

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980
DISTRICT II
811 South First St., Artesia, NM 88210-2835
DISTRICT III
1000 Rio Brazos Rd, Aztec, NM 87410-1693

State of New Mexico
Energy, Minerals and Natural Resources Department
OIL CONSERVATION DIVISION
2040 S. Pacheco
Santa Fe, New Mexico 87505-6429

Form C-107-A
New 3-12-96

APPROVAL PROCESS :

☒ Administrative ☐ Hearing

EXISTING WELLBORE

☒ YES ☐ NO

APPLICATION FOR DOWNHOLE COMMINGLING

BURLINGTON RESOURCES OIL & GAS COMPANY PO Box 4289, Farmington, NM 87499
Operator Address
Turner Hughes #15A I 3-27-9 San Juan, New Mexico
Lease Well No. Unit Ltr. - Sec - Twp - Rge County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 14538 Property Code 7614 API NO. 30-045-26381 Federal ☒ State (and/or) Fee

The following facts are submitted in support of downhole commingling	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	Otero Chacra - 82329		Blanco Mesaverde - 72319
2. Top and Bottom of Pay Section (Perforations)	3346' - 3574' (Estimated) Actual supplied upon completion		4714' - 5137'
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	Plan to Flow after Recompletion		Flowing
5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated or Measured Original	(Current) a. 363 psia (est) (Original) b. 1142 psia (est)		Measured a. 133 psia b. 721 psia
6. Oil Gravity (°API) or Gas BTU Content	1160		1309
7. Producing or Shut-In?	Not Yet Producing		Producing
Production Marginal? (yes or no)	No		Yes
* If Shut-In and oil/gas/water rates of last production Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data	Date: N/A Rates:	Date: Rates:	Date: N/A Rates:
* If Producing, give data and oil/gas/water of recent test (within 60 days)	Date: N/A Rates: N/A	Date: Rates:	Date: 1/98 Rates: 0.6 Bbls/d / 84 MCFD
8. Fixed Percentage Allocation Formula -% for each zone (total of %'s to equal 100%)	Oil: Gas: will be supplied upon completion	Oil: % Gas: %	Oil: Gas: will be supplied upon completion

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.
10. Are all working, overriding, and royalty interests identical in all commingled zones? ☒ Yes ☐ No
If not, have all working, overriding, and royalty interests been notified by certified mail? ☐ Yes ☐ No
Have all offset operators been given written notice of the proposed downhole commingling? ☒ Yes ☐ No
11. Will cross-flow occur? ☒ Yes ☐ No If yes, are fluids compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable. ☒ Yes ☐ No (If No, attach explanation)
12. Are all produced fluids from all commingled zones compatible with each other? ☒ Yes ☐ No
13. Will the value of production be decreased by commingling? ☐ Yes ☒ No (If Yes, attach explanation)
14. If this well is on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application. ☒ Yes ☐ No
15. NMOC Reference Cases for Rule 303(D) Exceptions: ORDER NO(S).
16. ATTACHMENTS:
* C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
* Production curve for each zone for at least one year. (If not available, attach explanation.)
* For zones with no production history, estimated production rates and supporting data.
* Data to support allocation method or formula.
* Notification list of all offset operators.
* Notification list of working, overriding, and royalty interests for uncommon interest cases.
* Any additional statements, data, or documents required to support commingling.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Kevin L. Midkiff TITLE Production Engineer DATE 01-29-98

TYPE OR PRINT NAME Kevin Midkiff TELEPHONE NO. (505) 326-9700

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-121
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

Operator EL PASO NATURAL GAS COMPANY			Lease TURNER HUGHES (SF 078050)		Well No. 15A
Unit Letter I	Section 3	Township 27N	Range 9W	County San Juan	
Actual Footage Location of Well: 1190 feet from the South line and 920 feet from the East line					
Ground Level Elev. 6350	Producing Formation Mesa Verde/Chacra		Pool Blanco/Otero		Dedicated Acreage: 293.97 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.

<p>RECEIVED MAY 07 1985 BUREAU OF LAND MANAGEMENT FARMINGTON RESOURCE AREA</p>			
<p>Sec.</p>		<p>3</p>	

CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name _____
Position **Drilling Clerk**
Company **El Paso Natural Gas**
Date **May 3, 1985**



I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

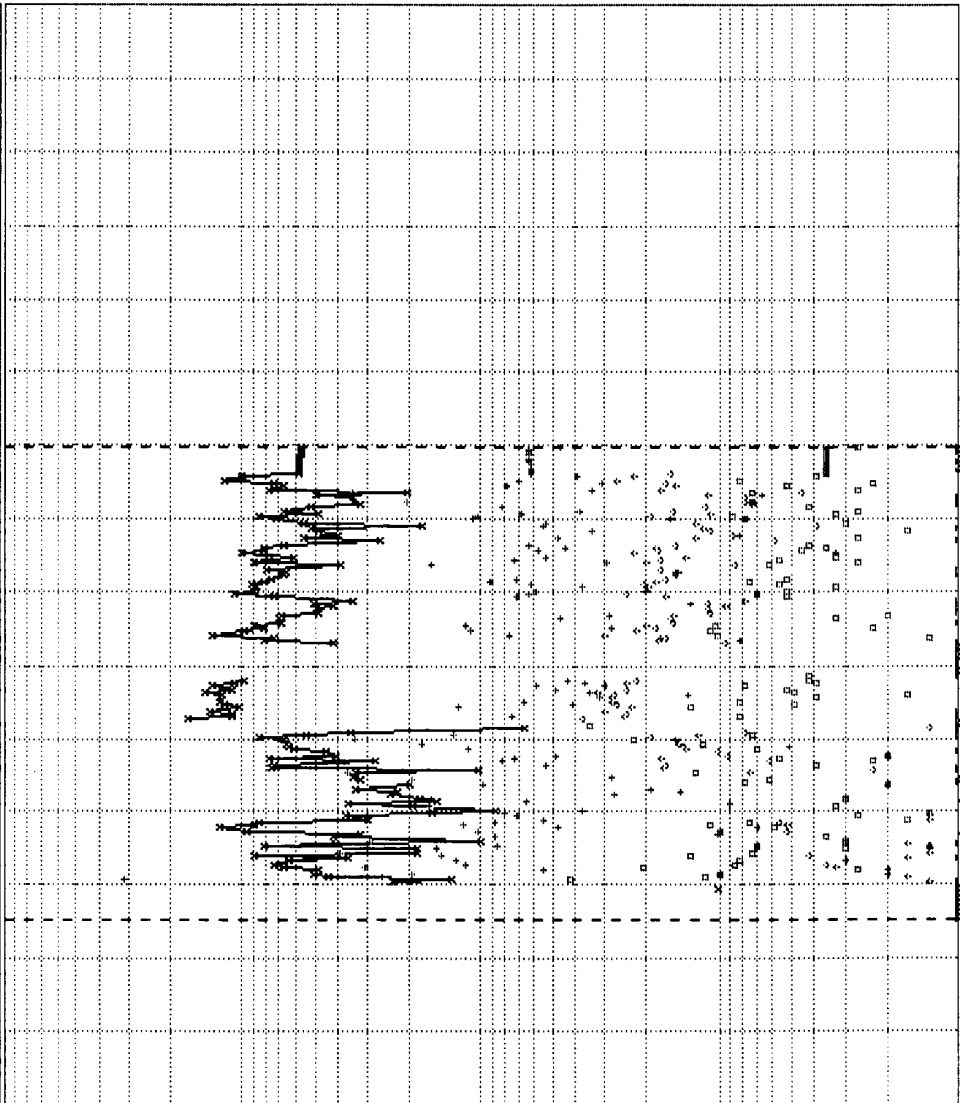
Date Surveyed **April 29, 1985**
Registered Professional Engineer and Land Surveyor
Fred S. Kerr Jr.
Certificate No. **1000**

- WATER
 - OIL/GAS
 - OIL
 - GAS

TURNER HUGHES : 15A : MESAVERDE

Prop 277 *

- *GAS Mcf/d
- -OIL Bbl/d
- -OIL/GAS
- -WATER Bbls/d
-  RateTime
-  Semi Log



Major = GAS

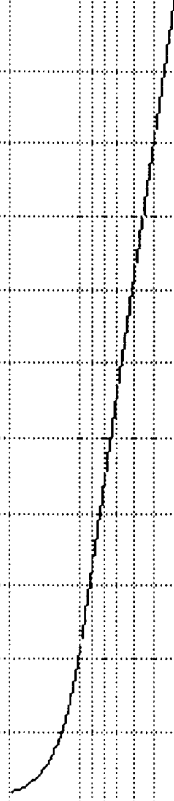
TURNER HUGHES #15A : STUDY : CHACRA

* WATER
* OIL/GAS
* OIL
* GAS

Prop 278 *

- ☒ * GAS Mcf
- ☐ * OIL Bbl
- ☐ * OIL/GAS
- ☐ * WATER Bbls

RateTime
Semi Log



EXPECTED PRODUCTION CURVE

Major = GAS

Turner Hughes #15A
Bottom Hole Pressures
Flowing and Static BHP
Cullender and Smith Method

Version 1.0 3/13/94

Mesaverde		Chacra	
<u>MV-Current</u>		<u>CK-Current *</u>	
GAS GRAVITY	<u>0.775</u>	GAS GRAVITY	<u>0.669</u>
COND. OR MISC. (C/M)	<u>C</u>	COND. OR MISC. (C/M)	<u>C</u>
%N2	<u>0.59</u>	%N2	<u>0.31</u>
%CO2	<u>0.64</u>	%CO2	<u>0.28</u>
%H2S	<u>0</u>	%H2S	<u>0</u>
DIAMETER (IN)	<u>2.375</u>	DIAMETER (IN)	<u>4.5</u>
DEPTH (FT)	<u>4926</u>	DEPTH (FT)	<u>3460</u>
SURFACE TEMPERATURE (DEG F)	<u>60</u>	SURFACE TEMPERATURE (DEG F)	<u>60</u>
BOTTOMHOLE TEMPERATURE (DEG F)	<u>150</u>	BOTTOMHOLE TEMPERATURE (DEG F)	<u>101</u>
FLOWRATE (MCFPD)	<u>0</u>	FLOWRATE (MCFPD)	<u>0</u>
SURFACE PRESSURE (PSIA)	<u>117</u>	SURFACE PRESSURE (PSIA)	<u>333</u>
BOTTOMHOLE PRESSURE (PSIA)	<u>133.2</u>	BOTTOMHOLE PRESSURE (PSIA)	<u>362.7</u>
<u>MV-Original</u>		<u>CK-Original *</u>	
GAS GRAVITY	<u>0.775</u>	GAS GRAVITY	<u>0.669</u>
COND. OR MISC. (C/M)	<u>C</u>	COND. OR MISC. (C/M)	<u>C</u>
%N2	<u>0.59</u>	%N2	<u>0.31</u>
%CO2	<u>0.64</u>	%CO2	<u>0.28</u>
%H2S	<u>0</u>	%H2S	<u>0</u>
DIAMETER (IN)	<u>2.375</u>	DIAMETER (IN)	<u>4.5</u>
DEPTH (FT)	<u>4926</u>	DEPTH (FT)	<u>3460</u>
SURFACE TEMPERATURE (DEG F)	<u>60</u>	SURFACE TEMPERATURE (DEG F)	<u>60</u>
BOTTOMHOLE TEMPERATURE (DEG F)	<u>150</u>	BOTTOMHOLE TEMPERATURE (DEG F)	<u>101</u>
FLOWRATE (MCFPD)	<u>0</u>	FLOWRATE (MCFPD)	<u>0</u>
SURFACE PRESSURE (PSIA)	<u>624</u>	SURFACE PRESSURE (PSIA)	<u>1036</u>
BOTTOMHOLE PRESSURE (PSIA)	<u>721.0</u>	BOTTOMHOLE PRESSURE (PSIA)	<u>1142.1</u>

* NOTE: Since the chacra is the recompletion target, we do not have pressure data for it in the Turner Hughes #15A. Therefore, data was taken from the Hancock A #10, located in section 35, T28N, R9W.

Page No.: 1
Print Time: Tue Dec 23 07:04:22 1997
Property ID: 277
Property Name: TURNER HUGHES | 15A | MESAVERDE
Table Name: S:\ARIES\1ROS\TEST.DBF

<u>--DATE--</u>	<u>---CUM GAS---</u>	<u>M SIWHP</u>	
	<u>Mcf</u>	<u>Psi</u>	
10/04/85	0	624.0	ORIGINAL
05/01/86	5493	524.0	
12/16/87	37520	451.0	
07/18/89	55952	440.0	
02/21/91	101081	281.0	
08/03/91	122833	293.0	
03/29/93	143213	298.0	
12/24/94	260343	117.0	CURRENT ESTIMATED FROM PZ DATA

Page No.: 1
Print Time: Wed Dec 24 16:12:31 1997
Property ID: 7528
Property Name: HANCOCK A | 10 | 45095A-1
Table Name: K:\ARIES\RR98PDP\TEST.DBF

OFFSET
CHACRA
WELL

<u>--DATE--</u>	<u>---CUM GAS--</u>	<u>M SIWHP</u>
	Mcf	Psi

12/18/74	0	1036.0	Original
----------	---	--------	----------

01/03/75	0	1049.0
----------	---	--------

04/11/75	13875	775.0
----------	-------	-------

04/14/76	58431	489.0
----------	-------	-------

06/28/77	90118	459.0
----------	-------	-------

04/05/93	297074	397.0
----------	--------	-------

12/26/97	339163	333.0
----------	--------	-------

Current Estimated from P/Z data

Package Preparation Volume Data

DPNo: 54058A

TURNER HUGHES

15A

Form: MV

Supt: 60 KEN RAYBON

FF: 337 STEVE FLOREZ

MS: 301 LONNIE CUNNINGHAM

Pipeline: EPNG

Plunger: Yes

Dual: No

Compressor: No

<u>Ownership (No Trust)</u>			<u>Prior Year</u>			<u>Current Year</u>			
	<u>Gas</u>	<u>Oil</u>			<u>Days</u>			<u>Days</u>	
GWI:	100.0000%	100.0000%		<u>MCF/M</u>	<u>BOPM</u>	<u>On</u>	<u>MCF/M</u>	<u>BOPM</u>	<u>On</u>
GNI:	75.0000%	75.0000%							
			Jan	2,565	27.0	31	3,563	25.0	31
			Feb	1,449	10.0	29	3,069	12.0	28
			Mar	2,048	8.0	31	2,124	0.0	31
<u>Volumes</u>			Apr	1,549	13.0	30	3,431	24.0	30
<u>(Days On)</u>	<u>MCFD</u>	<u>BOPD</u>	May	947	0.0	31	3,898	39.0	31
7 Day Avg	31	4.8	Jun	1,021	22.0	30	2,932	18.0	30
30 Day Avg	84	0.5	Jul	1,017	0.0	31	2,798	9.0	26.1
60 Day Avg	100	0.6	Aug	1,486	1.0	31	3,251	19.0	31
3 Mo Avg	110	0.7	Sept	634	22.0	5.1	3,277	28.0	30
6 Mo Avg	109	0.7	Oct	2,353	8.0	15	3,568	19.0	31
12 MoAvg			Nov	2,055	16.0	16	0	0.0	30
			Dec	2,256	7.0	17	0	0.0	0
<u>Volumes</u>			Total	19,380	134.0		31,911	193.0	
<u>(Days in Month)</u>	<u>MCFD</u>	<u>BOPD</u>							
30 Day Avg	84	0.5							
60 Day Avg	100	0.6							
3 Mo Avg	108	0.7							
6 Mo Avg	99	0.6							
12 Mo Avg									

Print Form

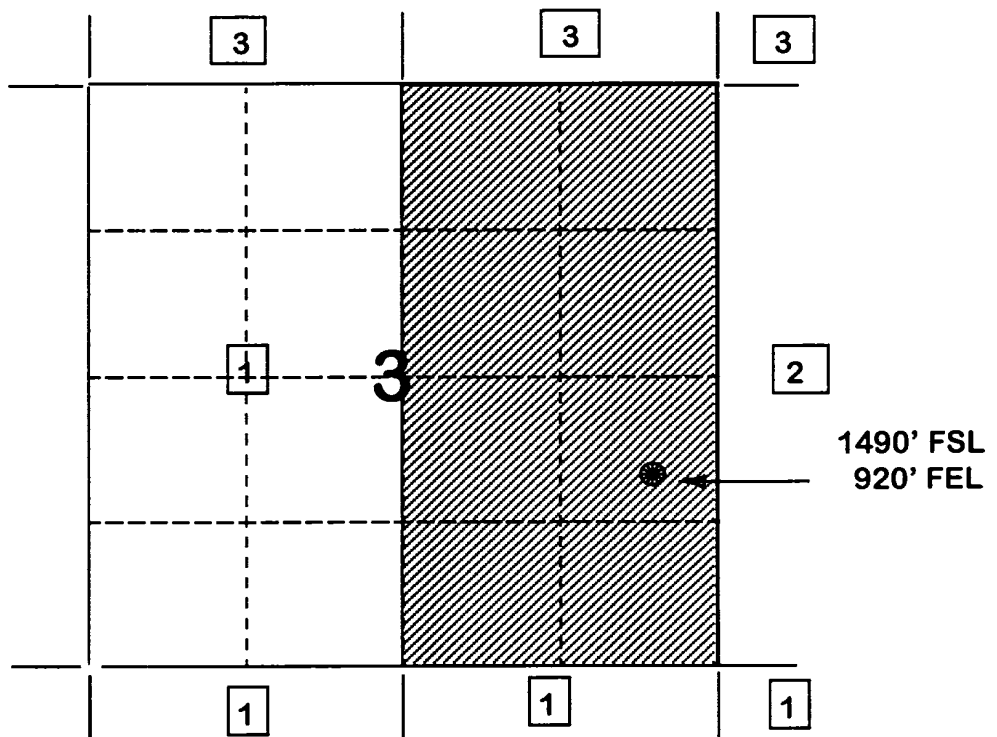
Exit Volumes Data

BURLINGTON RESOURCES OIL AND GAS COMPANY

**Turner Hughes #15A
OFFSET OPERATOR/OWNER PLAT**

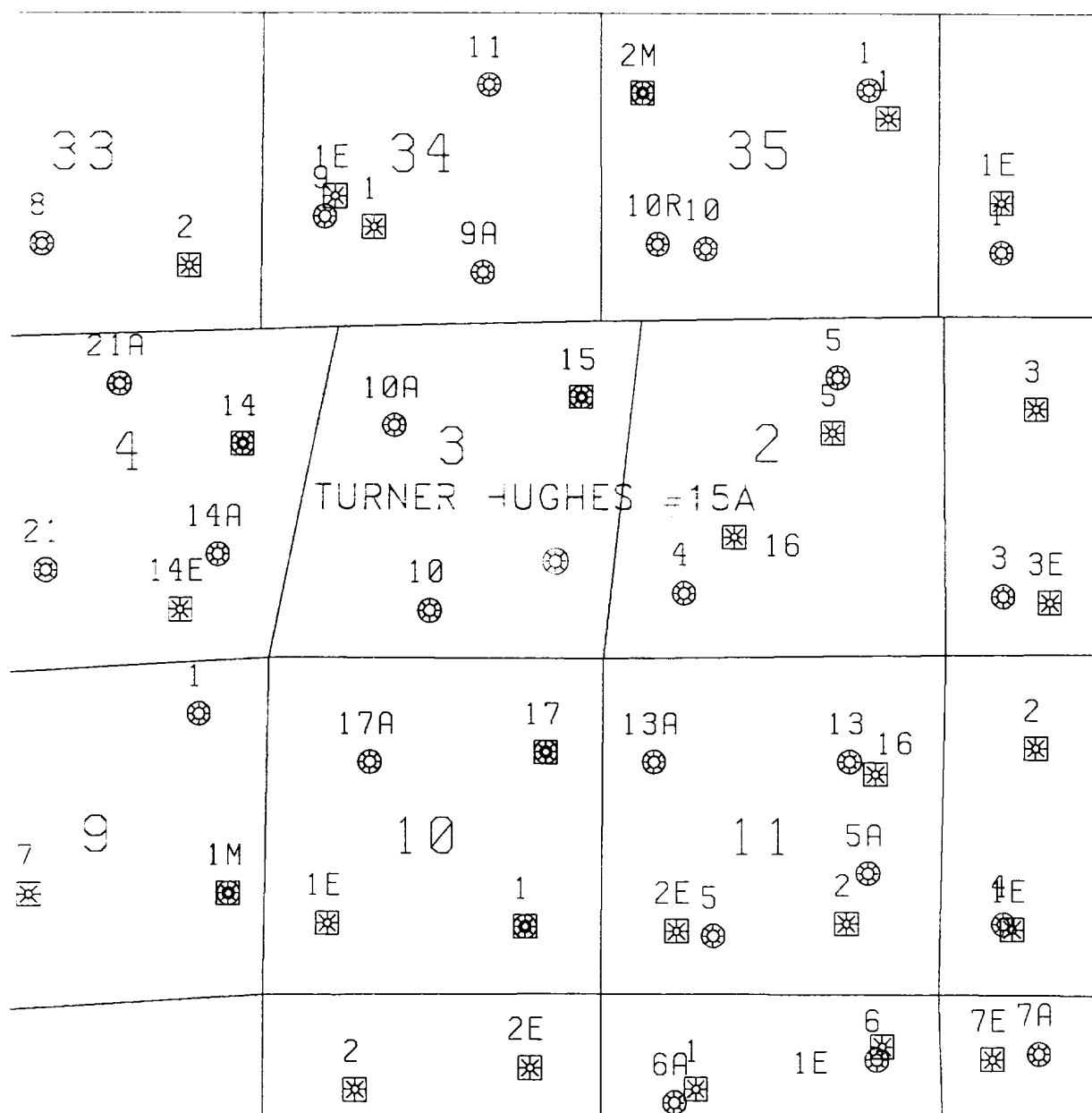
Chacra (SE/4) / Mesaverde (E/2) Formations Commingle Well

Township 27 North, Range 9 West



1) Burlington Resources
2) Four Star Oil & Gas Co.
c/o Texaco Exploration
P.O. Box 2100
Denver, CO 80201

3) Amoco Production Company
c/o Bruce Zimney
P.O. Box 800
Denver, CO 80201



LMO 2/5/98

TURNER HUGHES #15A
SEC. 3, T27N, R9W
CHACRA/MESAVERDE

Pertinent Data Sheet - TURNER HUGHES #15A CHACRA

Location: 1490' FSL & 920' FEL. Unit I, Section 3. T27N, R9W. San Juan County, New Mexico

Field: Blanco Mesaverde Elevation: 6349' GL TD: 5169'
Harris Mesa Chacra 13' KB PBTD: 5127'

Completed: 10/4/85 Spud Date: 7/7/85 DP #: MV=54058A
CH=54058B
LEASE: Fed: SF 078050
GWI: 100%
NRI: 75.00%
Prop#: 012633000

Initial Potential: SICP=612 PSI

Casing Record:

<u>Hole Size</u>	<u>Csg Size</u>	<u>Wt. & Grade</u>	<u>Depth Set</u>	<u>Cement</u>	<u>Cmt Top</u>
12-1/4"	9-5/8"	32.3# H-40	229'	142 cf	Circ Cmt
8-3/4"	7"	20.0# J-55	2753'	379 cf	950' - Survey
6-1/4"	4-1/2" liner	10.5# J-55	2561'-5169'	512 cf	Circ Cmt @ 52% Eff.

Tubing Record:

<u>Tbg. Size</u>	<u>Wt. & Grade</u>	<u>Depth Set</u>	
2-3/8"	4.70# J-55 EUE	5123'	159 Jts
	S.N. @ 5089'		

Formation Tops:

Chacra	3342'
Mesaverde	4032'
Menefee:	4080'
Point Lookout:	4692'

Logging Record: Induction. Density Neutron. Temp

Stimulation: Perf Lower Point Lookout w/1 spf @ 4961', 96', 5004', 22', 40', 58', 76', 5122', 37'. Total 9 holes. Fraced w/43,000# sand in slick water. Perfed Point Lookout w/1 spf @ 4714', 18', 24', 29', 32', 36', 40', 47', 64', 68', 72', 83', 87', 90', 4820', 34', 44', 56', 82', 4903', 20'. Total 21 holes. Fraced w/81,000# sand in slick water.

Workover History: NONE

Production History: 1st delivered 10/29/85. Current MV capacity is 60 MCF/D. Cum is 252 MMCF & 1852 BO. Line pressure is 120 psi.

Pipeline: EPNG

