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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-144
June 1, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure
Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☐
Type of action: Registration of a pit or below-grade tank ☐ Closure of a pit or below-grade tank X

Operator: Nadel & Gussman Permian, LLC Telephone: 432-682-4429 e-mail address: kemm@naguss.com
Address: 601 N. Marienfeld, Suite 508, Midland, Texas 79701
Facility or well name: Artemis Federal Com. No. 2 API #: 3001534391 U/L or Qtr/Qtr Lot L Sec 33 T22S R28E
County: Eddy Latitude N Longitude W NAD: 1927 ☐ 1983 ☐
Surface Owner: Federal X State Private ☐ Indian ☐

Pit	**Below-grade tank N/A**
Type: Drilling X Production ☐ Disposal ☐ Workover ☐ Emergency ☐ Lined X Unlined ☐ Liner type: Synthetic X Thickness: **12ml HDPE liner** Clay ☐ Pit Volume: **2400 bbl. Approximately**	Volume: _N/A bbl Type of fluid: _N/A Construction material: __N/A Double-walled, with leak detection? ☐ If not, explain why not.

Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of groundwater.)	Less than 50 feet 50 feet or more, but less than 100 feet 100 feet or more	(20 points) (10 points) 10pts. (0 points)
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes No	(20 points) (0 points) 0pts.
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more	(20 points) (10 points) 10pts. (0 points)
	Ranking Score (Total Points)	**20pts.**

If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. **Digital Photos shall be submitted for before and after remediation activity.** (2) Indicate disposal location: **onsite insitu pit** If offsite, name of facility: (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No X Yes ☐ If yes, show depth below ground surface _ ft. and attach sample results.
(5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments: **THIS IS AN AMENDED C-144 TO PRESENT GROUNDWATER DEPTH INVESTIGATON IN THE AREA OF POTENTIAL *INSITU* DISPOSAL. GROUNDWATER DEPTH AT 70 FEET.** WATER SAMPLE TAKEN SHOWS HIGH CHLORIDES AND WILL NOT PROVIDE POTABLE RESOURCE PREDICATED ON PRIMARY OR SECONDARY EPA WATER QUALITY STANDARDS.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. **I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines X, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.**

Date: 25 May 2006
Printed Name/Title Lee Ledbetter, SENM Field Superintendent Signature

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:
Printed Name/Title Mike Bratcher Signature Mike Bratcher Date: 5/26/06

(B)

Mr.Lee Ledbetter
Southeast New Mexico Field Superintendent
NADEL AND GUSSMAN PERMIAN, LLC
2408 Freeman
Artesia, NM 88210

25 May 2006

Mr. Mike Bratcher
OIL CONSERVATION DIVISION
1301 West Grand Avenue
Artesia, NM 88210

Re: Amended Artemis Federal Com. No. 2 Pit Closure Documents 30-015-34391

Dear Mr. Bratcher:

Pursuant to the State of New Mexico regulatory requirements for permanent closure of drilling pits, enclosed herewith is the amended Form C-144, digital photos of bore hole sampling (submitted in final report), and laboratory analyses of the test hole water sample for Nadel and Gussman Permian, LLC, hereinafter "NGP", Artemis Federal Com. No. 2 drilling pit (API No. 3001534391) located in U/L L S33 T22S, R28E of Eddy County, New Mexico.

All drilling fine disposal information contained in the original submittal of the Artemis II Closure Plan is amended by this submittal and most specifically changes the disposal from a haul off to an *insitu* burial on the Artemis II location.

On Tuesday, 23 May 2006, Butch's Rat Hole Service drilled a shallow 70' borehole, 12.0" in diameter adjacent to the existing drilling pit located in the area planned for an *insitu* pit, which produced water at the bottom of the hole. However, there was no water detected prior to 70'. Soil conditions were found dry to the point of being dusty prior to a depth of approximately 60 feet. At this depth, the red, sandy clay soil formation began to show signs moisture would be evident at deeper levels. At 65 feet, the red, sandy clay exhibited a moisture level significant enough to allow for hand compaction of the soil material and at 70 feet the very tip of the bit exhibited the presence of water. There was not sufficient enough water in the borehole to sample until the 24 hour sample was taken. At this point, the recharge level was 4.8 feet and remained the same over the 72 hour period after which the test well was plugged and abandoned.

Trace Analysis, Inc. shows analytical results for the bottom hole water sample as exceeding EPA Drinking Water Standards for both Chlorides and TDS (see attached reports).

NGP intends to begin pit remediation on the Artemis II on 30 May with completion targeted for 9 June. Please inform us of your decision to approve the above said action via email (cawnkr@msn.com) or contact Cheryl Winkler via cell (406-431-2528). Your consideration of our attempt to verify the depth of groundwater in the area enabling *insitu* disposal is appreciated.

Sincerely,

Lee Ledbetter,
Southeast New Mexico Field Superintendent

Enclosures: Amended C-144

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
155 McCutcheon, Suite H El Paso, Texas 79932 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail lab@traceanalysis.com

Analytical and Quality Control Report

Cheryl Winkler
Nade Gussman Permain LLC
Cheryl Winkler
2408 Freeman
Artesia, NM, 88210

Report Date: May 23, 2006

Work Order: 6051805

Project Name: Bore H2O Sample
Project Number: Artemis Fed Com #2

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
90617	Artemis #2 Bore Hole	water	2006-05-17	13:00	2006-05-18

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 3 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Michael Abel

Dr. Blair Leftwich, Director

Analytical Report

Sample: 90617 - Artemis #2 Bore Hole

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	26707	Date Analyzed:	2006-05-22	Analyzed By:	WB
Prep Batch:	23457	Sample Preparation:	2006-05-19	Prepared By:	WB

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**3360**	mg/L	5	10.00

Method Blank (1)

QC Batch:	26707	Date Analyzed:	2006-05-22	Analyzed By:	WB
Prep Batch:	23457	QC Preparation:	2006-05-19	Prepared By:	WB

Parameter	Flag	MDL Result	Units	RL
Total Dissolved Solids		<5.000	mg/L	10

Duplicates (1)

QC Batch:	26707	Date Analyzed:	2006-05-22	Analyzed By:	WB
Prep Batch:	23457	QC Preparation:	2006-05-19	Prepared By:	WB

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	2240	2230	mg/L	5	0	14.4

Standard (ICV-1)

QC Batch: 26707 | Date Analyzed: 2006-05-22 | Analyzed By: WB

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1003	100	90 - 110	2006-05-22

Standard (CCV-1)

QC Batch: 26707 | Date Analyzed: 2006-05-22 | Analyzed By: WB

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1013	101	90 - 110	2006-05-22

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296
email: lab@traceanalysis.com

TraceAnalysis, Inc.

155 McCutcheon, Suite H
El Paso, Texas 79932
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 6051805

Company Name: Nadel : Gussman Permian, LLC
Phone #: 505-746-1428
Address: (Street, City, Zip) 2408 Freeman, Artesia, NM 88210
Fax #:
Contact Person: Lee Ledbetter – Call Cheryl Winkler, Agent for NGP results
E-mail:
Invoice to: (If different from above) 406-431-2528
Project #: Artemis Fed. Com. #2
Project Name: Bore H_2O Sample
Project Location (including state):
Sampler Signature:

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
90617	Artemis #2 Borehole 500 ml H_2O Sample			X										5/17/06	1300

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8021B / 602 / 8260B / 624	BTEX 8021B / 602 / 8260B / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270C / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C / 625	PCB's 8082 / 608	Pesticides 8081A / 608	BOD, TSS, pH	Moisture Content	Turn Around Time if different from standard

H_2O Chlorides (Na, Ca, K, Mg)

Email results to:
lledbetter@nagussa.com
cawnkr@msn.com
mike.bratcher@state.nm.us

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:
				5-18-06	10:00

LAB USE ONLY
Intact (Y) N
Headspace Y / N
Temp 19 °
Log-in-Review

REMARKS: 24 hour turnaround

- ☐ Dry Weight Basis Required
- ☐ TRRP Report Required
- ☐ Check If Special Reporting Limits Are Needed

Carrier # BUS 168 7818506

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

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TRACEANALYSIS, INC.

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155 McCutcheon, Suite H El Paso, Texas 79932 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Cheryl Winkler
Nade Gussman Permain LLC
Cheryl Winkler
2408 Freeman
Artesia, NM, 88210

Report Date: May 23, 2006

Work Order: 6051805

Project Name: Bore H2O Sample
Project Number: Artemis Fed Com #2

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
90617	Artemis #2 Bore Hole	water	2006-05-17	13:00	2006-05-18

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 5 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Blair Leftwich

Dr. Blair Leftwich, Director

Analytical Report

Sample: 90617 - Artemis #2 Bore Hole

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	26654	Date Analyzed:	2006-05-18	Analyzed By:	TP
Prep Batch:	23408	Sample Preparation:	2006-05-18	Prepared By:	DS

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		**456**	mg/L	10	0.500
Dissolved Potassium		**23.7**	mg/L	1	1.00
Dissolved Magnesium		**127**	mg/L	10	1.00
Dissolved Sodium		**373**	mg/L	10	1.00

Sample: 90617 - Artemis #2 Bore Hole

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	26647	Date Analyzed:	2006-05-18	Analyzed By:	WB
Prep Batch:	23398	Sample Preparation:	2006-05-18	Prepared By:	WB

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**731**	mg/L	100	0.500

Method Blank (1)

QC Batch:	26647	Date Analyzed:	2006-05-18	Analyzed By:	WB
Prep Batch:	23398	QC Preparation:	2006-05-18	Prepared By:	WB

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.0552	mg/L	0.5

Method Blank (1) QC Batch: 26654

Parameter	Flag	MDL Result	Units	RL
Dissolved Calcium		<0.0950	mg/L	0.5
Dissolved Potassium		0.639	mg/L	1
Dissolved Magnesium		<0.704	mg/L	1
Dissolved Sodium		0.660	mg/L	1

Laboratory Control Spike (LCS-1)

QC Batch:	26647	Date Analyzed:	2006-05-18	Analyzed By:	WB
Prep Batch:	23398	QC Preparation:	2006-05-18	Prepared By:	WB

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	13.0	13.1	mg/L	1	12.5	<0.0552	104	1	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 26654 | Date Analyzed: 2006-05-18 | Analyzed By: TP
Prep Batch: 23408 | QC Preparation: 2006-05-18 | Prepared By: DS

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Dissolved Calcium	47.5	50.6	mg/L	1	50.0	<0.0950	95	6	89.2 - 115	20
Dissolved Potassium	49.2	53.9	mg/L	1	50.0	<0.377	98	9	88.9 - 113	20
Dissolved Magnesium	46.2	49.2	mg/L	1	50.0	<0.704	92	6	89.1 - 113	20
Dissolved Sodium	47.0	50.6	mg/L	1	50.0	<0.261	94	7	89 - 111	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1)

QC Batch: 26647 | Date Analyzed: 2006-05-18 | Analyzed By: WB
Prep Batch: 23398 | QC Preparation: 2006-05-18 | Prepared By: WB

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	2170	2020	mg/L	100	12.5	731	115	7	25.4 - 171	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1)

QC Batch: 26654 | Date Analyzed: 2006-05-18 | Analyzed By: TP
Prep Batch: 23408 | QC Preparation: 2006-05-18 | Prepared By: DS

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Dissolved Calcium	505	524	mg/L	1	50.0	456	98	4	68.4 - 138	20
Dissolved Potassium	69.3	69.3	mg/L	1	50.0	23.7	91	0	82 - 129	20
Dissolved Magnesium	190	185	mg/L	1	50.0	127	126	3	61.2 - 135	20
Dissolved Sodium [1]	436	430	mg/L	1	50.0	373	126	1	81.8 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1)

QC Batch: 26647 | Date Analyzed: 2006-05-18 | Analyzed By: WB

[1] Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	13.1	105	90 - 110	2006-05-18

Standard (CCV-1)

QC Batch: 26647 Date Analyzed: 2006-05-18 Analyzed By: WB

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	13.0	104	90 - 110	2006-05-18

Standard (ICV-1)

QC Batch: 26654 Date Analyzed: 2006-05-18 Analyzed By: TP

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	50.0	50.2	100	90 - 110	2006-05-18
Dissolved Potassium		mg/L	50.0	52.5	105	90 - 110	2006-05-18
Dissolved Magnesium		mg/L	50.0	50.5	101	90 - 110	2006-05-18
Dissolved Sodium		mg/L	50.0	51.2	102	90 - 110	2006-05-18

Standard (CCV-1)

QC Batch: 26654 Date Analyzed: 2006-05-18 Analyzed By: TP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	50.0	50.8	102	90 - 110	2006-05-18
Dissolved Potassium		mg/L	50.0	52.3	105	90 - 110	2006-05-18
Dissolved Magnesium		mg/L	50.0	51.0	102	90 - 110	2006-05-18
Dissolved Sodium		mg/L	50.0	50.1	100	90 - 110	2006-05-18

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Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 6051805

Company Name: Nadel : Gussman Permian, LLC
Phone #: 505-746-1428
Address: (Street, City, Zip) 2408 Freeman, Artesia, NM 88210
Fax #:
Contact Person: Lee Ledbetter – Call Cheryl Winkler, Agent for NGP results
E-mail:
Invoice to: (If different from above) 406-431-2528
Project #: Artemis Fed. Com. #2
Project Name: Bore H_2O Sample
Project Location (including state):
Sampler Signature:

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
90617	Artemis #2 Borehole 500ml H_2O Sample			X										5/17/06	1300

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8021B / 602 / 8260B / 624	
BTEX 8021B / 602 / 8260B / 624	
TPH 418.1 / TX1005 / TX1005 Ext(C35)	
TPH 8015 GRO / DRO / TVHC	
PAH 8270C / 625	
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	
TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Volatiles	
TCLP Semi Volatiles	
TCLP Pesticides	
RCI	
GC/MS Vol. 8260B / 624	
GC/MS Semi. Vol. 8270C / 625	
PCB's 8082 / 608	
Pesticides 8081A / 608	
BOD, TSS, pH	
Moisture Content	
Turn Around Time if different from standard	

H_2O Chlorides (Na, Ca, K, Mg)

Email results to:
lledbetter@nagusa.com
cawinkler@msn.com
mike.bratcher@state.nm.us

Relinquished by:	Date:	Time:	Received by: Date: Time:
Relinquished by:	Date:	Time:	Received by: Date: Time:
Relinquished by:	Date:	Time:	Received at Laboratory by: Date: Time: 5-18-06 10:00

LAB USE ONLY
Intact (Y) N
Headspace Y / N
Temp 19 °
Log-in-Review

REMARKS: 24 hour turnaround

- ☐ Dry Weight Basis Required
- ☐ TRRP Report Required
- ☐ Check If Special Reporting Limits Are Needed

Carrier # BUS 168 781 850 6

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

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