Dye release notes

Wednesday, July 3, 2024   12:20 AM

Dye frame:

CTD

pressure @ 1.586 mab

0869 Duet 1.272 m

release 5 cm from center

adv w/ black probe toward +X

1.08 m
1 m

RBR Duct 0872   0871 Duct 0.768 m

0.5 m   0870 Duct

+X
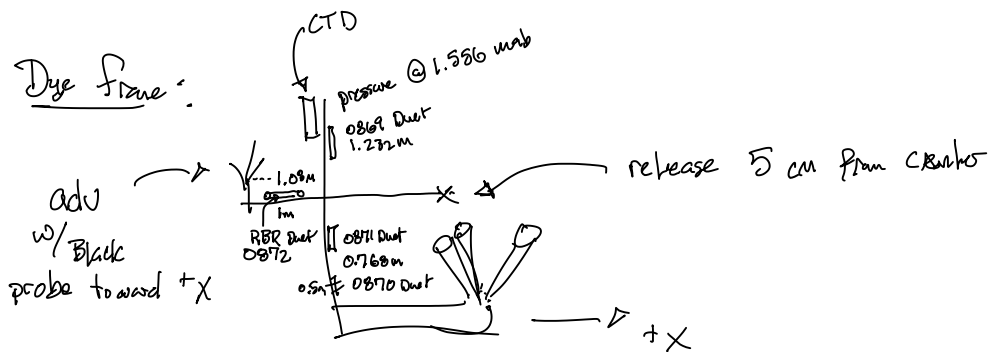
All CTD, Ducts measured to pressure sensor

Pump flow rates:

@ 150 rpm

DG in back pool: 0.526 L/min   or   31.56 L/hr

Isa + Daniel in bucket:

rpm	gal/hr		L/hr	
150 rpm	9.092 gal/hr	→	34.4 L/hr	
130 rpm	7.7 gal/hr	→	29.14 L/hr	
100 rpm	5.8 gal/hr	→	21.96 L/hr	= 0.3658 L/min

Dye release 1:   15 gal (barrel + dye) $\approx$ 57.81 kg

@ 1.04 kg/L $\approx$ 33 → 38 L

@ 100 rpm pump 35 L in $\approx$ 95.7 min

Volume of dye hose: 10 m × ($\pi \cdot 0.00794^2$)   } 0.00198 m^3 · $\frac{1000 L}{m^3}$ = 1.98 L

0.0000630436

Δt from pump start to dye release $\approx$ 5.4 min