3R - 352

GENERAL CORRESPONDENCE

YEAR(S):
1995-1996

Contract Environmental Services, Inc.
Post Office Box 505
Kirtland, NM 87417-0505
505/325-1198

October 8, 1996

New Mexico Oil Conservation Division
Mr. William C. Olsen
2040 South Pacheco
Santa Fe, NM 87505

RE: Status of Questar Energy Company's Lindrith # 19 Well Site.

Dear Mr. Olsen:

On behalf of Questar Energy Company (QEC), Contract Environmental Services, Inc. (CES) is pleased to present the results of the rigorous water analysis performed on the ground water in the Lindrith # 19 Well Site's unlined earthen pit, in response to your letter dated August 26, 1996. Under condition 1.a. of this letter, the water in the pit was analyzed for BTEX, major cations and anions, heavy metals and nitrates. The results of these analyses are attached for your review.

On September 24, 1996, we discussed the results of the attached water analyses with Mr. Roger Anderson over the telephone. Mr. Roger Anderson is the Environmental Bureau Chief for the Santa Fe Office of the New Mexico Oil Conservation Division. The nature of the conversation was to determine whether or not the water quality was sufficient to backfill the pit. We received verbal approval from him to backfill. Due to the location of the pit and sloughing conditions of the pit walls, it was decided to backfill the pit immediately following approval. A One-Call was placed and after all underground lines were spotted, the pit was filled in with clean material gathered from the location and contoured to prevent water ponding over the area of the excavation.

To date, we are happy to report that the bulk of subsurface contamination associated with the production pit has been removed, the ground water appears to be is free of hydrocarbon contamination, the resulting excavated pit has been backfilled with clean material, and the contaminated soil from the pit is spread on location in a land farm and is currently being remediated.

Once the land farm is sufficiently remediated (less than 100 parts per million (ppm) Total Petroleum Hydrocarbons) a "PIT REMEDIATION AND CLOSURE REPORT" will be submitted for final closure of the site.

If you require any additional information regarding the Lindrith # 19 well site please do not hesitate to contact us at 505/325-1198 or stop by at 4200 Hawkins Road, Farmington.

Sincerely,

Shawn A. Adams

Attachments: Analytical Reports

Copies: Mr. Denny Foust, NMOCD Aztec Office

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	6-Sep-96
Company:	*Contract Environmental Services, Inc.*	*COC No.:*	*4432*
Address:	*P.O. Box 505*	*Sample No.*	*11984*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Co. - Lindrith #19***				
Project Location:	***LIND-1004; Pit H2O***				
Sampled by:	SA	Date:	4-Sep-96	Time:	14:52
Analyzed by:	DC	Date:	5-Sep-96		
Sample Matrix:	*Liquid*				

Laboratory Analysis

Parameter	*Result*	*Unit of Measure*	*Detection Limit*	*Unit of Measure*
Benzene	0.8	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	0.8	ug/L	0.2	ug/L
m,p-Xylene	2.8	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL	4.4	ug/L		

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

Approved by:
Date: 9/6/96

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

API WATER ANALYSIS

Attn:	*Shawn Adams*	Date:	23-Sep-96
Company:	*Contract Environmental Services, Inc.*	*COC No.:*	*4432*
Address:	*P.O. Box 505*	*Sample ID:*	*11984*
City, State:	*Kirtland, NM 87417*	*Job No.:*	*2-1000*

Project Name:	***Questar Energy Co. - Lindrith #19***				
Project Location:	***LIND-1003; Pit H2O***				
Sampled by:	SA	Date:	4-Sep-96	Time:	14:52
Analyzed by:	HR	Date:	9-Sep-96		

API RP-45 Laboratory Analysis

Parameter		*Result*	*Unit of Measure*		*Result*	*Unit of Measure*	
Cations							
Sodium	*Na*	7160	mg/L		311.44	me/L	
Calcium	*Ca*	34.2	mg/L		1.71	me/L	
Magnesium	*Mg*	29.2	mg/L		2.40	me/L	
Potassium	*K*	39.2	mg/L		1.00	me/L	
Anions							
Chloride	*Cl*	3331	mg/L		93.96	me/L	
Sulfate	*SO4*	8300	mg/L		172.80	me/L	
Carbonate	*CO3*	664	mg/L		11.06	me/L	
Bicarbonate	*HCO3*	1802	mg/L		29.53	me/L	
Hydroxide	*OH*	<1	mg/L		<0.01	me/L	
Sulfide	*S2*	NA	mg/L		NA	me/L	
Iron	*Fe*	0.9	mg/L		0.03	me/L	
Total Dissolved Solids Calculated, Sum of Cation/Anion		18938	mg/L				
pH		9.25					
Resistivity		0.3636	ohm-m				
Specific Gravity		1.0193					
Total Hardness as CaCO3		206	mg/L				

Cation-Anion Balance

9.23 *Difference Cation-Anion, me/L*

623.94 *Total Cation-Anion, me/L*

1.5 *% Difference Cation-Anion*

Comments

NA: *Not Analyzed*

Approved by: Jack

Date: 9/23/96

Analytical Report

Mountain States Analytical
The Quality Solution

On Site Technologies, Ltd.
612 E Murray Drive
Farmington, NM 87401

Attn: Mr. David Cox
Project: Questar Energy Co. Lindrith #19

Sample ID: Lind-0002
Matrix: Waste Water

MSAI Sample: 52438
MSAI Group: 13387
Date Reported: 09/16/96
Discard Date: 10/16/96
Date Submitted: 09/05/96
Date Sampled: 09/04/96
Collected by: SA
Purchase Order: 4432
Project No.: 11984

Test	Analysis	Results as Received	Units	Limit of Quantitation
0368	Nitrogen, Nitrate Method: EPA 353.3	ND	mg/l	2

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

Mountain States Analytical
The Quality Solution

On Site Technologies, Ltd.
612 E Murray Drive
Farmington, NM 87401

Attn: Mr. David Cox
Project: Questar Energy Co. Lindrith #19

MSAI Sample: 52439
MSAI Group: 13387
Date Reported: 09/16/96
Discard Date: 10/16/96
Date Submitted: 09/05/96
Date Sampled: 09/04/96
Collected by: SA
Purchase Order: 4432
Project No.: 11984

Sample ID: Lind-0001
Matrix: Waste Water

Test	Analysis	Results as Received	Units	Limit of Quantitation
0259B	Mercury by CVAA, w/ww, SW-846 Method: SW-846 7470	ND	mg/l	0.0010
0392I	Flame/ICP Prep for Metals, Waters Method: SW-846 3005A	Complete		
0392M	Mercury Prep CVAA, Waters Method: SW-846 7470	Complete		
7245	Arsenic by ICP Method: SW-846 6010A	ND	mg/l	0.20
7246	Barium by ICP, w/ww Method: SW-846 6010A	0.72	mg/l	0.03
7249	Cadmium by ICP, w/ww, SW-846 Method: SW-846 6010A	ND	mg/l	0.03
7251	Chromium by ICP Method: SW-846 6010A	ND	mg/l	0.06
7255	Lead by ICP Method: SW-846 6010A	ND	mg/l	0.30
7264	Selenium by ICP Method: SW-846 6010A	ND	mg/l	0.60
7266	Silver by ICP Method: SW-846 6010A	ND	mg/l	0.03

Mountain States Analytical
The Quality Solution

On Site Technologies, Ltd.

MSAI Sample: 52439
MSAI Group: 13387

Sample ID: Lind-0001

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119-1456 (801) 973-0050 1-800-973-MSAI FAX (801) 972-6278

4432

CHAIN OF CUSTODY RECORD

ON SITE TECHNOLOGIES, LTD.

Date: 9/4/96

Page 1 of 1

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

Purchase Order No.: | Job No.

SEND INVOICE TO
Name: Phil Emig
Company: Questar Energy Co | Dept.
Address: PO Box 7033
City, State, Zip: Farmington NM 87499

REPORT RESULTS TO
Name: Shawn Adams | Title
Company: Contract Environmental Services, Inc.
Mailing Address: PO Box 505
City, State, Zip: Kirtland NM 87417
Telephone No.: 325-1198 | Telefax No.

Sampling Location: USArgo IE, Lindrith #19

Sampler: SAdams

ANALYSIS REQUESTED

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	MATRIX	PRES.	Number of Containers	VOA's	BTEX	Cations/Anions	Nitrates	Metals					LAB ID
Arco - 100 USArgo IE MW#3	9/4/96	12:18	H_2O	$HgCl_2$	2		X				1/2	5	2/2		11783-4437
Lind - 1004 Lindrith 19 P.T.	9/4/96	2:52	H_2O	$HgCl_2$	2		X								11784-4437
Lind - 1003 " "	"	"	"	no	1 liter			X							↓ ↓
Lind - 1002 " "	"	"	"	no	500 ml				X						
Lind - 1001 " "	"	"	"	HNO_3	500 ml					X					

Relinquished by:	Date/Time 9/4/96 4:37P	Received by:	Date/Time 9/4/96 1737
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time

Method of Shipment:

Authorized by: SAA Date 9/4/96
(Client Signature Must Accompany Request)

Rush	24-48 Hours	10 Working Days	Special Instructions:

Distribution: White – Office Yellow – LAB Pink – Sampler Goldenrod – Client

1682

CHAIN OF CUSTODY RECORD

4433

ON SITE TECHNOLOGIES, LTD.

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

Date: 9/4/96

Page 1 of 1

Purchase Order No.: 4432	Job No.		
SEND INVOICE TO: Name	ACCOUNTS PAYABLE		
Company	ON SITE	Dept.	
Address	P.O. BOX 2606		
City, State, Zip	FARMINGTON, NM 87499		

REPORT RESULTS TO: Name	DAVID COX	Title	
Company	ON SITE TECHNOLOGIES		
Mailing Address	612 E MURRAY		
City, State, Zip	FARMINGTON, NM 87401		
Telephone No.	505 325 2432	Telefax No.	505 325 6256

Sampling Location: QUESTAR ENERGY CO. LINDRITH #19

Sampler: SA

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	MATRIX	PRES.	Number of Containers	NITRATE	RCRA METALS	LAB ID
LIND-0002	9/4/96	1452	cool	H_2O	1	✓		11984-4433
LIND-0001	9/4/96	1452	HNO_3	↓	1		✓	11984-4433

Relinquished by:	Date/Time 9/4/96 1700	Received by: Ron Olsen (ONSAI)	Date/Time 09/05/96 1105
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time

Method of Shipment:

Authorized by: _____ Date 9/4/96
(Client Signature Must Accompany Request)

Rush	24-48 Hours	10 Working Days	Special Instructions:

White - On Site Pink - Sampler Goldenrod - Client

Contract Environmental Services, Inc.
Post Office Box 505
Kirtland, New Mexico 87417-0505
Phone (505) 325-1198

July 3, 1996

New Mexico Oil Conservation Division
Mr. Bill Olson
2040 South Pacheco
Santa Fe, New Mexico 87505

RE: NMOCD Letter To Questar Energy Company Dated June 10, 1996, Lindrith # 19 Well

Dear Mr. Olson,

As previously discussed following NMOCD approval of Questar Energy Company's (QEC) investigative plan, groundwater was to only be tested for Benzene, Toluene, Ethylbenzene and Total Xylenes (BTEX) since there were no monitor wells installed. The water samples were extracted directly from backhoe test pits. The samples were gathered from available water at the time of excavation. No free product or contaminated soil was encountered during the test pit excavations. Our BTEX analyses confirm the fact there was no contamination present in the groundwater. As a result of the foregoing, we do not plan to do additional groundwater sampling analyses including Poly Aromatic Hydrocarbons (PAH), Cation / Anions, or Metals and so on for the Lindrith # 19 Well.

When there are monitor wells and evidence of product in the free phase on or near the groundwater, samples may be analyzed for the additional tests (i.e. PAH, Cations/Anions, Metals, etc...) as is the current practice.

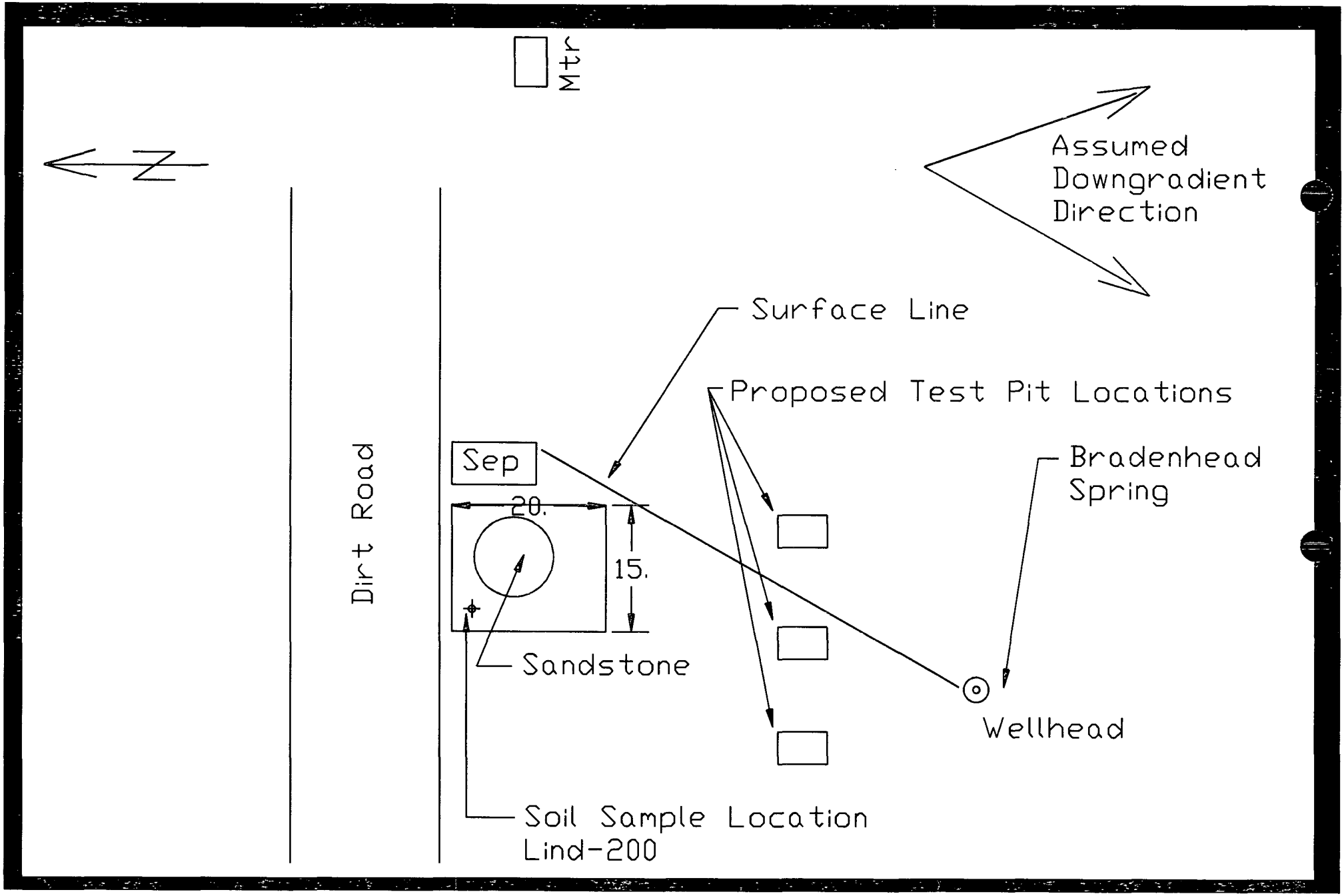
I am enclosing a site map as you requested.

If you need additional information to complete the review of this report, please don't hesitate to contact our offices at (505) 325-1198 or stop by at 4200 Hawkins Road, Farmington.

Sincerely,

Shawn A. Adams
Contract Environmental Services, Inc.

Copies: Mr. Denny Foust, NMOCD Aztec Branch


Mtr
N
Assumed
Downgradient
Direction
Surface Line
Proposed Test Pit Locations
Sep
20.
15.
Dirt Road
Bradenhead
Spring
Sandstone
Wellhead
Soil Sample Location
Lind-200

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

June 10, 1996

CERTIFIED MAIL
RETURN RECEIPT NO. P-269-269-157

Mr. Phil Emig
Questar Energy Company
P.O. Box 2330
Farmington, New Mexico 87499

RE: LINDRITH #19 WELL SITE
QUESTAR ENERGY COMPANY

Dear Mr. Emig:

The New Mexico Oil Conservation Division (OCD) is in the process of reviewing Questar Energy Company's (QEC) March 22, 1996 "QUESTAR ENERGY COMPANY'S LINDRITH #19 WELL LOCATION, SEC 9, T26N, R7W" which was submitted on behalf of QEC by their consultant Contract Environmental Services, Inc. This document contains a report on the results of QEC's investigation of the extent of ground water contamination related to use of an unlined production pit at QEC's Lindrith #19 well site located in Unit A, Sec. 09, T26N, R07W NMPM Rio Arriba County, New Mexico.

The OCD has the following comments, questions and requests for information regarding the above referenced document:

1. According to the OCD's November 6, 1995 approval of QEC's investigation work plan, Ground water from the trenches was to be sampled and analyzed for concentrations of benzene, toluene, ethylbenzene, xylene (BTEX), major cations and anions, heavy metals and polynuclear aromatic hydrocarbons (PAH). However, the major cations and anions, heavy metals and PAH analytical results for ground water from the trenches are not included in the report. Please provide the OCD with this information.

2. Please supply the OCD with a map showing the locations of the trenches in relation to the pit and other site features.

Submission of the above information will allow the OCD to complete a review of this report.

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

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: OCD Aztec Office
Shawn Adams, Contract Environmental Services, Inc.

ORIGINAL

Contract Environmental Services, Inc.
Post Office Box 505
Kirtland, New Mexico 87417-0505
Phone (505) 325-1198

OIL CONSERVATION DIVISION
RECEIVED
96 MAR 25 AM 8 52

March 22, 1996

New Mexico Oil Conservation Division
Mr. Bill Olson
2040 South Pacheco
Santa Fe, New Mexico

RE: Questar Energy Company's Lindrith #19 Well Location, Sec 09 T26N, R07W

Dear Mr. Olson,

In response to your "Groundwater Action Plan" approval letter dated November 6, 1995 Contract Environmental Services, Inc (CES) presents the following report for the above referenced location on behalf of Questar Energy Company. This report contains Site Information, Sampling Information, Conclusions and Recommendations.

Site Information

On February 28, 1996 CES conducted a backhoe test pit investigation on the above referenced well site. Please see the attached site plan for test pit locations (Figure 1). Each test pit was excavated to an approximate depth of 10' prior to contacting groundwater. When standing water accumulated within the test pit, a water sample was gathered for analyses. Once the water samples were gathered from each test pit, the excavations were backfilled using the removed materials. The more rigorous analyses for Polyaromatic Hydrocarbons (PAH), Cation / Anion, and Heavy Metals was reserved for a time when sampling might become necessary from a monitoring well. This would enable the proper three volumes to be bailed to ensure formation water was being sampled.

Sample Information

Each water sample consisted of two 40 milliliter (ml) VOA Vials with preservative. Each sample was entered on a Chain-of-custody Form and transported to the analytical laboratory. The samples were analyzed using EPA Method 8020 for Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) "Aromatic Volatile Organics". A summary table is presented below with the results from the investigation. The individual laboratory reports are attached for your viewing.

Table 1-1.

	Lind-900 Test Pit A	Lind-901 Test Pit B	Lind-902 Test Pit C
Benzene	<0.2 ug/L	<0.2 ug/L	<0.2 ug/L
Toluene	<0.2 ug/L	<0.2 ug/L	<0.2 ug/L
Ethylbenzene	<0.2 ug/L	<0.2 ug/L	<0.2 ug/L
Xylene(s)	<0.2 ug/L	<0.2 ug/L	<0.2 ug/L

**** Note: ug/L is equal to Parts Per Billion (PPB)

Conclusions

The test pit investigation revealed no detectable hydrocarbon contamination at the locations tested. The groundwater contamination is apparently confined to the immediate earthen pit area.

Recommendations

Contract Environmental Services, Inc. recommends that Questar Energy Company charge the separator excavation with a load (80 BBL) of water and ammonium nitrate. Ammonium Nitrate should be added at a rate of 4-5 sacks with 80 barrels of water. This ratio assumes a "pure" Ammonium Nitrate mixture of 50 pound bags. This action along with leaving the separator earthen pit open will assist in breaking down the hydrocarbons. Manure should NOT be added due to the nearness of groundwater. Following this action, CES recommends a "No Further Action" status for the Lindrith #19 with regard to groundwater and would submit a "Closure Package" for the earthen pit when the soil farm is adequately remediated.

Contract Environmental Services, Inc. appreciates this opportunity to present this letter report on the Lindrith #19 well location on behalf of Questar Energy Company. If you have questions or require additional information, please don't hesitate to contact our offices at (505) 325-1198 or stop by at 4200 Hawkins Road, Farmington.

Sincerely,

Shawn A. Adams
Contract Environmental Services, Inc.

CC: Mr. Denny Foust, NMOCD Aztec Office
Mr. Bill Liese, BLM Farmington Office

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	2-Mar-96
Company:	*Contract Environmental Services, Inc.*	*COC No.:*	*3868*
Address:	*P.O. Box 505*	*Sample No.*	*10349*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Co. - Lindrith 19***				
Project Location:	***LIND-900; TP-A***				
Sampled by:	SA	Date:	28-Feb-96	Time:	13:30
Analyzed by:	DC	Date:	1-Mar-96		
Type of Sample:	*Liquid*				

Aromatic Volatile Organics

Component	*Result*	*Units of Measure*	*Detection Limit*	*Units of Measure*
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL	<0.2	ug/L		

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

Approved by: JH
Date: 3/2/96

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	2-Mar-96
Company:	*Contract Environmental Services, Inc.*	*COC No.:*	*3868*
Address:	*P.O. Box 505*	*Sample No.*	*10350*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Co. - Lindrith 19***				
Project Location:	***LIND-901; TP-B***				
Sampled by:	SA	Date:	28-Feb-96	Time:	12:00
Analyzed by:	DC	Date:	1-Mar-96		
Type of Sample:	*Liquid*				

Aromatic Volatile Organics

Component	*Result*	*Units of Measure*	*Detection Limit*	*Units of Measure*
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL	<0.2	ug/L		

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

Approved by:
Date: 3/2/96

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	2-Mar-96
Company:	*Contract Environmental Services, Inc.*	*COC No.:*	*3868*
Address:	*P.O. Box 505*	*Sample No.*	*10351*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Co. - Lindrith 19***				
Project Location:	***LIND-902; TP-C***				
Sampled by:	SA	Date:	28-Feb-96	Time:	13:00
Analyzed by:	DC	Date:	1-Mar-96		
Type of Sample:	*Liquid*				

Aromatic Volatile Organics

Component	*Result*	*Units of Measure*	*Detection Limit*	*Units of Measure*
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL	<0.2	ug/L		

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

Approved by:
Date: 3/2/96

Contract Environmental Services, Inc.
Post Office Box 505
Kirtland, New Mexico 87417-0505
Phone (505) 325-1198

February 8, 1996

New Mexico Oil Conservation Division
Mr. Bill Olson
2040 S. Pacheco
Santa Fe, New Mexico 87505

RE: Questar Energy's Lindrith #19 Well Location, Response To Information Requested In NMOCD Letter Dated 11/6/95.

Dear Mr. Olson,

In your investigation approval letter referenced above, you requested that water in test pits be sampled, analyzed, and reported by January 12, 1996.

As discussed in our recent telephone conversation, due to delays in renewing a General Services Agreement we are unable to meet this deadline. The field work has not been completed. Once the General Services Agreement is in place, we estimate sampling and reporting to take an additional 4-6 weeks. We are planning to provide the information you requested by March 31, 1996.

Contract Environmental Services, Inc. appreciated your willingness to work with us in this matter.

Sincerely,

Shawn A. Adams
Contract Environmental Services, Inc.

CC: NMOCD Aztec Office, Denny Foust
Questar Energy Company, Phil Emig

Contract Environmental Services, Inc.
Post Office Box 505
Kirtland, New Mexico 87417-0505
Phone (505) 325-1198

October 16, 1995

New Mexico Oil Conservation Division
Mr. Bill Olson
2040 South Pacheco St.
Santa Fe, New Mexico 87505

RE: Groundwater Action Plan, Lindrith # 19, Sec 9, T26N, R7W, Unit Letter (A)

Dear Mr. Olson,

Contract Environmental Services, Inc. is pleased to present this groundwater remediation plan on behalf of Questar Energy Company for the Lindrith # 19 well location. This plan includes background information on investigations previously performed, supporting documentation, conclusions, and a "Plan of Action".

Background Information

On July 27th, 1995 site work began on the Lindrith # 19. Please notice the site plan (Figure 1) attached. The earthen pit was excavated using a rubber tire backhoe. The earthen pit was excavated to a depth of four (4) foot when sandstone was encountered at the pit center. On either side of the sandstone, portions of the excavation were taken to the fifteen (15) foot depth. In efforts to remove the contamination, the excavation continued in a south direction until a surface line prevented further movement. The southern edge of the pit revealed an absence of sandstone and the terrain drops off approximately 10 foot to a lower level where the wellhead is located. The soil type consisted of a medium to course grained sand. The following data was collected during the excavation process.

Sample No.	Sample Type	Depth	Description	(PPM)
1	Soil PID	11-12'	North side of earthen pit	891
2	Soil PID	11-12'	South side of earthen pit	991
Lind-200	Soil TPH	12'	North side of earthen pit	9,541

The sandy nature of the soil would not allow digging without collapsing the walls of the excavation. At a depth of thirteen (13) foot the soils were noticeably moister and groundwater contact was confirmed.

On August 1, 1995 a water sample was taken from the excavation. The sample (Lind-500) was processed by On Site Technologies (OST) laboratory for BTEX components. Also that same day a sample was taken from the bradenhead water that flows year round. The sample (Lind-400) was processed by OST for BTEX components. The following results were determined by the lab.

Sample No.	Benzene (PPB)	Toluene (PPB)	Ethylbenzene (PPB)	Xylenes (PPB)
Lind-500	173.9	229.2	546.6	6,236.4
Lind-400	ND	ND	ND	ND

Conclusions

Approximately two hundred (200) cubic yards of contaminated soil have been removed from the excavation and is currently being soil farmed on location. Efforts were made to follow the contamination in the southern direction towards the wellhead. There currently exists a surface flow line from the separator to the wellhead that prevents further southward excavation. The northern side of the excavation is adjacent to a dirt road that accesses other wells in the area. This prevents digging in the northern direction. The bradenhead water appears not affected by the contamination from the earthen pit.

Plan of Action

Contract Environmental Services, Inc. on behalf of Questar Energy Company would like to dig several test pits in an approximate downgradient direction with a rubber tire backhoe. Each test pit would have the groundwater sampled immediately following the excavation. The groundwater would be analyzed for Benzene, Toluene, Ethylbenzene and Xylenes as before. This data will be presented to NMOCD to assist in the decision of whether or not additional testing, etc... will be required.

Turning and aerating of the soil farm will continue until less than one hundred (100) Parts Per Million (PPM) Total Petroleum Hydrocarbons (TPH) using EPA Method 418.1 or EPA Method 8015 Modified (includes volatiles) is reached. Ammonium nitrate (solid) fertilizer may be applied to the test pits to stimulate existing microorganism activity. Once backfilled, the excavation areas will be slightly domed to prevent water accumulation.

Contract Environmental Services, Inc. is pleased to present this "Plan of Action" to the New Mexico Oil Conservation Division for the Lindrith #19 well location. If you have questions or require additional information, please don't hesitate to contact our offices or stop by at 4200 Hawkins Road, Farmington.

Sincerely,

Shawn A. Adams
Contract Environmental Services, Inc.

Copies: Denny Foust, Aztec NMOCD
Phil Emig, Questar Energy Company

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

TOTAL PETROLEUM HYDROCARBONS

Attn:	*Shawn Adams*	Date:	2-Aug-95
Company:	*Contract Environmental Services, Inc.*	*COC No.:*	*3172*
Address:	*P.O. Box 505*	*Sample No.*	*7557*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Company - Lindrith #19***				
Project Location:	***LIND-200 Sep. Pit Bottom***				
Sampled by:	SA	Date:	31-Jul-95	Time:	12:43
Analyzed by:	DC	Date:	2-Aug-95		
Type of Sample:	*Soil*				

Laboratory Analysis

Laboratory Identification	***Sample Identification***	***Total Petroleum Hydrocarbons***
7557-3172	*Questar Energy Company - Lindrith #19* ***LIND-200 Sep. Pit Bottom***	9,541 *mg/kg*

Method - *EPA Method 418.1 Total Petroleum Hydrocarbons*

Approved by: DAG
Date: 8/2/95

OFF: (505) 325-8786

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	2-Aug-95
Company:	*Contract Environmental Services, Inc.*	*COC No.:*	*3215*
Address:	*P.O. Box 505*	*Sample No.*	*7582*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Company - Lindrith 19***				
Project Location:	***LIND-500 Water Pit Bottom***				
Sampled by:	SA	Date:	1-Aug-95	Time:	16:00
Analyzed by:	DC	Date:	2-Aug-95		
Type of Sample:	*Water*				

Aromatic Volatile Organics

Component	*Measured Concentration ug/L*	*Detection Limit Concentration ug/L*
Benzene	173.9	*0.2*
Toluene	229.2	*0.2*
Ethylbenzene	546.6	*0.2*
m,p-Xylene	5216.2	*0.2*
o-Xylene	1020.2	*0.2*
	TOTAL 7186.0 *ug/L*	

ND - Not Detectable

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

Approved by: DaG

Date: 8/2/95

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	2-Aug-95
Company:	*Contract Environmental Services, Inc.*	*COC No.:*	*3215*
Address:	*P.O. Box 505*	*Sample No.*	*7581*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Company - Lindrith 19***				
Project Location:	***LIND-400 Water Bradenhead***				
Sampled by:	SA	Date:	1-Aug-95	Time:	12:43
Analyzed by:	DC	Date:	2-Aug-95		
Type of Sample:	*Water*				

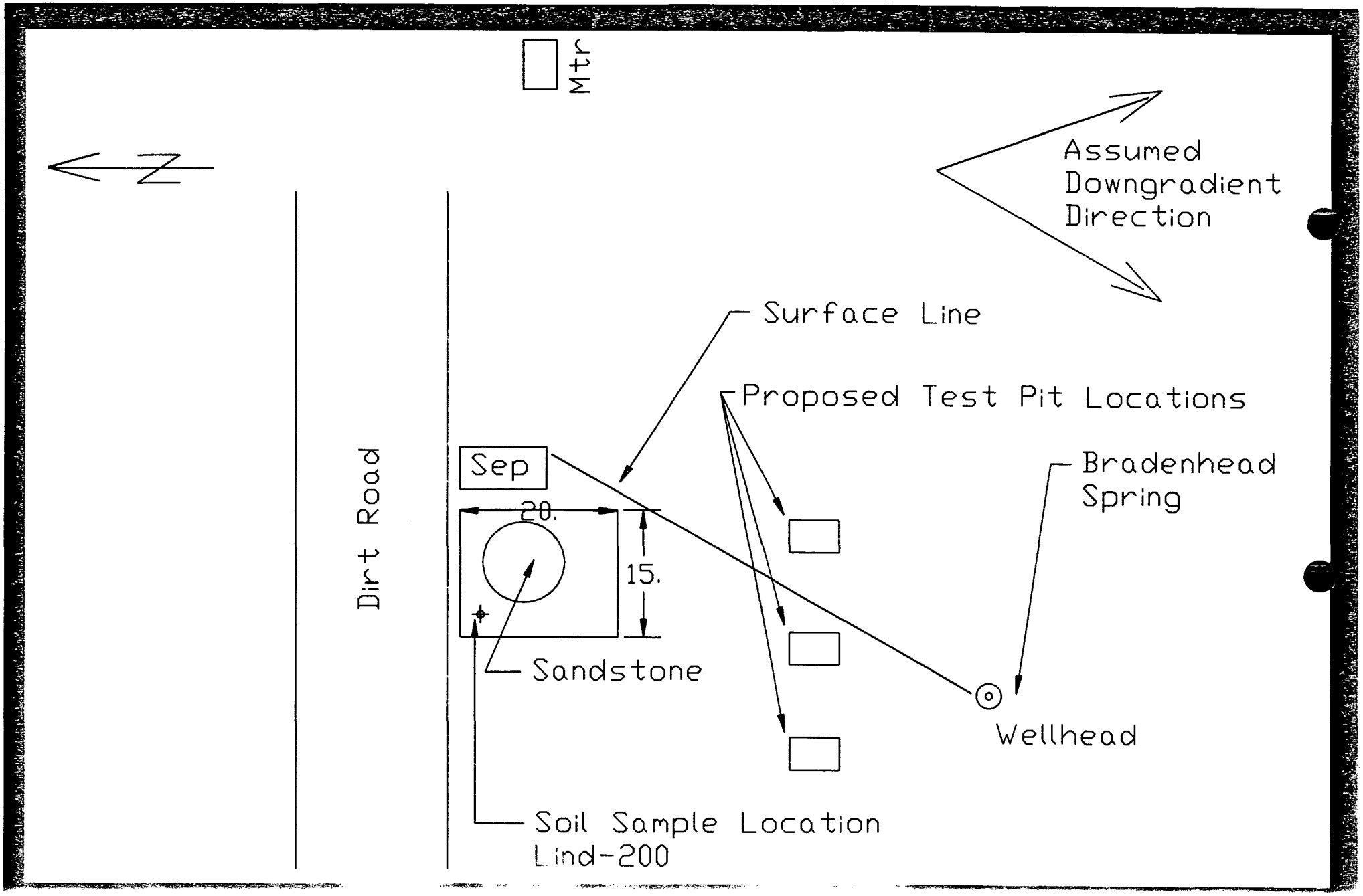
Aromatic Volatile Organics

Component	*Measured Concentration ug/L*	*Detection Limit Concentration ug/L*
Benzene	ND	*0.2*
Toluene	ND	*0.2*
Ethylbenzene	ND	*0.2*
m,p-Xylene	ND	*0.2*
o-Xylene	ND	*0.2*
	TOTAL 0.0 *ug/L*	

ND - Not Detectable

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

Approved by:
Date: 8/2/95


Mtr
N
Assumed
Downgradient
Direction
Surface Line
Proposed Test Pit Locations
Sep
20.
15.
Dirt Road
Bradenhead
Spring
Sandstone
Wellhead
Soil Sample Location
Lind-200

NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 S. Pacheco
Santa Fe, New Mexico 87505

August 29, 1995

CERTIFIED MAIL
RETURN RECEIPT NO. Z-765-962-403

Mr. Phil Emig
Questar Energy Company
P.O. Box 2330
Farmington, New Mexico 87499

RE: LINDRITH #19 WELL SITE
QUESTAR ENERGY COMPANY

Dear Mr. Emig:

The New Mexico Oil Conservation Division (OCD) has reviewed Questar Energy Company's (QEC) August 1, 1995 "GROUNDWATER CONTACT WITH POSSIBLE GROUNDWATER CONTAMINATION FOR QUESTAR ENERGY COMPANY ON JULY 31, 1995" which was submitted on behalf of QEC by their consultant Contract Environmental Services, Inc. This document contains QEC's notice of potential ground water impacts related to use of an unlined production pit at QEC's Lindrith #19 well site located in Unit A, Sec. 09, T26N, R07W NMPM Rio Arriba County, New Mexico.

Based upon a review of the above referenced document, the OCD requests that QEC submit, by October 27, 1995, a work plan to determine the extent of ground water contamination at the site. Please submit the original work plan to the OCD Santa Fe Office and a copy to the OCD Aztec Office.

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

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: OCD Aztec Office
Shawn Adams, Contract Environmental Services, Inc.

Contract Environmental Services, Inc.
Post Office Box 505
Kirtland, New Mexico 87417-0505
Phone (505) 325-1198

August 1, 1995

New Mexico Oil Conservation Division
Mr. Denny Foust
1000 Rio Brazos Road
Aztec, New Mexico 87410

Bureau of Land Management
Mr. Bill Liese
1235 La Plata Highway
Farmington, New Mexico 87401

RE: Groundwater Contact With Possible Groundwater Contamination For Questar Energy Company On July 31, 1995.

Contract Environmental Services, Inc. (CES) has one well location that recently contacted groundwater during earthen pit investigation and remediation procedures. There may be groundwater contamination. The well location is listed below:

1) Lindrith #19 Sec. 9 T26N R7W U.L. A Rio Arriba County, New Mexico

This written notice will serve as Questar Energy Company's 24 Hour Notice.

If you have questions or would like additional information, please don't hesitate to contact our offices at (505) 325-1198 or stop by at 4200 Hawkins Road, Farmington.

Sincerely,

Shawn A. Adams
Contract Environmental Services, Inc.