

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

DRAINAGE AREA CALCULATIONS

- PADDOCK PRODUCERS (2 OF 2) -

- Burnett Oil Co., Inc. Wells -

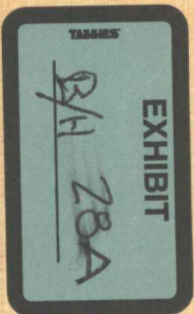
Well	Zone	Oil EUR (mbbl)	Paddock Log Data					Drainage Area		
			Net Pay (ft)	Avg ϕ	Avg Sw	So* ϕ *H	ϕ *H	RF = 10% (acres)	RF=13% (acres)	RF = 15% (acres)
JACKSON A 26	Paddock	105	173	7%	29%	8.7	12.2	20.1	15.5	13.4
GISSLER 2	Paddock	142	212	7%	26%	11.6	15.8	20.2	15.6	13.5
STEVENS B 3	Paddock	98	156	7%	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

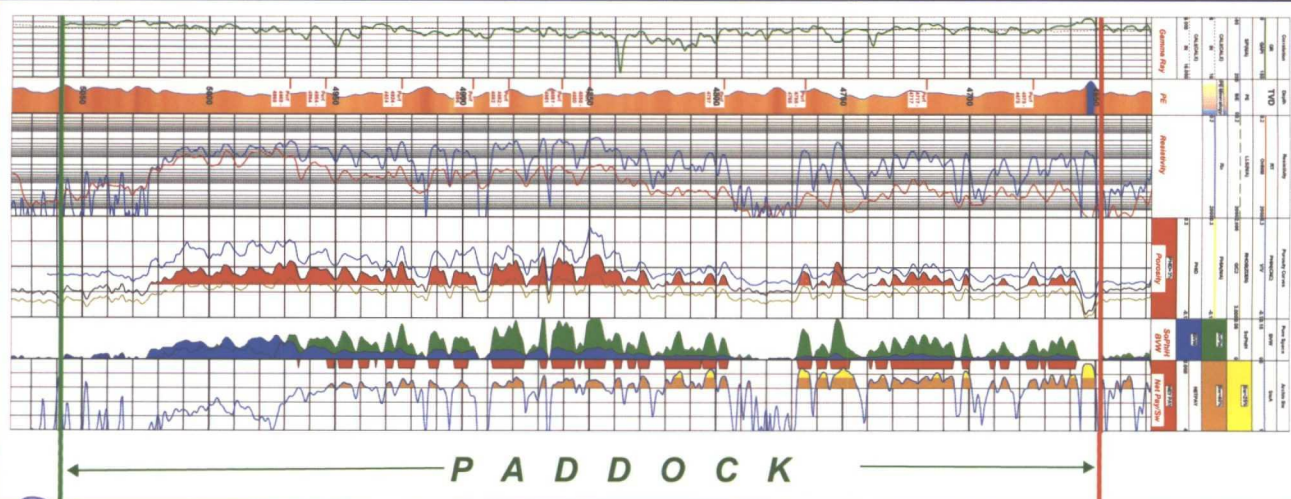
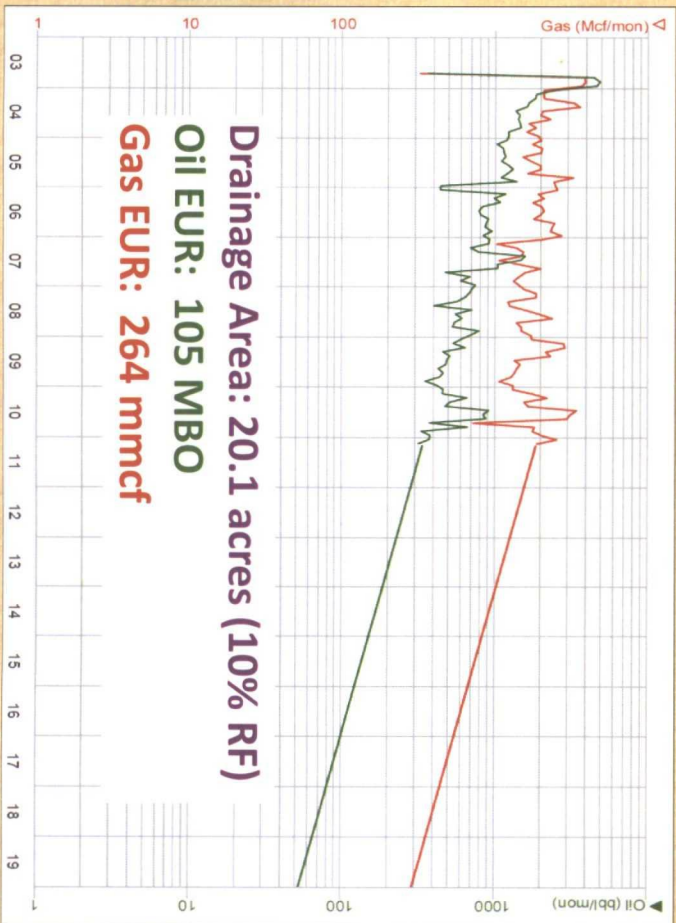
PADDOCK MEMBER DATA

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



BURNETT OIL CO., INC.

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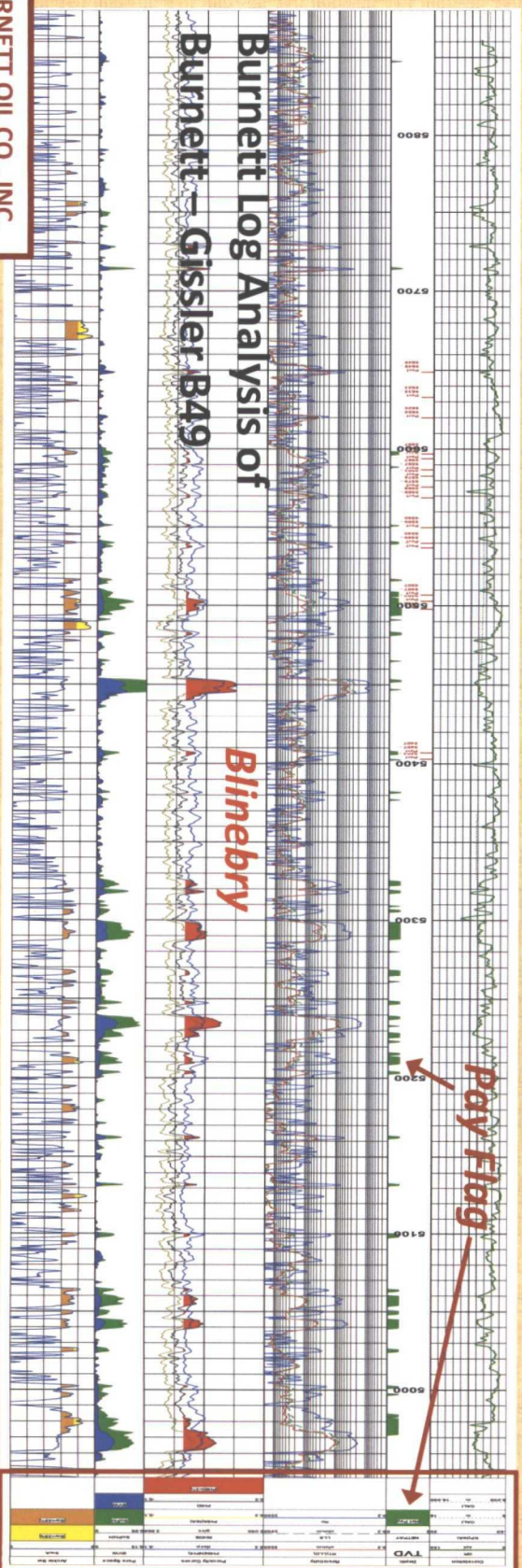
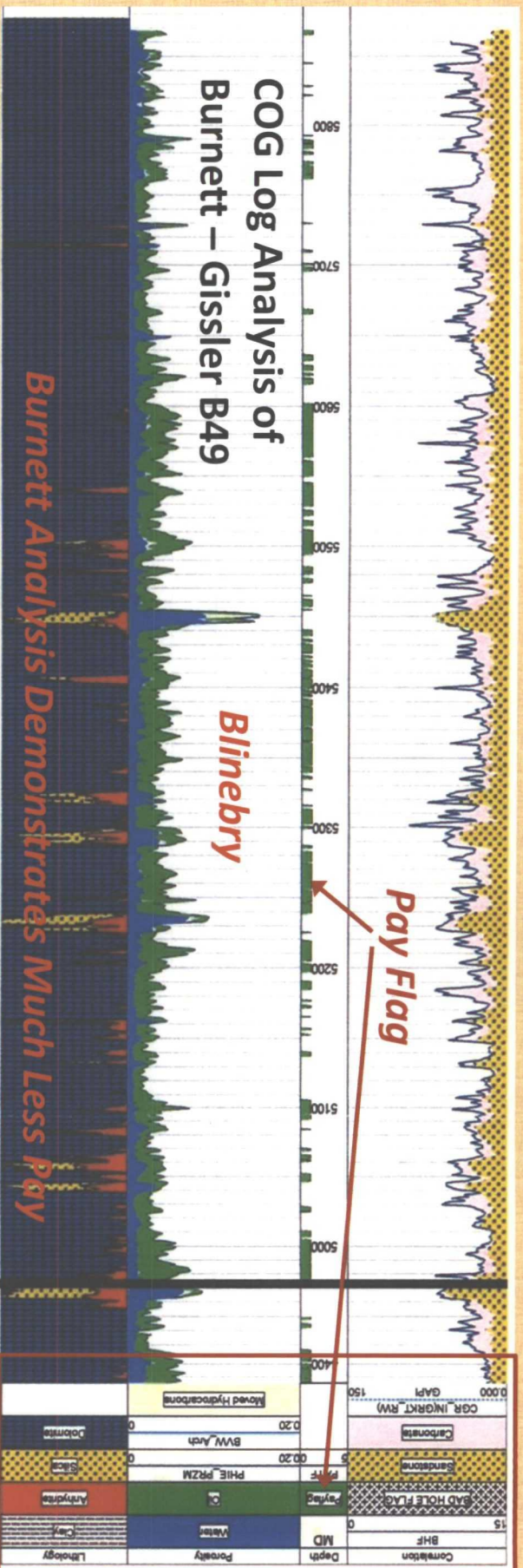


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BURNETT OIL COMPANY
JACKSON A 26
NW NE SE Section 13-T17S-R30E
TWP: 17 S - Range: 30 E - Sec: 13
TD-5100

28A

CALCULATED BLINEBRY PAY COMPARISON Burnett vs. COG



BURNETT OIL CO., INC.

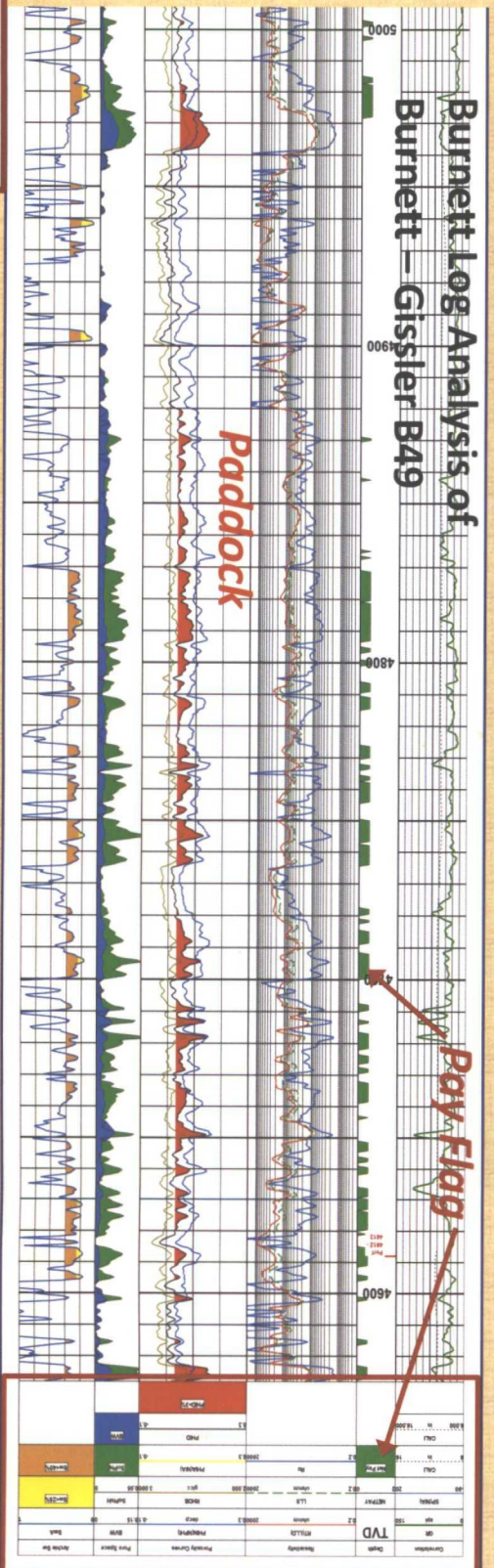


Burnett Analysis Based on Proven Industry-Standard Formulas.

EXHIBIT

B/H 28B

ASPECT

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Burnett Analysis Based on Proven Industry-Standard Formulas.

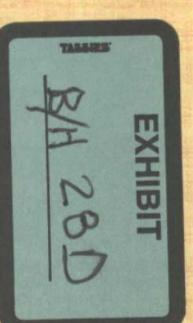
EXHIBIT

B/H 28C

28B

Density Porosity Calculation

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



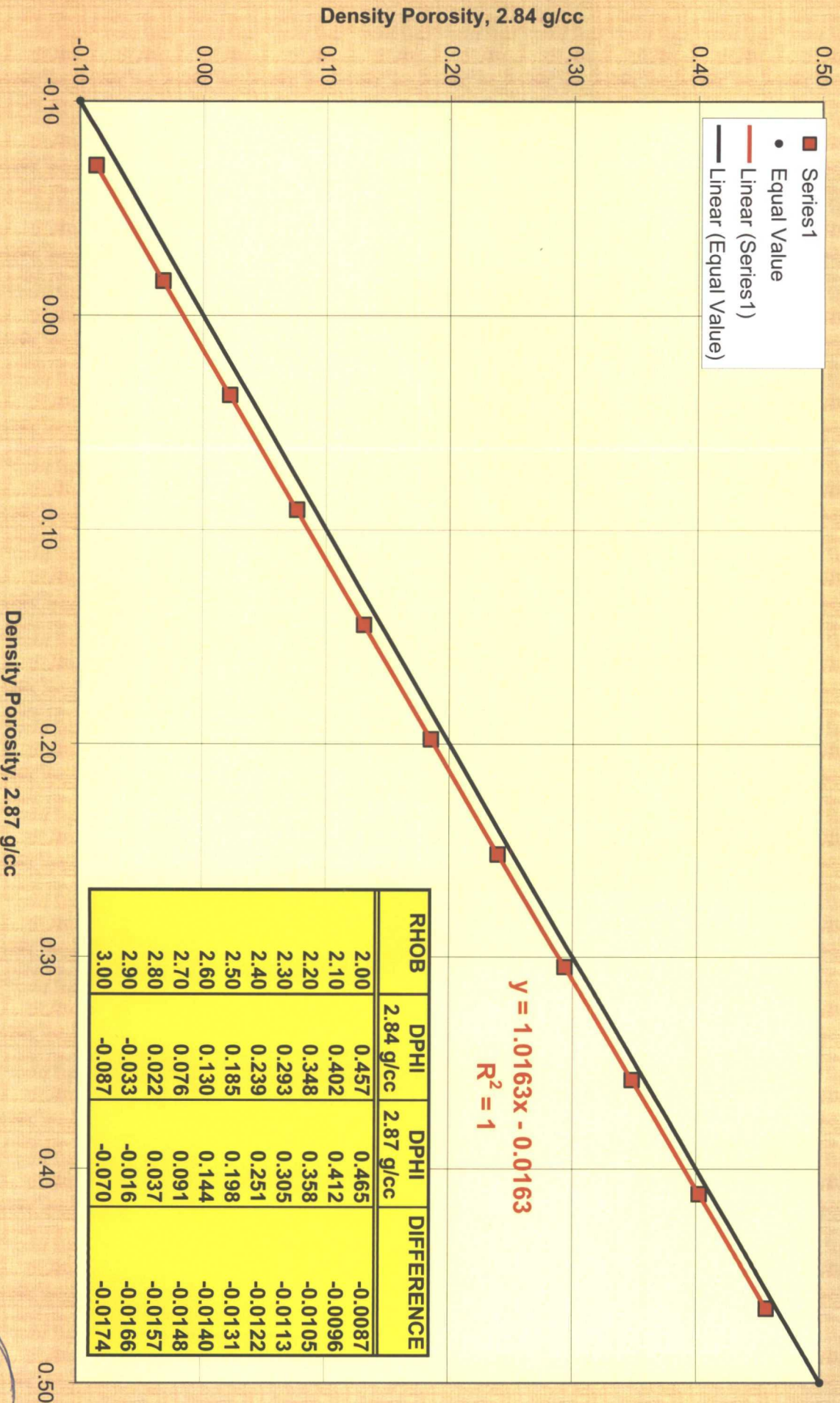
28D

Density Porosity Comparison

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

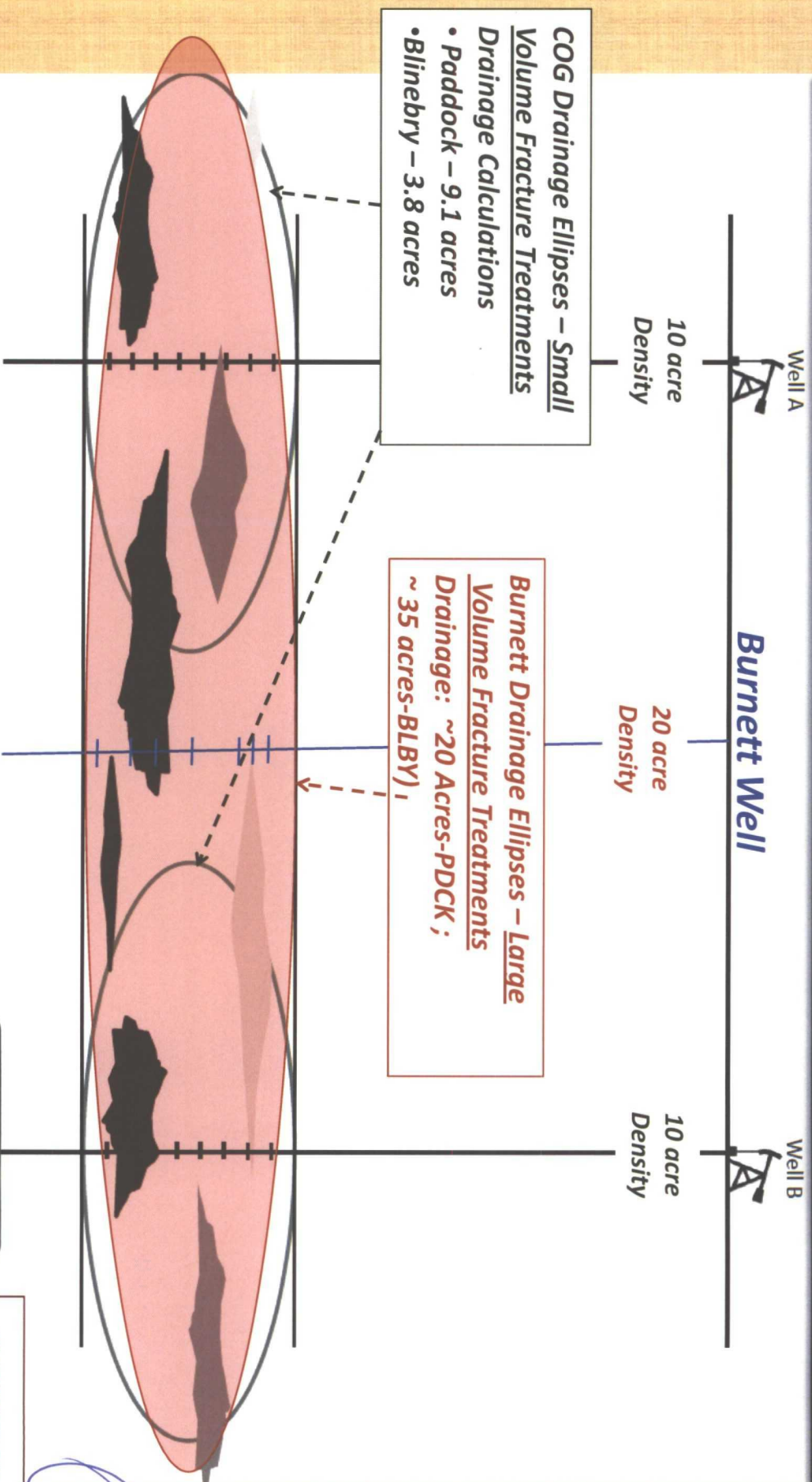
EXHIBIT

B/A 28E



28E

Heterogeneous Reservoir



EXHIBIT

13/H 28F

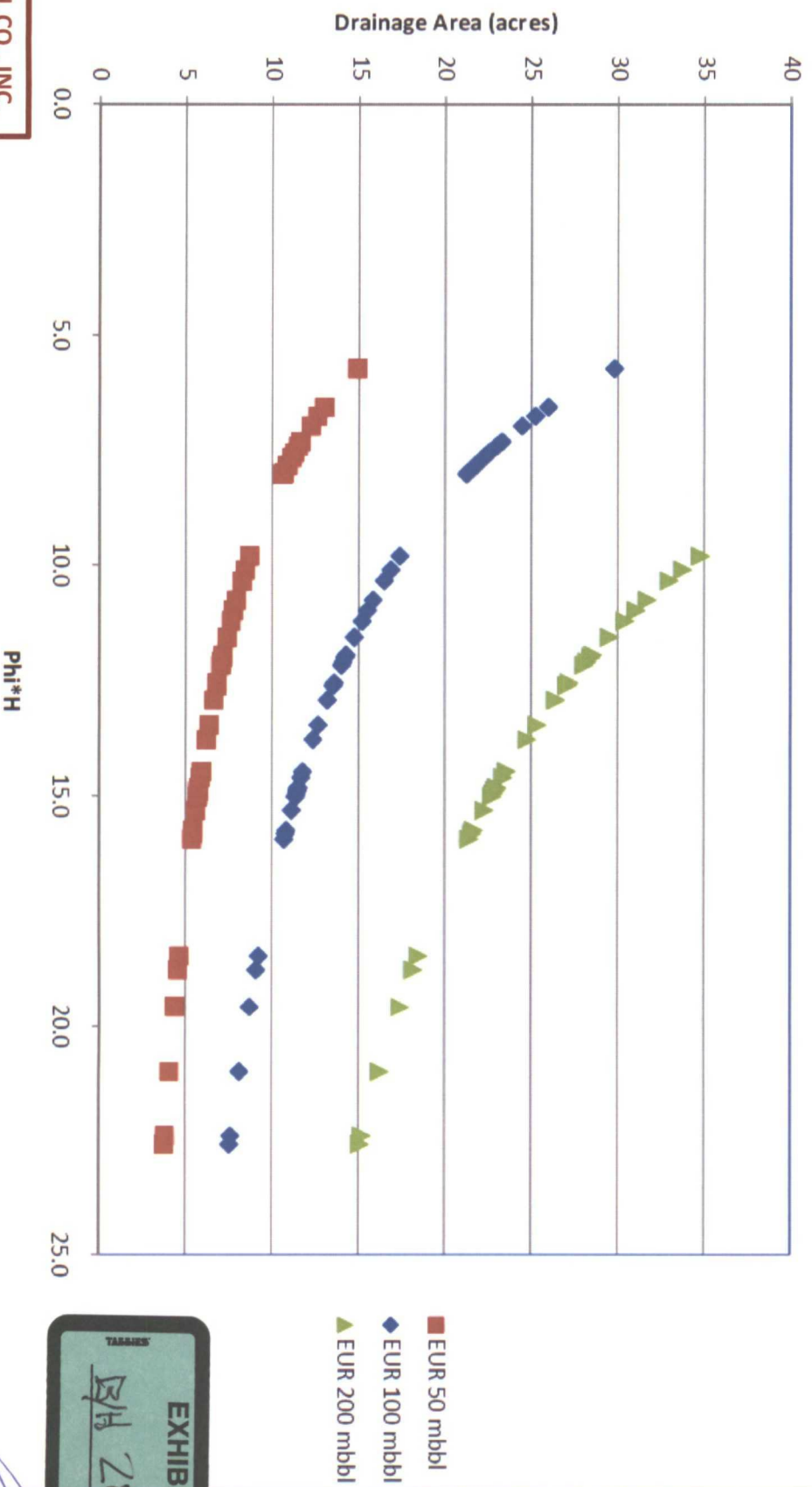
BURNETT OIL CO., INC.



Modified from Concho Exhibit

DRAINAGE AREAS VS. PHI H

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



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EXHIBIT
286

286

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

EUR COMPARISON (MBO)

By Operator & Well Treatment

COG GEL FRACS

213 Wells
Analyzed

BURNETT HOT ACID

65 Wells Analyzed

BURNETT SLICKWATER

6 Wells Analyzed

PADDOCK

AVG: 66 MBO

AVG: 115 MBO

AVG: 149 MBO

No Hot Acid Jobs
in Blinebry

11 Wells Analyzed

AVG: 157 MBO

BLINEBRY

BURNETT OIL CO., INC.
CCCCC

EXHIBIT

B/H 28 I

28 I