

DATE IN 3/4/98	SUSPENSE 3/24/98	ENGINEER DC	LOGGED M	TYPE DHC
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -

1870

ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

Application Acronyms:

[NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]
[DD-Directional Drilling] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

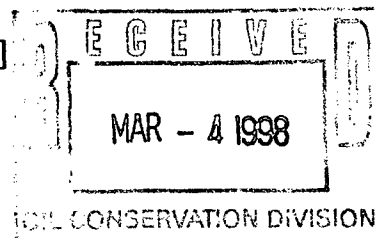
[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Directional Drilling
☐ NSL ☐ NSP ☐ DD ☐ SD

Check One Only for [B] and [C]

[B] Commingling - Storage - Measurement
☒ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR



[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☒ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☒ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

[3] INFORMATION / DATA SUBMITTED IS COMPLETE - Statement of Understanding

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with supervisory capacity.

Peggy Bradfield

Print or Type Name

Signature

Regulatory/Compliance Administrator

Title

Date

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 87505-6429Form 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

Hare

#19E

C 23-29-10

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 7091 API NO. 30-045-23742 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	Blanco Mesaverde - 72399		Basin Dakota - 71599
2. Top and Bottom of Pay Section (Perforations)	4394' 4517' (current), Proposed to be 4034' - 4517'		6569' - 6690'
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	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. 340 psia at 4276' (Original) b. 1206 psia at 4276'	a. b.	(Current) a. 220 psia at 6630' b. 1179 psia at 6630'
6. Oil Gravity (°API) or Gas BTU Content	1263		1242
7. Producing or Shut-In?	Producing		Producing
Production Marginal? (yes or no)	Yes		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 water of recent test (within 60 days)	Date: 2/23/1998 Rates: 1.9/40/0	Date: Rates:	Date: 2/23/98 Rates: 0 / 54 / 0
8. Fixed Percentage Allocation Formula - % for each zone (total of %'s to equal 100%)	Oil: Gas: will be supplied upon completion	Oil: % Gas: % will be supplied upon completion	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 ☐ No11. 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 ☐ No13. 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

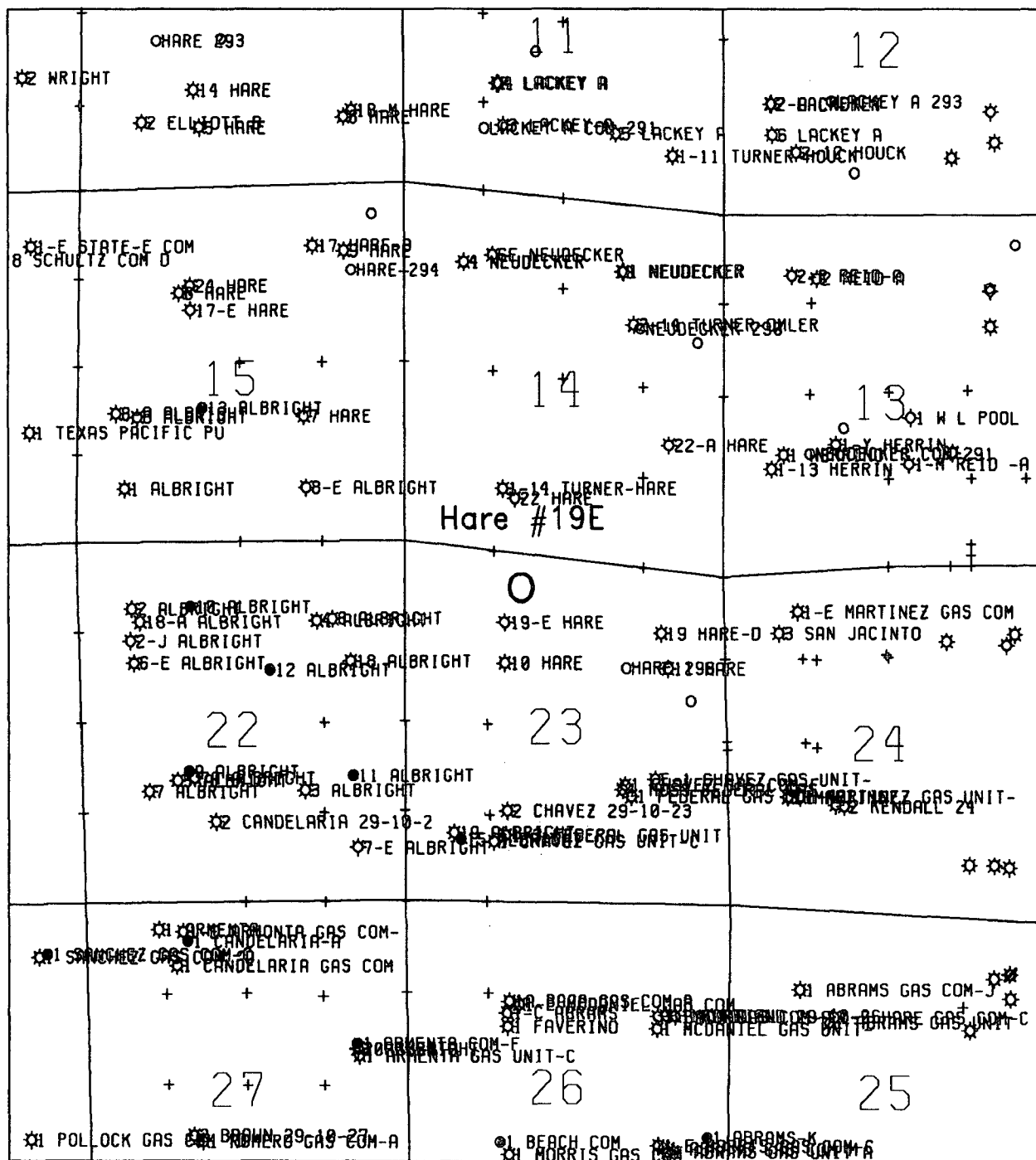
15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). _____

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 Operations Engineer DATE 03-02-98TYPE OR PRINT NAME Kevin Midkiff TELEPHONE NO. (505) 326-9700



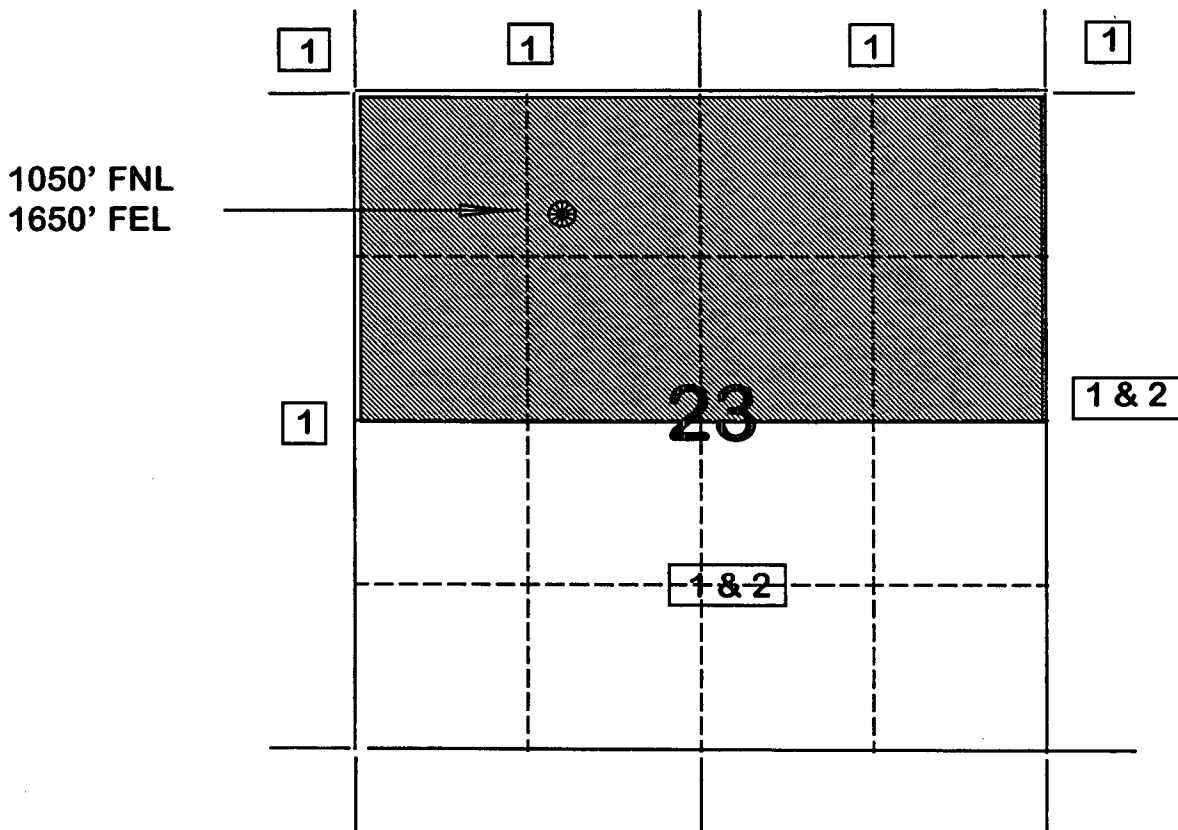
Hare #19E
T29N, R10W, 23 C
MV / DK

BURLINGTON RESOURCES OIL AND GAS COMPANY

Hare #19E

Mesaverde / Dakota Formations Commingle Well

Township 29 North, Range 10 West



- 1) Burlington Resources
- 2) Amoco Production Company
c/o Bruce Zimney
P.O. Box 800
Denver, CO 80201

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
 Supersedes C-128
 Effective 1-1-65

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

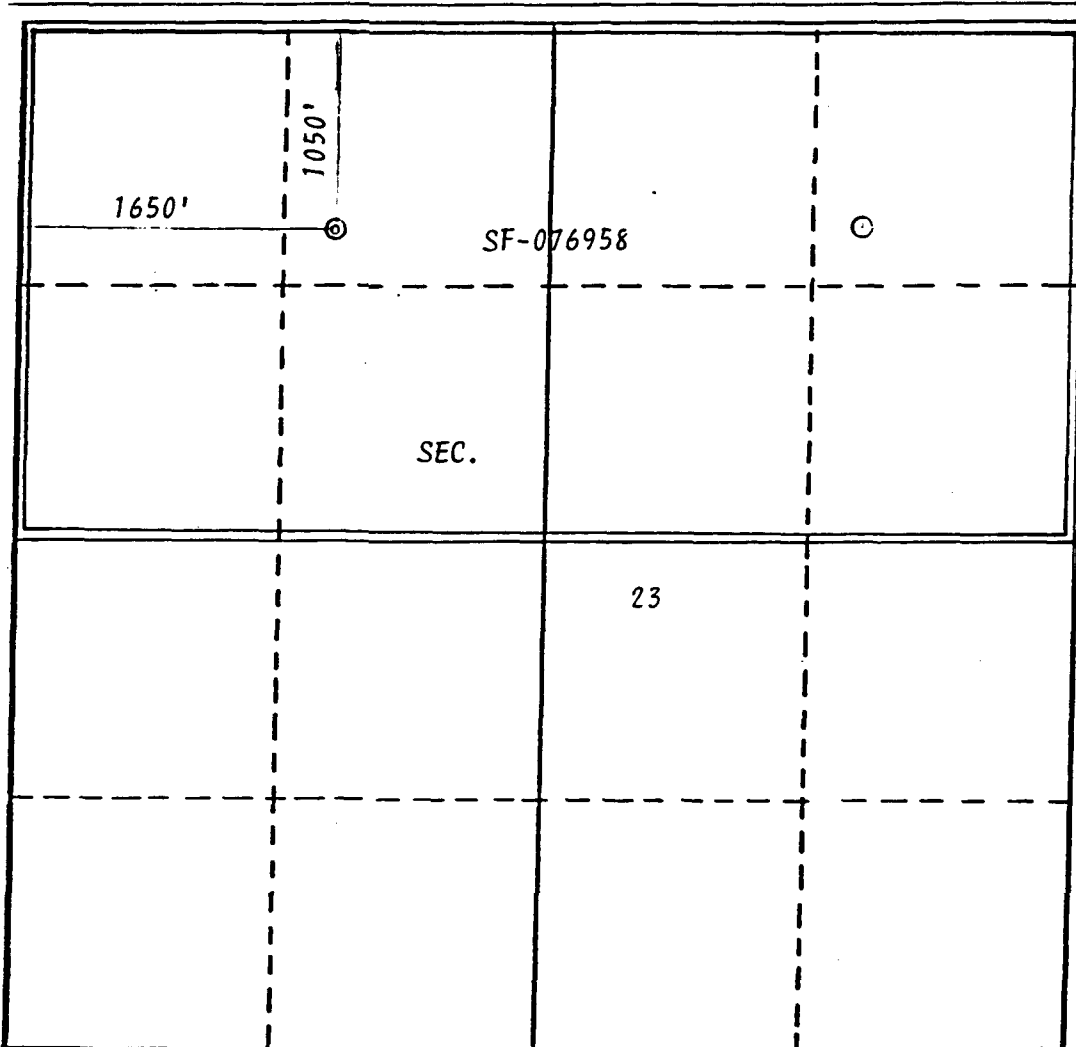
Operator Southland Royalty Company			Lease Hare		Well No. #19E
Unit Letter C	Section 23	Township 29N	Range 10W	County San Juan	
Actual Footage Location of Well: 1050' feet from the North line and 1650' feet from the West line					
Ground Level Elev: 5746'	Producing Formation Dakota/Mesa Verde		Pool Basin / Blanco Mesa Verde		Dedicated Acreage: 320 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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.



CERTIFICATION

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

Curtis C. Parsons

Name
Curtis C. Parsons
 Position
District Engineer
 Company
Southland Royalty Company
 Date
May 27, 1980

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
August 1, 1979
 Registered Professional Engineer and/or Land Surveyor

Fred B. Kerr, Jr.

Certificate No.
3950

Package Preparation Volume Data

2/23/98

DPNo: 27248

HARE

19E

Form: DK

Supt: 60 KEN RAYBON

FF: 338 JOHNNY ELLIS

MS: 327 MIKE MCKINNEY

Pipeline: WFS

Plunger: No

Dual: Yes

Compressor: No

Ownership (No Trust)

	Gas	Oil
GWI:	25.0000%	25.0000%
GNI:	21.0000%	21.0000%

Volumes

(Days On)

	MCFD	BOPD
7 Day Avg	55	0.0
30 Day Avg	54	0.0
60 Day Avg	56	0.1
3 Mo Avg	26	0.0
6 Mo Avg	29	0.0
12 MoAvg	34	0.1

Volumes

(Days in Month)

	MCFD	BOPD
30 Day Avg	54	0.0
60 Day Avg	56	0.1
3 Mo Avg	26	0.0
6 Mo Avg	29	0.0
12 Mo Avg	34	0.1

Prior Year

	MCF/M	BOPM	Days On
Jan	268	3.0	31
Feb	80	0.0	29
Mar	1,545	8.0	31
Apr	1,307	7.0	30
May	514	4.0	31
Jun	805	2.0	24.7
Jul	656	3.0	31
Aug	1,833	3.0	31
Sept	825	3.0	30
Oct	1,399	0.0	31
Nov	966	0.0	30
Dec	1,259	1.0	31
Total	11,457	34.0	

Current Year

	MCF/M	BOPM	Days On
Jan	1,662	3.0	31
Feb	1,398	2.0	28
Mar	897	2.0	31
Apr	1,069	2.0	30
May	1,216	2.0	31
Jun	864	2.0	30
Jul	1,142	0.0	26.8
Aug	936	0.0	31
Sept	841	2.0	30
Oct	46	0.0	31
Nov	558	0.0	30
Dec	1,764	4.0	31
Total	12,393	19.0	

Print Form

Exit Volumes Data

2/23/98

Package Preparation Volume Data

2/23/98

DPNo: 27247 HARE 19E Form: MV

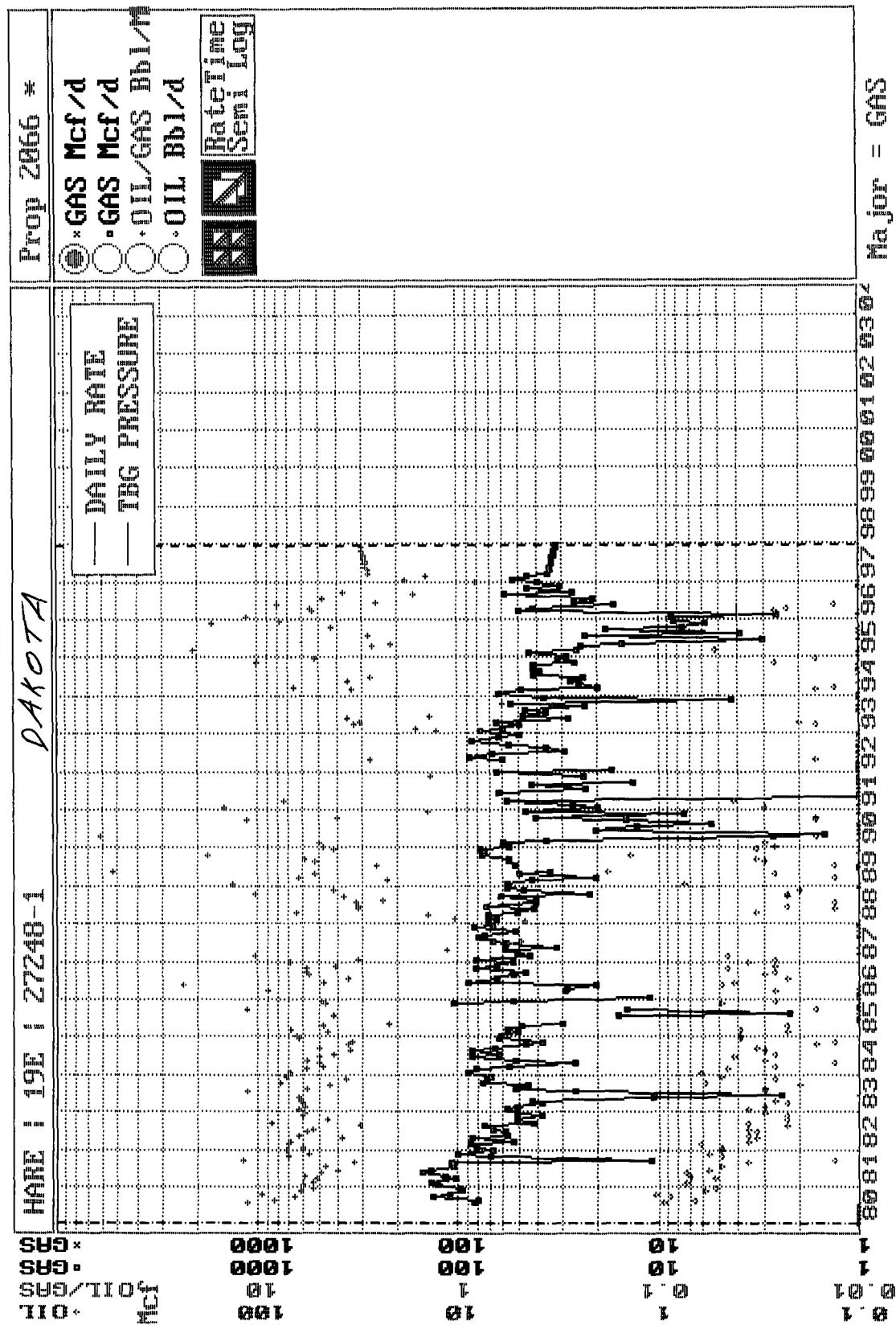
Supt: 60 KEN RAYBON FF: 338 JOHNNY ELLIS MS: 327 MIKE MCKINNEY
Pipeline: WFS Plunger: No Dual: Yes Compressor: No

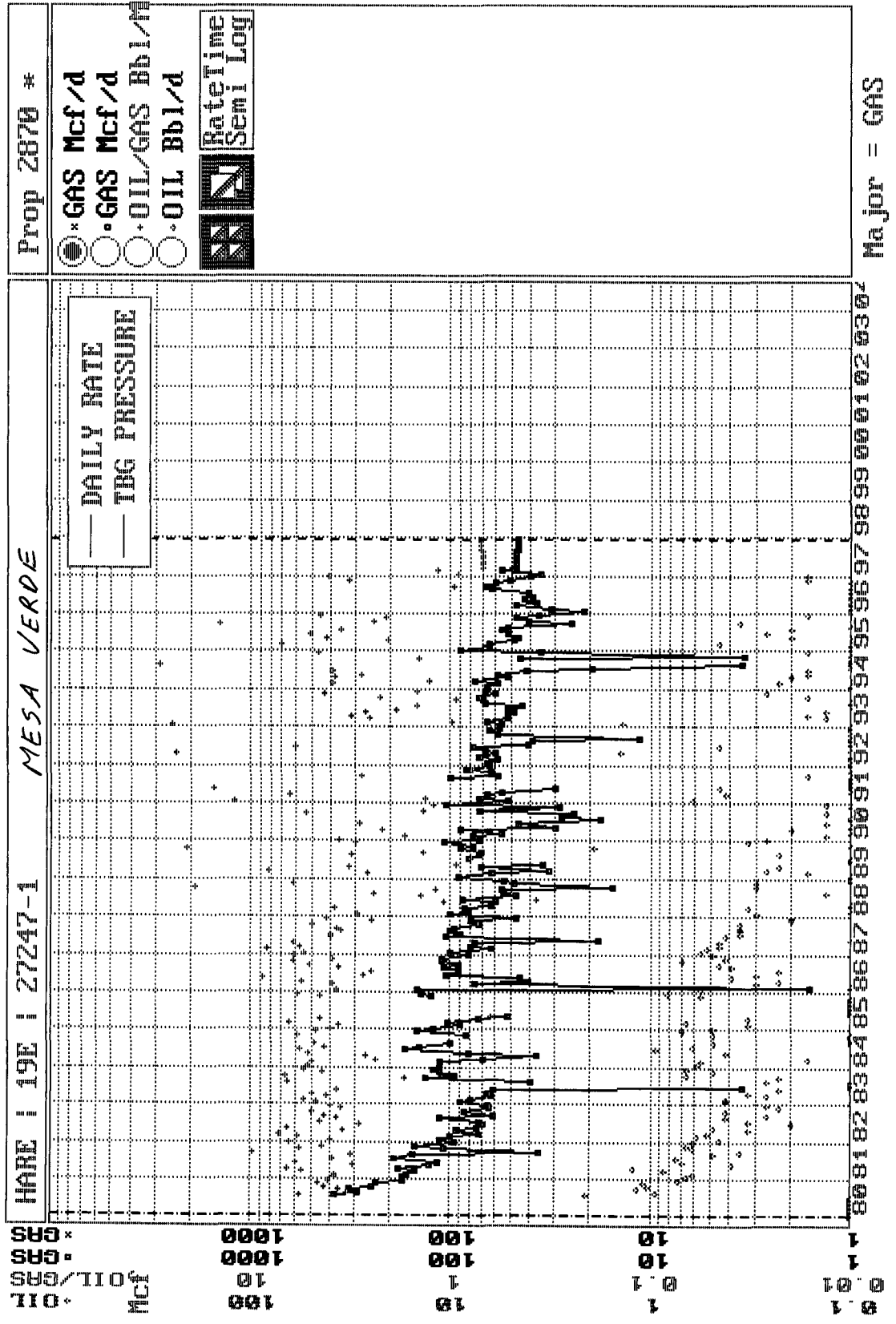
<u>Ownership (No Trust)</u>			<u>Prior Year</u>			<u>Current Year</u>		
	<u>Gas</u>	<u>Oil</u>			<u>Days</u>			<u>Days</u>
				<u>MCF/M</u>	<u>BOPM</u>	<u>On</u>	<u>MCF/M</u>	<u>BOPM</u>
GWI:	25.0000%	25.0000%	Jan	667	0.0	31	1,101	1.0
GNI:	21.0000%	21.0000%	Feb	979	0.0	29	1,740	2.0
			Mar	1,475	0.0	31	1,557	1.0
			Apr	1,162	0.0	30	1,328	0.0
			May	1,343	0.0	31	1,410	0.0
			Jun	1,204	0.0	23.1	1,462	2.0
			Jul	1,289	0.0	31	1,396	3.0
			Aug	1,951	0.0	31	1,774	2.0
			Sept	2,124	2.0	30	2,054	3.0
			Oct	1,871	0.0	31	1,542	0.0
			Nov	1,578	5.0	30	1,155	5.0
			Dec	1,247	5.0	31	2,330	5.0
			Total	16,890	12.0		18,849	24.0
<u>Volumes</u>								
<u>(Days On)</u>	<u>MCFD</u>	<u>BOPD</u>						
7 Day Avg	40	1.9						
30 Day Avg	47	0.2						
60 Day Avg	61	0.2						
3 Mo Avg	55	0.1						
6 Mo Avg	58	0.1						
12 MoAvg	53	0.1						
<u>Volumes</u>								
<u>(Days in Month)</u>	<u>MCFD</u>	<u>BOPD</u>						
30 Day Avg	47	0.2						
60 Day Avg	61	0.2						
3 Mo Avg	55	0.1						
6 Mo Avg	56	0.1						
12 Mo Avg	52	0.1						

Print Form

Exit Volumes Data

2/23/98





Hare #19E
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	0.72	GAS GRAVITY	0.723
COND. OR MISC. (C/M)	M	COND. OR MISC. (C/M)	C
%N2	0.5	%N2	0.57
%CO2	0.59	%CO2	0.58
%H2S	0	%H2S	0
DIAMETER (IN)	5	DIAMETER (IN)	2
DEPTH (FT)	4276	DEPTH (FT)	6630
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	131	BOTTOMHOLE TEMPERATURE (DEG F)	169
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	304	SURFACE PRESSURE (PSIA)	187
BOTTOMHOLE PRESSURE (PSIA)	339.5	BOTTOMHOLE PRESSURE (PSIA)	219.9
<u>MV-Original</u>		<u>DK-Original</u>	
GAS GRAVITY	0.72	GAS GRAVITY	0.723
COND. OR MISC. (C/M)	M	COND. OR MISC. (C/M)	M
%N2	0.5	%N2	0.57
%CO2	0.59	%CO2	0.58
%H2S	0	%H2S	0
DIAMETER (IN)	5	DIAMETER (IN)	2
DEPTH (FT)	4276	DEPTH (FT)	6630
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	131	BOTTOMHOLE TEMPERATURE (DEG F)	169
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	1059	SURFACE PRESSURE (PSIA)	976
BOTTOMHOLE PRESSURE (PSIA)	1205.6	BOTTOMHOLE PRESSURE (PSIA)	1179.1

Page No.: 1
Print Time: Tue Dec 02 09:25:42 1997
Property ID: 2066
Property Name: HARE | 19E | 27248-1 *DAKOTA*
Table Name: K:\ARIES\RR98WW\TEST.DBF

<u>--DATE--</u>	<u>---CUM GAS--</u>	<u>M SIWHP</u>	
	Mcf	Psi	
04/17/80	0	964.0	<i>Initial</i>
08/23/80	4975	890.0	
06/07/82	68998	477.0	
05/01/83	85052	484.0	
12/03/85	131825	263.0	
08/17/88	185046	469.0	
03/21/90	213633	284.0	
<i>10/1/97</i>	<i>301963</i>	<i>175</i>	<i>Estimated Current Based on P vs. Cum. Plot</i>

Page No.: 1

Print Time: Tue Dec 02 09:31:03 1997

Property ID: 2870

Property Name: HARE | 19E | 27247-1 *MESA VERDE*

Table Name: K:\ARIES\RR98PDP\TEST.DBF

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

04/24/80	0	1047.0	<i>Initial</i>
08/23/80	20367	789.0	
06/07/82	116893	589.0	
04/03/84	167595	557.0	
04/22/86	219421	565.0	
05/07/89	302583	413.0	
04/10/91	345232	408.0	
05/10/91	346143	420.0	
06/03/93	387977	338.0	
10/1/97	462700	292	<i>Estimated Current Based on P vs Cum. Plot</i>