

KEY EQUATIONS AND CONVERSION FACTORS

KEY EQUATIONS

Volume (bbl)	=	4.14×10^5	x	Area (st. mi ²)	x	Average Thickness (in.)
Volume (gal)	=	1.74×10^7	x	Area (st. mi ²)	x	Average Thickness (in.)
Volume (bbl)	=	647	x	Area (acres)	x	Average Thickness (in.)
Volume (gal)	=	2.717×10^4	x	Area (acres)	x	Average Thickness (in.)
Encounter Rate (gpm)	=	$37.4 \times \text{swath (ft)}$	x	Velocity (ft/sec)	x	Average Thickness (in.)
Encounter Rate (bbl/hr)	=	$53.4 \times \text{swath (ft)}$	x	Velocity (ft/sec)	x	Average Thickness (in.)
Encounter Rate (gpm)	=	$63.13 \times \text{swath (ft)}$	x	Velocity (knots)	x	Average Thickness (in.)
Areal Cov Rate(acres/min)	=	swath (ft)	x	Velocity (knots)	÷	430

CONVERSION FACTORS

Acres	x	0.4047	=	Hectares
Acres	x	4.047×10^{-3}	=	Square Kilometers
Acres	x	4.356×10^4	=	Square Feet
Acres	x	1.563×10^{-3}	=	Square Miles
Acres/Minute	x	9.4×10^{-2}	=	Square Miles/Hour
Barrels	x	42.0	=	Gallons (U.S.)
Barrels	x	1.59×10^2	=	Liters
Barrels/Hour	x	0.699	=	Gallons (U.S.)/Minute
Barrels/Hour	x	2.65	=	Liters/Minute
Barrels/Day	x	2.92×10^{-2}	=	Gallons (U.S.)/Minute
Barrels/Acre	x	39.27	=	Cubic Meters/Square Kilometer
Cubic Feet	x	2.832×10^{-2}	=	Cubic Meters
Cubic Feet	x	7.48	=	Gallons (U.S.)
Cubic Feet/Minute	x	0.1247	=	Gallons (U.S.)/Second
Cubic Feet/Minute	x	0.472	=	Liters/Second
Cubic Feet/Second	x	4.488×10^2	=	Gallons (U.S.)/Minute
Cubic Meters	x	2.642×10^2	=	Gallons (U.S.)
Cubic Meters	x	35.31	=	Cubic Feet
Cubic Meters	x	1.0×10^3	=	Liters
Cubic Meters/Square Kilometer	x	16.29	=	Barrels/Square Mile
Cubic Meters/Hour	x	4.4	=	Gallons (U.S.)/Minute
Feet	x	0.3048	=	Meters
Feet/Second	x	0.682	=	Miles/Hour
Feet/Minute	x	1.82×10^{-2}	=	Kilometers/Hour
Feet/Minute	x	1.14×10^{-2}	=	Miles/Hour
Gallons (U.S.)	x	0.833	=	Gallons (Imperial)
Gallons (U.S.)	x	3.785	=	Liters
Gallons (U.S.)	x	0.13	=	Cubic Feet
Gallons (U.S.)/Acre	x	9.353	=	Liters/Hectare
Gallons (U.S.)/Acre	x	15.238	=	Barrels/Square Mile

Gallons (U.S.)/Minute	x	6.308×10^{-2}	=	Liters/Second
Hectares	x	2.471	=	Acres
Hectares	x	1.0×10^4	=	Square Meters
Hectares	x	1.0×10^{-2}	=	Square Kilometers
Hectares	x	1.076×10^5	=	Square Feet
Inches	x	2.54	=	Centimeters
Kilograms	x	1.102×10^{-3}	=	Tons (Short)
Kilograms	x	2.205	=	Pounds
Kilometers	x	3.281×10^3	=	Feet
Kilometers	x	0.6214	=	Miles (Statute)
Kilometers	x	0.5396	=	Miles (Nautical)
Kilometers/Hour	x	54.68	=	Feet/Minute
Kilometers/Hour	x	0.6214	=	Miles/Hour
Kilometers/Hour	x	0.5396	=	Knots
Knots	x	6.076×10^3	=	Feet/Hour
Knots	x	1.688	=	Feet/Second
Knots	x	1.852	=	Kilometers/Hour
Knots	x	1.151	=	Statute Miles/Hour
Knots	x	0.515	=	Meters/Second
Liters	x	0.264	=	Gallons (U.S.)
Liters	x	3.531×10^{-2}	=	Cubic Feet
Liters/Hectare	x	0.1	=	Cubic Meters/Square Kilometer
Meters	x	3.281	=	Feet
Meters/Minute	x	3.728×10^{-2}	=	Miles/Hour
Miles (Nautical)	x	6.076×10^3	=	Feet
Miles (Nautical)	x	1.852	=	Kilometers
Miles (Nautical)	x	1.1516	=	Miles (Statute)
Miles (Statute)	x	5.280×10^3	=	Feet
Miles (Statute)	x	1.609	=	Kilometers
Miles (Statute)/Hour	x	0.8684	=	Knots
Miles (Statute)/Hour	x	1.609	=	Kilometers/Hour
Square Feet	x	2.296×10^{-5}	=	Acres
Square Kilometers	x	2.471×10^2	=	Acres
Square Kilometers	x	0.3861	=	Square Miles
Square Miles	x	6.40×10^2	=	Acres
Square Miles	x	2.59	=	Square Kilometers
Square Nautical Miles	x	1.326	=	Square Statute Miles
Square Nautical Miles	x	8.488×10^2	=	Acres