## NEW MEXICO OIL CONSERVATION COMMISSION

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Provide    Person Data    County Lea      initial    X    Annual    Special    Date of Test 6/17/56      pmpany    Skelly Cil Co.    Lease    Merico HT    Well No.    1      initial    X    Special    Date of Test 6/17/56    Partico HT    Well No.    1      initial    X    Sec.    25 Twp.    198    Rge.    372    Purchaser Merthers Herthers Herth								; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;		Re	Form C-1 evised 12-1-
Annual  Special  Date of Test 6/17/26    mmpany  Skelly Cdl Co.  Lease  Merian TT  Well No.  1    MitHSec20  Thys108  Rge372  Purchaser Merkhern Exturpl Cas Co.  asing 54    MitHSec20  Thys108  Rge372  Purchaser Merkhern Exturpl Cas Co.  asing 54    MitHSoc20  Toy_108  Rge372  Purchaser Merkhern Exturpl Cas Co.  asing 54    Asing 2-3/6*  Wit14_1D. 15.012  Set at 3652  Perf3(200)  To	200	1 <b>Semont</b>									
Septir Cil Co.    Lease    Merica ere    Well No.    I      nit											
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sted Through (Integer) (Meter) Type Taps Flow Data (Drover) (Choice) Press. Diff. Temp. Press. Temp. Press. Temp. (Line) (Orifice) Size psig hw Or. psig Or	~ • •	, or compro-		<u>n – – – – – – – – – – – – – – – – – – –</u>	acke				TI Temp.		<u></u>
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At  2.00  A1.6  0.3  50  A70.5  A30.5  71  A30.7  21    T  A30.7  T  B05.7  21  21  21    T  A30.8  54  72  23.4  21    T  A30.8  54  72  23.4    T  A30.8  54  72  24    T  A30.8  54  72  24    T  A30.8  54  72  24    T  A30.8  54  73.4  43.4  24    T  Pressure  Flow Temp.  Gravity  Compress.  Rate of Flow    (24-Hour) $\sqrt{h_w p_f}$ psia  Ft  Fg  Factor  Factor  Patro  Q-MCPD    (24-Hour) $\sqrt{h_w p_f}$ psia  Ft  Fg  Pov  0  10.56  1972    29.92  6.57.6  A45.0  1.0039  0.9400  1.054  3755    Pressure ch(U) ATIONS    Liquid Hydrocarbon Ratio  cf/bl.  Specific Gravity Separator Gas	+	Size	Size	psig	hw	°F.	<u> </u>	F.	psig		
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FLOW CALCULATIONS    FLOW Calculations    Pressure  Flow Temp.  Gravity  Compress.  Rate of Flow    (24-Hour) $\sqrt{h_w P_f}$ psia  Factor  Factor  Factor  Factor  Factor  Q-MCFPD    (24-Hour) $\sqrt{h_w P_f}$ psia  Ft  Fg  Factor  Factor  Q-MCFPD    (24-Hour) $\sqrt{h_w P_f}$ psia  0.9400  1.056  1972    (24-Hour) $\sqrt{h_w P_f}$ psia  0.9636  0.9400  1.056  1972    (24-Hour) $\sqrt{h_w P_f}$ psia  0.9636  0.9400  1.056  1972    (24-Hour) $\sqrt{h_w P_f}$ psia  0.9636  0.9400  1.056  1973    (24-Hour) $\sqrt{h_w P_f}$ psia  cf/bl.  specific Gravity Separator Gas  psia  1975	╉		+					+		╉────┼─	24
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29,92  65.76  465.0  1.0098  0.9400  1.056  1972    *  110.30  470.7  1.0039  0.9400  1.043  3733    *  126.44  471.6  1.0019  0.9400  1.054  3360    *  126.44  471.6  1.0019  0.9400  1.054  3360    *  126.44  471.6  1.0019  0.9400  1.054  3755    PRESSURE CALCU'ATIONS  Pressure calculations  deg.  Specific Gravity Separator Gas  3755    Liquid Hydrocarbon Ratio  cf/pt  Pt  Pc  90.90.7  Pc  981.5 x 103    Mix pt  Pt  Pt  Pc  90.97  Pc  981.5 x 103    Mix pt  Pt  Pt  Pc  990.7  Pc  991.5 x 103    Mix pt  Pt  Pt  Pt  Pt  Pt  Pt  Pt    Pt  Pt  Pt  Pt  Pt  Pt  Pt  Pt  Pt  Pt  Pt  Pt  Pt  Pt  Pt  Pt  Pt  Pt  Pt  <	•	(24-Hou	$(\mathbf{r})  _{-\sqrt{1}}$	n <sub>w</sub> p <sub>f</sub>	psia						
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PRESSURE CALCU'ATIONS    Liquid Hydrocarbon Ratio cf/bbl. Specific Gravity Separator Gas    vity of Liquid Hydrocarbons	╋		17/		#f¥#f+					054	
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852.7  736.9  19.394  383.9  29.89  856.8  124.7  925.6  0.94    \$18.9  670.6  27.155  737.4  115.03  785.6  195.9  886.3  0.90    751.6  564.9  32.590  1062.1  165.69  730.6  250.9  856.7  0.87    673.9  4.54.1  37.310  1392.0  217.15  671.3  310.2  819.3  0.83    solute Potential: 8400  MCFPD; n_0.69897    MPANY	L	iquid Hydro ty of Liqui <b>36</b>	carbon Rat	tio	PRI	ESSURE CA	ALCULATI	ONS Speci Speci	fic Gravi	ty Separa ty Flowin	<b>3755</b> tor Gas
751.6  564.9  32.590  1062.1  165.69  730.6  250.9  854.7  0.87    673.9  4.54.1  37.310  1392.0  217.15  671.3  310.2  819.3  0.83    solute Potential: 8400  MCFPD; n  0.69897    MPANY  Skelly Otl Ca.  Diet. Supt.    Diet. Supt.    MORE    MPANY  Mone	vi	iquid Hydro ty of Liqui <b>36</b> Pt (psia)	Pt <sup>2</sup> Pt <sup>2</sup>	$F_{c}Q$	PRI 0.156 (F <sub>c</sub> Q) <sup>2</sup>	ESSURE CA	ALCULATIO	ONS Speci P <sub>c</sub> _9 P <sub>w</sub> 2	fic Gravit fic Gravit 99.7 P <sub>c</sub> -P <sub>w</sub> <sup>2</sup>	ty Separa ty Flowin P <sup>2</sup> 901. Cal. Pw	<b>3755</b> tor Gas g Fluid <b>5 x 103</b>
solute Potential: <u>8400</u> MCFPD; n <u>0.69897</u> MPANY <u>Skelly Oll Ca.</u> DRESS <u>Box 38. Nobber N. M.</u> ENT and TITLE A <u>Link</u> <u>Diet. Supt.</u> INESSED <u>None</u>	L vi	iquid Hydro ty of Liqui 36 Pt (psia) 892.7	Pt <sup>2</sup> 796.9	<b>6.44</b> tio	PRJ 0.156 (F <sub>c</sub> Q) <sup>2</sup> 383.9	ESSURE C. cf/bbl. deg. (F. (1- 59, 115	ALCU'ATI cQ) <sup>2</sup> -e <sup>-s</sup> ) .89	ONS Speci Pc_9 Pw2 856.8	fic Gravit fic Gravit 90.7 P <sup>2</sup> <sub>c</sub> -P <sup>2</sup> <sub>w</sub> 124.7	ty Separa ty Flowin P2 981. Cal. Pw 925.6	<b>3755</b> tor Gas g Fluid <b>5 x 103</b> P <sub>W</sub> P <sub>C</sub> <b>0.94</b>
MPANYSkelly Oil Co. DRESSBox 38. Hobber N. M. ENT and TITHE A Club Diet. Supt. INESSEDNone	L Vi Jug	iquid Hydro ty of Liqui 36 Pt (psia) 892.7 \$12.9 751.6	Pt 796.9 670-6 564.9	6.44 tio	PRJ 0.156 (F <sub>c</sub> Q) <sup>2</sup> 383.9 737.4 1062.1	ESSURE C. cf/bbl. deg. (F. (1	ALCU <sup>1</sup> ATI( cQ) <sup>2</sup> -e <sup>-s</sup> ) -89	ONS Speci Pc P Pw <sup>2</sup> 856.8 785.6 730.6	fic Gravi fic Gravi 90.7 P <sup>2</sup> <sub>c</sub> -P <sup>2</sup> <sub>w</sub> 124.7 195.9 250.9	ty Separa ty Flowin P <sup>2</sup> 981. Cal. Pw 925.6 886.3 856.7	3755 tor Gas g Fluid 5 x 103 Pw Pc 0.94 0.90 0.87
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		iquid Hydro ty of Liqui 36 Pt (psia) 892.7 \$18.9 751.6 673.9 lute Potent ANY ESS	Pt Pt 796.9 670.6 564.9 454.1 ial: 8400 Scelly 011 Box. 38. Bo	$F_cQ$ $F_cQ$ 19.594 27.155 32.590 37.310 Co.	PRJ 0.156 (F <sub>c</sub> Q) <sup>2</sup> 383.9 737.4 1062.1 1392.0	ESSURE C. cf/bbl. deg. (F. (1 59, 115, 145, 217,	ALCU ATI cQ) <sup>2</sup> -e <sup>-s</sup> ) .03 .03 .03 .03 .03 .03 .03 .03	ONS Speci P <sub>c</sub> _9 P <sub>w</sub> 2 856.8 785.6 730.6 671.3	fic Gravi fic Gravi 90.7 P <sup>2</sup> <sub>c</sub> -P <sup>2</sup> <sub>w</sub> 124.7 195.9 250.9	ty Separa ty Flowin P <sup>2</sup> 981. Cal. Pw 925.6 886.3 856.7	3755 tor Gas g Fluid 5 x 103 Pw Pc 0.94 0.90 0.87
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## INSTRUCTIONS

1

This form is to be used for reporting multi-point back pressure tests on gas wells in the State, except those on which special orders are applicable. Three copies of this form and the back pressure curve shall be filed with the Commission at Box 871, Santa Fe.

The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

## NOMENCLATURE

- Q = Actual rate of flow at end of flow period at W. H. working pressure  $(P_w)$ . MCF/da. @ 15.025 psia and 60° F.
- P<sub>c</sub>= 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater. psia
- P<sub>w</sub>: Static wellhead working pressure as determined at the end of flow period. (Casing if flowing thru tubing, tubing if flowing thru casing.) psia
- Pt Flowing wellhead pressure (tubing if flowing through tubing, casing if flowing through casing.) psia
- P<sub>f</sub> Meter pressure, psia.

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- $h_w$  Differential meter pressure, inches water.
- FgI Gravity correction factor.
- $F_t$  Flowing temperature correction factor.
- F<sub>py</sub>I Supercompressability factor.
- n I Slope of back pressure curve.
- Note: If  $P_W$  cannot be taken because of manner of completion or condition of well, then  $P_W$  must be calculated by adding the pressure drop due to friction within the flow string to  $P_+$ .