

1R - 167

**GENERAL
CORRESPONDENCE**

YEAR(S):
2005-2000

FYI -
Chris

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JUN 17 2005

OIL CONSERVATION
DIVISION

Mr. Robert Bemis,
Environmental, Safety and Health Manager
Domestic Division

1R0167

Sec 28, 18S, 38E

May 30, 2005

As per our telephone conversation 5-19-05 I do hereby grant Noble Energy permission, as an invitee, to perform remediation of my property at 1831 Mobile Hobbs, New Mexico. Please note that the trailer has been removed but part of the fence and posts remain. If they need to be removed, please feel free to remove or destroy them without cost or obligation to Noble Energy. Remediation can begin on or after August 1, 2005 at your convenience.

Feel free to contact me at 393-4057 or 390-2131 for questions, comments, or concerns.

Sincerely,



Gary Johnson
1500 Tasker
Hobbs, NM

cc: Chris Williams
NMOCD
1625 North French Drive
Hobbs, NM 88240



100 Glenborough
Suite 100
Houston, TX 77067-3299

Tel: 281.874.6781
Fax: 281.872.2555
www.nobleenergyinc.com

Domestic Division



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SEP 17 2004

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

September 16, 2004

Oil Conservation Division
Environmental Bureau

Bill Olson
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division
P. O. Box 6429
Sante Fe, NM 87504-6429

RE: Case No. 1R0167
Remediation Work Plan
Gary Johnson Property
Hobbs, New Mexico

Dear Mr. Olson

Enclosed please find the Remediation Work Plan for the property currently owned by Gary Johnson and formerly known as the Moon A Tank Battery ("Moon Tank Battery"). Noble Energy, Inc. ("Noble") constructed the remediation work plan.

As discussed in the Phase II Environmental Site Assessment (ESA) report dated March 26, 2004, confirmation sample results of delineation of the extent of petroleum contamination in the near surface soils in certain areas of the former Moon A Tank Battery location exceeded the New Mexico Oil Conservation Division ("NMOCD") 100 mg/kg remediation guidelines for total petroleum hydrocarbons ("TPH").

As stated in the NMOCD letter dated August 13, 2004, the NMOCD has accepted Noble's proposal to conduct further vertical delineation of contamination during remedial actions.

As requested by the NMOCD and to implement Noble's proposal, Noble respectfully submits the attached Remediation Work Plan for the Moon Tank Battery. This remediation work plan is based on the following:

- Noble will conduct further vertical delineation during remediation activities, with confirmation sampling to insure the NMOCD that complete horizontal and vertical delineation and removal of hydrocarbon impacted soils has been completed.
- A total of six (6) hydrocarbon impacted spill areas on the Moon Tank Battery have been targeted to conduct remedial activities. Complete horizontal and vertical delineation with removal of hydrocarbon contaminated soils at each impacted spill area will be remediated as per NMOCD remediation guidelines.

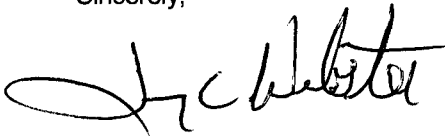
September 16, 2004

- The vertical extent of BTEX and TPH contamination above NMOCD soil remediation guidance levels shall be determined at each spill area.
- All samples shall be obtained and analyzed using EPA approved methods and quality assurance/quality control (QA/QC) procedures.
- All wastes and contaminated soils will be disposed of at an NMOCD approved facility.

There is no evidence that an ongoing source of contamination exists.

If you have any questions about this remediation work plan, please don't hesitate to give me a call at (281) 874-6781.

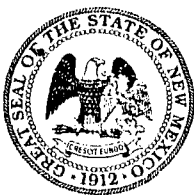
Sincerely,

A handwritten signature in black ink, appearing to read "Terry Webster", with a large, stylized initial "T" and "W".

Terry Webster
Environmental Manager

cc: with enclosure

Chris Williams
New Mexico Oil Conservation Division
1625 North French Drive
Hobbs, NM 88240



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON

Governor

Joanna Prukop

Cabinet Secretary

Mark E. Fesmire, P.E.

Director

Oil Conservation Division

August 13, 2004

Mr. Terry Webster
Noble Energy, Inc.
12600 Northborough, Suite 250
Houston, Texas 77067-3299

**RE: CASE #1R0167
GARY JOHNSON RESIDENCE
HOBBS, NEW MEXICO**

Dear Mr. Webster:

The New Mexico Oil Conservation Division (OCD) has reviewed Noble Energy, Inc.'s (Noble) March 26, 2004 correspondence titled "CASE NO. 13004, GARY JOHNSON PROPERTY" and accompanying March 2004 report titled "PHASE II ENVIRONMENTAL SITE ASSESSMENT, GARY JOHNSON PROPERTY, FORMER MOON A TANK BATTERY LOCATION, LEA COUNTY, NEW MEXICO". These documents contain the results of Noble's recent delineation of the extent of petroleum contamination of soil at Mr. Gary Johnson's property at 1831 Mobile Street in Hobbs, New Mexico. Mr. Johnson's property in Section 28, Township 18 South, Range 38 East was the location of the former Moon "A" tank battery. The above-referenced documents show that the near surface soils in certain areas of the site are contaminated with up to 10,300 mg/kg of total petroleum hydrocarbons (TPH). Noble proposes to conduct further vertical delineation during remedial actions and proposes an alternate remediation level of 1000 mg/kg of TPH for soils at the site.

Noble's proposal to conduct further vertical delineation of contamination during remedial actions is acceptable. In order to implement, Noble's proposal, the OCD requires that Noble submit a remediation work plan to the OCD by September 17, 2004 with a copy provided to the OCD Hobbs District Office.

The justification for an alternate TPH remediation level is not adequate. The site is located on residential land within the city of Hobbs, New Mexico, adjacent to a water well, and located above the Ogallala formation, the sole source drinking water aquifer for the city of Hobbs. If Noble wishes to seek alternate remediation levels, a more detailed risk assessment of remaining contaminants will need to be conducted.

If you have any questions, please contact me at (505) 476-3491.

Sincerely,

A handwritten signature in cursive script, appearing to read "William C. Olson".

William C. Olson
Hydrologist
Environmental Bureau

xc: Chris Williams, OCD Hobbs District Supervisor
Gary Johnson



Remediation Work Plan
Gary Johnson Residence

Former
Moon A Lease
Lea County, New Mexico

September 2004

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1.0 OVERVIEW

In response to the New Mexico Energy, Minerals and Natural Resources Department Environmental Bureau, Oil Conservation Division (NMOCD), Noble Energy Inc (Noble Energy) is submitting this Remediation Work Plan to address the concerns identified at the property currently owned by Gary Johnson and formerly known as the Moon A Tank Battery. This property is identified as being located at 1831 Mobile Street, Hobbs, NM, Sec 28, T18S R38E, Lea County, GPS coordinates North 32° 43' 13.6'', West 103° 9' 2.0''. A topographic map of the location is shown as **Figure 1**.

The issues of concern, as identified by the NMOCD, include the following:

- weathered asphaltic-type oil
- highly viscous oil identified approximately 6" – 1' below grade surface
- an abandoned flowline located under Mr. Johnson's mobile home

On January 25, 2000 Mr. Bill Olson of the NMOCD collected a water well sample from the subject site. Analyses of the well water sample included cations, anions, metals, and BTEX (benzene, toluene, ethyl benzene and xylenes). All parameters tested were measured below the primary and secondary drinking water and irrigation water standards, as specified in 20.6.2.3103 NMAC, Section A, B, and C, and depicted in **Table 1**.

On June 25, 2002, Mr. Olson collected five shallow soil samples from the subject property. Sample 0206251150 (BH-1-6") and 0206251210 (BH-1-1ft) were collected in an area reported to be heavily contaminated with hydrocarbons near the fence, on the west side of the Mr. Johnson's mobile home. Samples 020625 1240 (SS-W-1), 020625 1250 (SS-E-1), and 020625 1305 (SS-N-1) were collected at a depth of 1-2' below grade surface (bgs) to the west, east, and north of the mobile home, respectively depicted in **Table 2**.

On February 17, 2004, Noble Energy, Inc. conducted a Phase II Environmental Site Assessment of the parcel of property owned by Mr. Johnson. This parcel is known as the historical location of the Moon Tank Battery. The primary purpose of this assessment was to determine, to the degree practical, the horizontal and vertical extent of hydrocarbon impact remaining on said property from historical oil and gas operations at this site.

Using the NMOCD Guidelines for Remediation of Leaks, Spills and Releases, the subject location has been determined to have a sensitivity ranking of 20, as the area of impact is located within 200' of a private domestic water source. Petroleum hydrocarbon levels for all samples were measured above the NMOCD guidelines of 100 mg/Kg, (the threshold for sites with a ranking score of >19). Benzene and Total BTEX concentrations in all samples were measured below NMOCD remediation guidelines for this sensitivity ranking.

All soil samples collected were analyzed for BTEX, Diesel Range Petroleum Hydrocarbons (DRO), Gasoline Range Petroleum Hydrocarbons (GRO), and metals. Summaries of results of these analyses are included as **Table 3**.

Remediation guidelines for soils at sites in this sensitivity ranking are as follows:

- TPH (total petroleum hydrocarbon) concentrations..... 100 mg/kg
- Benzene..... <10 mg/kg
- Total BTEX (benzene, toluene, ethylbenzene and xylenes) <50 mg/kg

2.0 SITE REMEDIATION WORK PLAN

The scope of work for this site remediation work plan has been designed to further delineate and remediate the contaminants identified in the Phase II ESA on February 17, 2004. The scope of this remediation work plan includes the following operations:

As requested by the NMOCD and to implement Noble's proposal, Noble respectfully submits the attached Remediation Work Plan for the Moon Tank Battery. This remediation work plan is based on the following:

- Noble will conduct further horizontal and vertical delineation during remediation activities, with confirmation sampling to insure the NMOCD that complete horizontal and vertical delineation and removal of hydrocarbon impacted soils has been completed.
- A total of six (6) hydrocarbon impacted spill areas on the Moon Tank Battery have been targeted to conduct remedial activities. Complete horizontal and vertical delineation with removal of hydrocarbon contaminated soils at each impacted spill area will be remediated as per NMOCD remediation guidelines. A plot plan depicting impacted remedial areas is depicted in **Figure 2**.
- The vertical extent of BTEX and TPH contamination above NMOCD soil remediation guidance levels shall be determined at each spill area.
- All samples shall be obtained and analyzed using EPA approved methods and quality assurance/quality control (QA/QC) procedures.

All wastes and contaminated soils will be disposed of at an NMOCD approved facility.

There is no evidence that an ongoing source of contamination exists.

Scope of Remediation Sampling Activities

- During remediation activities, soil samples will be collected from each center point of the impacted area. Samples shall be collected by using a hand and/or power auger, advancing the auger to a targeted depth of 2' below bottom grade of removed soils impacted area. Soil samples collected from the 1 – 2' cores will be screened for hydrocarbons using a field PID (photo ionization detector). Field headspace readings will be performed on each sample collected, with a threshold value of 100 ppm used to substitute for BTEX analyses.
- If the field headspace measurements for any sample exceeds the 100 ppm threshold, or hydrocarbons are detected by visual or olfactory methods, additional horizontal and vertical remediation/delineation will be performed and samples will be collected at a horizontal distance of 3 feet intervals from the center point.

These additional samples will be collected from each of the four cardinal directions. The headspace of each sample will be screened as described above, with the frequency of horizontal advancement repeated until a headspace reading of <100 ppm is achieved.

- Soil samples from locations where field headspace readings are below 100 ppm will be collected for DRO and GRO analyses to demonstrate delineation of the impact by confirming that the measured constituents are within targeted parameters.
- Select samples may be composited for analyses based on proximity to other samples in a particular area with field headspace readings below 100 ppm. Soil samples from locations where field headspace readings exceed 100 ppm (as in the lower-most sample collected from a particular area) may be composited to form a specific area composite that will be analyzed for DRO and GRO.
- While impact at depth is not anticipated at these locations, in the event that field headspace readings for core samples collected from the 2' depth are found to exceed 100 ppm, additional samples will be collected from 2' intervals until a headspace reading of <100 ppm is achieved. Soil samples from locations where field headspace readings are below 100 ppm will be collected for DRO and GRO analyses to demonstrate delineation of the impact by confirming that the measured constituents are within targeted parameters.

3.0 QUALITY CONTROL

Soil sample collection will be performed using a hand and/or power auger. The auger will be decontaminated between boring locations by washing with soap and water and rinsing with distilled water. Sample water will be collected for disposal in a sealed 55 gallon drum. A sample of the rinsewater will be collected for analysis to characterize this waste, with analysis for DRO and GRO conducted.

Field headspace measurements will be performed according to procedures outlined in NMOCD's Guidelines for Remediation of Leaks, Spills and Releases. The PID used for headspace analyses will be calibrated to assume a benzene response factor prior to arrival on location.

Following completion of field headspace measurement collection, select samples will be field composited based on headspace reading and location proximity. Field composites and individual samples to be analyzed for TPH-GRO and TPH-DRO, **with BTEX analysis conducted on 10% of all confirmation samples.** All samples will be shipped to the laboratory under chain of custody transfer.

Duplicate soils samples will be submitted for laboratory analysis at a rate of 10% of the total confirmation samples analyzed. In addition, a field blank will be submitted to the laboratory for analysis of TPH-GRO, TPH-DRO and BTEX.

All samples will be collected into certified pre-cleaned jars applicable to the parameters to be performed. Samples will be iced upon collection to preserve volatile organic components.

4.0 TIMING

Noble Energy is prepared to initiate this Remediation Work Plan within 30 days of receiving approval by the NMOCD. The NMOCD will be notified at least 1 week prior to any remediation activity, to enable the agency's representative to accompany Noble during these activities. Split or duplicate samples will be available to the NMOCD upon request.

Table 1 Analyses Results for Gary Johnson Water Well Sampled January 27, 2000

Parameter	G. Johnson Water Well, Sampled 1/27/00	NMED Drinking/Irrigation Water Standards
Metals	mg/L	mg/L
Ag	<0.05	0.05 ¹
Al	<0.50	5.0 ³
As	<0.10	0.1 ¹
B	<0.05	0.75 ³
Ba	<0.05	1.0 ¹
Cd	0.03	0.01 ¹
Co	<0.05	0.05 ³
Cr	<0.05	0.05 ¹
Cu	<0.10	1.0 ²
Fe	<0.50	1.0 ²
Mn	<0.01	0.2 ²
Mo	<0.01	1.0 ³
Ni	<0.01	0.2 ³
Pb	<0.05	0.05 ¹
Se	<0.05	0.05 ¹
Si	28	--
Na	47	--
K	4	--
Mg	18	--
Ca	108	--
Zn	<0.10	10.0 ²
Hg	<0.0002	0.002 ¹
BTEX, mg/L		
Benzene	<0.005	0.01 ¹
Toluene	<0.005	0.75 ¹
Ethyl benzene	<0.005	0.75 ¹
M,P,O-Xylenes	<0.005	0.62 ¹
Total BTEX	<0.005	--
Ion Chromatography, mg/L		
Chloride	70	250 ²
Fluoride	1.5	1.6 ¹
Nitrate-N	3.8	10.0 ¹
Sulfate	110	600 ²
Alkalinity (mg/L as CaCO₃)		
Hydroxide Alkalinity	<1.0	--
Carbonate Alkalinity	<1.0	--
Bicarbonate Alkalinity	182	--
Total Alkalinity	182	--
pH	7.2	6 - 9
Specific conductance, uMHOS/cm	820	--
Total Dissolved Solids, mg/L	510	1000.0 ²

¹20.6.2.3103 NMAC, Section A. Human Health Standards

²20.6.2.3103 NMAC, Section B. Other Standards for Domestic Water Supply

³20.6.2.3103 NMAC, Section C. Standards for Irrigation Use (Includes section A and B requirements)

Table 2. Analyses Results for Soil Samples from Gary Johnson Property, Sampled June 25, 2002.

Table 2. Analyses Results for Soil Samples from Gary Johnson Property, Sampled June 23, 2002.						
Parameter	0206251150 BH-1-6	0206251150 BH-1	0206251150 SS-W-1	0206251150 SS-E-1	0206251150 SS-N-1	NMOCD Spill Remediation Guidance ¹
BTEX, mg/Kg						
Benzene	<0.050	<0.1	<0.1	<0.010	0.0234	10
Toluene	<0.050	<0.1	<0.1	<0.010	<0.020	--
Ethyl benzene	0.0806	1.16	<0.1	<0.010	0.0474	--
Xylenes	0.328	4.23	0.352	<0.010	0.183	--
Total BTEX	0.409	5.39	0.352	<0.010	0.254	50
Petroleum Hydrocarbon Analyses, mg/Kg						
Diesel Range Organics	11,600	<250	10,200	4,600	16,500	100 (total)
Gasoline Range Organics	32.5	352	<10	<1	20.5	
Total Metals Analyses, mg/Kg						
Hg	<0.19	<0.19	<0.19	<0.19	<0.19	--
Al	9140	11100	7710	9490	10300	--
As	<5.0	<5.0	<5.0	<5.0	<5.0	--
Ba	100	78.1	86.5	124	121	--
B	36.0	38.4	30.1	35.2	40.6	--
Cd	<0.5	<0.5	<0.5	<0.5	<0.5	--
Cr	6.92	8.31	5.92	6.84	7.37	--
Co	2.78	4.32	<2.50	<2.50	2.54	--
Cu	6.80	8.61	6.33	7.80	6.82	--
Fe	7250	8200	6450	7150	8250	--
Pb	7.27	4.44	6.32	156	14.9	--
Mn	111	117	115	110	142	--
Mo	<5.0	<5.0	<5.0	<5.0	<5.0	--
Ni	8.32	9.00	7.32	7.22	7.82	--
Se	<1.0	<1.0	<1.0	<1.0	<1.0	--
Si	224	214	220	194	208	--
Ag	<0.2	<0.2	<0.2	<0.2	<0.2	--
Zn	35.8	47.5	25.1	55.7	49.0	--

¹Guidelines for Remediation of Leaks, Spills and Releases, NM OCD, August 13, 1993

Table 3

Analyses Results for Soil Samples from Gary Johnson Property

Sampled February 17, 2004

Sample ID	Lab ID #	Sample Depth (ft)	TPH-GRO C6 - C12	TPH-DRO >C12 - C35	TPH-Total C6 - C35	Benzene	Toluene	Ethylbenzene	Xylene (p,m)	Xylene (o)	Total BTEX ¹
Composite 1 (B1 - B5)	4B18007-01	0 - 1	ND	273	273	ND	ND	ND	ND	ND	ND
B-6	4B18007-02	0 - 2	10.4	292	302	ND	ND	0.0297	ND	ND	0.0297
B-7	4B18007-03	0 - 2	ND	367	367	ND	ND	ND	ND	ND	ND
B-8	4B18007-04	0 - 2	17.4	313	330	ND	0.0548	0.0418	0.152	0.0182	0.2668
B-9	4B18007-05	0 - 2	1,780	5,670	7,450	0.267	0.896	2.74	14.0	0.838	18.741
B-10	4B18007-06	0 - 2	10.3	556	566	ND	ND	ND	0.0300	ND	0.0300
B-11	4B18007-07	0 - 2	ND	211	211	ND	ND	ND	ND	ND	ND
B-12	4B18007-08	0 - 2	950	7,980	8,930	0.299	0.546	1.61	7.26	0.533	10.248
B-13	4B18007-09	0 - 2	1(9.75)	217	217	ND	ND	ND	0.0492	ND	0.0492
B-14	4B18007-10	0 - 2	325	2,570	2,900	0.0651	0.183	0.418	1.50	0.310	2.4761
B-15	4B18007-11	0 - 2	372	9,920	10,300	0.147	0.206	0.301	1.42	0.278	2.352
Composite 2 (B16 - B18)	4B18007-12	0 - 2	ND	545	545	ND	ND	ND	ND	ND	ND
Composite 1 (B19 - B21)	4B18007-13	0 - 2	21.6	973	995	ND	0.0365	0.0208	0.0531	0.0235	0.1339
B-22	4B18007-14	0 - 2	ND	145	145	ND	ND	ND	ND	ND	ND
NM OCD Thresholds	---	---	---	---	100	10	---	---	---	---	50

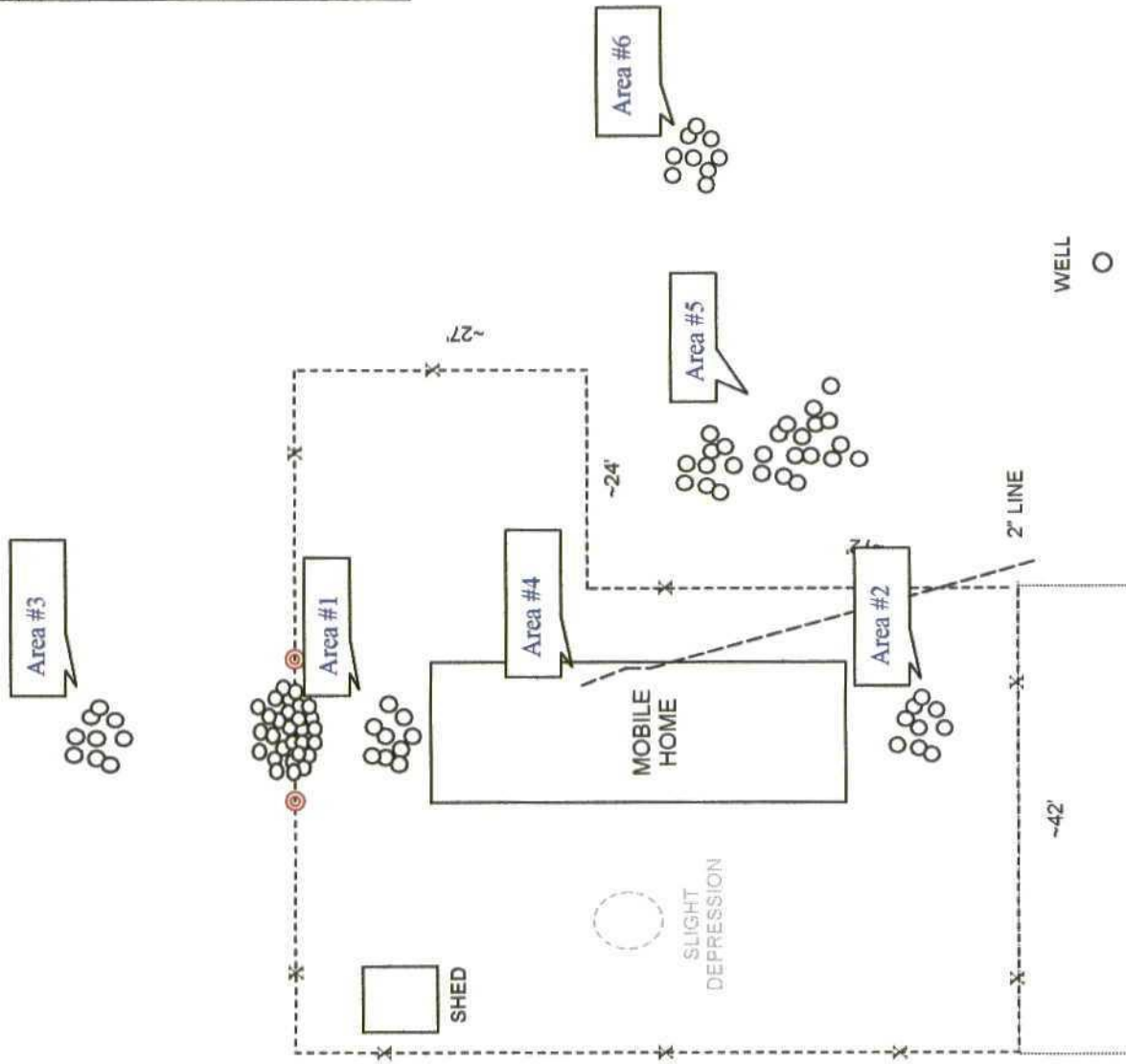
Notes: All measured values reported in mg/kg.

Red text denoted measured value in excess of regulatory threshold.

¹ Calculated.² New Mexico Energy, Minerals and Natural Resources Department, Oil Conservation Division thresholds, as published in the Guidelines for Remediation of Leaks, Spills and Releases, August 13, 1993, Ranking Score >19.



LINE LEGEND	
---X---	CYCLONE FENCE
.....	CATTLE FENCE
⊙	HARDENED BLACK MATERIAL
⊙	FENCE POST



Moon A Lease Hobbs, New Mexico

NOT TO SCALE	LEA COUNTY	SW/4 NE/4 SEC 28 T18S R38E
	N 32° 43.227' W 100° 09.033'	HOBBS WEST QUADRANGLE
	NAD 27	08/24/04



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON

Governor

Joanna Prukop

Cabinet Secretary

Mark E. Fesmire, P.E.

Director

Oil Conservation Division

August 5, 2004

Mr. Gary Johnson
1500 Tasker Rd.
Hobbs, NM 88240

**RE: CASE #1R0167
NOBLE ENERGY INVESTIGATIONS AT GARY JOHNSON RESIDENCE
HOBBS, NEW MEXICO**

Dear Mr. Johnson:

On August 4, 2004 you called me to inquire as to the status of the investigations into the extent of soil contamination at property that you own at 1831 Mobile Street in Hobbs, New Mexico. This property in Section 28, Township 18 South, Range 38 East was the location of the former Moon "A" tank battery which was previously operated by Samedan Oil Corporation and Shell Oil Company and is located within the North Hobbs Unit operated by Occidental Permian Ltd.

The New Mexico Oil Conservation Division (OCD) is in receipt of a report from Noble Energy, Inc (the parent company of Samedan Oil Corporation) containing the results of recent investigations at the property. The OCD will review this document within the next 30 days. The OCD will send you a copy of the OCD's response to Noble Energy Inc.

Thank you for contacting me about your concerns. If you have any questions, please contact me at (505) 476-3458.

Sincerely,

Mark E. Fesmire, P.E.
Director

xc: Chris Williams, OCD Hobbs District Supervisor

April, 25, 2004

Mr. Bill Olson
OCD
1220 S. Saint Francis Dr.
Sante Fe, NM 87505

REC'D

Oil Conservation
Division

Dear Mr. Olson,

I received the test results from Noble Energy dated March 2004 and find myself at odds with them once again.

Nobel proposes the OCD change the recommend TPH levels from **100 to 1000 mg/kg** (Phase II Environmental Site Assessment, pg. 11). I strongly urge the OCD not to allow any change to occur.

The contamination is inside the city limits on privately owned property, within 50 ft. of an active domestic water well and has been under a single family dwelling for years.

It is essential the property be restored to more favorable conditions for future occupants, and for the betterment of the environment the levels of **100mg/kg** should remain in effect.

Thank you for your patience and assistance in the past years in trying to resolve this problem. I am looking forward to hearing from you.

Sincerely,



Gary Johnson

12600 Northborough
Suite 250
Houston, TX 77067-3299

Tel: 281.876.6150
Fax: 281.876.6106
www.nobleenergyinc.com

Onshore Division



RECEIVED

MAR 31 2004

Oil Conservation Division
Environmental Bureau

CERTIFIED MAIL 7002 0460 0000 6369 5682
RETURN RECEIPT REQUESTED

March 26, 2004

Bill Olson
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division
P. O. Box 6429
Santa Fe, NM 87504-6429

RE: Case No. 13004, Gary Johnson Property

Dear Mr. Olson

Enclosed please find the results of the Phase II Environmental Site Assessment (ESA) conducted at the property currently owned by Gary Johnson and formerly known as the Moon A Tank Battery. This ESA was performed by Kane Environmental Engineering, Inc.

As discussed in this report, all soil samples collected from the former Moon A Tank Battery location exceed the NMOCD 100 mg/kg remediation guideline for TPH, based on the NMOCD site ranking system. This ranking score of 20 is based solely on the site's proximity to an abandoned domestic water well.

Noble Energy proposes that the NMOCD allow an alternate remediation guideline of 1000 mg/kg for this site. This proposal for an alternate guideline is based on the following:

- Water samples collected by NMOCD in January, 2000 indicated that all parameters tested were below drinking water standards. Considering the time span between the historical oil and gas operations and this water analysis, it can be concluded that this water well is not likely to be subject to impact from the site.
- Only residual solid-phase hydrocarbons were encountered during this investigation limiting the potential for contaminant migration through the soil to vapor transport within the soils or transport with the percolation of rainfall. There is no evidence that an ongoing source of contamination exists.
- The soils encountered at the site demonstrate the limited potential for rainfall percolation through the soil, that being to an approximate depth of 24".
- The reported water well depth in this area indicate the limited potential for the contaminant migration to groundwater through vapor transport or rainfall percolation.

March 26, 2004

If you have any questions about this ESA, please don't hesitate to give me a call at (281) 874-6781.

Sincerely,

A handwritten signature in black ink, appearing to read "Terry Webster", with a large, stylized initial "T" and a long horizontal flourish extending to the right.

Terry Webster
Environmental Manager

cc: with enclosure

Chris Williams
New Mexico Oil Conservation Division
1625 North French Drive
Hobbs, NM 88240

RECEIVED

12167

JUL 31 2003

July 28, 2003

OIL CONSERVATION
DIVISION

Mr. Thomas D. Dopler, Jr.
12600 Northborough
Suite 250
Houston, TX 77067-3299

VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Re: 1831 Mobile Street
Hobbs, NM


Dear Mr. Dopler:

I have received your letter dated July 23, 2003. Permission to investigate my property at 1831 Mobile Street is again denied Noble Energy. The site has been previously investigated by the NMOCD and has been determined to be a danger to public safety and the environment because of hydrocarbon releases.

I feel any claimed damages are a direct result of hydrocarbon releases. Responsibility for these releases has not been determined and claims for damages have never been requested from Noble Energy. Only a sales option has been offered.

Thank you for your attention to this matter and for the time you have spent with me in our recent telephone conversation. Please feel free to contact me if you have any questions or would like to discuss this matter further.

Sincerely,


Gary D. Johnson
Landowner

cc: Mr. William C. Olson
New Mexico Energy, Minerals and Natural Resources Department
1220 S. St. Francis Drive
Santa Fe, NM 87505

12167

12600 Northborough
Suite 250
Houston, TX 77067-3299

Tel: 281.878.6134
Fax: 281.874.6753
tdopler@
nobleenergyinc.com

Thomas D. Dopler, Jr.
Landman
Rockies/Mid-Continent
Business Unit
Onshore Division



RECEIVED

JUL 28 2003

OIL CONSERVATION
DIVISION

July 23, 2003

Mr. Gary D. Johnson
1500 Tasker
Hobbs, NM 88240

VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Re: 1831 Mobile Street
Hobbs, New Mexico

Dear Mr. Johnson:

Thank you for your letter of June 17, 2003. In that letter you indicate that you will be willing to sell your property to Noble Energy for \$45,000.00, which you indicate is the total property and revenue loss you have sustained to date. You also indicated that a site investigation is unwarranted except by responsible or interested parties.

Noble Energy has not been determined to be a responsible party with respect to any potential hydrocarbon releases on your property, and has not accepted responsibility for any such releases. Instead, Noble Energy has reached agreement with the New Mexico Oil Conservation Division to conduct a site investigation. We have agreed to conduct that site investigation in response to the complaints which you have registered with the NMOCD. However, neither the NMOCD nor Noble Energy can proceed until you grant access to the surface.

Noble Energy is not in the business of purchasing or holding non-mineral real estate, and, as indicated in my June 9, 2003 letter, is not in a position to consider your request for a damage payment when such claimed damages appear to be unrelated to any hydrocarbon releases at your property located at 1831 Mobile Street.

We would like to conduct the site investigation pursuant to the direction from and agreement with the NMOCD. Please let us know by Friday, August 1, 2003, whether you will allow Noble to conduct such investigation.

Please feel free to call me if you have any questions or would like to discuss this matter further.

Yours very truly,

Thomas D. Dopler, Jr.
Landman

TDD/pc

cc: ~~Mr. William C. Olson~~

New Mexico Energy, Minerals and
Natural Resources Department
1220 S. St. Francis Drive
Santa Fe, NM 87505

June 17, 2003

1R167

Mr. Thomas D. Dopler, Jr.
12600 Northborough
Suite 250
Houston, TX

Oil Conservation Division
JUN 20 2003
RECEIVED

Re: 1831 Mobile Street
Hobbs, NM

Dear Mr. Dopler:

In recent telephone conversation with you and Deb Lambertson, I would not grant access to my property at 1831 Mobile Street. This is not because Noble would not agree to pay \$285,000, nor does this relate to any legitimate claims I may have against other oil companies concerning other property. That sum was in response to a question from Deb Lambertson about an assumption of no liability on the part of Samedan/Noble. Perhaps there was a misunderstanding concerning those matters.

As I indicated to you and Deb Lambertson, an unsolicited site investigation is unwarranted except by responsible or interested parties.

There is a willingness to resolve this impasse. I felt I made this clear in our last telephone conversation. Although sale was mentioned, it was not discussed.

The property mentioned has a hydrocarbon release on it, identified by the OCD as a danger to public safety and the environment. Because of this, it has been unoccupied and uninsurable. The property has also been vandalized, rendering it valueless as an asset or a source of revenue for me. I hope you also understand my position.

If interested in the property and its contents at this time, for any purpose Noble Energy deems appropriate, it can be purchased for \$45,000. This is the total property and revenue loss I have sustained to date.

Please feel free to contact me if you would like to discuss this matter further.

Sincerely,



Gary D. Johnson
Landowner

lp

cc: Mr. William C. Olson
New Mexico Energy, Minerals and
Natural Resources Department
1220 S. St. Francis Drive
Santa Fe, NM 87505

12600 Northborough
Suite 250
Houston, TX 77067-3299

Tel: 281.876.6134
Fax: 281.874.6753
tdopler@
nobleenergyinc.com

Thomas D. Dopler, Jr.
Landman
Rockies/Mid-Continent
Business Unit
Onshore Division



RECEIVED

June 9, 2003

JUN 12 2003

OIL CONSERVATION
DIVISION

VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Gary D. Johnson
1500 Tasker
Hobbs, NM 88240

Re: 1831 Mobile Street
Hobbs, New Mexico

Dear Mr. Johnson:

In recent telephone conversations with Deb Lambertson and me, you have indicated that you would not grant Noble Energy, Inc., successor to Samedan Oil Corporation, access to your property at 1831 Mobile Street, Hobbs, New Mexico, unless Noble agrees to pay you \$285,000. This amount apparently relates to claims you have made against other oil companies on different property, as well as this property.

As we have indicated, Noble is prepared to conduct a site investigation of this property in accordance with a plan being approved by the New Mexico Oil Conservation Division. To do so, it is necessary for Noble to gain access to the property. Noble is willing to work with you as to any reasonable restrictions that you may wish to impose on the granting of that access; however, it is unwilling to make the payment you have requested.

We appreciate your willingness to visit with us about this matter, and hope that you understand our position. With your permission, we continue to be prepared to promptly commence a site investigation in an effort to evaluate the condition of your property.

Please feel free to call me if you have any questions or would like to discuss this matter further.

Yours very truly,

Thomas D. Dopler, Jr.
Landman

TDD/pc

cc: ~~Mr. William C. Olson~~

New Mexico Energy, Minerals and
Natural Resources Department
1220 S. St. Francis Drive
Santa Fe, NM 87505

12600 Northborough
Suite 250
Houston, TX 77067-3299

Tel: 281.876.6150
Fax: 281.876.6106
www.nobleenergyinc.com

Onshore Division



CERTIFIED MAIL 7003 0500 0003 2616 1080
RETURN RECEIPT REQUESTED

May 27, 2003

RECEIVED

JUN 02 2003

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

Bill Olson
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division
P. O. Box 6429
Sante Fe, NM 87504-6429

RE: Case No. 13004, Gary Johnson Property

Dear Mr. Olson

Enclosed please find the Phase II Site Investigation Plan for the investigation of the property currently owned by Gary Johnson and formerly known as the Moon A Tank Battery. This Site Investigation Plan is being submitted to your for your review and approval.

If you have any questions about this Plan, please don't hesitate to give me a call at (281) 874-6781.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Deb Lambertson'.

Deb Lambertson
Environmental Coordinator

cc: with enclosure

Chris Williams
New Mexico Oil Conservation Division
1625 North French Drive
Hobbs, NM 88240



Phase II ESA
Site Investigation Plan

Moon A Lease
Lea County, New Mexico

April 2003

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1.0 OVERVIEW

In response to the New Mexico Energy, Minerals and Natural Resources Department Environmental Bureau, Oil Conservation Division (NMOCD), Noble Energy Inc (Noble Energy) is submitting this Phase II Environmental Site Assessment (ESA) Site Investigation Plan to address the concerns identified at the property currently owned by Gary Johnson and formerly known as the Moon A Tank Battery. This property is identified as being located at 1831 Mobile Street, Hobbs, NM, Sec 28, T18S R38E, Lea County, GPS coordinates North 32° 43' 13.6'', West 103° 9' 2.0''. A topographic map of the location is shown as **Figure 1**.

The issues of concern, as identified by the NMOCD, include the following:

- weathered asphaltic-type oil
- highly viscous oil identified approximately 6" – 1' below grade surface
- an abandoned flowline located under Mr. Johnson's mobile home

On January 25, 2000 Mr. Bill Olson of the NMOCD collected a water well sample from the subject site. Analyses of the well water sample included cations, anions, metals, and BTEX (benzene, toluene, ethyl benzene and xylenes). All parameters tested were measured below the primary and secondary drinking water and irrigation water standards, as specified in 20.6.2.3103 NMAC, Section A, B, and C, and depicted in **Table 1**

On June 25, 2002, Mr. Olson collected five shallow soil samples from the subject property. Sample 0206251150 (BH-1-6") and 0206251210 (BH-1-1ft) were collected in an area reported to be heavily contaminated with hydrocarbons near the fence, on the west side of the Mr. Johnson's mobile home. Samples 020625 1240 (SS-W-1), 020625 1250 (SS-E-1), and 020625 1305 (SS-N-1) were collected at a depth of 1-2' below grade surface (bgs) to the west, east, and north of the mobile home, respectively.

All soil samples collected were analyzed for BTEX, Diesel Range Petroleum Hydrocarbons (DRO), Gasoline Range Petroleum Hydrocarbons (GRO), and metals. A summary of the results of these analyses are included as **Table 2**.

Using the NMOCD Guidelines for Remediation of Leaks, Spills and Releases, the subject location has been determined to have a sensitivity ranking of 20, as the area of impact is located within 200' of a private domestic water source. Petroleum hydrocarbon levels for all samples were measured above the NMOCD guidelines of 100 mg/Kg, (the threshold for sites with a ranking score of >19). Benzene and Total BTEX concentrations in all samples were measured below NMOCD remediation guidelines for this sensitivity ranking.

2.0 SITE INVESTIGATION SCOPE OF WORK

The scope of work for this site investigation has been designed to further delineate the contaminants identified in the NMOCD site investigation on June 25, 2002 . The scope of this Phase II site investigation includes the following operations:

Asphaltic Hydrocarbons on the Surface

- Shallow soil samples will be collected from each center point where asphaltic hydrocarbons are visible at the surface. Samples will be collected by using a hand and/or power auger, advancing the auger to a targeted depth of 2' below grade surface (bgs). Soil samples collected from the 1 – 2' cores will be screened for hydrocarbons using a field PID (photo ionization detector). Field headspace readings will be performed on each sample collected, with a threshold value of 100 ppm used to substitute for BTEX analyses.
- If the field headspace measurements for any sample exceeds the 100 ppm threshold, or hydrocarbons are detected by visual or olfactory methods, additional samples will be collected at a horizontal distance of 10 feet from the center point. These additional samples will be collected from each of the four cardinal directions. The headspace of each sample will be screened as described above, with the frequency of horizontal advancement repeated until a headspace reading of <100 ppm is achieved.
- Soil samples from locations where field headspace readings are below 100 ppm will be collected for DRO and GRO analyses to demonstrate delineation of the impact by confirming that the measured constituents are within targeted parameters.
- Select samples may be composited for analyses based on proximity to other samples in a particular area with field headspace readings below 100 ppm. Soil samples from locations where field headspace readings exceed 100 ppm (as in the lower-most sample collected from a particular area) may be composited to form a specific area composite that will be analyzed for DRO and GRO.
- While impact at depth is not anticipated at these locations, in the event that field headspace readings for core samples collected from the 2' depth are found to exceed 100 ppm, additional samples will be collected from 2' intervals until a headspace reading of <100 ppm is achieved. Soil samples from locations where field headspace readings are below 100 ppm will be collected for DRO and GRO analyses to demonstrate delineation of the impact by confirming that the measured constituents are within targeted parameters.

Abandoned Flowline

- Soil samples will be collected from a minimum of 5 points along the flowline that is reported to be located under the Johnson mobile home. Samples will be collected by using a hand and/or power auger, advancing the auger to a targeted depth of 1' below the depth of the line. Soil samples collected from the targeted locations will be screened using a field PID (photo ionization detector). Field headspace readings will be performed on each sample collected, using a threshold value of 100 ppm to substitute for BTEX analyses.
- If field headspace measurements for any core sample exceeds the 100 ppm threshold, an additional samples will be collected at:
 - a horizontal distance of 3 feet from the original sample, collected from each of the four cardinal directions until a concentration of <100 ppm is achieved.
 - a vertical depth of 2 foot from the original sample until a concentration of <100 ppm is achieved.
- Soil samples from locations where field headspace readings are below 100 ppm will be collected for DRO and GRO analyses to demonstrate delineation of the impact by confirming that the measured constituents are within targeted parameters.
- Select samples may be composited for analyses based on proximity to other samples in a particular area with field headspace readings below 100 ppm. Soil samples from locations where field headspace readings exceed 100 ppm may be composited to form a specific area composite that will be analyzed for DRO and GRO.

3.0 QUALITY CONTROL

Soil sample collection will be performed using a hand and/or power auger. The auger will be decontaminated between boring locations by washing with soap and water and rinsing with distilled water. Sample water will be collected for disposal in a sealed 55 gallon drum. A sample of the rinseate water will be collected for analysis to characterize this waste, with analysis for DRO and GRO conducted.

Field headspace measurements will be performed according to procedures outlined in NMOCD's Guidelines for Remediation of Leaks, Spills and Releases. The PID used for headspace analyses will be calibrated to assume a benzene response factor prior to arrival on location.

Following completion of field headspace measurement collection, select samples will be field composited based on headspace reading and location proximity. Field composites

and individual samples to be analyzed for TPH-GRO and TPH-DRO, **with BTEX analysis conducted on 10% of all confirmation samples.** All samples will be shipped to the laboratory under chain of custody transfer.

Duplicate soils samples will be submitted for laboratory analysis at a rate of 10% of the total confirmation samples analyzed. In addition, a field blank will be submitted to the laboratory for analysis of TPH-GRO, TPH-DRO and BTEX.

All samples will be collected into certified pre-cleaned jars applicable to the parameters to be performed. Samples will be iced upon collection to preserve volatile organic components.

4.0 TIMING

Noble Energy is prepared to initiate this Phase II Site Investigation Plan within 30 days of receiving approval by the NMOCD. The NMOCD will be notified at least 1 week prior to any soil sampling, to enable the agency's representative to accompany Noble during sampling activities. Split or duplicate samples will be available to the NMOCD upon request.

Table 1 Analyses Results for Gary Johnson Water Well Sampled January 27, 2000

Parameter	G. Johnson Water Well, Sampled 1/27/00	NMED Drinking/Irrigation Water Standards
Metals	mg/L	mg/L
Ag	<0.05	0.05 ¹
Al	<0.50	5.0 ³
As	<0.10	0.1 ¹
B	<0.05	0.75 ³
Ba	<0.05	1.0 ¹
Cd	0.03	0.01 ¹
Co	<0.05	0.05 ³
Cr	<0.05	0.05 ¹
Cu	<0.10	1.0 ²
Fe	<0.50	1.0 ²
Mn	<0.01	0.2 ²
Mo	<0.01	1.0 ³
Ni	<0.01	0.2 ³
Pb	<0.05	0.05 ¹
Se	<0.05	0.05 ¹
Si	28	--
Na	47	--
K	4	--
Mg	18	--
Ca	108	--
Zn	<0.10	10.0 ²
Hg	<0.0002	0.002 ¹
BTEX, mg/L		
Benzene	<0.005	0.01 ¹
Toluene	<0.005	0.75 ¹
Ethyl benzene	<0.005	0.75 ¹
M,P,O-Xylenes	<0.005	0.62 ¹
Total BTEX	<0.005	--
Ion Chromatography, mg/L		
Chloride	70	250 ²
Fluoride	1.5	1.6 ¹
Nitrate-N	3.8	10.0 ¹
Sulfate	110	600 ²
Alkalinity (mg/L as CaCO₃)		
Hydroxide Alkalinity	<1.0	--
Carbonate Alkalinity	<1.0	--
Bicarbonate Alkalinity	182	--
Total Alkalinity	182	--
pH	7.2	6 - 9
Specific conductance, uMHOS/cm	820	--
Total Dissolved Solids, mg/L	510	1000.0 ²

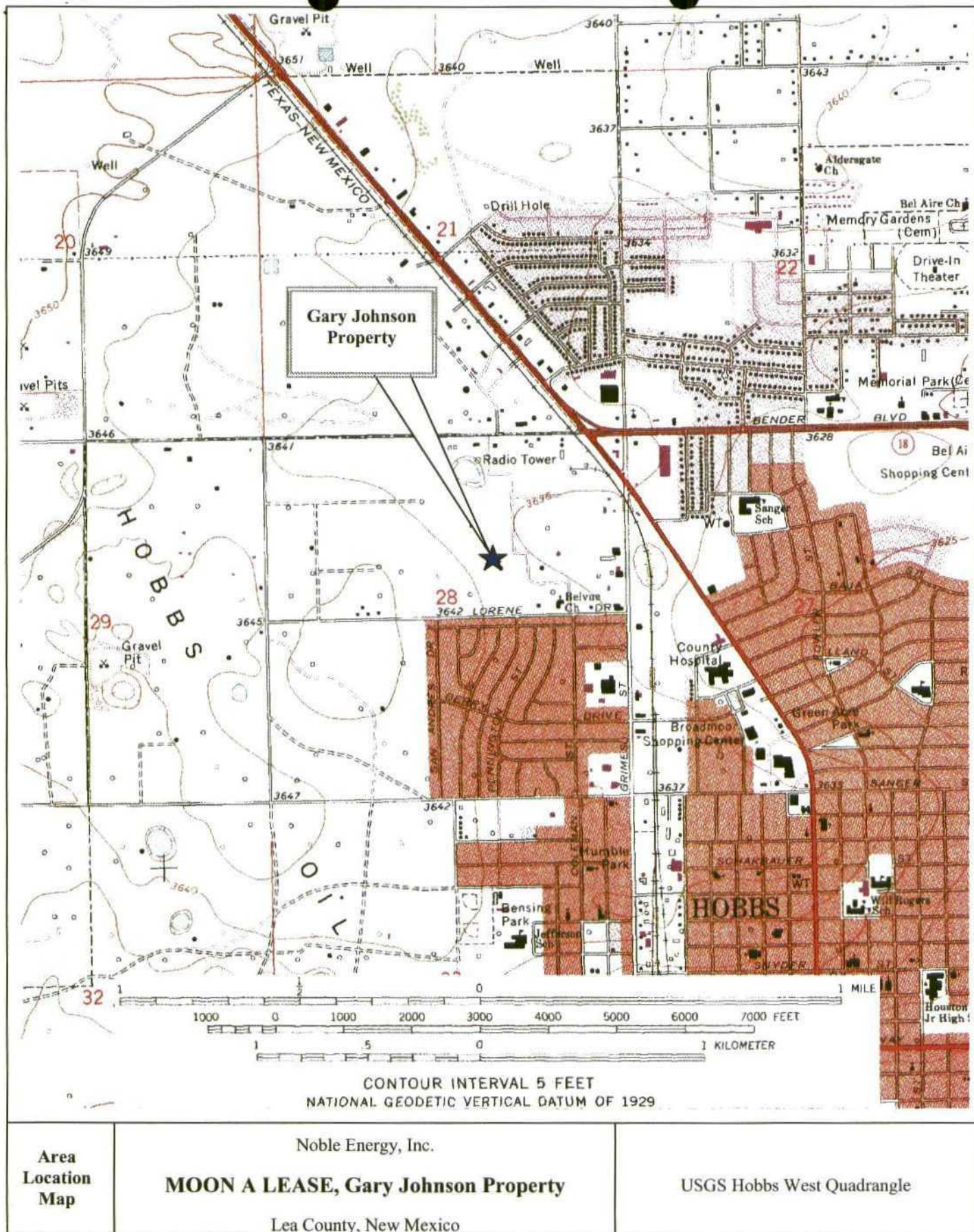
¹20.6.2.3103 NMAC, Section A. Human Health Standards

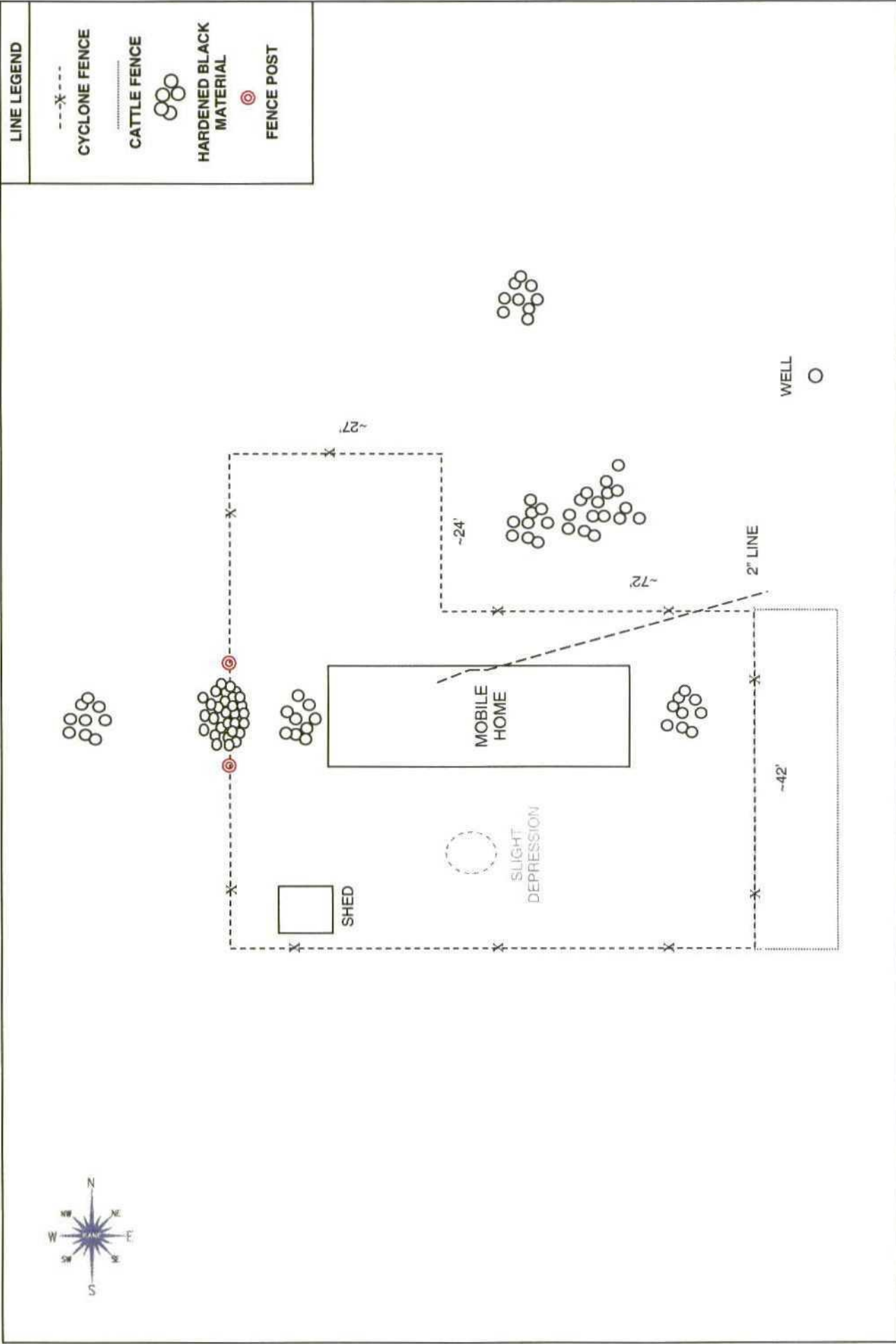
²20.6.2.3103 NMAC, Section B. Other Standards for Domestic Water Supply


³20.6.2.3103 NMAC, Section C. Standards for Irrigation Use (Includes section A and B requirements)

Table 2. Analyses Results for Soil Samples from Gary Johnson Property, Sampled June 25, 2002.

Table 2: Analyses Results for Soil Samples from Gary Johnson Property, Sampled June 23, 2002.						
Parameter	0206251150 BH-1-6	0206251150 BH-1	0206251150 SS-W-1	0206251150 SS-E-1	0206251150 SS-N-1	NMOCD Spill Remediation Guidance ¹
BTEX, mg/Kg						
Benzene	<0.050	<0.1	<0.1	<0.010	0.0234	10
Toluene	<0.050	<0.1	<0.1	<0.010	<0.020	--
Ethyl benzene	0.0806	1.16	<0.1	<0.010	0.0474	--
Xylenes	0.328	4.23	0.352	<0.010	0.183	--
Total BTEX	0.409	5.39	0.352	<0.010	0.254	50
Petroleum Hydrocarbon Analyses, mg/Kg						
Diesel Range Organics	11,600	<250	10,200	4,600	16,500	100 (total)
Gasoline Range Organics	32.5	352	<10	<1	20.5	
Total Metals Analyses, mg/Kg						
Hg	<0.19	<0.19	<0.19	<0.19	<0.19	--
Al	9140	11100	7710	9490	10300	--
As	<5.0	<5.0	<5.0	<5.0	<5.0	--
Ba	100	78.1	86.5	124	121	--
B	36.0	38.4	30.1	35.2	40.6	--
Cd	<0.5	<0.5	<0.5	<0.5	<0.5	--
Cr	6.92	8.31	5.92	6.84	7.37	--
Co	2.78	4.32	<2.50	<2.50	2.54	--
Cu	6.80	8.61	6.33	7.80	6.82	--
Fe	7250	8200	6450	7150	8250	--
Pb	7.27	4.44	6.32	156	14.9	--
Mn	111	117	115	110	142	--
Mo	<5.0	<5.0	<5.0	<5.0	<5.0	--
Ni	8.32	9.00	7.32	7.22	7.82	--
Se	<1.0	<1.0	<1.0	<1.0	<1.0	--
Si	224	214	220	194	208	--
Ag	<0.2	<0.2	<0.2	<0.2	<0.2	--
Zn	35.8	47.5	25.1	55.7	49.0	--
¹ Guidelines for Remediation of Leaks, Spills and Releases, NM OCD, August 13, 1993						





	NOT TO SCALE	LEA COUNTY	SW/4 NE/4 SEC 28 T18S R38E	Moon A Lease Hobbs, New Mexico
		N 32° 43.227' W 100° 09.033'	HOBBS WEST QUADRANGLE	
		NAD 27	02/24/03	

MILLER STRATVERT P.A.
LAW OFFICES

112167
RECEIVED

APR 30 2003

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ALICE T. LORENZ
GREGORY W. CHASE
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OIL CONSERVATION DIVISION

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PLEASE REPLY TO SANTA FE

***licensed in Texas only
* NEW MEXICO BOARD OF SPECIALIZATION RECOGNIZED SPECIALIST IN NATURAL RESOURCES - OIL & GAS LAW
** NEW MEXICO BOARD OF SPECIALIZATION RECOGNIZED SPECIALIST IN REAL ESTATE LAW

April 29, 2003

Ms. Lori Wrotenbery, Director
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: MOCD Case No. 13004; Application of the New Mexico Oil Conservation Division
Bureau Chief for an Order Determining the Responsible Party or Parties, Lea County,
New Mexico

Dear Ms. Wrotenbery:

It is the view of Shell Exploration and Production Company that Paragraph 9 of the Stipulated Conditional Dismissal does not limit the Environmental Bureau from using the data obtained from Samedan Oil Corporation's investigation of the subject lands in any related proceeding. Accordingly, there should be no need to revise or eliminate Paragraph 9 from the Stipulated Conditional Dismissal.

Very truly yours,

MILLER STRATVERT P.A.

J. Scott Hall
J. Scott Hall

JSH/glb

cc: Kathleen Phillips, Esq.
David Brooks, Esq.
W. Thomas Kellahin, Esq.
Carolyn Tillman, Esq.
Paul Owen, Esq.

**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION**

**IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:**

**CASE NO. 13004
ORDER NO. R-11946**

**IN THE MATTER OF THE HEARING CALLED BY THE NEW MEXICO OIL
CONSERVATION DIVISION, THROUGH THE ENVIRONMENTAL BUREAU
CHIEF, FOR AN ORDER DETERMINING THE RESPONSIBLE PARTY OR
PARTIES AND ORDERING THE RESPONSIBLE PARTY OR PARTIES TO
CONDUCT DIVISION-APPROVED CORRECTIVE ACTION WITH RESPECT TO
A HYDROCARBON RELEASE; LEA COUNTY, NEW MEXICO.**

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on March 13 and April 10, 2003, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 28th day of April, 2003, the Division Director, having considered the record and the recommendations of the Examiner,

FINDS THAT:

(1) Due public notice has been given, and the Division has jurisdiction of this case and of the subject matter.

(2) By this Application, the Division seeks an order determining the responsible party or parties for the release of hydrocarbons identified by the Division's Environmental Bureau Chief as a danger to public safety and the environment, located on the Moon State lease within the North Hobbs Unit, in the W/2 NE/4 of Section 28, Township 18 South, Range 38 East, NMPM, Lea County, New Mexico.

(3) The responding parties, Samedan Oil Corporation ("Samedan"), Occidental Permian Ltd. ("OXY"), and Shell Exploration and Production Company ("Shell"), all by and through legal counsel, along with the Division, submitted a "*Stipulated Conditional Dismissal*" prior to the April 10, 2003 hearing, which should be incorporated by reference into this Order.

(4) Paragraph 9 on page 3 of the Stipulated Conditional Dismissal could be read to restrict the Division's use of information obtained during the course of the site investigation to determine any party's responsibility for the release.

(5) Counsel for Samedan submitted a letter dated April 21, 2003 to the Division, which should also be incorporated by reference into this Order, that disavows such a reading; instead Samedan states that Paragraph 9 "...does not prevent [the Division] from using the data derived from Samedan's investigation plan, as defined in the Stipulated Conditional Dismissal, in any related proceeding."

(6) Neither counsel for Shell nor counsel for OXY have made similar statements to the Division.

(7) Samedan's concession that the Division may use the results of the investigation to determine any party's responsibility for the alleged contamination is very helpful as to Samedan. However, as the Division executed the Stipulated Conditional Dismissal, the effect of Samedan's statement concern remains whether Shell or OXY share this interpretation of the stipulation.

(8) If Paragraph 9 of the Stipulated Conditional Dismissal, or anything else in the proposed agreement, can be read as restricting the Division's use of information obtained during the course of the site investigation to determine any party's responsibility for the release, the proposed agreement should be rejected.

(9) As Shell and OXY were apprised of the difficulty inherent in Paragraph 9, the Division should treat Samedan's letter as representing the position of all parties, including Shell and OXY.

(10) To permit Shell and OXY to object to this reading of the circumstances, the parties should be permitted to object to the terms of this Order within ten (10) days of service. If an objection is received within ten (10) days of service of this Order, this Order should be dissolved and a subsequent Order should be issued finding that the Stipulated Conditional Dismissal is based on a material mistake of fact and void, and reopening this matter for Division hearing.

IT IS THEREFORE ORDERED THAT:

(1) The *Stipulated Conditional Dismissal*, herein incorporated by reference into this Order, of the parties shall be and is hereby accepted so long as Paragraph 9, or anything else in the agreement, is not read to restrict the Division's use of information obtained during

the course of the site investigation to determine any party's responsibility for the release of hydrocarbons identified by the Division's Environmental Bureau Chief located on the Moon State lease within the North Hobbs Unit in the W/2 NE/4 of Section 28, Township 18 South, Range 38 East, NMPM, Lea County, New Mexico, or to otherwise act consistent with the Division's Rules and Regulations, the New Mexico Oil and Gas Act, the Water Quality Act, or other applicable statutes and regulations.

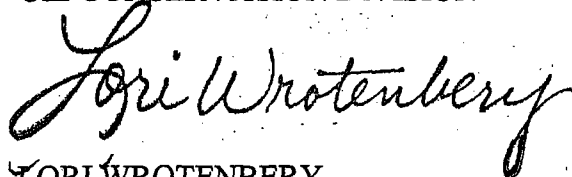
(2) If, within ten (10) days of service of this order on any party, that person informs the Division that Paragraph 9, or anything else, in the Stipulated Conditional Dismissal is intended to restrict the Division's use of information obtained during the course of the site investigation to determine any party's responsibility for the release, then this Order shall become of no effect and a subsequent Order shall be issued finding that the Stipulated Conditional Dismissal is based on a material mistake of fact and void, and reopening this matter for Division Hearing.

(3) If within ten (10) days of service of this Order on any party, no objections to its terms are received as described in Ordering Paragraph No. (2) above, then Division Case No. 13004 shall be and hereby will be dismissed and the terms of the Stipulated Conditional Dismissal and the letter of Samedan's legal counsel, dated April 21, 2003, herein incorporated by reference into this Order, shall govern the conduct of the parties henceforth excepted as otherwise described in Ordering Paragraph No. (1), above.

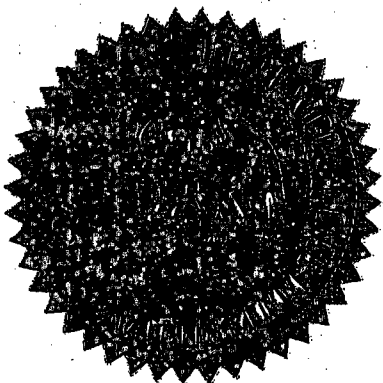
(4) Jurisdiction of this case is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION



LORI WROTENBERY
Director



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April 21, 2003
VIA FACSIMILE

David Brooks, Esq.
Oil Conservation Division
New Mexico Department of Energy,
Minerals and Natural Resources
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: ***NMOCD Case No. 13004; Application of the New Mexico Oil Conservation Division, Through the Environmental Bureau Chief, for an Order Determining the Responsible Party or Parties and Ordering the Responsible Party or Parties to Conduct Division-Approved Corrective Action With Respect to a Hydrocarbon Release; Lea County, New Mexico.***

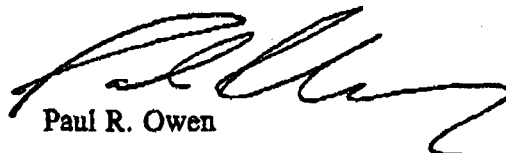
Dear Mr. Brooks:

Last week in a series of telephone calls and electronic mail messages we discussed Lori Wrotenbery's concern with paragraph 9 of the Stipulated Conditional Dismissal which I sent to you by letter dated April 8, 2003.

Samedan Oil Corporation agrees that Paragraph 9 of the Stipulated Conditional Dismissal does not prevent the Bureau from using the data derived from Samedan's investigation plan, as defined in the Stipulated Conditional Dismissal, in any related proceeding.

Samedan is prepared to submit its proposed investigation upon the Division's approval of the Stipulated Conditional Approval. If you have any questions, please let me know.

Very truly yours,



Paul R. Owen

cc: Arnold J. Johnson, Esq. (via facsimile)
J. Scott Hall, Esq. (via facsimile)
W. Thomas Kellahin, Esq. (via facsimile)
Mr. Michael Stogner (via facsimile)

**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION**

**APPLICATION OF THE NEW MEXICO
OIL CONSERVATION DIVISION,
THROUGH THE ENVIRONMENTAL
BUREAU CHIEF, FOR AN ORDER
DETERMINING THE RESPONSIBLE
PARTY OR PARTIES AND ORDERING
THE RESPONSIBLE PARTY OR
PARTIES TO CONDUCT DIVISION-
APPROVED CORRECTIVE ACTION
WITH RESPECT TO A HYDROCARBON
RELEASE; LEA COUNTY, NEW
MEXICO.**

CASE NO. 13004

STIPULATED CONDITIONAL DISMISSAL

The responding parties, Samedan Oil Corporation, Occidental Permian Ltd., and Shell Exploration and Production Company, all by and through undersigned counsel, submit this Stipulated Conditional Dismissal. Based on one party's commitment to commencing site investigation, this matter should be dismissed and re-filed if the matter is not voluntarily resolved:

The parties stipulate as follows:

1. Within seven (7) days of the Division's entry of this Stipulated Conditional Dismissal, Samedan Oil Corporation will submit to the Environmental Bureau of the New Mexico Oil Conservation Division ("Bureau") a plan to investigate the extent of contamination ("site investigation plan") associated with the mobile home site identified by the Bureau in the field notes taken by Mr. Bill Olson of the Bureau on January 25, 2000, and attached hereto as Exhibit "A."

2. Within 21 days of the Bureau's approval of the site investigation plan, Samedan will perform such work as is necessary to implement the site investigation plan.

3. Within 28 days of the Bureau's approval of the site investigation plan, Samedan will submit the results of the site investigation plan to the Bureau.

4. If, within 90 days of the Division's receipt of the results of the site investigation plan, one or all of the parties have not initiated such steps to remediate any hydrocarbon contamination revealed by the results of the site investigation plan, then this case may be re-filed.

5. If any of the steps required in paragraphs 1 through 4 herein are not taken within the time specified, or within such additional time as agreed to by the Bureau, this case may be re-filed by the Bureau. In the event that this case is refiled, Samedan, Occidental Permian, and Shell agree to pay (with each party paying an equal share) any costs incurred by the Division associated with re-publication of notice in relation to that re-filing.

6. This Stipulated Conditional Dismissal, and Samedan's agreement to formulate and implement the site investigation plan herein, are not an agreement by Samedan or any other party to take any steps to remediate the alleged contamination associated with the mobile home site identified in Exhibit A.

7. This Stipulated Conditional Dismissal, and any party's taking any steps as outlined herein, are not assumptions of responsibility for any alleged contamination or responsible person status by any party hereto.

8. No party shall use this Stipulated Conditional Dismissal, or any party's taking any steps as outlined herein, as evidence of any other party's responsibility for any alleged contamination or responsible person status.

9. The results of the site investigation plan shall not be binding on any party to determine any party's responsibility for any alleged contamination or responsible person status.

10. This Stipulated Conditional Dismissal is in the best interests of all parties for the following reasons:

a. It allows for the gathering of additional data to supplement the incomplete study commenced by the Environmental Bureau;

b. It may resolve what may otherwise be a lengthy, time consuming and extremely expensive contested hearing;

c. Despite the Environmental Bureau's stated intention that this case not establish a precedent, it may do so unless the case is dismissed without prejudice;

d. It will allow the Division Examiner to maintain jurisdiction and allow the Environmental Bureau to supervise, if necessary, the gathering of additional data, without the perceived bias to any party that may result from continuing the current case; and,

e. It demonstrates to the public that the Division is causing this case to move toward a conclusion.

IT IS THEREFORE ORDERED THAT:

Case No. 13004 is hereby Dismissed WITHOUT PREJUDICE to the Bureau to re-file this case under the conditions set forth herein.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

LORI WROTENBERY
Director

S E A L

AGREED AND STIPULATED:

NEW MEXICO OIL CONSERVATION
DIVISION

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KELLAHIN & KELLAHIN

By _____
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ATTORNEY FOR OCCIDENTAL
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AGREED AND STIPULATED:

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ASSISTANT GENERAL COUNSEL,
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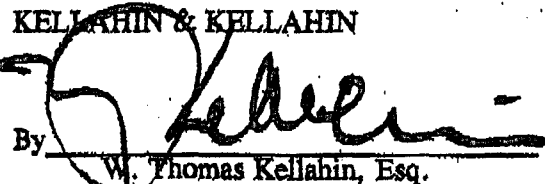
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EXPLORATION AND PRODUCTION
COMPANY

STIPULATED CONDITIONAL DISMISSAL

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Gerry Johnson Well (Hobbs, NM)

arrived at 0940 with Roger Anderson

Wayne Price
Deed Ford
Bancroft

met with Gerry Johnson (landowner) about asphalt
+ signs in property, needed to decide
water well in south west corner of property
some pump bottles spread on surface
lighter photos (1-5) of
hit the oil in force just below in old
asphalt pad for pump battery

After well adjacent to site (see map #6)
One well - North Hobbs (GSA) Unit
#28-332

Unit G, Sec 28, T16S, R38E

Sampled water well

Sample id 000125035b

Sample - 8021 (BTEX)

- casing annu.
- metals

1/25/00

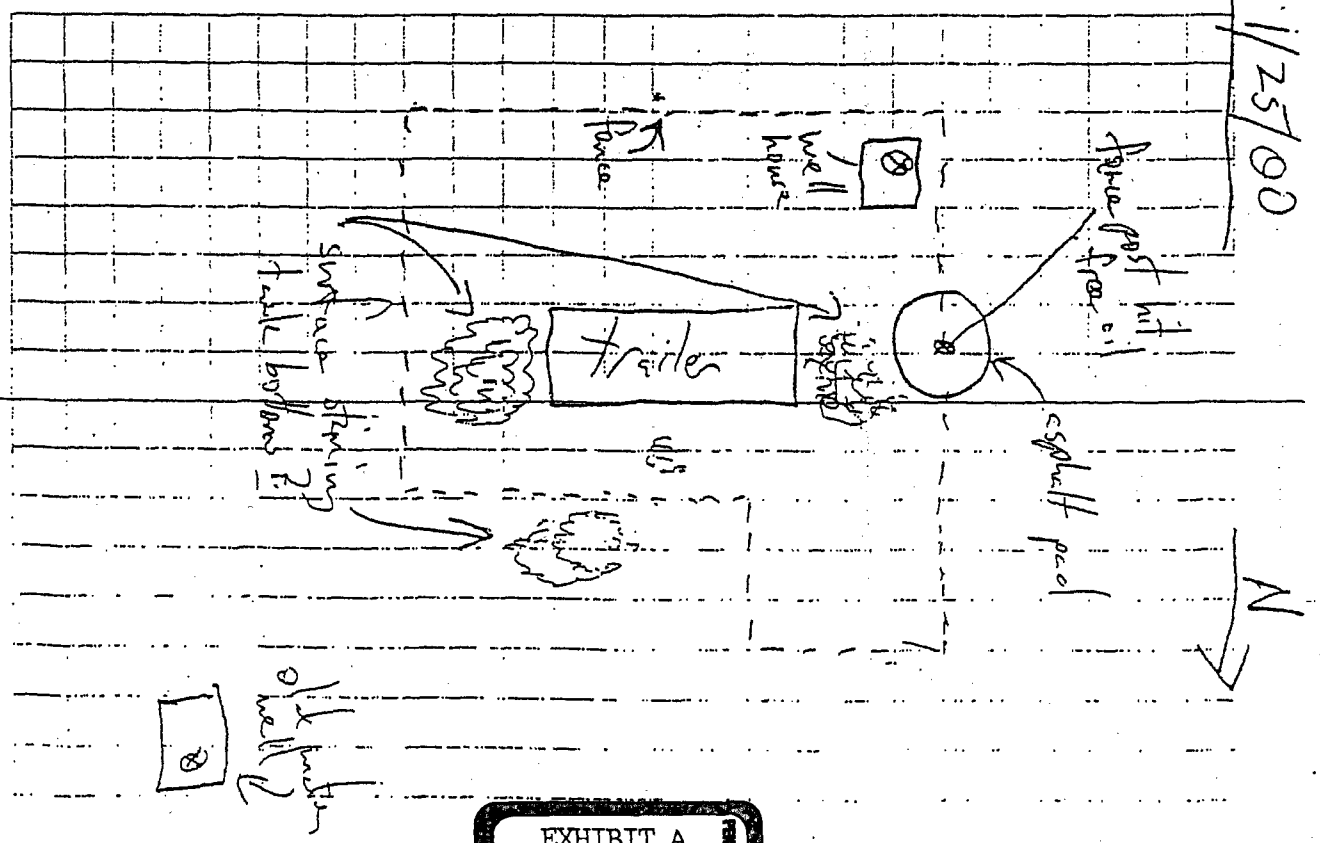


EXHIBIT A
Stip. Condition
Dismissal
OCD Case #1300

Bill Olson Field Book #5

Sept 8

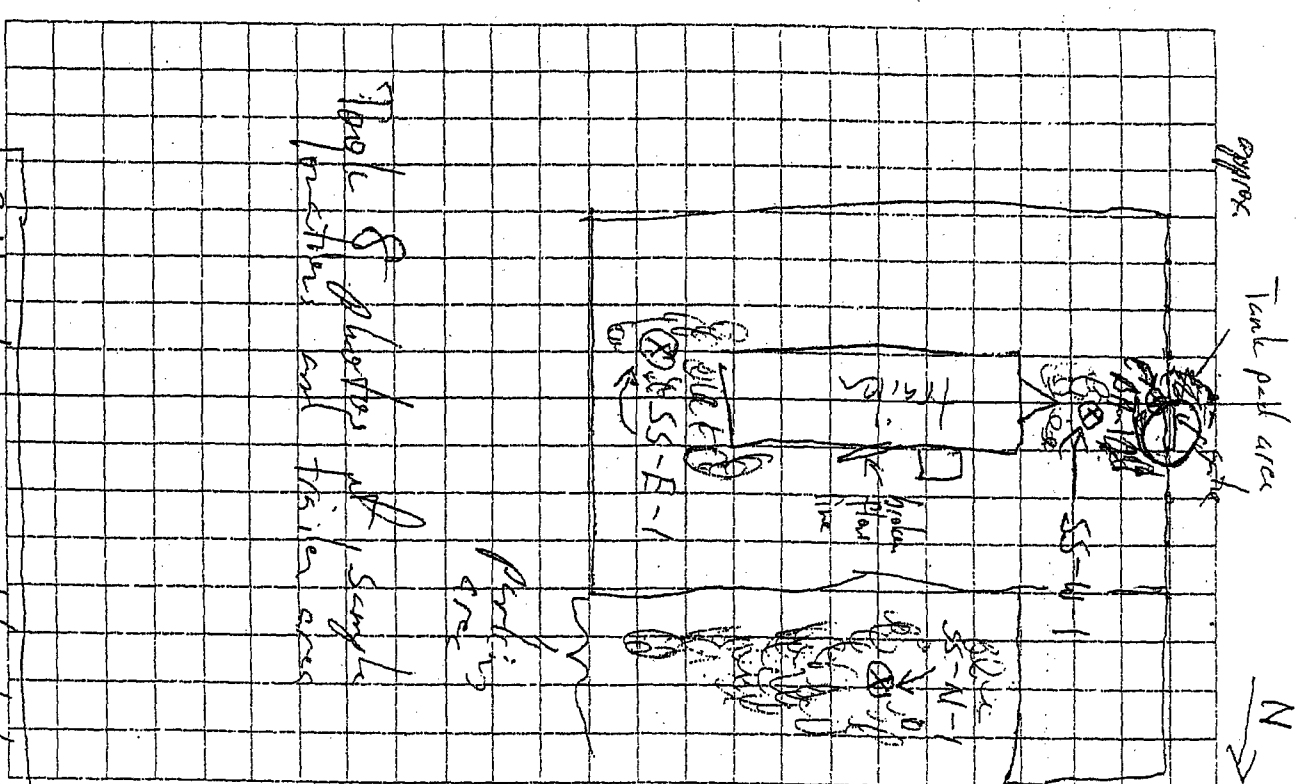
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12th

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Bill Olson - Field Notes



SS-W-1

West side of trail "

sample 1-2

sample black, asphalt, Hc odor

sample id - 020625 1240

sample - BTEX

TPH

metals

SS-N-1

North side of trail in

gravelly area

sample 1-2

sample black, asphalt, Hc odor

sample id - 020625 1305

SS-E-1

East side of trail "

sample 1-2

sample black, asphalt, Hc odor

sample id - 020625 1250

samples - BTEX

TPH

metals

**GENERAL INFORMATION
FOR
DIVISION HEARING
OCD CASE #1R167**

Site Name

Gary Johnson Residence Contamination/Moon State "A" Tank Battery

Location

Within the North Hobbs Unit in Section 28, Township 18 South, Range 38 East

The Gary Johnson residence is at - 1831 Mobile Rd.
 Hobbs, NM

Summary of Regulatory Actions History

January 3, 2000	Mr. Gary Johnson filed a complaint of oil contaminated soil on his property and abandoned flow line with paraffin under his mobile home.
January 25, 2000	OCD inspected site and sampled water well (BTEX, metals, cations and anions). Water results below standards except Cadmium = 0.03 mg/l (standard = 0.01 mg/l). Surface of the land around trailer house contaminated with highly weathered asphaltic type oil (tank bottoms?). Foot print of a former tank battery located on western fence line of property. Flow line under trailer with oil and paraffin in line.
March 27, 2000	Notified Mr. Johnson of sample results. No oil & gas contamination in water.
March 27, 2000	OCD required Altura submit information on battery site.
April 26, 2000	Occidental Permian response - name of site ("Moon A), map; unit agreement attachment; Shell & Samedan prior operators; Shell dismantled battery.
September 6, 2000	OCD required Shell submit information on battery site.
September 26, 2000	Shell request extension of deadline for information on battery site. OCD grants extension.
November 2, 2000	Shell info - map of Samedan lease; North Hobbs Unit site map; unit agreement attachment; Samedan Moon A & B hand drawn battery maps (all acquired from Occidental Permian).
February 5, 2001	OCD required Samedan submit plan investigate extent of contamination.

February 23, 2001	Samedan info – operated battery to February 1, 1980 (formation of North Hobbs Unit); relinquished to Shell, battery intact; year or so later Shell removed battery; Altura subsequent operator; Occidental Permian current operator is responsible.
April 11, 2001	OCD notified Shell that they were most recent operator and dismantled battery. Required Shell submit plan to investigate extent of contamination.
May 3, 2001	Shell requests extension of deadline for submission of plan.
May 14, 2001	OCD approves Shell extension request.
June 18, 2001	Shell undated letter – Shell sold interest to Occidental Permian. Occidental Permian is responsible party not Shell.
September 27, 2001	OCD letter to Occidental Permian – notify that Shell & Samedan maintain Occidental Permian as current operator is responsible; request information/response from Occidental Permian.
October 12, 2001	OCD grants Occidental Permian verbal extension of deadline for response.
October 19, 2001	Occidental Permian response – pits & battery located here, Samedan operated them; Samedan closed pits; Shell operated battery for approx. 1 year; Shell dismantled battery; never operated pits or battery; never had spill at site; Samedan is responsible & maybe Shell for spills.
June 25, 2002	OCD samples surface soils – highly viscous oil approximately 6 inches to 1 foot below surface near tank pad; lab analyses show 352 – 16520 ppm TPH, 0.234 ppm benzene, 0.0474-1.16 ppm ethylbenzene, 0.183-4.23 ppm xylene.

Operational History

Samedan Oil Corporation operated the Moon "A" tank battery up until February 1, 1980.

Shell Oil Company purchased the lease from Samedan and operated the tank battery for approximately one year, then closed the battery.

Occidental Permian Ltd. has operated the North Hobbs Unit since 1997.

DOCKET: EXAMINER HEARING - THURSDAY - MARCH 13, 2003

**8:15 A.M. - 1220 South St. Francis
Santa Fe, New Mexico**

Docket Nos. 08-03 and 09-03 are tentatively set for March 27, 2003 and April 10, 2003. Applications for hearing must be filed at least 23 days in advance of hearing date. The following cases will be heard by an **Examiner:**

CASE 13014: Application of Matador E & P Company for compulsory pooling, Lea County, New Mexico. Applicant seeks an order pooling all mineral interests in the Tubb formation underlying the N/2 NE/4 of Section 8, Township 20 South, Range 37 East, forming a standard 80-acre oil spacing and proration unit for any and all formations and/or pools spaced on 80-acre spacing, including but not limited to the Monument-Tubb Pool. In addition, Applicant requests that in the absence of objection filed with the Division on or before March 7, the Division order provide for a 200% risk factor penalty based upon the presentation of technical data by affidavit. This unit is to be dedicated to its Laughlin "8" Well No. 1 to be drilled at a standard well location in Unit A of this section. Also to be considered will be the costs of drilling and completing said well and the allocation of the costs thereof as well as actual operating costs and charges for supervision, designation of Matador Operating Company as the operator of the well and a charge for risk involved in this well. This unit is located approximately 2 miles south of Monument, New Mexico. **IN THE ABSENCE OF OBJECTION THIS MATTER WILL BE TAKEN UNDER ADVISEMENT.**

CASE 13006: Continued from February 20, 2003, Examiner Hearing.

Application of Chesapeake Operating, Inc. for compulsory pooling, Lea County, New Mexico. Applicant seeks an order pooling all mineral interests from the surface to the base of the Mississippian formation underlying the W/2 of Section 33, Township 14 South, Range 35 East, forming a standard 320-acre gas spacing and proration unit for any and all formations and/or pools spaced on 320-acre spacing, including but not limited to the Morton-Mississippian Gas Pool. In addition, Applicant requested that in the absence of objection filed with the Division on or before February 14, the Division order provide for a 200% risk factor penalty based upon the presentation of technical data by affidavit. This unit is to be dedicated to its Markham "33" Well No. 1 which has been drilled and completed at a standard well location in Unit A of this section. Also to be considered will be the costs of drilling and completing said well and the allocation of the costs thereof as well as actual operating costs and charges for supervision, designation of applicant as the operator of the well and a charge for risk involved in this well. This unit is located approximately 3 miles northwest of Loving, New Mexico. **IN THE ABSENCE OF OBJECTION THIS MATTER WILL BE TAKEN UNDER ADVISEMENT.**

CASE 13015: Application of Paladin Energy Corp. for approval of a Unit Agreement, Lea County, New Mexico. Applicant seeks approval of the Paladin Wolfcamp-Pennsylvanian Exploratory Unit for an area comprising 80 acres of state and fee lands in Sections 35 and 36 of Township 13 South, Range 37 East, which is located approximately 9 miles east of McDonald, New Mexico.

CASE 13016: Application of Paladin Energy Corp. for an unorthodox gas well location, Lea County, New Mexico. Applicant seeks approval of an unorthodox well location in the Pennsylvanian and Wolfcamp formations, King-Wolfcamp Pool, for its State "C" Well No. 1 to be re-entered and re-completed from the Devonian to the Wolfcamp formation at an unorthodox well location 1550 feet from the North line and 10 feet from the West line of said Section 36, Township 13 South, Range 37 East. Said well is located approximately 9 miles east of McDonald, New Mexico.

CASE 13017: Application of OXY USA WTP Limited Partnership for compulsory pooling, Lea County, New Mexico. Applicant seeks an order pooling all mineral interests in all formations in the following described spacing and proration units located in Section 8, Township 22 South, Range 38 East: the N/2 for all formations and/or pools developed on 320-acre spacing; the NE/4 for all formations and/or pools developed on

160-acre spacing which includes the Undesignated Tubb Oil and Gas Pool ; and the SW/4 NE/4 for all formations and/or pools developed on 40-acre spacing which includes but is not necessarily limited to the Undesignated Wantz-Granite Wash Pool, Undesignated South Brunson Drinkard-Abo Pool, Undesignated Tubb Oil and Gas Pool, Undesignated Blinebry Oil and Gas Pool and Undesignated Paddock Pool. Applicant proposes to dedicate the pooled units to its Brabant Well No. 1 to be drilled at a standard gas well location 1980 feet from the North and East lines of said Section 8. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well and a charge for risk involved in drilling said well. Said area is located approximately 6 miles southeast of Eunice, New Mexico.

CASE 13008: Readvertised

Amended Application of Yates Petroleum Corporation for simultaneous dedication, Chaves County, New Mexico. Applicant in the above-styled cause seeks an exception to Division Rule 104.C.(2)(b) to permit the simultaneous dedication of the following wells to an existing 320-acre spacing and proration unit for production from the Silurian Devonian, Strawn, Cisco and Wolfcamp formations, comprised of the N/2 of Section 5, Township 10 South, Range 26 East:

- A. Quiniela AXQ State Well No. 1 located at a standard gas well location in the NW/4 of Section 5;
- B. Quiniela AXQ State Well No. 2 located at a standard gas well location 1980 feet from the North and East lines (Unit G) of Section 5, and
- C. Quiniela AXQ State Well No. 3 located at a standard gas well location 660 feet from the North line and 1650 feet from the East line (Unit B) of Section 5.

Said area is located approximately 17 miles East of Roswell, New Mexico.

CASE 13018: Application of Yates Petroleum Corporation for approval of a Unit Agreement, Eddy County, New Mexico. Applicant seeks approval of the Arley Federal Exploratory Unit for an area comprising 2960.97 acres of Federal and Fee lands in portions of Sections 1 and 12 of Township 20 South, Range 21 East, and Sections 6, 7, and 18 of Township 20 South, Range 23 East, which is located approximately 15 miles south of Hope, New Mexico.

CASE 13019: Application of Yates Petroleum Corporation for approval of a Unit Agreement, Lea County, New Mexico. Applicant seeks approval of the Caviness State Exploratory Unit for an area comprising 1280 acres of State of New Mexico lands in Sections 27 and 34 of Township 16 South, Range 33 East, which is located approximately 7 miles northeast of Maljamar, New Mexico.

CASE 13020: Application of Yates Petroleum Corporation for adoption of special pool rules, Lea County, New Mexico. Applicant seeks adoption of Special Pool Rules and Regulations for the Salt Lake-Delaware Pool located in the SE/4 of Section 14, Township 20 South, Range 32 East, including provisions for 80-acre oil spacing. Said pool area is located approximately 1 mile North of Halfway, New Mexico.

CASE 12998: Continued from February 20, 2003, Examiner Hearing.

Application of NGX Company for compulsory pooling and a non-standard gas spacing and proration unit, Eddy County, New Mexico. Applicant seeks an order pooling all mineral interests from the surface to the base of the Atoka formation underlying the SE/4 of Section 21, Township 22 South, Range 27 East, to form a non-standard 160-acre gas spacing and proration unit for any formations and/or pools developed on 320-acre spacing within that

vertical extent. The unit is to be dedicated to the Boggs Fee Well No. 1, located in the NE/4 SE/4 of Section 21, which is to be re-entered and re-completed. Also to be considered will be the cost of re-entering and re-completing the well and the allocation of the cost thereof, as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for the risk involved in re-entering and working over the well. The unit is located approximately 4½ miles southeast of Carlsbad, New Mexico.

CASE 13021: **Application of Mewbourne Oil Company for compulsory pooling, Eddy County, New Mexico.** Applicant seeks an order pooling all mineral interests from the base of the Wolfcamp formation to 100 feet below the base of the Morrow formation underlying the S/2 of Section 1, Township 22 South, Range 27 East, to form a standard 320-acre gas spacing and proration unit for any and all formations and/or pools developed on 320-acre spacing within that vertical extent, including but not limited to the Undesignated East Carlsbad-Strawn Gas Pool and Undesignated East Carlsbad-Morrow Gas Pool. The unit is to be dedicated to applicant's Otis "1" Well No. 1, to be drilled at an orthodox location in the SW/4 SE/4 (Unit O) of Section 1. Also to be considered will be the cost of drilling and completing the well and the allocation of the cost thereof, as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for the risk involved in drilling and completing the well. The unit is located approximately 5 miles east of Carlsbad, New Mexico.

CASE 12957: Reopened

Application of Nadel and Gussman Permian, L.L.C. for compulsory pooling, Eddy County, New Mexico. Applicant seeks to amend Division Order No. R-11868 to pool additional interest owners, by pooling all mineral interests from the surface to the base of the Morrow formation underlying the E/2 of Section 35, Township 23 South, Range 27 East, to form a standard 320-acre gas spacing and proration unit for any and all formations and/or pools developed on 320-acre spacing within that vertical extent, including but not limited to the Undesignated Southeast Loving-Atoka Gas Pool and the Undesignated Black River-Morrow Gas Pool. The unit is to be dedicated to applicant's Palo Duro Well No. 1, to be drilled at an orthodox location in the NE/4 SE/4 (Unit I) of Section 35. Also to be considered will be the cost of drilling and completing the well and the allocation of the cost thereof, as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for the risk involved in drilling and completing the well. The unit is located approximately 3½ miles southwest of Loving, New Mexico.

CASE 13010: Continued from February 20, 2003, Examiner Hearing.

Application of Concho Oil & Gas Corp. for compulsory pooling, Lea County, New Mexico. Applicant seeks an order pooling all mineral interests from the surface to the base of the Morrow formation underlying the N/2 of Section 28, Township 19 South, Range 34 East, to form a standard 320-acre gas spacing and proration unit for any formations and/or pools developed on 320-acre spacing within that vertical extent, including but not limited to the Quail Ridge-Morrow Gas Pool. The unit is to be dedicated to applicant's Codorniz Fed. "28" Well No. 1, to be located at an orthodox location in the NW/4 NW/4 of Section 28. Also to be considered will be the cost of drilling and completing the well and the allocation of the cost thereof, as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for the risk involved in drilling and completing the well. The unit is located approximately 17½ miles west of Monument, New Mexico.

CASE 13011: Continued from February 20, 2003, Examiner Hearing.

Application of Concho Oil & Gas Corp. for compulsory pooling, Lea County, New Mexico. Applicant seeks an order pooling all mineral interests from the surface to the base of the Morrow formation underlying the S/2 of Section 28, Township 19 South, Range 34 East, to form a standard 320-acre gas spacing and proration unit for any formations and/or pools developed on 320-acre spacing within that vertical extent, including but not limited to the Undesignated Quail Ridge-Morrow Gas Pool. The unit is to be dedicated to applicant's Codorniz Fed. "28" Well No.

Examiner Hearing – March 13, 2003
Docket No. 06-03
Page 4 of 7

2, to be located at an orthodox location in the NW/4 SW/4 of Section 28. Also to be considered will be the cost of drilling and completing the well and the allocation of the cost thereof, as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for the risk involved in drilling and completing the well. The unit is located approximately 17½ miles west of Monument, New Mexico.

CASE 13022: **Application of Pogo Producing Company for approval of a pilot pressure maintenance project and to qualify the project for the recovered oil tax rate pursuant to the Enhanced Oil Recovery Act, Eddy County, New Mexico.** Applicant seeks approval to institute a pilot pressure maintenance project in the Lost Tank-Delaware Pool on State Lease LH-1523, comprising the SE/4 of Section 2, Township 22 South, Range 31 East, by the injection of water into the State "2" Well No. 5, located in Unit P of Section 2. Applicant further seeks to qualify the project for the recovered oil tax rate pursuant to the "New Mexico Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5). The project area is located approximately 28 miles east of Carlsbad, New Mexico.

CASE 13023: **Application of Pogo Producing Company for an exception to Division rules to allow two operators in a single well unit, or in the alternative, for two non-standard gas spacing and proration units, Eddy County, New Mexico.** Applicant seeks an order allowing it to operate its proposed State "19" Com. Well No. 2, and allowing Atasca Resources, Inc. to operate its State "19" Com. Well No. 1, both in the McMillan-Morrow Gas Pool. All of Section 19, Township 20 South, Range 27 East, will be dedicated to the two wells. **IN THE ALTERNATIVE**, applicant seeks an order creating two non-standard gas spacing and proration units in the McMillan-Morrow Gas Pool, one comprising the N/2 of Section 19 to be dedicated to the State "19" Com. Well No. 1 located in Unit F of Section 19, and the other comprising the S/2 of Section 19 to be dedicated to the State "19" Com. Well No. 2 to be located in Unit L of Section 19. The unit is located approximately 6½ miles east-southeast of Seven Rivers, New Mexico.

CASE 12967: **Continued from February 6, 2003, Examiner Hearing.**

Application of BP America Production Company for Surface Commingling, Eddy County, New Mexico. Applicant seeks authority to surface commingle gas production from the Little Box Canyon-Morrow, Indian Loafer Draw-Upper Pennsylvanian, Strychnine Draw-Atoka and Strychnine Draw-Strawn Gas Pools within certain wells it operates located on Federal Leases No. NMNM-93457 and NMNM-25336, which comprise all or portions of Sections 22, 25, 26 and 35, Township 20 South, Range 21 East, and on the Little Box State Lease, located on all or portions of Section 36, Township 20 South, Range 21 East. These wells are located approximately 18 miles south of Hope, New Mexico.

CASE 12968: **Continued from February 6, 2003, Examiner Hearing.**

Application of BP America Production Company for Surface Commingling, Eddy County, New Mexico. Applicant seeks authority to surface commingle gas production from the Little Box Canyon-Morrow and Indian Loafer Draw-Upper Pennsylvanian Gas Pools within certain wells it operates located on Federal Leases No. NMNM-82831, NMNM-88085, and NMNM-27451 which comprise all or portions of Section 31, Township 20.5 South, Range 22 East, Section 6, Township 21 South, Range 22 East, and Section 1, Township 21 South, Range 21 East, and on the Little Box State and Sweet Thing "36" State Leases, located on all or portions of Section 36, Township 20 South, Range 21 East, and Section 36, Township 20.5 South, Range 21 East. These wells are located approximately 18 miles south of Hope, New Mexico.

CASE 13024: **Application of Trilogy Operating, Inc. for compulsory pooling, Lea County, New Mexico.** Applicant seeks an order pooling all mineral interests from the surface to the base of the Silurian formation in the NW/4 SE/4 of Section 11, Township 19 South, Range 38 East, including but not necessarily limited to the Wildcat Seven Rivers/Yates, the Wildcat Blinebry, the Wildcat Tubbs, the Wildcat Drinkard-Abo,

and the Wildcat Silurian oil pools. Applicant proposes to dedicate these pooled units to its proposed Selman Well No. 1, to be drilled at a standard oil well location in the NW/4 SE/4 of said Section 11. Also to be considered will the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well and a charge for risk involved in drilling said well. Said area is located approximately 1 mile south of the city limits of Hobbs, New Mexico.

CASE 13025: Application of the New Mexico Oil Conservation Division through the Environmental Bureau Chief to revoke the permit of Crawford Treating Company to operate an Oil Treatment Plant; Lea County, New Mexico. The Applicant seeks an order rescinding the permit of Dwight Crawford d/b/a Crawford Treating Company to operate an oil treating plant located in the NW/4 NW/4 of Section 12, Township 20 South, Range 38 East, in Lea County, New Mexico. Applicant further seeks an order requiring the former operator to clean up and reclaim the site of such previously operated facility, and in the event of his failure to do so, authorizing the Division to clean up and reclaim the site and forfeiting the operator's bond.

CASE 13026: Application of the New Mexico Oil Conservation Division through the Environmental Bureau Chief to revoke the permit of Am-Bett Oil Company, Inc. to operate an Oil Treatment Plant; Lea County, New Mexico. The Applicant seeks an order rescinding the permit of Am-Bett Oil Company, Inc. to operate an oil treating plant located in Lot 6 of Section 3, Township 21 South, Range 37 East, in Lea County, New Mexico. Applicant further seeks an order requiring the former operator to clean up and reclaim the site of such previously operated facility, and in the event of its failure to do so, authorizing the Division to clean up and reclaim the site and forfeiting the operator's bond.

CASE 13027: Application of the New Mexico Oil Conservation Division through the Environmental Bureau Chief to revoke the permit of Jamar, Inc. to operate an Oil Treatment Plant; Lea County, New Mexico. The Applicant seeks an order rescinding the permit of Jamar, Inc. to operate an oil treating plant located in the NE/4 NE/4 of Section 8, Township 20 South, Range 37 East, in Lea County, New Mexico. Applicant further seeks an order requiring the former operator to clean up and reclaim the site of such previously operated facility, and in the event of its failure to do so, authorizing the Division to clean up and reclaim the site and forfeiting the operator's bond.

CASE 13004: Continued from February 6, 2003, Examiner Hearing.

Application of the New Mexico Oil Conservation Division, through the Environmental Bureau Chief, for an Order Determining the Responsible Party or Parties and Ordering the Responsible Party or Parties to Conduct Division-Approved Corrective Action with respect to a Hydrocarbon Release; Lea County, New Mexico. The Applicant seeks an order determining the responsible parties with respect to a release of hydrocarbons identified as a danger to public safety and the environment, located on the Moon State "A" lease in the North Hobbs Unit, in Section 28, Township 18 South, Range 38 East, NMPM, Lea County, New Mexico.

CASE 13028: In the matter of the hearing called by the Oil Conservation Division for an order creating and extending certain pools in Chaves and Eddy Counties, New Mexico.

(a) CREATE a new pool in Eddy County, New Mexico classified as a gas pool for Morrow production and designated as the Southwest Black River-Morrow Gas Pool (Pool Code 97255). The discovery well is the Rubicon Oil & Gas, LLC Jake State Well No. 3 (API No. 30-015-32340) located in Unit K of Section 36, Township 24 South, Range 26 East, NMPM. Said pool would comprise:

Examiner Hearing – March 13, 2003
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Page 6 of 7

TOWNSHIP 24 SOUTH, RANGE 26 EAST, NMPM
Section 36: W/2

(b) CREATE a new pool in Eddy County, New Mexico classified as a gas pool for Strawn production and designated as the Southwest Diamond Mound-Strawn Gas Pool (**Pool Code 97254**). The discovery well is the Devon Energy Production Company Carbon Valley "14" Federal Well No. 2 (**API No. 30-015-30973**) located in Unit F of Section 14, Township 16 South, Range 27 East, NMPM. Said pool would comprise:

TOWNSHIP 16 SOUTH, RANGE 27 EAST, NMPM
Section 14: W/2

(c) CREATE a new pool in Eddy County, New Mexico classified as a gas pool for Bone Spring production and designated as the Paduca-Bone Spring Gas Pool (**Pool Code 97252**). The discovery well is the Chevron U.S.A., Inc. Cotton Draw Unit Well No. 90 (**API No. 30-015-31889**) located in Unit D of Section 36, Township 24 South, Range 31 East, NMPM. Said pool would comprise:

TOWNSHIP 24 SOUTH, RANGE 31 EAST, NMPM
Section 36: NW/4

(d) EXTEND the North Cedar Lake-Morrow Gas Pool (**Pool Code 74600**) in Eddy County, New Mexico to include:

TOWNSHIP 17 SOUTH, RANGE 31 EAST, NMPM
Section 29: N/2

(e) EXTEND the Crow Flats-Morrow Gas Pool (**Pool Code 75720**) in Eddy County, New Mexico to include:

TOWNSHIP 16 SOUTH, RANGE 27 EAST, NMPM
Section 34: E/2

TOWNSHIP 17 SOUTH, RANGE 27 EAST, NMPM
Section 3: NE/4

(f) EXTEND the Northwest Foor Ranch-Wolfcamp Gas Pool (**Pool Code 97066**) in Chaves County, New Mexico to include:

TOWNSHIP 9 SOUTH, RANGE 26 EAST, NMPM
Section 9: E/2

(g) EXTEND the Fren-Cisco-Canyon Pool (**Pool Code 97126**) in Eddy County, New Mexico to include:

TOWNSHIP 17 SOUTH, RANGE 31 EAST, NMPM
Section 10: W/2

(h) EXTEND the North Hackberry-Morrow Gas Pool (**Pool Code 96785**) in Eddy County, New Mexico to include:

Examiner Hearing – March 13, 2003
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TOWNSHIP 19 SOUTH, RANGE 30 EAST, NMPM
Section 12: E/2

(i) EXTEND the Kennedy Farms-Morrow Gas Pool (**Pool Code 79520**) in Eddy County, New Mexico to include:

TOWNSHIP 17 SOUTH, RANGE 26 EAST, NMPM
Section 28: W/2

(j) EXTEND the North McMillan-Morrow Gas Pool (**Pool Code 81240**) in Eddy County, New Mexico to include:

TOWNSHIP 19 SOUTH, RANGE 27 EAST, NMPM
Section 33: N/2

(k) EXTEND the Pecos Slope-Abo Gas Pool (**Pool Code 82730**) in Chaves County, New Mexico to include:

TOWNSHIP 10 SOUTH, RANGE 26 EAST, NMPM
Section 3: NW/4

(l) EXTEND the Turkey Track-Atoka Gas Pool (**Pool Code 86445**) in Eddy County, New Mexico to include:

TOWNSHIP 18 SOUTH, RANGE 29 EAST, NMPM
Section 3: SW/4
Section 4: S/2

IN THE ABSENCE OF OBJECTION, THIS CASE WILL BE TAKEN UNDER ADVISEMENT.



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON

Governor

Joanna Prukop
Cabinet Secretary

February 4, 2003

Lori Wrotenberg

Director

Oil Conservation Division

Mr. J. Scott Hall
Miller, Stratvert & Torgeson, P.A.
P.O.Box 1986
Santa Fe, NM 87504-1986

Paul R. Owen
Montgomery & Andrews
P.O.Box 2307
Santa Fe, NM 87504-2307

Mr. W. Thomas Kellahin
Kellahin and Kellahin
P.O.Box 2265
Santa Fe, NM 87504-2265

**Re: Case No. 13004; Application of the New Mexico Oil conservation Division for
an Order Determining the Responsible Part or Parties, Etc; Lea County,
New Mexico**

Gentlemen:

The NMOCD agrees to the thirty-day continuance requested by Shell. That would move the case to the March 13 examiner docket.

In the absence of significant progress toward a settlement, or other compelling considerations, we are reluctant to agree to a longer continuance.

Should you have any questions, please call me at (505)-476-3450.

Very truly yours,

David K. Brooks
Assistant General Counsel

ec: William C. Olson

**STATE OF NEW MEXICO
DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES
OIL CONSERVATION DIVISION**

**IN THE MATTER OF THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION DIVISION
FOR THE PURPOSE OF CONSIDERING:**

**APPLICATION OF THE NEW MEXICO OIL CONSERVATION
DIVISION FOR AN ORDER DETERMINING THE RESPONSIBLE
PARTY OR PARTIES AND ORDERING THE RESPONSIBLE
PARTY OR PARTIES TO CONDUCT DIVISION-APPROVED
CORRECTIVE ACTION WITH REQUEST TO A HYDROCARBON
RELEASE; LEA COUNTY, NEW MEXICO**

CASE NO. 13004

SUBPOENA DUCES TECUM

**TO: The New Mexico Oil Conservation Division and its Environmental Bureau Chief
c/o David Brooks
Assistant General Counsel
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505**

Pursuant to Section 70-2-8, NMSA (1978), and Rule 1211 of the New Mexico Oil Conservation Division's Rules of Procedure, you are hereby ORDERED to appear at 9:00 a.m., February 10, 2003, at the offices of the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico 87505 and to produce and make available to Shell Exploration and Production Company ("Shell") and its attorney, J. Scott Hall, for copying, the documents and items specified below.

This subpoena is issued on application of Shell Exploration and Production Company through their attorneys Miller Stratvert P.A., Post Office Box 1986, Santa Fe, New Mexico 87504.

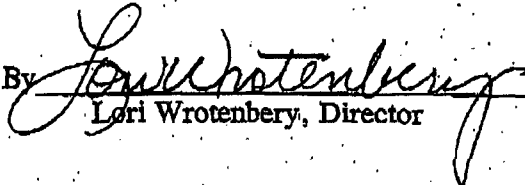
All documents and other materials relating to the following:

1. The occurrence of the "highly weathered asphaltic type oil" referred to in Paragraph 2 of the Application For Compliance Order, ("Application").
2. The Division's determination, if any, that the "asphaltic type oil" referred to in Paragraph 2 of the Application For Compliance Order, ("Application") occurred as a result of any of the activities referenced in 19.15.3.116A.1 NMAC.
3. The areal extent and location, both vertically and horizontally, of the "asphaltic type oil".
4. The laboratory analyses and underlying data referred to in Paragraph 2 of the Application.
5. The location of the tank battery and pits referred to in Paragraph 2 of the Application.
6. The ownership and operation of the Moon State "A" lease and the tank battery referred to in Paragraph 3 of the Application.
7. The allegation in Paragraph 4 of the Application that Shell operated the tank battery on Mr. Johnson's property for approximately one year prior to causing the tank battery to be dismantled.
8. The determination of responsible persons by the Division and/or the Division's Environmental Bureau referred to in Paragraph 9 of the Application, and any other similar determination related to the property that is the subject of the Application.
9. The potential danger to public health and the environment referred to in Paragraph 6 of the Application.

10. The determinations or assertions in the advertisement in Docket No. 03-03 for Case No. 13004 of a "release" of hydrocarbons and of "a danger to public safety and the environment".
11. The rulemaking proceedings for 19.15.3.116 and 19.15.1.7.R(5) NMAC of the Division's Rules and Regulations.

Dated this 28th day of January, 2003.

NEW MEXICO OIL CONSERVATION DIVISION

By 
Lori Wrotenberg, Director

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

IN THE MATTER OF THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION DIVISION
FOR THE PURPOSE OF CONSIDERING:

APPLICATION OF THE NEW MEXICO OIL CONSERVATION
DIVISION FOR AN ORDER DETERMINING THE RESPONSIBLE
PARTY OR PARTIES AND ORDERING THE RESPONSIBLE
PARTY OR PARTIES TO CONDUCT DIVISION-APPROVED
CORRECTIVE ACTION WITH REQUEST TO A HYDROCARBON
RELEASE; LEA COUNTY, NEW MEXICO

CASE NO. 13004

MOTION FOR CONTINUANCE

SHELL EXPLORATION AND PRODUCTION COMPANY, ("Shell"), through its counsel, hereby moves that the Division enter its order continuing the hearing in this matter from the February 6, 2003 Examiner hearing docket to the March 6, 2003 hearing docket, or a later date as the Examiner may determine. As grounds for this motion, Shell states:

1. In its Application, the Division seeks the entry of an order *inter alia*, determining that three parties are "responsible persons" for a claimed hydrocarbon release and further orders each or all of them to submit a corrective action plan.
2. The Application and the relief requested therein present matters of first impression before this agency. As a consequence, the Application implicates novel issues that may obligate the parties to test the jurisdictional and procedural premises of the proceeding by way of dispositive motions.
3. In addition to giving rise to the questions of law discussed above, a number of fact issues are also apparent on the face of the Application that will require Shell, and

likely others, to undertake further investigation and discovery. There is insufficient time before the scheduled February 6th hearing date to conduct the investigations and discovery. In this regard, Shell is requesting the Division Director to issue a subpoena duces tecum for the production of materials related to a number of the assertions stated in the Application. The subpoena calls for the production of such materials on February 10, 2003. Until the Division's Application was filed, none of the parties had the ability to request the issuance of subpoenas under the Division's rules.

4. As this may become a precedent-setting case with wide-ranging implications, Shell and, it is believed, all the other parties wish to prepare for and schedule the proceeding so that each party is afforded a full and fair hearing. Accordingly, Shell has requested the Examiner to convene a pre-hearing conference to discuss the issues, scheduling and the presentation of the case as is often done in proceedings that are perceived to be important.
5. There is insufficient time before the February 6, 2003 Examiner hearing docket to accomplish all of the foregoing matters.
6. Counsel for Occidental Permian Ltd. has been contacted and concurs with this motion. The possibility of a continuance has been discussed with counsel for the Division, but neither concurrence nor opposition has been indicated. To our knowledge, no counsel has entered an appearance on behalf of Samedan Oil Corporation or any other party.

WHEREFORE, Shell Exploration and Production Company requests the Division enter its order continuing the February 6, 2003 hearing in this matter to the March 6, 2003 Examiner hearing docket, or to a subsequent date as the Examiner may direct.

Respectfully submitted,

By:

T. J. Scott Hall

MILLER STRATVERT P.A.

J. Scott Hall, Esq.

Post Office Box 1986

Santa Fe, New Mexico 87505-1986

ATTORNEYS FOR SHELL
EXPLORATION AND PRODUCTION
COMPANY

Certificate of Service

I hereby certify that a true and correct copy of the foregoing was delivered via facsimile to the following on the 28 day of January, 2003, as follows:

David K. Brooks, Esq.
1220 South St. Francis Drive
New Mexico Oil Conservation Division
Santa Fe, New Mexico 87505

W. Thomas Kellahin, Esq.
Post Office Box 2265
Santa Fe, New Mexico 87504-2265

T. J. Scott Hall

J. Scott Hall

January 13, 2003

Samedan Oil Corporation
Attn: Thomas D. Dopler, Jr.
12600 Northborough, Suite 250
Houston, TX 77067-3299

Shell E&P Company
Attn: Wayne Hamilton
Rm. 4304 Woodcreek
200 N. Dairy Ashford
Houston, TX 77079

Occidental Permian Ltd.
Attn: Michael Starrett
P.O.Box 7294
Houston, TX 77210

CERTIFIED MAIL

**Re: Case No. _____
Application of the New Mexico Oil Conservation Division, through the
Environmental Bureau Chief, for an Order Determining the Responsible
Party or Parties and Ordering the Responsible Party or Parties to Conduct
Division-Approved Corrective Action with respect to a Hydrocarbon
Release; Lea County, New Mexico.**

Gentlemen:

You and your client are hereby notified that the New Mexico Oil Conservation Division has filed the referenced Application, a copy of which is enclosed herewith, seeking an order determining that Samedan Oil Corporation, Shell Oil Company and Occidental Permian Ltd., and each of them, is a responsible person with respect to a hydrocarbon release identified on the surface property of Gary Johnson at 1831 Mobile Road, Hobbs, Lea County, New Mexico, and ordering each of said entities to submit a plan for corrective action, and to conduct corrective action in accordance with a division-approved plan.

A hearing on this Application will take place before a Division hearing officer on Thursday, February 6, 2003, at 8:15 a.m., in the Division Hearing Room, First Floor, 1220 South St. Francis Drive in Santa Fe, New Mexico. At that hearing you will have an

opportunity to show cause why an order should not be entered as requested in the Application.

Should you have questions, you may contact the undersigned in the Santa Fe office of the Oil Conservation Division, at (505)-476-3450. Alternatively, you may contact William C. Olson, Sr. Hydrologist for the Division, at (505)-476-3491.

Very truly yours,

/s/

David K. Brooks
Assistant General Counsel

cc: Mr. Rod M. Schumacher
Attorney at Law
Atwood, Malone, Turner & Sabin
P.O. Drawer 700
Roswell, NM 88202-0700

Mr. Scott Hall
Attorney at Law
Miller, Startvert & Torgerson, P.A.
P.O.Box 1986
Santa Fe, NM 87504-1986

Mr. Patrick B. McMahon
Attorney at Law
Heidel, Samberson et al.
P.O. Drawer 1599
Lovington, NM 88260

Mr. Gary Johnson
1500 Tasker Rd.
Hobbs, NM 88240

cc: Mr. William C. Olson, OCD

**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION**

**APPLICATION OF THE NEW MEXICO OIL CONSERVATION DIVISION,
THROUGH THE ENVIRONMENTAL BUREAU CHIEF, FOR AN ORDER
DETERMINING THE RESPONSIBLE PARTY OR PARTIES AND ORDERING
THE RESPONSIBLE PARTY OR PARTIES TO CONDUCT DIVISION-
APPROVED CORRECTIVE ACTION WITH RESPECT TO A HYDROCARBON
RELEASE; LEA COUNTY, NEW MEXICO**

CASE NO. _____

APPLICATION FOR COMPLIANCE ORDER

1. On January 3, 2000 Mr. Gary Johnson filed a complaint of oil-contaminated soil on his property located at 1831 Mobile Rd in the City of Hobbs, New Mexico. Said property is located within the North Hobbs Unit in Section 28, Township 18 South, Range 38 East, Lea County, New Mexico.

2. An OCD investigation determined that the surface of the land around Mr. Johnson's trailer house at the above-referenced property is contaminated with highly weathered asphaltic type oil. The footprint of a former oilfield tank battery associated with the Moon State "A" lease is located on the western fence line of the property. Highly viscous oil can be found approximately 6 inches to 1 foot below the surface of the ground. Laboratory analyses show that the contaminated soils contain 352 – 16520 parts per million (ppm) of total petroleum hydrocarbons (TPH); up to 0.234 ppm of benzene; 0.0474 – 1.16 ppm of ethylbenzene; and, 0.183 - 4.23 ppm of xylene. Information filed with the OCD also indicates that there were pits associated with the tank battery.

3. Samedan Oil Corporation ("Samedan") was the operator of the Moon State A lease prior to February 1, 1980. On information and belief, the Division alleges that Samedan constructed and operated a tank battery on Mr. Johnson's property that is the probable source of the existing contamination.

4. On February 1, 1980, the Moon State "A" lease was incorporated into the North Hobbs Unit, and Shell Oil Corporation ("Shell") assumed operation of the property. On information and belief, the Division alleges that Shell operated the tank battery on Mr. Johnson's property for approximately one year prior to causing the said tank battery to be dismantled.

5. In 1997, Occidental Permian Ltd., f/k/a/ Altura Energy Ltd., ("Occidental Permian") assumed operation of the North Hobbs Unit, including the Moon State "A" lease.

6. The above-described hydrocarbon contamination constitutes a potential danger to public health and the environment.

7. OCD Rule 116.D [19.15.3.166.D NMAC] provides:

D. Corrective Action. The responsible person must complete Division approved corrective action for releases which endanger public health or the environment. Releases will be addressed in accordance with a remediation plan submitted to and approved by the Division or with an abatement plan submitted in accordance with Section 19 of 19.15.1 NMAC.

8. OCD Rule 7.R(5) [19.15.1.7.R(5) NMAC] provides:

(5) Responsible Person shall mean the owner or operator who must complete Division approved corrective action for pollution from releases.

9. The Division's Environmental Bureau has determined that Samedan, Shell and Occidental Permian are responsible persons who should be required to complete

corrective action to remediate the contamination existing and that may exist at Mr. Johnson's property. However, Samedan and Shell have failed and refused to submit a plan of corrective action as demanded, and Occidental Permian has denied that they are a responsible person.

WHEREFORE, the Chief of the Environmental Bureau of the Division hereby applies to the Director to enter an order:

- A. Determining that Samedan, Shell and Occidental Permian are responsible persons with respect to the hydrocarbon release herein described, and, as such, are required by Rule 116.D to complete division-approved corrective action.
- B. Ordering each of said responsible persons, or all of them jointly, to submit a remediation plan for approval by the Division by a date fixed in said order, and thereafter to perform corrective action in accordance with a plan approved by the Environmental Bureau of the Division.
- C. For such other and further relief as the Division deems just and proper under the circumstances.

RESPECTFULLY SUBMITTED,



David K. Brooks
Assistant General Counsel
Energy, Minerals and Natural
Resources Department of the State of
New Mexico
1220 S. St. Francis Drive
Santa Fe, NM 87505
(505)-476-3450

Attorney for The New Mexico Oil
Conservation Division

Case No. _____: **Application of the New Mexico Oil Conservation Division, through the Environmental Bureau Chief, for an Order Determining the Responsible Party or Parties and Ordering the Responsible Party or Parties to Conduct Division-Approved Corrective Action with respect to a Hydrocarbon Release; Lea County, New Mexico.** The Applicant seeks an order determining the responsible parties with respect to a release of hydrocarbons identified as a danger to public safety and the environment, located on the Moon State "A" lease in the North Hobbs Unit, in Section 28, Township 18 South, Range 38 East, NMPM, Lea County, New Mexico.

Report Date: July 10, 2002 Order Number: A02062615

N/A

Gary Johnson

Page Number: 1 of 4

Gary Johnson Residence

Summary Report

Bill Olson
OCD
1220 S. Saint Francis Dr.
Santa Fe, NM 87505

RECEIVED

JUL 16 2002

Report Date: July 10, 2002

Order ID Number: A02062615

Project Number: N/A
Project Name: Gary Johnson
Project Location: Gary Johnson Residence

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
200151	0206251150 (BH-1-6)	Soil	6/25/02	:	6/26/02
200152	0206251210)BH-1-1ft)	Soil	6/25/02	:	6/26/02
200153	0206251240 (SS-W-1)	Soil	6/25/02	:	6/26/02
200154	0206251250 (SS-E-1)	Soil	6/25/02	:	6/26/02
200155	0206251305 (SS-N-1)	Soil	6/25/02	:	6/26/02

0 This report consists of a total of 4 page(s) and is intended only as a summary of results for the sample(s) listed above.

Sample - Field Code	BTEX						TPH DRO	TPH GRO
	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	M,P,O-Xylene (ppm)	Total BTEX (ppm)	Test Comments (ppm)	DRO (ppm)	GRO (ppm)
200151 - 0206251150 (BH-1-6)	<0.050	<0.050	0.0806	0.328	0.409	* 1	11600	32.5
200152 - 0206251210)BH-1-1ft)	<0.100	<0.100	1.16	4.23	5.39	* 2	<250	352
200153 - 0206251240 (SS-W-1)	<0.100	<0.100	<0.100	0.352	0.352	* 3	10200	<10.0
200154 - 0206251250 (SS-E-1)	<0.010	<0.010	<0.010	<0.010	<0.010	-	4600	<1.00
200155 - 0206251305 (SS-N-1)	0.0234	<0.020	0.0474	0.183	0.254	-	16500	20.5

Sample: 200151 - 0206251150 (BH-1-6)

Param	Flag	Result	Units
Total Mercury		<0.19	mg/Kg
Total Aluminum		9140	mg/Kg
Total Arsenic		<5.00	mg/Kg
Total Barium		100	mg/Kg
Total Boron		36.0	mg/Kg
Total Cadmium		<0.500	mg/Kg
Total Chromium		6.92	mg/Kg
Total Cobalt		2.78	mg/Kg
Total Copper		6.80	mg/Kg
Total Iron		7250	mg/Kg

Continued on next page ...

¹Sample diluted due to hydrocarbons beyond xylene. Sample has a Benzene concentration of 0.0472 which is lower than the RDL but greater than the MDL of 0.01183.

²Sample diluted due to hydrocarbons beyond xylene. Sample has a Benzene concentration of less than 0.02366 which is the MDL.

³Sample diluted due to hydrocarbons beyond xylene. Sample has a Benzene concentration of less than 0.02366 which is the MDL.

This is only a summary. Please, refer to the complete report package for quality control data.

Report Date: July 10, 2002Order Number: A02062615

N/A

Gary Johnson

Page Number: 2 of 4

Gary Johnson Residence

Sample 200151 continued ...

Param	Flag	Result	Units
Total Lead		7.27	mg/Kg
Total Manganese		111	mg/Kg
Total Molybdenum		<5.00	mg/Kg
Total Nickel		8.32	mg/Kg
Total Selenium		<1.00	mg/Kg
Total Silica		224	mg/Kg
Total Silver		<0.200	mg/Kg
Total Zinc		35.8	mg/Kg

Sample: 200152 - 0206251210)BH-1-1ft)

Param	Flag	Result	Units
Total Mercury		<0.19	mg/Kg
Total Aluminum		11100	mg/Kg
Total Arsenic		<5.00	mg/Kg
Total Barium		78.1	mg/Kg
Total Boron		38.4	mg/Kg
Total Cadmium		<0.500	mg/Kg
Total Chromium		8.31	mg/Kg
Total Cobalt		4.32	mg/Kg
Total Copper		8.61	mg/Kg
Total Iron		8200	mg/Kg
Total Lead		4.44	mg/Kg
Total Manganese		117	mg/Kg
Total Molybdenum		<5.00	mg/Kg
Total Nickel		9.00	mg/Kg
Total Selenium		<1.00	mg/Kg
Total Silica		214	mg/Kg
Total Silver		<0.200	mg/Kg
Total Zinc		47.5	mg/Kg

Sample: 200153 - 0206251240 (SS-W-1)

Param	Flag	Result	Units
Total Mercury		<0.19	mg/Kg
Total Aluminum		7710	mg/Kg
Total Arsenic		<5.00	mg/Kg
Total Barium		86.5	mg/Kg
Total Boron		30.1	mg/Kg
Total Cadmium		<0.500	mg/Kg
Total Chromium		5.92	mg/Kg
Total Cobalt		<2.50	mg/Kg
Total Copper		6.33	mg/Kg
Total Iron		6450	mg/Kg
Total Lead		6.32	mg/Kg
Total Manganese		115	mg/Kg
Total Molybdenum		<5.00	mg/Kg

*Continued on next page ...**This is only a summary. Please, refer to the complete report package for quality control data.*

Report Date: July 10, 2002 Order Number: A02062615
N/A Gary JohnsonPage Number: 3 of 4
Gary Johnson Residence*Sample 200153 continued ...*

Param	Flag	Result	Units
Total Nickel		7.32	mg/Kg
Total Selenium		<1.00	mg/Kg
Total Silica		220	mg/Kg
Total Silver		<0.200	mg/Kg
Total Zinc		25.1	mg/Kg

Sample: 200154 - 0206251250 (SS-E-1)

Param	Flag	Result	Units
Total Mercury		<0.19	mg/Kg
Total Aluminum		9490	mg/Kg
Total Arsenic		<5.00	mg/Kg
Total Barium		124	mg/Kg
Total Boron		35.2	mg/Kg
Total Cadmium		<0.500	mg/Kg
Total Chromium		6.84	mg/Kg
Total Cobalt		<2.50	mg/Kg
Total Copper		7.80	mg/Kg
Total Iron		7150	mg/Kg
Total Lead		156	mg/Kg
Total Manganese		110	mg/Kg
Total Molybdenum		<5.00	mg/Kg
Total Nickel		7.22	mg/Kg
Total Selenium		<1.00	mg/Kg
Total Silica		194	mg/Kg
Total Silver		<0.200	mg/Kg
Total Zinc		55.7	mg/Kg

Sample: 200155 - 0206251305 (SS-N-1)

Param	Flag	Result	Units
Total Mercury		<0.19	mg/Kg
Total Aluminum		10300	mg/Kg
Total Arsenic		<5.00	mg/Kg
Total Barium		121	mg/Kg
Total Boron		40.6	mg/Kg
Total Cadmium		<0.500	mg/Kg
Total Chromium		7.37	mg/Kg
Total Cobalt		2.54	mg/Kg
Total Copper		6.82	mg/Kg
Total Iron		8250	mg/Kg
Total Lead		14.9	mg/Kg
Total Manganese		142	mg/Kg
Total Molybdenum		<5.00	mg/Kg
Total Nickel		7.82	mg/Kg
Total Selenium		<1.00	mg/Kg
Total Silica		208	mg/Kg

*Continued on next page ...**This is only a summary. Please, refer to the complete report package for quality control data.*

TraceAnalysis, Inc.

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(806) 794-1296

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N/A

Gary Johnson

Gary Johnson Residence

Sample 200155 continued ...

Param	Flag	Result	Units
Total Silver		<0.200	mg/Kg
Total Zinc		49.3	mg/Kg

This is only a summary. Please, refer to the complete report package for quality control data.

TRACE ANALYSIS, INC.

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Analytical and Quality Control Report

Bill Olson
OCD
1220 S. Saint Francis Dr.
Santa Fe, NM 87505

Report Date: July 10, 2002

Order ID Number: A02062615

Project Number: N/A
Project Name: Gary Johnson
Project Location: Gary Johnson Residence

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace Analysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
200151	0206251150 (BH-1-6)	Soil	6/25/02	:	6/26/02
200152	0206251210 (BH-1-1ft)	Soil	6/25/02	:	6/26/02
200153	0206251240 (SS-W-1)	Soil	6/25/02	:	6/26/02
200154	0206251250 (SS-E-1)	Soil	6/25/02	:	6/26/02
200155	0206251305 (SS-N-1)	Soil	6/25/02	:	6/26/02

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed. Note: the RDL is equal to MQL for all organic analytes including TPH.

The test results contained within this report meet all requirements of LAC 33:I unless otherwise noted.

This report consists of a total of 18 pages and shall not be reproduced except in its entirety including the chain of custody (COC), without written approval of Trace Analysis, Inc.



Dr. Blair Leftwich, Director

Analytical Report

Sample: 200151 - 0206251150 (BH-1-6)

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC21385 Date Analyzed: 6/26/02
Analyst: CG Preparation Method: S 5035 Prep Batch: PB20317 Date Prepared: 6/25/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.050	mg/Kg	50	0.001
Toluene		<0.050	mg/Kg	50	0.001
Ethylbenzene		0.0806	mg/Kg	50	0.001
M,P,O-Xylene		0.328	mg/Kg	50	0.001
Total BTEX		0.409	mg/Kg	50	0.001
Test Comments	1	*	mg/Kg	1	

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT	2	1.61	mg/Kg	50	1	161	70 - 130
4-BFB		1.11	mg/Kg	50	1	111	70 - 130

Sample: 200151 - 0206251150 (BH-1-6)

Analysis: Hg, Total Analytical Method: S 7471A QC Batch: QC21630 Date Analyzed: 7/3/02
Analyst: BC Preparation Method: N/A Prep Batch: PB20515 Date Prepared: 7/2/02

Param	Flag	Result	Units	Dilution	RDL
Total Mercury		<0.19	mg/Kg	1	0.19

Sample: 200151 - 0206251150 (BH-1-6)

Analysis: TPH DRO Analytical Method: Mod. 8015B QC Batch: QC21403 Date Analyzed: 6/27/02
Analyst: MM Preparation Method: 3550 B Prep Batch: PB20329 Date Prepared: 6/26/02

Param	Flag	Result	Units	Dilution	RDL
DRO		11600	mg/Kg	20	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	3	984	mg/Kg	20	150	33	70 - 130

Sample: 200151 - 0206251150 (BH-1-6)

Analysis: TPH GRO Analytical Method: 8015B QC Batch: QC21386 Date Analyzed: 6/26/02
Analyst: CG Preparation Method: 5035 Prep Batch: PB20317 Date Prepared: 6/25/02

¹Sample diluted due to hydrocarbons beyond xylene. Sample has a Benzene concentration of 0.0472 which is lower than the RDL but greater than the MDL of 0.01183.

²High surrogate recovery due to peak interference.

³Low recovery due to dilution.

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Param	Flag	Result	Units	Dilution	RDL
GRO		32.5	mg/Kg	50	0.10

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT	⁴	1.06	mg/Kg	50	0.10	21	70 - 130
4-BFB	⁵	2.80	mg/Kg	50	0.10	56	70 - 130

Sample: 200151 - 0206251150 (BH-1-6)

Analysis: Total Metals Analytical Method: S 6010B QC Batch: QC21588 Date Analyzed: 7/2/02
Analyst: RR Preparation Method: S 3050B Prep Batch: PB20327 Date Prepared: 6/27/02

Param	Flag	Result	Units	Dilution	RDL
Total Aluminum		9140	mg/Kg	10000	0.10
Total Arsenic		<5.00	mg/Kg	100	0.05
Total Barium		100	mg/Kg	100	0.10
Total Boron		36.0	mg/Kg	1000	0.005
Total Cadmium		<0.500	mg/Kg	100	0.005
Total Chromium		6.92	mg/Kg	100	0.01
Total Cobalt		2.78	mg/Kg	100	0.02
Total Copper		6.80	mg/Kg	100	0.01
Total Iron		7250	mg/Kg	10000	0.05
Total Lead		7.27	mg/Kg	100	0.01
Total Manganese		111	mg/Kg	1000	0.02
Total Molybdenum		<5.00	mg/Kg	100	0.05
Total Nickel		8.32	mg/Kg	100	0.02
Total Selenium		<1.00	mg/Kg	100	0.01
Total Silica		224	mg/Kg	1000	0.05
Total Silver		<0.200	mg/Kg	100	0.002
Total Zinc		35.8	mg/Kg	100	0.02

Sample: 200152 - 0206251210)BH-1-1ft)

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC21385 Date Analyzed: 6/26/02
Analyst: CG Preparation Method: S 5035 Prep Batch: PB20317 Date Prepared: 6/25/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.100	mg/Kg	100	0.001
Toluene		<0.100	mg/Kg	100	0.001
Ethylbenzene		1.16	mg/Kg	100	0.001
M,P,O-Xylene		4.23	mg/Kg	100	0.001
Total BTEX		5.39	mg/Kg	100	0.001
Test Comments	6	*	mg/Kg	1	

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.933	mg/Kg	100	1	93	70 - 130

Continued ...

⁴Low recovery due to matrix.

⁵Low recovery due to matrix.

⁶Sample diluted due to hydrocarbons beyond xylene. Sample has a Benzene concentration of less than 0.02366 which is the MDL.

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-BFB	7	6.46	mg/Kg	100	1	646	70 - 130

Sample: 200152 - 0206251210)BH-1-1ft)

Analysis: Hg, Total Analytical Method: S 7471A QC Batch: QC21630 Date Analyzed: 7/3/02
Analyst: BC Preparation Method: N/A Prep Batch: PB20515 Date Prepared: 7/2/02

Param	Flag	Result	Units	Dilution	RDL
Total Mercury		<0.19	mg/Kg	1	0.19

Sample: 200152 - 0206251210)BH-1-1ft)

Analysis: TPH DRO Analytical Method: Mod. 8015B QC Batch: QC21403 Date Analyzed: 6/27/02
Analyst: MM Preparation Method: 3550 B Prep Batch: PB20329 Date Prepared: 6/26/02

Param	Flag	Result	Units	Dilution	RDL
DRO		<250	mg/Kg	5	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	8	84.1	mg/Kg	5	150	11	70 - 130

Sample: 200152 - 0206251210)BH-1-1ft)

Analysis: TPH GRO Analytical Method: 8015B QC Batch: QC21386 Date Analyzed: 6/26/02
Analyst: CG Preparation Method: 5035 Prep Batch: PB20317 Date Prepared: 6/25/02

Param	Flag	Result	Units	Dilution	RDL
GRO		352	mg/Kg	100	0.10

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT	9	0.347	mg/Kg	100	0.10	3	70 - 130
4-BFB	10	14.3	mg/Kg	100	0.10	143	70 - 130

Sample: 200152 - 0206251210)BH-1-1ft)

Analysis: Total Metals Analytical Method: S 6010B QC Batch: QC21588 Date Analyzed: 7/2/02
Analyst: RR Preparation Method: S 3050B Prep Batch: PB20327 Date Prepared: 6/27/02

Param	Flag	Result	Units	Dilution	RDL
Total Aluminum		11100	mg/Kg	10000	0.10
Total Arsenic		<5.00	mg/Kg	100	0.05

Continued ...

⁷High surrogate recovery due to peak interference.

⁸Low recovery due to dilution.

⁹Low recovery due to matrix interference.

¹⁰High recovery due to peak interference.

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... Continued Sample: 200152 Analysis: Total Metals

Param	Flag	Result	Units	Dilution	RDL
Total Barium		78.1	mg/Kg	100	0.10
Total Boron		38.4	mg/Kg	1000	0.005
Total Cadmium		<0.500	mg/Kg	100	0.005
Total Chromium		8.31	mg/Kg	100	0.01
Total Cobalt		4.32	mg/Kg	100	0.02
Total Copper		8.61	mg/Kg	100	0.01
Total Iron		8200	mg/Kg	10000	0.05
Total Lead		4.44	mg/Kg	100	0.01
Total Manganese		117	mg/Kg	1000	0.02
Total Molybdenum		<5.00	mg/Kg	100	0.05
Total Nickel		9.00	mg/Kg	100	0.02
Total Selenium		<1.00	mg/Kg	100	0.01
Total Silica		214	mg/Kg	1000	0.05
Total Silver		<0.200	mg/Kg	100	0.002
Total Zinc		47.5	mg/Kg	100	0.02

Sample: 200153 - 0206251240 (SS-W-1)

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC21385 Date Analyzed: 6/26/02
Analyst: CG Preparation Method: S 5035 Prep Batch: PB20317 Date Prepared: 6/25/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.100	mg/Kg	100	0.001
Toluene		<0.100	mg/Kg	100	0.001
Ethylbenzene		<0.100	mg/Kg	100	0.001
M,P,O-Xylene		0.352	mg/Kg	100	0.001
Total BTEX		0.352	mg/Kg	100	0.001
Test Comments	11	*	mg/Kg	1	

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT	12	2.27	mg/Kg	100	1	227	70 - 130
4-BFB		1.28	mg/Kg	100	1	128	70 - 130

Sample: 200153 - 0206251240 (SS-W-1)

Analysis: Hg, Total Analytical Method: S 7471A QC Batch: QC21630 Date Analyzed: 7/3/02
Analyst: BC Preparation Method: N/A Prep Batch: PB20515 Date Prepared: 7/2/02

Param	Flag	Result	Units	Dilution	RDL
Total Mercury		<0.19	mg/Kg	1	0.19

Sample: 200153 - 0206251240 (SS-W-1)

Analysis: TPH DRO Analytical Method: Mod. 8015B QC Batch: QC21403 Date Analyzed: 6/27/02
Analyst: MM Preparation Method: 3550 B Prep Batch: PB20329 Date Prepared: 6/26/02

¹¹Sample diluted due to hydrocarbons beyond xylene. Sample has a Benzene concentration of less than 0.02366 which is the MDL.

¹²High surrogate recovery due to peak interference.

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Param	Flag	Result	Units	Dilution	RDL
DRO		10200	mg/Kg	20	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	¹³	1350	mg/Kg	20	150	45	70 - 130

Sample: 200153 - 0206251240 (SS-W-1)

Analysis: TPH GRO Analytical Method: 8015B QC Batch: QC21386 Date Analyzed: 6/26/02
Analyst: CG Preparation Method: 5035 Prep Batch: PB20317 Date Prepared: 6/25/02

Param	Flag	Result	Units	Dilution	RDL
GRO		<10.0	mg/Kg	100	0.10

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT	¹⁴	1.01	mg/Kg	100	0.10	10	70 - 130
4-BFB	¹⁵	0.818	mg/Kg	100	0.10	8	70 - 130

Sample: 200153 - 0206251240 (SS-W-1)

Analysis: Total Metals Analytical Method: S 6010B QC Batch: QC21588 Date Analyzed: 7/2/02
Analyst: RR Preparation Method: S 3050B Prep Batch: PB20327 Date Prepared: 6/27/02

Param	Flag	Result	Units	Dilution	RDL
Total Aluminum		7710	mg/Kg	10000	0.10
Total Arsenic		<5.00	mg/Kg	100	0.05
Total Barium		86.5	mg/Kg	100	0.10
Total Boron		30.1	mg/Kg	1000	0.005
Total Cadmium		<0.500	mg/Kg	100	0.005
Total Chromium		5.92	mg/Kg	100	0.01
Total Cobalt		<2.50	mg/Kg	100	0.02
Total Copper		6.33	mg/Kg	100	0.01
Total Iron		6450	mg/Kg	10000	0.05
Total Lead		6.32	mg/Kg	100	0.01
Total Manganese		115	mg/Kg	1000	0.02
Total Molybdenum		<5.00	mg/Kg	100	0.05
Total Nickel		7.32	mg/Kg	100	0.02
Total Selenium		<1.00	mg/Kg	100	0.01
Total Silica		220	mg/Kg	1000	0.05
Total Silver		<0.200	mg/Kg	100	0.002
Total Zinc		25.1	mg/Kg	100	0.02

¹³Low recovery due to dilution.

¹⁴Low recovery due to matrix interference.

¹⁵Low recovery due to matrix interference.

Sample: 200154 - 0206251250 (SS-E-1)

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC21385 Date Analyzed: 6/26/02
Analyst: CG Preparation Method: S 5035 Prep Batch: PB20317 Date Prepared: 6/25/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.010	mg/Kg	10	0.001
Toluene		<0.010	mg/Kg	10	0.001
Ethylbenzene		<0.010	mg/Kg	10	0.001
M,P,O-Xylene		<0.010	mg/Kg	10	0.001
Total BTEX		<0.010	mg/Kg	10	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT	¹⁶	0.488	mg/Kg	10	1	49	70 - 130
4-BFB	¹⁷	0.415	mg/Kg	10	1	41	70 - 130

Sample: 200154 - 0206251250 (SS-E-1)

Analysis: Hg, Total Analytical Method: S 7471A QC Batch: QC21630 Date Analyzed: 7/3/02
Analyst: BC Preparation Method: N/A Prep Batch: PB20515 Date Prepared: 7/2/02

Param	Flag	Result	Units	Dilution	RDL
Total Mercury		<0.19	mg/Kg	1	0.19

Sample: 200154 - 0206251250 (SS-E-1)

Analysis: TPH DRO Analytical Method: Mod. 8015B QC Batch: QC21403 Date Analyzed: 6/27/02
Analyst: MM Preparation Method: 3550 B Prep Batch: PB20329 Date Prepared: 6/26/02

Param	Flag	Result	Units	Dilution	RDL
DRO		4600	mg/Kg	10	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	¹⁸	488	mg/Kg	10	150	32	70 - 130

Sample: 200154 - 0206251250 (SS-E-1)

Analysis: TPH GRO Analytical Method: 8015B QC Batch: QC21386 Date Analyzed: 6/26/02
Analyst: CG Preparation Method: 5035 Prep Batch: PB20317 Date Prepared: 6/25/02

Param	Flag	Result	Units	Dilution	RDL
GRO		<1.00	mg/Kg	10	0.10

¹⁶Low surrogate recovery due to matrix interference. ICV, CCV show the method to be in control.

¹⁷Low surrogate recovery due to matrix interference. ICV, CCV show the method to be in control.

¹⁸Low recovery due to dilution.

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT	¹⁹	0.384	mg/Kg	10	0.10	38	70 - 130
4-BFB	²⁰	0.379	mg/Kg	10	0.10	38	70 - 130

Sample: 200154 - 0206251250 (SS-E-1)

Analysis: Total Metals Analytical Method: S 6010B QC Batch: QC21588 Date Analyzed: 7/2/02
Analyst: RR Preparation Method: S 3050B Prep Batch: PB20327 Date Prepared: 6/27/02

Param	Flag	Result	Units	Dilution	RDL
Total Aluminum		9490	mg/Kg	10000	0.10
Total Arsenic		<5.00	mg/Kg	100	0.05
Total Barium		124	mg/Kg	100	0.10
Total Boron		35.2	mg/Kg	1000	0.005
Total Cadmium		<0.500	mg/Kg	100	0.005
Total Chromium		6.84	mg/Kg	100	0.01
Total Cobalt		<2.50	mg/Kg	100	0.02
Total Copper		7.80	mg/Kg	100	0.01
Total Iron		7150	mg/Kg	10000	0.05
Total Lead		156	mg/Kg	100	0.01
Total Manganese		110	mg/Kg	1000	0.02
Total Molybdenum		<5.00	mg/Kg	100	0.05
Total Nickel		7.22	mg/Kg	100	0.02
Total Selenium		<1.00	mg/Kg	100	0.01
Total Silica		194	mg/Kg	1000	0.05
Total Silver		<0.200	mg/Kg	100	0.002
Total Zinc		55.7	mg/Kg	100	0.02

Sample: 200155 - 0206251305 (SS-N-1)

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC21385 Date Analyzed: 6/26/02
Analyst: CG Preparation Method: S 5035 Prep Batch: PB20317 Date Prepared: 6/25/02

Param	Flag	Result	Units	Dilution	RDL
Benzene		0.0234	mg/Kg	20	0.001
Toluene		<0.020	mg/Kg	20	0.001
Ethylbenzene		0.0474	mg/Kg	20	0.001
M,P,O-Xylene		0.183	mg/Kg	20	0.001
Total BTEX		0.254	mg/Kg	20	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.804	mg/Kg	20	1	80	70 - 130
4-BFB		0.864	mg/Kg	20	1	86	70 - 130

¹⁹Low recovery due to matrix interference.

²⁰Low recovery due to matrix interference.

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Sample: 200155 - 0206251305 (SS-N-1)

Analysis: Hg, Total Analytical Method: S 7471A QC Batch: QC21630 Date Analyzed: 7/3/02
Analyst: BC Preparation Method: N/A Prep Batch: PB20515 Date Prepared: 7/2/02

Param	Flag	Result	Units	Dilution	RDL
Total Mercury		<0.19	mg/Kg	1	0.19

Sample: 200155 - 0206251305 (SS-N-1)

Analysis: TPH DRO Analytical Method: Mod. 8015B QC Batch: QC21403 Date Analyzed: 6/27/02
Analyst: MM Preparation Method: 3550 B Prep Batch: PB20329 Date Prepared: 6/26/02

Param	Flag	Result	Units	Dilution	RDL
DRO		16500	mg/Kg	20	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	²¹	1100	mg/Kg	20	150	37	70 - 130

Sample: 200155 - 0206251305 (SS-N-1)

Analysis: TPH GRO Analytical Method: 8015B QC Batch: QC21386 Date Analyzed: 6/26/02
Analyst: CG Preparation Method: 5035 Prep Batch: PB20317 Date Prepared: 6/25/02

Param	Flag	Result	Units	Dilution	RDL
GRO		20.5	mg/Kg	20	0.10

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT	²²	0.656	mg/Kg	20	0.10	33	70 - 130
4-BFB		1.48	mg/Kg	20	0.10	74	70 - 130

Sample: 200155 - 0206251305 (SS-N-1)

Analysis: Total Metals Analytical Method: S 6010B QC Batch: QC21588 Date Analyzed: 7/2/02
Analyst: RR Preparation Method: S 3050B Prep Batch: PB20327 Date Prepared: 6/27/02

Param	Flag	Result	Units	Dilution	RDL
Total Aluminum		10300	mg/Kg	10000	0.10
Total Arsenic		<5.00	mg/Kg	100	0.05
Total Barium		121	mg/Kg	100	0.10
Total Boron		40.6	mg/Kg	1000	0.005
Total Cadmium		<0.500	mg/Kg	100	0.005
Total Chromium		7.37	mg/Kg	100	0.01
Total Cobalt		2.54	mg/Kg	100	0.02
Total Copper		6.82	mg/Kg	100	0.01
Total Iron		8250	mg/Kg	10000	0.05

Continued ...

²¹Low recovery due to dilution.

²²Low recovery due to matrix interference.

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... Continued Sample: 200155 Analysis: Total Metals

Param	Flag	Result	Units	Dilution	RDL
Total Lead		14.9	mg/Kg	100	0.01
Total Manganese		142	mg/Kg	1000	0.02
Total Molybdenum		<5.00	mg/Kg	100	0.05
Total Nickel		7.82	mg/Kg	100	0.02
Total Selenium		<1.00	mg/Kg	100	0.01
Total Silica		208	mg/Kg	1000	0.05
Total Silver		<0.200	mg/Kg	100	0.002
Total Zinc		49.3	mg/Kg	100	0.02

Quality Control Report Method Blank

Method Blank QCBatch: QC21385

Param	Flag	Results	Units	Reporting Limit
Benzene		<0.010	mg/Kg	0.001
Toluene		<0.010	mg/Kg	0.001
Ethylbenzene		<0.010	mg/Kg	0.001
M,P,O-Xylene		<0.010	mg/Kg	0.001
Total BTEX		<0.010	mg/Kg	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		1.08	mg/Kg	10	1	108	70 - 130
4-BFB		0.978	mg/Kg	10	1	97	70 - 130

Method Blank QCBatch: QC21386

Param	Flag	Results	Units	Reporting Limit
GRO		1.42	mg/Kg	0.10

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		1.04	mg/Kg	10	0.10	104	70 - 130
4-BFB		0.904	mg/Kg	10	0.10	90	70 - 130

Method Blank QCBatch: QC21403

Param	Flag	Results	Units	Reporting Limit
DRO		<50	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		235	mg/Kg	1	15	153	70 - 130

Method Blank QCBatch: QC21588

Param	Flag	Results	Units	Reporting Limit
Total Aluminum		<0.100	mg/Kg	0.10

Continued ...

... Continued

Param	Flag	Results	Units	Reporting Limit
Total Arsenic		<0.050	mg/Kg	0.05
Total Barium		<0.100	mg/Kg	0.10
Total Boron		0.00769	mg/Kg	0.005
Total Cadmium		<0.005	mg/Kg	0.005
Total Chromium		<0.010	mg/Kg	0.01
Total Cobalt		<0.025	mg/Kg	0.02
Total Copper		<0.0125	mg/Kg	0.01
Total Iron		<0.050	mg/Kg	0.05
Total Lead		<0.010	mg/Kg	0.01
Total Manganese		<0.025	mg/Kg	0.02
Total Molybdenum		<0.050	mg/Kg	0.05
Total Nickel		<0.025	mg/Kg	0.02
Total Selenium		<0.010	mg/Kg	0.01
Total Silica		<0.050	mg/Kg	0.05
Total Silver		<0.002	mg/Kg	0.002
Total Zinc		0.0367	mg/Kg	0.02

Method Blank

QCBatch: QC21630

Param	Flag	Results	Units	Reporting Limit
Total Mercury		<0.19	mg/Kg	0.19

Quality Control Report Lab Control Spikes and Duplicate Spikes

Laboratory Control Spikes

QCBatch: QC21385

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
MTBE	1.09	1.08	mg/Kg	10	1	<0.010	109	0	70 - 130	20
Benzene	1.05	1.03	mg/Kg	10	1	<0.010	105	1	70 - 130	20
Toluene	1.02	1.01	mg/Kg	10	1	<0.010	102	0	70 - 130	20
Ethylbenzene	0.988	0.983	mg/Kg	10	1	<0.010	98	0	70 - 130	20
M,P,O-Xylene	2.88	2.86	mg/Kg	10	3	<0.010	96	0	70 - 130	20

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

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
TFT	1.05	1.07	mg/Kg	10	1	105	107	70 - 130
4-BFB	1	1.02	mg/Kg	10	1	100	102	70 - 130

Laboratory Control Spikes

QCBatch: QC21403

Report Date: July 10, 2002
N/A

Order Number: A02062615
Gary Johnson

Page Number: 13 of 18
Gary Johnson Residence

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
DRO	232	228	mg/Kg	1	250	<50	93	2	70 - 130	20

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

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
n-Triacontane	112	160	mg/Kg	1	150	75	106	70 - 130

Laboratory Control Spikes

QCBatch: QC21588

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Total Aluminum	99.5	102	mg/Kg	100	100	<0.100	99	2	75 - 125	20
Total Arsenic	49.8	49.1	mg/Kg	100	50	<0.050	99	1	75 - 125	20
Total Barium	104	104	mg/Kg	100	100	<0.100	104	0	75 - 125	20
Total Boron	5.33	4.92	mg/Kg	100	5	0.00769	106	8	75 - 125	20
Total Cadmium	24.4	24.1	mg/Kg	100	25	<0.005	97	1	75 - 125	20
Total Chromium	10.3	10.4	mg/Kg	100	10	<0.010	103	0	75 - 125	20
Total Cobalt	25.7	25.8	mg/Kg	100	25	<0.025	102	0	75 - 125	20
Total Copper	13.0	12.9	mg/Kg	100	12.50	<0.0125	104	0	75 - 125	20
Total Iron	50.7	50.7	mg/Kg	100	50	<0.050	101	0	75 - 125	20
Total Lead	50.1	50.3	mg/Kg	100	50	<0.010	100	0	75 - 125	20
Total Manganese	25.9	25.8	mg/Kg	100	25	<0.025	103	0	75 - 125	20
Total Molybdenum	51.7	51.8	mg/Kg	100	50	<0.050	103	0	75 - 125	20
Total Nickel	25.3	25.3	mg/Kg	100	25	<0.025	101	0	75 - 125	20
Total Selenium	40.8	41.4	mg/Kg	100	50	<0.010	81	1	75 - 125	20
Total Silica	51.4	49.4	mg/Kg	100	50	<0.050	102	3	75 - 125	20
Total Silver	12.6	12.5	mg/Kg	100	12.50	<0.002	100	0	75 - 125	20
Total Zinc	25.2	25.3	mg/Kg	100	25	0.0367	100	0	75 - 125	20

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

Laboratory Control Spikes

QCBatch: QC21630

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Total Mercury	2.49	2.52	mg/Kg	1	2.50	<0.19	99	1	88 - 123	20

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

Quality Control Report Matrix Spikes and Duplicate Spikes

Matrix Spikes

QCBatch: QC21385

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Benzene	0.876	0.696	mg/Kg	10	1	<0.010	87	22	70 - 130	20
Toluene	0.866	0.69	mg/Kg	10	1	<0.010	86	22	70 - 130	20
Ethylbenzene	0.851	0.679	mg/Kg	10	1	<0.010	85	22	70 - 130	20
M,P,O-Xylene	2.46	1.95	mg/Kg	10	3	<0.010	82	23	70 - 130	20

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

Surrogate	MS Result	MSD Result	Units	Dilution	Spike Amount	MS % Rec	MSD % Rec	Recovery Limits
TFT	²³ 0.68	²⁴ 0.692	mg/Kg	10	1	68	69	70 - 130
4-BFB	²⁵ 0.646	²⁶ 0.63	mg/Kg	10	1	64	63	70 - 130

Matrix Spikes QCBatch: QC21386

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
GRO	15.0	13.5	mg/Kg	10	1	<1.00	150	10	80 - 120	20

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

Surrogate	MS Result	MSD Result	Units	Dilution	Spike Amount	MS % Rec	MSD % Rec	Recovery Limits
TFT	1.12	1.36	mg/Kg	10	0.10	112	136	70 - 130
4-BFB	0.577	0.640	mg/Kg	10	0.10	58	64	70 - 130

Matrix Spikes QCBatch: QC21403

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
DRO	226	240	mg/Kg	1	250	<50.0	90	6	70 - 130	20

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

Surrogate	MS Result	MSD Result	Units	Dilution	Spike Amount	MS % Rec	MSD % Rec	Recovery Limits
n-Triacontane	111	111	mg/Kg	1	150	74	74	70 - 130

Matrix Spikes QCBatch: QC21588

²³Low surrogate recovery due to prep. ICV, CCV show the method to be in control.

²⁴Low surrogate recovery due to prep. ICV, CCV show the method to be in control.

²⁵Low surrogate recovery due to prep. ICV, CCV show the method to be in control.

²⁶Low surrogate recovery due to prep. ICV, CCV show the method to be in control.

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Total Aluminum	²⁷ 10000	10000	mg/Kg	10000	100	9140	855	0	75 - 125	20
Total Arsenic	48.5	48.4	mg/Kg	100	50	<5.00	97	0	75 - 125	20
Total Barium	184	181	mg/Kg	100	100	100	83	3	75 - 125	20
Total Boron	²⁸ 42.5	43.8	mg/Kg	1000	5	36.0	130	18	75 - 125	20
Total Cadmium	21.8	21.6	mg/Kg	100	25	<0.500	87	0	75 - 125	20
Total Chromium	17.4	17.6	mg/Kg	100	10	6.92	104	1	75 - 125	20
Total Cobalt	25.8	26.0	mg/Kg	100	25	2.78	92	0	75 - 125	20
Total Copper	19.0	19.4	mg/Kg	100	12.50	6.80	97	3	75 - 125	20
Total Iron	²⁹ 7380	7650	mg/Kg	10000	50	7250	260	101	75 - 125	20
Total Lead	50.3	50.9	mg/Kg	100	50	7.27	86	1	75 - 125	20
Total Manganese	³⁰ 127	133	mg/Kg	1000	25	111	62	32	75 - 125	20
Total Molybdenum	46.1	45.8	mg/Kg	100	50	<5.00	92	0	75 - 125	20
Total Nickel	30.5	30.6	mg/Kg	100	25	8.32	88	0	75 - 125	20
Total Selenium	³¹ 37.0	36.5	mg/Kg	100	50	<1.00	74	1	75 - 125	20
Total Silica	³² 380	366	mg/Kg	1000	50	224	310	9	75 - 125	20
Total Silver	10.8	11.0	mg/Kg	100	12.50	<0.200	86	1	75 - 125	20
Total Zinc	56.4	52.0	mg/Kg	100	25	35.8	82	23	75 - 125	20

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

Matrix Spikes QCBatch: QC21630

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Total Mercury	2.26	2.25	mg/Kg	1	2.50	<0.19	90	0	45 - 157	20

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

Quality Control Report Continuing Calibration Verification Standards

CCV (1) QCBatch: QC21385

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0997	99	85 - 115	6/26/02
Benzene		mg/L	0.10	0.103	103	85 - 115	6/26/02
Toluene		mg/L	0.10	0.1	100	85 - 115	6/26/02
Ethylbenzene		mg/L	0.10	0.0988	98	85 - 115	6/26/02
M,P,O-Xylene		mg/L	0.30	0.288	96	85 - 115	6/26/02

²⁷Matrix spike recovery invalid due to matrix effects. LCS demonstrates process under control.

²⁸Matrix spike recovery invalid due to matrix effects. LCS demonstrates process under control.

²⁹Matrix spike recovery invalid due to matrix effects. LCS demonstrates process under control.

³⁰Matrix spike recovery invalid due to matrix effects. LCS demonstrates process under control.

³¹Matrix spike recovery invalid due to matrix effects. LCS demonstrates process under control.

³²Matrix spike recovery invalid due to matrix effects. LCS demonstrates process under control.

CCV (2) QCBatch: QC21385

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.103	103	85 - 115	6/26/02
Benzene		mg/L	0.10	0.102	102	85 - 115	6/26/02
Toluene		mg/L	0.10	0.0991	99	85 - 115	6/26/02
Ethylbenzene		mg/L	0.10	0.0982	98	85 - 115	6/26/02
M,P,O-Xylene		mg/L	0.30	0.284	94	85 - 115	6/26/02

ICV (1) QCBatch: QC21385

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.11	110	85 - 115	6/26/02
Benzene		mg/L	0.10	0.101	101	85 - 115	6/26/02
Toluene		mg/L	0.10	0.0988	98	85 - 115	6/26/02
Ethylbenzene		mg/L	0.10	0.0954	95	85 - 115	6/26/02
M,P,O-Xylene		mg/L	0.30	0.277	92	85 - 115	6/26/02

CCV (1) QCBatch: QC21403

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	224	90	75 - 125	6/27/02

ICV (1) QCBatch: QC21403

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	222	89	75 - 125	6/27/02

CCV (1) QCBatch: QC21588

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Aluminum		mg/Kg	2	1.98	99	90 - 110	7/2/02
Total Arsenic		mg/Kg	1	0.997	99	90 - 110	7/2/02
Total Barium		mg/Kg	2	2.02	101	90 - 110	7/2/02
Total Boron		mg/Kg	0.10	0.0989	98	90 - 110	7/2/02
Total Cadmium		mg/Kg	0.50	0.495	99	90 - 110	7/2/02

Continued ...

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Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Chromium		mg/Kg	0.20	0.203	101	90 - 110	7/2/02
Total Cobalt		mg/Kg	0.50	0.505	101	90 - 110	7/2/02
Total Copper		mg/Kg	0.25	0.253	101	90 - 110	7/2/02
Total Iron		mg/Kg	1	1.00	100	90 - 110	7/2/02
Total Lead		mg/Kg	1	1.01	101	90 - 110	7/2/02
Total Manganese		mg/Kg	0.50	0.505	101	90 - 110	7/2/02
Total Molybdenum		mg/Kg	1	0.995	99	90 - 110	7/2/02
Total Nickel		mg/Kg	0.50	0.502	100	90 - 110	7/2/02
Total Selenium		mg/Kg	1	0.971	97	90 - 110	7/2/02
Total Silica		mg/Kg	1	1.01	101	90 - 110	7/2/02
Total Silver		mg/Kg	0.25	0.252	100	90 - 110	7/2/02
Total Zinc		mg/Kg	0.50	0.499	99	90 - 110	7/2/02

ICV (1)

QCBatch: QC21588

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Aluminum		mg/Kg	2	1.98	99	95 - 105	7/2/02
Total Arsenic		mg/Kg	1	1.00	100	95 - 105	7/2/02
Total Barium		mg/Kg	2	2.02	101	95 - 105	7/2/02
Total Boron		mg/Kg	0.10	0.101	101	95 - 105	7/2/02
Total Cadmium		mg/Kg	0.50	0.504	100	95 - 105	7/2/02
Total Chromium		mg/Kg	0.20	0.203	101	95 - 105	7/2/02
Total Cobalt		mg/Kg	0.50	0.508	101	95 - 105	7/2/02
Total Copper		mg/Kg	0.25	0.252	100	95 - 105	7/2/02
Total Iron		mg/Kg	1	1.01	101	95 - 105	7/2/02
Total Lead		mg/Kg	1	1.02	102	95 - 105	7/2/02
Total Manganese		mg/Kg	0.50	0.506	101	95 - 105	7/2/02
Total Molybdenum		mg/Kg	1	1.01	101	95 - 105	7/2/02
Total Nickel		mg/Kg	0.50	0.507	101	95 - 105	7/2/02
Total Selenium		mg/Kg	1	1.00	100	95 - 105	7/2/02
Total Silica		mg/Kg	1	1.02	102	95 - 105	7/2/02
Total Silver		mg/Kg	0.25	0.252	100	95 - 105	7/2/02
Total Zinc		mg/Kg	0.50	0.504	100	95 - 105	7/2/02

CCV (1)

QCBatch: QC21630

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/Kg	0.005	0.00539	107	80 - 120	7/3/02

ICV (1)

QCBatch: QC21630

Report Date: July 10, 2002
N/A

Order Number: A02062615
Gary Johnson

Page Number: 18 of 18
Gary Johnson Residence

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/Kg	0.005	0.00496	99	80 - 120	7/3/02

200151-55

6701 Aberdeen Avenue, Site. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Site A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # A02062615

Company Name: NIM Oil Conservation Division Phone #: (505) 476-3491
Address: 1220 S. St. Francis Dr. Fax #: (505) 476-3462
Contact Person: Bill Olson

Invoice to: (If different from above)
Project #: Gary Johnson

Project Location: Gary Johnson Residence Sampler Signature: [Signature]

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX				PRESERVATIVE METHOD				SAMPLING	
				WATER	SOIL	AIR	SLUDGE	HCL	HNO3	ICE	NONE	DATE	TIME
200151	0206251150 (BH-1-6")	1	4oz	✓	✓	✓	✓	✓	✓	✓	✓	6/25/02	1150
52	0206251210 (BH-1-1A)	1	4oz	✓	✓	✓	✓	✓	✓	✓	✓	6/25/02	1210
53	0206251240 (SS-W-1)	1	4oz	✓	✓	✓	✓	✓	✓	✓	✓	6/25/02	1240
54	0206251250 (SS-E-1)	1	4oz	✓	✓	✓	✓	✓	✓	✓	✓	6/25/02	1250
55	0206251305 (SS-N-1)	1	4oz	✓	✓	✓	✓	✓	✓	✓	✓	6/25/02	1305

Relinquished by: <u>[Signature]</u> Date: <u>6/25/02</u> Time: <u>1445</u>	Received by: <u>Mark Chalk</u> Date: <u>6-25-02</u> Time: <u>1445</u>
Relinquished by: <u>[Signature]</u> Date: <u>6/25/02</u> Time: <u>1740</u>	Received by: <u>Aileen Shelton</u> Date: <u>6/25/02</u> Time: <u>1740</u>
Relinquished by: <u>[Signature]</u> Date: <u>6/25/02</u> Time: <u>1830</u>	Received at Laboratory by: <u>Jicki Dumas</u> Date: <u>6-26-02</u> Time: <u>10:00</u>

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C. 3 samples - 175

ANALYSIS REQUEST

(Circle or Specify Method No.)

MTBE 8021B/602	✓	TPH 418-1/TK1065	✓	PAH 8270C	✓	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	✓	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	✓	TCLP Volatiles	✓	TCLP Semi Volatiles	✓	TCLP Pesticides	✓	RCI	GC-MS Vol. 8260B/624	✓	GC/MS Semi. Vol. 8270C/625	✓	PCBs 8082/608	✓	Pesticides 8081A/608	✓	BOD, TSS, pH	✓	Metals OGD contract # 50	✓	Hg OGD contract # 47	✓	Turn Around Time if different from standard		Hold	
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REMARKS:

LAB USE ONLY

Intact Y/N
Headspace Y/N
Temp 24 °
Log-in Review [Signature]

Carrier # Shelton 163-566-890-3

ORIGINAL COPY

KELLAHIN & KELLAHIN
Attorney at Law

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Facsimile 505-982-2047
tkellahin@aol.com

February 5, 2003

HAND DELIVERED

Mr. Michael E. Stogner
Chief Hearing Examiner
Oil Conservation Division
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505

RECEIVED

MAR 5 2003

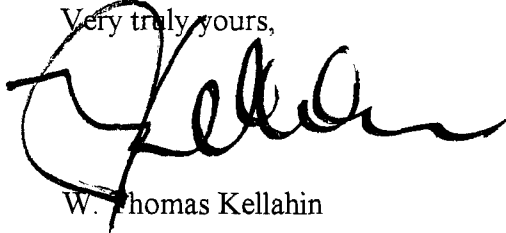
Oil Conservation Division

Re: Motion to Dismiss OPL as a "responsible person"
NMOCD Case No. 13004
Application by the Division to determine the
responsible party for alleged soil contamination
at the Gary Johnson site,
Lea County, New Mexico

Dear Mr. Stogner:

On behalf of Occidental Permian Ltd. ("OPL"), please find enclosed our Motion and Supporting Brief requesting that the Division dismiss OPL as a "responsible party" in this case which is current set for hearing by you on March 13, 2003.

Very truly yours,



W. Thomas Kellahin

Copies delivered to:
David Brooks, Esq. (OCD-attorney)
William Olson (OCD-Environmental Bureau)
J. Scott Hall, Esq. (Shell)
Paul Owen, Esq. (Samedan)
Carolyn Tillman, Esq. (OPL-attorney)
John Soule, Esq., (Scott-Douglas Law Firm, Austin, OPL Attorney)

**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION**

APPLICATION OF THE NEW MEXICO OIL CONSERVATION DIVISION, THROUGH THE ENVIRONMENTAL BUREAU CHIEF, FOR AN ORDER DETERMINING THE RESPONSIBLE PARTY OR PARTIES AND ORDERING THE RESPONSIBLE PARTY OR PARTIES TO CONDUCT DIVISION-APPROVED CORRECTIVE ACTION WITH RESPONSE TO A HYDROCARBON RELEASE (Gary Johnson Complaint), LEA COUNTY NEW MEXICO **CASE 13004**

**OCCIDENTAL PERMIAN LTD
MOTION TO DISMISS
OCCIDENTAL PERMIAN LTD AS
A RESPONSIBLE PERSON FOR THIS INCIDENT**

Occidental Permian Ltd. ("OPL") moves that the Division ("OCD") enter an order dismissing OPL as a potentially responsible person for this incident, and in support states:

(1) The alleged soil contamination on the Johnson property within the Moon "A" Lease is attributed by the OCD to the original 4-tank battery ("original tank battery") located west of Johnson's trailer and related unlined surface pits. Prior to January 1, 1962, Samedan closed the original 4-tank battery and related pits and constructed a replacement 3-tank battery ("replacement tank battery") located south of Johnson's trailer.

(2) The replacement tank battery was dismantled shortly after approval of the North Hobbs Unit, more than twenty (20) years before OPL became Unit operator. The alleged soil contamination is associated with the original tank battery only. None of the contamination is associated with the replacement tank battery and does not appear to be associated with the pits used in connections with the original tank battery. The original tank battery was dismantled and the associated pits were closed prior to 1962.

(3) OPL has been unit operator for less than three years and first became operator more than 40 years after the alleged contamination occurred. OPL did not cause or allow the alleged soil contamination to occur.

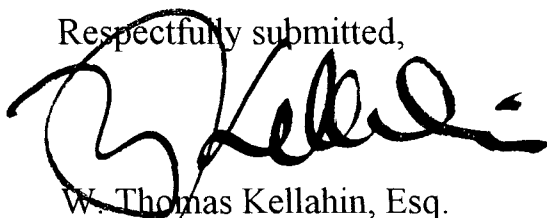
(4) The alleged soil contamination is related solely to the original tank battery and perhaps pits used in connection with that tank battery. Samedan dismantled the original tank battery and closed the associated pits prior to 1962, while it was operator of the Moon "A" Lease. The alleged pollution occurred more than 45 years ago when Cusack or Samedan operated the lease. Samedan is still a Division-approved operator of wells within New Mexico.

(5) OPL did not construct the pits or the original or replacement tank batteries. OPL never used the pits or either tank battery. OPL did not close the pits or dismantle the tank batteries. OPL has no responsibility for cleanup.

(6) OPL is not the "responsible person" for this alleged soil contamination.

Wherefore OPL moves that the Division grant this motion and thereby dismiss OPL as a "responsible person."

Respectfully submitted,

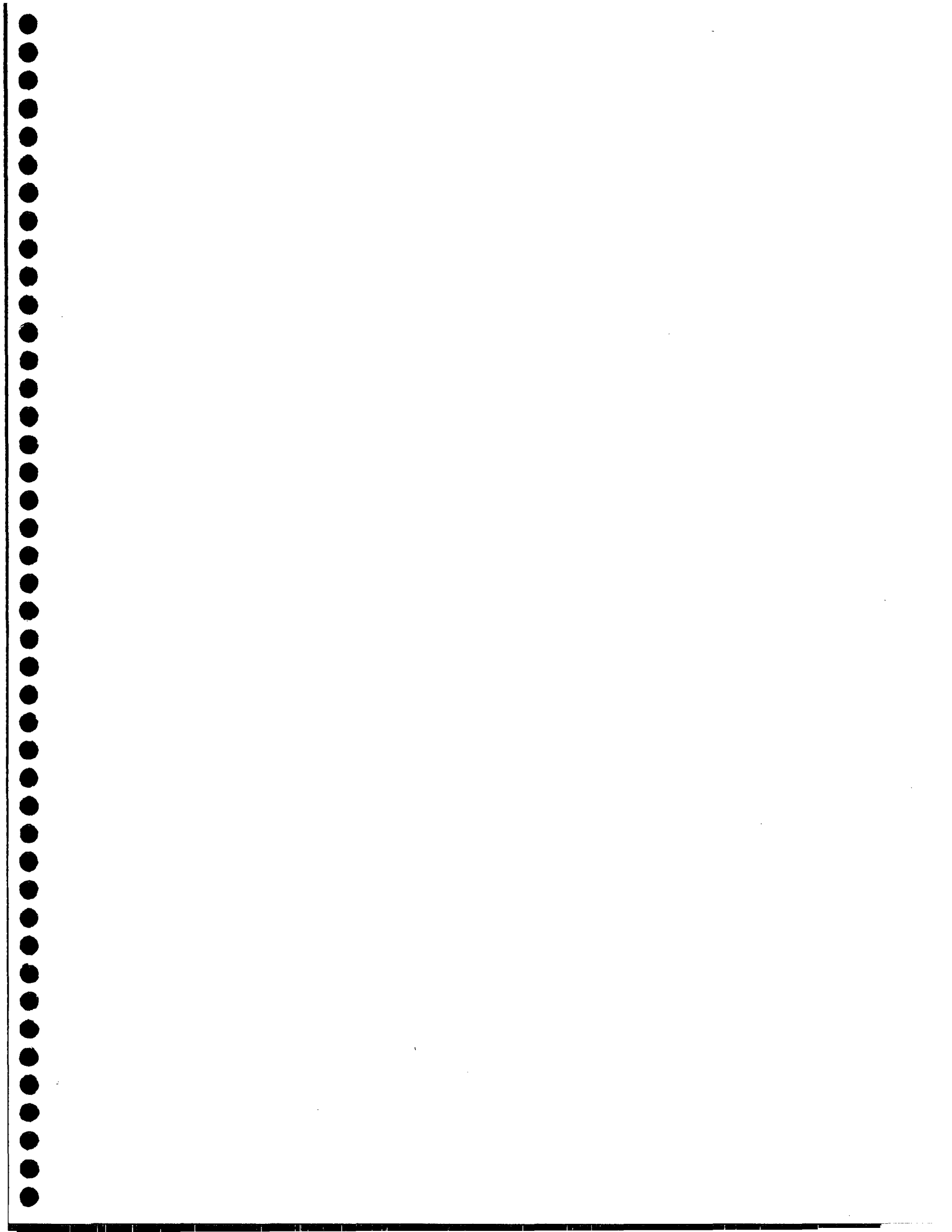
A handwritten signature in black ink, appearing to read "W. Thomas Kellahin", written over the typed name.

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ATTORNEYS FOR OCCIDENTAL PERMIAN LTD



**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION**

**APPLICATION OF THE NEW MEXICO OIL
CONSERVATION DIVISION, THROUGH THE
ENVIRONMENTAL BUREAU CHIEF, FOR AN
ORDER DETERMINING THE RESPONSIBLE
PARTY OR PARTIES AND ORDERING THE
RESPONSIBLE PARTY OR PARTIES TO CONDUCT
DIVISION-APPROVED CORRECTIVE ACTION
WITH RESPONSE TO A HYDROCARBON RELEASE
(Gary Johnson Complaint), LEA COUNTY NEW MEXICO**

CASE 13004

**BRIEF IN SUPPORT OF OCCIDENTAL PERMIAN LTD
MOTION TO DISMISS
OCCIDENTAL PERMIAN LTD AS
A RESPONSIBLE PERSON FOR THIS INCIDENT**

The brief is submitted by Occidental Permian Ltd. ("OPL") in support of its moves that the Division ("OCD") enter an order dismissing OPL as a potentially responsible person for this incident.

BACKGROUND

The alleged soil contamination¹ on the Johnson property within the Moon "A" Lease is attributed by the OCD to the original 4-tank battery ("original tank battery") located west of Johnson's trailer and related unlined surface pits. Prior to

¹ OCD investigation found no contamination of Johnson water well (Interview with Bill Olson, January 14, 2003 and related water analysis).

January 1, 1962, Samedan closed the original 4-tank battery and related pits and constructed a replacement 3-tank battery ("replacement tank battery") located south of Johnson's trailer. The replacement tank battery was dismantled shortly after approval of the North Hobbs Unit, more than twenty (20) years before OPL became Unit operator.

The alleged soil contamination is associated with the original tank battery only. None of the contamination is associated with the replacement tank battery and does not appear to be associated with the pits used in connection with the original tank battery. The original tank battery was dismantled and the associated pits were closed prior to 1962. Information regarding the replacement tank battery and subsequent unit operations is provided herein solely as background information and to ensure all known facts are available in historical context.

Prior to filing its application for hearing, the OCD made separate written demands of both Shell and Samedan requiring each to submit plans to investigate the extent of soil contamination related to the Moon "A" Lease. Both Samedan and Shell responded that they were no longer operating the Lease and identified OPL as the current operator of the North Hobbs Unit. The OCD then requested that OPL respond as to whether or not it is the "responsible party" to clean up the alleged soil contamination on the Moon "A" Lease. OPL responded that it is not. On January 13, 2003, the Division filed an application requesting that the Division Director call a hearing to determine whether Samedan, Shell and/or OPL are the "responsible persons."

SUMMARY OF RELEVANT UNCONTESTED FACTS²

On January 3, 2000, Gary Johnson complained to the OCD about what appeared to be oil just beneath the surface near the west end of his trailer located in the W/2NE/4 Section 28, T18S, R38E, Lea County, New Mexico (known as the "Moon "A" Lease").

On January 25, 2000, OCD (Olson) sampled³ Mr. Johnson's water well and found no contamination (water analysis dated February 3, 2002). Olson concluded that there is highly weathered asphalt type oil near Mr. Johnson's trailer. Olson drew the conclusion that the land around the trailer is within the footprint of the original tank battery and associated pits on the Moon "A" Lease.

On June 25, 2002, Olson took 5 soil samples near Mr. Johnson's trailer, again within the area occupied by the original tank battery, which tested positive for the presence of hydrocarbons.⁴

There are 2 wells located within the Moon "A" Lease⁵ that may be associated with the original and replacement tank batteries and related pits:

- (1) The Moon "A" Well No 1. located 2310 feet FNL and 2310 feet FEL (Unit G) of Section 28 (now known as "NHU 28-321"); and
- (2) The Moon "A" Well No. 2 located 1315 feet FNL and 2310 feet FEL (Unit B) of Section 28 (now known as the "NHU 28-311")

Primary Production:

The original 4-tank battery, which is the location of the alleged soil contamination, was operated and closed by Samedan long before the North Hobbs Unit was ever formed. Two wells may be associated with the original tank battery: the Moon "A" Well No.1 was drilled and completed on February 13, 1935 and the

² See Factual Summary attached as Exhibit 1

³ See OCD Letter, 3/27/00, and Olson site plan, 1/25/00, attached as Exhibits 2A and 2B

⁴ See Olson site plan, 6/25/02, and sample data sheet, attached as Exhibits 3A, 3B, and 3C

⁵ See Locator Map attached as Exhibit 4

Occidental Permian Ltd.

Motion to be Dismissed as a Responsible Party

Moon "A" Well No.2 was drilled and completed on July 8, 1935 by J. P. Cusack, Inc. which was liquidated on January 15, 1951 and became Samedan Oil Corporation ("Samedan"). Cusack and Samedan operated these two wells on the Moon "A" Lease and used both the original and replacement tank batteries and related pits for primary production from the Grayburg/San Andres formations for more than forty-five (45) years. By January 1, 1962, Samedan abandoned the original 4-tank battery located west of where the Johnson trailer is now located and constructed a replacement 3-tank battery south of where the Johnson trailer is now located.⁶ Based on aerial photographs, the original 4-tank battery was dismantled and all pits were closed prior to 1962.⁷

The 3-tank replacement battery was operated and closed long before OPL became operator of the North Hobbs Unit. On July 2, 1979, the Moon "A" Wells No. 1 and No. 2 were contributed to the North Hobbs Unit operated by Shell Oil Corporation ("Shell"). The replacement tank battery associated with these wells was apparently closed and dismantled by Shell shortly after the North Hobbs Unit became effective (1980). Samedan continued to own the lease until July 1, 1999 when it assigned the lease and its interest in the Unit to The Prospective Investment and Trading Company, ("PITTCO").⁸

Apparently the replacement tank battery was not needed for unit operations because the aerial photographs clearly show that some time prior to the end of 1982, the replacement tank battery used by Samedan for primary production operations was dismantled.⁹

⁶ See hand drawn plat, dated 3/4/80, attached as Exhibit 5

⁷ See Aerial photos, attached as Exhibits 6A and 6B

⁸ See Samedan assignment effective 7/1/1999, attached as Exhibit 7

⁹ See Aerial photos, attached as Exhibits 6A and 6B

Secondary Recovery:

The North Hobbs Unit was formed pursuant to the New Mexico Statutory Unitization Act (1979, NMSA Section 70-7-1) and approved by the OCD by Order R-6198 (Case 6652) dated November 30, 1979 with an effective date of February 1, 1980. Shell's plan for the Unit was for the secondary recovery of additional oil by water injection from part of the Unit (a Pressure Maintenance Project that the Division approved by Order R-6198 (Case 6653), dated November 30, 1979.

Based on aerial photographs,¹⁰ some time prior to the end of 1982, the replacement tank battery used by Samedan for primary production operations was dismantled, apparently by Shell, the Unit operator. Thus, Shell used only the Moon "A" "wells" in the North Hobbs Unit Pressure Maintenance Project (waterflood), not the replacement tank battery.¹¹

As soon as the Unit facilities became operational in 1982, the Moon "A" wells were produced through new flowlines directly to a new central battery located away from the Moon "A" Lease.¹² The Moon "A" Well No. 2 was converted to water injection service on February 1, 1988.¹³ Shell operated this waterflood project for more than seventeen (17) years until forming a limited partnership with Amoco called Altura Energy Ltd. (Altura"). All Unit operations were transferred to Altura on March 1, 1997, and effectively on May 8, 2000, Occidental Petroleum Corporation bought Altura and changed its name to Occidental Permian Ltd. almost 40 years after the original tank battery associated with the soil contamination had been closed and dismantled.¹⁴

¹⁰ See Aerial photos, attached as Exhibits 6A and 6B

¹¹ See waterflood map showing status of site, 1979, attached as Exhibit 7

¹² See waterflood map showing states of site, 1979, attached as Exhibit 7

¹³ See Form C-103, attached as Exhibit 9

¹⁴ See Form C-104-A, attached as Exhibit 10

Tertiary Recovery:

Effective October 22, 2001, OPL converted the North Hobbs Unit into a Tertiary Recovery Project for the injection of CO₂ and water to increase oil recovery from areas west of and excluding the Moon "A" Lease and the wells located thereon.¹⁵ (See OCD Order R-6199-B dated October 22, 2001, Case 12722)

DIVISION JURISDICTION

The Oil Conservation Commission and the Oil Conservation Division (collectively "OCD") of the Energy, Minerals and Natural Resources Department have concurrent jurisdiction in New Mexico for the regulation of virtually all aspects of oil and gas operations in the state.¹⁶ The OCD is empowered to regulate the injection and disposition of water and to regulate the disposal of E&P wastes.¹⁷

These statutory charges to regulate the disposition of E&P wastes are the result of a 1989 amendment to the statutes that was enacted specifically in response to the June 1988 determination by the EPA to exempt E&P wastes¹⁸ from regulation under Subtitle C of the federal Resource Conservation and Recovery Act (RCRA).¹⁹

OCD RULES

The OCD alleges that the soil contamination at the Johnson trailer is tank bottoms, characterized as "weathered asphaltic type oil," constituting a potential danger to public health and the environment:

¹⁵ See Unit's tertiary Recovery Map, attached as Exhibit 11

¹⁶ See 1997 NMSA Sections 70-1-1 through 70-1-38

¹⁷ See 1979 NMSA Sections 70-1-12.B(14)(15)(21)(22)

¹⁸ See list of exempt E&P wastes, attached as Exhibit 12

¹⁹ RCRA was passed in 1976 to regulate solid wastes

OCD Rule 7 defines:

“88. TANK BOTTOMS shall mean that accumulation of hydrocarbon material and other substances which settles naturally below crude oil in tanks and receptacles that are used in handling and storing of crude oil, and which accumulation contains in excess of two (2%) percent of basic sediment and water; provided, however, that with respect to lease production and for lease storage tanks, a tank bottom shall be limited to that volume of the tank in which it is contained that lies below the bottom of the pipeline outlet thereto.[19 NMAS 15.A.7.73, 3-15-97]

OCD Rule 7 also defines:

“61. OPERATOR shall mean any person or persons who, duly authorized, is in charge of the development of a lease or the operation of a producing property. [19 NMAS 15.A.7.52, 3-15-97]

OCD Rule 116.D requires:

(a) “OCD Rule 116.D [19.15.3.166.D NMAC] provides:

D. Corrective Action. The responsible person must complete Division approved corrective action for releases, which endanger public health or the environment. Releases will be addressed in accordance with a remediation plan submitted to and approved by the Division or with an abatement plan submitted in accordance with Section 19 of 19.15.1 NMAC.”

(b) “OCD Rule 7.R(5) [19.15.1.7.R(5) NMAC] provides:²⁰

(5) Responsible Person shall mean the owner or operator who must complete Division approved corrective action for pollution from releases.”

In 1957, the Division issued Memorandum 32-57 prohibiting the disposal of saltwater in earthen pits after completion of saltwater disposal systems in the Hobbs area. Order No. R-1224 was issued in 1958 prohibiting the surface disposal

²⁰ This definition applicable for Order R-10766 and R-10767 adopted Rules 116 and Rule 19, dated February 13, 1997 in Division Cases 11352 and 11635.

of oil field brines in unlined surface pits in the Hobbs area after March 15, 1959. In addition, Memorandum 33-57 was issued to all operators in the Hobbs area prohibiting the disposal of waste oil or basic sediment in earthen pits in the Hobbs Pool area. The use of pits to store any oil or produced water on the Moon "A" Lease would have been unlawful after entry of these orders.

ARGUMENT

OPL did not violate any OCD rules. OPL has been unit operator for less than three years and first became operator more than 40 years after the alleged contamination occurred. OPL did not cause or allow the alleged soil contamination to occur. The alleged soil contamination is related solely to the original tank battery and perhaps pits used in connection with that tank battery. Samedan dismantled the original tank battery and closed the associated pits prior to 1962, while it was operator of the Moon "A" Lease. The alleged pollution occurred more than 40 years ago when Cusack or Samedan operated the lease. Samedan is still a Division-approved operator of wells within New Mexico. OPL did not construct the pits or the original or replacement tank batteries. OPL never used the pits or either tank battery. OPL did not close the pits or dismantle the tank batteries. OPL has no responsibility for cleanup.

Never before has the OCD sought to enforce its rules against an operator who did not construct, use, or close and dismantle the facility that was the cause of the alleged soil contamination. Never before has the OCD sought to enforce cleanup against someone who was not the operator when the contamination occurred. Never before has the OCD sought to require an operator to clean up contamination that occurred more than 40 years before that operator became operator. Had the OCD intended such an inequitable result, its rules would provide

that the current operator of a lease or unit is responsible for cleanup regardless of when the contamination occurred or who caused it. Instead, the OCD properly looks to the person who was operator when the contamination occurred and/or the person who caused the contamination.

In Texas, an operator in the position of Samedan, would be responsible for cleanup.²¹ In *Lone Star Salt Water Disposal Co. v. Railroad Comm'n of Texas*, 800 SW 2d. 924 (Tex.App—Austin, 1990), the operator who actually placed oil or oil and gas waste in earthen pits was held to be responsible for cleanup of the pits. The Court found that “[t]he evidence supports the Commission’s conclusion that Lone Star is responsible for cleaning the pits because it operated and controlled the system its last twenty-three years of operation.”

Samedan was the last, and perhaps only, operator to use the original tank battery and related pits and also closed those facilities. Any soil contamination that resulted from use of these pits and tank battery occurred while Samedan or Cusack was operator. OPL did not create or install either tank battery or the pits, did not use the tank batteries or the pits, did not dismantle the tank battery or close the pits and did not cause or allow any contamination to occur.

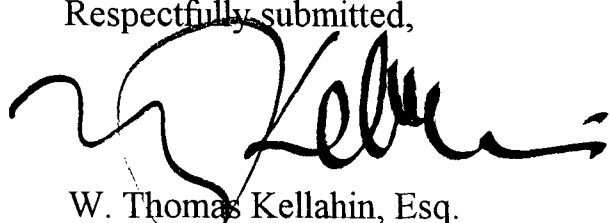
In the Lone Star case, the operator who caused the pollution, even though not the current operator, was held responsible for cleanup. The same result is appropriate in this case. Only the person who caused or allowed the contamination to occur should be held responsible for cleanup.

²¹ See *Lone Star Salt Water Disposal Co. v. Railroad Comm'n of Texas*, 800 SW2n 924 (Tex. App.—Austin, 1990)
Occidental Permian Ltd.

CONCLUSION

The OCD's application, as it applies to OPL, is not supported by the facts and is contrary to applicable law. There is no statutory or regulatory authority for the OCD to hold the current North Hobbs Unit Operator, OPL,²² responsible for cleanup of this alleged contamination. OPL did not become operator until at least 40 years after the soil contamination occurred. OPL did not construct, install, use, dismantle, or close the facilities associated with the contamination. Just as Samedan is not liable for contamination or pollution caused by others after it was no longer operator,²³ OPL is not liable for contamination or pollution that occurred while Samedan (or Cusack) was operator.²⁴ OPL is not the "responsible person". The facts and law are clear. OPL is not responsible for any remediation or cleanup of contamination or pollution associated with the original 4-tank battery and related pits. In addition, since the replacement 3-tank battery is not the source of the alleged soil contamination, it should not be an issue in this matter. However, even if the replacement tank battery was properly an issue, OPL is not liable for it, either, for the same reasons stated above.

Respectfully submitted,



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(505) 982-4285

²² OCD Rule 116.D [19.15.3.166.D NMAC] does not make the current operator the "responsible party."

²³ See Hicks v. Humble Oil & Refining Co. (Texas Court of Appeals, 1998, 970 SW2d 920)

²⁴ See Railroad Commission of Texas v. American Petrofina Company, Texas Court of Appeals, 1987, 572 SW2d 658

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ATTORNEYS FOR OCCIDENTAL PERMIAN LTD

PRELIMINARY SUMMARY OF CHRONOLGY

February 13, 1935	Moon "A" Well No. 1 completed by J. P. Cusack, Inc.
July 8, 1935	Moon "A" Well No. 2 completed by J. P. Cusack, Inc.
January 15, 1951	J. P. Cusack, Inc. liquidated and became Samedan Oil Corp.
November 18, 1957	OCD Issued Memo by A. L. Porter, Director, precluding disposal of produced water into unlined surface pits and prohibited disposal of waste oil into earthen pits in Hobbs Area
January 30, 1962	By this date, Samedan had abandoned the original 4-tank battery west of the present location of Johnson's trailer and constructed a replacement 3-tank battery south of the present location of Johnson's trailer.
October 10, 1978	OCD adopted revised Rulebook
July 2, 1979	Samedan ratified North Hobbs Unit Agreement and Unit Operating Agreement.
November 30, 1979	OCD entered Order R-6198 approving North Hobbs Unit
November 30, 1979	OCD entered Order R-6199 (Case 6653) approving waterflood project for Unit
January 17, 1980	North Hobbs Unit working interest owner ("WIO") meeting in Midland. Shell, as operator of the Unit, met with representatives of the Unit WIO's in Midland and reviewed procedures to inventory all existing lease equipment that would become part of the Unit operations. They also presented a detailed plan and facilities schedule which called for construction of new facilities to start in June 1980 and all facility construction to be completed in December 1981.
February 1, 1980	Effective date of the North Hobbs Unit (statutorily-formed unit) Samedan became a working interest owner in Unit by contributing the Moon "A" wells to the Unit.

March 4, 1980	Hand drawing of Moon "A" Lease Tank Battery
December 1980	Shell's plan called for limited water injection to begin in the Unit. (See Unit production lines Map)
About January, 1982	Shell started taking production from the Moon "A" Wells 1 and 2 into a new central battery located off of the Moon "A" Lease
1981-1982	Moon "A" Replacement Tank Battery dismantled
April 6, 1988	Shell filed report-showing conversion of Well No 2 to injection
April 27, 1988	Samedan advised Shell by letter that Samedan still owned the Moon "A" lease, which is part of the Unit
March 1, 1997	Effective date Altura was created as a joint venture of Amoco and Shell
July 1, 1999	Samedan assigned its interest in the Moon "A" lease to The Prospective Investment and Trading Company
January 3, 2000:	OCDEB received Gary Johnson complaint
January 25, 2000:	Johnson site inspection by Bill Olson Finds asphalt pool (tank bottoms) Takes water sample from Johnson water well
January 26, 2000:	Trace Analysis for OCD
February 3, 2000:	Trace Analysis Report: did not detect any oil & gas related contaminants in Johnson water well
March 27, 2000:	Olson letter to Johnson forwarding Trace Analysis Report, dated 2/3/00
March 27, 2000:	Olson letter to Altura (Steve Bishop) advised Altura of Johnson complaint and evidence of former tank battery's waste. OCD required Altura to submit information about site by April 27
April 19, 2000	Occidental Petroleum Corporation bought Altura

- April 26, 2000: Rod Schumacher, Altura attorney (Atwood & Malone [Roswell]), replies to Olson letter stating that
- (a) Altura is now known as Occidental Permian Ltd.
 - (b) The Property was an oil tank battery maintained in connection with Samadan operations prior to formation of North Hobbs (Grayburg-San Andres) Unit.
 - (c) Identified the Moon "A" Lease (W/2NE/4 Sec 28) as the relevant lease
 - (d) Forwards North Hobbs Unit Agreements indicating that Samedan is lessee of record.
 - (e) States that further investigation indicates that Shell Oil Company may have used tank battery for about 1 year following commencement of Unit operations and then dismantled by Shell.
 - (f) Tank battery never operated by Altura.
 - (g) Enclosed site plan.
- May 8, 2002 OPL became operator of the North Hobbs Unit
- September 6, 2000: Olson letter to Shell E&P Company (Wayne A. Hamilton) Advising of Johnson complaint
Required Shell to submit information about site by Oct 6, 2000.
- September 26, 2000: Olson approved Shell's request (Hamilton) for an extension to November 6, 2000 to report (by E-mail)
- November 2, 2000: Shell responded that:
- (a) Shell has no records
 - (b) Shell sold Unit to Occidental Permian Ltd.
 - (c) Lessee of record is Samedan Oil Company
 - (d) Submitted Unit map; Johnson site plan; Exhibit B to Unit Agreement; 3 hand drawings of site
- February 5, 2001: Olson letter to Samedan
Advising of Johnson complaint
Required Samedan to submit by March 5, 2001 a plan to investigate the extent of contamination related to the Samedan former battery and Samedan's closure of battery.
- February 23, 2001: Samedan letter to Olson stating that:
- (a) Samedan has reviewed its files and determined that OXY is the proper party to investigate the contamination
 - (b) Admits that Samedan did operate the Moon A lease where there was located several wells and a tank battery
 - (c) Samedan relinquished all duties and obligations to the Unit Operator, Shell, per the Unit Agreement

- (d) At the time the Unit was created, the tank battery and lease wells were intact, fully operational and in a producing status and became a part of the Unit operations
- (e) A year or so after Shell became the Unit operator, Shell removed the tank battery as gathering facilities and flow lines were consolidated.
- (f) Samedan now only owns an interest in the Unit.

April 11, 2001: Olson Letter to Shell E & P Company (Hamilton) stated that:

- (a) Shell is the most recent operator of the tank battery and also the operator that closed and dismantled the tank battery
- (b) Therefore, OCD requires Shell to submit plans to investigate the extent of contamination related to the site by May 11, 2002

May 3, 2001: Shell (Hamilton) letter to Olson requesting an extension to June 11, 2001.

May 14, 2001: Olson letter granting Shell its requested extension

June 18, 2001: Olson received Shell letter (undated, by Kathleen Phillips) stating that:

- (a) Shell is not the current operator and that it has forwarded the OCD letter to OXY
- (b) OXY assumed responsibility for such matters

September 27, 2001: Olson letter to OXY USA Inc stated that:

- (a) Samedan and Shell maintain that OXY is the current Operator of the lease and responsible for investigation and remediation
- (b) Asked OXY to respond as to whether or not it is the responsible party by October 12, 2001

October 11, 2001: OXY letter (Schumacher) advising Olson that OXY response will be submitted by October 12, 2001, (extended to October 19 by Olson).

October 19, 2001: OXY letter (Schumacher) to Olson stated that:

- (a) provided summary in 3-page letter that Altura (now Occidental Permian Ltd) has operated the Unit since 1997.
- (b) That OXY USA Inc. is not the current operator of the North Hobbs Unit
- (c) Unit Agreement did not impose liability for cleanup of alleged contamination from pre-unit events on OPL
- (d) Tank battery on Moon "A" lease never operated by Altura/OPL.
- (e) That Samedan is the responsible person.

October 22, 2001	Division entered Order R-6199-B (Case 12722) approving OPL application to convert Unit waterflood to a CO2 project
October 22, 2001	Effective date that OPL converted of the Unit to a tertiary recovery project
February 8, 2002:	McMahon (Samberson law firm) letter to Lawrence Romero/Roger Anderson requesting public records inspection of Johnson site files
February 11, 2002:	Olson letter to McMahon advised that file available (Case #1R0167)
May 28, 2002:	McMahon letter to Olson requesting copy of sample and test results
June 25, 2002:	Olson samples of Johnson water well
June 26, 2002:	McMahon sent Olson a copy of Shell/OXY sales Agreement dated March 7, 2000. Referenced Seller's indemnity obligations (Article 6.3)
July 10, 2002:	Trace Analysis Report
January 13, 2003:	OCD filed Compliance Application: (a) against OXY, Shell and Samedan to determine responsible person per Rule 116.D (b) Samedan operator prior to February 1, 1980 (c) On February 1, 1980, the site was incorporated into the North Hobbs Unit and Shell assumed operations of site (d) In 1997, Altura (now OPL) assumed Unit operations (e) Samedan and Shell have refused to submit plans for corrective action (f) OXY denied that it is a responsible person



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 27, 2000

Mr. Gary Johnson
1500 Tasker Rd.
Hobbs, New Mexico 88240

RE: WATER WELL SAMPLE ANALYSES

Dear Mr. Johnson:

Enclosed you will find a copy of the laboratory analytical results of the water samples that the New Mexico Oil Conservation Division (OCD) obtained from your water well at 1831 Mobile Street in Hobbs, New Mexico on January 25, 2000. The sample analyses did not detect any oil or gas related contaminants in your well water. The OCD has requested that the operator of this lease provide the OCD with information regarding prior oil and gas activities at your Mobile Street residence. The OCD will copy you on correspondence related to the site.

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

Sincerely,

William C. Olson
Hydrologist
Environmental Bureau

Enclosure

xc w/ enclosure: Chris Williams, OCD Hobbs District Supervisor
Steve Bishop, Altura Energy, Ltd.



Gary Johnson Well (Hobbs, NM)

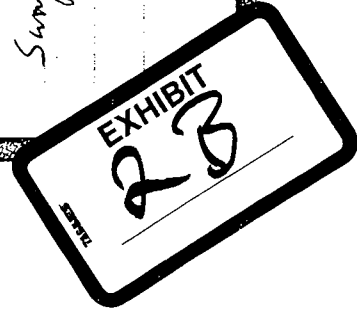
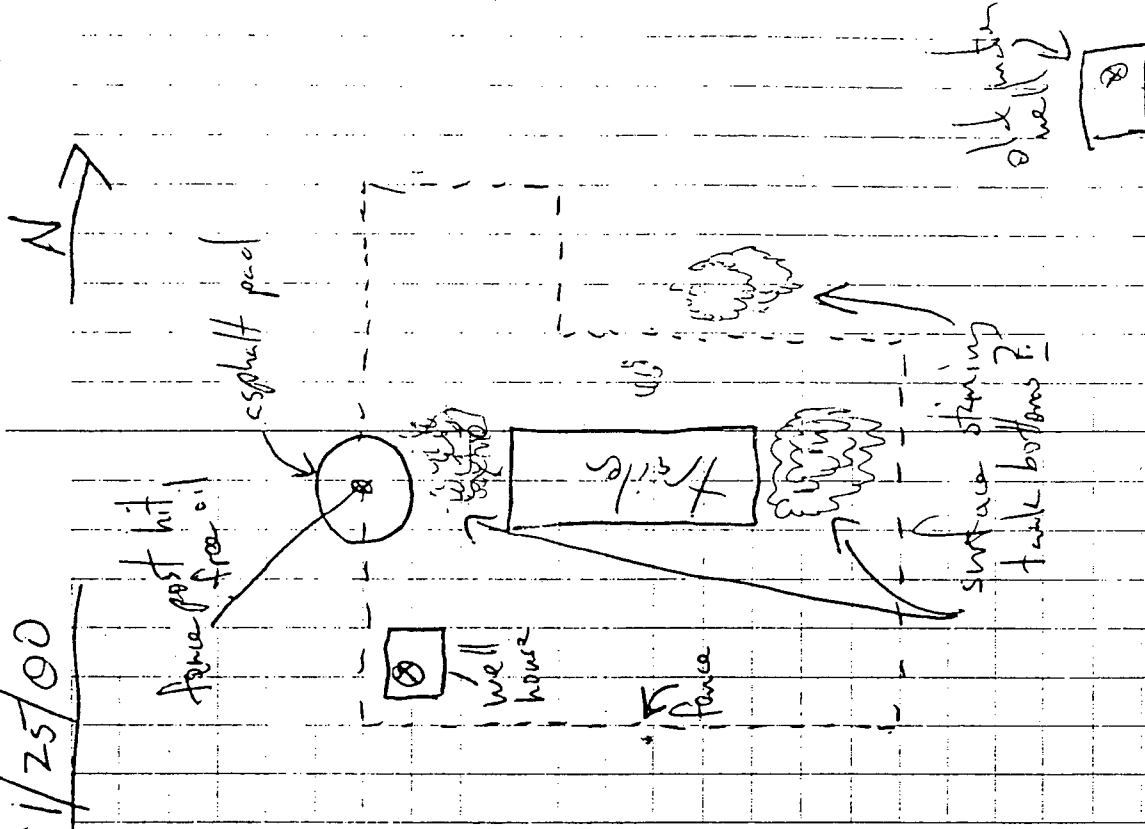
1/25/00

arrived at 0940 with Royce Anderson
Wayne Price } OGD
Jack Ford
Donna Williams

met with Gary Johnson (land owner) about complaint
+ ripken on property, rental to daughter
water well in southeast corner of property
seen tank bottoms spread on surface
Digby photos (1-5) of
hit free oil in fence post hole in old
asphalt pad for tank battery

Altura wells adjacent to site (see survey #6)
One well - North Hobbs (GSA) Unit
28-332
Unit G, Sec 28, T18S, R38E

Sampled water well
Sample id 0001250950
Samples - 8021 (BTEX)
- cation anion
- metals



Bill Olson Field Book # 5

9/25/02 Gary Johnson Residence

arrived at 1100 hrs. with Harry Johnson
met with Mike Newell, Sam Johnson, Newell
Patrick McMahon, Cox & McMahon
McMahon provided city aerial photos of site
100% samples at surface contaminated
from old tank battery on property

BH-1 - 6 inch

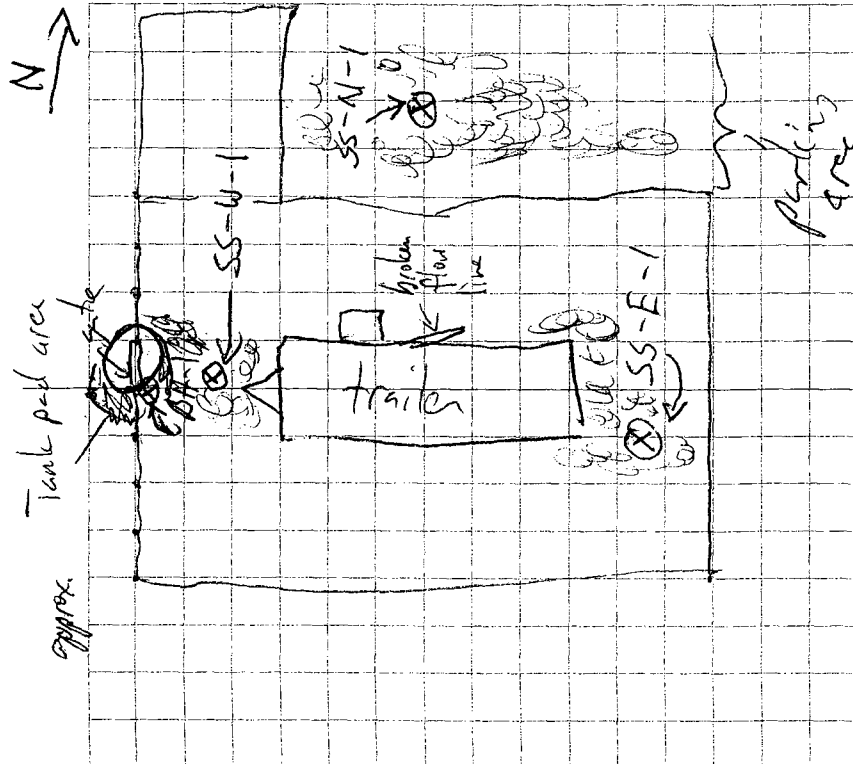
cased hole in area reported to be
heavily contaminated by Mr. Johnson
sample depth 6"

sample black, tarry, gooey, HC odor
sample id - 0206251150

Samples - BTEX
TPH
metals

BH-1 - 1 ft.

Sample depth 1 ft.
Sample black, tarry, gooey, HC odor
Sample id - 0206251150 12-10
Samples - BTEX
TPH
metals



Took 8 photos of sample
locations and trailer area

Bill Olson - Field Notes

EXHIBIT
3-A

SS-W-1

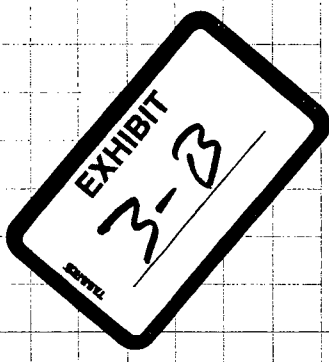
West side of trailer 11
surface sample 1-2"
sample black, asphaltic, HC odor
sample id - 020625/1240
samples - BTEX
TPH
metals

SS-N-1

North side of trailer 11
paving area
surface sample 1-2"
sample black, asphaltic, HC odor
sample id - 020625/1305

SS-E-1

East side of trailer
surface sample 1-2"
sample black, asphaltic, HC odor
sample id - 020625/1250
samples - BTEX
TPH
metals



Lubbock, Tex: 424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

5505 W. 15th St., Suite A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 585-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: M Oil Conservation Division Phone #: (505) 476-3491
Address: 1220 S. St. Francis Dr. Fax #: (505) 476-3462
Contact Person: Bill Olson

Invoice to: _____
(If different from above)

Project #: _____
Project Name: Gary Johnson

Project Location: Gary Johnson Residence
Sampler Signature: [Signature]

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX				PRESERVATIVE METHOD				DATE	TIME
				WATER	SOIL	AIR	SLUDGE	HCL	HN03	ICE	NONE		
20051	0206251150 (BH-1-6")	1	4oz	✓	✓	✓	✓	✓	✓	✓	✓	6/25/02	1150
52	0206251210 (BH-1-14)	1	4oz	✓	✓	✓	✓	✓	✓	✓	✓	6/25/02	1210
53	0206251240 (SS-W-1)	1	4oz	✓	✓	✓	✓	✓	✓	✓	✓	6/25/02	1240
54	0206251250 (SS-E-1)	1	4oz	✓	✓	✓	✓	✓	✓	✓	✓	6/25/02	1250
55	0206251305 (SS-N-1)	1	4oz	✓	✓	✓	✓	✓	✓	✓	✓	6/25/02	1305

Relinquished by: <u>[Signature]</u> Date: <u>6/25/02</u> Time: <u>1445</u>	Received by: <u>Mark Chubb</u> Date: <u>6-25-02</u> Time: <u>1445</u>
Relinquished by: <u>[Signature]</u> Date: <u>6-25-02</u> Time: <u>1740</u>	Received by: <u>Mark Chubb</u> Date: <u>6/25/02</u> Time: <u>1740</u>
Relinquished by: <u>[Signature]</u> Date: <u>6/25/02</u> Time: <u>1830</u>	Received by: <u>[Signature]</u> Date: <u>6/25/02</u> Time: <u>1830</u>

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C. 3 samples - 175

ORIGINAL COPY

ANALYSIS REQUEST

(Circle or Specify Method No.)

MTBE 8021B/602	✓	PAH 8270C	✓	TCLP Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	✓	TCLP Volatiles	✓	TCLP Semi Volatiles	✓	TCLP Pesticides	✓	RCI	✓	GC-MS Vol. 8260B/624	✓	GC/MS Semi. Vol. 8270C/625	✓	PCBs 8082/608	✓	Pesticides 8081A/608	✓	BOD, TSS, pH	✓	Metals, OGD contract # 50	✓	Hg, OGD contract # 47	✓	Turn Around Time if different from standard	Hold
----------------	---	-----------	---	---	---	----------------	---	---------------------	---	-----------------	---	-----	---	----------------------	---	----------------------------	---	---------------	---	----------------------	---	--------------	---	---------------------------	---	-----------------------	---	---	------

REMARKS:

LAB USE ONLY

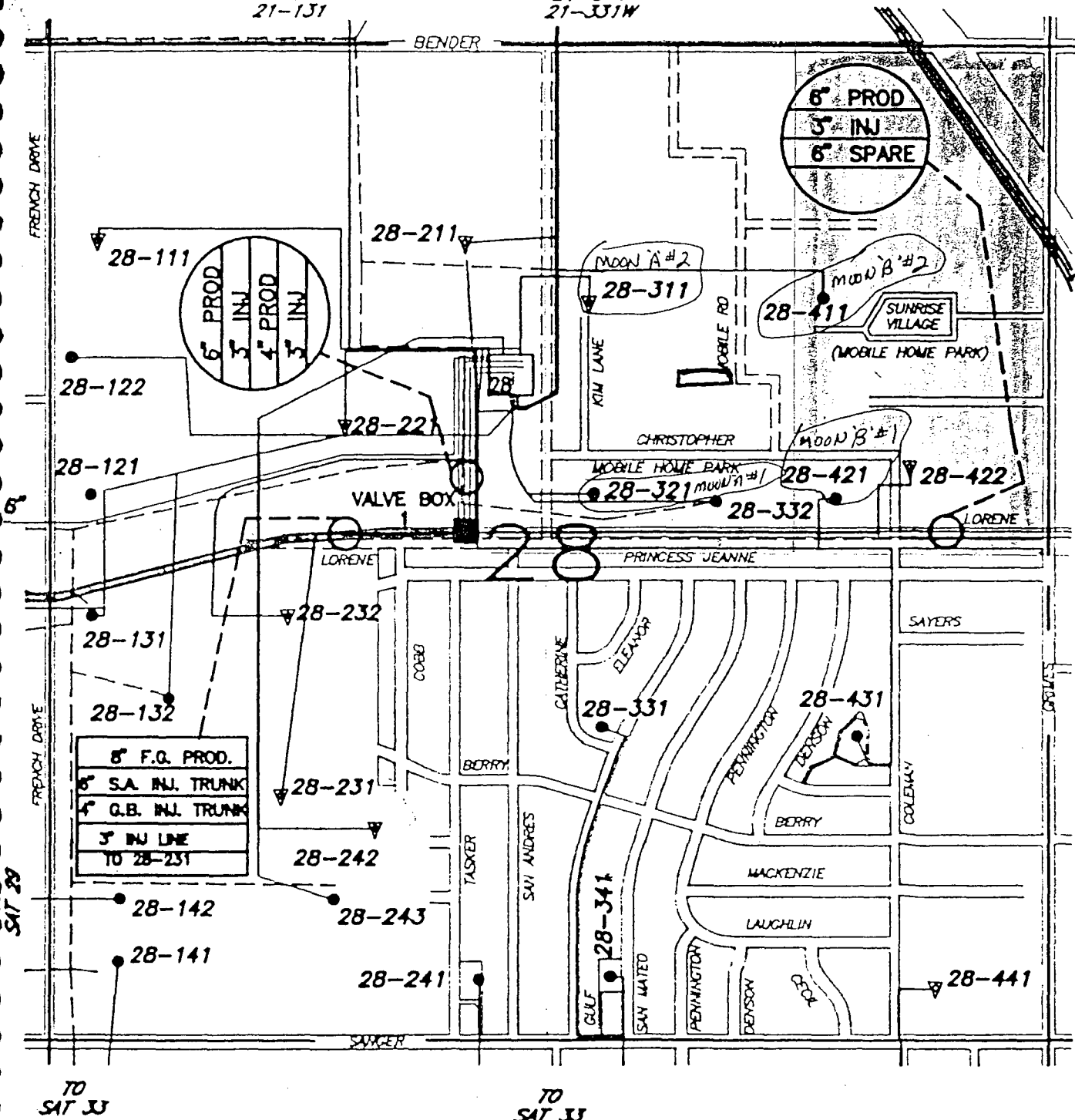
EXHIBIT 3-C

7/11/02

Carrier # Henry Land 1C3-566-890-3

TO
21-24
21-141
21-131

TO
21-441
21-341
21-331W



NOTES:

21-441 FLOWLINE IS APPROX. 12' OFF OF PAVEMENT ON NORTH SIDE. CITY INSTALLED 2" PVC. LINE JUST SOUTH OF OUR LINE, APP. 500' RUN TO EAST FROM NEAR ACE WELDING.



SHELL WESTERN E. & P. INC.

NORTH HOBBS UNIT

SECTION 28

TOWNSHIP 18 SOUTH , RANGE 38 EAST
LEA COUNTY, NEW MEXICO

DATE: DECEMBER 10, 1990

DRAWN BY: J HOLMES

SCALE: 1"=800'

REVISED: 1/16/95 JLP

PAGE 33

3/4/80

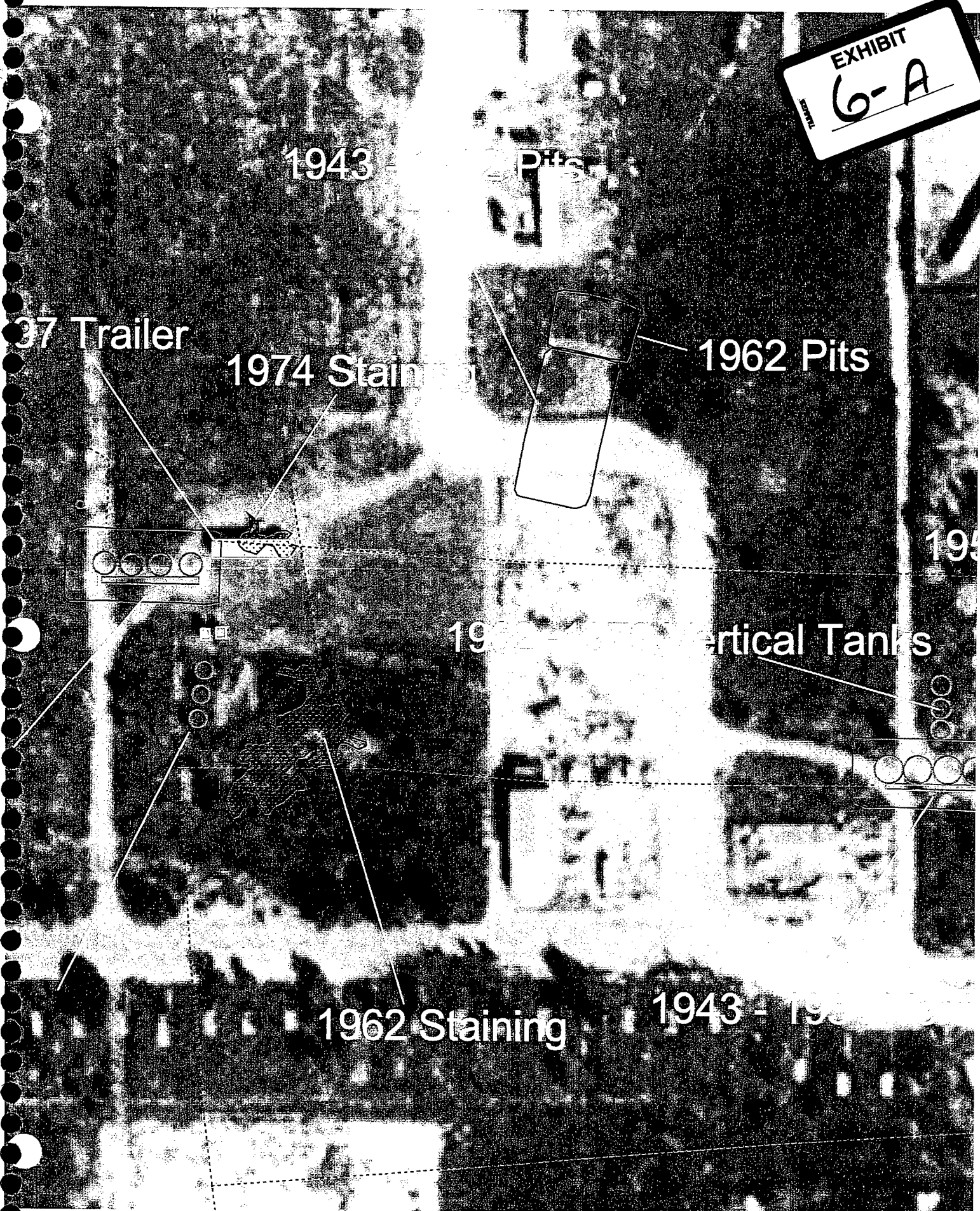
137

5



PIPELINE PUMP

EXHIBIT
6-A



Hobbs, NM
November 1, 1997
Photo Source:
USGS

Zoomed Image With Composite Interpretations

Vertical Tanks	Staining	Pits
New Tanks	Catwalk	Pits Removed
Tanks Removed	Levee	Probable Gathering Lines
Well Locations	Trailers	Future Trailers Location

30 0 30 60 Feet



AERO-DATA CORP
REMOTE SENSING CONSULTING SERVICES
AERIAL PHOTO ACQUISITION
INTERPRETATION & MAPPING

EXHIBIT
6-B













**Hobbs, NM**

November 1, 1997

Photo Source:
USGS

Image With Composite Interpretations

100 0 100 200 Feet

 Vertical Tanks
  Staining
  Pits
 New Tanks
  Catwalk
  Pits Removed
 Tanks Removed
  Levee
  Probable Gathering Lines
 Well Locations
  Trailer
  Future Tank Location



AERO-DATA CORP.
ENVIRONMENTAL
REMOTE SENSING CONSULTING SERVICES
AERIAL PHOTO ACQUISITION
INTERPRETATION AND MAPPING

61775
CORRECTION ASSIGNMENT

STATE OF NEW MEXICO

§
§
§

COUNTY OF LEA

This Correction Assignment entered into this 19th day of June, 2000, between SAMEDAN OIL CORPORATION, a Delaware corporation, whose address is 12600 Northborough, Suite 250, Houston, Texas 77067 (hereinafter referred to as "Assignor") and The PROSPECTIVE INVESTMENT AND TRADING COMPANY, LTD., whose address is P. O. Box 702320, Tulsa, Oklahoma 74170-2320 (hereinafter referred to as "Assignee").

WHEREAS, Assignor delivered to Assignee that certain Assignment and Bill of Sale effective July 1, 1999, recorded in Book 986, Pages 93-110, Lea County, New Mexico (the "Original Assignment"), and

WHEREAS, Assignor and Assignee desire to amend the Original Assignment to correct information on Exhibit "A-1" to the assignment, and

NOW THEREFORE, for and in consideration of Ten Dollars (\$10.00) and other good and valuable consideration, Assignor and Assignee hereby amend the Original Assignment as follows: Attached as Exhibit "A" to this Correction Assignment is a listing of five leases and one town lot originally included in Exhibit "A-1" to the Original Assignment, but which listing has been corrected to properly describe said five leases and one town lot as indicated in bold and italics on Exhibit "A" to this Correction Assignment. The description of said five leases and one town lot on Exhibit "A-1" to the Original Assignment is hereby amended to reflect the correct descriptions thereof on Exhibit "A" hereto, with the remainder of said Exhibit "A-1" to remain as originally written. Assignor hereby grants, bargains, conveys, sells, transfers and assigns to Assignee all of Assignor's right, title and interest in the leases and the other properties, rights, titles and interests described in the Original Assignment, as amended hereby, subject to and in accordance with all of the terms and provisions of the Original Assignment.

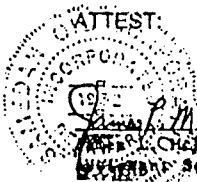
This Correction Assignment is made effective July 1, 1999 (the "Effective Date") and does not change any obligations or terms of the original assignment except as to the bolded and italicized changes on Exhibit "A" to this Correction Assignment.

IN WITNESS WHEREOF, this Agreement is executed as of the date hereinabove first written, but effective as of the Effective Date.

ASSIGNOR

SAMEDAN OIL CORPORATION,
a Delaware corporation

BY: James C. Woodson
James C. Woodson
Sr. Vice President



ASSIGNEE

The PROSPECTIVE INVESTMENT AND
TRADING COMPANY, Ltd.

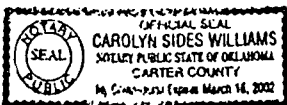
BY: Adam C. Singer
Adam C. Singer
President



STATE OF OKLAHOMA

COUNTY OF CARTER

The foregoing instrument was acknowledged before me this 14th day of June, 2000, by James C. Worison on behalf of Samedan Oil Corporation.



Carolyn Sides Williams
Notary Public in and for
The State of Oklahoma

My Commission Expires:

3/16/2002

STATE OF Oklahoma

COUNTY OF Tulsa

The foregoing instrument was acknowledged before me this 19th day of June, 2000, by Adam C. Engel on behalf of The Prospective Investment and Trading Company, Ltd., an Oklahoma corporation.

Beslie Boyd
Notary Public in and for
The State of Oklahoma

My Commission Expires:

February 27, 2001



EXHIBIT "A"

Attached to and made a part of that certain CORRECTION ASSIGNMENT executed on the 19th day of JUNE, 2000, but effective as of July 1, 1999 by and between Samedan Oil Corporation, "ASSIGNOR" and The Prospective Investment and Trading Company, Ltd., "ASSIGNEE".

LEASE(S)

SOC Lease No.: 03-01-014 E
Lessor: E. R. NEWBY ET AL
Lessee: EVERETT M. BYERS
Dated: AUGUST 7, 1934
Recorded: BOOK 25 PAGE 469

SOC Lease No.: 03-01-014 P
Lessor: NORTH CENTRAL TEXAS OIL COMPANY, INC.
Lessee: EVERETT M. BYERS
Dated: AUGUST 7, 1934
Recorded: BOOK 25 PAGE 311

SOC Lease No.: 03-01-015 L
Lessor: ANNIE L. BANCROFT
Lessee: J.P. CUSACK
Dated: AUGUST 10, 1937
Recorded: BOOK 34 PAGE 326

SOC Lease No.: 03-01-015 X
Lessor: ANN DOWD CREARY
Lessee: J.P. CUSACK
Dated: AUGUST 10, 1937
Recorded: BOOK 34 PAGE 277

SOC Lease No.: 03-01-015 JJ
Lessor: RALPH B. LECOCQ
Lessee: J.P. CUSACK
Dated: AUGUST 10, 1937
Recorded: BOOK 34 PAGE 324

TOWN LOT

SOC Lease No.: 03-01-019

TOWNSITE OF HOBBS, LEA COUNTY, NEW MEXICO

Block 64: Lots 1, 2 and 3.
Surface Agreement dated January 24, 1935 between Hobbs Townsite Company and Capitan Oil Company, recorded book 12, page 211, Deed Records, Lea County, New Mexico.

All recording references are to the records of the County Clerk of Lea County, New Mexico.

END OF EXHIBIT

STATE OF NEW MEXICO
COUNTY OF LEA

FILED

JUL 27 2000

at 11:13 o'clock A. M.

and recorded in Book

Page

Notary Public, Lea County, N.M.

By [Signature] Deputy

BOOK 1029 PAGE 516

Page 3 of 3



61775

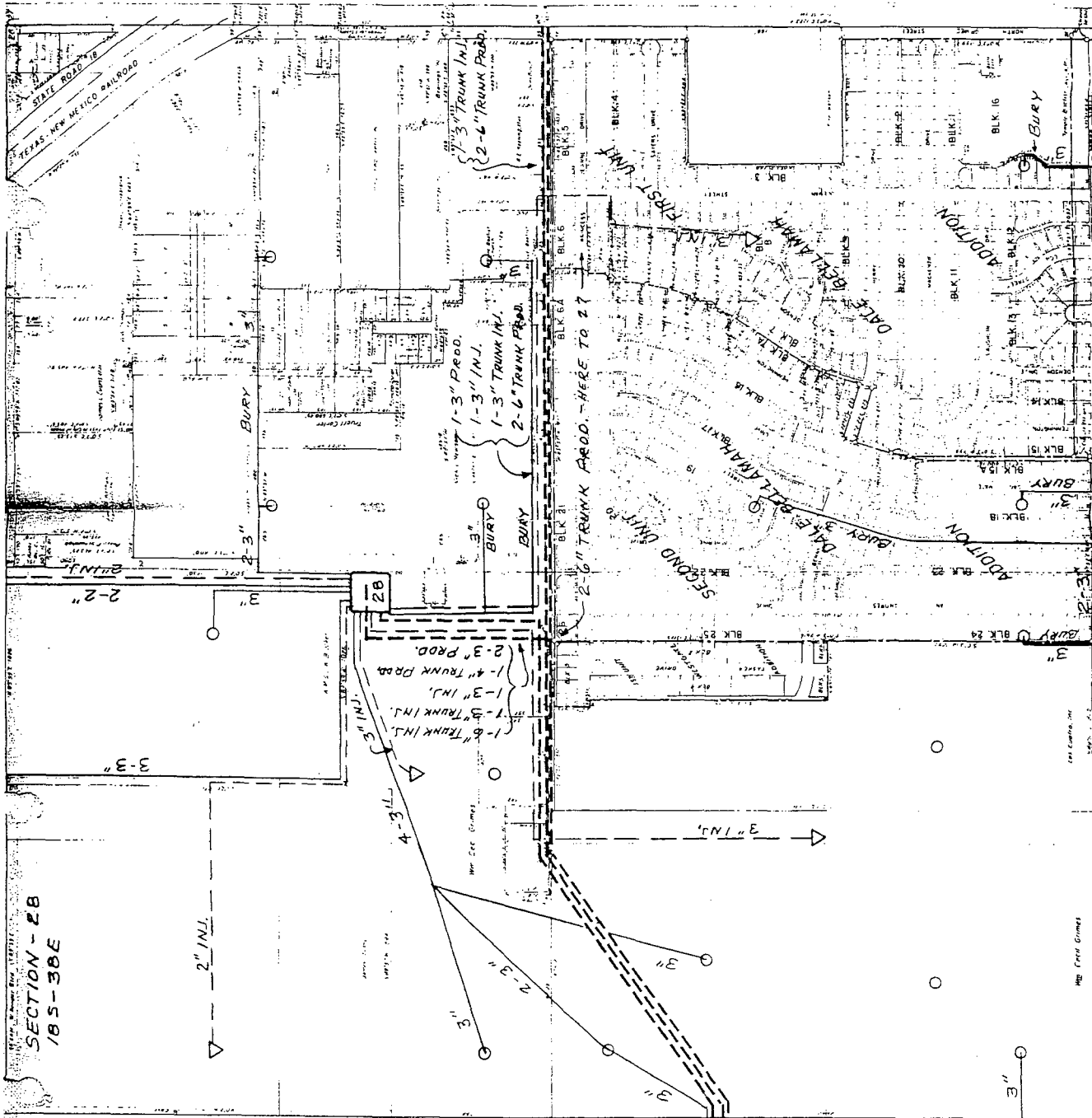
POO 1-1623

SECTION - 28
185-38E

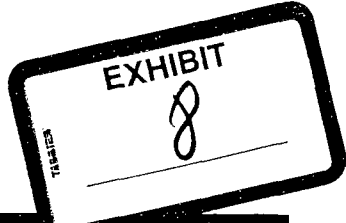
- LEGEND -
- PROD. TRUNK LINE (BURIED)
 - INJ. TRUNK LINE (BURIED)
 - INJ. LINE (BURIED)
 - PROD. LINE (T.O.G.)
 - PROD. WELL
 - ▽ INJ. WELL

HOBBS FIELD
WATER FLOOD
1979
SCALE: 1" = 500'

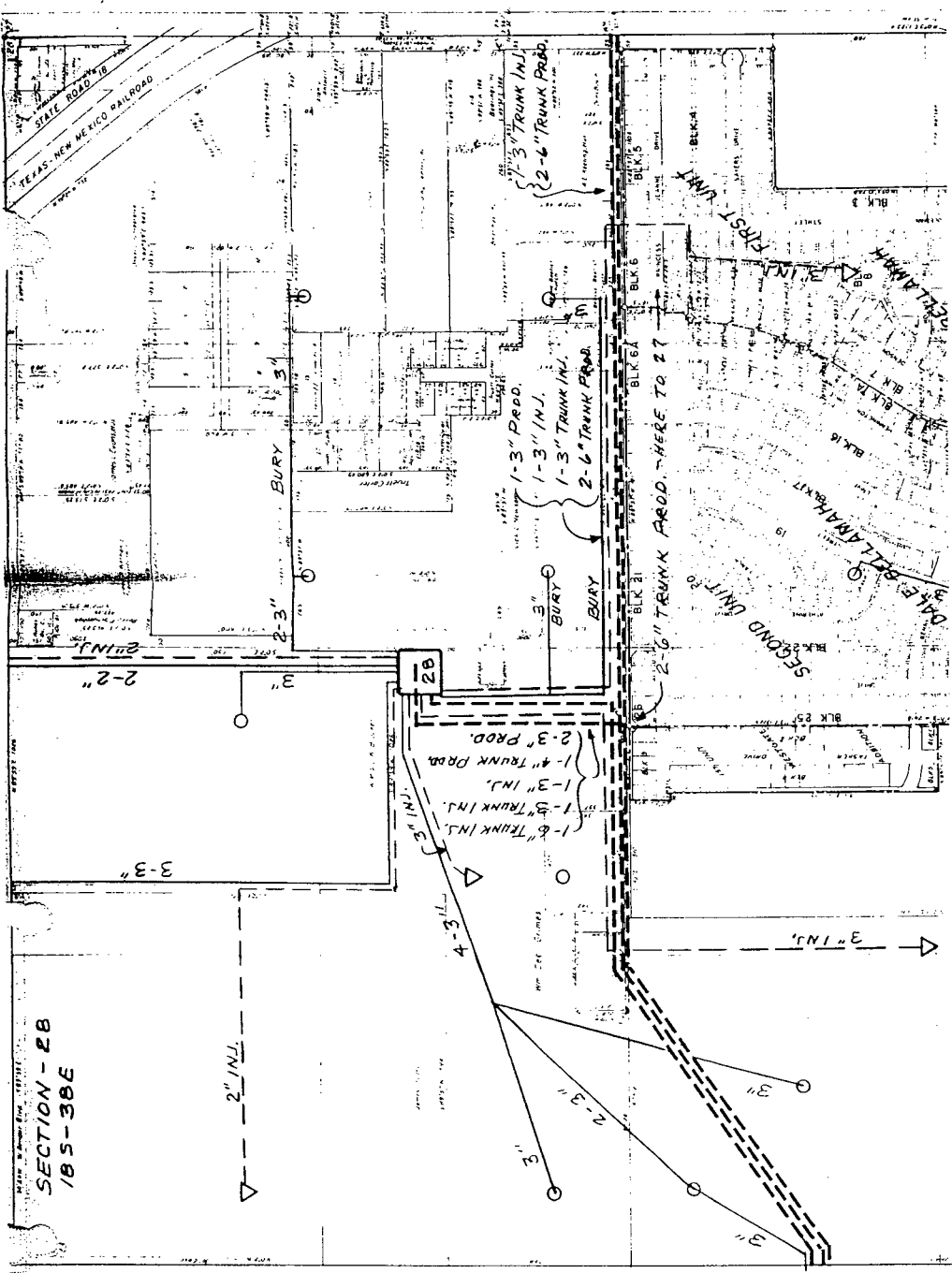
M-4759-D



1-3" PROD.
1-6" TRUNK INJ.
1-3" TRUNK INJ.
1-6" TRUNK PROD.



pool-1623



- LEGEND-
- PROD. TRUNK LINE (BURIED)
 - INJ. TRUNK LINE (BURIED)
 - INJ. LINE (BURIED)
 - PROD. LINE (TOG.)
 - PROD. WELL
 - △ INJ. WELL

SECTION - 28
185-38E

1-3" PROD.
1-6" TRUNK INJ.
1-3" TRUNK INJ.
1-6" TRUNK PROD.

OIL CONSERVATION DIVISION

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-103
Revised 10-1-75

NAME OF LESSEE	
DISTRIBUTION	
DATE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

3c. Indicate Type of Lease	
State <input type="checkbox"/>	Fee <input checked="" type="checkbox"/>
5. State Oil & Gas Lease No.	

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR.
USE APPLICATION FOR PERMIT - (FORM C-101) FOR SUCH PROPOSALS.)

WELL ☒ GAS WELL ☐ OTHER ☐

7. Unit Agreement Name
N. HOBBS (G/SA) UNIT

WELL WESTERN E&P INC.

8. Field or Lease Name
SECTION 28

P. O. BOX 576, HOUSTON, TEXAS 77001 (WCK 4435)

9. Well No.
311

Section of Well
LETTER B 1315 FEET FROM THE NORTH LINE AND 2290 FEET FROM

10. Field and Pool, or Wholeness
HOBBS (G/SA)

EAST LINE, SECTION 28 TOWNSHIP 18S RANGE 38E N.M.P.M.

15. Elevation (Show whether DF, RT, GR, etc.)
3650' DF

12. County
LEA

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data.
NOTICE OF INTENTION TO: SUBSEQUENT REPORT OF:

REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
PLUG AND ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPERATIONS <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
EN CASING <input type="checkbox"/>		CASING TEST AND CEMENT JOB <input type="checkbox"/>	
		OTHER <input checked="" type="checkbox"/> CONVERTED TO INJECTOR (PMX-151)	

Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed operations.) SEE RULE 1103.

- 1-29-88: POH w/prod equip. CO to 4259'.
- 1-30-88: Acid Grayburg perfs 4090' - 4103' & Grayburg/San Andres OH 4103' - 4264' w/4000 gals 15% HCl + 2000# rock salt.
- 2-01-88: Installed inj equip, setting Guiberson Uni-Pkr VI @ 3998'. Pres tstd csg to 700# for 15 min, held OK. Commenced inj.



Verify that the information above is true and complete to the best of my knowledge and belief.

Marcus Winder for A. J. FORE TITLE SUPERVISOR REG. & PERMITTING DATE 4-06-88

ORIGINAL SIGNED BY JERRY SEXTON
DISTRICT 1 SUPERVISOR

DATE APR 11 1988

District I
625 N. French Dr., Hobbs, NM 88240
District II
11 South First, Artesia, NM 88210
District III
10 Rio Brazos Road, Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-104A

Submit to appropriate District Office

Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Change of Operator

Previous Operator Information:

OGRID: 157984
Name: Altura Energy Ltd.
Address: P.O. Box 4294
Address: _____
City, State, Zip: Houston, TX 77210-4294

New Operator Information:

Effective Date: May 8, 2000
New Ogrid: 157984
New Name: Occidental Permian Limited
Address: Partnership
Address: P.O. Box 4294
City, State, Zip: Houston, TX 77210-4294

I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given to the new operator on this form and the attached list of wells is true and complete to the best of my knowledge and belief.

Signature: Mark Stephens

Printed name: Mark Stephens

Title: Business Analyst (SG)

Date: 6/1/00 Phone: 281-552-1158

Previous operator complete below:

Previous Operator: Altura Energy Ltd.

Previous OGRID: 157984

Signature: Mark Stephens

Printed Name: Mark Stephens

NMOCD Approval

Signature: Harry W. Wink

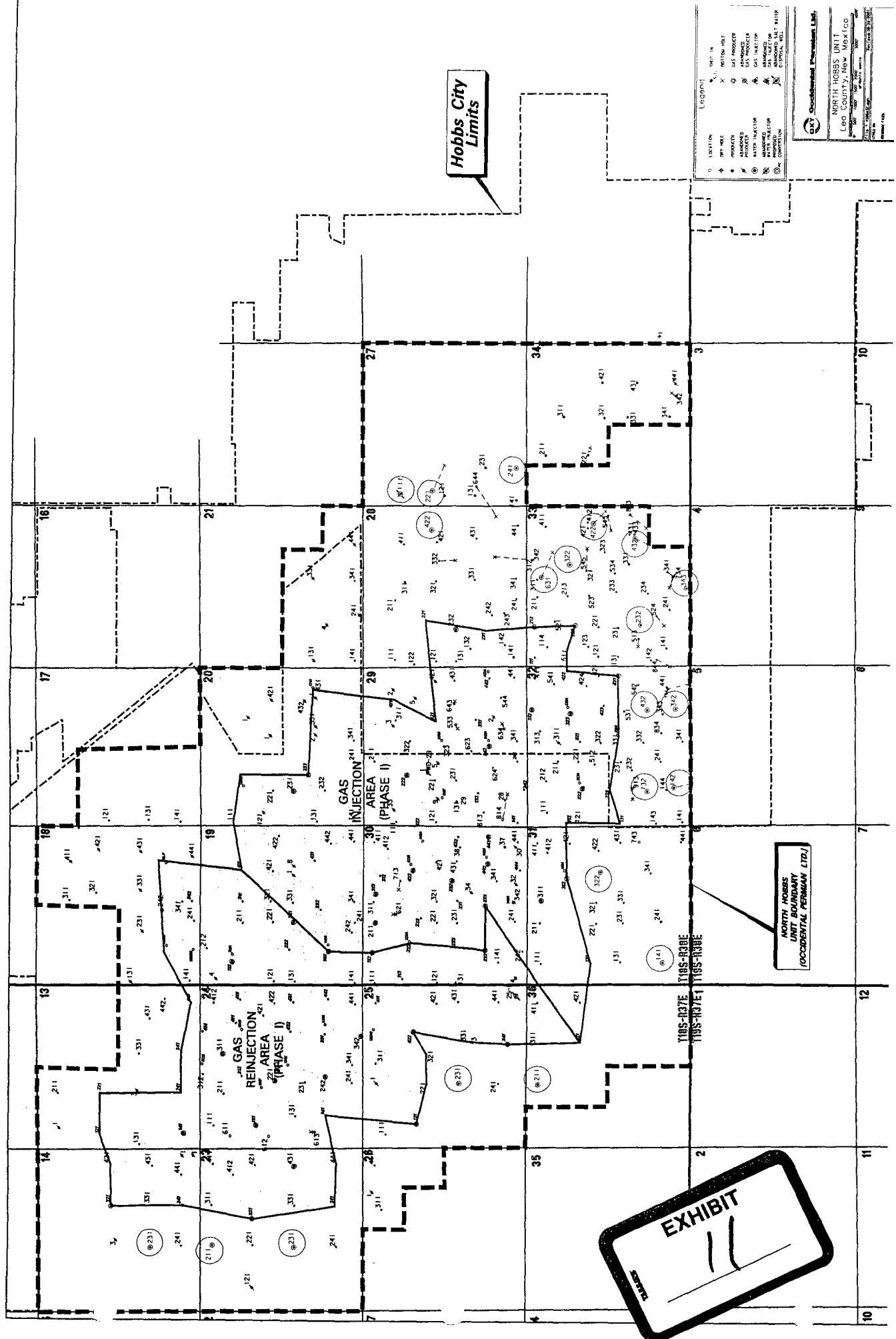
Printed Name: _____

District: _____

Date: JUN 08 2000



API #	U/L	Sec	Twp	Rng	Pool Code	Pool Name	Prop. Code	Property Name	Well No.	Well Type	POD # Oil	POD # Gas	POD # Water
30	25-07366	P	19	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	441	O			
30	25-28881	P	19	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	442	I			
30	25-07375	D	20	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	111	O			
30	25-07378	E	20	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	121	O			
30	25-07377	F	20	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	221	O			
30	25-07388	H	20	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	421	O			
30	25-07386	I	20	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	431	O			
30	25-07382	K	20	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	231	O			
30	25-07384	K	20	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	232	O			
30	25-27214	K	20	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	233	I			
30	25-23206	L	20	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	131	I			
30	25-07383	M	20	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	141	O	2265310	2265330	2265350
30	25-12493	N	20	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	241	O			
30	25-07371	O	20	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	341	O	2265310	2265330	
30	25-07390	M	21	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	141	O			
30	25-07396	O	21	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	341	O			
30	25-12494	E	27	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	121	O	2265310	2265330	2265350
30	25-30910	E	27	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	221	I			
30	25-12495	K	27	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	231	O	2265310	2265330	2265350
30	25-07410	L	27	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	131	O	2265310	2265330	2265350
30	25-07408	M	27	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	141	O	2265310	2265330	2265350
30	25-07409	N	27	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	241	I			
30	25-07419	A	28	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	411	O	2265310	2265330	
30	25-07417	B	28	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	311	I			
30	25-29931	B	28	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	342	O	2265310	2265330	
30	25-07425	C	28	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	211	I			
30	25-07422	D	28	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	111	I			
30	25-07420	E	28	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	121	O	2265310	2265330	2265350
30	25-28864	E	28	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	122	O	2265310	2265330	2265350
30	25-07429	F	28	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	221	I			
30	25-07416	G	28	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	321	O	2265310	2265330	2265350
30	25-31655	G	28	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	332	O	2265310	2265330	
30	25-07418	H	28	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	421	O			
30	25-27243	H	28	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	422	I			
30	25-07413	I	28	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	431	O	2265310	2265330	
30	25-07412	J	28	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	331	O	2265310	2265330	
30	25-07421	K	28	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	231	I			
30	25-28882	K	28	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	232	I			
30	25-12497	L	28	18S	38E	31920 Hobbs, Grayburg - San Andres	19520	North Hobbs (GSA) Unit	131	O	2265310	55330	2265350



requirements, and the focus has been on gaps in state, not federal regulations, through the state peer review process. This process has already been supplemented by new state E&P waste regulation in several producing states, as is discussed below.

In the Regulatory Determination, the EPA also clarified the scope of the Bensen Waste exclusion by specifying that the following listed wastes are exempt from Subtitle C:

- Produced water
- Drilling fluids
- Drill cuttings
- Rigwash
- Drilling fluids and cuttings from offshore operations and disposal onshore
- Geothermal production fluids
- Hydrogen sulfide abatement wastes from geothermal energy production
- Well completion, treatment, and stimulation fluids
- Basic sediment and water and other tank bottoms from storage facilities that hold product and exempt waste
- Accumulated materials such as hydrocarbons, solids, sand and emulsin from production separators, fluid treating vessels, and production impoundments
- Pit sludges and contaminated bottoms from storage or disposal of exempt bottoms
- Workover wastes
- Gas plant dehydration wastes, including glycol-based compounds, glycol filters, filter media, backwash, and molecular sieves
- Gas plant sweetening wastes for sulfur removal, including amines, amine filters, amine filter media, backwash, precipitated amine sludge, iron sponge, and hydrogen sulfide scrubber liquid and sludge
- Cooling tower blowdown
- Spent filters, filter media, and backwash assuming the filter itself is not hazardous and the residue in it is from an exempt waste stream)
- Packing fluids
- Produced sand
- Pipe scale, hydrocarbon solids, hydrates, and other deposits removed from piping and equipment prior to transportation
- Hydrocarbon-bearing soil
- Pigging wastes from gathering lines
- Wastes from subsurface gas storage and retrieval, except for the listed nonexempt wastes



- Constituents removed from produced water before it is injected or otherwise disposed of
- Liquid hydrocarbons removed from the production stream but not from oil refining
- Gases from the production stream, such as hydrogen sulfide and carbon dioxide, and volatilized hydrocarbons
- Materials ejected from a producing well during the process known as blowdown
- Waste crude oil from primary field operations and production
- Light organics volatilized from exempt wastes in reserve pits or impoundments or production equipment.¹⁸

Further, the status of produced water injected for enhanced recovery was clarified: it is not a waste for purposes of RCRA regulation and therefore is not subject to regulation under either Subtitle C or D.¹⁹

The EPA also concluded, however, that wastes which are not "uniquely associated" with exploration, development, and production of crude oil and natural gas are not exempt from Subtitle C regulation,²⁰ and the agency gave the following list of wastes which are not included in the Bensen exemption:

- Unused fracturing fluids or acids
- Gas plant cooling tower cleaning wastes
- Painting wastes
- Oil and gas service company wastes, such as empty drums, drum rinsate, vacuum truck rinsate, sandblast media, painting wastes, spent solvents, spilled chemicals, and waste acids
- Vacuum truck and drum rinsate from trucks and drums transporting or containing non-exempt wastes
- Refinery wastes
- Liquid and solid wastes generated by crude oil and tank bottom reclaimers
- Used equipment lubricating oils
- Waste compressor oil, filters, and blowdown

¹⁸53 Fed. Reg. at 25,453-54.

¹⁹53 Fed. Reg. at 24,454. EPA notes, without explanation, that if such produced water is stored in surface impoundments prior to injection it may be subject to RCRA Subtitle D requirements. Id.

²⁰Id. at 25,448.

- Used hydraulic fluids
- Waste solvents
- Waste in transportation pipeline-related pits
- Caustic or acid cleaners
- Boiler cleaning wastes
- Boiler refractory bricks
- Boiler scrubber fluids, sludges, and ash
- Incinerator ash
- Laboratory wastes
- Sanitary wastes
- Pesticide wastes
- Radioactive tracer wastes
- Drums, insulation, and miscellaneous solids.²¹

Prior to issuing the Regulatory Determination, the EPA gathered and evaluated information on all of the issues required to be analyzed under RCRA,²² and it focused on what it called "three key factors" pertaining to E&P wastes:²³

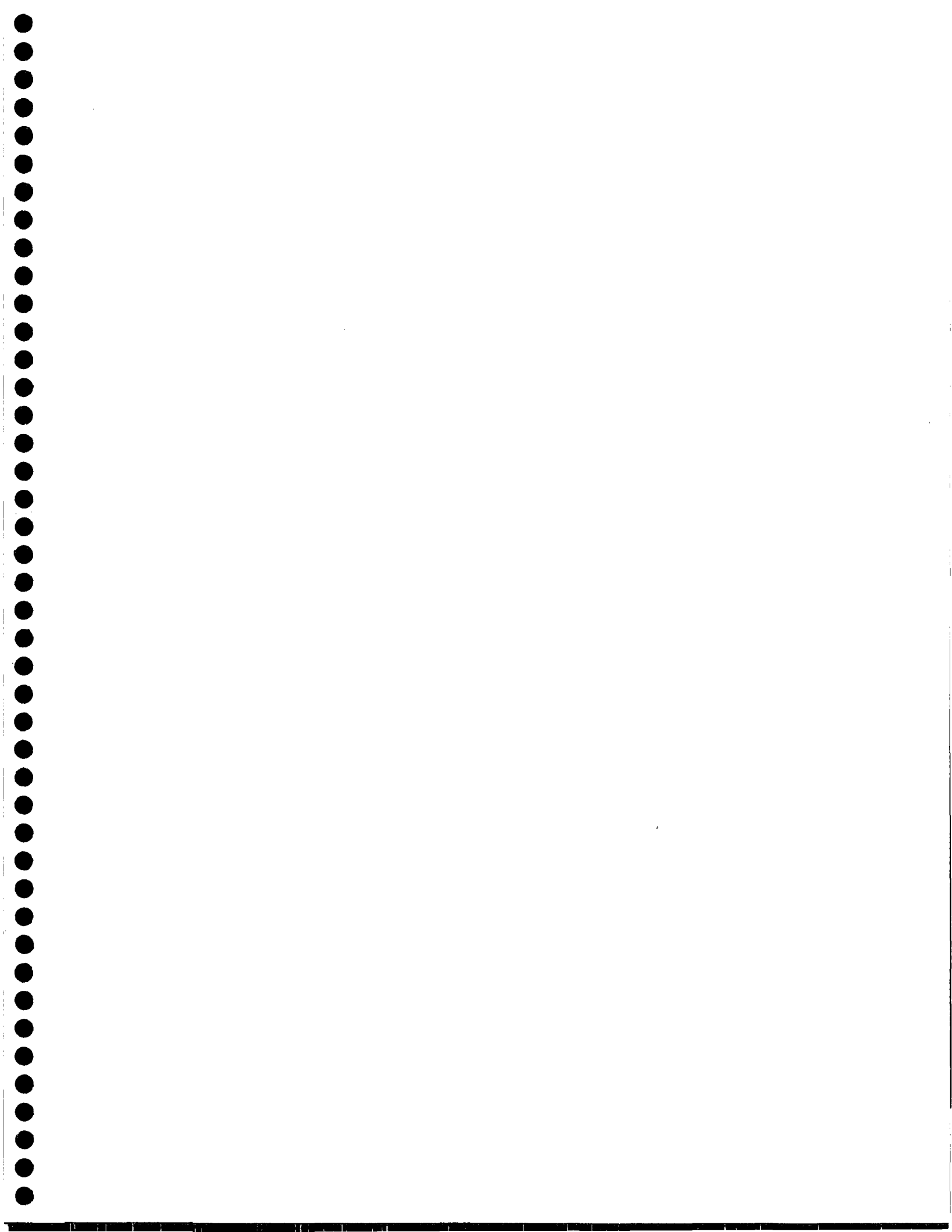
1. The characteristics, management practices and resulting impacts of these wastes on health and the environment;
2. The adequacy of existing state and federal regulatory programs; and
3. The economic impacts of any additional regulatory controls on industry.

The EPA felt that Subtitle C does not provide sufficient flexibility to take into account the differences in oil and gas drilling and production sites across the country or to consider costs and avoid the serious economic impacts that regulation would create for the oil and gas industry's exploration and

²¹Id. at 25,454.

²²See 42 U.S.C. § 6982(m)(1)(A)-(G) (1988).

²³53 Fed. Reg. 25,446 (1988).



OIL CONSERVATION DIV.

02 JUL -1 PM 2:31

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F.L. HEIDEL
(1913-1985)

June 26, 2002

Bill Olson
NMOCD
P.O. Box 6429
Santa Fe, NM 87504-6429

Re: 1831 Mobile Road. Hobbs, New Mexico

Dear Bill,

As per our conversation on June 25, 2002, please find enclosed a copy of the Purchase and Sale Agreement regarding Amoco, Shell and Oxy. The seller's environmental indemnity obligation (Article 6.3) may be of some assistance on the 1831 Mobile Road property.

If you have any questions, please do not hesitate to call.

Sincerely,

HEIDEL, SAMBERSON, NEWELL, COX & McMAHON

By:


Patrick B. McMahon

PBM;dr
Enclosures
cc: Gary Johnson

PURCHASE AND SALE AGREEMENT

BY AND AMONG

AMOCO D.T. COMPANY, AMOCO X.T. COMPANY,
AMOCO Y.T. COMPANY, SWEPI LP,
SHELL LAND & ENERGY COMPANY, SHELL ONSHORE VENTURES INC.,
SHELL K2, INC., AND SHELL EVEREST, INC., AS SELLERS,

AND

OCCIDENTAL PETROLEUM CORPORATION, AS BUYER

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PURCHASE AND SALE AGREEMENT

THIS PURCHASE AND SALE AGREEMENT (this "Agreement") is dated the 7th day of March, 2000, by and among Amoco D.T. Company, a Delaware corporation (hereinafter referred to as "Amoco LLC Seller"), SWEPI LP, a Delaware limited partnership (hereinafter referred to as "Shell LLC Seller" when reference is made to its role as a member of Altura Energy LLC and as "SWEPI" when reference is made to its role as a limited partner of Altura Energy Ltd.) (Amoco LLC Seller and Shell LLC Seller are hereinafter collectively referred to as "LLC Sellers"), Amoco X.T. Company, a Delaware corporation (hereinafter referred to as "Amoco XT"), Amoco Y.T. Company, a Delaware corporation (hereinafter referred to as "Amoco YT") (Amoco XT and Amoco YT are hereinafter collectively referred to as "Amoco LP Sellers"), Shell Land & Energy Company, a Delaware corporation

(hereafter referred to as "SLEC"), Shell Onshore Ventures Inc., a Delaware corporation (hereinafter referred to as "SOVI"), Shell K2, Inc., a Delaware corporation (hereinafter referred to as "SK2"), and Shell Everest, Inc., a Delaware corporation (hereinafter referred to as ("SEI")) (SWEPI, SLEC, SOVI, SK2, and SEI are hereinafter collectively referred to as "Shell LP Sellers") (Amoco LP Sellers and Shell LP Sellers are hereinafter collectively referred to as "LP Sellers") (LLC Sellers and LP Sellers are hereinafter collectively referred to as "Sellers") and Occidental Petroleum Corporation, a Delaware corporation (hereinafter referred to as "Buyer"), and is based on the following premises. Buyer and Sellers are sometimes hereinafter referred to individually as a "Party" and collectively as the "Parties."

WHEREAS, the LP was formed for the purpose of holding and exploiting oil and gas properties in the area specified in the LP Agreement;

WHEREAS, the LLC is the general partner of the LP;

WHEREAS, the Parties desire that Amoco LP Sellers and Shell LP Sellers sell, assign and convey, and that Buyer LP purchase and accept, the Sold LP Interests and join Amoco LP Sellers and Shell LP Sellers in ownership of the LP as a limited partner in order to continue and enhance the LP's current activities;

WHEREAS, the Parties desire that Shell LLC Seller sell, assign and convey, and that Buyer Member purchase and accept, the Shell Sold LLC Interest, and that Amoco LLC Seller sell, assign and convey, and that Buyer Member purchase and accept, the Amoco Sold LLC Interest and join Amoco LLC Seller in ownership of the LLC as a member in order to continue and enhance the LLC's current activities;

WHEREAS, in conjunction with the consummation of the sale of the Sold LP Interests and admittance of Buyer LP in the LP, the Parties desire that Buyer LP, Amoco LP Sellers and Shell LP Sellers enter into the Restated LP Agreement;

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WHEREAS, in conjunction with the consummation of the sale of the Sold LLC Interests and admittance of Buyer Member in the LLC, the Parties desire that Buyer Member and Amoco LLC Seller enter into the Restated LLC Agreement, and that Buyer Member manage, operate and control the LLC;

WHEREAS, simultaneously with the foregoing, the Parties desire that Lender lend funds to the LP pursuant to the Debt Financing Agreement, that the LP lend funds to Amoco Borrower pursuant to the Amoco Affiliate Loan Agreement and that the LP lend funds to Shell Borrower pursuant to the Shell Affiliate Loan Agreement; and

WHEREAS, the Parties have reached agreement regarding the foregoing transactions.

NOW, THEREFORE, based on the mutual covenants and agreements herein contained, the Parties agree as follows:

ARTICLE 1. DEFINITIONS

1. Definitions: In this Agreement capitalized terms have the meaning provided in this Article. All defined terms include both the singular and the plural of such terms. All references to Articles refer to Articles in this Agreement, and all references to Exhibits and Schedules refer to Exhibits and Schedules attached to and made a part of this Agreement.

1.1 "AAA" means the American Arbitration Association.

1.2 "Account Balances" has the meaning set forth in Article 2.2.

1.3 "Accounting Referee" means the accounting firm of Deloitte & Touche, together with any experts such firm may require in order to settle a particular dispute.

1.4 "Acquisition Transaction" has the meaning set forth in Article 10.6.

1.5 "Adjusted Purchase Price" has the meaning set forth in Article 2.3.

1.6 "Adverse Condition" means an individual existing condition of a

Property, or of the soil, subsurface, surface waters, groundwaters, atmosphere, natural resources or other environmental medium, wherever located, associated with the ownership or operation of a Property (including, without limitation, the presence or release of Hydrocarbon or non-Hydrocarbon substances), which (a) is not in compliance with Environmental Laws existing as of the date of this Agreement, or (b) requires, if known, or will require, once discovered, reporting to a Governmental Authority, investigation, monitoring, removal, cleanup, remediation, restoration or correction in accordance with Environmental Laws existing as of the date of this Agreement.

1.7 "Advisors" has the meaning set forth in Article 17.2.

1.8 "Affiliate" means any Person that, directly or indirectly, through one or more entities, controls or is controlled by or is under common control with the entity specified. For the purpose of this Article, the term "control" means the power to direct or cause the direction of the management of such Person, whether through the ownership of voting securities or by contract or agency or otherwise. Prior to Closing, the LP and the LLC are Affiliates of Sellers and from and after Closing, the LP and the LLC shall be Affiliates of Buyer and its Affiliates and not Sellers.

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1.9 "Affiliate Contracts" has the meaning set forth in Article 6.13(a).

1.10 "Affiliated Group" means any affiliated group within the meaning of Section 1504(a) of the Code or any similar group under a similar state or local Law.

1.11 "Agreement" has the meaning set forth in the introductory paragraph.

1.12 "Altura Savings Plan" has the meaning set forth in Article 12.2(b).

1.13 "Altura Severance Plan" has the meaning set forth in Exhibit K-2.

1.14 "Amoco Amended and Restated License Agreement" means the agreement to be signed at Closing contained in Exhibit O-1.

1.15 "Amoco Affiliate Loan Agreement" means the loan agreement to be entered into between the LP and Amoco Borrower on the Closing Date, substantially in the form attached hereto as Exhibit N-6.

1.16 "Amoco Affiliate Note" means the promissory note to be made by Amoco Borrower in favor of the LP on the Closing Date, substantially in the form attached hereto as Exhibit N-7.

1.17 "Amoco Aggregate Interest" means 63.915%.

1.18 "Amoco Borrower" means BP International Limited, a private limited company organized under the laws of England.

1.19 "Amoco Guarantor" means BP Amoco p.l.c., a public limited company organized under the laws of England.

1.20 "Amoco Guaranty" means the guaranty to be made by Amoco Guarantor in favor of the LP on the Closing Date, substantially in the form attached hereto as Exhibit N-8.

1.21 "Amoco Inside Basis" has the meaning set forth in Article 4.6(a).

1.22 "Amoco LLC Interest" means the Amoco Sold LLC Interest and the Amoco Retained LLC Interest, collectively that are equal to the 63.915% Sharing Ratio owned by Amoco LLC Seller.

1.23 "Amoco LLC Seller" has the meaning set forth in the introductory paragraph.

1.24 "Amoco LP Interest" means the Amoco Sold LP Interest and the Amoco Retained LP Interest, collectively that are equal to the 62.6367% Partnership Interest owned by Amoco LP Sellers, collectively.

1.25 "Amoco LP Sellers" has the meaning set forth in the introductory paragraph.

1.26 "Amoco Outside Basis" has the meaning set forth in Article 4.6(a).

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1.27 "Amoco Retained LLC Interest" means the percentage interest of Amoco LLC Seller in the LLC set forth under the column titled "Retained Interest and Post-Closing Interest" in Exhibit H-1.

1.28 "Amoco Retained LP Interests" means the aggregate of the percentage interests of Amoco LP Sellers in the LP set forth under the column titled "Retained Interest and Post-Closing Interest" in Exhibit H-1.

1.29 "Amoco Second Sold LLC Interest" means a 49% interest in the LLC held by Amoco LLC Seller.

1.30 "Amoco Sellers" means Amoco LP Sellers and Amoco LLC Sellers.

1.31 "Amoco Sold LLC Interest" means the percentage interest of Amoco LLC Seller in the LLC set forth under the column titled "Seller Interest Sold at Closing" in Exhibit H-1.

1.32 "Amoco Sold LP Interests" means the aggregate of the percentage interests of Amoco LP Sellers in the LP set forth under the column titled "Seller Interest Sold at Closing" in Exhibit H-1.

1.33 "Amoco XT" has the meaning set forth in the introductory paragraph.

1.34 "Amoco YT" has the meaning set forth in the introductory paragraph.

1.35 "Arbitrable Dispute" means, except as provided otherwise in this Agreement, any and all disputes arising under, related to, or in connection with this Agreement or the LP Agreement.

1.36 "Assets" means those assets owned or held by the LP and the LLC, including, without limitation, the Properties.

1.37 "Assignment of Limited Liability Company Interest" means a document in the form of Exhibit D-1.

1.38 "Assignment of Partnership Interest" means a document in the form of Exhibit D-2.

1.39 "Business Day" means each Day, except Days when federally chartered banks are required to be closed.

1.40 "Buyer" has the meaning set forth in the introductory paragraph.

1.41 "Buyer Benefit Plans" has the meaning set forth in Article 12.2(e).

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1.42 "Buyer Group" means: (a) Buyer and its officers, directors, agents, representatives, consultants and employees, and (b) Buyer's Affiliates and their officers, directors, agents, representatives, consultants and employees.

1.43 "Buyer LP" means OXY Oil Partners, Inc., a Delaware corporation and subsidiary of Buyer.

1.44 "Buyer Member" means OXY USA Inc., a Delaware corporation and subsidiary of Buyer.

1.45 "Buyer's Negotiating Team" means the Persons named on Part I of Exhibit P.

1.46 "Buyer's Representative" has the meaning set forth in Article 17.3(b)(ii).

1.47 "Casualty Loss" means any loss, damage or reduction in value of the Assets which occurs during the period between execution of this Agreement and Closing as a result of acts of God, fire, explosion, pipeline or gathering line failure, earthquake, windstorm, flood, drought, blowout, but excepting downhole mechanical failure (unrelated to the foregoing), depletion due to normal production, depreciation of equipment through ordinary wear and tear, reservoir

changes, and transactions permitted under this Agreement.

1.48 "Certificate" means a document in the form of Exhibit E.

1.49 "Claim" means any and all claims, demands, suits, causes of action, losses, damages, liabilities, fines, penalties and costs (including, without limitation, attorneys' fees and costs of litigation), whether known or unknown, including Environmental Claims and Non-Environmental Claims.

1.50 "Claimant" has the meaning set forth in Article 16.1 and means either Buyer or Sellers collectively.

1.51 "Claiming Employees" has the meaning set forth in Article 12.5(b).

1.52 "Close" or "Closing" means the consummation of the sale of the Sold LLC Interests from LLC Sellers to Buyer, and the consummation of the sale of the Sold LP Interests from LP Sellers to Buyer, including execution and delivery of all documents and other legal consideration provided in this Agreement pursuant to Article 14.

1.53 "Closing Amount" has the meaning set forth in Article 2.3.

1.54 "Closing Date" means the later to occur of (i) the third Business Day after satisfaction or waiver by the appropriate Parties of the conditions to Closing set forth in Articles 14.2 and 14.3 and (ii) April 30, 2000.

1.55 "Code" means the Internal Revenue Code of 1986, as amended.

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1.56 "Compensation Claims" has the meaning set forth in Article 12.5(b).

1.57 "Computed Interest" means interest at a rate equal to LIBOR, calculated daily.

1.58 "Confidential Information Memorandum" means that certain Confidential Information Memorandum for Altura Energy Ltd. dated as of November, 1999, prepared by Lehman Brothers and Credit Suisse First Boston.

1.59 "Confidentiality Agreement" means that certain Confidentiality Agreement dated the 30th day of November, 1999, by and among BP Amoco Corporation, Shell Exploration & Production Company, Buyer, and the LP, as it may be amended from time to time.

1.60 "Contract" means any written or oral contract, agreement, agreement regarding indebtedness, indenture, debenture, note, bond, loan, loan agreement, collective bargaining agreement, lease, mortgage, franchise, license agreement, purchase order, binding bid, commitment, letter of credit or any other legally binding arrangement.

1.61 "Day" means a calendar day consisting of twenty-four (24) hours from midnight to midnight.

1.62 "Debt Financing" means the loans to the LP in accordance with the Debt Financing Terms set forth in Exhibit N.

1.63 "Debt Financing Agreements" means the agreements evidencing the Debt Financing.

1.64 "Defensible Title" means the title held by the LP that:

1.64.1 entitles the LP to receive throughout the duration of the productive life of any Property not less than the "net revenue interests" set forth in Exhibit A of all Hydrocarbons produced, saved and marketed from any Property except decreases in connection with those operations in which the LP may be nonconsenting co-owners, decreases resulting from the establishment or amendment of pools or units, and decreases required to allow other working interest owners to make up past underproduction or pipelines to make up past under deliveries and except as stated in such Exhibit A; and

1.64.2 obligates the LP to bear a percentage of the costs and

expenses associated with the ownership, operation, maintenance and repair of any Property in an amount not greater than the "working interests" set forth in Exhibit A without increases throughout the productive life of such Property, except as stated in Exhibit A and except increases resulting from contribution requirements with respect to defaulting co-owners under applicable operating agreements and increases that are

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accompanied by at least a proportionate increase in the LP's net revenue interest.

1.65 "Deficiency" has the meaning set forth in Article 4.3.

1.66 "Disputing Party" has the meaning set forth in Article 15.3.

1.67 "Dollars" means United States Dollars.

1.68 "DTPA" has the meaning set forth in Article 17.13.

1.69 "Earnest Money" has the meaning set forth in Article 2.5.

1.70 "Eligible Personnel" shall have the meaning set forth in Exhibit K-2.

1.71 "Environmental Claims" means all Third Party Claims which are asserted pursuant to Environmental Laws or which relate to, arise out of, or are connected with, directly or indirectly, Adverse Conditions, including, without limitation, for personal injury, death or property damage under common law or any other non-Environmental Laws.

1.72 "Environmental Laws" means, as the same have been amended to the date of this Agreement, or such other date as provided in this Agreement, the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. Section 9601 et seq.; the Resource Conservation and Recovery Act, 42 U.S.C. Section 6901 et seq.; the Federal Water Pollution Control Act, 33 U.S.C. Section 1251 et seq.; the Clean Air Act, 42 U.S.C. Section 7401 et seq.; the Hazardous Materials Transportation Act, 49 U.S.C. Section 1471 et seq.; the Toxic Substances Control Act, 15 U.S.C. Sections 2601 through 2629; the Oil Pollution Act, 33 U.S.C. Section 2701 et seq.; the Emergency Planning and Community Right-to-Know Act, 42 U.S.C. Section 11001 et seq.; and the Safe Drinking Water Act, 42 U.S.C. Sections 300f through 300j; and all similar Laws of any Governmental Authority having jurisdiction over the property in question addressing pollution or protection of the environment and all regulations implementing the foregoing.

1.73 "ERISA" has the meaning set forth in Article 8.2(u).

1.74 "ERISA Affiliates" has the meaning set forth in Article 8.2(u).

1.75 "ERISA Plans" has the meaning set forth in Article 8.2(u).

1.76 "Escrow Agreement" means that certain escrow agreement entered into among Buyer, Sellers, and Chase Bank of Texas, National Association, the escrow agent, the form of which is attached hereto as Exhibit I.

1.77 "Estate" has the meaning set forth in Article 3.2(b).

1.78 "Excess" has the meaning set forth in Article 4.3.

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1.79 "Excluded Assets" means assets of Sellers Group not contributed to the LP pursuant to the Master Agreement.

1.80 "Fair Market Value" means, with respect to a Casualty Loss, the commercially reasonable repair or comparable replacement cost of the Asset subject to the Casualty Loss as of the date of such Casualty Loss.

1.81 "Financial Statements" has the meaning set forth in Article 8.2(p).

1.82 "Final Determination" has the meaning set forth in Article 4.6(e).

1.83 "First Party" has the meaning set forth in Article 10.12(c).

1.84 "Formation Date" means February 28, 1997.

1.85 "GAAP" has the meaning set forth in Article 17.4.

1.86 "Governmental Authority" means any federal, state, local, municipal or other governments; any governmental, regulatory or administrative agency, commission, body or other authority exercising or entitled to exercise any administrative, executive, judicial, legislative, police, regulatory or taxing authority or power, and any court or governmental tribunal, including, without limitation, any tribal authority having jurisdiction.

1.87 "Greater Permian Area" means the lands within the counties of Chaves, Curry, Eddy, Lea and Roosevelt, State of New Mexico, and the counties of Andrews, Bailey, Borden, Brewster, Cochran, Coke, Concho, Cottle, Crane, Crockett, Crosby, Culberson, Dawson, Dickens, Ector, Edwards, El Paso, Fisher, Floyd, Gaines, Garza, Glasscock, Hale, Hockley, Howard, Hudspeth, Irion, Jeff Davis, Kent, Kimble, King, Lamb, Loving, Lubbock, Lynn, Martin, Mason, McCulloch, Menard, Midland, Mitchell, Motley, Nolan, Pecos, Presidio, Reagan, Reeves, Runnels, Schleicher, Scurry, Sterling, Sutton, Terrell, Terry, Tom Green, Upton, Val Verde, Ward, Winkler and Yoakum, State of Texas, and all Texas and New Mexico counties contiguous to such counties.

1.88 "HSR Act" means the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended.

1.89 "Hydrocarbons" means crude oil, natural gas, casinghead gas, condensate, sulfur, natural gas liquids, and other liquid or gaseous hydrocarbons and also means any other minerals of every kind or character.

1.90 "Indemnified Person" has the meaning set forth in Article 17.3(b)(ii).

1.91 "Indemnity Claim" has the meaning set forth in Article 6.7.

1.92 "Indemnity Claim Notice" means a notice of a Claim provided in accordance with Article 6.7.

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1.93 "Interests" means the LLC Interests and the LP Interests.

1.94 "Intergroup Contributions" means capital contributions made pursuant to and as defined in the LP Agreement by Sellers or their respective Affiliates to the LLC or the LP, from and including the Settlement Date to, but excluding, the Closing Date.

1.95 "Intergroup Distributions" means any dividends, equity redemptions or repurchases, debt repayments or distributions made by the LLC or the LP to Sellers or any of their respective Affiliates and any other amounts payable to the LLC or the LP but received and retained by Sellers or any of their respective Affiliates from and including the Settlement Date to, but excluding, the Closing Date, excluding payments by the LLC or the LP to Sellers or their respective Affiliates for goods or services delivered, performed or invoiced at any time pursuant to written agreements or pursuant to certain informal arrangements with a cost under such informal arrangements not to exceed Two Hundred Thousand Dollars (\$200,000) in the aggregate in the ordinary course of business.

1.96 "IRS" has the meaning set forth in Article 8.2(y).

1.97 "IT Report" means that certain report dated November, 1999, prepared by The IT Corporation, in conjunction with a Phase I environmental site assessment covering the Properties.

1.98 "Laws" means any and all laws, statutes, ordinances, permits, decrees, writs, injunctions, orders, codes, judgments, principles of common law, rules or regulations (including, without limitation, Environmental Laws) which are promulgated, issued or enacted by a Governmental Authority having jurisdiction.

1.99 "Lender" means one or more Third Party financial institutions that will lend to the LP pursuant to the Debt Financing Agreements.

1.100 "LIBOR" means the London Interbank Offered Rate calculated on a per annum basis using a three hundred sixty (360) Day year as set forth on page 3750 of the Telerate Screen for three month LIBOR (or if such screen shall cease to be publicly available, as reported on Reuters Screen page "LIBO" or by any other publicly available source of similar market rate). The LIBOR rate for Days other than Business Days shall be the immediately preceding Business Day's rate.

1.101 "Licensed Technology" means Amoco Proprietary Technology, Amoco CO2 EOR Technology, Shell Proprietary Technology, Shell CO2 EOR Technology, Partnership Technology and Partnership CO2 EOR Technology as those terms are defined in the Amoco Amended and Restated License Agreement and the Shell Amended and Restated License Agreement.

1.102 "LLC" means Altura Energy LLC, a Delaware limited liability company.

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1.103 "LLC Agreement" means the Limited Liability Company Agreement of Altura Energy LLC dated as of February 20, 1997, between Amoco D. T. Company and SWEPI LP, the successor of Shell Western E&P, Inc.

1.104 "LLC Group" means (a) the LLC and its officers, directors, agents, representatives, consultants and employees, and (b) the LLC's Affiliates and their officers, directors, agents, representatives, consultants and employees.

1.105 "LLC Interests" means the Amoco LLC Interest and the Shell LLC Interest, collectively.

1.106 "LLC Sellers" has the meaning set forth in the introductory paragraph.

1.107 "LLC Tax Matters Partner" means the tax matters partner of the LLC designated by the parties to the LLC Agreement pursuant to Section 6231(a)(7) of the Code.

1.108 "Lowest Cost Response" means that response to an Adverse Condition that is reasonably expected to provide the lowest cost necessary for the reporting, investigation, monitoring, removal, cleanup, remediation, restoration or correction of such condition to meet Environmental Laws in effect at the time of such response to the satisfaction of any Governmental Authorities with jurisdiction over the Property on which such condition exists, which response does not materially interfere with the use or operation of such Property; provided that Buyer or the LP may, at its option, conduct a supplemental response at its own expense.

1.109 "LP" means Altura Energy Ltd., a Texas limited partnership.

1.110 "LP Agreement" means that certain Agreement of Limited Partnership dated as of February 25, 1997, by and among the LLC, Amoco LP Sellers, and Shell LP Sellers.

1.111 "LP Group" means: (a) the LP and its officers, directors, agents, representatives, consultants and employees, and (b) the LP's Affiliates and their officers, directors, agents, representatives, consultants and employees.

1.112 "LP Interests" means the Amoco LP Interests and the Shell LP Interests, collectively.

1.113 "LP Sellers" has the meaning set forth in the introductory paragraph.

1.114 "LP Tax Matters Partner" means the tax matters partner of the LP designated by the parties to the LP Agreement pursuant to Section 6231(a)(7) of the Code.

1.115 "Master Agreement" means that certain Master Agreement dated as of February 20, 1997, among Sellers.

1.116 "Material Contracts" has the meaning set forth in Article 8.2(q).

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1.117 "Non-Environmental Claims" means all Claims, except for Environmental Claims.

1.118 "Non-ERISA Plans" has the meaning set forth in Article 8.2(z).

1.119 "Non-Foreign Affidavit" means a document in the form of Exhibit F.

1.120 "NORM" means naturally occurring radioactive materials.

1.121 "NSAI Report" means that certain report prepared by Netherland, Sewell & Associates, Inc. dated November 22, 1999 (as later supplemented and corrected, copies of which supplement and correction were previously furnished or made available to Buyer), entitled "Estimate of Reserves and Future Revenue to the Altura Energy Ltd. Interest in Certain Oil and Gas Properties as of January 1, 2000, Based on Escalated Prices and Costs."

1.122 "Occidental Agreement" means the agreement to be entered into between Buyer and LP Sellers on the Closing Date, substantially in the form attached hereto as Exhibit N-9.

1.123 "Operative Documents" means the following documents: the Restated LP Agreement; the Restated LLC Agreement; the Shell Affiliate Loan Agreement; the Shell Affiliate Note; the Shell Guaranty; the Amoco Affiliate Loan Agreement; the Amoco Affiliate Note; the Amoco Affiliate Guaranty; the Occidental Agreement; the Amoco Amended and Restated License Agreement; the Shell Amended and Restated License Agreement; the Assignment of Limited Liability Company Interest; the Assignment of Partnership Interest; the Certificate of each Seller; the Certificate of Buyer; the Non-Foreign Affidavit of each Seller; and certain modification agreements delivered pursuant to Article 14.2(f).

1.124 "Partnership Interest" means the right to a share of the profits and losses of the LP and the right to receive distributions of the LP's assets, and the right to vote with respect to the LP; in each case, as provided in the LP Agreement.

1.125 "Party or Parties" has the meaning set forth in the introductory paragraph.

1.126 "Permitted Encumbrances" means any and all of the following:

1.126.1 royalties, overriding royalties, production payments, reversionary interests, convertible interests, net profits interests and similar burdens encumbering the Properties to the extent the net cumulative effect of such burdens does not operate to reduce the net revenue interests of the Properties to less than that set forth in Exhibit A or increase the working interests above that set forth in Exhibit A without a corresponding increase in the net revenue interest above that set forth in Exhibit A;

1.126.2 consents to assignment and similar contractual provisions affecting the Properties;

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1.126.3 preferential rights to purchase and similar contractual provisions affecting the Properties;

1.126.4 required notices to and filings with a Governmental Authority associated with the conveyance of the Properties;

1.126.5 rights reserved to or vested in a Governmental Authority having jurisdiction to control or regulate the Properties in any manner whatsoever, and all Laws of such Governmental Authorities;

1.126.6 easements, rights-of-way, servitudes, surface leases, sub-surface leases, grazing rights, logging rights, ponds, lakes, waterways, canals, ditches, reservoirs, equipment, pipelines, utility lines, railways, streets, roads and structures on, over and through the Properties (including such encumbrances in favor of Sellers Group entered into pursuant to Article 10.2);

1.126.7 the terms and conditions of the unitizations, communitizations, farmout or farmin agreements, term

assignments, poolings, licenses and permits affecting the Properties;

- 1.126.8 liens for Taxes or assessments not yet delinquent or, if delinquent, are being contested by the LP in good faith in the normal course of business; provided, however, this provision will not diminish or affect in any way the Parties' rights and obligations under the indemnities provided in this Agreement;
- 1.126.9 liens of operators relating to obligations not yet delinquent or, if delinquent, are being contested by the LP in good faith in the normal course of business; provided however, this provision will not diminish or affect in any way the Parties' rights and obligations under the indemnities provided in this Agreement;
- 1.126.10 Third Party Claims referenced on Exhibit C-1;
- 1.126.11 gas imbalances associated with the Properties;
- 1.126.12 suspense funds associated with the Properties; and
- 1.126.13 such defects or irregularities in the title to the Properties that do not materially interfere with the ownership, operation, value or use of the Properties affected thereby and that would not be considered material when applying general standards in the oil and gas industry.

1.127 "Person" means an individual, group, partnership, corporation, trust or other entity.

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1.128 "Personnel" has the meaning set forth in Article 12.1.

1.129 "Pollution Control Bonds" has the meaning set forth in Article 10.4.

1.130 "Pollution Control Facilities" has the meaning set forth in Article 10.4.

1.131 "Possible Condition Precedent Failure" has the meaning set forth in Article 10.12(a).

1.132 "Post-Closing Notice" has the meaning set forth in Article 4.3.

1.133 "Post-March Computed Interest" means interest at a rate equal to LIBOR minus the basis points per annum using a three hundred sixty (360) day year in accordance with the following schedule:

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For the period from and including March 31 to but excluding April 30

For the period from and including April 30 to but excluding May 31

For the period from and including May 31 to but excluding June 30

For the period from and including June 30 to but excluding July 31

For the period from and including July 31 to but excluding the Closing Date

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calculated on a daily basis.

1.134 "Pref Rights Holders" has the meaning set forth in Article 3.2(b).

1.135 "Process Safety Management" means Process Safety Management of Highly Hazardous Chemicals, Explosives and Blasting Agents (29 C.F.R. 1910.119), as amended.

1.136 "Property" or "Properties" means:

- 1.136.1 all oil and gas leasehold interests, royalty interests, overriding royalty interests, mineral interests, production payments, net profits interests and surface interests that are attributable to the interests described in Exhibit A, together with all non-producing interests, reversionary interests, fee interests and leasehold interests that are owned or held by the LP (including, without limitation,

surface interests and non-unitized horizons or zones both below and above existing production), and the production of Hydrocarbon and non-Hydrocarbon substances attributable to the foregoing;

- 1.136.2 all unitization, communitization and pooling declarations, orders, and agreements (including all units formed by voluntary agreement and those formed under the rules, regulations, orders or other official acts of any Governmental Authority having jurisdiction) to the extent they relate to any of the interests that are described in Exhibit A, or to non-producing interests, reversionary interests, fee interests and leasehold

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interests that are owned or held by the LP (including, without limitation, surface interests and non-unitized horizons or zones both below and above existing production), or the production of oil, gas or other Hydrocarbon and non-Hydrocarbon substances attributable to the foregoing;

- 1.136.3 all oil and/or gas sales contracts, processing contracts, gathering contracts, transportation contracts, easements, rights-of-way, servitudes, surface leases, subsurface leases, farm-in and farm-out contracts, areas of mutual interest, balancing contracts, operating agreements, and other contracts, agreements and instruments to the extent they relate to any of the interests that are described in Exhibit A, or to non-producing interests, reversionary interests, fee interests and leasehold interests that are owned or held by the LP (including, without limitation, surface interests and non-unitized horizons or zones both below and above existing production), or the production of oil, gas or other Hydrocarbon and non-Hydrocarbon substances attributable to the foregoing; and 1.136.4 all personal property, improvements, fixtures, wells (whether producing, shut-in, injection, disposal, water supply or plugged and abandoned), tanks, boilers, buildings, machinery, equipment, pipelines, utility lines, imbalances (production, gathering, transportation, processing or otherwise), suspense funds, water rights, roads, permits, licenses and other appurtenances, to the extent the same are situated upon and used or held for use by the LP primarily associated with the ownership, operation, maintenance or repair of the interests that are described in Exhibit A, or with non-producing interests, reversionary interests, fee interests and leasehold interests that are owned or held by the LP (including, without limitation, surface interests and non-unitized horizons or zones both below and above existing production), or the production of oil, gas or other Hydrocarbon and non-Hydrocarbon substances attributable to the foregoing.

1.137 "Properties Information" means those Records which are lease files, land files, regulatory files, well files, gas processing files, division order files, abstracts, title opinions, engineering, production, geological, geophysical and other exploration data, books of accounts, records, maps, drawings, core samples, reserve reports, engineering reports, and correspondence with, reports to and filings with Governmental Authorities to the extent that they are associated with the ownership or operation of the interests that are described in Exhibit A or the production of oil, gas or other Hydrocarbon and non-Hydrocarbon substances attributable thereto, and including any trade secrets, know-how and copyrights in such Records. "Properties Information" shall not include "Licensed Technology."

1.138 "Purchase Price" has the meaning set forth in Article 2.3.

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1.139 "Records" means the LLC's and the LP's books, records and files (except that Sellers may retain copies of such records that relate to liabilities as to which Sellers are obligated to provide indemnity that is not

subject to any thresholds in Article 6.5) (including, without limitation, the NSAI Report and the IT Report). Buyer acknowledges that the LLC and the LP image and retain Records in electronic format, and may provide imaged or electronic Records as opposed to originals or hard copies. "Records" shall not include "Licensed Technology."

1.140 "Remediation Cost" means the cost or expense of the Lowest Cost Response of addressing an Adverse Condition (net of any operating costs that would be incurred even in the absence of the Adverse Condition) or Environmental Claim, including, without limitation, costs of investigation, monitoring, reporting, removal, cleanup, remediation, restoration and correction, fines or penalties, oversight or administrative costs of any Governmental Authority, attorneys' fees and the cost or expense of defense against any Claim and liabilities for any Claim, in each case related to, arising out of, or connected with such Adverse Condition or Environmental Claim.

1.141 "Respondent" has the meaning set forth in Article 16.1 and means either Buyer or Sellers collectively.

1.142 "Restated LLC Agreement" means the agreement and attachments thereto substantially in the form attached hereto as Exhibit N-2.

1.143 "Restated LP Agreement" means the agreement and attachments thereto substantially in the form attached hereto as Exhibit N-1.

1.144 "Retained Interests" means the Amoco Retained LLC Interest, the Amoco Retained LP Interest and the Shell Retained LP Interest, collectively.

1.145 "Sales Tax" means any and all transfer, sales, use or similar taxes, and any associated penalties and interest.

1.146 "SEC" has the meaning set forth in Article 10.7.

1.147 "Second Close" or "Second Closing" means the consummation of the purchase and sale of the Amoco Second Sold LLC Interest from Amoco LLC Seller to Buyer.

1.148 "Second Closing Amount" means Thirty Seven Million Five Hundred Thousand Dollars (\$37,500,000).

1.149 "Second Closing Date" means the later to occur of (i) the first Business Day after 366 Days after the Closing Date and (ii) the first Business Day after satisfaction or waiver by the appropriate Parties of the conditions to the Second Closing set forth in Article 18.4.

1.150 "SEI" has the meaning set forth in the introductory paragraph.

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1.151 "Sellers" has the meaning set forth in the introductory paragraph.

1.152 "Sellers Group" means: (a) Sellers and their officers, directors, agents, representatives, consultants and employees, and (b) Sellers' Affiliates and their officers, directors, agents, representatives, consultants and employees.

1.153 "Sellers Insurance Policies" has the meaning set forth in Article 5.3.

1.154 "Sellers Knowledge" means the actual knowledge of LP Sellers and LLC Sellers and any of the individuals listed on Exhibit L.

1.155 "Sellers Negotiating Team" means, with respect to each Seller, the Persons named on Part II of Exhibit P for such Seller.

1.156 "Sellers Retained Environmental Liabilities" means those matters set forth in Exhibit B.

1.157 "Sellers Retained Liabilities" means the liabilities set forth in Article 6.4.

1.158 "Settlement Date" means the 1st day of January, 2000, at 12:01 a.m., Central Standard Time.

1.159 "Sharing Ratio" means the right to a share of the profits and losses of the LLC and the right to receive distributions of the LLC's assets and the right to vote with respect to the LLC; in each case, as provided in the LLC Agreement.

1.160 "Shell Affiliate Loan Agreement" means the loan agreement to be entered into between the LP and Shell Borrower on the Closing Date, substantially in the form attached hereto as Exhibit N-3.

1.161 "Shell Affiliate Note" means the promissory note to be made by Shell Borrower in favor of the LP on the Closing Date, substantially in the form attached hereto as Exhibit N-4.

1.162 "Shell Aggregate Interest" means 36.085%.

1.163 "Shell Amended and Restated License Agreement" means the agreement to be signed at Closing contained in Exhibit O-2.

1.164 "Shell Borrower" means an entity designated by Shell Oil Company prior to the Closing Date in which Shell Oil Company owns, directly or indirectly, a substantial interest or which owns, directly or indirectly, a substantial interest in Shell Oil Company and having its chief executive office or principal place of business in the European Union, the United Kingdom, the Netherlands, the United States or Canada.

1.165 "Shell Guaranty" means the guaranty made by Shell Oil Company in favor of the LP on the Closing Date, substantially in the form attached hereto as Exhibit N-5.

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1.166 "Shell Inside Basis" has the meaning set forth in Article 4.6(b).

1.167 "Shell LLC Interest" means the Shell Sold LLC Interest and the Shell Retained LLC Interest, collectively, that is equal to the 36.085% Sharing Ratio owned by Shell LLC Seller.

1.168 "Shell LLC Seller" has the meaning set forth in the introductory paragraph.

1.169 "Shell LP Interest" means the Shell Sold LP Interests and the Shell Retained LP Interests, collectively, that are equal to the 35.3633% Partnership Interest owned by Shell LP Sellers, collectively.

1.170 "Shell LP Sellers" has the meaning set forth in the introductory paragraph.

1.171 "Shell Outside Basis" has the meaning set forth in Article 4.6(b).

1.172 "Shell Retained LP Interests" means the aggregate of the interests of Shell LP Sellers in the LP set forth under the column titled "Retained Interests and Post-Closing Interest" in Exhibit H-1.

1.173 "Shell Sellers" means Shell LLC Sellers and Shell LP Sellers.

1.174 "Shell Sold LLC Interest" means the interest of Shell LLC Sellers in the LLC set forth under the column titled "Seller Interest Sold at Closing" in Exhibit H-1.

1.175 "Shell Sold LP Interests" means the aggregate of the interests of Shell LP Sellers in the LP set forth under the column titled "Seller Interest Sold at Closing" in Exhibit H-1.

1.176 "SK2" has the meaning set forth in the introductory paragraph.

1.177 "SLEC" has the meaning set forth in the introductory paragraph.

1.178 "Sold LLC Interests" means the Amoco Sold LLC Interests and the Shell Sold LLC Interests, collectively.

1.179 "Sold LP Interests" means the Amoco Sold LP Interests and the Shell Sold LP Interests, collectively.

1.180 "SOVI" has the meaning set forth in the introductory paragraph.

1.181 "Specified Representations and Warranties" has the meaning set forth in Article 8.3(a).

1.182 "SWEPI" has the meaning set forth in the introductory paragraph.

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1.183 "Tax" means all taxes, including income tax, surtax, remittance tax, presumptive tax, net worth tax, special contribution, production tax, pipeline transportation tax, value added tax, withholding tax and any gross receipts tax, windfall profits tax, profits tax, severance tax, personal property tax, real property tax, sales tax, transfer tax, use tax, excise tax, premium tax, environmental tax (including taxes under Section 59A of the Code), customs duties, stamp tax, capital stock tax, franchise tax, occupation tax, payroll tax, employment tax, social security, unemployment tax, disability tax, alternative or add-on minimum tax, estimated tax, and any similar tax imposed by any Governmental Authority thereof together with any interest, fine or penalty, or addition thereto, whether disputed or not.

1.184 "Tax Return" means any return, form, declaration of estimated Tax, report, claim for refund, or information return or statement relating to Taxes, including any schedule or attachment thereto, and including any amendment thereof.

1.185 "Third Party" means (i) any Person other than Sellers and Buyer and their respective Affiliates and the LP and the LLC, and (ii) any Governmental Authority.

1.186 "Title Defect" means (a) any matter that would cause the LP not to have Defensible Title to a Property or (b) other than the Permitted Encumbrances, an individual defect in the LP's title to a Property, and as to both (a) and (b) expressly excluding the State of New Mexico's failure to approve certain assignments by Sellers of New Mexico State Leases to the LP upon formation of the LP that constitute Sellers Retained Liabilities.

1.187 "Title Value" means the value for each Property determined in accordance with Article 3.1.

1.188 "Transition Benefits" has the meaning set forth in Exhibit K-2.

1.189 "Transition Period" has the meaning set forth in Exhibit K-2.

1.190 "Unit Operating Agreement" has the meaning set forth in Article 3.2(b).

1.191 "WARN Act" has the meaning set forth in Article 12.4.

1.192 "WARN Obligations" has the meaning set forth in Article 12.4.

1.193 "Working Capital" means current assets less current liabilities determined in accordance with GAAP.

1.194 "Working Capital Adjusted Number" means the Working Capital for the LP as of December 31, 1999, as set forth in the December 31, 1999 balance sheet comprising a portion of the Financial Statements, less Thirty-Four Million Five Hundred Thousand Dollars (\$34,500,000).

1.195 "Working Capital Statement" has the meaning set forth in Article 4.3.

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ARTICLE 2. SALE OF INTERESTS

2.1 Sale and Purchase. On the Closing Date, upon the terms and conditions set forth in this Agreement, Sellers agree (i) to sell and assign to Buyer Member the Sold LLC Interests and (ii) to sell and assign to Buyer LP the Sold LP Interests in accordance with Exhibit H-1. Sellers will retain and not sell the Retained Interests pursuant to this Agreement except as otherwise contemplated by Article 18.

2.2 Account Balances. (a) The LP's standard practice is that on each regular banking Day all cash balances in the LP's bank accounts are transferred

63.915% to an account for Affiliates of Amoco LP Sellers and 36.085% to an account for Affiliates of Shell LP Sellers. The amounts which are transferred are recorded and treated as accounts payable of the recipients and as accounts receivable of the LP (the "Account Balances").

(b) All Account Balances outstanding on the Closing Date will be paid in cash to the LP at Closing. If and to the extent that, after the Settlement Date and from and through the Closing Date, Account Balances have been offset by equity distributions by the LP to Sellers, these distributions will constitute Intergroup Distributions which will be taken into account in determining the Adjusted Purchase Price.

2.3 Purchase Price. The total purchase price, subject to adjustment in accordance with the terms of this Agreement, paid to Sellers by Buyer for the Sold LLC Interests and the Sold LP Interests as described in Exhibit H-2 is One Billion One Hundred Twenty-Four Million Eighty-One Thousand Four Hundred Thirty-Eight Dollars (\$1,124,081,438) (the "Purchase Price"), payable in full (minus the sum of the amount of Earnest Money and interest earned thereon pursuant to the Escrow Agreement (net of any escrow costs), which sum is received by Sellers at Closing as partial payment of the Purchase Price and is referred to as the "Closing Amount") at Closing in immediately available funds. The Purchase Price shall be adjusted as set forth in Article 2.4 (as so adjusted, the "Adjusted Purchase Price"). The Adjusted Purchase Price will be allocated to Sellers in accordance with Exhibit H-3.

2.4 Purchase Price Adjustments. The Purchase Price shall be adjusted as follows:

(a) upward by:

- (1) the Working Capital Adjusted Number; and
- (2) the amount of any Intergroup Contributions; and

(3) Computed Interest on Three Billion Seven Hundred Fifty Million Dollars (\$3,750,000,000) for the period from and including January 1, 2000, through but excluding the earlier to occur of the Closing Date and March 31, 2000, and if Closing occurs on or after March 31, 2000, the Post-March Computed Interest on Three Billion Seven Hundred Fifty Million Dollars (\$3,750,000,000) for the period from and including March 31, 2000, to but excluding the Closing Date.

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(b) downward by:

- (1) the amount of any Intergroup Distributions; and
- (2) the sum of the product obtained by multiplying (x) fifty basis points (0.50%) divided by 360 by (y) the daily Account Balance for each day from the Settlement Date through the Closing Date owed by Affiliates of Sellers under the terms of the respective Revolving Credit and Cash Management Agreements dated as of February 28, 1997, among the LP and Sellers' Affiliates.

2.5 Earnest Money. Upon execution of this Agreement and concurrent with its delivery to Buyer, Buyer shall deposit Three Hundred Seventy-Five Million Dollars (\$375,000,000) ("Earnest Money") with Chase Bank of Texas, National Association, who shall hold the Earnest Money in escrow pursuant to the Escrow Agreement. The Earnest Money will be paid in accordance with the Escrow Agreement.

ARTICLE 3. PREFERENTIAL RIGHTS AND TITLE VALUES

3.1 Title Values. Sellers and Buyer shall agree on an allocation of the Purchase Price or the appropriate portion thereof for federal income tax and financial accounting purposes and, if necessary, for purposes of Article 6.9, no later than March 31, 2001. If the Parties are unable to reach an agreement by such date, the determination of Title Values will be submitted to binding arbitration pursuant to Article 16 of this Agreement. Upon such agreement, Sellers shall accept such Title Values for the purposes set forth above, but otherwise shall make no representation or warranty as to the accuracy of such values.

3.2 Preferential Rights to Purchase. (a) If in Sellers' reasonable judgment the transactions contemplated by this Agreement trigger a preferential purchase right held by a Third Party, Sellers shall cause the LP (i) to provide such notice to the Third Party as may be required after consultation with Buyer with respect to such preferential purchase right and (ii) to comply in all other respects with the agreement in which the preferential purchase right arises. If, prior to Closing, such preferential purchase rightsholder notifies Sellers that it elects to exercise its rights with respect to an Asset to which its preferential purchase right applies (in accordance with and determined by the agreement in which the preferential purchase right arises), Sellers shall cause the LP to transfer such Asset to the holder of the preferential purchase right, and the LP shall retain the consideration therefor. If the time for exercise of the preferential right to purchase has not expired prior to Closing, the Asset will continue to comprise part of the Assets of the LP at Closing; provided, however, if the holder of the preferential purchase right subsequently exercises its preferential right to purchase, Buyer shall cause the LP to transfer the Asset subject to the preferential purchase right to such rightsholder and the LP shall be entitled to the consideration therefor.

(b) The Parties acknowledge that the sale of the Interests pursuant to this Agreement may trigger a preferential purchase right to that certain oil and gas estate (the "Estate") covered by that certain Unit Operating Agreement (as amended, the "Unit Operating Agreement"), in favor of Fasken Land and Minerals, Ltd. and certain other Persons (the "Pref Rights Holders") covering the Midland Farms Unit. Sellers will cause the LP to comply with the preferential

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purchase right procedures required by the Unit Operating Agreement; and the Parties agree that the allocation of that portion of the Purchase Price attributable to the Pref Rights Holders' interest in the Estate is Sixty-Three Million Dollars (\$63,000,000).

3.3 Consents to Assignment. Sellers shall use reasonable efforts to obtain prior to Closing any consents from Third Parties required to consummate the transactions contemplated hereby.

ARTICLE 4. ACCOUNTING AND TAXES

4.1 Distributions. Sellers are entitled to all distributions, if any, paid by the LP or the LLC with respect to the LLC Interests or the LP Interests, as applicable, and are responsible for all capital contributions to the LP or the LLC, as applicable (as defined in the LP Agreement and the LLC Agreement, respectively), in each case to the extent they occur between January 1, 2000 and the Closing Date.

4.2 Taxes.

(a) Tax Returns. Sellers shall prepare and file or cause the LLC or the LP to prepare and file, in a timely manner, all separate federal, state, local and tribal Tax Returns required by applicable Law for the LP and the LLC for which the Tax period ends on or before the Closing Date and pay or cause the LLC or the LP to pay any Taxes shown as due and payable on such Tax Returns. If LP Seller or LLC Seller is a member of an Affiliated Group, each of Sellers shall include its share of the income or loss of the LP or the LLC, as applicable, on the applicable consolidated federal Tax Returns and combined state Tax Returns for all periods ending on or before the Closing Date and pay any federal and state Taxes due on such Tax Returns. If necessary, Sellers shall cause the LP and the LLC to prepare the federal income Tax books for the LP and the LLC in order to close such Tax books as of the Closing Date in accordance with Section 706(c)(2) of the Code. Sellers shall prepare and file or cause the LLC or the LP to prepare and file all Tax Returns due on or before the Closing Date on a monthly or quarterly basis, including, but not limited to, Sales Taxes and severance taxes, and the LP or the LLC shall pay all Taxes shown as due on such Tax Returns. Buyer shall prepare and file or cause to be prepared and filed all separate federal, state and local Tax Returns for the LP and the LLC for which the Tax year commences after or includes the Closing Date and pay or cause to be paid by the LP any Taxes shown as due and payable on such Tax Returns.

(b) Cooperation. Sellers and Buyer shall (i) each provide the other, and Buyer shall cause the LP and the LLC to provide Sellers, with such assistance as may reasonably be requested by any of them in connection with the preparation of any Tax Return, audit or other examination by any taxing authority or judicial or administrative proceedings relating to liability for Taxes, (ii) each retain

and provide the other with access at reasonable times to review and copy any records or information which the Party requesting access may reasonably deem relevant to such Tax Return, audit or examination, proceeding or determination, and (iii) each provide the other with the amount of any income, deductions or other information required to be shown on any Tax Return of the other for any period when the Party requested to furnish such information has such information in its possession.

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The Party requesting assistance hereunder shall reimburse the other Parties for reasonable out-of-pocket expenses (excluding the cost of wages and benefits of employees of such Party providing such assistance, which shall be borne solely by the Party providing such assistance) incurred in providing such assistance to the extent such expenses exceed an aggregate amount of \$50,000; provided, however, that Buyer shall not be required to reimburse Sellers for expenses incurred in providing assistance regarding the period prior to the Formation Date. Without limiting the generality of the foregoing and notwithstanding anything in this Agreement to the contrary, Buyer shall retain, and shall cause the LP and the LLC to retain, until the later of (A) one hundred twenty (120) Days after the expiration of all statutes of limitations (including any extensions) or (B) ten (10) years after Closing, copies of all Tax Returns, supporting work schedules and other records or information in its possession which may be relevant to such returns for all taxable periods from January 1, 1997, to the Closing Date, inclusive, and shall not destroy or otherwise dispose of any such records without first providing Sellers with an opportunity to review and copy the same.

(c) Tax Elections. Buyer shall cause the LP and the LLC to have in effect for the taxable year in which Closing occurs an election under Section 754 of the Code.

4.3 Working Capital Settlement and Estimate of Adjusted Purchase Price. No later than ten (10) Days after execution of this Agreement, Sellers shall submit a statement (the "Working Capital Statement") and include therewith an estimate of the Adjusted Purchase Price to Buyer. The statement shall be prepared using the audited balance sheet prepared by Ernst and Young. Buyer shall have fourteen (14) Days to review the Working Capital Statement, including any access to the LP's and the LLC's financial books and records. On the Day following expiration of such fourteen (14) Day review period, Buyer shall submit a written report containing any changes Buyer proposes to be made to the Working Capital Statement. Sellers and Buyer shall attempt to agree on a final Working Capital Statement no later than five (5) Days prior to Closing. If Sellers and Buyer are unable to agree by that date, Sellers' estimate shall be used to determine the adjustment to the Purchase Price pursuant to Article 2.4 to be used at Closing. Sellers and Buyer shall use reasonable efforts to resolve any dispute under this Article 4.3 from and after the Closing Date or refer the matter to the Accounting Referee for resolution. Within thirty (30) Days after the Closing Date, Sellers shall submit to Buyer a statement (the "Post-Closing Notice") which will set forth the difference, if any, between the estimated amount of Intergroup Contributions and Intergroup Distributions and the actual amount of Intergroup Contributions and Intergroup Distributions. If the net amount of such difference is positive, such amount shall be referred to as an "Excess" and if the net amount of such difference is negative, such amount shall be referred to as a "Deficiency." Buyer shall notify Sellers within fifteen (15) Days after receipt of the Post-Closing Notice whether it disputes Sellers' Post-Closing Notice. If Buyer disputes Sellers' Post-Closing Notice, Buyer and Sellers shall attempt to resolve any such dispute within fifteen (15) Days after Sellers receive a notice from Buyer of such dispute. If Sellers and Buyer are unable to resolve such dispute within such fifteen (15) Day period, the matter shall be referred to the Accounting Referee for resolution. The Accounting Referee shall make its determination as to such dispute under this Article 4.3 within thirty (30) Days after referral of any dispute. The scope of any disputes to be resolved by the Accounting Referee shall be limited to whether the calculation of Working Capital on the Working Capital Statement and the other components of the Adjusted Purchase Price were determined using the agreed methodology and whether there were mathematical errors in such calculation. The determination

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of the Accounting Referee shall be final and binding upon the Parties. The amount of any Excess or Deficiency shall be paid by the appropriate Party or

paid to Sellers, shall be paid in the percentages as set forth on Exhibit H-4) within fifteen (15) Days after the determination of such amount pursuant to this Article 4.3.

4.4 Sales Tax and Fees. Buyer shall pay all Sales Taxes, if any, and all documentary, filing and other fees required in connection with the transfer of the LP Interests and the LLC Interests and any deemed transfer of the Properties and provide Sellers with written copies of any such recorded instruments, other than transfers requested by Sellers pursuant to Article 10.2, for which Sellers shall pay any such Sales Taxes and all other fees.

4.5 Tax Status. Sellers and Buyer acknowledge that (a) the LP is governed by the LP Agreement and is a partnership for federal income tax (as well as state Law) purposes; (b) the LLC is governed by the LLC Agreement and is a partnership for federal income tax purposes; (c) the LLC is the LP Tax Matters Partner; (d) Amoco LLC Seller is the LLC Tax Matters Partner; and (e) each Seller shall be allocated its share of the LP's and/or the LLC's, as applicable, items of income, gain, deduction and loss for federal and state income tax purposes as of the Closing Date in accordance with the LP Agreement and the LLC Agreement, and applicable federal and state Tax Law.

4.6 Basis. (a) Amoco LP Sellers represent and warrant that their tax basis in the Amoco LP Interests (the "Amoco Outside Basis") equals the LP's tax basis in its assets related to Amoco LP Sellers (the "Amoco Inside Basis"). Amoco LP Sellers agree that if there is a Final Determination that as of the Closing Date, the Amoco Outside Basis exceeded the Amoco Inside Basis, then within ten (10) Business Days after the occurrence of such Final Determination, Amoco LP Sellers will pay the Buyer LP an amount equal to 37.5% of the difference between the Amoco Outside Basis and the Amoco Inside Basis by wire transfer of immediately available funds to a bank account designated by Buyer LP.

(b) Shell LP Sellers represent and warrant that their tax basis in the Shell LP Interests (the "Shell Outside Basis") equals the LP's tax basis in its assets related to Shell LP Sellers (the "Shell Inside Basis"). Shell LP Sellers agree that if there is a Final Determination that as of the Closing Date, the Shell Outside Basis exceeded the Shell Inside Basis, then within ten (10) Business Days after the occurrence of such Final Determination, Shell LP Sellers will pay the Buyer LP an amount equal to 37.5% of the difference between the Shell Outside Basis and the Shell Inside Basis by wire transfer of immediately available funds to a bank account designated by Buyer LP.

(c) The payments described in subparagraphs (a) and (b) above shall not be required to the extent that the Buyer Partner is otherwise compensated (e.g., through remedial allocations or because Code Section 613A(c)(7)(d) treats the basis of oil and gas properties as belonging to the partners in the LP).

(d) Any payments required under subparagraphs (a) and (b) above shall be treated as an adjustment to the purchase price.

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(e) For purposes of subparagraphs (a) and (b) above, "Final Determination" means (i) a nonappealable judgment of a court of competent jurisdiction, (ii) a closing agreement entered into by the LP and the IRS or (iii) a consent to a final proposed administrative adjustment executed by the LP.

4.7 Allocations. For all purposes of this Agreement and the Restated LP Agreement, the Parties agree that the Gross Asset Value (as defined in the Restated LP Agreement) of the Original Assets (as defined in the Restated LP Agreement) on the Closing Date shall be allocated to such assets as follows:

(a) first, to cash, Cash Equivalents (as defined in the Restated LP Agreement), receivables, and any other current assets based on their relative Fair Market Values (as defined in the Restated LP Agreement); and

(b) second,

(i) 88% to assets that are eligible for depletion under Code Section 611; and

(ii) 12% to assets that are eligible for depreciation under Code Section 167.

any other assets, including but not limited to intangible property.

ARTICLE 5. LOSS, CASUALTY AND INSURANCE

5.1 Notice of Loss. From the date of execution of this Agreement until Closing, Sellers will promptly notify Buyer of each instance of loss or damage to the Assets, or any part thereof, known to Sellers and estimated to exceed Five Million Dollars (\$5,000,000) net to the LP's interest in the affected Assets.

5.2 Casualty. (a) If, after the Settlement Date but prior to the Closing Date, any portion of the Assets suffers a Casualty Loss that individually exceeds Ten Million Dollars (\$10,000,000), Buyer shall nevertheless be required to Close and Sellers shall elect by written notice to Buyer prior to Closing either (i) to cause any Asset affected by Casualty Loss to be repaired or restored, at Sellers' sole cost, as promptly as reasonably practicable (which work may extend after the Closing Date), or (ii) to indemnify Buyer through a document reasonably acceptable to Sellers and Buyer against any costs or expenses that Buyer reasonably incurs to repair or restore the Asset subject to the Casualty Loss. In each case, Sellers shall be entitled to retain all rights to insurance and other claims against Third Parties with respect to the Casualty Loss except to the extent the Parties otherwise agree in writing. In no event shall such cost of repair or restoration or any indemnity for repair or restoration under this Article 5.2 associated with a Casualty Loss exceed, in the case of a Property, the Title Value of the affected Property, or, in the case of any other Asset, the Fair Market Value of the affected Asset.

(b) If, after the date of this Agreement but prior to the Closing Date, any portion of the Assets suffers a Casualty Loss that is Ten Million Dollars (\$10,000,000) or less, Buyer shall nevertheless be required to Close and the LP shall retain all sums paid to the LP by Third Parties

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by reason of such Casualty Loss, including all of the LP's right, title and interest (if any) in insurance proceeds, unpaid awards, and other rights against Third Parties (other than Affiliates of Sellers and their directors, officers, employees and agents) arising out of the Casualty Loss.

5.3 Insurance. Buyer understands and agrees that from and after the Closing Date, except for the insurance listed on Exhibit G for which the LP or the LLC is an express named insured, (a) no insurance coverage will be provided to the LP or the LLC or Buyer under (i) any insurance policy issued to Sellers or any Affiliate of any Seller, or (ii) any insurance policy (including reinsurance) issued by any insurance company Affiliate of any Seller ((i) and (ii) being together, "Sellers Insurance Policies"), and (b) no claims regarding any matter whatsoever, whether or not arising from events occurring prior to Closing, shall be made by the LP or the LLC or Buyer against or under Sellers Insurance Policies, regardless of their date of issuance.

ARTICLE 6. ALLOCATION OF RESPONSIBILITIES AND INDEMNITIES

6.1 Opportunity for Review. Each Party represents that it has had an adequate opportunity to review the release and indemnity provisions in this Agreement, including, without limitation, the opportunity to submit the same to legal counsel for review and comment. Based upon the foregoing representation, the Parties agree to the provisions set forth below.

6.2 Sellers' Non-Environmental Indemnity Obligation. If Closing shall occur, from and after the Closing Date each Seller shall release Buyer Group (including, from and after the Closing Date, the LP and the LLC) from and shall, subject to the limitations set forth in Article 6.5, fully protect, defend, indemnify and hold Buyer Group (including, from and after the Closing Date, the LP and the LLC) harmless from and against any and all (i) Title Defects and (ii) Third Party Non-Environmental Claims relating to, arising out of, or connected with, directly or indirectly (and, whether asserted before or after Closing without extending the time limitations of Article 6.5(a)), the ownership of the Interests or the ownership or operation of the Assets, including, without limitation, ownership or operation of the Properties, or any part thereof, to the extent, for both Title Defects and Third Party Non-Environmental Claims, attributable to the period prior to the date of this Agreement, including, without limitation, Third Party Non-Environmental Claims relating to:

- (b) damages to or loss of any Property or resources,
- (c) breach of contract,
- (d) common law causes of action such as negligence, strict liability, nuisance or trespass, or
- (e) fault imposed by statute, rule, regulation or otherwise, even if caused in whole or in part by the negligence (whether sole, joint, or concurrent), strict liability, or other legal fault of any Person indemnified hereunder;

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provided, however, that with respect to each Property, once Sellers have paid, in the aggregate, the Title Value to Buyer Group (including, from and after the Closing Date, the LP and the LLC) or to a Third Party as an indemnity payment on behalf of Buyer Group, then, except as provided with respect to Third Party Non-Environmental Claims, Sellers shall have no further obligation to protect, indemnify, defend or hold harmless Buyer Group (including, from and after Closing Date, the LP and the LLC) with respect to such Title Defect or Title Defects with respect to such Property.

6.3 Sellers' Environmental Indemnity Obligation. If Closing shall occur, from and after the Closing Date each Seller shall release Buyer Group (including, from and after the Closing Date, the LP and the LLC) from and shall, subject to the limitations set forth in Article 6.5, fully protect, defend, indemnify and hold Buyer Group (including, from and after the Closing Date, the LP and the LLC) harmless from and against any and all Environmental Claims and all Remediation Costs (including, without limitation, such Claims and costs associated with asbestos or norm, plugging and abandonment, and process safety management) relating to, arising out of, or connected with, directly or indirectly (and, whether asserted before or after Closing without extending the time limitations of Article 6.5(a)), the ownership of the Interests or ownership or operation of the Assets, including, without limitation, ownership or operation of the Properties, or any part thereof, to the extent, for both Environmental Claims and Remediation Costs, attributable to the period prior to the date of this Agreement, even if caused in whole or in part by the negligence (whether sole, joint, or concurrent), strict liability, or other legal fault of any Person indemnified hereunder.

6.4 Sellers Retained Liabilities. If Closing shall occur, from and after the Closing Date each Seller shall release Buyer Group (including, from and after the Closing Date, the LP and the LLC) from and shall fully protect, defend, indemnify and hold Buyer Group harmless from and against any and all Claims relating to, arising out of, or connected with, directly or indirectly (and no matter when asserted):

(a) Environmental Claims and Remediation Costs with respect to Sellers Retained Environmental Liabilities, except to the extent caused by the acts or omissions of any member of Buyer Group (including acts or omissions on or after the Closing Date by the LP and the LLC); provided, however, that Sellers acknowledge that Buyer Group, the LP and the LLC have no obligation to remediate Sellers Retained Environmental Liabilities;

(b) The ownership or operation of the Excluded Assets, including, without limitation, (1) Environmental Claims and (2) Third Party Non-Environmental Claims relating to: (i) injury or death of any Person or Persons whomsoever, (ii) damages to or loss of any Property or resources, (iii) breach of contract, (iv) common law causes of action such as negligence, strict liability, nuisance or trespass, (v) fault imposed by statute, rule, regulation or otherwise, even if caused in whole or in part by the negligence (whether sole, joint, or concurrent), strict liability, or other legal fault of any Person indemnified hereunder, or (vi) Third Party Tax Claims or disputes;

(c) Environmental Claims or Remediation Costs with respect to the Hydrocarbons currently floating above a perched water-bearing zone in the vicinity of Hobbs, New Mexico, that have been or are being produced by the Windmill Oil Company; provided, however, that

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Conditions of such zones existing on the date of this Agreement (including any migration therefrom prior to the date of remediation of such conditions), and (ii) in excess of Two Hundred Thousand Dollars (\$200,000) in any calendar year; provided, further however, that Sellers acknowledge that none of Buyer Group, the LP, or the LLC have any current obligation to remediate such condition;

(d) royalties, severance Taxes, or fees owed or payable to any Governmental Authority or Person (including, without limitation, Claims alleging undervaluation or underpayment thereof, or wrongdoing, fault, or strict liability relating thereto) arising therefrom or in connection therewith, or Claims pursuant to the False Claims Act or similar state Laws to the extent attributable to the period prior to the Closing Date in respect of Hydrocarbon or non-Hydrocarbon substances (including, without limitation, CO₂) used, purchased, produced, transported, sold or conveyed at, to, under, across or from the Properties or properties formerly owned by the LP, except to the extent that (i) a specifically identifiable accrual or reserve was included as a current liability in the December 31, 1999 balance sheet comprising a portion of the Financial Statements for the year ended December 31, 1999, and (ii) the amount of such Claim is taken into account as a current liability in calculating Working Capital as set forth on such balance sheet;

(e) Environmental Claims or Remediation Costs with respect to offsite disposal of hazardous or non-hazardous waste (including, without limitation, NORM, asbestos and Hydrocarbon or non-Hydrocarbon substances) to the extent attributable to the period prior to the Formation Date, and any present or future sites identified under Environmental Laws at which materials or wastes generated by or on behalf of Sellers prior to the Formation Date were deposited;

(f) Sellers' existing disputes with the State of New Mexico concerning Sellers' alleged underpayment of royalties and oil severance taxes for any period prior to Closing, including, without limitation, the State of New Mexico's failure to approve certain assignments by Sellers of New Mexico State Leases to the LP upon formation of the LP;

(g) all litigation with respect to the Properties filed against Sellers prior to the Formation Date including, without limitation, that litigation listed on Exhibit C-2;

(h) all litigation listed on Exhibit C-1 regardless of when filed, but only to the extent of Sellers' liability with respect to any such litigation, as determined pursuant to a final disposition with respect thereto; and

(i) all Third Party Non-Environmental Claims filed prior to the Formation Date regarding the Assets.

Claims made under this Article 6.4 may be made whether or not a Claim also could be asserted under Articles 6.2 or 6.3, and Claims under this Article 6.4 are not subject to any of the limitations set forth in Article 6.5 or Article 8.3.

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6.5 Claim Periods and Thresholds. Sellers will have no obligation under Articles 6.2 or 6.3 to protect, defend, indemnify, and hold Buyer Group harmless from and against the Claims (or Title Defects or matters with respect to which Remediation Costs will be incurred, as applicable) described in such Articles, and the indemnified Person is solely responsible for any and all such Claims or matters:

(a) for which the indemnified Person has not provided Sellers with an Indemnity Claim Notice within (i) eighteen (18) months from and after Closing with respect to such Non-Environmental Claims or Title Defects, or (ii) the third anniversary of the Closing Date with respect to such Environmental Claims (or matters with respect to which Remediation Costs will be incurred, as applicable); and

(b) to the extent the aggregate of Claims of Buyer Group against Sellers described in Articles 6.2 and 6.3 and breaches of representations and warranties under Article 8 (except for the Specified Representations and Warranties) do not exceed One Hundred Fifty Million Dollars (\$150,000,000) (it being acknowledged and agreed that the indemnified Persons are solely responsible for the aggregate of all such Claims, Remediation Costs, breaches of such representations and warranties, and Title Defects to the extent they do not exceed One Hundred Fifty

(c) for each such Claim (or Title Defect or Remediation Costs) of Two Million Dollars (\$2,000,000) or less or expenditures with respect to each such Claim; and these Claims, Remediation Costs, breaches of representations and warranties (except for the Specified Representations and Warranties), and Title Defects of Two Million Dollars (\$2,000,000) or less will not be counted in determining the One Hundred Fifty Million Dollar (\$150,000,000) threshold in subparagraph (b) above, provided that in calculating such Two Million Dollar (\$2,000,000) threshold, any Dollar or materiality qualifiers in the representations or warranties shall be disregarded; and

(d) the first Two Million Dollars (\$2,000,000) of expenditures with respect to each such Claim (or Title Defect or Adverse Condition with respect to which Remediation Costs have been incurred) which exceeds Two Million Dollars (\$2,000,000); provided, however, that the first Two Million Dollars (\$2,000,000) of expenditures for each such Claim will be counted in determining the One Hundred Fifty Million Dollar (\$150,000,000) threshold in subparagraph (b) above.

6.6 Third Party Claims Involving Both Sellers and the LP. In the event Third Party Claims relating to, arising out of, or connected with the ownership of the Interests or the ownership or operation of the Assets, including, without limitation, the ownership or operation of the Properties or any part thereof, are asserted against one or more of Sellers and against Buyer Group, the LP or the LLC (other than Claims set forth in Article 6.4), (a) Sellers shall be responsible for, and Articles 6.2 and 6.3 shall apply to, such Third Party Claims to the extent attributable to the period prior to the Formation Date (subject to the limitations set forth in Article 6.5), (b) the LP shall be responsible for such Third Party Claims to the extent attributable to the period between the Formation Date and the date of this Agreement, subject to indemnification under Articles 6.2 or 6.3 (subject to the limitations set forth in Article 6.5), and

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(c) the LP shall be responsible for such Third Party Claims to the extent attributable to the period from and after the date of this Agreement.

6.7 Notice of Claims. If a Claim for indemnity is asserted against a Person for which a Party may have an obligation of indemnity under this Article 6 or elsewhere under this Agreement (an "Indemnity Claim"), the indemnified Person shall give the indemnifying Party written notice of the underlying Claim setting forth the particulars associated with the underlying Claim (including a copy of the written underlying Claim, if any) as then known by the indemnified Person ("Indemnity Claim Notice"). For Indemnity Claims with respect to which Article 6.5 applies, an Indemnity Claim shall be deemed to have been made (subject to clauses (b) and (c) thereof) upon the indemnified Person's providing an initial Indemnity Claim Notice to the indemnifying Party stating that the Claim (or Title Defect or Remediation Costs) underlying the Indemnity Claim could reasonably be expected to exceed Two Million Dollars (\$2,000,000). The indemnified Person shall, to the extent practicable, give an Indemnity Claim Notice within such time as will allow the indemnifying Party a reasonable period in which to evaluate and timely respond to the underlying Claim; provided, however, that (i) failure to do so shall not affect an indemnified Person's rights hereunder except to the extent the indemnifying Party is prejudiced thereby; (ii) the foregoing shall not extend the time periods set forth in Article 6.5(a), but if an Indemnity Claim Notice is given to an indemnifying Party within the applicable time period set forth in Article 6.5(a), such Indemnity Claim Notice shall be effective, subject to the other limitations in Article 6.5 or the other provisions of Article 6, as to costs and expenses incurred or suffered after the expiration of such time period, with respect to the matter generally described in such Indemnity Claim Notice; and (iii) the indemnified Person shall not be required to provide an Indemnity Claim Notice unless and until such Person believes that the underlying Claim (or Title Defect or Remediation Costs) underlying the Indemnity Claim could reasonably be expected to exceed the applicable threshold, which for purposes of Article 6.5 is Two Million Dollars (\$2,000,000) per underlying Claim.

6.8 Defense of Claims. Upon receipt of an Indemnity Claim Notice involving a Third Party for which an indemnifying Party reasonably believes it may have an obligation of indemnity under this Agreement, the indemnifying Party may (without prejudice to its right to contest its obligation of indemnity under this Agreement) assume the defense of the Third Party Claim with counsel selected by the indemnifying Party and reasonably satisfactory to the

respects in such defense. If any Third Party Claim involves a fact pattern wherein Buyer may have an obligation to indemnify any Seller and such Seller may have an obligation to indemnify Buyer, each Party may assume the defense of and hire counsel for that portion of the Third Party Claim for which it may have an obligation of indemnity. In all instances, the indemnified Person may employ separate counsel and participate in the defense of any Third Party Claim; provided, however, if the indemnifying Party has assumed the defense of a Third Party Claim pursuant to this Article 6.8 and has agreed to indemnify the indemnified Person, the fees and expenses of counsel employed by the indemnified Person will be borne solely by the indemnified Person. If (a) the underlying Third Party Claim meets any applicable per-Claim threshold, (b) the underlying Third Party Claim plus all previously asserted underlying Claims have exceeded the One Hundred Fifty Million Dollar (\$150,000,000) aggregate threshold, if applicable in the circumstances, and (c) the indemnifying Party does not notify the indemnified Person within the earlier to occur of:

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(a) three (3) Business Days before the time a response is due in any litigation matter (so long as the Indemnity Claim Notice was presented to the indemnifying Party at least ten (10) Days prior to the date the response is due), or

(b) thirty (30) Days after receipt of the Indemnity Claim Notice, that the indemnifying Party elects to undertake the defense of the Third Party Claim, the indemnified Person may defend, at the expense of the indemnifying Party, the Third Party Claim with counsel of the indemnified Person's choice, subject to the right of the indemnifying Party to assume the defense of the Third Party Claim at any time prior to settlement or final determination thereof. In such event, the indemnified Person shall promptly send written notice to the indemnifying Party of any proposed settlement of the Third Party Claim, which settlement the indemnifying Party may accept or reject, in its reasonable judgment, within ten (10) Days of receipt of the notice, unless the settlement offer is limited to a shorter period, in which case the indemnifying Party will have such shorter period in which to accept or reject the proposed settlement. Failure of the indemnifying Party to accept or reject such settlement within the applicable period will be deemed a rejection of the proposed settlement.

Notwithstanding the foregoing, the indemnified Person may settle any matter over the objection of the indemnifying Party, but in so doing the indemnified Person will waive any right to indemnity therefor as to (and only as to) liabilities with respect to which the indemnifying Party has acknowledged in writing its indemnity obligation.

6.9 Determination of Title Defect Amounts. The amount of a Title Defect shall be determined as follows:

(a) if Buyer and Sellers agree on the amount, that amount shall be the value of the Title Defect for purposes of this Article 6; and

(b) if Buyer and Sellers cannot agree on the amount, the Title Value of the affected Property(ies) shall be used by the Parties for determining the amount.

6.10 Waiver of Certain Damages. Each of the Parties expressly waives and agrees not to seek indirect, consequential, punitive or exemplary damages or damages for lost profits of any kind with respect to any dispute arising under, related to, or in connection with this Agreement or breach hereof; provided, however, this provision will not diminish or affect in any way the Parties' rights and obligations under any indemnities provided in this Agreement.

6.11 Several Liability. (a) Except as otherwise expressly set forth herein, if any one or more Sellers have an indemnity obligation or otherwise have liability hereunder, Amoco Sellers' percentage of the total liability for amounts asserted under this Article 6 or Article 8 or any other Article will be limited to the Amoco Aggregate Interest, and Shell Sellers' percentage of the total liability for amounts asserted under this Article 6 or Article 8 or any other Article will be limited to the Shell Aggregate Interest; provided that, (i) notwithstanding any provision of this Agreement to the contrary, Shell Sellers will be jointly liable for any and all Shell Seller liabilities, and Amoco Sellers will be jointly liable for any and all Amoco Seller liabilities and (ii) Buyer shall have no obligation to determine which Seller or Sellers are liable and may assert

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liability against all Sellers, and the allocation of Sellers' liability among themselves (except as to the percentages stated above) shall not be a defense to any Claim by Buyer.

(b) (i) Notwithstanding any provision of this Agreement, no agreement, consent, approval, waiver, action, notice or other conduct of Sellers under this Agreement shall be effective unless made or given by both Shell Sellers and Amoco Sellers and (ii) Shell Sellers shall act only collectively and Amoco Sellers shall act only collectively; provided that nothing in this Article 6.11(b) shall limit any representations, warranties or covenants made individually by Shell Sellers or Amoco Sellers, respectively.

6.12 Sellers' Responsibility for Taxes. Notwithstanding anything to the contrary in this Article 6 or Article 7, from and after the Closing Date, Sellers shall each protect, defend, indemnify, and hold harmless Buyer Group, the LLC and the LP from any and all Taxes imposed on the LLC or the LP with respect to the Assets, Properties, business or operations of the LLC or the LP for any taxable period or portion thereof ending on or prior to the Closing Date, except to the extent such Taxes are fully reflected as a liability in the December 31, 1999 balance sheet comprising a portion of the Financial Statements or are accrued in the ordinary course of business after the Settlement Date. To the extent that, following the completion and delivery of the LP's annual financial statements for the year 2000, the amount paid for the year 2000 by the LP or the LLC with respect to such Taxes exceeds the amount accrued for the Taxes in the balance sheet comprising a portion of such financial statements, Buyer shall pay to Sellers the amount of such excess, in the same proportions as the Closing Amount was paid to Sellers. This Article 6.12 shall not modify or otherwise limit Sellers' indemnity obligations pursuant to Article 6.4(d).

6.13 Cross-Release. (a) Effective as of Closing, except for the performance of the obligations and covenants in this Agreement, and except with respect to the representations and warranties in this Agreement, Buyer, on its behalf and on behalf of Buyer Group (including, from and after the Closing Date, the LP and the LLC), hereby releases, acquits and discharges each member of Seller Group from any and all Claims by Buyer Group with respect to Contracts or arrangements between the LP or the LLC, on the one hand, and any member of Sellers Group ("Affiliate Contracts") to the extent (i) not attributable to a Third Party Claim and (ii) attributable to pre-Closing periods; provided that the foregoing release shall not release any settlement in the ordinary course of business of outstanding amounts under Affiliate Contracts.

(b) Effective as of Closing, except for the performance of the obligations and covenants in this Agreement, and except with respect to the representations and warranties in this Agreement, each Seller, on its behalf and on behalf of Sellers Group, hereby releases, acquits and discharges each member of Buyer Group (including, from and after the Closing Date, the LP and the LLC), from any and all Claims by Buyer Group with respect to Affiliate Contracts to the extent (i) not attributable to a Third Party Claim and (ii) attributable to pre-Closing periods; provided that the foregoing release shall not release any settlement in the ordinary course of business of outstanding amounts under Affiliate Contracts.

6.14 Indemnity Allocation. With respect to any amounts paid for indemnification or for breach of representation or warranty pursuant to this Agreement, the Person or Persons entitled to such amounts shall be the Person or Persons that are the express beneficiary or

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beneficiaries under the relevant provisions of this Agreement that suffer and are entitled to the Claim covered by such provisions (and it is acknowledged and agreed that, to the extent that the LP suffers and is entitled to the Claim, any amounts payable with respect thereto shall be made to the LP and not to any other Person within Buyer Group); and if the LP is the indemnified Person or the Person that receives any payment for breach of representation or warranty, the LP's allocation of the contribution, benefit, loss and/or detriment with respect to the matter that is the subject of the indemnification or breach shall be governed by the Restated LP Agreement.

ARTICLE 7. DISCLAIMERS

agrees that, except as otherwise expressly provided in this Agreement or the Operative Documents, (i) the Interests will be assigned and conveyed from Sellers to Buyer LP and Buyer Member without warranty, express, statutory, implied or otherwise and (ii) Sellers make no warranty, express, statutory, implied, or otherwise with respect to the Properties. Except as otherwise expressly provided in this Agreement or in the Operative Documents, Sellers hereby expressly disclaim any and all representations and warranties associated with the Properties, express, statutory, implied or otherwise, including, without limitation: (a) warranty of title, (b) existence of any and all prospects, (c) geographic, geologic or geophysical characteristics associated with any and all prospects, (d) existence, quality, quantity or recoverability of Hydrocarbon and non-Hydrocarbon substances associated with the Properties, (e) costs, expenses, revenues, receipts, accounts receivable, accounts payable, suspense fund or gas imbalances associated with the Properties, (f) contractual, economic or financial information and data associated with the Properties, (g) continued financial viability or productivity of the Properties, (h) environmental or physical condition of the Properties, (i) federal, state, local or tribal income or other Tax consequences associated with the Properties, (j) absence of patent or latent defects, (k) safety, (l) state of repair, (m) merchantability, (n) conformity to models, (o) any rights of any member of Buyer Group under appropriate statutes to claim diminution of consideration or return of the Purchase Price, (p) warranty of freedom from patent or trademark infringement, (q) warranties existing under applicable Law now or hereafter in effect, and (r) fitness for a particular purpose; and Buyer (on behalf of itself and Buyer Group) irrevocably waives any and all Claims it may have against Sellers Group with respect to same, even if caused in whole or in part by the negligence (whether sole, joint, or concurrent), strict liability, or other legal fault of Sellers Group.

7.2 Disclaimer - Statements and Information. Sellers expressly disclaim any and all liability and responsibility, except as otherwise expressly provided in this Agreement or the Operative Documents, for and associated with the quality, accuracy, completeness or materiality of the information, data and materials furnished (electronically, orally, by video, in writing or any other medium, including, without limitation, in the Confidential Information Memorandum, by compact disk, in any data room, or otherwise) at any time to Buyer Group associated with the transactions contemplated by this Agreement, including, without limitation: (a) title to the Properties, (b) existence of any and all prospects, (c) geographic, geologic or geophysical characteristics associated with any and all prospects, (d) existence, quality, quantity or recoverability of Hydrocarbon and non-Hydrocarbon substances associated with the Properties, (e) costs, expenses, revenues, receipts, accounts receivable, accounts payable, suspense fund or gas imbalances associated with the Properties, (f) contractual, economic or financial information

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and data associated with the Properties, (g) continued financial viability or productivity of the Properties, (h) environmental or physical condition of the Properties, (i) federal, state, local or tribal income or other Tax consequences associated with the Properties, (j) absence of patent or latent defects, (k) safety, (l) state of repair, (m) merchantability, (n) conformity to models, (o) any rights of any member of Buyer Group under appropriate statutes to claim diminution of consideration or return of the Purchase Price, (p) warranty of freedom from patent or trademark infringement, (q) warranties existing under applicable Law now or hereafter in effect, and (r) fitness for a particular purpose; and Buyer (on behalf of itself and Buyer Group) irrevocably waives any and all Claims it may have against Sellers Group with respect to same, even if caused in whole or in part by the negligence (whether sole, joint, or concurrent), strict liability, or other legal fault of Sellers Group.

ARTICLE 8. SELLERS' REPRESENTATIONS AND WARRANTIES

8.1 LLC Sellers' Representations. Each LLC Seller severally (and not jointly) represents and warrants with respect to itself and/or the LLC, as applicable, the following to Buyer:

(a) Organization and Good Standing. Amoco LLC Seller is a corporation and Shell LLC Seller is a limited partnership, in each case duly organized, validly existing and in good standing under the Laws of the state of its organization and has all requisite corporate or partnership power and authority to own the LLC Interest. LLC Seller is duly licensed or qualified to do business as a foreign corporation and is in good standing in all jurisdictions in which the

validly existing and in good standing under the Laws of the state of its formation.

(b) Corporate or Partnership Authority; Authorization of Agreement. Each LLC Seller has all requisite corporate or partnership power and authority to execute and deliver this Agreement and the Operative Documents to which it is a party, to consummate the transactions contemplated by this Agreement and the Operative Documents to which it is a party, and to perform all of its obligations under this Agreement and the Operative Documents to which it is a party. This Agreement constitutes, and the Operative Documents to which it is a party, when executed and delivered by each LLC Seller, will constitute, the valid and binding obligations of each LLC Seller, enforceable against it in accordance with their respective terms, except as such enforceability may be limited by bankruptcy, insolvency or other Laws relating to or affecting the enforcement of creditors' rights and general principles of equity (regardless of whether such enforceability is considered in a proceeding at law or in equity).

(c) No Violations. LLC Seller's execution and delivery of this Agreement and the Operative Documents to which it is a party and the consummation of the transactions contemplated by this Agreement or such Operative Documents will not:

(i) conflict with or require the consent of any Person under any of the terms, conditions or provisions of the certificate of incorporation or bylaws or limited partnership agreement of LLC Seller or the LLC Agreement;

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(ii) violate any provision of, or, except as required in connection with any filing under the HSR Act pursuant to Article 11.1 or Section 13.14 of the Restated LLC Agreement, require any filing, consent or approval under any Law applicable to LLC Seller or the LLC (except for consents and approvals of Governmental Authorities customarily obtained subsequent to transfer of title);

(iii) conflict with, result in a breach of, constitute a default under or constitute an event that with notice or lapse of time, or both, would constitute a default under, accelerate or permit the acceleration of the performance required by, or require any consent, authorization or approval under: (a) any mortgage, indenture, loan, credit agreement or other agreement evidencing indebtedness for borrowed money to which the LLC or such LLC Seller is a party or by which the LLC or such LLC Seller is bound except, in the case of LLC Seller, where such conflict, breach or default would not materially affect LLC Seller's ability to consummate the transactions contemplated hereby; or (b) any order, judgment or decree of any Governmental Authority; or

(iv) result in the creation or imposition of any lien or encumbrance upon one or more of the LLC Interests, the LLC or the Properties.

(d) Third Party Claims, Disputes and Litigation. Exhibit C-1 sets forth all Third Party Claims, disputes or litigation pending against the LLC or, to Sellers Knowledge, threatened. There are no Third Party Claims, disputes or litigation pending or, to LLC Seller's knowledge, threatened against LLC Seller or the LLC that would prevent the consummation of the transaction contemplated by this Agreement.

(e) Bankruptcy. There are no bankruptcy, reorganization or receivership proceedings pending, being contemplated by or, to LLC Seller's knowledge, threatened against LLC Seller or the LLC.

(f) Foreign Person. LLC Seller is not a "foreign person" within the meaning of Section 1445 of the Code.

(g) Liens, Mortgages and Security Interests. There are no liens, mortgages or security interests encumbering the LLC Interests.

(h) LLC Interest. The Amoco LLC Interest represents a 63.915% Sharing Ratio and the Shell LLC Interest represents a 36.085% Sharing Ratio. Each LLC Seller owns of record and beneficially the LLC Interests set forth beside its name under the column titled "Pre-Closing Interest" in Exhibit H-1, in each case free and clear of any Taxes, security interests, equities, Third Party Claims, and demands and any restrictions on transfer, options, warrants, purchase rights,

require any LLC Seller to sell, transfer, or otherwise dispose of its LLC Interest, other than this Agreement, the LLC Agreement, the other Operative Documents and federal or state securities Laws. There are no voting trusts, proxies, or other agreements or understandings with respect to the voting of the LLC Interests, other than the LLC Agreement.

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(i) Taxes. LLC Tax Matters Partner has timely filed or caused to be timely filed all Tax Returns required by applicable Law for the LLC due on or prior to the Closing Date and has timely paid or caused to be timely paid all material Taxes shown as due and payable on such Tax Returns within the prescribed period or any extensions thereof.

(j) Tax Liens. To LLC Seller's knowledge, there are no Tax liens burdening the Properties, the LLC or the LP except for liens for current Taxes not yet due and payable.

(k) Qualification as Partnership. The LLC currently is qualified, and has since the date of its formation been qualified, to be treated as a partnership for federal income Tax purposes.

(l) LLC Assets and Liabilities. The LLC has no assets other than its interest in the LP, and the LLC has no liabilities other than liabilities arising out of its status as the general partner of the LP and administrative expenses aggregating less than Two Hundred Fifty Thousand Dollars (\$250,000).

(m) Knowledge of Buyer's Breach. As of the date of this Agreement, LLC Seller has no knowledge of any breach by Buyer of any of the representations and warranties in Article 9.

8.2 LP Sellers' Representations. Each LP Seller severally (and not jointly) represents and warrants with respect to itself and/or the LP, as applicable, the following to Buyer:

(a) Organization and Good Standing. LP Seller is a corporation or limited partnership duly organized, validly existing and in good standing under the Laws of the state of its organization and has all requisite corporate or partnership power and authority to own the LP Interest. LP Seller is in good standing in all jurisdictions in which the Properties are located. The LP is a limited partnership duly organized, validly existing and in good standing under the Laws of the state of its formation.

(b) Corporate or Partnership Authority; Authorization of Agreement. Each LP Seller has all requisite corporate or partnership power and authority to execute and deliver this Agreement and the Operative Documents to which it is a party, to consummate the transactions contemplated by this Agreement and the Operative Documents to which it is a party and to perform all of its obligations under this Agreement and the Operative Documents to which it is a party. This Agreement constitutes, and the Operative Documents to which it is a party, when executed and delivered by each LP Seller, will constitute, the valid and binding obligations of each LP Seller, enforceable against it in accordance with their respective terms, except as such enforceability may be limited by bankruptcy, insolvency or other Laws relating to or affecting the enforcement of creditors' rights and general principles of equity (regardless of whether such enforceability is considered in a proceeding at law or in equity).

(c) No Violations. LP Seller's execution and delivery of this Agreement and the Operative Documents to which it is a party and the consummation of the transactions contemplated by this Agreement and such Operative Documents will not:

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(i) conflict with or require the consent of any Person under any of the terms, conditions or provisions of the certificate of incorporation or bylaws or limited partnership agreement of LP Seller or the LP Agreement;

(ii) violate any provision of, or, except in connection with any filing under the HSR Act pursuant to Article 11.1 or Section 14.15 of the Restated LP Agreement, require any filing, consent or approval under any Law applicable to LP Seller or the LP (except for consents and approvals of

title);

(iii) conflict with, result in a breach of, constitute a default under or constitute an event that with notice or lapse of time, or both, would constitute a default under, accelerate or permit the acceleration of the performance required by, or require any consent, authorization or approval under: (a) any mortgage, indenture, loan, credit agreement or other agreement evidencing indebtedness for borrowed money to which the LP or LP Seller is a party or by which the LP or LP Seller is bound except, in the case of LP Seller, where such conflict, breach or default would not materially affect LP Seller's ability to consummate the transactions contemplated hereby, or (b) any order, judgment or decree of any Governmental Authority; or

(iv) result in the creation or imposition of any lien or encumbrance upon one or more of the LP Interests, the LP or the Properties.

(d) Third Party Claims, Disputes and Litigation. Exhibit C-1 sets forth all material Third Party Claims, disputes or litigation pending against the LP or, to Sellers Knowledge, threatened. There are no Third Party Claims, disputes or litigation pending or, to the best of LP Seller's knowledge, threatened against LP Seller or the LP that would prevent the consummation of the transactions contemplated by this Agreement.

(e) Bankruptcy. There are no bankruptcy, reorganization or receivership proceedings pending, being contemplated by or, to LP Seller's knowledge and belief, threatened against LP Sellers or the LP.

(f) Foreign Person. LP Seller is not a "foreign person" within the meaning of Section 1445 of the Code.

(g) Liens, Mortgages and Security Interests. There are no liens, mortgages or security interests encumbering the LP Interests.

(h) LP Interests. The Amoco LP Interest represents a 62.6367% Partnership Interest and the Shell LP Interest represents a 35.3633% Partnership Interest, which collectively represents a 98% Partnership Interest. Each LP Seller owns of record and beneficially the LP Interest set forth beside its name under the column titled "Pre-Closing Interest" in Exhibit H-1, in each case free and clear of any Taxes, security interests, equities, Third Party Claims, and demands and any restrictions on transfer, options, warrants, purchase rights, conversion rights, exchange rights, or other contracts or commitments that could require any LP Seller to sell,

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transfer, or otherwise dispose of its LP Interest, other than this Agreement, the LP Agreement, the other Operative Documents and federal or state securities Laws. There are no voting trusts, proxies, or other agreements or understandings with respect to the voting of the LP Interests, other than the LP Agreement.

(i) Taxes. LP Tax Matters Partner has timely filed or caused to be timely filed all Tax Returns required by applicable Law for the LP due on or prior to the Closing Date and has timely paid or caused to be timely paid all material Taxes shown as due and payable on such Tax Returns within the prescribed period or any extensions thereof.

(j) Tax Liens. To LP Seller's knowledge, there are no Tax liens burdening the Properties or the LP except for liens for current Taxes not yet due and payable.

(k) Qualification as Partnership. The LP currently is qualified, and has since the date of its formation been qualified, to be treated as a partnership for federal income Tax purposes.

(l) Knowledge of Buyer's Breach. As of the date of this Agreement, LP Seller has no knowledge of any breach by Buyer of any of the representations and warranties in Article 11.

(m) Operatorship Status. To Sellers Knowledge, (i) there are no conditions with respect to any of the Properties operated by the LP as of the Settlement Date that could reasonably be expected to result in the termination or removal of the LP as operator of such Properties, and (ii) no such termination or

threatened.

(n) Title Defects. To Sellers Knowledge, there are no Title Defects with respect to the LP's interest in any Property that could reasonably be expected to result in a liability, cost, expense or loss to the LP of Two Million Dollars (\$2,000,000) or more with respect to each such Property.

(o) Adverse Conditions. To Sellers Knowledge, there are no Adverse Conditions relating to the LP's interest in any Property that could reasonably be expected to result in a liability, cost, expense or loss to the LP of Two Million Dollars (\$2,000,000) or more with respect to such Property that are not identified as a "Significant Environmental Finding" in the IT Report as such term is defined in the IT Report.

(p) Financial Statements.

(i) LP Sellers have delivered to Buyer copies of the audited balance sheets of the LP as of December 31 for 1997, 1998 and 1999, and the related audited statements of income, changes in partners' capital and cash flows for the ten-month period or fiscal year, as applicable, then ended (collectively, the "Financial Statements"). The Financial Statements fairly present the financial position, results of operation, partners' capital and cash flows for the LP as of the dates and for the periods covered thereby, in each case in accordance with GAAP except as described in the footnotes to each of such Financial Statements.

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(ii) Since December 31, 1999, the LP has not incurred any liability which would be required to be set forth on financial statements prepared in accordance with GAAP, other than liabilities incurred in the ordinary course of business.

(iii) The Financial Statements have been prepared in accordance with Regulation S-X under the Securities Exchange Act of 1934, as amended.

(q) Material Contracts.

(i) To Sellers Knowledge, Part 2 of Exhibit M lists the following Contracts to which the LP or the LLC is a party or by which the LP or the LLC or any of their respective assets may be bound (collectively, the "Material Contracts"):

(A) Farmouts, farmin or term assignments or other similar Contracts affecting 2500 net acres or more;

(B) Contracts expiring from the Settlement Date through ninety (90) Days following Closing that cannot be renewed automatically;

(C) Drilling Contracts with Key Drilling Co.;

(D) Nalco chemical unbundled service and supply Contracts;

(E) Carbon dioxide (CO2) Contracts (including replacement of delivery in kind contracts);

(F) Third Party gas processing Contracts;

(G) Any Contract which involves the expenditure of Twenty-Five Million Dollars (\$25,000,000) or more (on a forward looking basis), other than the following categories of Contracts arising in the ordinary course of business;

(i) Contracts described in Article 1.136.1

(ii) Contracts described in Article 1.136.2;

(iii) oil or gas sales contracts; and

(H) any Contract with any of LP Sellers or LLC Sellers or their respective Affiliates.

(ii) To Sellers Knowledge, prior to Closing, LP Sellers have furnished or made available to Buyer true and complete copies of each Material Contract.

(iii) As of Closing, except as disclosed on Part II of Exhibit M, LP Sellers, LLC Sellers and their respective Affiliates, as applicable, will have entered into or shall continue agreements with the LP, subject to consultation with Buyer, pursuant to which

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the goods and services and other rights and benefits that were provided by LP Sellers or LLC Sellers and their respective Affiliates to the LP prior to Closing will be provided on the same terms after Closing.

(r) Compliance with Laws. The LP has not violated and is in compliance with all applicable Laws except where such violation or noncompliance could not reasonably be expected to result in a liability, cost, expense or loss to the LP of Two Million Dollars (\$2,000,000) or more to the LP. None of LP Sellers or the LP has received any notice of a violation of or default by the LP with respect to any applicable Law or any decision, ruling, order or award of any Governmental Authority or arbitrator applicable to the LP or the assets, properties, business or operations of the LP that would require disclosure pursuant to Item 103 of Regulation S-K of the Securities Exchange Act of 1934, as amended (as if the LP were a reporting company pursuant to such Act and were subject to such Regulation).

(s) Ownership of Rights. Except as disclosed in Part 1 of Exhibit M, the Assets comprise all of the rights, titles, interests or information that are necessary for the LP to operate its business as it has historically been operated.

(t) Affiliate Contracts. To Sellers Knowledge, none of Sellers, the LLC, or the LP are in default in any material respect under any Contract entered into between any Seller or any Affiliate, on the one hand, and the LP or the LLC, on the other hand.

(u) ERISA Plans. (i) Set forth on Exhibit K-1 is a list identifying each "employee benefit plan," as defined in Section 3(3) of the Employee Retirement Income Security Act ("ERISA"), (x) which is subject to any provision of ERISA, (y) which is maintained, administered or contributed to or by the LP, the LLC or on its or their behalf by any affiliate of either (any "ERISA Affiliates") and (z) which covers any employee or former employee of the LP or the LLC or under which the LP or the LLC has any liability. Promptly after execution of this Agreement, Sellers shall make available to Buyer accurate and complete copies of all such plans (and, if applicable, the related trust agreements) and all amendments thereto and summary plan descriptions thereof, together with (xx) the two most recent annual reports (Form 5500 including, if applicable, Schedule B thereto) prepared in connection with any such plan and (yy) the most recent actuarial valuation report prepared in connection with any such plan. Such plans are hereinafter referred to as the "ERISA Plans." For purposes of Articles 8.2(u)-(bb) only, an "affiliate" of the LP or the LLC means any other Person which, together with the LP or the LLC, would be treated as a single employer under Section 414(b), (c) or (m) of the Code.

(ii) The LLC has no employees and no ERISA Plans.

(iii) There are no ERISA Affiliates of the LP or the LLC other than the LLC and the LP.

(v) Liabilities. No ERISA Plan (i) constitutes a "multiemployer plan," as defined in Section 3(37) of ERISA, (ii) is maintained in connection with any trust described in Section 501(c)(9) of the Code or (iii) is subject to Title IV of ERISA or to the minimum funding standards of ERISA and the Code, other than the qualified Altura Defined Benefit Plan identified

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on Exhibit K-1. There are no accumulated funding deficiencies as defined in Section 412 of the Code (whether or not waived) with respect to any ERISA Plan. The LP and the LLC have incurred no material liability under Title IV of ERISA arising in connection with the termination of, or the complete or partial withdrawal within the last six years from, any plan covered or previously covered by Title IV of ERISA. The LP and the LLC have paid and discharged promptly when due all liabilities and obligations with respect to an ERISA Plan, which liabilities and obligations are of a character which if unpaid or

of the LP or the LLC post-Closing. As of the date of this Agreement, and, to Sellers Knowledge, nothing done or omitted to be done, and no transaction or holding of any asset under or in connection with any ERISA Plan has made or will make the LP or the LLC subject to any material liability under Title I of ERISA or liable for any tax pursuant to Sections 4971 through 4980B of the Code.

(w) Third Party Claims. Except as set forth on Exhibit C-1 and except for routine Third Party Claims for benefits, there are no pending Third Party Claims or, to Sellers Knowledge, any threatened Third Party Claims against the ERISA Plans or the LP which could result in a material liability on the part of the LP or the LLC or any ERISA Plan.

(x) Contributions. All contributions required to be paid or accrued on or before the Closing Date with respect to the Altura Defined Benefit Plan as for the 1999 plan year shall be paid or accrued by the LP prior to the Closing Date and all other contributions or payments required to be paid or accrued before the Closing Date with respect to the ERISA Plans and Non-ERISA Plans shall have been paid or accrued by the LP in a timely manner.

(y) Qualifications. Each ERISA Plan which is intended to be qualified under Section 401(a) of the Code, and each trust forming a part thereof which is intended to be exempt from tax pursuant to Section 501(a) of the Code, has received a favorable determination letter from the Internal Revenue Service ("IRS") to that effect. Promptly after execution of this Agreement, accurate and complete copies of the most recent IRS determination letters with respect to the ERISA Plans shall be made available to Buyer. To Sellers Knowledge, each ERISA Plan is being maintained in substantial compliance with its terms and with the material requirements prescribed by all applicable Laws, including the Code and ERISA.

(z) Non-ERISA Plans. Set forth on Exhibit K-1 is a list identifying each pay practice, employee benefit plan, policy, agreement, or arrangement (other than the ERISA Plans) which (i) has been entered into, maintained, administered or contributed to by the LP or the LLC or by any ERISA affiliate on behalf of the LP or the LLC, (ii) covers any employee or former employee of the LP or the LLC, and (iii) creates liability for the LP or the LLC. Such plans are hereinafter referred to as the "Non-ERISA Plans." Sellers shall make available to Buyer, promptly after the execution of this Agreement, accurate and complete copies of all such plans (and, if applicable, the related trust agreements) and all amendments thereto and summary plans descriptions thereof. To Sellers Knowledge, each Non-ERISA Plan is being maintained in substantial compliance with its terms and with the material requirements prescribed by Law and all insurance contracts.

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(aa) Unions. There are no collective bargaining agreements or other similar agreements, arrangements or understandings, written or, to Sellers Knowledge, oral, with employees as a group to or by which the LP or the LLC is a party or is bound. To Sellers Knowledge, neither the LP nor the LLC has been the subject of any representational campaign by any union or other organization or group seeking to become the collective bargaining representative of any employees or been subject to or, to Sellers Knowledge, threatened with any strike or other concerted labor activity or dispute.

(bb) Compliance. To Sellers Knowledge, and subject to Article 8.2(r), the LP is in substantial compliance with all applicable Laws pertaining to employment and wages, hours and other terms and conditions of employment in respect of its employees. Other than as disclosed in Exhibit C-1, there is no pending or, to Sellers Knowledge, threatened proceeding by or before, and neither the LP nor the LLC is subject to any judgment, order, writ, injunction or decree of or inquiry from, the National Labor Relations Board, the Equal Employment Opportunity Commission, the Department of Labor, or any other Governmental Authority in connection with any current, former or prospective employee thereof.

(cc) No Conveyances. Since the Settlement Date, the LP has not conveyed to Sellers any oil and gas leasehold interests, royalty interests, overriding royalty interests, reversionary interests, mineral interests, production payments, net profits interests or surface interests in producing or non-producing Properties (i) with a book value to the LP, in the aggregate, exceeding Five Million Dollars (\$5,000,000) or (ii) in excess of, in the aggregate, 10,000 net acres.

(dd) License Rights. The information and know-how, patents and software rights licensed to the LP by Sellers under the Amoco Amended and Restated License Agreement and the Shell Amended and Restated License Agreement are all of the proprietary software rights, technical information, know-how and patents owned or controlled by Sellers that are reasonably necessary for the LP to operate its business substantially as it has historically been operated, except for the rights the LP receives or has received under services provided by Sellers and others or which the LP has obtained or could obtain from a Third Party.

8.3 Limitation on Sellers' Liability and Waiver. Notwithstanding anything contained in this Agreement (except Article 15.2) to the contrary, Buyer may not bring a Claim against Sellers for breach of the representations or warranties contained in this Agreement unless Buyer has provided Sellers with written notice of such breach within eighteen (18) months after the Closing Date, setting forth the particulars associated with the breach as then known by Buyer (it being acknowledged and agreed that Buyer, on behalf of itself, Buyer Group and its and their successors and assigns, irrevocably waives any and all Claims it and they may have against Sellers for breaches of representations and warranties not raised within such eighteen (18) month period). Except as provided in Article 15.2, Buyer additionally may not bring a Claim against Sellers for breach of the representations or warranties contained in this Agreement unless:

(a) the amount associated with an individual breach, which would result in Buyer's right to bring an individual Claim against Sellers for breach of a representation or warranty under Article 8 (except Articles 4.6, 8.1(a), 8.1(b), 8.1(c)(i), 8.1(g), 8.1(h), 8.2(a), 8.2(b), 8.2(c)(i), 8.2(g) and 8.2(h) (collectively, the "Specified Representations and Warranties")) exceeds Two

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Million Dollars (\$2,000,000) and then only to the extent such Claim exceeds this Two Million Dollar (\$2,000,000) threshold; provided, however, that the first Two Million Dollars (\$2,000,000) for each such Claim will be counted in determining the One Hundred Fifty Million Dollar (\$150,000,000) threshold in Article 6.5(b); and, provided further, that in calculating such Two Million Dollar (\$2,000,000) threshold, any Dollar or materiality qualifiers in the representations or warranties shall be disregarded (it being acknowledged and agreed that Buyer, on behalf of itself, Buyer Group and its and their successors and assigns, irrevocably waives any and all such Claims it and they may have against Sellers Group that do not exceed this Two Million Dollar (\$2,000,000) threshold); and

(b) the aggregate amount associated with all breaches, which would result in Buyer's right to bring multiple Claims against Sellers for breach of the representations or warranties contained under this Article 8 (except for the Specified Representations and Warranties), together with all Claims of Buyer against Sellers pursuant to Articles 6.2 and 6.3, Title Defects and matters with respect to which Remediation Costs have been incurred equals or exceeds One Hundred Fifty Million Dollars (\$150,000,000) (it being acknowledged and agreed that Buyer, on behalf of itself, Buyer Group and its and their successors and assigns, irrevocably waives any and all such Claims it and they may have against Sellers Group that in the aggregate do not exceed the One Hundred Fifty Million Dollar (\$150,000,000) threshold);

provided that, for each event, circumstance, condition, act, omission, breach or the like that forms the basis of any Claim by Buyer or Buyer Group under Article 6, Article 8 or any other provision of this Agreement, Buyer and Buyer Group shall only be entitled to have one application of the expenditure(s) related to such Claim against the One Hundred Fifty Million Dollar (\$150,000,000) threshold and shall not be entitled to multiple applications against such threshold or to multiple recoveries and/or indemnities.

ARTICLE 9. BUYER'S REPRESENTATIONS AND WARRANTIES

Buyer represents and warrants to Sellers as follows:

9.1 Organization and Good Standing. Buyer, Buyer LP and Buyer Member are corporations duly organized, validly existing and in good standing under the Laws of the State of Delaware and have all requisite corporate power and authority to own the LLC Interests, the LP Interests and the Properties. Buyer, Buyer LP and Buyer Member will be, as of the Closing Date, duly licensed or qualified to do business as a foreign corporation and are in good standing in

9.2 Corporate Authority; Authorization of Agreement. Each of Buyer, Buyer LP and Buyer Member has, and upon execution and delivery of each of the Operative Documents to which it is a party, each of Buyer, Buyer LP and Buyer Member will have, all requisite corporate power and authority to execute and deliver this Agreement and the Operative Documents to which it is a party, to consummate the transactions contemplated by this Agreement and the Operative Documents to which it is a party and to perform all of its obligations under this Agreement and the Operative Documents to which it is a party. This Agreement constitutes, and the Operative Documents to which it is a party, when executed and delivered by it, shall constitute, the valid and binding obligations of Buyer, Buyer LP and Buyer Member, as the case

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may be, enforceable against it in accordance with their respective terms, except as such enforceability may be limited by bankruptcy, insolvency or other Laws relating to or affecting the enforcement of creditors' rights and general principles of equity (regardless of whether such enforceability is considered in a proceeding at law or in equity).

9.3 No Violations. Buyer's execution and delivery of this Agreement and the Operative Documents to which it is a party and the consummation of the transactions contemplated by this Agreement and such Operative Documents will not:

(a) conflict with or require the consent of any Person under any of the terms, conditions or provisions of the certificate of incorporation or bylaws of Buyer, Buyer LP or Buyer Member;

(b) violate any provision of, or require, except in connection with any filing under the HSR Act pursuant to Article 11.1 or Section 13.14 of the Restated LLC Agreement or Section 14.15 of the Restated LP Agreement, any filing, consent or approval under any Law applicable to Buyer (except for consents and approvals of Governmental Authorities customarily obtained subsequent to transfer of title); or

(c) conflict with, result in a breach of, constitute a default under or constitute an event that with notice or lapse of time, or both, would constitute a default under, accelerate or permit the acceleration of the performance required by, or require any consent, authorization or approval under: (a) any mortgage, indenture, loan, credit agreement or other agreement evidencing indebtedness for borrowed money to which Buyer, Buyer LP or Buyer Member is a party or by which Buyer, Buyer LP or Buyer Member is bound except where such conflict, breach or default would not materially affect Buyer's, Buyer LP's or Buyer Member's ability to consummate the transactions contemplated hereby, or (b) any order, judgment or decree of any Governmental Authority.

9.4 SEC Disclosure. Buyer LP and Buyer Member are acquiring the Interests for their own accounts for use in their trade or business, and not with a view toward any sale or distribution thereof, nor with any present intention of making a distribution thereof within the meaning of the Securities Act of 1933, as amended and the rules and regulations thereunder, any applicable state blue sky Laws or other applicable securities Laws.

9.5 Funds. At Closing, Buyer, through Buyer LP, Buyer Member and the LP, will have sufficient funds through financing or otherwise (and satisfactory evidence thereof) to enable them to consummate the transactions contemplated hereby and to pay the Closing Amount and all related fees and expenses of Buyer, Buyer LP and Buyer Member.

9.6 Third Party Claims, Disputes and Litigation. As of the date of this Agreement, there are no Third Party Claims, disputes or litigation pending or, to Buyer's knowledge, threatened against Buyer, Buyer LP or Buyer Member that would prevent the consummation of the transactions contemplated by this Agreement.

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9.7 Bankruptcy. There are no bankruptcy, reorganization or receivership proceedings pending, being contemplated by or, to Buyer's knowledge, threatened against Buyer, Buyer LP or Buyer Member.

9.8 Independent Evaluation. BUYER IS SOPHISTICATED IN THE EVALUATION, PURCHASE, OWNERSHIP AND OPERATION OF OIL AND GAS PROPERTIES AND RELATED FACILITIES. IN MAKING ITS DECISION TO ENTER INTO THIS AGREEMENT AND TO CONSUMMATE THE TRANSACTIONS CONTEMPLATED HEREIN, BUYER: (A) HAS RELIED OR WILL RELY SOLELY ON ITS OWN INDEPENDENT INVESTIGATION AND EVALUATION OF THE INTERESTS AND THE PROPERTIES AND THE EXPRESS PROVISIONS OF THIS AGREEMENT AND (B) HAS SATISFIED OR WILL SATISFY ITSELF AS TO THE ENVIRONMENTAL AND PHYSICAL CONDITION OF AND CONTRACTUAL ARRANGEMENTS AFFECTING THE INTERESTS AND THE PROPERTIES.

9.9 Knowledge of Sellers' Breach. As of the date of this Agreement, none of Buyer Group has knowledge of any breach by Sellers of any of the representations and warranties in Articles 8.1 and 8.2.

ARTICLE 10. ADDITIONAL COVENANTS

10.1 Subsequent Operations. Sellers make no representations or warranties to Buyer as to the retention of operatorship of any LP-operated Properties, except as set forth in Article 8.2(m). Buyer acknowledges that the rights and obligations associated with operatorship of the Properties are governed by the applicable agreements and that operatorship of the Properties will be decided in accordance with the terms of said agreements. Prior to Closing, Sellers agree to cause the LP to use reasonable efforts to be retained as operator of the LP-operated Properties to the extent applicable and to the extent permitted by the applicable agreements.

10.2 Rights-of-Way and Surface Leases. At and after Closing, Sellers may consult with Buyer, and Buyer will consider any reasonable request by Sellers for a non-exclusive right-of-way and surface lease on, over and through the Properties (including, but not limited to, pipeline, utility and road usage rights-of-way, facility surface leases and all necessary or desirable rights of ingress and egress) necessary or desirable to allow Sellers (and their Affiliates) to continue to conduct operations on, over and across the Properties associated with Sellers' other assets to the extent such operations do not materially interfere with operations of the LP; provided, however, that Sellers (and their Affiliates) shall retain all liability associated with use of such right-of-way and surface lease and shall indemnify, defend and hold harmless Buyer and the LP against any Third Party Claims associated therewith; and provided, further, that neither Buyer nor the LP shall be obligated to expend any money or to contract with any Third Party to provide any such right-of-way or surface lease. Buyer and Sellers shall enter into mutually acceptable agreements to further delineate any rights which may be granted hereafter.

10.3 Buyer's Acknowledgement of Obligations. Except for matters for which Sellers are obligated to indemnify Buyer Group pursuant to Articles 6.2, 6.3 or 6.4, and except for other matters that are Sellers' or any of their respective Affiliates' express obligations under this Agreement or any of the Operative Documents, Buyer acknowledges that the LP is responsible,

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and Buyer, Buyer LP and Buyer Member shall have no recourse against Sellers, for all of the LP's debts, liabilities, commitments, duties and obligations, including, without limitation, those arising under, related to, or in connection with the ownership, operation or use of the Assets or the business of the LP. Effective as of the Closing Date, Buyer shall cause the LP to expressly assume all Environmental Claims and Remediation Costs attributable to Sellers' ownership and operation of the Properties (other than Third Party Claims relating to exposure of individuals to Hydrocarbon or non-Hydrocarbon substances, including, without limitation, medical and health-related costs and expenses and Claims of injury or death of any individual or liability therefor, to the extent such Claims relate to exposure during the period prior to the Formation Date), without limiting the indemnities and retention of liability by Sellers in Article 6, pursuant to a written assumption instrument in form and substance satisfactory to Sellers and Buyer to be executed and delivered at Closing.

10.4 Use of Certain Facilities. Buyer acknowledges that the pollution abatement and control facilities listed on Exhibit J attached hereto (the "Pollution Control Facilities") which are included in the Properties were constructed and equipped with the proceeds from the sale of (a) \$93,000,000 of Adjustable Rate Pollution Control Revenue Bonds issued by Hockley County Industrial Development Corporation, due 2014, (b) \$56,800,000 of Adjustable Rate Pollution Control Revenue Bonds issued by Hockley County Industrial Development

Revenue Bonds issued by Yoakum County Industrial Development Corporation, due 2019 (collectively, the "Pollution Control Bonds"). The Parties agree that such Pollution Control Bonds are not being assumed by Buyer pursuant to or in connection with this Agreement, and that such Pollution Control Bonds are being retained by Amoco LP Sellers or their Affiliates. Buyer hereby covenants and agrees that from and after the Closing Date, it shall (1) cause the LP to use the Pollution Control Facilities exclusively as pollution control facilities in accordance with Section 103(b)(4)(F) of the Internal Revenue Code of 1954, as amended, and in full compliance with the use requirements set forth in the applicable agreements (copies of which will be provided to Buyer by Amoco LP Sellers) and other Tax certifications relating to the Pollution Control Bonds, and (2) use reasonable efforts to substantially comply with all material provisions of the applicable agreements securing the Pollution Control Bonds relating to the operation, maintenance, insurance, use, removal of liens, payment of Taxes and keeping of records with respect to the Pollution Control Facilities. Prior to Closing, Sellers shall furnish Buyer with copies of the applicable agreements and Tax certifications. Buyer agrees that the provisions of this Article 10.4 shall be binding upon (i) any successors and assigns of Buyer, (ii) any transferee of all or any portion of the Pollution Control Facilities, and (iii) any grantee of rights of use and/or operation thereof. Buyer further agrees that it will cooperate with Amoco LP Sellers in any refunding of the Pollution Control Bonds by providing Amoco LP Sellers with any information reasonably requested by Amoco LP Sellers that is necessary to issue any such refunding bonds on a Tax-exempt basis.

10.5 Covenants of Sellers. Except to the extent consented to in writing by Buyer or as contemplated by this Agreement or as contemplated by existing work programs and budgets that have been approved by the LLC Managers Committee (as defined in the LLC Agreement), Sellers agree that from the date hereof until Closing:

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(a) each of LP Sellers and LLC Sellers shall maintain their proportionate ownership of the LP and the LLC, respectively;

(b) Sellers will cause the LP to:

(i) cause the Properties to be operated and maintained in a good and workmanlike manner consistent with prudent oilfield practices in all material respects, and will pay or cause to be paid all costs and expenses in connection therewith, subject to Article 10.5(c), (ii) conduct its business, operations, activities and practices in all material respects only in the ordinary course of business and consistent with past practice subject to Article 10.5(c), (iii) comply in all material respects with all Laws of all Governmental Authorities which are applicable to the LP and the Assets, (iv) perform and comply in all material respects with all of the material covenants and conditions contained in agreements relating to the Assets, (v) pay all Taxes and assessments with respect to the Assets which become due and payable prior to the Closing Date, and (vi) advise and consult with Buyer on all material matters relating to the Assets, including, without limitation, all proposed authorizations for expenditures in excess of Five Million Dollars (\$5,000,000), farmout or farmin proposals or agreements, and amendments to agreements; and

(c) Sellers will cause the LP not to:

(i) enter into, adopt, or (except as may be required by Law or contemplated by this Agreement, or requested by Buyer, or as is disclosed in Article 12.3(g)) amend any bonus, profit sharing, compensation, severance, termination, pension, retirement, deferred compensation, employment, or other employee benefit agreement relating to Personnel, or (ii) increase the compensation, bonus, or fringe benefits of Personnel, except for increases in salaries or wages made in the ordinary course of business consistent with past practice;

(ii) fail to maintain its partnership existence or institute proceedings for its merger, consolidation or dissolution;

(iii) incur any liability or obligation of any nature (whether absolute, accrued, contingent or otherwise and whether due or to become due) in excess of Two Million Dollars (\$2,000,000) except items incurred in the ordinary course of business and consistent with past practice (counting

similar transactions, and all periodic installments or payments under any lease or other agreement providing for periodic installments or payments, as a single obligation or liability);

(iv) permit, allow or suffer any of its Assets (tangible or intangible), having a value in excess of Two Million Dollars (\$2,000,000), to be subjected to any encumbrance, other than Permitted Encumbrances;

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(v) cancel any indebtedness or waive any Third Party Claims or rights having a value in excess of Two Million Dollars (\$2,000,000);

(vi) sell, transfer or otherwise dispose of any of its Assets (tangible or intangible) having a value in excess of Two Million Dollars (\$2,000,000);

(vii) enter into, terminate or amend any Contract in excess of Two Million Dollars (\$2,000,000) for the purchase or sale of Hydrocarbons which is not cancelable on notice of not longer than ninety (90) days without liability, penalty or premium;

(viii) except as disclosed on Part II of Exhibit M, enter into, terminate or amend any material Contract with Affiliates or any other material Contract with non-Affiliates, other than, in the case of Contracts with non-Affiliates, in the ordinary course of business and consistent with past practices;

(ix) enter into, amend or terminate any collective bargaining or labor agreement;

(x) make any single capital expenditure or commitment in excess of Two Million Dollars (\$2,000,000) for additions to property, plant, equipment or intangible capital assets or for any other purpose, or make aggregate capital expenditures or commitments in excess of Ten Million Dollars (\$10,000,000) for additions to property, plant, equipment or for any other purpose;

(xi) make any material change in any method of accounting or accounting practice or policy;

(xii) without notice to Buyer (and the Parties agree that Buyer shall have no consent rights with respect hereto), voluntarily permit any leases or other material rights with respect to the Properties to expire, waive or release any material rights with respect to such Properties, or relinquish its position as operator with respect to any Property, except in each case in the ordinary course of business;

(xiii) without the consent of Buyer, voluntarily permit any leases or other material rights with respect to the Properties to expire or waive or release any material rights with respect to such Properties or relinquish its position as operator with respect to any Property, in each case outside the ordinary course of business;

(xiv) commence any drilling, reworking or completing or similar operations on the Properties (except emergency operations and operations required under presently existing contractual obligations);

(xv) pay or provide for any loan (other than through the LP's current Revolving Credit and Cash Management Agreements), repayment of loan or other extraordinary payment or advance of any nature whatsoever to any Seller or any Affiliate of any Seller; or

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(xvi) agree, whether in writing or otherwise, to do any of the foregoing.

10.6 No-Shop. From and after the date hereof and prior to the earlier of Closing or termination of this Agreement as permitted under Article 15, Sellers shall not, and shall cause their Affiliates, the LP and the LLC not to, conduct any discussions with any Third Party with respect to any proposal for a merger,

interest, tender offer or any similar transaction or business combination involving the LP, the LLC or the Properties or any other transaction which would conflict with the intent of this Agreement (collectively, an "Acquisition Transaction"). In addition, Sellers shall not, and shall cause their Affiliates, the LP and the LLC not to, nor will any of them authorize or permit any of their respective officers, directors or employees or any attorneys, accountants, investment bankers or other representatives retained by any of them to, directly or indirectly, solicit or encourage (including by way of furnishing information) any inquiries or the making of any proposal which it is reasonably expected may lead to any Acquisition Transaction.

10.7 Financial Reporting Requirements. Each Seller shall, and shall cause its Affiliates to, take reasonable measures to provide information pertaining to the LP or the Assets and cooperate and assist Buyer (upon request by Buyer and at Buyer's expense) in the preparation of financial information pertaining to the LP or the Assets required by Buyer or its Affiliates in connection with reports, registration statements and other filings to be made by any of them related to the LP, the LLC, or these transactions with the U.S. Securities and Exchange Commission (the "SEC") pursuant to the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, including obtaining customary consents and comfort letters from the LP's statutory auditors and customary legal opinions.

10.8 Certain Tax Refunds. Promptly following receipt of each refund listed below (provided that such refund is final and nonappealable by or on behalf of the State of Texas), Buyer will pay to Sellers an amount equal to any net refund from the State of Texas for overpayment of severance Taxes and interest, if any as filed by the LP as follows (but only with respect to overpayment for periods prior to the Settlement Date):

Date	Properties
12/3/98	Ector, N. Cowden, Foster, GS
12/4/98	Headlee Devonian
2/22/99	Crossett, Tippet
10/20/99	Wasson ODC, Levelland, Slaughter, Anton Irish, Mallett and Glasscock

10.9 Further Assurances. From time to time after Closing, upon reasonable request by Buyer, Sellers shall cause to be executed corrective conveyances of real property without warranty and corrective assignments and bills of sale of tangible personal property without warranty necessary to give full effect to the transfer to the LP of the interests of Sellers Group (other than Excluded Assets) in the Assets as of the Formation Date as contemplated by the

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instruments entitled "General Conveyance, Assignment and Bill of Sale" and "Conveyance, Assignment and Bill of Sale" executed by or on behalf of one or more members of Sellers Group and effective on or about the Formation Date.

10.10 Non-Solicitation of Employees. For a period of twenty-four (24) months after Closing, no member of Seller Group shall offer employment to any employee of the LP except for (i) any employee who has been discharged by the LP; (ii) any employee who has terminated his employment with the LP (other than through inducement by any member of Sellers Group); or (iii) any employee who seeks employment with any member of Sellers Group (other than through inducement by any member of Sellers Group). For a period of one (1) year following the Closing Date, should any Personnel who are then in the employment of Buyer or its Affiliates apply for employment with one of Sellers and should such Seller make an offer of employment to such Personnel, such Seller shall notify Buyer that it has made such an offer of employment and such offer shall not be effective for thirty (30) Days following the date that such Seller so notified Buyer. Notwithstanding anything herein to the contrary and except as otherwise set forth in the Letter of Agreement concerning Reemployment of Certain Employees by Parent Company dated February 28, 1997, by and between SWEPI and the LP, Shell Oil Company for itself and its Affiliates, shall have the right, but not the obligation, to accept applications of employment submitted by any Personnel who are named in the above-identified letter, and to extend offers of employment to such Personnel: (x) at any time, if they are then no longer employed by Buyer or its Affiliates, or (y) if they are then employed by Buyer or its Affiliates, at any time after the end of the sixty (60) Day period following the execution of this Agreement.

10.11 Actions at Closing Date. On the Closing Date:

(a) Buyer will (i) cause Buyer LP to execute and deliver the Restated LP Agreement, (ii) cause Buyer Member to execute and deliver the Restated LLC Agreement, (iii) cause the LP to (A) enter into the Debt Financing Agreements, (B) make the Special Distribution as described in Section 3.2 of the Restated LP Agreement in a Dollar amount equal to the aggregate Amoco Outside Basis and Shell Outside Basis, (C) deliver the Dollar amount equal to the face amount of the Amoco Affiliate Note to the Amoco Borrower concurrently with receipt of the Amoco Affiliate Note, and (D) deliver the Dollar amount equal to the face amount of the Shell Affiliate Note to the Shell Borrower concurrently with receipt of the Shell Affiliate Note, (iv) cause the LLC to execute and deliver the Restated LP Agreement, and (v) execute and deliver the Occidental Agreement.

(b) Amoco DT will execute and deliver the Restated LLC Agreement.

(c) The Amoco LP Sellers will execute and deliver the Restated LP Agreement and the Occidental Agreement.

(d) The Shell LP Sellers will execute and deliver the Restated LP Agreement and the Occidental Agreement.

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(e) Amoco Sellers will cause (i) the Amoco Borrower to execute and deliver the Amoco Affiliate Loan and the Amoco Affiliate Note and (ii) the Amoco Guarantor to execute and deliver the Amoco Guarantee.

(f) Shell Sellers will cause (i) the Shell Borrower to execute and deliver the Shell Affiliate Loan and the Shell Affiliate Note and (ii) the Shell Guarantor to execute and deliver the Shell Guarantee.

10.12 Certain Pre-Closing Procedures. From and after the date of this Agreement and until Closing or termination of this Agreement, Buyer and Sellers agree that the following procedures will be followed:

(a) If any member of Buyer's Negotiating Team has or obtains actual knowledge of any event(s), fact(s), condition(s) and/or circumstance(s) that lead or reasonably should lead any such member to believe that there is a reasonable probability that any of the Buyer's conditions precedent to Closing (Articles 13.2 and 13.3) will not be satisfied (a "Possible Condition Precedent Failure"), then Buyer will promptly notify Sellers of the event(s), fact(s), condition(s) and/or circumstance(s) underlying such Possible Condition Precedent Failure in order that Sellers will have the opportunity to cure or correct such underlying event(s), fact(s), condition(s) or circumstance(s). As used above, Buyer's Negotiating Team consists of the Persons named on Part I of Exhibit P.

(b) If any member of Sellers' respective Negotiating Teams has or obtains actual knowledge of any event(s), fact(s), condition(s) and/or circumstance(s) that lead or reasonably should lead any such member to believe that a Possible Condition Precedent Failure will occur with respect to any of Sellers' conditions precedent to Closing (Articles 13.1 and 13.3), then Sellers will promptly notify Buyer of the event(s), fact(s), condition(s) and/or circumstance(s) underlying such Possible Condition Precedent Failure in order that Buyer will have the opportunity to cure or correct such underlying event(s), fact(s), condition(s) and/or circumstance(s). As used above, Sellers' respective Negotiating Teams consist of the Persons named on Part II of Exhibit P.

(c) If any member of Buyer's Negotiating Team, on the one hand, or if any member of either of Sellers' respective Negotiating Teams, on the other hand (in any case, a "First Party") has or obtains actual knowledge of fact(s), event(s), condition(s) and/or circumstance(s) that lead or reasonably should lead any such member to believe that there may be a Possible Condition Precedent Failure of the other Party, then the First Party will promptly notify the other Party(ies).

(d) Notice given under any of subparagraphs (a), (b) or (c) above (i) will not operate to modify the rights and obligations of the Parties with respect to Closing, (ii) will not operate as a notice of Closing, and (iii) will not modify the provisions of Article 15.1. The giving or failing to give any such notice will not affect the Parties' other rights and obligations under this Agreement, including, without limitation, the Parties' rights with respect to indemnification or breach of representation or warranty.

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10.13 Additional Software Rights. If Closing occurs, upon request from the LP within sixty (60) Days after Closing, Sellers will procure within sixty (60) Days on behalf of the LP and at no cost to the LP, licenses enabling the LP to use the following software in the same manner and to the same extent as the LP has been using the software during the period ending six (6) months prior to Closing:

<TABLE>

<CAPTION>

VENDOR -----	SOFTWARE -----	DESCRIPTION -----
<S>	<C>	<C>
Landmark Graphics Corp.	Petroworks	Petro Physical Analysis/99 version or
Landmark Graphics Corp.	Open Vision	Visualization of ZMAP Data/99 version
Landmark Graphics Corp.	SEIS 2D	Seismic 2D Processing/99 version or l
Landmark Graphics Corp.	Strata Model	Reservoir Analysis/99 version or late
Schlumberger/Geoquest	OFM	Oil Field Manager/99 version or later

</TABLE>

ARTICLE 11. HSR ACT

11.1 HSR Filings. If compliance with the HSR Act is required in connection with the transactions contemplated under this Agreement, as promptly as practicable and in any event not more than fifteen (15) Business Days following the date on which the Parties have executed this Agreement, Amoco Sellers will cause their ultimate parent to, and Buyer will, file with the Federal Trade Commission and the Department of Justice, as applicable, the required notification and report forms and will as promptly as practicable furnish any supplemental information which may be requested in connection therewith. Amoco Sellers will cause their ultimate parent to, and Buyer will, request expedited treatment (i.e., early termination) of such filing. Buyer and Amoco Sellers shall use commercially reasonable efforts to make or modify all other filings and submissions on a prompt and timely basis in connection with the filings required by this Article 11.1.

ARTICLE 12. PERSONNEL

12.1 Employee List. Promptly after execution of this Agreement, Sellers will make available to Buyer (a) a list of all employees of the LP ("Personnel") (such list shall be updated as of the Closing Date), and (b) a copy of all benefit and pay plans, policies, programs, practices, and Sellers shall, and shall cause the LP to, and the LP will use reasonable efforts to obtain other related written employee benefit communications applicable to Personnel (attached as Exhibit K-1). Upon Buyer's request, Sellers will make available to Buyer records or such other materials or information as Buyer shall reasonably need prior to the Closing Date to effectuate the terms of this Agreement; provided, however, that in no event shall Sellers or the LP be required to provide to Buyer prior to the Closing Date, with respect to any Personnel, any individual medical or medical benefits claim information or any individual Personnel files. Buyer shall be granted access to individual benefit and pay plan data for the purpose of verifying benefit plan enrollment, participation and benefit levels, subject to the execution of an agreed confidentiality agreement that will limit access to designated employees and agents of Buyer. In addition, Seller shall cause the LP to provide reasonable access to Personnel in a manner mutually agreed to by Buyer and Sellers. Buyer agrees to comply, and to cause its Affiliates to comply, with the terms and conditions set forth in this Article 12. Beginning on the Closing Date, subject to the other

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provisions of this Article 12, Buyer shall employ or cause its Affiliates to employ all Personnel included on the list identified in this Article 12.1.

12.2 Employee Benefits. (a) Effective as of the Closing Date, Buyer will assume sole responsibility for the administration, funding, sponsorship and maintenance or termination of all of the benefit plans, policies, programs and practices of the LP identified on Exhibit K-1. Thereafter, except as set forth in Exhibit K-2, in Buyer's sole and absolute discretion, Buyer may (i) offer or cause its Affiliates to offer Personnel enrollment in some or all of Buyer's employee benefit programs, including Buyer's retirement plans and health and

(ii) continue or cause its Affiliates to continue some or all of the benefits listed on Exhibit K-1, or (iii) implement or cause its Affiliates to implement a combination of (i) and (ii). Buyer may terminate or continue or cause its Affiliates to terminate or continue any LP benefit program or plan for any length of time and any costs associated with the continuation or termination of these programs and plans will be solely at the LP's expense. Notwithstanding anything herein to the contrary, Buyer shall provide or cause its Affiliates to provide a package of employee benefit plans, programs, policies, and practices that is the same as that provided to similarly situated employees of Buyer, subject to necessary differences based on geography, availability or other circumstances which may require specially designed incentive programs.

(b) At Buyer's request, Sellers shall cause the Managers Committee of the LLC to approve an appropriate resolution by which the Altura Savings Plan, established pursuant to Section 401(k) of the Code (the "Altura Savings Plan"), shall be terminated immediately prior to the Closing Date. Sellers' obligations shall not extend beyond causing the Managers Committee of the LLC to approve the resolution necessary to terminate the Altura Savings Plan. Thereafter, Buyer shall be solely and completely responsible for taking all steps necessary to effectuate the termination of the Altura Savings Plan, and BUYER SHALL CAUSE THE LP TO DEFEND, INDEMNIFY AND HOLD HARMLESS SELLERS FROM ANY AND ALL LIABILITY ASSOCIATED WITH SUCH ACTION. In the event that Buyer does not request Sellers to take the action described in this Article 12.2(b), Buyer shall be responsible for the Altura Savings Plan as set forth in Article 12.2(a) above.

(c) No physical examination or other proof of insurability will be required for initial enrollment by Personnel in any benefit program or plan of Buyer except physical examinations normally required by a Third Party as a condition to additional levels of life insurance coverage above four times base salary (in total). Buyer shall waive or cause its Affiliates to waive all coverage exclusions and limitations relating to waiting periods or pre-existing condition exclusions to coverage or evidence of insurability with respect to such enrollment by Personnel or their dependents, except as noted above.

(d) With respect to Buyer benefit plans, policies, programs or practices (the "Buyer Benefit Plans") in which Personnel participate, Buyer shall grant or cause its Affiliates to grant to all Personnel, from and after the Closing Date, credit for all service credited by Sellers or the LP under the ERISA Plans or the Non-ERISA Plans prior to the Closing Date for seniority, eligibility to participate, eligibility for benefits, for the forms and levels of benefits, for benefit accrual and for vesting purposes. To the extent Buyer Benefit Plans provide medical or dental welfare benefits, such plans shall waive any preexisting conditions and actively at work

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exclusions with respect to Personnel (but only to the extent such Personnel were provided coverage under the ERISA Plans or the Non-ERISA Plans) and shall provide that any expenses incurred on or before the Closing Date by or on behalf of any Personnel shall be taken into account under the Buyer Benefit Plans for purposes of satisfying applicable deductible, coinsurance and maximum out-of-pocket provisions.

(e) Buyer will be responsible for providing either on its own or through the LP the group health plan continuation coverage pursuant to Section 4980B of the Code, and Sections 601 through 609 of ERISA for all Personnel and retirees of the LP and their eligible dependents and will cover such Personnel and retirees under either its own or the LP's group health plan to accommodate this requirement. BUYER RELEASES SELLERS FROM AND SHALL FULLY PROTECT, DEFEND, INDEMNIFY AND HOLD SELLERS HARMLESS FROM AND AGAINST ANY AND ALL THIRD PARTY CLAIMS TO THE EXTENT RELATING TO EVENTS THAT OCCURRED WHILE PERSONNEL AND RETIREES ARE EMPLOYED BY THE LP UNDER THE PROVISIONS OF SECTION 4980B OF THE CODE OR SECTIONS 601 THROUGH 609 OF ERISA WITH RESPECT TO ANY PERSONNEL, RETIREES OF THE LP OR DEPENDENT OR SPOUSE OF SUCH PERSONNEL OR RETIREE, WHO HAD OR HAS A "QUALIFYING EVENT" (WITHIN THE MEANING OF SECTION 4980B(F)(3) OF THE CODE) DURING EMPLOYMENT WITH THE LP.

(f) Sellers and Buyer agree to cooperate with each other in all reasonable respects and, as and when requested by the other Party, agree to execute and deliver, or cause to be executed and delivered, all such documents and instruments as such Party shall reasonably deem necessary or desirable to consummate any of the employee benefit obligations contemplated under this Agreement. After execution of this Agreement, Sellers and the LP shall confer

to employment or benefit matters that concern Buyer's potential activities from and after the Closing Date. Buyer shall be provided the opportunity to review and revise any written communications to Personnel that relate to such matters.

(g) Sellers have disclosed that the LP has proposed to (i) amend the qualified Altura Savings Plans and the qualified Altura Defined Benefit Plan to provide for immediate vesting of certain participants and (ii) approve the design and financial obligations under the special divestment incentive program. It is understood that the foregoing amendments shall not be subject to the limitations in Article 10.5 of this Agreement. Buyer acknowledges that the LP is an on-going business entity that may need to modify and administer and maintain various policies, procedures, or programs at times in the ordinary course of business. Nothing in Article 10.5 of this Agreement is intended to prohibit the LP from taking such action in the ordinary course of business. Sellers agree that Buyer will be notified and consulted prior to any change contemplated by this subsection.

(h) Buyer and Sellers agree that certain additional Personnel benefit matters are set forth in Exhibit K-2.

12.3 Post-Employment Medical. (a) The LP has maintained a Post-Employment Medical Plan for its employees and, at the time of Closing, there are certain former employees of the LP who are no longer employed by the LP but are eligible for the LP's Post-Employment

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Medical Plan. Buyer will continue the LP's Post-Employment Medical Plan or alternatively will extend or will cause its Affiliates to extend the coverage of its Medical Care Plan applicable to its retirees to the LP's former employees covered under the LP's Post-Employment Medical Plan, and will waive any preexisting conditions provisions, proof of good health, evidence of insurability, minimum age and service requirements for this benefit, and will also allow persons who are former employees of the LP as of the Closing Date to obtain coverage under the Buyer Medical Care Plan on the same terms and conditions as are available to Buyer's retirees except that no coverage shall be provided to such former employees from and after their attainment of age 65.

(b) Buyer shall not assume any obligation to provide post-employment retiree medical coverage to Personnel who were eligible to retire from one of Sellers or an Affiliate of one of Sellers at the time such Personnel terminated employment with Sellers or one of their Affiliates.

(c) In addition to Buyer's normal eligibility requirements for retiree medical coverage, eligibility of Personnel for such coverage from and after age 65 shall require at least five years of actual service with Buyer from and after the Closing Date.

(d) Buyer shall modify its retiree medical plan to provide eligibility for coverage for Personnel who are credited with at least fifteen (15) years of vesting service under the Altura Savings Plan and have attained at least fifty (50) but not more than fifty-four (54) years of age, determined as of the Closing Date; provided that such coverage shall otherwise be subject to all of the terms and conditions of Buyer's retiree medical plan. Should such Personnel retire prior to attaining five (5) years of actual service with Buyer from and after the Closing Date, their eligibility for post retirement medical coverage would be limited to coverage through age 64.

12.4 WARN Act. Buyer represents and warrants that there will be no major employment losses of Personnel as a consequence of the transactions contemplated by the Agreement that might trigger obligations under the Worker Adjustment and Retraining Notification Act, 29 U.S.C. Section 2101 et seq. (the "WARN Act"), or under any similar provision of any federal, state, regional, foreign, or local Law (referred to collectively as "WARN Obligations") during the first sixty (60) Days from and after the Closing Date.

12.5 Liabilities and Indemnifications. (a) TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, IF CLOSING SHALL OCCUR, FROM AND AFTER THE CLOSING DATE, EXCEPT AS OTHERWISE PROVIDED IN ARTICLES 6.2, 6.3, OR 6.4, BUYER SHALL CAUSE THE LP TO DEFEND, INDEMNIFY, AND HOLD HARMLESS SELLERS, THEIR OFFICERS, DIRECTORS AND EMPLOYEES AND AFFILIATES, FROM AND AGAINST ANY AND ALL LOSSES, DAMAGES, CLAIMS, SUITS, LIABILITIES, JUDGMENTS AND EXPENSES (INCLUDING, BUT NOT LIMITED TO, REASONABLE ATTORNEYS' FEES AND OTHER COSTS OF LITIGATION), AND ANY FINES,

TO, ON, OR AFTER THE CLOSING DATE, BUT ONLY TO THE EXTENT THAT SUCH CLAIMS RELATE TO THEIR PERIOD OF EMPLOYMENT WITH, OR THE TERMINATION OF THEIR EMPLOYMENT FROM THE LP; PROVIDED, HOWEVER,

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THAT THIS ARTICLE 12.5 SHALL NOT LIMIT SELLERS' OBLIGATIONS UNDER ARTICLE 10.5 OR BUYER'S RIGHTS WITH RESPECT TO ARTICLE 8.2.

(b) IF CLOSING SHALL OCCUR, FROM AND AFTER THE CLOSING DATE, EXCEPT AS OTHERWISE PROVIDED IN ARTICLES 5.3, 6.2, 6.3, OR 6.4, WITH RESPECT TO ALL WORKERS' COMPENSATION (HEREINAFTER "COMPENSATION CLAIMS") FILED WITH AN APPROPRIATE AGENCY BY ANY LP EMPLOYEE PRIOR TO, ON, OR AFTER THE CLOSING DATE (SUCH EMPLOYEES ARE, FOR PURPOSES OF THIS PARAGRAPH, HEREINAFTER COLLECTIVELY REFERRED TO AS "CLAIMING EMPLOYEE"), OR BY THE SPOUSE, DEPENDENT(S) OR PERSONAL REPRESENTATIVE OF SUCH CLAIMING EMPLOYEE WHICH IS FILED PRIOR TO, ON, OR AFTER THE CLOSING DATE, BUYER SHALL CAUSE THE LP TO PROCESS, DEFEND AND BE RESPONSIBLE FOR, AND SHALL INDEMNIFY SELLERS AGAINST ANY SUCH COMPENSATION CLAIM WHETHER THE INCIDENT OR ALLEGED INCIDENT GIVING RISE TO THE COMPENSATION CLAIM OCCURRED PRIOR TO, ON, OR AFTER THE CLOSING DATE, BUT ONLY TO THE EXTENT SUCH COMPENSATION CLAIM RELATES TO THE CLAIMING EMPLOYEE'S PERIOD OF EMPLOYMENT WITH THE LP; PROVIDED, HOWEVER, THAT THIS ARTICLE 12.5 SHALL NOT LIMIT SELLERS' OBLIGATIONS UNDER ARTICLE 10.5 OR BUYER'S RIGHTS WITH RESPECT TO ARTICLE 8.2.

(c) FROM AND AFTER THE CLOSING DATE, SELLERS SHALL DEFEND, INDEMNIFY, AND HOLD HARMLESS BUYER GROUP (INCLUDING THE LLC AND THE LP) FROM AND AGAINST THE CLAIMS OF PERSONNEL OR THEIR SPOUSES, DEPENDENTS OR PERSONAL REPRESENTATIVES DESCRIBED IN PARAGRAPHS (a) AND (b) ABOVE, BUT ONLY TO THE EXTENT SUCH CLAIMS RELATE TO PERIODS PRIOR TO PERSONNEL'S PERIOD OF EMPLOYMENT WITH THE LP OR ANY SUBSEQUENT PERIOD OF EMPLOYMENT WITH SELLERS OR THEIR AFFILIATES.

(d) Any liability or obligation under any plan, program, policy or practice of the LP as identified in Exhibit K-1, to pay benefits or claims - including, without limitation, claims for pension benefits, health, dental, life, accidental death, disability, and related benefits - for services rendered to the LP prior to, on, or after the Closing Date with respect to anyone employed by the LP at any time, or his or her spouse, or his or her dependents or beneficiaries, shall remain the responsibility of the LP and Buyer.

12.6 Conflicts. In the event of any conflict between this Article 12 and the other provisions of this Agreement or any ancillary agreements insofar as they relate to employment with the LP and the LP's employee benefits matters, the terms and conditions of this Article 12 shall govern.

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ARTICLE 13. CONDITIONS PRECEDENT TO CLOSING

13.1 Conditions Precedent to Sellers' Obligation to Close. Sellers will consummate the sale of the Interests as contemplated by this Agreement on the Closing Date, provided the following conditions precedent and those in Article 13.3 have been satisfied or have been waived by Sellers:

(a) the representations and warranties of Buyer contained in this Agreement are true and correct in all material respects at and as of Closing as though such representations and warranties were made at such time; and

(b) that Buyer has complied in all material respects with all covenants and obligations contained in this Agreement to be performed or complied with by Buyer prior to Closing.

13.2 Conditions Precedent to Buyer's Obligation to Close. Buyer will consummate the purchase of the Interests as contemplated by this Agreement on the Closing Date, provided the following conditions precedent and those in Article 13.3 have been satisfied or have been waived by Buyer:

(a) The Specified Representations and Warranties are true and correct in all material respects at and as of Closing as though such Specified Representations and Warranties were made at such time. The representations and warranties (other than the Specified Representations and Warranties) of Sellers contained in this Agreement are true and correct at and as of Closing as though such representations and warranties were made at such time, except for breaches

and Warranties) that, individually or in aggregate, would not have a material adverse effect on the business, operation, financial condition or results of operations of the LP, taken as a whole, or on the transactions contemplated hereunder; provided that for purposes of this Article 13.2(a), the Dollar amounts and other materiality qualifiers in such representations and warranties shall be disregarded; and provided further that this Article 13.2(a) shall not modify any post-Closing remedies for the representations and warranties in this Agreement or the remedies set forth in Article 15.2; and

(b) that Sellers have complied in all material respects with all obligations and conditions contained in this Agreement to be performed or complied with by Sellers prior to Closing.

13.3 Conditions Precedent to Obligation of Each Party to Close. The Parties will consummate the sale and purchase of the Interests as contemplated in this Agreement on the Closing Date, provided the following conditions precedent have been satisfied or have been waived by the applicable Party:

(a) if applicable, consummation of the transactions contemplated under the terms of this Agreement is not prevented from occurring by (and the required waiting period, if any, has expired under) the HSR Act and the rules and regulations of the Federal Trade Commission and the Department of Justice;

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(b) receipt from any Governmental Authority having appropriate jurisdiction consenting to and approving the consummation of, and providing any authorization required in connection with, the transactions contemplated under the terms of this Agreement (except for those governmental consents and approvals customarily obtained subsequent to the consummation of transactions of this type);

(c) there shall be no legal action or proceeding instituted by a Governmental Authority having appropriate jurisdiction seeking to restrain, enjoin or otherwise prohibit the consummation of the transaction contemplated under the terms of this Agreement; and

(d) there shall be no order (including temporary restraining order), non-appealable final order, decree or judgment of any Governmental Authority having appropriate jurisdiction restraining, enjoining or otherwise prohibiting the consummation of the transactions contemplated herein.

ARTICLE 14. THE CLOSING

14.1 Closing. Closing shall take place at 10:00 a.m., Houston time, at the Houston office of Baker Botts L.L.P., 910 Louisiana, Houston, Texas, 77002, on the Closing Date. Sellers shall notify Buyer of the Closing Date at least three (3) Business Days prior thereto. Sellers will jointly provide Buyer with wiring instructions designating the account or accounts to which the Closing Amount is to be delivered, specifying how the Adjusted Purchase Price, as estimated pursuant to Article 4.3, is to be allocated among Sellers.

14.2 Obligations of Sellers at Closing. At Closing, Sellers will deliver or cause to be delivered to Buyer, unless waived by Buyer, the following:

(a) a document executed by an authorized officer or an Attorney-in-Fact of each LLC Seller assigning its LLC Interest in substantially the form of the Assignment of Limited Liability Company Interest. This document will be executed and acknowledged in five (5) multiple originals or such greater number as agreed between the Parties;

(b) a document executed by an authorized officer or an Attorney-in-Fact of each LP Seller assigning its LP Interest in substantially the form of the Assignment of Partnership Interest. This document will be executed and acknowledged in ten (10) multiple originals or such greater number as agreed between the Parties;

(c) eleven (11) originals of the Certificate executed by an authorized officer or an Attorney-in-Fact of each Seller;

(d) eleven (11) originals of the Non-Foreign Affidavit executed by an authorized officer or an Attorney-in-Fact of each Seller;

(e) any necessary consents from the partners of the LP and the members of

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(f) copies of the documents executed in accordance with Part II of Exhibit M, in a mutually agreeable form (except with respect to documents that do not bind or have any effect on the LP, the LLC, or Buyer), which (1) caused the termination of certain LP formation documents and certain other contracts, and/or (2) caused the amendment or modification of certain provisions of certain LP formation documents and certain other contracts, and/or (3) release members of the LLC management committee from certain liabilities to the LP;

(g) eleven (11) originals of an opinion of counsel executed by an authorized attorney for each of Sellers and resolutions of each Seller's Board of Directors authorizing the transactions contemplated by this Agreement (including designation of the persons authorized to execute this Agreement on behalf of Sellers), both in a mutually agreeable form;

(h) eleven (11) originals of the Operative Documents, other than the Amoco Affiliate Note and the Shell Affiliate Note, to which any member of Seller Group is a party; and

(i) one (1) original of the Amoco Affiliate Note and one (1) original of the Shell Affiliate Note.

14.3 Obligations of Buyer at Closing. At Closing, Buyer will deliver or cause to be delivered to Sellers, unless waived by Sellers, the following:

(a) the Closing Amount by wire transfer;

(b) the Assignment of Limited Liability Company Interest executed by an authorized officer or an Attorney-in-Fact of Buyer Member referred to in Article 14.2(a);

(c) the Assignment of Partnership Interest executed by an authorized officer or an Attorney-in-Fact of Buyer LP referred to in Article 14.2(b);

(d) eleven (11) originals of the Certificate executed by an authorized officer or an Attorney-in-Fact of Buyer;

(e) eleven (11) originals of an opinion of counsel executed by an authorized attorney for Buyer and resolution of Buyer's Board of Directors authorizing the transaction contemplated by this Agreement (including designation of the persons authorized to execute this Agreement on behalf of Buyer), both in mutually agreeable forms; and

(f) eleven (11) originals of the Operative Documents to which any member of Buyer Group is a party.

ARTICLE 15. TERMINATION

15.1 Grounds for Termination. Subject to Article 15.2, this Agreement may be terminated (except for the provisions referenced in Article 15.2 below) at any time prior to Closing upon the occurrence of any one or more of the following:

(a) by the mutual written agreement of the Parties;

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(b) by any Party if the consummation of the transactions contemplated herein would violate any non-appealable final order, decree or judgment of any Governmental Authority having appropriate jurisdiction enjoining the consummation of the transactions contemplated herein;

(c) by any Party if, under the HSR Act or otherwise, the Federal Trade Commission or the Department of Justice shall have commenced or threatened to commence any proceeding to delay or enjoin or seek substantial damages in respect of the transactions evidenced by this Agreement ("threatened," for purposes of this Article 15.1(c), means an actual vote of the Commissioners of the FTC to commence such a proceeding);

(d) by any Party if consent to and approval of the consummation of, and

contemplated under the terms of this Agreement (except for those governmental consents and approvals customarily obtained subsequent to transactions of this type) are required and not obtained from any Governmental Authority having appropriate jurisdiction; or

(e) by any Party, if Closing has not occurred by the 120th Day following the date of this Agreement, through no breach of this Agreement by the terminating Party or its Affiliates.

15.2 Effect of Termination. A Party shall not have the right to terminate this Agreement under Article 15.1 if it is then in breach of this Agreement. If this Agreement is terminated in accordance with Article 15.1, such termination will be without liability to any Party, except performance of the obligations contained in Articles 6.11, 15.3, 16.1, 17.1, 17.2, 17.3, 17.9, 17.10, 17.11, 17.12, 17.13, 17.14, 17.15, 17.16 and 17.18 (which provisions will survive termination of this Agreement) and except as expressly provided in this Article 15.2. If any Party terminates this Agreement pursuant to its rights under Article 15.1, except as provided below in this Article 15.2, the Earnest Money, together with the net interest earned thereon, shall be returned to Buyer, and no Party shall have any liability to any other Party for such termination. If, prior to the 120th Day following the date of this Agreement, all of Buyer's conditions to Closing in Articles 13.2 and 13.3 have been satisfied and Sellers are ready, willing and able to Close the transactions contemplated hereby, and Buyer fails to Close such transactions on the Closing Date as set forth in Sellers' notice under Article 14.1, and Sellers terminate this Agreement, then Sellers shall be entitled to receive the Earnest Money, together with the net interest earned thereon, as liquidated damages for Buyer's breach and not as a penalty. If, prior to the 120th Day following the date of this Agreement, all of Sellers' conditions to Closing in Articles 13.1 and 13.3 have been satisfied, and Buyer is ready, willing and able to Close the transactions contemplated hereby, and Sellers fail to Close such transactions on or before the date that is three (3) Business Days after the satisfaction of all such conditions, and Buyer terminates this Agreement, Buyer shall be entitled to the return of the Earnest Money, together with the net interest earned thereon, and its actual damages arising out of Sellers' failure, subject to Article 6.8. If the Earnest Money is returned or delivered as provided above, then the remedies under this Article 15.2 shall be the terminating Party's or Parties' exclusive remedy in respect of the non-terminating Party's or Parties' breach of this Agreement, and each Party hereby waives and releases any and other remedies it may have at law or in equity against the other Parties hereto.

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15.3 Dispute over Right to Terminate. If there is a dispute between the Parties over termination of this Agreement, Closing will not occur as scheduled. The Party who disputes the termination of the Agreement (or the right of a Party to terminate the Agreement) (the "Disputing Party") may, within thirty (30) Days of the date on which Closing was scheduled to occur, initiate binding arbitration in accordance with Article 16.1 to resolve the dispute. If the Disputing Party fails (for any reason) to initiate binding arbitration to resolve the dispute within such thirty (30) Day period, this Agreement will be deemed terminated at the expiration of such thirty (30) Day period (and the Parties, on behalf of themselves, their officers, directors, agents, employees, successors and assigns, irrevocably waive any and all Claims they may have against each other associated with the termination of this Agreement).

ARTICLE 16. ARBITRATION

16.1 Arbitration. Unless expressly provided otherwise in this Agreement, any and all Arbitrable Disputes must be resolved through the use of binding arbitration using three (3) arbitrators, in accordance with the Commercial Arbitration Rules of the AAA, as supplemented to the extent necessary to determine any procedural appeal questions by the Federal Arbitration Act (Title 9 of the United States Code). If there is any inconsistency between this Article and the Commercial Arbitration Rules or the Federal Arbitration Act, the terms of this Article will control the rights and obligations of the Parties. If there is another Arbitrable Dispute among the Parties pursuant to any agreement entered into at Closing that involves the same facts and parties as the facts and parties with respect to which an arbitration has been initiated pursuant to this Agreement, such dispute and any arbitration initiated in connection therewith shall be consolidated with the arbitration initiated pursuant to this Agreement. No other arbitration shall be consolidated with any arbitration initiated pursuant to this Agreement without the agreement of the Parties or

set forth in this Agreement and not thereafter or if no time limit is given, within the time period allowed by the applicable statute of limitations. Arbitration may be initiated by either Sellers, acting collectively, or Buyer ("Claimant") serving written notice on Buyer or Sellers, respectively ("Respondent") that Claimant elects to refer the Arbitrable Dispute to binding arbitration. Sellers must act collectively as a group for all purposes under this Article 16.1. Claimant's notice initiating binding arbitration must identify the arbitrator Claimant has appointed. Respondent shall respond to Claimant within sixty (60) Days after receipt of Claimant's notice, identifying the arbitrator Respondent has appointed. If Respondent fails for any reason to name an arbitrator within the sixty (60) Day period, Claimant will name the arbitrator for Respondent's account. The two (2) arbitrators so chosen shall select a third arbitrator (who must have not less than seven (7) years experience as an oil and gas lawyer) within thirty (30) Days after the second arbitrator has been appointed. If the two arbitrators are unable to agree on a third arbitrator within sixty (60) Days from initiation of arbitration, then a third arbitrator shall be selected by the AAA office in Houston, Texas, with due regard given to the selection criteria above and input from the Parties and other arbitrators. The AAA shall select the third arbitrator not later than ninety (90) Days from initiation of arbitration. In the event AAA should fail to select the third arbitrator within ninety (90) Days from initiation of arbitration, then either Party may petition the Chief United States District Judge for the Southern District of Texas to select the third arbitrator. Due regard shall be given to the selection criteria above and input from the Parties and other arbitrators. Sellers will pay the compensation and expenses of the arbitrator named by or for them, and Buyer will pay the compensation and

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expenses of the arbitrator named by or for it. Sellers and Buyer will each pay one-half of the compensation and expenses of the third arbitrator. All arbitrators must be neutral parties who have never been officers, directors or employees of the Parties or any of their Affiliates. Unless expressly provided otherwise in this Agreement, the two (2) arbitrators named by the Parties must have not less than seven (7) years experience in the oil and gas industry, and must have a formal education or training in the area of dispute (e.g., accounting for an accounting dispute, etc.). The hearing will be conducted in Houston, Texas and commence within thirty (30) Days after the selection of the third arbitrator. The Parties and the arbitrators should proceed diligently and in good faith in order that the award may be made as promptly as possible. The arbitrators shall determine the Arbitrable Disputes of the Parties and render a final award in accordance with the substantive Law of the State of Texas, excluding the conflicts provisions of such Law. The arbitrators shall set forth the reasons for the award in writing. All statutes of limitations and defenses based upon passage of time applicable to any Arbitrable Dispute (including any counterclaim or setoff) shall be interrupted by the filing of the arbitration and suspended while the arbitration is pending. The terms hereof shall not limit any obligations of a Party to defend, indemnify, or hold harmless another Party against court proceedings or other Claims, losses, damages or expenses. In order to prevent irreparable harm, the arbitrators shall have the power to grant temporary or permanent injunctive or other equitable relief. A Party may, notwithstanding any other provision of this Agreement, seek temporary injunctive relief from any court of competent jurisdiction; provided that the Party seeking such relief shall (if arbitration has not already been commenced) simultaneously commence arbitration. Such court-ordered relief shall not continue more than ten (10) Days after the appointment of the arbitrators and in no event for longer than sixty (60) Days. Except as provided in the Federal Arbitration Act, the decision of the arbitrators will be binding on and non-appealable by the Parties. The arbitrators may not grant or award indirect, consequential, punitive or exemplary damages or damages for lost profits.

ARTICLE 17. MISCELLANEOUS

17.1 Notices. All notices and other communications required or desired to be given hereunder must be in writing and sent (properly addressed as set forth below) by: (a) U.S. mail with all postage and other charges fully prepaid, (b) hand delivery or (c) facsimile transmission. A notice will be deemed effective on the date on which such notice is received by the addressee, if by mail or hand delivery, or on the date sent, if by facsimile (as evidenced by fax machine confirmation of receipt); provided, however, if such date is not a Business Day, then date of receipt will be on the next date which is a Business Day. No notice, waiver or consent of Sellers hereunder shall be effective unless executed by an authorized agent or officer of each Seller, whether by singular

Each Party may change its address by notifying the other Party in writing of such address change.

If to any one or more Amoco Sellers:

c/o Amoco D.T. Company
501 Westlake Park Boulevard
Houston, Texas 77079
Attn: Gary Paulson
Facsimile: 281-560-8850

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With a copy to:

c/o Amoco X.T. Company
200 East Randolph Drive
Chicago, Illinois 60601
Attn: D. B. Pinkert
Facsimile: 312-856-4091

If to any one or more Shell Sellers:

c/o SWEPI LP
P.O. Box 576
Houston, Texas 77001-0576
Attn: W. van de Vijver
Facsimile: 713-241-7066

With a copy to:

c/o Shell Exploration & Production Company
910 Louisiana Street
Houston, Texas 77002
Attn: R. G. Ford
Facsimile: 713-241-7066

If to Buyer:

Occidental Petroleum Corporation
10889 Wilshire Boulevard
Los Angeles, California 90024
Attn: Donald P. de Brier, Executive Vice
President and General Counsel
Telephone: 310-443-6176
Facsimile: 310-443-6195

17.2 Brokers, Agents and Finders. Sellers and Buyer have each retained separate financial advisors and service providers ("Advisors") in connection with the transactions contemplated by this Agreement. All fees and charges by the Advisors to Sellers shall be the responsibility of Sellers, and all fees and charges by the Advisors to Buyer shall be the responsibility of Buyer. The respective Advisors are not authorized to act on behalf of Sellers or Buyer, respectively, in the transactions contemplated by this Agreement. SELLERS RELEASE AND SHALL PROTECT, DEFEND, INDEMNIFY AND HOLD BUYER GROUP, THE LP AND THE LLC HARMLESS FROM AND AGAINST ANY AND ALL CLAIMS WITH RESPECT TO ANY COMMISSIONS, FINDERS' FEES OR OTHER REMUNERATION DUE TO ANY BROKER, AGENT, FINDER OR ADVISOR CLAIMING BY, THROUGH OR UNDER SELLERS. BUYER RELEASES AND SHALL PROTECT, DEFEND, INDEMNIFY AND HOLD SELLERS GROUP HARMLESS FROM AND AGAINST ANY AND ALL CLAIMS WITH RESPECT TO ANY COMMISSIONS, FINDERS' FEES OR OTHER REMUNERATION DUE TO ANY BROKER, AGENT OR FINDER CLAIMING BY, THROUGH OR UNDER BUYER. Each Party shall be responsible for and shall bear the expenses incurred by it in connection with negotiating and consummating the transactions contemplated by this Agreement.

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17.3 Access. (a) Records. The Records are Assets of the LLC and the LP; provided, however, Sellers may retain copies of any or all Records including originals of any income Tax Returns, reports or forms, and Buyer shall be provided with copies of such Tax Returns, reports or forms, only to the extent they relate to the LP's or the LLC's separate returns or separate Tax liability. Buyer will maintain and/or cause the LP and the LLC to maintain the Records for a period of ten (10) years after Closing and will afford Sellers full access to the Records as reasonably requested by any Seller. If Buyer, the LP or the LLC desires to destroy any Records within such ten (10) year period, such party shall notify Sellers in writing prior to such destruction and provide Sellers the opportunity to take possession of the same at Sellers' sole cost.

(b) Access. (i) Subject to Article 17.3(c) and applicable operator or other Third Party approvals, which approval Sellers shall use reasonable efforts to

Sellers shall, and shall cause each other member of Sellers Group (including the LP and the LLC), to permit Buyer, at Buyer's risk and expense, to conduct inspections of the Properties at any reasonable times prior to Closing; provided, however, that unless Sellers give their prior written consent (which shall not be unreasonably withheld or delayed), Buyer may not conduct testing or sampling on the Properties. Sellers shall, and shall cause each other member of Sellers Group to, make available, at reasonable times and upon reasonable notice, to Buyer and its representatives (including, without limitation, attorneys, accountants, engineers, consultants and other agents of Buyer) for examination and copying such accounting, Tax, financial, technical, geological, geophysical, engineering, environmental, safety, legal, land, title and other information relating to the Properties insofar as same are in possession of the LLC, the LP or any member of Sellers Group and, subject to the consent and cooperation of applicable operators and other Third Parties, shall use reasonable efforts to obtain, at Buyer's expense, such additional information relating to the Properties as Buyer reasonably may request, to the extent in each case that members of Sellers Group may do so without violating any Law or any obligation of confidence or other contractual commitments to a Third Party (and provided Sellers use reasonable efforts to obtain waivers of any such obligations and contractual commitments). Prior to Closing, information that is produced or accessed by Buyer under this Article 17.3 is subject to the confidentiality obligation under Article 17.3(c). Further, at reasonable times and upon reasonable notice, Sellers shall, and shall cause each other member of Sellers Group, to afford Buyer and its representatives reasonable access from the date hereof until Closing to selected employees and officers of the LP that have been involved with the operation, maintenance or development of the Properties and accounting or supervision thereof. Notwithstanding the foregoing, Sellers shall have no obligations prior to Closing to make available documents for which they or the LP is validly claiming an attorney-client privilege or privilege as attorney work product.

(ii) Buyer, to the fullest extent permitted by Law, shall indemnify, defend and hold harmless Sellers Group, the LP Group, the LLC Group, the other owners of interests in the Properties and their respective officers, directors, employees, agents and representatives (collectively "Indemnified Persons"), from any and all Claims, including, without limitation, Claims for (A) any injury to or death of any persons (including, without limitation, officers, directors, employees, agents, consultants, legal and financial advisors and other representatives of Buyer (collectively "Buyer's Representatives")); (B) damage to property (including, without limitation, damage to the property of Third

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Parties and the property of Buyer and Buyer's Representatives); or (C) damage to natural resources or environmental damages to, or associated with, such Properties to the extent caused by, arising out of, or resulting from the activities of Buyer and Buyer's Representatives in connection with said site visit and physical investigation of the Properties, even if such indemnified event is caused by, arises out of or results from the negligence of the Indemnified Persons, but not to the extent that any such indemnified event or occurrence is caused by or the result of the gross negligence or willful misconduct of the Indemnified Persons. Each of the Indemnified Persons, as applicable, shall have the right at all times to participate in the preparation for and conducting of any hearing or trial related to this indemnification provision, as well as the right to appear on its own behalf or to retain separate counsel to represent itself at any such hearing or trial; provided, however, that Buyer shall not be required to indemnify, defend or hold harmless Sellers Group or any Indemnified Person with respect to any non-compliance with Laws or any physical conditions or adverse conditions, including, without limitation, any waste or hazardous materials discovered by Buyer or Buyer's Representatives in connection with such site visit and physical inspection.

(iii) In addition to the foregoing indemnification obligations, Buyer assumes full responsibility for all damage to the Properties and/or to operations conducted by the Indemnified Persons, their respective Affiliates, or other operators associated with the Properties to the extent arising out of or resulting from activities of Buyer or Buyer's Representatives in connection with any site visit and physical investigation of any Properties (including, without limitation, environmental remediation and response costs and damages to natural resources located on, in, under or above any real property which is part of or associated with the Properties) even if such damage is caused by, arises

the extent such damage is caused by, results from, or arises out of the gross negligence or willful misconduct of the Indemnified Persons; provided, however, that Buyer shall have no responsibility with respect to any non-compliance with Laws or any physical condition or adverse condition, including, without limitation, any waste or hazardous materials, discovered by Buyer or Buyer's representatives in connection with such site visit and physical inspection.

(c) Confidentiality. (i) With respect to Properties Information, if Closing occurs, Sellers shall, and shall cause their Affiliates and the directors, officers, employees, representatives, agents and advisors of Sellers and their Affiliates to, maintain in confidence and not disclose Properties Information or use Properties Information in the Greater Permian Area (except as needed specifically for matters involving Sellers' or their Affiliates' litigation, remediation, government reports required by Laws, indemnification obligations or to comply with contracts) from the date of Closing until the fifth anniversary thereof; provided, however, that in no case shall such Properties Information be used or disclosed for sale, license or other commercial purposes for oil and gas exploration and production activities, and provided further that Sellers and their Affiliates agree to maintain the confidentiality thereof, and shall require any Third Party receiving such Properties Information, other than the LP, to agree to maintain the confidentiality thereof. From and after the fifth anniversary of Closing, Sellers and their

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Affiliates will have the right to use but not sell or license such Properties Information to Third Parties.

(ii) With respect to Records that are not Properties Information, if Closing occurs, Sellers shall, and shall cause their Affiliates and the directors, officers, employees, representatives, agents and advisors of Sellers and their Affiliates to, maintain in confidence and not use or disclose Records that are not Properties Information (except as needed specifically for matters involving Sellers' or their Affiliates' Tax, accounting, litigation, remediation, government reports required by Laws, indemnification obligations or to comply with contracts) from the date of Closing until the fifth anniversary thereof; provided, however, that in no case shall such Records be used or disclosed for sale, license or other commercial purposes for oil and gas exploration and production activities, and provided further that Sellers and their Affiliates agree to maintain the confidentiality thereof, and shall require any Third Party receiving such Records, other than the LP, to agree to maintain the confidentiality thereof. From and after the fifth anniversary of Closing, Sellers and their Affiliates will have the right to use but not sell or license such Records to Third Parties.

(iii) With respect to Licensed Technology, if Closing occurs, Buyer shall, and shall cause its directors, officers, employees, representatives, agents and advisors to return to the LP all Licensed Technology that has or has been provided by Sellers or their Affiliates, the LP or the LLC or accessed under Article 17.3(b) and to maintain in confidence and to use or disclose Licensed Technology only as allowed under the Amended and Restated Amoco License Agreement and the Amended and Restated Shell License Agreement from Closing until the tenth anniversary thereof.

(iv) If Closing occurs, Sellers have used or shall use reasonable efforts to cause Third Parties involved in the bidding process, with respect to the sale of the Interests promptly to return or destroy all copies of and excerpts containing information relating to the Interests.

(v) With respect to Licensed Technology and information relating to the Properties, if Closing does not occur, Buyer shall, and shall cause its directors, officers, employees, representatives, agents and advisors to, return to Sellers all Licensed Technology, if any, and all copies of and excerpts containing information relating to the Properties, that it has or has been provided by Sellers, the LP or the LLC or accessed under Article 17.3 (b) after the date of this Agreement and to maintain in confidence and not use or disclose (A) Licensed Technology from the date of this Agreement until the tenth anniversary thereof and (B) such information relating to the Properties from the date of this Agreement until the fifth anniversary thereof. For the purposes of this Section 17.3(c)(v) only, the term Licensed Technology, shall be construed as if Closing had occurred.

(vi) This Article 17.3 supersedes the Confidentiality Agreement which is hereby terminated and of no further force and effect. If Closing does not occur, Buyer shall, and shall cause its directors, officers, employees representatives, agents and

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advisors to, return to Sellers all copies of and excerpts containing information relating to the Properties, that it has or has been provided by or accessed from Sellers, the LP or the LLC prior to the date of this Agreement during the bidding process with respect to the sale of the Interests, and to maintain in confidence and not use or disclose such information from the date of this Agreement until the third anniversary thereof.

(vii) The restrictions imposed by this Article 17.3 shall not apply to any information:

(1) which the restricted Party can show was in the public knowledge or literature or was publicly available as of the date of this Agreement;

(2) which, with respect to information first provided by Sellers, the LP or the LLC or accessed under Article 17.3(b), Buyer can show was in its possession or in the possession of any of its Affiliates prior to the date of this Agreement; or

(3) which, with respect to information that has been provided by or accessed from Sellers, the LP or the LLC prior to the date of this Agreement, Buyer can show was in its possession or in the possession of any of its Affiliates prior to the date of the Confidentiality Agreement,

and shall cease to apply to any information which, subsequent to the date of this Agreement:

(1) the restricted Party can show has become part of the public knowledge or literature or becomes publicly available other than through or as a result of any act or omission in violation of this Agreement;

(2) the restricted Party can show has been disclosed to the restricted Party or any of its Affiliates by a Third Party having a legal right to do so;

(3) which Buyer can show has been independently developed by employees, officers or agents of Buyer or any of its Affiliates without access to or reliance on such information; or

(4) which Sellers can show has been independently developed by employees, officers or agents of Sellers or any of their Affiliates (other than the LP or the LLC) without access to or reliance on such information.

(viii) Notwithstanding the restrictions imposed by this Article 17.3, any Party or Affiliate of a Party may disclose information pursuant to a request by a Governmental Authority entitled by Law to require the same or information the disclosure of which is required under applicable securities Laws or stock exchange regulations; provided, however, that prior to such disclosure, if practicable, the disclosing Party shall notify in writing the Party or the Affiliate of a Party which is the source of such information (where the identity of such Party or Affiliate can be determined) that such request has

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been made and provided that the disclosing Party makes reasonable efforts to secure a protective order or take advantage of other available processes to restrict further disclosures by the recipient(s).

17.4 Generally Accepted Accounting Principles. Except as otherwise expressly provided in this Agreement, all accounting matters under this

agreement shall be deemed to be in accordance with United States generally accepted accounting principles, consistently applied ("GAAP").

17.5 Further Assurances. (a) Sellers hereby agree in good faith to provide information to the Lender as reasonably requested by the Lender. If Buyer informs Sellers that it is unable to complete arrangements with the Lender and requests modification of the terms provided in the forms of the Amoco Affiliate Loan Agreement, Amoco Affiliate Note, Amoco Guaranty, Shell Affiliate Loan Agreement, Shell Affiliate Note or Shell Guaranty agreed to by Buyer and Sellers and attached as Exhibits hereto and referenced in the term sheet of the Lender dated March 7, 2000, Sellers will in good faith but without further consideration allow modifications prior to Closing to the forms of the Amoco Affiliate Loan Agreement, Amoco Affiliate Note, Amoco Guaranty, Shell Affiliate Loan Agreement, Shell Affiliate Note or Shell Guaranty, as the case may be, so long as such modifications would not materially adversely affect the legal effect or economic consequences to Sellers and their Affiliates of the transactions contemplated herein or therein or the financial reporting by Sellers and their Affiliates of the transactions contemplated herein or therein.

(b) Sellers and Buyer agree to negotiate in good faith prior to Closing the documents referred to in Article 14.2(f) that terminate, amend or modify the agreements listed in Part II of Exhibit M consistent with the terms of such Part II of such Exhibit.

(c) From and after Closing, at the request of any Party but without further consideration, the Parties will execute and deliver or use reasonable efforts to cause to be executed and delivered such other instruments of conveyance and take such other actions as any Party reasonably may request to give effect to the transactions contemplated by this Agreement.

17.6 Amendments and Severability. No amendments or other modifications to this Agreement will be effective or binding on either of the Parties unless the same are in writing, designated as an amendment or modification, and signed by Sellers and Buyer. The invalidity of any one or more provisions of this Agreement will not affect the validity of this Agreement as a whole, and in case of any such invalidity, this Agreement will be construed as if the invalid provision had not been included herein.

17.7 Successors and Assigns. This Agreement may not be assigned, either in whole or in part, without the express written consent of the non-assigning Parties, provided that Buyer shall have the right, without the consent of any other Party, to assign this Agreement to one or more wholly-owned Affiliates but no such assignment shall relieve Buyer of any of its liabilities or obligations under this Agreement. The terms, covenants and conditions contained in this Agreement are binding upon and inure to the benefit of Sellers and Buyer and their respective successors and assigns.

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17.8 Headings. The titles and headings set forth in this Agreement have been included solely for ease of reference and may not be considered in the interpretation or construction of this Agreement.

17.9 Governing Law. THIS AGREEMENT (INCLUDING ADMINISTRATION OF THE BINDING ARBITRATION PROVISION SET FORTH IN ARTICLE 16.1) IS GOVERNED BY THE LAWS OF THE STATE OF TEXAS, EXCLUDING ANY CHOICE OF LAW RULES THAT MAY DIRECT THE APPLICATION OF THE LAWS OF ANOTHER JURISDICTION.

17.10 No Partnership Created. Except as contemplated in the Operative Documents, it is not the purpose or intention of this Agreement to create (and it should not be construed as creating) a joint venture, partnership or any type of association, and the Parties are not authorized to act as an agent or principal for each other with respect to any matter related hereto.

17.11 Public Announcements. Neither Sellers nor Buyer (including any of their agents, employees or Affiliates in either case) may issue a public statement or press release with respect to the transactions contemplated by this Agreement (including the price and other terms) without the prior written consent of the other Parties (which consent may not be unreasonably withheld), except as required by Law or listing agreement with a national security exchange and then only after prior consultation with the other Parties.

17.12 No Third Party Beneficiaries. Except as otherwise provided in Article 10.10 with respect to Shell Oil Company, nothing contained in this Agreement

and assigns or the express beneficiaries of indemnity provisions to any Claim, cause of action, remedy or right of any kind whatsoever.

17.13 Waiver of Consumer Rights. (a) BUYER REPRESENTS TO SELLERS THAT IT (i) IS IN THE BUSINESS OF SEEKING OR ACQUIRING, BY PURCHASE OR LEASE, GOODS OR SERVICES FOR COMMERCIAL OR BUSINESS USE, (ii) HAS (OR IT IS OWNED OR CONTROLLED BY A CORPORATION OR ENTITY WITH) ASSETS OF \$25 MILLION OR MORE ACCORDING TO ITS MOST RECENT FINANCIAL STATEMENT PREPARED IN ACCORDANCE WITH GENERALLY ACCEPTED ACCOUNTING PRINCIPLES, AND (iii) THEREFORE, IS A "BUSINESS CONSUMER" AND NOT A "CONSUMER" AS THOSE TERMS ARE DEFINED AND USED IN THE DECEPTIVE TRADE PRACTICES - CONSUMER PROTECTION ACT, SECTION 17.41, ET SEQ., OF THE BUSINESS AND COMMERCE CODE OF THE STATE OF TEXAS (the "DTPA"). (b) WITHOUT IMPAIRING ITS REPRESENTATIONS IN (a) ABOVE, IF BUYER HAS RIGHTS UNDER THE DTPA, BUYER HEREBY WAIVES ITS RIGHTS UNDER THE DECEPTIVE TRADE PRACTICES - CONSUMER PROTECTION ACT, SECTION 17.41, ET SEQ., OF THE BUSINESS AND COMMERCE CODE OF THE STATE OF TEXAS. TO EVIDENCE ITS ABILITY TO GRANT SUCH A WAIVER, BUYER REPRESENTS TO SELLERS THAT IT (i) HAS KNOWLEDGE AND EXPERIENCE IN FINANCIAL AND BUSINESS MATTERS THAT ENABLE IT TO EVALUATE THE MERITS AND RISKS OF THE TRANSACTION CONTEMPLATED HEREBY, (ii) IS NOT IN A SIGNIFICANTLY DISPARATE BARGAINING POSITION, AND (iii) IS REPRESENTED BY LEGAL

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COUNSEL. AFTER CONSULTATION WITH ITS ATTORNEY OF ITS OWN SELECTION, IT VOLUNTARILY CONSENTS TO THIS WAIVER.

17.14 Not to be Construed Against Drafter. THE PARTIES ACKNOWLEDGE THAT THEY HAVE HAD AN ADEQUATE OPPORTUNITY TO REVIEW EACH AND EVERY PROVISION CONTAINED IN THIS AGREEMENT AND TO SUBMIT THE SAME TO LEGAL COUNSEL FOR REVIEW AND COMMENT. BASED ON THE FOREGOING, THE PARTIES AGREE THAT THE RULE OF CONSTRUCTION THAT A CONTRACT BE CONSTRUED AGAINST THE DRAFTER, IF ANY, NOT BE APPLIED IN THE INTERPRETATION AND CONSTRUCTION OF THIS AGREEMENT.

17.15 Exhibits. The inclusion of any matter upon any Exhibit attached hereto does not constitute an admission or agreement that such matter is material with respect to the representations and warranties contained herein.

17.16 Execution in Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original, all which when taken together shall constitute one and the same agreement.

17.17 Entire Agreement. This Agreement and the Exhibits attached hereto which are incorporated herein by reference supersede all prior and contemporaneous negotiations, understandings, letters of intent and agreements (whether oral or written) between the Parties with respect to the subject matter hereof and constitute the entire understanding and agreement between the Parties with respect thereto.

ARTICLE 18. SECOND CLOSING

18.1 Sale and Purchase. On the Second Closing Date, Amoco LLC Seller agrees to sell and assign the Amoco Second Sold LLC Interest to Buyer, and Buyer agrees to buy and accept the Amoco Second Sold LLC Interest from Amoco LLC Seller.

18.2 Purchase Price. The Second Closing Amount is payable in full at the Second Closing in immediately available funds.

18.3 Conditions Precedent to Buyer's Obligation to Close. Buyer will consummate the purchase of the Amoco Second Sold LLC Interest as contemplated by this Agreement on the Second Closing Date, provided the following representation is true and the conditions precedent in Article 18.4 have been satisfied or have been waived by Buyer:

(a) Amoco LLC Seller owns of record and beneficially the Amoco Second Sold LLC Interest, free and clear of any Taxes, security interests, equities, Third Party Claims, and demands and any restrictions on transfer, options, warrants, purchase rights, conversion rights, exchange rights, or other contracts or commitments that could require Amoco LLC Seller to sell, transfer, or otherwise dispose of its LLC Interest, other than this Agreement, the LLC Agreement, the other Operative Documents and federal or state securities Laws. There are no voting trusts, proxies, or other agreements or understandings with respect to the voting of the LLC Interests, other than the LLC Agreement.

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18.4 Conditions Precedent to Obligation of Each Party to Close. The Parties will consummate the sale and purchase of the Amoco Second Sold LLC Interest as contemplated in this Agreement on the Second Closing Date, provided the following conditions precedent have been satisfied or have been waived by the applicable Party:

- (a) Closing shall have occurred;
- (b) if applicable, consummation of the transactions contemplated under the terms of this Agreement to occur at the Second Closing is not prevented from occurring by (and the required waiting period, if any, has expired under) the HSR Act and the rules and regulations of the Federal Trade Commission and the Department of Justice;
- (c) receipt from any state and federal Governmental Authority having appropriate jurisdiction consenting to and approving the consummation of, and providing any authorization required in connection with, the transaction contemplated under the terms of this Agreement to occur at the Second Closing (except for those governmental consents and approvals customarily obtained subsequent to the consummation of transactions of this type);
- (d) there shall be no legal action or proceeding instituted by a Governmental Authority having appropriate jurisdiction seeking to restrain, enjoin or otherwise prohibit the consummation of the transactions contemplated under the terms of this Agreement to occur at the Second Closing;
- (e) there shall be no order (including temporary restraining order) of any Governmental Authority restraining, enjoining or otherwise prohibiting the consummation of the transaction contemplated under the terms of this Agreement to occur at the Second Closing; and
- (f) there shall not have occurred a Redemption or a Liquidation (as defined in the Restated LLC Agreement).

18.5 Closing. The Second Closing shall take place at 10:00 a.m., Houston time, at the Houston office of Baker Botts L.L.P., 910 Louisiana, Houston, Texas, 77002, on the Second Closing Date. Amoco LLC Seller will provide Buyer with wiring instructions designating the account or accounts to which the Second Closing Amount is to be delivered.

18.6 Obligations of Sellers at Closing. At the Second Closing, Amoco LLC Seller will deliver to Buyer, unless waived by Buyer, the following:

- (a) a document executed by an authorized officer or an Attorney-in-Fact of Amoco LLC Seller assigning the Amoco Second Sold LLC Interest in substantially the form of the Assignment of Limited Liability Company Interest. This document will be executed and acknowledged in five (5) multiple originals or such greater number as agreed between Buyer and Amoco LLC Seller.

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18.7 Obligations of Buyer at Closing. At the Second Closing, Buyer will deliver to Amoco LLC Seller, unless waived by Sellers, the following:

- (a) the Second Closing Amount by wire transfer; and
- (b) the Assignment of Limited Liability Company Interest executed by an authorized officer or an Attorney-in-Fact of Buyer referred to in Article 18.6(a).

18.8 Remedies. Each of Amoco LLC Seller and Buyer acknowledges and agrees that it would be irreparably damaged in the event that any of the provisions of this Article 18 are not performed by the other Party hereto in accordance with its specific terms or are otherwise breached, and that money damages alone would not be easily calculable and would not be a sufficient remedy for any breach of this Article 18. Accordingly, each of Amoco LLC Seller and Buyer shall be entitled, without the requirement of posting a bond or other security, to equitable relief, including, without limitation, injunctive relief and specific performance, in the event of any breach of the provisions of this Article 18 by the other Party hereto, in addition to all other remedies available at law or in equity.

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IN WITNESS WHEREOF, the Parties have executed this Agreement on the day and year first set forth above.

SELLERS:

AMOCO D.T. COMPANY

ATTEST:

/s/ M. S. HASKINS

M. S. Haskins
Assistant Secretary

By: /s/ I.C. CONN

Name: I. C. Conn
Title: President

AMOCO X.T. COMPANY

ATTEST:

/s/ D. A. PLUMB

D. A. Plumb
Secretary

By: /s/ D. B. PINKERT

Name: D. B. Pinkert
Title: President

AMOCO Y.T. COMPANY

ATTEST:

/s/ D. A. PLUMB

D. A. Plumb
Secretary

By: /s/ D. B. PINKERT

Name: D. B. Pinkert
Title: President

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SWEPI LP (formerly known as Shell
Western E&P, Inc.)

By: Shell Energy Holding GP LLC,
its General Partner

By: /s/ DOUGLAS W. STREBEL

Name: Douglas W. Strebel
Title: Attorney-in-Fact

SHELL LAND & ENERGY COMPANY

By: /s/ DOUGLAS W. STREBEL

Name: Douglas W. Strebel
Title: Attorney-in-Fact

SHELL ONSHORE VENTURES, INC.

By: /s/ DOUGLAS W. STREBEL

Name: Douglas W. Strebel
Title: Attorney-in-Fact

SHELL K2, INC.

By: /s/ DOUGLAS W. STREBEL

Name: Douglas W. Strebel
Title: Attorney-in-Fact

SHELL EVEREST, INC.

By: /s/ DOUGLAS W. STREBEL

Name: Douglas W. Strebel
Title: Attorney-in-Fact

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BUYER: OCCIDENTAL PETROLEUM CORPORATION

By: /s/ STEPHEN CHAZEN

Name: Stephen Chazen
Title: Executive Vice President and
Chief Financial Officer

LAW OFFICES

HEIDEL, SAMBERSON, NEWELL, COX & McMAHON

C. GENE SAMBERSON
MICHAEL T. NEWELL
LEWIS C. COX, III
PATRICK B. McMAHON

311 NORTH FIRST STREET
POST OFFICE DRAWER 1599
LOVINGTON, NM 88260
TELEPHONE (505) 396-5303
FAX (505) 396-5305

F.L. HEIDEL
(1913-1985)

RECEIVED

JUN 06 2002

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

May 28, 2002

Bill Olson
NMOCD
P.O. Box 6429
Santa Fe, NM 87504-6429

Re: 1831 Mobile Road, Hobbs

Dear Mr. Olson,

I have been in contact with Mr. Gary Johnson, owner of 1831 Mobile Road. Mr. Johnson informs me that you are making arrangements to conduct a sampling event at this Mobile Road property. Please advise me of your sampling date so that I may arrange to split sample on behalf of Mr. Johnson.

I look forward to discussing this matter with you.

Sincerely,

HEIDEL, SAMBERSON, NEWELL, COX & McMAHON

By:


Patrick B. McMahon

PBM:dr

cc: Gary Johnson
Chris Williams, Hobbs OCD



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON

Governor
Betty Rivera
Cabinet Secretary

Lori Wrotenbery

Director
Oil Conservation Division

February 11, 2002

Mr. Patrick McMahon
Heidel, Samberson, Newell, Cox & McMahon
311 North First St.
Lovington, New Mexico 88260

**RE: PUBLIC RECORDS REQUEST
CASE #1R0167
GARY JOHNSON RESIDENCE
HOBBS, NEW MEXICO**

Dear Mr. McMahon:

The New Mexico Oil Conservation Division (OCD) has received your February 8, 2002 request to inspect the public records related to 1831 Mobile Road. The OCD records on this site are filed under Case # 1R0167. The records are publicly available and open for inspection at your convenience. Please make an appointment to review these records such that the OCD can ensure that a staff member is available to find the record for you.

If you have any questions, please contact me at (505) 476-3491.

Sincerely,

William C. Olson
Hydrologist
Environmental Bureau

xc: Chris Williams, OCD Hobbs District Supervisor
Gary Johnson

LAW OFFICES

HEIDEL, SAMBERSON, NEWELL, COX & MCMAHON

C. GENE SAMBERSON
MICHAEL T. NEWELL
LEWIS C. COX, III
PATRICK B. MCMAHON

311 NORTH FIRST STREET
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LOVINGTON, NEW MEXICO 88260
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FAX (505) 396-5305

F.L. HEIDEL
(1913-1985)

TELECOPY TRANSMITTAL SHEET

CONFIDENTIALITY NOTE
THIS INFORMATION CONTAINED IN THIS FACSIMILE MESSAGE IS LEGALLY PRIVILEGED AND CONFIDENTIAL INFORMATION INTENDING ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY NAMED BELOW. IF THE READER OF THIS MESSAGE IS NOT THE INTENDED RECIPIENT, YOU ARE HEREBY NOTIFIED THAT ANY DISSEMINATION, DISTRIBUTION, OR COPY OF THIS TELECOPY IS STRICTLY PROHIBITED. IF YOU HAVE RECEIVED THIS TELECOPY IN ERROR, PLEASE IMMEDIATELY NOTIFY US BY TELEPHONE AND RETURN THE ORIGINAL MESSAGE TO US AT THE ADDRESS SET FORTH ABOVE VIA THE UNITED STATES POSTAL SERVICE.

DATE:

February-8-2002

TIME:

TO:

Roger Anderson# 505-476-3462

RE:

1831 Mobile Road (a/k/a Vicki Lane)

YOU SHOULD RECEIVE 2 PAGE(S) OF COPY, INCLUDING THIS COVER PAGE. PLEASE NOTIFY US IMMEDIATELY AT (505) 396-5303 IF NOT RECEIVED PROPERLY.

☐ FOR YOUR INFORMATION/RECORDS☐ PER YOUR REQUEST☐ AS WAS DISCUSSED☐ FOR YOUR COMMENTS☒ FOR YOUR REVIEW☐ PLEASE CALL ME ABOUT THIS

If you have any questions, please do not hesitate to call.

IF CHECKED ORIGINAL WILL BE FORWARDED TO YOU BY:
☐ FEDERAL EXPRESS ☐ REGULAR MAIL

THANK YOU,

HEIDEL, SAMBERSON, NEWELL, COX & MCMAHON

By:

Danna Reynolds

LAW OFFICES

HEIDEL, SAMBERSON, NEWELL, COX & McMAHON

C. GENE SAMBERSON
MICHAEL T. NEWELL
LEWIS C. COX, III
PATRICK B. McMAHON

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F.L. HEIDEL
(1913-1985)

February 8, 2002

New Mexico Oil Conservation Division
Attn: Roger Anderson, Custodian of Records, Environment Department
1220 South Saint Francis Drive
Santa Fe, NM 87505

**Re: Inspection of Public Records Request; 1831 Mobile Road (a/k/a Vickie Lane),
Hobbs, New Mexico.**

Dear Mr. Romero,

It is my understanding that you are the Custodian of Records for the NMOCD, Environmental Department. Please accept this correspondence as my request to inspect any and all public records of the NMOCD regarding 1831 Mobile Road (a/k/a Vickie Lane), Hobbs, New Mexico.

I look forward to hearing from you on this matter.

Sincerely,

HEIDEL, SAMBERSON, NEWELL, COX & McMAHON

By:


Patrick B. McMahon

PBM:dr

LAW OFFICES

HEIDEL, SAMBERSON, NEWELL, COX & McMAHON

C. GENE SAMBERSON
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F.L. HEIDEL
(1913-1985)

February 8, 2002

New Mexico Oil Conservation Division
Attn: Lawrence Romero, Custodian of Records
1220 South Saint Francis Drive
Santa Fe, NM 87505

**Re: Inspection of Public Records Request; 1831 Mobile Road (a/k/a Vickie Lane),
Hobbs, New Mexico.**

Dear Mr. Romero,

As per our telephone conversation, it is my understanding that you are the Custodian of Records for the NMOCD. Please accept this correspondence as my request to inspect any and all public records of the NMOCD regarding 1831 Mobile Road (a/k/a Vickie Lane), Hobbs, New Mexico.

I look forward to hearing from you on this matter.

Sincerely,

HEIDEL, SAMBERSON, NEWELL, COX & McMAHON

By:


Patrick B. McMahon

PBM:dr

ATWOOD, MALONE, TURNER & SABIN

A PROFESSIONAL ASSOCIATION

ATTORNEYS AT LAW

400 NORTH PENNSYLVANIA

SUITE 1100

P. O. DRAWER 700

ROSWELL, NEW MEXICO 88202-0700

TEL (505) 622-6221

FAX (505) 624-2883

JEFF D. ATWOOD (1883-1960)
ROSS L. MALONE (1910-1974)
CHARLES F. MALONE (1923-1999)

ROBERT E. SABIN
STEVEN L. BELL
ROD M. SCHUMACHER
JOHN S. NELSON
LEE M. ROGERS, JR.
TIMOTHY A. LUCAS
BRYAN EVANS
BARBARA A. PATTERSON
ALLISON E. DIERLAM

BOB F. TURNER
OF COUNSEL

October 19, 2001

Via Facsimile Only - No Original Will Follow

William C. Olson, Hydrologist
Environmental Bureau, State of New Mexico
Energy, Minerals & Natural Resources Department
Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

RECEIVED

NOV 06 2001

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

Re: *Gary Johnson Residence*
Hobbs, New Mexico
Case #IR0167

Dear Mr. Olson:

Your letter of September 27, 2001, originally addressed to Ms. Pat Hunter at Oxy USA, Inc. in Midland, has been referred to this office for response. We appreciate this opportunity to correspond with you in connection with the Johnson site.

As an initial matter, I should point out that Oxy USA Inc. is not the current operator of the North Hobbs Unit. Instead, Altura Energy Ltd., now known as Occidental Permian Ltd. ("OPL"), has operated the Unit since 1997. Your file should reflect that this office first corresponded with you on behalf of OPL in connection with this claim on April 26, 2000, in response to correspondence you had directed to Mr. Steven Bishop at Altura Energy Ltd. OPL never operated either the pits that appear to be the source of any petroleum hydrocarbons found at the Johnson site, or the tank battery nearby. Although we believe that OPL thus has no responsibility to address this site under OCD's environmental regulations, we have gathered the following information requested in your letter.

William C. Olson

RE: Gary Johnson Residence

October 19, 2001

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OPL personnel have examined the Johnson site in the relatively recent past, and we are pleased to report that for the most part, native grass is growing well there and in the surrounding areas. This observation certainly suggests that the alleged contamination is currently having no impact on top soil. Further, we have reviewed the laboratory analytical results of the water sample testing conducted under the auspices of the OCD, based on water samples taken from Mr. Johnson's water well at 1831 Mobil Street in Hobbs in February 2000. As indicated by your letter of March 27, 2000, to Mr. Johnson, the analysis did not reflect "... any oil or gas related oil contaminants in [the] well water." Thus, we are not aware at this time of any evidence that would indicate that the alleged presence of any hydrocarbons on this site would warrant further investigation, or pose a threat to groundwater.

To the extent the OCD continues to exercise jurisdiction over alleged contamination at this site, then it seems clear to OPL that the Samedan Oil Corporation ("Samedan") is the proper party to perform any required investigation, and to respond to Mr. Johnson's claims. Samedan has acknowledged in its letter to you of February 23, 2001, that prior to the creation of the North Hobbs Unit, Samedan did in fact operate the Moon "A" lease in Section 28, Township 18 South, Range 38 East, Lea County, for many years. Samedan further acknowledges that "several wells and a tank battery" were located upon this property. There were also pits associated with this installation, but it appears that Samedan closed those pits prior to formation of the Unit.

It appears that the Shell Oil Company ("Shell") then operated the tank battery on the Moon "A" lease for approximately one year, but Samedan had already closed the pits by that time. Accordingly, if any alleged contamination occurred as a result of deposits into the pits, such contamination would be solely the responsibility of Samedan. Alleged contamination occurring from use of the tank battery would also be largely, if not entirely, the responsibility of Samedan, though there may have been some brief involvement of Shell. In any event, OPL did not operate the pits or the tank battery, and the agreements governing the formation and operation of the North Hobbs Unit do not impose liability on OPL as the Unit Operator for any alleged contamination that occurred prior to formation of the Unit. OPL does not currently have any operations within 200 yards of the site identified by Mr. Johnson; moreover, there is no indication that any OPL unit operations have had any impact at this site. It is our understanding that Shell actually dismantled the subject tank battery, and it is our further understanding that there were no pits or spills or any other environmental impact

William C. Olson

RE: Gary Johnson Residence

October 19, 2001


Page 3

during the brief time that Shell operated the battery. In any case, the tank battery was never operated by Altura/OPL. Accordingly, OPL continues to believe that Samedan is the appropriate party to address any OCD investigation of Mr. Johnson's claim.

Please advise if we may furnish additional information. Thank you for allowing us to respond.

Sincerely,

ATWOOD, MALONE, TURNER & SABIN

By 
Rod M. Schumacher, Esq.

RMS:blf

Olson, William

From: Anderson, Roger
Sent: Friday, October 12, 2001 9:32 AM
To: Olson, William
Cc: Ross, Stephen; Brooks, David K
Subject: Gary Johnson contamination

I verbally gave Oxy's Roswell attorney (sorry, I forgot his name) an extension to respond to our letter to the middle of next week.

Roger C. Anderson
Roger C. Anderson
Environmental Bureau Chief
Oil Conservation Division

ATWOOD, MALONE, TURNER & SABIN, P.A.
A Professional Association
P. O. Drawer 700
Roswell, New Mexico 88202-0700
Office No. (505) 622-6221
Facsimile No. (505) 624-2883

TELECOPY COVER LETTER

CONFIDENTIAL AND PRIVILEGED COMMUNICATION

The information contained in this facsimile message is privileged and confidential and is intended only for the use of the addressee. If the reader of this message is not the addressee, or the person responsible for delivery to the addressee, you are hereby notified that any dissemination, distribution or copying of the message is strictly prohibited. If you have received this message in error, please immediately notify us by telephone and return the original message to us at the above address via the U. S. Postal Service. Thank You.

Date: October 11, 2001

Time Started: _____

CLIENT/MATTER NUMBER: Case #IR0167; Gary Johnson Residence, Hobbs, NM

TO: WILLIAM C. OLSON, Hydrologist, Environmental Bureau

Facsimile #505 476-3462 No. of Pages: 2 (including this Cover Sheet)

Please call Blanche Fierro at (505) 622-6221 if you do not receive total number of pages.

Confirmation Requested: Yes X No Hardcopy to Follow: Yes No X

FROM: Rod M. Schumacher

ADDITIONAL MESSAGE:

Letter to Mr. Olson, dated October 11, 2001

ATWOOD, MALONE, TURNER & SABIN

A PROFESSIONAL ASSOCIATION

ATTORNEYS AT LAW

400 NORTH PENNSYLVANIA

SUITE 1100

P. O. DRAWER 700

ROSWELL, NEW MEXICO 88202-0700

TEL. (505) 622-6221

FAX (505) 624-2683

ROBERT E. SABIN
STEVEN L. HELL
ROD M. SCHUMACHER
JOHN G. NELSON
LEE M. ROGERS, JR.
TIMOTHY A. LUCAS
BRYAN EVANS
BARBARA A. PATTERSON
ALLISON E. DIERLAM

ROB F. TURNER
OF COUNSEL

JEFF D. ATWOOD (1983-1986)
ROSS L. MALONE (1910-1974)
CHARLES F. MALONE (1923-1999)

October 11, 2001

Via Facsimile Only - No Original Will Follow

William C. Olson, Hydrologist
Environmental Bureau, State of New Mexico
Energy, Minerals & Natural Resources Department
Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

Re: *Gary Johnson Residence*
Hobbs, New Mexico
Case #JR0167


Dear Mr. Olson:

Your letter of September 27, addressed to Ms. Pat Hunter at Oxy USA, Inc. has been referred to this office for response. We are aware of the October 12 deadline set forth in your letter, and we will make every effort to have the response in your hands tomorrow. We did want you to know in the meantime that our work is underway.

Sincerely,

ATWOOD, MALONE, TURNER & SABIN

By


Rod M. Schumacher, Esq.

RMS:blf

TRANSACTION REPORT

P.01

OCT-11-2001 THU 04:03 PM

FOR:

RECEIVE

DATE	START	SENDER	RX TIME	PAGES	TYPE	NOTE	M#	DP
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NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON

Governor

Jennifer A. Salisbury

Cabinet Secretary

Lori Wrotenbery

Director

Oil Conservation Division

September 27, 2001

CERTIFIED MAIL

RETURN RECEIPT NO. 5357-7966

Ms. Pat Hunter
Oxy USA Inc.
6 Desta Dr., Suite 6000
Midland, Texas 79705-5505

**RE: CASE #1R0167
GARY JOHNSON RESIDENCE
HOBBS, NEW MEXICO**

Dear Ms. Hunter:

The New Mexico Oil Conservation Division (OCD) is investigating a complaint from Mr. Gary Johnson regarding oil-related contamination on his property at 1831 Mobile Street in Hobbs, New Mexico. This property, in the NE/4 of Section 28, Township 18 South, Range 38 East, was apparently the location of the former Moon "A" tank battery which was previously operated by Samedan Oil Corporation (Samedan) and subsequently by Shell Oil Company (Shell). An OCD inspection of the site showed what appear to be tank bottoms on the surface of the land around the residence owned by Mr. Johnson.

Samedan and Shell, in their correspondence with the OCD (attached), maintain that Oxy USA Inc. (Oxy) is the current operator of the lease and is responsible for any investigation and remediation activities at the site. In order to resolve this issue, please inform us in writing whether Oxy is the party responsible for the Moon "A" tank battery site, and forward any information relevant to this issue for our review. Please submit this information to the OCD Santa Fe Office by October 12, 2001 with a copy provided to the OCD Hobbs District Office. If you have any questions, please contact me at (505) 476-3491.

Sincerely,

William C. Olson

Hydrologist

Environmental Bureau

xc: Chris Williams, OCD Hobbs District Supervisor
Gary Johnson
Wayne Hamilton, Shell E&P Company
Thomas D. Dopler, Samedan Oil Corporation

E C E I

JUN 18 2001

CONSERVATION DIVISION

Shell Oil Company



P.O. Box 2463
One Shell Plaza
48th Floor
Houston TX 77252-2463

910 Louisiana
One Shell Plaza
48th Floor
Houston TX 77002

Direct Number: (713) 241-1467
Direct FAX: (713) 241-1170

Legal Services

**VIA FACSIMILE AND
FIRST CLASS MAIL**

Mr. William C. Olson
New Mexico Oil Conservation Division
2412 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Gary Johnson Residence Information Request,
Hobbs, New Mexico

Dear Mr. Olson:

Your April 11, 2001 correspondence to Wayne Hamilton has been forwarded to me for response.

Your letter requests Shell to submit a plan to investigate the extent of contamination located on the surface of an oil and gas lease in Section 28, T-18-S, R-38-E, NMPM in Hobbs. Previously, on November 2, 2000, in response to your September 6, 2000 correspondence requesting information on the lease, we advised that Shell had sold its interest in the lease to Occidental Permian Ltd. and forwarded certain information we obtained from that operator to the Division's Santa Fe and Hobbs offices.

While we understand that neither your November 2, 2000 nor April 11, 2001 letters constitute a determination that Shell is a responsible person, it is the Division's established practice and procedure to require such information and investigation plans from the current lease or unit operator. Correspondingly, the requests to Shell in this regard are misdirected. As Occidental Permian Ltd. is the current lease and unit operator, it assumed responsibility for such matters and the requests should accordingly be directed to it.

In an attempt to facilitate a response, Shell will forward a copy of your April 11, 2001 letter and this response directly to Occidental Permian Ltd.

Sincerely,

A handwritten signature in black ink, appearing to read "Kathleen A. Phillips".

Kathleen A. Phillips
Senior Counsel
Shell Oil Company

cc: M.P. Starrett
OXY USA Inc.
P.O. Box 4294
Houston, Texas 77210-4294

J. Scott Hall
Miller, Stratvert, & Torgerson
PO Box 1986
Santa Fe, New Mexico 87504

Marte D. Lightstone
Miller Stratvert & Torgerson
500 Marquette N.W. Ste. 1100
Albuquerque, New Mexico 87102-0687



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON

Governor

Jennifer A. Salisbury

Cabinet Secretary

Lori Wrotenbery

Director

Oil Conservation Division

May 14, 2001

Mr. Wayne A. Hamilton
Shell E&P Company
Rm. 4304 Woodcreek
200 N. Dairy Ashford
Houston, Texas 77079

**RE: CASE #1R0167
GARY JOHNSON RESIDENCE
HOBBS, NEW MEXICO**

Dear Mr. Hamilton:

The New Mexico Oil Conservation Division (OCD) has reviewed Shell E&P Company's (Shell) May 3, 2001 correspondence titled "CASE #1R0167, GARY JOHNSON RESIDENCE, HOBBS, NEW MEXICO". This document requests an extension of the deadline for submission of a plan to investigate oil-related contamination at Mr. Gary Johnson's property at 1831 Mobile Street in Hobbs, New Mexico. This property in Section 28, Township 18 South, Range 38 East was also the location of the former Moon "A" tank battery which was previously closed and dismantled by Shell.

The above-referenced request to extend the deadline from May 11, 2001 to June 11, 2001 is approved. If you have any questions, please contact me at (505) 476-3491.

Sincerely,

William C. Olson
Hydrologist
Environmental Bureau

xc: Chris Williams, OCD Hobbs District Supervisor
Gary Johnson

Shell E&P Company

A Division of Shell Exploration & Production Company



Woodcreek
200 N Dairy Ashford
Houston, TX 77079

P.O. Box 576
Houston, TX 77001

FAX Transmission: (505) 476-3471

May 3, 2001

Mr. William C. Olson
New Mexico Oil Conservation Division
1220 St. Francis Drive
Santa Fe, NM 87504

**SUBJECT: CASE #1R0167
GARY JOHNSON RESIDENCE
HOBBS, NEW MEXICO**

Dear Mr. Olson:

This letter is in response to the New Mexico Oil Conservation Division's (OCD) letter of April 11, 2001 concerning submittal of a plan to investigate possible contamination at 1831 Mobile Street in Hobbs, NM.

Shell requests an extension to June 11, 2001 to obtain and review records and interpret available information.

Please acknowledge in writing your acceptance of the extension.

If you have any questions, please call me at (281) 544-2322, Fax (281) 544-2238 or electronic mail: wahamilton@shellus.com.

Sincerely,

A handwritten signature in cursive script that reads "Wayne A. Hamilton".

Wayne A. Hamilton
Legacy Properties Manager

cc: Chris Williams, NMOCD District 1 Supervisor, 2 copies
Cliff Brunson, BBC International



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON

Governor

Jennifer A. Salisbury

Cabinet Secretary

Lori Wrotenbery

Director

Oil Conservation Division

April 11, 2001

CERTIFIED MAIL

RETURN RECEIPT NO. 5051-4287

Mr. Wayne A. Hamilton
Shell E&P Company
Rm. 4304 Woodcreek
200 N. Dairy Ashford
Houston, Texas 77079

**RE: CASE #1R0167
GARY JOHNSON RESIDENCE
HOBBS, NEW MEXICO**

Dear Mr. Hamilton:

The New Mexico Oil Conservation Division (OCD) has completed a review of a number of documents submitted by Altura Energy, Ltd, Shell E&P Company (Shell) and Samedan Oil Corporation (Samedan) regarding oil-related contamination at Mr. Gary Johnson's property at 1831 Mobile Street in Hobbs, New Mexico. This property in Section 28, Township 18 South, Range 38 East was apparently the location of the former Moon "A" tank battery which was previously operated by Samedan and Shell.

A review of the available information shows that Shell appears to be the most recent operator of the tank battery and also was the operator that closed and dismantled the tank battery. Therefore, the OCD requires that Shell submit a plan to investigate the extent of contamination related to this site. Please submit the plan to the OCD Santa Fe Office by May 11, 2001 with a copy provided to the OCD Hobbs District Office.

If you have any questions, please contact me at (505) 476-3491.

Sincerely,

William C. Olson

Hydrologist

Environmental Bureau

xc: Chris Williams, OCD Hobbs District Supervisor
Gary Johnson

RECEIVED

FEB 28

CONSERVATION DIVISION

SAMEDAN OIL CORPORATION
ONSHORE DIVISION
12600 Northborough, Suite 250
Houston, Texas 77067-3299

(281) 876-6150

Land Fax (281) 874-6753

February 23, 2001

Mr. William C. Olson
Hydrologist
Environmental Bureau
New Mexico Energy, Minerals and
Natural Resources Department
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RE: Case #1R0167
Gary Johnson Residence
Hobbs, New Mexico

Dear Sir:

Thank you for your letter dated February 5, 2001, which advised Samedan Oil Corporation ("Samedan") that the New Mexico Oil Conservation Division ("OCD") is looking into a complaint from Mr. Gary Johnson regarding oil-related contamination (*tank bottoms*) on his property at 1831 Mobile Street in Hobbs, New Mexico. Your letter stated this property is in Section 28, T18S-R38E, Lea County, New Mexico and was the location of the former Moon "A" tank battery which was previously operated by Samedan. You have also advised that OCD is requiring that Samedan submit a plan to investigate the extent of contamination related to Samedan's tank battery.


Samedan has reviewed this matter internally and has determined that the proper party to contact for an investigation of the contamination matter is OXY Occidental Permian ("OXY"), 5800 Westlake Park Blvd., Houston, Texas 77079, Attention: Mr. William C. Irons. Section 28 is located within the active and currently producing North Hobbs (Grayburg-San Andres) Unit ("Unit"). Prior to creation of the Unit, effective February 1, 1980, Samedan did operate the Moon "A" Lease where on were located several wells and a tank battery. Upon formation of the Unit, Samedan pursuant to the Unit Agreement and Unit Operating Agreement relinquished all duties and obligations to the Operator -

Page 2

Shell Oil Corporation ("Shell"). At the time the Unit was created, the tank battery and lease wells were intact, fully operational and in a producing status, and became a part of the operations for which the Unit Operator assumed responsibilities. A year or so after Shell became Operator of the Unit, it removed the tank battery as gathering facilities and flow lines were consolidated. Altura Energy, Ltd. became Operator after it was created in a spin-off by Shell/Amoco and the current Operator is Oxy. Samedan no longer owns an interest in the Unit. Mr. Dixon Lowther, a thirty-five year Samedan employee, was Samedan's Field Foreman in Hobbs from 1975 to 1992 and he will testify to the foregoing, if necessary.

A copy of this letter is being provided to Mr. Irons at Oxy Occidental Permian to facilitate the further handling of this matter. Should you or Mr. Irons have any questions or any information contrary to the findings of our investigation, please feel free to call me at (281) 876-6134.

Yours very truly,



Thomas D. Dopler, Jr.
Landman

TDD/tcm

cc: Arnold Johnson - Noble Affiliates Legal

Mr. William C. Irons - Oxy Occidental Permian



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

February 5, 2001

CERTIFIED MAIL
RETURN RECEIPT NO. 5051-4041

President
Samedan Oil Corporation
12600 North Borough Dr., Suite 250
Houston, Texas 77067

RE: CASE # 1R0167
GARY JOHNSON RESIDENCE
HOBBS, NEW MEXICO

Dear Sir:

The New Mexico Oil Conservation Division (OCD) is looking into a complaint from Mr. Gary Johnson regarding oil-related contamination on his property at 1831 Mobile Street in Hobbs, New Mexico. This property in Section 28, Township 18 South, Range 38 East was apparently the location of the former Moon "A" tank battery which was previously operated by Samedan Oil Corporation (Samedan). A subsequent inspection of the site showed what appears to be tank bottoms on the surface of the land around the residence owned by Mr. Johnson.

The OCD requires that Samedan submit a plan to investigate the extent of contamination related to Samedan's former battery. The plan shall include all available information regarding the locations and type of all tanks, sumps, pits, pipelines and spills related to the operation of this tank battery site and Mr. Johnson's property as well as any information related to closure of the battery. Please submit the plan to the OCD Santa Fe Office by March 5, 2001 with a copy provided to the OCD Hobbs District Office.

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

Sincerely,

William C. Olson
Hydrologist
Environmental Bureau

xc: Chris Williams, OCD Hobbs District Supervisor
Gary Johnson

Shell E&P Company

A Division of Shell Exploration & Production Company



Woodcreek
200 N Dairy Ashford
Houston, TX 77079

P.O. Box 576
Houston, TX 77001

Electronic Mail Memorandum Transferred via Internet

November 2, 2000

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

RECEIVED

NOV 02 2000

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

**SUBJECT: GARY JOHNSON RESIDENCE
INFORMATION REQUEST
HOBBS, NEW MEXICO**

Dear Mr. Olson:

This is in response to your September 6, 2000 letter requesting information from Shell E&P Company about the Gary Johnson residence on 1831 Mobile Street, Hobbs, New Mexico.

Shell does not have any information in its files concerning the Johnson residence. The unit has been sold to Occidental Permian Ltd. Furthermore, the lessee of record is Samedan Oil Company.

However, Shell acquired the following information from Occidental Permian to help you assess the location:

- **Attachment 1:** Exhibit A, North Hobbs (Grayburg-San Andres) Unit, Lea County shows the Samedan lease in the Northeast ¼ section of section 28.
- **Attachment 2:** Shell Western E. & P. Inc., North Hobbs Unit, Section 28, Township 18 south, Range 38 east, Lea County, New Mexico map depicting the Moon lease.
- **Attachment 3 & 4:** Exhibit B, Attached to Unit Agreement, North Hobbs (Grayburg-San Andres) unit, Lea County, New Mexico, pages 26 and 27 indicate the lessee of record is Samedan Oil Corporation.
- **Attachments 5, 6 & 7:** Samedan Moon A & B, 3/4/80, tank battery "hand" drawn maps.

If you have any questions, please call me at (281) 544-2322 or electronic mail:
wahamilton@shellus.com.

Sincerely,

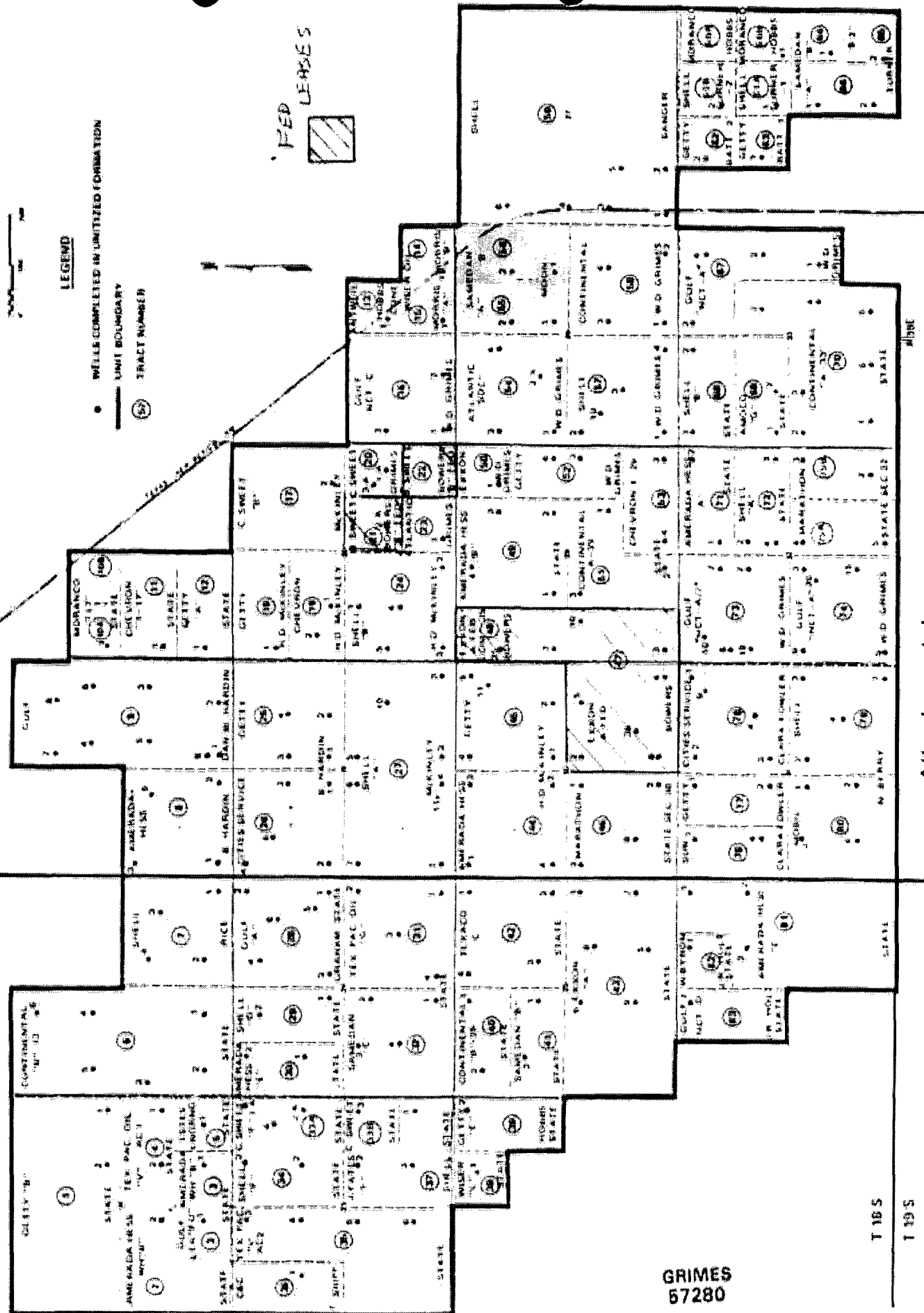
Wayne A. Hamilton
Retained Properties Manager

cc: Chris Williams, NMOCD District

EXHIBIT A
NORTH HOBBS (GRAYBURG - SAN ANDRES) UNIT
(Leas County, New Mexico)

22001951

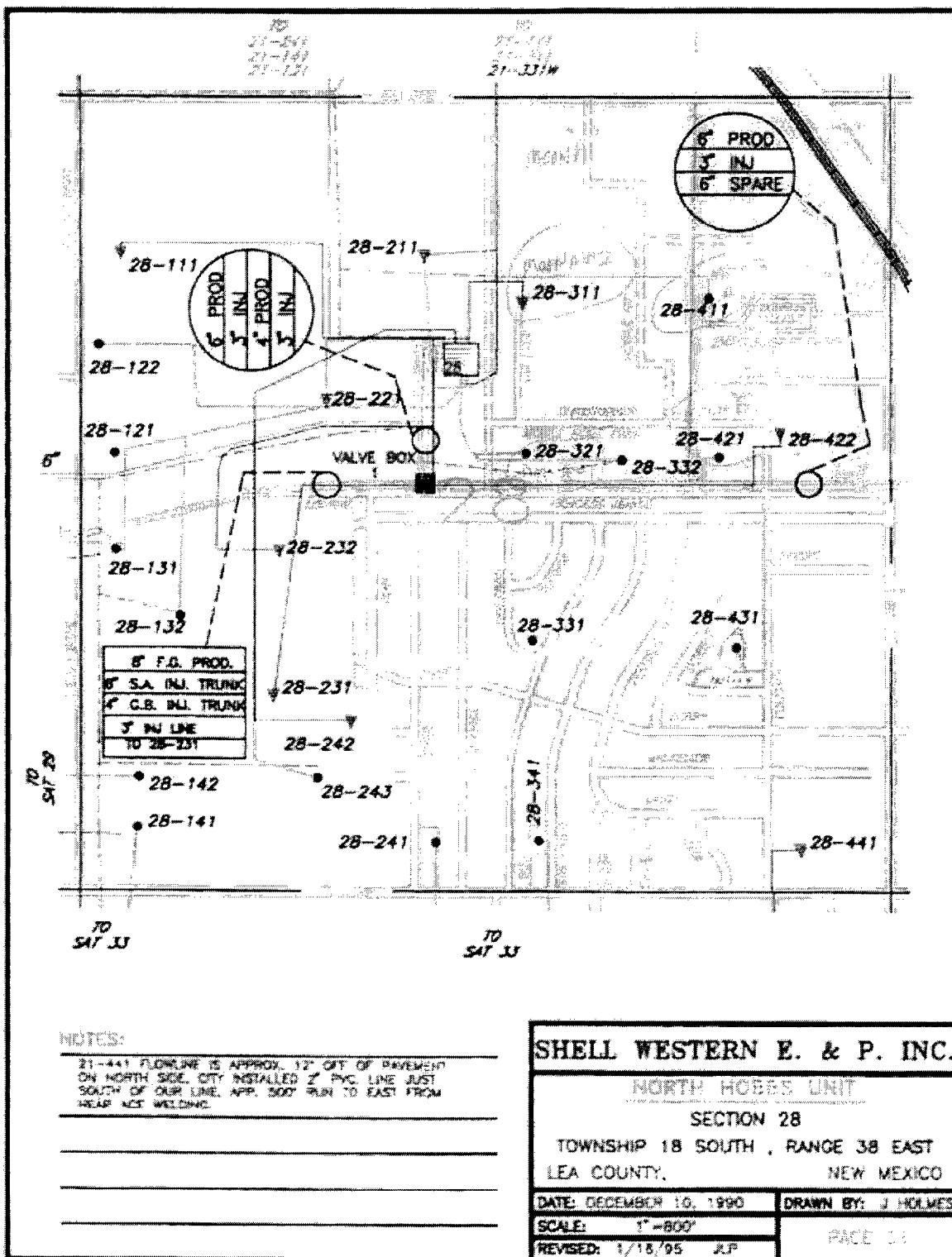
R 37 E R 38 E



GRIMES
67280

T 18 S

T 19 S



Attachment 2

EXHIBIT B
ATTACHED TO UNIT AGREEMENT
NORTH HOBBS (GRAYBURG-SAN ANDRES) UNIT
LEA COUNTY, NEW MEXICO

(EXHIBIT B, CONT'D)

Tract No.	Description of Land (Operator & Lease Name)	No. Acres	Serial No. & Expiration Date of Lease	Basic Royalty Ownership and Percentage	Lessee of Record	Overriding Royalty Owner & Percentage	Working Interest Owner & Percentage
45	T18S-R38E, Sec. 30: NE $\frac{1}{4}$ (Getty-H. D. McKinley)	160	Fee HBP 06/21/26	W. C. McBride - Silurian Oil Company, et al* 12.5%	Getty Oil Company 100%	Cities Service Company 1.17187%	Getty Oil Company 100%
50	T18S-R38E, Sec. 29: NE $\frac{1}{4}$ NE $\frac{1}{4}$ (Exxon-W. D. Grimes)	40	Fee HBP 06/23/28	Exxon Corporation, et al* 12.5%	Exxon Corporation 75% Cities Service Company 25% 100%	Continental Oil Company (net profit interest) 25%	Exxon Corporation 75% Cities Service Company 25% 100%
52	T18S-R38E, Sec. 29: SE $\frac{1}{4}$ NE $\frac{1}{4}$ & NE $\frac{1}{4}$ SE $\frac{1}{4}$ (Getty-W. D. Grimes)	80	Fee HBP 03/10/28	Lillian Milyko, et al* 12.5%	H. V. Craig 100%	None	Getty Oil Company 100%
54	T18S-R38E, Sec. 28: NW $\frac{1}{4}$ (Atlantic-W. D. Grimes SOC)	160	Fee HBP 06/10/26	Cities Service Company, et al* 12.5%	Sinclair Oil & Gas Company 100%	None	Atlantic Richfield Company 100%
55	T18S-R38E, Sec. 28: W $\frac{1}{2}$ NE $\frac{1}{4}$ (Samedan-Moon A)	80	Fee (7) HBP 10/03/34	George H. Eitz, Jr., Trustee of the George H. Eitz, Sr. Trust, et al* 12.5%	Samedan Oil Corporation 100%	None	John P. Cueack, Jr. 25%

GRIMES
57306

Attachment 3

EXHIBIT B
ATTACHED TO UNIT AGREEMENT
NORTH HOBBS (GRAYBURG-SAN ANDRES) UNIT
LEA COUNTY, NEW MEXICO

Page 27

(EXHIBIT B, CONT'D)

Tract No.	Description of Land (Operator & Lease Name)	No. Acres	Serial No. & Expiration & Date of Lease	Basic Royalty Ownership and Percentage	Lessee of Record	Overriding Royalty Owner & Percentage	Working Interest Owner & Percentage
55	Cont. 55						
			Fee (2) HBP 10/08/34				Michael P. Cusack 25%
			Fee (2) HBP 11/13/34				Samedan Oil Corporation 48.5%
							SEA Properties, Ltd. 1.5% 100%
56	T18S-R38E, Sec. 28; E1/4NE1/4 (Samedan-Moon B)	80	Fee (1) HBP 04/01/35 Fee (2) HBP 10/03/34 Fee (3) HBP 10/05/34 Fee (2) HBP 10/08/34 Fee (1) HBP 11/08/34 Fee (1) HBP 11/13/34 Fee (1) HBP 11/17/34	Samedan Oil Corporation, et al 12.5%	Samedan Oil Corporation 100%	None	John P. Cusack, Jr. 25% Michael P. Cusack 25% Samedan Oil Corporation 48.5% SEA Properties, Ltd. 1.5% 100%

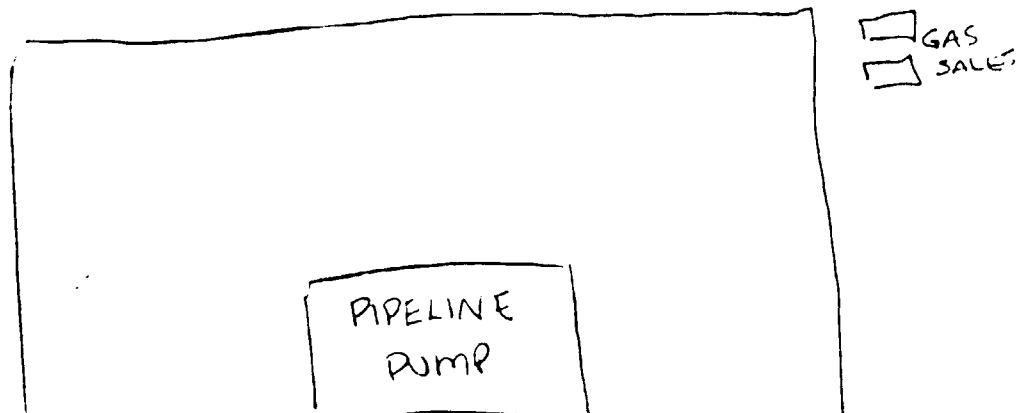
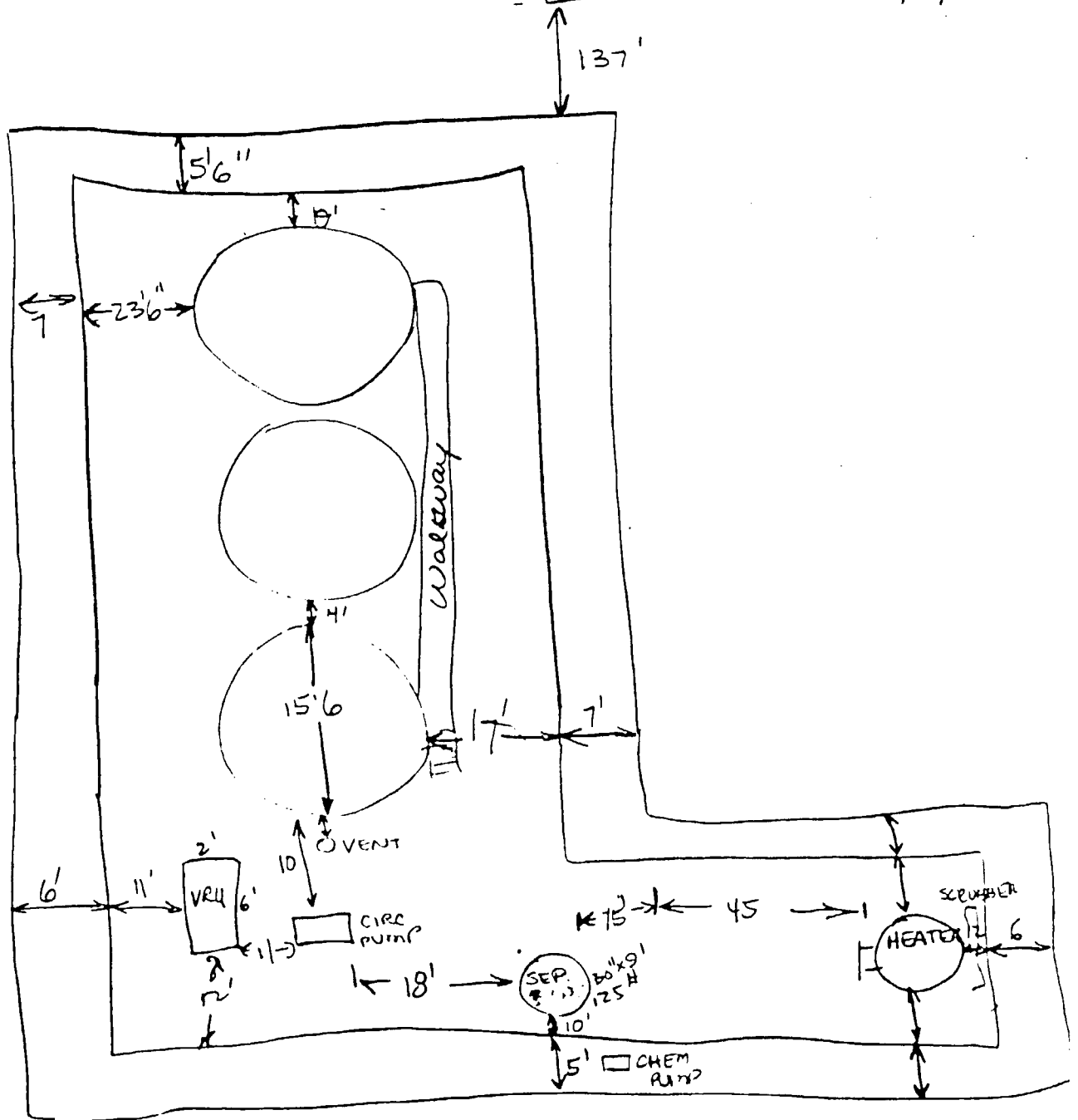
GRIMES
57307

Attachment 4

SAMEDAN MOON R

TRAILER

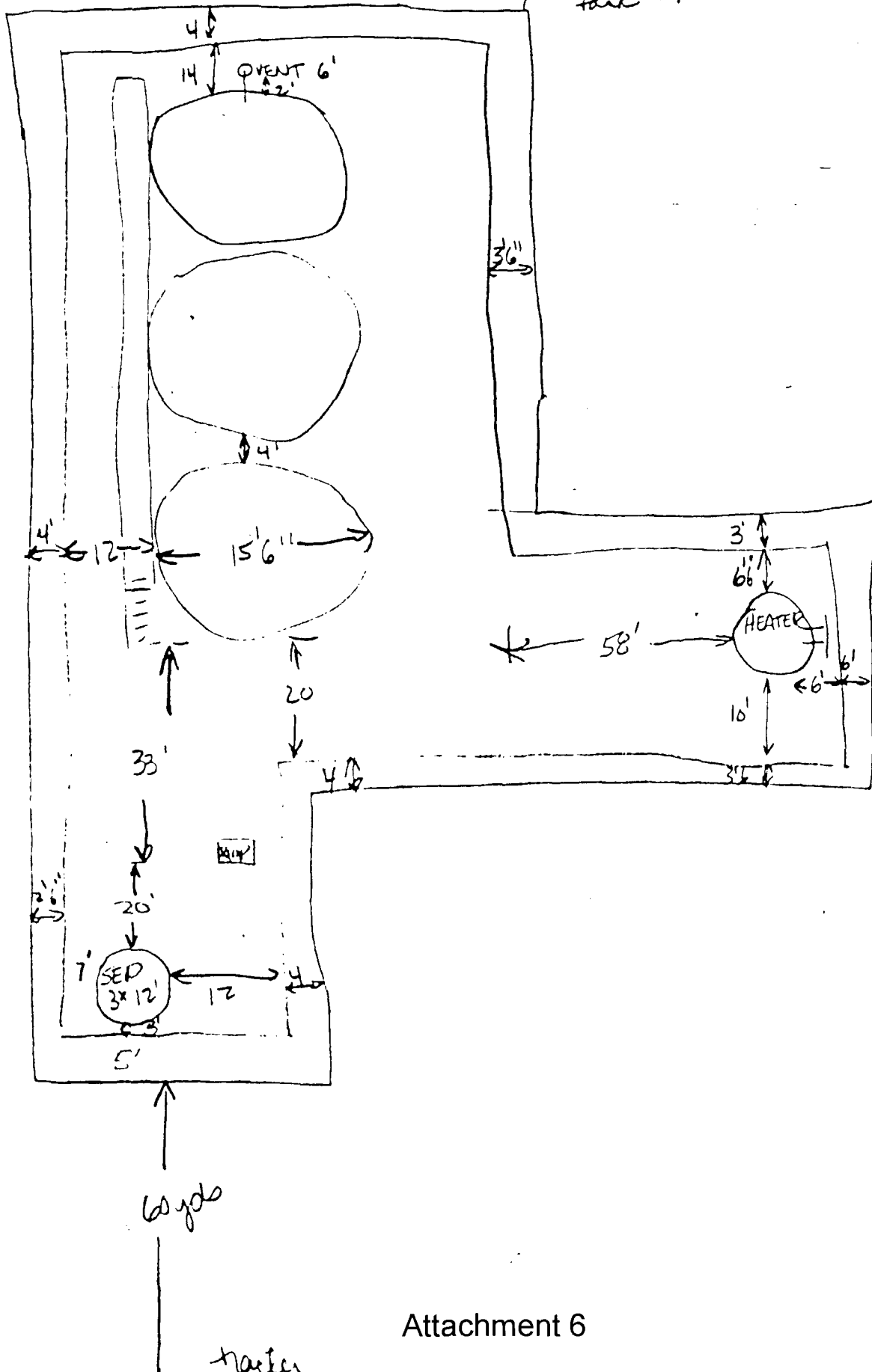
3/4/80



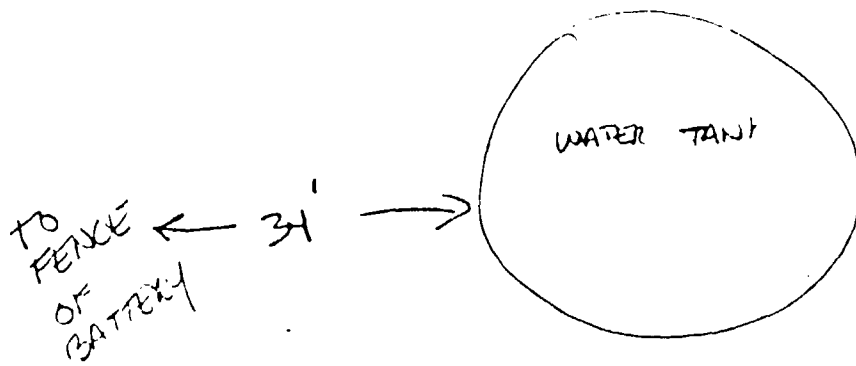
SAMEDAN MOON B Wells 1 & 2

(water tank 34')

3/7/80



SANITARY MOUND 13 WATER DISPOSAL



OKE ENGR
TRANSITE
STACIL

Olson, William

From: Olson, William
Sent: Tuesday, September 26, 2000 9:44 AM
To: 'Hamilton, Wayne WA SEPCO'
Subject: RE: Gary Johnson Residence, Hobbs, NM; OCD Information Request

The below-referenced extension request is approved. Shell shall submit the requested information related to the Gary Johnson contamination site to the OCD by November 6, 2000.

From: Hamilton, Wayne WA SEPCO [[SMTP:WH195042@MSXSEPC.SHELL.COM](mailto:WH195042@MSXSEPC.SHELL.COM)]
Sent: Tuesday, September 26, 2000 8:43 AM
To: Olson, William
Cc: Phillips, Kathleen KA SHLOIL
Subject: Gary Johnson Residence, Hobbs, NM; OCD Information Request

Per our phone discussion on September 26, 2000, and your September 6, 2000 letter concerning the Johnson residence, I request a 30-day extension to reply for information.

The additional time is necessary to search the files, lease information and contracts to comply with your request.

I would appreciate a confirming e-mail that this 30-day extension is granted.

Wayne A. Hamilton
Manager Retained Properties

Shell E&P Company
200 North Dairy Ashford
WCK Room 4154
Houston, TX 77079

Voice: 281-544-2322
FAX: 281-544-2238

E-Mail: wahamilton@shellus.com



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

September 6, 2000

CERTIFIED MAIL
RETURN RECEIPT NO. 5051-3587

Mr. Wayne A. Hamilton
Shell E&P Company
Rm. 4304 Woodcreek
200 N. Dairy Ashford
Houston, Texas 77079

**RE: GARY JOHNSON RESIDENCE
HOBBS, NEW MEXICO**

Dear Mr. Hamilton:

Earlier this year the New Mexico Oil Conservation Division (OCD) received a written complaint from Mr. Gary Johnson regarding oil-related contamination on his property at 1831 Mobile Street in Hobbs, New Mexico. Enclosed is a copy of Mr. Johnson's correspondence with the OCD. In response to an inquiry from the OCD, Occidental Permian Ltd. has informed the OCD that this property in Section 28, Township 18 South, Range 38 East was apparently the location of the former Moon "A" tank battery which was previously operated and dismantled by Shell Oil Company (Shell). An OCD inspection of the site showed what appears to be tank bottoms on the surface of the land around the residence owned by Mr. Johnson.

The OCD requires that Shell submit to the OCD all available information regarding the locations and type of all tanks, sumps, pits, pipelines and spills related to the operation of this tank battery site and Mr. Johnson's property as well as any information related to closure of the battery. Please submit this information to the OCD Santa Fe Office by October 6, 2000 with a copy provided to the OCD Hobbs District Office. If you have any questions, please contact me at (505) 827-7154.

Sincerely,

William C. Olson
Hydrologist
Environmental Bureau

xc: Chris Williams, OCD Hobbs District Supervisor
Gary Johnson

ATWOOD, MALONE, TURNER & SABIN

A PROFESSIONAL ASSOCIATION

500 MARQUETTE, N.W.
SUITE 750
P. O. BOX 20
ALBUQUERQUE, NEW MEXICO 87103-0020
TEL (505) 842-5715
FAX (505) 842-5713

JEFF D. ATWOOD (1883-1960)
ROSS L. MALONE (1910-1974)

ATTORNEYS AT LAW

400 NORTH PENNSYLVANIA
SUITE 1100
P. O. DRAWER 700
ROSWELL, NEW MEXICO 88202-0700

TEL (505) 622-6221

FAX (505) 624-2883

REPLY TO ROSWELL

BOB F. TURNER
ROBERT E. SABIN
STEVEN L. BELL
ROD M. SCHUMACHER
JOHN S. NELSON
LEE M. ROGERS, JR.
TIMOTHY A. LUCAS
VICTORIA DAVIS ARMSTRONG
REMO E. GAY
BRYAN EVANS
TIMOTHY L. WHITE
BARBARA A. REDDY
WILLIAM L. FINLEY
DAVID J. JARAMILLO

CHARLES F. MALONE
OF COUNSEL

April 26, 2000

William C. Olson, Hydrologist
Environmental Bureau, State of New Mexico
Energy, Minerals & Natural Resources Department
Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

Via Federal Express

Re: ***Gary Johnson Residence
Hobbs, New Mexico***

Dear Mr. Olson:

Your letter of March 27, 2000, addressed to Mr. Steve Bishop at Altura Energy Ltd., has been referred to this office for response. We appreciate this opportunity to furnish additional information to you in connection with Mr. Johnson's letter of January 3. Please note that Altura is now known as Occidental Permian Ltd., but will be referred to herein as "Altura."

From the information compiled by Altura personnel, and reviewed in this office, it appears to us that the area to which Mr. Johnson refers was probably an old tank battery site maintained in connection with properties operated by the Samedan Oil Corporation, prior to the formation of the North Hobbs (Grayburg-San Andres) Unit. The name of the lease was the "Moon A," and as you can see from the enclosed plat, it appears that the W/2 NE/4 of Section 28 was operated by Samedan under the lease name Moon A, while the east half of the same quarter section was operated by Samedan under lease name Moon B. Further, exhibits attached to the Unit Agreement for the North Hobbs Unit, copies of which are also attached, clearly indicate that Samedan was the lessee of record.

William C. Olson, Hydrologist
April 26, 2000
Page 2

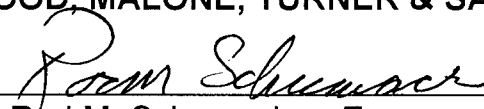
Our further investigation also indicates that Shell Oil Company may have used the subject tank battery for approximately one year following the commencement of Unit operations, and it is our understanding that Shell actually dismantled this battery. It is our current understanding that there were no pits or spills, or any other environmental impact while Shell while was operating the battery. In any case, the tank battery was never operated by Altura.

We trust that the foregoing information is responsive to your inquiry, and we urge you to call if we may be of additional assistance.

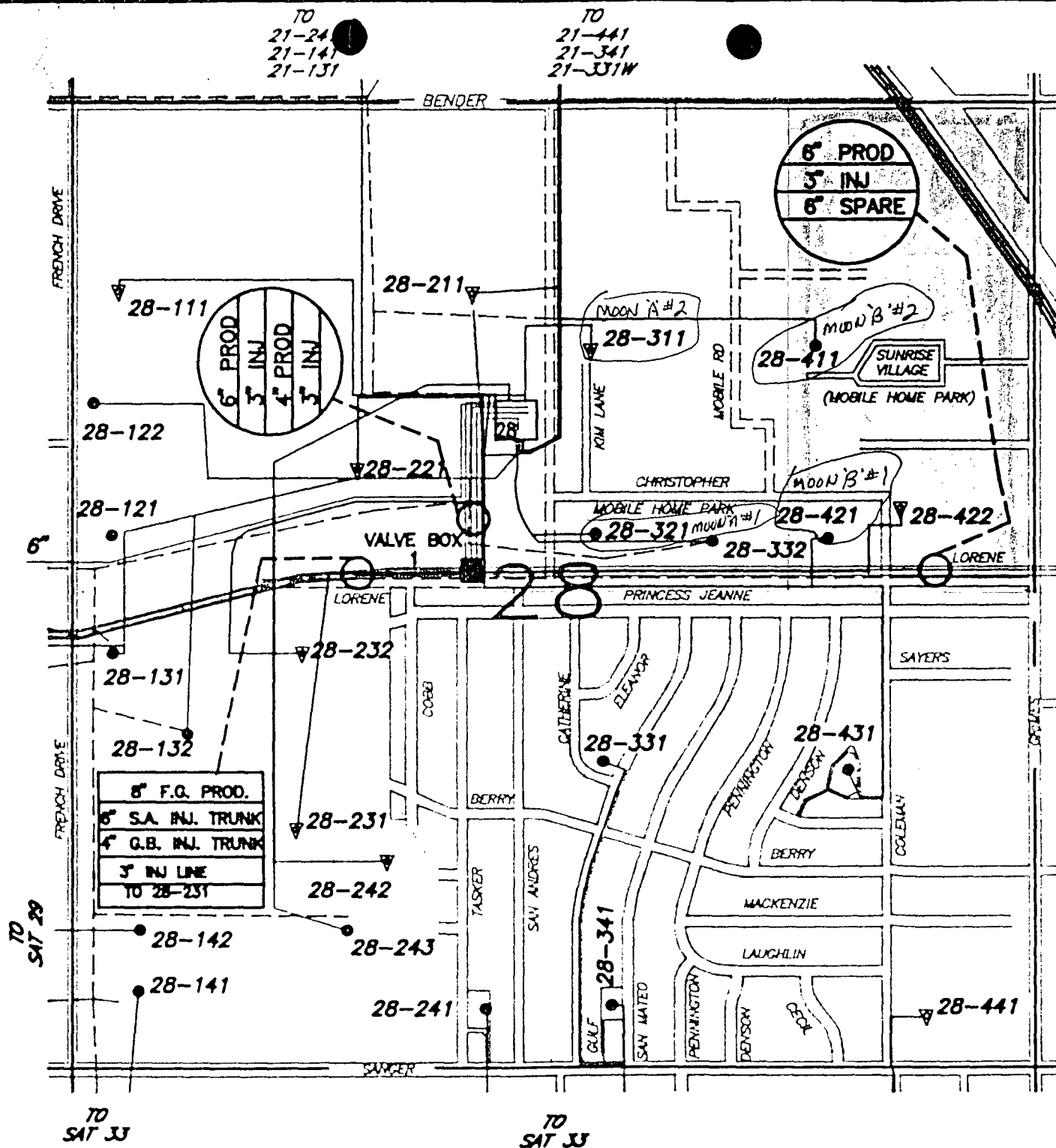
Sincerely,

ATWOOD, MALONE, TURNER & SABIN

By


Rod M. Schumacher, Esq.

RMS:blf
Attachments



NOTES:

21-441 FLOWLINE IS APPROX. 12' OFF OF PAVEMENT ON NORTH SIDE, CITY INSTALLED 2" PVC. LINE JUST SOUTH OF OUR LINE, APP. 500' RUN TO EAST FROM NEAR ACE WELDING.

SHELL WESTERN E. & P. INC.

NORTH HOBBS UNIT

SECTION 28

**TOWNSHIP 18 SOUTH , RANGE 38 EAST
LEA COUNTY, NEW MEXICO**

DATE: DECEMBER 10, 1990

DRAWN BY: J HOLMES

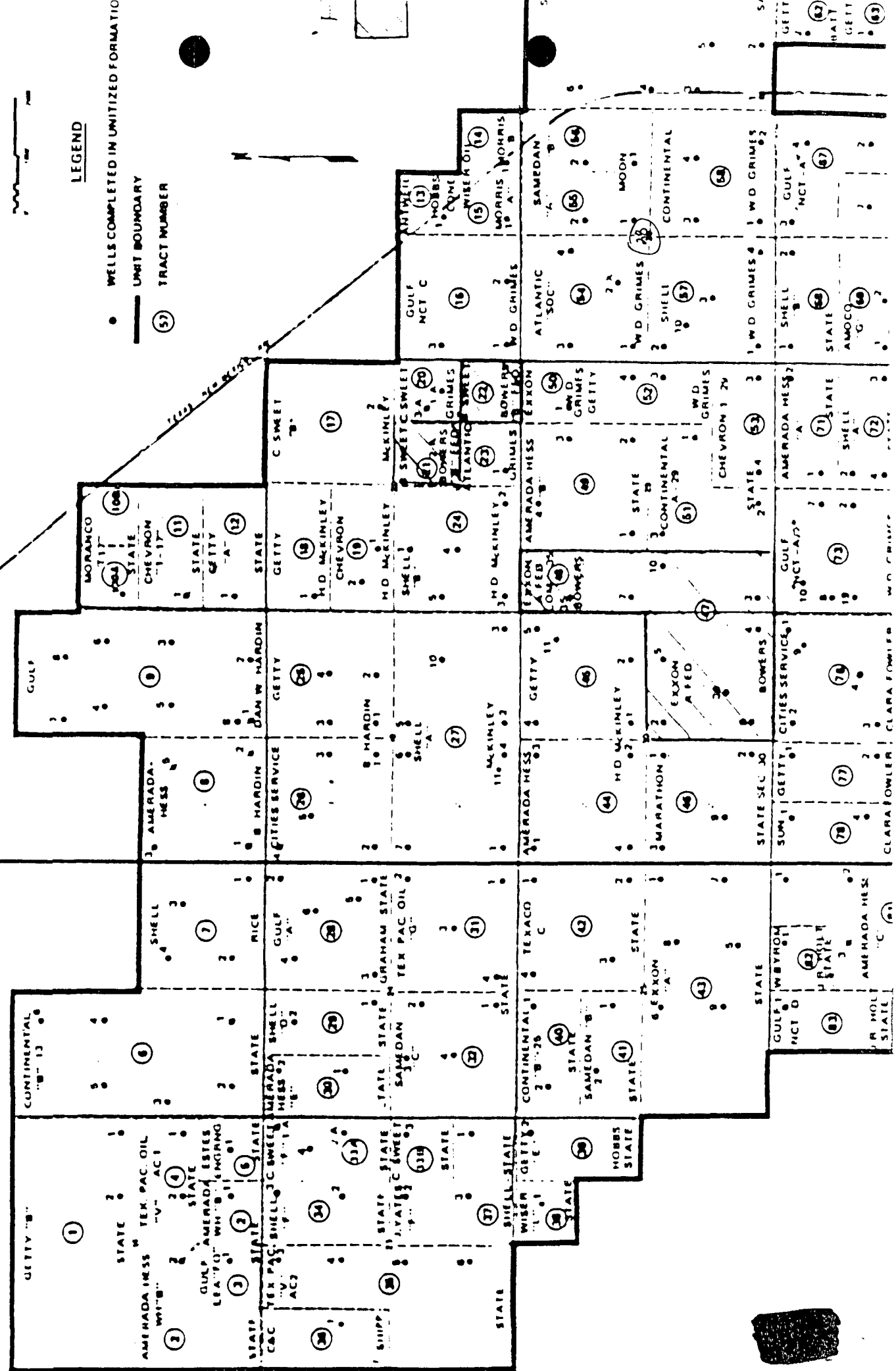
SCALE: 1"=800'

REVISED: 1/16/95 JLP

PAGE 33

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EXHIBIT A
NORTH HOBBS (GRAYBURG - SAM ANDRES) U
Lee County, New Mexico



LEGEND

- WELLS COMPLETED IN UNITIZED FORMATIONS
- UNIT BOUNDARY
- (57) TRACT NUMBER

EXHIBIT B
ATTACHED TO UNIT AGREEMENT
NORTH BOBBS (GRAYBURG-SAN ANDRES) UNIT
LEA COUNTY, NEW MEXICO

Page 26

(EXHIBIT B, CONT'D)

Tract No.	Description of Land (Operator & Lease Name)	No. Acres	Serial No. & Expiration Date of Lease	Basic Royalty Ownership and Percentage	Lessee of Record	Overriding Royalty Owner & Percentage	Working Interest Owner & Percentage
13	T18S-R38E, Sec. 30: MEX (Catty-H. D. McKinley)	160	Fee HBP 06/21/26	W. C. McBride - Silurian Oil Company, et al 12.5%	Getty Oil Company 100%	Cities Service Company 1.17187%	Getty Oil Company 100%
14	T18S-R38E, Sec. 29: MEX (Eaton-W. D. Grimes)	40	Fee HBP 06/23/28	Eaton Corporation, et al 12.5%	Eaton Corporation 75% Cities Service Company 25% 100%	Continental Oil Company (net profit interest) 25% Cities Service Company 25% 100%	Eaton Corporation 75% Cities Service Company 25% 100%
15	T18S-R38E, Sec. 29: MEX (SELMEX & MEXSEL) (Catty-W. D. Grimes)	80	Fee HBP 03/10/28	Lillian MillyLo, et al 12.5%	M. V. Craig 100%	None	Getty Oil Company 100%
16	T18S-R38E, Sec. 28: MEX (Atlantic-W. D. Grimes SOC)	160	Fee HBP 06/10/26	Cities Service Company, et al 12.5%	Sinclair Oil & Gas Company 100%	None	Atlantic Richfield Company 100%
17	T18S-R38E, Sec. 28: MEX (Samedan-Moon A)	80	Fee (7) HBP 10/03/34	George H. Ets, Jr., Trustee of the George H. Ets, Sr. Trust, et al 12.5%	Samedan Oil Corporation 100%	None	John P. Cusack, Jr. 25%

EXHIBIT B
ATTACHED TO UNIT AGREEMENT
NORTH BOBBS (GRAYBURG-SAN ANDRES) UNIT
LEA COUNTY, NEW MEXICO

Page 27

(EXHIBIT B, CONT'D)

Tract No.	Description of Land (Operator & Lease Name)	No. Acres	Serial No. & Expiration & Date of Lease	Basic Royalty Ownership and Percentage	Lessee of Record	Overriding Royalty Owner & Percentage	Working Interest Owner & Percentage
56	T18S-R30E, Sec. 28; E-MEX (Samadan-Moon B)	80	Fee (1) HBP 04/01/35 Fee (2) HBP 10/03/34 Fee (3) HBP 10/05/34 Fee (2) HBP 10/08/34 Fee (1) HBP 11/08/34 Fee (1) HBP 11/13/34 Fee (1) HBP 11/17/34		Samadan Oil Corpo- ration, et al 12.5% Samadan Oil Corpo- ration 100%		Michael F. Cusack 25% Samadan Oil Corporation 48.5% SEA Properties, Ltd. 1.5% 100% John P. Cusack, Jr. 25% Michael F. Cusack 25% Samadan Oil Corpo- ration 48.5% SEA Properties, Ltd. 1.5% 100%

Cont.
55



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 27, 2000

CERTIFIED MAIL
RETURN RECEIPT NO. Z-559-572-910

Mr. Steve Bishop
Altura Energy Ltd.
1017 West Stanolind
Hobbs, New Mexico 88240

**RE: GARY JOHNSON RESIDENCE
HOBBS, NEW MEXICO**

Dear Mr. Bishop:

The New Mexico Oil Conservation Division (OCD) has received a written complaint from Mr. Gary Johnson regarding oil related contamination on his property at 1831 Mobile Street in Hobbs, New Mexico. Enclosed is a copy of Mr. Johnson's correspondence with the OCD. This property in Section 28, Township 18 South, Range 38 East is apparently the location of a former tank battery which is part of Altura Energy, Ltd.'s (Altura) lease. An OCD inspection of the site shows what appears to be tank bottoms on the surface of the land around the residence owned by Mr. Johnson.

The OCD requires that Altura submit to the OCD all available information regarding the locations and type of all tanks, sumps, pits, pipelines and spills related to the operation of this tank battery site and Mr. Johnson's property. Please submit this information to the OCD Santa Fe Office by April 27, 2000 with a copy provided to the OCD Hobbs District Office.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Will Olson".

William C. Olson
Hydrologist
Environmental Bureau

Enclosure

xc w/o enclosure: Chris Williams, OCD Hobbs District Supervisor
Gary Johnson



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 27, 2000

Mr. Gary Johnson
1500 Tasker Rd.
Hobbs, New Mexico 88240

RE: WATER WELL SAMPLE ANALYSES

Dear Mr. Johnson:

Enclosed you will find a copy of the laboratory analytical results of the water samples that the New Mexico Oil Conservation Division (OCD) obtained from your water well at 1831 Mobile Street in Hobbs, New Mexico on January 25, 2000. The sample analyses did not detect any oil or gas related contaminants in your well water. The OCD has requested that the operator of this lease provide the OCD with information regarding prior oil and gas activities at your Mobile Street residence. The OCD will copy you on correspondence related to the site.

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

Sincerely,

A handwritten signature in cursive script, appearing to read "Will Olson".

William C. Olson
Hydrologist
Environmental Bureau

Enclosure

xc w/ enclosure: Chris Williams, OCD Hobbs District Supervisor
Steve Bishop, Altura Energy, Ltd.

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9
4725 Ripley Avenue, Suite A

Lubbock, Texas 79424 800•378•1296
El Paso, Texas 79922 888•588•3443
E-Mail: lab@traceanalysis.com

806•794•1296 FAX 806•794•1298
915•585•3443 FAX 915•585•4944

Analytical and Quality Control Report

Wayne Price
OCD
2040 S. Pacheco
Santa Fe, NM 87505

Report Date: 2/3/00

Project Number: West Gate
Project Name: Gary Johnson Well
Project Location: Johnson Well

Order ID Number: A00012701

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Matrix	Date Taken	Time Taken	Date Received
139426	0001250950	Water	1/25/00	9:50	1/27/00

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

This report consists of a total of 7 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



Dr. Blair Leftwich, Director

RECEIVED

FEB 14 2000

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

Report Date: 2/3/00
West Gate

Order ID Number: A00012701
Gary Johnson Well

Page Number: 2 of 7
Johnson Well

Analytical Results Report

Sample Number: 139426
Description: 0001250950

Param	Result	Dilution	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	QC Batch #	RDL
Alkalinity (mg/L as CaCO ₃)									
Hydroxide Alkalinity	<1.0	1	E 310.1	1/27/00	1/27/00	JS	PB00469	QC00611	1
Carbonate Alkalinity	<1.0	1	E 310.1	1/27/00	1/27/00	JS	PB00469	QC00611	1
Bicarbonate Alkalinity	182	1	E 310.1	1/27/00	1/27/00	JS	PB00469	QC00611	1
Total Alkalinity	182	1	E 310.1	1/27/00	1/27/00	JS	PB00469	QC00611	1
BTEX (mg/L)									
Benzene	<0.005	5	S 8021B	1/27/00	1/27/00	RC	PB00461	QC00603	0.001
Toluene	<0.005	5	S 8021B	1/27/00	1/27/00	RC	PB00461	QC00603	0.001
Ethylbenzene	<0.005	5	S 8021B	1/27/00	1/27/00	RC	PB00461	QC00603	0.001
M,P,O-Xylene	<0.005	5	S 8021B	1/27/00	1/27/00	RC	PB00461	QC00603	0.001
Total BTEX	<0.005	5	S 8021B	1/27/00	1/27/00	RC	PB00461	QC00603	0.001
Surrogate (mg/L)									
	Result	Dilution	Spike Amount	% Rec.	% Rec. Limit	Analyst	Prep Batch #	QC Batch #	
TFT	0.499	1	0.1	100	72 - 128	RC	PB00461	QC00603	
4-BFB	0.49	1	0.1	98	72 - 128	RC	PB00461	QC00603	
Conductivity (uMHOS/cm)									
Specific Conductance	820	1	SM 2510B	1/28/00	1/28/00	JS	PB00485	QC00626	
Ion Chromatography (IC) (mg/L)									
CL	70	1	E 300.0	1/27/00	1/27/00	JS	PB00467	QC00609	0.5
Fluoride	1.5	1	E 300.0	1/27/00	1/27/00	JS	PB00467	QC00609	0.1
Nitrate-N	* 3.8	1	E 300.0	1/27/00	1/27/00	JS	PB00467	QC00609	0.2
Sulfate	110	1	E 300.0	1/27/00	1/27/00	JS	PB00467	QC00609	0.5
* Nitrate-N - Sample out of holding time for NO ₃ .									
pH (s.u.)									
pH	* 7.2	1	E 150.1	1/27/00	1/27/00	RS	PB00503	QC00643	1
* pH - Out of holding time.									
TDS (mg/L)									
Total Dissolved Solids	510	1	E 160.1	1/27/00	1/28/00	MD	PB00473	QC00614	10

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1296 806-794-1296 FAX 806-794-1298
 4725 Ripley Avenue, Suite A El Paso, Texas 79922 888-588-3443 915-585-3443 FAX 915-585-4944
 E-Mail: lab@traceanalysis.com

FEB 14 2000

ANALYTICAL RESULTS FOR OCD

February 3, 2000

Receiving Date: 1/27/00

Sample Type: Water

Project No: West Gate

Project Location: Johnson Well

Attention: Wayne Price

2040 S. Pacheco

Santa Fe, NM 87505

Sampling Date: 1/25/00

Sample Condition: Intact & Cool

Sample Received by: VW

Project Name: Gary Johnson Well

WATER CONSERVATION DIVISION

TA#	FIELD CODE	Ag (mg/L)	Al (mg/L)	As (mg/L)	B (mg/L)	Ba (mg/L)	Cd (mg/L)	Co (mg/L)	Cr (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (mg/L)	Ni (mg/L)	Pb (mg/L)	Se (mg/L)	Si (mg/L)	Na (mg/L)	K (mg/L)	Mg (mg/L)	Ca (mg/L)	Zn (mg/L)	Hg (mg/L)	
T139426	0001250950	<0.05	<0.50	<0.10	<0.50	<0.50	0.03	<0.05	<0.05	<0.10	<0.50	<0.10	<0.10	<0.10	<0.05	<0.05	<0.05	28	47	4	18	108	<0.10	<0.0002
ICV		0.200	1.04	1.07	1.06	1.05	1.03	1.05	1.03	1.06	1.05	1.05	1.07	1.06	1.04	1.06	1.04	21.0	21.0	21.0	21.0	21.0	1.02	0.00113
CCV		0.214	0.99	1.08	1.02	1.01	1.06	1.04	1.02	1.01	1.05	1.03	1.04	1.07	1.06	1.04	1.10	21	21	21	21	21	1.07	0.00099
REPORTING LIMIT		0.05	0.50	0.10	0.50	0.50	0.01	0.05	0.05	0.10	0.50	0.10	0.10	0.10	0.05	0.05	0.50	0.50	0.50	0.50	0.50	0.10	0.0002	
RPD		3	8	10	6	6	1	6	6	7	7	7	7	6	7	8	6	1	1	1	1	8	4	
% Extraction Accuracy		87	101	98	109	100	93	94	96	96	102	96	96	95	93	96	100	102	104	108	106	96		
% Instrument Accuracy		103	102	10	104	103	104	104	102	103	105	104	105	106	105	105	107	105	105	105	105	107	106	
PREP DATE		2/1/00	2/1/00	2/1/00	2/1/00	2/1/00	2/1/00	2/1/00	2/1/00	2/1/00	2/1/00	2/1/00	2/1/00	2/1/00	2/1/00	2/1/00	2/1/00	2/1/00	2/1/00	2/1/00	2/1/00	2/1/00	2/1/00	
ANALYSIS DATE		2/2/00	2/2/00	2/2/00	2/2/00	2/2/00	2/2/00	2/2/00	2/2/00	2/2/00	2/2/00	2/2/00	2/2/00	2/2/00	2/2/00	2/2/00	2/2/00	2/2/00	2/1/00	2/1/00	2/1/00	2/1/00	2/1/00	

METHODS: EPA SW 840-6010B, 3010A, 3005A, 7470.

CHEMIST: AG, Al, As, B, Ba, Cd, Co, Cr, Cu, Fe, Mn, Mo, Ni, Pb, Se, Si, Na, K, Mg, Ca, Zn: RR Hg: BP

TOTAL METAL SPIKE: 0.40 mg/L Ag 2.5 mg/L Al, As, B, Ba, Cd, Co, Cr, Cu, Fe, Mn, Mo, Ni, Pb, Se, Si, Zn 1000 mg/L Na, K, Mg, Ca 0.0010 mg/L Hg

TOTAL METAL CV: 0.40 mg/L Ag 2.5 mg/L Al, As, B, Ba, Cd, Co, Cr, Cu, Fe, Mn, Mo, Ni, Pb, Se, Si, Zn 1000 mg/L Na, K, Mg, Ca 0.0010 mg/L Hg

PS

2-3-00

Director, Dr. Blair Leftwich

Date

Cation-Anion Balance Sheet

Sample #

139426

Date:

2/7/00

Cations

	ppm	meq/L
Calcium	108	5.3892
Magnesium	18	1.48122
Sodium	47	2.0445
Potassium	4	0.10232

Total Cations

9.01724 in meq/L

Anions

	ppm	meq/L
Alkalinity	182	3.64
Sulfate	110	2.2902
Chloride	70	1.9747
Nitrate as N	3.8	0.271282
Fluoride	1.5	0.07896

Total Anions

8.25514 in meq/L

Percentage Error

8.82447 %

(needs to be <10%)

OTHER INFORMATION

TDS

510

EC

820

Measure EC and Cation Sums	901.724	Range should be:	738	to	902
Measure EC and Anion Sums	825.5142	Range should be:	738	to	902
Calculated TDS/Conductivity	0.6219512	Range should be:	0.55	to	0.77
Measure TDS and Cation Sums	0.5655833	Range should be:	0.55	to	0.77
Measure TDS and Anion Sums	0.6177968	Range should be:	0.55	to	0.77

Quality Control Report Method Blanks

Param	Flag	Blank Result	Reporting Limit	Date Analyzed	Prep Batch #	QC Batch #
Hydroxide Alkalinity (mg/L as CaCo3)		<1.0	1	1/27/00	PB00469	QC00611
Carbonate Alkalinity (mg/L as CaCo3)		<1.0	1	1/27/00	PB00469	QC00611
Bicarbonate Alkalinity (mg/L as CaCo3)		<4.0	1	1/27/00	PB00469	QC00611
Total Alkalinity (mg/L as CaCo3)		<4.0	1	1/27/00	PB00469	QC00611

Param	Flag	Blank Result	Reporting Limit	Date Analyzed	Prep Batch #	QC Batch #
Benzene (mg/L)		<0.001	0.001	1/27/00	PB00461	QC00603
Toluene (mg/L)		<0.001	0.001	1/27/00	PB00461	QC00603
Ethylbenzene (mg/L)		<0.001	0.001	1/27/00	PB00461	QC00603
M,P,O-Xylene (mg/L)		<0.001	0.001	1/27/00	PB00461	QC00603
Total BTEX (mg/L)		<0.001	0.001	1/27/00	PB00461	QC00603
Surrogate		Result	Spike Amount	% Rec.	% Rec. Limit	QC Batch #
TFT (mg/L)		0.097	0.1	97	72 - 128	QC00603
4-BFB (mg/L)		0.094	0.1	94	72 - 128	QC00603

Param	Flag	Blank Result	Reporting Limit	Date Analyzed	Prep Batch #	QC Batch #
Specific Conductance (uMHOS/cm)		4.9		1/28/00	PB00485	QC00626

Param	Flag	Blank Result	Reporting Limit	Date Analyzed	Prep Batch #	QC Batch #
CL (mg/L)		<0.5	0.5	1/27/00	PB00467	QC00609
Fluoride (mg/L)		<0.1	0.1	1/27/00	PB00467	QC00609
Nitrate-N (mg/L)		<0.2	0.2	1/27/00	PB00467	QC00609
Sulfate (mg/L)		<0.5	0.5	1/27/00	PB00467	QC00609

Param	Flag	Blank Result	Reporting Limit	Date Analyzed	Prep Batch #	QC Batch #
Total Dissolved Solids (mg/L)		<10	10	1/28/00	PB00473	QC00614

Quality Control Report Matrix Spike and Matrix Duplicate Spike

Standard	Param	Sample Result	Dil.	Spike Amount Added	Matrix Spike Result	% Rec.	RPD	% Rec. Limit	RPD Limit	QC Batch #
MS	CL (mg/L)	120	1	62.5	186.44	106		80 - 120	0 - 20	QC00609
MS	Fluoride (mg/L)	1.1	1	12.5	12.64	92		80 - 120	0 - 20	QC00609
MS	Nitrate-N (mg/L)	16	1	25	38.59	90		80 - 120	0 - 20	QC00609
MSD	CL (mg/L)	120	1	62.5	186.32	106	0	80 - 120	0 - 20	QC00609
MSD	Fluoride (mg/L)	1.1	1	12.5	12.66	92	0	80 - 120	0 - 20	QC00609
MSD	Nitrate-N (mg/L)	16	1	25	38.56	90	0	80 - 120	0 - 20	QC00609

Quality Control Report Duplicates

Standard	Param	Flag	Duplicate Result	Sample Result	Dilution	RPD	RPD Limit	QC Batch #
Duplicate	Hydroxide Alkalinity (mg/L as CaCo		<1.0	<1.0	1	0	0 - 20	QC00611
Duplicate	Carbonate Alkalinity (mg/L as CaCo		<1.0	<1.0	1	0	0 - 20	QC00611
Duplicate	Bicarbonate Alkalinity (mg/L as CaC		168	170	1	1	0 - 20	QC00611
Duplicate	Total Alkalinity (mg/L as CaCo3)		168	170	1	1	0 - 20	QC00611

Standard	Param	Flag	Duplicate Result	Sample Result	Dilution	RPD	RPD Limit	QC Batch #
Duplicate	Specific Conductance (uMHOS/cm)		1357	1300	1	4	0 - 20	QC00626

Standard	Param	Flag	Duplicate Result	Sample Result	Dilution	RPD	RPD Limit	QC Batch #
Duplicate	pH (s.u.)		7.6	7.6	1	0	0 - 20	QC00643

Standard	Param	Flag	Duplicate Result	Sample Result	Dilution	RPD	RPD Limit	QC Batch #
Duplicate	Total Dissolved Solids (mg/L)		536	510	1	5	0 - 20	QC00614

Param	Blank Result	Dil.	Spike Amount Added	Matrix Spike Result	% Rec.	RPD	% Rec. Limit	RPD Limit	QC Batch #
LCS Sulfate (mg/L)	* <0.5	1	12.5	13.04	104		80 - 120	0 - 20	QC00609
* Sulfate - Blank spikes used because the sample that I spiked was out of the curve.									
LCSD Sulfate (mg/L)	* <0.5	1	12.5	12.85	103	1	80 - 120	0 - 20	QC00609
* Sulfate - Blank spikes used because the sample that I spiked was out of the curve.									

Quality Control Report

Continuing Calibration Verification Standard

Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
ICV	Hydroxide Alkalinity (mg/L as CaCo3)		0	<1.0	0	80 - 120	1/27/00	QC00611
ICV	Carbonate Alkalinity (mg/L as CaCo3)		0	2200	0	80 - 120	1/27/00	QC00611
ICV	Bicarbonate Alkalinity (mg/L as CaCo3)		0	60	0	80 - 120	1/27/00	QC00611
ICV	Total Alkalinity (mg/L as CaCo3)		2400	2260	94	80 - 120	1/27/00	QC00611
CCV 1	Hydroxide Alkalinity (mg/L as CaCo3)		0	40	0	80 - 120	1/27/00	QC00611
CCV 1	Carbonate Alkalinity (mg/L as CaCo3)		0	2200	0	80 - 120	1/27/00	QC00611
CCV 1	Bicarbonate Alkalinity (mg/L as CaCo3)		0	<1.0	0	80 - 120	1/27/00	QC00611
CCV 1	Total Alkalinity (mg/L as CaCo3)		2400	2240	93	80 - 120	1/27/00	QC00611

Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
ICV	Benzene (mg/L)		0.1	0.098	98	80 - 120	1/27/00	QC00603
ICV	Toluene (mg/L)		0.1	0.098	98	80 - 120	1/27/00	QC00603
ICV	Ethylbenzene (mg/L)		0.1	0.096	96	80 - 120	1/27/00	QC00603
ICV	M,P,O-Xylene (mg/L)		0.3	0.283	94	80 - 120	1/27/00	QC00603
CCV 1	Benzene (mg/L)		0.1	0.106	106	80 - 120	1/27/00	QC00603
CCV 1	Toluene (mg/L)		0.1	0.105	105	80 - 120	1/27/00	QC00603
CCV 1	Ethylbenzene (mg/L)		0.1	0.104	104	80 - 120	1/27/00	QC00603
CCV 1	M,P,O-Xylene (mg/L)		0.3	0.311	104	80 - 120	1/27/00	QC00603
CCV 2	Benzene (mg/L)		0.1	0.104	104	80 - 120	1/27/00	QC00603
CCV 2	Toluene (mg/L)		0.1	0.103	103	80 - 120	1/27/00	QC00603
CCV 2	Ethylbenzene (mg/L)		0.1	0.102	102	80 - 120	1/27/00	QC00603
CCV 2	M,P,O-Xylene (mg/L)		0.3	0.302	101	80 - 120	1/27/00	QC00603

Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
ICV	Specific Conductance (uMHOS/cm)		1413	1376	97	80 - 120	1/28/00	QC00626
CCV 1	Specific Conductance (uMHOS/cm)		1413	1357	96	80 - 120	1/28/00	QC00626

Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
ICV	CL (mg/L)		12.5	11.47	92	80 - 120	1/27/00	QC00609
ICV	Fluoride (mg/L)		2.5	2.40	96	80 - 120	1/27/00	QC00609
ICV	Nitrate-N (mg/L)		5	4.61	92	80 - 120	1/27/00	QC00609
ICV	Sulfate (mg/L)		12.5	11.91	95	80 - 120	1/27/00	QC00609
CCV 1	CL (mg/L)		12.5	11.53	92	80 - 120	1/27/00	QC00609
CCV 1	Fluoride (mg/L)		2.5	2.39	96	80 - 120	1/27/00	QC00609
CCV 1	Nitrate-N (mg/L)		5	4.62	92	80 - 120	1/27/00	QC00609

Report Date: 2/3/00
West Gate

Order ID Number: A00012701
Gary Johnson Well

Page Number: 7 of 7
Johnson Well

Quality Control Report Continuing Calibration Verification Standard

Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
CCV 1	Sulfate (mg/L)		12.5	11.96	96	80 - 120	1/27/00	QC00609

Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
ICV	pH (s.u.)		7	7.0	100	80 - 120	1/27/00	QC00643
CCV 1	pH (s.u.)		7	7.0	100	80 - 120	1/27/00	QC00643

Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
ICV	Total Dissolved Solids (mg/L)		1000	1023	102	80 - 120	1/28/00	QC00614
CCV 1	Total Dissolved Solids (mg/L)		1000	1052	105	80 - 120	1/28/00	QC00614

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

Company Name:

$NMO \subset D$

Phone #:

505-827-7155

Address: (Street, City, Zip)

(Street, City, Zip)
2040 S PACHECO SANTA FE NM 87505
Fax #:

Fax #:

55

Contact Person:

WAGNER PRICE

Invoice to:

Invoice to:
(If different from above)

Project #:

Project #: WEST GATE

Project Name:

~~Case~~

JOHNSON ZIEGLER

Project Location:

Project Location: JOHNSON WELL

Re: BILL OLSON
PAYEE PRICE 1/1

[illegible]

Belinarius by:

Date: _____ Time: _____

Received by:

Date: _____ Time: _____

1

LAB USE ONLY

Relinquished by:

Date: 7 Time:

Received by:

Date: _____ Time: _____

1

Delineaard by:

Date: _____ Time: _____

Received at 1

Date: _____ Time: _____

1

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

ORIGINAL COPY

Gary Johnson Well (Hobbs, NM)

1/25/00

arrived at 0940 with Roger Anderson
Wayne Price } OGD
Jack Ford
Donna Williams

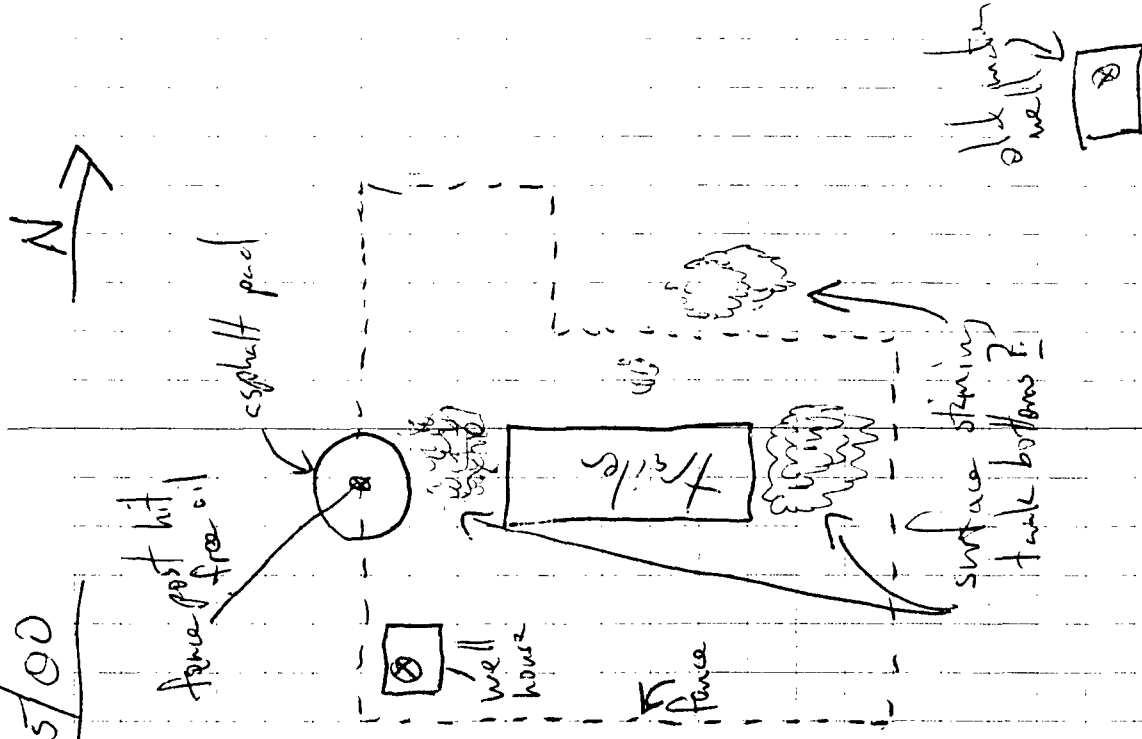
met with Gary Johnson (land owner) about complaint
+ truck on property, rental to daughter
water well in south west corner of property
seen truck bottoms spread on surface
digital photos (1-5) of truck
hit free oil in fence post hole in old
asphalt pad for tank battery

Altura wells adjacent to site (square #6)
one well - North Hobbs (G/SA) Unit
#28-332

Unit G, Sec 28, T16S, R38E

Sampled water well
sample id 0001250950

Samples - 8021 (BTEX)
- cationic anion
- metals



Bill Olson Field Book #5



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1831 Mobile, Hobbs, NM

New Location

Tools

1831 Mobile, Hobbs, NM 88240-2749

Nearby Businesses

- Gas Stations
- Hotels and Motels
- Restaurants

Nearby Classifieds

Printable Map

Inside Yahoo!

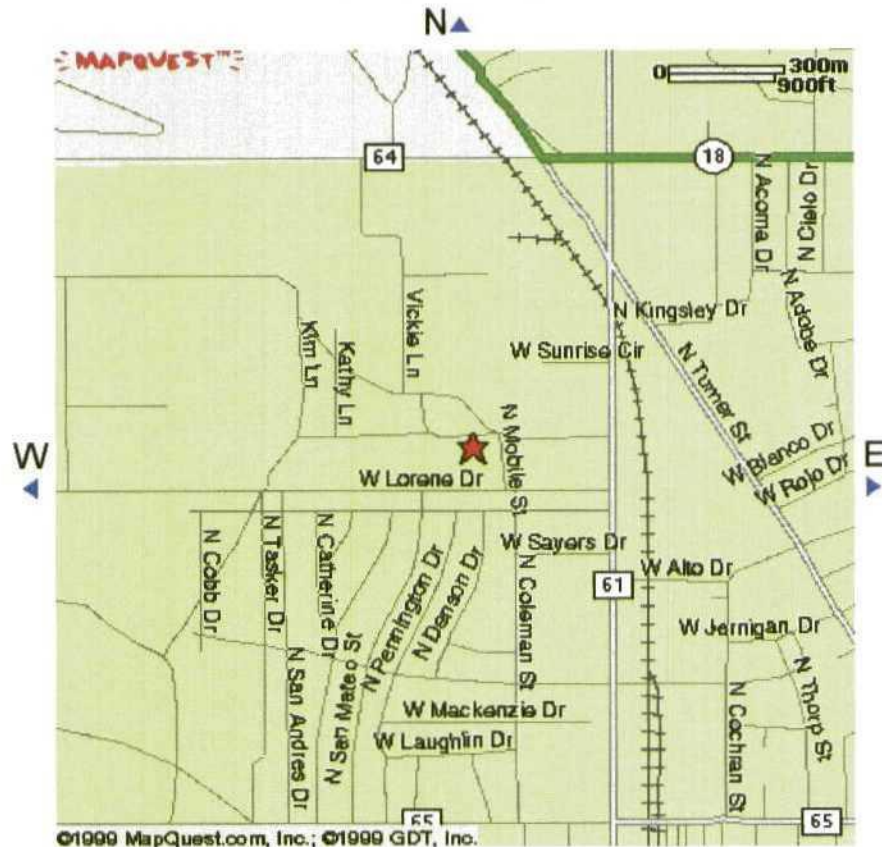
Yahoo! Classifieds

Yahoo! Traffic

Yahoo! Travel

Yahoo! Wallet

Zoom Out ◀◀◀◀◀◀◀◀◉▶ Zoom In



S▼

Driving Directions

Find Nearby Businesses

Map a New Address

Street Address, Intersection or Airport Code

1831 Mobile

City, State Zip or a ZIP

Hobbs, NM 88240-2749

Get Map



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[Yahoo! Travel](#) - book airline tickets, hotel rooms, cruises, rental cars

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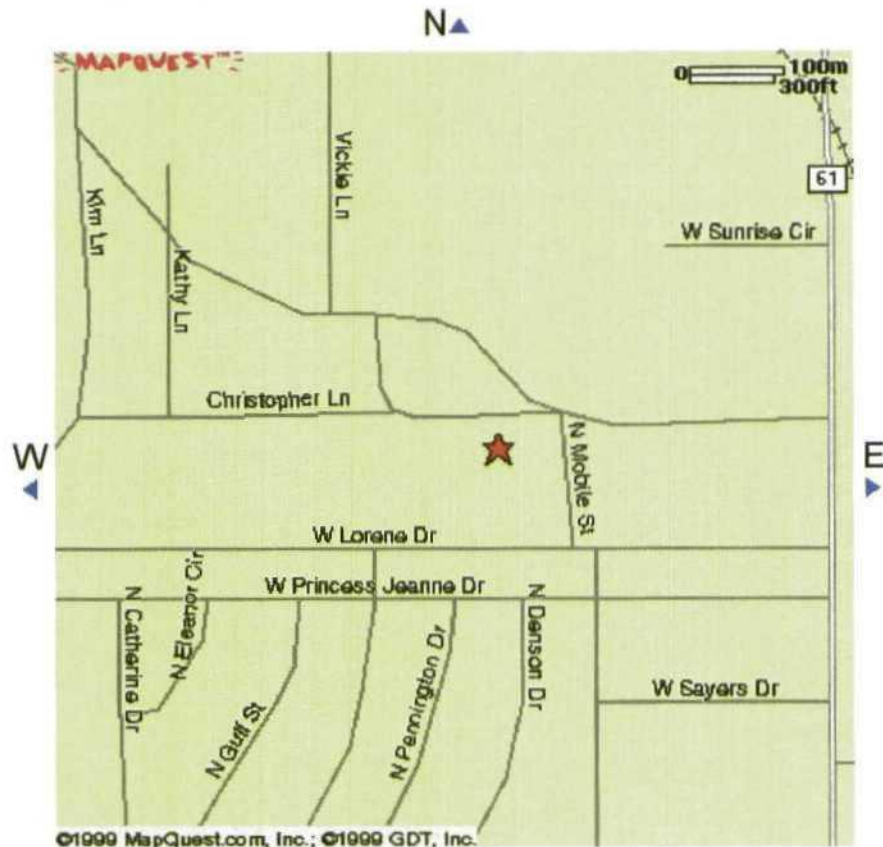
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Zoom Out ◀ ◀ ◀ ◀ ◀ ◀ ◀ ◀ ◀ Zoom In ●



S ▼

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[Find Nearby Businesses](#)

Map a New Address

Street Address, Intersection or [Airport Code](#)

1831 Mobile

City, State Zip or a ZIP

Hobbs, NM 88240-2749

DEAR MR. OLSEN,

JANUARY 3, 2000

EARLY IN 1999, WHILE DRILLING HOLES FOR A FENCE AT 1831
MOBILE STREET,

SEC 28 T18S R38E

I FOUND WHAT APPEARS TO BE 3 OLD TANK BATTERY PADS AND
ONE ABANDONED FLOW LINE ON MY PROPERTY. THE FLOW LINE,
WHICH RUNS UNDER MY MOBILE HOME, IS FULL OF PARAFFIN. WHILE
DRILLING 3' DEEP HOLES FOR THE FENCE, OIL WAS FOUND DRIPPING
OFF THE BIT. I NOTIFIED THE NMOC D OFFICE IN HOBBS AND THEY
SUGGESTED I CONTACT YOU. THERE IS A WATER WELL
APPROXIMATELY 40' FROM THE PADS.

THIS CAUSES ME GREAT CONCERN AND I WOULD APPRECIATE YOU
LOOKING INTO THIS MATTER. PLEASE CONTACT ME AT YOUR
EARLIEST CONVENIENCE.

SINCERELY,



GARY JOHNSON
1500 TASKER
HOBBS, NM
505-370-0503
505-393-4057

RECEIVED

JAN 03 2000

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION