International Well Control Forum

Subsea BOP Kill Sheet - Deviated Well (S.I. Units)

DATE : _____

NAME : _____

FORMATION STRENGTH DATA:

SURFACE LEAK -OFF PRESSURE FROM FORMATION STRENGTH TEST **(A)** _____ kPa

DRILLING FLUID DENS. AT TEST **(B)** _____ kg/m3

MAX. ALLOWABLE DRILLING FLUID DENSITY =

$$\textbf{(B)} + \frac{\textbf{(A)}}{\text{SHOE T.V. DEPTH} \times 0.00981} = \textbf{(C)} \text{ kg/m3}$$

INITIAL MAASP =

((C) - CURR. DENS.) x 0.00981 x SHOE T.V. DEPTH

= _____ kPa

PUMP NO. 1 DISPL.	PUMP NO. 2 DISPL.
m3 / stroke	m3 / stroke

	(PL) DYNAMIC PRESSURE LOSS [kPa]					
SLOW PUMP RATE DATA:	PUMP NO. 1			PUMP NO. 2		
	Riser	Choke Line	Friction Choke Line	Riser	Choke Line	Friction Choke Line
SPM						
SPM						

CURRENT DRILLING FLUID:

DENSITY _____ kg/m3

SUBSEA BOP DATA:

MARINE RISER LENGTH _____ m

CHOKELINE LENGTH _____ m

DEVIATION DATA:

KOP M.D. _____ m

KOP T.V.D. _____ m

EOB M.D. _____ m

EOB T.V.D. _____ m

CASING SHOE DATA:

SIZE _____ mm

M. DEPTH _____ m

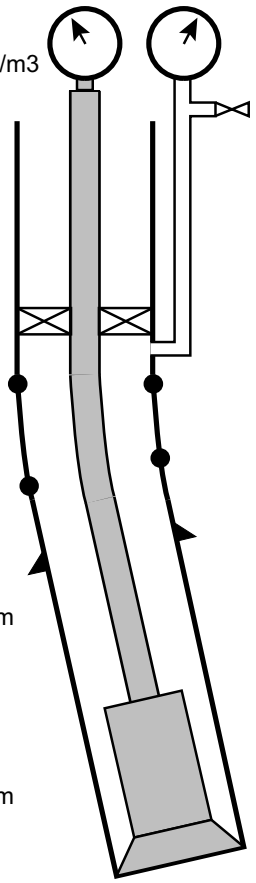
T.V. DEPTH _____ m

HOLE DATA:

SIZE _____ mm

M. DEPTH _____ m

T.V. DEPTH _____ m



PRE-RECORDED VOLUME DATA:	LENGTH m	CAPACITY m3 / m	VOLUME m3	PUMP STROKES stks	TIME minutes
DP - SURFACE TO KOP	x	=		(L) stks	
DP - KOP TO EOB	x	=	+	(M) stks	
DP - EOB TO BHA	x	=	+	(N1) stks	
HEVI WALL DRILL PIPE	x	=	+	(N2) stks	
DRILL COLLAR	x	=	+	(N3) stks	
DRILL STRING VOLUME			(D) m3	stks	min
DC x OPEN HOLE	x	=			
DP / HWDP x OPEN HOLE	x	=	+		
OPEN HOLE VOLUME			(F) m3	stks	min
DP x CASING	x	=	(G) +	stks	min
CHOKELINE	x	=	(H) +	stks	min
TOTAL ANNULUS/CHOKELINE VOLUME			(F+G+H) = (I) m3	stks	min
TOTAL WELL SYSTEM VOLUME			(D+I) = (J) m3	stks	min
ACTIVE SURFACE VOLUME			(K) m3	stks	
TOTAL ACTIVE FLUID SYSTEM			(J+K) m3	stks	
MARINE RISER x DP	x	=	m3	stks	

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(S.I.-0.00981)
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KICK DATA : SIDPP [ ] kPa SICP [ ] kPa PIT GAIN [ ] m3

KILL FLUID DENSITY KMD	CURRENT DRILLING FLUID DENSITY + $\frac{\text{SIDPP}}{\text{TVD x 0.00981}}$ ..... + $\frac{\text{SIDPP}}{\text{..... X 0.00981}}$ = ... kg/m3
INITIAL CIRC. PRESS. ICP	DYNAMIC PRESSURE LOSS + SIDPP ..... + ... = ... kPa
INITIAL DYNAMIC CASING PRESS AT KILL PUMP RATE	SICP - CHOKE LINE FRICTION = ... - ..... = ... kPa
FINAL CIRCULATING PRESSURE FCP	$\frac{\text{KILL FLUID DENSITY}}{\text{CURRENT DRILLING FLUID DENSITY}}$ x DYNAMIC PRESSURE LOSS $\frac{\text{.....}}{\text{.....}}$ x ..... = ... kPa
DYNAMIC PRESSURE LOSS AT KOP (O)	PL + [(FCP-PL) x $\frac{\text{KOPMD}}{\text{TDMD}}$] = ... + [(.....-.....) x $\frac{\text{.....}}{\text{.....}}$] = ... kPa
REMAINING SIDPP AT KOP (P)	SIDPP - [(KMD - OMD) x KOPTVD x 0.00981] = ... - [(.....-.....) x ..... X 0.00981] = ... kPa
CIRCULATING PRESS. AT KOP (KOP CP)	(O) + (P) = ... + ... = ... kPa
DYNAMIC PRESS. LOSS AT EOB (R)	PL + [(FCP-PL) x $\frac{\text{EOBMD}}{\text{TDMD}}$] = ... + [(.....-.....) x $\frac{\text{.....}}{\text{.....}}$] = ... kPa
REMAINING SIDPP AT EOB (S)	SIDPP - [(KMD - OMD) x EOBTVD x 0.00981] = ... - [(.....-.....) x ..... X 0.00981] = ... kPa
CIRCULATING PRESS. AT EOB (EOB CP)	(R) + (S) = ... + ... = ... kPa

(T) = ICP - KOP CP = ... - ..... = ... kPa	$\frac{\text{(T) x 100}}{\text{(L)}}$ = $\frac{\text{..... x 100}}{\text{.....}}$ = ... $\frac{\text{kPa}}{\text{100 strokes}}$
(U) = KOP CP - EOB CP = ... - ..... = ... kPa	$\frac{\text{(U) x 100}}{\text{(M)}}$ = $\frac{\text{..... x 100}}{\text{.....}}$ = ... $\frac{\text{kPa}}{\text{100 strokes}}$
(W) = EOB CP - FCP = ... - ..... = ... kPa	$\frac{\text{(W) x 100}}{\text{(N1+N2+N3)}}$ = $\frac{\text{..... x 100}}{\text{.....}}$ = ... $\frac{\text{kPa}}{\text{100 strokes}}$

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STATIC & DYNAMIC DRILL PIPE PRESSURE [kPa] ⟶

STROKES ⟶

STROKES	PRESSURE [kPa]

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