

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION



BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY



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

RECEIVED
DEC 01 1994

OIL CON. DIV.
DEC 3

COMMINGLING ORDER PLC-105

UNOCAL Oil & Gas Division
3300 North Butler, Suite 200
Farmington, NM 87401

Attention: Brett H. Liggett

The above-named company is hereby authorized to commingle Basin Fruitland Coal Gas, South Blanco-Pictured Cliffs, Otero Chacra, Blanco-Mesaverde, South Blanco Tocito Gallup, Largo Gallup and Basin-Dakota Pool production from the following 178 wells listed on Exhibit "A" attached hereto.

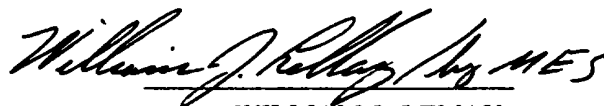
Production shall be allocated to each well by utilizing individual well allocation meters and deriving allocation factors as shown on Exhibit "B" attached hereto.

FURTHER: The operator shall notify the Aztec District Office of the Division upon implementation of the commingling process.

NOTE: This installation shall be installed and operated in accordance with the applicable provisions of Rule 309-B of the Division Rules and Regulations and the Division "Manual for the Installation and Operation of Commingling Facilities." It is the responsibility of the producer to notify the transporter of this commingling authority.

REMARKS: The commingled liquid production from the subject wells shall be stored in the CDP No. 4 tank battery facility, and commingled gas production sold at Central Delivery Point No. 4 custody transfer meter located in Unit M of Section 30, Township 27 North, Range 6 West, NMPM, Rio Arriba County, New Mexico.

DONE at Santa Fe, New Mexico, on this 21st day of March, 1994.


WILLIAM J. LEMAY,
Division Director

cc: Oil Conservation Division - Hobbs
Oil Conservation Division - Data Processing
NM State Land Office - Oil & Gas Division
US Bureau of Land Management - Carlsbad

Exhibit "A"
Commingling Order PLC-105

Rincon Unit Well No.	Producing Pool(s)	S-T-R
1E ✓	Blanco Mesaverde/Basin Dakota	30-27N-06W
2	South Blanco Pictured Cliffs	06-26N-06W
3	South Blanco Pictured Cliffs	06-26N-06W
4	South Blanco Pictured Cliffs	31-27N-06W
5	South Blanco Pictured Cliffs	32-27N-06W
9	South Blanco Pictured Cliffs	31-27N-06W
11	Basin Dakota	06-26N-06W
13	South Blanco Pictured Cliffs	06-26N-06W
16	South Blanco Pictured Cliffs	25-27N-07W
17	South Blanco Pictured Cliffs	02-26N-07W
18R	South Blanco Pictured Cliffs/Otero Chacra	35-26N-07W
19	Basin Fruitland Coal	30-27N-06W
21	Blanco Mesaverde	16-27N-06W
21A	Blanco Mesaverde	16-27N-06W
22	South Blanco Pictured Cliffs	23-27N-07W
23	Blanco Mesaverde	35-27N-07W
24	South Blanco Pictured Cliffs	32-27N-06W
25	South Blanco Pictured Cliffs	36-27N-07W
27	South Blanco Pictured Cliffs	13-27N-07W
29A	Blanco Mesaverde	22-27N-06W
32	Blanco Mesaverde	16-27N-06W
32A	Blanco Mesaverde	16-27N-06W
37	South Blanco Pictured Cliffs	26-27N-07W
38	South Blanco Pictured Cliffs	26-27N-07W
39	South Blanco Pictured Cliffs	26-27N-07W
40	South Blanco Pictured Cliffs	26-27N-07W

Rincon Unit Well No.	Producing Pool(s)	S-T-R
41	South Blanco Pictured Cliffs	35-27N-07W
42	South Blanco Pictured Cliffs	35-27N-07W
43	South Blanco Pictured Cliffs	25-27N-07W
44	South Blanco Pictured Cliffs	25-27N-07W
48	South Blanco Pictured Cliffs	30-27N-06W
49	South Blanco Pictured Cliffs	31-27N-06W
51	South Blanco Pictured Cliffs	06-26N-06W
52	South Blanco Pictured Cliffs	20-27N-06W
54	South Blanco Pictured Cliffs	14-27N-07W
55	South Blanco Pictured Cliffs	02-26N-07W
56	South Blanco Pictured Cliffs	02-26N-07W
57	Basin Dakota	01-26N-07W
58	South Blanco Pictured Cliffs	24-27N-07W
59	South Blanco Pictured Cliffs	24-27N-07W
60	South Blanco Pictured Cliffs	25-27N-07W
61	South Blanco Pictured Cliffs	30-27N-06W
62	South Blanco Pictured Cliffs	28-27N-06W
64	South Blanco Pictured Cliffs	23-27N-07W
65	South Blanco Pictured Cliffs	23-27N-07W
67	South Blanco Pictured Cliffs	22-27N-07W
68	South Blanco Pictured Cliffs	27-27N-07W
70	South Blanco Pictured Cliffs	27-27N-07W
72	South Blanco Pictured Cliffs	33-27N-07W
75	South Blanco Pictured Cliffs	34-27N-07W
76	South Blanco Pictured Cliffs	34-27N-07W
77	South Blanco Pictured Cliffs	34-27N-07W
78	Blanco Mesaverde	14-27N-07W
79	Blanco Mesaverde	17-26N-06W

Rincon Unit Well No.	Producing Pool(s)	S-T-R
79A	Blanco Mesaverde	17-27N-06W
80	Blanco Mesaverde	18-27N-06W
81	Blanco Mesaverde	17-27N-06W
81A	Blanco Mesaverde	17-27N-06W
84	Blanco Mesaverde	26-27N-07W
87	South Blanco Pictured Cliffs	13-27N-07W
88	South Blanco Pictured Cliffs/Blanco Mesaverde	13-27N-07W
88A	Blanco Mesaverde	13-27N-07W
90	South Blanco Pictured Cliffs	13-27N-07W
91	South Blanco Pictured Cliffs	02-26N-07W
97	South Blanco Pictured Cliffs/Blanco Mesaverde	11-26N-07W
97A	Blanco Mesaverde	18-27N-06W
98	South Blanco Pictured Cliffs/Blanco Mesaverde	18-27N-06W
103	South Blanco Pictured Cliffs	18-27N-06W
104	South Blanco Pictured Cliffs	21-27N-06W
105	South Blanco Pictured Cliffs	21-27N-06W
106	South Blanco Pictured Cliffs	16-27N-06W
107	South Blanco Pictured Cliffs/Blanco Mesaverde	16-27N-06W
108	Blanco Mesaverde/Basin Dakota	17-27N-06W
108A	Blanco Mesaverde	18-27N-06W
108E	Otero Chacra/Basin Dakota	19-27N-06W
109	South Blanco Pictured Cliffs	19-27N-06W
110	South Blanco Pictured Cliffs	19-27N-06W
111	South Blanco Pictured Cliffs	20-27N-06W
113	Blanco Mesaverde	20-27N-06W

Rincon Unit Well No.	Producing Pool(s)	S-T-R
114	South Blanco Pictured Cliffs	20-27N-06W
115	South Blanco Pictured Cliffs/Blanco Mesaverde	21-27N-06W
116	South Blanco Pictured Cliffs	21-27N-06W
120	South Blanco Pictured Cliffs	22-27N-06W
123	Blanco Mesaverde	13-27N-07W
124	Blanco Mesaverde	34-27N-07W
126	Blanco Mesaverde/Basin Dakota	27-27N-06W
127M	Blanco Mesaverde/Basin Dakota	28-27N-06W
128	Blanco Mesaverde/Basin Dakota	28-27N-06W
129	Blanco Mesaverde/Basin Dakota	29-27N-06W
129M	Blanco Mesaverde/Basin Dakota	29-27N-06W
130	Blanco Mesaverde/Basin Dakota	32-27N-06W
130E	South Blanco Tocio Gallup/Basin Dakota	32-27N-06W
133	Basin Dakota	14-27N-07W
135	Blanco Mesaverde/Basin Dakota	29-27N-06W
135A	South Blanco Pictured Cliffs/Blanco Mesaverde	29-27N-06W
135E	Otero Chacra/Basin Dakota	29-27N-06W
136	Basin Dakota	23-27N-07W
136E	Blanco Mesaverde/Basin Dakota	23-27N-07W
137	Blanco Mesaverde/Basin Dakota	24-27N-07W
137E	Blanco Mesaverde/Basin Dakota	24-27N-07W
138	Basin Dakota	25-27N-07W
139	Basin Dakota	25-27N-07W
149	Basin Dakota	30-27N-06W
150	Blanco Mesaverde/Basin Dakota	06-26N-06W
151	Basin Dakota	14-27N-07W

Rincon Unit Well No.	Producing Pool(s)	S-T-R
151M	Blanco Mesaverde/Basin Dakota	14-27N-07W
154	South Blanco Pictured Cliffs	30-27N-06W
155	Basin Dakota	17-27N-06W
156	Basin Dakota	16-27N-06W
157	Basin Dakota	18-27N-06W
159	Basin Dakota	18-27N-06W
159M	Blanco Mesaverde/Basin Dakota	18-27N-06W
161	Basin Dakota	17-27N-06W
162	South Blanco Pictured Cliffs	27-27N-06W
163	South Blanco Pictured Cliffs	29-27N-06W
164	Largo Gallup/Basin Dakota	02-26N-07W
166	Basin Dakota	32-27N-06W
167	Basin Dakota	13-27N-07W
167M	Blanco Mesaverde/Basin Dakota	13-27N-07W
168	Basin Dakota	36-27N-07W
169	Basin Dakota	26-27N-07W
170	Basin Dakota	20-27N-06W
170M	Blanco Mesaverde/Basin Dakota	20-27N-06W
171	Basin Dakota	21-27N-06W
171M	Blanco Mesaverde/Basin Dakota	21-27N-06W
172	Basin Dakota	26-27N-07W
174	Basin Dakota	19-27N-06W
174M	Blanco Mesaverde/Basin Dakota	19-27N-06W
175	Basin Dakota	20-27N-06W
175M	Blanco Mesaverde/Basin Dakota	20-27N-06W
177	Basin Dakota	13-27N-07W
178	Basin Dakota	23-27N-07W
179	Basin Dakota	16-27N-06W

Rincon Unit Well No.	Producing Pool(s)	S-T-R
180	Basin Dakota	21-27N-06W
180M	Blanco Mesaverde/Basin Dakota	21-27N-06W
186	Basin Dakota	33-27N-07W
187	Basin Dakota	35-27N-07W
190	South Blanco Pictured Cliffs	17-27N-06W
193	Basin Dakota	35-27N-07W
194	South Blanco Pictured Cliffs	16-27N-06W
195	South Blanco Pictured Cliffs	19-27N-06W
197	South Blanco Pictured Cliffs	28-27N-06W
199	South Blanco Pictured Cliffs	14-27N-07W
201	Basin Dakota	02-26N-07W
202	Basin Dakota	27-27N-07W
223	Otero Chacra/Blanco Mesaverde	34-27N-07W
223A	Otero Chacra/Blanco Mesaverde	34-27N-07W
229	Basin Dakota	34-27N-07W
233	Otero Chacra/Blanco Mesaverde	02-26N-07W
234	Otero Chacra/Blanco Mesaverde	02-26N-07W
240	Basin Fruitland Coal	21-27N-06W
243	Basin Fruitland Coal	27-27N-06W
251	Basin Fruitland Coal	28-27N-06W
252	Basin Fruitland Coal	18-27N-06W
253	Basin Fruitland Coal	17-27N-06W
254	Basin Fruitland Coal	20-27N-06W
255	Basin Fruitland Coal	20-27N-06W
256	Basin Fruitland Coal	16-27N-06W
257	Basin Fruitland Coal	16-27N-06W
258	Basin Fruitland Coal	17-27N-06W
259	Basin Fruitland Coal	29-27N-06W

Rincon Unit Well No.	Producing Pool(s)	S-T-R
261	Basin Fruitland Coal	29-27N-06W
263	Basin Fruitland Coal	19-27N-06W
264	Basin Fruitland Coal	19-27N-06W
265	Basin Fruitland Coal	30-27N-07W
274	Basin Fruitland Coal	36-27N-07W
276	Basin Fruitland Coal	13-27N-07W
277	Basin Fruitland Coal	13-27N-07W
278	Basin Fruitland Coal	14-27N-07W
279	Basin Fruitland Coal	14-27N-07W
281	Basin Fruitland Coal	23-27N-07W
286	Basin Fruitland Coal	26-27N-07W
291	Basin Fruitland Coal	34-27N-07W
292	Basin Fruitland Coal	35-27N-07W
293	Basin Fruitland Coal	35-27N-07W
294	Basin Fruitland Coal	02-26N-07W
300	Basin Fruitland Coal	06-26N-06W
30	Basin Fruitland Coal	25-27N-07W

Exhibit "B"

Gas and Liquid Allocation Calculations

LAF: Liquid Allocation Factor

GAF: Gas Allocation Factor

N: Total Number of Wells in the Gathering System

n: nth Individual Well in the Gathering System

$$LAF(n) = \frac{\text{Well Site Tank Liquid Volume, nth Well (bbl/mo)}}{\sum_{i=1}^N \text{Well Site Tank Liquid Volume, nth Well (bbl/mo)}}$$

$$GAF(n) = \frac{\text{Allocation Meter Volume, nth Well (Mcf/mo)}}{\sum_{i=1}^N \text{Allocation Meter Volume, nth Well (Mcf/mo)}}$$

N = 178 Wells for CDP No. 4

Liquids allocated from the CDP No. 4 tank back to the nth well:

$$Q_n(\text{liquids}) = (LAF_n)(\text{Total Liquids, CDP No. tank (bbl/mo)})$$

Gas allocated from central custody transfer meter at CDP No. 4 back to the nth well:

$$Q_n(\text{gas}) = (GAF_n)(\text{Total Gas, CDP No. 4 Transfer Meter (Mcf/mo)})$$

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240
DISTRICT II
P.O. Drawer DD, Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

Denny E. Faust
DEPUTY OIL & GAS INSPECTOR

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

SEP 11 0 1996

OIL CONSERVATION DIVISION

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

(Revised 39/94)

PIT REMEDIATION AND CLOSURE REPORT

Operator: UNOCAL Telephone: '801 - 686 - 7604

Address: P.O. Box 760 Moab, Utah 84532

Facility Or: Rincon Unit 253 Fruitland Coal
Well Name

Location: Unit or Qtr/Qtr Sec N Sec 17 T 27N R 6W County Rio Arriba

Pit Type: Separator X Deyhydrator Other

Land Type: BLM X State Fee Other

Pit Location: (Attach diagram) Pit dimensions: Length 18' width 18' depth 3'

Reference: well head X Other

Footage from reference: 15'

Direction from reference: 95 Degrees East of North X
20 West of South

Depth To Ground Water:

(Vertical distance from
contaminants to seasonal
high water elevation of
ground water)

Less than 50 feet	(20 points)	
50 feet to 99 feet	(10 points)	
Greater than 100 feet	(0 points)	<u>10</u>

Wellhead Protection Area:

(Less than 200 feet from a private
domestic water source, or; less than
1000 feet from all water sources)

Yes	(20 points)	
No	(0 points)	<u>10</u>

Distance To Surface Water:

(Horizontal distance to perennial
lakes, ponds, rivers, streams, creeks,
irrigation canals and ditches)

Less than 200 feet	(20 points)	
200 feet to 1000 feet	(10 points)	
Greater than 1000 feet	(0 points)	<u>10</u>

RANKING SCORE (TOTAL POINTS) : 30

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DEC 2 0 1995
OIL CON. DIV.
DIST. 3

Date Remediation Started: 09/19/94

Date completed: 09/19/94

Remediation Method: Excavation ☒

Approx. cubic yards 85

(Check all appropriate sections)

Landfarmed ☒

Insitu Bioramediaiton

Other

Remediation Location: Onsite ☒

Offsite

(ie. landfarmed onsite, name and location of offsite facility)

General Description of Remedial Action: Contaminated soil was removed to a depth of 15'.

Clean soil was re-filled into the pits. A double walled steel tank with leak detection was installed.

The contaminated soil was landfarmed on the Rincon Unit 253 FC location.

A PIT CLOSURE APPROVAL IS REQUESTED based on the attached test results from the landfarm.

TPH = 34.0 mg/kg BTEX = Non-detect with PID for organic vapors.

Ground Water Encountered:

No ☒

Yes

Depth

Final Pit:
Closure Sampling:

Sample location Center of old pit bottom

(if multiple samples, attach sample results and diagram of sample locations and depths)

Sample depth 15'

Sample date 09/19/94

Sample time

Sample Results

Benzene (ppm) 0.039

Total BTEX (ppm) 0.27

Field headspace (ppm) 128

TPH 60 ppm

Ground Water Sample: Yes

No ☒

(if yes, attach sample results)

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

DATE 11/20/95

SIGNATURE

Mike Tabet

PRINTED NAME
AND TITLE

Mike Tabet
Staff HES Coordinator

OFF: (505) 325-8786



LAB: (505) 325-5667

Mike Tabet
UNOCAL
P O. Box 850
Bloomfield, NM.

November 7, 1995

RE: Landfarm Closure of Phase I (1994 Operations) on the Rincon Lease

Mr. Tabet,

On Wednesday the November 26, 1995 landfarms constructed in 1994 were sampled. Five point composite samples were taken and analyzed using EPA Method 8015 for TPH (Total Petroleum Hydrocarbons). Laboratory results for the sampling are included with this report. Soils were checked using a PID (Photoionization Detector) for organic vapor. All landfarms constructed in 1994 were nondetect for organic vapors. The following is a list of landfarms sampled during this sampling event.

Rincon 150, Rincon 123, Rincon 99, Rincon 99A, Rincon 29A, Rincon 78,
Rincon 253, Rincon 149,

This closes the landfarms constructed in the summer of 1994. If there are any questions concerning this information or the status of the 1995 landfarming event please call Jon Little with On Site Technologies, Ltd.

Sincerely,

Jon Little
Project Geologist
On Site Technologies, Ltd

file: 4-1188

P. O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-8786



LAB: (505) 325-5667

TOTAL PETROLEUM HYDROCARBONS

Attn: *Cindy Gray*
 Company: *On Site Technologies, Ltd.*
 Address: *657 W. Maple*
 City, State: *Farmington, NM 87401*

Date: *1-Nov-95*
 COC No.: *3612*
 Sample No. *8918*
 Job No. *4-1122*

Project Name: *Unocal Rincon Lease*
 Project Location: *Rincon 253 / 81 NW TANK 2 DEMY PIT*
 Sampled by: *JL*
 Analyzed by: *DC*
 Type of Sample: *Soil*

Date: *25-Oct-95* Time: *14:57*
 Date: *1-Nov-95*

Laboratory Analysis

Analyte	Result	Units of Measure	Detection Limit	Units of Measure
Gasoline Range (C5 - C9)	< 5.0	mg/kg	5.0	mg/kg
Diesel Range (C10 - C28)	34.0	mg/kg	5.0	mg/kg
TOTAL	34.0	mg/kg		

Quality Assurance Report

GRO QC No.: *0429-STD*
 DRO QC No.: *0430-STD*

Calibration Check

Analyte	Method Blank	Units of Measure	True Value	Analyzed Value	% Diff	Limit
Gasoline Range (C5 - C9)	< 1	ppm	1,351	1,406	4.1	15%
Diesel Range (C10 - C28)	< 5	ppm	2,000	2,143	7.1	15%

Matrix Spike

Analyte	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Gasoline Range (C5-C9)	89	111	(70-130)	16	20%
Diesel Range (C10-C28)	93	88	(70-130)	4	20%

Method - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by: *[Signature]*
 Date: *11/1/95*

P. O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

District III
1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

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

(Revised 3/9/94

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

PIT REMEDIATION AND CLOSURE REPORT

Operator: Unocal North American Telephone: (505) 632-1811

Address: P.O. Box 850, Bloomfield, NM 87413

Facility Or: Rincon 253

Well Name

Location: Unit or Qtr/Qtr Sec N Sec 17 T 27N R 6W County Rio Arriba

Pit Type: Separator___ Dehydrator___ other_____

Land Type: BLM X , State , Fee , Other

Pit Location: Pit dimensions: length 18' , width 18' , depth 3
(Attach diagram)

Reference: wellhead____, other_____

Footage from reference: _____

Direction from reference: _____ Degrees _____ East North _____
of
_____ West South _____

Depth To Ground Water: Less than 50 feet (20 points)
(Vertical distance from 50 feet to 99 feet (10 points)
contaminants to seasonal Greater than 100 feet (0 points) ____
high water elevation of
ground water)

Wellhead Protection Area: Yes (20 points)
(Less than 200 feet from a private No (0 points) ____
domestic water source, or; less than
1000 feet from all other water sources)

Distance To Surface Water:	Less than 200 feet	(20 points)
(Horizontal distance to perennial	200 feet to 1000 feet	(10 points)
lakes, ponds, rivers, streams, creeks,	Greater than 1000 feet	(0 points) ____
irrigation canals and ditches)		

RANKING SCORE (TOTAL POINTS) :

Date Remediation Started: 09/19/94 Date Completed: 09/19/94

Remediation Method: Excavation X Approx. cubic yards 85
(Check all appropriate sections) Landfarmed X Insitu Bioremediation _____
Other _____

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

General Description Of Remedial Action: Pit excavated and all material
landfarmed on site. Backfill material removed off location.

Ground Water Encountered: No X Yes _____ Depth _____

Final Pit: Sample location Center of old pit bottom

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

Sample depth 15

Sample date 09/19/94 Sample time _____

Sample Results

Benzene (ppm) 0.039

Total BTEX (ppm) 0.27

Field headspace (ppm) 128

TPH 60 ppm

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

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

DATE 11-2-94

SIGNATURE Mike Tabet

PRINTED NAME
AND TITLE

Mike Tabet
HES Coordinator

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

TOTAL PETROLEUM HYDROCARBONS

Attn: *Jon Little*
Company: *On Site Technologies, Ltd.*
Address: *657 W. Maple*
City, State: *Farmington, NM 87401*

Date: *9/20/94*
Lab ID: *2099*
Sample No. *3107*
Job No. *4-1122*

Project Name: *Unocal*
Project Location: *Unocal Rincon #253 15' depth*
Sampled by: *JL* Date: *9/19/94* Time: *11:19*
Analyzed by: *DA* Date: *9/20/94*
Type of Sample: *Soil*

Laboratory Analysis

Laboratory Identification	Sample Identification	Total Petroleum Hydrocarbons
<i>3107-2099</i>	<i>Unocal</i> <i>Unocal Rincon #253 15' depth</i>	<i>60 mg/kg</i>

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by: *[Signature]*

Date: *9/20/94*

P. O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn: *Jon Little*
Company: *On Site Technologies, Ltd.*
Address: *657 W. Maple*
City, State: *Farmington, NM 87401*

Date: *9/20/94*
Lab ID: *2099*
Sample ID: *3107*
Job No. *4-1122*

Project Name: *Unocal*
Project Location: *Unocal Rincon #253 15' depth*
Sampled by: *JL* Date: *9/19/94*
Analyzed by: *DLA* Date: *9/20/94*
Sample Matrix: *Soil*

Time: *11:19*

Aromatic Volatile Organics

Component	Measured Concentration ug/kg	Detection Limit Concentration ug/kg
<i>Benzene</i>	<i>3.9</i>	<i>0.2</i>
<i>Toluene</i>	<i>9.7</i>	<i>0.2</i>
<i>Ethylbenzene</i>	<i>4.7</i>	<i>0.2</i>
<i>m,p-Xylene</i>	<i>202.7</i>	<i>0.2</i>
<i>o-Xylene</i>	<i>46.1</i>	<i>0.2</i>
	TOTAL <i>267.1 ug/kg</i>	

ND - Not Detectable

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

Approved by: *Jon Little*

Date: *9/20/94*

P. O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -



OFF: (505) 325-8786

LAB: (505) 325-5667

QUALITY ASSURANCE REPORT
for EPA Method 8020

Date Analyzed: 9/20/94

Internal QC No.: 0222-STD

Surrogate QC No.: 0223-STD

Reference Standard QC No.: 0355-STD

Method Blank

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

Calibration Check

Calibration Standards	Units of Measure	*True Value	Analyzed Value	% Diff	Limit
Benzene	ppb	20	21	5	15%
Toluene	ppb	20	21	5	15%
Ethylbenzene	ppb	20	21	5	15%
m,p-Xylene	ppb	40	42	5	15%
o-Xylene	ppb	20	21	5	15%

Spike Results

Analyte	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Benzene	100	99	(39-150)	1	20%
Toluene	98	99	(46-148)	1	20%
Ethylbenzene	95	98	(32-160)	2	20%
m,p-Xylene	98	100	(35-145)	1	20%
o-Xylene	100	98	(35-145)	1	20%

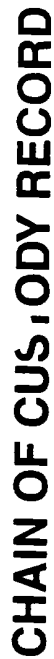
Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	S3 Percent Recovered
Limits	(70-130)		
3077-2096	103		

S1: Fluorobenzene

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -



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

Page _____ of _____

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**ON SITE
TECHNOLOGIES, LTD.**

AROMATIC VOLATILE ORGANICS

Attn: *Mike Tabet*
Company: *Unocal Corporation*
Address: *P.O. Box 760*
City, State: *Moab, UT 84532*

Date: *7/22/94*
Lab ID: *1670*
Sample ID: *2044*
Job No. *4-1107*

Project Name: *Unocal Corporation Pit Assessments*
Project Location: *Rincon 253; 3ft. Composite*
Sampled by: *JL/ML* Date: *7/20/94*
Analyzed by: *DLA* Date: *7/22/94*
Sample Matrix: *Soil*

Time: *10:10*

Aromatic Volatile Organics

Component	**Measured Concentration ug/kg
<i>Benzene</i>	<i>ND</i>
<i>Toluene</i>	<i>4.3</i>
<i>Ethylbenzene</i>	<i>ND</i>
<i>m,p-Xylene</i>	<i>15.2</i>
<i>o-Xylene</i>	<i>5.3</i>
	<i>TOTAL 24.8 ug/kg</i>

ND - Not Detectable

*** - Method Detection Limit, 2 ug/kg*

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

Approved by: *Ja K*
Date: *7/22/94*

**ON SITE
TECHNOLOGIES, LTD.**

TOTAL PETROLEUM HYDROCARBONS

Attn: *Mike Tabet*
Company: *Unocal Corporation*
Address: *P.O. Box 760*
City, State: *Moab, UT 84532*

Date: *7/21/94*
Lab ID: *1670*
Sample No. *2044*
Job No. *4-1107*

Project Name: *Unocal Corporation Pit Assessments*
Project Location: *Rincon 253; 3ft. Composite*
Sampled by: *JL/ML* Date: *7/20/94* Time: *10:10*
Analyzed by: *DC* Date: *7/20/94*
Type of Sample: *Soil*

Laboratory Analysis

Laboratory Identification	Sample Identification	Total Petroleum Hydrocarbons
<i>2044-1670</i>	<i>Unocal Corporation Pit Assessments Rincon 253; 3ft. Composite</i>	<i>225 mg/kg</i>

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by:

Date:

Jn K
7/21/94



QUALITY ASSURANCE REPORT
for EPA Method 8020

Date Analyzed: 7/22/94

Internal QC No.: 0222-STD
Surrogate QC No.: 0223-STD
Reference Standard QC No.: 0355-STD

Method Blank

Analytes in Blank	Amount
Average Amount of All Analytes In Blank	<1 ppb

Calibration Check

Calibration Standards	Units of Measure	*True Value	Analyzed Value	% Diff	Limit
Benzene	ppb	20	19	3	15%
Toluene	ppb	20	18	9	15%
Ethylbenzene	ppb	20	18	9	15%
m,p-Xylene	ppb	40	36	10	15%
o-Xylene	ppb	20	18	8	15%

Spike Results

Analyte	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Benzene	94	100	(39-150)	4	20%
Toluene	92	96	(46-148)	3	20%
Ethylbenzene	95	97	(32-160)	2	20%
m,p-Xylene	98	100	(35-145)	1	20%
o-Xylene	98	97	(35-145)	1	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	S3 Percent Recovered
Limits	(70-130)		
2044-1670	101		

S1: Flourobenzene

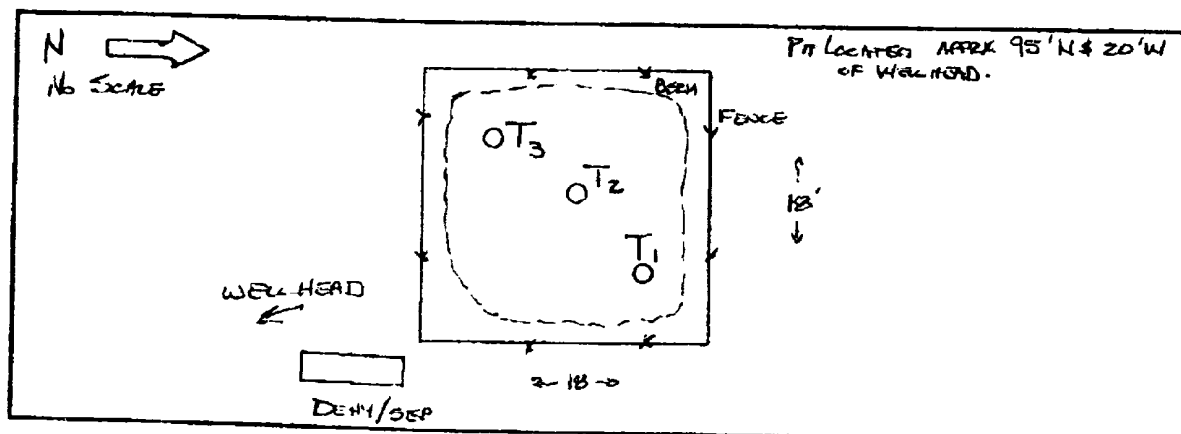
ON SITE TECHNOLOGIES, LTD.

TEST HOLE LOG and FIELD TESTING RESULTS

PROJECT: UNOCAL JOB # _____ DATE: 7/22/94
 SITE LOCATION: RINCON 253 CLIENT: UNOCAL
SW 36E 17, T27N, R6W SAMPLER: MYKE & JON
RIO ARRIAGA COUNTY, NM METHOD: _____
 TEST HOLE # 1, 2, 3 LAB SAMPLE IDS _____

DEPTH	SOIL TYPE	P.I.D. FIELD SCREENING	TPH EPA 418.1	OTHER REMARKS
T ₁ 3'	FINE SAND	4.3		
T ₂ 3'	"	42.3		
T ₃ 3'	"	77.0		SAME HOLE IS WET

SITE SKETCH

WEATHER CLEARAPPROX. TEMP. 88°F

(505) 325-8786

FAX (505) 327-1496

3005 NORTHRIDGE DRIVE, SUITE F P.O. BOX 2606 FARMINGTON, NEW MEXICO 87499