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(// // //)

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p/Z

[]

p/Z

Visual Basic 6.0
Windows

$$N = \frac{N_p[B_t + (R_p - R_{si})B_g] - (W_e - W_p B_w) - G_{inj} B_{ginj} - W_{inj} B_w}{(B_t - B_{ti}) + m B_{ti} \left[\frac{B_g}{B_{gi}} - 1 \right] + B_{ti} (1+m) \left[\frac{S_{wi} c_w + c_f}{1 - S_{wi}} \right] \Delta p} \quad (1)$$

$$: N_p [B_t + (R_p - R_{si})B_g]$$

$$: [W_e - W_p B_w]$$

$$: [G_{inj} B_{ginj} + W_{inj} B_w]$$

$$: (B_t - B_{ti})$$

$$: [m B_{ti} (B_g / B_{gi} - 1)]$$

$$: B_{ti} (1+m) \left[\frac{S_{wi} c_w + c_f}{1 - S_{wi}} \right] \Delta p$$

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$$W_e \quad (N)$$

(m)

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$$F = N[E_o + mE_g + E_{f,w}] + W_e$$

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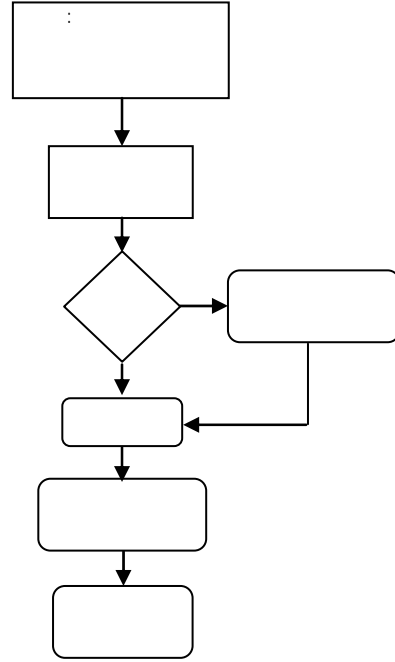
$$F = N_p [B_t + (R_p - R_{si})B_g] + W_p B_w$$

$$E_o = B_t - B_{ti}$$

$$E_g = B_{ti} [B_g / B_{gi} - 1]$$

$$E_{f,w} = (1+m) B_{ti} \left[\frac{c_w S_{wi} + c_f}{1 - S_{wi}} \right] \Delta p$$

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$$\left(\frac{p_{sc}T}{T_{sc}V} \right)$$

$$p/Z$$

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$$F = G(E_G + E_{f,w}) + W_e \quad []$$

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$$W_e = B \sum \Delta P W_{eD}$$

()

$$F = G_p B_g + W_p B_w$$

$$E_G = B_g - B_{gi}$$

$$E_{f,w} = B_{gi} \frac{(c_w S_{wi} + c_f)}{1 - S_{wi}} \Delta p$$

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$$F = G E_t + W_e$$

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$$E_t = E_G + E_{f,w}$$

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[]

$$F/E_t$$

$$p/Z$$

$$\frac{p_{sc} G_p}{RT_{sc}} = \frac{p_i V}{ZRT} - \frac{p[V - (W_e - B_w W_p)]}{ZRT} \quad ()$$

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() ()

$$\frac{p}{Z} = \frac{p_i}{Z_i} - \left(\frac{p_{sc} T}{T_{sc} V} \right) G_p$$

$$\frac{p}{Z} \left[1 - \frac{\Delta p (c_w S_{wi} + c_f)}{1 - S_{wi}} \right] = \frac{p_i}{Z_i} \left[1 - \frac{G_p}{G} \right] \quad ()$$

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$$p/Z$$

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$$\frac{N(B_t - B_{it})}{A} + \frac{NmB_i(B_g - B_{gi})/B_{gi}}{A} + \frac{W_e - W_p B_w}{A} + \frac{NB_{it}(i+m) \left[\frac{c_w S_{wi} + c_f}{1 - S_{wi}} \right] \Delta p}{A} = 1 \quad ()$$

A

A

$$A = N_p [B_t + (R_p - R_{si}) B_g] \quad ()$$

()

()

psi

$$DDI + SDI + WDI + CDI = 1.0 \quad ()$$

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F

F / E_t

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(F)

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F / E_t

()

W_e / E_t

MMSTB

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.B :

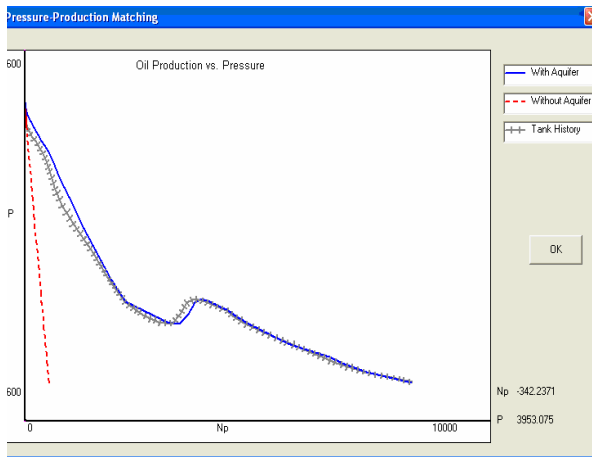
	(psia)
	(ft)
,	
,	
	(F)
x	-

.A :

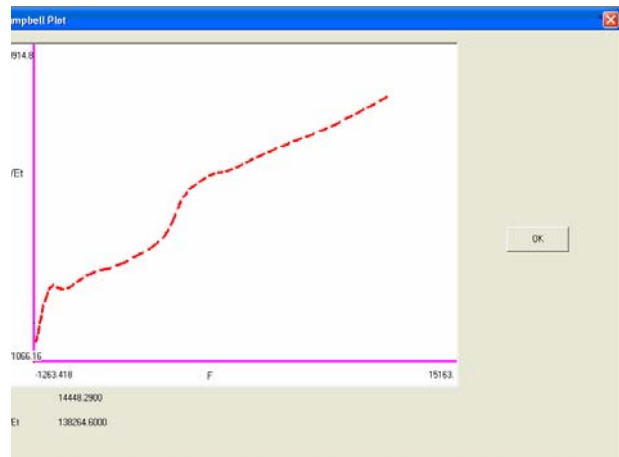
	(psia)
	(psia)
	(ft)
,	
,	
	(F)

.

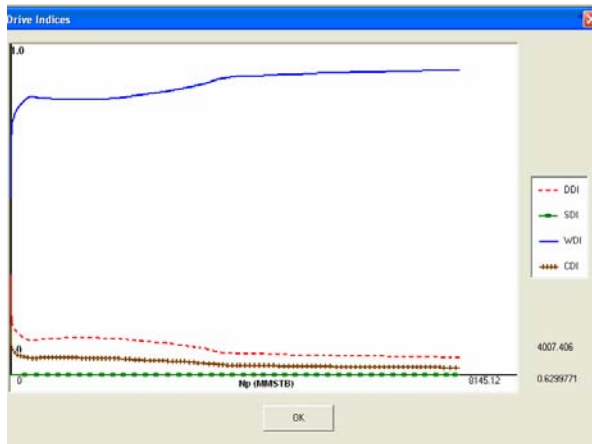
B	A	
		(ft)
		(ft)
,		
-		
		(md)



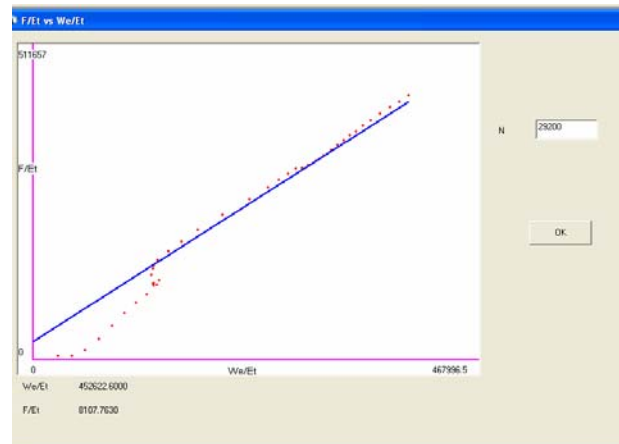
.A - :



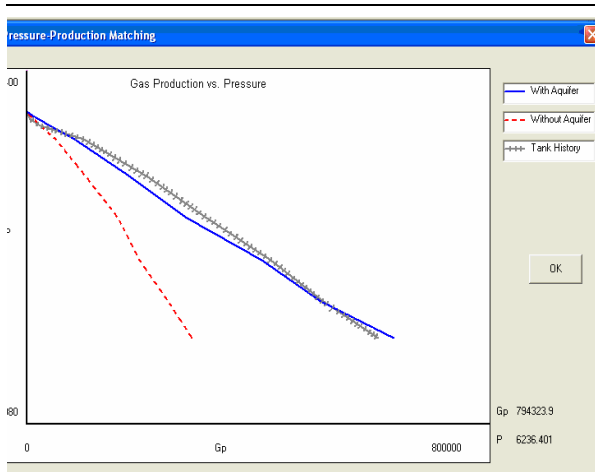
.A F F/Et :



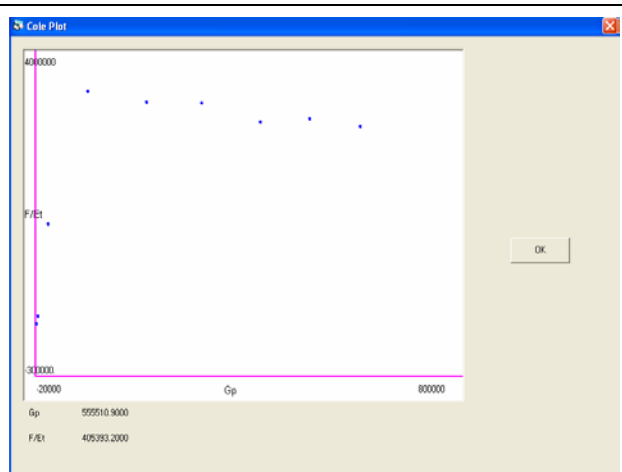
.A :



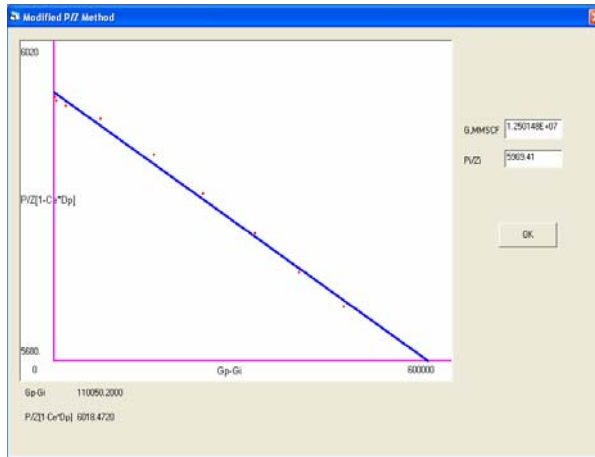
.A - We/Et F/Et :



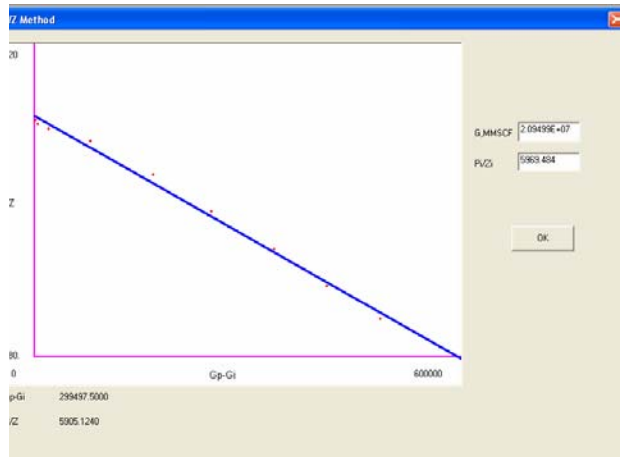
.B - :



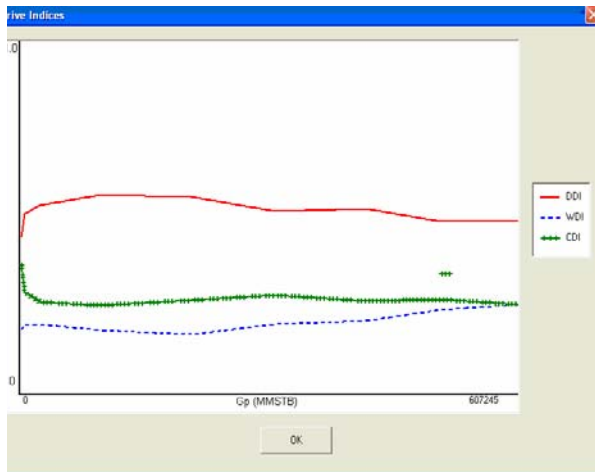
.B :



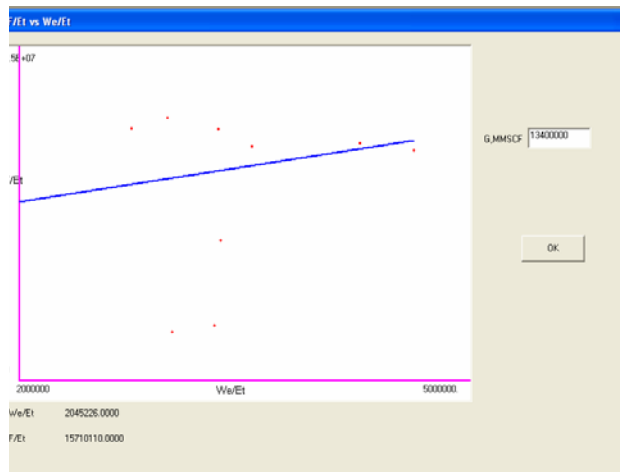
.B :



.B p/Z :



.B :



.B -We/Et F/Et :

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[] Mbal

MMSTB

p/Z

p/Z

, TCF

() ()

p/Z

p_i/Z_i

psi

p/Z

)

W_e / E_t

F / E_t

()

B

, TCF

(()

A

Mbal

p/Z

Mbal

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, TCF

, TCF

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p/Z

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p/Z

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<i>scf</i>		$:G_{inj}$		p/Z	•
	<i>scf</i>	$:G_p$			
		$:J_0$			
		$:J_1$			
		$:m$			
	STB	$:N$	F/E_t		•
	STB	$:N_p$		F	
		$:p_D$			
	psi	$:p_i$			
	psi	$:p_{sc}$			
		$:q_D$			
		$:R$			
	scf/STB	$:R_p$			
	scf/STB p_i	$:R_{si}$	$bbbl / psi / day$	$:B$	
		$:r_D$	$bbbl/scf p$	$:B_g$	
	()	$:SDI$	$bbbl/scf p_i$	$:B_{g_i}$	
		$:S_{wi}$	$bbbl / scf$	$:B_{ginj}$	
	°R	$:T$	$bbbl/STB p$	$:B_t$	
	°R	$:T_{sc}$	$bbbl/STB p_i$	$:B_{ti}$	
		$:t_D$	$bbbl/STB$	$:B_w$	
	ft ³	$:V$	psi^{-1}	$:c_f$	
		$:WDI$	psi^{-1}	$:c_w$	
	bbbl	$:W_e$	()	$:CDI$	
		$:W_{eD}$		$:DDI$	
	STB	$:W_{inj}$	$bbbl/STB$	$:E_{f,w}$	
	STB	$:W_p$		ft^3 / scf	$:E_G$
		$:Y_0$	$bbbl / scf$		$:E_g$
		$:Y_1$	$bbbl/STB$		$:E_g$
	p	$:Z$	$bbbl/STB$		$:E_t$
	p_i	$:Z_i$	$bbbl$		$:F$
		$:α_n$	$bbbl$		$:F(i)_c$
		$:β_n$	$bbbl$		$:F(i)$
	$p_i - p$	$:Δp$	scf		$:G$

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