

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

RECEIVED

MAY 21 1998

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

OIL CON. DIV.

DIST. 3

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

Lively

21E

D 31-27N-07W

Rio Arriba

Lease

Well No.

Unit Ltr. - Sec - Twp - Rge

County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 14538 Property Code API NO. 30-039-22670 Federal ☒ State (and/or) Fee

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Basin
1. Pool Name and Pool Code	Otero Chacra - 82329	Blanco Mesaverde - 72319	Basin Dakota - 71599
2. Top and Bottom of Pay Section (Perforations)	will be supplied upon completion	will be supplied upon completion	6568-6667
3. Type of production (Oil or Gas)	gas	gas	gas
4. Method of Production (Flowing or Artificial Lift)	flowing	flowing	flowing
5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated or Measured Original	(Current) a. 499 psi (see attachment) (Original) b. 711 psi (see attachment)	a. 612 psi (see attachment) b. 1300 psi (see attachment)	a. 1056 psi (see attachment) b. 2361 psi (see attachment)
6. Oil Gravity (API) or Gas BTU Content	BTU 1108	BTU 1324	BTU 1300
7. Producing or Shut-In?	shut in	shut in	shut in
Production Marginal? (yes or no)	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:	Date: Rates:	Date: n/a Rates:
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 communized 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. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). Reference Order
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

TITLE: Production Engineer

DATE: 05/20/98

TYPE OR PRINT NAME Wayne Fletcher

TELEPHONE NO. (505) 326-9871

District I
PO Box 1980, Hobbs, NM 88241-1980

District II
PO Drawer 00, Artesia, NM 88211-0719

District III
1000 Rio Brazos Rd., Aztec, NM 87410

District IV
PO Box 2089, Santa Fe, NM 87504-2089

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

For
Revised February
Instructions
Submit to Appropriate District
State Lease -
Fee Lease -

☐ AMENDED F

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-22670	² Pool Code 82329 72319/71599	³ Pool Name Otero Chacra Blanco Mesaverde/Basin Dakota
⁴ Property Code	⁵ Property Name LIVELY	⁶ Well No. 21E
⁷ GRID No. 14538	⁸ Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY	⁹ Elevat: 5990

¹⁰ Surface Location

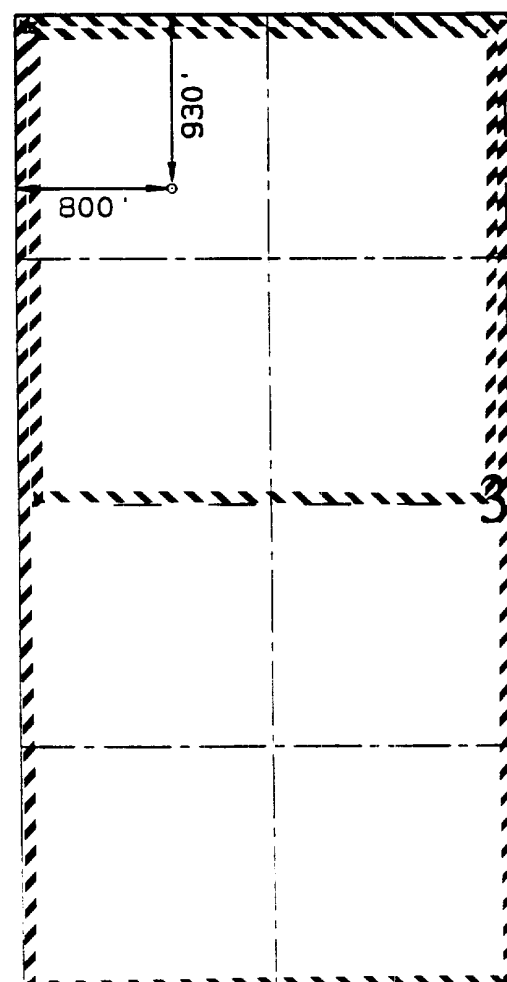
UL or lot no. 0	Section 31	Township 27N	Range 7W	Lot 10n	Feet from the 930	North/South line NORTH	Feet from the 800	East/West line WEST	AF
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¹¹ Bottom-hole Location If Different From Surface

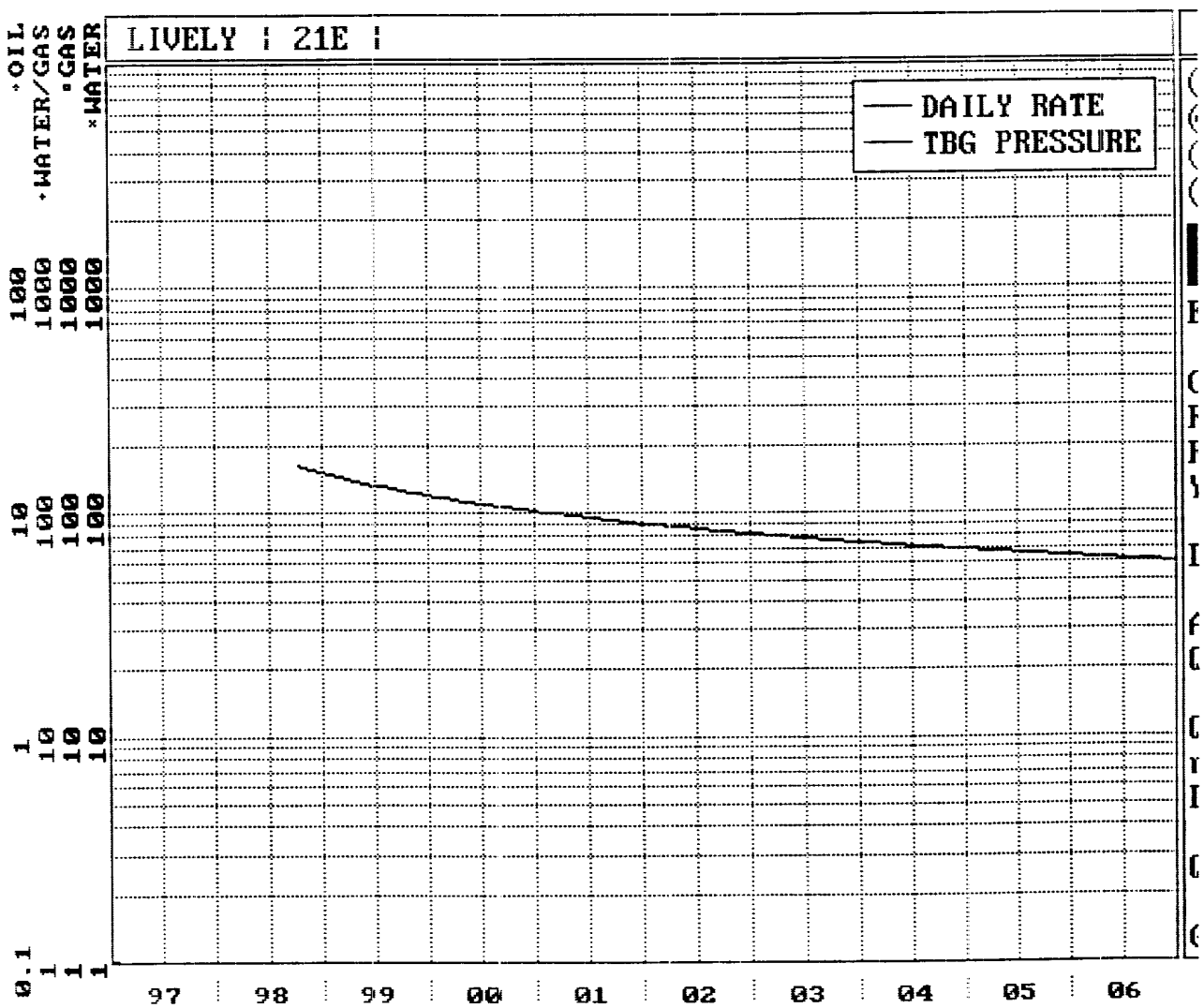
UL or lot no.	Section	Township	Range	Lot 10n	Feet from the	North/South line	Feet from the	East/West line
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¹² Dedicated Acres Cha-160.6 MV-W/321.60, DK-W/321.60	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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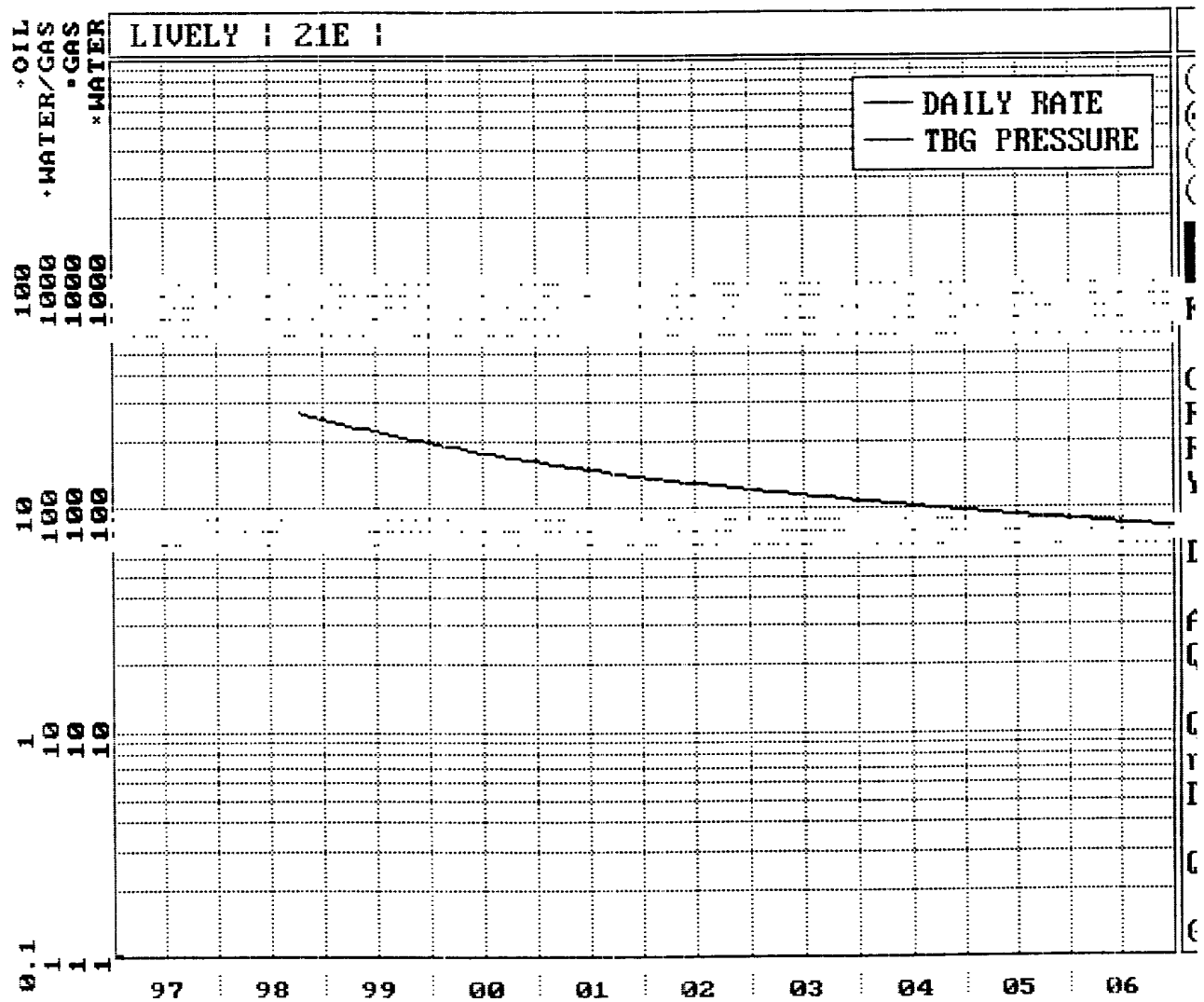
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOL.
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	Not resurveyed, prepared from a plat dated 4-17-80 by Edgar L. Risenhoover.	¹⁷ OPERATOR CERTIFIC I hereby certify that the information contain true and complete to the best of my knowle <i>Peggy Bradfield</i> Signature Peggy Bradfield Printed Name Regulatory Adminis Title 5-20-98 Date ¹⁸ SURVEYOR CERTIFIC I hereby certify that the well location show was plotted from field notes of actual survey or under my supervision, and that the same is correct to the best of my belief. MAY 16 1998 Date of Survey Signature NEAL C. EDWARDS NEW MEXICO 6857 REGISTERED PROFESSIONAL SURVEYOR Certificate Number
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Lively #21E
Expected Production Curve
Chacra



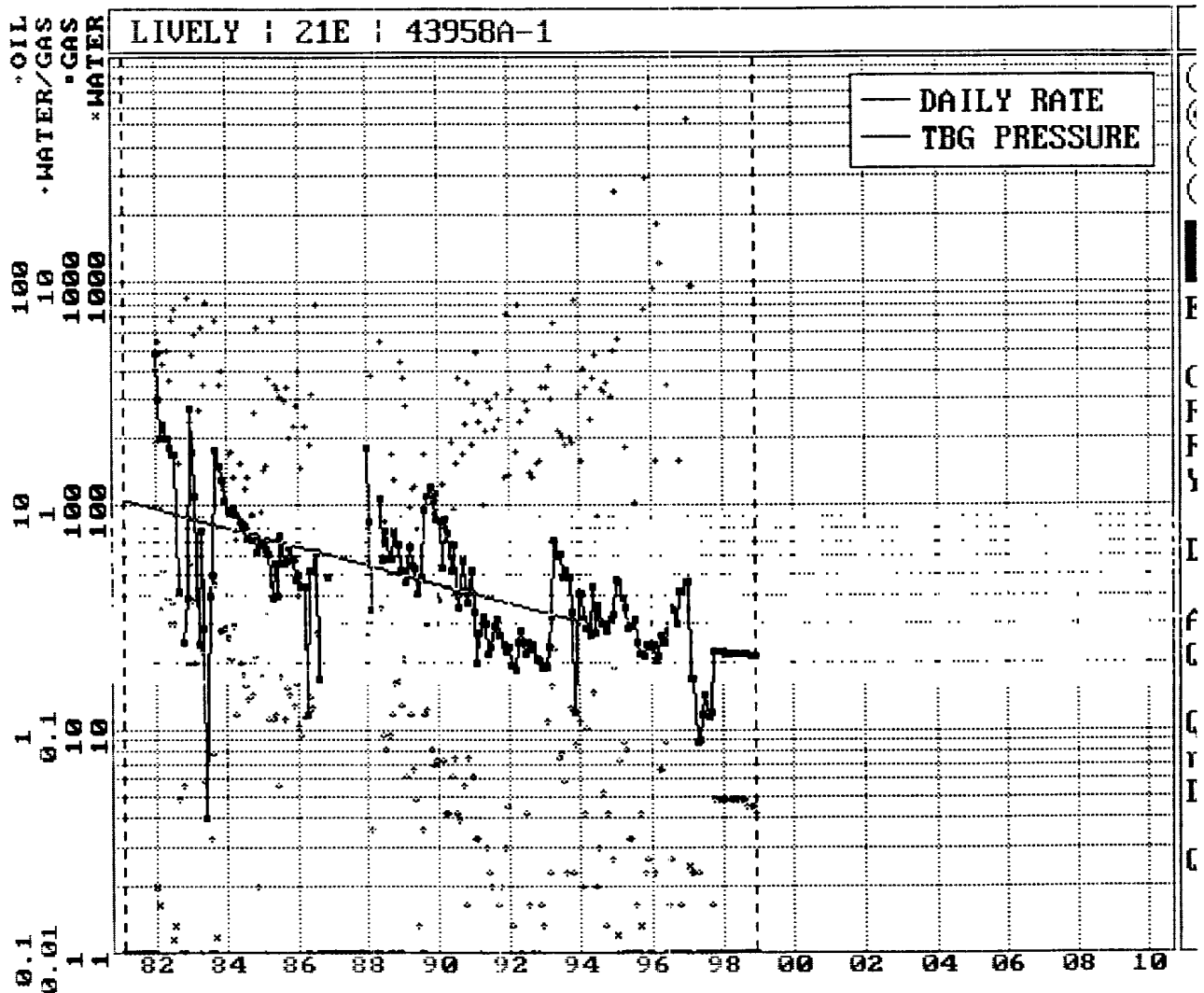
Lively #21E
Expected Production Curve
Blanco Mesaverde



Lively #21E

Actual Production Curve

Basin Dakota



Page No.: 1

Print Time: Thu May 07 09:36:25 1998

Property ID: 11801

Property Name: BROOKHAVEN COM | 7A | 34572B-1

Table Name: K:\ARIES\RR99PDP\TEST.DBF

--DATE-- M SIWHP

■■■■■■■■■■ ■■■Psi■■■

06/17/86	657.0	-original
08/03/89	552.0	
09/29/90	518.0	
06/22/91	462.0	-current

Lively #21E

Chakra Offset

Page No. : 1

Print Time: Thu May 07 09:43:57 1998

Property ID: 2227

Property Name: SAN JUAN 28-7 UNIT	78	49840A-1
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Table Name: Q:\PUBLIC\GENTITY\GDPNOS\TEST.DBF

--DATE-- M SIWHP

Psi

02/14/57 1084.0 -original

02/26/57 1083.0

05/14/58 826.0

11/22/58 811.0

08/29/59 656.0

08/29/60 638.0

01/21/62 603.0

04/03/62 595.0

04/22/63 582.0

07/21/64 589.0

01/29/65 579.0

10/31/66 584.0

08/07/67 568.0

02/15/68 547.0

12/11/70 571.0

06/15/71 569.0

05/16/72 562.0

10/19/81 535.0

10/15/81	533.0
04/06/92	522.0-current

Lively #21E

Mesaverde Offset

Page No.: 1

Print Time: Thu May 07 09:46:52 1998

Property ID: 1138

Property Name: LIVELY | 21E | 43958A-1

Table Name: K:\ARIES\RR99PDP\TEST.DBF

--DATE-- M SIWHP
■■■■■■■■■■ ■■■Psi■■■

08/23/81	1900.0	-original
02/09/82	1269.0	
06/01/82	1081.0	
10/17/83	1008.0	
08/09/85	885.0	
10/03/88	871.0	-current

Lively #21E

Basin Dakota

Lively #21E
 Bottom Hole Pressures
 Flowing and Static BHP
 Cullender and Smith Method
 Version 1.0 3/13/94

Chacra	
<u>CH-Current</u>	
GAS GRAVITY	0.651
COND. OR MISC. (C/M)	C
%N2	0.13
%CO2	1.35
%H2S	0
DIAMETER (IN)	1.25
DEPTH (FT)	3276
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	137
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	462
BOTTOMHOLE PRESSURE (PSIA)	499.0
<u>CH-Original</u>	
GAS GRAVITY	0.651
COND. OR MISC. (C/M)	C
%N2	0.13
%CO2	1.35
%H2S	0
DIAMETER (IN)	1.25
DEPTH (FT)	3276
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	137
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	657
BOTTOMHOLE PRESSURE (PSIA)	711.2

Lively #21E

Bottom Hole Pressures

Flowing and Static BHP

Cullender and Smith Method

Version 1.0 3/13/94

Mesaverde		Dakota	
<u>MV-Current</u>		<u>DK-Current</u>	
GAS GRAVITY	0.782	GAS GRAVITY	0.782
COND. OR MISC. (C/M)	C	COND. OR MISC. (C/M)	C
%N2	0.64	%N2	1.16
%CO2	0.44	%CO2	1.02
%H2S	0	%H2S	0
DIAMETER (IN)	2	DIAMETER (IN)	2.375
DEPTH (FT)	5390	DEPTH (FT)	6555
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	137	BOTTOMHOLE TEMPERATURE (DEG F)	198
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	522	SURFACE PRESSURE (PSIA)	871
BOTTOMHOLE PRESSURE (PSIA)	612.0	BOTTOMHOLE PRESSURE (PSIA)	1056.3
<u>MV-Original</u>		<u>DK-Original</u>	
GAS GRAVITY	0.782	GAS GRAVITY	0.782
COND. OR MISC. (C/M)	C	COND. OR MISC. (C/M)	C
%N2	0.64	%N2	1.16
%CO2	0.44	%CO2	1.02
%H2S	0	%H2S	0
DIAMETER (IN)	2	DIAMETER (IN)	2.375
DEPTH (FT)	5390	DEPTH (FT)	6555
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	137	BOTTOMHOLE TEMPERATURE (DEG F)	198
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	1084	SURFACE PRESSURE (PSIA)	1900
BOTTOMHOLE PRESSURE (PSIA)	1299.8	BOTTOMHOLE PRESSURE (PSIA)	2361.0

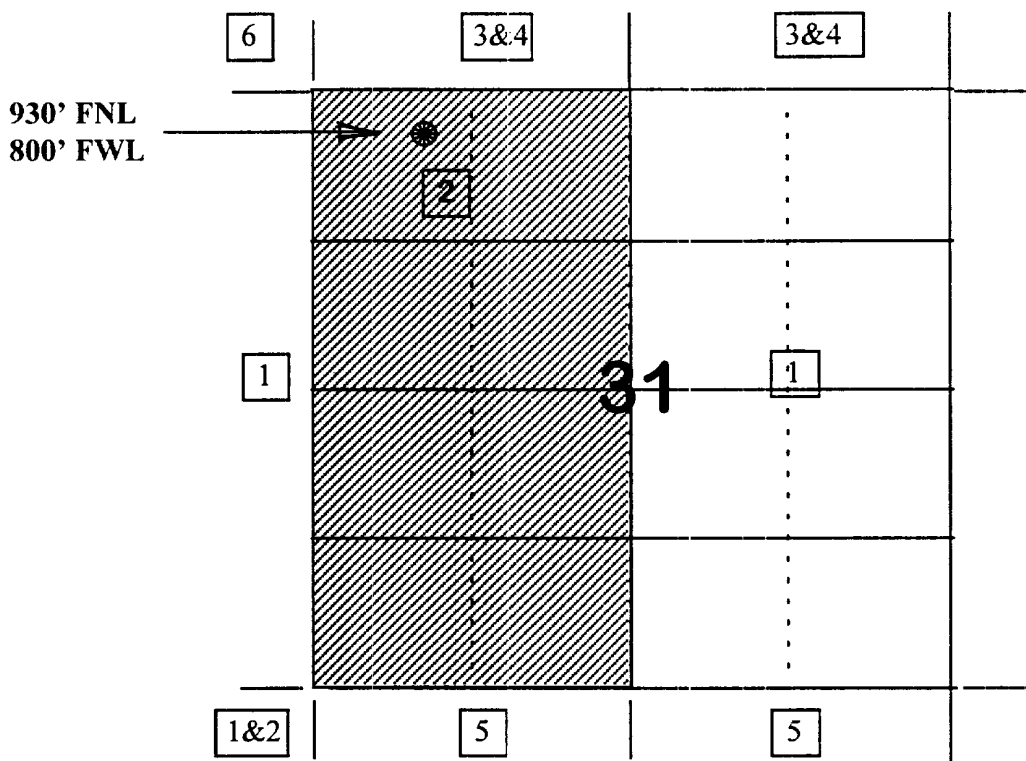
BURLINGTON RESOURCES OIL AND GAS COMPANY

Lively #21E

OFFSET OPERATOR/OWNER PLAT

Dakota (W/2) / Chacra (NW/4) / Mesaverde (W/2) Formations Commingle Well

Township 27 North, Range 7 West



- 1) Burlington Resources
- 2) Lively Exploration Co.
c/o Allied Bank Tower at
Four Oaks Place
Attn: Ms. Bennie Lee Reed
1300 Post Oak Blvd., Ste. 1900
Houston, TX 77056
- 3) Conoco Inc.
Attn: Donna Shuey
10 Desta Drive, Ste. 100W
Midland, TX 79705

- 4) Amoco Production Co.
Attn: Bruce Zimney
P.O. Box 800
1670 Broadway
Denver, CO 80201
- 5) DEPCO, Inc.
10000 Petroleum Building
Denver, CO 80202
- 6) Western Gas Resources
12200 N. Pecos Street
Denver, CO 80234

Lively #21E

27N-07W-31D

