# NM2 - 2

# MONITORING REPORTS YEAR(S):

# 2007-1999

# BLAGG ENGINEERING, INC.

P.O. Box 87, Bloomfield, New Mexico 87413 Phone: (505)632-1199 Fax: (505)632-3903 RECEIVED 2008 FEB 1 PM 12 29

January 29, 2008

Ms. Brad Jones New Mexico Oil Conservation Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505

Re: Annual Report: Permit NM-02-0002 BP Schneider Waste Management Facility SW/4 Sec. 28 - T32N - R10W, San Juan County, NM

Dear Mr. Martin:

On behalf of BP America Production Co., Blagg Engineering, Inc. (BEI) is submitting this annual report for the Schneider Waste Management Facility, Permit NM-02-0002. This report is for 2007 calendar year monitoring. Attached are spread sheets summarizing weekly evaporation pond and monthly sump monitoring test results.

# **General Pond Monitoring**

During the 2007 monitoring year, weekly inspections did not indicated the generation of dissolved sulfide or hydrogen sulfide gas during any inspections. Tested pH levels were stable at values ranging between 8.5 - 9.8 units. A minimum freeboard of 1.08 feet was measured beginning on January 16, 2007. Yearend freeboard was measured at 2.9 feet.

Water at the Schneider pond is reduced via natural evaporation, spray evaporation and periodic transfer to the Cahn Evaporation Pond (Permit NM-02-0007) through a gravity feed pipeline. During most of the year no water was transferred to the Cahn pond.

# Landfarm Treatment Zone Monitoring

No landfarm cells were constructed during the 2007 calendar year and no treatment zone monitoring was required or performed.

# **Evaporation Pond Sludge Thickness**

Sludge thickness was measured on August 3, 2007. On this date the average sludge was measured at 0.2 inches with an average water depth of about 9-inches. All sludge was removed from the pond in 2005 during a pond re-lining project and minimal sludge has accumulated since that date.

# Leak Detection System Monitoring

Year-end leak detection monitoring indicates the new liner system has good integrity with no leaks. The new (shallow) leak detection system did not record any accumulations of water. An older, deep leak detection system has been left in place as a backup and small amounts of fluid accumulation (<0.5 gallons/day) from water trapped within the old liner continues to be observed and periodically removed from the old sump traps.

Questions or comments concerning the this transmittal may be directed to myself at (505)632-1199 or to Larry Schlotterback with BP at (505)326-9200.

Respectfully submitted: *Blagg Engineering, Inc.* 

y C. Blagg

Jeffrey C. Blagg, P.E. President

Attachments: Monitoring Spread Sheets

cc: Brandon Powell, NMOCD Aztec District Office Larry Schlotterback, BP SJ Operations Center

Schneider Waste Management Facility **BP - America Procuction Company** Field Data Summary SW/4, Section 28, T32N, R 10 W, N.M.P.M San Juan County, New Mexico

REVISED DATE: JANUARY 02, 2008 (KAG)

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**BLAGG ENGINEERING, INC.** 

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COMMENTS			Water xfer to Cahn off, Water Spray Off, Air Inj. On.	'1/2"-1" Thick ice on surface	Ice on surface, melting	Facility LO/TO (at limit)			All ice metted, facility still LO/TO.			Work crew skimming oil from pond surface		Facility no longer LO/TO.																	
LINER / BERM	INTEGRITY		≻	۲	۲	7	۲	7	۲	7	7	7	7	۲	Y	γ.	7	7	7	≻	۲	7	7	≻	7	۲	7	۲	×	7	۲
FREE-	BOARD ft.		1.33	1.21	1.08	1.10	1.08	1.08	1.08	1.10	1.25	1.33	1.33	1.45	1.50	1.60	1.75	1.75	1.80	1.90	1.90	1.90	2.00	2.10	2.10	2.10	2.10	2.44	2.50	2.60	2.60
F			9.1	9.1	9.2	9.2	9.2	9.1	9.1	9.2	9.2	9.2	9.2	9.2	8.8	8.5	8.8	9.0	9.1	9.0	9.0	8.9	9.1	9.4	9.4	8.9	9.4	9.2	9.2	9.4	9.4
TEMP.	celcius			0.3	0.4	0.3	0.4	1.3	2.6	5.9	7.0	7.7	8.9	7.7	15.2	12.2	15.4	11.1	9.7	20.0	22.2	20.8	22.8	19.4	17.3	18.0	16.2	17.9	24.2	25.1	29.2
DISSOLVED	OXYGEN DDM		0.39	1.95	1.0	1.1	0.77	2.33	3.5	1.47	0.94	1.66	1.91	1.40	1.30	1.10	0.34	0.71	2.00	1.20	0.90	6.80	16.90	17.21	8.16	8.00	7.54	7.71	2.05	1.86	5.90
DISSOLVED	SULFIDE		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
H2S	Eaa		Q	Q	QN	Q	QN	Q	Q	Q	Q	Q	g	Q	Q	Q	Q	Q	QN	Q	Q	g	Q	Q	g	Q	Q	Q	g	Q	g
MIND	DIRECTION bearing		0	FROM 30	FROM 45	FROM 210	FROM 170	0	FROM 270	<b>FROM 135</b>	FROM 260	FROM 270	FROM 0	FROM 0	<b>FROM 180</b>	FROM 210	FROM 270	<b>FROM 180</b>	FROM 270	<b>FROM 180</b>	<b>FROM 180</b>	FROM 270	<b>FROM 180</b>	<b>FROM 310</b>	0	<b>FROM 180</b>	<b>FROM 180</b>	FROM 10	<b>FROM 180</b>	<b>FROM 180</b>	<b>FROM 180</b>
MIND	SPEED mph		CALM	3-5	4-0	3-5	5-8	CALM	15-30	2-5	20-35	10-15	4-8	10-15	10-20	10-20	10-20	0-3	20-35	2-4	10-12	5-10	10-15	15-25	CALM	5-10	12-18	4-10	2-5	2-5	0-5
INITIAL	DATE		01/02/07	01/08/07	01/16/07	01/23/07	02/01/07	02/06/07	02/12/07	02/19/07	02/27/07	03/06/07	03/12/07	03/19/07	03/27/07	04/02/07	04/09/07	04/17/07	04/24/07	04/30/07	05/04/07	05/09/07	05/16/07	05/22/07	05/28/07	06/01/07	06/06/07	06/15/07	06/19/07	06/25/07	07/02/07

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# SEP-SUM.WK4

BP - America Procuction Company Schneider Waste Management Facility Field Data Summary SW/4, Section 28, T 32 N, R 10 W, N.M.P.M San Juan County, New Mexico

REVISED DATE: JANUARY 02, 2008 (KAG)

**BLAGG ENGINEERING, INC.** 

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COMMENTS							Conduct Annual Studge Thickness Measurements									About 3"-6" of water in pond, with about 10% of liner base showing								Ice on entire pond surface.	Oily emulsion on about 2/3 of pond surface	Oily emulsion on about 1/3 of pond surface	Ice on entire surface with oily emulsion at NE corner only	Ice on entire surface, with oily emulsion at NE Corner only.
LINER / BERM	INTEGRITY		7	۲	<b>&gt;</b>	7	7	7	<b>&gt;</b>	7	<b>&gt;</b>	7	<b>~</b>	7	7	7	~	~	7	7	7	7	7	7	7	<b>&gt;</b>	7	<b>&gt;</b>
FREE-	BOARD	÷	2.90	3.00	3.10	3.10	3.10	3.10	3.10	3.20	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.20	3.00	3.00	2.90
Hď			9.4	9.4	9.4	9.2	9.2	9.2	9.2	9.2	9.4	9.3	9.5	9.5	9.4	9.5	9.5	9.6	9.7	9.5	9.6	9.5	9.6	9.5	9.8	9.6	9.6	AA
TEMP.		celcius	27.1	21.1	25.2	29.1	29.1	26.8	25.3	25.6	23.9	25.8	24.6	26.1	24.2	26.2	24.0	20.9	16.7	14.5	8.2	11.1	8.6	0.9	6.4	5.1	1.0	AA
DISSOLVED	OXYGEN	mqq	3.03	6.50	5.80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
DISSOLVED	SULFIDE	mqq	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	AN
H2S		Шdd	QN	g	Q	Q	Q	Q	Q	g	Q	g	Q	QN	Q	Q	Q	Q	Q	QN	g	g	Q	Q	QN	Q	Q	g
QNIM	DIRECTION	bearing	FROM 45	FROM 45	<b>FROM 180</b>	<b>FROM 180</b>	<b>FROM 180</b>	<b>FROM 180</b>	0	FROM 90	0	<b>FROM 180</b>	<b>FROM 315</b>	<b>FROM 135</b>	<b>FROM 180</b>	FROM 90	FROM 90	FROM 180	0	FROM 90	FROM 350	<b>FROM 180</b>	0	FROM 0	0	<b>FROM 135</b>	FROM 60	FROM 0
MIND	SPEED	4d E	3-5	0-5	5-10	0-5	2-5	4-8	CALM	8-0 0	CALM	0-4	5-8	5-10	5-10	3-5	0-4	8/12	CALM	5-10	10-15	0-5	CALM	5-8	CALM	0-4	5-8	-1- 1-
INITIAL	DATE		20/60/20	07/16/07	07/25/07	07/31/07	08/03/07	08/07/07	08/13/07	08/20/07	08/27/07	09/05/07	09/10/07	09/17/07	09/24/07	10/01/07	10/10/07	10/15/07	10/23/07	10/29/07	11/05/07	11/13/07	11/19/07	11/26/07	12/03/07	12/11/07	12/17/07	12/27/07

# Leak Detection - Monthly Insepection Field Data Summary

SW/4, Section 28, T 32 N, R 10 W, N.M.P.M San Juan County, New Mexico

REVISED DATE: DECEMBER 04, 2007 (KAG)

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# BLAGG ENGINEERING, INC.

	N	IE SUMP (	Deep)		S	E SUMP (	Deep)	
INITIAL	DISSOLVED	DISSOLVED	TEMP.	pН	DISSOLVED	DISSOLVED	TEMP.	pН
DATE	SULFIDE	OXYGEN			SULFIDE	OXYGEN		
	ppm	ppm	celcius		ppm	ppm	celcius	

		r		ı ————		 
01/02/07	Water Below I	nlet		Water Below I	nlet	 
02/06/07	Water Below I	nlet		Water Below I	nlet	
03/06/07	Water Below I	nlet		Water Below I	nlet	
04/02/07	Water Below I	nlet		Water Below I	nlet	
05/04/07	Water Below I	nlet		Water Below I	nlet	
06/01/07	Water Below I	nlet		Water Below I	nlet	
07/02/07	Water Below I	nlet		Water Below I	nlet	
08/03/07	Water Below I	nlet		Water Below I	nlet	
09/05/07	Water Below I	nlet		Water Below I	nlet	
10/01/07	Water Below I	nlet		Water Below I	nlet	
11/05/07	Water Below I	nlet		Water Below I	nlet	
12/03/07	Water Below I	nlet		Water Below I	nlet	
Note: Sump	nspections indic	ate no failure of	pond liner integrity.			
Shallow (prim	ary) sump syste	m dry for entire	2007 monitoring yea	ſ		

BLAGG ENGINEERING, INC.

P.O. Box 87, Bloomfield, New Mexico 87413 Phone: (505)632-1199 Fax: (505)632-3903

2007 FEB 13 AM 10 18

February 9, 2007

Ms. Brad Jones New Mexico Oil Conservation Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505

Re: Annual Report: Permit NM-02-0002 BP Schneider Waste Management Facility SW/4 Sec. 28 - T32N - R10W, San Juan County, NM

Dear Mr. Martin:

On behalf of BP America Production Co., Blagg Engineering, Inc. (BEI) is submitting this annual report for the Schneider Waste Management Facility, Permit NM-02-0002. This report is for 2006 calendar year monitoring. Attached are spread sheets summarizing weekly evaporation pond and monthly sump monitoring test results.

# **General Pond Monitoring**

During the 2006 monitoring year, weekly inspections did not indicated the generation of dissolved sulfide or hydrogen sulfide gas during any inspections. Tested pH levels were stable at values ranging between 7.8 - 9.2 units. A minimum freeboard of 1.42 feet was measured on December 27, 2006.

Water at the Schneider pond is reduced via natural evaporation, spray evaporation and periodic transfer to the Cahn Evaporation Pond (Permit NM-02-0007) through a gravity feed pipeline. During most of the year no water was transferred to the Cahn pond.

#### Landfarm Treatment Zone Monitoring

No landfarm cells were constructed during the 2005 calendar year and no treatment zone monitoring was required or performed.

# **Evaporation Pond Sludge Thickness**

Sludge thickness was measured on October 10, 2006 during removal of residual oil on the pond surface. There was no recordable sludge found on the pond base. Note that all sludge was removed in August 2005 during a pond relining project.

# Leak Detection System Monitoring

Year-end leak detection monitoring indicates the new liner system has good integrity with no leaks. A minor amount of water accumulated in the northeast sump in February 2006 but was removed and did not re-accumulate. Indications are this water was from trapped liquids that entered the sump system from a small leak that was repaired in 2005. An older, deep leak detection system has been left in place as a backup and small amounts of fluid accumulation (<1 gallon/day) from water trapped within the old liner continues to be observed and periodically removed from the old sump traps.

Questions or comments concerning the this transmittal may be directed to myself at (505)632-1199 or to Kevin Hansford with BP at (505)326-9200.

Respectfully submitted: *Blagg Engineering, Inc.* 

y C. Blogg

Jeffrey C. Blagg, P.E. President

Attachments: Monitoring Spread Sheets

cc: Brandon Powell, NMOCD Aztec District Office Kevin Hansford, BP SJ Operations Center

Schneider Waste Management Facility **BP - America Procuction Company** Field Data Summary SW/4, Section 28, T 32 N, R 10 W, N.M.P.M San Juan County, New Mexico

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REVISED DATE: JANUARY 02, 2007 (KAG)

**BLAGG ENGINEERING, INC.** 

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COMMENTS		ABOUT 4" 0F H20 IN POND	ABOUT 6" OF H20 IN POND WITH SURFACE LAYER OF ICE	ICE ON 80% OF SURFACE	ICE ON 90% OF SURFACE	WATER DEPTH TOO LOW FOR DO MEASUREMENT			ABOUT 60 GAL H2O IN NEW NE SUMP - PUMP OUT	H20 SHALLOW IN NE SUMP	NO NEW H20 IN SUMP																	
LINER / BERM INTEGRITY		7	۲	7	۲	×	7	≻	۲	۲	7	۲	≻	۲	۲	۲	7	≻	۲	۲	7	7	≻	۲	۲	۲	۲	>
FREE- BOAPD	PUARU #	3.50	3.50	3.00	2.90	2.80	2.80	2.50	2.50	2.40	2.36	2.25	2.60	2.19	2.13	2.15	2.02	2.08	2.02	2.29	2.33	2.42	2.48	2.52	2.54	2.66	2.73	2.75
H	10. 00 - 0. 4 V 1800 graves	8.8	8.7	8.6	8.6	7.8	7.8	7.9	8.2	7.8	7.8	8.1	7.8	8.5	8.5	8.2	8.9	8.5	8.8	8.8	8.9	8.9	8.8	8.9	8.8	8.9	8.9	8.8
TEMP.	celcius	2.0	0.6	0.6	0.8	6.7	4.9	4.0	7.0	7.9	5.8	8.4	5.4	9.5	10.9	15.9	14.2	13.3	20.3	23.1	18.4	18.9	26.3	18.9	26.8	21.1	29.9	25.9
DISSOLVED	ppm	N/A	N/A	0.8	2.4	N/A	5.70	2.7	6.30	1.32	2.94	2.22	3.90	1.38	1.49	1.92	1.15	1.15	1.34	1.87	1.42	1.47	1.11	0.51	7.80	1.11	0.66	0.98
DISSOLVED		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
H2S	Edd	Q	QN	QN	QN	Q	QN	QN	QN	Q	g	g	Q	QN	QN	QN	Q	Q	Q	Q	Q	Q	Q	QN	Q	QN	g	g
WIND	bearing	FROM 30	FROM 120	FROM 270	<b>FROM 180</b>	FROM 270	<b>FROM 160</b>	FROM 0	FROM 80	FROM 250	FROM 270	FROM 70	FROM 180	<b>FROM 180</b>	FROM 90	FROM 270	<b>FROM 180</b>	FROM 45	FROM 270	FROM WEST	FROM 90	FROM 235	FROM 290	FROM 20	FROM 180	<b>FROM 180</b>	FROM 0	FROM 190
WIND	a rec	3-5	1-3	3-5	0-2	12-22	0-3	2-4	4-8	10-18	5-10	6-12	0 4	5-12	0-3	5-10	5-10	0-1	8-12	10-16	5-10	10-12	2-4	4-7	5-18	4-8	1-3	2-4
DATE		01/02/06	01/09/06	01/19/06	01/26/06	02/01/06	02/08/06	02/14/06	02/28/06	03/08/06	03/13/06	03/21/06	02/22/06	03/29/06	04/03/06	04/11/06	04/17/06	04/28/06	05/01/06	05/08/06	05/15/06	05/23/06	06/02/06	00/20/00	06/12/06	06/20/06	06/26/06	07/05/06

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BP - America Procuction Company Schneider Waste Management Facility Field Data Summary SW/4, Section 28, T 32 N, R 10 W, NM.P.M San Juan Coumy, New Mexico

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REVISED DATE: JANUARY 02, 2007 (KAG)

**BLAGG ENGINEERING, INC.** 

													-															
COMMENTS																	CREW ON SITE SKIMMING OIL. NO SLUDGE IN POND BASE								THIN ICE ON SURFACE			
LINER / BERM	INTEGRITY		۲	۲	۲	۲	۲	۲	۲	۲	۲	Y	>	۲	۲	٢	۲	۲	۲	≻	۲	٢	۲	٢	۲	۲	7	۲
FREE-	BOARD	<b>.</b>	2.67	2.73	2.75	2.75	2.69	2.67	2.69	2.67	2.67	2.69	2.63	2.58	2.54	2.46	2.17	2.00	1.92	2.50	1.92	1.88	1.92	1.92	1.92	1.71	1.55	1.42
Hđ			9.0	9.1	9.1	9.0	8.9	9.0	9.1	9.0	9.0	9.0	9.1	9.1	9.0	9.0	9.1	9.1	9.2	9.1	9.0	9.2	9.2	9.2	9.2	9.0	9.1	9.2
TEMP.		celcius	24.1	20.4	24.7	22.9	30.4	24.7	21.7	25.4	28.0	21.1	21.4	20.7	18.3	15.5	16.4	11.3	11.5	8.8	7.4	4.2	4.7	4.2	0.7	2.3	1.2	0.9
DISSOLVED	OXYGEN	шdd	0.74	0.11	0.21	0.39	0.33	0.41	0.09	0.12	0.59	0.09	0.56	1.26	0.64	0.30	0.38	1.15	0.51	1.39	0.81	0.74	0.53	0.44	0.74	0.66	1.04	0.61
DISSOLVED	SULFIDE	ædd	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
H2S		mdd	Q	Q	Q	Ð	g	g	Q	g	Q	Ð	g	Q	Q	Ð	g	Ð	g	g	Q	Q	Q	g	g	g	Q	Q
QNIM	DIRECTION	bearing	FROM 250	FROM 0	FROM 45	FROM 200	FROM 180	FROM 170	VARIABLE	FROM 170	FROM 180	FROM 180	FROM 170	FROM 45	FROM 160	FROM 45	FROM 260	FROM 45	0	FROM 180	FROM 45	FROM 90	FROM 190	FROM 180	FROM 180	FROM 180	FROM 30	FROM 30
QNIM	SPEED	hqm	2-3	2-4	0-3	5-8	5-8	0-3	1-2	4-8	2-5	2-5	2-4	0-2	2-6	2-8	4-8	2-4	CALM	4-6	<b>4</b> -8	2-4	2-4	10-15	4-6	2-4	5-15	5-10
INITIAL	DATE		07/10/06	07/17/06	07/24/06	07/28/06	08/05/06	08/10/06	08/16/06	08/22/06	08/29/06	00/02/00	09/12/06	09/18/06	09/26/06	10/05/06	10/10/06	10/18/06	10/24/06	11/01/06	11/09/06	11/17/06	11/21/06	11/27/06	12/04/06	12/13/05	12/22/06	12/27/06

SEP-SUM.WK4

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# BP - America Production Company Schneider Waste Management Facility Leak Detection - Monthly Insepection Field Data Summary

SW/4, Section 28, T 32 N, R 10 W, N.M.P.M San Juan County, New Mexico

REVISED DATE: DECEMBER 05, 2006 (KAG)

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# **BLAGG ENGINEERING, INC.**

		NE SUM	ЛР			SE SUN	ЛР	
INITIAL	DISSOLVED	DISSOLVED	TEMP.	pН	DISSOLVED	DISSOLVED	TEMP.	pН
DATE	SULFIDE	OXYGEN			SULFIDE	OXYGEN .		
	ppm	ppm	celcius		ppm	ppm	celcius	

01/02/06	BELOW INLET	BELOW INLET			
02/01/06	BELOW INLET	BELOW INLET			
03/08/06	BELOW INLET	0.0	0.04	6.9	9.2
04/03/06	BELOW INLET	BELOW INLET			
05/01/06	BELOW INLET	BELOW INLET			
06/02/06	BELOW INLET	BELOW INLET			
07/05/06	BELOW INLET	BELOW INLET			
08/10/06	BELOW INLET	BELOW INLET			
09/05/06	BELOW INLET	BELOW INLET			
10/05/06	BELOW INLET	BELOW INLET			
11/01/06	BELOW INLET	BELOW INLET			
12/04/06	BELOW INLET	BELOW INLET			

BLAGG ENGINEERING, INC.

P.O. Box 87, Bloomfield, New Mexico 87413 Phone: (505)632-1199 Fax: (505)632-3903

February 20, 2006

# 2006 FEB 22 PM 1 21

Ms. Ed Martin New Mexico Oil Conservation Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505

Re: Annual Report: Permit NM-02-0002 BP Schneider Waste Management Facility SW/4 Sec. 28 - T32N - R10W, San Juan County, NM

Dear Mr. Martin:

On behalf of BP America Production Co., Blagg Engineering, Inc. (BEI) is submitting this annual report for the Schneider Waste Management Facility, Permit NM-02-0002. This report is for 2005 calendar year monitoring. Attached are spread sheets summarizing weekly evaporation pond and monthly sump monitoring test results.

#### **General Pond Monitoring**

A new liner system was installed in the Schneider Evaporation Pond in August – September 2005. The liner was installed on top of the existing liner system and was comprised of a 40-mil PVC sub liner, wafer mesh interstitial fabric and 80-mil PVC top liner. A dedicated leak detection system to monitor fluids between the liners was constructed and included two monitoring sumps to collect any fluids. The old (deeper) liner and leak detection system was left in place as a backup to the new installation. The evaporation pond was placed back into service on September 22, 2005.

A leak in the new top liner was identified on November 3, 2005 during a monthly sump inspection. The pond was immediately taken out of service, drained and the leak source was identified and repaired. The evaporation pond was placed back into service on December 14, 2005. The new liner indicated good integrity following the repair.

During the 2005 monitoring year, weekly inspections did not indicated the generation of dissolved sulfide or hydrogen sulfide gas during any inspections. Tested pH levels were stable at values ranging between 8.1 - 9.3 units. A minimum freeboard of 1.3 feet was measured on February 21, 2005. Yearend freeboard was greater than 3.5 feet, with the pond mostly empty following liner installation and repair.

Water transfer to the Cahn Evaporation Pond (Permit NM-02-0007) was conducted intermittently throughout the year via a gravity feed pipeline to reduce water levels in the Schneider pond.

Prior to pond relining, the aeration system and spray evaporation system were primarily in continuous operation with occasional shut-downs for maintenance or electrical outage. Following pond relining the water levels were too low to place the aeration or spray evaporation systems back into operation.

#### Landfarm Treatment Zone Monitoring

No landfarm cells were constructed during the 2005 calendar year and no treatment zone monitoring was required or performed.

#### **Evaporation Pond Sludge Thickness**

Sludge thickness was measured on July 25, 2005 in preparation for pond relining. The average sludge thickness was less than 6-inches. All sludge was removed in August 2005 and transported to the permitted BP Crouch Mesa Landfarm for remediation.

#### Leak Detection System Monitoring

As discussed previously, year-end leak detection monitoring indicates the new liner system (following repairs) has good integrity with no leaks. The older, deep leak detection system was left in place as a backup Small amounts of fluid accumulation (<5 gallons/day) from water trapped between the old liner continues to be observed and periodically removed from the old sump traps.

Questions or comments concerning the this transmittal may be directed to myself at (505)632-1199 or to Don Brooks with BP at (505)326-9200.

Respectfully submitted: *Blagg Engineering, Inc.* 

J.C. Slogg

Jeffrey C. Blagg, P.E. President

Attachments: Monitoring Spread Sheets

cc: Denny Foust, NMOCD Aztec District Office Don Brooks, BP SJ Operations Center BP - America Procuction Company Schneider Waste Management Facility Field Data Summary

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SW/4, Section 28, T32N, R10W, N.M.P.M San Juan County, New Mexico

REVISED DATE: DECEMBER 27, 2005 (KAG)

BLAGG ENGINEERING, INC.

NSPECT	MIND	MIND	H2S	DISSOLVED	DISSOLVED	TEMP.	Ha	FREE-	LINER / BERM	COMMENTS
DATE	SPEED	DIRECTION		SULFIDE	OXYGEN		-	BOARD	INTEGRITY	
	4ª E	bearing	mqq	mqq	ш	celcius		#		
01/03/05	8-12	40	Q	0.0	0.99	2.1	9.2	1.60	×	Water XFER off, Air inj. on, Spray off
01/14/05	6-12	45	g	0.0	1.27	0.7	9.2	1.65	≻	Water XFER off, Air inj. on, Spray off
01/21/05	0-5	180	g	0.0	1.2	6.3	9.1	1.55	۲	Water XFER off, Air inj. on, Spray on
01/28/05	0-2	175	9	0.0	1.6	2.7	9.0	1.55	≻	Water XFER off, Air inj. on, Spray on
02/02/05	0-5	200	₽	0.0	0.53	9.1	9.1	1.50	≻	Water XFER off, Air inj. on, Spray off
02/08/05	8-12	225	Q	0.0	1.01	8.6	9.0	1.50	٢	Water XFER off, Air inj. on, Spray off
02/16/05	9-19	275	g	0.0	2.6	12.0	9.2	1.35	λ	Water XFER off, Air inj. on, Spray off
02/21/05	а-8 С	45	g	0.0	1.26	12.9	9.1	1.33	۲	Water XFER off, Air inj. on, Spray off
03/03/05	0-2	45	g	0.0	0.95	8.8	9.2	1.40	۲	Water XFER off, Air inj. on, Spray off
03/07/05	5-12	180	Q	0.0	1.13	14.4	9.2	1.40	٢	Water XFER off, Air inj. on, Spray on
03/14/05	10-15	200	g	0.0	1.24	8.6	9.2	1.45	٨	Water XFER off, Air inj. on, Spray off
03/22/05	9 1	45	Q	0.0	1.07	6.4	9.3	1.50	۲	Water XFER off, Air inj. on, Spray off
03/28/05	0-2	80	Q	0.0	0.30	11.4	9.3	1.45	۲	Water XFER off, Air inj. on, Spray on
04/04/05	5-10	06	Q	0.0	0.21	13.3	9.2	1.55	۲	Water XFER off, Air inj. on, Spray on
04/11/05	0-8	290	Q	0.0	0.58	10.1	9.2	1.70	۲	Water XFER off, Air inj. on, Spray on
04/20/05	10-20	195	Q	0.0	1.66	15.7	9.2	1.85	۲	Water XFER off, Air inj. on, Spray on
04/25/05	5-13	260	QN	0.0	2.34	14.9	9.3	1.85	۲	Water XFER off, Air inj. on, Spray on
05/02/05	9-0	185	Q	0.0	0.37	16.1	9.3	1.70	۲	Water XFER on, Air inj. on, Spray on
05/09/05	5-10	170	QN	0.0	0.41	23.2	9.3	1.60	۲	Water XFER off, Air inj. on, Spray on
05/16/05	0-4	45	QN	0.0	1.14	27.1	9.3	1.60	۲	Water XFER on, Air inj. on, Spray on
05/23/05	5-13	280	Q	0.0	0.05	23.7	9.3	1.70	٢	Water XFER on, Air inj. on, Spray on
05/31/05	4-6	280	g	0.0	0.16	18.8	9.3	1.85	٨	Water XFER on, Air inj. on, Spray on
06/03/05	4-9	220	QN	0.0	0.00	18.1	9.2	2.00	۲	Water XFER on, Air inj. on, Spray on
06/10/05	0-2	160	QN	0.0	0.13	16.9	9.3	2.00	۲	Water XFER off, Air inj. on, Spray on
06/14/05	0-2	E&S	QN	0.0	0.30	18.5	9.3	1.90	۲	Water XFER off, Air inj. on, Spray on
06/21/05	0-8	160	g	0.0	0.36	23.8	9.3	2 00	≻	Water XFER on, Air inj. on, Spray on
06/29/05	0-5	180	Q	0.0	0.19	21.0	9.3	2.10	۲	Water XFER on, Air inj. on, Spray on

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Schneider Waste Management Facility **BP - America Procuction Company** Field Data Summary SW/4, Section 28, T 32 N, R 10 W, N.M.P.M San Juan County, New Mexico

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REVISED DATE: DECEMBER 27, 2005 (KAG)

**BLAGG ENGINEERING, INC.** 

DATE	SPEED	WIND DIRECTION	221	DISSOLVED	DISSOLVED	TEMP.	I	FREE- BOARD	LINER / BERM INTEGRITY	COMMENTS
	ЧďШ	bearing	Edd	ppm	mqq	celcius		¥		
07/08/05	4-10	240	g	0.0	1.65	18.3	9.2	2.75	~	Water XFER on, Air inj. on, Spray on
07/12/05	6-3	170	Q	0.0	0.02	29.6	9.3	2.50	<b>&gt;</b>	Water XFER on, Air inj. off, Spray on
7/19/05	ဗ္	Variable	g	0.0	0.02	19.4	9.3	2.40	7	Water XFER off, Air inj. on, Spray off
07/25/05	0-7	260	Q	0.0	0.36	24.2	9.3	2.40	>	Water XFER off, Air inj. on, Spray off, Sludge Meas.
38/01/05	CALM	0	Q	0.0	0.96	25.1	9.3	2.50	≻	Water XFER off, Air inj. on, Spray off
38/08/05	0-4	06	g	0.0	N/A	24.2	9.3	2.90	>	Water XFER off, Air inj. off, Spray off, Draining Pond
38/16/05	N/A	N/A	Q	0.0	N/A	N/A	N/A	N/A	۲	Pond Empty, Removing Sludge
08/22/05	N/A	N/A	g	0.0	N/A	N/A	N/A	N/A	~	Pond Empty for Relining Project
38/26/05	A/A	N/A	Q	0.0	N/A	N/A	N/A	N/A	7	Pond Empty for Relining Project
30/06/05	N/A	N/A	QN	0.0	N/A	N/A	N/A	N/A	≻	Pond Empty for Relining Project
9/13/05	N/A	N/A	QN	0.0	N/A	N/A	N/A	N/A	۲	New Liner in, installing aeration
09/21/05	N/A	N/A	QN	0.0	N/A	N/A	N/A	N/A	≻	New Liner in, installing aeration
09/26/05	5-8	180	DN	0.0	N/A	N/A	N/A	3.50	۲	Pond In Service 9/22/05. 1"-2" water. Set Indicator.
10/07/05	2-5	45	QN	0.0	N/A	N/A	N/A	3.50	≻	1" - 3" water in pond.
10/11/05	6-14	285	QN	0.0	N/A	14.8	8.2	3.50	۲	Water XFER off, Air inj. off, water on 90% of surface
10/18/05	0-2	120	Q	0.0	N/A	16.9	8.2	3.30	۲	Water XFER off, Air inj. off, Spray Off
10/25/05	CALM	0	Q	0.0	8.10	15.9	8.4	3.25	۲	Water XFER off, Air inj. off, Spray Off
11/03/05	2-6	110	QN	0.0	N/A	13.0	8.1	3.25	Z	Find water in New NE Sump - Apparent leak.
11/07/05	CALM	0	Q	0.0	N/A	NA	NA	3.30	NA	Pond Down for Leak Inspection
11/16/05	N/A	N/A	Q	0.0	N/A	N/A	N/A	NA	NA	Pond Down for Leak Inspection
11/22/05	N/A	N/A	QN	0.0	N/A	N/A	N/A	N/A	NA	Pond Down for Leak Inspection
11/29/05	15-22	270	DN	0.0	N/A	N/A	N/A	N/A	NA	Pond Down for Liner Repair
12/05/05	N/A	N/A	Q	0.0	N/A	NA	N/A	N/A	NA	Pond Down for Liner Repair
12/13/05	N/A	N/A	QN	0.0	N/A	NA	NA	N/A	NA	Pond Down for Liner Repair
12/19/05	0-2	70	Q	0.0	N/A	N/A	NA	٨٨	≻	Pond in service 12/14/05. 1"-2" ice on 75% surface
12/26/05	4-6	10	Q	0.0	N/A	N/A	N/A	A/A	≻	About 2" Ice on entire surface.

SEP-SUM.WK4

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# BP - America Production Company Schneider Waste Management Facility Leak Detection - Monthly Insepection Field Data Summary

SW/4, Section 28, T 32 N, R 10 W, N.M.P.M San Juan County, New Mexico

REVISED DATE: DECEMBER 14, 2005 (KAG)

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### **BLAGG ENGINEERING, INC.**

		NE SUI	MP			SE SUI	MP	
INITIAL DATE	DISSOLVED SULFIDE	DISSOLVED OXYGEN	TEMP.	рH	DISSOLVED SULFIDE	DISSOLVED OXYGEN	TEMP.	pН
	ppm	ppm	celcius		ppm	ppm	celcius	
04/44/05		0.69	2.0	0.1	0.0	0.25	26	0.1
02/02/05	0.0	0.08	2.0	9.1 9.0	0.0	0.25	6.8	9.1
03/03/05	0.0	0.50	7.2	9.0	0.0	0.39	7.4	8.9
04/04/05	0.0	0.81	12.2	9.0	0.0	0.62	12.0	9.0
05/02/05	0.0	1.27	17.5	9.0	0.0	0.29	17.6	9.1
06/03/05	0.0	0.62	18.5	9.1	0.0	0.94	18.6	9.2
07/12/05	0.0	0.11	26.4	9.2	0.0	0.06	26.1	9.3
08/01/05	0.0	0.64	24.4	9.1	0.0	0.22	25.0	9.0
09/06/05	SUMPs	EMPTY	FOR	<b>RE-LINING</b>	PROJECT			
10/07/05	0.0	0.09	14.9	9.2	0.0	0.31	15.5	9.2
11/03/05	0.0	0.99	15.6	9.0	0.0	1.36	15.8	9.0
12/13/05	SUMPs	EMPTY	FOR	LINER	REPAIR			

# BLAGG ENGINEERING, INC.

P.O. Box 87, Bloomfield, New Mexico 87413 Phone: (505)632-1199 Fax: (505)632-3903

February 14, 2005

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Ms. Ed Martin New Mexico Oil Conservation Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505

Re: Annual Report: Permit NM-02-0002 BP Schneider Waste Management Facility SW/4 Sec. 28 - T32N - R10W, San Juan County, NM

Dear Mr. Martin:

On behalf of BP America Production Co., Blagg Engineering, Inc. (BEI) is submitting this annual report for the Schneider Waste Management Facility, Permit NM-02-0002. This report is for 2004 calendar year monitoring. Attached are spread sheets summarizing weekly evaporation pond and monthly sump monitoring test results.

# **General Pond Monitoring**

Weekly evaporation pond monitoring has not indicated the generation of dissolved sulfide or hydrogen sulfide gas during any inspections. Tested pH levels were stable at values ranging between 8.9 - 9.7 units. A minimum freeboard of 1.42 feet was measured in April, 2004 and year end freeboard was measured at 1.60 feet. Water transfer to the Cahn Evaporation Pond (Permit NM-02-0007) was conducted intermittently throughout the year via a gravity feed pipeline to reduce water levels in the Schneider pond.

The pond aeration system was in continuous operation throughout the year, with occasional shutdowns for maintenance or electrical outage only. Use of the water cascade system was discontinued in May, 2004 and a new water spray evaporation system was installed in October, 2004. The spray system has automated shut-down depending on wind speed and direction. The spray system was mostly operated in manual mode for setup and testing.

# Landfarm Treatment Zone Monitoring

No landfarm cells were constructed during the 2004 calendar year and no treatment zone monitoring was required or performed.

# **Evaporation Pond Sludge Thickness**

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Sludge thickness was measured in the pond on December 16, 2004 at 12 separate locations. The maximum thickness was measured at 6-inches at the northwest corner of the pond and the average thickness for all points was 2.3-inches. The facility permit does not require sludge removal until the average thickness exceeds 12-inches.

# Leak Detection System Monitoring

The southeast galvanized steel sump was replaced with a pvc sump in January, 2004 and the northeast sump was replaced in April, 2004. During these sump replacements there were no significant leaks observed in the old collection system. Fluid accumulation continues to be observed and periodically removed from both sumps.

Questions or comments concerning the this transmittal may be directed to myself at (505)632-1199 or to Brittany Benko with BP at (505)326-9200.

Respectfully submitted: *Blagg Engineering, Inc.* 

My C. Flog

Jeffrey C. Blagg, P.E. President

Attachments: Monitoring Spread Sheets

cc: Denny Foust, NMOCD Aztec District Office Don Brooks, BP SJ Operations Center

# BP - America Production Company Schneider Waste Management Facility Leak Detection - Monthly Insepection Field Data Summary

SW/4, Section 28, T 32 N, R 10 W, N.M.P.M San Juan County, New Mexico

REVISED DATE: DECEMBER 20, 2004 (KAG)

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### **BLAGG ENGINEERING, INC.**

		NE SU	ИР			SE SU	ЛР	
INITIAL	DISSOLVED	DISSOLVED	TEMP.	pН	DISSOLVED	DISSOLVED	TEMP.	pН
DATE	SULFIDE	OXYGEN	1 1		SULFIDE	OXYGEN		
	ppm	ppm	celcius		ppm	ppm	celcius	
01/19/04	0.0	0.09	5.8	9.7	0.0	0.19	9.3	9.6
02/17/04	0.0	0.31	5.3	9.5	0.0	0.09	6.2	9.5
03/05/04	0.0	0.78	6.3	9.3	0.0	1.01	5.6	9.3
04/01/04	0.0	0.95	11.9	9.3	TLTM	TLTM	TLTM	TLTM
04/12/04	0.0	1.05	11.0	9.0	0.0	0.30	10.6	9.2
05/03/04	0.0	0.74	12.7	9.1	0.0	0.33	11.7	9.2
06/03/04	0.0	0.39	17.0	9.2	0.0	0.68	16.5	9.3
07/20/04	0.0	0.03	23.0	8.7	0.0	0.00	24.0	9.0
08/09/04	0.0	0.97	21.8	8.9	0.0	0.52	21.5	8.9
09/02/04	0.0	0.04	21.8	9.1	0.0	0.02	21.0	9.0
10/14/04	0.0	0.09	16.4	9.1	0.0	0.09	16.0	9.0
11/10/04	0.0	0.24	11.8	9.1	0.0	0.06	12.2	9.0
12/03/03	0.0	0.05	8.6	9.1	0.0	0.03	8.9	9.2

BP - America Procuction Company Schneider Waste Management Facility Field Data Summary SW/4, Section 28, T32 N, R10 W, N.M.P.M San Juan County, New Mexico

REVISED DATE: JANUARY 4, 2005 (KAG)

**BLAGG ENGINEERING, INC.** 

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COMMENTS				CAL INSTS TO STAND H20 XFER OFF AIR INJ ON H20 CASCADE OFF	CAL INSTS TO STAND H20 XFER OFF AIR INJ ON H20 CASCADE OFF
LINER / BERM	INTEGRITY			7	۲
FREE-	BOARD	ħ.		2.40	2.30
Hđ				6	9.1
TEMP.		celcius		26.0	27.9
DISSOLVED	OXYGEN	mqq		0.00	0.05
DISSOLVED	SULFIDE	ppm		0.0	0.0
H2S		bpm		g	QN
MIND	DIRECTION	bearing		180	290
ANIM	SPEED	hqm		5-10	0-7
INITIAL	DATE			07/15/04	07/20/04

CAL INSTS TO STAND H20 XFER OFF AIR INJ ON H20 CASCADE OFF	CAL INSTS TO STAND H20 XFER OFF AIR INJ ON H20 CASCADE OFF	CAL INSTS TO STAND H20 XFER OFF AIR INJ OFF H20 CASCADE OFF AIR INJ ON	CAL INSTS TO STAND H20 XFER CAHN AIR INJ ON H20 CASCADE OFF	CAL INSTS TO STANDARDS AIR INJ ON H20 XFER	CAL INSTS TO STANDARDS AIR INJ ON H20 XFER TO CAHN H20 CASCADE OFF	CAL INSTS TO STAND H20 XFER OFF AIR INJ ON H20 CASCADE OFF	CAL INSTS TO STAND H20 XFER OFF AIR INJ ON H20 CASCADE OFF	CAL INSTS TO STAND H20 XFER TO CAHN AIR INJ ON H20 CASCADE OFF	CAL INSTS TO STAND H20 XFER TO CAHN AIR INJ ON H20 CASCADE OFF	CAL INSTS TO STAND H20 XFER TO CAHN AIR INJ ON H20 CASCADE OFF	CAL INSTS TO STAND H20 XFER OFF AIR INJ ON H20 CASCADE OFF	H20 XFER OFF AIR INJ ON H20 CASCADE OFF PRELIM INSTALL OF AIR SPRAY SYS	H20 XFER ON AIR INJ ON NEW H20 SPRAY EVAP SYS UNDER CONSTR	CAL INSTS TO STAND H20 XFER OFF AIR INJ ON	CAL (NSTS TO STAND H20 XFER OFF AIR INJ ON NEW H20 SPRAYOFF	CAL INSTS TO STAND H20 XFER TO CAHN AIR INJ ON H20 SPRAYOFF	CAL INSTS TO STAND H20 XFER TO CAHN AIR INJ ON H20 SPRAYOFF	CAL INSTS TO STAND H20 XFER TO CAHN AIR INJ ON H20 SPRAYOFF	CAL INSTS TO STAND H20 XFER OFF AIR INJ ON H20 SPRAYOFF	CAL INSTS TO STAND H20 XFER TO CAHN AIR INJ ON AIR/H20 SPRAYOFF	H20 XFER OFF AIR INJ ON H20 SPRAYOFF CONDUCT ANN SLUDGE BUILDUP MEAS.	CAL INSTS TO STAND H20 XFER OFF AIR INJ ON H20 SPRAYOFF	CAL INSTS TO STAND H20 XFER TO CAHN AIR INJ ON H20 SPRAYON	
≻	٢	≻	۲	۲	۲	≻	≻	7	≻	≻	≻	۲	۲	۲	۲	≻	۲	≻	۲	≻	۲	≻	۲	
2.40	2.30	2.20	2.30	2.30	2.25	2.25	2.20	2.30	2.20	2.40	2.40	2.33	2.25	2.50	2.00	1.90	1.80	1.70	1.70	1.60	1.55	1.55	1.60	
თ	9.1	თ	9.2	9.1	6	6	G	0	σ	9.1	9.1	9.3	6	9.1	9.2	9.2	9.1	9.2	9.2	9.2	9.4	9.2	9.1	
26.0	27.9	23.1	19.2	21.4	18.0	24.2	20.6	14.4	17.6	15.2	18.0	13.6	0.9	11.1	9.9	5.2	10.0	5.4	2.6	7.6	8.5	1.5	4.6	
0.00	0.05	0.01	1.41	2.13	0.05	0.66	0.06	0.14	0.08	0.06	0.02	0.04	0.16	0.07	0.26	0.49	0.78	0.90	0.80	0.63	0.09	4.00	2.00	
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	_
Q	DN	Q	Q	Q	QN	g	Ð	g	g	g	ġ	Q	Q	Q	Q	g	Q	QN	Q	9	Q	QN	QN	
180	290	285	190	210	45	225	190	40	180	120	180	180	180	180	135	45	260	30	190	225	215	200	0	
5-10	0-7	0-7	0-2	а-8 С	0-4	2-8	4-8	5-10	10-20	0-3	9 4	3-7	5-15	10-15	5-10	2-6	5-12	5-8 -8	5-10	0-7 0	5-10	0-5	CALM	
07/15/04	07/20/04	07/28/04	08/09/04	08/16/04	08/27/04	09/02/04	09/08/04	09/16/04	09/20/04	09/28/04	10/06/04	10/14/04	10/22/04	10/28/04	11/04/04	11/10/04	11/19/04	11/22/04	12/01/04	12/10/04	12/16/04	12/22/04	12/30/04	

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Schneider Waste Management Facility **BP - America Procuction Company** SW/4, Section 28, T 32 N, R 10 W, N.M.P.M San Juan County, New Mexico Field Data Summary

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REVISED DATE: JANUARY 4, 2005 (KAG)

**BLAGG ENGINEERING, INC.** 

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CONNENTS				CAL INST @ CAMM AIR INJ ON ICE ON 90% OF SURFACE PUMP NE SUMP, 15+- BBL	CAL INSTS @ CAHN AIR INJ ON H20 CASCADE OFF	POND 90% COVERED WICE CAL INSTS TO STANDS AIR INJ ON H20 CASCADE OFF	CE ON 50% OF SURFACE AIR INJ ON H20 CASCADE OFF, CAL INST 😨 CAHN	CAL INSTS 🍔 CAHN AIR INJ ON H20 CASCADE OFF	420 XFER TO CAHN ON CAL INSTS & CAHN AIR INJ ON H20 CASCADE OFF	CAL INSTS TO STANDARDS & OFFICE H20 XFER OFF AIR INJ ON H20 CASCADE OFF	CAL INSTS 😨 OFFICE,AIR INJ ON H20 CASCADE OFF	CAL INSTS TO STANDARDS AIR INJ ON H20 CASCADE OFF H20 XFER TO CAHN OFF	CAL INST 😨 OFFICE AIR INJ ON H20 CASCADE ON	CAL INST @ OFFICE AIR INJ OFF H20 CASCADE ON	CAL INSTS @ CAMN H20 TRANSFER OFF AR INJ OFF H20 CASCADE ON	VEW NE SUMP INSTALLED 04/02/04 AIR INJ ON H20 CASCADE ON H20 XFER OFF	CAL INSTS TO STAND H20 XFER OFF AIR INJ ON H20 CASCADE ON	CAL INSTS TO STAND H20 XFER OFF AIR INJ ON H20 CASCADE ON	CAL INSTS TO STAND H20 XFER OFF AIR INJ ON H20 CASCADE ON	CAL INSTS TO STAND H20 XFER OFF AIR INJ ON H20 CASCADE ON	H20 XFER OFF AIR (NJ ON H20 CASCADE ON TURN H20 CASCADE OFF	CAL INSTS TO STAND HZO XFER OFF AIR INJ ON HZO CASCADE OFF	CAL INSTS TO STAND H20 XFER OFF AIR INJ ON H20 CASCADE OFF	CAL INSTS TO STAND H20 XFER OFF AIR INJ ON H20 CASCADE OFF	CAL INSTS TO STAND HZO XFER OFF AIR INJ OFF HZO CASCADE OFF	CAL INSTS TO STAND H20 XFER OFF AIR INJ ON H20 CASCADE OFF	CAL INSTS TO STAND H20 XFER OFF AIR INJ ON H20 CASCADE OFF	CAL INSTS TO STAND HZD XFER OFF AIR INJ ON HZO CASCADE OFF	CAL INSTS TO STAND H20 XFER OFF AIR INJ ON H20 CASCADE OFF
	LINEN DERM INTEGRITY			۲	7	~	>	~	~	~	~	~	7	~	~	~	>	>	~	~	≻	~	~	7	>	>	>	~	~
	BOARD	Ŧ.		1.71	1.67	1.63	1.50	1.50	1.58	1.50	1.50	1.45	1.55	1.58	1.67	1.42	1.42	1.60	1.65	1.70	1.80	1.80	1.80	1.90	2.10	2.10	2.25	2.25	2.33
	5			9.7	9.6	9.7	9.7	9.7	9.9	9.6	9.6	9.3	9.1	9.5	9.4	9.5	9.4	9.5	9.5	9.5	9.3	9.3	9.3	9.4	9.2	9.3	9.2	8.9	ნ
		celcius		-1.0	0.1	-0.8	0.9	2.0	1.2	7.0	6.3	14.6	15.4	16.3	15.4	12.3	17.4	14.0	15.4	22.5	15.9	26.7	23.2	19.0	20.6	31.2	25.6	25.7	17.6
	DISSOLVEU	Edd		8.2	0.91	1.12	0.81	0.39	0.34	2.21	0.36	0.58	0.09	0.04	0.1	0.84	0.05	0.2	0.27	0.41	2.55	0.03	0.08	0.27	0.31	0.05	0.04	0.01	0.10
	SULFIDE	Edd		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	H25	mqq		Q	g	Q	g	Q	Q	g	g	Q	Q	Q	Q	Q	Q	Q	Q	g	g	Q	g	g	g	Q	g	Q	Q
	DIRECTION	bearing		0	06	20	210	195	15	100	275	290	220	225	0	125	180	180	200	200	270	190	280	100	190	180	210	260	20
	SPEED	hqm		CALM	5-10	5-8	3-8 3	0-8	0-2	5-9	10-28	0-1	0-5	4	CALM	1-3	5-10	4-11	10-17	5-12	10-20	5-8	5-9	2-6	2-9	5-10	2-6	5-10	5-10
	DATE			01/06/04	01/13/04	01/27/04	02/04/04	02/09/04	02/17/04	02/26/04	03/05/04	03/11/04	03/18/04	03/26/04	04/01/04	04/08/04	04/12/04	04/22/04	04/29/04	05/03/04	05/13/04	05/19/04	05/27/04	06/03/04	06/10/04	06/14/04	06/24/04	06/30/04	07/09/04

07/09/04 06/30/04

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Schneider Waste Management Facility **BP - America Procuction Company** Field Data Summary SW/4, Section 28, T 32 N, R 10 W, N.M.P.M San Juan County, New Mexico

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REVISED DATE: JANUARY 4, 2005 (KAG)

BLAGG ENGINEERING, INC.

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	COMMENTS			CAL INST @ CANN AIR INJ ON ICE ON 80% OF SURFACE PUMP NE SUMP, 15 + - BBL	CAL INSTS @ CAHN AIR INJ ON H20 CASCADE OFF	POND 80% COVERED WICE CAL INSTS TO STANDS AIR INJ ON H20 CASCADE OFF	ICE ON 50% OF SURFACE AIR INJ ON H20 CASCADE OFF, CAL INST @ CAHN	CAL INSTS @ CAHN AIR INJ ON H20 CASCADE OFF	H20 XFER TO CAHN ON CAL INSTS @ CAHN AIR INJ ON H20 CASCADE OFF	CAL INSTS TO STANDARDS @ OFFICE H20 XFER OFF AIR INJ ON H20 CASCADE OFF	CAL INSTS @ OFFICE,AIR INJ ON H20 CASCADE OFF	CAL INSTS TO STANDARDS AIR INJ ON H20 CASCADE OFF H20 XFER TO CAHN OFF	CAL INST @ OFFICE AIR INJ ON H20 CASCADE ON	CAL INST @ OFFICE AIR INJ OFF H20 CASCADE ON	CAL INSTS @ CAHN H20 TRANSFER OFF AIR INJ OFF H20 CASCADE ON	NEW NE SUMP INSTALLED 04/02/04 AIR INJ ON H20 CASCADE ON H20 XFER OFF	CAL INSTS TO STAND H20 XFER OFF AIR INJ ON H20 CASCADE ON	CAL INSTS TO STAND H20 XFER OFF AIR INJ ON H20 CASCADE ON	CAL INSTS TO STAND H20 XFER OFF AIR INJ ON H20 CASCADE ON	CAL INSTS TO STAND H20 XFER OFF AIR INJ ON H20 CASCADE ON	H20 XFER OFF AIR INJ ON H20 CASCADE ON TURN H20 CASCADE OFF	CAL INSTS TO STAND H20 XFER OFF AIR INJ ON H20 CASCADE OFF	CAL INSTS TO STAND H20 XFER OFF AIR INJ ON H20 CASCADE OFF	CAL INSTS TO STAND H20 XFER OFF AIR INJ ON H20 CASCADE OFF	CAL INSTS TO STAND H20 XFER OFF AIR INJ OFF H20 CASCADE OFF	CAL INSTS TO STAND H20 XFER OFF AIR INJ ON H20 CASCADE OFF	CAL INSTS TO STAND H20 XFER OFF AIR INJ ON H20 CASCADE OFF	CAL INSTS TO STAND H2D XFER OFF AIR INJ ON H2O CASCADE OFF	CAL INSTS TO STAND H20 XFER OFF AIR INJ ON H20 CASCADE OFF
	LINER / BERM	INTEGRITY		7	7	7	7	۲	7	>	۲	۲	7	≻	۲	7	≻	۲	۲	۲	≻	۲	۲	۲	۲	۲	۲	۲	7
	FREE-	BOARD		1.71	1.67	1.63	1.50	1.50	1.58	1.50	1.50	1.45	1.55	1.58	1.67	1.42	1.42	1.60	1.65	1.70	1.80	1.80	1.80	1.90	2.10	2.10	2.25	2.25	2.33
	Hđ			9.7	9.6	9.7	9.7	9.7	9.9	9.6	9.6	9.3	9.1	9.5	9.4	9.5	9.4	9.5	9.5	9.5	9.3	9.3	9.3	9.4	9.2	9.3	9.2	8.9	6
	TEMP.	celcius.		-1.0	0.1	8. 9	0.9	2.0	1.2	7.0	6.3	14.6	15.4	16.3	15.4	12.3	17.4	14.0	15.4	22.5	15.9	26.7	23.2	19.0	20.6	31.2	25.6	25.7	17.6
A CONTRACTOR OF A CONTRACTOR O	DISSOLVED	OXYGEN		8.2	0.91	1.12	0.81	0.39	0.34	2.21	0.36	0.58	0.09	0.04	0.1	0.84	0.05	0.2	0.27	0.41	2.55	0.03	0.08	0.27	0.31	0.05	0.04	0.01	0.10
	DISSOLVED	SULFIDE		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	H2S	maa		g	g	9	g	g	9	g	g	Q	g	g	g	9	g	g	Q	Q	Q	QN	Q	Q	QN	QN	Q	Q	Q
<u></u>	MIND	DIRECTION		0	06	20	210	195	15	100	275	290	220	225	0	125	180	180	200	200	270	190	280	100	190	180	210	260	20
	MIND	SPEED		CALM	5-10	5-8 2	8-8 2-8	8-0 0	0-2	5-9 2-9	10-28	<u>9</u>	0-5	4	CALM	- <u>1</u>	5-10	4-11	10-17	5-12	10-20	5-8	5-9	2-6	2-9	5-10	2-6	5-10	5-10
1	INITIAL	DATE		01/06/04	01/13/04	01/27/04	02/04/04	02/09/04	02/17/04	02/26/04	03/05/04	03/11/04	03/18/04	03/26/04	04/01/04	04/08/04	04/12/04	04/22/04	04/29/04	05/03/04	05/13/04	05/19/04	05/27/04	06/03/04	06/10/04	06/14/04	06/24/04	06/30/04	07/09/04

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BLAGG ENGINEERING, INC.

P.O. Box 87, Bloomfield, New Mexico 87413 Phone: (505)632-1199 Fax: (505)632-3903 RECEIVED

MAR 0 1 2004 Environmental Bureau Oil Conservation Division

February 25, 2004

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Ms. Martyne J. Kieling New Mexico Oil Conservation Division 1220 South St. Francis Frive Santa Fe, New Mexico 87505

Re: Annual Report: Permit NM-02-0007 BP Cahn Waste Management Facility NW/4 Sec. 33 - T32N - R10W, San Juan County, NM

Dear Ms. Kieling:

On behalf of BP America Production Co., Blagg Engineering, Inc. (BEI) is submitting this annual report for the Cahn Waste Management Facility, Permit NM-02-0007. This report is for 2003 calendar year monitoring. Attached are spread sheets that summarize the weekly evaporation pond and monthly sump monitoring test results.

In October, 2003 the pond was evaporated and drained of fluids and all sediment/sludge/salt was removed. The liner and leak detection system is approximately 21 years old and a new liner and leak detection system was installed on top of the existing system in November, 2003. The old liner and leak detection system was left in place and in operation as a back-up to the new system. Additional documentation for the liner installation is presented herein.

# **General Pond Monitoring**

Weekly evaporation pond monitoring has not indicated the generation of dissolved sulfide or hydrogen sulfide gas during any inspections. Tested pH levels were stable at values in excess of 9.0. Discharges to this pond are via a pipeline from the Schneider Waste Management Facility and no water haulers or other pipelines emit water to the facility. Minimum freeboard was measured at 1.0 feet between March 31 - April 4, 2003. Evaporation brought the freeboard level to 1.5 feet by May 20, 2003. The year-end freeboard (following new liner installation) was measured at 1.7 feet.

# Landfarm Treatment Zone Monitoring

No landfarm cells were constructed during the 2003 calendar year and no treatment zone monitoring was required or performed. During pond sediment/salt removal for liner replacement, these materials were temporarily stored in a bermed and fenced area prior to transportation to the San Juan County Regional Landfill. Correspondence, Generators Waste Profile and laboratory analytical

reports concerning this waste are attached.

### **Evaporation Pond Sludge Thickness**

All sludge/sediment was removed from the pond in October, 2003 for the new liner installation. The majority of this material was salt that accumulated as all residual water was evaporated from the pond. As of December 30, 2003 the pond sediment thickness was 0'0".

### Leak Detection System Monitoring

No significant leaks into or from the leak detection system were observed during the 2003 calendar year. A secondary (shallow) leak detection system was installed in the pond during the new liner installation in November, 2003. The existing primary (deep) leak detection system was left in place for identification of leaks through the new liner system bottom liner.

As of December 30, 2003 the shallow leak detection system had not accumulated any fluids, indicating that there were no leaks in the new liner system. The deep leak detection system was capturing fluids at a low rate (about 6 gallons/day) from prior liquids trapped between liners. This flow rate is anticipated to reduce to a minimal volume as the trapped fluids are all collected.

#### **Closure of Tank Drain Pit**

During pond relining operations, a tank drain sump pit containing a steel tank was taken out of service on November 12, 2003. The soils below this pit were sampled to insure there were no leaks into the subsurface soils. Laboratory data reports indicate that no hydrocarbons were detected in the soils below this pit. The field data and laboratory reports for this pit closure are attached.

#### Waterfowl Diversionary Flagging

New waterfowl diversionary flagging was installed over the pond following new liner installation in November, 2003. This flagging is suspended by five (5) steel cables stretched about 6 feet above the pond. No waterfowl has been observed in the waste management facility since installation of the flagging.

# Year 2004 Planned Operations

Additional facility modifications are not scheduled for 2004.

Questions or comments concerning this transmittal may be directed to myself at (505)632-1199 or to Brittany Benko with BP at (505)326-9200.

Respectfully submitted: *Blagg Engineering, Inc.* 

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Jeffy C. Slagg

Jeffrey C. Blagg, P.E., President

Attachments: Monitoring Spread Sheets Solid Waste Landfill Disposal Documentation Pit Closure Documentation

cc: Denny Foust, NMOCD Aztec District Office Brittany Benko, BP SJ Operations Center George Joseph, BP SJ Operations Center



Cahn Waste Management Facility **BP / America Production Co.** Field Data Summary SW/4, Section 28, T 32 N, R 10 W, N.M.P.M San Juan County, New Mexico

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REVISED DATE: DECEMBER 31, 2003 (KAG)

**BLAGG ENGINEERING, INC.** 

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COMMENTS		CAL INST @ SCHWEIDER H30 XEER FROM SCH	CAL INSTS & OFFICE, SUMPS PUMPED 01/06/03 H20 IN SE & BOTTOM TSTM	CAL Insta 🕲 Office, H20 XFER FROM SCHNEIDER	cal insts 😰 office, H20 XFER FROM Schneider	CAL INSTS @ to standards, H20 XFER FROM SCHNEIDER USING PUMP	CAL INSTS to standards, H2O XFER FROM SCHNEIDER, ICE ON 95% OF SURFACE	CAL NOTES @ SCHN, H20 XFER FROM SCHNEIDER TERM. 27/03 THIN LAYER OF ICE.	INSTS CAL NOTES ON SCHNEIDER SHEET	CAL INSTS to standards	Cel insta to Standards	CAL INSTS to standards, water xfer from Schneider.	CAL INSTS to standards, water xfer from Schneider.	Cal insts to Standards	Cal (nats to Standards	INSTS CAL NOTES ON SCHNEIDER SHEET	Cel Insts to Standards	Cal insta to Standards	Cal insts to Standards	Cal Insta to Standards	Calins's to Standards	Calinsts to Standards	Cal insta to Standards	Cel Insta to Standerde	Cal insts to Standards, pond water has reddish color	INSTS CAL NOTES ON SCHNEIDER SHEET	INSTS CAL NOTES ON SCHNEIDER SHEET	Cal insts to Standards
LINER / BERM	INTEGRITY	<b>&gt;</b>	>	ر ۲	<b>&gt;</b>	Y	Y	Y	۲	Y	Y	Y	Y	γ	Y	۲	Y	Υ	Y	Y	۲	۲	Y	7	7	۲	>	>
FREF	BOARD A.	3.05	2.80	2.90	3.00	3.00	1.50	1.50	1.50	1.50	1.40	1.50	1.10	1.00	1.00	1.10	1.20	1.05	1.20	1.25	1.30	1.50	1.60	1.50	1.30	1.60	1.30	1.50
Hđ		9.4	9.4	9.8	9.6	9.4	9.1	9.3	9.2	9.2	9.2	9.3	9.6	9.5	9.4	9.5	9.4	9.5	9.4	9.3	9.4	9.4	9.2	9.1	9.4	9.4	9.2	9.3
TEMP.	ceicius	3.8	8.2	0.4	6.6	14.6	0.1	0.4	3.9	2.0	6.3	13.9	9.7	12.2	11.8	6.6	6.8	17.7	11.1	11.7	16.8	14.5	17.7	21.6	18.6	17.3	24.4	18.7
DISSOLVED	DPM	1 14	0.08	0.14	0.1	0.05	0.09	0.33	0.24	0.48	0.08	0.09	0.09	1.6	0.64	1.7	2.12	0.61	0.99	0.52	0.85	0.81	0.53	9.05	2.48	0.75	0.70	1.83
DISSOLVED	SULFIDE		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
H2S	Ead	Ę	g	g	g	g	g	g	g	g	g	g	Q	g	Q	Q	Q	Q	g	g	g	g	g	Q	g	g	QN	g
QNIM	DIRECTION	FROM FAST	180	0	165	260	270	350	5	350	190	260	170	150	WEST	15	260	255	190	185	285	120	180	325	180	10	190	45
QNIM	SPEED mph	1-3	0-2	6-12	5-8	9-13	8-15	1-4	2-7	1-3	0-3	0-5	4-8	2-7	4-12	4-7	15-25	10-18	0-4	5-8	3-10	10-18	4-9	7-11	0-3	2-5	2-9	0 4
INITIAL	DATE	01/03/03	01/10/03	01/17/03	01/21/03	01/28/03	02/06/03	02/11/03	02/20/03	02/26/03	03/03/03	03/10/03	03/17/03	03/31/03	04/04/03	04/09/03	04/15/03	04/24/03	05/01/03	05/09/03	05/13/03	05/20/03	05/28/03	06/04/03	06/11/03	06/19/03	06/26/03	07/02/03

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# BP / America Production Co. Cahn Waste Management Facility Field Data Summary SW/4, Section 28, T 32 N, R 10 W, N.M.P.M San Juan County, New Mexico

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REVISED DATE: DECEMBER 31, 2003 (KAG)

**BLAGG ENGINEERING, INC.** 

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COMMENTS			cal Inste to Standards	INSTS CAL NOTES ON SCHNEIDER SHEET	cal inste to Standards, xter water to echneider with vac. truck.	cal insta to Standards, xfer water to schneider with vac. truck.	cal insts to Standards, pond drained for inspection/repair	INSTS CAL NOTES ON SCHNEIDER SHEET	cal inste to Standards	cal inste to Standards	OND W/ 80% SURFACE EXPOSED-H20 PUMPED/EVAP OUT SALT & SLUDGE ON BASE	cal insta to Standards	POND BEING CLEANED OUT CREW ON SITE REMOVING BAS SEDIMENTS	POND BEING CLEANED OUT CREW ON SITE REMOVING BAS SEDIMENTS	POND BEING CLEANED OUT CREW ON SITE REMOVING BAS SEDIMENTS	POND BEING CLEANED OUT CREW ON SITE REMOVING BAS SEDIMENTS	POND BEING CLEANED OUT CREW ON SITE REMOVING BAS SEDIMENTS	POND BEING CLEANED OUT CREW ON SITE REMOVING BAS SEDIMENTS	POND EMPTY FOR REPAIRS SUMPS PUMPED DRY	POND EMPTY FOR REPAIRS SUMPS PUMPED DOWN	420 XFER TO CAHN BEGAN 0845 11/12/03 CAL INSTS TO STANDARDS	CAL INSTS to standards, water afer from Schneider.	CAL INSTS to standards, water afer from Schneider, DO meter down.	CAL INSTS to standards, water xfer from Schneider, survey in water level indicator	CAL INSTS to standards, water afer off	CAL INSTS to standards, water xfer off	CAL INSTS to standards, water xfer off	CAL INSTS & SCHNEIDER ICE ON 100% OF SURFACE
LINER / BERM	IN FORITY		×	<b>`</b>	×	×	۲	۲	۲	Y	<u>م</u>	×	۲	7	· ·			۲	Y	Y	~	Y	Y	Y	Y	Y	۰ ۲	>
FREE-	BOAKD ft.		1.70	1.90	2.40	3.00	3.10	3.00	3.00	3.20	A	3.20	AN	AN	AN	AA	AA	AA	AN	AN	3.00	2.50	2.50	2.25	1.88	1.73	1.71	1.71
Hd			9.2	9.1	9.3	9.3	AN	9.5	9.4	AN	AN	9.3	AN	AA	AA	AA	AA	AN	NA	AA	9.5	9.6	9.7	9.5	9.6	9.6	9.6	9.6
TEMP.	celcius		18.0	32.0	20.9	28.7	AA	23.6	18.4	AA	AA	21.0	AA	NA	AN	AN	AN	AN	NA	NA	7.1	3.2	9.2	1.0	0.3	-0.9	0.4	-1.4
DISSOLVED	DXYGEN		0.51	0.06	1.15	TLTM	AN	TLTM	TLTM	AN	AA	TLTM	AN	NA	AN	AN	AN	AN	NA	NA	3.75	4.10	AN	9.80	13.10	10.20	1.90	3.80
DISSOLVED	SULFIDE		0.0	0.0	0.0	0.0	0.0	0.0	0.0	AN	AN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
H28	maa		Q	Q	Q	Q	9	g	9	g	g	g	9	٩N	AN	A	٩V	AN	AN	٩N	Q	g	g	g	g	g	g	Q
dNIM	DIRECTION		190	140	160	135	100	100	0	15	180	140	180	AN	AN	AN	Ą	AN	AN	AN	06	80	270	15	20	200	80	50
QNIM	SPEED mah		2-6	<b>4</b> -8	0-2	3-7	0-5	4-8	4-13	0-3	2-4	0.4	3-5	AN	AN	AN	AN	AN	AN	AA	3-6 2	1-3	0-2	5.10	0-3	0-2	1-4	5-4
INITIAL	DATE		07/09/03	07/18/03	07/25/03	07/31/03	08/06/03	08/15/03	08/18/03	08/26/03	09/02/03	09/11/03	09/16/03	09/25/03	10/02/03	10/07/03	10/14/03	10/24/03	10/31/03	11/06/03	11/13/03	11/19/03	11/24/03	12/03/03	12/11/03	12/17/03	12/23/03	12/30/03

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# BP - America Production Company Cahn Waste Management Facility Leak Detection - Monthly Insepection Field Data Summary

SW/4, Section 28, T 32 N, R 10 W, N.M.P.M

San Juan County, New Mexico

REVISED DATE: DECEMBER 8, 2003 (KAG)

### **BLAGG ENGINEERING, INC.**

		SW SU	MP			SE SU	ЛР	
INITIAL DATE	DISSOLVED SULFIDE	DISSOLVED OXYGEN	TEMP.	pH	DISSOLVED SULFIDE	DISSOLVED OXYGEN	TEMP.	рН
	ppm	ppm	celcius		ppm	ppm	celcius	
		r	<u>,                                    </u>				·	
01/03/03	0.0	0.31	4.6	9.5	0.0	0.09	5.5	9.4
01/10/03	0.0	0.03	10.0	9.3	NA	NA	NA	NA
02/11/03	0.0	0.06	3.0	9.2	TLTM	TLTM	TLTM	TLTM_
03/10/03	0.0	0.14	7.4	9.3	TLTM	TLTM	TLTM	TLTM
04/04/03	0.0	0.96	8.3	9.6	TLTM	TLTM	TLTM	TLTM
04/24/03	0.0	0.32	13.5	9.5	TLTM	TLTM	TLTM	TLTM
05/01/03	0.0	1.72	11.4	9.7	TLTM	TLTM	TLTM	TLTM
06/11/03	0.0	7.20	19.8	9.9	0.0	6.33	21.8	10.0
07/09/03	0.0	0.19	23.2	9.9	0.0	0.23	25.5	10.0
08/06/03	0.0	0.33	26.0	9.6	0.0	0.47	24.4	9.8
09/11/03	0.0	0.75	19.8	9.8	0.0	1.42	19.8	9.9
10/02/03	NA	NA	NA	NA	NA	NA	NA	NA
11/06/03	NA	NA	NA	NA	NA	NA	NA	NA
12/03/03	0.0	1.00	8.5	9.4	TLTM	TLTM	TLTM	TLTM

# CAHN EVAPORATION POND

# DOCUMENTATION OF SOLID WASTE DISPOSAL AT SAN JUAN COUNTY LANDFILL



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON** Governor Joanna Prukop **Cabinet Secretary** 

September 18, 2003

Lori Wrotenberv Director **Oil Conservation Division** 

Brittany Benko **BP** America Production Company 200 Amoco Court Farmington, NM 87401

RE: Solid Waste, Chan Evaporation Pond Salts/Solids Generator, BP America Production Co., Chan Evaporation Pond, Permit NM-02-007 Disposal Location, San Juan County Regional Landfill, Farmington, NM

Dear Ms. Benko:

The New Mexico Oil Conservation Division (OCD) has received Blagg Engineering, Inc.'s request on behalf of BP America Production Company dated September 10, 2003 to dispose of dried evaporation pond salts and solids from the Chan Evaporation Pond at the San Juan County Regional Landfill permitted by the New Mexico Environment Department. The Chan Evaporation Pond is permitted by the OCD under Permit NM-02-007. The OCD has reviewed the material submitted including the laboratory analysis and hereby approves the above-referenced solid waste pursuant to OCD Rule 712.D.3.n.

Please be advised that our approval does not relieve BP America Production Company of liability should your operation result in pollution of surface water, ground water, or the environment. In addition, OCD approval does not relieve BP America Production Company of responsibility for compliance with other federal, state or local laws and/or regulations.

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

Sincerely,

Wrotenberry Lori Wrotenbery

Director

LW/mjk

xc with attachments: Aztec OCD Office Don Beardsley, NMED SWB Charles A. Hules, NMED SWB Jeff Blagg, Blagg Engineering, Inc., P.O. Box 87, Bloomfield, NM 87413

> Oil Conservation Division \* 1220 South St. Francis Drive \* Santa Fe, New Mexico 87505 Phone: (505) 476-3440 \* Fax (505) 476-3462 \* http://www.emnrd.state.nm.us

BLAGG ENGINEERING, INC. P.O. Box 87, Bloomfield, New Mexico 87413 Phone: (505)632-1199 Fax: (505)632-3903

September 10, 2003

Ms. Martyne J. Kieling New Mexico Oil Conservation Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505

Re: Request to Dispose Waste at Municipal Landfill Pursuant to Rule 712 D (3)(n)
 BP Cahn Waste Management Facility: Permit NM-02-0007
 NW/4 Sec. 33 - T32N - R10W, San Juan County, NM

Dear Ms. Kieling:

On behalf of BP America Production Co., Blagg Engineering, Inc. (BEI) is requesting approval to dispose solid waste from clean out of the evaporative pond at the Cahn Waste Management Facility San Juan County, New Mexico, Permit NM-02-0007. The facility is presently undergoing standard maintenance and repair. The evaporative pond has been drained of liquids and accumulated sludge/salt is to be removed for liner inspection. BP respectfully requests approval to dispose the solid waste at a licensed commercial landfill pursuant to NMOCD Rule 712 D (3) (n).

A composite sample of the sludge/salt was collected on August 20, 2003 and submitted to Envirotech Labs in Farmington, New Mexico for determination of waste status by full TCLP analysis. The test results indicate that the material is non-hazardous by testing. An additional sample was collected on September 4, 2003 and submitted to High Desert Safety for determination of naturally occurring radioactive materials (NORM). This testing indicates that NORM is not present in the waste. Laboratory reports for all analyses are attached.

Based on the nature of the waste and analytical test results, BEI believes the waste is non-hazardous and qualifies for disposal at a solid waste landfill. Verbal communication with the San Juan County Regional Landfill, operated by Waste Management, indicates they will accept the waste if it passes TCLP testing (including metals) following approval by NMOCD. Your review of this request is appreciated. Questions or comments may be directed to myself at (505)632-1199 or to Brittany Benko with BP at (505)326-9200.

Respectfully submitted: *Blagg Engineering, Inc.* 

C. Slagg Jeffrey C. Blagg, P.E.,

Jeffrey C. Blagg, P.E President

Attachments: Laboratory Test Reports

cc: Denny Foust, NMOCD Aztec District Office Brittany Benko, BP San Juan Operations Center George Joseph, BP San Juan Operations Center

			Deside
TE MANAGEMENT	PLEASE PRINT		100
nuise Agreement on File? MYES		Profile Number: 1	W CV 2810
Hazardous Mon-Hazardous		Renewal Date:	$\frac{12}{31}$
Waste Generator Information		Henewai Date.	121 31 20
		$\rightarrow$ $1701$	
Generator Name: CAHN E	VAPORATION FON	D = 2. SIC Code: 1381	24 - 0.700
Facility City:	<u>200 23-1 32N-NII</u>	6 State/Province: NEW	MEXICO
Zip/Postal Code: NA	<u>/////////////////////////////////////</u>	8. Generator USEPA/Federa	IID#: LESQU
County: SAN JUAN		10. State/Province ID #:	
Customer Name: BP AMER	ICA PRODUCTION C	0 12. Customer Phone: (	)
Billing Address: 200 Exo	BENKO	$\frac{14. \text{ Customer Fax: } (505)}{14. \text{ Customer Fax: } (505)}$	326-9262 MSame as above 1
Waste Stream Information			
Description		•	
a. Name of Waste: <u>Eve</u>	PORATIVE RND	SALT + SEDIMENT	
b. Process Generating Waste:	EVAPORATION OF	WATER FROM PRODUCING	OIL & GAS WELLS.
PRIMARY KESIDUE	IS SALT Y SE	DIMENT SLUDGE	
· · · · · · · · · · · · · · · · · · ·			
c. Color d. Strong o	dor e. Physical	state @ 70°F f. Layers	g. Free liquid range
(describe	e):	Liquid XSingle Layer	<b>O</b> to <b>D</b> %
VARIABLE - DARK PUNGEN			h pH Bange
			9.3 to 9.6 %
i Liquid Elash Point: D-73°E	П73-00°Е П100-1	30°E □ 140-199°E □ > 200°E	
		39 L 140-199 L 2200 L	
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999-21	1	7
000 - 1		1

	MANAGEMENT		S WASTE PRO	TYPE		
d f	Reportable Quantity (lbs.;	kgs.):	e	. Hazard Class/ID #: _		•
1. a	Personal Protective Equir	ment Requirements:	NONE	······································		
9 h	Transporter/Transfer Stat	on: VARIONS				······
. Ge	nerator's Certification. (Pl	ease check appropria	ate responses, sig	n, and date below.)		
	Is this a USEPA hazardous v	vaste (40 CFR Part 261)	If the answer is no	skip to 2		
	a. If yes, identify ALL USE	PA listed and characteris	ic waste code numbe	rs (D, F, K, P, U)		
	<ul> <li>b. If a characteristic hazard (UHCs) apply? (if yes, list</li> </ul>	ous waste, do underlying t in Section B.1.j)	I hazardous constituei	nts	□yes □no	
	c. Does this waste contain	debris? (if yes, list size a	nd type in Chemical			
	Composition - B.1.)			······	LIYES LINO	
	Is this a state hazardous was identify ALL state hazardous	te? waste codes				🗆 YES 🖾NO
	Is the waste from a CERCLA	(40 CFR 300, Appendix	B) or state mandated	clean-up?		
	If yes, attach Record of Deci activity. For state mandated	sion (ROD), 104/106 or 1 clean-up, provide releva	22 order or court ordent documentation.	r that governs site clean-up		
•	Does the waste represented regulated by the Nuclear Reg	by this waste profile shee gulatory Commission?	t contain radioactive i	material, or is disposal		🗆 yes 🖾na
	Does the waste represented	by this waste profile she	et contain concentratio	ons of Polychlorinated		
	Biphenyls (PCBs) regulated a. If yes, were the PCBs imp	by 40 CFR 761? (if yes, liported into the U.S.?	st in Chemical Compo	sition - B.1.j)		
	Do the waste profile sheet ar material, and has all relevant suspected hazards pertaining	id all attachments contain information within the po g to the waste been discl	n true and accurate de ossession of the Gene osed to the Contractor	scriptions of the waste rator regarding known or ?		<b>⊠</b> YES □NO
	Will all changes which occur to the Contractor prior to pro	in the character of the wave the wave of the wave the contract of the contract	aste be identified by th ontractor?	e Generator and disclosed		KYES □N
₫Che	ck here if a Certificate of De	struction or Disposal is	required.			
Any sa	mple submitted is representative from any waste shipment for pu	as defined in 40 CFR 20 proses of recertification.	31 - Appendix I or by L If this certification is a	ising an equivalent method. made by a broker, the unde	I authorize WM to rsigned signs as aut	obtain a
agent o nforma icense Certifi	of the generator and has confirm ation as it has determined to be s for the waste that has been ch cation Signature: $\frac{D}{D} \frac{U}{U}$	ed the information contained the information contained associated and identified to the second dentified to the second dentifi	approved for manage by this approved pro	et from information provide ment, Contractor has all the file. Title: $\frac{fnV_1}{r}$	d by the generator a e necessary permits <u>rmmental</u> (	nd additional and <u>Mydunater</u>
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# ENVIROTECE LABS

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#### SUSPECTED HAZARDOUS WASTE ANALYSIS

Client: Sample ID: Lab ID#: Sample Matrix: Preservative: Condition:	Blagg / BP 5 - Pt. Comp. 26383 Solid Cool Cool and Intact	Project #: Date Reported: Date Sampled: Date Received: Date Analyzed: Chain of Custody:	94034-010 08-22-03 08-20-03 08-22-03 08-22-03 11262
Parameter	Result		
IGNITABILITY:	Negative		
CORROSIVITY:	Negative	pH = 9.44	
REACTIVITY:	Negative		
RCRA Hazardous Waste Criteria			
Parameter	Hazardous Waste Criterion		
IGNITABILITY:	Characteristic of Ignitability as de (i.e. Sample ignition upon direct of	fined by 40 CFR, Subpart C, Sec. 261.21. contact with flame or flash point < 60° C.)	
CORROSIVITY:	Characteristic of Corrosivity as de (i.e. pH less than or equal to 2.0 d	efined by 40 CFR, Subpart C, Sec. 261.22. or pH greater than or equal to 12.5 )	
REACTIVITY:	Characteristic of Reactivity as de (i.e. Violent reaction with water, s of Sulfide or Cyanide gases	fined by 40 CFR, Subpart C, Sec. 261.23. trong base, strong acid, or the generation at STP with pH between 2.0 and 12.5)	
Reference:	40 CFR part 261 Subpart C section	ons 261.21 - 261.23, July 1, 1992.	
Comments:	Cahn Pond.		

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# ENVIROTECA LABS

### EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS

Client:	Blagg / BP	Project #:	94034-010
Sample ID:	5-Pt. Comp.	Date Reported:	08-25-03
Laboratory Number:	26383	Date Sampled:	08-20-03
Chain of Custody:	11262	Date Received:	08-22-03
Sample Matrix:	TCLP Extract	Date Extracted:	08-22-03
Preservative:	Cool	Date Analyzed:	08-25-03
Condition:	Cool & Intact	Analysis Requested:	TCLP
		Detection	Regulatory
	Concentration	Limit	Limits
Parameter	(mg/L)	(mg/L)	(mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	0.0116	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	0.0077	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Accep	tance Criteria	Parameter	Percent Recovery
		Fluorobenzene	100%
		1,4-difluorobenzene	100%
		4-bromochlorobenzene	100%
References:	References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.		46, USEPA, July 1992.
	Method 5030, Purge-and-	Frap, SW-846, USEPA, July 1992.	
	Method 8010, Halogenate	d Volatile Organic, SW-846, USEPA, S	Sept. 1994.
	Method 8020, Aromatic Vo	platile Organics, SW-846, USEPA, Sep	ot. 1994.
Note:	Regulatory Limits based o	n 40 CFR ṗart 261 Subpart C section	261.24, July 1, 1992.
Comments:	Cahn Pond.		

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# ENVIROTECE LABS



Client:	Blagg / BP	Project #:	94034-010
Sample ID:	5-Pt. Comp.	Date Reported:	08-25-03
Laboratory Number:	26383	Date Sampled:	08-20-03
Chain of Custody:	11262	Date Received:	08-22-03
Sample Matrix:	TCLP Extract	Date Extracted:	08-22-03
Preservative:	Cool	Date Analyzed:	08-25-03
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	99%
	2,4,6-Tribromophenol	99%

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: Cahn Pond.

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Client:	Blagg / BP	Project #:	94034-010
Sample ID:	5-Pt. Comp.	Date Reported:	08-25-03
Laboratory Number:	26383	Date Sampled:	08-20-03
Chain of Custody:	11262	Date Received:	08-22-03
Sample Matrix:	TCLP Extract	Date Extracted:	08-22-03
Preservative:	Cool	Date Analyzed:	08-25-03
Condition:	Cool and Intact	Analysis Requested:	TCLP
	·····	Det.	Regulatory
	Concentration	Limit	Limit
Parameter	(mg/L)	(mg/L)	(mg/L)
Pyridine	ND	0.020	5.0
Hexachloroethane	ND	0.020	3.0
Nitrobenzene	ND	0.020	2.0
Hexachlorobutadiene	ND	0.020	0.5
2,4-Dinitrotoluene	ND	0.020	0.13
HexachloroBenzene	ND	0.020	0.13

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	97%

References:	Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
	Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
	Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: Cahn Pond.

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### EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS

Parameter	(mg/L)	(mg/L)	(mg/L)
	Concentration	Limit	Level
		Det.	Regulatory
Condition:	Cool & Intact	Analysis Needed:	TCLP metals
Preservative:	Cool	Date Extracted:	08-22-03
Sample Matrix:	TCLP Extract	Date Analyzed:	08-26-03
Chain of Custody:	11262	Date Received:	08-22-03
Laboratory Number:	26383	Date Sampled:	08-20-03
Sample ID:	5 - Pt. Comp.	Date Reported:	08-26-03
Client:	Blagg / BP	Project #:	94034-010

Arsenic	ND	0.001	5.0
Barium	0.102	0.001	100
Cadmium	ND	0.001	1.0
Chromium	0.045	0.001	5.0
Lead	0.026	0.001	5.0
Mercury	ND	0.001	0.2
Selenium	ND	0.001	1.0
Silver	ND	0.001	5.0

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996. Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission SW-846, USEPA. December 1996.

Note:

Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: Cahn Pond.

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### QUALITY ASSURANCE / QUALITY CONTROL

### DOCUMENTATION

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# ENVIROTEC LABS

#### EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS Quality Assurance Report

Client: Sample ID: Laboratory Number: Sample Matrix: Preservative: Condition:	QA/QC Laboratory Blank 08-25-TCV Water N/A N/A	Project #: Date Reported: Date Sampled: Date Received: Date Analyzed: Analysis Requested:	N/A 08-25-03 N/A N/A 08-25-03 TCLP
		Detection	Regulatory
	Concentration	Limit	Limits
Parameter	(mg/L)	(mg/L)	(mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Accepta	ance Criteria	Parameter	Percent Recovery	
		Fluorobenzene	100%	
		1,4-difluorobenzene	100%	
		4-bromochlorobenzene	100%	
References:	Method 1311, Toxicity	Characteristic Leaching Procedure, SW-8	46, USEPA, July 1992.	

References:	Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
	Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
	Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.
Note:	Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments:

QA/QC for sample 26383.

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# ENVIROTECA LABS

#### EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS Quality Assurance Report

Client:	OA/OC	Project #·	N/A
Sample ID:	Method Blank	Date Reported:	08-25-03
Laboratory Number:	08-22-TCV	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	08-25-03
Condition:	N/A	Date Extracted:	08-22-03
		Analysis Requested:	TCLP
		Detection	Regulatory
	Concentration	Limit	Limits
Parameter	(mg/L)	(mg/L)	(mg/L)
Vinyl Chloride	ND	0.0001	0.2
1.1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1.4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Fluorobenzene	99%
	1,4-difluorobenzene	98%
	4-bromochlorobenzene	98%

References:	Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
	Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
	Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
	Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments:

QA/QC for sample 26383.

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## ENVIROTECE LABS

#### EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client: Sample ID: Laboratory Number: Sample Matrix: Analysis Requested: Condition:	QA/QC Matrix Duplica 26383 TCLP Extract TCLP N/A	ate	Project #: Date Reported: Date Sampled: Date Received: Date Analyzed: Date Extracted:	N/A 08-25-03 N/A N/A 08-25-03 08-22-03
		Duplicate		
Parameter	Sample Result (mg/L)	Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride 1,1-Dichloroethene 2-Butanone (MEK) Chloroform Carbon Tetrachloride Benzene 1,2-Dichloroethane	ND ND 0.0116 ND 0.0077 ND	ND ND 0.0116 ND 0.0077 ND	0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001	0.0% 0.0% 0.0% 0.0% 0.0% 0.0%
Trichloroethene Tetrachloroethene Chlorobenzene 1,4-Dichlorobenzene	ND ND ND ND	ND ND ND ND	0.0003 0.0005 0.0003 0.0002	0.0% 0.0% 0.0% 0.0%

ND - Parameter not detected at the stated detection limit.

References:Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments:

QA/QC for sample 26383.

Analyst

"Mustine Muladeus Review

# ENVIROTECH LABS

#### EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC			Project #:		N/A
Sample ID:	Matrix Spike			Date Reporte	d:	08-25-03
Laboratory Number:	26383			Date Sampled	d:	N/A
Sample Matrix:	TCLP Extract			Date Receive	d:	N/A
Analysis Requested:	TCLP			Date Analyze	d:	08-25-03
Condition:	N/A			Date Extracte	ed:	08-22-03
· · · · · · · · · · · · · · · · · · ·			Spiked			SW-846
	Sample	Spike	Sample	Det.		% Rec.
	Result	Added	Result	Limit	Percent	Accept.
Parameter	(mg/L)	(mg/L)	(mg/L)	(mg/L)	Recovery	Range
Vinyl Chloride	ND	0.050	0.0495	0.0001	99.0%	28-163
1,1-Dichloroethene	ND	0.050	0.0494	0.0001	98.8%	43-143
2-Butanone (MEK)	0.0116	0.050	0.0614	0.0001	99.7%	47-132
Chloroform	ND	0.050	0.0500	0.0001	100.0%	49-133
Carbon Tetrachloride	ND	0.050	0.0495	0.0001	99.0%	43-143
Benzene	0.0077	0.050	0.0575	0.0001	99.7%	39-150
1,2-Dichloroethane	ND	0.050	0.0490	0.0001	98.0%	51-147
Trichloroethene	ND	0.050	0.0495	0.0003	99.0%	35-146
Tetrachloroethene	ND	0.050	0.0495	0.0005	99.0%	26-162
Chlorobenzene	ND	0.050	0.0495	0.0003	99.0%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0495	0.0002	99.0%	42-143

ND - Parameter not detected at the stated detection limit.

References:Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.<br/>Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.<br/>Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.<br/>Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments:

QA/QC for sample 26383.

Analyst

M Walters

# ENVIROTECE LABS

EPA METHOD 8040 PHENOLS Quality Assurance Report Laboratory Blank

Client:	QA/QC	Project #:	N/A	
Sample ID:	Laboratory Blank	Date Reported:	08-25-03	
Laboratory Number:	08-25-TCA	Date Sampled:	N/A	
Sample Matrix:	2-Propanol	Date Received:	N/A	
Preservative:	N/A	Date Analyzed:	08-25-03	
Condition:	N/A	Analysis Requested:	TCLP	
Analytical Results		Detection	Regulatory	
	Concentration	Limit	Limit	
Parameter	(mg/L)	(mg/L)	(mg/L)	
o-Cresol	ND	0.020	200	
p.m-Cresol	ND	0.040	200	
2,4,6-Trichlorophenol	ND	0.020	2.0	
2,4,5-Trichlorophenol	ND	0.020	400	
Pentachlorophenol	ND	0.020	100	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery		
	2-fluorophenol	98 %		
	2,4,6-tribromophenol	99 %		

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: QA/QC for sample 26383.

Analyst

n Walter Review

# ENVIROTECH LABS



### Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	08-25-03
Laboratory Number:	08-22-TCA	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	08-22-03
Condition:	Cool & Intact	Date Analyzed:	08-25-03
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	99%
	2,4,6-Tribromophenol	99%

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: QA/QC for sample 26383.

Analyst

ni Multers

## ENVIROTECH LABS



### EPA METHOD 8040 PHENOLS Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	08-25-03
Laboratory Number:	26383-	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	08-22-03
Condition:	Cool & Intact	Date Analyzed:	08-25-03
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	ND	ND	0.020	0.0%
p,m-Cresol	ND	ND	0.040	0.0%
2,4,6-Trichlorophenol	ND	ND	0.020	0.0%
2,4,5-Trichlorophenol	ND	ND	0.020	0.0%
Pentachlorophenol	ND	ND	0.020	0.0%

ND - Parameter not detected at the stated detection limit.

ethod 1311, Toxicity Ch aste, SW-846, USEPA, athod 3510, Separatory	8040 Compounds maracteristic Leaching Procedure Test July 1992.	<b>30.0%</b> Methods for Evaluating Solid
ethod 1311, Toxicity Ch aste, SW-846, USEPA, athod 3510, Separatory	naracteristic Leaching Procedure Test July 1992.	Methods for Evaluating Solid
athod 3510 Senaratory	. The second state of the state of the second	
aste, SW-846, USEPA,	, July 1992.	Methods for Evaluating Solid
ethod 8040, Phenols, T	est Methods for Evaluating Solid Was	te, SW-846, USEPA, Sept. 1986.
egulatory Limits based	on 40 CFR part 261 subpart C section	261.24, July 1, 1992.
A/QC for sample 2	26383.	
	ethod 8040, Phenols, T egulatory Limits based A/QC for sample 2	ethod 8040, Phenols, Test Methods for Evaluating Solid Was egulatory Limits based on 40 CFR part 261 subpart C section A/QC for sample 26383.

Analyst

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### ENVIROTECH LABS PRACTICAL SOLUTIONS FOR A BETTER TOMORROW



,,,,,,,,		Det.	Regulatory
		Analysis Requested:	TCLP
Condition:	N/A	Date Analyzed:	08-25-03
Preservative:	N/A	Date Extracted:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Laboratory Number:	08-25-TBN	Date Sampled:	N/A
Sample ID:	Laboratory Blank	Date Reported:	08-25-03
Client:	QA/QC	Project #:	N/A

	Concentration	Limit	Limit	:
Parameter	(mg/L)	(mg/L)	(mg/L)	
Pyridine	ND	0.020	5.0	
Hexachloroethane	ND	0.020	3.0	
Nitrobenzene	ND	0.020	2.0	
Hexachlorobutadiene	ND	0.020	0.5	
2,4-Dinitrotoluene	ND	0.020	0.13	
HexachloroBenzene	ND	0.020	0.13	

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria		Parameter	Percent Recovery		
		2-fluorobiphenyl	100%		
References:	Method 1311, Toxicity Method 3510, Separat Method 8090, Nitroaro	city Characteristic Leaching Procedure, SW-846, USEPA, July 1992. aratory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992. aromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.			
Note:	Regulatory Limits base	ed on 40 CFR part 261 Subpart C se	ction 261.24, July 1, 1992.		
Comments:	QA/QC for sample	e 26383.			

Analyst

Mustine Maaters Review

# ENVIROTECH LABS



Client:		Project #:	NI/A
Sample ID:	Mothed Blank	Dete Reported:	
Sample ID.	Methou Blank	Date Reported.	06-20-03
Laboratory Number:	08-22-TBN	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	08-22-03
Condition:	Cool and Intact	Date Analyzed:	08-25-03
		Analysis Requested:	TCLP
		Det.	Regulatory
	Concentration	Limit	Limit
Parameter	(mg/L)	(mg/L)	(mg/L)
Pyridine	ND	0.020	5.0
Hexachloroethane	ND	0.020	3.0
Nitrobenzene	ND	0.020	2.0
Hexachlorobutadiene	ND	0.020	0.5
2,4-Dinitrotoluene	ND	0.020	0.13
HexachloroBenzene	ND	0.020	0.13

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria		Parameter	Percent Recovery
		2-fluorobiphenyl	96%
References:	Method 1311, Toxicity Method 3510, Separat	od 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 19 od 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 19	
	Method 8090, Nitroaro	matics and Cyclic Ketones, SW-846	6, USEPA, Sept. 1986.
Note:	Regulatory Limits base	ed on 40 CFR part 261 Subpart C se	ection 261.24, July 1, 1992.
Note:	Regulatory Limits base	ed on 40 CFR part 261 Subpart C se	ection 261.24, July 1, 199

Comments: QA/QC for sample 26383.

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m Wheters Review

## ENVIROTECH LABS PRACTICAL SOLUTIONS FOR A BETTER TOMORROW



#### EPA Method 8090 Nitroaromatics and Cyclic Ketones TCLP Base/Neutral Organics QA/QC Matrix Duplicate Report

Client: Sample ID:	QA/QC Matrix Duplicate	Project #:	Project #:		
Laboratory Number:	26383	Date Reported: Date Sampled:		N/A	
Sample Matrix:	TCLP Extract	Date Received:		N/A	
Preservative:	N/A	Date Extracted:		08-22-03	
Condition:	N/A	Date Analyzed:		08-25-03	
		Analysis Reques	sted:	TCLP	
	Sample	Duplicate		Det.	
	Result	Result	Percent	Limit	
Parameter	(mg/L)	(mg/L)	Difference	(mg/L)	
Pyridine	ND	ND	0.0%	0.020	
Hexachloroethane	ND	ND	0.0%	0.020	
Nitrobenzene	ND	ND	0.0%	0.020	
Hexachlorobutadiene	ND	ND	0.0%	0.020	
2,4-Dinitrotoluene	ND	ND	0.0%	0.020	
HexachloroBenzene	ND	ND	0.0%	0.020	

ND - Parameter not detected at the stated detection limit.

tance Criteria	Parameter	Maximum Difference		
	8090 Compounds	30%		
Method 1311, Toxicity Method 3510, Separate Method 8090, Nitroaro	thod 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992. thod 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992. thod 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.			
Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.				
	tance Criteria Method 1311, Toxicity Method 3510, Separat Method 8090, Nitroaro Regulatory Limits base	tance Criteria Parameter 8090 Compounds Method 1311, Toxicity Characteristic Leaching Procedure, Method 3510, Separatory Funnel Liquid-Liquid Extraction, Method 8090, Nitroaromatics and Cyclic Ketones, SW-846 Regulatory Limits based on 40 CFR part 261 Subpart C se		

Comments: QA/QC for sample 26383.

) Water Review

### ENVIROTECH LABS PRACTICAL SOLUTIONS FOR A BETTER TOMORROW



#### EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS Quality Assurance Report

Client:		N/A		Project #:	Project #:		
Sample ID:		08-26-TCM	QA/QC	Date Rep	orted:	I	08-26-03
Laboratory Number:		26383		Date Sam	pled:		N/A
Sample Matrix:		TCLP Extra	act	Date Rec	eived:		N/A
Analysis Requested:		TCLP Meta	ls	Date Anal	lyzed:	I	08-26-03
Condition:		N/A		Date Extra	acted:	I	08-22-03
Blank & Duplicate	nstrument	Method	Detectio	on 🕵 Sample	Duplicate	%	Acceptance
Arsenic	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Barium	ND	ND	0.001	0.102	0.100	2.0%	0% - 30%
Cadmium	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Chromium	ND	ND	0.001	0.045	0.045	0.0%	0% - 30%
Lead	ND	ND	0.001	0.026	0.026	0.0%	0% - 30%
Mercury	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Selenium	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Silver	ND	ND	0.001	ND	ND	0.0%	0% - 30%
					alleri - etti la da secolo comuna	ali al di la di	

Conc. (mg/L)	Added	Samor	s Solkeo Sample	Recovery	Range
	0. C.O.O.		0.400	00.0%	000/ 1000/
Arsenic	0.500	ND	0.498	99.6%	80% - 120%
Barium	0.500	0.102	0.601	99.8%	80% - 120%
Cadmium	0.500	ND	0.499	99.8%	80% - 120%
Chromium	0.500	0.045	0.544	99.8%	80% - 120%
Lead	0.500	0.026	0.525	99.8%	80% - 120%
Mercury	0.050	ND	0.050	100.0%	80% - 120%
Selenium	0.500	ND	0.498	99.6%	80% - 120%

ND

ND - Parameter not detected at the stated detection limit.

References:

Silver

Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

0.499

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission, SW-846, USEPA, December 1996.

Comments:

QA/QC for sample 26383.

0.500

Analyst

<u> Wistine Matters</u> Review

99.8%

80% - 120%

#### **HIGH DESERT SAFETY**

301 South Frontier Bloomfield, NM 87413 Phone – (505) 632-3633 Cell – (505) 330-0614 Fax – (505) 632-2359

#### NORM SURVEY DATA SHEET

Survey Number: <u>9-5-03-01</u>

Owner: BP

Location: Cahn Evaporation Pond

Date: September 5, 2003

Meter Model: Wm B Johnson & Assoc Inc - GSM-110 - Serial Number: 8535

Detector Model: Wm B Johnson & Assoc Inc - GP-200 - Serial Number 4454

Battery Test: (YES)

Background Radiation Level: 0.07 mR/hr

Actual Readings: 0.07 mR/hr

Equipment information:

**Evaporative Residue** 

Comments:

4 Point Composite

Survey Conducted by: Gary W. Howe

Jaryw Nave (Signature)

## CAHN EVAPORATION POND

DOCUMENTATION OF STEEL PIT CLOSURE

· · · · · · · · · · · · · · · · · · ·			······································		n an an an ann an Anna
CLIENT: <u>BP</u>	P.O. BOX	G ENGIN 87, BLO( 505) 632	NEERING Omfield -1199	, INC , NM 87413	LOCATION NO: COCR NO:
FIELD REPORT	Γ: PIT CL(	DSURE	VERIFI	CATION	PAGE No: of
LOCATION: NAME: CAHN	EVAP. PUND	WELL #:	TYPE:	TANK DRAIN	DATE STARTED: 11-12-03
QUAD/UNIT: E SEC: 33	TWP: 32N RNG:	IOW PM: N	IM CNTY: SC	J ST: NM	DATE FINISHED: 11-12-03
QTR/FOOTAGE:		CONTR	ACTOR: P+S	•	ENVIRONMENTAL JCB
EXCAVATION APPROX	(. <u>/VA</u> FT. x	<u>//A</u> FT. :	x <u>//A</u> FT.	DEEP. CUBI	C YARDAGE:
DISPOSAL FACILITY:	NA		REMEDIA	TION METHOD:	CLOSE AS 15
LAND USE: RANGE		LEASE: PER	emit: NM	-02-007 FC	DRMATION: <u>NA</u>
FIELD NOTES & REMAR	KS: PIT LOCA	TED APPROXI	IMATELY	SEE FT.	FROM WELLHEAD.
DEPTH TO GROUNDWATER: 21	NEAREST WA	TER SOURCE:	5000	NEAREST SURF	ACE WATER:
	/ NMOCD ТРН С	LOSURE STD: _	<u>5000</u> pp	M	- 177
SOIL AND EXCAVATIO	ON DESCRIPTI	ON:		OVM CALIB. REP OVM CALIB. GAS	ND. = <u>55.5</u> ppm S = <u>(00</u> ppm <u>RF = 0.52</u>
				TIME: 1005	_ am/pm DATE: 11-12-03
SOIL TYPE: SAND / SILTY SAN SOIL COLOR: ORANG	ND / SILT /SILTY C	LAY)I CLAY I G	SRAVEL / OTHE	ER	
COHESION (ALL OTHERS): NON C	OHESIVE SLIGHTLY	COHESIVE CON	HESIVE / HIGHLY	COHESIVE	
CONSISTENCY (NON COMESIVE SU PLASTICITY (CLAYS): NON PLAST	OILS): LOUSE / FIRM /	DENSE / VERT L C / COHESIVE / M	DENSE MEDIUM PLASTIC	/ HIGHLY PLASTIC	
DENSITY (COHESIVE CLAYS & SILT	TS): SOFT FIRM / STIF	FF / VERY STIFF	/HARD		
MOISTURE: DRY /SLIGHTLY MOIS DISCOLORATION/STAINING OBSE!	TMOIST / WET / SAIL	JRATED / SUPER	SATURATED		
HC ODOR DETECTED: YES INO F					
ADDITIONAL COMMENTS:	TE + # OF PTS. 15 BBL Stee	T pit, @	CAHN WI	ASTE MANAG	EMENT FACILITY.
	EMOVE TANK	+ DIG TE:	ST TRENC	W/ BAL	KHUE, NO EVIDENCE
<u>~</u>		FIE	LD 418.1 CALC	ULATIONS	
SCALE SAMP. T	IME SAMP. ID	LAB NO.	WEIGHT (g)	mL FREON DI	LUTION READING CALC. (ppm)
N PILPERIME	TER	1 O	\/ <b>\/</b>	[	PIT PROFILE
		REA	DING		
	- TH	SAMPLE ID	FIELD HEADSPACE (ppm)		
	· (10'Bb)	1 @ b 2 @	0.0	-	
		3 @		7	
	N I	5@			
	1			$\neg$	
	KANT				
Sample	( Down	LAB S	AMPLES		
	(inited)	SAMPLE AT	NALYSIS TIM		
le- 12' -				2	
P.D. = PH DEPRESSION; B.G. = DELO T.H. = TEST HOLE; ~ = APPROX.; T.B.	W GRADE; B = BELUVV				·····
TRAVEL NOTES: CALLOU	JT: <u>11/12/03</u>			1/12/03	
4	•				

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ENVIROTECE LABS

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

Parameter		Concentration (mg/Kg)	Limit (mg/Kg)
			Det.
Condition:	Cool and Intact	Analysis Requested:	8015 TPH
Preservative:	Cool	Date Analyzed:	11-13-03
Sample Matrix:	Soil	Date Extracted:	11-12-03
Laboratory Number:	2/168	Date Sampled:	11-12-03
Sample ID:	Tank Drain C @ 6'	Date Reported:	11-13-03
Client.	Blagg / BP	Project #:	94034-010

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: Cahn Evap. Pond.

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

## ENVIROTEC LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW



EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

#### **Quality Assurance Report**

Client: Sample ID: Laboratory Number: Sample Matrix:	QA/QC 11-13-TPH QA/ 27166 Methylene Chlorid	'QC de	Project #: Date Reported: Date Sampled: Date Received:		N/A 11-13-03 N/A N/A
Condition:	N/A		Analysis Reques	ted.	трн
Conducti.			Analysis Reques	160.	11 ()
	LI-Cal Date		···· (c) Ceal R FA	% Difference	Accept
Gasoline Range C5 - C10	04-29-03	1.8591E-002	1.8572E-002	0.10%	0 - 15%
Diesel Range C10 - C28	04-29-03	1.5507E-002	1.5492E-002	0.10%	0 - 15%
Blank Conc. (mg/L⇔mg/Kg)	ese Conse	Concentration		Detection Limit	
Gasoline Range C5 - C10		ND		0.2	
Diesel Range C10 - C28		ND		0.1	
Total Petroleum Hydrocarbons		ND		0.2	
	and the first state of the second	The same spece sets	The state of the second st		8
Duplicate Conc. (mg/Kg)	Sample	Durilleater	%Difference	Accept_Range_	
Gasoline Range C5 - C10	70.2	70.0	0.3%	0 - 30%	
Diesel Range C10 - C28	95.3	95.0	0.3%	0 - 30%	
	n an <sup>a</sup> bailt stationarta tati (1867 mili al 1868 mi			ilan ana ana ana ana ana ana ana ana ana	an tanin Takati a si
Spike Conc. (mg/Kg)	Sampler	Splike Added	Spike Result	% Recovery	Accept Range
Gasoline Range C5 - C10	70.2	250	320	99.8%	75 - 125%
Diesel Range C10 - C28	95.3	250	345	99.8%	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 27166, 27268 - 27172.

Mistine my Walters Review

	CHAIN	OF CUS	STODY RECORD	115	63
lient / Project Name	Project Location CAHN EV	AP. POND	ANALYSIS / PARA	AMETERS	
ampler: 2. C. Slogg	Client No. タイひ 3イ	- 010	o. of PH 215	B B	marks
Sample No./ Sample Sample Identification Date Time	Lab Number	Sample Matrix	N N N N N		
C.e. 11/2/03 0955	27168	Sull	X -		
telinquished by: (Signature)		Date Time	Received by: (Signature)		rate Time 2/05 /05/3
(ethquished by: (Signature)			Received by: (Signature)		
felinquished by: (Signature)			Received by: (Signature)		
		ENVIROT	FCH INC.	Sample R	sceipt
					X N/A
		5796 U.S Farmington, N	. Highway 64 ew Mexico 87401	Received Intact	7
		(505)	632-0615	Cool - Ice/Blue Ice	7

BLAGG ENGINEERING, INC. P.O. Box 87, Bloomfield, New Mexico 87413 Phone: (505)632-1199 Fax: (505)632-3903



IAR 0 1 2004 Environmental Bureau Oil Conservation Division

February 25, 2004

Ms. Martyne J. Kieling New Mexico Oil Conservation Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505

Re: Annual Report: Permit NM-02-0002 BP Schneider Waste Management Facility SW/4 Sec. 28 - T32N - R10W, San Juan County, NM

Dear Ms. Kieling:

On behalf of BP America Production Co., Blagg Engineering, Inc. (BEI) is submitting this annual report for the Schneider Waste Management Facility, Permit NM-02-0002. This report is for 2003 calendar year monitoring. Attached are spread sheets summarizing weekly evaporation pond and monthly sump monitoring test results.

#### **General Pond Monitoring**

Weekly evaporation pond monitoring has not indicated the generation of dissolved sulfide or hydrogen sulfide gas during any inspections. Tested pH levels were stable at values in excess of 9.0. A minimum freeboard of 1.0 feet was measured on June 4, 2003 but by June 11, 2003 this had receded to 1.6 feet. A maximum freeboard was measured at 3.05 feet on January 3, 2003. Water transfer to the Cahn Evaporation Pond (Permit NM-02-0007) was conducted intermittently throughout the year via a gravity feed pipeline to reduce water levels in the Schneider pond.

The pond aeration system was in intermittent operation from January - June and in continuous operation from June - December. This system is designed to introduce oxygen to the pond water to minimize the possibility of hydrogen sulfide gas generation.

A water cascade system was installed on the west side of the pond in October, 2003 to accelerate water evaporation. This system was in continuous operation from October 7 - December 1, 2003 and then shut down during the freezing period.

#### Landfarm Treatment Zone Monitoring

No landfarm cells were constructed during the 2003 calendar year and no treatment zone monitoring was required or performed.

#### **Evaporation Pond Sludge Thickness**

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Sludge thickness was measured in the pond on December 30, 2003 at 18 separate locations. The maximum thickness was measured at 6-inches at the northwest corner of the pond and the average thickness for all points was 2.2-inches. The facility permit does not require sludge removal until the average thickness exceeds 12-inches.

#### Leak Detection System Monitoring

No significant leaks into or from the leak detection system were observed during the 2003 calendar year. Fluid accumulation was observed in the two (2) inter-liner sump traps, and these traps were pumped periodically to minimize buildup.

#### Year 2004 Planned Operations

Preliminary plans for a facility shut-down, pond cleanout and liner inspection are anticipated during the 2004 calendar year. Any liner repairs and/or relining will be evaluated during this inspection. Replacement of the present steel/concrete sumps with PVC plastic sumps have been scheduled. The southeast sump has been replaced at the time of this report, and the northeast sump is anticipated to be replaced in March, 2004.

Questions or comments concerning the this transmittal may be directed to myself at (505)632-1199 or to Brittany Benko with BP at (505)326-9200.

Respectfully submitted: *Blagg Engineering, Inc.* 

left C. Slegg

Jeffrey C. Blagg, P.E. President

Attachments: Monitoring Spread Sheets

cc: Denny Foust, NMOCD Aztec District Office Brittany Benko, BP SJ Operations Center George Joseph, BP SJ Operations Center



Schneider Waste Management Facility **BP - America Production Company** Field Data Summary SW/4, Section 28, T 32 N, R 10 W, N.M.P.M San Juan County, New Mexico

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REVISED DATE: DECEMBER 31, 2003 (KAG)

**BLAGG ENGINEERING, INC.** 

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COMMENTS			AN MOY A CAUNTERPEAD UNA VEED EDAM CAU	INSTRS CAL "NOTES ON CANN SHEET HZD XFER TO CANN SUMPS PUMPED 01/05/03	H20 XFER TO CAHN INST CAL "NOTES ON CAHN SHEET	CAL NOTES & CAHN H20 XFER T O CAHN	H20 XFER TO CAHN W/PUMP INST CAL "NOTES ON CAHN SHEET	CAL "NOTES ON CAMN SHEET, ICE ON 80% OF SURFACE	'CAL INSTS To Standarda, H20 XFER TO CAHN TERM. ON 02/07/03	'CAL INST To Standarda.	'INSTS CAL NOTES ON CAHN SHEET	'INSTS CAL NOTES ON CAHN SHEET	'CAL INSTS 🕲 CAHN H20 XFER TO CAHN	'CAL INSTS 😨 CAHN H20 XFER TO CAHN	Cal Insts @ Cahn	'INSTS CAL NOTES & CAHN	"CAL INST to Standards, PUMP NE SUMP, VOL = 80 BBL	VINSTS CAL NOTES & CAHN	'INSTE CAL NOTES 🚭 CAHN	'INSTS CAL NOTES ON CAHN	'INSTE CAL NOTES & CAHN	'INSTS CAL NOTES & CAHN	CAL NOTES & CAHN	'INSTS CAL NOTES ON CAHN SHEET	'INSTS CAL NOTES ON CAHN SHEET	INSTS CAL NOTES ON CAHN SHEET AIR SPARGE ON	'CAL INST to Standards, AIR INJ ON	'CAL INST to Standarda, AIR INJ ON	'INSTS CAL NOTES ON CAHN SHEET AIR SPARGE ON
LINER / BERM	INTEGRITY		>	· >-	۲	۲	٢	٢	٢	٢	۲	٢	٢	٢	٢	٢	۲	۲	۲	۲	۲	۲	٢	۲	7	>	>	7	7
FRE.	BOARD	ť	3 05	1.50	1.40	1.30	1.30	1.80	1.80	1.50	1.30	1.10	1.20	1.20	1.10	1.10	1.10	1.10	1.15	1.15	1.10	1.15	1.15	1.10	1.00	1.60	1.60	2.00	2.00
I	L		V O	9.5	9.9	9.8	9.9	9.4	9.2	9.1	9.4	9.4	9.2	9.6	9.4	9.4	9.4	9.4	9.4	9.4	9.1	9.4	9.3	9.3	9.2	9.5	9.3	9.4	9.4
TENP.		celcius	a c	5.0	1.7	3.8	8.2	2.4	0.6	3.3	2.2	6.1	13.3	8.6	10.4	13.8	7.0	6.2	15.6	13.5	13.1	14.8	15.2	20.1	20.5	24.0	17.8	23.4	19.5
DISSOLVED	OXYGEN	mqq	~ ~	0.0	0.51	0.47	0.14	0.18	0.14	0.04	0.09	0.12	0.26	0.1	0.97	1.46	2.05	1.64	0.55	2.5	0.81	0.52	0.51	0.51	0.5	0.23	0.28	0.63	0.52
DISSOLVED	SULFIDE	bpm		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCH	2	۳qq		2	g	Q	g	g	g	Ð	g	Q	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	QN
	DIRECTION	bearing		225	70	170	260	250	25	15	100	195	290	250	150	WEST	20	280	285	180	190	260	130	210	DUESOUTH	175	0	105	20
GNIM	SPEED	hqm	с т	- 2-	<b>4</b> -8	4-8 8	9-15	10-15	3-8 3	4-9	0-2	2-6	<b>4-</b> 8	6-12	4	8-15	10-15	15-25	10-18	9-0	10-18	5-12	12-20	5.10	8-14	9-0 9	3-5	0 2	4-6 6
INITIAL	DATE		01/03/03	01/10/03	01/17/03	01/21/03	01/28/03	02/06/03	02/11/03	02/20/03	02/26/03	03/06/03	03/10/03	03/17/03	03/31/03	04/04/03	04/09/03	04/15/03	04/24/03	05/01/03	05/09/03	05/13/03	05/20/03	05/28/03	06/04/03	06/11/03	06/19/03	06/26/03	07/02/03

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BP - America Production Company Schneider Waste Management Facility Field Data Summary SW/4, Section 28, T 32 N, R 10 W, NM.P.M San Juan Coumy, New Mexico

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REVISED DATE: DECEMBER 31, 2003 (KAG)

**BLAGG ENGINEERING, INC.** 

COMMENTS		INSTS CAL NOTES & CAMN AIR INJ ON	CAL INST to Standarde, AIR INJ OFF, PUMP SUMPS TODAY	INSTS CAL NOTES & CAHN	H20 XFER FROM CAHN AIR INJ ON CAL Instruments to standards.	INSTS CAL NOTES 🕲 CAHN AIR INJ ON	al instruments to Standards. Air Injection On.	INSTS CAL NOTES & CAHN AIR INJ ON	al instruments to Standards, Air Injection On.	al Instruments to Standards.	tal instruments to Standards, Air injection On.	CAL Insta to Standards, AIR INJ ON, H20 CASCADE ON	CAL Insts to Standards, AIR INJ ON, H20 CASCADE ON	CAL Insts to Standards, AIR INJ OFF, H20 CASCADE ON	CAL INSTRS TO STANDARDS H20 CASCADE ON AIR INJ ON	IR INJ ON H2O CASCADE ON OXYGENATOR ADDED ON 10/31/03	120 XFER TO CAHN, CAL INSTS 😨 CAHN AIR INJ ON H20 CASCADE ON	AL NOTES A CAHN H20 XFER TO CAHN H20 CASCADE ON AIR INJ ON	AL NOTES & CAHN AIR INJ ON H20 CASCADE ON * DO METER DOWN	CAL INSTS 🏩 CAHN H20 XFER TO CAHN AIR INJ ON H20 CASCADE OFF	IR INJ ON H20 CASCADE OFF CAL NOTES & CAHN	AL INSTS TO STANDARDS AIR INJ ON H20 CASCADE OFF H20 XFER OFF	AL INSTS 🤹 CAHN AIR INJ ON H20 CASCADE OFF PUMP SUMPS TODAY	.AL INST TO STANDARDS AIR INJ ON H20 CASCADE OFF, Measure Sludge Thickness			
LINER / BERM INTEGRITY		, ,	>	>	7	7	<u>ہ</u>	>	>	<u>ہ</u>	>	~	>	×	Y	×	Y	Y	Y	* ~	۲	۲	Y	Y	×	<u>ہ</u>	~
FREE- BOARD	<b>.</b>	2.10	2.00	2.20	2.10	2.10	2.00	1.95	1.95	2.00	1.80	1.70	1.60	1.60	1.50	1.60	1.60	1.55	1.50	1.50	1.85	2.00	2.00	2.00	2.00	2.00	2.00
Ł		9.3	9.3	9.3	9.3	9.4	9.5	9.5	9.5	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	9.6	9.7	9.7	9.7	9.6	9.5	9.6	9.6
TEMP.	celcius	20.0	32.3	22.2	29.5	28.3	20.4	18.0	19.8	22.4	16.3	18.0	19.3	15.5	13.7	11.8	11.0	8.0	5.3	6.6	3.6	9.1	1.8	0.7	0.1	0.8	-0.8
DISSOLVED	mdd	0.13	0.36	0.13	3.82	0.06	1.42	1.79	1.57	0.18	0.35	1.79	5.33	4.58	2.13	2.11	0.54	3.20	8.70	1.98	1.10	*AN	1.40	6.60	8.20	0.40	1.20
DISSOLVED SULFIDE	mqq	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
H25	mdd	G	Q	Q	g	g	g	Q	Q	g	g	Q	g	g	g	g	g	g	Q	g	g	Q	Q	Q	Q	QN	Q
WIND DIRECTION	bearing	200	170	180	160	100	110	15	25	170	135	170	250	25	NORTH	15	20	35	35	100	06	270	25	100	180	0	55
WIND	hqm	2-7	2-4	4-6 6	2-7	3-6 3	<b>6</b>	3-10	2-5	0-4	0-5	2-7	4-8	8-15	5-9	0-2	4	5-10	8-12	3-6 3	1-3	2-4	0-5	2-5	9 1	3-7	5-10
INITIAL DATE		07/09/03	07/18/03	07/25/03	07/31/03	08/06/03	08/15/03	08/18/03	08/26/03	09/02/03	09/11/03	09/16/03	09/25/03	10/02/03	10/07/03	10/14/03	10/24/03	10/31/03	11/06/03	11/13/03	11/19/03	11/24/03	12/03/03	12/11/03	12/17/03	12/23/03	12/30/03

SEP-SUM.WK4

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### BP - America Production Company Schneider Waste Management Facility Leak Detection - Monthly Insepection Field Data Summary

SW/4, Section 28, T 32 N, R 10 W, N.M.P.M San Juan County, New Mexico

REVISED DATE: DECEMBER 8, 2003 (KAG)

#### **BLAGG ENGINEERING, INC.**

		NE SU	MP			SE SUN	AP	
INITIAL	DISSOLVED	DISSOLVED	TEMP.	pH	DISSOLVED	DISSOLVED	TEMP.	pН
DATE	SULFIDE	OXYGEN			SULFIDE	OXYGEN		
	ppm	ppm	celcius		<u>ppm</u>	ppm	celcius	
			<b>,</b>				,	
01/03/03	0.0	0.11	5.7	9.5	0.0	0.03	6.8	9.5
01/10/03	0.0	0.09	7.2	8.9	0.0	0.01	8.3	9.3
02/11/03	0.0	0.09	5.0	9.0	0.0	0.03	8.1	9.4
03/10/03	0.0	0.03	7.0	9.0	0.0	0.01	6.5	9.1
04/04/03	0.0	0.89	6.8	9.2	0.0	0.06	6.0	9.4
04/24/03	0.0	0.42	11.0	9.6	0.0	0.10	9.8	9.5
05/01/03	0.0	1.40	10.1	9.2	0.0	0.63	9.3	9.4
06/11/03	0.0	0.67	21.0	9.3	0.0	3.52	18.0	9.0
07/09/03	0.0	0.09	20.8	9.1	0.0	0.09	19.5	9.2
08/06/03	0.0	0.12	21.2	9.5	0.0	0.09	20.8	9.4
09/11/03	0.0	1.20	18.9	9.5	0.0	5.52	18.9	9.4
10/02/03	0.0	3.00	18.6	9.5	0.0	0.95	19.0	9.5
11/06/03	0.0	5.70	12.6	9.4	0.0	1.40	13.4	9.4
12/03/03	0.0	0.50	9.0	9.5	0.0	0.40	8.0	9.3

BLAGG ENGINEERING, INC.

P.O. Box 87, Bloomfield, New Mexico 87413 Phone: (505)632-1199 Fax: (505)632-3903

February 7, 2003

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RECEIVED

Ms. Martyne J. Kieling New Mexico Oil Conservation Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505 FFD 1 2 2003 Environmental Bureau Oil Conservation Division

Re: Annual Report: Permit NM-02-0002 BP Schneider Waste Management Facility SW/4 Sec. 28 - T32N - R10W, San Juan County, NM

Dear Ms. Kieling:

On behalf of BP America Production Co., Blagg Engineering, Inc. (BEI) is submitting the annual report for the Schneider Waste Management Facility pursuant to Permit NM-02-0002. This report is for 2002 calendar year monitoring. Attached are spread sheets summarizing weekly evaporation pond and monthly sump monitoring test results.

#### **General Pond Monitoring**

Weekly evaporation pond monitoring has not indicated the generation of dissolved sulfide or hydrogen sulfide gas during any inspections. Tested pH levels were stable at values in excess of 9.0. A minimum freeboard of 1.6 feet was measured during the months of March, April and December. A maximum freeboard was measured at 3.5 feet in August and September.

An aeration system was in continuous operation at the facility from January to October, 2002. This system was shut down on October 24, 2002 to monitor potential hydrogen sulfide gas generation. No such gases were detected and the aeration system remained out of service for the remainder of the year.

#### Landfarm Treatment Zone Monitoring

No landfarm cells were constructed during the 2002 calendar year and no treatment zone monitoring was required or performed.

#### **Evaporation Pond Sludge Thickness**

Sludge thickness was measured in the pond on August 23, 2002. The average sludge thickness was

measured at 3-inches and the maximum thickness was recorded at 6-inches in the area of the primary pond inlet. The facility permit does not require sludge removal until the average thickness exceeds 12-inches.

#### Leak Detection System Monitoring

No significant leaks into or from the leak detection system were observed during the 2002 calendar year. Minimal fluid accumulation was observed in the two (2) inter-liner sump traps and there was no continual fluid flow into the traps.

Questions or comments concerning the this transmittal may be directed to myself at (505)632-1199 or to Brittany Benko with BP at (505)326-9200.

Respectfully submitted: *Blagg Engineering, Inc.* 

7 C. Blogg

Jeffrey Č. Blagg, P.E., President

Attachments: Monitoring Spread Sheets

cc: Denny Foust, NMOCD Aztec District Office Brittany Benko, BP San Juan Operations Center

Schneider Waste Mgmt. Facility Field Data Summary SW/4, Section 28, T32 N, R 10 W, N.M.P.M San Juan County, New Mexico BP / AMOCO

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REVISED DATE: JANUARY 2, 2003 (KAG)

**BLAGG ENGINEERING, INC.** 

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COMMEN IS			CAL pH 7=7,10=10 CAL DO TO ATMOS (82%) H20 XFER FROM SCH TO CAHN AIR INJ ON	CAL INST @ CAHN H20 XFER TO CAHN AIR INJ ON	CAL INST @ CAHN H20 XFER TO CAHN AIR INJ ON	CAL INST @ CAHN TERM H20 XFER TO CAHN AIR INJ ON	CAL INST & CAHN RESTART H20 XFER TO CAHNICE COVERING 100% AIR INJ ON	CAL pH 7=7,10=10 CAL DO TO ATMOS (82%) H2S FAC CAL AIR INJ ON	CAL INST pH 7=7 10=10 DO TO ATMOS (82%) H28 TO STANDARD 10PPM H20 XEER TO CAHN AR NJ ON	CAL INST @ CAHN H20 XFER TO CAHN AIR INJ ON	CAL INST @ CAHN H20 XFER TO CAHN AIR INJ ON	CAL INST @ CAHN H20 XFER TO CAHN AIR INJ ON	CAL INST @ CAHN H20 XFER TO CAHN AIR INJ ON	CAL INST @ CAHN H20 XFER TO CAHN AIR INJ ON	CAL INST @ CAHN H20 XFER TO CAHN AIR INJ ON	CAL INST @ CAHN H20 XFER TO CAHN AIR INJ ON	CAL INST @ CAHN H20 XFER TO CAHN AIR INJ ON	CAL INST @ CAHN H20 XFER TO CAHN AIR INJ ON	INST CAL ON CAVIN SHEET AR 13 J ON TERM H20 XFER TO CAVIN FOR VACUUM LINE REPAIR	CAL INST @ CAHN RESUME H20 XFER TO CAHN AIR INJ ON	CAL INST @ CAHN H20 XFER TO CAHN AIR INJ ON	CAL INST@ OFFICE pH 7=7, 10=10 DO TO ATMOS (82%) H28 PRE CAL AIR INJ ON H20 XFER TO CAHN	CAL INST @ CAHN H20 XFER TO CAHN AIR INJ ON	CAL INST @ CAHN H20 XFER TO CAHN AIR INJ ON	CAL INST @ CAHN H20 XFER TO CAHN AIR INJ ON	CAL INST @ CAHN H20 XFER TO CAHN AIR INJ ON	CAL INST @ CAHN H20 XFER TO CAHN AIR INJ ON	CAL INST @ CAHN H20 XFER TO CAHN AIR INJ ON
LINER / BERM INTEGRITY			7	۲	7	>	7	≻	≻	7	۲	۲	>	۲	7	7	>	7	>	>	>	>	7	>	>	>	۲	7
FREE-	ŧ		2.10	2.05	2.00	1.95	1.90	1.80	1.60	1.70	1.70	1.60	1.60	1.60	1.60	1.60	1.60	1.80	1.90	1.95	2.00	2.20	2.30	2.50	2.80	2.80	3.00	3.10
ł			9.5	9.4	9.4	9.5	9.5	9.4	9.6	9.5	9.6	9.7	9.6	9.5	9.6	9.6	9.6	9.5	9.4	9.3	9.2	9.3	9.5	9.3	9.4	9.4	9.3	9.4
- Wb	celcius		2.2	2.8	2.2	2.1	1.1	2.8	6.5	7.6	7.9	8.4	8.7	8.9	14.1	19.2	18.0	21.0	12.5	19.0	22.0	23.0	23.0	23.7	25.9	25.1	16.1	27.0
DISSOLVED	bpm		0.51	2.31	0.9	1.14	0.09	1.68	0.55	1.61	1.46	0.62	1.41	1.06	1.97	0.64	1.31	1.11	1.63	0.65	1.21	0.61	AA	3.60	1.01	0.62	1.00	0.31
DISSOLVED Suit Finf	bpm		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
H2S	bpm		Q	QN	Q	QN	DN	DN	QN	DN	QN	QN	DN	QN	Q	QN	QN	QN	g	g	Q	Q	Q	Q	Q	Q	Q	Q
MIND	bearing		A	25	10	15	75	06	300	245	240	85	200	200	185	250	180	210	Ą	170	220	180	300	200	275	170	120	275
WIND	hqm		CALM	4-10	4-10	5-10	0-2	0 4	8-12	5-13	5-10	24	3-9	6-11	7-13	6-9	12-22	4-6	CALM	3-8 3	1-6	5-13	0-4	4-9	5-8	0-2	0-2	0-1
DATE			01/08/02	01/14/02	01/22/02	01/28/01	02/04/02	02/15/02	02/20/02	02/26/02	03/05/02	03/16/02	03/19/02	03/28/02	04/02/02	04/13/02	04/17/02	04/26/02	05/02/02	05/06/02	05/13/02	05/23/02	05/29/02	06/04/02	06/14/02	06/18/02	06/25/02	07/03/02

SEP-SUM.WK4

Schneider Waste Mgmt. Facility Field Data Summary SW/4, Section 28, T32 N, R 10 W, N.M.P.M San Juan County, New Mexico BP / AMOCO

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REVISED DATE: JANUARY 2, 2003 (KAG)

**BLAGG ENGINEERING, INC.** 

COMMENTS		CAL INST @ CAHN H20 XFER TO CAHN AIR INJ ON	H20 XFER TO CAHN AIR INJ ON CAL pH 7=7 10=10 CAL DO TO Atmos (82%) h2s precal	TERM H20 XFER AIR INJ ON CAL PH 7=7 10=10 CAL DO TO Atmos (82%) h2s precal	'AIR INJ ON CAL PH 7=7 10=10 CAL DO TO ATMOS (82%) H2S PRECAL	AIR INJ ON CAL INST @ OFFICE	'AR NJ ON CAL PH 7=7 10=10 CAL DO TO ATMOS (82%) H2S PRECAL	'AIR INJ ON CAL PH 7=7 10=10 CAL DO TO ATMOS (82%) H2S PRECAL	· CAL pH 7"7 10=10 CAL DO TO ATMOS (82%) H28 PRECAL	CAL INST @ CAHN AIR INJ ON H20 TOO SHALLOW FOR DO	CAL INST @ CAHN AIR INJ ON H20 TOO SHALLOW FOR DO	'CAL INSTR @ CAHN AIR INJ ON	'CAL INSTR @ CAHN CALDO TO ATMOS (82%) RAINING LIGHTLY	CAL INSTR & CAHN CALDO TO AT MOS (82%) BEGIN H20 XFER TO CAHN	'CAL INSTR @ CAHN	'CALPH 7=7 10=10 CAL DO TO ATMOS (82%) H2S PRECAL	'CAL INST @CAHN	'CAL INST AT CAHN SHEET LITE RAIN	'AR NJ ON CAL PH 7=7 10=10 CAL DO TO ATMOS (82%) H2S PRECAL	VARINJ ON CAL, pH Th' 19+19 CAL, DO TO ATNOS (2214) 1638 PRESAL, TIAN LAVER OF 152 ON BATHER POND	'CAL INST @ CAHN ICE ON 95% OF SURFACE	'CALPH 7-7 10-10 CAL DO TO ATMOS (82%) H2S PRECAL, ICE ON 80% OF SURFACE					
LINER / BERM	INTEGRITY	٢	۲	۲	٢	۲	٢	7	۲	۲	٢	٢	>	۲	٢	۲	۲	۲	۲	>	>	7	7	7	>	7	۲
FREE-	BOARD	3.10	3.20	3.20	3.30	3.30	3.30	3.50	3.50	3.50	3.30	3.10	3.20	3.10	3.10	3.10	3.00	3.00	2.90	2.60	2.50	2.30	2.20	2.00	1.80	1.70	1.60
Hq		9.4	9.4	9.3	9.2	9.2	9.3	9.3	9.4	9.1	9.3	9.3	9.2	9.4	9.2	9.5	9.6	9.6	9.6	9.7	9.6	9.6	9.6	9.5	9.5	9.6	9.7
TEMP.	calcius.	27.5	26.2	25.1	26.1	19.1	19.0	20.2	19.7	22.0	19.7	20.3	19.2	12.3	13.6	13.0	14.1	9.8	6.3	5.0	3.6	2.2	2.8	1.2	1.2	0.5	0.5
DISSOLVED	OXYGEN	0.61	0.31	0.19	0.20	0.06	0.31	NA	0.08	NA	AN	AN	NA	0.03	0.21	0.16	0.04	0.44	0.31	0.12	0.09	0.18	0.13	0.18	0.09	0.10	0.08
DISSOLVED	SULFIDE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
H2S		g	Ð	Q	g	Q	g	Q	g	Q	g	Q	g	Q	g	Q	g	Q	Q	DN	QN	QN	QN	QN	QN	Q	DN
MIND	DIRECTION	190	06	130	10	60	195	180	170	NORTH	280	275	275	AN	20	180	NORTH	200	205	190	200	190	200	200	270	EAST	20
AIND	SPEED	5-9	4-6	2-4	0-2	1-3	2-5	2-7	5-12	8-12	2-4	10-15	5-10	CALM	2-6	8-11	7-13	5-15	0-2	0-4	3-7	4-8	1-2	10-12	10-15	0-1	1-3
INITIAL	DATE	07/11/02	07/19/02	07/23/02	08/01/02	08/08/02	08/15/02	08/23/02	08/30/02	09/03/02	09/12/02	09/21/02	09/27/02	10/04/02	10/12/02	10/17/02	10/24/02	10/28/02	11/07/02	11/13/02	11/19/02	11/26/02	12/02/02	12/11/02	12/19/02	12/27/02	12/31/02

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### BP/AMOCO

Schneider Waste Mgmt. Facility

Leak Detection - Monthly Insepection Field Data Summary

SW/4, Section 28, T 32 N, R 10 W, N.M.P.M San Juan County, New Mexico

REVISED DATE: JANUARY 2, 2003 (KAG)

#### **BLAGG ENGINEERING, INC.**

		NE SU	MP			SE SU	ИР	
INITIAL	DISSOLVED	DISSOLVED	TEMP.	pН	DISSOLVED	DISSOLVED	TEMP.	pH
DATE	SULFIDE	OXYGEN			SULFIDE	OXYGEN		
	ppm	ppm	celcius	h the s	ppm	ppm	celcius	<u></u>
						,		
01/14/02	0.0	0.11	5.7	9.5	0.0	0.03	6.8	9.5
02/20/01	0.0	0.01	6.1	9.4	0.0	0.00	7.3	9.5
03/19/02	0.0	0.01	5.9	9.5	0.0	0.22	6.1	9.7
04/02/02	0.0	0.01	8.7	9.6	0.0	0.18	9.3	9.7
04/26/02	0.0	0.31	13.3	9.6	0.0	0.12	14.0	9.7
05/02/02	0.0	0.54	11.2	9.3	0.0	0.21	11.5	9.2
06/25/02	0.0	0.12	16.7	9.2	0.0	0.06	17.8	9.2
08/08/02	0.0	0.14	21.6	9.0	0.0	0.08	22.9	9.1
09/03/02	0.0	0.05	21.0	9.3	0.0	0.01	20.8	9.2
10/12/02	0.0	0.11	19.3	9.1	0.0	0.04	21.7	9.2
11/13/02	0.0	0.08	10.4	9.6	0.0	0.03	11.0	9.6
12/02/02	0.0	0.10	7.4	9.7	0.0	0.05	8.5	9.6
12/31/02	0.0	0.04	4.8	9.6	0.0	0.00	5.3	9.6

### BLAGG ENGINEERING, INC.

P.O. Box 87, Bloomfield, New Mexico 87413 Phone: (505)632-1199 Fax: (505)632-3903

February 18, 2002

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FEB 2 5 2002 Environmental Bureau Oil Conservation Division

Ms. Martyne J. Kieling New Mexico Oil Conservation Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505

Re: Annual Report: Permit NM-02-0002 BP-Amoco Schneider Waste Management Facility SW/4 Sec. 28 - T32N - R10W, San Juan County, NM

Dear Ms. Kieling:

On behalf of BP-Amoco, Blagg Engineering, Inc. (BEI) is submitting an annual report with respect to treatment zone monitoring and leak detection inspections at the Schneider Waste Management Facility, Permit NM-02-0002. This NMOCD permit was issued on February 1, 1999 and this annual report is for 2001 calendar year monitoring. Attached, please find spread sheets that summarize the weekly evaporation pond and monthly sump monitoring test results.

#### **General Pond Monitoring**

Weekly evaporation pond monitoring has not indicated the generation of hydrogen sulfide gas in excess of permit limits. No dissolved sulfide was detected in the evaportion pond water and pH levels were stable at values in excess of 9.0. An aeration system was in continuous operation at the facility.

#### Landfarm Treatment Zone Monitoring

No landfarm cells were constructed during the 2001 calendar year and no treatment zone monitoring was required or performed.

#### **Evaporation Pond Sludge Thickness**

Sludge thickness was measured in the pond on June 21, 2001. The average sludge thickness was measured at 3-inches and the maximum thickness was recorded at 5-inches in the area of the primary pond inlet. The facility permit does not require sludge removal until the average thickness exceeds 12-inches.

#### Leak Detection System Monitoring

No significant leaks into or from the leak detection system were observed during the 2001 calendar year. Minimal fluid accumulation was observed in the two (2) inter-liner sump traps and there was no continual fluid flow into the traps.

Questions or comments concerning the this transmittal may be directed to Jeff Blagg of Blagg Engineering at (505)632-1199 or to Buddy Shaw with BP-Amoco at (505)326-9219.

Respectfully submitted: *Blagg Engineering, Inc.* 

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Jeffrey C. Blagg, P.E., President

Attachments: Monitoring Spread Sheets

cc: Denny Foust, NMOCD Aztec District Office B.D. Shaw, BP-Amoco San Juan Operations Center
REVISED DATE: JANUARY 2, 2002 (KAG)

BP / AMOCO Schneider Waste Mgmt. Facility Field Data Summary SW /4, Section 28, T 32 N, R 10 W, N.M.P.M San Juan County, New Mexico

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BLAGG ENGINEERING, INC.

	ANIW DN	H2S	DISSOLVED	DISSOLVED	TEMP.	H	FREE-	LINER / BERM	COMMENTS
D IIII	IRECTION		SULFIDE	OXYGEN	1		BOARD	INTEGRITY	
Ļ	bearing	Edd	Mqq	mqq	celcius		z		
8	160	QN	0.0	1.23	1.5	9.4	1.90	7	H20 XFER CONTINUING PH CALIBRATED
Ģ	150	QN	0.0	0.61	2.0	9.4	1.80	۲	H20 XFER CONTINUING
ę	120	g	0.0	0.81	1.0	9.5	1.70	۲	· H20 XFER CONTINUING CALIBRATE INST. @CAHN H20 SURFACE FROZEN 14"
53	300	g	0.0	2.18	4.4	6.3	1.60	7	CALIBRATE INSTS @CAMN H20 XFER TO MUDDY TO INSPECT SUMP
Ņ	75	Q	0.0	1.14	-1.0	9.4	1.60	≻	H20 XFER CONTINUING CALIBRATE INST TO CAHN THIN LAVER OF ICE ON W SIDE
2	270	g	0.0	0.88	1.5	9.4	1.60	7	CALIBRATE DO TO ATMOS PH CALIBRATED @ CAHN H20 XFER CONTINUING
ņ	270	Q	0.0	1.31	3.0	9.4	1.60	≻	H20 XFER TO CAHN CALIBRATE INST @ CAHN
10	N30E	Q	0.0	13.75	3.8	9.5	1.70	۲	H20 XFER TO CAHN CALIBRATE INST @CAHN HINGE BROKE ON NE SUMP
	270	Q	0.0	1.5	7.2	9.5	1.65	۲	CALIBRATE INST @ CAHN H20 XFER CONTINUING
~	110	Q	0.0	1.6	8.3	9.5	1.70	7	AERATION SYSTEM ON CAL INST @CAHN H20 XFER CONTINUING
ø	190	g	0.0	1.2	11.4	9.5	1.80	7	AERATION SYSTEM ON CAL INST @CAHN H20 XFER CONTINUING
<del>1</del> 5	135	g	0.0	0.9	12.6	9.72	1.75	۲	AERATION SYSTEM ON CAL INST @CAHN H20 XFER CONTINUING
8	230	QN	0.0	2.40	12.3	9.4	1.90	۲	AERATION SYSTEM ON CAL INST @CAHN H20 XFER CONTINUING
11	205	g	0.0	1.10	12.3	9.3	1.90	۲	AERATION SYSTEM ON CAL INST @CAHN H20 XFER CONTINUING
16	240	Q	0.0	0.78	14.5	9.4	1.90	۲	CAL pH 7=7 10=10 CAL DO TO ATMOS H20 XFER AREATION ON MINOR ODOR
2	245	QN	0.0	0.94	21.7	9.5	1.95	۲	AERATION SYSTEM ON CAL INST @CAHN H20 XFER CONTINUING
-	195	g	0.0	0.31	19.1	9.4	2.00	٢	AERATION SYSTEM ON CAL INST @CAHN H20 XFER CONTINUING
15	260	g	0.0	2.60	15.7	9.4	1.90	۲	AERATION SYSTEM ON CAL INST @CAHN H20 XFER CONTINUING
S	230	Q	0.0	1.10	20.2	9.5	2.00	۲	AERATION SYSTEM ON CAL INST @CAHN H20 XFER CONTINUING AIR INJ ON
e	S20W	QN	0.0	2.50	14.7	9.5	2.00	۲	AERATION SYSTEM ON CAL INST @CAHN H20 XFER CONTINUING
14	302	QN	0.0	1.00	20.9	9.4	2.10	۲	AERATION SYSTEM ON CAL INST @CAHN H20 XFER CONTINUING
9	240	QN	0.0	1.05	27.2	9.4	2.10	۲	CALPH 7=7,10=10 CALDO TO ATMOS AIR INJ ON
15	230	Q	0.0	1.90	19.1	9.4	2.50	۲	AERATION SYSTEM ON CAL INST @CAHN H20 XFER CONTINUING AIR INJ ON

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BP / AMOCO Schneider Waste Mgmt. Facility Field Data Summary SW/4, Section 28, T32 N, R10 W, N.M.P.M San Juan County, New Mexico

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REVISED DATE: JANUARY 2, 2002 (KAG)

**BLAGG ENGINEERING, INC.** 

INITIAL	MIND	QNIM	H2S	DISSOLVED	DISSOLVED	TEMP.	Hq	FREE-	LINER / BERM	COMMENTS
DATE	SPEED	DIRECTION		SULFIDE	OXYGEN			BOARD	INTEGRITY	
	hqm	bearing	Edd	Шdd	Edd	celcius		£	n a sina siya ana siy	
and the second										
06/21/01	3-6 3-6	95	g	0.0	2.22	18.6	9.3	2.60	7	CAL INST TO CANEN HZO XFER CONT AIR MU ON PAS CONST HICH PRESSURE WASHING LOWER BIDES
06/28/01	4-6	120	Q	0.0	1.20	21.0	9.5	2.70	۲	AERATION SYSTEM ON CAL INST @CAHN H20 XFER CONTINUING
07/06/01	2-3	120	Q	0.0	0.64	23.1	9.5	2.90	۲	H20 XFER TO CAHN AIR INJECTION ON
07/10/01		06	Q	0.0	1.40	26.2	9.5	3.00	7	AERATION SYSTEM ON CAL INST @CAHN H20 XFER CONTINUING
07/18/01	1-2	80	QN	0.0	1.40	24.0	9.4	3.00	7	END H20 XFER CAL INST @CAHN AIR INJ ON
07/23/01	2-4	120	QN	0.0	0.94	25.5	9.4	3.00	>	CAL INSTS @ CAHN H20 XFER TO CAHN AIR INJ ON
07/31/01	2-4	105	Q	0.0	0.64	22.7	9.4	3.10	7	CAL DO & PH AIR SPARGING ON
08/06/01	1-5	100	g	0.0	0.51	26.5	9.3	3.10	7	CAL DO & PH AIR SPARGING ON
08/14/01	3-0 2	210	d	0.0	1.04	20.4	9.4	2.90	7	AERATION SYSTEM ON CAL PH & DO METERS VERY MUDDY FROM LAST NIGHTS RAIN
08/24/01	2-7	60	g	0.0	1.60	20.3	9.4	2.90	۲	CAL DO & PH AIR SPARGING ON
08/30/01	3-5	170	QN	0.0	1.14	18.9	9.5	3.00	7	CAL DO & PH AIR SPARGING ON
10/20/60	7-15	310	Q	0.0	2.40	15.8	9.5	2.90	7	CAL DO & PH AIR SPARGING ON H20 XFER TO CAHN
09/18/01	2-4	40	QN	0.0	1.49	19.8	9.4	3.00	≻	AIR INJECTION ON H20 XFER TO CAHN CAL INST @ CAHN
09/26/01	3-8 3-8	06	Q	0.0	1.90	13.2	9.5	3.00	7	PUMP SUMPS, HZ0 XFER TO CAMP, ARE SPARCE CM, CAL, pH 7=7, 10=10, CAL DO TO ATMOS
10/05/01	3-5	115	QN	0.0	0.44	16.0	9.5	3.00	7	CALPH 7=7,10=10 CALDO TO ATMOS AIR INJ ON AIR SPARGE ON H20 XFER TO CAHN
10/13/01	3-6	95	g	0.0	1.41	10.1	9.5	3.00	7	CAL INSTS @ CAHN H20 XFER TO CAHN AIR INJ ON
10/18/01	8- 8- 8-	160	Q	0.0	1.33	16.2	9.5	3.00	>	CALpH 7=7,10=10 CALDO TO ATMOS AIR INJ ON END H20 XFER TO CAHN
10/24/01	14-23	230	QN	0.0	2.00	12.3	9.5	3.00	7	CALPH 7=7,10=10 CALDO TO ATMOS AIR INJ ON
11/02/01	5-9	15	Q	0.0	0.63	7.2	9.5	3.00	7	AIR SPARGE ON
11/08/01	3-7	225	QN	0.0	1.55	9.4	9.5	3.00	7	AIR SPARGE ON
11/14/01	8-12	193	QN	0.0	0.92	10.5	9.4	3.00	7	AIR SPARGE ON
11/19/01	0-2	180	Q	0.0	1.19	13.5	9.5	2.90	≻	AIR SPARGE ON
11/26/01	2-6	80	QN	0.0	1.90	1.4	9.4	2.80	۲	AIR SPARGE ON CALIBRATE INST @CAHN
12/03/01	4-13	20	QN	0.0	1.62	3.8	9.5	2.70	7	AIR SPARGE ON H20 XFER TO CAHN CALIBRATE INST @CAHN
12/14/01	6-11	45	Q	0.0	1.19	0.3	9.4	2.40	~	CALIBRATE INST @ CAHN POND SURFACE 90% FROZEN
12/19/01	~	VARI	Q	0.0	AN	0.9	9.5	2.40	>	CALIBRATE PH @ CAHN POND SURFACE 50% FROZEN END H20 XFER AR INJ ON

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**Schneider Waste Mgmt. Facility** Leak Detection - Monthly Insepection Field Data Summary

SW/4, Section 28, T 32 N, R 10 W, N.M.P.M San Juan County, New Mexico

REVISED DATE: DECEMBER 4, 2001 (KAG)

Sec. 6

## **BLAGG ENGINEERING, INC.**

INITIAL DATE         DISSOLVED SULFIDE         DISSOLVED OXYGEN ppm         TEMP. celcius         PH         DISSOLVED SULFIDE         DISSOLVED OXYGEN ppm         TEMP. celcius         PH           01/02/01         0.0         3.34         3.0         9.5         0.0         1.71         4.8         9.4           02/06/01         0.0         2.60         3.0         9.6         0.0         0.11         4.8         9.3           03/08/01         0.0         0.0         6.0         9.6         TSTM         TSTM <t< th=""><th></th><th></th><th>NE SUI</th><th>MP</th><th></th><th></th><th>SE SUI</th><th>MP</th><th></th></t<>			NE SUI	MP			SE SUI	MP	
ppm         ppm         celcius         ppm         ppm         celcius           01/02/01         0.0         3.34         3.0         9.5         0.0         1.71         4.8         9.4           02/06/01         0.0         2.60         3.0         9.6         0.0         0.11         4.8         9.3           03/08/01         0.0         0.00         6.0         9.6         TSTM         7.92         0.6/02/01         0.0         0.04         12.9         9.7         0.0         0.05         10.8         9.6         0.011         22.0         9.5         0.0         0.11         22.0         9.5         0.0         0.11         22.0         9.5         0.0         0.01         20.9         9.5         0.0         0.01         12.0         9.5         0.0         0.00         11.1         9.5         0.0         0.01         19.3         9.4         0.0         0.00         19.3         9.4         0.0         0.016         18.0         9.5         11/26/01         0.0         0.025         9.2         9.5         11/26/01	INITIAL DATE	DISSOLVED SULFIDE	DISSOLVED OXYGEN	TEMP.	рН	DISSOLVED SULFIDE	DISSOLVED OXYGEN	TEMP.	pH
01/02/01         0.0         3.34         3.0         9.5         0.0         1.71         4.8         9.4           02/06/01         0.0         2.60         3.0         9.6         0.0         0.11         4.8         9.3           03/08/01         0.0         0.0         6.0         9.6         TSTM         TSTM         TSTM         TSTM           04/04/01         0.0         3.10         9.5         9.3         0.0         0.90         8.7         9.2           05/02/01         0.0         0.444         12.9         9.7         0.0         0.05         10.8         9.6           06/13/01         0.0         0.05         21.4         9.5         0.0         0.00         21.1         9.5           07/10/01         0.0         0.08         18.1         9.5         0.0         0.00         19.3         9.4           09/18/01         0.0         0.44         20.2         9.5         0.0         0.03         19.5         9.5           10/13/01         0.0         0.54         8.9         9.5         0.0         0.25         9.2         9.5           12/03/01         0.0         0.02         8.5		ppm	ppm	celcius	······	ppm	ppm	celcius	
01/02/01         0.0         3.34         3.0         9.5         0.0         1.71         4.8         9.4           02/06/01         0.0         2.60         3.0         9.6         0.0         0.11         4.8         9.3           03/08/01         0.0         0.00         6.0         9.6         TSTM         TSTM <td></td> <td>· · · · · · · · · · · · · · · · · · ·</td> <td></td> <td></td> <td></td> <td>·····</td> <td>······</td> <td></td> <td></td>		· · · · · · · · · · · · · · · · · · ·				·····	······		
02/06/01         0.0         2.60         3.0         9.6         0.0         0.11         4.8         9.3           03/08/01         0.0         0.00         6.0         9.6         TSTM         TST	01/02/01	0.0	3.34	3.0	9.5	0.0	1.71	4.8	9.4
03/08/01         0.0         0.00         6.0         9.6         TSTM         TSTM         TSTM         TSTM         TSTM         TSTM           04/04/01         0.0         3.10         9.5         9.3         0.0         0.90         8.7         9.2           05/02/01         0.0         0.44         12.9         9.7         0.0         0.05         10.8         9.6           06/13/01         0.0         0.055         21.4         9.5         0.0         0.11         22.0         9.5           07/10/01         0.0         0.33         22.4         9.4         0.0         0.00         21.1         9.5           08/24/01         0.0         0.08         18.1         9.5         0.0         0.00         19.3         9.4           09/18/01         0.0         0.44         20.2         9.5         0.0         0.03         19.5         9.5           10/13/01         0.0         0.54         8.9         9.5         0.0         0.25         9.2         9.5           12/03/01         0.0         0.02         8.5         9.5         0.0         0.08         8.8         9.5           12/03/01         0.0<	02/06/01	0.0	2.60	3.0	9.6	0.0	0.11	4.8	9.3
04/04/01         0.0         3.10         9.5         9.3         0.0         0.90         8.7         9.2           05/02/01         0.0         0.444         12.9         9.7         0.0         0.05         10.8         9.6           06/13/01         0.0         0.05         21.4         9.5         0.0         0.11         22.0         9.5           07/10/01         0.0         0.33         22.4         9.4         0.0         0.00         21.1         9.5           08/24/01         0.0         0.08         18.1         9.5         0.0         0.00         19.3         9.4           09/18/01         0.0         0.444         20.2         9.5         0.0         0.03         19.5         9.5           10/13/01         0.0         0.91         18.3         9.4         0.0         0.16         18.0         9.5           12/03/01         0.0         0.54         8.9         9.5         0.0         0.08         8.8         9.5           12/03/01         0.0         0.02         8.5         9.5         0.0         0.08         8.8         9.5           12/03/01         0.0         0.02         8.5 </td <td>03/08/01</td> <td>0.0</td> <td>0.00</td> <td>6.0</td> <td>9.6</td> <td>TSTM</td> <td>TSTM</td> <td>TSTM</td> <td>TSTM</td>	03/08/01	0.0	0.00	6.0	9.6	TSTM	TSTM	TSTM	TSTM
05/02/01         0.0         0.44         12.9         9.7         0.0         0.05         10.8         9.6           06/13/01         0.0         0.05         21.4         9.5         0.0         0.11         22.0         9.5           07/10/01         0.0         0.33         22.4         9.4         0.0         0.00         21.1         9.5           08/24/01         0.0         0.08         18.1         9.5         0.0         0.00         21.1         9.5           09/18/01         0.0         0.44         20.2         9.5         0.0         0.03         19.5         9.5           10/13/01         0.0         0.91         18.3         9.4         0.0         0.16         18.0         9.5           11/26/01         0.0         0.54         8.9         9.5         0.0         0.25         9.2         9.5           12/03/01         0.0         0.02         8.5         9.5         0.0         0.08         8.8         9.5           12/03/01         0.0         0.02         8.5         9.5         0.0         0.08         8.8         9.5           12/03/01         0.0         0.0         0.0	04/04/01	0.0	3.10	9.5	9.3	0.0	0.90	8.7	9.2
06/13/01         0.0         0.05         21.4         9.5         0.0         0.11         22.0         9.5           07/10/01         0.0         0.33         22.4         9.4         0.0         0.00         21.1         9.5           08/24/01         0.0         0.08         18.1         9.5         0.0         0.00         19.3         9.4           09/18/01         0.0         0.44         20.2         9.5         0.0         0.03         19.5         9.5           10/13/01         0.0         0.911         18.3         9.4         0.0         0.16         18.0         9.5           11/26/01         0.0         0.54         8.9         9.5         0.0         0.25         9.2         9.5           12/03/01         0.0         0.02         8.5         9.5         0.0         0.08         8.8         9.5           12/03/01         0.0         0.02         8.5         9.5         0.0         0.08         8.8         9.5           12/03/01         0.0         0.02         8.5         9.5         0.0         0.08         8.8         9.5           12/03/01         0.0         0.0         0.02	05/02/01	0.0	0.44	12.9	9.7	0.0	0.05	10.8	9.6
07/10/01         0.0         0.33         22.4         9.4         0.0         0.00         21.1         9.5           08/24/01         0.0         0.08         18.1         9.5         0.0         0.00         19.3         9.4           09/18/01         0.0         0.44         20.2         9.5         0.0         0.03         19.5         9.5           10/13/01         0.0         0.91         18.3         9.4         0.0         0.16         18.0         9.5           11/26/01         0.0         0.54         8.9         9.5         0.0         0.25         9.2         9.5           12/03/01         0.0         0.02         8.5         9.5         0.0         0.08         8.8         9.5           12/03/01         0.0         0.02         8.5         9.5         0.0         0.08         8.8         9.5           12/03/01         0.0         0.02         8.5         9.5         0.0         0.08         8.8         9.5           12/03/01         0.0         0.02         8.5         9.5         0.0         0.08         8.8         9.5           12/03/01         0.0         0.0         0.0	06/13/01	0.0	0.05	21.4	9.5	0.0	0.11	22.0	9.5
08/24/01         0.0         0.08         18.1         9.5         0.0         0.00         19.3         9.4           09/18/01         0.0         0.44         20.2         9.5         0.0         0.03         19.5         9.5           10/13/01         0.0         0.91         18.3         9.4         0.0         0.16         18.0         9.5           11/26/01         0.0         0.54         8.9         9.5         0.0         0.25         9.2         9.5           12/03/01         0.0         0.02         8.5         9.5         0.0         0.08         8.8         9.5           12/03/01         0.0         0.02         8.5         9.5         0.0         0.08         8.8         9.5           12/03/01         0.0         0.02         8.5         9.5         0.0         0.08         8.8         9.5           12/03/01         0.0         0.02         8.5         9.5         0.0         0.08         8.8         9.5           12/03/01         0.0         0.02         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         <	07/10/01	0.0	0.33	22.4	9.4	0.0	0.00	21.1	9.5
09/18/01         0.0         0.44         20.2         9.5         0.0         0.03         19.5         9.5           10/13/01         0.0         0.91         18.3         9.4         0.0         0.16         18.0         9.5           11/26/01         0.0         0.54         8.9         9.5         0.0         0.25         9.2         9.5           12/03/01         0.0         0.02         8.5         9.5         0.0         0.08         8.8         9.5           12/03/01         0.0         0.02         8.5         9.5         0.0         0.08         8.8         9.5           12/03/01         0.0         0.02         8.5         9.5         0.0         0.08         8.8         9.5           12/03/01         0.0         0.02         8.5         9.5         0.0         0.08         8.8         9.5           12/03/01         0.0         0.02         8.5         9.5         0.0         0.08         8.8         9.5           12/03/01         0.0         0.02         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0 <td< td=""><td>08/24/01</td><td>0.0</td><td>0.08</td><td>18.1</td><td>9.5</td><td>0.0</td><td>0.00</td><td>19.3</td><td>9,4</td></td<>	08/24/01	0.0	0.08	18.1	9.5	0.0	0.00	19.3	9,4
10/13/01       0.0       0.91       18.3       9.4       0.0       0.16       18.0       9.5         11/26/01       0.0       0.54       8.9       9.5       0.0       0.25       9.2       9.5         12/03/01       0.0       0.02       8.5       9.5       0.0       0.08       8.8       9.5         12/03/01       0.0       0.02       8.5       9.5       0.0       0.08       8.8       9.5         12/03/01       0.0       0.02       8.5       9.5       0.0       0.08       8.8       9.5         12/03/01       0.0       0.02       8.5       9.5       0.0       0.08       8.8       9.5         12/03/01       0.0       0.02       8.5       9.5       0.0       0.08       8.8       9.5         12/03/01       0.0       0.02       8.5       9.5       0.0       0.08       8.8       9.5         12/03/01       0.0       0.0       1.0       1.0       1.0       1.0       1.0       1.0       1.0         12/03/01       1.0       1.0       1.0       1.0       1.0       1.0       1.0       1.0       1.0       1.0       1.0	09/18/01	0.0	0.44	20.2	9.5	0.0	0.03	19.5	9.5
11/26/01       0.0       0.54       8.9       9.5       0.0       0.25       9.2       9.5         12/03/01       0.0       0.02       8.5       9.5       0.0       0.08       8.8       9.5         12/03/01       0.0       0.02       8.5       9.5       0.0       0.08       8.8       9.5         12/03/01       0.0       0.02       8.5       9.5       0.0       0.08       8.8       9.5         12/03/01       0.0       0.02       8.5       9.5       0.0       0.08       8.8       9.5         12/03/01       0.0       0.02       8.5       9.5       0.0       0.08       8.8       9.5         12/03/01       0.0       0.02       8.5       9.5       0.0       0.08       8.8       9.5         12/03/01       0.02       1       <	10/13/01	0.0	0.91	18.3	9.4	0.0	0.16	18.0	9.5
12/03/01       0.0       0.02       8.5       9.5       0.0       0.08       8.8       9.5	11/26/01	0.0	0.54	8.9	9.5	0.0	0.25	9.2	9.5
	12/03/01	0.0	0.02	8.5	9.5	0.0	0.08	8.8	9.5
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# BLAGG ENGINEERING, INC.

P.O. Box 87, Bloomfield, New Mexico 87413 Phone: (505)632-1199 Fax: (505)632-3903



February 19, 2001

Ms. Martyne J. Kieling New Mexico Oil Conservation Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505

Re: BP-Amoco Schneider Waste Management Facility SW/4 Sec. 28 - T32N - R10W, San Juan County, NM Permit NM-02-0002 Annual Report

Dear Ms. Kieling:

On behalf of BP-Amoco, Blagg Engineering, Inc. (BEI) is submitting an annual report with respect to treatment zone monitoring and leak detection inspections at the subject Schneider Waste Management Facility. An NMOCD permit for this facility was issued on February 1, 1999. This annual report is for the 2000 calendar year monitoring.

### **General Pond Monitoring**

Weekly evaporation pond monitoring has not indicated the generation of hydrogen sulfide gas in excess of permit limits at the Schneider Waste Management Facility. No dissolved sulfide was detected in the pond water and pH levels were stable at values in excess of 9.0. An aeration system was in continuous operation at the pond for the entire year.

Attached, please find a spread sheet that includes a summary of weekly evaporation pond monitoring test results.

### Landfarm Treatment Zone Monitoring

No landfarm cells were constructed during the 2000 calendar year and no treatment zone monitoring was required or performed.

### **Evaporation Pond Sludge Thickness**

Sludge thickness was measured in the pond on November 21, 2000. The average sludge thickness was measured at 2-inches and the maximum thickness was recorded at 3-inches in the area of the primary pond inlet. The facility permit does not require sludge removal until the average thickness exceeds 12-inches.

### Leak Detection System Monitoring

No significant leaks into or from the leak detection system were observed during the 2000 calendar year. Beginning on April 13, 2000 a series of sump pump-off tests were run to determine water inflow rates into the two pond leak detection sumps. This testing included measuring the depth to water in each sump followed by pumping the water from the sumps using a vacuum truck. The volume of water removed from the sumps was recorded. For a period of several weeks the volume of water that re-entered the sumps was measured and the inflow rate was calculated. Several pump tests were run to verify the test results. Attached is a summary of the pump-off test results.

The pump test results indicate that the southeast sump generates very little water. Initial sump pumping produced approximately 10 gallons of water and subsequent inflow rates dropped to a negligible amount 1 month after sump pumping.

The northeast sump initially generated about 1,050 gallons of water, but if the sump was pumped 2 days later the total water volume would drop to about 42 gallons. Long term water inflow into the sump would drop to less than1 gallon per day approximately 3 weeks after sump pumping. This indicates that after a small amount of back pressure builds up in the sump system that the pond loss rate into the system is substantially reduced.

### **Recommendations**

Based on the results of the Year 2000 Schneider Waste Management Facility monitoring, BEI recommends monthly monitoring rather than weekly monitoring at the site. Pond freeboard, dissolved sulfide and pH values change very slowly over time and monthly monitoring is believed to be sufficient for detecting the possible generation of hydrogen sulfide gas. BP-Amoco personnel not associated with monitoring are at the facility several times per week and if a site hazard is observed this will be communicated to the BP-Amoco HSE team for immediate response.

Questions or comments concerning the this transmittal may be directed to Jeff Blagg of Blagg Engineering at (505)632-1199 or to Buddy Shaw with BP-Amoco at (505)326-9219.

Respectfully submitted: *Blagg Engineering, Inc.* 

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Jeffrey C. Blagg, P.E., President

Attachments: Site Diagram Monitoring Spread Sheets Sump Pumping Recovery Tests

cc: Denny Foust, NMOCD Aztec District Office B.D. Shaw, BP-Amoco San Juan Operations Center



Schneider Waste Mgmt. Facility Field Data Summary SW/4, Section 28, T32 N, R 10 W, N.M.P.M San Juan County, New Mexico BP / AMOCO

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REVISED DATE: DECEMBER 31, 2000 (KAT)

BLAGG ENGINEERING, INC.

	<b>_</b>																						
COMMENTS			AERATION SYSTEM OPERATING																	BEGIN H20 TRANSFER TO CAHN POND	END H20 TRANSFER		
LINER / BERM	INTEGRITY		۲	7	>	>	7	7	7	≻	≻	≻	≻	7	≻	≻	≻	≻	≻	≻	≻	۲	~
FREE-	BOARD	z	2.00	2.00	2.00	1.75	2.00	1.50	1.75	1.75	1.50	2.00	1.60	1.50	1.50	1.40	1.40	1.40	1.50	1.50	2.00	2.00	2.10
Ha	<u>.</u>		9.6	9.5	9.9	9.8	9.6	9.7	9.8	9.9	9.7	9.8	9.8	9.9	<u>6</u> .6	9.8	9.9	9.8	9.9	9.6	9.8	9.8	9.9
TEMP		celcius	0.0	0.0	0.0	7.6	6.4	9.1	6.7	4.6	9.3	7.7	13.7	14.4	14.8	15.3	15.4	15.8	16.2	25.5	25.4	24.6	24.9
DISSOLVED	OXYGEN	mqq	00.0/00.0	00.0/00.0	0.39/0.00	0.16/0.00	0.92/0.43	0.37/0.16	0.67/0.36	0.63/0.25	0.56/0.27	0.01/0.00	1.70	0.71	0.88	0.24	0.19	0.09	0.09	00.0	0.09	0.08	0.06
DISCOLVED	SULFIDE	mqq	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
201		Mqq	QN	Q	Q	g	g	QN	Q	Q	Q	Q	Q	0.2	0.4	0.6	Q	0.2	Q	0.1	g	0.2	QN
	DIRECTION	bearing	N 17 E	1	N 55 E	N 22 E	N 35 E	N 05 W	N 44 E	N 49 E	S 42 W	N 45 W	230	235	300	0	280	295	160	220	0	210	35
	SPEED	ham	<5	<5 <5	<5	7	<5	\$	7	9	:	9	11	\$S	19	⊽	9-15	5	6	15-20	0-4	12-20	2-8
INITIAL	DATE		01/05/00	01/11/00	01/19/00	01/24/00	01/31/00	00/00/20	02/16/00	02/21/00	02/28/00	03/10/00	03/23/00	04/03/00	04/07/00	04/12/00	04/19/00	04/26/00	05/05/00	05/10/00	05/15/00	05/22/00	05/30/00

SEP-SUM.WK4

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Schneider Waste Mgmt. Facility Field Data Summary SW/4, Section 28, T32 N, R 10 W, N.M.P.M San Juan County, New Mexico BP / AMOCO

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REVISED DATE: DECEMBER 31, 2000 (KAT)

BLAGG ENGINEERING, INC.

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TIAL	MIND	QNIM	H2S	DISSOLVED	DISSOLVED	TEMP.	H	FREE-	LINER / BERM	COMMENTS
ATE	SPEED	DIRECTION		SULFIDE	OXYGEN			BOARD	INTEGRITY	
	hqm	bearing	Шdd	шdd	шdd	celcius		z		
				and the second						
00/20	2-8	190	QN	0.0	0.08	26.4	9.9	2.20	>	
22/00	ę	270	DN	0.0	0.07	30.5	9.3	2.50	≻	
00/63	3-6	240	QN	0.0	0.14	31.0	9.4	2.60	7	
5/00	3-6 2	165	QN	0.0	00.00	27.0	9.3	2.80	7	
4/00	<5	S 75 E	QN	0.0	00.0	24.2	9.6	2.75	≻	
1/00	CALM	CALM	Q	0.0	0.00	25.9	9.5	2.90	7	BEGIN H20 TRANSFER TO CAHN POND
00/2	10-15	270	Q	0.0	00.00	24.2	9.5	3.10	7	STOPPED H20 TRANSFER TO CAHN
33/00	5-9	S 16 W	Q	0.0	0.00	32.1	9.5	3.20	>	
00/0	3-5	VARIABLE	Q	0.0	0.00	32.4	9.4	3.10	7	
8/00	3-5	122	Q	0.0	0.00	31.0	9.4	3.10	>	
4/00	2-7	205	QN	0.0	00.00	33.2	9.4	3.10	≻	
00/8	⊽	260	QN	0.0	00.0	28.3	9.3	3.05	>	
3/00	5-10	170	Q	0.0	00.00	28.0	9.3	3.00	~	
5/00	2-4	180	QN	0.0	00.00	N/A	9.4	3.05	≻	
5/00	۲	210	QN	0.0	00.0	22.1	9.4	3.00	~	
3/00	0-2	180	QN	0.0	00.00	20.0	9.4	2.90	≻	BEGIN H20 TRANSFER TO CAHN
00/00	1-4	355	DN	0.0	00.0	19.1	9.3	2.85	۲	
6/00	1-3	06	QN	0.0	0.00	19.3	9.4	2.70	~	
03/00	4-6	117	Q	0.0	0.00	8.0	9.3	2.60	>	
10/00	4-7	140	QN	0.0	2.90	3.5	9.4	2.50	7	
15/00	10-18	320	DN	0.0	1.90	3.5	9.4	2.40	>	
21/00	2-4	130	DN	0.0	1.50	5.0	9.2	2.40	~	HAVE P&S MEASURE SLUDGE AVERAGE 2" THICK
30/00	8-15	290	QN	0.0	0.80	7.0	9.5	2.30	7	
02/00	5-10	220	QN	0.0	1.78	6.0	9.2	2.20	~	
21/00	2-5	180	Q	0.0	1.80	2.0	9.4	2.00	<b>&gt;</b>	
29/00	1-3	175	Q	0.0	1.25	1.0	9.4	1.90	7	

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BP / AMOCO

Schneider Waste Mgmt. Facility

Leak Detection - Monthly Insepection Field Data Summary

SW/4, Section 28, T 32 N, R 10 W, N.M.P.M San Juan County, New Mexico

REVISED DATE: DECEMBER 31, 2000 (KAT)

BLAGG ENGINEERING, INC.

		NE SUI	MP		[	SE SU	NP	
INITIAL	DISSOLVED	DISSOLVED	TEMP.	pН	DISSOLVED	DISSOLVED	TEMP.	рH
DATE	SULFIDE	OXYGEN			SULFIDE	OXYGEN		•
	ppm	ppm	celcius		ppm	ppm	celcius	
· · · · · · · · · · · · · · · · · · ·								
01/31/00	0.0	0.00	7.6	9.8	0.0	0.00	6.9	9.9
02/28/00	0.0	0.00	9.3	9.6	0.0	0.17	8.1	9.3
03/23/00	0.0	3.43	8.6	9.5	0.0	0.16	8.9	10.1
04/19/00	0.0	1.74	9.6	9.6	0.0	0.58	9.8	9.7
05/10/00	0.0	0.0	11.3	9.9	0.0	0.29	12.1	9.8
06/22/00	0.0	0.0	14.2	9.6	0.0	0.14	13.8	9.5
07/05/00	0.0	0.0	12.4	9.4	0.0	0.0	12.5	9.4
08/24/00	0.0	0.0	13.1	9.5	0.0	0.0	14.2	9.6
09/08/00	0.0	<sup>″</sup> 0.0	12.2	9.4	0.0	0.0	13.1	9.5
10/05/00	0.0	0.0	10.4	9.3	0.0	0.0	10.6	9.4
11/03/00	0.0	0.0	10.4	9.3	0.0	0.0	11.9	9.4
12/05/00	0.0	1.6	6.6	9.3	0.0	0.0	7.4	9.3
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## BP-AMOCO SCHNEIDER EVAPORATION POND SUMP PUMPING X RECOVERY TESTS

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# Northeast Sump

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Date	<u>Time</u>	Initial DTW	Final DTW	Pump Vol	<u>Comments</u>
04/13/00	840	5.8'	8.2'	25 bbl	Pump sump with SSS
04/19/00	945		6.8'		Inspection: recovery @ 5.5 gal/d
04/26/00	1210		6.3		Inspection: recovery @ 1.7 gal/d
05/05/00	1225		6.0'		Inspection: recovery @ 0.8 gal/d
05/10/00	1430	5.8'	8.1'	23 bbl	Pump sump with SSS (35.8 gal/d)
05/11/00	1115		7.2'		Inspection: recovery @ 21.1 gal/d
05/12/00	800	7.1'	9.6'	1 bbl	Pump sump with SSS (21.0 gal/d)
05/15/00	1000		7.2'		Inspection: recovery @ 18.8 gal/d
05/22/00	1530		6.6'		Inspection: recovery @ 2.0 gal/d
05/24/00	1030	6.5'	9.8'	17 bbl	Pump sump with SSS (59.5 gal/d)
05/30/00	800	6.9'	9.8'	2 bbl	Pump sump with SSS (14.0 gal/d)
06/07/00	1240		7.0'		Inspection: recovery @ 8.2 gal/d
06/22/00	1430		6.6'		Inspection: recovery @ 0.6 gal/d
06/29/00	1345		6.4'		Inspection: recovery @ 0.7 gal/d
07/05/00	1115		6.3		Inspection: recovery @ 0.4 gal/d
10/26/00	1230		5.7'		Inspection: recovery @ 0.1 gal/d

# Southeast Sump

Date	Time	Initial DTW	<b>Final DTW</b>	<u>Pump Vol</u>	Comments
04/13/00	840	8.4'	9.8'	0.25 bbl	Pump sump with SSS
04/19/00	945		9.3'		Inspection: recovery @ 2.0 gal/d
04/26/00	1210		9.0'		Inspection: recovery @ 1.0 gal/d
05/05/00	1225		8.5'		Inspection: recovery @ 2.3 gal/d
05/10/00	1430	8.3'	9.8'	0.25 bbl	Pump sump with SSS (0.4 gal/d)
05/11/00	1115		9.6'		Inspection: recovery @ 4.7 gal/d
05/12/00	800		9.5'		Inspection: recovery @ 2.4 gal/d
05/15/00	1000		9.3'		Inspection: recovery @ 1.6 gal/d
05/22/00	1530		8.8'		Inspection: recovery @ 1.7 gal/d
05/24/00	1030		8.7'		Inspection: recovery @ 1.2 gal/d
05/30/00	800	8.5'	9.7'	0.5 bbl	Pump sump with SSS (1.0 gal/d)
06/07/00	1240		9.0'		Inspection: recovery @ 2.1 gal/d
06/22/00	1430		8.5'		Inspection: recovery @ 0.8 gal/d
06/29/00	1345		8.5'		Inspection: recovery @ 0.0 gal/d
07/05/00	1115		8.5'		Inspection: recovery @ 0.0 gal/d
10/26/00	1230		8.4'		Inspection: recovery @ 0.0 gal/d

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

### MEMORANDUM OF MEETING OR CONVERSATION

Time <u>4:00</u> Date <u>3-13-00</u> Telephone \_\_\_\_\_Personal **Originating Party** Other Parties Martyr Kieling Bodd Schniden SUMPS Freeze thus Subject Have Pond looks and i+ L ЪН Jeff Black Piompiny Discussion B leve V to check For Ц Somos Check 1 7 rns ٦u m o wester OP leak. . V V PH 0 Seem Conclusions or Agreements They will Sand C, teport on ubat about 15 mid Dove In verti Signed Mustym Ju Distribution

BLAGG ENGINEERING, INC. P.O. Box 87, Bloomfield, New Mexico 87413 Phone: (505)632-1199 Fax: (505)632-3903

MAR - 8 2000

March 7, 2000

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Ms. Martyne J. Kieling New Mexico Oil Conservation Division 2040 South Pacheco Street Santa Fe, New Mexico 87505

Re: BP-Amoco Schneider Waste Management Facility SW/4 Sec. 28 - T32N - R10W, San Juan County, NM Permit NM-02-0002 Annual Report

Dear Ms. Kieling:

On behalf of BP-Amoco, Blagg Engineering, Inc. is submitting an annual report with respect to treatment zone monitoring and leak detection inspections at the subject Schneider Waste Management Facility. An NMOCD permit for this facility was issued on February 1, 1999. This annual report is for the 1999 calendar year monitoring. Attached, please find a spread sheet that includes a summary of weekly evaporation pond monitoring test results.

#### Landfarm Treatment Zone Monitoring

No landfarm cells were constructed during the 1999 calendar year and no treatment zone monitoring was required or performed.

#### Leak Detection System Monitoring

No leaks into or from the leak detection system were observed during the 1999 calendar year.

Questions or comments concerning the this transmittal may be directed to Jeff Blagg of Blagg Engineering at (505)632-1199 or to Buddy Shaw with Amoco at (505)326-9219.

Respectfully submitted: *Blagg Engineering, Inc.* 

C. Blegg

Jeffrey C. Blagg, P.E., President

cc: Denny Foust, NMOCD Aztec District Office B.D. Shaw, BP-Amoco San Juan Operations Center BP / AMOCO Schneider Waste Mgmt. Facility Field Data Summary SW/4, Section 28, T32 N, R10 W, N.M.P.M San Juan County, New Mexico

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REVISED DATE: DECEMBER 30, 1999 (REP)

BLAGG ENGINEERING, INC.

COMMENTS

FREE- LINER / BERM

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H2S DISSOLVED DISSOLVED TEMP.

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INITIAL WIND

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			NE SUMP 2.5 FT. SE SUMP 2.5 FT.	NE SUMP 0.0 FT., SE SUMP 1.5 FT.	SAME AS ABOVE.	NE SUMP 0.0 FT., SE SUMP 1.75 FT.	SAME AS ABOVE.	SAME AS ABOVE, AERATION INITIATED 03/23/99.	SAME AS ABOVE.	DISS. OXY. METER NOT CALIBRATED	DISS. OXY. METER NOT CALIBRATED	<ul> <li>DISS, OXY, METER NOT CALIBRATED</li> </ul>	NE SUMP 5.0 FT., SE SUMP 1.75 FT.	NE SUMP 3.0 FT., SE SUMP 0.00 FT.	NE SUMP 3.0 FT., SE SUMP 0.00 FT.	NE SUMP 3.0 FT., SE SUMP 0.00 FT.	NE SUMP 3.75 FT., SE SUMP 1.75 FT.	NE SUMP 3.75 FT., SE SUMP 1.75 FT.	NE SUMP 3.75 FT., SE SUMP 1.75 FT.	NE SUMP 3.75 FT., SE SUMP 1.75 FT.	NE SUMP 3.75 FT., SE SUMP 1.75 FT.	NE SUMP 4.0 FT., SE SUMP 2.0 FT.	NE SUMP 4.0 FT., SE SUMP 2.0 FT.	NE SUMP 4.0 FT., SE SUMP 2.0 FT.
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		9.7	9.7	9.8	9.6	10.1	10.1	9.9	9.7	9.8	9.9	9.8	9.8	9.7	9.8	10.6	11.9	10.9	10.1	11.4	9.8	9.5	9.8	9.9
	celcius	2.6	2.6	5.5	6.6	5.4	9.8	11.0	10.9	9.2	12.1	12.6	12.3	11.0	12.0	18.5	16.4	19.8	19.0	20.0	23.3	18.8	22.3	20.1
OXYGEN	bpm	0.08	0.08	0.05	0.03	0.01	0.18	0.59	1.74	4.25 *	5.25 *	5.07 *	0.65	0.08	0.10	0.25	0.27	0.16	0.12	0.11	0.02	0.04	0.06	0.01
SULFIDE	bpm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	mqq	Q	DN	QN	QN	g	QN	g	Q	QN	QN	QN	DN	QN	QN	Q	Q	QN	QN	QN	QN	ND	Q	Q
DIRECTION	bearing	N 32 W	N 32 W	N 54 W	S 40 E	N 38 W	S 5 W	N 71 E	N 39 W	S 82 W	N 30 E	S 47 E	N 76 E	N 59 W	S 76 W	S 40 E	S 85 E	S 34 W	S 35 W	S 14 W	S 72 W	N 68 E	N 34 E	N 74 E
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DATE		02/09/99	02/16/99	02/23/99	03/02/99	03/09/99	03/17/99	03/24/99	03/29/99	04/09/99	04/14/99	04/23/99	04/28/99	05/04/99	05/10/99	05/17/99	05/24/99	06/03/99	06/10/99	06/16/99	06/22/99	06/23/99	66/90/20	07/14/99

SEP-SUM.WK4

REVISED DATE: DECEMBER 30, 1999 (REP)

Schneider Waste Mgmt. Facility Field Data Summary SW/4, Section 28, T 32 N, R 10 W, N.M.P.M San Juan County, New Mexico BP / AMOCO

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**BLAGG ENGINEERING, INC.** 

COMMENTS

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COMMENTS			NE SUMP 4.0 FT., SE SUMP 2.0 FT.	NE SUMP 4.0 FT., SE SUMP 2.0 FT.	AREATION SYSTEM NOT IN OPERATION	NE SUMP 4.0 FT., SE SUMP 2.0 FT.	STARTED WATER TRANSFER TO CAHN	NE SUMP 4.0 FT., SE SUMP 2.0 FT.	NE SUMP 5.0 FT., SE SUMP 1.75 FT.	NE SUMP 5.0 FT., SE SUMP 1.75 FT.	NE SUMP 5.0 FT., SE SUMP 1.75 FT.	NE SUMP 5.0 FT., SE SUMP 1.75 FT.	NE SUMP 5.0 FT., SE SUMP 1.75 FT.	NE SUMP 5.0 FT., SE SUMP 1.75 FT.	NE SUMP 5.0 FT., SE SUMP 1.75 FT.	NE SUMP 5.0 FT., SE SUMP 1.75 FT.	NE SUMP 5.0 FT., SE SUMP 1.75 FT.	NE SUMP 5.0 FT., SE SUMP 1.75 FT.	NE SUMP 5.0 FT., SE SUMP 1.75 FT.	NE SUMP 5.0 FT., SE SUMP 1.75 FT.	NE SUMP 5.0 FT., SE SUMP 1.75 FT.	NE SUMP 5.0 FT., SE SUMP 2.00 FT.	NE SUMP 5.0 FT., SE SUMP 2.00 FT.	NE SUMP 5.0 FT., SE SUMP 2.00 FT.	NE SUMP 5.0 FT., SE SUMP 2.00 FT.	NE SUMP 5.0 FT., SE SUMP 2.00 FT.	
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FREE.	2		2.50	2.50	2.50	2.50	2.00	2.50	2.50	3.00	2.25	1.75	1.75	2.00	2.00	2.00	2.00	2.00	2.00	2.50	2.50	2.50	2.25	2.25	2.25	2.25	
Hđ			9.8	9.8	9.9	9.9	9.9	9.7	9.8	9.8	9.8	9.6	9.7	9.6	9.8	9.6	9.6	9.7	9.7	9.6	9.7	9.4	9.7	9.6	9.8	10.1	
TEMP.	celcius		18.0	20.0	20.7	19.9	19.6	20.3	20.9	18.2	17.1	19.3	19.4	18.4	17.6	18.0	19.3	17.7	18.1	12.6	16.2	8.9	2.7	0.0	0.0	3.4	
DISSOLVED	ppm		0.43 / 0.01	0.40 / 0.01	0.13 *	0.24 / 0.08	0.77 / 0.36	0.98 / 0.53	0.45 / 0.16	0.44 / 0.08	0.39 / 0.17	0.33 / 0.02	0.25 / 0.08	0.32 / 0.00	0.32 / 0.16	0.27 / 0.10	0.36 / 0.17	0.22 / 0.08	0.16 / 0.09	0.16 / 0.00	0.24 / 0.09	0.08 / 0.00	0.18 / 0.00	0.02 / 0.00	0.00 / 0.00	0.00 / 0.00	
DISSOLVED	ppm		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
H2S	bpm		DN	QN	QN	g	DN	QN	QN	QN	g	QN	Q	QN	Q	Q	Q	Q	Q	DN	DN	QN	QN	QN	QN	g	
WIND	bearing		N 44 E	N 33 E	N 30 E	N 45 W	N 52 E	N 21 E	N 54 E	N 08 E	N 50 E	N 23 E	S 42 E	N 26 E	N 32 E	N 57 E	N 30 E	N 04 E	N 45 E	N 03 E	N 20 E	N 28 E	N 74 E	N 28 E	N 54 E	N 75 E	
WIND	mph		8	55	ŝ	<5	<b>5</b> 5	¢5	ۍ 5	<b>5</b> 5	\$ <del>5</del>	ŝ	<u>ې</u> 5	æ	<5	ۍ ح5	55	ŝ	<5	<del>د</del> 5 م5	7	\$ <del>5</del>	55	<5	9	<5	
INITIAL			07/20/99	07/26/99	08/02/99	66/60/80	08/16/99	08/25/99	08/31/99	09/10/99	09/15/99	09/20/99	09/29/99	10/05/99	10/14/99	10/20/99	10/27/99	11/05/99	11/10/99	11/17/99	11/24/99	11/30/99	12/10/99	12/16/99	12/23/99	12/30/99	

BP / AMOCO

Schneider Waste Mgmt. Facility

Leak Detection - Monthly Insepection Field Data Summary

SW/4, Section 28, T 32 N, R 10 W, N.M.P.M San Juan County, New Mexico

REVISED DATE: DECEMBER 30, 1999 (REP)

## **BLAGG ENGINEERING, INC.**

		NE SUI	MP		T	SE SU	MP	
INITIAL DATE	DISSOLVED SULFIDE	DISSOLVED OXYGEN	TEMP.	рH	DISSOLVED SULFIDE	DISSOLVED OXYGEN	TEMP.	pН
	ppm	ppm	celcius		ppm	ppm	celcius	
02/09/99	0.0	0.11	7.6	9.7	0.0	0.00	7.9	9.7
03/09/99	N/A	N/A	N/A	N/A	0.0	0.00	7.0	9.6
04/28/99	0.0	0.57	10.4	10.0	0.0	0.42	10.7	10.0
05/24/99	0.0	0.19	12.7	9.9	0.0	0.14	13.8	9.7
06/29/99	0.0	0.00	19.0	9.9	0.0	0.00	18.9	9.3
07/26/99	0.0	0.00	19.0	9.8	0.0	0.00	18.0	9.7
08/31/99	0.0	0.00	20.0	10.0	0.0	0.00	20.7	9.2
09/29/99	0.0	0.00	18.3	9.8	0.0	0.00	19.0	9.9
10/27/99	0.0	0.00	17.9	9.8	0.0	0.02	17.2	9.5
11/30/99	0.0	0.00	11.0	9.1	0.0	0.00	11.6	9.3
12/30/99	0.0	0.00	6.7	9.5	0.0	0.00	7.0	9.3
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BLAGG ENGINEERING, INC. P.O. Box 87, Bloomfield, New Mexico 87413

Phone: (505)632-1199 Fax: (505)632-3903



## FEB 2 1999

Environmental Bureau Oil Conservation Division

February 24, 1999

Ms. Martyne J. Kieling New Mexico Oil Conservation Division 2040 South Pacheco Street Santa Fe, New Mexico 87505

Re: Amoco Production Company Schneider Waste Management Facility, SW/4 Sec. 28 - T32N - R10W Permit NM-02-0002 Annual Report

Dear Ms. Kieling:

On behalf of Amoco Production Company, Blagg Engineering, Inc. is submitting an annual report with respect to treatment zone monitoring and leak detection inspections at the subject Schneider Waste Management Facility. An NMOCD permit for this facility was issued on February 1, 1999. Annual reporting criteria stipulated in this permit require data results be submitted to NMOCD by March 1 for the prior years monitoring. Note that since this permit was issued in February, 1999 no monitoring data is available for the 1998 calendar year. Submittal of this report for the 1998 calendar year is to satisfy the requirements of the permit.

#### Landfarm Treatment Zone Monitoring

No landfarm cells were constructed during the 1998 calendar year and no treatment zone monitoring was required or performed.

### Leak Detection System Monitoring

No leaks into or from the leak detection system were observed during the 1998 calendar year.

Questions or comments concerning the this transmittal may be directed to Jeff Blagg of Blagg Engineering at (505)632-1199 or to Buddy Shaw with Amoco at (505)326-9200.

Respectfully submitted: *Blagg Engineering, Inc.* 

by C. Slagg

Jeffrey C. Blagg, P.E., President

cc: Denny Foust, NMOCD Aztec District Office B.D. Shaw, Amoco San Juan Operations Center