Produkt: Ores and concentrators (view service)

Summary

The view service Ores and concentrators presents the information that is found in the downloadable product Ores and concentrators (open data).

Ores contain information on production at mines and mining areas with information on the name of the mine/mining area, type of ore, years of production, amount of ore and metal contents, produced amount of waste rock and other information. Ores also contain information on reported reserves & resources at Swedish deposits with information on the type of ore, amount of ore and metal content.

Concentrators contain information on the amount of ore processed at the concentrator and the amount of mineral concentrate produced, all with metal contents. The amount of tailings produced has been calculated as the difference between the incoming ore and the outgoing mineral concentrate.

Statistics on ore in Sweden are useful for decision-makers in municipalities, counties and central government, for mining and exploration companies and for the general public. Here you can see where the mines and concentrators of the last hundred years have been and what they have produced. Information about possible future ores is also included.

Ores have been divided into separate layers for main commodity and Concentrators is divided into separate layers for incoming ore to the concentrator and produced mineral concentrate.

In addition, mining waste is reported in separate layers for waste rock and tailings.

The layer titles in the service are only displayed in Swedish, but there are alternative styles that display legends in English.

Version: WMS 1.3.0

URL: https://resource.sgu.se/service/wms/130/malmer-anrikningsverk

Operations: GetCapabilities, GetMap, GetFeatureInfo, GetLegendGraphic

Format: image/png, image/jpeg, image/gif

Layers

The layer titles in the service are only displayed in Swedish, but there are alternative styles that display legends in English. In the table corresponding layer titles in English are indicated.

The service contains three groups layers: Malmer (Ores), Anrikningsverk (Concentrators) and Gruvavfall (Mining waste)

Namn	Titel	Stilnamn	Visningsskala
Malmer			
SE.GOV.SGU.MALMPROD.JARN_LEGERINGSMETALLER	Järn och legeringsmetaller (Fe, Mn, Ti, V, Cr) (en: Ferrous metals (Fe, Mn, Ti, V, Cr))	Malmproduktion_jarn_legeringsmetaller (default, sve) Malmproduktion_jarn_legeringsmetaller (alternativ, eng)	Visible in all scales
SE.GOV.SGU.MALMPROD.BASMETALLER	Basmetaller (Cu, Zn, Pb, Co, Ni m. fl.) (en: Basemetals (Cu, Zn, Pb, Co, Ni m. fl.))	Malmproduktion_basmetaller (default, sve) Malmproduktion_basmetaller_eng (alternativ, eng)	Visible in all scales
SE.GOV.SGU.MALMPROD.ADELMETALLER	Ädelmetaller (Au, Ag, Pt, Pd m.fl.) (en: Precious metals (Au, Ag, Pt, Pd m.fl.))	Malmproduktion_adelmetaller (default, sve) Malmproduktion_adelmetaller_eng (alternativ, eng)	Visible in all scales
SE.GOV.SGU.MALMPROD.SPECIALMETALLER	Specialmetaller (Mo, W m.fl.) (en: Special metals (Mo, W m.fl.))	Malmproduktion_specialmetaller (default, sve) Malmproduktion_specialmetaller_eng (alternativ, eng)	Visible in all scales
SE.GOV.SGU.MALMPROD.ENERGIMETALLER	Energimetaller (U, Th) (en: Produced concenrate)	Malmproduktion_energimetaller (default, sve) Malmproduktion_energimetaller_eng (alternativ, eng)	Visible in all scales
SE.GOV.SGU.MALMPROD.INDUSTRIMINERAL	Industrimineral (en: Industrial minerals)	Malmproduktion_industrimineral (default, sve) Malmproduktion_ industrimineral _eng (alternativ, eng)	Visible in all scales
Anrikningsverk			
SE.GOV.SGU.MALMPROD.INGAENDE_MALM	Ingående malm (en: Ore to concentrator)	Malmproduktion_ingaende_malm (default, sve) Malmproduktion_ingaende_malm (alternativ, eng)	Visible in all scales
SE.GOV.SGU.MALMPROD.PROD_KONCENTRAT	Producerat koncentrat (en: Produced concenrate)	Malmproduktion_prod_koncentrat (default, sve) Malmproduktion_prod_koncentrat (alternativ, eng)	Visible in all scales
Gruvavfall			
SE.GOV.SGU.MALMPROD.ANRIKNINGSSAND	Anrikningssand (en: Tailings)	Malmproduktion_anrikningssand (default, sve) Malmproduktion_	Visible in all scales

		anrikningssand _eng (alternativ, eng)	
SE.GOV.SGU.MALMPROD.GRABERG	Gråberg (en: Waste rock)	Malmproduktion_graberg (default, sve) Malmproduktion_ graberg _eng (alternativ, eng)	Visible in all scales

Supported coordinate systems

Coordinate system
EPSG:2400 (RT90 2.5 gon W - deprecated)
EPSG:3006 (SWEREF99 TM)
EPSG:3007 (SWEREF99 12 00)
EPSG:3008 (SWEREF99 13 30)
EPSG:3009 (SWEREF99 15 00)
EPSG:3010 (SWEREF99 16 30)
EPSG:3011 (SWEREF99 18 00)
EPSG:3012 (SWEREF99 14 15)
EPSG:3013 (SWEREF99 15 45)
EPSG:3014 (SWEREF99 17 15)
EPSG:3015 (SWEREF99 18 45)
EPSG:3016 (SWEREF99 20 15)
EPSG:3017 (SWEREF99 21 45)
EPSG:3018 (SWEREF99 23 15)
EPSG:3021 (RT90 2.5 gon V)
EPSG:3034 (ETRS89-extended / LCC Europe)
EPSG:4326 (WGS84)
EPSG:3857 (WGS 84 / Pseudo-Mercator)
EPSG:4258 (ETRS89)

References

Read more about the underlying dataset here:

https://resource.sgu.se/dokument/produkter/oppnadata/ores-concentrators-opendata-description.pdf

Content and structure

Malmer och Gråberg (Ores and Waste rock)

All layers in the group layer Malmer (ores) and the layer Gråberg (waste rock) in the group layer Gruvavfall (mining waste) has the same table structure.

Layer:

SE.GOV.SGU.MALMPROD.JARN_LEGERINGSMETALLER

SE.GOV.SGU.MALMPROD.BASMETALLER

SE.GOV.SGU.MALMPROD.ADELMETALLER

SE.GOV.SGU.MALMPROD.SPECIALMETALLER

SE.GOV.SGU.MALMPROD.ENERGIMETALLER

SE.GOV.SGU.MALMPROD.INDUSTRIMINERAL

SE.GOV.SGU.MALMPROD.GRABERG

Field name	Content
code_ore_area	Unique ID for the deposit, mine, mining area
name_ore_area	Name of the deposit, mine, mining area
n_sweref	North coordinate in SWEREF
e_sweref	Eastern coordinate in SWEREF
date_of_update	Date of update
includes	Mines and mining fields included in the object
metal_group	Metal group, see below
metal_sub_group	Subordinate metal group, usually indicated by the chemical designation
genetic_type_of_deposit	Genetic type, see below
status	The mine and the mining area's current status
mining_method	Mining in open pits and / or underground
mining_initiated	First time the object is mentioned in the statistics (not necessarily start year)
mining_terminated	Last time the object is mentioned in the statistics

when_mined	Summary of mining periods
geological_district	Geological district in which the object is located
metallogenic_district	Metallogenetic area to which the object belongs
main_metals	Major metals, major minerals
other_metals	Accesory metals, minerals
size_category	The size of the deposit, the mine, the mining area, see below
size_category_code	Code for the size of the deposit, the mine, the mining area, see below
waste_rock_mt	Amount produced waste rock_million tonnes
resources_mt	Mineral resources_million tons
reserves_mt	Mineral reserves_million tons
production_mt	Produced amount of ore_million tons
total_tonnage_mt	The sum of resources, reserves and amount of ore produced
ag_ppm	Metal content, ppm or %
al2sio5_pc	”
as_pc	”
au_ppm	”
b_pc	”
be_ppm	”
bi_pc	”
c_pc	”
caf2_pc	”
ca_pc	”
ce_ppm	”
co_pc	”
cr_pc	”
cu_pc	”

dy_ppm	”
er_ppm	”
eu_ppm	”
fe_pc	”
ga_ppm	”
gd_ppm	”
hreo_ppm	”
ho_ppm	”
in_ppm	”
lreo_pc	”
la_ppm	”
li_pc	”
lu_ppm	”
mg_pc	”
mn_pc	”
mo_pc	”
nb_ppm	”
nd_ppm	”
ni_pc	”
pge_ppm	”
p_pc	”
pb_pc	”
pd_ppm	”
pr_ppm	”
pt_ppm	”
s_pc	”

sb_ppm	”
sc_ppm	”
se_ppm	”
sm_ppm	”
sn_pc	”
tree_pc	”
treo_pc	”
ta_ppm	”
tb_ppm	”
te_ppm	”
th_ppm	”
u_ppm	”
v_pc	”
w_pc	”
y_ppm	”
yb_ppm	”
zn_pc	”
zr_pc	”
ore_mineralogy	Ore mineralogy
ore_mineral_distribution	Distribution of ore minerals
hostrock	Host rock
country_rocks	Country rocks
age_of_mineralisation	Age of mineralisa<tion
age_of_hostrock	Age of host rocks
alteration_minerals	Alteration minerals
regional_metamorphic_grade	Regional metamorphic grade

deposit_strike	Strike of ore body
deposit_dip	Dip of ore body
deposit_plunge	Plunge of ore body
deposit_length	Length of ore body
deposit_width	Width of ore body
deposit_depth	Depth of ore body
comments	Comments

Anrikningsverk (Concentrator)s and Anrikningssand (Tailings)

All layers in the group layer Anrikningsverk (concentrators) and the layer Anrikningssand (tailings) in the group layer Gruvavfall (mining waste) has the same table structure.

Layers:

SE.GOV.SGU.MALMPROD.INGAENDE_MALM

SE.GOV.SGU.MALMPROD.PROD_KONCENTRAT

SE.GOV.SGU.MALMPROD.ANRIKNINGSSAND

Field name	Content
code_conc	Unique ID for the concentrator (dressing plant)
name_conc	Name of the concentrator
n_sweref	North coordinate in SWEREF
e_sweref	Eastern coordinate in SWEREF
date_of_update	Date of update
processing_method	Enrichment metods
volume_m3	Volym of produced tailings_m3
density	Density of tailings
size_category	The size of the concentrator, based on incoming ore
size_category_code	Code for the size of the concentrator
associated_landfills	Associated landfills

method_for_amount_estimate	Method for estimate amount of ore, concentrate and tailings
method_for_composition_estimat	Method for estimate of composition of ore and concentrate
material	Description of the material in question; ore to concentrator, produced concentrate or tailings
recovery	Recovery of the enrichment
source_of_ore_code	Mine/mines from which the ore comes
source_of_ore_name	Code for mine/mines from which the ore comes
status	The concentrators current status
processing_initiated	First time the object is mentioned in the statistics (not necessarily start year)
processing_terminated	Last time the object is mentioned in the statistics
tonnage_t	Amount of ore, concentrate or tailings_tons
ag_ppm	Metal content in ore or concentrate, ppm or %
al2sio5_pc	”
as_pc	”
au_ppm	”
b_pc	”
be_ppm	”
bi_pc	”
c_pc	”
caf2_pc	”
ca_pc	”
ce_ppm	”
co_pc	”
cr_pc	”
cu_pc	”
dy_ppm	”
er_ppm	”

eu_ppm	”
fe_pc	”
ga_ppm	”
gd_ppm	”
hreo_ppm	”
ho_ppm	”
in_ppm	”
lreo_pc	”
la_ppm	”
li_pc	”
lu_ppm	”
mg_pc	”
mn_pc	”
mo_pc	”
nb_ppm	”
nd_ppm	”
ni_pc	”
pge_ppm	”
p_pc	”
pb_pc	”
pd_ppm	”
pr_ppm	”
pt_ppm	”
s_pc	”
sb_ppm	”
sc_ppm	”

se_ppm	”
sm_ppm	”
sn_pc	”
tree_pc	”
treo_pc	”
ta_ppm	”
tb_ppm	”
te_ppm	”
th_ppm	”
u_ppm	”
v_pc	”
w_pc	”
y_ppm	”
yb_ppm	”
zn_pc	”
zr_pc	”

Revision history

List of changes of the product or product description.

List of changes

Document version	Approved	Changes
1.0	2020-12-17	Original version