

2017 Annual Performance Review

Cold Lake Approvals 8558 and 4510

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Electronic Attachments

Piezometer Plots

Temperature Logs

Injection Pressures

Pad Production Plots

Note: The following information covers the period from September 30th 2016 to September 30th 2017, unless otherwise stated.

Acronyms	Definitions
BTEX	Benzene Toluene Ethylbenzene Xylenes
BIS	Bitumen In Shale
BHL	Bottom Hole Location
BTC	Buttress Thread Collar
CDWQG	Canadian Drinking Water Quality Guidelines
CW(T)	Clearwater (Top)
CLO	Cold Lake Operations
CS(T)	Colorado Shale (Top)
CEW	Colorado Shale Evaluation Well
CI	Contour Interval or Casing Integrity
(HP) CSS	(High Pressure) Cyclic Steam Stimulation
(O)EBIP	(Original) Effective Bitumen in Place
EUE	External Upset Tubing
FTD	Final Total Depth
FLIR	Forward Looking Infra-red
GM	Gas Migration
(U)/(L)GR	(Upper)/(Lower) Grand Rapids
GEW	Groundwater Evaluation Well
GW	Ground Water
HIP	Horizontal Injector-Producer
HW	Horizontal Well
HRSG	Heat Recovery System Generator
(H)PSW	(Hybrid) Passive Seismic Well
IOI	Injector Only Infill
LASER	Liquid Addition to Steam for Enhanced Recovery
LTC	Long Thread Collar
MD	Measured Depth
NS-CC	Nippon Steel-Casing Connection
OV	Oilsand Valuation Well
PIMFET	Production Injection Management Fatigue Estimation Toolkit
RFC	Regulated Fill-up Cement
STC	Short Thread Collar
ST	Side Track
(SA)-SAGD	(Solvent Assisted) Steam Assisted Gravity Drainage
SCVF	Surface Casing Vent Flow
TVD	True Vertical Depth
VOF	Volume Over Fill-Up