International Well Control Forum
Surface BOP vertical well kill sheet
(API field units)

Date: _____

Name: _____

Formation strength data:

Surface leak-off pressure from formation strength test **(A)** psi

Fluid density at test **(B)** ppg

Maximum allowable fluid density =

$$(\mathbf{B}) + \left(\frac{(\mathbf{A})}{\text{casing shoe TVD} \times 0.052}\right) = \mathbf{(C)} \text{ ppg}$$

Initial MAASP =

$$((\mathbf{C}) - \text{current fluid density}) \times 0.052 \times \text{casing shoe TVD}$$

= _____ psi

Current well data:

Current fluid:

Density _____ ppg

Casing shoe data:

Size _____ in

MD _____ ft

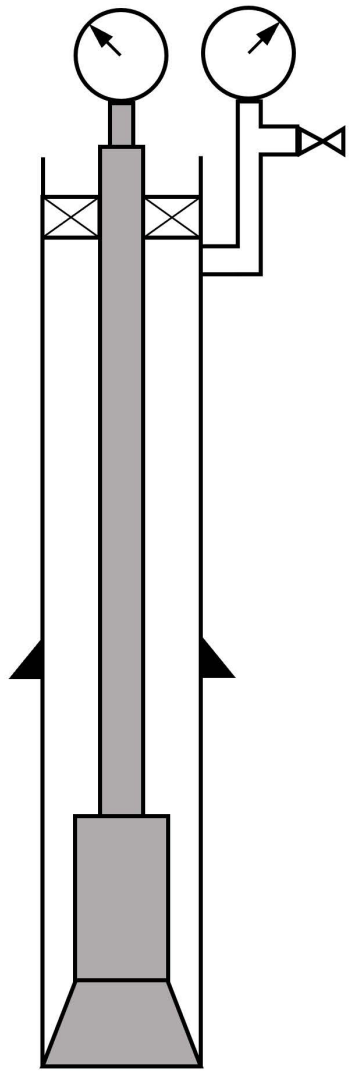
TVD _____ ft

Openhole data:

Size _____ in

MD _____ ft

TVD _____ ft



Pump 1 displacement	Pump 2 displacement
bbl/stroke	bbl/stroke

	Circulating pressure at kill rate (SCR)	
Kill rate data:	**Pump 1**	**Pump 2**
SPM		
SPM		

Surface lines volume	**(D)** bbl	strokes

Pre-recorded volume data	Length ft	Capacity bbl/ft	Volume bbl	Pump strokes	Time minutes
Drillpipe (DP)	x	=		volume / pump displacement	pump strokes / kill rate
Heavy weight drillpipe (HWDP)	x	=	+		
Drill collars (DC)	x	=	+		
Drillstring volume	**(E)**		bbl	**(F)** strokes	min
DC x openhole	x	=			
DP/HWDP x openhole	x	=	+		
Openhole volume	**(G)**		bbl	strokes	min
DP x casing	**(H)** x	=		strokes	min

Total annulus volume	**(G) + (H) = (I)** bbl	strokes	min
Total well system volume	**(E) + (I) = (J)** bbl	strokes	min
Active surface pit volume	**(K)** bbl	strokes	min
Total active fluid volume	**(D) + (J) + (K)** bbl	strokes	min

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Kick data:

SIDPP [ ] **psi** **SICP** [ ] **psi** **pit gain** [ ] **barrels**

Kill fluid density	current fluid density + $\left(\frac{\text{SIDPP}}{\text{TVD} \times 0.052}\right)$ + ________ = **ppg**
Initial circulating pressure (ICP)	circulating pressure at kill rate + SIDPP + = **psi**
Final circulating pressure (FCP)	$\left(\frac{\text{kill fluid density}}{\text{current fluid density}}\right)$ × circulating pressure at kill rate ________ × = **psi**
(L) = (ICP) – (FCP) = – = **psi**	$\frac{(\mathbf{L}) \times 100}{(\mathbf{F})}$ = $\frac{\times 100}{\quad}$ = $\frac{\text{psi}}{\text{100 strokes}}$

strokes	**pressure** (psi)

static and dynamic drillpipe pressure (psi)

strokes