3R - 268

GENERAL CORRESPONDENCE

YEAR(S): 1997-1995

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

October 13, 1997

Mr. William C. Olson
N.M. Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

Re: Coral No. 2 - M Sec 27 - T25N - R6W
Kimbell Oil Company of Texas - Groundwater Test Results

Dear Mr. Olson:

Pursuant to your correspondence dated July 24, 1997, Blagg Engineering, Inc. (BEI) has conducted further groundwater investigations at the Coral 2 separator pit, located in Unit M, Sec 27 - T25N - R6W, Rio Arriba County, New Mexico. These investigations have included the installation of an additional groundwater monitor well at an upgradient location from the separator pit, groundwater sampling and gradient determination. The NMOCD Aztec District Office was provided a minimum of 48 hours notice prior to field activities. The results of the field investigations and laboratory testing are presented below.

Monitor Well Installation and Sampling Methodology

On September 2, 1997 an additional upgradient groundwater monitor well identified as TMW#3 was installed at the site (Figure 1). The well was installed using a mobile pickup mounted drill unit with 2 ½ - inch solid auger and advancing the boring to 30 feet below ground surface. Well materials included a 2 - inch diameter x 15 foot long slotted screen section and a 15 foot riser. The slotted screen interval was filter packed with 10-20 silica sand, followed by a bentonite seal above the filter pack. After well installation the well was developed to minimize fines. Well logs for monitor wells at the site are attached.

On September 3, 1997 all wells at the location (TMW#1, TMW#2 and TMW#3) were sampled using dedicated disposable bailers. Sampling included purging a minimum of 3 well volumes prior to sample collection. Samples were placed into appropriate containers, labelled, placed into an ice chest with ice and hand delivered to a qualified laboratory for analysis.

The static water level was measured during the September 3, 1997 sampling event. Additionally a well top survey was conducted to determine relative well elevations.

Laboratory Test Results

Laboratory test results indicating constituents of concern from current and prior sample events are summarized in Table 1:

Table 1

Coral No. 2
Summary Analytical Test Results

Sample Identification & Test Date		Chloride (Regulatory Limit = 250mg/L)	Dissolved Lead (Regulatory Limit = 0.05 mg/L)	Total Dissolved Solids (Domestic Use = 1,000 mg/L) (Regulatory Limit = 10,000 mg/L)
TMW#1 (Upgradient)	5/8/97	136 mg/L	0.139 mg/L	8,406 mg/L
	9/3/97	1,900 mg/L	0.532 mg/L	18,551 mg/L
TMW #2 (Downgradient)	5/8/97	1,650 mg/L	0.260 mg/L	13,525 mg/L
	9/3/97	1,725 mg/L	0.553 mg/L	19,231 mg/L
TMW #3 (Upgradient)	9/3/97	1,130 mg/L	0.529 mg/L	24,022 mg/L

Groundwater test results indicate that dissolved lead is regionally present both up-gradient and down-gradient at concentrations exceeding regulatory standards. Therefore, lead is believed to be naturally occurring in this area.

Total dissolved solids and chlorides are found in uniform concentrations up-gradient and down-gradient from the pit. The Coral No. 2 gas well is located near the Largo Wash and heavy alkali salt deposits are prevalent in this region. The high TDS and chloride concentrations appear to be naturally occurring.

Test results from the additional up-gradient well TMW#3 confirm the presence of high natural concentrations of lead and TDS previously found in the up-gradient well TMW#1. The mean values of TDS, lead and chloride from the up-gradient wells on the September 3, 1997 test date are nearly identical to the down-gradient well TMW#2 values for these constituents.

Recommendations

Based on groundwater sample test results up-gradient and down-gradient from the pit location, BEI recommends closure and termination of groundwater sampling at this location. Elevated levels of dissolved lead, chloride and TDS appear to be naturally occurring and are not the result of operating practices. The up-gradient values of TDS are in excess of NMWQCC Part 3103 Standards for use as a potable aquifer. Additional drilling, sampling and testing at this location is not justified.

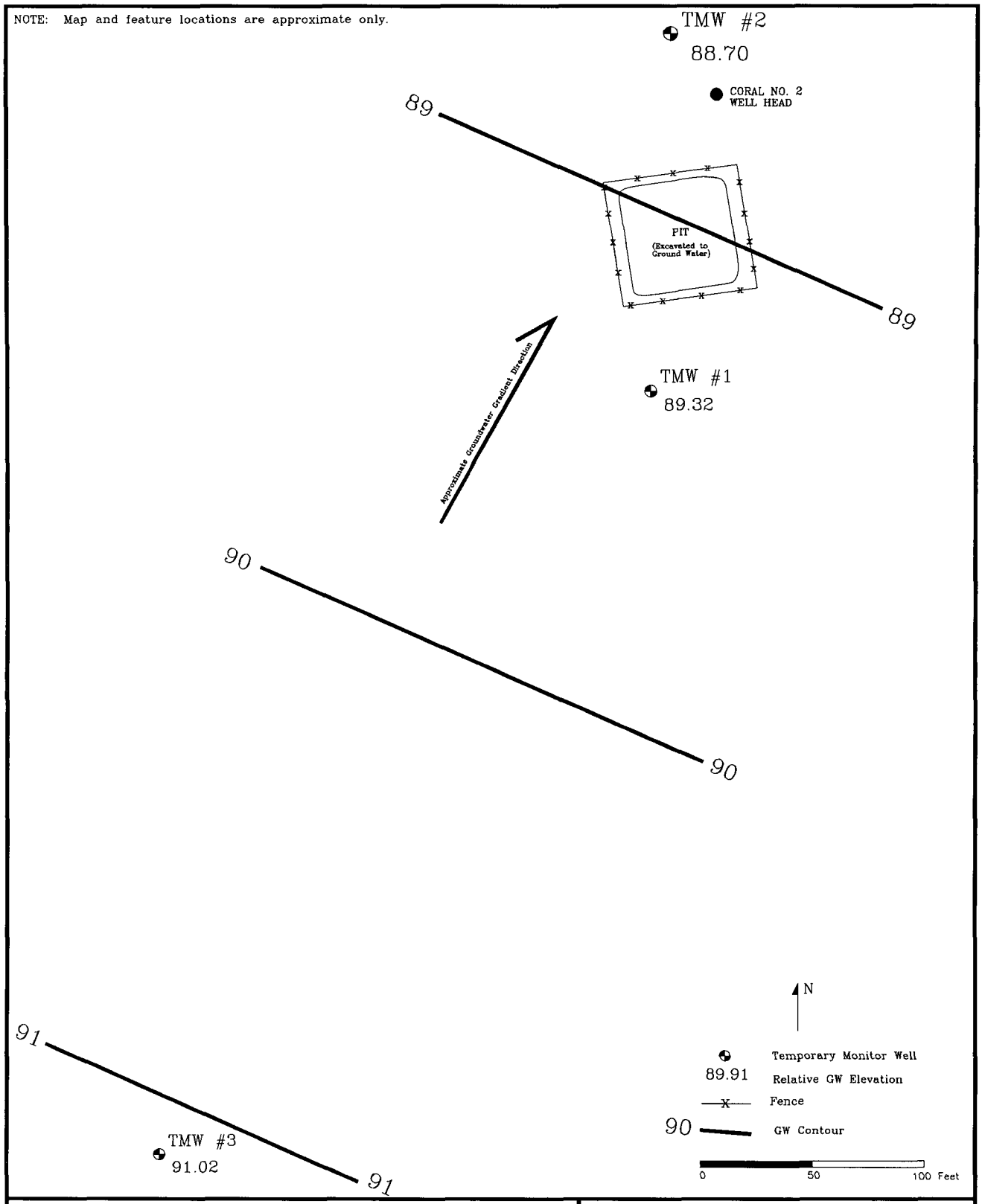
Blagg Engineering, Inc. may be contacted at (505)632-1199 if you have questions or need additional information concerning this transmittal.

Respectfully submitted,
Blagg Engineering, Inc.

Jeffrey C. Blagg, PE
President

Attachments: Site Diagram
Well Logs
Analytical Test Reports

cc: John Stickland, Kimbell Oil of Texas
Denny Foust, NMOCD Aztec



KIMBELL OIL COMPANY OF TEXAS CORAL NO. 2 PIT CLOSURE SW/4 SW/4 SEC 27 – T25N – R6W, RIO ARRIBA CO., NM			*BLAGG ENGINEERING, INC.*
DATE: 9/97	FIGURE 1	BY: JCB	*P.O. BOX 87, BLOOMFIELD, NM* *PHONE: (505)632–1199*

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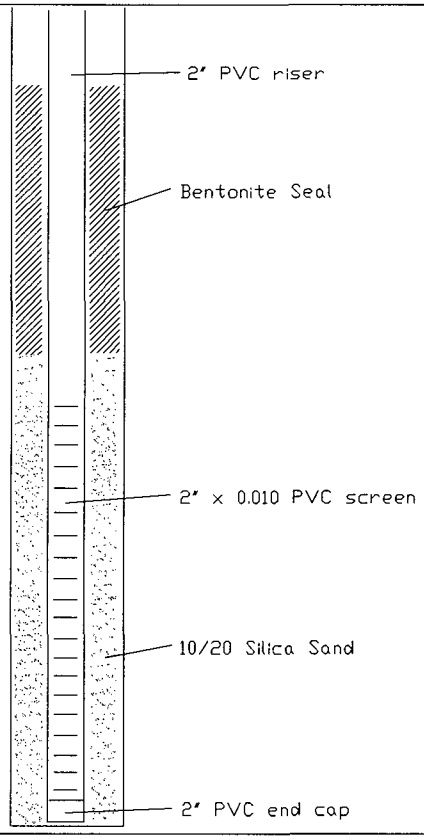
(505) 632-1199

FIGURE 2

BORING REPORT: TMW#1

PROJECT: CORAL #2 SEPARATOR PIT
CLIENT: KIMBELL OIL COMPANY OF TEXAS
DRILLING CONTRACTOR: Blagg Engineering, Inc.
EQUIPMENT USED: Simco Earthprobe 200 with 2.5-inch diameter solid auger
DATE START: 5/8/97 DATE FINISH: 5/8/97 DRILLER: JCB LOGGED BY: JCB
TOTAL DEPTH: 20 FEET CASING TYPE & SIZE: 2" PVC SLOT SIZE: 0.010
COMMENTS: Upgradient monitor well.

DEPTH FEET	USCS	OVM HEADSPACE PPM	GRAPHIC LOG	SAMPLE DESCRIPTION
	SM			Sand-silt-clay mixture, dark brown, lightly moist, cohesive. No odor or stain of hydrocarbon to total depth.
5		0.0		
10		0.0		Groundwater encountered at approximately 12 feet below ground surface.
15		0.0		
20		0.0		
				Total Depth augered 20 feet.
25				



WELL CONSTRUCTION DETAILS

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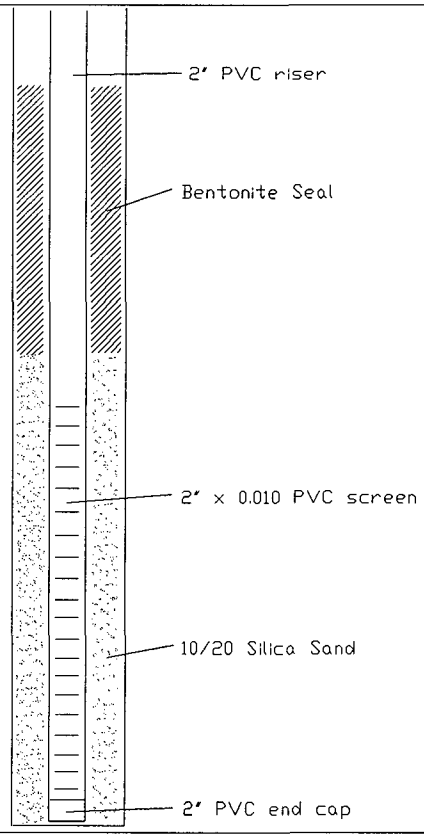
FIGURE 3

BORING REPORT: TMW#2

PROJECT: CORAL #2 SEPARATOR PIT
CLIENT: KIMBELL OIL COMPANY OF TEXAS
DRILLING CONTRACTOR: Blagg Engineering, Inc.
EQUIPMENT USED: Simco Earthprobe 200 with 2.5-inch diameter solid auger
DATE START: 5/8/97 DATE FINISH: 5/8/97 DRILLER: JCB LOGGED BY: JCB
TOTAL DEPTH: 20 FEET CASING TYPE & SIZE: 2" PVC SLOT SIZE: 0.010
COMMENTS: Down gradient monitor well.

DEPTH FEET	USCS	OVM HEADSPACE PPM	GRAPHIC LOG	SAMPLE DESCRIPTION
0	SM			Sand-silt-clay mixture, dark brown, lightly moist, cohesive. No odor or stain of hydrocarbon to total depth.
5		0.0		
10		0.0		Groundwater encountered at approximately 11 feet below ground surface.
15		0.0		
20		0.0		Total Depth augered 20 feet.
25				



WELL CONSTRUCTION DETAILS

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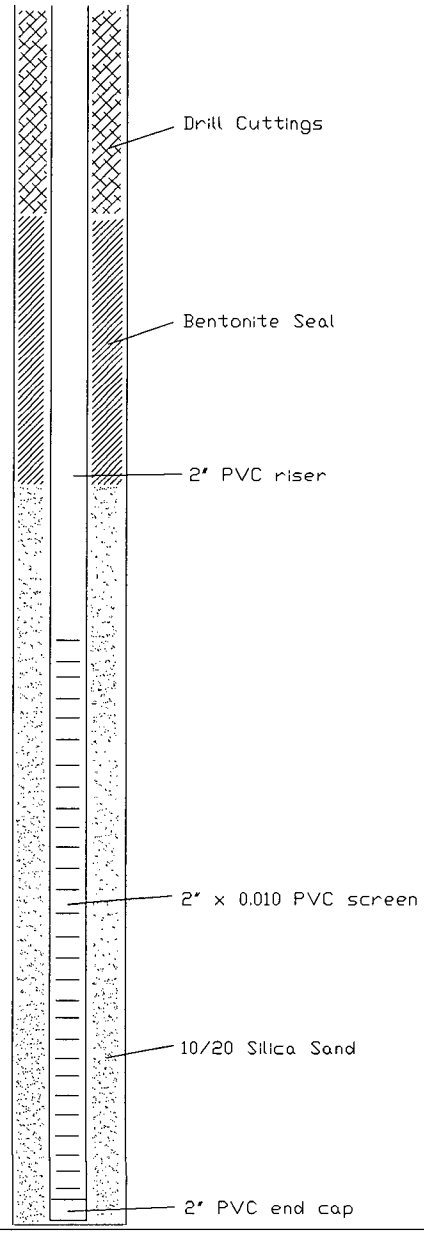
FIGURE 4

BORING REPORT: TMW#3

PROJECT: CORAL #2 SEPARATOR PIT
CLIENT: KIMBELL OIL COMPANY OF TEXAS
DRILLING CONTRACTOR: Blagg Engineering, Inc.
EQUIPMENT USED: Simco Earthprobe 200 with 2.5-inch diameter solid auger
DATE START: 9/2/97 DATE FINISH: 9/2/97 DRILLER: JCB LOGGED BY: JCB
TOTAL DEPTH: 30 FEET CASING TYPE & SIZE: 2" PVC SLOT SIZE: 0.010
COMMENTS: Up gradient monitor well.

DEPTH FEET	USCS	OVM HEADSPACE PPM	GRAPHIC LOG	SAMPLE DESCRIPTION
	SM			Sand-silt-clay mixture, dark brown, lightly moist, cohesive. No odor or stain of hydrocarbon to total depth.
5		0.0		
10		0.0		
15		0.0		
20		0.0		Groundwater encountered at approximately 20 feet below ground surface.
25				Total Depth augered 30 feet.



WELL CONSTRUCTION DETAILS

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location	ANALYSIS/PARAMETERS
BLAGG / KIMBELL	CORAL 2	
Sampler: (Signature) J. C. Blagg	Chain of Custody Tape No. 04034-10	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	Dissolved Lead	Cation/Anion					Remarks
TMW #1	9-3-97	1145	B964	WATER	2	X	X					
TMW #2	"	1200	B965	"	2	X	X					
TMW #3	"	1130	B966	"	2	X	X					
				Samples received cool & intact								

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
J. C. Blagg	9-3-97	1404	Dennis L. Ogburn	9-3-97	1404
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.
5796 U.S. Highway 64-3014
Farmington, New Mexico 87401
(505) 632-0615

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

CATION / ANION ANALYSIS

Client:	Blagg / Kimbell	Project #:	04034-10
Sample ID:	TMW #1	Date Reported:	09-05-97
Laboratory Number:	B964	Date Sampled:	09-03-97
Sample Matrix:	Water	Date Received:	09-03-97
Preservative:	Cool	Date Analyzed:	09-04-97
Condition:	Cool & Intact	Chain of Custody:	5371

Parameter	Analytical Result	Units		Units
pH	**7.25**	s.u.		
Conductivity @ 25° C	**38,300**	umhos/cm		
Total Dissolved Solids @ 180C	**18,600**	mg/L		
Total Dissolved Solids (Calc)	**18,551**	mg/L		
SAR	**63.8**	ratio		
Total Alkalinity as CaCO3	**1,110**	mg/L		
Total Hardness as CaCO3	**1,485**	mg/L		
Bicarbonate as HCO3	**1,110**	mg/L	18.19	meq/L
Carbonate as CO3	**<1**	mg/L	0.00	meq/L
Hydroxide as OH	**<1**	mg/L	0.00	meq/L
Nitrate Nitrogen	**0.4**	mg/L	0.01	meq/L
Nitrite Nitrogen	**0.004**	mg/L	0.00	meq/L
Chloride	**1,900**	mg/L	53.60	meq/L
Fluoride	**1.94**	mg/L	0.10	meq/L
Phosphate	**0.6**	mg/L	0.02	meq/L
Sulfate	**9,800**	mg/L	204.04	meq/L
Calcium	**380**	mg/L	18.96	meq/L
Magnesium	**131**	mg/L	10.78	meq/L
Potassium	**3.2**	mg/L	0.08	meq/L
Sodium	**5,660**	mg/L	246.21	meq/L
Cations			276.03	meq/L
Anions			275.96	meq/L
Cation/Anion Difference			**0.03%**	

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983. Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **Coral 2.**

Analyst

Review

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

CATION / ANION ANALYSIS

Client:	Blagg / Kimbell	Project #:	04034-10
Sample ID:	TMW #2	Date Reported:	09-05-97
Laboratory Number:	B965	Date Sampled:	09-03-97
Sample Matrix:	Water	Date Received:	09-03-97
Preservative:	Cool	Date Analyzed:	09-04-97
Condition:	Cool & Intact	Chain of Custody:	5371

Parameter	Analytical Result	Units		Units
pH	**7.39**	s.u.		
Conductivity @ 25° C	**38,700**	umhos/cm		
Total Dissolved Solids @ 180C	**19,300**	mg/L		
Total Dissolved Solids (Calc)	**19,231**	mg/L		
SAR	**71.3**	ratio		
Total Alkalinity as CaCO3	**735**	mg/L		
Total Hardness as CaCO3	**1,305**	mg/L		
Bicarbonate as HCO3	**735**	mg/L	12.05	meq/L
Carbonate as CO3	**<1**	mg/L	0.00	meq/L
Hydroxide as OH	**<1**	mg/L	0.00	meq/L
Nitrate Nitrogen	**0.1**	mg/L	0.00	meq/L
Nitrite Nitrogen	**0.003**	mg/L	0.00	meq/L
Chloride	**1,725**	mg/L	48.66	meq/L
Fluoride	**2.03**	mg/L	0.11	meq/L
Phosphate	**0.4**	mg/L	0.01	meq/L
Sulfate	**10,700**	mg/L	222.77	meq/L
Calcium	**294**	mg/L	14.67	meq/L
Magnesium	**139**	mg/L	11.44	meq/L
Potassium	**4.5**	mg/L	0.12	meq/L
Sodium	**5,920**	mg/L	257.52	meq/L
Cations			283.74	meq/L
Anions			283.60	meq/L
Cation/Anion Difference			**0.05%**	

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983. Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **Coral 2.**

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

CATION / ANION ANALYSIS

Client:	Blagg / Kimbell	Project #:	04034-10
Sample ID:	TMW #3	Date Reported:	09-05-97
Laboratory Number:	B966	Date Sampled:	09-03-97
Sample Matrix:	Water	Date Received:	09-03-97
Preservative:	Cool	Date Analyzed:	09-04-97
Condition:	Cool & Intact	Chain of Custody:	5371

Parameter	Analytical Result	Units		Units
pH	**7.57**	s.u.		
Conductivity @ 25° C	**48,300**	umhos/cm		
Total Dissolved Solids @ 180C	**24,100**	mg/L		
Total Dissolved Solids (Calc)	**24,022**	mg/L		
SAR	**92.9**	ratio		
Total Alkalinity as CaCO3	**718**	mg/L		
Total Hardness as CaCO3	**1,215**	mg/L		
Bicarbonate as HCO3	**718**	mg/L	11.77	meq/L
Carbonate as CO3	**<1**	mg/L	0.00	meq/L
Hydroxide as OH	**<1**	mg/L	0.00	meq/L
Nitrate Nitrogen	**0.2**	mg/L	0.00	meq/L
Nitrite Nitrogen	**0.006**	mg/L	0.00	meq/L
Chloride	**1,130**	mg/L	31.88	meq/L
Fluoride	**2.03**	mg/L	0.11	meq/L
Phosphate	**1.1**	mg/L	0.03	meq/L
Sulfate	**14,600**	mg/L	303.97	meq/L
Calcium	**260**	mg/L	12.97	meq/L
Magnesium	**138**	mg/L	11.36	meq/L
Potassium	**4.5**	mg/L	0.12	meq/L
Sodium	**7,450**	mg/L	324.08	meq/L
Cations			348.52	meq/L
Anions			347.76	meq/L
Cation/Anion Difference			**0.22%**	

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **Coral 2.**

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

DISSOLVED LEAD ANALYSIS

Client:	Blagg / Kimbell	Project #:	04034-10
Sample ID:	TMW #1	Date Reported:	09-04-97
Laboratory Number:	B964	Date Sampled:	09-03-97
Chain of Custody:	5371	Date Received:	09-03-97
Sample Matrix:	Water	Date Analyzed:	09-03-97
Condition:	Cool and Intact	Analysis Needed:	Dissolved Lead

Parameter	Concentration (mg/L)	Det. Limit (mg/L)
Lead	**0.532**	**0.0001**

ND - Parameter not detected at the stated detection limit.

References: Method 7421Analysis of Lead (Atomic Absorption, Furnace Technique) SW-846, USEPA, September 1986.

Comments: **Coral 2.**

Analyst

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

DISSOLVED LEAD ANALYSIS

Client:	Blagg / Kimbell	Project #:	04034-10
Sample ID:	TMW #2	Date Reported:	09-04-97
Laboratory Number:	B965	Date Sampled:	09-03-97
Chain of Custody:	5371	Date Received:	09-03-97
Sample Matrix:	Water	Date Analyzed:	09-03-97
Condition:	Cool and Intact	Analysis Needed:	Dissolved Lead

Parameter	Concentration (mg/L)	Det. Limit (mg/L)
Lead	**0.553**	**0.0001**

ND - Parameter not detected at the stated detection limit.

References: Method 7421Analysis of Lead (Atomic Absorption, Furnace Technique) SW-846, USEPA, September 1986.

Comments: **Coral 2.**

Analyst

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

DISSOLVED LEAD ANALYSIS

Client:	Blagg / Kimbell	Project #:	04034-10
Sample ID:	TMW #3	Date Reported:	09-04-97
Laboratory Number:	B966	Date Sampled:	09-03-97
Chain of Custody:	5371	Date Received:	09-03-97
Sample Matrix:	Water	Date Analyzed:	09-03-97
Condition:	Cool and Intact	Analysis Needed:	Dissolved Lead

Parameter	Concentration (mg/L)	Det. Limit (mg/L)
Lead	**0.529**	**0.0001**

ND - Parameter not detected at the stated detection limit.

References: Method 7421Analysis of Lead (Atomic Absorption, Furnace Technique) SW-846, USEPA, September 1986.

Comments: **Coral 2.**

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

LEAD ANALYSIS
BLANKS

Client:	QA/QC	Project #:	N/A
Sample ID:	Blanks	Date Reported:	09-04-97
Laboratory Number:	09-04-97-Blanks	Date Sampled:	N/A
Sample Matrix:	Water / Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	09-04-97
Condition:	N/A		

Parameter	Instrument Blank (mg/L)	Method Blank (mg/Kg)	Det. Limit (mg/L)
Lead	**ND**	**ND**	**0.0001**

ND - Parameter not detected at the stated detection limit.

References: Method 3050A, Acid Digestion of Sediments, Sludges and Soils for Total Metals, SW-846, USEPA, July 1992.

Method 7421Analysis of Lead (Atomic Absorption, Furnace Technique) SW-846, USEPA, September 1986.

Comments: **QA/QC for samples B964 - B966 and B975 - B976.**

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

LEAD ANALYSIS DUPLICATE

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	09-04-97
Laboratory Number:	B966	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	Dissolved Lead	Date Analyzed:	09-04-97
Condition:	N/A		

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference
Lead	**0.529**	**0.530**	**0.2%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	Lead	**30 %**

References: Method 7421Analysis of Lead (Atomic Absorption, Furnace Technique) SW-846, USEPA, September 1986.

Comments: **QA/QC for samples B964 - B966 and B975 - B976.**

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

LEAD ANALYSIS SPIKE

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Spike	Date Reported:	09-04-97
Laboratory Number:	B966	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	Dissolved Lead	Date Analyzed:	09-04-97
Condition:	N/A		

Parameter	Spike Added (mg/L)	Sample Result (mg/L)	Spiked Sample Result (mg/L)	Percent Recovery
Lead	**0.100**	**0.529**	**0.628**	**100%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Acceptance Range %
	Total Lead	**80 - 120 %**

References: Method 7421Analysis of Lead (Atomic Absorption, Furnace Technique) SW-846, USEPA, September 1986.

Comments: **QA/QC for samples B964 - B966 and B975 - B976.**

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

July 24, 1997

CERTIFIED MAIL
RETURN RECEIPT NO. P-410-431-197

Mr. John Stickland
Kimbell Oil Company of Texas
500 Throckmorton, Suite 3000
Fort Worth, Texas 76102

RE: GROUNDWATER INVESTIGATION
CORAL #2 WELL SITE

Dear Mr. Stickland:

The New Mexico Oil Conservation Division (OCD) has reviewed Kimbell Oil Company of Texas' (KOCT) May 20, 1997 "CORAL NO.2 - M SEC 27 - T25N - R6W, KIMBELL OIL COMPANY OF TEXAS, GROUNDWATER TEST RESULTS" which was submitted on behalf of KOCT by their consultant Blagg Engineering, Inc. This document contains the results of recent ground monitoring and a recommendation for closure of the site ground water actions.

According to the above referenced report ground water upgradient and downgradient of KOCT's pit is contaminated with lead and total dissolved solids in excess of New Mexico Water Quality Control Commission (WQCC) ground water standards. KOCT concludes that the upgradient lead and TDS ground water concentrations shows that ground water contamination at the site is a result of background conditions and are not a result of the site pit disposal activities. The OCD does not believe that the upgradient well is placed sufficiently far from the well site to represent ground water quality that is unaffected by production and disposal activities at the well site. Therefore, the OCD requires that KOCT conduct the following investigation actions:

1. KOCT will install an upgradient well at least 100 feet upgradient of the well pad.

2. The monitor well will be constructed as set out below:

   a. A minimum of fifteen feet of well screen will be installed, with at least five feet of well screen above the water table and ten feet of well screen below the water table.

   b. An appropriately sized gravel pack will be set around the well screen from the bottom of the hole to 2-3 feet above the top of the well screen.

   c. A 2-3 foot bentonite plug will be placed above the gravel pack.

   d. The remainder of the hole will be grouted to the surface with cement containing 5 % bentonite.

3. The well will be developed upon completion using EPA approved procedures.

4. Ground water from all site monitor wells will be sampled and analyzed for concentrations of total dissolved solids (TDS), major cations and anions and WQCC metals using EPA approved methods and quality assurance/quality control (QA/QC).

5. KOCT will submit a report on the investigation to the OCD Santa Fe Office by October 24, 1997. A copy of the report will also be submitted to the OCD Aztec District Office. The report will contain:

   a. A description of all activities which occurred during the investigation including conclusions and recommendations.

   b. A summary of all past and present laboratory analytic results of water quality sampling including copies of the most recent laboratory analyses and associated QA/QC data.

   c. A water table elevation map using the water table elevation of the ground water in all monitor wells.

   d. A geologic log and well completion diagram for each monitor well.

6. KOCT will notify the OCD at least 48 hours in advance of all scheduled activities such that the OCD has the opportunity to witness the events and/or split samples.

For your information, the OCD's review of the ground water analyses shows that ground water downgradient of the pit contains levels of chloride, lead and TDS in excess of the background water quality. According to WQCC regulations, if the upgradient water quality exceeds WQCC ground water standards then ground water downgradient of the pit can not be contaminated in excess of the background water quality.

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

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: OCD Aztec District Office
Bill Liess, BLM Farmington District Office
Jeffery C. Blagg, Blagg Engineering, Inc.

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

May 20, 1997

Mr. William C. Olson
N.M. Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

Re: Coral No. 2 - M Sec 27 - T25N - R6W
Kimbell Oil Company of Texas
Groundwater Test Results

Dear Mr. Olson:

Pursuant to your correspondence dated March 15, 1996, Blagg Engineering, Inc. (BEI) has conducted additional groundwater sampling at the Coral 2 separator pit, located in Unit M, Sec 27 - T25N - R6W, Rio Arriba County, New Mexico. An earthen pit at this well was excavated for remediation in November, 1995. Approximately 1,700 cubic yards of soil was removed from the pit and composted on location. Groundwater was encountered at an approximate depth of 12 feet below ground surface during remedial activities. Following pit excavation, this water was sampled and tested on November 27, 1995 to determine water quality. Elevated total dissolved solids (TDS) and the metal lead were found in this water sample and the New Mexico Oil Conservation Division (NMOCD) requested additional information on this water quality report.

In May, 1997 BEI installed temporary groundwater monitor points and conducted additional groundwater sampling to delineate potential groundwater impacts. The results of this sampling and laboratory testing are presented below.

Monitor Well Installation and Sampling Methodology

On May 8, 1997 two (2) temporary groundwater monitor wells were installed at the site in locations up gradient and down gradient of the excavated pit (Figure 1). The wells were installed using a mobile pickup mounted drill unit with 2 ½ - inch solid auger and advancing borings to 20 feet below ground surface. Well materials including a 2 - inch diameter x 10 foot long slotted screen section and a 10 foot riser to ground surface were placed into the borings. Following well installation, both wells were developed to minimize fines and then sampled using dedicated disposable bailers. Samples were collected into appropriate containers, labelled, placed into an ice chest with ice and hand delivered to a qualified laboratory for analysis.

On May 19, 1997 the static water level in the pit and in each well was surveyed to determine groundwater gradient. The water elevation in the pit was approximately 0.5 feet higher than anticipated, probably resulting from recent storm events depositing water in the pit. Note that the pit water was originally sampled on November 27, 1995 and resampled on March 6, 1997 to determine in pit water quality.

Laboratory Test Results

Laboratory test results indicating constituents of concern from current and prior sample events are summarized in Table 1:

Table 1

Coral No. 2
Summary Analytical Test Results

Sample Identification	Sample Date	Dissolved Lead (Regulatory Limit = 0.05 mg/L)	Total Dissolved Solids (Domestic Use = 1,000 mg/L) (Regulatory Limit = 10,000 mg/L)
Earthen Separator Pit	11/27/95 3/6/97	0.226 mg/L 0.032 mg/L	14,300 mg/L 1,725 mg/L
TMW #1	5/8/97	0.139 mg/L	8,406 mg/L
TMW #2	5/8/97	0.260 mg/L	13,525 mg/L

Groundwater test results indicate that dissolved lead is regionally present at up gradient, down gradient and in pit locations at concentrations exceeding regulatory standards. Therefore, lead is believed to be naturally occurring in this area.

Total dissolved solids are found in uniform concentrations up gradient, down gradient and within the pit. The Coral No. 2 gas well is located near the Largo Wash and heavy alkali salt deposits are prevalent in this region. The high TDS concentrations appear to be naturally occurring.

Recommendations

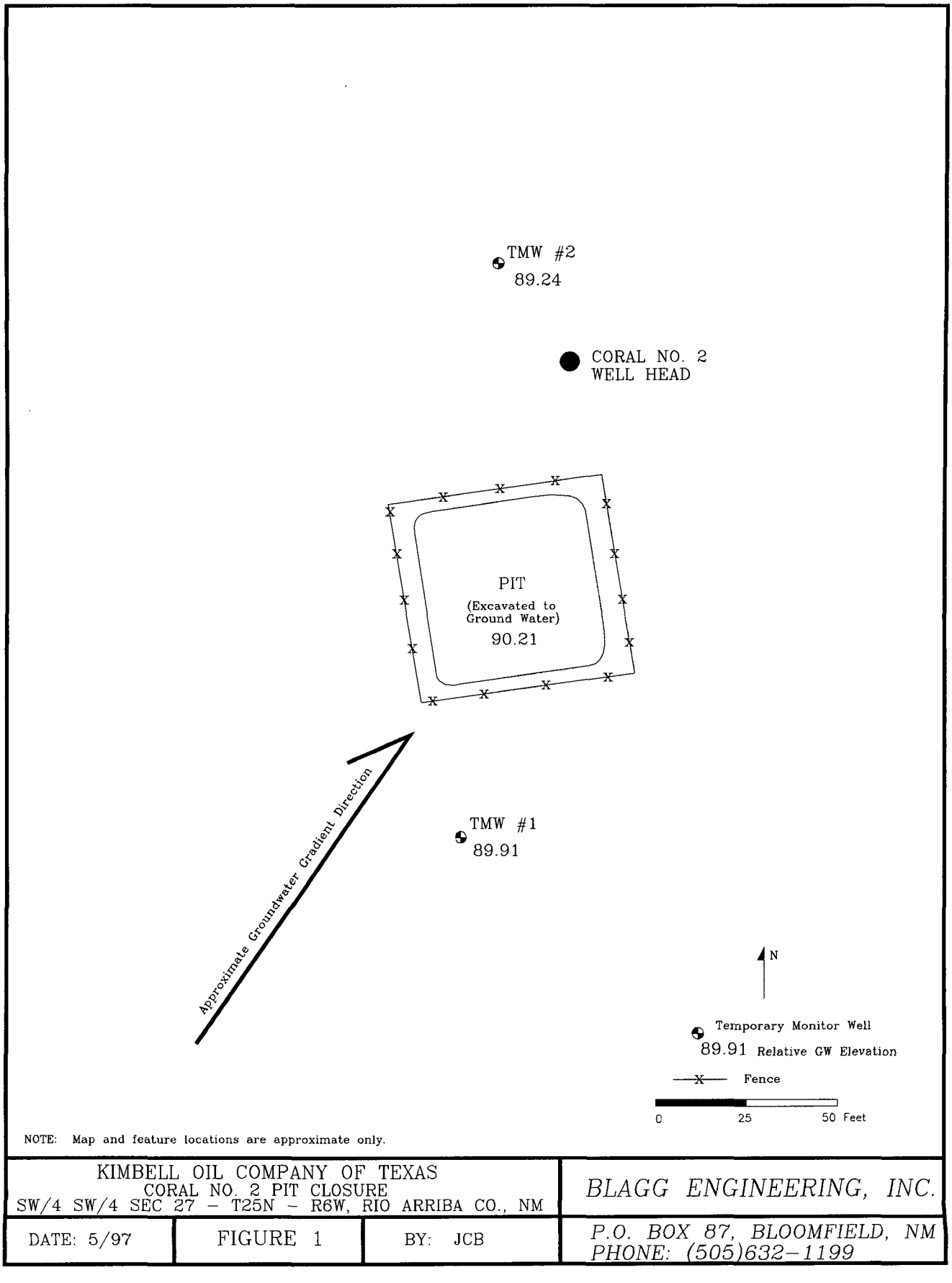
Based on groundwater sample test results up gradient, down gradient and within the pit, BEI recommends closure and termination of groundwater sampling at this location. Elevated levels of dissolved lead and TDS appear to be naturally occurring and are not the result of operating practices. Blagg Engineering, Inc. may be contacted at (505)632-1199 if you have questions or need additional information concerning this transmittal.

Respectfully submitted,
Blagg Engineering, Inc.

Jeffrey C. Blagg, PE
President

Attachments: Site Diagram
Analytical Test Reports

cc: John Stickland, Kimbell Oil of Texas



NOTE: Map and feature locations are approximate only.

KIMBELL OIL COMPANY OF TEXAS CORAL NO. 2 PIT CLOSURE SW/4 SW/4 SEC 27 – T25N – R6W, RIO ARRIBA CO., NM			*BLAGG ENGINEERING, INC.*
DATE: 5/97	FIGURE 1	BY: JCB	*P.O. BOX 87, BLOOMFIELD, NM* *PHONE: (505)632–1199*

5097

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location	ANALYSIS/PARAMETERS
KIMBELL - BLAGG	CORAL #2	
Sampler: (Signature) J.C. Blagg	Chain of Custody Tape No.	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	Dissolved Lead	Cation/Anion TDS	TPH 418.1				Remarks
TMW #1	5-8-97	1220	B203	WATER	1	X	X					
TMW #2	5-8-97	1310	B203	WATER	1	X	X					
N. STOCKPILE	5-8-97	1340	B204	SOIL	1			X				
S. STOCKPILE	5-8-97	1400	B205	SOIL	1			X				

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
J.C. Blagg	5-9-97	0917	Brenda L. Ogilvie	5-9-97	0917
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.
5796 U.S. Highway 64-3014
Farmington, New Mexico 87401
(505) 632-0615

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

CATION / ANION ANALYSIS

Client:	Kimbell - Blagg	Project #:	04034
Sample ID:	TMW #1	Date Reported:	05-12-97
Laboratory Number:	B202	Date Sampled:	05-08-97
Sample Matrix:	Water	Date Received:	05-09-97
Preservative:	Cool	Date Analyzed:	05/9/97 & 05/12/97
Condition:	Cool & Intact	Chain of Custody:	5097

Parameter	Analytical Result	Units		Units
pH	**7.29**	s.u.		
Conductivity @ 25° C	**16,900**	umhos/cm		
Total Dissolved Solids @ 180C	**8,420**	mg/L		
Total Dissolved Solids (Calc)	**8,406**	mg/L		
SAR	**54.2**	ratio		
Total Alkalinity as CaCO3	**474**	mg/L		
Total Hardness as CaCO3	**432**	mg/L		
Bicarbonate as HCO3	**474**	mg/L	7.77	meq/L
Carbonate as CO3	**<1**	mg/L	0.00	meq/L
Hydroxide as OH	**<1**	mg/L	0.00	meq/L
Nitrate Nitrogen	**<0.1**	mg/L	0.00	meq/L
Nitrite Nitrogen	**<0.001**	mg/L	0.00	meq/L
Chloride	**136**	mg/L	3.84	meq/L
Fluoride	**23.2**	mg/L	1.22	meq/L
Phosphate	**1.5**	mg/L	0.05	meq/L
Sulfate	**5,230**	mg/L	108.89	meq/L
Calcium	**49.0**	mg/L	2.45	meq/L
Magnesium	**76.0**	mg/L	6.25	meq/L
Potassium	**3.0**	mg/L	0.08	meq/L
Sodium	**2,600**	mg/L	113.10	meq/L
Cations			121.88	meq/L
Anions			121.76	meq/L
Cation/Anion Difference			**0.09%**	

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **Coral #2.**

Analyst

Review

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

CATION / ANION ANALYSIS

Client:	Kimbell - Blagg	Project #:	04034
Sample ID:	TMW #2	Date Reported:	05-12-97
Laboratory Number:	B203	Date Sampled:	05-08-97
Sample Matrix:	Water	Date Received:	05-09-97
Preservative:	Cool	Date Analyzed:	05/9/97 & 05/12/97
Condition:	Cool & Intact	Chain of Custody:	5097

Parameter	Analytical Result	Units		Units
pH	**7.42**	s.u.		
Conductivity @ 25° C	**27,200**	umhos/cm		
Total Dissolved Solids @ 180C	**13,580**	mg/L		
Total Dissolved Solids (Calc)	**13,525**	mg/L		
SAR	**98.9**	ratio		
Total Alkalinity as CaCO3	**684**	mg/L		
Total Hardness as CaCO3	**389**	mg/L		
Bicarbonate as HCO3	**684**	mg/L	11.21	meq/L
Carbonate as CO3	**<1**	mg/L	0.00	meq/L
Hydroxide as OH	**<1**	mg/L	0.00	meq/L
Nitrate Nitrogen	**<0.1**	mg/L	0.00	meq/L
Nitrite Nitrogen	**<0.001**	mg/L	0.00	meq/L
Chloride	**1,650**	mg/L	46.55	meq/L
Fluoride	**35.1**	mg/L	1.85	meq/L
Phosphate	**0.4**	mg/L	0.01	meq/L
Sulfate	**6,840**	mg/L	142.41	meq/L
Calcium	**17.2**	mg/L	0.86	meq/L
Magnesium	**84.0**	mg/L	6.91	meq/L
Potassium	**3.0**	mg/L	0.08	meq/L
Sodium	**4,480**	mg/L	194.88	meq/L
Cations			202.73	meq/L
Anions			202.03	meq/L
Cation/Anion Difference			**0.35%**	

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983. Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **Coral #2.**

Analyst

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

DISSOLVED LEAD ANALYSIS

Client:	Kimbell - Blagg	Project #:	04034
Sample ID:	TMW #1	Date Reported:	05-12-97
Laboratory Number:	B202	Date Sampled:	05-08-97
Chain of Custody:	5097	Date Received:	05-09-97
Sample Matrix:	Water	Date Analyzed:	05-09-97
Condition:	Coll and Intact	Analysis Needed:	Dissolved Lead

Parameter	Concentration (mg/L)	Det. Limit (mg/L)
Lead	**0.139**	**0.0001**

ND - Parameter not detected at the stated detection limit.

References: Method 7421Analysis of Lead (Atomic Absorption, Furnace Technique) SW-846, USEPA, September 1986.

Comments: **Coral #2.**

Analyst

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

DISSOLVED LEAD ANALYSIS

Client:	Kimbell - Blagg	Project #:	04034
Sample ID:	TMW #2	Date Reported:	05-12-97
Laboratory Number:	B203	Date Sampled:	05-08-97
Chain of Custody:	5097	Date Received:	05-09-97
Sample Matrix:	Water	Date Analyzed:	05-09-97
Condition:	Coll and Intact	Analysis Needed:	Dissolved Lead

Parameter	Concentration (mg/L)	Det. Limit (mg/L)
Lead	**0.260**	**0.0001**

ND - Parameter not detected at the stated detection limit.

References: Method 7421Analysis of Lead (Atomic Absorption, Furnace Technique) SW-846, USEPA, September 1986.

Comments: **Coral #2.**

Analyst

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QUALITY ASSURANCE / QUALITY CONTROL

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ENVIROTECH LABS

SOLUTIONS FOR A BETTER TOMORROW

DISSOLVED LEAD ANALYSIS
BLANKS

Client:	QA/QC	Project #:	N/A
Sample ID:	Blanks	Date Reported:	05-12-97
Laboratory Number:	05-09-97-Blanks	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	05-09-97
Condition:	N/A	Analysis Needed:	Dissolved Lead

Parameter	Instrument Blank (mg/L)	Method Blank (mg/L)	Det. Limit (mg/L)
Lead	**ND**	**ND**	**0.0001**

ND - Parameter not detected at the stated detection limit.

References: Method 7421Analysis of Lead (Atomic Absorption, Furnace Technique) SW-846, USEPA, September 1986.

Comments: **QA/QC for samples B202 - B203.**

Analyst

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SOLUTIONS FOR A BETTER TOMORROW

DISSOLVED LEAD ANALYSIS
DUPLICATE

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	05-12-97
Laboratory Number:	B202	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	Dissolved Lead	Date Analyzed:	05-09-97
Condition:	N/A		

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference
Lead	**0.139**	**0.139**	**0.0%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	Dissolved Lead	**30 %**

References: Method 7421Analysis of Lead (Atomic Absorption, Furnace Technique) SW-846, USEPA, September 1986.

Comments: **QA/QC for samples B202 - B203.**

Analyst

Review

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

DISSOLVED LEAD ANALYSIS
SPIKE

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Spike	Date Reported:	05-12-97
Laboratory Number:	B202	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	Dissolved Lead	Date Analyzed:	05-09-97
Condition:	N/A		

Parameter	Spike Added (mg/L)	Sample Result (mg/L)	Spiked Sample Result (mg/L)	Percent Recovery
Lead	**0.100**	**0.139**	**0.239**	**100%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Acceptance Range %
	Total Lead	**80 - 120 %**

References: Method 7421Analysis of Lead (Atomic Absorption, Furnace Technique) SW-846, USEPA, September 1986.

Comments: **QA/QC for samples B202 - B203.**

Analyst

Review

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5153

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location	ANALYSIS/PARAMETERS
KIMBELL	CORAL 2	

Sampler: (Signature) J-C Blagg

Chain of Custody Tape No. 04034

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	Dissolved LEAD	Cation/Anion TDS					Remarks
C @ CENTER	3-6-97	0947	A993	Water	3	X	X					

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
J-C-Blagg	3-6-97	1245	Glenn L. Glenn	3-6-97	1245
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

CATION / ANION ANALYSIS

Client:	Blagg / Kimbell	Project #:	04034
Sample ID:	C @ Center	Date Reported:	03-07-97
Laboratory Number:	A993	Date Sampled:	03-06-97
Sample Matrix:	Water	Date Received:	03-06-97
Preservative:	Cool	Date Analyzed:	03-07-97
Condition:	Cool & Intact	Chain of Custody:	5153

Parameter	Analytical Result	Units		Units
pH	**8.99**	s.u.		
Conductivity @ 25° C	**3,485**	umhos/cm		
Total Dissolved Solids @ 180C	**1,736**	mg/L		
Total Dissolved Solids (Calc)	**1,725**	mg/L		
SAR	**40.14**	ratio		
Total Alkalinity as CaCO3	**112**	mg/L		
Total Hardness as CaCO3	**39.9**	mg/L		
Bicarbonate as HCO3	**112**	mg/L	1.84	meq/L
Carbonate as CO3	**<1**	mg/L	0.00	meq/L
Hydroxide as OH	**<1**	mg/L	0.00	meq/L
Nitrate Nitrogen	**<0.1**	mg/L	0.00	meq/L
Nitrite Nitrogen	**<0.001**	mg/L	0.00	meq/L
Chloride	**327**	mg/L	9.22	meq/L
Fluoride	**0.63**	mg/L	0.03	meq/L
Phosphate	**2.85**	mg/L	0.09	meq/L
Sulfate	**726**	mg/L	15.12	meq/L
Calcium	**12.1**	mg/L	0.60	meq/L
Magnesium	**2.40**	mg/L	0.20	meq/L
Potassium	**1.9**	mg/L	0.05	meq/L
Sodium	**584**	mg/L	25.40	meq/L
Cations			26.25	meq/L
Anions			26.30	meq/L
Cation/Anion Difference			**0.17%**	

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **Coral 2.**

Analyst

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SOLUTIONS FOR A BETTER TOMORROW

DISSOLVED LEAD ANALYSIS

Client:	Blagg / Kimbell	Project #:	04034
Sample ID:	C @ Center	Date Reported:	03-07-97
Laboratory Number:	A993	Date Sampled:	03-06-97
Chain of Custody:	5153	Date Received:	03-06-97
Sample Matrix:	Water	Date Analyzed:	03-07-97
Condition:	Cool and Intact	Analysis Needed:	Dissolved Lead

Parameter	Concentration (mg/L)	Det. Limit (mg/L)
Lead	**0.0322**	**0.0001**

ND - Parameter not detected at the stated detection limit.

References: Method 7421Analysis of Lead (Atomic Absorption, Furnace Technique)
SW-846, USEPA, September 1986.

Comments: **Coral 2.**

Analyst

Review

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PHYSICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

ANALYTICAL SOLUTIONS FOR A BETTER TOMORROW

DISSOLVED LEAD ANALYSIS
BLANKS

Client:	QA/QC	Project #:	N/A
Sample ID:	Blanks	Date Reported:	03-07-97
Laboratory Number:	03-07-97-Blanks	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	03-07-97
Condition:	N/A	Analysis Needed:	Dissolved Lead

Parameter	Instrument Blank (mg/L)	Method Blank (mg/Kg)	Det. Limit (mg/L)
Lead	**ND**	**ND**	**0.0001**

ND - Parameter not detected at the stated detection limit.

References: Method 7421Analysis of Lead (Atomic Absorption, Furnace Technique) SW-846, USEPA, September 1986.

Comments: **QA/QC for sample A993.**

Analyst

Review

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SOLUTIONS FOR A BETTER TOMORROW

DISSOLVED LEAD ANALYSIS
DUPLICATE

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	03-07-97
Laboratory Number:	A993	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	Dissolved Lead	Date Analyzed:	03-07-97
Condition:	N/A		

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference
Lead	**0.0322**	**0.0325**	**0.9%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	Dissolved Lead	**30 %**

References: Method 7421Analysis of Lead (Atomic Absorption, Furnace Technique) SW-846, USEPA, September 1986.

Comments: **QA/QC for sample A993.**

Analyst

Review

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ENVIROTECH LABS

SOLUTIONS FOR A BETTER TOMORROW

DISSOLVED LEAD ANALYSIS SPIKE

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Spike	Date Reported:	03-07-97
Laboratory Number:	A993	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	Dissolved Lead	Date Analyzed:	03-07-97
Condition:	N/A		

Parameter	Spike Added (mg/L)	Sample Result (mg/L)	Spiked Sample Result (mg/L)	Percent Recovery
Lead	**0.100**	**0.0322**	**0.132**	**100%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Acceptance Range %
	Total Lead	**80 - 120 %**

References: Method 7421Analysis of Lead (Atomic Absorption, Furnace Technique) SW-846, USEPA, September 1986.

Comments: **QA/QC for sample A993.**

Analyst

Review

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

March 15, 1996

CERTIFIED MAIL
RETURN RECEIPT NO. Z-765-962-557

Mr. John Stickland
Kimbell Oil Company of Texas
500 Throckmorton, Suite 3000
Fort Worth, Texas 76102

RE: PIT CLOSURE REPORT
CORAL #2 WELL SITE

Dear Mr. Stickland:

The New Mexico Oil Conservation Division (OCD) is in the process of reviewing Kimbell Oil Company of Texas's (KOCT) January 2, 1996 "CORAL #2 PIT CLOSURE DOCUMENTATION" which was received by the OCD on January 18, 1996. This document contains the results of KOCT's closure of an unlined pit at the Coral #2 well site and the initial investigation of ground water contamination at the site.

The pit soil remedial actions appear satisfactory. However, the OCD has the following comments, questions and requests for information regarding the above referenced document:

1. The report states that the excavated soils are stockpiled at the site for future disposition. Have these contaminated soils been remediated? If so, please provide the analytical results to demonstrate that remedial levels have been achieved and the proposed disposition of the soils. If not, the soils will need to be remediated to the appropriate levels before the OCD can issue final closure approval.

2. Do the ground water samples which were taken for metals analysis represent the total metals concentrations or the dissolved metals concentrations?

3. Please provide any supporting information or data which demonstrates that the high total dissolved solids (TDS) and cation/anion concentrations are a result of background ground water conditions. If these constituents are not a result of background ground water conditions, KOCT will be required to determine the extent of ground water contamination related to pit disposal activities and provide a remedial action plan.

Submission of the above requested information will allow the OCD to complete a review of this document. If you have any questions, please call me at (505) 827-7154.

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: Denny Foust, OCD Aztec Office
Hector Villalobos, BLM Albuquerque Office
Michael J. Pool, BLM Farmington District Office

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

January 2, 1995

CC: MR. BILL OLSON
NMOCD - SANTA FE

Mr. John Stickland
Kimbell Oil Company of Texas
500 Throckmorton, Suite 3000
Fort Worth, Texas 76102

RE: Coral #2 Pit Closure Documentation

Dear Mr. Stickland:

Blagg Engineering, Inc. (BEI) is submitting the attached documentation for the pit closure verification for remediation work performed at the Coral #2 well location. Work was performed in accordance with the BEI Workplan submitted to Mr. William C. Olson of the New Mexico Oil Conservation Division (NMOCD) dated August 22, 1995 with his approval letter dated September 5, 1995.

Approximately 1700 cubic yards of hydrocarbon contaminated soils were excavated from the pit area and stockpiled on the location for future disposition. Groundwater was sampled and found to have detectable levels of BTEX (Benzene, Toluene, Ethyl-benzene, and Xylene), but below regulatory action levels. A sample analyzed for PAH (Poly Aromatic Hydrocarbons) indicated non-detect on all constituents analyzed for. Heavy Metal analysis indicated elevated lead levels of 0.226 mg/L, but is likely to be high in background levels in the area. Cation/anion analysis indicated Total Dissolved Solids (TDS) of 14,300 mg/L, above the New Mexico Drinking Water Standard of 10,000 mg/L. Again, it is believed background levels would be similar in concentrations as the pit water. Samples of four sidewalls indicated soil hydrocarbon contamination remaining within the pit excavation to be below regulatory standards. All laboratory results are attached to this report.

BEI recommends closure of the pit excavation with no further sampling recommended for pit soils or groundwater. Stockpiled contaminated soils will also have to be dealt with by future testing and possible landfarming or composting to enhance biodegradation of the hydrocarbons.

Copies of this report will be sent to the NMOCD and the Bureau of Land Management (BLM) upon your approval. If we can be of further assistance, please notify us. It has been a pleasure to be of service to Kimbell Oil.

Sincerely,
Blagg Engineering, Inc.

Robert E. O'Neill

Robert E. O'Neill, M.S.
Civil Engineering, Environmental

Reviewed by:

Jeffrey C. Blagg

Jeffrey C. Blagg, P.E.
President

Attachments

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No.
SF-080136

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation
14-08-001-7756

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.
CORAL # 2

2. Name of Operator
KIMBELL OIL COMPANY OF TEXAS

9. API Well No.
30-039-05784

3. Address and Telephone No.
500 THROCKMORTON, SUITE 3000, FORT WORTH, TEXAS 76102 (817) 335-2591

10. Field and Pool, or Exploratory Area
BASIN DAKOTA

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
SW 1/4 of SW 1/4, SECTION 27, T25N, R06W, N.M. P.M.
790 FSL AND 790 FWL (UNIT M)

11. County or Parish, State
RIO ARRIBA, NEW MEXICO

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
☐ Notice of Intent	☐ Abandonment	☐ Change of Plans
☒ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☒ Other PIT CLOSURE	☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

PIT CLOSURE VERIFICATION - SEE ATTACHED DOCUMENTATION

ONE PIT: WATER PRODUCTION, BLOW, TANK DRAIN PIT.

14. I hereby certify that the foregoing is true and correct

Signed Jeffrey C. Blagg Title AGENT Date 1-2-96

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side

District I
P.O. Box 1980, Hobbs, NM
District II
P.O. Drawer DD, Artesia, NM 88211
District III
1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

SUBMIT 1 COPY TO APPROPRIATE DISTRICT OFFICE AND 1 COPY TO SANTA FE OFFICE

PIT REMEDIATION AND CLOSURE REPORT

Operator: KIMBELL OIL COMPANY OF TEXAS **Telephone:** (817) 335-2591

Address: 500 THROCKMORTON, SUITE 3000, FORT WORTH, TEXAS 76102

Facility Or: CORAL # 2
Well Name

Location: Unit or Qtr/Qtr Sec M Sec 27 T 25 N R 6 W County RIO ARRIBA

Pit Type: Separator ___ Dehydrator ___ Other WATER PROD., TANK DRAIN, BLOW

Land Type: BLM X, State ___, Fee ___, Other ___

Pit Location: (Attach diagram)
Pit dimensions: length 60', width 50', depth 15'
Reference: wellhead X, other ___
Footage from reference: 60
Direction from reference: 15 Degrees ___ East North ___ of X West South X

Depth To Ground Water: (Vertical distance from contaminants to seasonal high water elevation of ground water)	Less than 50 feet (20 points) 50 feet to 99 feet (10 points) Greater than 100 feet (0 Points)	20
Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or; less than 1000 feet from all other water sources)	Yes (20 points) No (0 points)	0
Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 200 feet (20 points) 200 feet to 1000 feet (10 points) Greater than 1000 feet (0 points)	0
	RANKING SCORE (TOTAL POINTS):	20

Date Remediation Started: 11-27-95 **Date Completed:** 11-30-95

Remediation Method: (Check all appropriate sections) Excavation X Approx. cubic yards 1700

Landfarmed ___ Insitu Bioremediation ___

Other STOCKPILE

Remediation Location: (ie. landfarmed onsite, name and location of offsite facility) Onsite X Offsite ___

General Description Of Remediation Action:

Excavation OF CONTAMINATED SOILS

Ground Water Encountered: No ___ Yes X Depth ~15'

Final Pit: Closure Sampling: (if multiple samples, attach sample results and diagram of sample locations and depths)

Sample location see Attached Documents

Sample depth 5-15'

Sample date 11-30-95 Sample time ___

Sample Results

Benzene(ppm) ___

Total BTEX(ppm) ___

Field headspace(ppm) 0-86 ppm

TPH 20-36 ppm

Ground Water Sample: Yes X No ___ (If yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

DATE JAN 2, 1996

SIGNATURE Jeffrey C. Blagg PRINTED NAME AND TITLE JEFFREY C. BLAGG - AGENT

CLIENT: HIMBELL	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: — C.O.C. NO: 4449 4547

FIELD REPORT: PIT CLOSURE VERIFICATION

LOCATION: NAME: CORAL WELL #: 2 PIT: WATER, TANK, BLOW
QUAD/UNIT: M SEC: 27 TWP: 25 N RNG: 6 W BM: NM CNTY: RA ST: NM
QTR/FOOTAGE: CONTRACTOR: PAUL + SONS

DATE STARTED: 11-27-95
DATE FINISHED: 11-30-95
ENVIRONMENTAL SPECIALIST: REO

EXCAVATION APPROX. 60 FT. x 50 FT. x 15 FT. DEEP. CUBIC YARDS: ~1700
DISPOSAL FACILITY: ON SITE REMEDIATION METHOD: STOCKPILE
LAND USE: RANGE LEASE: SF-080136 FORMATION:

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 60 FEET S15°W FROM WELLHEAD.
DEPTH TO GROUNDWATER: 15' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'
NMOCD RANKING SCORE: 20 NMOCD TPH CLOSURE STD: 100 PPM

SOIL AND EXCAVATION DESCRIPTION: PIT DISPOSITION: ABANDONED

(A) WATER SAMPLE IN ORIGINAL PIT @ 11-27-95 START OF EXCAVATION
(B) WATER SAMPLE - AFTER EXCAVATION: 11-30-95
COMPOSITE SIDEWALL SOIL SAMPLES COLLECTED ~ 5-15' DEEP.
EXCAVATION TO CLAY LAYER AT WATER TABLE.
SOILS MOIST, BROWN, SILTY SAND - NO ODOR.

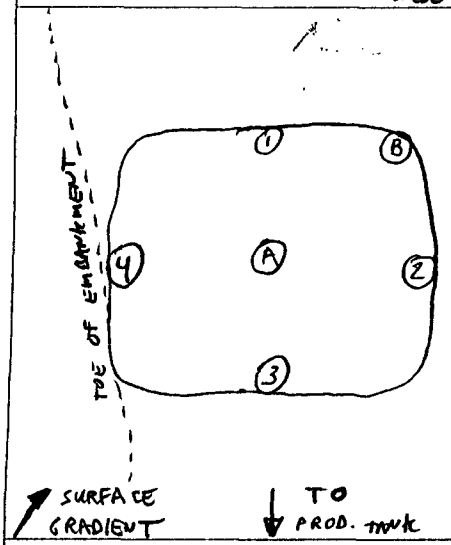
CLOSE PIT
CHECK WATER SAMPLE RESULTS

FIELD 418.1 CALCULATIONS

	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
①	NS@5-15	1640	10.0	20.0	1	14	28
②	ES @ 5-15	1639	"	"	1	18	36
③	SS @ 5-15	1642	"	"	1	11	22
④	WS @ 5-15	1641	"	"	1	10	20

SCALE 0 10 20 FT

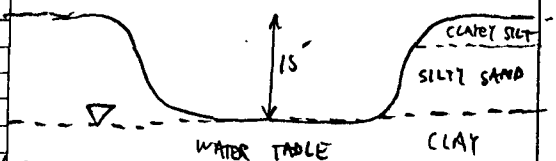
PIT PERIMETER



OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 NS+S-15'	1
2 ES @ S-15'	86
3 SS @ S-15'	7
4 WS @ S-15'	ND
5	
LAB	SAMPLES
(B) NE CORNER @ 16'	BTEX 11/30
	C-A, H.M, PAH
(A) PIT @ 16'	BTEX 11/27

PIT PROFILE



TRAVEL NOTES: CALLOUT: 11-30-95 ONSITE: 11-30-95 1000

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

FIELD MODIFIED EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	Kimbell Oil	Project #:	
Sample ID:	East Side @ 5-15' Comp.	Date Analyzed:	11-30-95
Project Location:	Coral #2	Date Reported:	11-30-95
Laboratory Number:	TPH-1639	Sample Matrix:	Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	**36**	**10**

ND = Not Detectable at stated detection limits.

QA/QC:

QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
13,700	12,100	12

*Administrative Acceptance limits set at 30%.

Method: Modified Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

Comments: Separator/Dehydrator/Tank Pit

R. E. O'Neill
Analyst

Review

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

FIELD MODIFIED EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	Kimbell Oil	Project #:	
Sample ID:	North Side @ 5-15' Comp.	Date Analyzed:	11-30-95
Project Location:	Coral #2	Date Reported:	11-30-95
Laboratory Number:	TPH-1640	Sample Matrix:	Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	**28**	**10**

ND = Not Detectable at stated detection limits.

QA/QC:

QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
13,700	12,100	12

*Administrative Acceptance limits set at 30%.

Method: Modified Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

Comments: Separator/Dehydrator/Tank Pit

R. E. O'Neill
Analyst

Review

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

FIELD MODIFIED EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	Kimbell Oil	Project #:	
Sample ID:	West Side @ 5-15' Comp.	Date Analyzed:	11-30-95
Project Location:	Coral #2	Date Reported:	11-30-95
Laboratory Number:	TPH-1641	Sample Matrix:	Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	**20**	**10**

ND = Not Detectable at stated detection limits.

QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	13,700	12,100	12

*Administrative Acceptance limits set at 30%.

Method: Modified Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

Comments: Separator/Dehydrator/Tank Pit

R. E. O'Neill
Analyst

Review

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

FIELD MODIFIED EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	Kimbell Oil	Project #:	
Sample ID:	South Side @ 5-15' Comp.	Date Analyzed:	11-30-95
Project Location:	Coral #2	Date Reported:	11-30-95
Laboratory Number:	TPH-1642	Sample Matrix:	Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	**22**	**10**

ND = Not Detectable at stated detection limits.

QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	13,700	12,100	12

*Administrative Acceptance limits set at 30%.

Method: Modified Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

Comments: Separator/Dehydrator/Tank Pit

R. E. O'Neal
Analyst

Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8020
AROMATIC VOLATILE ORGANICS

Client:	Blagg Engineering	Project #:	04034
Sample ID:	Pit @ 16'	Date Reported:	11-28-95
Chain of Custody:	4547	Date Sampled:	11-27-95
Laboratory Number:	9691	Date Received:	11-27-95
Sample Matrix:	Water	Date Analyzed:	11-27-95
Preservative:	HgCl & Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	**ND**	**1**	**0.4**
Toluene	**0.7**	**1**	**0.5**
Ethylbenzene	**ND**	**1**	**0.5**
p,m-Xylene	**1.9**	**1**	**0.4**
o-Xylene	**0.5**	**1**	**0.4**
Total BTEX	**3.1**		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**101 %**
	Bromofluorobenzene	**99 %**

References: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1994.

Comments: **Coral #2.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

TRACE METAL ANALYSIS

Client:	Blagg Engineering	Project #:	04034
Sample ID:	Pit @ 16'	Date Reported:	11-30-95
Laboratory Number:	9691	Date Sampled:	11-27-95
Chain of Custody:	4547	Date Received:	11-27-95
Sample Matrix:	Water	Date Analyzed:	11-30-95
Preservative:	Cool	Analysis Needed:	Trace metals
Condition:	Cool & Intact		

Parameter	Concentration (mg/L)	Det. Limit (mg/L)
Arsenic	**0.003**	**0.0001**
Barium	**ND**	**0.01**
Cadmium	**ND**	**0.0001**
Chromium	**ND**	**0.0001**
Lead	**0.226**	**0.0001**
Mercury	**ND**	**0.0001**
Selenium	**ND**	**0.0001**
Silver	**ND**	**0.01**

ND - Parameter not detected at the stated detection limit.

References: Method 3050, Acid Digestion of Sediments, Sludges, and Soils for total Metals, SW-846, USEPA, July 1992.

Methods 7060, 7080, 7131, 7191, 7470, 7421, 7740, 7760 Analysis of Metals by GFAA and FLAA, SW-846, USEPA.

Comments: **Coral #2**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8100
Polynuclear Aromatic Hydrocarbons

Client:	Blagg Engineering	Project #:	04034
Sample ID:	Pit @ 16'	Date Reported:	11-30-95
Laboratory Number:	9691	Date Sampled:	11-27-95
Chain of custody:	4547	Date Received:	11-27-95
Sample Matrix:	Water	Date Analyzed:	11-30-95
Preservative:	Cool	Date Concentrated:	11-29-95
Condition:	Cool & Intact	Analysis Requested:	8100

Parameter	Concentration (ug/L)	Det. Limit (ug/L)
Naphthalene	ND	0.2
Acenaphthylene	ND	0.2
Acenaphthene	ND	0.2
Fluorene	ND	0.4
Phenanthrene	ND	0.5
Anthracene	ND	0.2
Fluoranthene	ND	0.2
Pyrene	ND	0.2
Indeno[1,2,3-cd] pyrene	ND	0.4
Benzo[a]anthracene	ND	0.2
Chrysene	ND	0.7
Benzo(b)fluoranthene	ND	0.8
Benzo[k]fluoranthene	ND	0.5
Benzo(a)pyrene	ND	0.2
Dibenzo[a,h]anthracene	ND	0.2
Benzo(g,h,i)perylene	ND	0.2

ND - Parameter not detected at the stated detection limit.

SURROGATE RECOVERY	Parameter	Percent Recovery
	1-fluoronapthalene	100%

References: Method 8100, Polynuclear Aromatic Hydrocarbons, Test Methods for Evaluating Soild Waste, SW-846, USEPA, September 1986.

Comments: **Coral #2.**

Analyst

Review

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Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Client:	**Envirotech**		
Project:	Coral #2	Date Reported:	12/07/95
Sample ID:	Pit at 16'	Date Sampled:	11/27/95
Laboratory ID:	0395W02187	Time Sampled:	12:00
Sample Matrix:	Water	Date Received:	11/28/95
Condition:	Cool/Intact		

Parameter	Analytical Result	Units		Units
Lab pH	7.6	s.u.		
Lab Conductivity @ 25° C	18,900	umhos/cm		
Total Dissolved Solids @ 180°C	14,800	mg/L		
Total Dissolved Solids (Calc)	14,300	mg/L		
Total Alkalinity as CaCO3	920	mg/L		
Total Hardness as CaCO3	632	mg/L		
Nirate Nitrogen	<0.1	mg/L		
Bicarbonate as HCO3	1,120	mg/L	18.40	meq/L
Carbonate as CO3	0	mg/L	0.00	meq/L
Hydroxide as OH	0	mg/L	0.00	meq/L
Chloride	2,000	mg/L	56.3	meq/L
Sulfate	6,860	mg/L	143	meq/L
Calcium	115	mg/L	5.73	meq/L
Magnesium	84	mg/L	6.90	meq/L
Potassium	16	mg/L	0.40	meq/L
Sodium	4,640	mg/L	202	meq/L
Cations			214.83	meq/L
Anions			217.63	meq/L
Cation/Anion Difference			0.65	%

Reference: U.S.E.P.A. 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
"Standard Methods For The Examination Of Water And Waste Water", 19th ed., 1995.

Reviewed by _____ Reported by _____

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8020
AROMATIC VOLATILE ORGANICS

Client:	Kimbell Oil / Blagg Eng.	Project #:	04034
Sample ID:	NE Corner @ 16'	Date Reported:	12-01-95
Chain of Custody:	4449	Date Sampled:	11-30-95
Laboratory Number:	9694	Date Received:	11-30-95
Sample Matrix:	Water	Date Analyzed:	11-30-95
Preservative:	HgCl & Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	**ND**	**1**	**0.3**
Toluene	**ND**	**1**	**0.4**
Ethylbenzene	**ND**	**1**	**0.5**
m,p-Xylene	**ND**	**1**	**0.4**
o-Xylene	**ND**	**1**	**0.4**
Total BTEX	**ND**		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**99 %**
	Bromofluorobenzene	**95 %**

References: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1994.

Comments: **Coral #2.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8020
AROMATIC VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	11-28-95
Laboratory Number:	11-27-PM-BTEX.BLANK	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	11-27-95
Condition:	N/A	Analysis Requested:	BTEX

Parameter	Concentration (ug/L)	Det. Limit (ug/L)
Benzene	**ND**	**0.4**
Toluene	**ND**	**0.5**
Ethylbenzene	**ND**	**0.5**
p,m-Xylene	**ND**	**0.4**
o-Xylene	**ND**	**0.4**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**101 %**
	Bromofluorobenzene	**99 %**

References: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples 9600 - 9604, 9686 and 9691.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8020
AROMATIC VOLATILE ORGANICS

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	11-28-95
Laboratory Number:	9600	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	Cool	Date Analyzed:	11-27-95
Condition:	Cool and Intact	Analysis Requested:	BTEX

Parameter	Sample Result (ug/Kg)	Duplicate Result (ug/Kg)	Det. Limit (ug/Kg)	Percent Difference
Benzene	**ND**	**ND**	**29.7**	**0.0%**
Toluene	**ND**	**ND**	**33.9**	**0.5%**
Ethylbenzene	**ND**	**ND**	**31.7**	**1.4%**
p,m-Xylene	**ND**	**ND**	**27.1**	**0.2%**
o-Xylene	**ND**	**ND**	**29.4**	**1.1%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8020 Compounds	**30 %**

References: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples 9600 - 9604, 9686 and 9691.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8020
AROMATIC VOLATILE ORGANICS

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	11-28-95
Laboratory Number:	9600	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	Cool	Date Extracted:	11-22-95
Condition:	Cool and Intact	Date Analyzed:	11-27-95

Parameter	Sample Result (ug/Kg)	Spike Added (ug/Kg)	Spiked Sample Result (ug/Kg)	Det. Limit (ug/Kg)	Percent Recovery	SW-846 % Rec. Accept. Range
Benzene	**ND**	**50.0**	**49.7**	**29.7**	**99%**	**39-150**
Toluene	**ND**	**50.0**	**81.2**	**33.9**	**99%**	**46-148**
Ethylbenzene	**ND**	**50.0**	**61.4**	**31.7**	**99%**	**32-160**
p,m-Xylene	**ND**	**100**	**126**	**27.1**	**99%**	**46-148**
o-Xylene	**ND**	**50.0**	**65.0**	**29.4**	**100%**	**46-148**

ND - Parameter not detected at the stated detection limit.

References: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples 9600 - 9604, 9686 and 9691.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

TRACE METAL ANALYSIS
BLANKS

Client:	QA/QC	Project #:	N/A
Sample ID:	Blanks	Date Reported:	11-30-95
Laboratory Number:	11-30-95-Blank	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Analyzed:	11-30-95
Condition:	N/A	Analysis Needed:	Trace Metals

Parameter	Instrument Blank (mg/L)	Method Blank (mg/L)	Det. Limit (mg/L)
Arsenic	**ND**	**ND**	**0.0001**
Barium	**ND**	**ND**	**0.01**
Cadmium	**ND**	**ND**	**0.0001**
Chromium	**ND**	**ND**	**0.0001**
Lead	**ND**	**ND**	**0.0001**
Mercury	**ND**	**ND**	**0.0001**
Selenium	**ND**	**ND**	**0.0001**
Silver	**ND**	**ND**	**0.01**

ND - Parameter not detected at the stated detection limit.

References: Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, July 1992.

Methods 7060, 7080, 7131, 7191, 7470, 7421, 7740, 7760 Analysis of Metals by GFAA and FLAA, SW-846, USEPA.

Comments: **QA/QC for sample 9691.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

TRACE METAL ANALYSIS
DUPLICATE

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	11-30-95
Laboratory Number:	9691	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	Trace Metals	Date Analyzed:	11-30-95
Condition:	N/A		

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference
Arsenic	**0.003**	**0.002**	**8.0%**
Barium	**ND**	**ND**	**0.0%**
Cadmium	**ND**	**ND**	**0.0%**
Chromium	**ND**	**ND**	**0.0%**
Lead	**0.226**	**0.226**	**0.0%**
Mercury	**ND**	**ND**	**0.0%**
Selenium	**ND**	**ND**	**0.0%**
Silver	**ND**	**ND**	**0.0%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	Trace Metals	**30 %**

References: Method 3050 Acid Digestion of Sediments, Sludges, and Soils for Total Metals, SW-846, USEPA, July 1992.

Methods 7060, 7080, 7131, 7191, 7470, 7421, 7740, 7760 Analysis of Metals by GFAA and FLAA, SW-846, USEPA.

Comments: **QA/QC for sample 9691.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

TRACE METAL ANALYSIS
SPIKE

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Spike	Date Reported:	11-30-95
Laboratory Number:	9691	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Analysis Requested:	Trace Metals	Date Analyzed:	11-30-95
Condition:	N/A		

Parameter	Spike Added (mg/L)	Sample Result (mg/L)	Spiked Sample Result (mg/L)	Percent Recovery
Arsenic	**0.100**	**0.003**	**0.103**	**100%**
Barium	**1.00**	**ND**	**1.008**	**101%**
Cadmium	**0.100**	**ND**	**0.100**	**100%**
Chromium	**0.100**	**ND**	**0.099**	**99%**
Lead	**0.100**	**0.226**	**0.326**	**100%**
Mercury	**0.050**	**ND**	**0.049**	**98%**
Selenium	**0.100**	**ND**	**0.101**	**101%**
Silver	**1.00**	**ND**	**.994**	**99%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Acceptance Range %
	Trace Metals	**80 - 120 %**

References: Method 3050, Acid Digestion of Sediments, Sludges, and Soils for Total Metals, SW-846, USEPA, July 1992.

Methods 7060, 7080, 7131, 7191, 7470, 7421, 7740, 7760 Analysis of Metals by GFAA and FLAA, SW-846, USEPA.

Comments: **QA/QC for sample 9691.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8100
Polynuclear Aromatic Hydrocarbons
Quality Assurance Report

Client:	QA/QC	Project #:	QA/QC
Sample ID:	Laboratory Blank	Date Reported:	11-30-95
Laboratory Number:	11-30-PAH.BLANK	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	11-30-95
Condition:	N/A	Analysis Requested:	8100

Parameter	Concentration (ug/L)	Det. Limit (ug/L)
Naphthalene	ND	0.2
Acenaphthylene	ND	0.2
Acenaphthene	ND	0.2
Fluorene	ND	0.4
Phenanthrene	ND	0.5
Anthracene	ND	0.2
Fluoranthene	ND	0.2
Pyrene	ND	0.2
Indeno[1,2,3-cd] pyrene	ND	0.4
Benzo[a]anthracene	ND	0.2
Chrysene	ND	0.7
Benzo[b]fluoranthene	ND	0.8
Benzo[k]fluoranthene	ND	0.5
Benzo[a]pyrene	ND	0.2
Dibenzo[a,h]anthracene	ND	0.2
Benzo[g,h,i]perylene	ND	0.2

ND - Parameter not detected at the stated detection limit.

SURROGATE RECOVERY:	Parameter	Percent Recovery
	1-fluoronapthalene	100%

References: Method 8100, Polynuclear Aromatic Hydrocarbons, Test Methods for Evaluating Soild Waste, SW-846, USEPA, September 1986.

Comments: **QA/QC for sample 9691.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8100
Polynuclear Aromatic Hydrocarbons
Quality Assurance Report

Client:	QA/QC	Project #:	QA/QC
Sample ID:	Matrix Duplicate	Date Reported:	11-30-95
Laboratory Number:	9691	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	8100	Date Analyzed:	11-30-95
Condition:	N/A		

Parameter	Sample Result (ug/L)	Duplicate Sample Result (ug/L)	Det. Limit (ug/L)	Percent Difference
Naphthalene	ND	ND	0.2	0.0%
Acenaphthylene	ND	ND	0.2	0.0%
Acenaphthene	ND	ND	0.2	0.0%
Fluorene	ND	ND	0.4	0.0%
Phenanthrene	ND	ND	0.5	0.0%
Anthracene	ND	ND	0.2	0.0%
Fluoranthene	ND	ND	0.2	0.0%
Pyrene	ND	ND	0.2	0.0%
Indeno[1,2,3-cd] pyrene	ND	ND	0.4	0.0%
Benzo[a]anthracene	ND	ND	0.2	0.0%
Chrysene	ND	ND	0.7	0.0%
Benzo(b)fluoranthene	ND	ND	0.8	0.0%
Benzo[k]fluoranthene	ND	ND	0.5	0.0%
Benzo(a)pyrene	ND	ND	0.2	0.0%
Dibenzo[a,h]anthracene	ND	ND	0.2	0.0%
Benzo(g,h,i)perylene	ND	ND	0.2	0.0%

ND - Parameter not detected at the stated detection limit.

References: Method 8100, Polynuclear Aromatic Hydrocarbons, Test Methods for Evaluating Soild Waste, SW-846, USEPA, September 1986.

Comments: **QA/QC for sample 9691.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8020
AROMATIC VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	12-01-95
Laboratory Number:	11-30-BTEX 8020.BLANK	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	11-30-95
Condition:	N/A	Analysis Requested:	8020

Parameter	Concentration (ug/L)	Det. Limit (ug/L)
Benzene	**ND**	**0.3**
Toluene	**ND**	**0.4**
Ethylbenzene	**ND**	**0.5**
m,p-Xylene	**ND**	**0.4**
o-Xylene	**ND**	**0.4**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**97 %**
	Bromofluorobenzene	**97 %**

References: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples 9693 - 9694.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8020
AROMATIC VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	12-01-95
Laboratory Number:	9693	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	HgCl and Cool	Date Analyzed:	11-30-95
Condition:	Cool and Intact	Analysis Requested:	BTEX

Parameter	Sample Result (ug/L)	Duplicate Result (ug/L)	Percent Diff.	Det. Limit (ug/L)	Dilution Factor
Benzene	**ND**	**ND**	**0.0%**	**0.3**	**1**
Toluene	**ND**	**ND**	**0.0%**	**0.4**	**1**
Ethylbenzene	**ND**	**ND**	**0.0%**	**0.5**	**1**
m,p-Xylene	**ND**	**ND**	**0.0%**	**0.4**	**1**
o-Xylene	**ND**	**ND**	**0.0%**	**0.4**	**1**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8020 Compounds	**30 %**

References: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples 9693 - 9694.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8020
AROMATIC VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	12-01-95
Laboratory Number:	9693	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Analyzed:	11-30-95
Condition:	Cool and Intact		

Parameter	Sample Result (ug/L)	Spike Added (ug/L)	Spiked Sample Result (ug/L)	Det. Limit (ug/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Benzene	**ND**	**50.0**	**49.6**	**0.3**	**99%**	**39-150**
Toluene	**ND**	**50.0**	**49.3**	**0.4**	**99%**	**46-148**
Ethylbenzene	**ND**	**50.0**	**49.8**	**0.5**	**100%**	**32-160**
m,p-Xylene	**ND**	**100**	**100.6**	**0.4**	**100%**	**46-148**
o-Xylene	**ND**	**50.0**	**49.5**	**0.4**	**99%**	**46-148**

ND - Parameter not detected at the stated detection limit.

References: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples 9693 - 9694.**

Analyst

Review

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CHAIN OF CUSTODY RECORD

Client/Project Name: BLAGG ENGR

Project Location: CORAL #2

Sampler: (Signature) R. E. O'Neill

Chain of Custody Tape No.: 04034

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	BTEX	CATIONS/ ANIONS	HEAVY METALS	PAH (8100)			Remarks
PIT @ 16'	11-27	1200	9691	WATER	6	✓	✓	✓	✓			

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
R. E. O'Neill	11-27-95	1350	[signature]	11/27/95	1357

ENVIROTECH INC.
5796 U.S. Highway 64-3014
Farmington, New Mexico 87401
(505) 632-0615

san juan repro Form 578-81

C4034

CHAIN OF CUSTODY RECORD

Client/Project Name: KIMBELL OIL / BLAGG

Project Location: CORAL # 2

Sampler: (Signature) R. E. O'Neill

Chain of Custody Tape No.:

ANALYSIS/PARAMETERS

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	BTEX						Remarks
NE CORNER @ 16'	11-30	1030	9694	WATER	2	✓						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
R. E. O'Neill	11-30-95	1325	[signature]	11/30/95	1325

ENVIROTECH INC.
5796 U.S. Highway 64-3014
Farmington, New Mexico 87401
(505) 632-0615

san juan repro Form 578-81

BLAGG ENGINEERING, INC.

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

August 22, 1995

Mr. William C. Olson
Hydrogeologist
Environmental Bureau
Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

RE: Groundwater Contamination
Kimbell Oil Company of Texas
Coral #2 (Unit M, Section 27, T25N, R06W)

Dear Mr. Olson:

On behalf of Kimbell Oil Company of Texas, Blagg Engineering, Inc. is submitting this response to your communication dated July 7, 1995 and directed to Ms. Susan Linert of Kimbell Oil. In your letter you requested Kimbell Oil to conduct soil remedial actions on the above referenced earthen pit found to contain hydrocarbon contaminated soils. You also requested a work plan to investigate the extent of groundwater contamination related to the pit.

It is proposed that remedial action on the hydrocarbon contaminated soils be accomplished by the use of excavation to remove contaminated soils to the lateral and vertical extent of the limits of soil contamination in the pit. Determination of removal of contaminated soils will be verified by the use of field testing of pit sidewalls and bottom by the field soil headspace measurement using an Organic Vapor Meter (OVM) with a photoionization detector. A field Total Petroleum Hydrocarbon (TPH) analyzer will also be used for verification of removal of heavy petroleum products from the pit. Contaminated soils will be landfarmed or composted on-site depending on final soil quantities.

It is anticipated that excavation of contaminated soils will expose the groundwater at the site with a resultant natural groundwater remediation due to mass transfer of volatile contaminants to the atmosphere. Groundwater quality would then be determined by submitting laboratory samples to be analyzed for Benzene, Toluene, Ethyl-benzene, and Total Xylenes (BTEX), Heavy Metals, Major Cations and Anions, and Polynuclear Aromatic Hydrocarbons (PAH).

Once soil and groundwater samples meet NMOCD and NMWQCC regulatory standards, the pit would then be closed out by submittal of appropriate paperwork to regulatory agencies. The pit would then be backfilled with clean soils transported from nearby Largo Wash.

If you have any questions, please contact Blagg Engineering, Inc. at (505) 632-1199 or Mr. John Stickland of Kimbell Oil at (817) 335-2591.

Respectfully submitted,
Blagg Engineering, Inc.

Robert E. O'Neill

Robert E. O'Neill, M.S.
Civil Engineering, Environmental

xc: Mr. John Stickland, Kimbell Oil Company of Texas

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, New Mexico 87505

July 7, 1995

CERTIFIED MAIL
RETURN RECEIPT NO. Z-765-962-370

Ms. Susan M. Linert
Kimbell Oil Company of Texas
P.O. Box 1097
Farmington, New Mexico 87499--1097

RE: GROUND WATER CONTAMINATION
CORAL #2

Dear Ms. Linert:

The New Mexico Oil Conservation Division (OCD) has completed a review of Kimbell Oil Company of Texas's (KOCT) May 8, 1995 "GROUND WATER IMPACT, CORAL #2, UNIT LETTER M, SWSW, SEC 27, T25N, R6W, RIO ARRIBA COUNTY, NEW MEXICO". This document contains a notification of ground water contamination at the Coral #2 well site related to the use of an unlined separator pit.

Based upon a review of the above referenced document, the OCD requests that KOCT conduct soil remedial actions on the pit under their previously approved pit closure. The OCD also requests that KOCT submit a work plan to the OCD by August 31, 1995 to investigate the extent of ground water contamination related to the pit.

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

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: Denny Foust, OCD Aztec Office
Michael J. Pool, BLM Farmington District Manager
Hector Villalobos, BLM Albuquerque

KIMBELL OIL COMPANY
OF TEXAS
P.O. BOX 1097 • FARMINGTON, NEW MEXICO 87499-1097
PHONE: (505) 325-3389 • FAX: (505) 326-5507

Mr. Roger C. Anderson, Chief
State of New Mexico
Environmental Bureau - Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

May 8, 1995

RE: Ground Water Impact
Coral #2
Unit Letter M, SWSW, Sec 27, T25N, R6W
Rio Arriba County, New Mexico

Dear Mr. Anderson:

Pursuant to our telephone conversation on Tuesday, May 2, I have enclosed a copy of the NMOCD "Pit Remediation and Closure Report" to which is attached the initial unlined pit site assessment and the lab analysis of the water sample from TH#2 monitor well.

All constituents in the BTEX test, except Benzene at 285.4 ppb, are within NM Water Quality Control Commission Standards.

Since there was no free phase product found during the sampling, and this location is not in a populated area nor near a water source for human consumption Kimbell Oil Company of Texas (KOCT) wishes to request a cooperative decision in the remediation procedure method. I will be happy to meet with you to discuss this if needed. Although, KOCT will comply with the States recommendations and procedures that are decided by the Environmental Bureau.

I can be reached at 505-325-3389 or on the mobile 505-320-3578.

Sincerely yours,

Susan M. Linert
Production Superintendent

cc: Jack Redding, Jr., KOCT-Fort Worth
Denny Foust, NMOCD-Aztec

District I
P.O. Box 1980, Hobbs, NM
District II
P.O. Drawer DD, Artesia, NM 88211
District III
1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

SUBMIT 1 COPY TO APPROPRIATE DISTRICT OFFICE AND 1 COPY TO SANTA FE OFFICE

PIT REMEDIATION AND CLOSURE REPORT

Operator: Kimbell Oil Company of Texas **Telephone:** 505-325-3389

Address: P.O. Box 1097 Farmington, NM 87499-1097

Facility Or: Well Name Coral No. 2

Location: (Unit) or Qtr/Qtr Sec M Sec 27 T 25N R 6W County Rio Arriba

Pit Type: Separator ↘ Dehydrator ___ Other ___

Land Type: BLM ↘, State ___, Fee ___, Other ___

Pit Location: (Attach diagram)
Pit dimensions: length 30, width 28, depth 4
Reference: wellhead ↘, other ___
Footage from reference: 50
Direction from reference: ___ Degrees ___ East North ___ of ↘ West South ___

Depth To Ground Water: (Vertical distance from contaminants to seasonal high water elevation of ground water)	[Less than 50 feet]	(20 points)	
	50 feet to 99 feet	(10 points)	
	Greater than 100 feet	(0 Points)	20
Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or; less than 1000 feet from all other water sources)	Yes	(20 points)	
	[No]	(0 points)	0
Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 200 feet	(20 points)	
	200 feet to 1000 feet	(10 points)	
	[Greater than 1000 feet]	(0 points)	0
RANKING SCORE (TOTAL POINTS):			20

Date Remediation Started: _____ **Dated Completed:** _____

Remediation Method: (Check all appropriate sections) Excavation ___ Approx. cubic yards _____

Landfarmed ___ Insitu Bioremediation ___

Other _____

_____

Remediation Location: (ie. landfarmed onsite, name and location of offsite facility) Onsite___ Offsite _____

_____

General Description Of Remedial Action: none taken due to ground water impact, waiting on site specific procedures from OCD.

Ground Water Encountered: No ___ Yes ↘ Depth 18 feet

Final Pit:
Closure Sampling:
(if multiple samples, attach sample results and diagram of sample locations and depths)

Sample location _____

_____

Sample depth _____

Sample date _____ Sample time _____

Sample Results

Benzene(ppm) _____

Total BTEX(ppm) _____

Field headspace(ppm) _____

TPH _____

Ground Water Sample: Yes ___ No ___ (If yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

DATE

SIGNATURE

PRINTED NAME AND TITLE Susan M. Linert Production Superintendent

CLIENT: KIMBEL

BLAGG ENGINEERING, INC.
P.O. BOX 87, BLOOMFIELD, NM 87413
(505) 632-1199

PIT NO: _____
C.O.C. NO: _____

FIELD REPORT: SITE ASSESSMENT

JOB No: _____
PAGE No: 1 of 2

PROJECT: PIT ASSESSMENT
CONTRACTOR: BLAGG ENGINEERING
EQUIPMENT USED: EARTHPROBE

DATE STARTED: 4-5-95
DATE FINISHED: 4-6-95
ENVIRO. SPCLT: JCB
OPERATOR: _____

LOCATION: NAME: CORAL WELL #: 2 PIT: SEP/DEHY/TANK
QUAD/UNIT: M SW/4 SW/4 SEC: 27 TWP: 25N RNG: 6W PM: NM CNTY: RA ST: NM
LAND USE: BLM RANGE LEASE #: SF-080136
SURFACE CONDITIONS: DRY DIRT

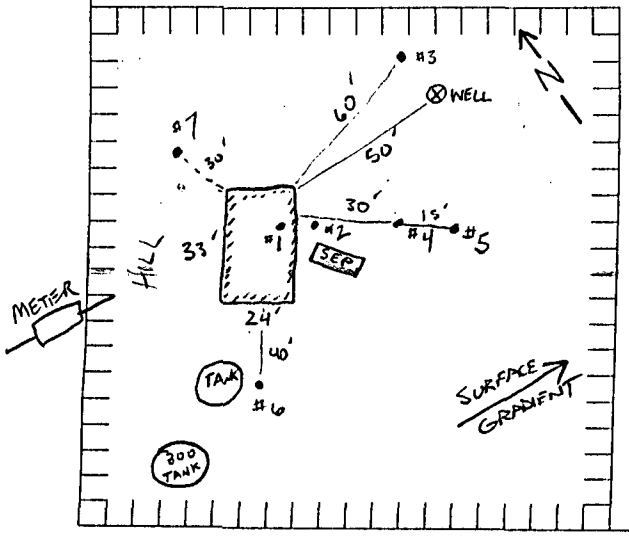
FIELD NOTES & REMARKS: PIT IS LOCATED APPROXIMATELY 50' FEET W OF WELLHEAD.
DEPTH TO G.W: < 50' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER >1000'
RANKING SCORE: 20 CLOSURE STD: 100

MOIST TO WATER SATURATED SOILS @ 14' DEPTH

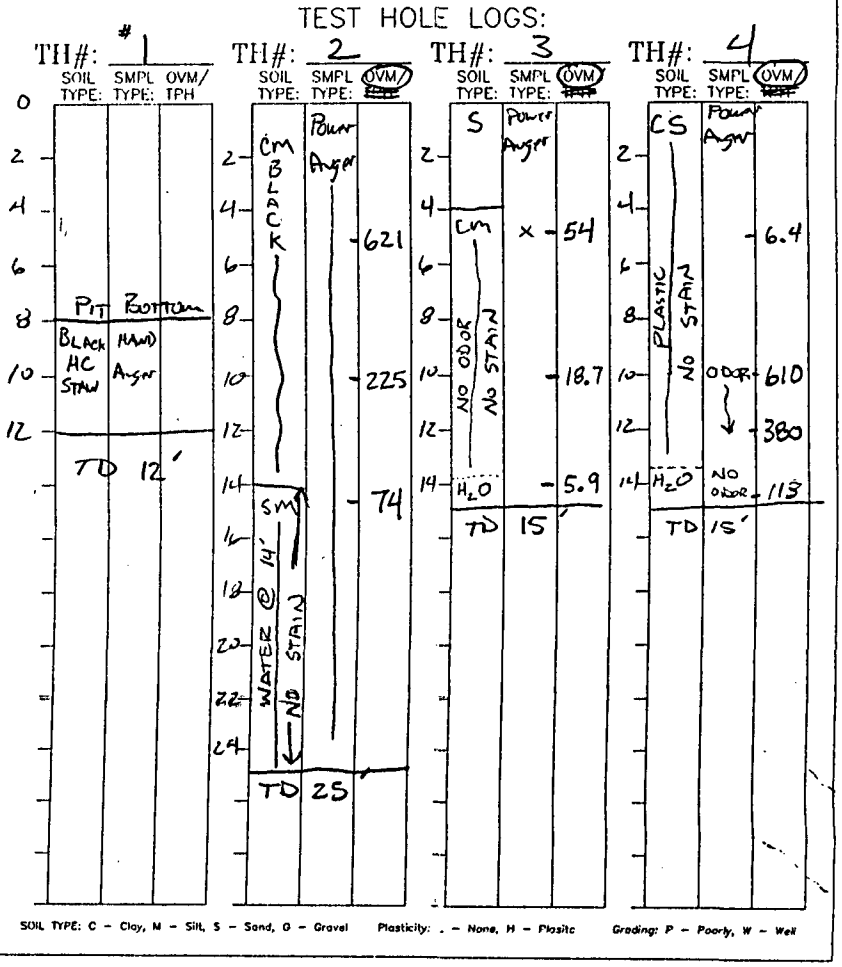
SAMPLE INVENTORY		
SMPL ID:	SMPL TYPE:	LABORATORY ANALYSIS:
TH 3 @ 5'	GRAB	TPH = 88

SCALE
0 FEET

SITE DIAGRAM



TEST HOLE LOGS:



CLIENT: _____	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: _____

FIELD REPORT: SITE ASSESSMENT

PAGE No: 2 of 2

PROJECT: PIT ASSESSMENT

CONTRACTOR: BLAGG ENGINEERING

DATE STARTED: 4-5-95

DATE FINISHED: 4-6-95

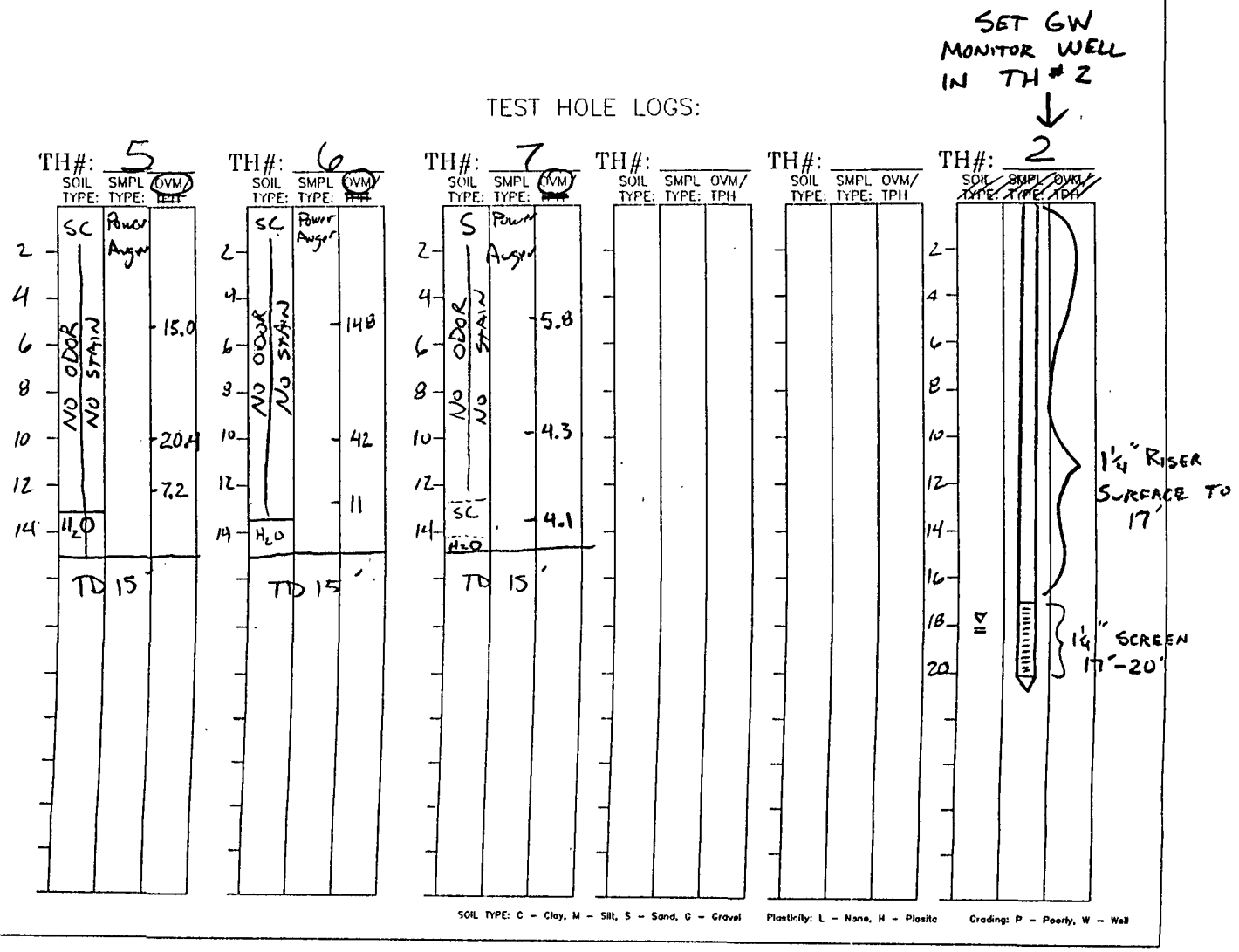
LOCATION: NAME: CORAL WELL #: 2 PIT: SEP/DEHY/TANK

QUAD/UNIT: M SW/4 SW/4 SEC: 27 TWP: 25N RNG: 6W PM: NM CNTY: RA ST: NM

FIELD NOTES & REMARKS:

STATIC WATER TABLE MEASURED @ 18' Below Ground Surface IN Monitor Well Set in Test hole # 2

TEST HOLE LOGS:



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

FIELD MODIFIED EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	Kimball Oil of Texas	Project #:	
Sample ID:	TH3 @ 5'	Date Analyzed:	4-5-95
Project Location:	Coral 2	Date Reported:	4-10-95
Laboratory Number:	TPH-1444	Sample Matrix:	Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	**88**	**10**

ND = Not Detectable at stated detection limits.

QA/QC:

QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
14,000	13,000	7

*Administrative Acceptance limits set at 30%.

Method: Modified Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

Comments: Separator/Blow/Tank Pit

Analyst

R. E. O'Neill
Review

OFF: (505) 325-8786

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-5667

QUALITY ASSURANCE REPORT

for EPA Method 8020

Date Analyzed: 4/28/95

Internal QC No.: 0379-STD
Surrogate QC No.: 0378-STD
Reference Standard QC No.: 0355-STD

Method Blank

Analytes in Blank	Amount
Average Amount of All Analytes In Blank	<0.1 ppb

Calibration Check

Calibration Standards	Units of Measure	*True Value	Analyzed Value	% Diff	Limit
Benzene	ppb	20	19	4	15%
Toluene	ppb	20	19	7	15%
Ethylbenzene	ppb	20	19	7	15%
m,p-Xylene	ppb	40	39	2	15%
o-Xylene	ppb	20	18	8	15%

Spike Results

Analyte	1- Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Benzene	124	125	(39-150)	1	20%
Toluene	130	129	(46-148)	0	20%
Ethylbenzene	106	105	(32-160)	1	20%
m,p-Xylene	127	128	(35-145)	1	20%
o-Xylene	109	111	(35-145)	1	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	S3 Percent Recovered
Limits	(70-130)		
6122-3015	101		

S1: Flourobenzene

OFF: (505) 325-8786

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Jeff Blagg*	Date:	4/28/95
Company:	*Blagg Engineering, Inc.*	*Lab ID:*	*3015*
Address:	*P.O. Box 87*	*Sample ID:*	*6122*
City, State:	*Bloomfield, NM 87413*	*Job No.*	*2-1000*

Project Name:	***Kimbell Oil - Coral #2***				
Project Location:	***MW #1 - Coral #2***				
Sampled by:	JB	Date:	4/26/95	Time:	15:44
Analyzed by:	DC	Date:	4/28/95		
Sample Matrix:	*Water*				

Aromatic Volatile Organics

Component	*Measured Concentration ug/L*	*Detection Limit Concentration ug/L*
Benzene	285.4	*0.2*
Toluene	79.9	*0.2*
Ethylbenzene	71.0	*0.2*
m,p-Xylene	346.3	*0.2*
o-Xylene	55.2	*0.2*
	TOTAL 837.8 *ug/L*	

ND - Not Detectable

Method *- SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: DAG

Date: 4/28/95

CHAIN OF CUSTODY RECORD

3015

ON SITE TECHNOLOGIES, LTD.

657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Date: APRIL 26, 1995

Page 1 of 1

Purchase Order No.: | Job No.:

SEND INVOICE TO
Name: BLAGG ENGINEERING, INC.
Company: | Dept.:
Address: P.O. BOX 87
City, State, Zip: BLOOMFIELD, NM 87413

REPORT RESULTS TO
Name: | Title:
Company: SAME
Mailing Address:
City, State, Zip:
Telephone No.: | Telefax No.:

Sampling Location: KIMBELL OIL - CORAL #2

Sampler: J. C. Blagg

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	MATRIX	PRES.	Number of Containers	ANALYSIS REQUESTED: BTEX	LAB ID
MW #1 - Coral #2	4-26-95	1544	Water	$HgCl_2$	2	X	6127-3015

Relinquished by: J. C. Blagg	Date/Time 4-27-95 1541	Received by: Sharon Duran	Date/Time 4-27-95 15:43
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time

Method of Shipment:

Authorized by: J. C. Blagg (Client Signature Must Accompany Request) Date 04.27.95

Rush	24-48 Hours	10 Working Days	Special Instructions:
—			

Distribution: White - On Site Yellow - LAB Pink - Sampler Goldenrod - Client