

Pine Cliff HSE&R KPI Tracking

	Units	2016	2017	2018	2018 Group Average*
Net Oil Production	bbls/day	1,677	1,122	1,166	27,617
Net Production, Annual Averages	BOE/d	22,465	21,408	19,684	87,030
Fresh Water Withdrawal	m3	0	0	3,176	605,727
Non-Potable Water Withdrawal	m3	0	0	0	Insufficient Data**
Fresh Water Intensity	m3/mBOE	0	0	0.4	26
Total Gross Active Wells	Gross Wells	7,642.0	7,682.0	7,659.0	3,173
Total Gross Inactive Wells	Gross Wells	1,468.0	1,410.0	1,458.0	1,418
Gross Active/Inactive (not including Abandoned with no rec cert)	%	83.9%	84.5%	84.0%	69.1%
Total Net Active Wells	Net Wells	5,674.0	5,697.0	5,671.0	1,901
Total Net Inactive Wells	Net Wells	1,087	1,035	1,028	869
Net Active/Inactive	%	83.9%	84.6%	84.7%	54.3%
Total Gross Abandoned Wells but no Rec Cert	Gross Wells	741	797	853	Insufficient Data**
Total Net Abandoned Wells but no Rec Cert	Net Wells	533	585	623	Insufficient Data**
Annual Reclamation Certificates Received	Gross Wells	26	40	9	28
Number of reportable spills	#	4	2	4	16
Total volume of reportable spills	m3	5.1	4.6	11.2	277.5
Average reportable spill volume	m3	1.3	2.3	2.8	6.3
Number of reportable spills/production	spills/MMBoe	0.5	0.26	0.56	1.25
Volume of reportable spills/production	m3/MMBoe	0.62	0.59	1.56	11.10
Number of Pipeline Leaks	#	4	1	3	Insufficient Data**
Total Spill Volume caused by P/L leaks	m3	5.1	0.1	1.2	Insufficient Data**
KM of Pipeline In operation	km	7,075	7,075	7,031	Insufficient Data**
Number of pipeline leaks/1000 km of pipeline	#/1000 km	0.57	0.14	0.43	Insufficient Data**
Volume of pipeline leaks/ 1000 km of pipeline	m3/1000 km	0.72	0.01	0.17	Insufficient Data**
Number of fines and penalties	\$	0	0	0	Insufficient Data**
Direct GHG Emissions	tonnesCO ₂ e	208,731	194,451	172,914	662,138
Direct GHG Emissions Intensity	kgCO ₂ e/Boe	25.5	24.9	24.1	24.5
Indirect GHG Emissions	tonnesCO ₂ e	17,474	13,235	14,128	204,790
Indirect GHG Emissions Intensity	kgCO ₂ e/Boe	2.1	1.7	2.0	6.6
Total GHG Emissions Intensity	kgCO ₂ e/Boe	27.6	26.6	26.0	31.1
Nox Emissions	tonnes	6,131.3	5,652.2	5,045.1	2,116
Nox Emissions Intensity	tonnes/MMBoe	747.7	723.4	702.2	60.7
Sox Emissions	tonnes	61.5	57.9	54.3	488.7
Sox Emissions Intensity	Tonnes/MMBoe	7.5	7.4	7.6	32.1
Total Gas Flared	e3m3	128.3	99.6	165.6	26,334
Gas Flared as a % of Production	%	0.0092%	0.0075%	0.0136%	0.4884%
Total Gas Flared Emissions Intensity	e3m3/MMBoe	15.6	12.7	23.0	2,325
Total Gas Flared Emissions Intensity	mcf/bbls oil and NGL	0.0074	0.0086	0.0138	0.1036
Total Gas Vented	e3m3	251.2	361.7	276.8	13,374
Gas Vented as a % of Production	%	0.0181%	0.0273%	0.0227%	0.2481%
Total Gas Vented Emissions Intensity	e3m3/MMBoe	30.6	46.3	38.5	631
Total Gas Vented Emissions Intensity	mcf/bbls oil and NGL	0.0146	0.0313	0.0231	0.0333
Lost-time Injury (Employees and Contractors)	#	0	0	1	2
Recordable Injury Incidents	#	2	6	3	13
Lost-time Frequency (Employees and Contractors)	#/200,000 man hours	0.0	0.0	0.2	0.1
Recordable Injury Frequency (Employees and Contractors)	#/200,000 man hours	0.41	1.36	0.69	0.66
Fatalities (Employees and Contractors)	#	0	0	0	0
Calgary Staff	#	45	45	42	72
Field Staff	#	100	99	97	76
Total Staff (Employees and Contractors)	#	145	144	139	259
Staff Exposure Hours	#	302,760	300,672	290,232	Insufficient Data**
Third Party Calculated Exposure Hours	#	655,387	576,649	579,217	Insufficient Data**
Total Exposure Hours	#	958,147	877,321	869,449	1,920,664
Gross ARO Spending	\$	190,377	2,503,126	3,034,740	Insufficient Data**
Net ARO Spending	\$	166,669	2,423,023	2,739,097	Insufficient Data**
Annual Corporate Cash Flow	\$	12,632,000	25,009,000	8,616,000	Insufficient Data**
% ARO Spend as a function of Cash Flow		1.3%	9.7%	31.8%	Insufficient Data**

* 2018 Group Average includes reported data from NuVista Energy Ltd, Tourmaline Oil Corp, Cardinal Energy Ltd, Torc Oil and Gas Ltd, Peyto Exploration and Whitecap Resources Inc

** 2018 Group Average was included only if at least three of the six companies provided data for that category; otherwise it was listed as Insufficient Data