

HIP - 99

**GENERAL  
CORRESPONDENCE**

**YEAR(S):**

2004 - 2005



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September 22, 2006

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Bellevue Tower  
7887 E. Bellevue Ave., Suite 1100  
Englewood, Colorado 80111  
T: 303.228.1605  
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Mr. Wayne Price  
Environmental Bureau Chief  
NM Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, NM 87505

**RE: Application for Temporary Discharge Permit  
Altela Test Number 08-05  
NMOCD File Number HI-0099**

**HAND-DELIVERED**

Dear Mr. Price,

This letter serves as Altela, Inc.'s request to extend the Temporary Discharge Permit, Altela Test Number 08-05, expiring on October 2, 2006, NMOCD File Number HI-0099. On behalf of Altela, we appreciate your continued assistance, please do not hesitate to contact me if the need arises.

Sincerely,

ALTELA, INC.

  
Matthew J. Bruff  
Vice President

MJB:

Enclosures as noted  
cc: Altela Day File

**Martin, Ed, EMNRD**

---

**From:** Matthew J. Bruff [matthew.bruff@altelainc.com]  
**Sent:** Tuesday, April 04, 2006 3:28 PM  
**To:** Martin, Ed, EMNRD  
**Subject:** Altela Temporary Discharge Permit

Ed,

This email serves as Altela's request to extend the Temporary Discharge Permit, Altela Test Number 08-05, issued last August 4, 2005.

On behalf of Altela, we appreciate your continued assistance, please do not hesitate to contact me if the need arises.

Sincerely,  
Matt

---

Matthew J. Bruff  
Altela, Inc.  
Denver Technology Center (DTC)  
7887 East Belleview Ave., Suite 1100  
Englewood, Colorado 80111

w: 303.228.1605  
f: 303.228.1655

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**Jones, Brad A., EMNRD**

---

**From:** Matthew J. Bruff [matthew.bruff@altelainc.com]  
**Sent:** Monday, October 02, 2006 1:06 PM  
**To:** Jones, Brad A., EMNRD  
**Subject:** FW: Addendum

Brad,

Here is the email exemption approval. Per our discussion, with respect to today's approved second extension of our Temporary Discharge Permit (NMOCD Reference: HI-0099), we appreciate written confirmation that this exemption continues to apply.

Thanks,  
Matt

---

**From:** Martin, Ed, EMNRD [mailto:ed.martin@state.nm.us]  
**Sent:** Tuesday, February 14, 2006 4:09 PM  
**To:** Matthew J. Bruff  
**Subject:** Addendum

Addendum to email sent on 2/14/06 concerning approval for discharge:

NMOCD understands that phenolics, in the treated water, are at a level of 0.108 parts per million, and that this exceeds standards set forth in WQCC regulations **20.6.2.3103 NMAC, subsection B**. NMOCD grants Altela, Inc. an exemption for this standard.

*Ed Martin*

New Mexico Oil Conservation Division  
Environmental Bureau  
1220 S. St. Francis  
Santa Fe, NM 87505  
Phone: 505-476-3492  
Fax: 505-476-3462  
email: [ed.martin@state.nm.us](mailto:ed.martin@state.nm.us)

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2006 FEB 17 PM 1 16  
February 14, 2006

One Technology Center  
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Mr. Edwin E. Martin  
Environmental Bureau  
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1220 South St. Francis Drive  
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**RE: Altela, Inc. Temporary Discharge Permit – Altela Test Number 08-05**

**VIA FACSIMILE (505) 476-3462 AND FIRST CLASS MAIL**

Dear Mr. Martin,

Please find attached the water quality analytical reports received from Energy Laboratories, Inc. with respect to Altela, Inc.'s Temporary Discharge Permit – Altela Test Number 08-05. The two samples are for the produced water influent (PW), as well as the distilled water effluent following treatment (DW) at the Madison 1 Fee Comm #1 Well (Altela reference: Manzano).

Sincerely,

ALTELA, INC.

  
Matthew J. Bruff  
Vice President

MJB:

Enclosures as noted

cc: Altela Day File



LABORATORY ANALYTICAL REPORT

Client: Altela Inc  
 Project: Manzano-0601  
 Lab ID: C06011334-001  
 Client Sample ID: MAN-0601-PW

Report Date: 02/14/06  
 Collection Date: 01/29/06 14:00  
 Date Received: 01/31/06  
 Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
<b>MAJOR IONS</b>							
Chloride	25300	mg/L		1		A4500-Cl B	02/02/06 11:45 / jl
Fluoride	0.6	mg/L		0.1		A4500-F C	02/01/06 15:29 / th
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	02/01/06 13:15 / jal
Sulfate	81	mg/L		1		A4500-SO4 E	02/02/06 10:12 / th
<b>NON-METALS</b>							
Cyanide, Total Manual Distillation	ND	mg/L		0.0050		E335.4	02/01/06 13:15 / eli-b
Phenolics, Total Recoverable (Distilled)	0.297	mg/L	D	0.019		E420.1	02/01/06 15:45 / jl
<b>PHYSICAL PROPERTIES</b>							
pH	7.17	s.u.		0.01		A4500-H B	02/01/06 11:32 / jc
Solids, Total Dissolved TDS @ 180 C	41700	mg/L		10		A2540 C	02/01/06 15:25 / jc
<b>METALS - TOTAL</b>							
Aluminum	ND	mg/L		0.1		E200.8	02/01/06 16:33 / sml
Arsenic	0.036	mg/L		0.001		E200.8	02/01/06 13:33 / sml
Barium	19.1	mg/L		0.1		E200.8	02/01/06 13:33 / sml
Boron	44.8	mg/L		0.1		E200.7	02/02/06 16:02 / ts
Cadmium	ND	mg/L		0.01		E200.8	02/01/06 13:33 / sml
Chromium	ND	mg/L		0.05		E200.8	02/01/06 13:33 / sml
Cobalt	ND	mg/L		0.01		E200.8	02/01/06 13:33 / sml
Copper	0.02	mg/L		0.01		E200.8	02/01/06 13:33 / sml
Iron	38.1	mg/L		0.03		E200.7	02/02/06 16:02 / ts
Lead	ND	mg/L		0.05		E200.8	02/01/06 13:33 / sml
Manganese	0.72	mg/L		0.01		E200.8	02/01/06 13:33 / sml
Mercury	ND	mg/L		0.001		E200.8	02/01/06 13:33 / sml
Molybdenum	ND	mg/L		0.1		E200.8	02/01/06 13:33 / sml
Nickel	ND	mg/L		0.05		E200.8	02/01/06 16:33 / sml
Selenium	0.096	mg/L	D	0.002		E200.8	02/01/06 13:33 / sml
Silver	ND	mg/L		0.01		E200.8	02/01/06 13:33 / sml
Uranium	ND	mg/L		0.0003		E200.8	02/01/06 13:33 / sml
Zinc	0.01	mg/L		0.01		E200.8	02/01/06 13:33 / sml
<b>RADIONUCLIDES - TOTAL</b>							
Radium 226	423	pCi/L		1.0		E903.0	02/01/06 14:00 / trs
Radium 226 precision (±)	7.3	pCi/L				E903.0	02/01/06 14:00 / trs
Radium 228	587	pCi/L		1.0		RA-05	02/01/06 14:00 / pj
Radium 228 precision (±)	4.9	pCi/L				RA-05	02/01/06 14:00 / pj
Radium 226 + Radium 228	1010	pCi/L	*	1.0	5	Calculation	02/10/06 17:04 / sec
Radium 226 + Radium 228 precision (±)	8.8	pCi/L				Calculation	02/10/06 17:04 / sec

Report Definitions: RL - Analyte reporting limit.  
 QCL - Quality control limit.  
 \* - The result exceeds the MCL.

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.  
 D - RL increased due to sample matrix interference.



LABORATORY ANALYTICAL REPORT

Client: Altela Inc  
 Project: Manzano-0601  
 Lab ID: C06011334-001  
 Client Sample ID: MAN-0601-PW

Report Date: 02/14/06  
 Collection Date: 01/29/06 14:00  
 Date Received: 01/31/06  
 Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
<b>VOLATILE ORGANIC COMPOUNDS</b>							
1,1,1-Trichloroethane	ND	ug/L	D	50	200	E524.2	02/06/06 16:42 / jlr
1,1,2,2-Tetrachloroethane	ND	ug/L	D	50		E524.2	02/06/06 16:42 / jlr
1,1,2-Trichloroethane	ND	ug/L	D	50	5	E524.2	02/06/06 16:42 / jlr
1,1-Dichloroethane	ND	ug/L	D	50		E524.2	02/06/06 16:42 / jlr
1,1-Dichloroethene	ND	ug/L	D	50	7	E524.2	02/06/06 16:42 / jlr
1,2-Dichloroethane	ND	ug/L	D	50	5	E524.2	02/06/06 16:42 / jlr
Benzene	450	ug/L	D*	50	5	E524.2	02/06/06 16:42 / jlr
Carbon tetrachloride	ND	ug/L	D	50	5	E524.2	02/06/06 16:42 / jlr
Chloroform	ND	ug/L	D	50		E524.2	02/06/06 16:42 / jlr
Ethylbenzene	ND	ug/L	D	50	700	E524.2	02/06/06 16:42 / jlr
Methylene chloride	ND	ug/L	D	50	5	E524.2	02/06/06 16:42 / jlr
Tetrachloroethene	ND	ug/L	D	50	5	E524.2	02/06/06 16:42 / jlr
Toluene	450	ug/L	D	50	1000	E524.2	02/06/06 16:42 / jlr
Trichloroethene	ND	ug/L	D	50	5	E524.2	02/06/06 16:42 / jlr
Vinyl chloride	ND	ug/L	D	50	2	E524.2	02/06/06 16:42 / jlr
Xylenes, Total	760	ug/L	D	50	10000	E524.2	02/06/06 16:42 / jlr
Surr: Dibromofluoromethane	101	%REC	D		70-130	E524.2	02/06/06 16:42 / jlr
Surr: p-Bromofluorobenzene	105	%REC	D		80-120	E524.2	02/06/06 16:42 / jlr
Surr: Toluene-d8	103	%REC	D		80-120	E524.2	02/06/06 16:42 / jlr
- RL increased due to non-target matrix interference.							
<b>SYNTHETIC ORGANIC COMPOUNDS - PESTICIDES</b>							
1,2-Dibromo-3-chloropropane	ND	ug/L	D	0.2	0.2	E504.1	02/07/06 07:00 / rlo
1,2-Dibromoethane	ND	ug/L	D	0.1	0.05	E504.1	02/07/06 07:00 / rlo
1,2,3-Trichloropropane	ND	ug/L	D	0.2		E504.1	02/07/06 07:00 / rlo
Surr: 1,1,1,2-Tetrachloroethane	101	%REC	D		70-130	E504.1	02/07/06 07:00 / rlo
- Reporting limit increased due to matrix interference.							
Alachlor	ND	ug/L	D	1.8	2	E505	02/03/06 11:32 / rlo
Aldrin	ND	ug/L	D	0.33		E505	02/03/06 11:32 / rlo
Aroclor 1016	ND	ug/L	D	1.5		E505	02/03/06 11:32 / rlo
Aroclor 1221	ND	ug/L	D	58		E505	02/03/06 11:32 / rlo
Aroclor 1232	ND	ug/L	D	2.5		E505	02/03/06 11:32 / rlo
Aroclor 1242	ND	ug/L	D	4.3		E505	02/03/06 11:32 / rlo
Aroclor 1248	ND	ug/L	D	1.5		E505	02/03/06 11:32 / rlo
Aroclor 1254	ND	ug/L	D	1.7		E505	02/03/06 11:32 / rlo
Aroclor 1260	ND	ug/L	D	4.0		E505	02/03/06 11:32 / rlo
Chlordane	ND	ug/L	D	7.3	2	E505	02/03/06 11:32 / rlo
Dieldrin	ND	ug/L	D	0.12		E505	02/03/06 11:32 / rlo
Endrin	ND	ug/L	D	0.34	2	E505	02/03/06 11:32 / rlo
gamma-BHC (Lindane)	ND	ug/L	D	0.27	0.2	E505	02/03/06 11:32 / rlo
Heptachlor	ND	ug/L	D	0.22	0.4	E505	02/03/06 11:32 / rlo
Heptachlor epoxide	ND	ug/L	D	0.13	0.2	E505	02/03/06 11:32 / rlo

Report RL - Analyte reporting limit.  
 Definitions: QCL - Quality control limit.  
 \* - The result exceeds the MCL.

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.  
 D - RL increased due to sample matrix interference.



LABORATORY ANALYTICAL REPORT

Client: Altela Inc  
 Project: Manzano-0601  
 Lab ID: C06011334-001  
 Client Sample ID: MAN-0601-PW

Report Date: 02/14/06  
 Collection Date: 01/29/06 14:00  
 Date Received: 01/31/06  
 Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
Hexachlorobenzene	ND	ug/L	D	0.27	1	E505	02/03/06 11:32 / rlo
Hexachlorocyclopentadiene	ND	ug/L	D	0.17	50	E505	02/03/06 11:32 / rlo
Methoxychlor	ND	ug/L	D	1.1	40	E505	02/03/06 11:32 / rlo
Toxaphene	ND	ug/L	D	3.3	3	E505	02/03/06 11:32 / rlo
Surr: Decachlorobiphenyl	6.80	%REC	DS		60-140	E505	02/03/06 11:32 / rlo
Surr: Tetrachloro-m-xylene	0	%REC	DS		65-125	E505	02/03/06 11:32 / rlo

- Reporting limit raised due to matrix interference. - Surrogates are an added ELI Quality Assurance measure. Decachlorobiphenyl is outside of acceptance range.

SEMI-VOLATILE ORGANIC COMPOUNDS, EXTENDED LIST

1-Methylnaphthalene	ND	ug/L		0.10		E525.2	02/03/06 13:03 / eli-b
2-Methylnaphthalene	ND	ug/L		0.10		E525.2	02/03/06 13:03 / eli-b
Benzo(a)pyrene	ND	ug/L		0.050	0.2	E525.2	02/03/06 13:03 / eli-b
Naphthalene	ND	ug/L		0.050		E525.2	02/03/06 13:03 / eli-b
Surr: 1,3-Dimethyl-2-nitrobenzene	91.6	%REC			70-130	E525.2	02/03/06 13:03 / eli-b
Surr: Perylene-d12	84.8	%REC			70-130	E525.2	02/03/06 13:03 / eli-b
Surr: Pyrene-d10	86.4	%REC			70-130	E525.2	02/03/06 13:03 / eli-b
Surr: Triphenylphosphate	96.8	%REC			70-130	E525.2	02/03/06 13:03 / eli-b

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level.  
 QCL - Quality control limit. ND - Not detected at the reporting limit.  
 D - RL increased due to sample matrix interference. S - Spike recovery outside of advisory limits.



LABORATORY ANALYTICAL REPORT

Client: Altela Inc  
 Project: Manzano-0601  
 Lab ID: C06011334-002  
 Client Sample ID: MAN-0601 DW

Report Date: 02/14/06  
 Collection Date: 01/29/06 14:00  
 Date Received: 01/31/06  
 Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
<b>MAJOR IONS</b>							
Chloride	59	mg/L		1		A4500-Cl B	02/02/06 11:48 / jl
Fluoride	ND	mg/L		0.1		A4500-F C	02/01/06 15:33 / th
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	02/01/06 13:25 / jal
Sulfate	ND	mg/L		1		A4500-SO4 E	02/02/06 10:13 / th
<b>NON-METALS</b>							
Cyanide, Total Manual Distillation	ND	mg/L		0.0050		E335.4	02/01/06 13:17 / eli-b
Phenolics, Total Recoverable (Distilled)	0.108	mg/L		0.010		E420.1	02/01/06 15:45 / jl
<b>PHYSICAL PROPERTIES</b>							
pH	8.74	s.u.		0.01		A4500-H B	02/01/06 11:32 / jc
Solids, Total Dissolved TDS @ 180 C	106	mg/L		10		A2540 C	02/01/06 15:26 / jc
<b>METALS - TOTAL</b>							
Aluminum	0.3	mg/L		0.1		E200.8	02/01/06 16:40 / sml
Arsenic	ND	mg/L		0.001		E200.8	02/01/06 13:39 / sml
Barium	ND	mg/L		0.1		E200.8	02/01/06 13:39 / sml
Boron	0.2	mg/L		0.1		E200.7	02/03/06 14:29 / ts
Cadmium	ND	mg/L		0.01		E200.8	02/01/06 13:39 / sml
Chromium	ND	mg/L		0.05		E200.8	02/01/06 13:39 / sml
Cobalt	ND	mg/L		0.01		E200.8	02/01/06 13:39 / sml
Copper	ND	mg/L		0.01		E200.8	02/01/06 13:39 / sml
Iron	ND	mg/L		0.03		E200.7	02/02/06 16:09 / ts
Lead	ND	mg/L		0.05		E200.8	02/01/06 13:39 / sml
Manganese	ND	mg/L		0.01		E200.8	02/01/06 13:39 / sml
Mercury	ND	mg/L		0.001		E200.8	02/01/06 13:39 / sml
Molybdenum	ND	mg/L		0.1		E200.8	02/01/06 13:39 / sml
Nickel	ND	mg/L		0.05		E200.8	02/01/06 16:40 / sml
Selenium	0.001	mg/L		0.001		E200.8	02/01/06 13:39 / sml
Silver	ND	mg/L		0.01		E200.8	02/01/06 13:39 / sml
Uranium	ND	mg/L		0.0003		E200.8	02/01/06 13:39 / sml
Zinc	0.03	mg/L		0.01		E200.8	02/01/06 13:39 / sml
<b>RADIONUCLIDES - TOTAL</b>							
Radium 226	1.1	pCi/L		1.0		E903.0	02/01/06 14:00 / trs
Radium 226 precision (±)	0.4	pCi/L				E903.0	02/01/06 14:00 / trs
Radium 228	1.1	pCi/L		1.0		RA-05	02/01/06 14:00 / pj
Radium 228 precision (±)	0.9	pCi/L				RA-05	02/01/06 14:00 / pj
Radium 226 + Radium 228	2.2	pCi/L		1.0	5	Calculation	02/10/06 17:04 / sec
Radium 226 + Radium 228 precision (±)	1.3	pCi/L				Calculation	02/10/06 17:04 / sec

Report Definitions: RL - Analyte reporting limit.  
 QCL - Quality control limit.

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Altela Inc  
 Project: Manzano-0601  
 Lab ID: C06011334-002  
 Client Sample ID: MAN-0601 DW

Report Date: 02/14/06  
 Collection Date: 01/29/06 14:00  
 Date Received: 01/31/06  
 Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
<b>VOLATILE ORGANIC COMPOUNDS</b>							
1,1,1-Trichloroethane	ND	ug/L		0.50	200	E524.2	02/06/06 17:59 / jlr
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E524.2	02/06/06 17:59 / jlr
1,1,2-Trichloroethane	ND	ug/L		0.50	5	E524.2	02/06/06 17:59 / jlr
1,1-Dichloroethane	ND	ug/L		0.50		E524.2	02/06/06 17:59 / jlr
1,1-Dichloroethene	ND	ug/L		0.50	7	E524.2	02/06/06 17:59 / jlr
1,2-Dichloroethane	ND	ug/L		0.50	5	E524.2	02/06/06 17:59 / jlr
Benzene	ND	ug/L		0.50	5	E524.2	02/06/06 17:59 / jlr
Carbon tetrachloride	ND	ug/L		0.50	5	E524.2	02/06/06 17:59 / jlr
Chloroform	ND	ug/L		0.50		E524.2	02/06/06 17:59 / jlr
Ethylbenzene	ND	ug/L		0.50	700	E524.2	02/06/06 17:59 / jlr
Methylene chloride	ND	ug/L		0.50	5	E524.2	02/06/06 17:59 / jlr
Tetrachloroethene	ND	ug/L		0.50	5	E524.2	02/06/06 17:59 / jlr
Toluene	7.8	ug/L		0.50	1000	E524.2	02/06/06 17:59 / jlr
Trichloroethene	ND	ug/L		0.50	5	E524.2	02/06/06 17:59 / jlr
Vinyl chloride	ND	ug/L		0.50	2	E524.2	02/06/06 17:59 / jlr
Xylenes, Total	ND	ug/L		0.50	10000	E524.2	02/06/06 17:59 / jlr
Surr: Dibromofluoromethane	96.0	%REC			70-130	E524.2	02/06/06 17:59 / jlr
Surr: p-Bromofluorobenzene	98.4	%REC			80-120	E524.2	02/06/06 17:59 / jlr
Surr: Toluene-d8	100	%REC			80-120	E524.2	02/06/06 17:59 / jlr
<b>SYNTHETIC ORGANIC COMPOUNDS - PESTICIDES</b>							
1,2-Dibromo-3-chloropropane	ND	ug/L		0.02	0.2	E504.1	02/07/06 07:32 / rlo
1,2-Dibromoethane	ND	ug/L		0.01	0.05	E504.1	02/07/06 07:32 / rlo
1,2,3-Trichloropropane	ND	ug/L		0.05		E504.1	02/07/06 07:32 / rlo
Surr: 1,1,1,2-Tetrachloroethane	103	%REC			70-130	E504.1	02/07/06 07:32 / rlo
Alachlor	ND	ug/L		0.10	2	E505	02/02/06 22:03 / rlo
Aldrin	ND	ug/L		0.010		E505	02/02/06 22:03 / rlo
Aroclor 1016	ND	ug/L		0.080		E505	02/02/06 22:03 / rlo
Aroclor 1221	ND	ug/L		2.0		E505	02/02/06 22:03 / rlo
Aroclor 1232	ND	ug/L		0.50		E505	02/02/06 22:03 / rlo
Aroclor 1242	ND	ug/L		0.30		E505	02/02/06 22:03 / rlo
Aroclor 1248	ND	ug/L		0.10		E505	02/02/06 22:03 / rlo
Aroclor 1254	ND	ug/L		0.10		E505	02/02/06 22:03 / rlo
Aroclor 1260	ND	ug/L		0.20		E505	02/02/06 22:03 / rlo
Chlordane	ND	ug/L		0.20	2	E505	02/02/06 22:03 / rlo
Dieldrin	ND	ug/L		0.010		E505	02/02/06 22:03 / rlo
Endrin	ND	ug/L		0.010	2	E505	02/02/06 22:03 / rlo
gamma-BHC (Lindane)	ND	ug/L		0.010	0.2	E505	02/02/06 22:03 / rlo
Heptachlor	0.021	ug/L		0.010	0.4	E505	02/02/06 22:03 / rlo
Heptachlor epoxide	ND	ug/L		0.010	0.2	E505	02/02/06 22:03 / rlo
Hexachlorobenzene	ND	ug/L		0.010	1	E505	02/02/06 22:03 / rlo

Report Definitions: RL - Analyte reporting limit.  
 QCL - Quality control limit.

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.



### LABORATORY ANALYTICAL REPORT

**Client:** Altela Inc  
**Project:** Manzano-0601  
**Lab ID:** C06011334-002  
**Client Sample ID:** MAN-0601 DW

**Report Date:** 02/14/06  
**Collection Date:** 01/29/06 14:00  
**Date Received:** 01/31/06  
**Matrix:** Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
Hexachlorocyclopentadiene	ND	ug/L		0.020	50	E505	02/02/06 22:03 / rto
Methoxychlor	ND	ug/L		0.050	40	E505	02/02/06 22:03 / rto
Toxaphene	ND	ug/L		1.0	3	E505	02/02/06 22:03 / rto
Surr: Decachlorobiphenyl	208	%REC	S		60-140	E505	02/02/06 22:03 / rto
Surr: Tetrachloro-m-xylene	109	%REC			65-125	E505	02/02/06 22:03 / rto

- Surrogates are an added ELI Quality Assurance measure. Decachlorobiphenyl is outside of acceptance range.

#### SEMI-VOLATILE ORGANIC COMPOUNDS, EXTENDED LIST

1-Methylnaphthalene	0.39	ug/L		0.10		E525.2	02/03/06 13:42 / eli-b
2-Methylnaphthalene	0.32	ug/L		0.10		E525.2	02/03/06 13:42 / eli-b
Benzo(a)pyrene	ND	ug/L		0.050	0.2	E525.2	02/03/06 13:42 / eli-b
Naphthalene	0.35	ug/L		0.050		E525.2	02/03/06 13:42 / eli-b
Surr: 1,3-Dimethyl-2-nitrobenzene	99.6	%REC			70-130	E525.2	02/03/06 13:42 / eli-b
Surr: Perylene-d12	79.4	%REC			70-130	E525.2	02/03/06 13:42 / eli-b
Surr: Pyrene-d10	98.0	%REC			70-130	E525.2	02/03/06 13:42 / eli-b
Surr: Triphenylphosphate	90.6	%REC			70-130	E525.2	02/03/06 13:42 / eli-b

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
S - Spike recovery outside of advisory limits.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.

**Martin, Ed, EMNRD**

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**To:** Matthew J. Bruff**Subject:** RE: Altela, Inc.

The New Mexico Oil Conservation Division (NMOCD) has reviewed the analyses attached. Discharge of the resultant distilled effluent following treatment (DW) at the Madison 1 Fee Comm #1 well is approved with the understanding that discharges will be consistent with the conditions set forth in the NMOCD letter to you dated August 4, 2005.

*Ed Martin*

New Mexico Oil Conservation Division  
Environmental Bureau  
1220 S. St. Francis  
Santa Fe, NM 87505  
Phone: 505-476-3492  
Fax: 505-476-3462  
email: [ed.martin@state.nm.us](mailto:ed.martin@state.nm.us)

---

**From:** Matthew J. Bruff [<mailto:matthew.bruff@altelainc.com>]**Sent:** Tuesday, February 14, 2006 11:14 AM**To:** Martin, Ed, EMNRD**Cc:** 'Matthew J. Bruff'**Subject:** RE: Altela, Inc.

Ed,

Please find attached the analytical reports received from Energy Laboratories (on its letterhead) with respect to the below tests.

Matt

---

**From:** Matthew J. Bruff [<mailto:matthew.bruff@altelainc.com>]**Sent:** Tuesday, February 14, 2006 7:47 AM**To:** 'Martin, Ed, EMNRD'**Cc:** 'Matthew J. Bruff'**Subject:** Altela, Inc.

Ed,

Please find attached the water quality analytical reports received from Energy Laboratory, Inc. with respect to Altela's Test Number 08-05 (Altela reference: Manzano).

Energy Laboratories, Inc.  
2393 Salt Creek Highway (82601)  
PO Box 3258  
Casper, WY 82602  
Toll Free 888.235.0515  
Local 307.235.0515  
Fax 307.234.1639  
<[www.energylab.com](http://www.energylab.com)>

The two samples are for the produced water influent (PW), as well as the distilled water effluent following treatment (DW) at the Madison 1 Fee Comm #1 well. I'll forward you the final reports on Energy Lab's letterhead upon receipt later this week.

Thanks

Matt

2/14/2006

---

Matthew J. Bruff  
Altela, Inc.  
Denver Technology Center (DTC)  
7887 East Belleview Ave., Suite 1100  
Englewood, Colorado 80111

w: 303.228.1605

f: 303.228.1655

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**Martin, Ed, EMNRD**

---

**From:** Matthew J. Bruff [matthew.bruff@altelainc.com]  
**Sent:** Tuesday, February 14, 2006 11:14 AM  
**To:** Martin, Ed, EMNRD  
**Cc:** 'Matthew J. Bruff'  
**Subject:** RE: Altela, Inc.  
**Attachments:** C06011334\_001\_Final.pdf; C06011334\_002\_Final.pdf

Ed,  
Please find attached the analytical reports received from Energy Laboratories (on its letterhead) with respect to the below tests.  
Matt

---

**From:** Matthew J. Bruff [mailto:matthew.bruff@altelainc.com]  
**Sent:** Tuesday, February 14, 2006 7:47 AM  
**To:** 'Martin, Ed, EMNRD'  
**Cc:** 'Matthew J. Bruff'  
**Subject:** Altela, Inc.

Ed,  
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Energy Laboratories, Inc.  
2393 Salt Creek Highway (82601)  
PO Box 3258  
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The two samples are for the produced water influent (PW), as well as the distilled water effluent following treatment (DW) at the Madison 1 Fee Comm #1 well. I'll forward you the final reports on Energy Lab's letterhead upon receipt later this week.

Thanks  
Matt

---

Matthew J. Bruff  
Altela, Inc.  
Denver Technology Center (DTC)  
7887 East Belleview Ave., Suite 1100  
Englewood, Colorado 80111

w: 303.228.1605  
f: 303.228.1655

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2/14/2006



LABORATORY ANALYTICAL REPORT

Client: Altela Inc  
 Project: Manzano-0601  
 Lab ID: C06011334-001  
 Client Sample ID: MAN-0601-PW

Report Date: 02/14/06  
 Collection Date: 01/29/06 14:00  
 Date Received: 01/31/06  
 Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
<b>MAJOR IONS</b>							
Chloride	25300	mg/L		1		A4500-Cl B	02/02/06 11:45 / jl
Fluoride	0.6	mg/L		0.1		A4500-F C	02/01/06 15:29 / th
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	02/01/06 13:15 / jal
Sulfate	81	mg/L		1		A4500-SO4 E	02/02/06 10:12 / th
<b>NON-METALS</b>							
Cyanide, Total Manual Distillation	ND	mg/L		0.0050		E335.4	02/01/06 13:15 / eli-b
Phenolics, Total Recoverable (Distilled)	0.297	mg/L	D	0.019		E420.1	02/01/06 15:45 / jl
<b>PHYSICAL PROPERTIES</b>							
pH	7.17	s.u.		0.01		A4500-H B	02/01/06 11:32 / jc
Solids, Total Dissolved TDS @ 180 C	41700	mg/L		10		A2540 C	02/01/06 15:25 / jc
<b>METALS - TOTAL</b>							
Aluminum	ND	mg/L		0.1		E200.8	02/01/06 16:33 / sml
Arsenic	0.036	mg/L		0.001		E200.8	02/01/06 13:33 / sml
Barium	19.1	mg/L		0.1		E200.8	02/01/06 13:33 / sml
Boron	44.8	mg/L		0.1		E200.7	02/02/06 16:02 / ts
Cadmium	ND	mg/L		0.01		E200.8	02/01/06 13:33 / sml
Chromium	ND	mg/L		0.05		E200.8	02/01/06 13:33 / sml
Cobalt	ND	mg/L		0.01		E200.8	02/01/06 13:33 / sml
Copper	0.02	mg/L		0.01		E200.8	02/01/06 13:33 / sml
Iron	38.1	mg/L		0.03		E200.7	02/02/06 16:02 / ts
Lead	ND	mg/L		0.05		E200.8	02/01/06 13:33 / sml
Manganese	0.72	mg/L		0.01		E200.8	02/01/06 13:33 / sml
Mercury	ND	mg/L		0.001		E200.8	02/01/06 13:33 / sml
Molybdenum	ND	mg/L		0.1		E200.8	02/01/06 13:33 / sml
Nickel	ND	mg/L		0.05		E200.8	02/01/06 16:33 / sml
Selenium	0.096	mg/L	D	0.002		E200.8	02/01/06 13:33 / sml
Silver	ND	mg/L		0.01		E200.8	02/01/06 13:33 / sml
Uranium	ND	mg/L		0.0003		E200.8	02/01/06 13:33 / sml
Zinc	0.01	mg/L		0.01		E200.8	02/01/06 13:33 / sml
<b>RADIONUCLIDES - TOTAL</b>							
Radium 226	423	pCi/L		1.0		E903.0	02/01/06 14:00 / trs
Radium 226 precision (±)	7.3	pCi/L				E903.0	02/01/06 14:00 / trs
Radium 228	587	pCi/L		1.0		RA-05	02/01/06 14:00 / pj
Radium 228 precision (±)	4.9	pCi/L				RA-05	02/01/06 14:00 / pj
Radium 226 + Radium 228	1010	pCi/L	*	1.0	5	Calculation	02/10/06 17:04 / sec
Radium 226 + Radium 228 precision (±)	8.8	pCi/L				Calculation	02/10/06 17:04 / sec

Report Definitions: RL - Analyte reporting limit.  
 QCL - Quality control limit.  
 \* - The result exceeds the MCL.

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.  
 D - RL increased due to sample matrix interference.



LABORATORY ANALYTICAL REPORT

Client: Altela Inc  
 Project: Manzano-0601  
 Lab ID: C06011334-001  
 Client Sample ID: MAN-0601-PW

Report Date: 02/14/06  
 Collection Date: 01/29/06 14:00  
 Date Received: 01/31/06  
 Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
<b>VOLATILE ORGANIC COMPOUNDS</b>							
1,1,1-Trichloroethane	ND	ug/L	D	50	200	E524.2	02/06/06 16:42 / jlr
1,1,2,2-Tetrachloroethane	ND	ug/L	D	50		E524.2	02/06/06 16:42 / jlr
1,1,2-Trichloroethane	ND	ug/L	D	50	5	E524.2	02/06/06 16:42 / jlr
1,1-Dichloroethane	ND	ug/L	D	50		E524.2	02/06/06 16:42 / jlr
1,1-Dichloroethene	ND	ug/L	D	50	7	E524.2	02/06/06 16:42 / jlr
1,2-Dichloroethane	ND	ug/L	D	50	5	E524.2	02/06/06 16:42 / jlr
Benzene	450	ug/L	D*	50	5	E524.2	02/06/06 16:42 / jlr
Carbon tetrachloride	ND	ug/L	D	50	5	E524.2	02/06/06 16:42 / jlr
Chloroform	ND	ug/L	D	50		E524.2	02/06/06 16:42 / jlr
Ethylbenzene	ND	ug/L	D	50	700	E524.2	02/06/06 16:42 / jlr
Methylene chloride	ND	ug/L	D	50	5	E524.2	02/06/06 16:42 / jlr
Tetrachloroethene	ND	ug/L	D	50	5	E524.2	02/06/06 16:42 / jlr
Toluene	450	ug/L	D	50	1000	E524.2	02/06/06 16:42 / jlr
Trichloroethene	ND	ug/L	D	50	5	E524.2	02/06/06 16:42 / jlr
Vinyl chloride	ND	ug/L	D	50	2	E524.2	02/06/06 16:42 / jlr
Xylenes, Total	760	ug/L	D	50	10000	E524.2	02/06/06 16:42 / jlr
Surr: Dibromofluoromethane	101	%REC	D		70-130	E524.2	02/06/06 16:42 / jlr
Surr: p-Bromofluorobenzene	105	%REC	D		80-120	E524.2	02/06/06 16:42 / jlr
Surr: Toluene-d8	103	%REC	D		80-120	E524.2	02/06/06 16:42 / jlr
- RL increased due to non-target matrix interference.							
<b>SYNTHETIC ORGANIC COMPOUNDS - PESTICIDES</b>							
1,2-Dibromo-3-chloropropane	ND	ug/L	D	0.2	0.2	E504.1	02/07/06 07:00 / rlo
1,2-Dibromoethane	ND	ug/L	D	0.1	0.05	E504.1	02/07/06 07:00 / rlo
1,2,3-Trichloropropane	ND	ug/L	D	0.2		E504.1	02/07/06 07:00 / rlo
Surr: 1,1,1,2-Tetrachloroethane	101	%REC	D		70-130	E504.1	02/07/06 07:00 / rlo
- Reporting limit increased due to matrix interference.							
Alachlor	ND	ug/L	D	1.8	2	E505	02/03/06 11:32 / rlo
Aldrin	ND	ug/L	D	0.33		E505	02/03/06 11:32 / rlo
Aroclor 1016	ND	ug/L	D	1.5		E505	02/03/06 11:32 / rlo
Aroclor 1221	ND	ug/L	D	58		E505	02/03/06 11:32 / rlo
Aroclor 1232	ND	ug/L	D	2.5		E505	02/03/06 11:32 / rlo
Aroclor 1242	ND	ug/L	D	4.3		E505	02/03/06 11:32 / rlo
Aroclor 1248	ND	ug/L	D	1.5		E505	02/03/06 11:32 / rlo
Aroclor 1254	ND	ug/L	D	1.7		E505	02/03/06 11:32 / rlo
Aroclor 1260	ND	ug/L	D	4.0		E505	02/03/06 11:32 / rlo
Chlordane	ND	ug/L	D	7.3	2	E505	02/03/06 11:32 / rlo
Dieldrin	ND	ug/L	D	0.12		E505	02/03/06 11:32 / rlo
Endrin	ND	ug/L	D	0.34	2	E505	02/03/06 11:32 / rlo
gamma-BHC (Lindane)	ND	ug/L	D	0.27	0.2	E505	02/03/06 11:32 / rlo
Heptachlor	ND	ug/L	D	0.22	0.4	E505	02/03/06 11:32 / rlo
Heptachlor epoxide	ND	ug/L	D	0.13	0.2	E505	02/03/06 11:32 / rlo

Report Definitions: RL - Analyte reporting limit.  
 QCL - Quality control limit.  
 \* - The result exceeds the MCL.

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.  
 D - RL increased due to sample matrix interference.



LABORATORY ANALYTICAL REPORT

Client: Altela Inc  
 Project: Manzano-0601  
 Lab ID: C06011334-001  
 Client Sample ID: MAN-0601-PW

Report Date: 02/14/06  
 Collection Date: 01/29/06 14:00  
 Date Received: 01/31/06  
 Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
Hexachlorobenzene	ND	ug/L	D	0.27	1	E505	02/03/06 11:32 / rlo
Hexachlorocyclopentadiene	ND	ug/L	D	0.17	50	E505	02/03/06 11:32 / rlo
Methoxychlor	ND	ug/L	D	1.1	40	E505	02/03/06 11:32 / rlo
Toxaphene	ND	ug/L	D	3.3	3	E505	02/03/06 11:32 / rlo
Surr: Decachlorobiphenyl	6.80	%REC	DS		60-140	E505	02/03/06 11:32 / rlo
Surr: Tetrachloro-m-xylene	0	%REC	DS		65-125	E505	02/03/06 11:32 / rlo

- Reporting limit raised due to matrix interference. - Surrogates are an added ELI Quality Assurance measure. Decachlorobiphenyl is outside of acceptance range.

SEMI-VOLATILE ORGANIC COMPOUNDS, EXTENDED LIST

1-Methylnaphthalene	ND	ug/L		0.10		E525.2	02/03/06 13:03 / eli-b
2-Methylnaphthalene	ND	ug/L		0.10		E525.2	02/03/06 13:03 / eli-b
Benzo(a)pyrene	ND	ug/L		0.050	0.2	E525.2	02/03/06 13:03 / eli-b
Naphthalene	ND	ug/L		0.050		E525.2	02/03/06 13:03 / eli-b
Surr: 1,3-Dimethyl-2-nitrobenzene	91.6	%REC			70-130	E525.2	02/03/06 13:03 / eli-b
Surr: Perylene-d12	84.8	%REC			70-130	E525.2	02/03/06 13:03 / eli-b
Surr: Pyrene-d10	86.4	%REC			70-130	E525.2	02/03/06 13:03 / eli-b
Surr: Triphenylphosphate	96.8	%REC			70-130	E525.2	02/03/06 13:03 / eli-b

Report Definitions: RL - Analyte reporting limit.  
 QCL - Quality control limit.  
 D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.  
 S - Spike recovery outside of advisory limits.



LABORATORY ANALYTICAL REPORT

Client: Altela Inc  
 Project: Manzano-0601  
 Lab ID: C06011334-002  
 Client Sample ID: MAN-0601 DW

Report Date: 02/14/06  
 Collection Date: 01/29/06 14:00  
 Date Received: 01/31/06  
 Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
<b>MAJOR IONS</b>							
Chloride	59	mg/L		1		A4500-Cl B	02/02/06 11:48 / jl
Fluoride	ND	mg/L		0.1		A4500-F C	02/01/06 15:33 / th
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	02/01/06 13:25 / jal
Sulfate	ND	mg/L		1		A4500-SO4 E	02/02/06 10:13 / th
<b>NON-METALS</b>							
Cyanide, Total Manual Distillation	ND	mg/L		0.0050		E335.4	02/01/06 13:17 / eli-b
Phenolics, Total Recoverable (Distilled)	0.108	mg/L		0.010		E420.1	02/01/06 15:45 / jl
<b>PHYSICAL PROPERTIES</b>							
pH	8.74	s.u.		0.01		A4500-H B	02/01/06 11:32 / jc
Solids, Total Dissolved TDS @ 180 C	106	mg/L		10		A2540 C	02/01/06 15:26 / jc
<b>METALS - TOTAL</b>							
Aluminum	0.3	mg/L		0.1		E200.8	02/01/06 16:40 / sml
Arsenic	ND	mg/L		0.001		E200.8	02/01/06 13:39 / sml
Barium	ND	mg/L		0.1		E200.8	02/01/06 13:39 / sml
Boron	0.2	mg/L		0.1		E200.7	02/03/06 14:29 / ts
Cadmium	ND	mg/L		0.01		E200.8	02/01/06 13:39 / sml
Chromium	ND	mg/L		0.05		E200.8	02/01/06 13:39 / sml
Cobalt	ND	mg/L		0.01		E200.8	02/01/06 13:39 / sml
Copper	ND	mg/L		0.01		E200.8	02/01/06 13:39 / sml
Iron	ND	mg/L		0.03		E200.7	02/02/06 16:09 / ts
Lead	ND	mg/L		0.05		E200.8	02/01/06 13:39 / sml
Manganese	ND	mg/L		0.01		E200.8	02/01/06 13:39 / sml
Mercury	ND	mg/L		0.001		E200.8	02/01/06 13:39 / sml
Molybdenum	ND	mg/L		0.1		E200.8	02/01/06 13:39 / sml
Nickel	ND	mg/L		0.05		E200.8	02/01/06 16:40 / sml
Selenium	0.001	mg/L		0.001		E200.8	02/01/06 13:39 / sml
Silver	ND	mg/L		0.01		E200.8	02/01/06 13:39 / sml
Uranium	ND	mg/L		0.0003		E200.8	02/01/06 13:39 / sml
Zinc	0.03	mg/L		0.01		E200.8	02/01/06 13:39 / sml
<b>RADIONUCLIDES - TOTAL</b>							
Radium 226	1.1	pCi/L		1.0		E903.0	02/01/06 14:00 / trs
Radium 226 precision (±)	0.4	pCi/L				E903.0	02/01/06 14:00 / trs
Radium 228	1.1	pCi/L		1.0		RA-05	02/01/06 14:00 / pj
Radium 228 precision (±)	0.9	pCi/L				RA-05	02/01/06 14:00 / pj
Radium 226 + Radium 228	2.2	pCi/L		1.0	5	Calculation	02/10/06 17:04 / sec
Radium 226 + Radium 228 precision (±)	1.3	pCi/L				Calculation	02/10/06 17:04 / sec

Report RL - Analyte reporting limit.  
 Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Altela Inc  
 Project: Manzano-0601  
 Lab ID: C06011334-002  
 Client Sample ID: MAN-0601 DW

Report Date: 02/14/06  
 Collection Date: 01/29/06 14:00  
 Date Received: 01/31/06  
 Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
<b>VOLATILE ORGANIC COMPOUNDS</b>							
1,1,1-Trichloroethane	ND	ug/L		0.50	200	E524.2	02/06/06 17:59 / jlr
1,1,2-Tetrachloroethane	ND	ug/L		0.50		E524.2	02/06/06 17:59 / jlr
1,1,2-Trichloroethane	ND	ug/L		0.50	5	E524.2	02/06/06 17:59 / jlr
1,1-Dichloroethane	ND	ug/L		0.50		E524.2	02/06/06 17:59 / jlr
1,1-Dichloroethene	ND	ug/L		0.50	7	E524.2	02/06/06 17:59 / jlr
1,2-Dichloroethane	ND	ug/L		0.50	5	E524.2	02/06/06 17:59 / jlr
Benzene	ND	ug/L		0.50	5	E524.2	02/06/06 17:59 / jlr
Carbon tetrachloride	ND	ug/L		0.50	5	E524.2	02/06/06 17:59 / jlr
Chloroform	ND	ug/L		0.50		E524.2	02/06/06 17:59 / jlr
Ethylbenzene	ND	ug/L		0.50	700	E524.2	02/06/06 17:59 / jlr
Methylene chloride	ND	ug/L		0.50	5	E524.2	02/06/06 17:59 / jlr
Tetrachloroethene	ND	ug/L		0.50	5	E524.2	02/06/06 17:59 / jlr
Toluene	7.8	ug/L		0.50	1000	E524.2	02/06/06 17:59 / jlr
Trichloroethene	ND	ug/L		0.50	5	E524.2	02/06/06 17:59 / jlr
Vinyl chloride	ND	ug/L		0.50	2	E524.2	02/06/06 17:59 / jlr
Xylenes, Total	ND	ug/L		0.50	10000	E524.2	02/06/06 17:59 / jlr
Surr: Dibromofluoromethane	96.0	%REC			70-130	E524.2	02/06/06 17:59 / jlr
Surr: p-Bromofluorobenzene	98.4	%REC			80-120	E524.2	02/06/06 17:59 / jlr
Surr: Toluene-d8	100	%REC			80-120	E524.2	02/06/06 17:59 / jlr
<b>SYNTHETIC ORGANIC COMPOUNDS - PESTICIDES</b>							
1,2-Dibromo-3-chloropropane	ND	ug/L		0.02	0.2	E504.1	02/07/06 07:32 / rlo
1,2-Dibromoethane	ND	ug/L		0.01	0.05	E504.1	02/07/06 07:32 / rlo
1,2,3-Trichloropropane	ND	ug/L		0.05		E504.1	02/07/06 07:32 / rlo
Surr: 1,1,1,2-Tetrachloroethane	103	%REC			70-130	E504.1	02/07/06 07:32 / rlo
Alachlor	ND	ug/L		0.10	2	E505	02/02/06 22:03 / rlo
Aldrin	ND	ug/L		0.010		E505	02/02/06 22:03 / rlo
Aroclor 1016	ND	ug/L		0.080		E505	02/02/06 22:03 / rlo
Aroclor 1221	ND	ug/L		2.0		E505	02/02/06 22:03 / rlo
Aroclor 1232	ND	ug/L		0.50		E505	02/02/06 22:03 / rlo
Aroclor 1242	ND	ug/L		0.30		E505	02/02/06 22:03 / rlo
Aroclor 1248	ND	ug/L		0.10		E505	02/02/06 22:03 / rlo
Aroclor 1254	ND	ug/L		0.10		E505	02/02/06 22:03 / rlo
Aroclor 1260	ND	ug/L		0.20		E505	02/02/06 22:03 / rlo
Chlordane	ND	ug/L		0.20	2	E505	02/02/06 22:03 / rlo
Dieldrin	ND	ug/L		0.010		E505	02/02/06 22:03 / rlo
Endrin	ND	ug/L		0.010	2	E505	02/02/06 22:03 / rlo
gamma-BHC (Lindane)	ND	ug/L		0.010	0.2	E505	02/02/06 22:03 / rlo
Heptachlor	0.021	ug/L		0.010	0.4	E505	02/02/06 22:03 / rlo
Heptachlor epoxide	ND	ug/L		0.010	0.2	E505	02/02/06 22:03 / rlo
Hexachlorobenzene	ND	ug/L		0.010	1	E505	02/02/06 22:03 / rlo

Report RL - Analyte reporting limit.  
 Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.



### LABORATORY ANALYTICAL REPORT

**Client:** Altela Inc  
**Project:** Manzano-0601  
**Lab ID:** C06011334-002  
**Client Sample ID:** MAN-0601 DW

**Report Date:** 02/14/06  
**Collection Date:** 01/29/06 14:00  
**Date Received:** 01/31/06  
**Matrix:** Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
Hexachlorocyclopentadiene	ND	ug/L		0.020	50	E505	02/02/06 22:03 / rlo
Methoxychlor	ND	ug/L		0.050	40	E505	02/02/06 22:03 / rlo
Toxaphene	ND	ug/L		1.0	3	E505	02/02/06 22:03 / rlo
Surr: Decachlorobiphenyl	208	%REC	S		60-140	E505	02/02/06 22:03 / rlo
Surr: Tetrachloro-m-xylene	109	%REC			65-125	E505	02/02/06 22:03 / rlo

- Surrogates are an added ELI Quality Assurance measure. Decachlorobiphenyl is outside of acceptance range.

#### SEMI-VOLATILE ORGANIC COMPOUNDS, EXTENDED LIST

1-Methylnaphthalene	0.39	ug/L		0.10		E525.2	02/03/06 13:42 / eli-b
2-Methylnaphthalene	0.32	ug/L		0.10		E525.2	02/03/06 13:42 / eli-b
Benzo(a)pyrene	ND	ug/L		0.050	0.2	E525.2	02/03/06 13:42 / eli-b
Naphthalene	0.35	ug/L		0.050		E525.2	02/03/06 13:42 / eli-b
Surr: 1,3-Dimethyl-2-nitrobenzene	99.6	%REC			70-130	E525.2	02/03/06 13:42 / eli-b
Surr: Perylene-d12	79.4	%REC			70-130	E525.2	02/03/06 13:42 / eli-b
Surr: Pyrene-d10	98.0	%REC			70-130	E525.2	02/03/06 13:42 / eli-b
Surr: Triphenylphosphate	90.6	%REC			70-130	E525.2	02/03/06 13:42 / eli-b

**Report** RL - Analyte reporting limit.

**Definitions:** QCL - Quality control limit.

S - Spike recovery outside of advisory limits.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

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

**Mark E. Fesmire, P.E.**  
Director  
Oil Conservation Division

August 4, 2005

Mr. Matthew J. Bruff  
Altela, Inc.  
Denver Technology Center  
Bellevue Tower  
7887 E. Bellevue Ave, Suite 1100  
Englewood, CO 80111

Re: Application for Temporary Discharge Permit  
Altela Test Number 08-05  
Section 1, Township 22 South, Range 27 East  
NMOCD Reference HI-0099

Dear Mr. Bruff:

The New Mexico Oil Conservation Division (NMOCD) has received and reviewed Altela, Inc.'s (Altela) application shown above. This application is hereby approved with the following understandings and conditions:

1. The produced water that will be processed under this permit originates from the Myco Industries Madison 1 Fee Comm #1 well, (API number 30-015-33705).
2. The total discharge will be less than 100,000 gallons.
3. The discharge will be on a portion of the SW/4, NE/4, NW/4 of Section 1, Township 22 South, Range 27 East, in Eddy County, New Mexico.
4. Altela has received permission from the landowner for the discharge.
5. Discharge water will be equal to or better than the Water Quality Control Commission regulations, Section 3103, A, B, and C.
6. This discharge permit will expire on April 4, 2006.
7. Altela will provide the NMOCD with analysis results of both the produced water entering the test system, and the processed water to be discharged.

NMOCD approval of this discharge does not relieve Altela of responsibility should its actions at this site prove harmful to public health or the environment. Nor does it relieve Altela of its responsibility to comply with the rules and regulations of any other federal, state, or local governmental entity.

If you have any questions, contact me at (505) 476-3402 or [ed.martin@state.nm.us](mailto:ed.martin@state.nm.us)

NEW MEXICO OIL CONSERVATION DIVISION

Edwin E. Martin  
Environmental Bureau

Cc: NMOCD, Artesia



1000461

One Technology Center  
1155 University Blvd. SE  
Albuquerque, New Mexico 87106  
T: 505.843.4197  
F: 505.843.4198

August 2, 2005

Denver Technology Center  
Bellevue Tower  
7887 E. Bellevue Ave., Suite 1100  
Englewood, Colorado 80111  
T: 303.228.1605  
F: 303.228.1655

Mr. Edwin E. Martin  
Environmental Bureau  
NM Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, NM 87505

**RE: Application for Temporary Discharge Permit**

HI-0099

**HAND-DELIVERED**

Dear Mr. Martin,

Following our recent discussions, this letter serves as Application for an Oil Conservation Division ("OCD") temporary test water discharge permit for Altela, Inc.'s ("Altela") Test No. 08-05. The test will purify produced water. Altela is a water desalination high-technology company headquartered in Albuquerque, New Mexico. The company is developing its novel, patented water purification technology, AltelaRain™. Additional information on the technology has been attached as Exhibit B. The water test will take place in Eddy County, New Mexico.

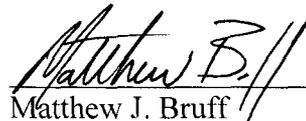
- 1. Name of Test: Altela Test No. 08-05
- 2. Brief Description of Test: Altela will test its AltelaRain™ water purification technology on-site with oil and natural gas produced water to create purified, distilled water.
- 3. Location of Test: SE New Mexico in Eddy County, T22S, R27E, Section 1
- 4. Date of Test: Commencing August 8, 2005 and concluding within 240 days from date of commencement
- 5. Volume of Discharge: Equal to or less than 100,000 gallons
- 6. Name of Well: Madison 1 Fee Comm. #1 30-015-33705
- 7. Name of Owner of Well: Myco Industries, Inc.  
Post Office Box 840  
Artesia, NM 88211

8. Location of Well: T22S, R27E, Section 1:  
1980' FNL & 1310' FWL
9. Source of Test Water: Madison 1 Fee Comm. #1
10. Point of Discharge of Test Water: A portion of the SW1/4, NE1/4, NW1/4 of Section 1, T22S, R27E comprising approx. 4 acres more particularly shown on Exhibit A
11. Analysis of Test Water: Altela will sample and analyze initial test water at the inlet and outlet points for water quality. No further sampling and analysis will be required unless the technology process changes. If the process changes, re-sampling and analysis of the test water will be conducted.
12. Name of Discharge Site Landowner: The discharge site landowner, Paul Bond, has provided authorization and approval to the well owner, Myco Industries, Inc.
13. Water Quality of Test Water: Test water quality shall be equal to or better than the Water Quality Control Commission Regulations, Section 3103, A, B and C
14. Length of Test: Up to 240 days
15. Site Monitoring: No dirt berm will be required provided that Altela agrees to monitor system for leaks or spills in accordance with the components of OCD Rule 116

We appreciate your valued assistance with this project. Please do not hesitate to contact our office if the need arises.

Sincerely,

ALTELA, INC.

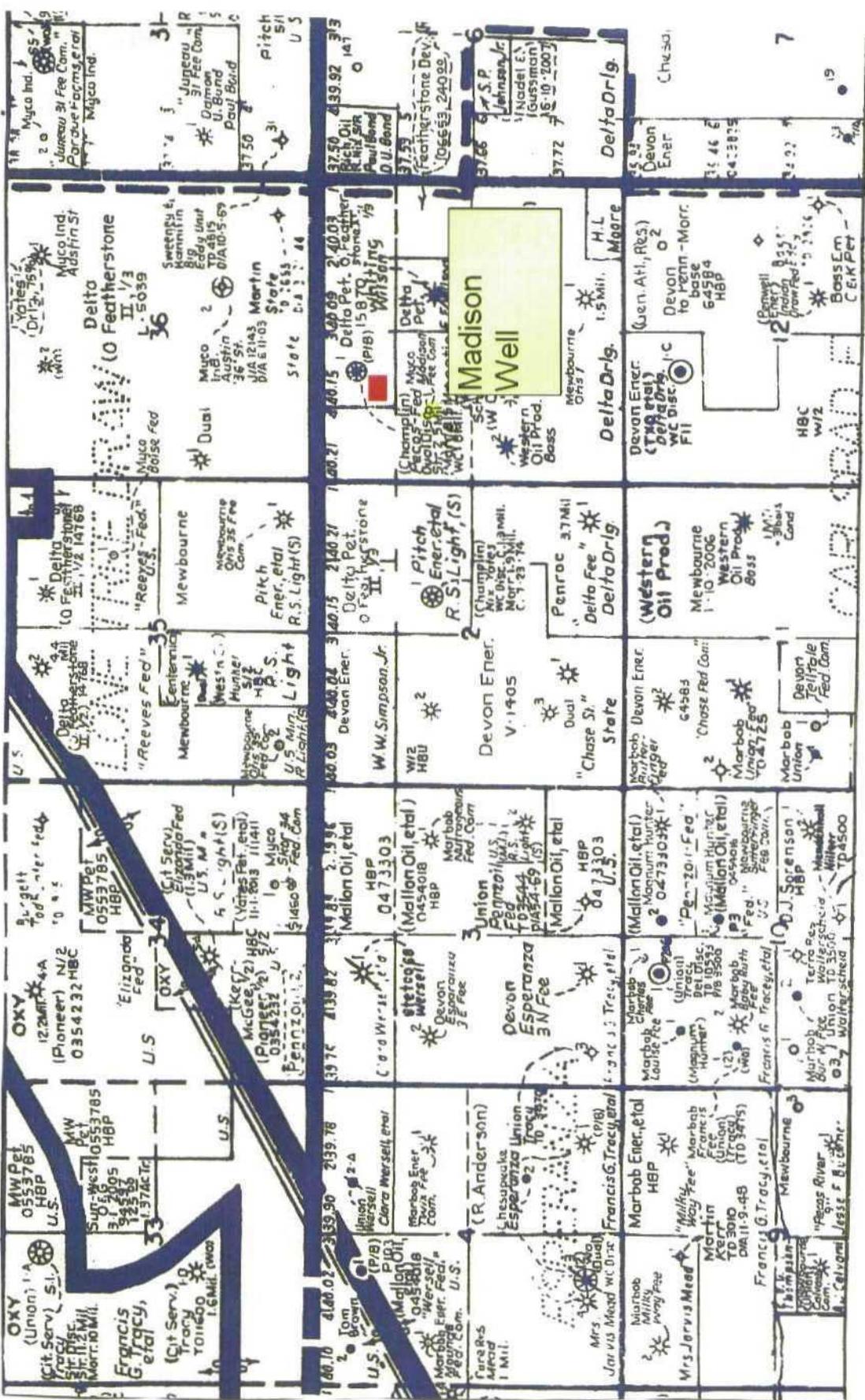
  
Matthew J. Bruff  
Vice President

MJB:

Enclosures as noted  
cc: Altela Day File

**WATER PROJECT  
T22S, R27E, Section 1  
Eddy County, NM**

Madison Well  
Bond Surface



## EXHIBIT B

### AltelaRain™ Technology

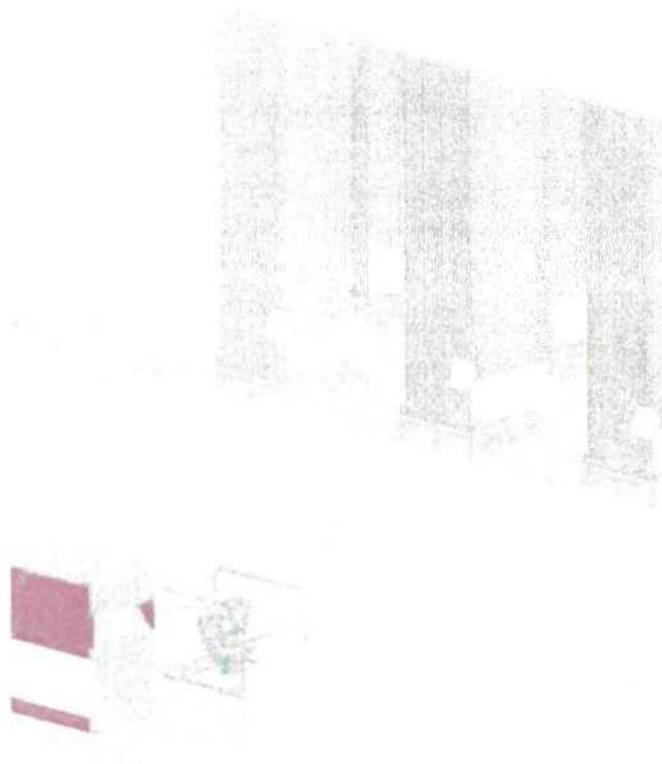
ALTELA's innovative approach to distillation is exactly analogous to nature's rain cycle. In nature, water is evaporated from the world's oceans and reservoirs by energy from the sun. The evaporated water vapor accumulates in the warm atmosphere, but condenses to form clouds as it rises and is cooled. As the air becomes saturated with water, it eventually falls back to earth (as distilled water) in the liquid form we know as rain. ALTELA mimics this process by evaporating salty produced water ("PW") with energy from an adjacent condensation chamber. The endothermic energy required to evaporate the incoming salty PW comes from heat added in the vapor transport plenum and the exothermic phase change occurring in the condensation chamber.

This approach allows for input of minimal amounts of heat in the vapor transport plenum, to drive the distillation process by transferring the naturally occurring heat of vaporization in the condensation chamber to the evaporation chamber. The net result is a system that is 6 times more efficient than a single-pass boiler/condenser. Stated differently, the AltelaRain™ technology produces 6 gallons of distilled water from only the same energy it takes to boil 1 gallon of water. ALTELA holds the exclusive, worldwide patent rights for continued development and commercialization of this technology in the oil/gas and mineral industries.

The AltelaRain system is also unique because it solves two of the biggest challenges in desalination: fouling/scaling and water-soluble organics. Since most PW in New Mexico contains large amounts of dissolved solids (often in excess of 50,000 mg/L TDS), typical desalination techniques such as Reverse Osmosis ("RO") and thermal distillation cannot be used to desalinate PW without including costly pre-filtration, high-pressure tanks, and/or anti-scaling systems. This is due to the tendency of the dissolved solids (such as calcium carbonate) to foul RO membranes and metal heat exchangers as they precipitate out of solution. The AltelaRain™ technology is unique in that it is a thermal distillation process built entirely from plastic that operates at ambient pressure. Our distillation system can be built from plastic because our open system approach limits the operating pressure to atmospheric pressure, and prevents the operating temperature from ever exceeding 212°F. Since the AltelaRain™ system is not membrane-based, fouling of costly pre-filters and RO membranes is not an issue. Additionally, the design of our heat exchangers prevents scaling because they are fabricated from plastic. The AltelaRain™

evaporation process entails a thin boundary layer of liquid on all wetted surfaces. This causes any solid precipitates to be washed away in a concentrated stream of effluent brine before they have a chance to adhere to the heat exchanger walls.

The other common problem with PW is the presence of aromatic organic compounds such as BTEX (Benzene, Toluene, Ethyl benzene, Xylene). Since some BTEX compounds have a vapor pressure lower than water, they are soluble in many PW sources and boil (or condense) at temperatures lower than water. This means that in a closed system, some aromatic organics will remain in the effluent product stream. The open system approach of the AltelaRain™ system prevents this by providing the vapor phase BTEX compounds with an ever-present exhaust portal during our one-step process.



Artist's Rendering of the Proposed AltelaRain™ Beta-Prototype

8-1-05

ALTELA, INC.

ALBQ.

DEMO OF PRODUCED WATER PURIFICATION SYSTEM.

MATT BRUFF

APPLICATION FOR DISCHARGE TO SURFACE (TEST)

TARGET DATE FOR TEST 8-12.

ASW - DISTILLATION PROCESS WHICH MIMICS  
HYDROLOGIC CYCLE.



MATTHEW J. BRUFF  
Vice President & General Counsel  
303.228.1605  
matthew.bruff@altelainc.com



NED A. GODSHALL  
President & CEO  
505.843.4209  
ned.godshall@altelainc.com

**Martin, Ed, EMNRD**

---

**From:** Matthew Bruff [matthew.bruff@altelainc.com]  
**Sent:** Tuesday, July 19, 2005 1:38 PM  
**To:** Martin, Ed, EMNRD  
**Subject:** Meeting Confirmation

Ed,

Thanks for your time earlier today on the phone. I will plan on meeting you at Altela, Inc.'s Albuquerque Office on Monday, August 1, 2005 at 11:00 am. We'll head over to our nearby research/warehouse facility together for our technology demonstration. As discussed, I'll look forward to having lunch with you prior to you returning to Santa Fe.

Our offices are located in One Technology Center (located on the northwest corner of University Blvd. and Ave. Cesar Chavez - directly across the street from the Isotopes' Park). The address is: Altela, Inc., 1155 University Blvd. SE, Albuquerque, NM 87106 (505) 843-4197. I will meet you in the entrance way in front of the guard's desk.

Sincerely,  
Matthew



Matthew J. Bruff  
Denver Technology Center (DTC)  
Bellevue Tower  
7887 East Bellevue Ave., Suite 1100  
Englewood, Colorado 80111  
Main Line: (303) 228-1605  
Facsimile: (303) 228-1655  
Email: [matthew.bruff@altelainc.com](mailto:matthew.bruff@altelainc.com)

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