PIT CLOSURE PLANS & REPORTS

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

November 5, 1996

Mr. Michael E. McAllister
Coastal Oil & Gas Corporation
Coastal Tower
Nine Greenway Plaza
Houston, Texas 77046-0995

RE: PIT CLOSURE REPORTS
SANTE FE #1
SANTA FE #2
ADLONG #5
SAWYER FEDERAL #4

Dear Mr. McAllister:

The New Mexico Oil Conservation Division (OCD) has completed a review of Coastal Oil & Gas Corporation's (COGC) July 3, 1996 "PRODUCTION PIT COMPLETED CLOSURES, LEA COUNTY NEW MEXICO". These documents contain the results of COGC's closure of unlined production pits at the following COGC sites in Lea County, New Mexico:

- Santa Fe #1 & #2 located in Unit F, Sec. 33, T09S, R37E.
- Adlong #5 located in Unit A, Sec. 05, T10S, R37E.
- Sawyer Federal #4 located in Unit H, Sec. 04, T10S, R37E.

Based upon the information contained in the above documents and OCD's October 1, 1996 site inspections, the above referenced pit closure actions **are approved with the following conditions:**

1. All future final pit closure reports will include a completed OCD "PIT REMEDIATION AND CLOSURE REPORT" form (enclosed) for each pit closed. The form will contain all relevant information and analytical results for determination of the vertical extent of contamination and final contaminant concentrations of onsite remediated materials.

Please be advised that OCD approval does not relieve COGC of liability should remaining contaminants be found to pose a future threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve COGC of responsibility for compliance with any other federal, state or local laws and/or regulations.

If you have any questions, please contact me at (505) 827-7154.

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: Jerry Sexton, OCD Hobbs District Supervisor
Wayne Price, OCD Hobbs District Office

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

OCT 25 1996

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

NMOCD INTER-OFFICE CORRESPONDENCE

TO: Bill Olson-NMOCD Hydrogeologist-Environmental Bureau

From: Wayne Price-Environmental Engineer

Date: October 22, 1996

Reference: Coastal Oil & Gas Pit Closures.

Subject: Pictures & Comments for Ten Pits.

Comments:

Dear Bill,

Please find attached pictures taken on 10/1/96 and comments for the Coastal pit closures.

#1. Coastal Sawyer Fed. #4 unit H sec 4-Ts 10s-R37e. Picture looking west. 10/1/96 by Wayne Price.

#2. Coastal Santa Fe #1&2. Unit F sec 33-Ts9s-R37e. Picture looking NW. 10/1/96 by Wayne Price.

#3. Coastal Adlong #5. Unit A sec 5-Ts10s-R37e. Picture looking NW. 10/1/96 by Wayne Price.

#4. Coastal Flying M Battery #4, two pits, east & west. Unit D sec 29-Ts9s-R33e. Picture of "east" pit looking north 10/1/96 by Wayne Price.. The chunks of asphaltines shown in the picture still contains volitle organics and when broken apart the material is very soft. This pit is not solidified and just under the surface there still is oily material. **Recommend additional action before closure.**

#6. Same Location as above. Picture of "west" side pit looking north. 10/1/96 by Wayne Price. Same comments as above. **Recommend additional action before closure.**

#7. Coastal Flying M Battery #3 pit, Unit K, sec 29-Ts9s-R33e. Picture looking north. 10/1/96 by Wayne Price.

#8. Coastal State 5 Battery #1, Unit B sec 5-Ts14s-R33e. Picture looking west and shows excavated pit area. 10/1/96 by Wayne Price. Visual contamination remains in pit.

#9&10. Same location as above. #9 looking SW shows remediated soil. 10/1/96 by Wayne Price.

#10 looking west. 10/1/96 by Wayne Price.

Recommend vertical extent of contamination in pit to be checked before closure.

#11. Coastal State 36 #2, Unit L, sec 31-Ts13s-R33e. Picture looking north. 10/1/96 by Wayne Price.

Coastal State 23-26 pit, Unit D, sec 26,Ts14s-R32e. No picture. Area of old pit is mounded 2 feet high, soil is colored dark brown from by-products of remediation. Has remediated to where surface has no odor and some weed growth.

cc: Jerry Sexton-NMOCD District I Supervisor.
Vic Vise-Coastal Oil & Gas.

attachments-pictures.

State of New Mexico
ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT
Santa Fe, New Mexico 87505

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☑ Telephone ☐ Personal	Time 0945	Date 8/14/93
Originating Party		**Other Parties**
Tony Ruiter - Coastal 046 (713) 877-3828		Bill Olson - Environmental Bureau

Subject

Pit Closures

Discussion

Will start approved Pit Closures on 8/16/93

He will be at Best Western in Hobbs, can contact at their Tatum office

Conclusions or Agreements

Distribution

Signed Bill Olson

Coastal
The Energy People

MICHAEL E. McALLISTER, Ph. D
DIRECTOR
ENVIRONMENTAL & SAFETY AFFAIRS
COASTAL OIL & GAS CORPORATION

July 3, 1996

Energy, Minerals, and Natural Resources Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87504-2088

Attn: William C. Olson
Environmental Bureau

Re: Production Pit Completed Closures
Lea County, New Mexico

Dear Mr. Olson:

On August 4, 1993, your office approved Coastal Oil & Gas Corporation's (Coastal) "Treatment and Closure Plan for Oil Field Production Pits". This plan was to be implemented and followed until all 10 pits were remediated and closure levels were achieved. These levels were established at 10ppm Benzene, 50 ppm BTEX and 5,000 ppm TPH.

Coastal is in the process of offering several of our New Mexico properties for sale. These locations include the sites of four (4) pits which were included in the above referenced closure plan. The procedure required Coastal to forward to your office a closure summary after all pits have achieved closure. With a potential "Change of Operator", it is necessary to deviate from the approved plan and submit the closure documentation on the four (4) pits in question. They are located in the Sawyer Field which are located within 15 miles of Crossroads, New Mexico, and include the following sites:

Sawyer Federal #4
Adlong #5
Santa Fe #1
Santa Fe #2

All procedures as outlined in our approved closure plan were followed. As a result of being located immediately adjacent to each other, the Santa Fe #1 and #2 pits were consolidated to form one remediation site.

Coastal requested Biotek Environmental Services, Inc., which is the third party contractor used for this project, to collect soil samples from the designated sites and forward them to Xenco Laboratories for analysis. Xenco is a New Mexico certified laboratory. Attached for your information and review is a copy of the Analytical Report verifying the clean-up levels for these sites were achieved.

Additionally are copies of photographs of each site. Please note that the photos of the Santa Fe Pits #1 and #2 is the same location taken from different directions.

Coastal's position is that these locations have been closed to the specified requirements and will require no additional follow-up and/or treatments. Once the six (6) remaining sites are complete, we will provide the additional documentation.

If there are any questions, or if additional information is needed, please call. Thank you for your assistance.

Very truly yours,

Michael E. McAllister, Ph.D.

MEM/tj

ANALYTICAL REPORT 1-61028

for

Biotek Environmental Services, Inc.

Project Manager: Lonnie Decell

Project Name: Coastal New Mexico

June 25, 1996

XENCO Laboratories

HOUSTON - DALLAS - SAN ANTONIO

11381 Meadowglen Lane Suite L * Houston, Texas 77082-2647
Phone (713) 589-0692 Fax (713) 589-0695

XENCO Laboratories

11381 Meadowglen Suite L
Houston, Texas 77082-2647
(713) 589-0692 Fax: (713) 589-0695
Houston - Dallas - San Antonio

June 25, 1996

Project Manager: Lonnie Decell
Biotek Environmental Services, Inc.
3200 Wilcrest, #400
Houston, TX 77042

Reference: **XENCO Report No.: 1-61028**
Project Name: Coastal New Mexico

Dear Lonnie Decell:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with XENCO Chain of Custody Number 1-61028. All results being reported to you apply only to the samples analyzed, properly identified with a Laboratory ID number. This letter documents the official transmission of the contents of the report and validates the information contained within.

All the results for the quality control samples passed thorough examination. Also, all parameters for data reduction and validation checked satisfactorily. In view of this, we are able to release the analytical data for this report within acceptance criteria for accuracy, precision, and completeness.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 3 years in our archives and after that time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in COC No. 1-61028 will be filed for 60 days, and after that time they will be properly disposed of without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

XENCO Laboratories is accredited by the American Association for Laboratory Accreditation (A2LA) for technical competence in the field of Environmental Testing (Certificate No. 0343-01). In accordance with A2LA's guidelines, XENCO operates a Quality System that meets ISO/IEC Guide 25 requirements and is strictly implemented and enforced through our standard QA/QC procedures.

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Sincerely,

Eddie Yonemoto, Ph.D.
QA/QC Manager

Precision Analytical
7501 Westglen Suite L Houston, Texas 77082
(713) 589-0692 Fax (713) 589-0695

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

Lab. Batch # 16028

Contractor: BioteK Environmental Phone: (713) 782-3984 (06/18/96)
Address: 3200 Wilcrest Ste# 400
Project Name: COASTAL NEW MEXICO Project Director: Jack Creel
Project Location: Project Manager: Lonnie Decell
Sampler Signature: Project No.:

No. of Containers Total

No. coolers this shipment: Contractor COC #
Carrier: Quote #:
AirBill No.: P.O. No.:

SAMPLE CHARACTERIZATION

Field ID	Date	Time	Depth	Soil	Water	Comp	Grab	Container Size	Container Type P, G	Preservative Ice	Preservative Other	Sample Description	BTEX 8020/8020-8021	TPH (418.1)	TPH 8015 DRO	BTEX 8020/8021 (06/18/96)	Please Hold	Turn-around (ASAP / 24 hr / 48 hr / 4day Standard)	Remarks	LAB ONLY ID #
1 Santa Fe Pit#1 Pit#2	06/12/96			X				Bag	P				X		X				client would like Final	1
2 Sawyer Field Fed#4	06/12/96			X				↓	↓				X		X				report by Mon, 06/24	2
3 ADLong #5	06/12/96			X				↓	↓				X		X					3
4																				4
5																				5
6																				6
7																				7
8																				8
9																				9
10																				10

Wastes Disposed By: Signature | DATE | TIME
Jack Creel 6/18/96 3:15pm
Angel Morales 6/18/96 3:22

Received By: Signature | DATE | TIME
Angel Morales 6/18/96 3:15

Received For Laboratory By:
06/18/96 15:30

Remarks: COC filled out @ XENCO by CT, per J.C. Copy Faxed to JC For approval 06/18/96 @ 16:25.
Stored @ Amb+ temp.

Pink (Contractor) Yellow & White (Lab)

* Pre-scheduling is recommended

Precision Analytical Services

XENCO Laboratories

ANALYTICAL CHAIN OF CUSTODY REPORT
CHRONOLOGY OF SAMPLES

Biotek Environmental Services, Inc.

Project Name: Coastal New Mexico

XENCO COC#: 1-61028

Date Received in Lab: Jun 18, 1996 15:30 by CT

XENCO contact : Edward Yonemoto/Crystal

Project Manager: Lonnie Decell

Project Location:

							Date and Time			
	Field ID	Lab. ID	Method Name	Method ID	Units	Turn Around	Sample Collected	Addition Requested	Extraction	Analysis	H.T.*
1	Santa Fe Plt=1 Plt=2	161028-001	BTEX	SW-846	ppm	Standard	Jun 12, 1996		Jun 20, 1996 by OR	Jun 20, 1996 17:59 by OR	
2			TPH8015M-D	SW-846 8015 M	mg/kg	Standard	Jun 12, 1996		Jun 19, 1996 by IF	Jun 21, 1996 20:24 by MM	Y
3	Sawyer Field Fed #4	161028-002	BTEX	SW-846	ppm	Standard	Jun 12, 1996		Jun 20, 1996 by OR	Jun 20, 1996 16:49 by OR	Y
4			TPH8015M-D	SW-846 8015 M	mg/kg	Standard	Jun 12, 1996		Jun 19, 1996 by IF	Jun 21, 1996 21:04 by MM	Y
5	AD Long #5	161028-003	BTEX	SW-846	ppm	Standard	Jun 12, 1996		Jun 20, 1996 by OR	Jun 20, 1996 17:42 by OR	Y
6			TPH8015M-D	SW-846 8015 M	mg/kg	Standard	Jun 12, 1996		Jun 19, 1996 by IF	Jun 21, 1996 21:34 by MM	Y

H.T. = Extraction and Analysis Completed within Holding Times*

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY 1-61028

Biotek Environmental Services, Inc.

Project Name: Coastal New Mexico

Project Manager: Lonnie Decell
Project Location:

Date Received in Lab: Jun 18, 1996 15:30 by CT
Date Report Faxed: Jun 25, 1996 09:00
XENCO contact: Edward Yonemoto/Crystal Dousay

Analysis Requested	*Lab ID:* / *Field ID:* / *Depth:*	**161028-001** **Santa Fe**	**161028-002** **Sawyer F**	**161028-003** **AD Long**			
TPH8015M-D Analyzed by SW846-8015m		Date Analyzed - Analytical Results **ppm (mg/L - mg/Kg)**					
		Jun 21, 1996	Jun 21, 1996	Jun 21, 1996			
Total Petroleum Hydrocarbons		< 100	< 100	< 100			
BTEX Analyzed by EPA 8020		Date Analyzed - Analytical Results **ppm (mg/L - mg/Kg)**					
		Jun 20, 1996	Jun 20, 1996	Jun 20, 1996			
Benzene		< 0.020	< 0.020	< 0.020			
Toluene		< 0.020	< 0.020	< 0.020			
Ethylbenzene		< 0.020	< 0.020	< 0.020			
m,p-Xylenes		< 0.040	< 0.040	< 0.040			
o-Xylene		< 0.020	< 0.020	< 0.020			
Total BTEX		< 0.120	< 0.120	< 0.120			

Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 16A24B32

SW- 846 8015 M TPH 8015 Mod. (Diesel)

Date Validated: Jun 24, 1996 15:30
Date Analyzed: Jun 21, 1996 22:03
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: MM
Matrix: Solid

	MATRIX DUPLICATE ANALYSIS					MATRIX SPIKE ANALYSIS				
Q.C. Sample ID 161028- 003	[A] Sample Result	[B] Duplicate Result	[C] Method Detection Limit	[D] QC Relative Difference	[E] LIMITS Relative Difference	[F] Matrix Spike Result	[G] Matrix Spike Amount	[H] QC Matrix Spike Recovery	[I] LIMITS Recovery Range	[G] Qualifier
Parameter	mg/kg	mg/kg	mg/kg	%	%	mg/kg	mg/kg	%	%	
Total Petroleum Hydrocarbons	<100	<100	100	N.C	30.0	6930	6000	115.5	65-135	

Relative Difference [D] = 200*(B-A)/(B+A)
Matrix Spike Recovery [H] = 100*(F-A)/[G]
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 16A04C05

SW- 846 5030/8020 BTEX

Date Validated: Jun 21, 1996 11:15
Date Analyzed: Jun 20, 1996 17:07
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: OR
Matrix: Solid

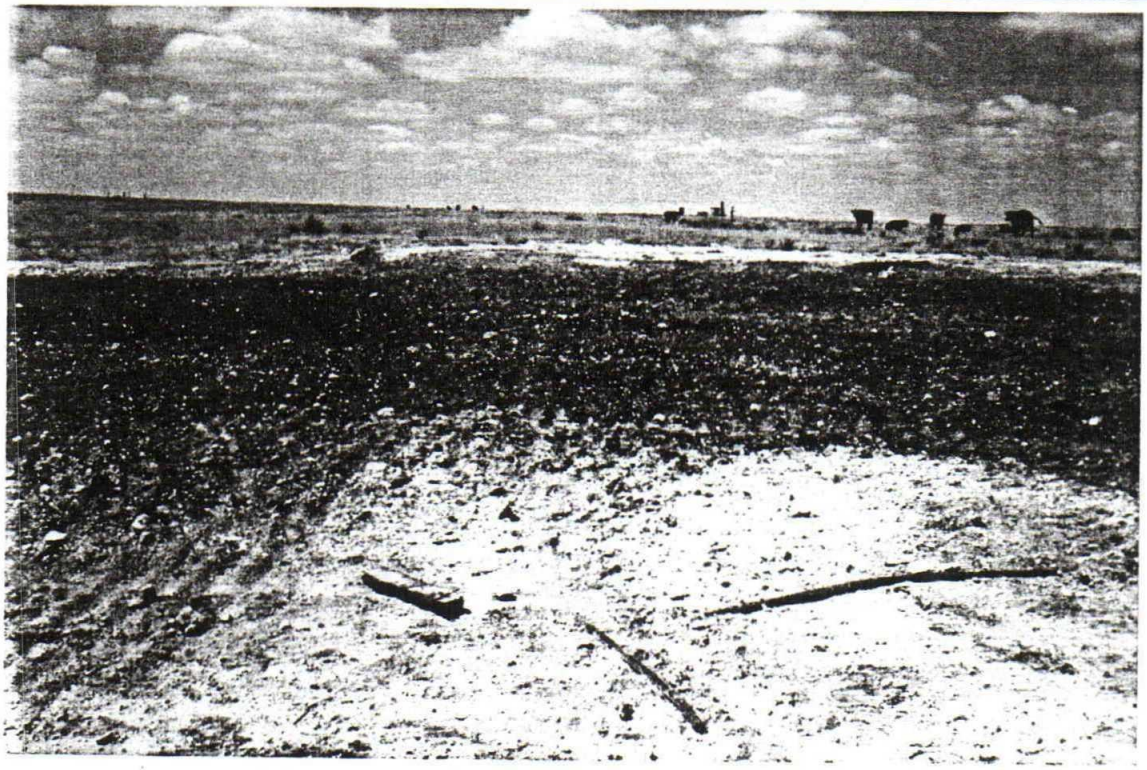
	MATRIX DUPLICATE ANALYSIS					MATRIX SPIKE ANALYSIS				
Q.C. Sample ID 161028- 002	[A] Sample Result	[B] Duplicate Result	[C] Method Detection Limit	[D] QC	[E] LIMITS	[F] Matrix Spike Result	[G] Matrix Spike Amount	[H] QC	[I] LIMITS	[G]
Parameter				Relative Difference	Relative Difference			Matrix Spike Recovery	Recovery Range	Qualifier
	ppm	ppm	ppm	%	%	ppm	ppm	%	%	
Benzene	< 0.020	< 0.020	0.020	N.C	25.0	0.518	0.400	129.5	65-135	
Toluene	< 0.020	< 0.020	0.020	N.C	25.0	0.358	0.400	89.5	65-135	
Ethylbenzene	< 0.020	< 0.020	0.020	N.C	25.0	0.332	0.400	83.0	65-135	
m,p-Xylenes	< 0.040	< 0.040	0.040	N.C	25.0	0.990	0.800	123.8	65-135	
o-Xylene	< 0.020	< 0.020	0.020	N.C	25.0	0.454	0.400	113.5	65-135	

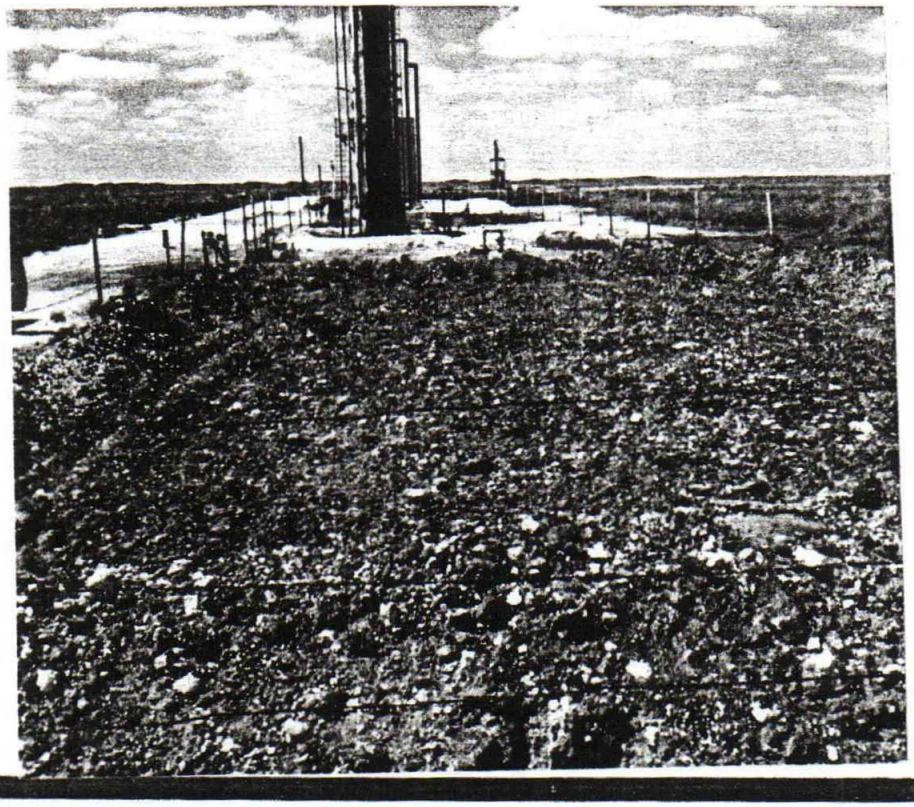
Relative Difference [D] = 200*(B-A)/(B+A)
Matrix Spike Recovery [H] = 100*(F-A)/[G]
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.
QA/QC Manager

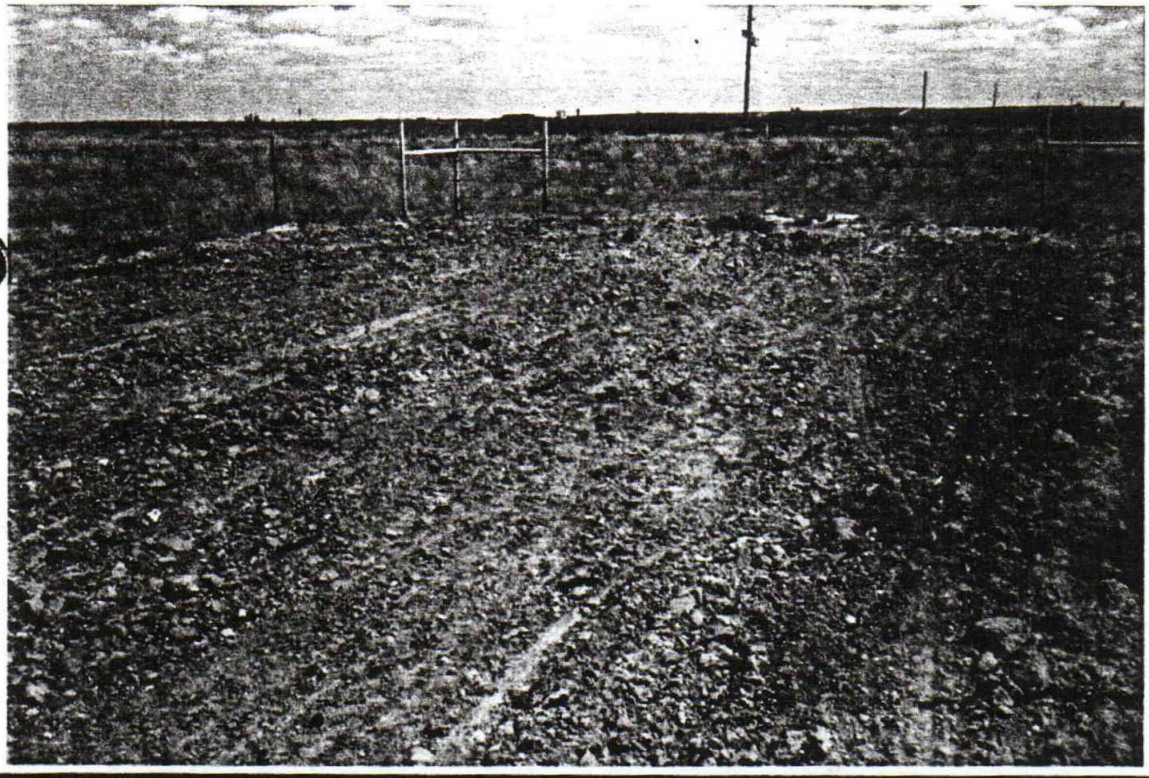
SANTA FE PITS #1

SANTA FE PITS #2





SAWYER FEDERAL #4



ADLONG #5

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

August 4, 1993

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

CERTIFIED MAIL
RETURN RECEIPT NO. P-667-242-372

Mr. Michael E. McAllister
Coastal Oil & Gas Corporation
Coastal Tower
Nine Greenway Plaza
Houston, Texas 77046-0995

RE: PRODUCTION PIT CLOSURE PLAN
LEA COUNTY, NEW MEXICO

Dear Mr. McAllister:

The New Mexico Oil Conservation Division (OCD) has completed a review of Coastal Oil & Gas' June 17, 1993 "TREATMENT AND CLOSURE PLAN FOR OIL FIELD PRODUCTION PITS", July 7, 1993 "PRODUCTION PIT CLOSURE PLAN, LEA COUNTY NEW MEXICO" and July 16, 1993 correspondence. These documents describe proposed procedures for closure of unlined pits at 10 oilfield production pits operated by Coastal Oil & Gas Corporation in Lea County, New Mexico.

The closure plan as described in the above referenced documents **is hereby approved with the following conditions:**

1. Coastal Oil & Gas will notify OCD at least 72 hours in advance of all activities such that OCD may witness the events and/or split samples.

2. Coastal Oil & Gas will submit a final report to OCD for approval within 60 days of completion of the closure project.

Please be advised that OCD approval does not relieve Coastal Oil & Gas of liability should contamination be discovered which is beyond the scope of the work plan. In addition, OCD approval does not relieve Coastal Oil & Gas of responsibility for compliance with any other federal, state or local laws and/or regulations. If you have any questions, please contact me at (505) 827-5885.

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: OCD Hobbs District Office

Coastal
The Energy People

MICHAEL E. McALLISTER, Ph.D.
DIRECTOR
ENVIRONMENTAL & SAFETY AFFAIRS
COASTAL OIL & GAS CORPORATION

OIL CONSERVATION DIVISION
RECEIVED
'93 JUL 22 AM 10 39

July 16, 1993

RRR: P 144 579 155

State of New Mexico
Energy, Minerals & Natural Resources
P.O. Box 2088
Santa Fe, New Mexico 87504
Attn: William C. Olson

Dear Mr. Olson:

As per your telephone request of July 15, 1993, I would like to offer the following information:

- Attachment #1 provides the Section, Township and Range for the pits to be closed.
- Attachment #2 is the MSDA for the bacteria, catalyst and nutrient to be used to achieve the closure requirement.
- The composite soil samples which will be used to verify closure will be collected by hand auger to a depth of 8 inches below the pits contamination. The top two inches will be removed and a composite will be collected from the remaining 6 inches of native soil. Standard TPH laboratory analysis will be conducted. Four composite samples will be collected per pit.

Attachment #3 is a copy of the "Resolution of Commendation" presented to Coastal Oil & Gas Corporation for our pit closure efforts in Utah. We feel our experience in this area is unparallelled. Our proven technology, which is being adapted to this project, offers cost effective closure without long term potential environmental liabilities.

If additional information is required, please call.

Very truly yours,

Michael E. McAllister, Ph.D.

MEM/dm
c:womm0716

Attachment 1

Flying M Field

Batteries 3&4
Section 29, Township 9, Range 33W

Baum Field

State 5 & 26
Section 5, Township 14S, Range 33E

Tulk Field

State 23-26
Section 26, Township 14S, Range 32E

West Sawyer Field

Adlong
Section 5, Township 10S, Range 37E

Santa Fe #2 (2 pits)
Section 33, Township 9S, Range 37E

Federal #4
Section 4, Township 10S, Range 37E

Attachment 2

ATERIAL SAFETY DATA SHEET

BIOTEK ENVIRONMENTAL SERVICES INC.
3200 Wilcrest, Suite 215
Houston, Texas 77042

Date 05/15/92

Emergency Phone (713) 782-3984

SECTION I - IDENTITY

NAME: Alpha Micro Nutrient
D.O.T.: Class not regulated
FORMULA: 36 - 6 - 6 NKP plus micro-nutrients
Water soluble fertilizer concentrate
CHEMICAL FAMILY: A mixture of dried natural salt tolerant soil/marine microorganisms in combination with inert clay or commercial vegetable extract. No hazardous components.

SECTION II - PHYSICAL AND CHEMICAL CHARACTERISTICS

Monoammonium phosphate - 9.9%
Urea - 63.8%
Potassium Nitrate - 13.1%
Ammonium Nitrate - 11.3%
Various Micronutrients - 1.9%

SECTION III - PHYSICAL HAZARDS AND DATA

Boiling Point: N/A
Specific Gravity: N/A
Water Solubility: Completely Soluble
pH of Solution: N/A
Appearance: Lime Green
Odor: N/A
Salting-Out Temperature: N/A
Vapor Pressure: N/A
% Volatile by Volume: N/A

SECTION IV - FIRE AND EXPLOSION DATA

Flash Point: N/A
Flammable Limit - Level: N/A
Extinguishing Media: Water

SPECIAL FIRE FIGHTING PROCEDURES: Firemen must wear self-contained breathing apparatus. Heat can cause emission of highly toxic fumes. Heat can cause the nitrate present to act as an oxidizing agent which can support combustion or cause detonation of other products. Persons should be evacuated from down wind areas.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Nitrates may decompose violently when mixed with ammonium salts.

SECTION V - HEALTH AND FIRST AID DATA

Threshold Limit Values: Not applicable - non toxic material.
Effects of Over Exposure: Not under normal usage and conditions. Oral ingestion of large amounts may cause nitrate poisoning resulting in dizziness, abdominal cramps, vomiting, bloody diarrhea, weakness, convulsions and collapse.
Skin: If irritation occurs, flush with flowing water for at least 30 minutes. Seek medical attention if irritation persists.
Eyes: If eye irritation occurs, flush with flowing water for at least 30 minutes. Seek medical attention if irritation persists.
Inhalation: If breathing difficulty occurs due to dust inhalation, remove to fresh air. If discomfort continues, seek medical attention.
Ingestion: If person is conscious, give large amounts of water and induce vomiting. Seek medical attention.

MATERIAL SAFETY DATA SHEET

BIOTEK ENVIRONMENTAL SERVICES INC.
3200 Wilcrest, Suite 215
Houston, Texas 77042

Date 01/15/91

Emergency Phone (713) 782-3984

SECTION I - IDENTITY

NAME: Alpha Bio-Catalyst
D.O.T.: Class not regulated
FORMULA: Proprietary
CHEMICAL FAMILY: Aqueous solution of various natural extracts and micronutrients - Biodegradable

SECTION II - PHYSICAL AND CHEMICAL CHARACTERISTICS

FIRE AND EXPLOSION DATA

Boiling Point	-	100°C	Fire Extinguisher Media	-	NA
Specific Gravity	-	1.00 +/- .01	Melting Point	-	NA
Percent Volatile by Vol	-	NA	Vapor Pressure mm/Hg	-	NA
Flammable Limit	-	NA	Vapor Density Air = 1	-	NA
Reactivity with WATER	-	No	Solubility in Water	-	Complete
Auto-Ignite Temperature	-	NA	Flash Point	-	NA
Evaporation Rate	-	Same as water	Odor	-	None
Appearance	-	Clear, odorless, colorless			

SPECIAL FIRE FIGHTING PROCEDURES:
Special Fire Fighting Procedures - NA
Unusual Fire and Explosion Hazards - None

SECTION III - PHYSICAL HAZARDS

Stability	-	Stable	Incompatible Substance	-	None Known
Polymerization	-	No	Hazardous Decomposition	-	NA

SECTION IV - HEALTH HAZARDS

Health Hazards, Acute and Chronic	-	None
Conditions Aggravated by Exposure	-	None
Carcinogenicity	-	None

NOT FOR HUMAN CONSUMPTION

Emergency First Aid Procedures	-	None

SECTION V - SPECIAL PROTECTION

Respiratory Protection	-	None
Ventilation Required	-	None
Exhaust Required	-	None
Protective Clothing	-	None

SECTION VI - PRECAUTIONS FOR HANDLING AND USE

Precautions to be taken in handling	-	None NOT FOR HUMAN CONSUMPTION
Precautions to be taken in case of spill	-	None
Disposal procedures	-	None - Environmentally compatible to living organisms, soil and water. Follow all Federal, State and Local regulations for non-hazardous waste disposal non-hazardous waste disposal

INFORMATION ON THIS MATERIAL SAFETY SHEET REFLECTS THE LATEST INFORMATION AND DATA THAT WE HAVE ON HAZARDS, PROPERTIES AND HANDLING OF THIS PRODUCT UNDER THE RECOMMENDED CONDITIONS OF USE. THIS MATERIAL SAFETY DATA SHEET WAS PREPARED TO COMPLY WITH 24 CFR 1910.1200.

MATERIAL SAFETY DATA SHEET

BIOTEK ENVIRONMENTAL SERVICES INC.
3200 Wilcrest, Suite 215
Houston, Texas 77042

Date 01/15/91

Emergency Phone (713) 782-3984

SECTION I - IDENTITY

NAME: Alpha Microbial Cultures (MICROX, PETROLOGIC, BIOSEA)
D.O.T.: Class not regulated
FORMULA: Proprietary
CHEMICAL FAMILY: A mixture of dried natural salt tolerant soil/marine microorganisms in combination with inert clay or commercial vegetable extract. No hazardous components.

SECTION II - PHYSICAL AND CHEMICAL CHARACTERISTICS
FIRE AND EXPLOSION DATA

Boiling Point	-	NA	Fire Extinguisher Media	-	Water
Specific Gravity	-	NA	Melting Point	-	NA
Percent Volatile by Vol	-	NA	Vapor Pressure mm/Hg	-	NA
Flammable Limit	-	NA	Vapor Density Air = 1	-	1.5
Reactivity with water	-	NA	Solubility in Water	-	Negligible
Auto-Ignite Temperature	-	NA	Flash Point	-	NA
Evaporation Rate	-	NA	Odor	-	Mild hydrocarbon aroma
Appearance	-	White to beige Powder			

SPECIAL FIRE FIGHTING PROCEDURES:

Special Fire Fighting Procedures - None
Unusual Fire and Explosion Hazards - Hazardous mixture with air, 0.04 oz/cu.ft. minimum explosive limit.
Minimum Ignition Temperature - 715° F.

SECTION III - PHYSICAL HAZARDS

Stability	-	Stable	Incompatible Substance	-	None Known
Polymerization	-	No	Hazardous Decomposition	-	No

SECTION IV - HEALTH HAZARDS

Health Hazards, Acute and Chronic - None
Conditions Aggravated by Exposure - Membrane irritation by dry powder
Carcinogenicity - None
NOT FOR HUMAN CONSUMPTION
Emergency First Aid Procedures - Wash or irrigate with water

SECTION V - SPECIAL PROTECTION

Respiratory Protection - Not necessary
Ventilation Required - Normal
Local Exhaust Required - No
Protective Clothing - Plastic gloves and safety glasses

SECTION VI - PRECAUTIONS FOR HANDLING AND USE

Precautions to be taken in handling - None
Precautions to be taken in case of spill - Dry sweep for disposal
Disposal procedures - Follow all Federal, State and Local regulations for non-hazardous waste disposal
Storage requirements - Clean, dry, normal room temperature

THE INFORMATION ON THIS MATERIAL SAFETY SHEET REFLECTS THE LATEST INFORMATION AND DATA THAT WE HAVE ON HAZARDS, PROPERTIES AND HANDLING OF THIS PRODUCT UNDER THE RECOMMENDED CONDITIONS OF USE. THIS MATERIAL SAFETY DATA SHEET WAS PREPARED TO COMPLY WITH 24 CFR 1910.1200.

Attachment 3

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340
801-359-3940 (Fax)
801-538-5319 (TDD)

RESOLUTION OF COMMENDATION
1993 EARTH DAY AWARD

WHEREAS, Earth Day is a day appointed for the preservation and reclamation of the environment for present and future generations; and

WHEREAS, environmental restoration in oil fields plays an important role in the responsible development of Utah's natural resources; and

WHEREAS, Coastal Oil and Gas Corporation went beyond the requirement of regulations to reclaim ninety-one emergency pits, bioremediate contaminated soil, and construct new synthetically lined emergency pits in the Altamont-Bluebell Fields; and

WHEREAS, the new pits protect ground water resources and prevent soil contamination;

NOW, THEREFORE, the Utah Board and Division of Oil, Gas and Mining do hereby recognize

COASTAL OIL AND GAS CORPORATION

for its contribution to environmental protection and restoration and present this Earth Day Award on April 28, 1993.

David Lauriski, Chair
Board of Oil, Gas and Mining

James W. Carter, Director
Division of Oil, Gas and Mining

State of New Mexico
ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT
Santa Fe, New Mexico 87505

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☑ Telephone ☐ Personal | Time 1545 | Date 7/14/93

Originating Party	Other Parties
Bill Olson - Envir Bureau	Mike McAlich - Coastal 046 (713) 877-6590

Subject

P+A Closure Plan Lea County

Discussion

Requested - MSDS on bugs
- Depth of samples as requested in OCD 7/1/93 letter
- Sec, township, Range of locations

He said pit to be closed have asphaltine type contaminants and doesn't expect much migration.

Conclusions or Agreements

He will submit info requested

Distribution
file

Signed Bill Olson

Coastal
The Energy People

OIL CONSERVATION DIVISION
RECEIVED
93 JUL 14 AM 8 57

July 7, 1993

RRR:P 144 579 154

State of New Mexico
Energy, Minerals & Natural Resources
P.O. Box 2088
Santa Fe, New Mexico 87504
Attn: William C. Olson

Re: Production Pit Closure Plan
Lea County, New Mexico

Dear Mr. Olson:

Coastal Oil & Gas Corporation is in receipt of your July 1, 1993 correspondence requesting additional information pertaining to our proposed Production Pit Closure Plan.

Please consider the following as the response to your inquiry:

1) Hydrocarbon degrading bacteria will be introduced and maintained between 10^9 - 10^{12} concentration. The nutrients to be added is a specially blended fertilizer with a high nitrogen content.
2) Our sample collection procedures will be to use a four (4) point composite sample per pit. A hand auger will be the collection tool.
3) The attached information provides the criteria used to establish the concentrations.
4) All collected samples will be analyzed using EPA approved methods:

- Benzene, toluene, ethylbenzene, xylene
  EPA Method 8020
- Total Petroleum Hydrocarbon
  EPA Method 418.1

If additional information is needed, please call.

Very truly yours,

Michael E. McAllister, Ph.D.

RANKING CRITERIA

Tulk Field

State #23-36 Battery

A.	*Depth to Ground Water - >200'*	*- 0*
B.	*Wellhead Protection Area - yes*	*- 0*
C.	*Distance to Surface Waterbody - >1000'*	*- 0*
D.	*Native Soil Type - Moderate*	*- 5*
	Ranking Criteria	*- 5*

Baum Field

State #5

A.	*Depth to Ground Water - >200'*	*- 0*
B.	*Wellhead Protection Area - yes*	*- 0*
C.	*Distance to Surface Waterbody - >1000'*	*- 0*
D.	*Native Soil type - Moderate*	*- 0*
	Ranking Criteria	*- 5*

State #36

A.	*Depth to Ground Water - >200'*	*- 0*
B.	*Wellhead Protection Area - yes*	*- 0*
C.	*Distance to Surface Waterbody - >1000'*	*- 0*
D.	*Native Soil Type - Moderate*	*- 0*
	Ranking Criteria	*- 5*

Flying M Field

Battery #4 (2 pits)

A.	*Depth to Ground Water - >200'*	*- 0*
B.	*Wellhead Protection Area - yes*	*- 0*
C.	*Distance to Surface Waterbody - >1000'*	*- 0*
D.	*Native Soil Type - Moderate*	*- 5*
	Ranking Criteria	*- 5*

Battery #3

A.	*Depth to Ground Water - >200'*	*- 0*
B.	*Wellhead Protection Area - yes*	*- 0*
C.	*Distance to Surface Waterbody - >1000'*	*- 0*
D.	*Native Soil Type - Moderate*	*- 5*
	Ranking Criteria	*- 5*

Sawyer Field

Santa Fe #2 (2 pits)

A.	*Depth to Ground Water - >200'*	*- 0*
B.	*Wellhead Protection Area - yes*	*- 0*
C.	*Distance to Surface Waterbody - >1000'*	*- 0*
D.	*Native Soil Type - Moderate*	*- 5*
	Ranking Criteria	*- 5*

Adlong #5

A.	*Depth to Ground Water - >200'*	*- 0*
B.	*Wellhead Protection Area - Yes*	*- 0*
C.	*Distance to Surface Waterbody - >1000'*	*- 0*
D.	*Native Soil Type - Moderate*	*- 5*
	Ranking Criteria	*- 5*

Federal #4

A.	*Depth to Ground Water - >200'*	*- 0*
B.	*Wellhead Protection Area - Yes*	*- 0*
C.	*Distance to Surface Waterbody - >1000'*	*- 0*
D.	*Native Soil Type - Moderate*	*- 5*
	Ranking Criteria	*- 5*

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

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

July 1, 1993

CERTIFIED MAIL
RETURN RECEIPT NO. P-667-242-353

Mr. Michael E. McAllister
Coastal Oil & Gas Corporation
Coastal Tower
Nine Greenway Plaza
Houston, Texas 77046-0995

RE: PRODUCTION PIT CLOSURE PLAN
LEA COUNTY, NEW MEXICO

Dear Mr. McAllister:

The New Mexico Oil Conservation Division (OCD) is in the process of reviewing Coastal's June 17, 1993 "TREATMENT AND CLOSURE PLAN FOR OIL FIELD PRODUCTION PITS". This document describes proposed procedures for closure of unlined pits at 10 oilfield production pits operated by Coastal Oil & Gas Corporation in Lea County, New Mexico.

The techniques proposed for remediation of contaminated soils are acceptable. However, the OCD has the following requests for information and questions regarding the above referenced document:

1. Please provide information on the types and concentrations of nutrients and microbes to be used for bioremediation.

2. No information was provided on the locations or depth intervals of the samples to be taken. Please provide this information.

3. The document states that the soil remediation levels are established at 10 parts per million (ppm) Benzene, 50 ppm Total BTEX and 5,000 ppm Total Petroleum Hydrocarbons, but does not provide the criteria upon which these concentrations were derived. Please either provide this information for each site or provide a commitment to submit this information for each site in the final closure report.

4. Please provide information on the laboratory methods to be used in the analysis of all samples.

Submission of the above information will allow OCD to complete a review of this closure plan. If you have any questions please contact me at (505) 827-5885.

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: OCD Hobbs District Office

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece next to the article number.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Mr. Michael E. McAllister
Coastal Oil & Gas Corp.
Coastal Tower
Nine Greenway Plaza
Houston TX 77046-0995

4a. Article Number
P-667-242-353

4b. Service Type
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery

5. Signature (Addressee)

8. Addressee's Address (Only if requested and fee is paid)

6. Signature (Agent)

PS Form 3811, October 1990 ☆U.S. GPO: 1990—273-861 **DOMESTIC RETURN RECEIPT**

Coastal
The Energy People

RRR: P144 579 151

MICHAEL E. McALLISTER, Ph D.
DIRECTOR
ENVIRONMENTAL & SAFETY AFFAIRS
COASTAL OIL & GAS CORPORATION

June 17, 1993

RECEIVED
JUN 21 1993
OIL CONSERVATION DIVISION

Energy, Minerals, and Natural Resources Department
Oil Conservation Division
P O Box 2088
Santa Fe, New Mexico 87504-2088
Attn: Chris Eustice

RE: Treatment and Closure Plan for Oil Field Production Pits

Dear Chris:

Coastal Oil & Gas Corporation hereby submits the following treatment and closure plan for 10 oilfield production pits operated from our Tatum, New Mexico office. Earthen pits were dug to accommodate flows from the oil/water separators and other operations during the early operating years at four of these fields (located in Lea County, New Mexico). The four fields are the Tulk, Baum, Sawyer, and Flying M. The Tulk field is located approximately 29 miles northwest of Lovington, New Mexico, and has one pit to be closed in this field. The Baum field is approximately 15 miles north of the Tulk field, and there are two pits to be closed in this field. The two pits are within 1 mile of each other. The Sawyer and Flying M fields are both located within 15 miles of Crossroads, New Mexico, with the Flying M to the west and the Sawyer to the east. In the Flying M field there are three pits to be closed, with two pits being side by side, and the other within a mile of the two. At the Sawyer field there are four pits to be closed. Two of the pits are located at the same site, and the other two are within ½ mile of each other. Operations are currently continuing in these fields, however, these pits are no longer being utilized.

The ten pits to be closed contain various degrees of hydrocarbon contamination. Five of the pits contain an oil and water mixture, which due to the high pour-point viscosity of the oil, has formed an approximately one-foot thick slop oil layer on top of the water in the pit. The oil in these pits has been designated as non-recoverable. Two of the pits contain a weathered hydrocarbon that is approximately one foot thick, with small amounts of water floating on the surface of the pits. At the three remaining pits, an attempt has been made to close the pits by mixing the contents with soil from the surrounding area. While this has covered the pits, the entrained oil is now leaching to the surface, negating the closure attempt.

A TCLP-Metals laboratory analysis was conducted on composite samples collected from the associated liquids and soils. The analyticals indicate that the materials contents are below regulatory limits.

Coastal Oil & Gas Corporation will employ the services of Biotek Environmental Services, Inc. (Biotek).

Biotek will use a bio-augmentation of microbes (10^{12} per gram) micro-nutrients, and a proprietary liquid bio-catalyst to treat "in place" the designated pits. Extra soil and water will be added where needed to insure a proper mix of all soil and treatment components. The pits will be retreated and tilled each month until closure levels are achieved, which are established at 10ppm Benzene, 50ppm BTEX and 5,000ppm TPH.

A representative from Coastal Oil & Gas Corporation's Environmental & Safety Affairs Department and a field service manager for Biotek will be present for the initial treatment and will direct all treatments and dirt work. All safety procedures will be followed. Biotek's service manager has completed Hazmat training and is certified under OSHA 1910.120 certificate #1562.

One composite sample will be collected each month from each of the ten (10) pits until closure. A Houston based laboratory will be utilized for analysis until closure levels are reached. At that point a complete "closure analysis" will be performed by a New Mexico laboratory.

After closure levels are achieved on all ten (10) pits, a closure summary of the treatment process will be prepared, all chain of custody forms, analytical reports, and photographs of the closed pits will be included and forwarded to your office.

If there are any questions, problems or if additional information is needed, please call.

Very truly yours

Michael E. McAllister, Ph.D.

MEM/dm
c:cemm0617
cc: Jack Creel/Biotek