

COSIA Members' Mining Operations: Reclamation and Disturbance Data (Cumulative to December 31, 2019) Reported by Mine Site/Facility												
Mine Site/ Facility	Status of Land (Reported in Hectares), as Defined by Alberta Environment and Parks (2007) ¹											
	EPEA Approved Footprint	Mine Site Footprint	Plant Site Footprint	Total Active Footprint	² Cleared	³ Disturbed (Used for Mine or Plant Purposes)	⁴ Ready for Reclamation (No Longer used for Mine or Plant Purposes)	Soils Placed (Terrestrial; Wetlands & Aquatics)	⁵ Permanent Reclamation (Terrestrial)	⁵ Permanent Reclamation (Wetlands & Aquatics)	⁶ Temporary Reclamation (Terrestrial)	⁷ Certified
Canadian Natural Horizon	18,683	11,241	2,551	11,711	3,202	7,480	0	86	598	79	266	0
Canadian Natural Horizon South	7,520	5,413		5,413	4,283	1,129	0	0	0	0	0	0
Imperial Kearl	26,480	8,150	279	8,891	1,484	7,020	0	11	52	33	290	0
Canadian Natural Jackpine	7,669	5,420	271	5,691	717	4,712	0	76	125	5	57	0
Suncor Base Operations	23,954	21,926	318	22,245	1,783	17,739	156	166	2,352	48	0	0
Suncor Fort Hills	18,001	10,320	139	10,459	4,039	6,058	2	0	19	16	325	0
Canadian Natural Muskeg River Mine	10,942	8,439	326	8,765	1,091	7,168	0	0	357	0	149	0
Synchrude Aurora North	10,049	6,927	107	7,034	677	5,760	0	14	250	0	334	0
Synchrude Mildred Lake	25,824	22,205	511	22,716	1,487	15,474	0	1,004	2,866	1,110	775	104
COSIA Members Totals	149,122	100,042	4,502	102,924	18,763	72,541	158	1,358	6,619	1,291	2,196	104

COSIA Members' Mining Operations: Reclamation and Disturbance Data, as Reported Annually From 2009- 2019												
Year	Status of Land (Reported in Hectares) as Defined by Alberta Environment and Parks (AEP 2007) ¹											
	EPEA Approved Footprint	Mine Site Footprint	Plant Site Footprint	Total Active Footprint	² Cleared	³ Disturbed (Used for Mine or Plant Purposes)	⁴ Ready for Reclamation (No Longer Used for Mine or Plant Purposes)	Soils Placed (Terrestrial & Wetlands & Aquatics)	⁵ Permanent Reclamation (Terrestrial)	⁵ Permanent Reclamation (Wetlands & Aquatics)	⁶ Temporary Reclamation (Terrestrial)	⁷ Certified
2009	51,342	11,534	1,995	13,528	6,048	7,064	89	0	53	0	276	0
2010	51,342	12,384	2,043	14,426	4,479	9,520	31	117	57	0	223	0
2011	52,832	14,590	2,045	16,635	4,863	11,263	31	3	151	0	325	0
2012	52,832	16,531	2,107	18,636	5,609	12,401	31	31	163	82	318	0
2013	93,381	47,686	2,864	50,601	12,813	34,763	181	468	1,822	160	418	0
2014	93,381	50,297	2,945	53,291	11,871	37,808	86	457	2,163	160	483	0
2015	142,807	89,541	4,503	94,095	18,065	66,559	294	1,305	4,892	1,272	1,632	104
2016	142,807	90,113	5,189	95,301	17,712	67,590	376	1,450	5,063	1,275	1,896	104
2017*	142,099	94,133	4,735	98,920	18,571	70,248	234	1,070	5,498	1,276	2,022	104
2018*	143,675	96,662	4,498	101,155	18,713	71,638	124	1,347	5,929	1,291	2,120	104
2019	149,122	100,042	4,502	102,924	18,763	72,541	158	1,358	6,619	1,291	2,196	104

*2017 and 2018 numbers were corrected in 2020 to remove footprint from Total Joslyn because this had been erroneously included in the footprint for Canadian Natural Horizon South

¹Alberta Environment and Parks (2007) categorizes and defines the Status of Land as follows: ²Cleared = Cleared of Trees; ³Disturbed = soils disturbed (i.e., used for mine or plant purposes); ⁴Ready for Reclamation = no longer used for mine of plant purposes; ⁵Permanent Reclamation = Reclaimed to Terrestrial, Wetlands or Aquatics habitat; ⁶Temporary Reclamation= erosion control or vegetation has occurred where future disturbance is expected to occur; ⁷Certified = Certified Reclaimed by GOA. Full Definitions are available at: <http://osip.alberta.ca/library/Dataset/Details/29>

COSIA Members' In situ Operations: Reclamation and Disturbance Data (Cumulative to December 31, 2019), Reported by Company and Project Facility																			
Status of Land (Reported in Hectares) as defined by SED 001 Alberta Energy Regulator (AER 2006)																			
COMPANY	PROJECT FACILITY	CONSTRUCTION			OPERATION				Undergoing Remediation	Ready for Reclamation	Pad Materials Removed	Recontoured	PERMANENT RECLAMATION ACTIVITIES			RECLAIMED			
		Cleared	Disturbed	Total Area under Construction	Active Operation	Inactive Operation	Temporary Land Reclamation	Total Area Operational					Soil Placed	Revegetated	Wetland Reclamation Trial	Wetland & Aquatics Reclamation	Total Area Undergoing Land Reclamation	Permanently Reclaimed	Area Certified
Cenovus	Foster Creek	64	109	171	891	8	53	951	0	0	0	2	44	0	0	0	47	30	0
Cenovus	Christina Lake	44	14	102	837	15	100	950	0	0	0	15	0	0	0	0	76	0	0
Cenovus	Narrows Lake	0	0	0	367	6	0	373	0	0	0	0	0	0	0	0	0	0	0
Imperial	Cold Lake Operations	72	217	289	1026	23	1570	2619	52	0	0	3	55	1	18	0	78	610	0
Imperial	Aspen	240	97	337	100	0	73	173	0	0	0	0	0	0	0	0	0	0	0
Husky	Sunrise	6	14	20	456	0	3	459	0	0	0	0	0	0	0	0	0	8	0
Husky	Tucker Lake	0	0	0	8	0	22	30	0	0	0	0	0	0	0	0	0	0	0
Suncor	Firebag	27	0	27	1166	0	0	1167	0	126	0	34	0	0	0	0	35	27	13
Suncor	MacKay River	8	11	19	421	13	1	436	0	15	0	0	0	0	0	0	0	7	1
ConocoPhillips	Surmont	13	20	33	803	126	50	979	0	0	0	0	15	0	0	0	15	0	0
Canadian Natural	Primrose Wolf Lake	133	114	247	661	11	606	1279	0	52	0	23	5	0	0	0	27	321	10
Canadian Natural	Pike	12	44	57	0	4	0	4	0	0	0	3	3	0	0	0	6	0	0
Canadian Natural	Peace River Complex	61	238	298	255	87	39	381	2	42	0	0	28	0	0	0	28	7	9
Canadian Natural	Kirby	0	0	0	264	20	114	397	0	0	0	0	97	0	0	0	99	8	0
Canadian Natural	Jackfish	0	79	79	558	24	0	581	0	0	0	23	0	0	0	0	23	0	0
COSIA Members ->		680	957	1678	7815	336	2630	10777	54	235	0	2	145	203	1	18	434	1018	33

The categories presented here are consistent with those outlined in SED 001 (AER, 2016); however, they do not clearly articulate the difference between areas cleared of trees or those with soil disturbance past the construction category. This is an important differentiation, as areas without soil disturbance are less impacted and likely require only revegetation to meet the definition of permanently reclaimed. Some of the land that supports in situ operations is only ever cleared of trees, including observation wells and associated winter access roads.