

DRAINAGE AREA CALCULATIONS

- PADDOCK PRODUCERS (2 OF 2) -

- Burnett Oil Co., Inc. Wells -

New Mexico OCD
Consolidated Hearing Cases:
14613 & 14647
Burnett Oil Co., Inc./
Hudson Oil Company of Texas
Exhibit # 28

Well	Zone	Oil EUR (mbbl)	Paddock Log Data					Drainage Area		
			Net Pay (ft)	Avg ϕ	Avg Sw	So* ϕ *H	ϕ *H	RF = 10% (acres)	RF=13% (acres)	RF = 15% (acres)
JACKSON A 26	Paddock	105	173	7%	29%	8.7	12.2	20.1	15.5	13.4
GISSLER 2	Paddock	142	212	7%	26%	11.6	15.8	20.2	15.6	13.5
STEVENS B 3	Paddock	98	156	7%	28%	7.9	11.0	20.7	15.9	13.8
GISSLER B 32	Paddock	93	160	7%	31%	7.5	10.8	20.7	16.0	13.8
GISSLER B 37	Paddock	141	197	8%	29%	10.7	15.0	22.0	16.9	14.7
GISSLER B 33	Paddock	142	216	6%	25%	10.1	13.5	23.3	17.9	15.6
GISSLER A 21	Paddock	158	224	7%	26%	10.9	14.8	24.1	18.5	16.1
JACKSON A 29	Paddock	123	160	7%	28%	8.4	11.6	24.4	18.8	16.3
JACKSON A 35	Paddock	163	183	8%	30%	10.3	14.6	26.4	20.3	17.6
JACKSON A 23	Paddock	93	107	7%	28%	5.4	7.4	28.9	22.2	19.2
STEVENS A 10	Paddock	93	103	7%	34%	5.1	7.7	30.3	23.3	20.2
GISSLER B 43	Paddock	166	182	7%	25%	9.1	12.1	30.5	23.4	20.3
GISSLER B 35	Paddock	138	169	6%	27%	7.1	9.8	32.2	24.8	21.5
STEVENS A 12	Paddock	162	151	7%	28%	7.5	10.3	36.1	27.7	24.0
GISSLER A 19	Paddock	203	185	7%	30%	9.0	12.9	37.6	28.9	25.1
JACKSON A 20	Paddock	235	158	7%	29%	8.0	11.2	48.9	37.6	32.6
GISSLER A 25	Paddock	147	94	7%	32%	4.7	7.0	51.4	39.6	34.3
JACKSON A 31	Paddock	229	100	7%	24%	5.0	6.6	76.0	58.4	50.6

LOG ANALYSIS EXAMPLE — PADDOCK MEMBER—

BURNETT OIL CO., INC. — JACKSON A 26
NW NE SE Section 13-T17S-R30E

PADDOCK MEMBER DATA

- Average Density Porosity: 7.1%
- Average Sw: 29%
- Sum SoPhiH: 8.67
- Sum Net Pay: 173



EXHIBIT

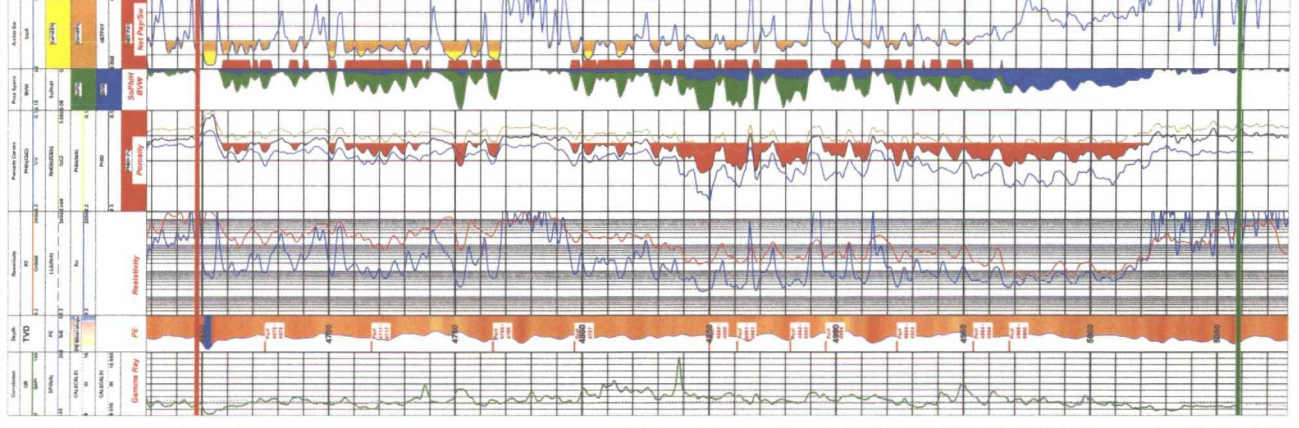
B/A 28A

BURNETT OIL CO., INC.

6666

309132840000

BURNETT OIL COMPANY
JACKSON A 26
TWP: 17 S - Range: 30 E - Sec: 13
TD-5100



28A

CALCULATED BLINEBRY PAY COMPARISON

Burnett vs. COG

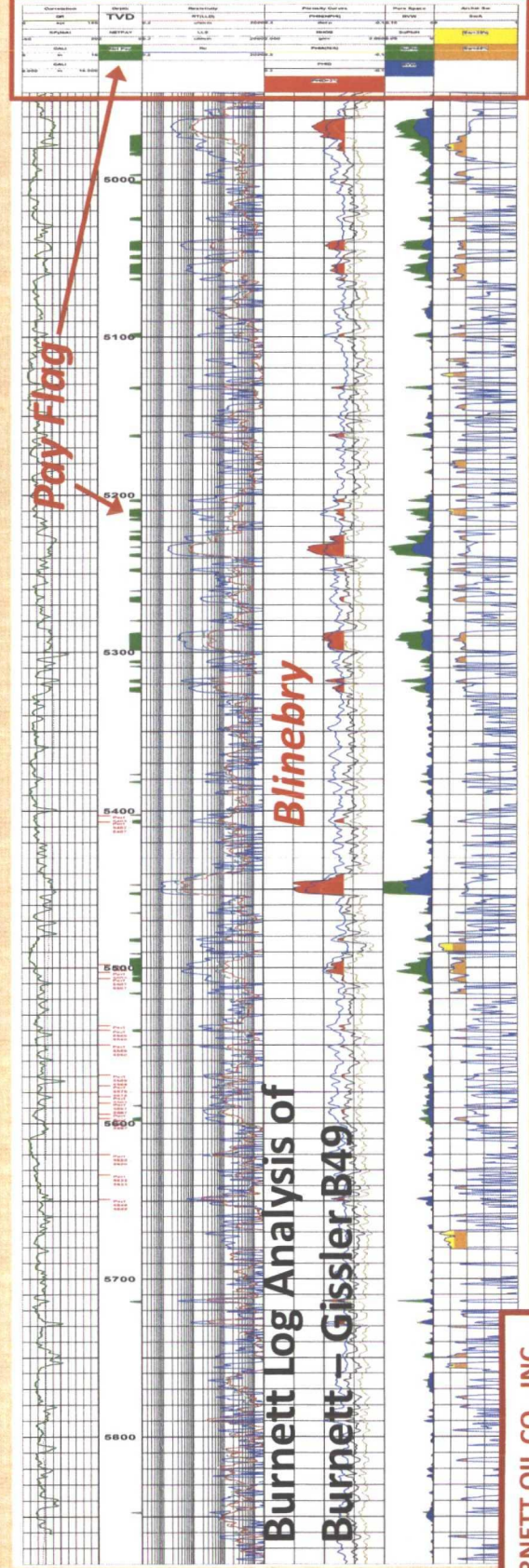
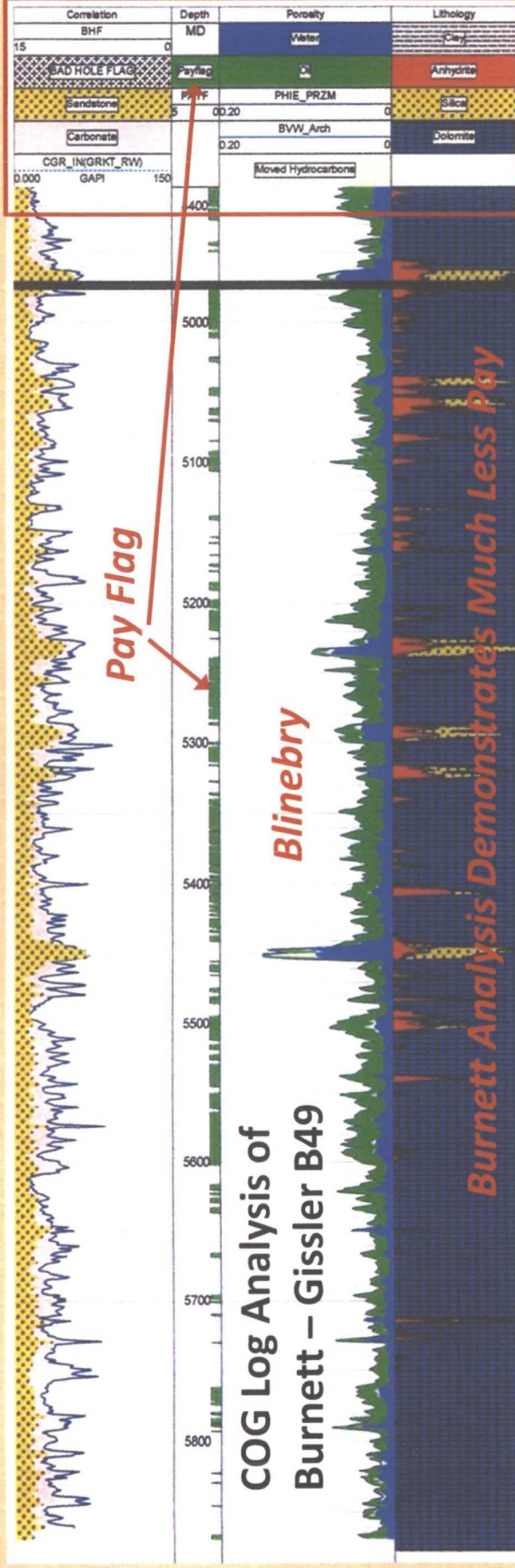


EXHIBIT
B/H 286

Burnett Analysis Based on Proven Industry-Standard Formulas.

BURNETT OIL CO., INC.

6666

Burnett vs. COG



EXHIBIT
14 28C

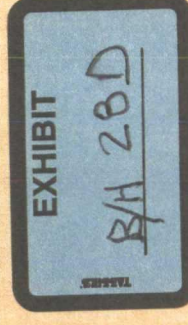
Burnett Analysis Based on Proven Industry-Standard Formulas.

BURNETT OIL CO., INC.

九九九九

Density Porosity Calculation

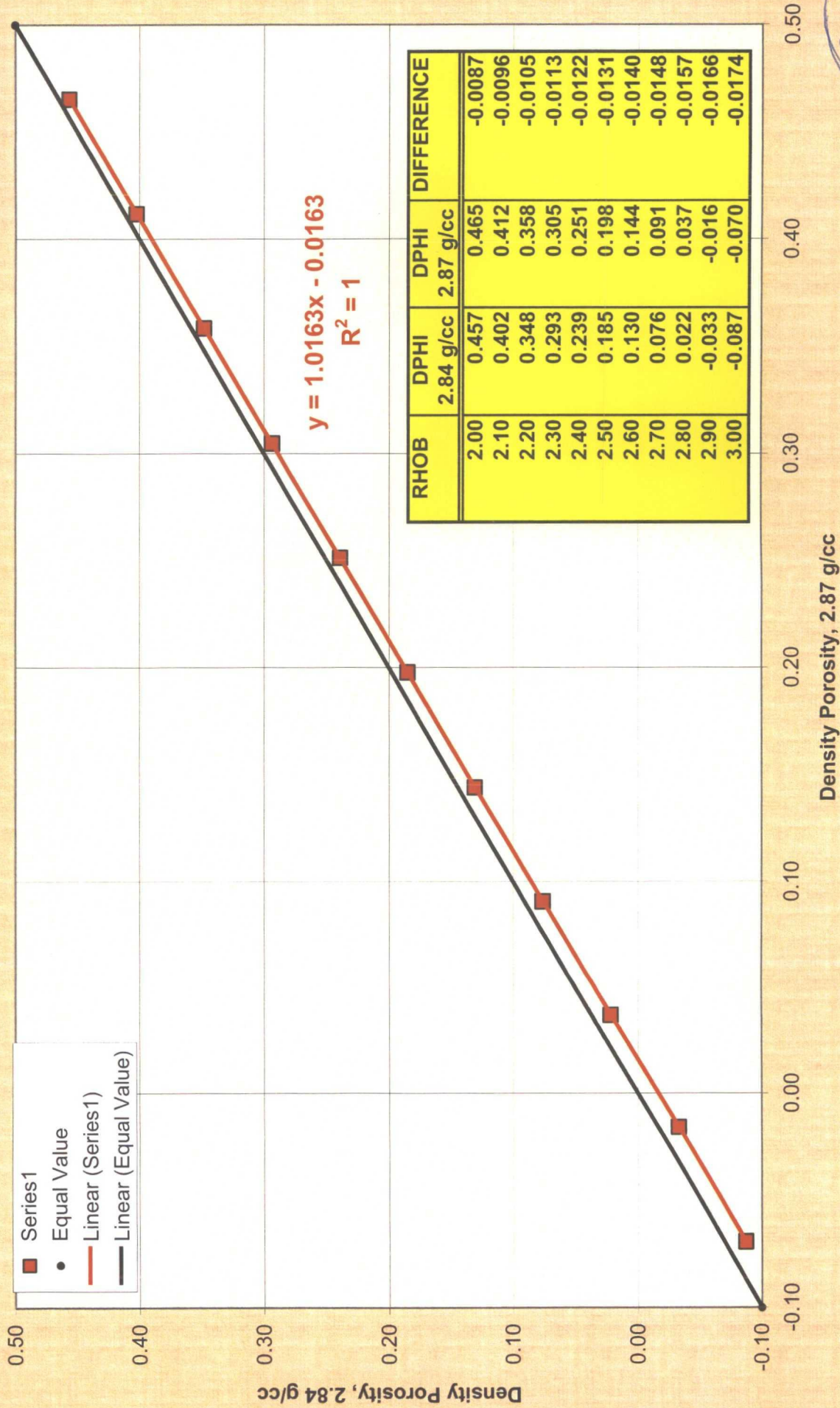
- Recorded bulk density (RHOB) used to calculate density porosity (DPHI)
- $DPHI = (RHOG - RHOB) / (RHOG - RHOF)$
 - RHOG = grain density, g/cc; lithology, mineralogy
 - RHOF = fluid density, g/cc; drilling fluid filtrate, formation fluid
 - RHOB = recorded bulk density, g/cc; log measured
- Important to calibrate the selection of proper RHOG with either core grain density analysis or apparent grain density calculation from neutron/density porosity calculation.
 - Burnett used RHOG of 2.84 g/cc (calibrated to core analysis, 100 samples, 2.837 g/cc) with RHOF of 1.00 g/cc
 - COG used RHOG of 2.87 g/cc with RHOF of 1.00 g/cc
- Use of the higher RHOG adds ~1.1 to 1.6% porosity (dependent on the RHOB) as compared to the lower RHOG value.



Density Porosity Comparison

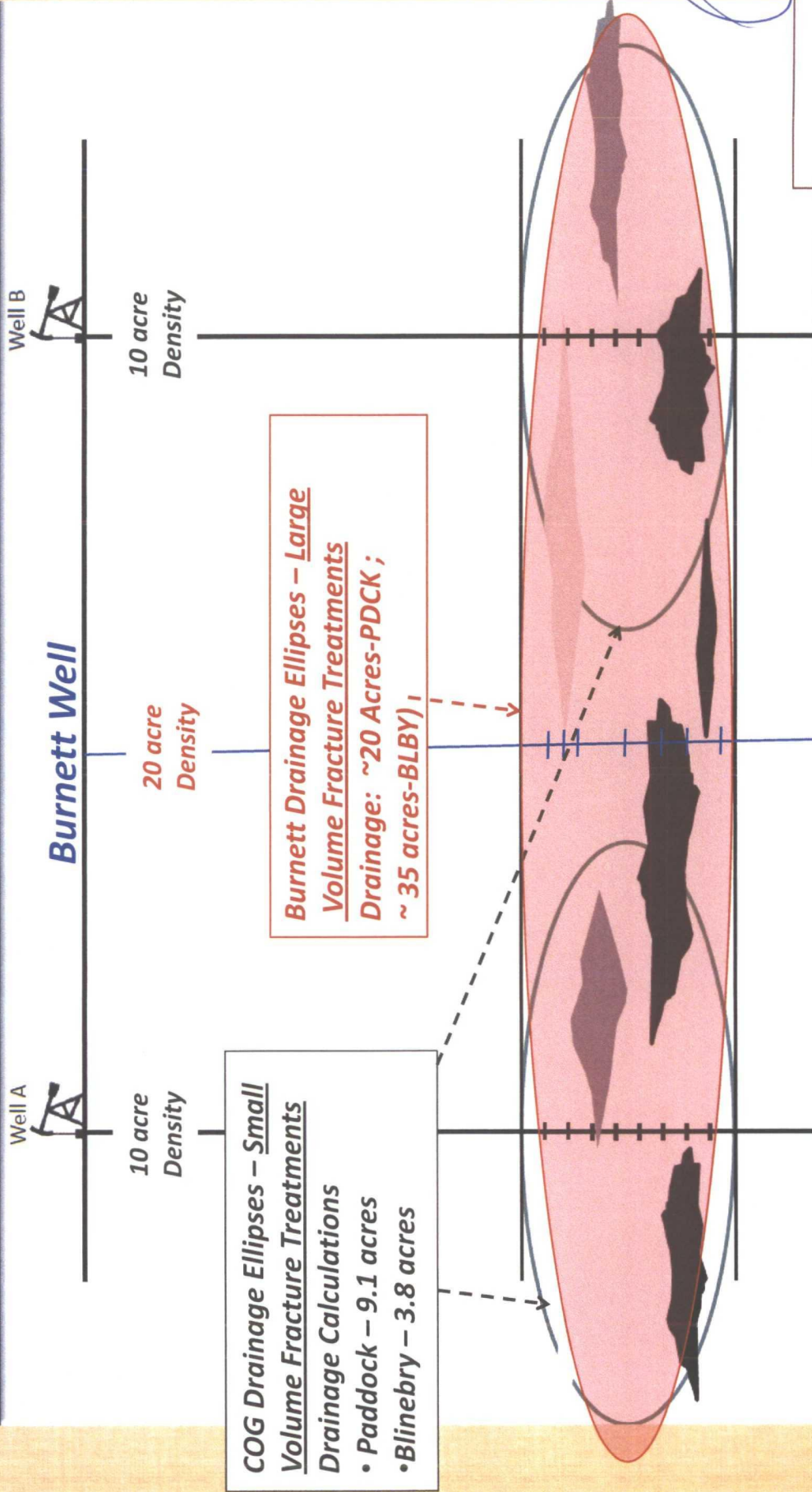
Density Porosity Comparison: Grain density 2.87 versus 2.84 g/cc

EXHIBIT
BA 28F



28F

Heterogeneous Reservoir



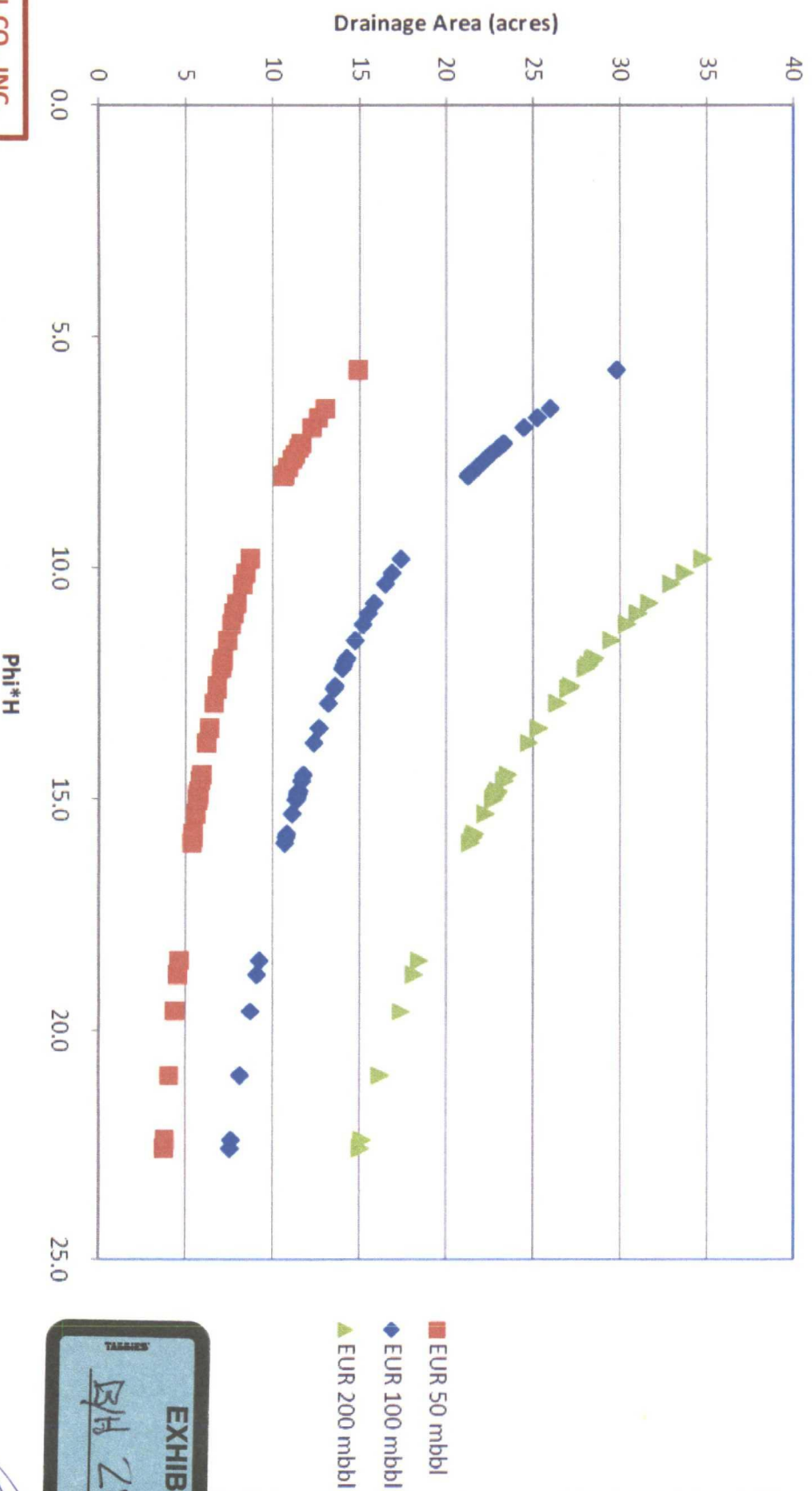
BURNETT OIL CO., INC.

6666

Modified from Concho Exhibit

DRAINAGE AREAS VS. PHI H

Drainage Area vs. $\Phi_i H$
for EUR = 50, 100, and 200 mbbl
and assuming $S_w = 25\%$



BURNETT ANALYSIS OF COG EUR'S

Section	No. of Wells	EUR/well (mbbl/well)
17S 30E 16	34	62
17S 30E 17	16	61
17S 30E 20	40	79
17S 30E SUBTOTAL	90	
17S 30E AVERAGE		70
17S 32E 16	17	52
17S 32E 19	30	59
17S 32E 20	22	56
17S 32E 21	28	72
17S 32E 22	26	70
17S 32E SUBTOTAL	123	
17S 32E AVERAGE		63
TOTAL	213	
AVERAGE		66

BURNETT OIL CO., INC

6666

EXHIBIT

BA 28 H

28 H

EUR COMPARISON (MBO)

By Operator & Well Treatment

<u>COG GEL FRACS</u> 213 Wells Analyzed AVG: 66 MBO	<u>BURNETT HOT ACID</u> 65 Wells Analyzed AVG: 115 MBO	<u>BURNETT SLICKWATER</u> 6 Wells Analyzed AVG: 149 MBO	PADDOCK
BURNETT OIL CO., INC. 6666	No Hot Acid Jobs in Blinebry	11 Wells Analyzed AVG: 157 MBO	BLINEBRY

EXHIBIT

B/H 28 I

28 I