - AZTEC, NEW MEXICO 87410 - PHONE: (505) 334-3012

3 October, 2006

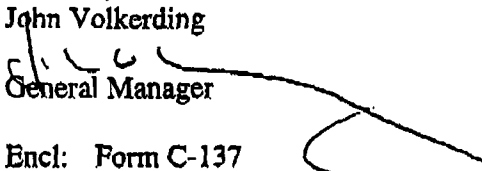
Brad Jones  
Energy, Minerals & Natural Resources Dept.  
Oil Conservation Division  
Environmental Bureau  
1220 South St. Francis Dr.,  
Santa Fe, New Mexico 87505

RE: Revision to Letter Dated 9/21/06  
Form C-137, Minor Modification  
Permit NM-1-005

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Encl: Form C-137  
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Site Diagram, as proposed above

Cc: Aztec OCD Office  
Santa Fe, OCD Office



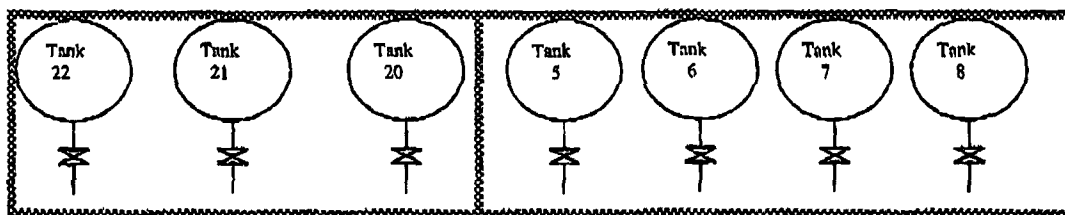
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1220 South St. Francis Dr.  
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Form C-137  
Revised June 10, 2003

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Contact Person: JOHN VOLKERDING Phone: 505-334-3013

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### 15. CERTIFICATION

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

Name: JOHN VOLKERDING

Title: GENERAL MANAGER

Signature: [Signature]

Date: 10/3/06

E-mail Address: BDINC@DIGIL.NET





# **BASIN DISPOSAL INC.**

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"  
P.O. BOX 100 • AZTEC, NEW MEXICO 87410 • PHONE: (505) 334-3013

**FAX NUMBER (505) 334-8729**

## **FAX MESSAGE**

**DATE: 9/14/2006**

**TO: OCD**

**Brad Jones, 505-476-3462**

**ATTN:**

**TRANSMISSION CONSISTS OF COVER SHEET PLUS 2 PAGES**

### **MESSAGES:**

**Brad: I wanted to present additional information on my argument that the Tanks may not require the size berm suggested in our call this morning. Thanks for your consideration. John**

**IF THERE IS ANY PROBLEM WITH THE TRANSMISSION PLEASE**

**CALL (505) 334-3013 or 320-2840 (cell)**

**[bdinc@digil.net](mailto:bdinc@digil.net)**

**SIGNED:**

**Thanks, John Volkerding, General Manager**





# ● BASIN DISPOSAL, INC. ●

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD

P.O. BOX 100 • AZTEC, NEW MEXICO 87410 • PHONE: (505) 334-3013

Date: 14 September 2006  
To: Brad Jones  
From: John Volkerding  
Re: Tanks 5-8

---

Brad; I wanted to revisit the berm requirements for Tanks 5-8.

NMAC 19.15.5.310.A. states:

*"Dikes or fire walls shall not be required except such fire walls must be erected and kept around all permanent oil tanks, or battery of tanks that are within the corporate limits of any city, town or village, or where such tanks are closer than 150 feet to any producing oil or gas well or 500 feet to any highway or inhabited dwelling or closer than 1000 feet to any school or church or where such tanks are so located as to be deemed an objectional hazard within the discretion of the division. Where fire walls are required, fire walls shall form a reservoir having a capacity one-third larger than the capacity of the enclosed tank or tanks."*

Below are the GPS coordinates of the current and proposed tanks along with the nearest well and highway. I can locate the nearest dwelling and submit its coordinates, but none are within 500 feet of the tanks. The nearest church or school are each over a mile away.

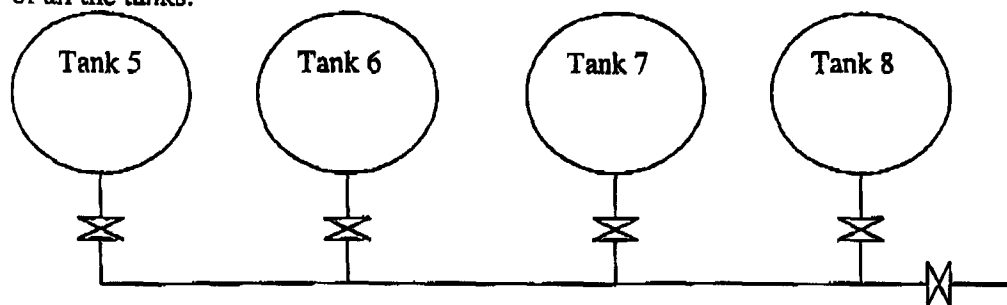
	GPS Coordinates				+/- feet
Tank 8	36°	45.329 N	107°	59.066 W	13
Tank 7	36°	45.330 N	107°	59.068 W	13
Tank 6	36°	45.330 N	107°	59.070 W	10
Tank 5	36°	45.331 N	107°	59.072 W	13
Tank 20	36°	45.331 N	107°	59.074 W	13
Tank 21	36°	45.333 N	107°	59.076 W	13
Tank 22	36°	45.333 N	107°	59.076 W	16

					Nearest Tank (feet)
Hwy	36°	45.344	107°	59.142 W	10 Tank 8 (1584')
Well (Conoco Martin 3#1 DK)	36°	45.393	107°	58.737 W	10 Tank 22 (486')

From my reading of the regulation, these tanks do not meet the definition of requiring dikes or firewalls. The regulation does state that the Division may deem a location as requiring dikes or firewalls, which may be the case for these tanks.

My only reservation is the requirement to construct a berm with a capacity 1/3 larger than the combined volume of all the tanks.





The current berm, which is lined, is constructed such as to have a capacity greater than  $\frac{1}{3}$  of the volume of each individual tank.

The above diagram shows the placement of valves on the existing tanks (the new tanks will have identical valve configurations). Each of the valves on the individual tanks is left closed except when the tank is being unloaded by Giant, which is a manned operation and only one tank is unloaded at a time. If a leak developed in Tank 8, for example, there are two valves between Tank 8 and any of the other tanks. As such, the likelihood that more than the capacity of one tank could enter the bermed area is extremely slim. As such, I believe that Basin's current approach meets the intent of the requirement since the entire volume of all four tanks would reasonably never be released to the bermed area.

I respectfully would like to ask that the Bureau reconsider its decision to require a berm with a volume of  $\frac{1}{3}$  greater than the volume of all four tanks.

Thanks, John



**Chavez, Carl J, EMNRD**

---

**From:** John Volkerding [bdinc@digii.net]  
**Sent:** Monday, September 11, 2006 9:16 AM  
**To:** Chavez, Carl J, EMNRD  
**Subject:** FW: Update

Carl; This did not go through. Can you get it to Brad? Hope you are doing well. John

---

**From:** John Volkerding [mailto:bdinc@digii.net]  
**Sent:** Monday, September 11, 2006 9:16 AM  
**To:** 'brada.jones@state.nm.us'  
**Subject:** Update

Hey Brad;

How is life? I hope you had a good weekend. I wanted to check on how the permit was coming and whether you needed anything from me. Is there anything I can do, questions I can answer, etc... to help? In anticipation of the permit, I have been cutting people back in terms of volume they can bring in and am starting to catch a lot of heat and wondered if the permit will be a long time in coming I should let them start bringing water back in.

Thanks and if it would help for me to come to SF I am happy to do that too. I could go to Fiesta or the Fair!

John



John Volkerding, PhD  
General Manager  
Basin Disposal Inc  
PO Box 100, 906 S Main  
Aztec, NM 87410  
505-334-3031 (Office), 505-632-8936 (Plant)  
505-320-2840 (Cell), 505-334-8729 (Fax)

9/11/2006



**Jones, Brad A., EMNRD**

---

**From:** Price, Wayne, EMNRD  
**Sent:** Tuesday, August 29, 2006 9:30 AM  
**To:** Jones, Brad A., EMNRD  
**Subject:** FW: Photos of Auger  
**Attachments:** augerphotos.pdf

---

**From:** John Volkerding [mailto:bdinc@digii.net]  
**Sent:** Monday, August 28, 2006 4:10 PM  
**To:** Price, Wayne, EMNRD  
**Subject:** FW: Photos of Auger

Wayne; Here are photos of the auger system we are building covered in our August 2, 2006 C-137 application.

I was speaking with XTO this morning and starting in about two weeks they will be slowing down on some of their projects for awhile. They constitute a significant volume of our incoming water and it would be ideal if we could implement our auger cleaning system during their slow period.

Our pond is currently at about 8 feet. We need to get the pond down to about 4 feet to set the auger and get it going. Last week we submitted a request to OCD to construct a temporary pit to contain the incoming water while we get the pond level down. If we are able to time cleaning the pond with XTO's slowdown, we likely will not need to construct the temporary pit, which I think would be everyone's first choice. Is there anything I can do to help in getting the auger system approval completed?

If there is or if there is anything else I can do to help on anything, please let me know.

Thanks a bunch, john

---

**From:** John Volkerding [mailto:bdinc@digii.net]  
**Sent:** Friday, August 25, 2006 1:34 PM  
**To:** 'brandon.powell@state.nm.us'  
**Subject:** Photos of Auger

Brandon;

Attached is a pdf file with some photos of the building of our proposed auger system for cleaning the pond. I hoped these might be useful to visualize what was in our C-137 application.

Thanks and have a great weekend!

I finally sold my house in Albuquerque and got all the furniture out so I can focus on getting this house here organized this weekend and not driving back and forth between here and there.

Take care, john



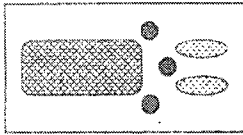
John Volkerding, PhD  
General Manager  
Basin Disposal Inc  
PO Box 100, 906 S Main

8/31/2006



Aztec, NM 87410  
505-334-3031 (Office), 505-632-8936 (Plant)  
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# BASIN DISPOSAL, INC.

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"

P.O. BOX 100 - AZTEC, NEW MEXICO 87410 - PHONE: (505) 334-3013

23 August 2006

2006 AUG 25 PM 12 55

Carl J. Chávez, CHMM  
Energy, Minerals & Natural Resources Dept.  
Oil Conservation Division  
Environmental Bureau  
1220 South St. Francis Dr.,  
Santa Fe, New Mexico 87505

Brad Jones  
Energy, Minerals & Natural Resources Dept.  
Oil Conservation Division  
Environmental Bureau  
1220 South St. Francis Dr.,  
Santa Fe, New Mexico 87505

RE: Pages 3 & 4, Temporary Pit Construction and Closure  
Permit NM-1-005

Dear Sirs:

In a letter dated August 2, 2003 I requested authorization to utilize an auger system for removing sludge from our pond. An assumption in the successful use of the auger system is that our pond water level will be about 4 feet.

So far, due to the high volume of water being produced in the San Juan Basin, our pond level has hovered around 8 feet. As we approach fall and winter, the amount of water coming to the facility will only increase. In order to lower our pond level, we would like to request authorization to reactivate the temporary Pit #1 discussed on Pages 3 and 4 of our permit. NM-1-005.

We are only requesting that Pit #1 be authorized for the temporary storage of produced water from the produced water treatment system. This will allow the water level in the main pond to decrease to a level that the auger system can be utilized. We anticipate the following schedule:

- 3 days: all produced water received goes to Temporary Pit #1, the main pond level drops to approximately 4 feet as the water in the pond is disposed of in the well
- 7 days: the water in Temporary Pit #1 and incoming water is disposed of in the well and the auger system is installed and operated in the pond, sludge is removed to an OCD approved facility
- 7 days: water from the Temporary Pit #1 is disposed of in the well and all incoming water flows to the main pond

Once all the water in Temporary Pit #1 has been disposed the liner will be removed and disposed of at an OCD-approved facility. The OCD Santa Fe and Aztec offices will be notified of pit closure.



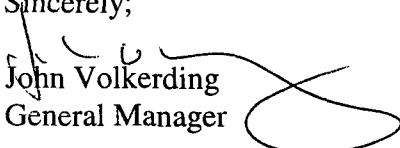
Temporary Pit #1 will be constructed in accordance with requirements of Paragraphs 2, 3, 4, and 5 of Permit NM-1-005. Temporary Pit #1 will be inspected and maintained in accordance with requirements of Paragraphs 6 & 7 of Permit NM-1-005.

The attached diagram shows the proposed layout of the plant with the Temporary Pit #1 shown.

If you have any questions, please feel free to phone me at 334-3013 or 320-2840 or via email at [bdinc@digii.net](mailto:bdinc@digii.net).

Sincerely;

John Volkerding  
General Manager

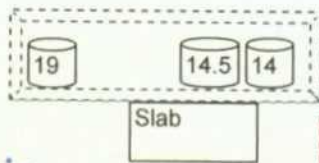
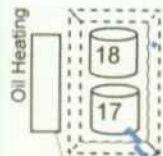
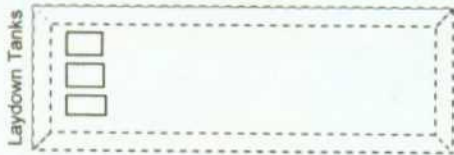
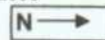


Encl: Permit NM-01-005  
Site Diagram, as proposed above

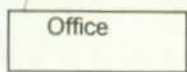
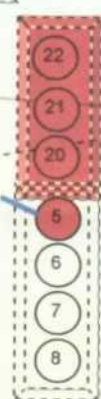
Cc: Aztec OCD Office



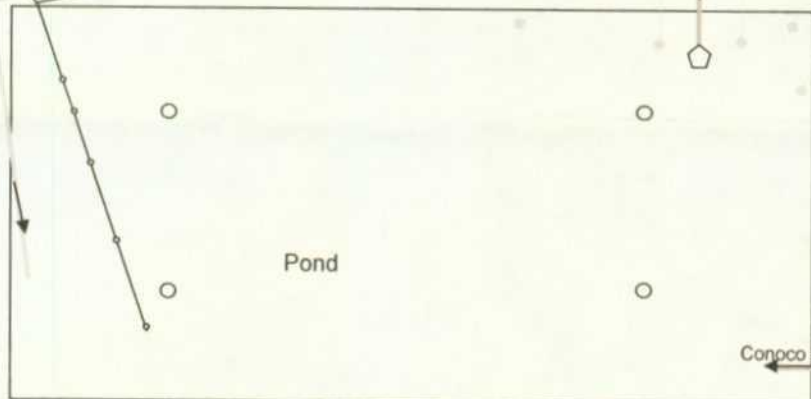
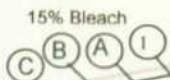
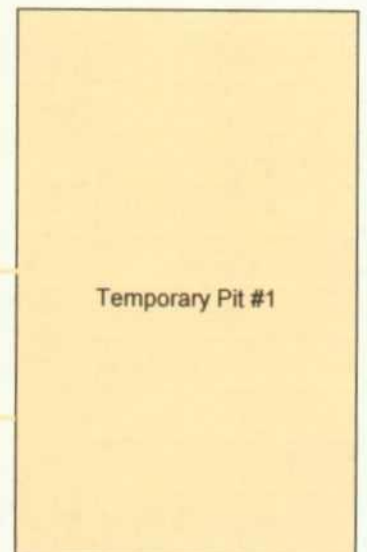
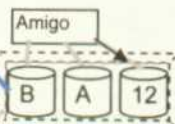
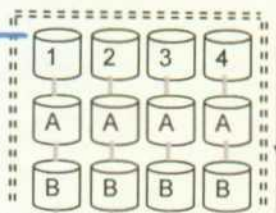
# BASIN DISPOSAL SITE DIAGRAM - AUGUST 2006



Pending Approval from 8/2/06 Submittal not in service yet

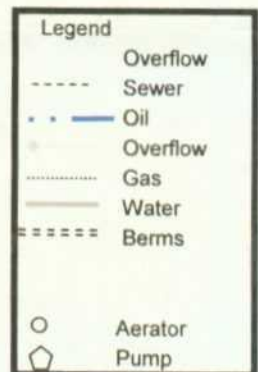


Montana Street



Conoco SJGP Inlet

Well Head  
Injection Line



Filter House 1: 20um filters  
Filter Houses 2 3: 5um filters



RECEIVED

AUG 11 2006



**BASIN DISPOSAL, INC.** *Per. SJS*

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"  
P.O. BOX 100 • AZTEC, NEW MEXICO 87410 • PHONE: (505) 334-3013

**FAX NUMBER (505) 334-8729**

**FAX MESSAGE**

**DATE:** 8/10/2006

**TO:** NMEMNRD/OCD

**Brad A. Jones, 476-3462**

**ATTN:** \_\_\_\_\_

**TRANSMISSION CONSISTS OF COVER SHEET PLUS 1 PAGES**

**MESSAGES:**

**Brad: Here is a fax copy. If you need anything from me, please feel free to ask. You are more than welcome to come by anytime. Thanks, John**

**IF THERE IS ANY PROBLEM WITH THE TRANSMISSION PLEASE  
CALL (505) 334-3013 or 330-2840 (cell) bdinc@digil.net**

**SIGNED:** \_\_\_\_\_

**John Volkerding, General Manager**





## **BASIN DISPOSAL, INC.**

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD  
P.O. BOX 100 • AZTEC, NEW MEXICO 87410 • PHONE 1805/ 834 3010

2 August 2006

Carl J. Chávez, CHMM  
New Mexico Energy, Minerals & Natural Resources Dept.  
Oil Conservation Division, Environmental Bureau  
1220 South St. Francis Dr., Santa Fe, New Mexico 87505

RE: Form C-137, Minor Modification  
Permit NM-1-005

Dear Mr. Chávez:

Attached is a Form C-137 for two modifications at our facility under Permit NM-1-005 located in the SE/4 NW4 of Section 3, Township 29N, Range 11 W.

### **Modification 1**

Currently we have (4) 500 barrel tanks (#5- #8) as our Oil Sales Tanks which store oil awaiting pick up from Giant. As Giant transitions to producing low sulfur diesel, their analytical laboratory has become backlogged in conducting analysis of our oil. Until their laboratory has conducted the analysis, Giant will not pick up the oil. As such, we are finding we need the ability to store a larger quantity of oil on-site at any given time while we wait for the results from Giant's analytical laboratory.

We propose to replace Tank 5 with an identical but new tank and to add three additional 500 barrel tanks (#20-#22) to the west of Tank 5.

These changes are shown in Red in the attached site diagram labeled

### **Modification 2**

In the past, Basin Disposal has had to regularly drain the pond in order to clean pond to remove the sludge. Several different methods have been used. These have required the installation of additional tanks and/or temporary pits.

Instead of attempting to clean the entire pond at once as has been the practice in the past, Basin proposes to implement the use of a truck mounted auger to pull the sludge from the bottom and empty the sludge into a truck for immediate disposal at the Industrial Ecosystems disposal facility.

The pond is constructed such that it slopes from west to east. This design causes the sludge to accumulate on the eastern side of the pond. The auger system would be used along the east side of the pond to remove the sludge.




The sludge will be collected in the pond in an open top metal bin. The auger begins in that bin and conveys the sludge and water to the truck positioned on the bank of the pond. From that truck, the sludge will be conveyed via a hose to a waiting water hauling truck, likely one of our own. The sludge and water will be transported to the disposal facility. This will eliminate the need for additional pits or tanks and will allow for a continual sludge removal process throughout the year.

Photos of the equipment as assembled inside our shop can be provided. We also invite OCD to visit our facility and examine the equipment.

If you have any questions, please feel free to phone me at 334-3013 or 320-2840 or via email at [bdinc@digii.net](mailto:bdinc@digii.net).

Sincerely;

  
John Volkerding  
General Manager

Encl: Form C-137  
Site Diagram, as proposed above  
Auger representation

Cc: Aztec OCD Office



District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-137  
Revised June 10, 2003

Submit Original Plus 1  
Copy to Santa Fe  
1 Copy Appropriate  
District Office

**APPLICATION FOR WASTE MANAGEMENT FACILITY**

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

☒ Commercial

☐ Centralized

1. Type: ☐ Evaporation ☒ Injection ☐ Other  
☐ Solids/Landfarm ☐ Treating Plant
2. Operator: BASIN DISPOSAL, INC.  
Address: PO BOX 100, AZTEC, NM 87410 (MAILING)  
100 MONTANA AVE., BLOOMFIELD, NM (PHYSICAL)  
Contact Person: JOHN VOLKERDING Phone: 505-334-3013
3. Location: SE /4 NW /4 Section 3 Township 29N Range 11W  
Submit large scale topographic map showing exact location
4. Is this a modification of an existing facility? ☒ Yes ☐ No
5. Attach the name and address of the landowner of the facility site and landowners of record within one mile of the site.
6. Attach description of the facility with a diagram indicating location of fences, pits, dikes, and tanks on the facility.
7. Attach designs 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, security systems, and landfarm facilities.
8. Attach a contingency plan for reporting and clean-up for spills or releases.
9. Attach a routine inspection and maintenance plan to ensure permit compliance.
10. Attach a closure plan.
11. Attach geological/hydrological evidence demonstrating that disposal of oil field wastes will not adversely impact groundwater. Depth to and quality of ground water must be included.
12. Attach proof that the notice requirements of OCD Rule 711 have been met.
13. Attach a contingency plan in the event of a release of H<sub>2</sub>S.
14. Attach such other information as necessary to demonstrate compliance with any other OCD rules, regulations and orders.
15. CERTIFICATION  
I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: JOHN VOLKERDING

Title: GENERAL MANAGER

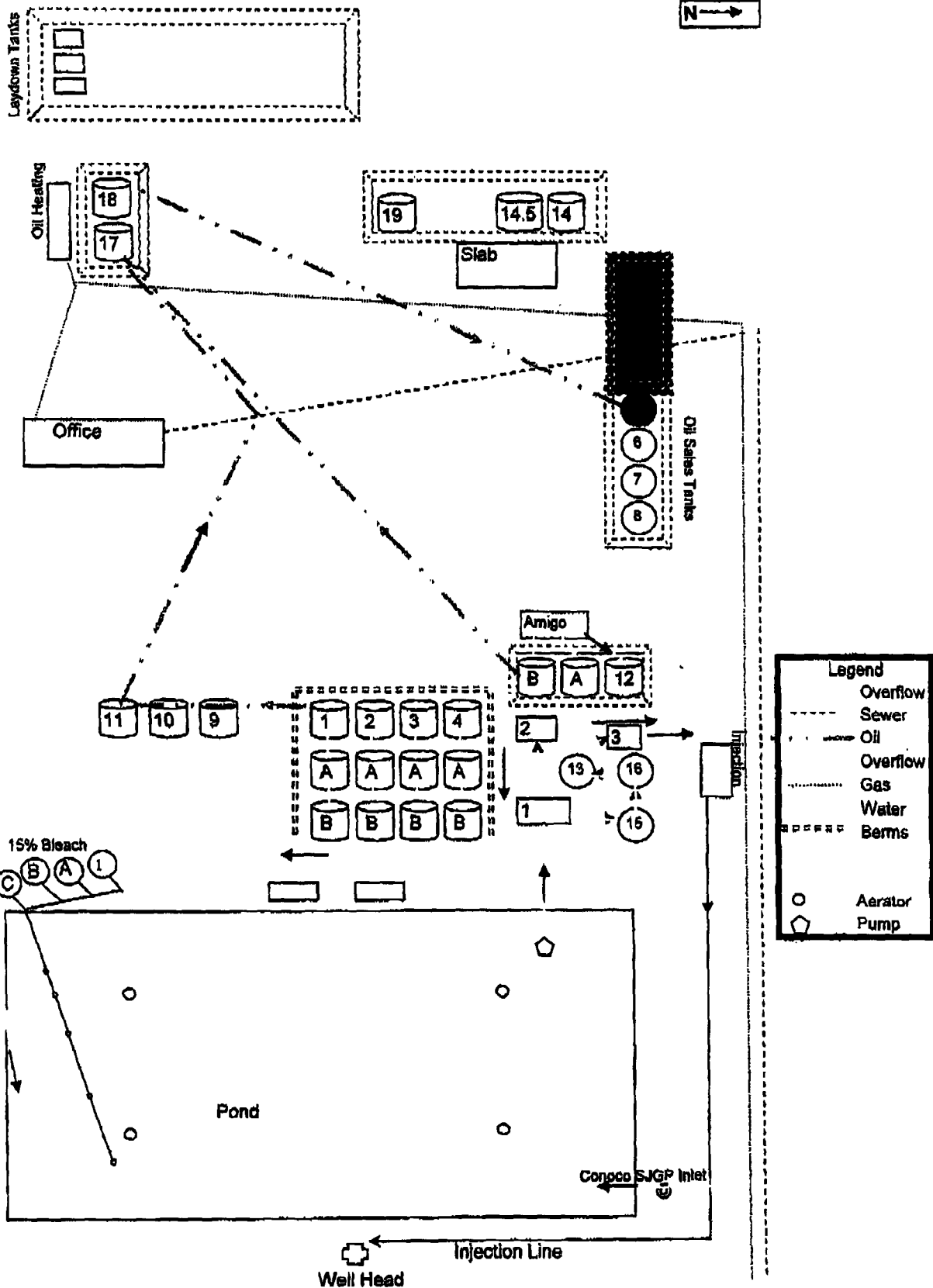
Signature: [Signature]

Date: 6/2/01

E-mail Address: BDINC@DIGIL.NET

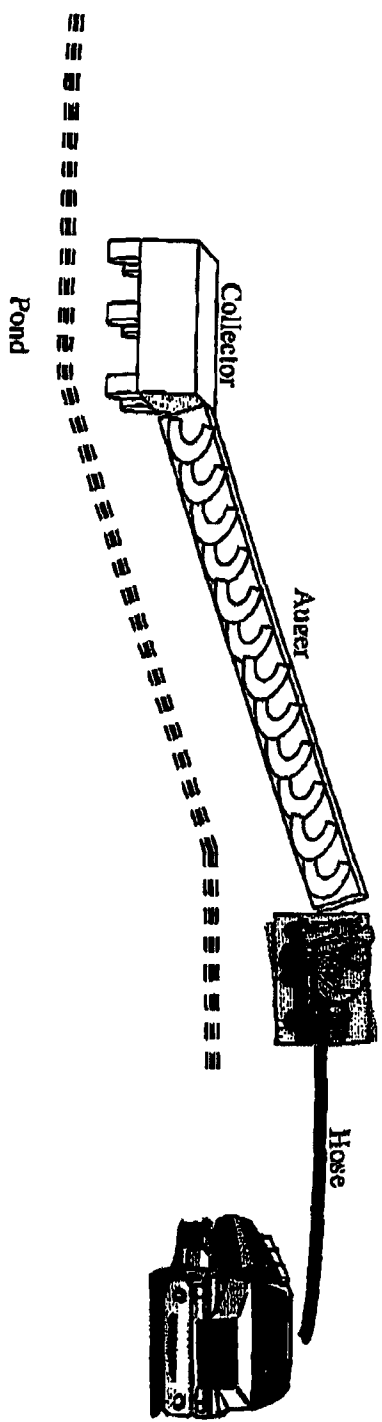


# BASIN DISPOSAL SITE DIAGRAM - AUGUST 2006



Filter House 1: 20um filters  
Filter Houses 2 3: 5um filters







## John Volkerding

**From:** Price, Wayne, EMNRD [wayne.price@state.nm.us]  
**Sent:** Friday, August 04, 2006 8:45 AM  
**To:** Chavez, Carl J, EMNRD; John Volkerding; Powell, Brandon, EMNRD  
**Subject:** RE: Electronic Version of C137 for Basin Disposal

Brad Jones is our new Surface Waste Management representative. Carl please help Brad on this issue.

---

**From:** Chavez, Carl J, EMNRD  
**Sent:** Thursday, August 03, 2006 9:56 AM  
**To:** John Volkerding; Powell, Brandon, EMNRD  
**Subject:** RE: Electronic Version of C137 for Basin Disposal

John:

We are in receipt of your modifications and I will check with Wayne Price on Friday to see how we may address them, i.e., simple addendum to the existing permit, etc. We may require more details.

Seems like the tank modification #1 will require compliance with our tank regulations, i.e., secondary containment requirements, etc. The pond modification #2 prevents the installation of additional tanks and pits, which may assist in prevention of pollution. We'll get back with you. Thanks.

Carl J. Chavez, CHMM  
New Mexico Energy, Minerals & Natural Resources Dept.  
Oil Conservation Division, Environmental Bureau  
1220 South St. Francis Dr., Santa Fe, New Mexico 87505  
Office: (505) 476-3491  
Fax: (505) 476-3462  
E-mail: [CarlJ.Chavez@state.nm.us](mailto:CarlJ.Chavez@state.nm.us)  
Website: <http://www.emnrd.state.nm.us/qcd/>  
(Pollution Prevention Guidance is under "Publications")

---

**From:** John Volkerding [mailto:bdinc@digli.net]  
**Sent:** Wednesday, August 02, 2006 4:41 PM  
**To:** Chavez, Carl J, EMNRD; Powell, Brandon, EMNRD  
**Subject:** Electronic Version of C137 for Basin Disposal

Hi;

Attached is a pdf copy of a Form C137 I will be mailing today. This is my first time to submit one of these so I wanted to also send it electronically so you could glance at it, if you have time, to see if there are any glaring mistakes I have made.

If, as you review the hard copy, you find you need anything, please let me know. Also, you are both welcome to come examine the facility anytime.

Thanks, john

---

John Volkerding, PhD  
General Manager

8/10/2006



Basin Disposal, Inc.  
PO Box 100, Aztec, NM 87410  
505-334-3013 (office); 505-320-2840 (cell); 505-334-8729 (fax)

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8/10/2006



TRANSACTION REPORT

P. 01

AUG-10-2006 THU 10:31 AM

FOR:

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DATE	START	SENDER	RX TIME	PAGES	TYPE	NOTE	M#	DP
AUG-10	10:29 AM		2' 01"	8	RECEIVE	OK		



**Chavez, Carl J, EMNRD**

---

**From:** John Volkerding [bdinc@digii.net]  
**Sent:** Thursday, August 03, 2006 2:13 PM  
**To:** Chavez, Carl J, EMNRD  
**Subject:** RE: Electronic Version of C137 for Basin Disposal

Carl; I believe it is NM-1-005. John

---

**From:** Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]  
**Sent:** Thursday, August 03, 2006 2:04 PM  
**To:** John Volkerding  
**Subject:** RE: Electronic Version of C137 for Basin Disposal

John:

Do you have an OCD permit number that you can share with me? I notice that it is an existing permit, and a permit number to start is helpful. Otherwise, I can look it up on a database. Thnx.

Carl J. Chavez, CHMM  
New Mexico Energy, Minerals & Natural Resources Dept.  
Oil Conservation Division, Environmental Bureau  
1220 South St. Francis Dr., Santa Fe, New Mexico 87505  
Office: (505) 476-3491  
Fax: (505) 476-3462  
E-mail: [CarlJ.Chavez@state.nm.us](mailto:CarlJ.Chavez@state.nm.us)  
Website: <http://www.emnrd.state.nm.us/ocd/>  
(Pollution Prevention Guidance is under "Publications")

---

**From:** John Volkerding [mailto:bdinc@digii.net]  
**Sent:** Thursday, August 03, 2006 12:37 PM  
**To:** Chavez, Carl J, EMNRD  
**Subject:** RE: Electronic Version of C137 for Basin Disposal

Carl and Brandon;

I apologize for not including more detail in the letter – I was using past letters as the template. Absolutely the tank modification will include secondary containment. We will have them bermed with liners under the tanks and over the berms. I should have been clearer.

In looking at our setup for the pond modification we decided this morning we need to change that slightly. We will use one of the open lay down tanks that are in our permit (currently located in the southwest corner) as a place to handle the surge volume between the truck on the bank and the water truck for disposal. I can provide an updated schematic of that.

After talking with Wanye Price tomorrow, please let me know what I need to do in terms of modifying our paperwork. If the hard copies have not gone out yet I will hang onto them until I hear from you.

Thanks a bunch, John

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**From:** Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]  
**Sent:** Thursday, August 03, 2006 9:56 AM  
**To:** John Volkerding; Powell, Brandon, EMNRD  
**Subject:** RE: Electronic Version of C137 for Basin Disposal

8/4/2006



John:

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General Manager  
Basin Disposal, Inc.  
PO Box 100, Aztec, NM 87410  
505-334-3013 (office); 505-320-2840 (cell); 505-334-8729 (fax)

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8/4/2006



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Website: <http://www.emnrd.state.nm.us/ocd/>  
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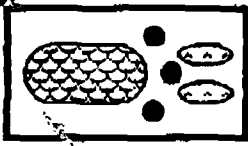
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John Volkerding, PhD  
General Manager  
Basin Disposal, Inc.  
PO Box 100, Aztec, NM 87410  
505-334-3013 (office); 505-320-2840 (cell); 505-334-8729 (fax)

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8/4/2006





# **Basin Disposal, Inc.**

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"

P. O. BOX 100 • AZTEC, NEW MEXICO 87410 • PHONE: (505) 334-3013

May 20, 2003

Martyne Kieling  
Oil Conservation Division  
1220 S. Saint Francis Drive  
Santa Fe, NM 87505

re: Pond cleaning

Dear Ms. Kieling,

It is that time again to clean our pond and we would like to propose a different method than what we have used in the past. It will allow us to clean out the sludge quickly and efficiently plus not leave any on site when we are done. What we are proposing would be to use the soil stabilization area that is already lined and bermed. We would place an additional bermed area within the larger berm that would allow Riley Industrial to dump the sludge into. We would use at least two excavators to mix the sludge with dirt and to load the dump trucks. We will then be sending them to the landfarm(s). The dump trucks will be bringing back previously remediated soil that we can use to mix with the sludge. Each day we will ensure that no liquids will be left overnight. While the pond is being cleaned we will be using 39 frac tanks to take the place of the pond, we will also berm them so that any overflows will be run into the pond. We would like to begin cleaning the pond on June 2, 2003 with a completion time of June 30. Once we are done we will begin releasing the frac tanks. If you have any questions please call me at (505) 320-2840.

Sincerely,

Keith Johnson  
General Manager



# Soil Stabilization Area

Dirt

Excavator

Riley

Excavator

Dirt



## Kielling, Martyne

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**From:** Kielling, Martyne  
**Sent:** Tuesday, November 26, 2002 9:29 AM  
**To:** 'Keith Johnson'  
**Subject:** RE: need for tank?

Dear Keith,

I have reviewed the Basin Disposal Permit NM-02-0005 regarding receipt of the Conoco SJGP Pipeline waste water. The Permit does not have a specific requirement regarding the Conoco SJGP Pipeline waste water receipt into the facility. Item 4 under FACILITY AND EVAPORATION POND OPERATION (see below) does refer to produced water and the removal of oil. If the Conoco waste water is produced water or contains oil then this item would apply. However, it is my understanding from your letter that this is not the case and the waste stream may be received directly into the pond.

### FACILITY AND EVAPORATION POND OPERATION

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.

Please be advised approval of direct receipt into the pond of the Conoco SJGP Pipeline waste water does not relieve Basin Disposal, 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 Basin Disposal, Inc. of responsibility for compliance with other federal, state or local laws and/or regulations.

Sincerely,

Martyne J. Kielling  
Environmental Geologist  
New Mexico Oil Conservation Division

-----Original Message-----

**From:** Keith Johnson [mailto:cobjohnson@cyberport.com]  
**Sent:** Monday, November 25, 2002 3:58 PM  
**To:** Martyne Kielling  
**Subject:** re:need for tank?

Dear Martyne,

I would like to know if we need to have a tank to run the Conoco SJGP pipeline into before it goes into the pond. The water is not produced water but is mainly cooler blowdown water. It is also free of oil. Thank you for all of your help, hope you have a good holiday.

Sincerely,  
Keith Johnson, General Manager of Basin Disposal, Inc.



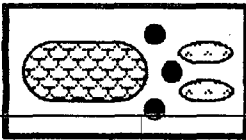
## Kieling, Martyne

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**From:** Foust, Denny  
**Sent:** Thursday, June 13, 2002 6:56 AM  
**To:** Anderson, Roger; Kieling, Martyne  
**Cc:** Chavez, Frank; Perrin, Charlie  
**Subject:** BASIN DISPOSAL ODORS

THIS MORNING AT APPROXIMATELY 6:50 AM I PASSED BASIN DISPOSAL AND THE ODORS WERE SUFFICIENT TO INTERFERE WITH RESPIRATION. THE ODORS WERE MORE CONCENTRATED CHLORINE ODORS (SWIMMING POOL) THAN IS TYPICAL FOR TREATMENTS AT THE FACILITY. UPON ARRIVING AT THE OFFICE I NOTIFIED JIMMY BARNES OF BASIN, HE HAD JUST COMPLETED A CHEMICAL TREATMENT WITH A HYPO CHLORIDE.





# **Basin Disposal, Inc.**

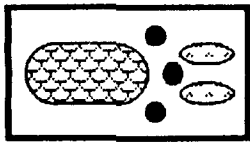
"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"

P. O. BOX 100 • AZTEC, NEW MEXICO 87410 • PHONE: (505) 334-3013

DIRT HAULED TO LAND FARM

DATE	YARDS
May-01	100
Jun-01	
Jul-01	
Aug-01	
Sep-01	
Oct-01	
Nov-01	200
Dec-01	1000
Jan-02	
Feb-02	250
Mar-02	200
Apr-02	1000
May-02	40
<b>TOTAL</b>	<b>2790</b>

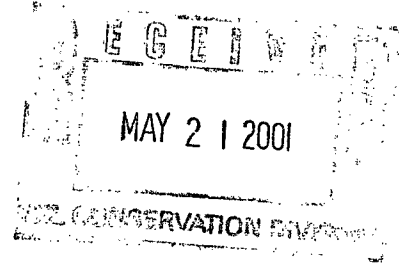




# **BASIN DISPOSAL, INC.**

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"

P. O. BOX 100 • AZTEC, NEW MEXICO 87410 • PHONE: (505) 334-3013



May 17, 2001

Oil Conservation Division  
Martyne Kieling  
PO Box 6429  
Santa Fe, NM 87504-6429

Dear Martyne,

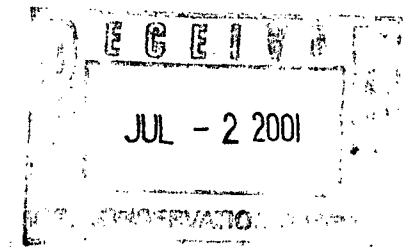
This letter is to inform you that the two temporary pits have been emptied and removed and that the other pit that will be used for cleaning the pond has also been emptied. With your approval we would like to cancel the bond that we have for closing those pits. There are two other items I wanted to let you know about; first we are moving one of our oil tanks out of the system, it is tank #12. It will most likely be used in our KCL plant. Second, we are looking at a different system to treat our pond instead of the sodium chlorite. There is a company called MIOX Systems and they use rock salt to produce a low grade chlorine. It is generally used in city water systems but this would allow us to constantly treat the water that is going into the pond, and it doesn't evaporate as quickly and it doesn't have as much chlorine odor as the sodium chlorite, plus it will cost a lot less each year. If you have any questions please call me.

Sincerely,

Keith Johnson  
General Manager



BASIN DISPOSAL, INC.  
DIRT HAULED TO TIERRA ENVIRONMENTAL



	YARDS	LOADS	
Jan-00	160	16	
Feb-00			
Mar-00			
Apr-00	1874	19	
May-00			
Jun-00			
Jul-00			
Aug-00	40	4	
Sep-00	60	6	
Oct-00	100	10	
Nov-00	80	8	
Dec-00	320	32	
Jan-01			
Feb-01	40	4	
Mar-01	250	25	
Apr-01	260	26	
May-01	160	16	REPORT DUE
Jun-01			
Jul-01			
Aug-01			
Sep-01			
Oct-01			
Nov-01			
Dec-01			
Jan-02			
Feb-02			
Mar-02			
Apr-02			
May-02			REPORT DUE
Jun-02			
Jul-02			
Aug-02			
Sep-02			
Oct-02			
Nov-02			
Dec-02			





# BASIN DISPOSAL, INC.

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"

P. O. BOX 100 • AZTEC, NEW MEXICO 87410 • PHONE: (505) 334-3013

P.O. Box 100  
Aztec, NM 87410

PHONE: (505) 632-8936  
FAX: (505) 632-2215

## FAX MESSAGE COVER SHEET

DATE: 3-7-01  
TO: Martynne K.  
ATTENTION: \_\_\_\_\_

TRANSMISSION CONSISTS OF COVER SHEET PLUS \_\_\_\_\_ PAGES.

### MESSAGES:

Martynne - I tried calling your number  
but couldn't reach you. Could you send cash bond  
papers to Paula at Woods Insurance 326-3130  
is her FAX #. Please call me if <sup>or when</sup> you get this message.  
We will get it taken care of ASAP.

Muchas gracias  
Keith

IF THERE IS ANY PROBLEM WITH THIS TRANSMISSION PLEASE CALL (505) 632-8936

FROM: JIMMY BARNES  
PLANT MANAGER