

Run Data Calculations

COMPANY : Relative Resources Ltd	LOCATION: 2A-18-09-28 W1
DAILY OIL PROD.: 25 m3	GOR: 6.0 m3/m3
TREATER PRESS(kPa): N/A	H ₂ S MOLE FRAC.: 0.0066
TANK GOR: 6.0 m3/m3	
SOURCE TYPE	Point
EMISSION RATE (G/S)	0.016516156
STACK HEIGHT (M)	13.0m
STK INSIDE DIAM (M)	0.0762m
STK EXIT VELOCITY (M/S)	0.380693019
STK GAS EXIT TEMP (K)	293.0000
AMBIENT AIR TEMP (K)	293.0000
RECEPTOR HEIGHT (M)	0000
URBAN/RURAL OPTION	RURAL
BUILDING HEIGHT (M).	0000
MIN HORIZ BLDG DIM (M).	0000
MAX HORIZ BLDG DIM (M)	0000

$$\text{STACK EXIT FLOW RATE } m^3/s = \frac{(m^3 \text{ oil/d}) \times (\text{tank GOR}) \times (\text{H}_2\text{S mole fraction})}{\text{sec/day}}$$

$$\begin{aligned} \text{EMISSION RATE } g/s \text{ H}_2\text{S} &= \text{Flow Rate} \times 1441.41 \text{ (constant for H}_2\text{S)} \\ \text{S}_0_2 &= \text{Flow Rate} \times 2709.47 \text{ (constant for S}_0_2\text{)} \end{aligned}$$

$$\text{STACK EXIT VELOCITY } m/s = \frac{(\text{vent gas vol. } m^3/d) \times (\text{stack height})}{\text{Stack volume}} \times \left(\frac{1}{\text{sec/day}} \right)$$