28 July 2022

Notice of General Meeting (Part 2 of 2)

- Annexure B to the Explanatory Statement – Ausrocks Mineral Estimate Report
- Sample proxy form

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AUSROCKS
CONSULTING MINING ENGINEERS

Toondoon Kaolin Project

Upgraded Mineral Resource Estimate

Kalotech Pty Ltd

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List of Abbreviations

AHD	Australian Height Datum
AIG	Australian Institute of Geoscientists
ALS	Australian Laboratory Services Ltd
ASX	Australian Stock Exchange
Ausrocks	Ausrocks Pty Ltd, Consulting Mining Engineers
The AusIMM	The Australasian Institute of Mining and Metallurgy
BCM	Bank Cubic Metre
DES	Department of Environment and Science
DGPS	Differential Global Positioning System
DOR	Department of Resources
DTM	Digital Terrain Model
EPM	Exploration Permit Minerals
GPS	Global Positioning System
JORC 2012 Edition	Joint Ore Reserves Committee of The Australasian Institute of Mining & Metallurgy, Australian Institute of Geoscientists and Mineral Council of Australia
M	Million
MRE	Mineral Resource Estimate
PSD	Particle Size Distribution
RL	Surface elevation relative to Australian Height Datum (m AHD)
ML	Mining Lease

Executive Summary

Introduction

Ausrocks Pty Ltd (Ausrocks) was commissioned by Kalotech Pty Ltd (Kalotech) to complete an upgraded Mineral Resource Estimate (MRE) of their Toondoon Kaolin Project. The Toondoon Kaolinite Project is located in the North Burnett District of South-Central Queensland, some 20 kilometres south of Mundubbera. The project is within the granted ML 80126 held by Ms G Brown. The Brown family owns the underlying Freeholding Lease tenure of Toondoon Station. This lease consists of 131.221 hectares and is current to 30th November 2030. The lease was subject to an Option Agreement with Kalotech, which has recently been exercised. The transfer to Kalotech documents are currently being processed by the Department of Resources. The Mining Lease is surrounded by EPM 27395, which is also held by Kalotech. Immediately overlying the lease are 3 sub-blocks within EPM Application 27866, applied for by Kalotech.

Exploration

The basis for this upgraded MRE is 110 drillholes completed over two drill programs (Phase I and Phase II). The drillholes were vertical and spaced 100m by 100m and 50m by 50m. Drillholes were extended at depth until they were terminated at a determined basement (Sandy Clay).

Phase I: In February 2021, Kalotech drilled 42 blade air-core holes (TDAC 15-56) with an AusRoc Rig operated by Associated Exploration Drilling (AED) for 1042.5 metres on four north-south GDA 96 grid lines. The drillholes are 100m apart on lines 100m apart.

Phase II: In November 2021, Kalotech drilled 50 blade air core holes (TDAC 58-107) and 2 twin air core holes TDAC 15B and 16B adjacent hole 15 and 16 previously drilled in February. The same drill company and rig were used. The drilling extended the drill coverage west and south of the Phase I drilling to the southern and western edge of the lease. The most eastern incomplete line of the Phase I program was completed in the Phase I program.

Phase II drilling included 18 reverse circulation drilling (TDRC 108-123) using a 115mm (4.5”) hammer at 50m hole spacing on lines 315800mE and 315850mE. Drill holes TDRC 110-121 were also twinned. This closer spaced drilling was completed to test what spacing would be needed to delineate a measured resource and to obtain enough composite samples suitable for bulk testing and marketing samples.

Geology

The regional geology of the Toondoon area consists of the Jurassic Evergreen Formation (Je) overlying Devonian-Carboniferous volcaniclastic sediments. These sediments are intruded by two northeast tending belts of Permian-Triassic granitoids north and south of Toondoon. The clayey sediments at Toondoon have been mapped by the GSQ as Tertiary sediments overlying the Evergreen Formation. The drilling has indicated that the clay stratigraphy grading down from flat lying red bauxitic clay, which overlies gently folded units of grey plastic clay, white kaolinite clay and a sandy clay. This folded stratigraphy indicates a Jurassic age with Tertiary weathering-alteration forming the flat lying red bauxitic clay

Toondoon Kaolin Project comprises 5 (five) lithologies / domains: Bauxitic, Plastic, Kaolin (High Iron), Kaolin (Low Iron) and Sandy clays. The mineralogy of the sedimentary units consists of: red brown bauxitic clay - pisolites with hematite, kaolinite, gibbsite, and anatase; grey plastic clay - kaolinite, gibbsite, minor hematite and anatase; white kaolinite clay - kaolinite minor gibbsite and anatase; and cream sandy clay - kaolinite and fine - to medium - grained quartz sand

Assays

All assaying has been carried out by ALS Laboratories, Brisbane. ALS is a global leader with over 71 laboratories worldwide and are ISO/IEC 17025:2017 accredited. ALS is also NATA Accredited, Corporate Accreditation No. 825, Corporate Site No. 818.

Assaying was carried out on all (1) metre samples from the drillholes. Assay procedure was primarily by XRF method ME-XRF13 and loss of ignition determined by ME-GRA05 (H_2O/LOI) method. Duplicate samples of each of the 4 main clay horizons i.e., bauxitic clay, plastic clay, kaolinite clay and sandy clay from each hole were inserted in the sample train before submittal to ALS. A standard sample, OREAS 999, was also submitted at a rate of 1 per hole.

Assaying was primarily to determine Al_2O_3, Fe_2O_3, SiO_2, LOI and TiO_2 but results were obtained for a range of oxides, namely BaO, CaO, CoO, Cr_2O_3, K_2O, MgO, MnO, Na_2O, P_2O_5, SO_3, SrO, V_2O_5, Zn and ZrO_2. No correction or adjustment to the assays and assay totals has been made.

Density Values

Ten samples from bull-dozed trenching were submitted to ALS for specific gravity analyses using the OA-GRA 08a method. The method records the specific gravity relative to unity with submersion of a wax coated a sample into water. The average SG for the rock types bauxitic clay, kaolinite clay and sandy clay were determined and the average for the respective rock types was calculated. No plastic clay was recovered so no analysis was conducted for this rock type.

The sandy clay consists of kaolinite clay and fine to medium grained quartz. It could be anticipated that the SG of the sandy clay would be higher than the kaolinite. However, it is generally lower indicating there must be more pore space, resulting in a lower SG.

The grey plastic clay generally consists of kaolinite with iron oxides and anatase. As the amount of quartz, iron oxide and anatase in the kaolinite does not have a consistent effect on the SG measurements, these elements will have little effect on the SG of the grey plastic clay. Therefore, it can be assumed that the SG of the plastic clay will be similar to the kaolinite clay i.e., 1.74 t/m^3.

The assumed density values used in the MRE were:

- Bauxitic Clay: 2.05 t/m^3
- Plastic Clay: 1.74 t/m^3
- Kaolinite Clay: 1.74 t/m^3
- Sandy Clay: 1.69 t/m^3

Mineral Resource Estimate

Micromine 2022 was used to complete the Upgraded Mineral Resource Estimate in accordance with the JORC 2012 Code. A block model was generated to model the overall deposit shape and volume. The block model was defined by the top of the resource (topography), the base of the resource (base of the drillholes) and the interpreted geological boundaries. Parent blocks were sized at 10mE x 10mN x 1mRL. Sub-blocks were sized at 1mE x 1mN x 1mRL. The block model was optimised and the average Al_2O_3 grade and quantity of the resource at varied reporting levels was computed.

The block model was subject statistical and geostatistical analysis and the Ordinary Kriging (OK) method was used to populate the blocks. The Inverse Distance Weighting (IDW) method was used to check the model and yielded similar results. Swath plots were used to validate the interpolation technique to ensure accuracy. All assayed elements were modelled in the block model.

The following parameters and assumptions formed the basis for the Upgrade MRE in accordance with the JORC Code (2012).

- Topography – DEM sourced by drone survey
- The resource boundary was determined by a combination of Mining Lease Boundary, geological interpretation and area of influence considerations.
- 5 lithologies determined by geochemistry and geological interpretation – Bauxitic Clay, Plastic Clay, Kaolinite Clay (High Iron), Kaolinite Clay (Low Iron) and Sandy Clay.
- A 32% Al_2O_3 grade aided with the determination of the domain boundaries which were determined by analysis of raw assay data down each individual drill hole. The grade applied is consistent with industry practice for these types of Kaolin deposits.
- As advised by the Project Geologist, no cut-off grade was applied to the Bauxitic Clay, Plastic Clay, Kaolinite Clay (High Iron) and Kaolinite Clay (Low Iron) domains for the estimation process. A cut-off grade of 23% Al_2O_3 was applied to the Sandy Clay domain for the estimation process. All assayed elements were reported as secondary elements constrained to the cut-off grade.
- No topsoil considerations as advised by the Project Geologist.
- Density values as provided by the Project Geologist.

The drill spacing and interpreted geological continuity allowed three resource categories to be defined (Measured, Indicated and Inferred Mineral Resources). The results of the Upgraded Mineral Resource Estimate for Toondoon Kaolin Project are provided in **Table I**. Representative sections across the Resource Area are shown in **Figure I** to **Figure IV.**

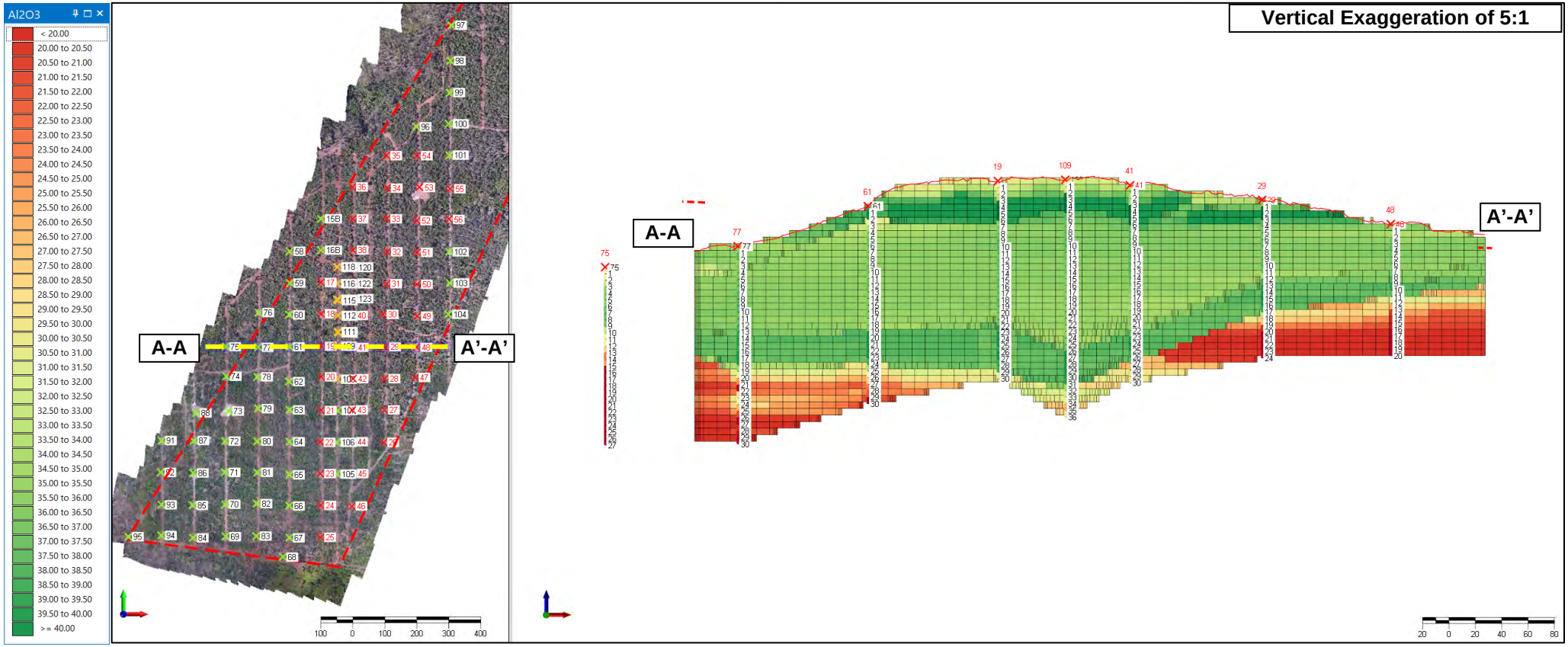
Table I – Toondoon Kaolin Project – Upgraded Mineral Resource Estimate

Resource Category	Lithology	Volume (Mm^3)	Density (t/m^3)	Tonnes (T)	Al_2O_3 %	Fe_2O_3 %	SiO_2 %	TiO_2 %	LOI %	K_2O %	Cut-Off Grade
Measured	Bauxitic Clay	750,000	2.05	1,530,000	38.81	13.86	21.92	4.53	20.07	0.06	No cut-off applied
Measured	Plastic Clay	1,380,000	1.74	2,400,000	35.45	4.98	41.39	3.38	14.20	0.02	No cut-off applied
Measured	Kaolinite Clay (High Iron)	510,000	1.74	880,000	36.79	1.92	44.92	2.19	13.63	0.05	No cut-off applied
Measured	Kaolinite Clay (Low Iron)	900,000	1.74	1,570,000	37.48	0.41	46.50	1.59	13.43	0.12	No cut-off applied
Measured	Sandy Clay	800,000	1.69	1,350,000	26.79	0.73	61.24	1.21	9.52	0.05	23% Al_2O3
Indicated	Bauxitic Clay	1,510,000	2.05	3,090,000	37.04	16.05	22.62	4.19	19.43	0.05	No cut-off applied
Indicated	Plastic Clay	2,620,000	1.74	4,560,000	35.22	4.84	42.09	3.15	14.06	0.03	No cut-off applied
Indicated	Kaolinite Clay (High Iron)	950,000	1.74	1,660,000	36.48	2.32	45.24	1.85	13.49	0.08	No cut-off applied
Indicated	Kaolinite Clay (Low Iron)	1,150,000	1.74	1,990,000	37.57	0.40	46.43	1.58	13.41	0.12	No cut-off applied
Indicated	Sandy Clay	1,460,000	1.69	2,460,000	26.10	0.76	62.15	1.21	9.25	0.05	23% Al_2O3
Inferred	Bauxitic Clay	480,000	2.05	990,000	30.73	27.86	22.44	3.19	15.18	0.03	No cut-off applied
Inferred	Plastic Clay	510,000	1.74	890,000	34.19	5.88	42.41	3.55	13.31	0.03	No cut-off applied
Inferred	Kaolinite Clay (High Iron)	110,000	1.74	190,000	34.81	6.00	44.02	1.46	13.07	0.15	No cut-off applied
Inferred	Sandy Clay	190,000	1.69	330,000	28.04	2.22	57.93	1.19	10.12	0.06	23% Al_2O3

Cut-Off Grade	Bauxitic Clay (BCM)	Bauxitic Clay (T)	Plastic Clay (BCM)	Plastic Clay (T)	Kaolinite Clay (High Iron) (BCM)	Kaolinite Clay (High Iron) (T)	Kaolinite Clay (Low Iron) (BCM)	Kaolinite Clay (Low Iron) (T)	Sandy Clay (BCM)	Sandy Clay (T)
23% + Al_2O_3	2,680,000	5,490,000	4,510,000	7,840,000	1,570,000	2,730,000	2,050,000	3,560,000	2,450,000	4,140,000
32%+ Al_2O_3	2,220,000	4,550,000	4,210,000	7,330,000	1,550,000	2,700,000	2,050,000	3,560,000	90,000	150,000
33%+ Al_2O_3	2,110,000	4,320,000	4,070,000	7,080,000	1,530,000	2,670,000	2,050,000	3,560,000	10,000	10,000
34%+ Al_2O_3	1,960,000	4,020,000	3,840,000	6,690,000	1,490,000	2,580,000	2,040,000	3,550,000	-	-
35%+ Al_2O_3	1,850,000	3,790,000	3,360,000	5,850,000	1,340,000	2,330,000	2,010,000	3,490,000	-	-
36%+ Al_2O_3	1,650,000	3,390,000	1,010,000	1,760,000	1,080,000	1,870,000	1,870,000	3,250,000	-	-
37%+ Al_2O_3	1,470,000	3,010,000	260,000	450,000	640,000	1,110,000	1,570,000	2,730,000	-	-
38%+ Al_2O_3	1,270,000	2,610,000	130,000	230,000	160,000	290,000	810,000	1,410,000	-	-
39%+ Al_2O_3	1,060,000	2,170,000	60,000	100,000	10,000	10,000	-	-	-	-
40%+ Al_2O_3	770,000	1,580,000	30,000	50,000	-	-	-	-	-	-

Domain	Surface Area (m^2)	Average Depth (m)
Bauxitic Clay	690,000	4.0
Plastic Clay	790,000	5.7
Kaolinite Clay (High Iron)	790,000	2.0
Kaolinite Clay (Low Iron)	480,000	4.3
Sandy Clay	830,000	13.3

Figure I. Section A-A to A'-A' (Cross section from West *LHS of section* to East *RHS of section*)



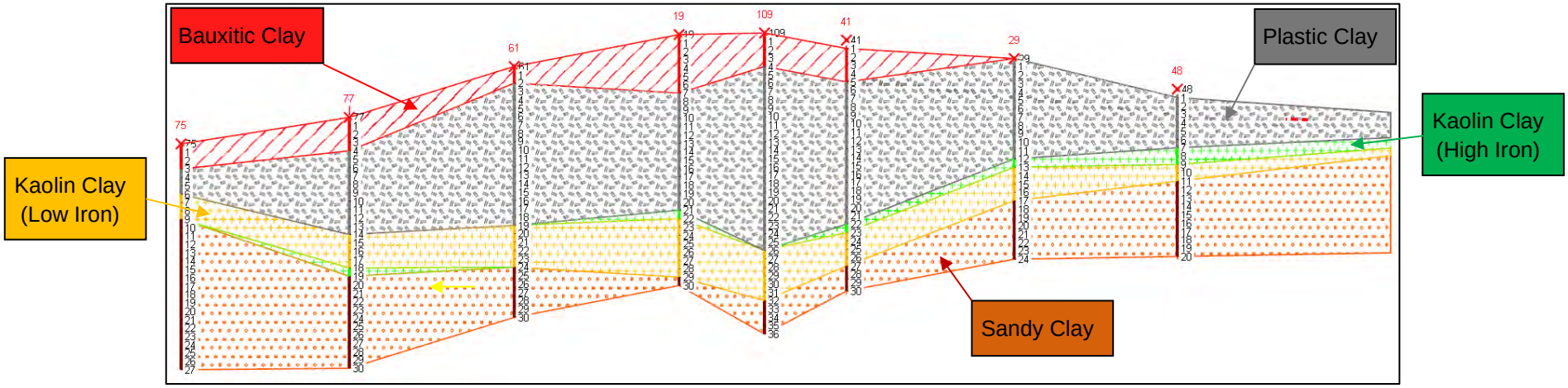


Figure II. Section B-B to B'-B' (Cross Section from West *LHS of section* to East *RHS of section*)

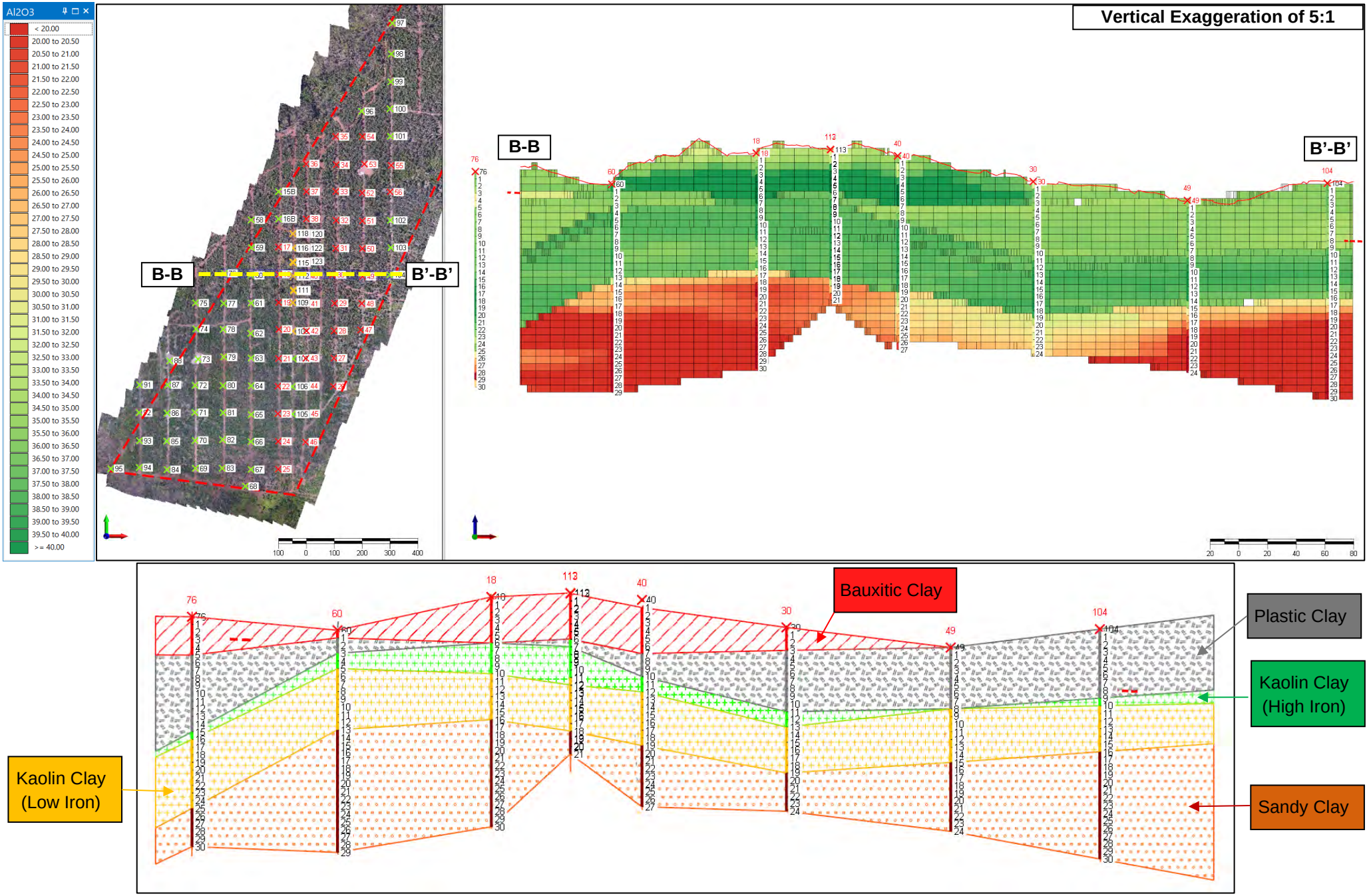


Figure III. Section C-C to C'-C' (Long Section from North *LHS of section* to South *RHS of section*)

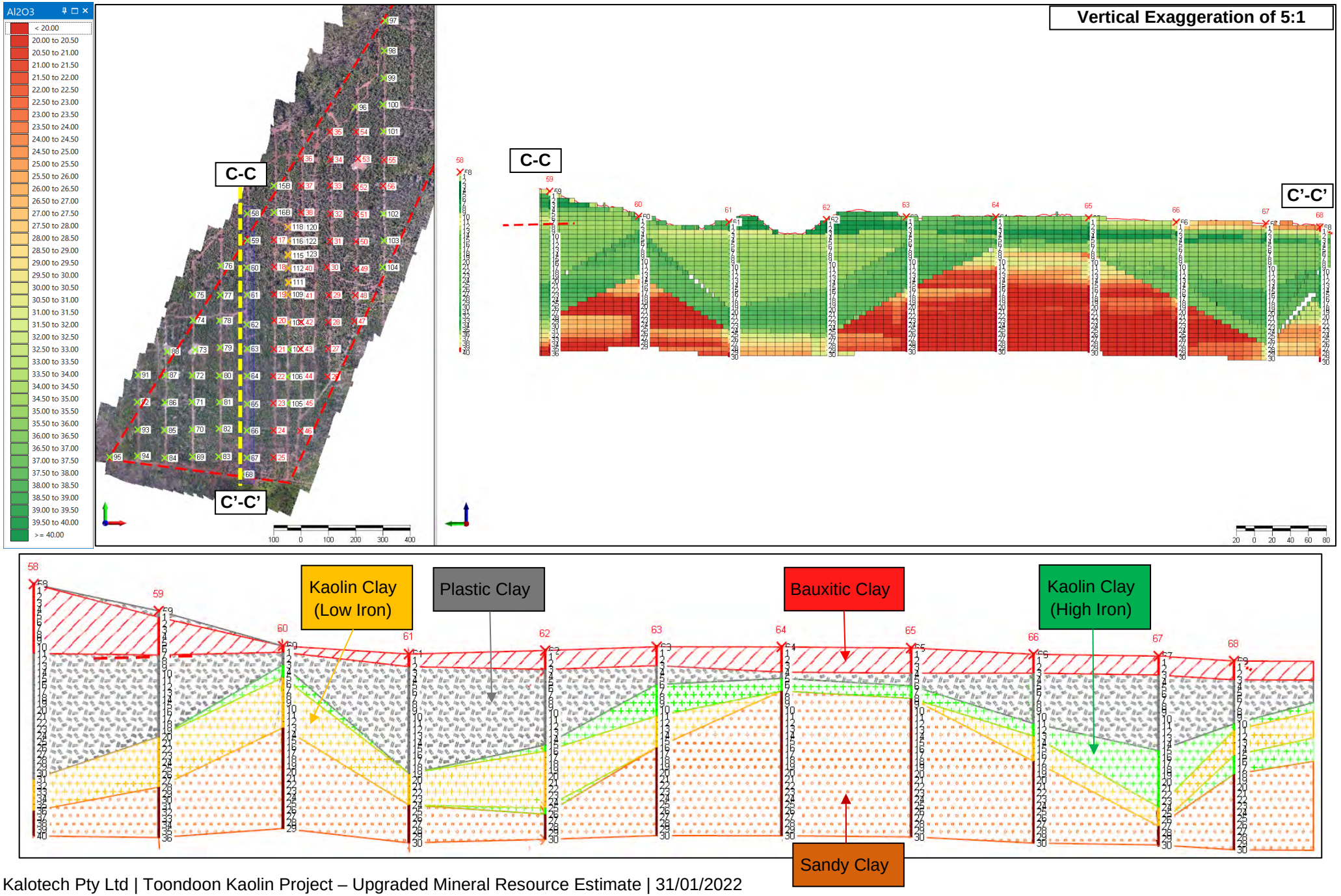
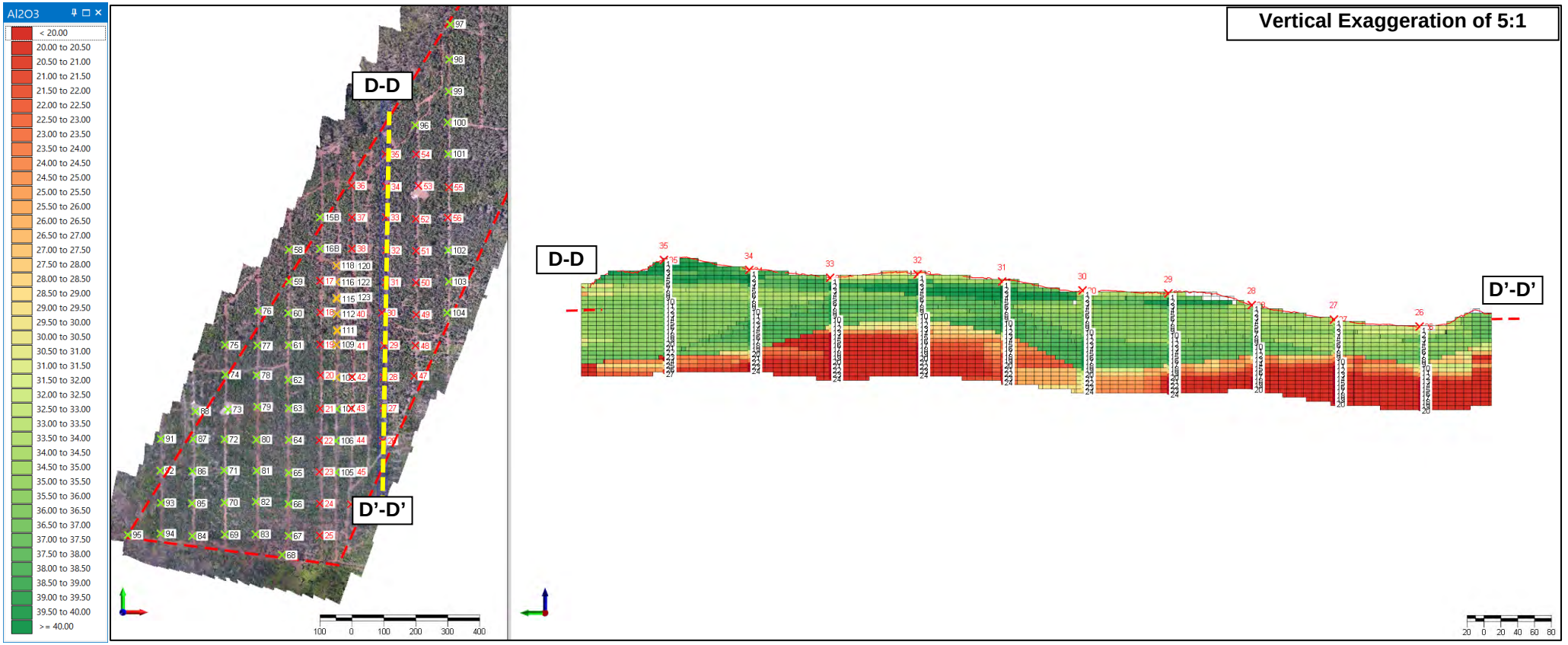
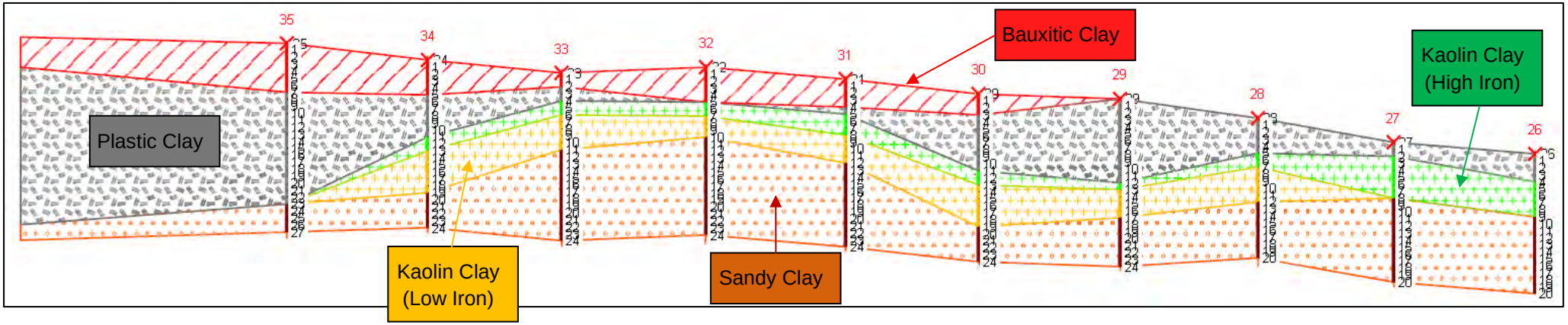


Figure IV. Section D-D to D'-D' (Long Section from North *LHS of section* to South *RHS of section*)





Conclusions

The Toondoon Kaolin Project has been broadly defined by drilling and the geological controls are reasonably well understood. The drill spacing and interpreted geological continuity allowed three resource categories to be defined (Measured, Indicated and Inferred Mineral Resource) in accordance with the JORC 2012 Code.

The interpreted geology of the Toondoon Kaolin Project is relatively robust, and any alternative interpretation of the deposit is considered unlikely to have a significant influence on the Mineral Resource Estimate undertaken. The known nature and formation of the deposit, together with consistent high grades achieved in drillholes, places a high degree of confidence in the geological interpretation. The detailed level of drilling has enabled confidence of the interpreted geology. Continuity of geology and grade (assays) can be readily identified and traced between drillholes.

Recommendations

There is scope to increase the knowledge and understanding of the Toondoon Kaolin Project by completing the following additional work:

- Complete assessment of mining, processing, metallurgical, infrastructure, economic, marketing, legal, environment, social and government factors or any other modifying factors to enable a proportion of this Mineral Resource Estimate to be potentially upgraded to Ore Reserve status, according to JORC Code (2012) Guidelines.
- Undertake further infill drilling to best complete a gridded coverage across the entire Resource Area, to upgrade the Mineral Resource categories and potential size and increase potential Ore Reserve size. An infill drilling program with one hole drilled in between each 4 x 100m drillhole ‘square’ of the Indicated Mineral Resource areas could allow the areas to be upgraded to Measured Mineral Resource. Drilling should be taken to intersection of sandy clays. The upgrade to Measured Mineral Resources is not likely to be critical to progress the project to Pre-feasibility or Definitive-feasibility Study level.”
- There is indication of Kaolinite Clay (low iron) near the surface in the central zone of the exploration area. Mine designs/plans could be completed to determine mining options.
- A further detailed aerial survey (LiDAR) for the project is considered integral to this ongoing confirmatory work.
- Conduct additional specific gravity determinations.
- Ensure Sampling and Assaying Procedures are continuously reviewed and improved. Maintain systematic application of assay checking. The systematic employment and analysis of drilling blanks, standards and duplicates for assaying is required.

1 Introduction

1.1 Overview

Ausrocks Pty Ltd (Ausrocks) was commissioned by Kalotech Pty Ltd (Kalotech) to complete an upgraded Mineral Resource Estimate of their Toondoon Kaolin Project. The Toondoon Kaolinite Project is located in the North Burnett District of South-Central Queensland, some 20 kilometres south of Mundubbera (**Figure 1.1**). The project is within the granted ML 80126 held by Ms G Brown. The Brown family owns the underlying Freeholding Lease tenure of Toondoon Station. This lease consists of 131.221 hectares and is current to 30th November 2030. The lease was subject to an Option Agreement with Kalotech, which has recently been exercised. The transfer to Kalotech documents are currently being processed by the Department of Resources. The Mining Lease is surrounded by EPM 27395, which is also held by Kalotech. Immediately overlying the lease are 3 sub-blocks within EPM Application 27866, applied for by Kalotech.

Figure 1.1 – Site Location Map

Figure 1.2 – Toondoon ML 80126

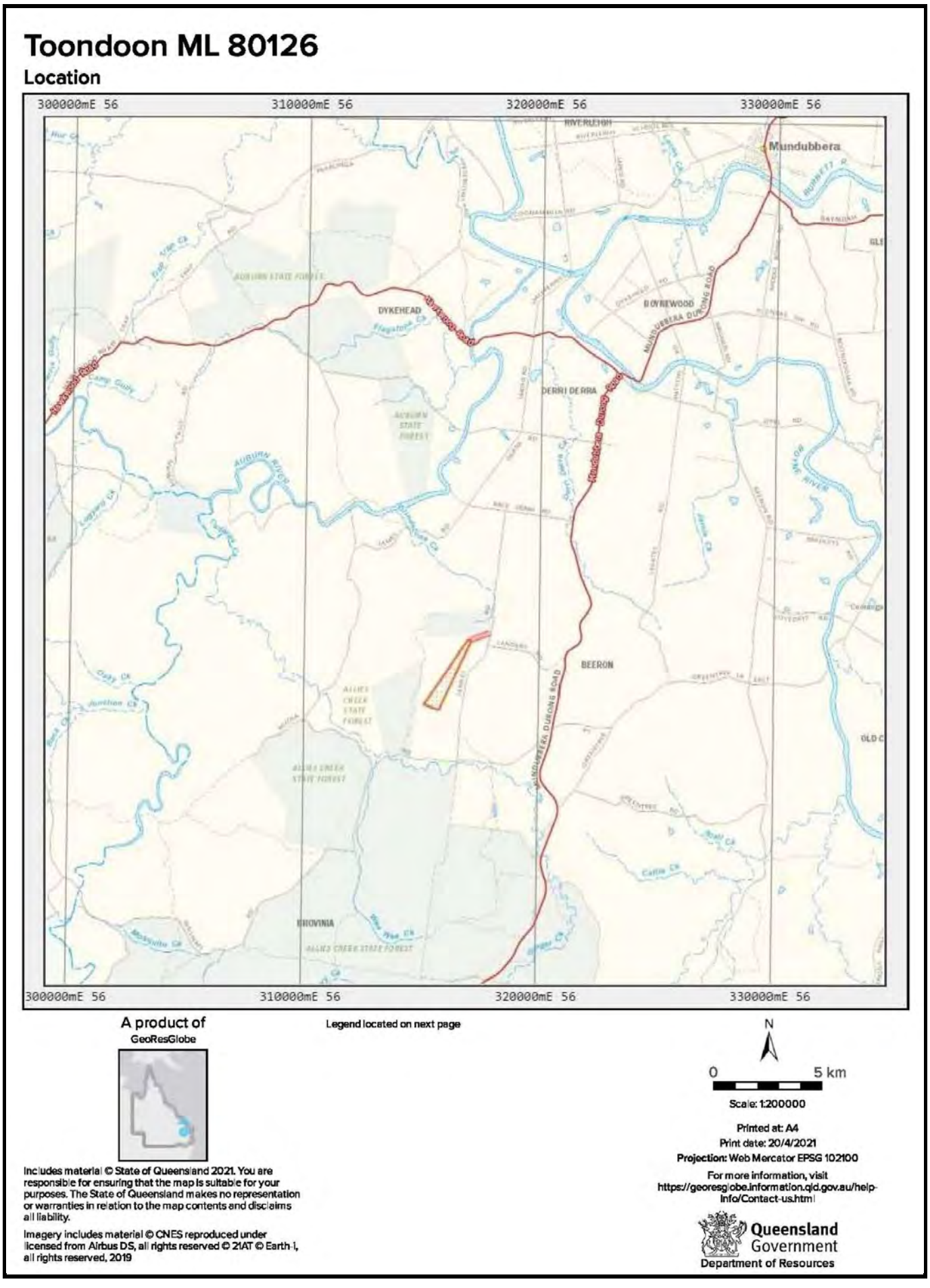
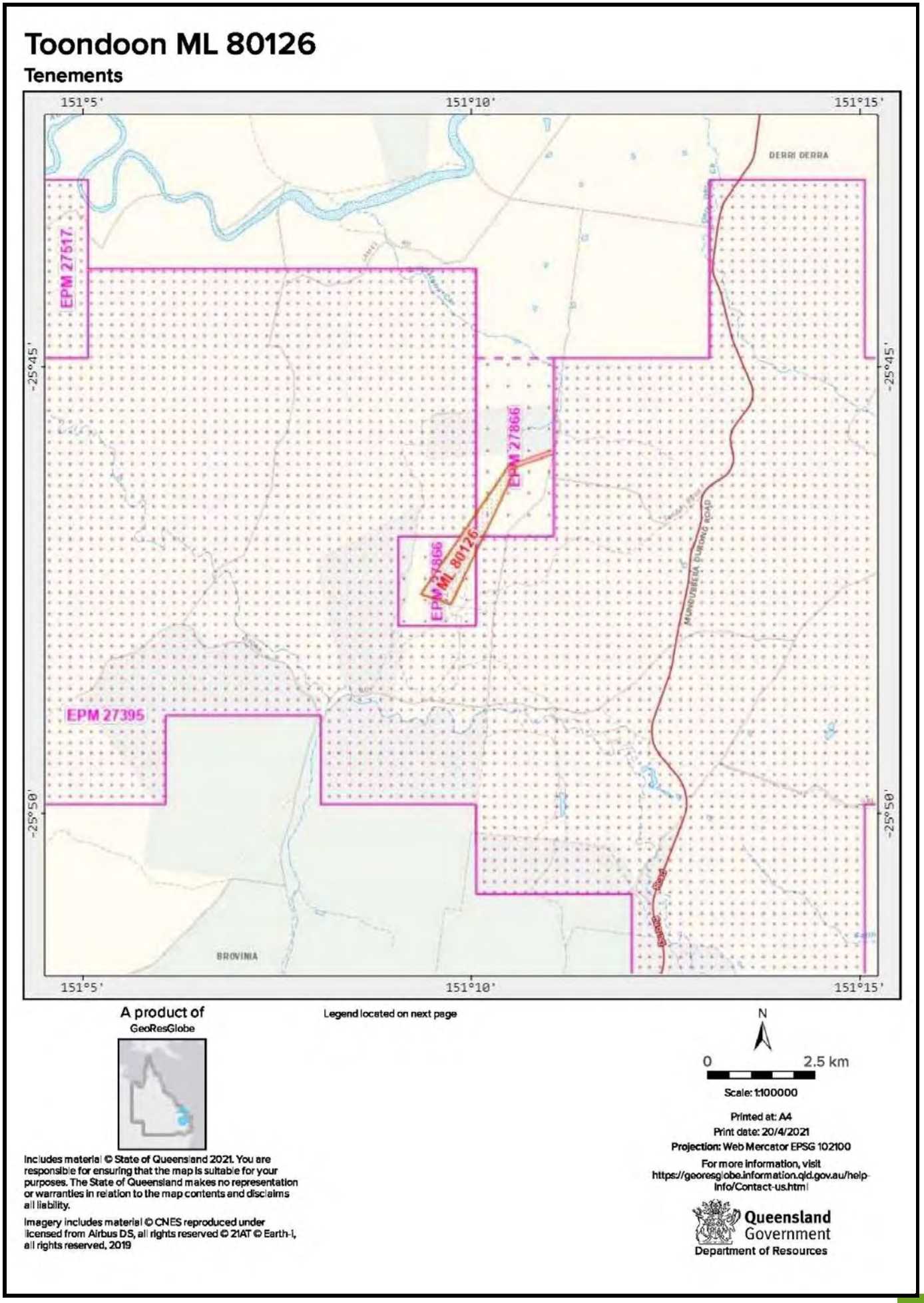


Figure 1.3 – Toondoon ML 80126 and Local EPM's



2 Site Investigations & Key Data

2.1 Exploration

The basis for this upgraded MRE is 110 drillholes completed over two drill programs (Phase I and Phase II). The drillholes were vertical and spaced 100m by 100m and 50m by 50m. Drillholes were extended at depth until they were terminated at a determined basement (Sandy Clay).

Phase I: In February 2021, Kalotech drilled 24 blade air-core holes (TDAC 15-56) with an AusRoc Rig operated by Associated Exploration Drilling (AED) for 1042.5 metres on four north-south GDA 96 grid lines. The drillholes are 100m apart on lines 100m apart. The north-south long sections drilled were 5750mE, 5850mE - 5950E, 6050mE and 6150mE.

Phase II: In November 2021, Kalotech drilled 50 blade air core holes (TDAC 58-107) and 2 twin air core holes TDAC 15B and 16B adjacent hole 15 and 16 previously drilled in February. The same drill company and rig were used. The drilling extended the drill coverage west and south of the Phase I drilling to the southern and western edge of the lease. The most eastern incomplete line of the Phase I program was completed in the Phase I program.

Phase II drilling included 18 reverse circulation drilling (TDRC 108-123) using a 115mm (4.5”) hammer at 50m hole spacing on lines 315800mE and 315850mE. Drill holes TDRC 110-121 were also twinned. This closer spaced drilling was completed to test what spacing would be needed to delineate a measured resource and to obtain enough composite samples suitable for bulk testing and marketing samples.

The air-core samples were collected at 1 metre intervals. The samples were collected from the rig cyclone and split with an 87.5:12.5 riffle splitter. The large retention samples are stored in a shed in Mundubbera. The smaller split was split again with a smaller 50:50 riffle splitter. These samples have been collected in self-seal plastic bags. One of these samples were delivered to ALS’s Brisbane Laboratory for analyses using the standard bauxite method – Me XRF-13n. The other sample is stored at the Gold Coast. Duplicate samples of each of the 4 main clay horizons i.e., bauxitic clay, plastic clay, kaolinite clay and sandy clay from each hole were inserted in the sample train before submittal to ALS. A standard sample, OREAS 999, was also submitted at a rate of 1 per hole.

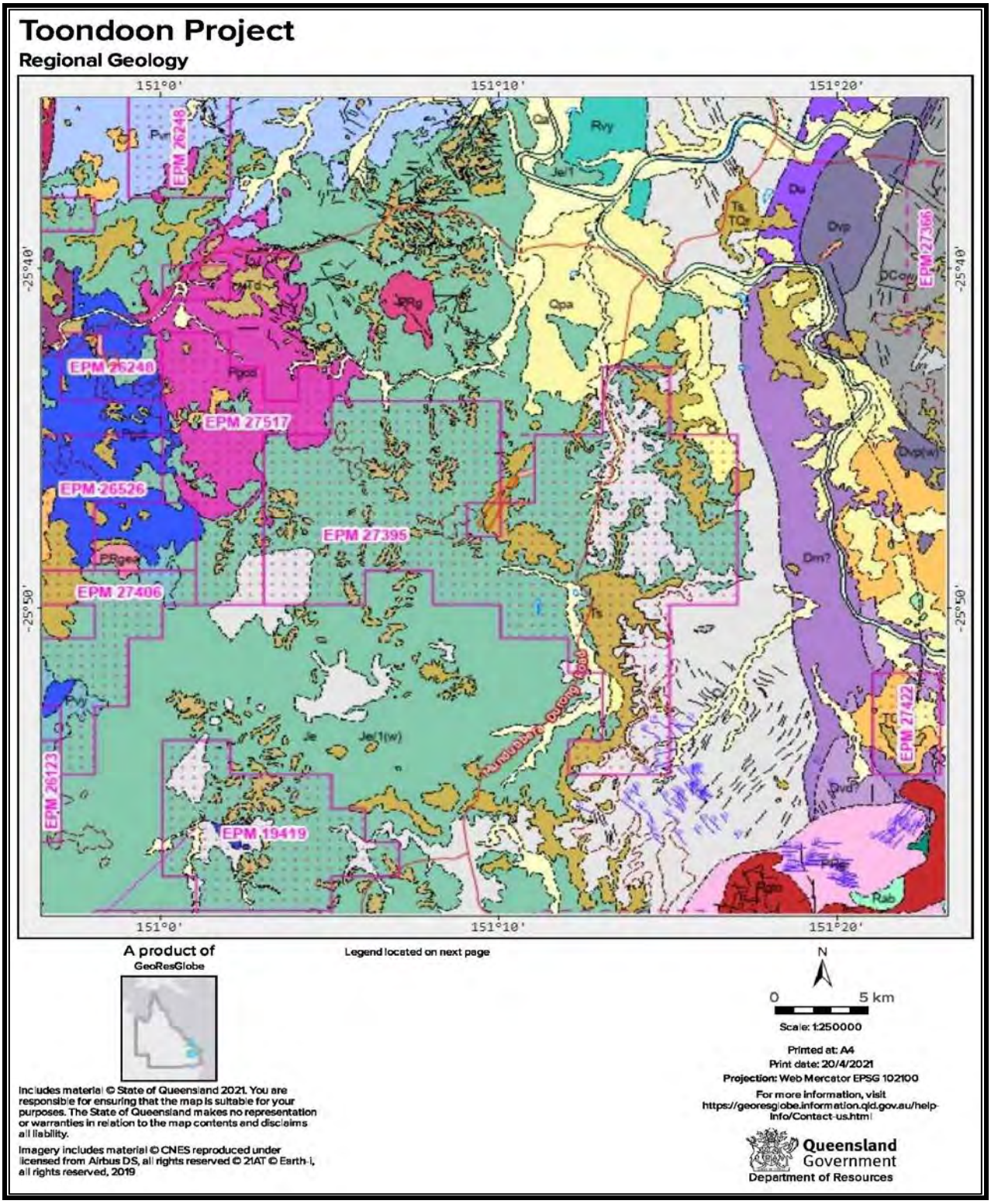
Figure 2.1 – Map of Drillholes

2.2 Geology

2.2.1 Regional Geology

The regional geology of the Toondoon area consists of the Jurassic Evergreen Formation (Je) overlying Devonian-Carboniferous volcaniclastic sediments. These sediments are intruded by two northeast tending belts of Permian-Triassic granitoids north and south of Toondoon. The clayey sediments at Toondoon have been mapped by the GSQ as Tertiary sediments overlying the Evergreen Formation. The drilling has indicated that the clay stratigraphy grading down from flat lying red bauxitic clay, which overlies gently folded units of grey plastic clay, white kaolinite clay and a sandy clay. This folded stratigraphy indicates a Jurassic age with Tertiary weathering-alteration forming the flat lying red bauxitic clay

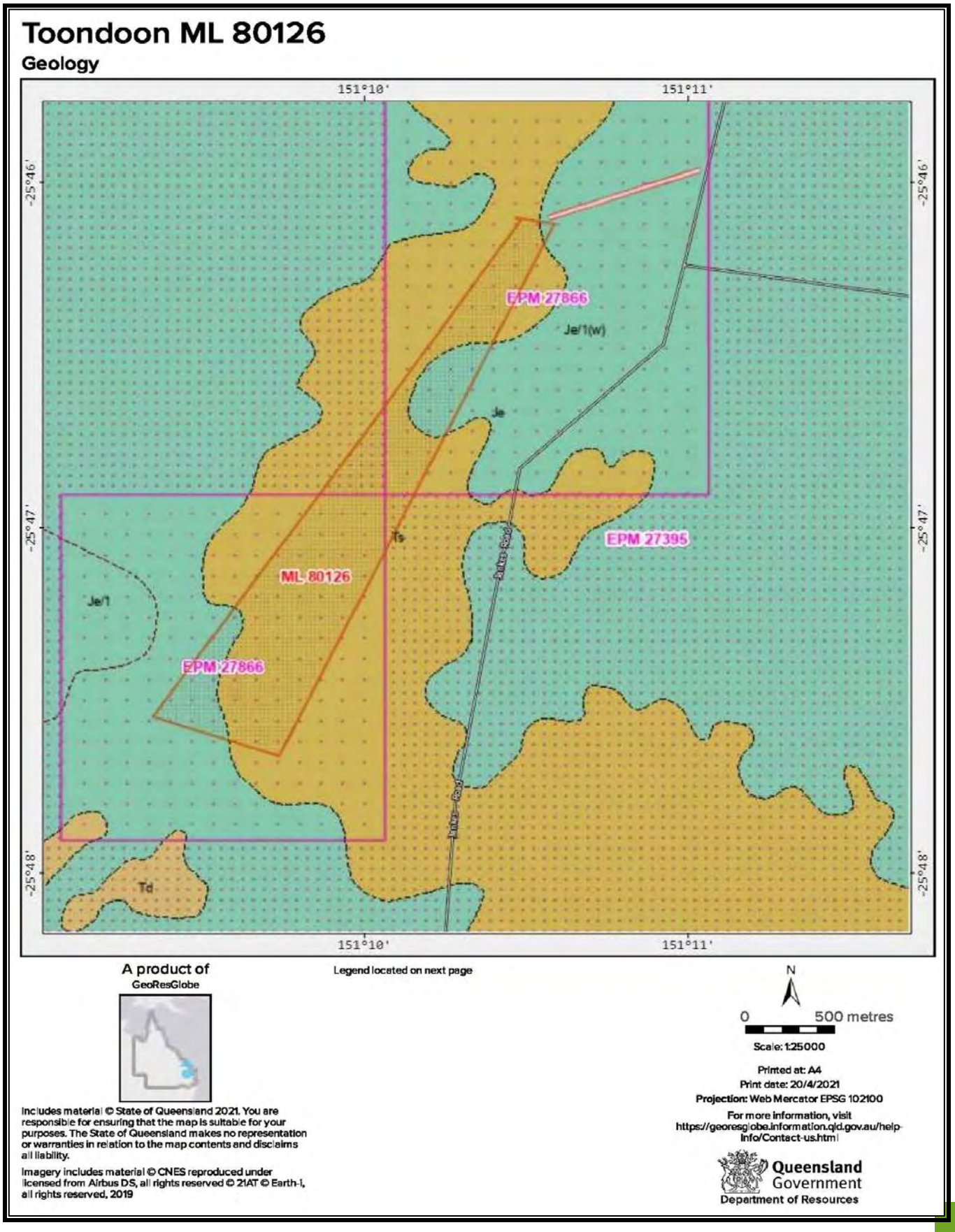
Figure 2.2 – Regional Geology



2.2.2 Local Geology

Toondoon Kaolin Project comprises 5 (five) lithologies / domains: Bauxitic, Plastic, Kaolin (High Iron), Kaolin (Low Iron) and Sandy clays. The mineralogy of the sedimentary units consists of: red brown bauxitic clay - pisolites with hematite, kaolinite, gibbsite, and anatase; grey plastic clay - kaolinite, gibbsite, minor hematite and anatase; white kaolinite clay - kaolinite minor gibbsite and anatase; and cream sandy clay - kaolinite and fine - to medium - grained quartz sand.

Figure 2.3 – Local Geology



2.3 Assays

All assaying has been carried out by ALS Laboratories, Brisbane. ALS is a global leader with over 71 laboratories worldwide and are ISO/IEC 17025:2017 accredited. ALS is also NATA Accredited, Corporate Accreditation No. 825, Corporate Site No. 818.

Assaying was carried out on all (1) metre samples from the drillholes. Assay procedure was primarily by XRF method ME-XRF13 and loss of ignition determined by ME-GRA05 (H_2O/LOI) method. Duplicate samples of each of the 4 main clay horizons i.e., bauxitic clay, plastic clay, kaolinite clay and sandy clay from each hole were inserted in the sample train before submittal to ALS. A standard sample, OREAS 999, was also submitted at a rate of 1 per hole.

Assaying was primarily to determine Al_2O_3, Fe_2O_3, SiO_2, LOI and TiO_2 but results were obtained for a range of oxides, namely BaO, CaO, CoO, Cr_2O_3, K_2O, MgO, MnO, Na_2O, P_2O_5, SO_3, SrO, V_2O_5, Zn and ZrO_2. No correction or adjustment to the assays and assay totals has been made.

2.4 Density Values

Phase I: Density values were taken from literature as no solid core or outcropping rocks of the bauxitic clay, plastic clay and kaolinite clay were mapped. Core of the sandy kaolinitic clay were obtained but the density values of the more extensive evaluation of the Abercorn Project were used i.e., 2 t/m^3. Modifications of the density of the kaolinite clay density was calculated by removing the amount of silica sand resulting in 1.8 t/m^3. The density of the plastic clay was calculated by adding the amount of hematite i.e., Fe_2O_3 to that of the kaolin resulting in 1.95 t/m^3. The bauxite density used was 2 t/m^3, the same that ABX used for their Toondoon and Binjour bauxite evaluations.

Phase II: Ten samples from bull-dozed trenching were submitted to ALS for specific gravity analyses using the OA-GRA 08a method (**Table 2.1**). The method records the specific gravity relative to unity with submersion of a wax coated a sample into water. The average SG for the rock types bauxitic clay, kaolinite clay and sandy clay were determined and the average for the respective rock types was calculated. No plastic clay was recovered so no analysis was conducted for this rock type.

The sandy clay consists of kaolinite clay and fine to medium grained quartz. It could be anticipated that the SG of the sandy clay would be higher than the kaolinite. However, it is generally lower indicating there must be more pore space, resulting in a lower SG.

The grey plastic clay generally consists of kaolinite with iron oxides and anatase. As the amount of quartz, iron oxide and anatase in the kaolinite does not have a consistent effect on the SG measurements, these elements will have little effect on the SG of the grey plastic clay. Therefore, it can be assumed that the SG of the plastic clay will be similar to the kaolinite clay i.e., 1.74 t/m^3.

The assumed density values used in the MRE were:

- Bauxitic Clay: 2.05 t/m^3
- Plastic Clay: 1.74 t/m^3
- Kaolinite Clay: 1.74 t/m^3
- Sandy Clay: 1.69 t/m^3

Table 2.1 – SG Determinations with Geochemistry

		ME-XRF	ME-XRF	ME-XRF	ME-XRF	ME-XRF	ME-XRF	ME-XRF	ME-XRF	ME-XRF	ME-XRF	ME-XRF	ME-XRF	ME-XRF	ME-XRF	ME-GRA	OA-GRA		
		13n	13n	13n	13n	13n	13n	13n	13n	13n	13n	13n	13n	13n	13n	05	08a		
Sample	**Lithology**	**Al_2O_3**	**Fe_2O_3**	**K_2O**	**MgO**	**Na_2O**	**P_2O_5**	**SO_3**	**SiO_2**	**SrO**	**TiO_2**	**V_2O_5**	**Zn**	**ZrO_2**	**Total**	**LOI**	**S.G.**		**S G**
No.		%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	Unity		Avg
53.1	Kao Cy	37.4	1.98	0.08	0.06	0.19	0.07	0.05	44.1	0.02	1.82	0.02	<0.01	0.07	99.97	14.06	1.63		
53.2	v sl sa kao cy	33.89	1.16	0.12	0.06	0.16	0.06	0.02	50.2	0.02	1.56	0.03	<0.01	0.07	100.05	12.64	1.79		
53.3	Kao Cy	37.78	1.05	0.11	0.06	0.24	0.06	0.04	44.5	0.01	1.67	0.02	<0.01	0.07	99.96	14.3	1.74		
53.4	v sl sa kao cy	34.07	0.81	0.11	0.06	0.14	0.07	0.02	50.3	0.02	1.56	0.02	<0.01	0.07	100	12.7	1.8	6.96	**1.74**
73.1	sa cy	20.13	0.52	0.26	0.05	0.08	0.06	0.01	70.3	0.02	0.91	0.01	<0.01	0.03	100	7.58	1.73		
73.2	sa cy	19.39	0.35	0.2	0.05	0.05	0.08	0.01	71.2	0.03	1.2	0.01	<0.01	0.05	100.05	7.39	1.58		
88	sa cy	16.96	0.27	0.13	0.03	0.04	0.04	0.01	75.5	0.02	0.72	0.01	<0.01	0.03	99.97	6.18	1.75		
89	sl sa cy	31.39	0.49	0.11	0.04	0.05	0.07	<0.01	54	0.02	1.6	0.01	<0.01	0.1	100	12.07	1.7	6.76	**1.69**
76	Baux																2.24		
79	Baux																1.87	4.11	**2.05**
	Gy PL Cy	Not determined as not in trenches																	

3 QAQC

3.1 Duplicates

Statistical analyses of the field (MSE) and lab duplicates data were performed to monitor the quality of sampling and assaying processes. The analysis of field duplicates is a quality control procedure to measure the consistency of sampling procedures while lab duplicates are used to measure the consistency of sample preparation and analysis procedures. Duplicate samples were compared to the original samples using several statistical plots such as scatterplots and QQ plots.

During sampling of drill cores, field duplicate samples and standards were submitted to the analytical laboratory. Following industry procedures, the laboratory has included Laboratory Standards and duplicates to assess its performance. This section outlines the findings from both the field and lab QAQC samples

Q-Q plots were produced to compare the original to the duplicate sample distributions. These plots are used to check if the two data sets represent the same population and check for possible bias and outliers. As an example, the Q-Q plot for the ALS Duplicates for Al_2O_3% is shown in **Figure 3.1**. The Al_2O_3% Q-Q samples plot very close to the unbiased 1:1 straight line on the Q-Q plot, with no noticeable presence of bias. The Q-Q plots for the other elements are included in **Appendix B - Statistics**. All other elements display similar good results.

Figure 3.1 – QAQC of ALS Duplicates – Al_2O_3

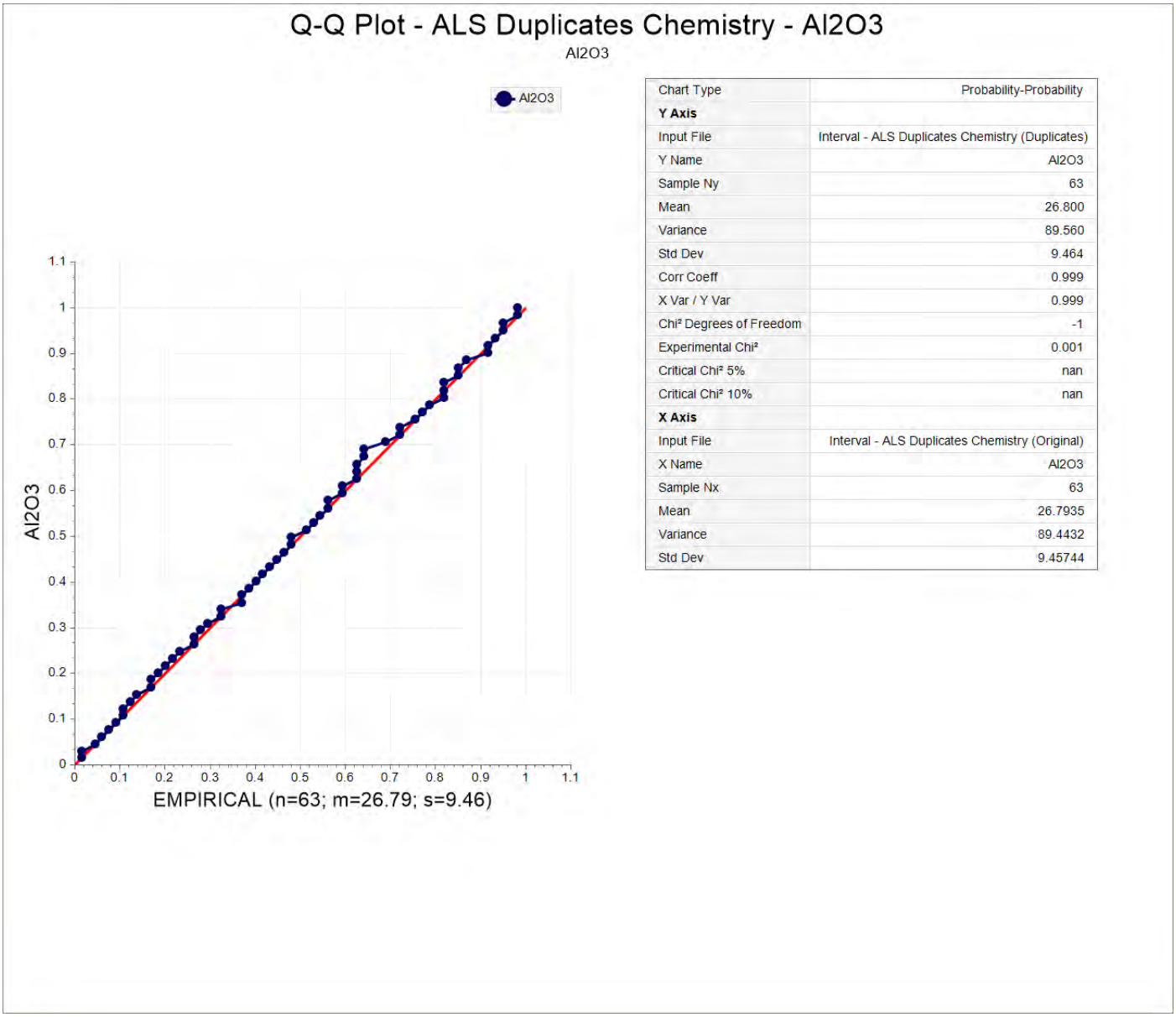


Chart Type	Probability-Probability
Y Axis	
Input File	Interval - ALS Duplicates Chemistry (Duplicates)
Y Name	Al2O3
Sample Ny	63
Mean	26.800
Variance	89.560
Std Dev	9.464
Corr Coeff	0.999
X Var / Y Var	0.999
Chi² Degrees of Freedom	-1
Experimental Chi²	0.001
Critical Chi² 5%	nan
Critical Chi² 10%	nan
X Axis	
Input File	Interval - ALS Duplicates Chemistry (Original)
X Name	Al2O3
Sample Nx	63
Mean	26.7935
Variance	89.4432
Std Dev	9.45744

3.2 Standards

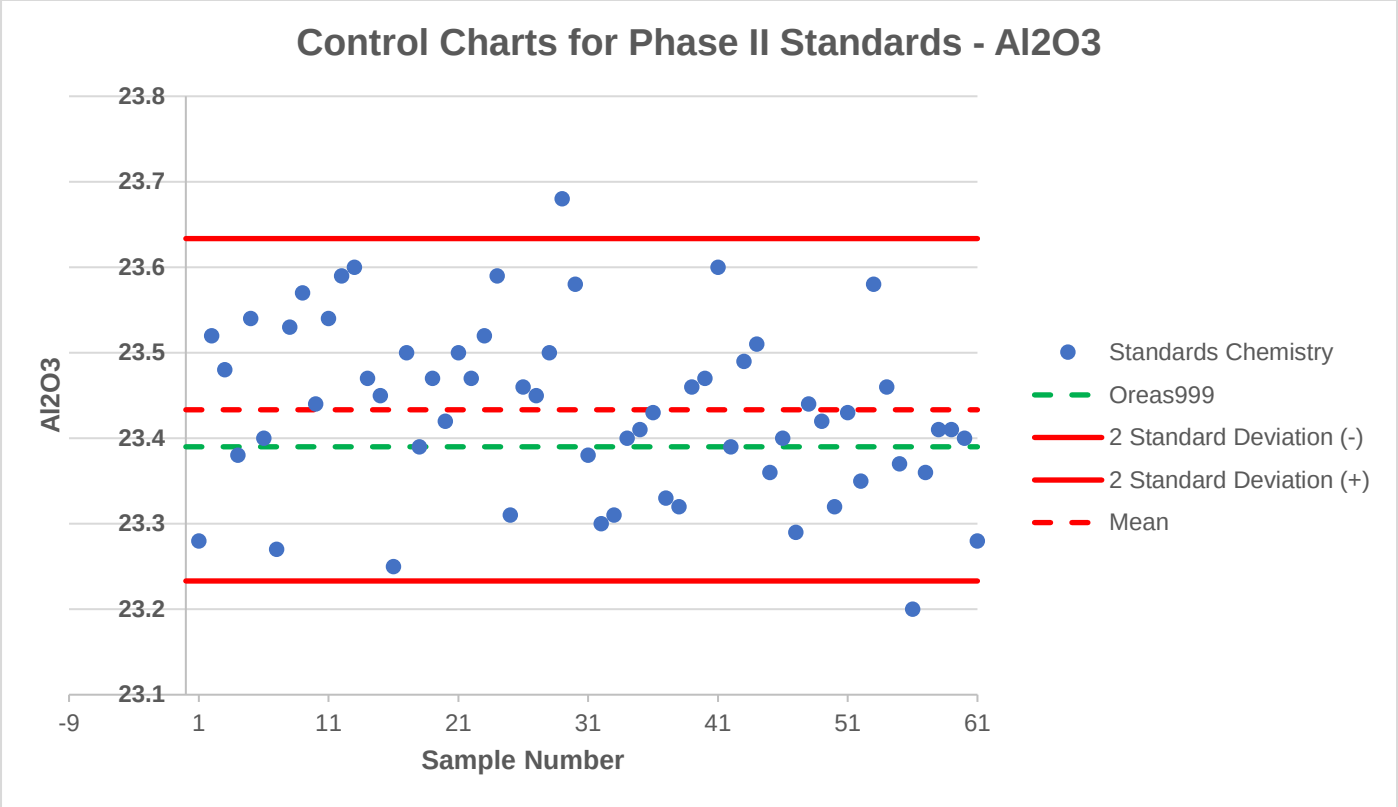
The submission of standard samples of a certified grade to the assay laboratory is a quality control process used to monitor accuracy of assaying. The QAQC program for Toondoon Kaolin Project used standard OREAS 999.

Control charts were produced for Al_2O_3 which display the standard sample data in relation to the expected reference value. The multiple of two standard deviations of the reference standards mean are plotted together with the reference value to check whether the laboratory procedures were in control.

Standards performed well with no concerning outliers which confirms good QA practices by the laboratory.

Further information is included in **Appendix B - Statistics**.

Figure 3.2 – QAQC of Phase II Standards – Al_2O_3



4 Mineral Resource Estimate

4.1 Overview

Micromine 2022 was used to complete the upgraded Mineral Resource Estimate in accordance with the JORC 2012 Code. A block model was generated to model the overall deposit shape and volume. The block model was defined by the top of the resource, the base of the resource (base of the drillholes) and the interpreted geological boundaries. Parent blocks were sized at 10mE x 10mN x 1mRL. Sub-blocks were sized at 1mE x 1mN x 1mRL. The block model was subject statistical and geostatistical analysis and the Ordinary Kriging (OK) method was used to populate the blocks. The Inverse Distance Weighting (IDW) method was used to check the model and yielded similar results. Swath plots were used to validate the interpolation technique to ensure accuracy. All assayed elements were modelled in the block model.

Detailed steps that were undertaken in Micromine 2022 are outlined throughout this section.

4.2 Database Integrity – Database Validation

The database was originally constructed, validated and electronically provided by Graham Rolfe (Rock-Ex-Enterprises Pty Ltd) to Ausrocks Pty Ltd. Ausrocks reformatted the database into appropriate file formats checking the veracity of the assay results. The data was further validated and cross checked against the geological logs. Micromine 2022 validated the files which were used for the Mineral Resource Estimate. To ensure continuity and validity across the data sets, three separate files which cross-referenced the data were used. These were as follows:

- Collar File – This file contains the Hole ID, Location (Northing, Easting and Z value), Azimuth and Inclination of each hole.
- Interval File – A file containing the information collected at intervals (depth from, depth to) downhole. This included colour, hue and sample assay values.
- Survey File – Showing the azimuth, orientation, or each hole. Note all holes were drilled vertically, which simplified the data.

Sample intervals were collected at 1m throughout the drilling program. No sample bias based on the sample interval length.

4.3 Statistics

4.3.1 Overview

Using Micromine 2022, Statistical and Geostatistical analyses was undertaken on aluminium (Al_2O_3) and the key impurities (Fe_2O_3, SiO_2, TiO_2 and LOI) of the dataset. Assay methods also returned results for BaO, CaO, CoO, Cr_2O_3, K_2O, MgO, MnO, Na_2O, P_2O_5, SO_3, SrO, V_2O_5, Zn and ZrO_2 but they were not examined due to their very low grades (at or near detection range).

A summary of the geostatistics that were completed on all the assayed variables can be found in **Appendix B – Statistics**.

4.3.2 Basic Statistics

All sample intervals underwent basic statistical analysis (minimum, maximum, mean etc.). All variables showed that there were no requirements for top or bottom cutting.

The maximum and minimum of each variable is shown in **Table 4.1 – Basic Statistics (Minimums and Maximums)**

Table 4.1 – Basic Statistics (Minimums and Maximums)

Field Name	Minimum	Maximum
Easting	315,146.6	316,156.9
Northing	7,145,846	7,147,507
Collar RL	283.77	307.46
Terminal Depth	18	42
Thickness	0.5	1
Al_2O_3	5.06	49.27
BaO	0.01	0.06
CaO	0.01	0.7
CoO	0.01	0.01
Cr_2O_3	0.01	0.09
Fe_2O_3	0.13	49
K_2O	0.01	1.02
MgO	0.01	0.32
MnO	0.01	0.05
Na_2O	0.01	0.97
P_2O_5	0.01	0.23
SO_3	0.01	4.54
SiO_2	3.19	87.7
SrO	0.01	0.05
TiO_2	0.31	16.5
V_2O_5	0.01	0.23
Zn	0.01	0.05
ZrO_2	0.01	0.29
Total	99.9	104.55
LOI	2.65	28.02

Note: A value below the detectable limit has been assigned to 0.

.

4.3.3 Raw Data Distribution (Histograms)

The raw data distribution for aluminium (Al_2O_3) and the key impurities (Fe_2O_3, SiO_2, TiO_2 and LOI) were analysed in detail and used in the block modelling. Histograms for Al_2O_3, Fe_2O_3, SiO_2, TiO_2 and LOI are respectively shown in **Figures 2.1 – 2.5**. The results are summarised below.

Aluminium (Al_2O_3)

The assayed data for Al_2O_3 has a range of values from 5.05% to 49.27% with a mean of 28.98%.

Iron (Fe_2O_3)

The assayed data for Fe_2O_3 has a range of values from 0.13% to 49.0% with a mean of 3.74%.

Silica (SiO_2)

The assayed data for SiO_2 has a range of values from 3.19% to 87.7% with a mean of 53.33%.

Titanium (TiO_2)

The assayed data for TiO_2 has a range of values from 0.31% to 16.5% with a mean of 1.99%.

Loss of Ignition (LOI)

The assayed data for LOI has a range of values from 2.65% to 28.02% with a mean of 11.39%

Figure 4.1 - Al_2O_3 Histogram

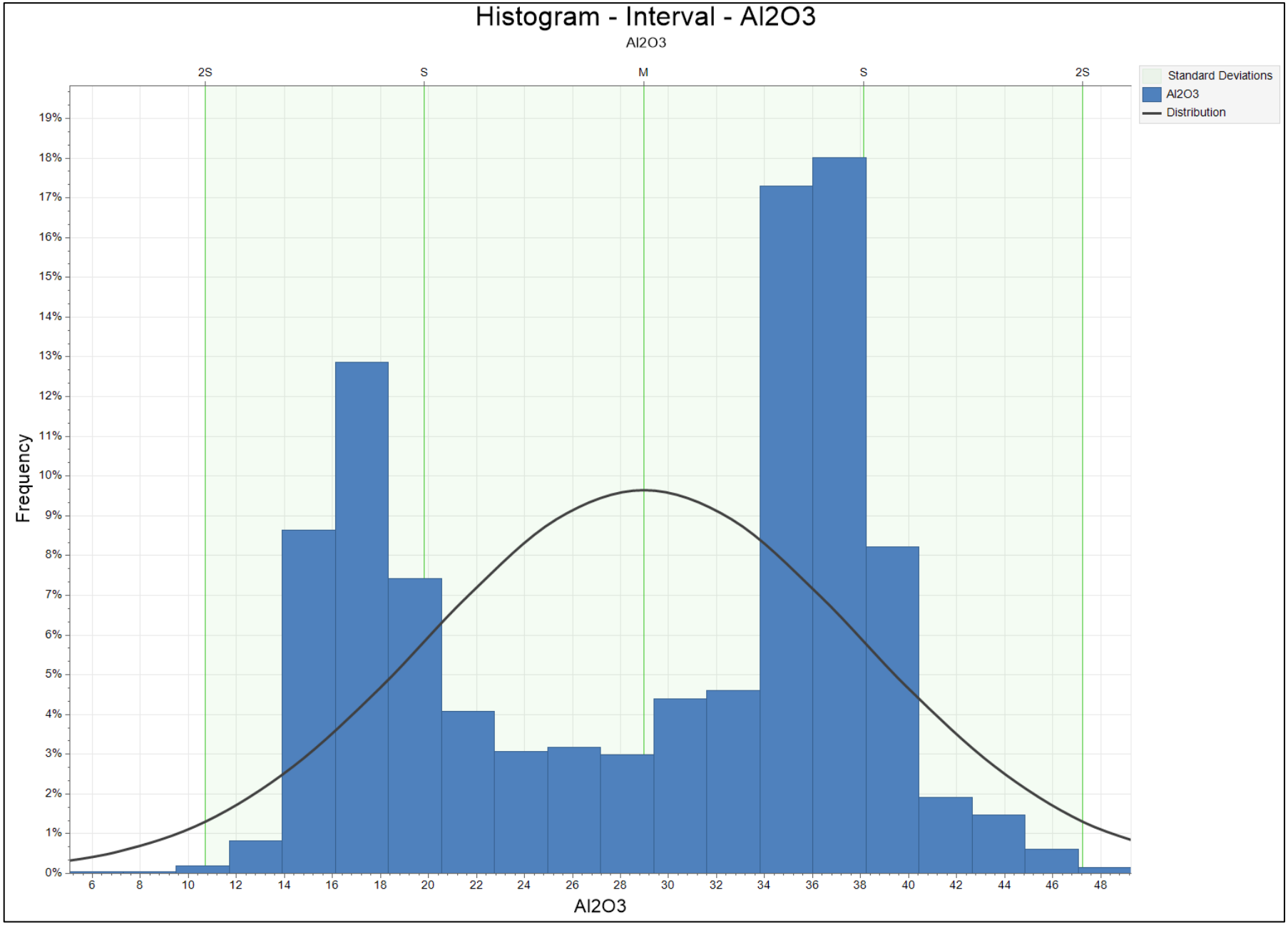


Figure 4.2 – Fe_2O_3 Histogram

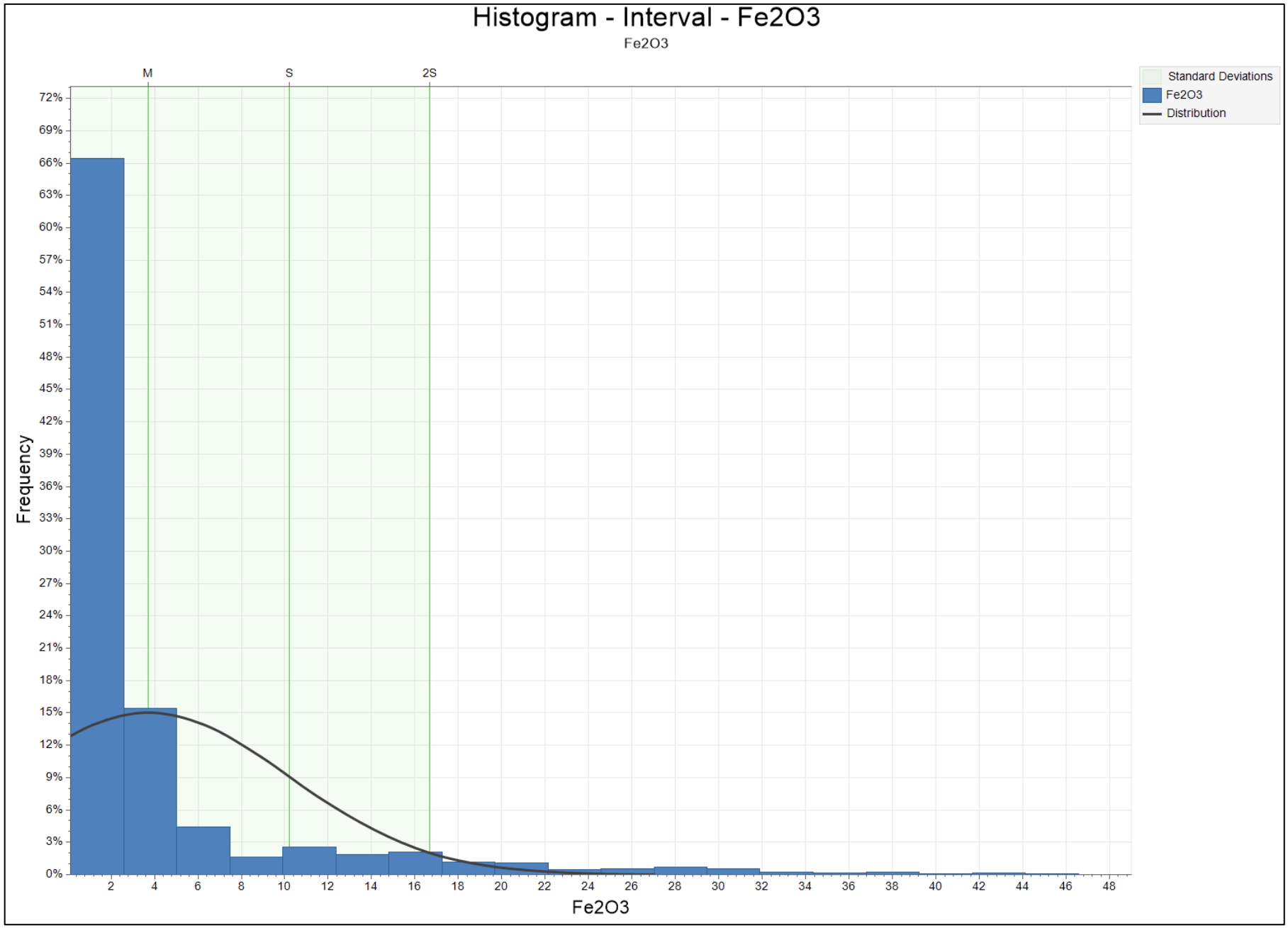


Figure 4.3 – SiO_2 Histogram

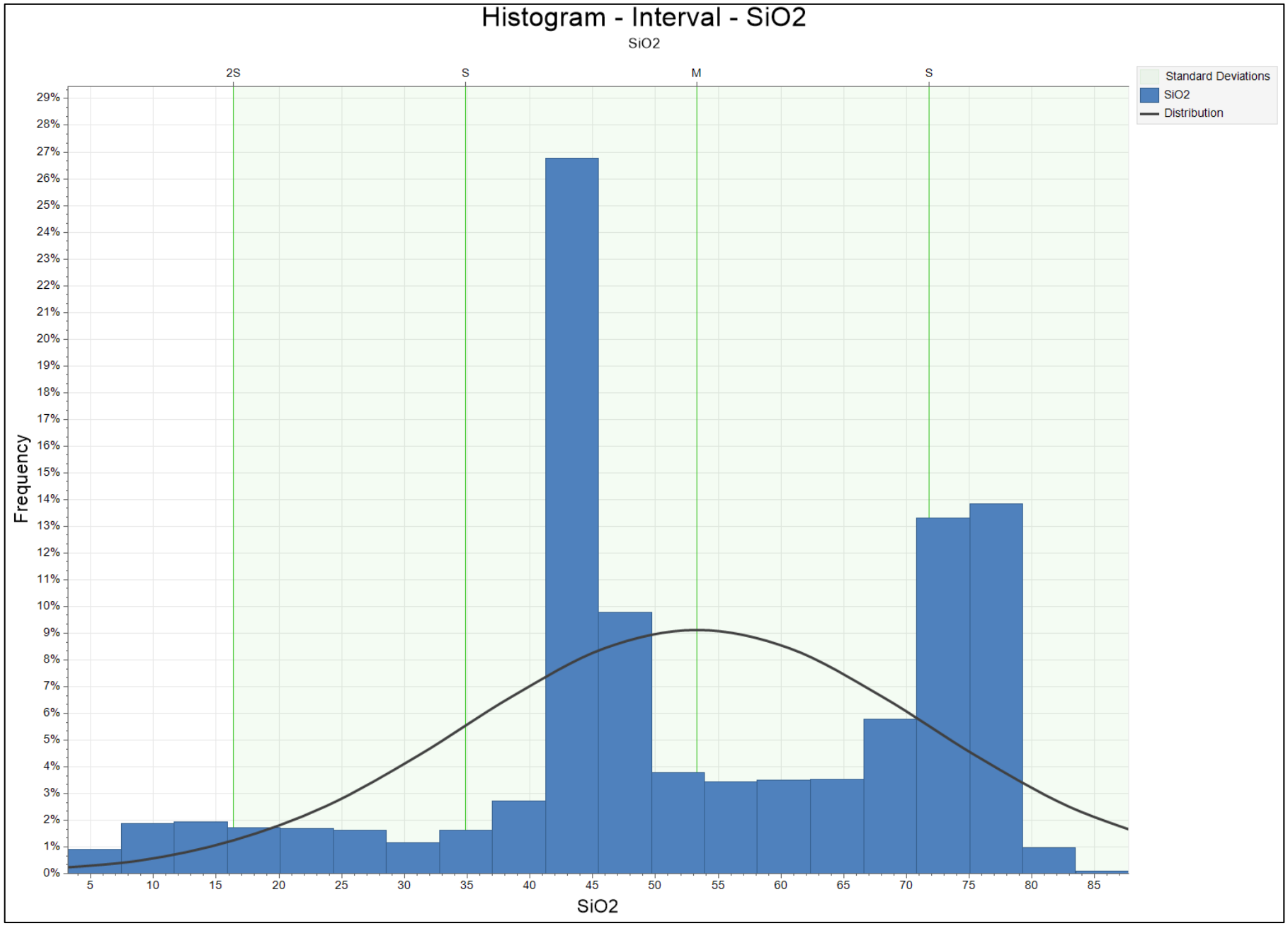


Figure 4.4 – TiO_2 Histogram

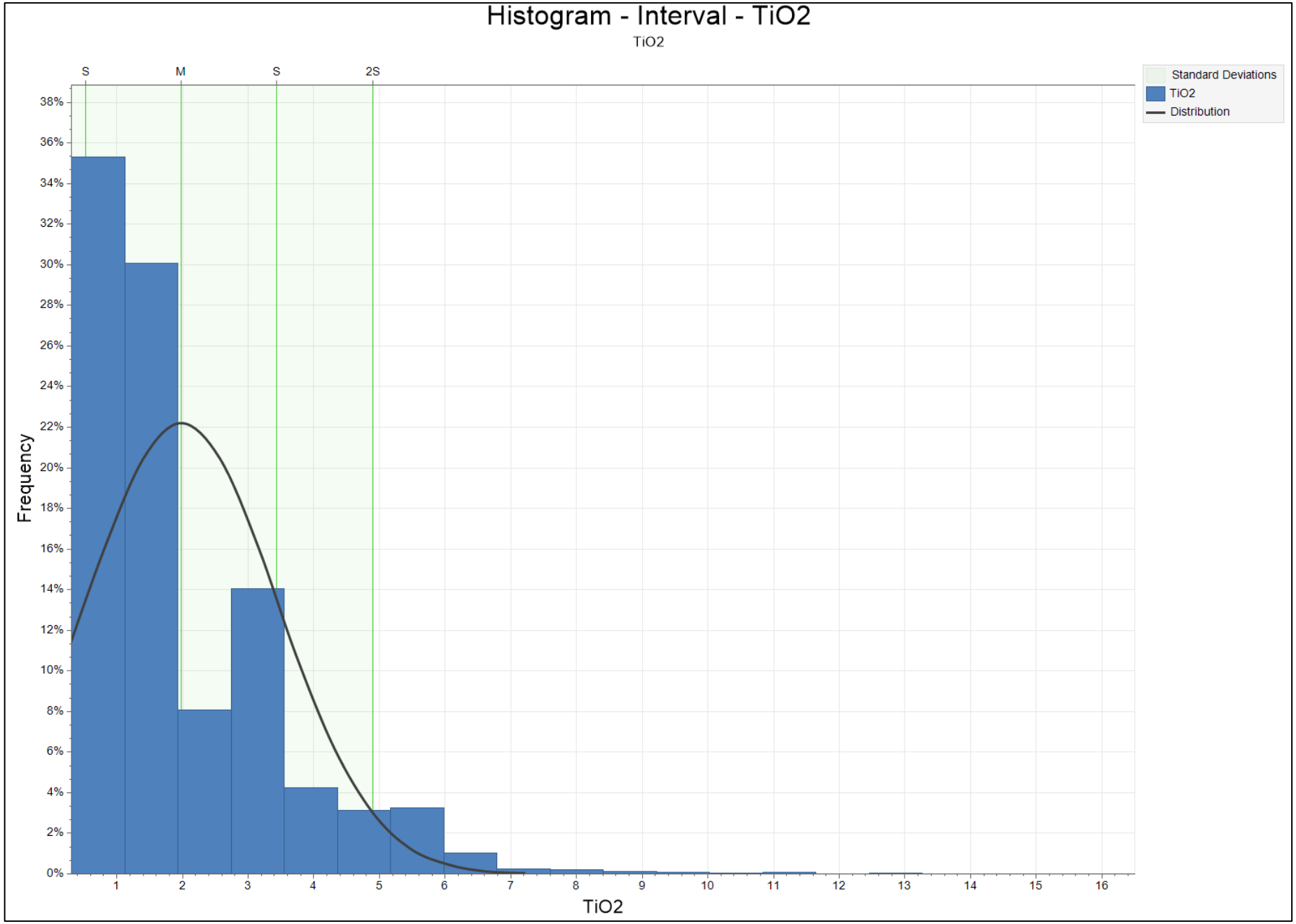
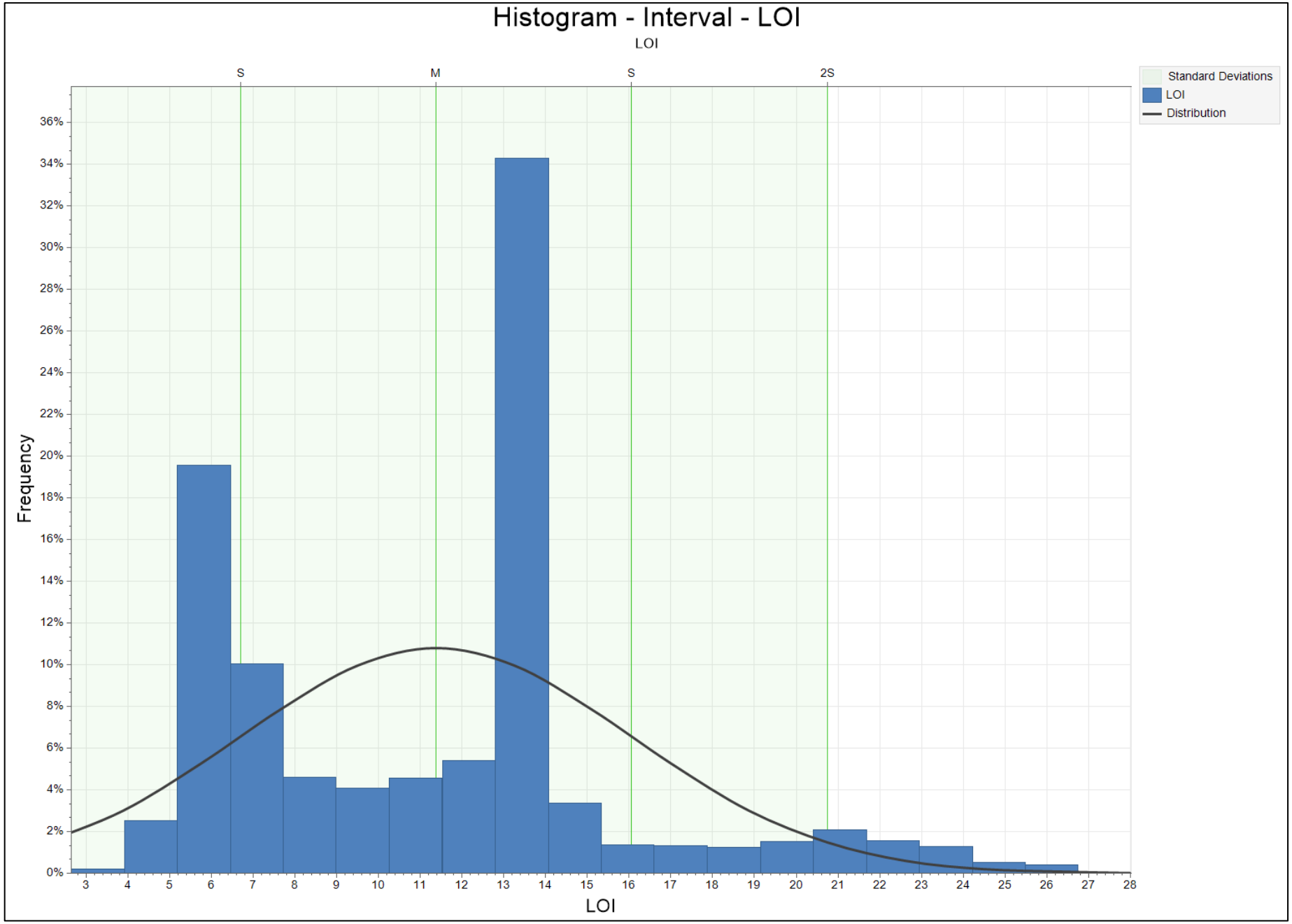


Figure 4.5 – LOI Histogram



4.4 Block Modelling

4.4.1 Block Size

Parent block sizing was chosen as 10m E x 10m N x 1m RL which was then sub-blocked to 1m E x 1m N x 1m RL. The block model was trimmed by nearest sub-block to the wireframe encompassed by the top and base of the resource in accordance with the JORC Code (2012).

4.4.2 Resource Parameters and Assumptions

The following parameters and assumptions formed the basis for the upgraded Mineral Resource Estimate in accordance with the JORC Code 2012.

- Topography – DEM sourced by drone survey
- The resource boundary was determined by a combination of Mining Lease Boundary, geological interpretation and area of influence considerations.
- 5 lithologies determined by geochemistry and geological interpretation – Bauxitic Clay, Plastic Clay, Kaolinite Clay (High Iron), Kaolinite Clay (Low Iron) and Sandy Clay.
- A 32% Al_2O_3 grade aided with the determination of the domain boundaries which were determined by analysis of raw assay data down each individual drill hole. The grade applied is consistent with industry practice for these types of Kaolin deposits.
- As advised by the Project Geologist, no cut-off grade was applied to the Bauxitic Clay, Plastic Clay, Kaolinite Clay (High Iron) and Kaolinite Clay (Low Iron) domains for the estimation process. A cut-off grade of 23% Al_2O_3 was applied to the Sandy Clay domain for the estimation process. All assayed elements were reported as secondary elements constrained to the cut-off grade.
- No topsoil considerations as advised by the Project Geologist.
- Density values as provided by the Project Geologist.

Further information relating to the resource parameters and assumptions can be found in **Appendix C** – JORC Table 1.

4.4.3 Resource Shape and Volume

Prior to interpolating and assigning assay values to each block, a solid was generated to model the overall deposit shape and volume by applying the following parameters:

- Top surface – constrained to topography and determined by geological interpretation for each domain
- Bottom surface – constrained to drilled floor and determined by geological interpretation for each domain
- Boundary – the resource boundary was defined by the following considerations:
    - Geological interpretation of drillholes
    - Area of influence around drillholes determined by confidence level
    - Mining Lease Boundary.

Multiple cross section iterations were used to further define and constrain the model where data was minimal with information/consultation from the Project Geologist.

4.4.4 Cut-Off Grade

As advised by the Project Geologist, no cut-off grade was applied to the Bauxitic Clay, Plastic Clay, Kaolinite Clay (High Iron) and Kaolinite Clay (Low Iron) domains for the estimation process. A cut-off grade of 23% Al_2O_3 was applied to the Sandy Clay domain for the estimation process. All assayed elements were reported as secondary elements constrained to the cut-off grade.

A 32% Al_2O_3 grade aided with the determination of the domain boundaries which were determined by analysis of raw assay data down each individual drill hole. The grade applied is consistent with industry practice for these types of Kaolin deposits.

4.4.5 Estimation Method - Kriging

The Ordinary Kriging (OK) method was used to estimate the grades and populate the block model for all assayed elements. The ellipse directions utilised the directions from the variography described in Section 5.4.7

The Inverse Distance Weighting (IDW) method (2:1) was used to check the model and yielded similar results.

Both estimation methods are universally acceptable resource estimators, with IDW potentially having an exponent arbitrariness or bias, is relatively simpler to apply, as opposed to variography and kriging being an unbiased estimator requiring a high degree of expert application.

4.4.6 Semivariogram Map

Semivariogram mapping is used to define the three planes of continuity (strike, dip and pitch). The direction of least variation/highest continuity (dark blue colour) was picked in each plane. A semi-variogram is created with a spherical model fitted for each of the three plans. Work should continue with ongoing improved geological understanding and particularly with deposit-wide infill drilling, to carry out detailed geostatistical analyses and particularly variography studies to cross validate applications.

4.4.7 Validation

Using the same blank block model as the OK model, the blank block model was populated with values for all assayed elements. The IDW interpolation method is traditionally used to model homogenous deposits or deposits where the strike and dip remain reasonably constant (Micromine, 2021). The method is based on estimating values by averaging the input assay data points in the neighbourhood of each block within the model. IDW is not driven by geostatistics with points closer to the centroid of the block having a greater influence.

Cross-sections throughout the block model were compared with the same sections through the drillhole data showing that the modelling completed was indicative of the input data and the mineralisation.

Swath plots were used to validate the interpolation technique to ensure accuracy. Swath plots compared the drillhole and block model with Al_2O_3, Fe_2O_3, SiO_2, TiO_2 and LOI grades which showed sufficient spatial correlation between both modelled estimates and input drillhole grades.

4.4.8 Figures

Figure 4.6 – Aerial View of Block Model

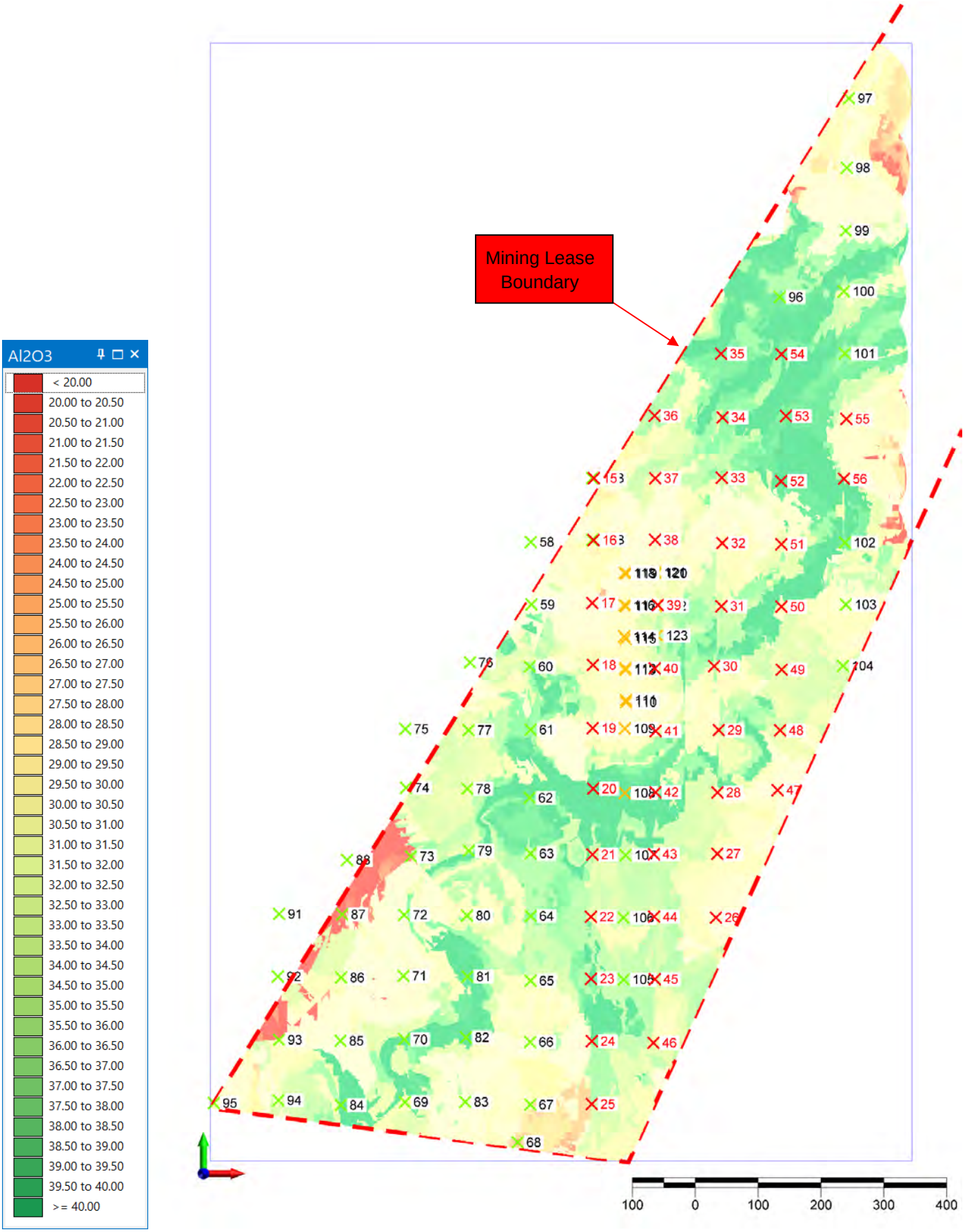
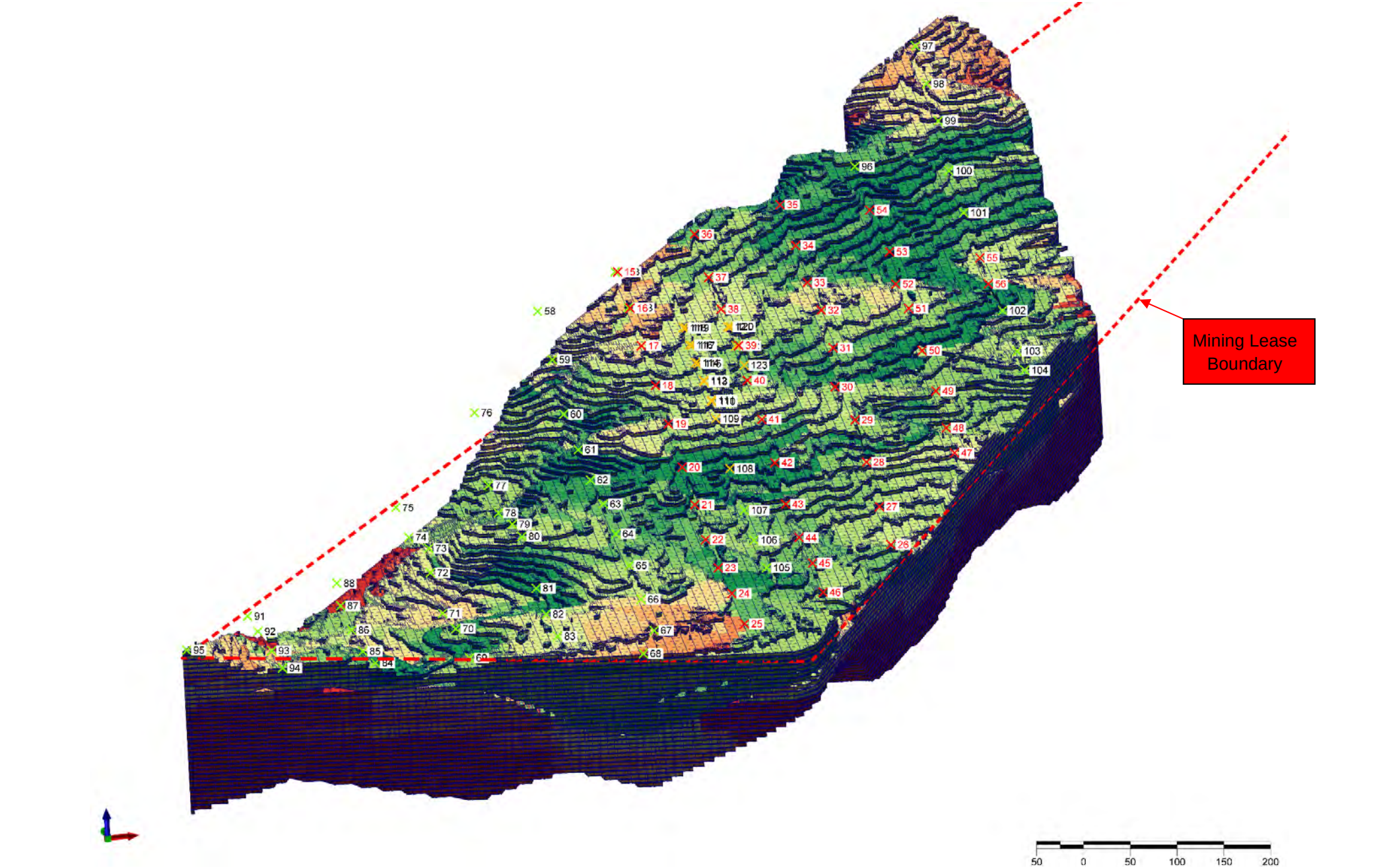


Figure 4.7 – 3D View of Block Model



A number of modelled cross sections and long sections for Al_2O_3 throughout the Resource Area are shown in the Sections A'-A through to D-D.

Figure 4.8 – Section A-A to A'-A' (Cross Section from West *LHS of section* to East *RHS of section*)

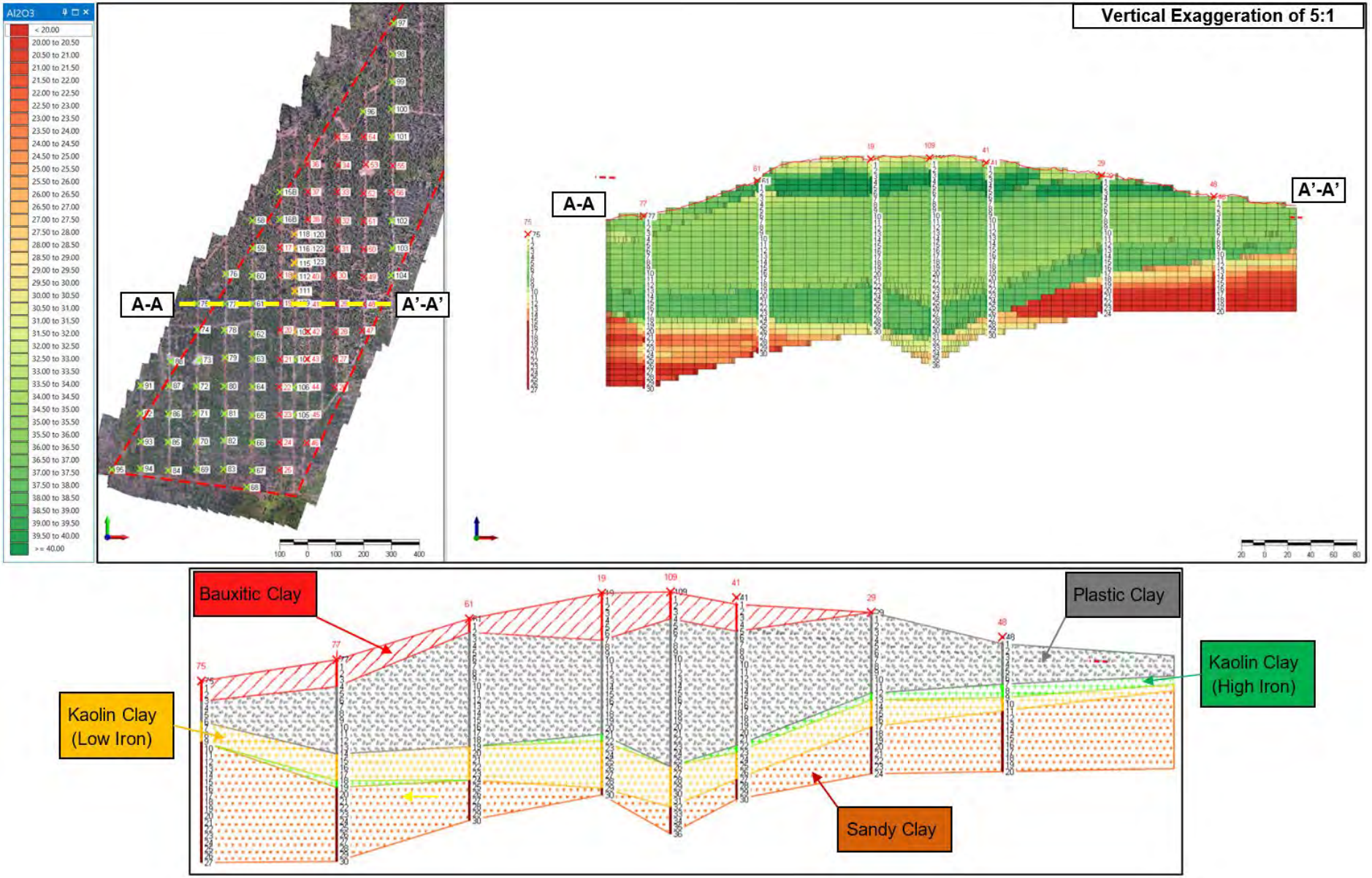


Figure 4.9 – Section B-B to B'-B' (Cross Section from West *LHS of section* to East *RHS of section*)

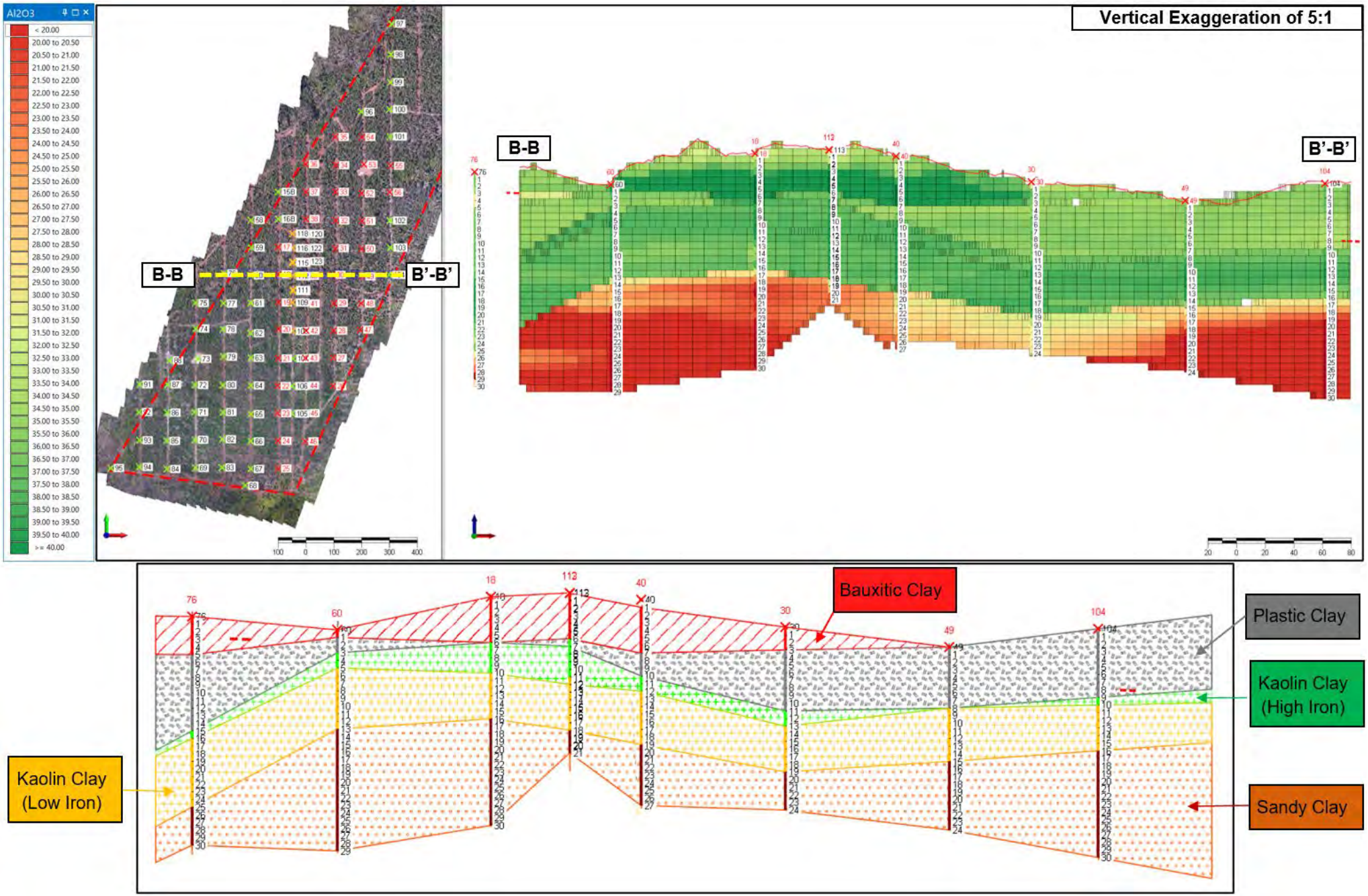


Figure 4.10 – Section C-C to C'-C' (Long Section from North *LHS of section* to South *RHS of section*)

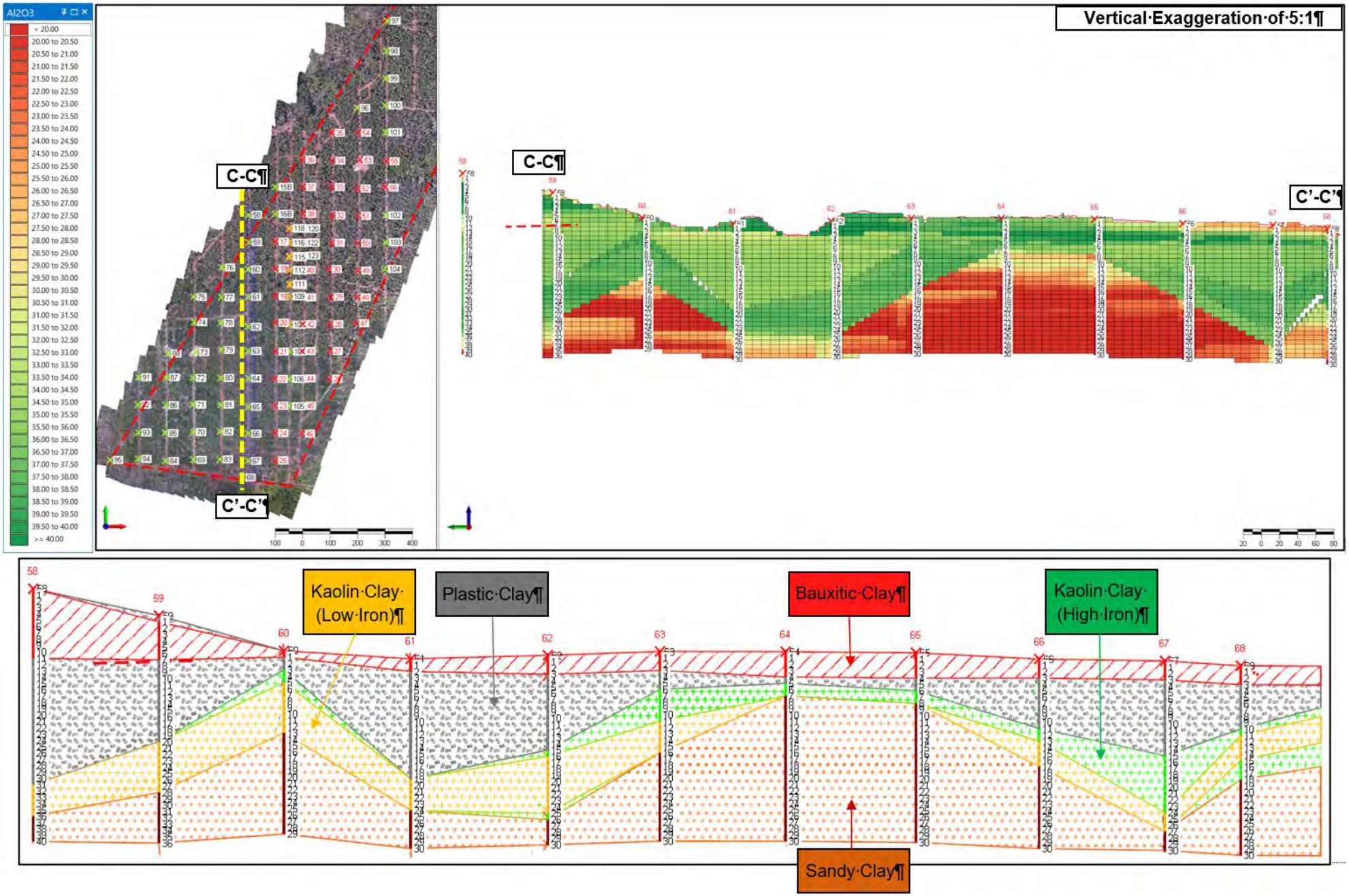
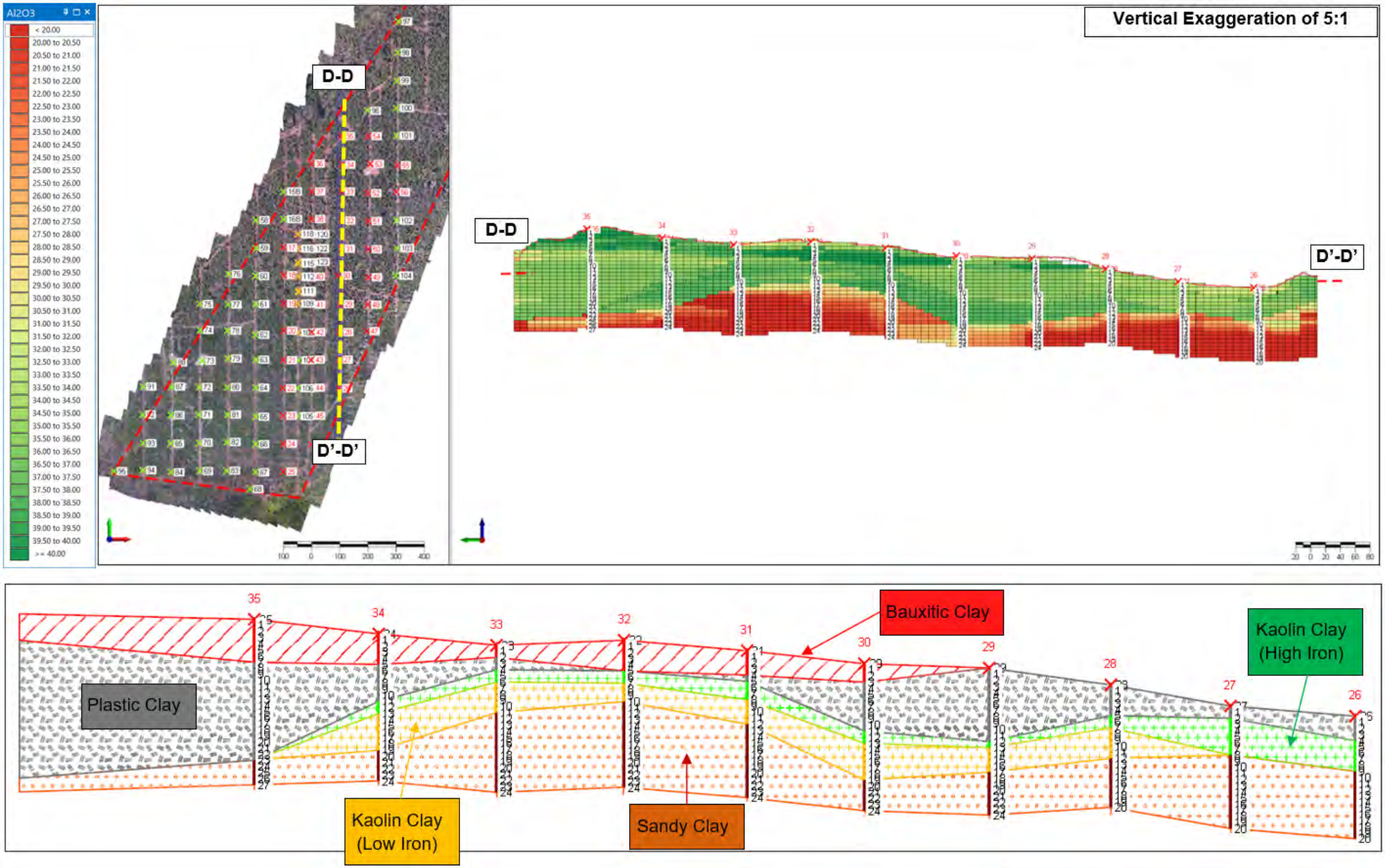


Figure 4.11 – Section D-D to D'-D' (Long Section from North *LHS of section* to South *RHS of section*)



4.5 Resource Reporting in Accordance with JORC Code 2012

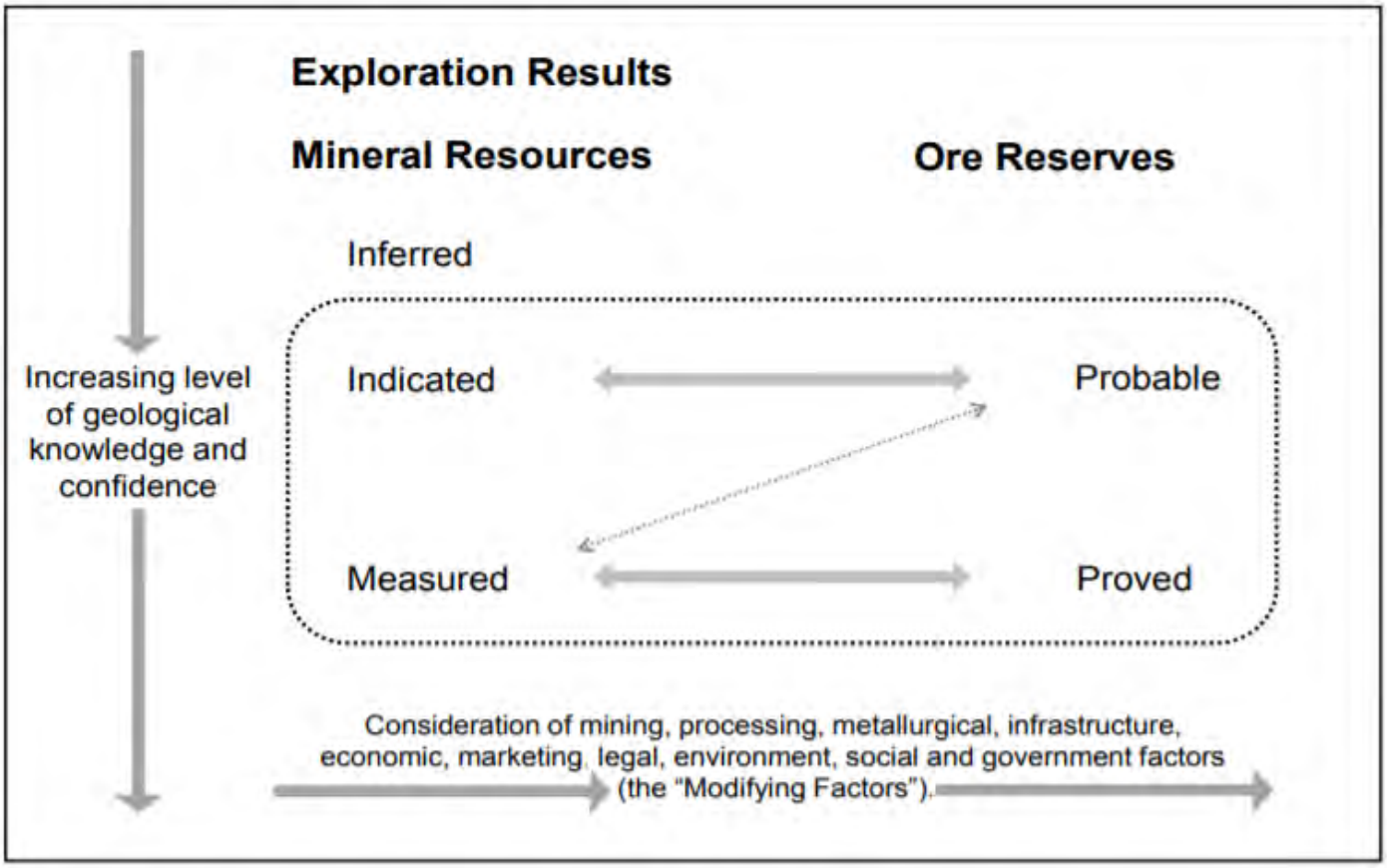
4.5.1 JORC Code 2012

The Joint Ore Reporting Committee (JORC) Code 2012 is a professional code of practice that set minimum standards for Public Reporting of minerals Exploration Results, Mineral Resources and Ore Reserves. A mineral resource is defined by the JORC Code (2012) as follows:

> *"A 'Mineral Resource' is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade (or quality), continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories"*

The general relationship between Exploration Results, Mineral Resources (Inferred, Indicated and Measured) and Ore Reserves (Probable and Proved) is shown in **Figure 4.12** from The JORC Code, 2012 Edition. Mineral Resources stated in this report have been categorised as Measured, Indicated and Inferred based on "increasing level of geological knowledge and confidence".

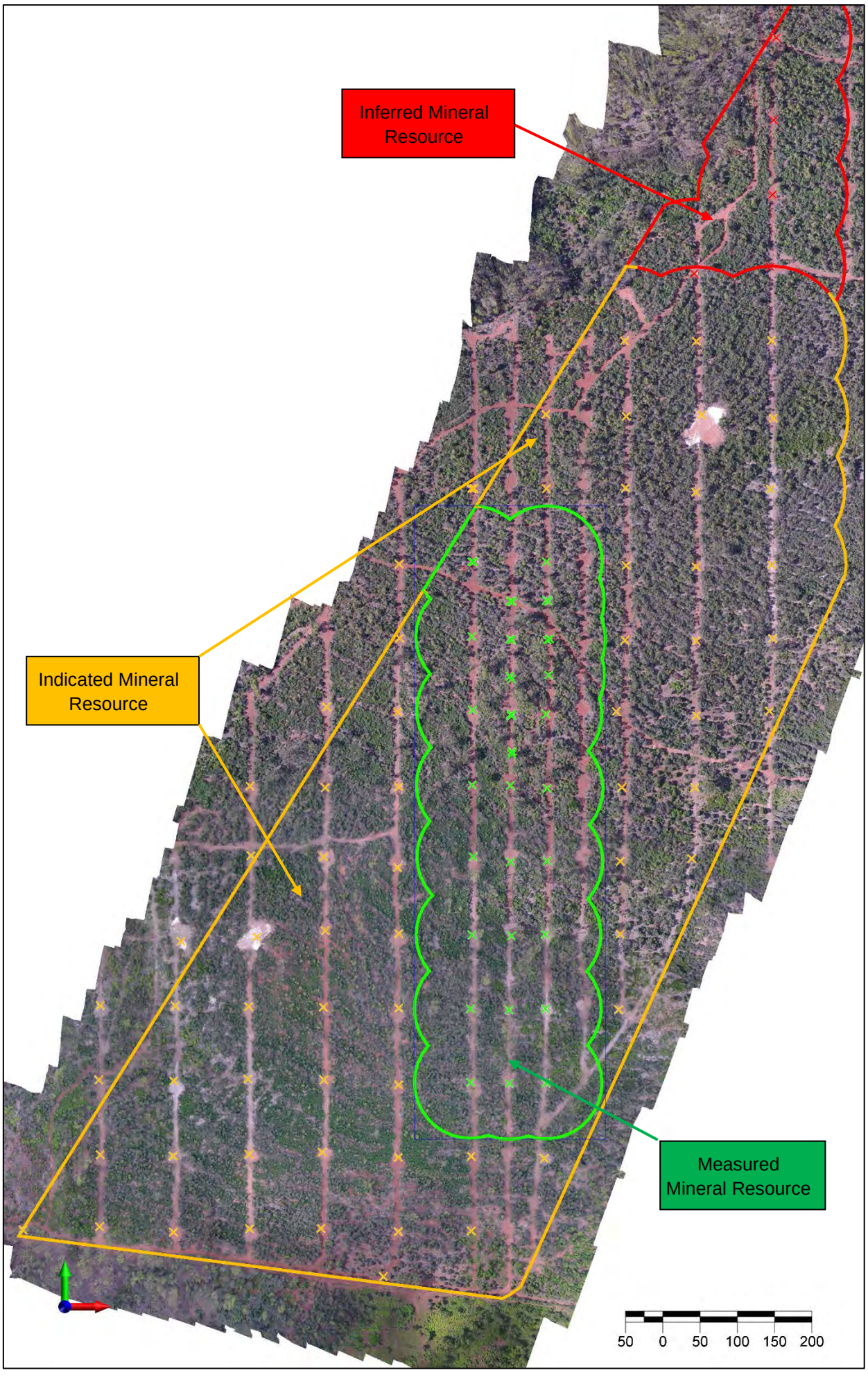
Figure 4.12 - General Relationship between Exploration Results, Mineral Resources and Ore Reserves.



JORC Code, 2012 Edition

Although there have been some considerations to mining, processing, metallurgical, infrastructure, economic, marketing legal, environment, social and government factors. These have not been considered adequately to report any Probable or Proved Ore Reserves in accordance with the JORC Code 2012.

Figure 4.13 – Resource Classification



4.5.2 Measured Mineral Resource Estimate

This maiden Measured Mineral Resource Estimate has been prepared by Ausrocks Pty Ltd in accordance with the JORC Code (2012). An excerpt on the definition of a Measured Mineral Resource as per the JORC Code (2012) is as follows:

> *"A 'Measured Mineral Resource' is that part of a Mineral Resource for which quantity, grade (or quality), densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling and testing gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes, and is sufficient to confirm geological and grade (or quality) continuity between points of observation where data and samples are gathered. A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proved Ore Reserve or under certain circumstances to a Probable Ore Reserve. Mineralisation may be classified as a Measured Mineral Resource when the nature, quality, amount and distribution of data are such as to leave no reasonable doubt, in the opinion of the Competent Person determining the Mineral Resource, that the tonnage and grade of the mineralisation can be estimated to within close limits, and that any variation from the estimate would be unlikely to significantly affect potential economic viability. This category requires a high level of confidence in, and understanding of, the geological properties and controls of the mineral deposit. (JORC Code (2012) Clause 23)*
>
> *The choice of the appropriate category of Mineral Resource depends upon the quantity, distribution, and quality of data available and the level of confidence that attaches to those data. The appropriate Mineral Resource category must be determined by a Competent Person." (JORC Code (2012) Clause 24)*

In accordance with the JORC Code (2012), requirements were developed to allow for areas of the Toondoon Kaolin Project to be classified as a Measured Mineral Resource. To meet the requirements of a Measured Mineral Resource, drillholes had to show geological continuity between gridded drillholes with a confirmatory spacing (100m x 100m with infill holes with a minimum of one hole drilled in between each 4 x 100m drillhole 'square').

Table 4.2 – Measured Mineral Resource Estimate

Resource Category	Lithology	Volume (Mm^3)	Density (t/m^3)	Tonnes (T)	Al_2O_3 %	Fe_2O_3 %	SiO_2 %	TiO_2 %	LOI %	K_2O %	Cut-Off Grade
Measured	Bauxitic Clay	750,000	2.05	1,530,000	38.81	13.86	21.92	4.53	20.07	0.06	No cut-off applied
Measured	Plastic Clay	1,380,000	1.74	2,400,000	35.45	4.98	41.39	3.38	14.20	0.02	No cut-off applied
Measured	Kaolinite Clay (High Iron)	510,000	1.74	880,000	36.79	1.92	44.92	2.19	13.63	0.05	No cut-off applied
Measured	Kaolinite Clay (Low Iron)	900,000	1.74	1,570,000	37.48	0.41	46.50	1.59	13.43	0.12	No cut-off applied
Measured	Sandy Clay	800,000	1.69	1,350,000	26.79	0.73	61.24	1.21	9.52	0.05	23% Al_2O_3

4.5.3 Indicated Mineral Resource

Ausrocks prepared this upgraded Indicated Resource Estimate for the Toondoon Kaolin Project in accordance with the JORC Code 2012. An excerpt on the definition of an Indicate Mineral Resource as per the JORC Code (2012) is as follows:

> *"An 'Indicated Mineral Resource' is that part of a Mineral Resource for which quantity, grade (or quality), densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes, and is sufficient to assume geological and grade (or quality) continuity between points of observation where data and samples are gathered. An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Ore Reserve. Mineralisation may be classified as an Indicated Mineral Resource when the nature, quality, amount and distribution of data are such as to allow confident interpretation of the geological framework and to assume continuity of mineralisation." (JORC Code 2012 Clause 22).*

In accordance with the JORC Code (2012), requirements were developed to allow for areas of the Toondoon Kaolin Project to be classified as an Indicated Mineral Resource. To meet the requirements of an Indicated Mineral Resource, drillholes had to show geological continuity between gridded drillholes with a reconnaissance spacing (100m x 100m)

Table 4.3 – Indicated Mineral Resource Estimate

Resource Category	Lithology	Volume (Mm^3)	Density (t/m^3)	Tonnes (T)	Al_2O_3 %	Fe_2O_3 %	SiO_2 %	TiO_2 %	LOI %	K_2O %	Cut-Off Grade
Indicated	Bauxitic Clay	1,510,000	2.05	3,090,000	37.04	16.05	22.62	4.19	19.43	0.05	No cut-off applied
Indicated	Plastic Clay	2,620,000	1.74	4,560,000	35.22	4.84	42.09	3.15	14.06	0.03	No cut-off applied
Indicated	Kaolinite Clay (High Iron)	950,000	1.74	1,660,000	36.48	2.32	45.24	1.85	13.49	0.08	No cut-off applied
Indicated	Kaolinite Clay (Low Iron)	1,150,000	1.74	1,990,000	37.57	0.40	46.43	1.58	13.41	0.12	No cut-off applied
Indicated	Sandy Clay	1,460,000	1.69	2,460,000	26.10	0.76	62.15	1.21	9.25	0.05	23% Al_2O_3

4.5.4 Inferred Mineral Resource

Ausrocks prepared this maiden Inferred Mineral Resource Estimate for the Toondoon Kaolin Project in accordance with the JORC Code 2012. An excerpt on the definition of an Inferred Mineral Resource as per the JORC Code (2012) is as follows:

> *"An 'Inferred Mineral Resource' is that part of a Mineral Resource for which quantity and grade (or quality) are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade (or quality) continuity. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to an Ore Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration. (JORC Code (2012) Clause 21).*

In accordance with the JORC Code (2012), requirements were developed to allow for areas of the Toondoon Kaolin Project to be classified as an Inferred Mineral Resource. To meet the requirements of an Inferred Mineral Resource, drillholes showed geological continuity between gridded drillholes with a reconnaissance spacing (100m x 100m) but had limited cross sectional control (2 or 3 drillholes in cross section).

Table 4.4 – Inferred Mineral Resource Estimate

Resource Category	Lithology	Volume (Mm^3)	Density (t/m^3)	Tonnes (T)	Al_2O_3 %	Fe_2O_3 %	SiO_2 %	TiO_2 %	LOI %	K_2O %	Cut-Off Grade
Inferred	Bauxitic Clay	480,000	2.05	990,000	30.73	27.86	22.44	3.19	15.18	0.03	No cut-off applied
Inferred	Plastic Clay	510,000	1.74	890,000	34.19	5.88	42.41	3.55	13.31	0.03	No cut-off applied
Inferred	Kaolinite Clay (High Iron)	110,000	1.74	190,000	34.81	6.00	44.02	1.46	13.07	0.15	No cut-off applied
Inferred	Sandy Clay	190,000	1.69	330,000	28.04	2.22	57.93	1.19	10.12	0.06	23% Al_2O_3

Competent Person Statement

The information in this report that relates to Mineral Resources at the Kaolin project is based on results and data collected and compiled by Mr Graham Rolfe, who is a Fellow of the Institute of Geoscientists and a registered practicing Geologist in Mineral Exploration. Mr Graham Rolfe is a Consulting Geologist employed by Rock-Ex-Enterprises Pty Ltd and engaged by Kaoltech Pty Ltd. Mr Graham Rolfe has a Bachelor of Science (Geology) from the University of Queensland and Master of Science (Exploration and Mining Geology) from James Cook University. Mr Graham Rolfe has over 50 years of mining and exploration experience in Australia.

The information in this report that relates to the Kaolin project is based on information and modelling carried out by Mr Chris Ainslie, Project Engineer – Mining & Quarrying, who is a full-time employee of Ausrocks Pty Ltd and a Member of the Australasian Institute of Mining & Metallurgy and a Member of the Australian Institute of Geoscientists. The work was supervised by Mr Carl Morandy, Mining Engineer who is Managing Director of Ausrocks Pty Ltd and a Member of the Australasian Institute of Mining & Metallurgy. Mr Ainslie and Mr Morandy are employed by Ausrocks Pty Ltd who have been engaged by Kalotech Pty Ltd to prepare this independent report, there is no conflict of interest between the parties. Mr Carl Morandy and Mr Chris Ainslie consent to the disclosure of information in the form and context in which it appears in this report.

The overall resource work for the Kaolin project is based on the direction and supervision of Mr Graham Rolfe who has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves".

The corresponding JORC 2012 Table 1 is attached to this report in ***Appendix C****.*

5 Conclusions

The Toondoon Kaolin Project has been broadly defined by drilling and the geological controls are reasonably well understood. The drill spacing and interpreted geological continuity allowed three resource categories to be defined (Measured, Indicated and Inferred Mineral Resources) in accordance with the JORC 2012 Code. A summary of the Upgraded Mineral Resource Estimate for the Toondoon Kaolin Project is provided in **Table 5.1,**

The interpreted geology of the Toondoon Kaolin Project is relatively robust, and any alternative interpretation of the deposit is considered unlikely to have a significant influence on the Mineral Resource Estimate undertaken. The known nature and formation of the deposit, together with consistent high grades achieved in drillholes, places a high degree of confidence in the geological interpretation. The detailed level of drilling has enabled confidence of the interpreted geology. Continuity of geology and grade (assays) can be readily identified and traced between drillholes.

Table 5.1 – Toondoon Kaolin Project – Upgraded Mineral Resource Estimate

Resource Category	Lithology	Volume (Mm^3)	Density (t/m^3)	Tonnes (T)	Al_2O_3 %	Fe_2O_3 %	SiO_2 %	TiO_2 %	LOI %	K_2O %	Cut-Off Grade
Measured	Bauxitic Clay	750,000	2.05	1,530,000	38.81	13.86	21.92	4.53	20.07	0.06	No cut-off applied
Measured	Plastic Clay	1,380,000	1.74	2,400,000	35.45	4.98	41.39	3.38	14.20	0.02	No cut-off applied
Measured	Kaolinite Clay (High Iron)	510,000	1.74	880,000	36.79	1.92	44.92	2.19	13.63	0.05	No cut-off applied
Measured	Kaolinite Clay (Low Iron)	900,000	1.74	1,570,000	37.48	0.41	46.50	1.59	13.43	0.12	No cut-off applied
Measured	Sandy Clay	800,000	1.69	1,350,000	26.79	0.73	61.24	1.21	9.52	0.05	23% Al_2O3
Indicated	Bauxitic Clay	1,510,000	2.05	3,090,000	37.04	16.05	22.62	4.19	19.43	0.05	No cut-off applied
Indicated	Plastic Clay	2,620,000	1.74	4,560,000	35.22	4.84	42.09	3.15	14.06	0.03	No cut-off applied
Indicated	Kaolinite Clay (High Iron)	950,000	1.74	1,660,000	36.48	2.32	45.24	1.85	13.49	0.08	No cut-off applied
Indicated	Kaolinite Clay (Low Iron)	1,150,000	1.74	1,990,000	37.57	0.40	46.43	1.58	13.41	0.12	No cut-off applied
Indicated	Sandy Clay	1,460,000	1.69	2,460,000	26.10	0.76	62.15	1.21	9.25	0.05	23% Al_2O3
Inferred	Bauxitic Clay	480,000	2.05	990,000	30.73	27.86	22.44	3.19	15.18	0.03	No cut-off applied
Inferred	Plastic Clay	510,000	1.74	890,000	34.19	5.88	42.41	3.55	13.31	0.03	No cut-off applied
Inferred	Kaolinite Clay (High Iron)	110,000	1.74	190,000	34.81	6.00	44.02	1.46	13.07	0.15	No cut-off applied
Inferred	Sandy Clay	190,000	1.69	330,000	28.04	2.22	57.93	1.19	10.12	0.06	23% Al_2O3

Cut-Off Grade	Bauxitic Clay (BCM)	Bauxitic Clay (T)	Plastic Clay (BCM)	Plastic Clay (T)	Kaolinite Clay (High Iron) (BCM)	Kaolinite Clay (High Iron) (T)	Kaolinite Clay (Low Iron) (BCM)	Kaolinite Clay (Low Iron) (T)	Sandy Clay (BCM)	Sandy Clay (T)
23% + Al_2O_3	2,680,000	5,490,000	4,510,000	7,840,000	1,570,000	2,730,000	2,050,000	3,560,000	2,450,000	4,140,000
32%+ Al_2O_3	2,220,000	4,550,000	4,210,000	7,330,000	1,550,000	2,700,000	2,050,000	3,560,000	90,000	150,000
33%+ Al_2O_3	2,110,000	4,320,000	4,070,000	7,080,000	1,530,000	2,670,000	2,050,000	3,560,000	10,000	10,000
34%+ Al_2O_3	1,960,000	4,020,000	3,840,000	6,690,000	1,490,000	2,580,000	2,040,000	3,550,000	-	-
35%+ Al_2O_3	1,850,000	3,790,000	3,360,000	5,850,000	1,340,000	2,330,000	2,010,000	3,490,000	-	-
36%+ Al_2O_3	1,650,000	3,390,000	1,010,000	1,760,000	1,080,000	1,870,000	1,870,000	3,250,000	-	-
37%+ Al_2O_3	1,470,000	3,010,000	260,000	450,000	640,000	1,110,000	1,570,000	2,730,000	-	-
38%+ Al_2O_3	1,270,000	2,610,000	130,000	230,000	160,000	290,000	810,000	1,410,000	-	-
39%+ Al_2O_3	1,060,000	2,170,000	60,000	100,000	10,000	10,000	-	-	-	-
40%+ Al_2O_3	770,000	1,580,000	30,000	50,000	-	-	-	-	-	-

Domain	Surface Area (m^2)	Average Depth (m)
Bauxitic Clay	690,000	4.0
Plastic Clay	790,000	5.7
Kaolinite Clay (High Iron)	790,000	2.0
Kaolinite Clay (Low Iron)	480,000	4.3
Sandy Clay	830,000	13.3

6 Recommendations

There is scope to increase the knowledge and understanding of the Toondoon Kaolin Project by completing the following additional work:

There is scope to increase the knowledge and understanding of the Toondoon Kaolin Project by completing the following additional work:

- Complete assessment of mining, processing, metallurgical, infrastructure, economic, marketing, legal, environment, social and government factors or any other modifying factors to enable a proportion of this Mineral Resource Estimate to be potentially upgraded to Ore Reserve status, according to JORC Code (2012) Guidelines.
- Undertake further infill drilling to best complete a gridded coverage across the entire Resource Area, to upgrade the Mineral Resource categories and potential size and increase potential Ore Reserve size. An infill drilling program with one hole drilled in between each 4 x 100m drillhole ‘square’ of the Indicated Mineral Resource areas could allow the areas to be upgraded to Measured Mineral Resource. Drilling should be taken to intersection of sandy clays. The upgrade to Measured Mineral Resources is not likely to be critical to progress the project to Pre-feasibility or Definitive-feasibility Study level.”
- There is indication of Kaolinite Clay (low iron) near the surface in the central zone of the exploration area. Mine designs/plans could be completed to determine mining options.
- A further detailed aerial survey (LiDAR) for the project is considered integral to this ongoing confirmatory work.
- Conduct additional specific gravity determinations.
- Ensure Sampling and Assaying Procedures are continuously reviewed and improved. Maintain systematic application of assay checking. The systematic employment and analysis of drilling blanks, standards and duplicates for assaying is required.

7 References

ASX: ZEO Statement (Zeotech to Acquire One of Australia's Highest Grade Kaolin Projects Held Within an Approved Mining Lease _

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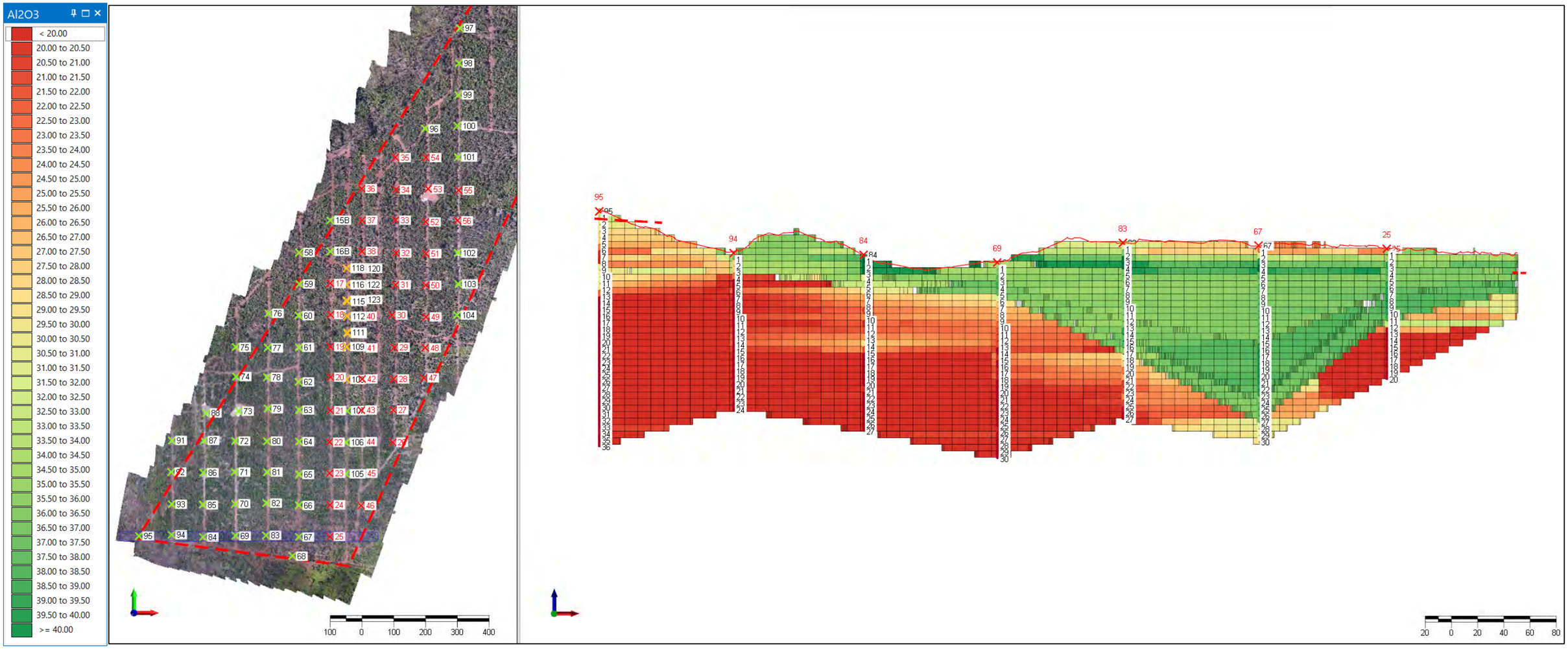
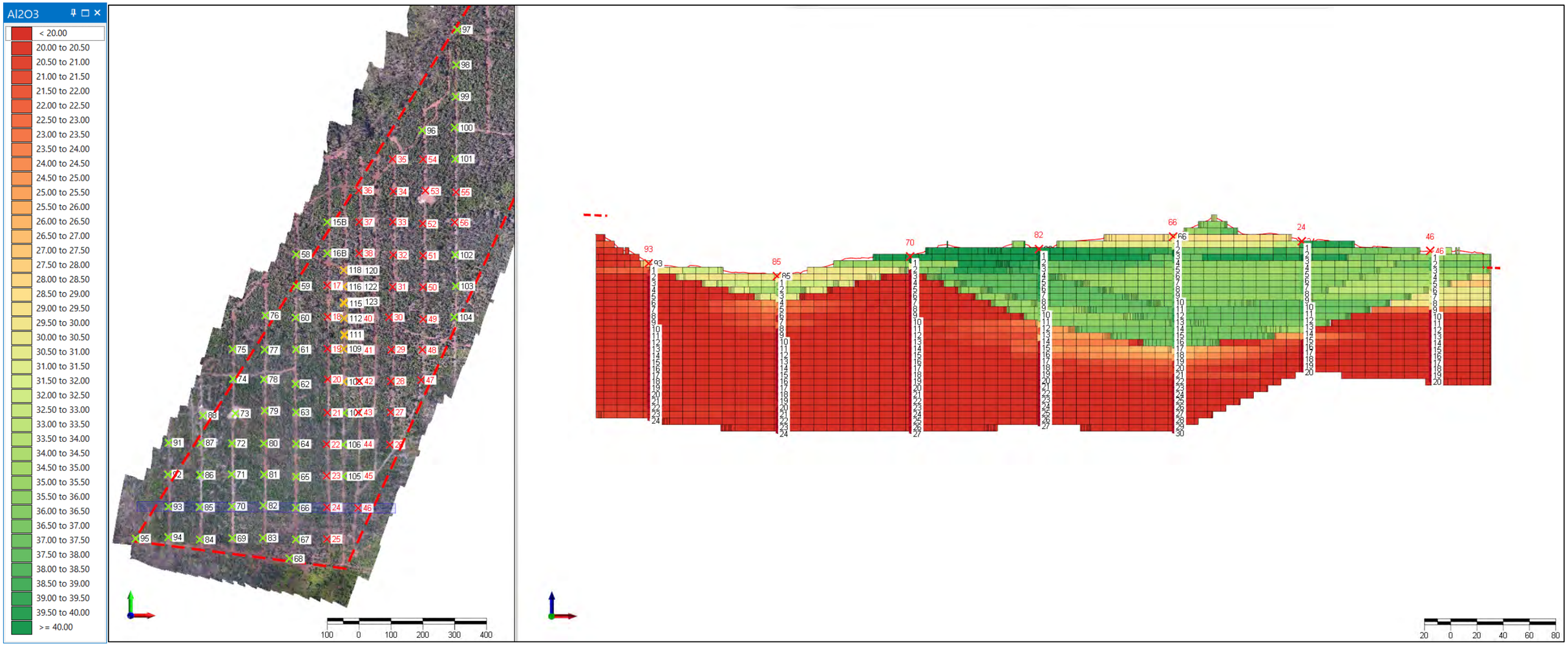
The JORC Code 2012 Edition, 2012, The AusIMM.

Appendix A | Sections

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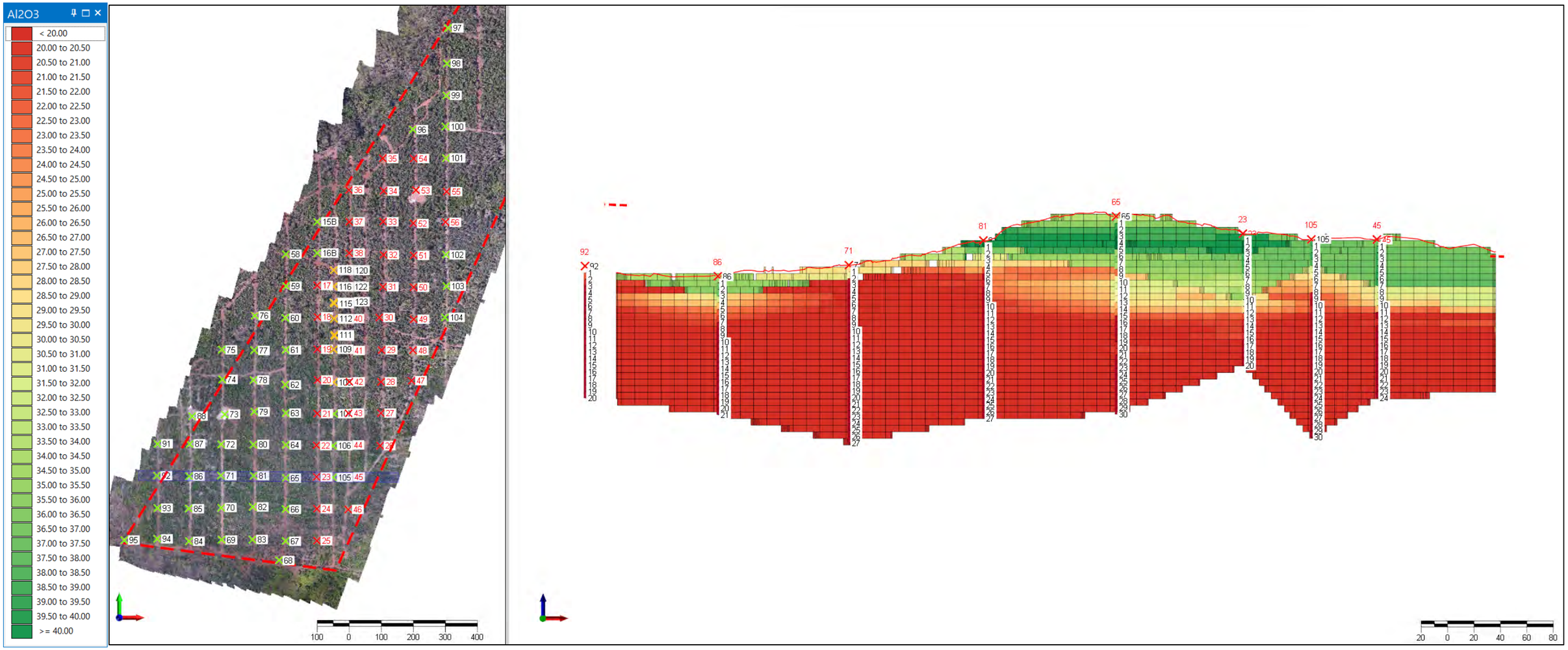
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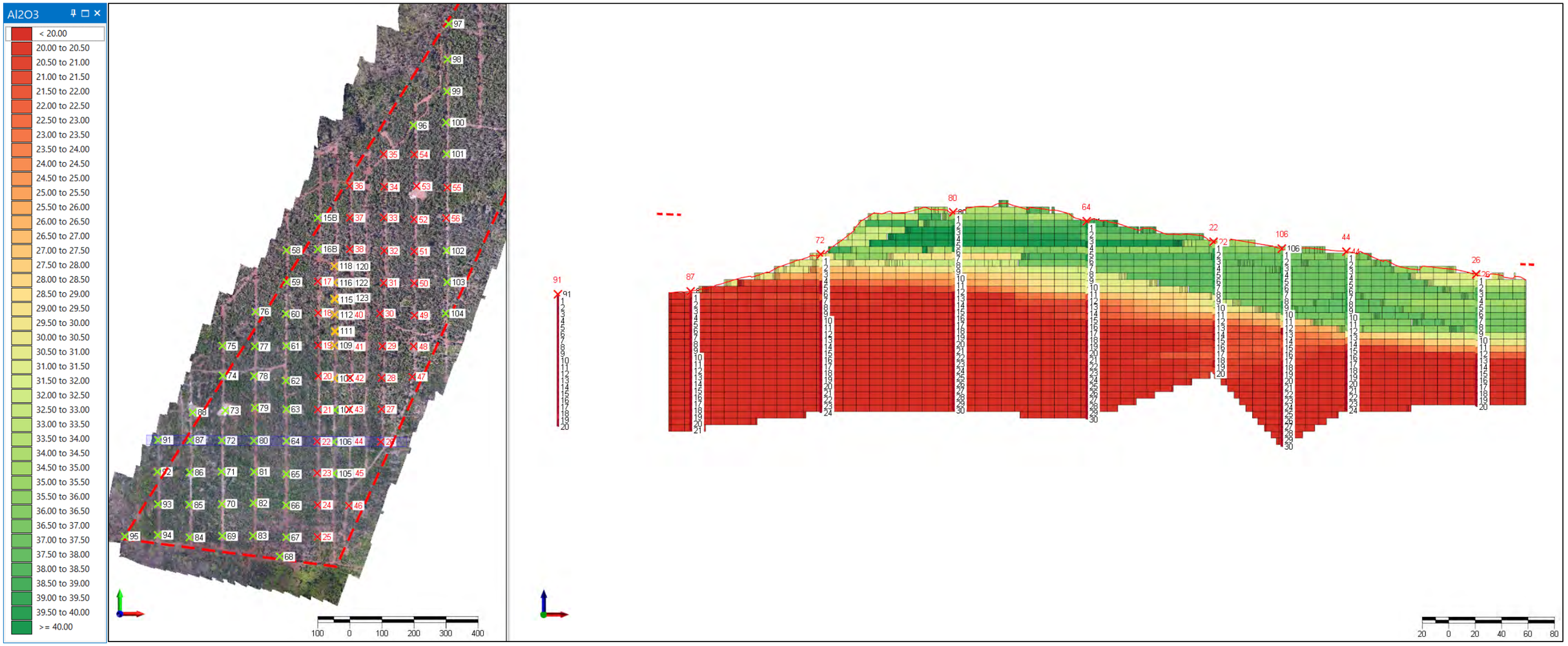
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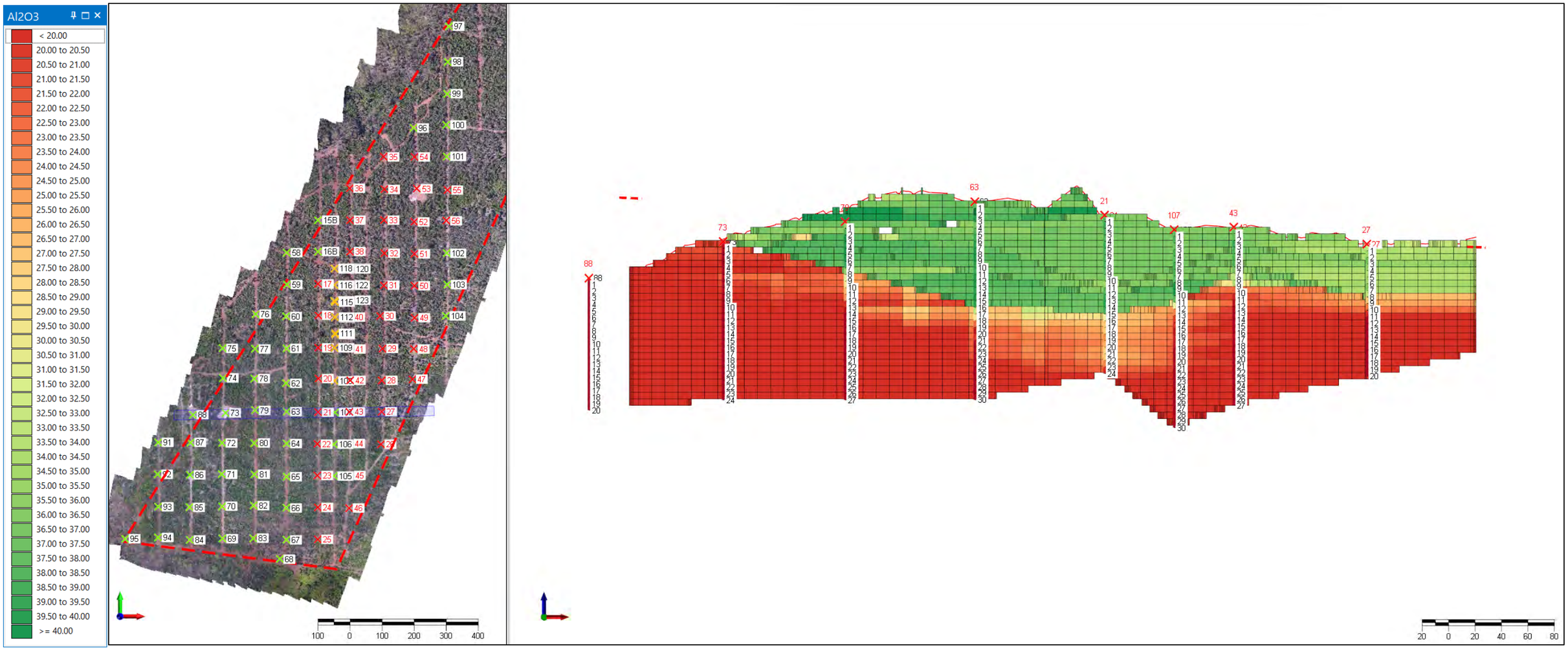
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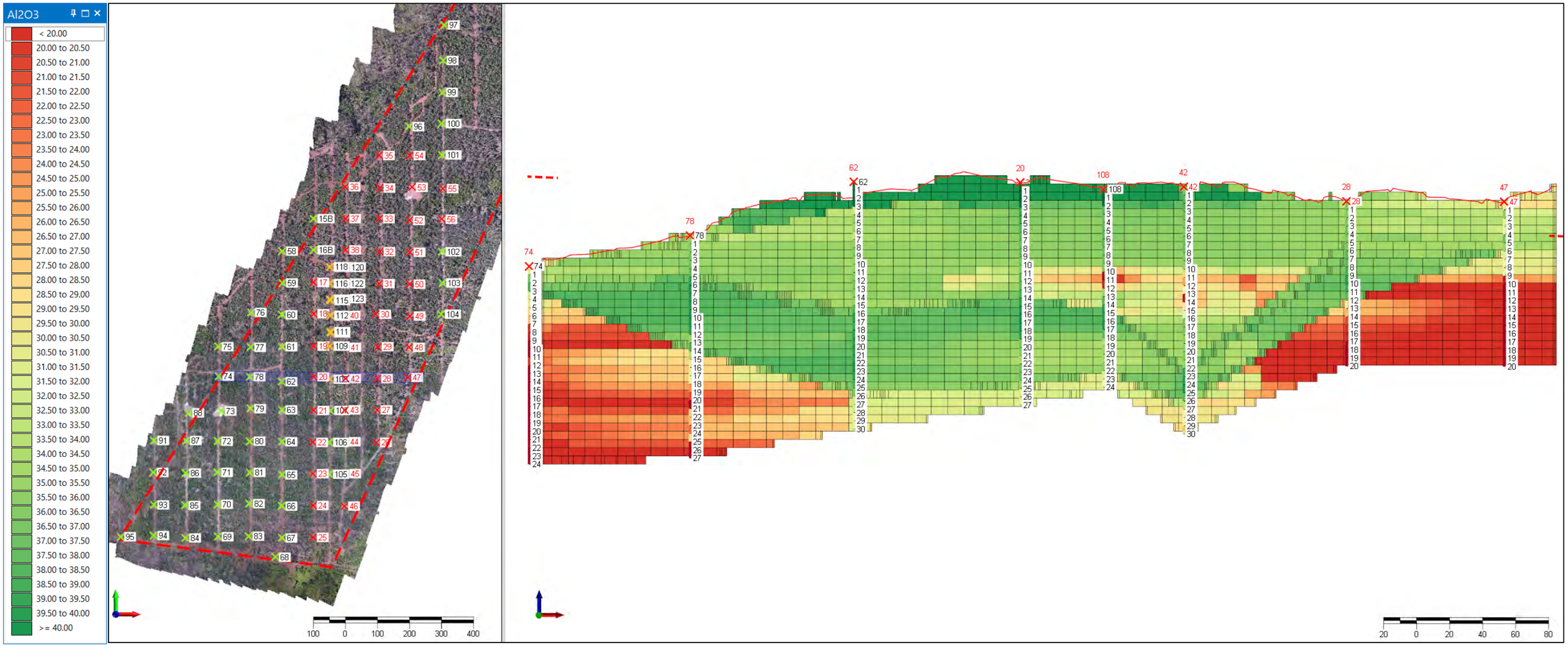
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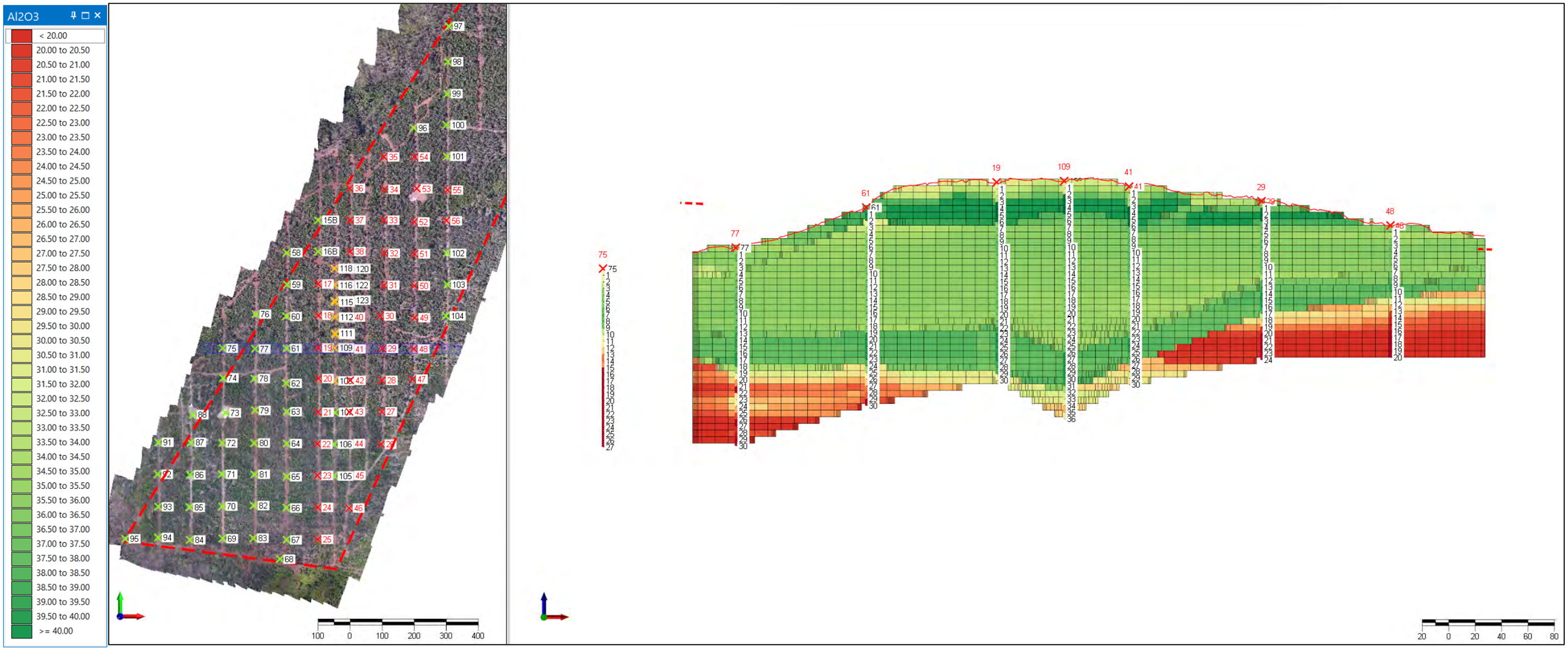
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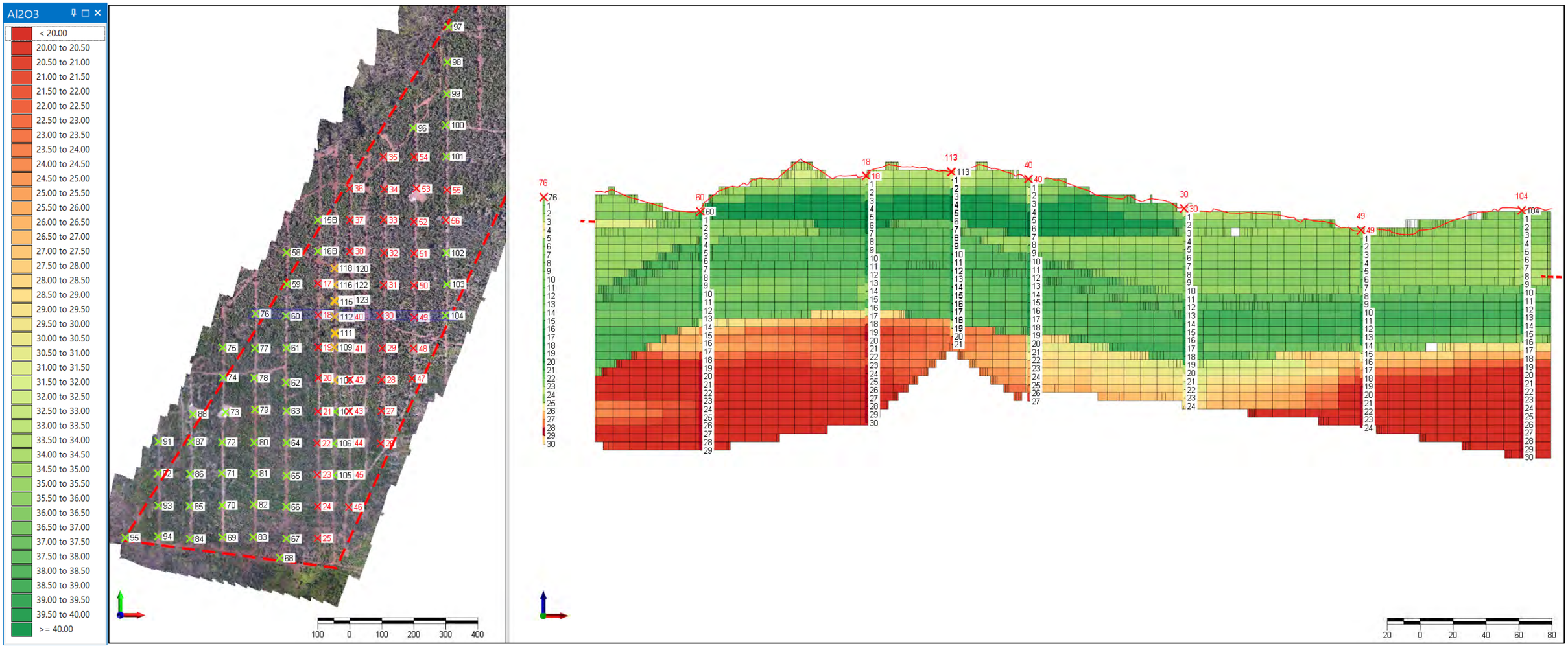
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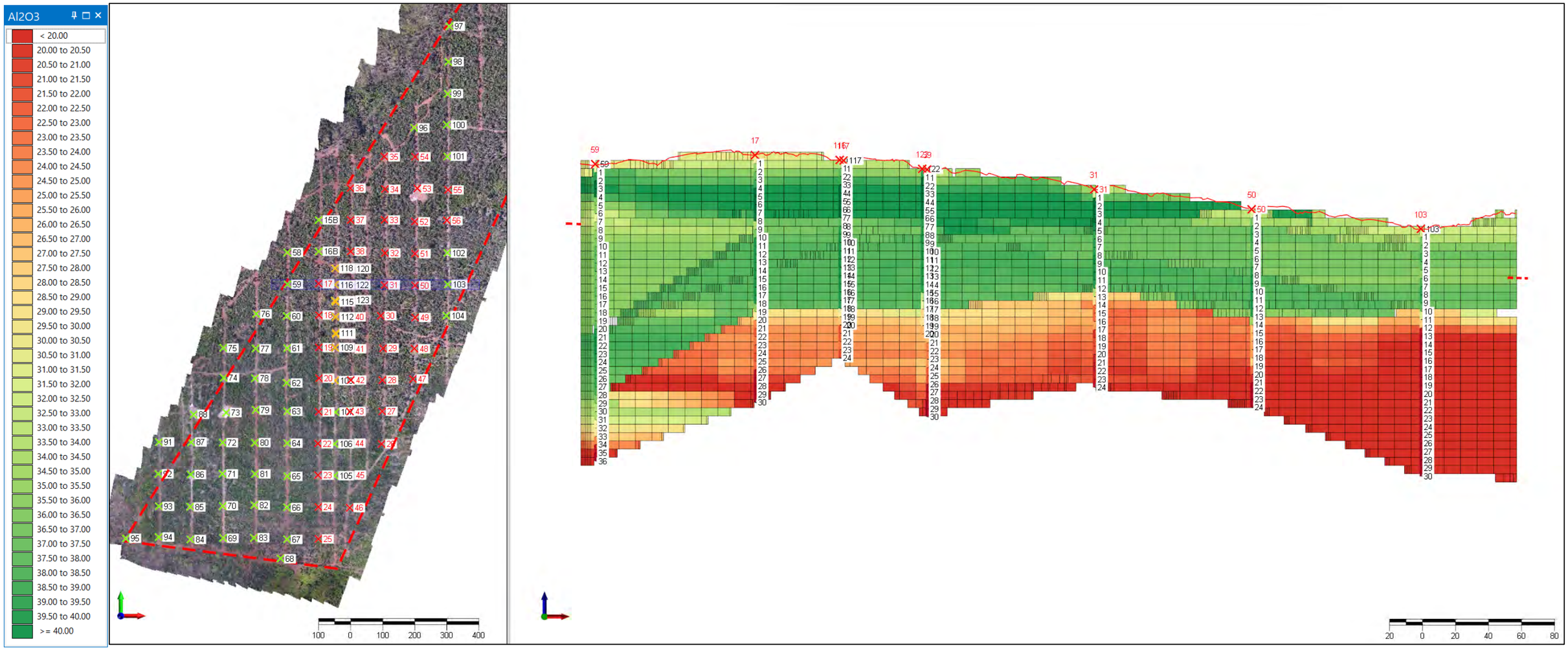
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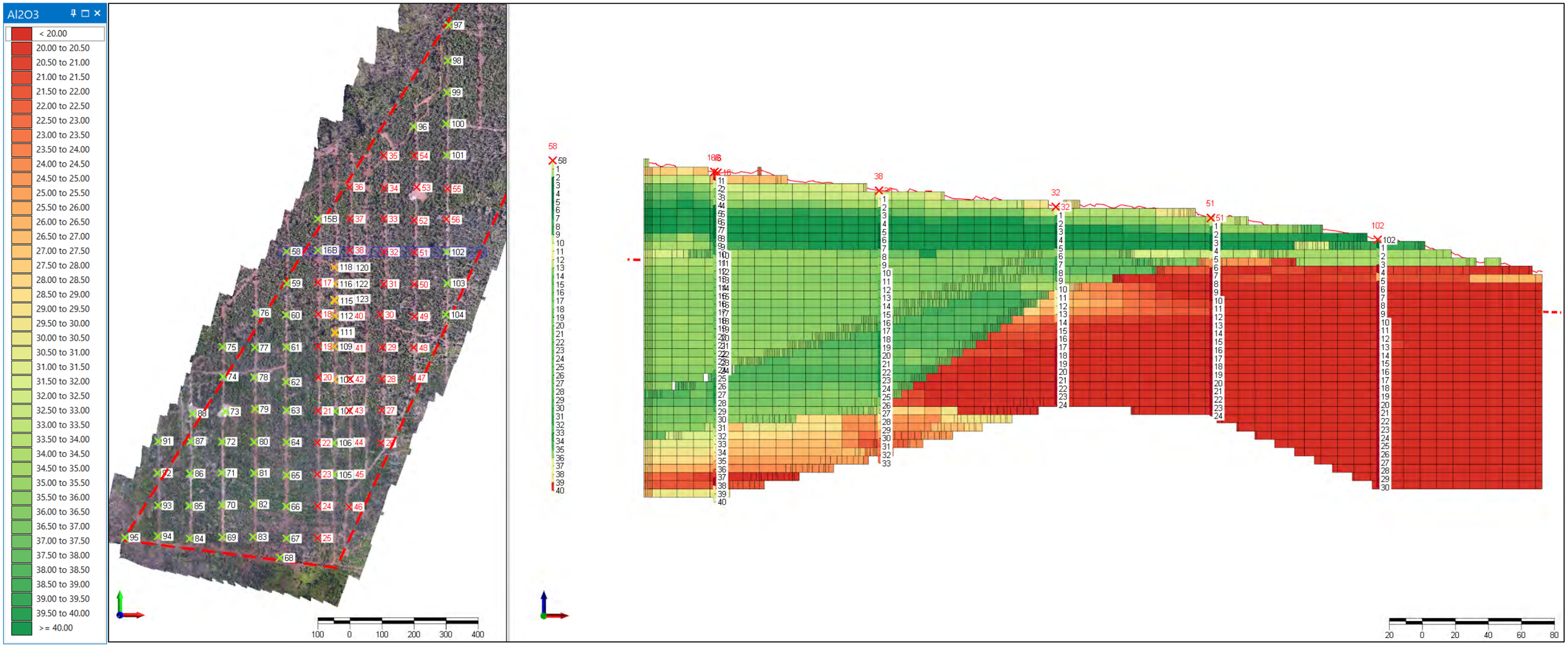
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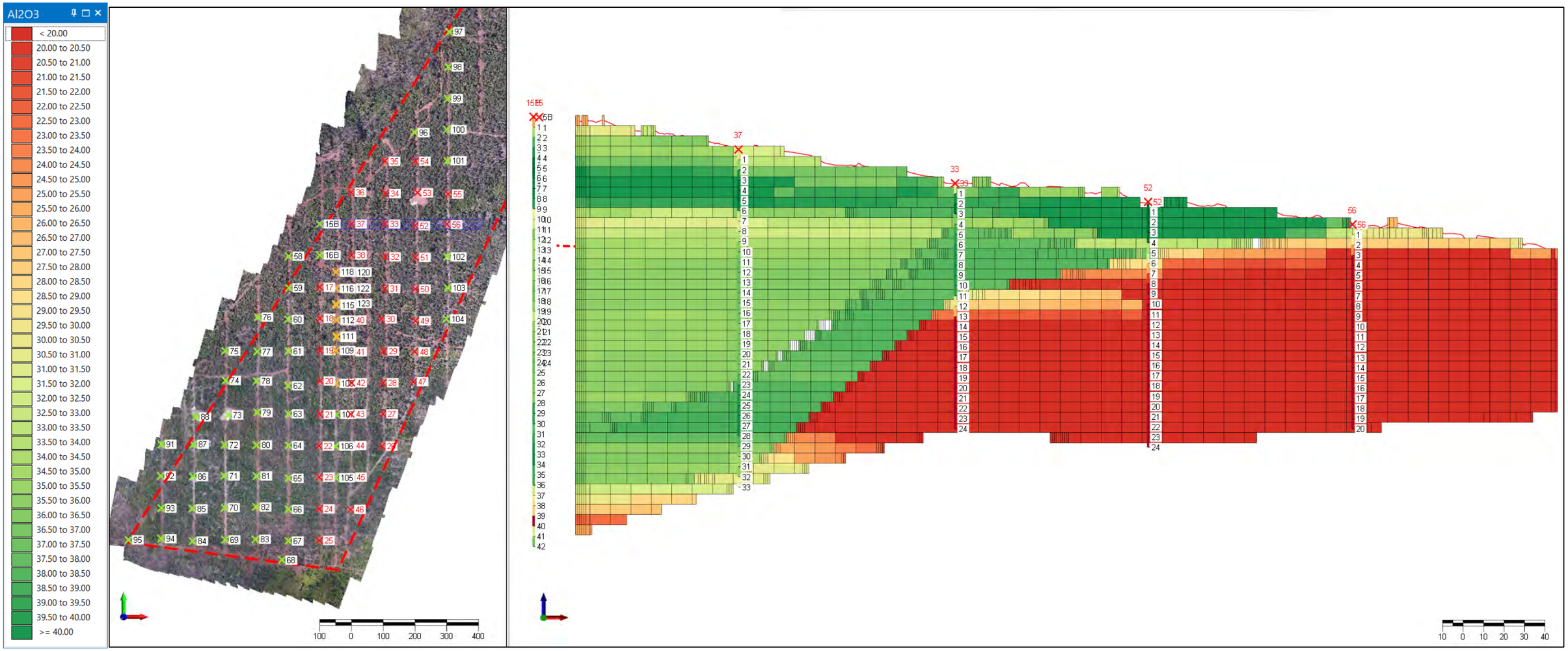
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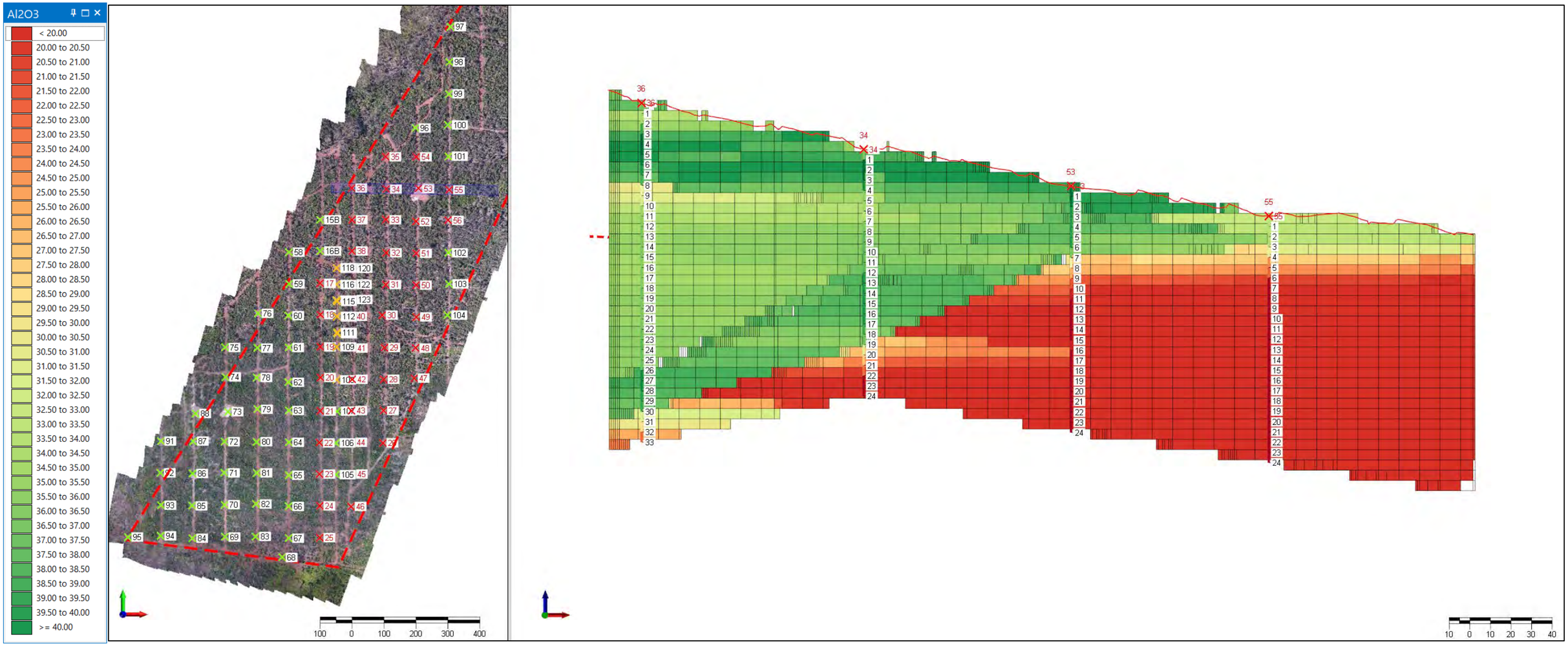
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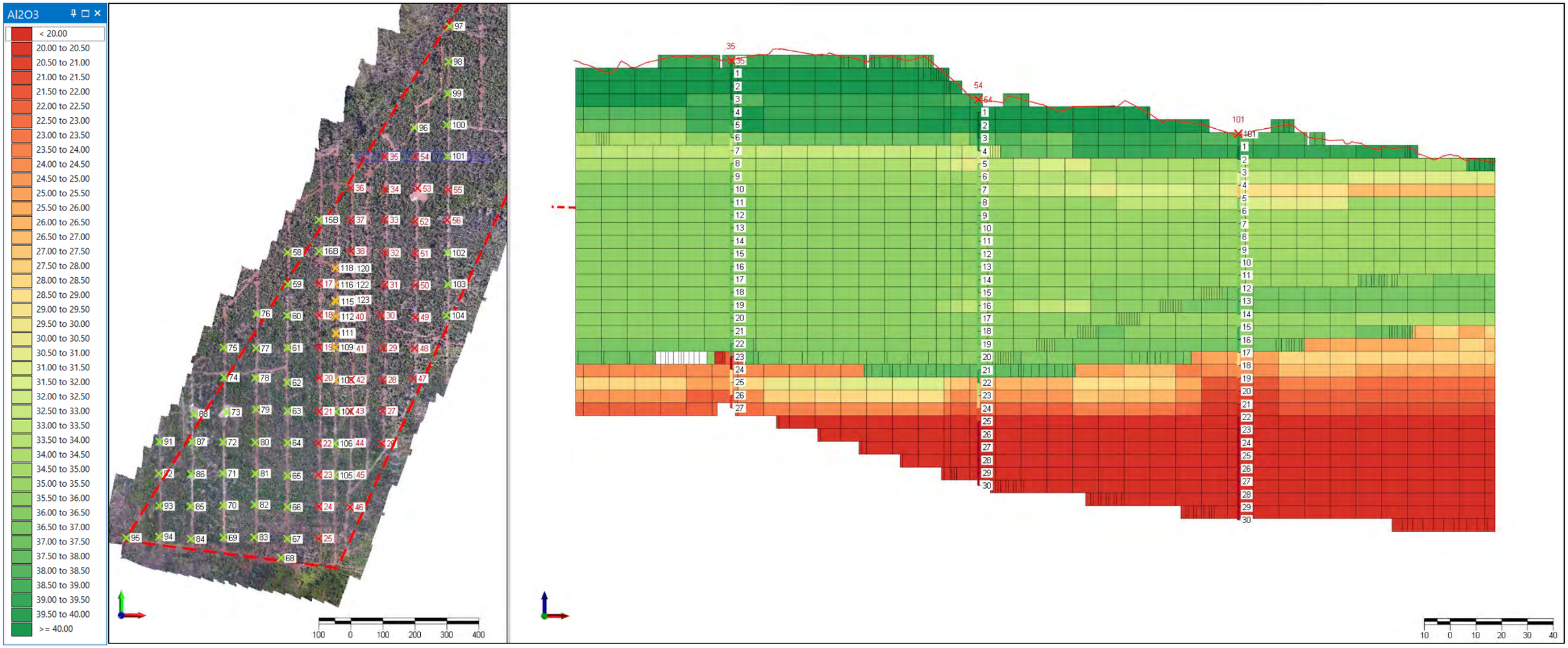
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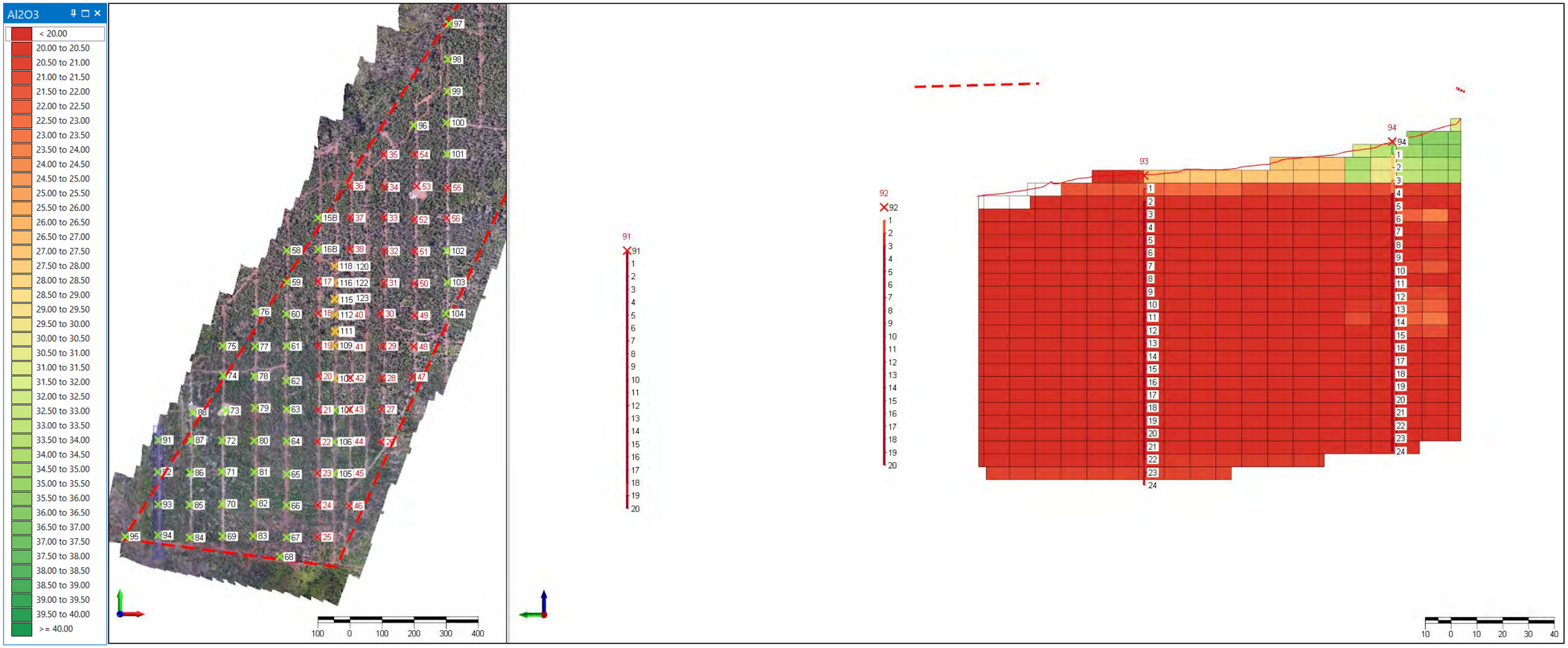
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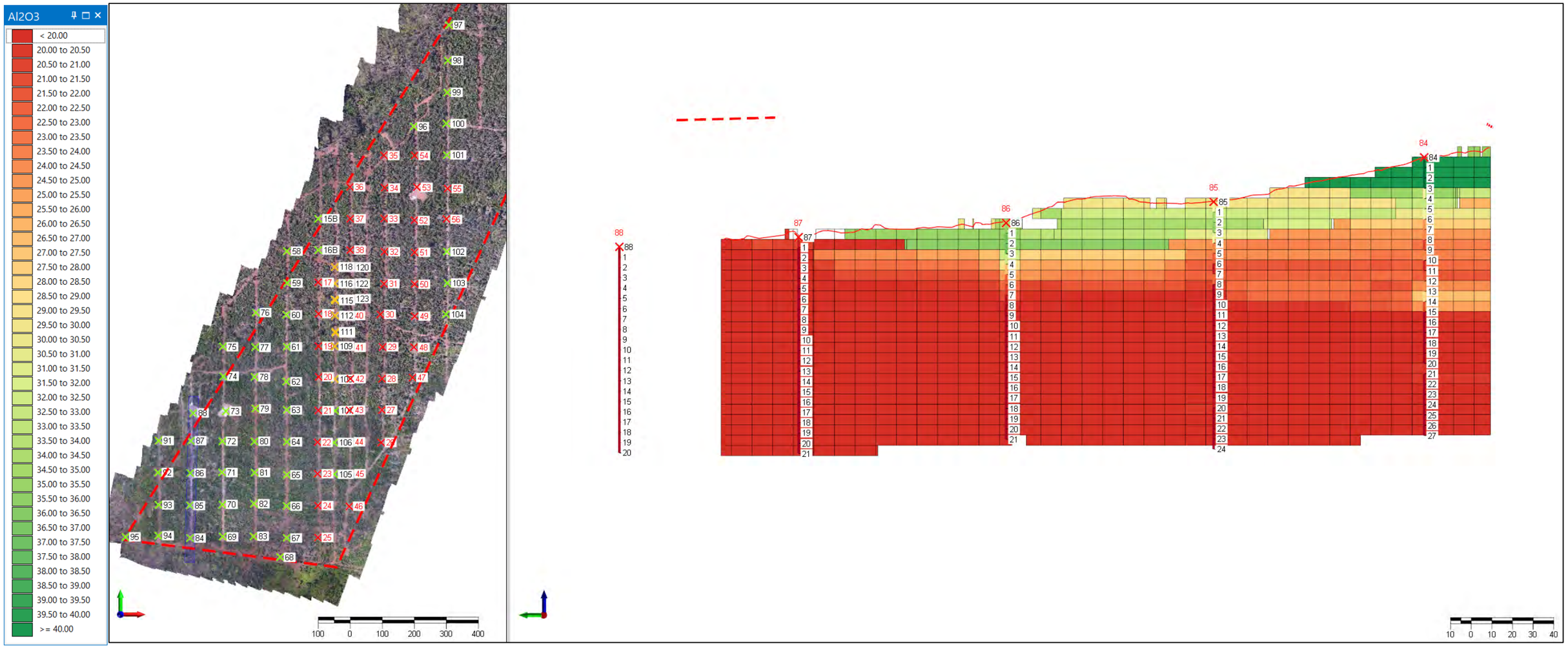
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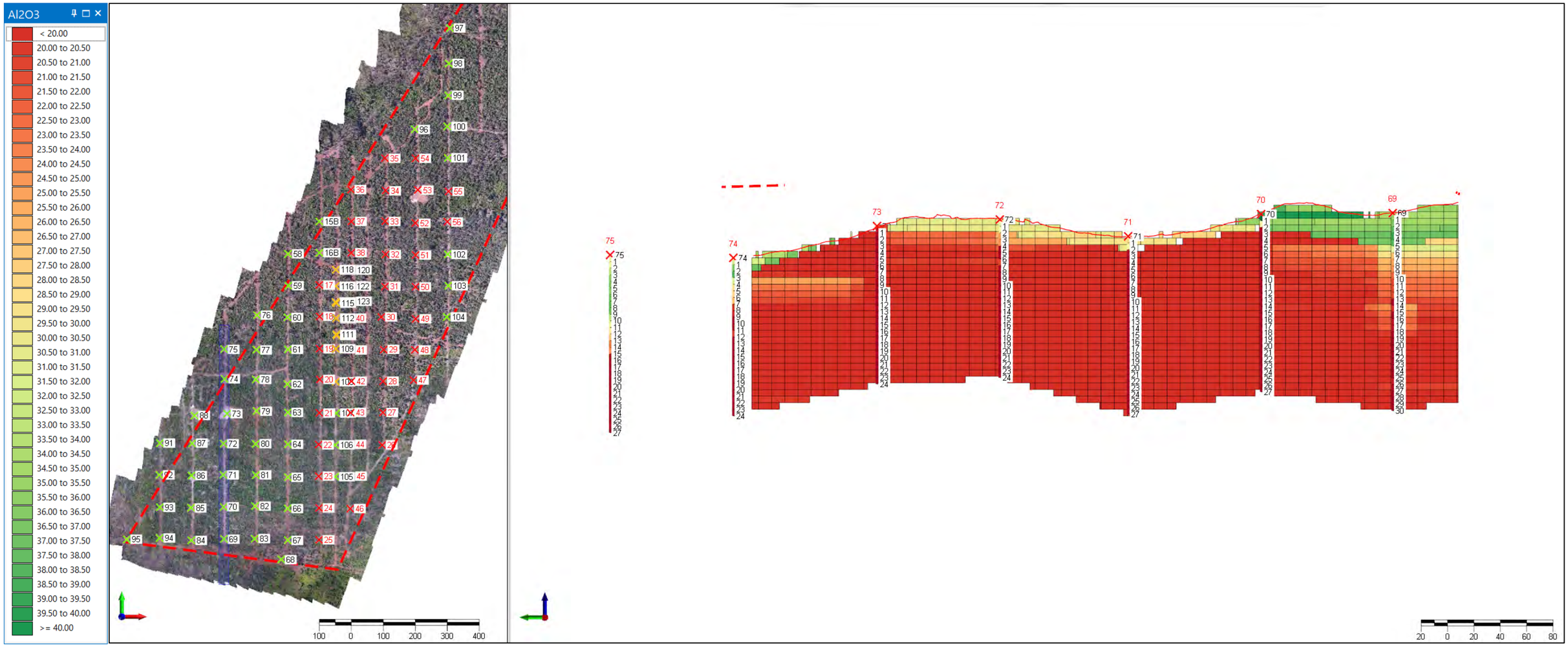
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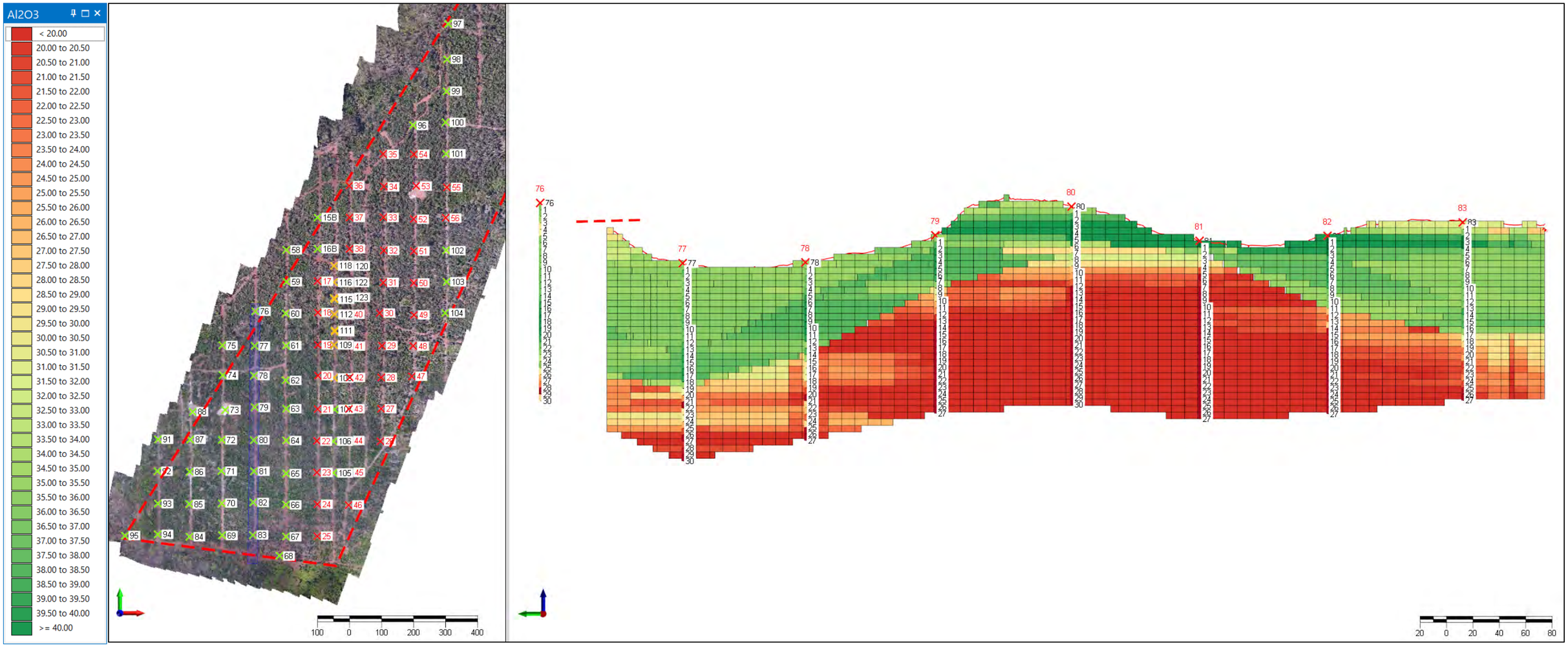
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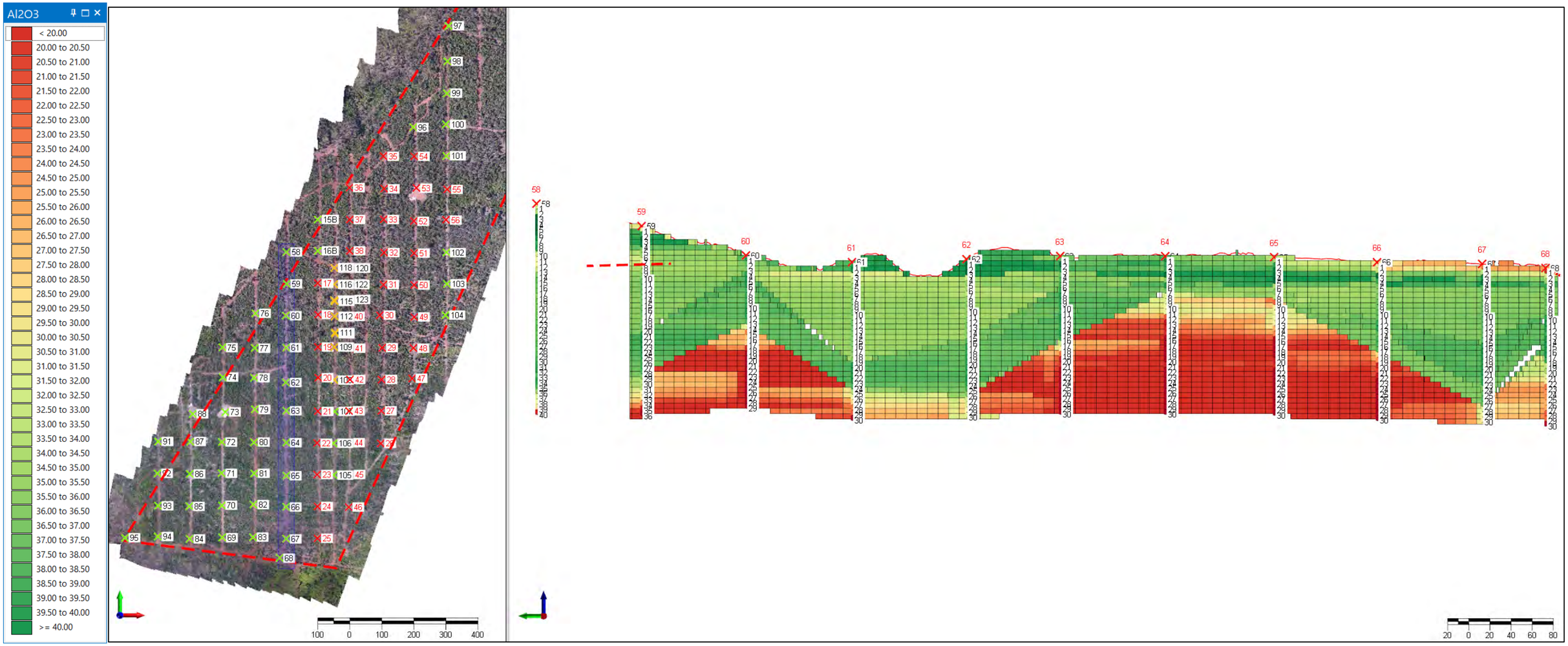
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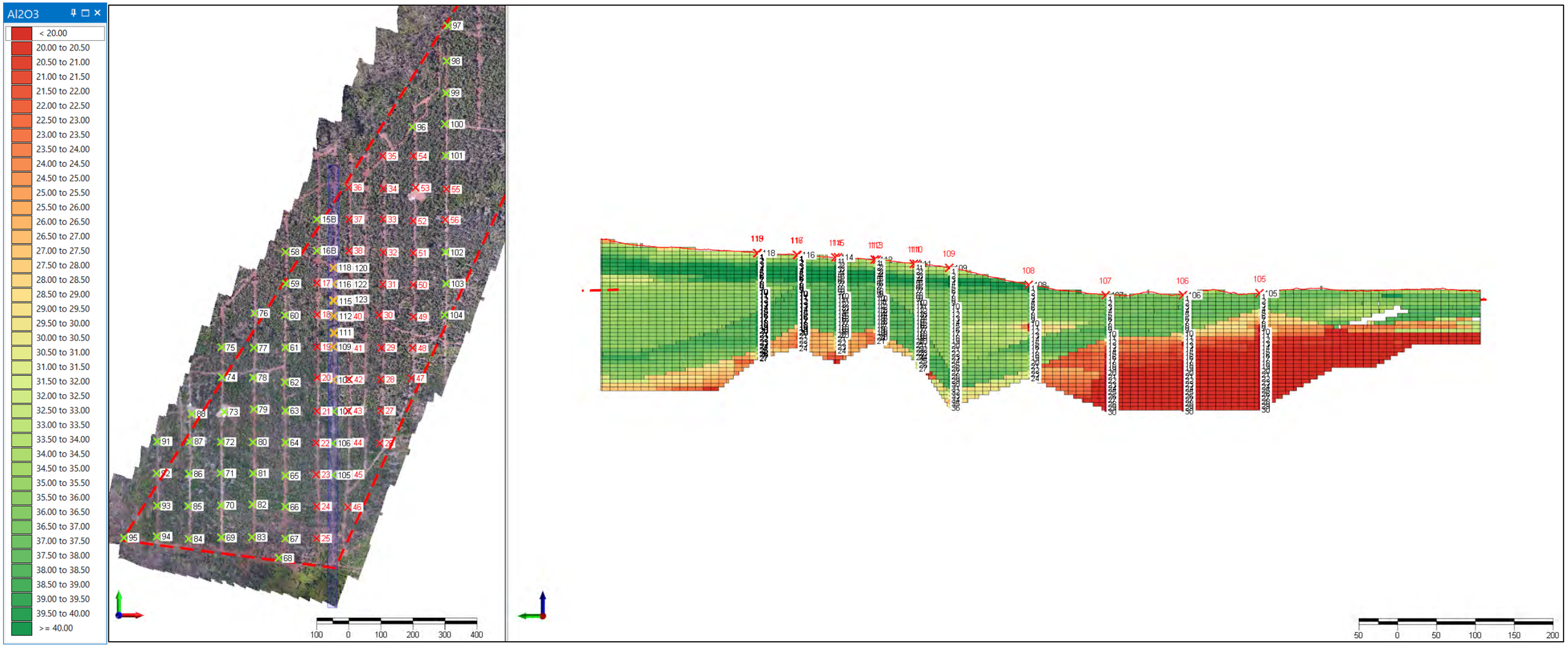
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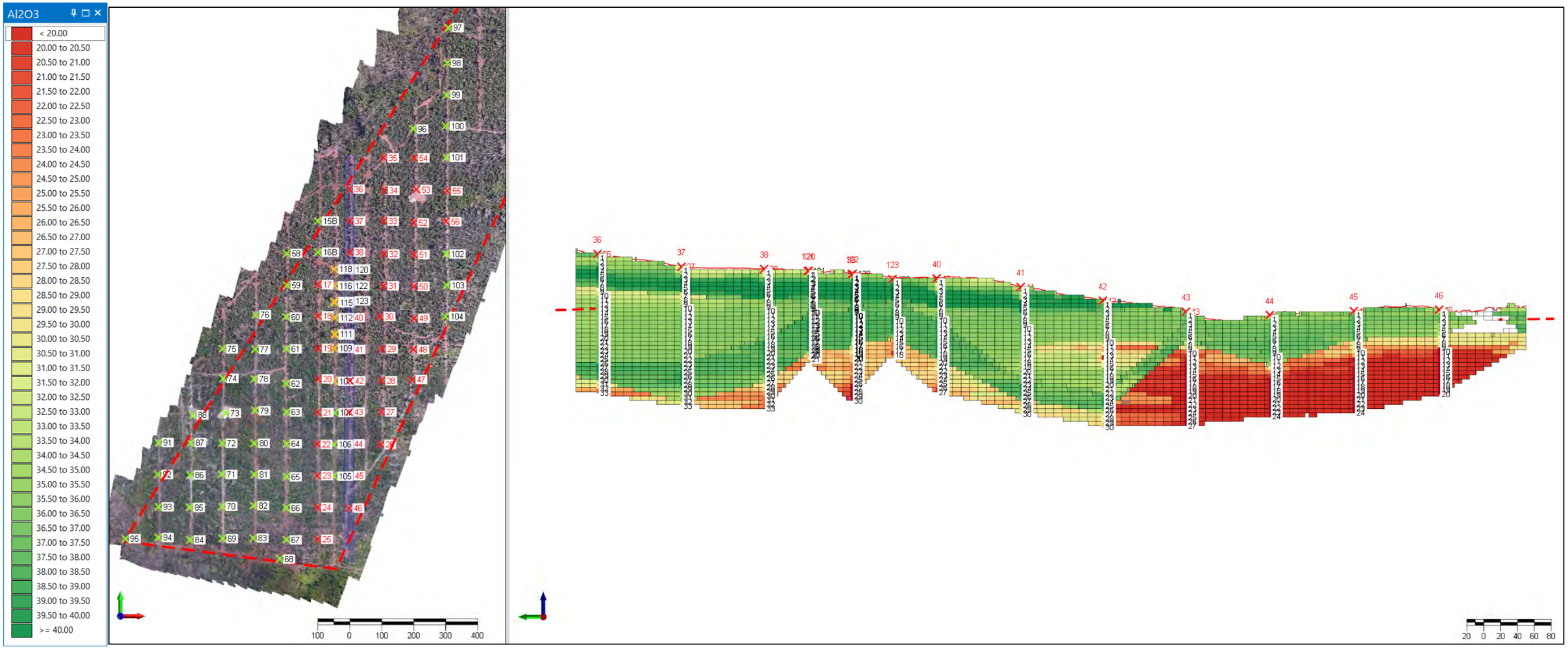
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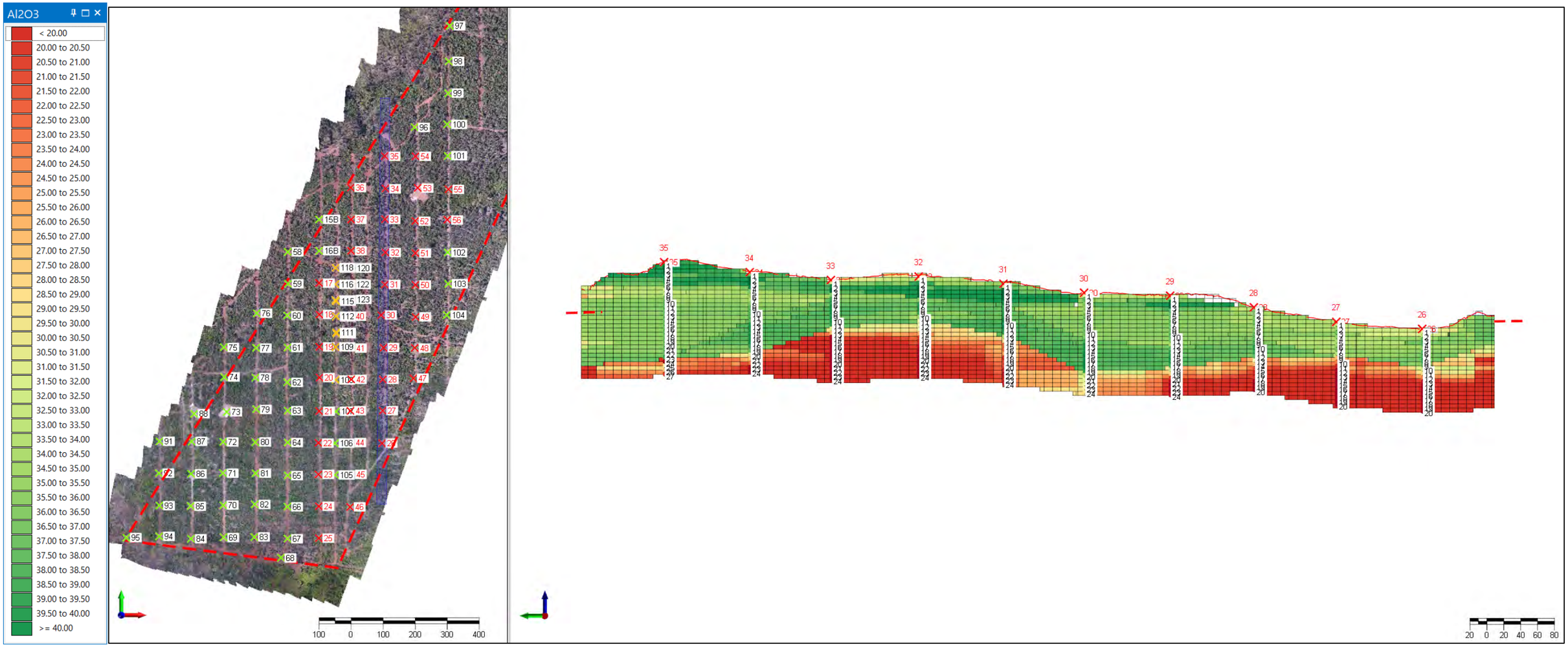
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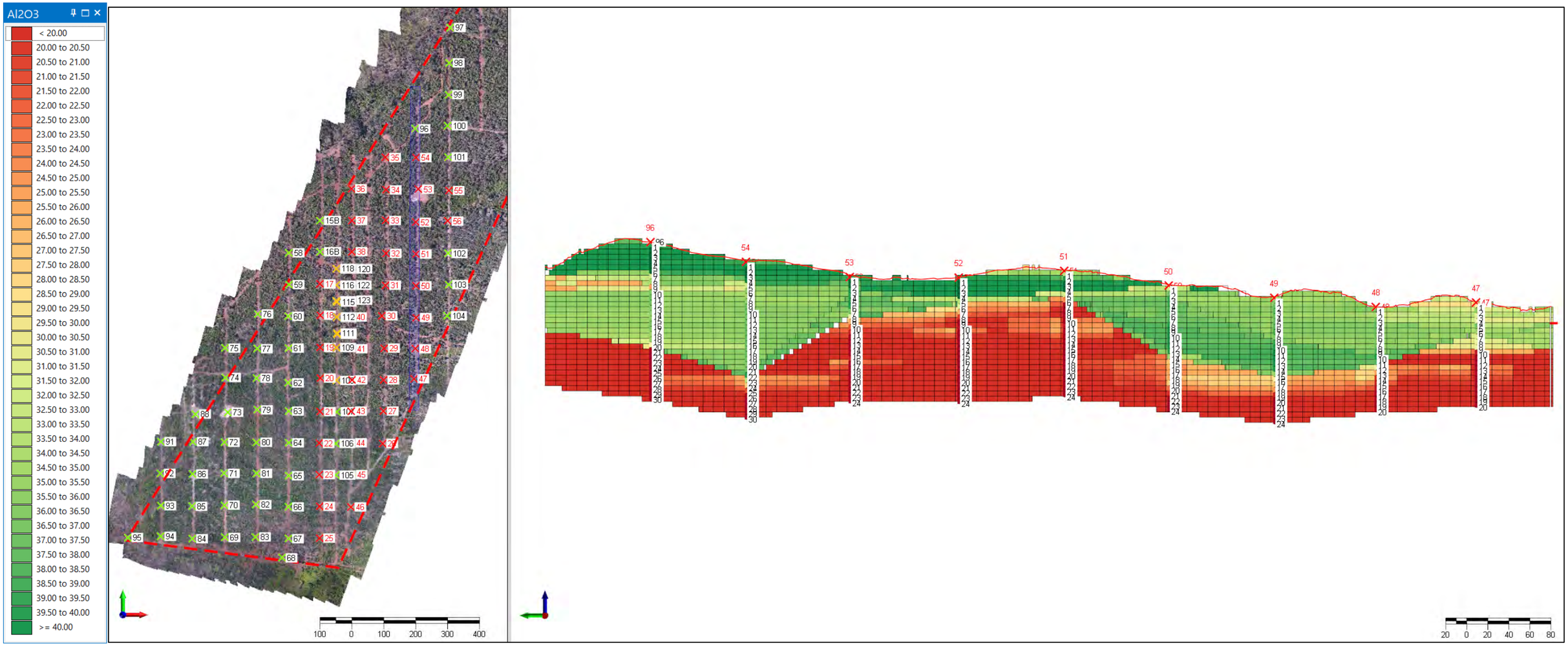
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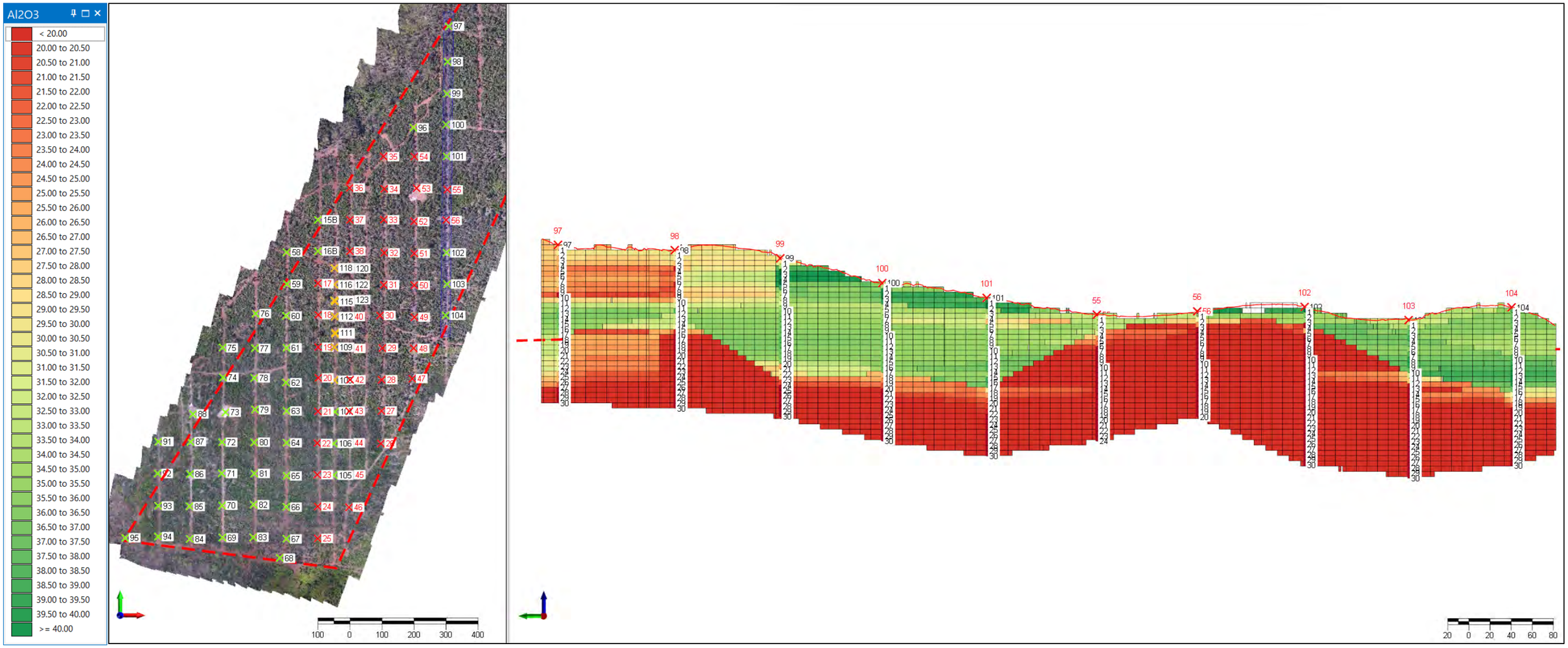
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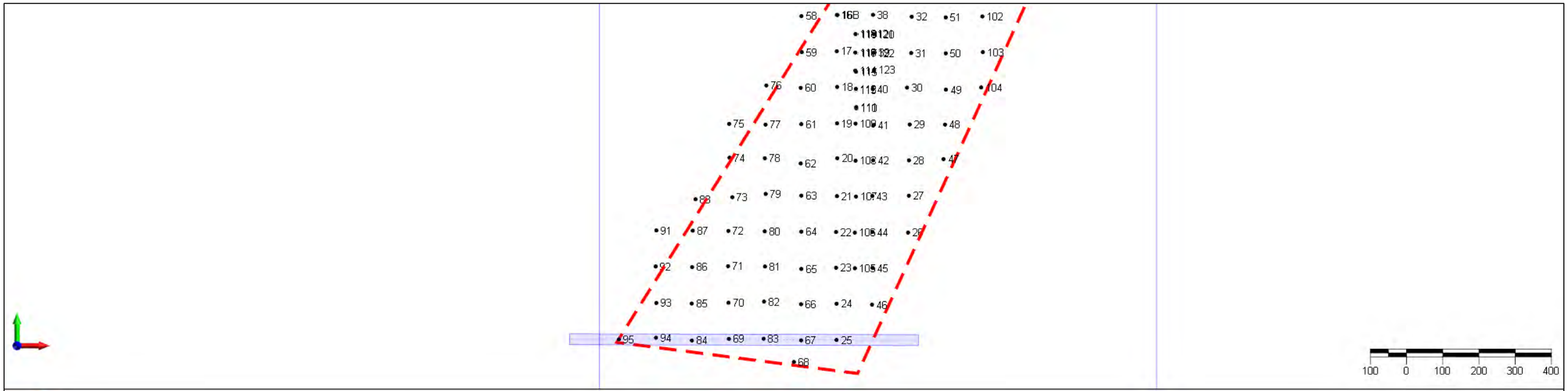
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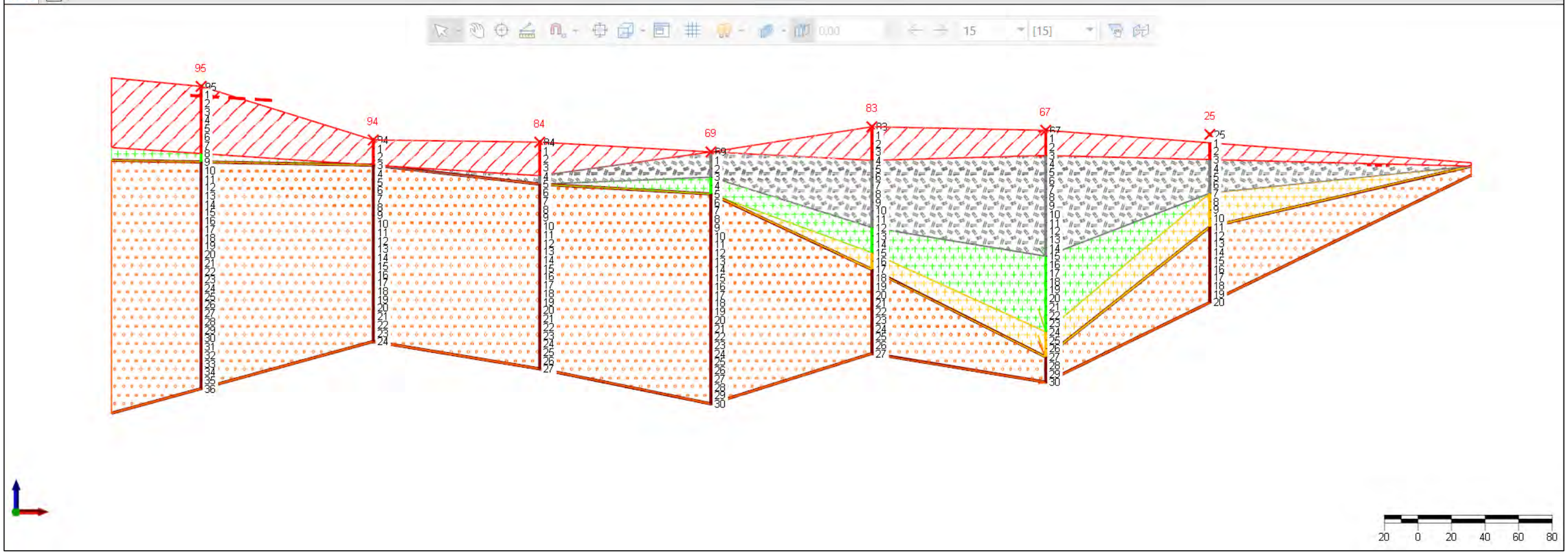
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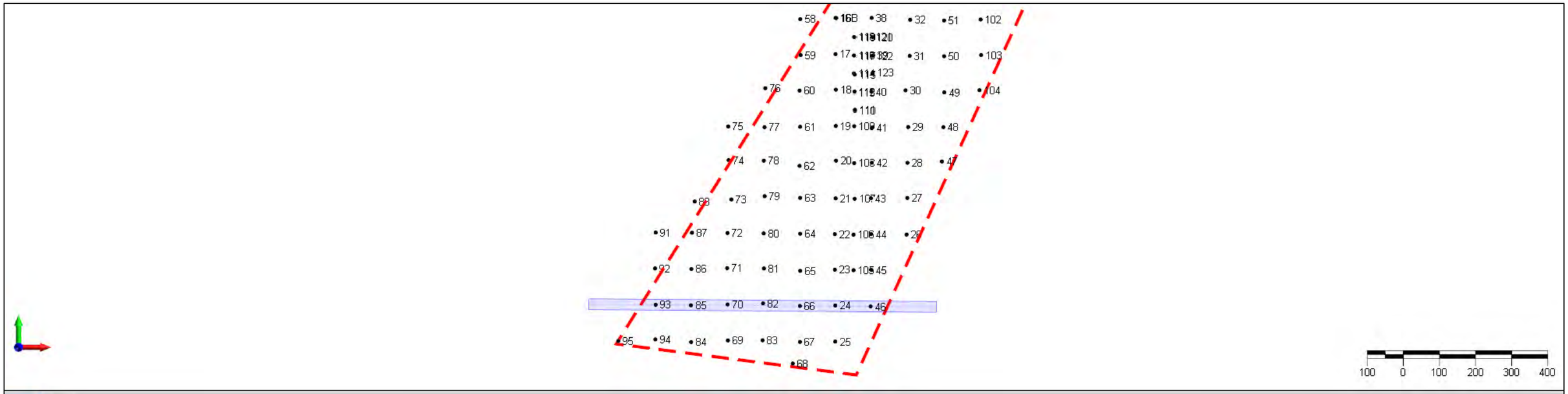
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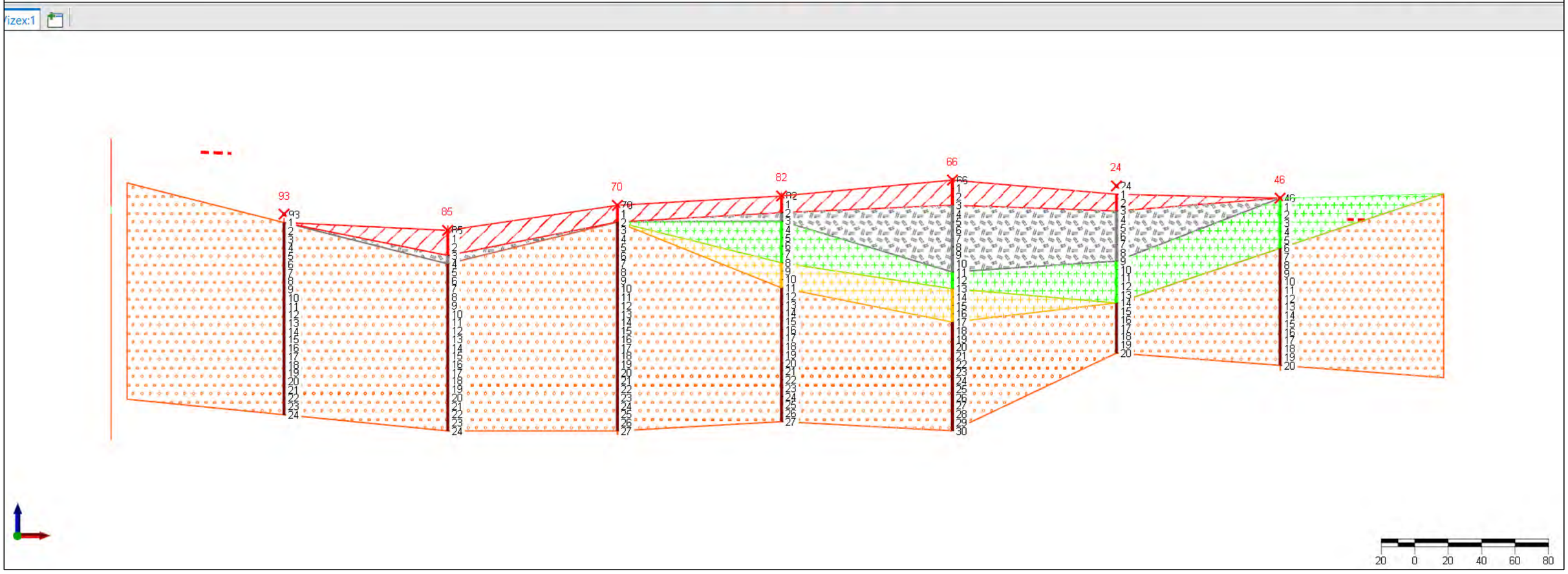
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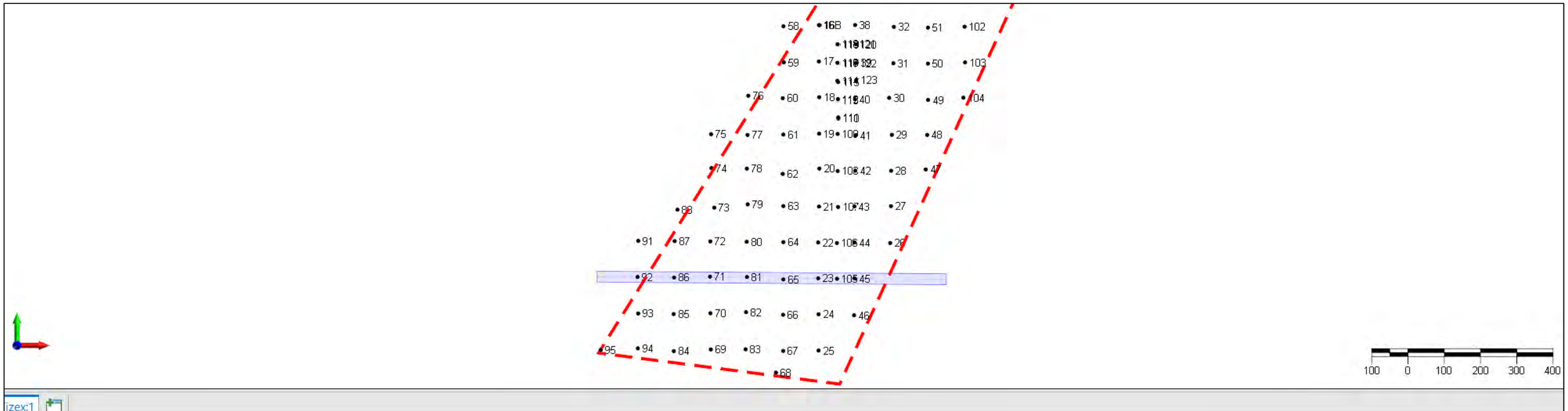
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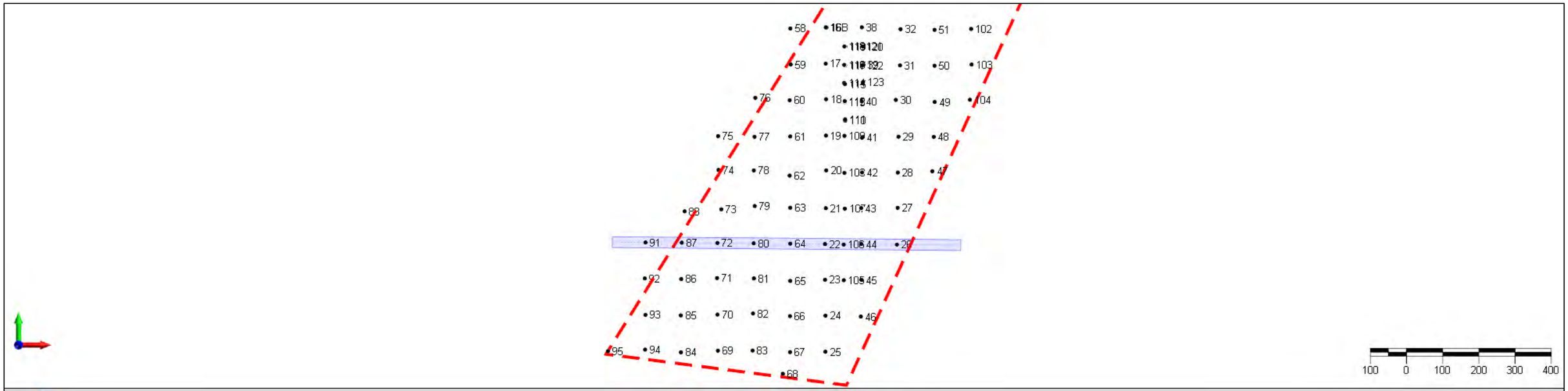
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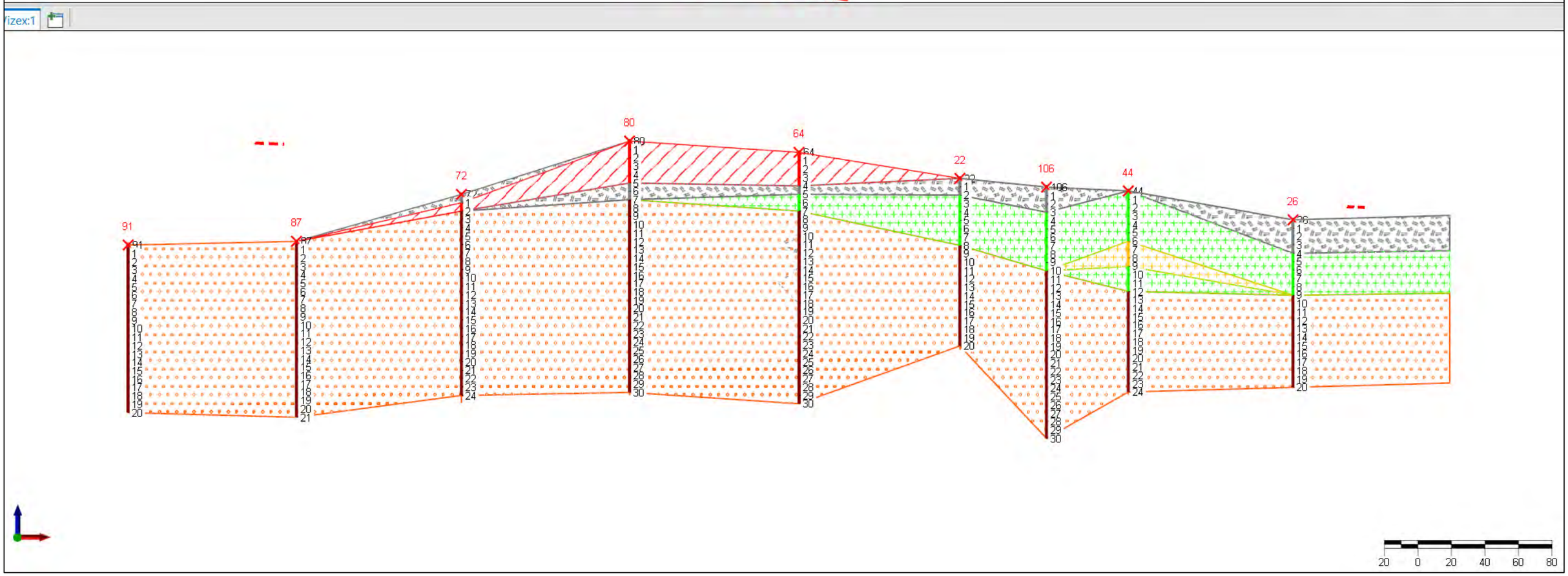
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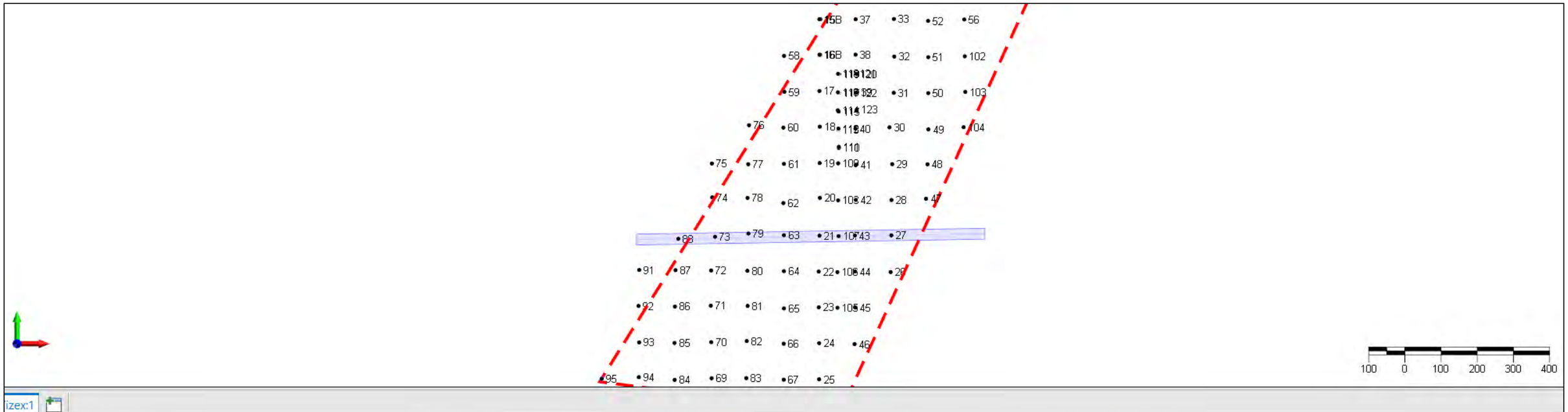
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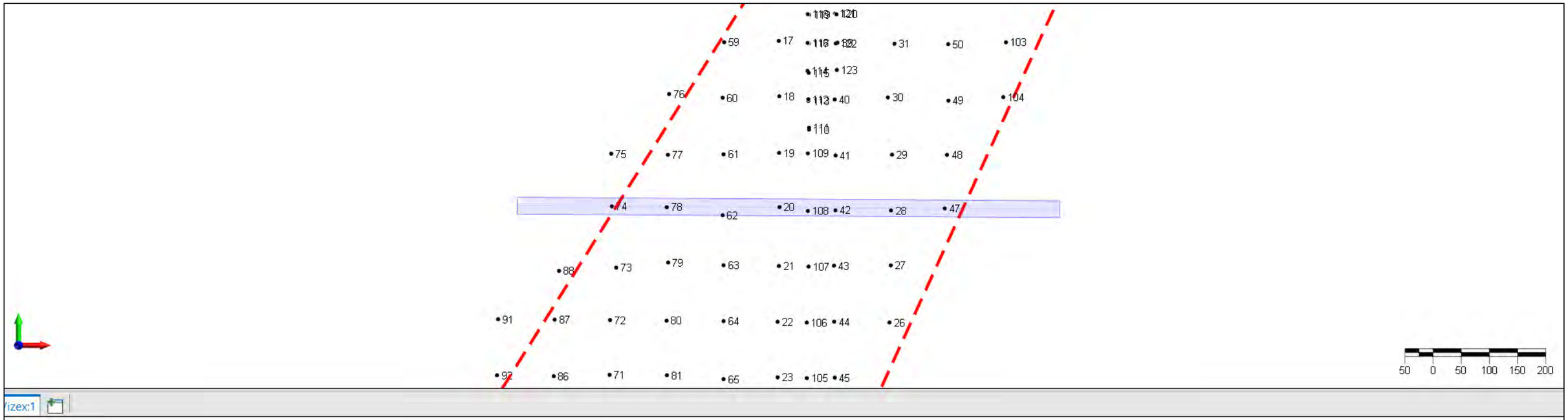
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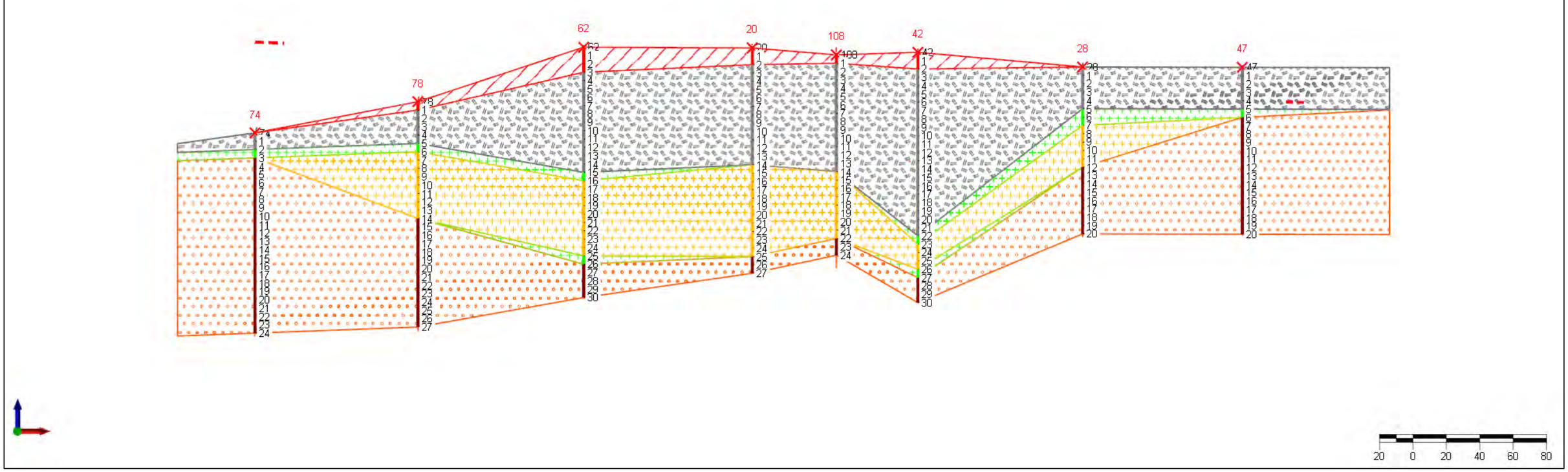
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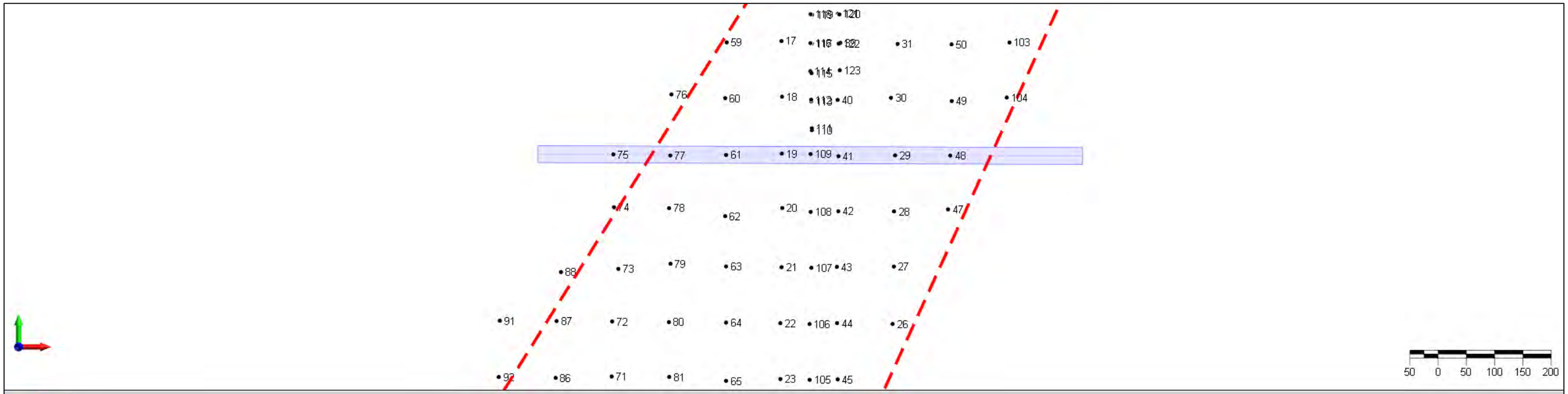
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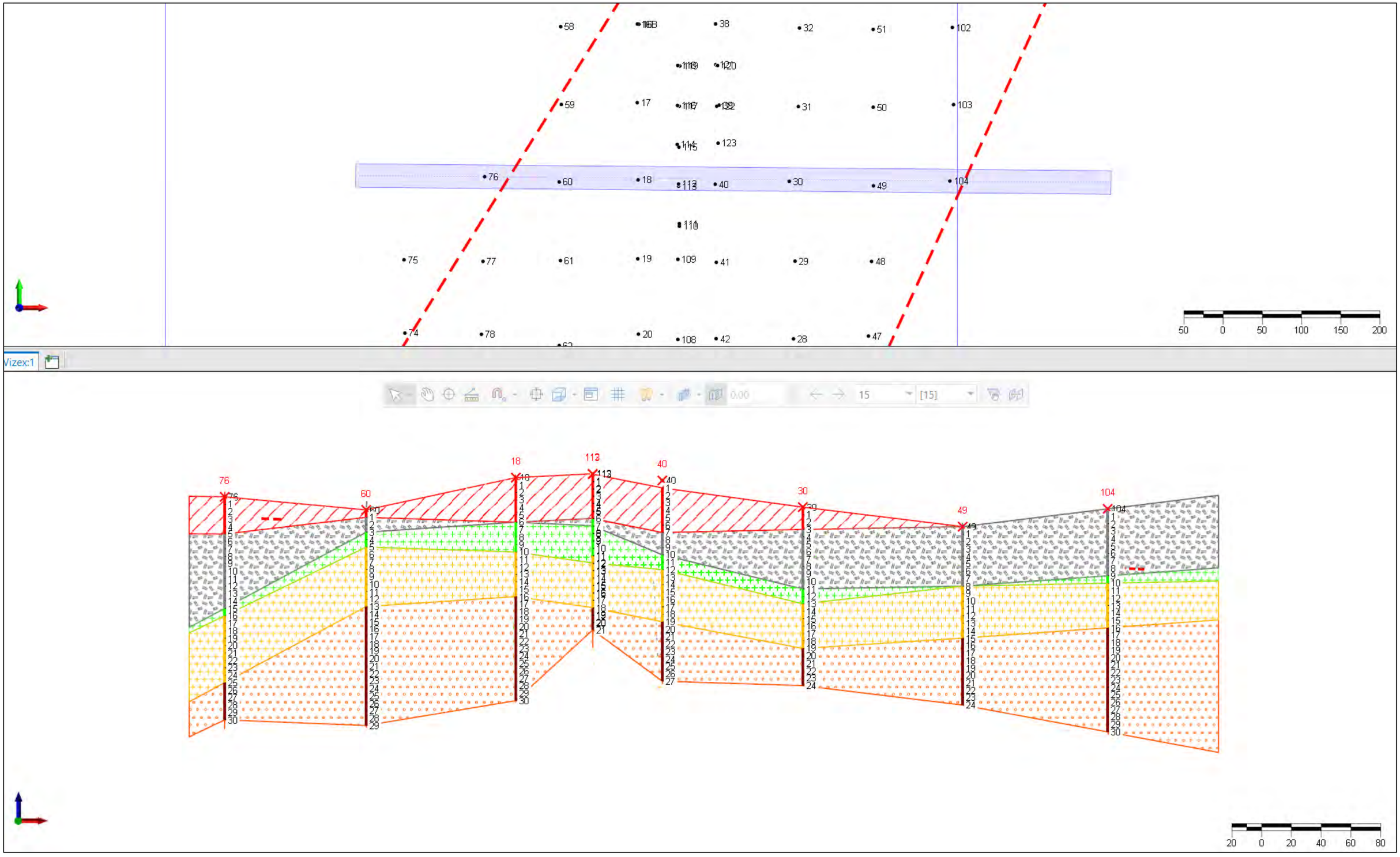
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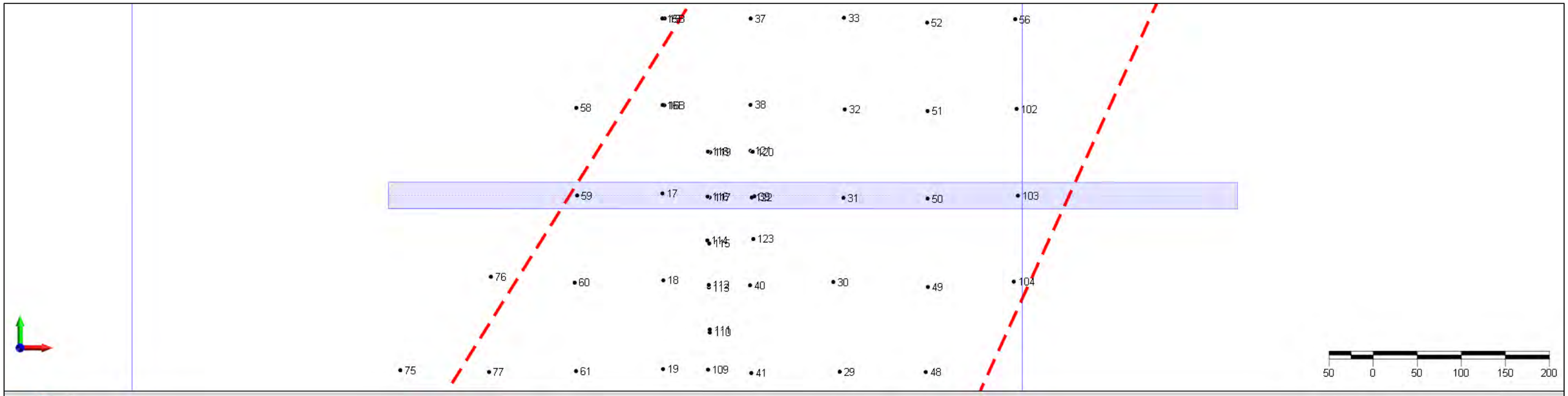
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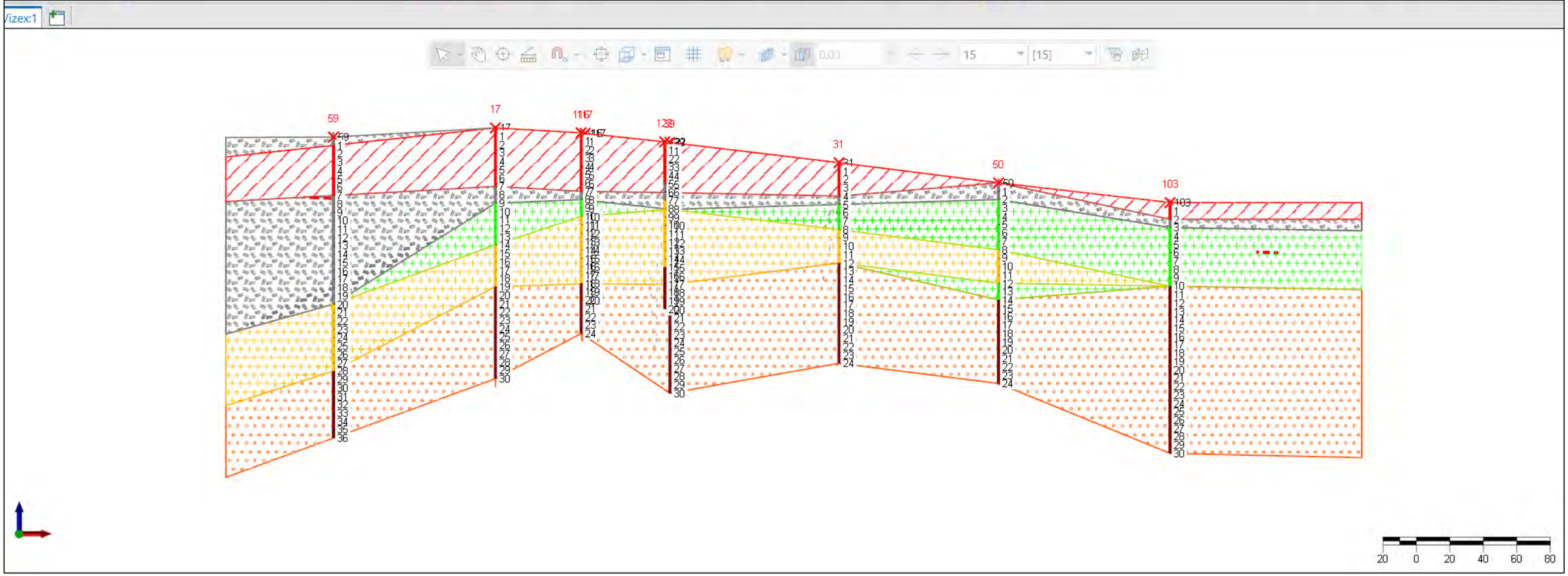
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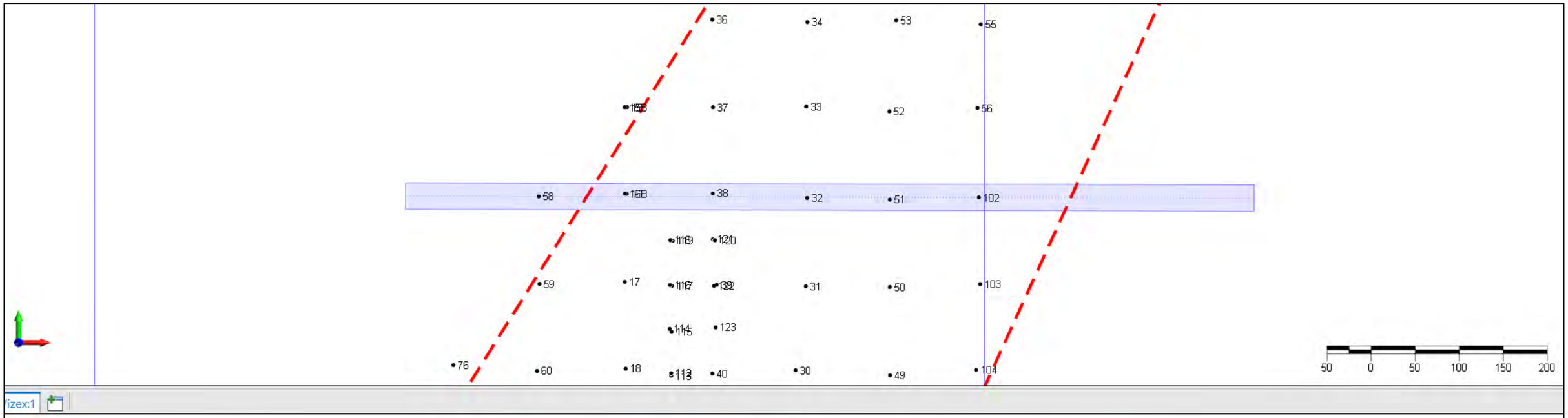
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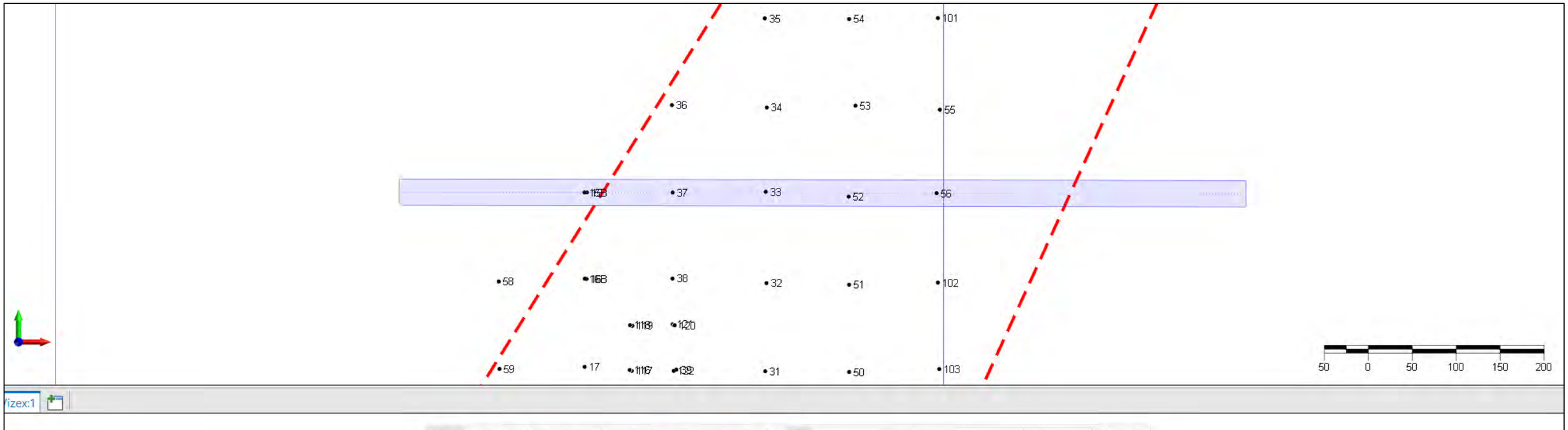
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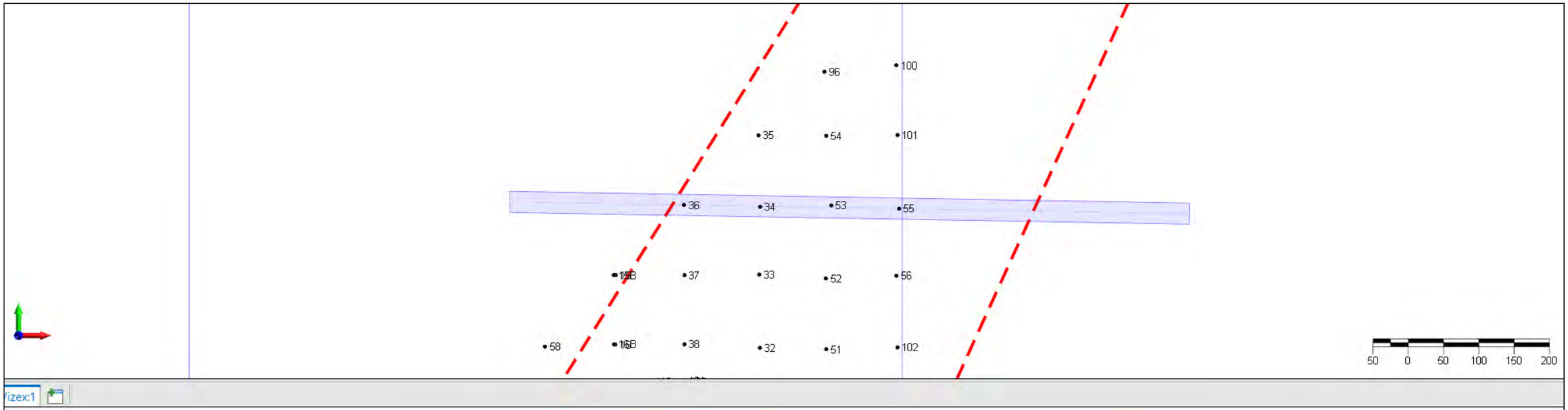
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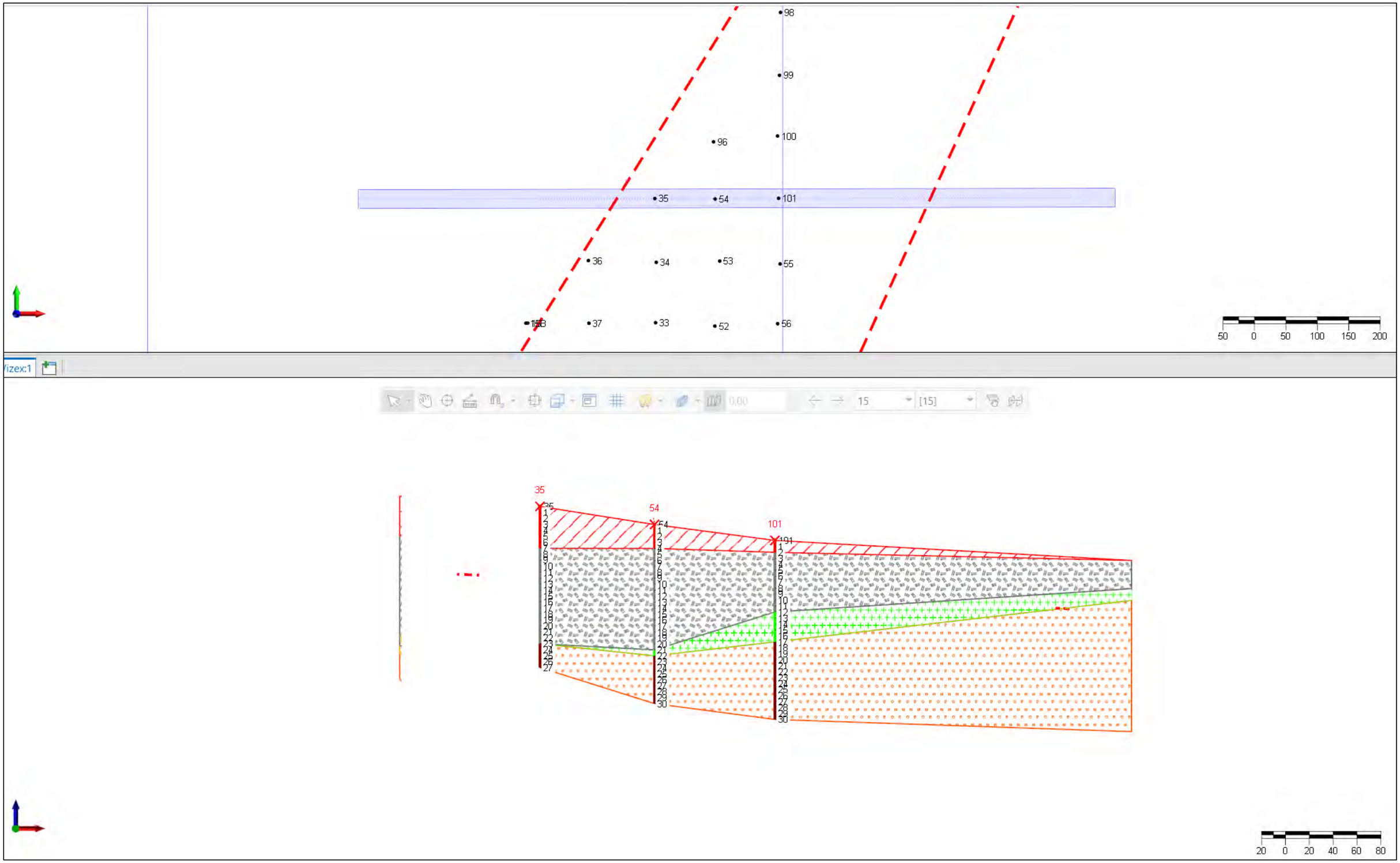
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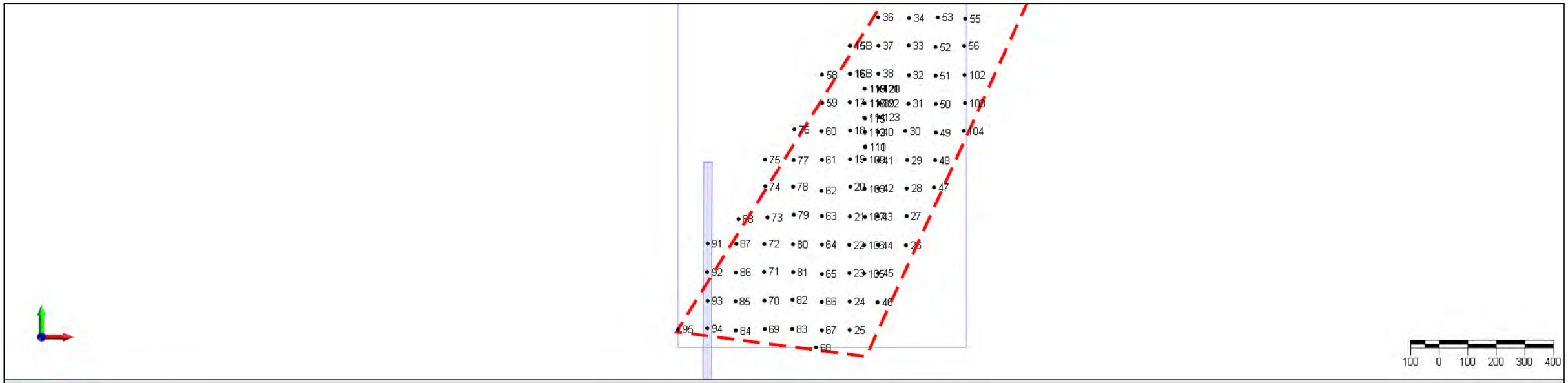

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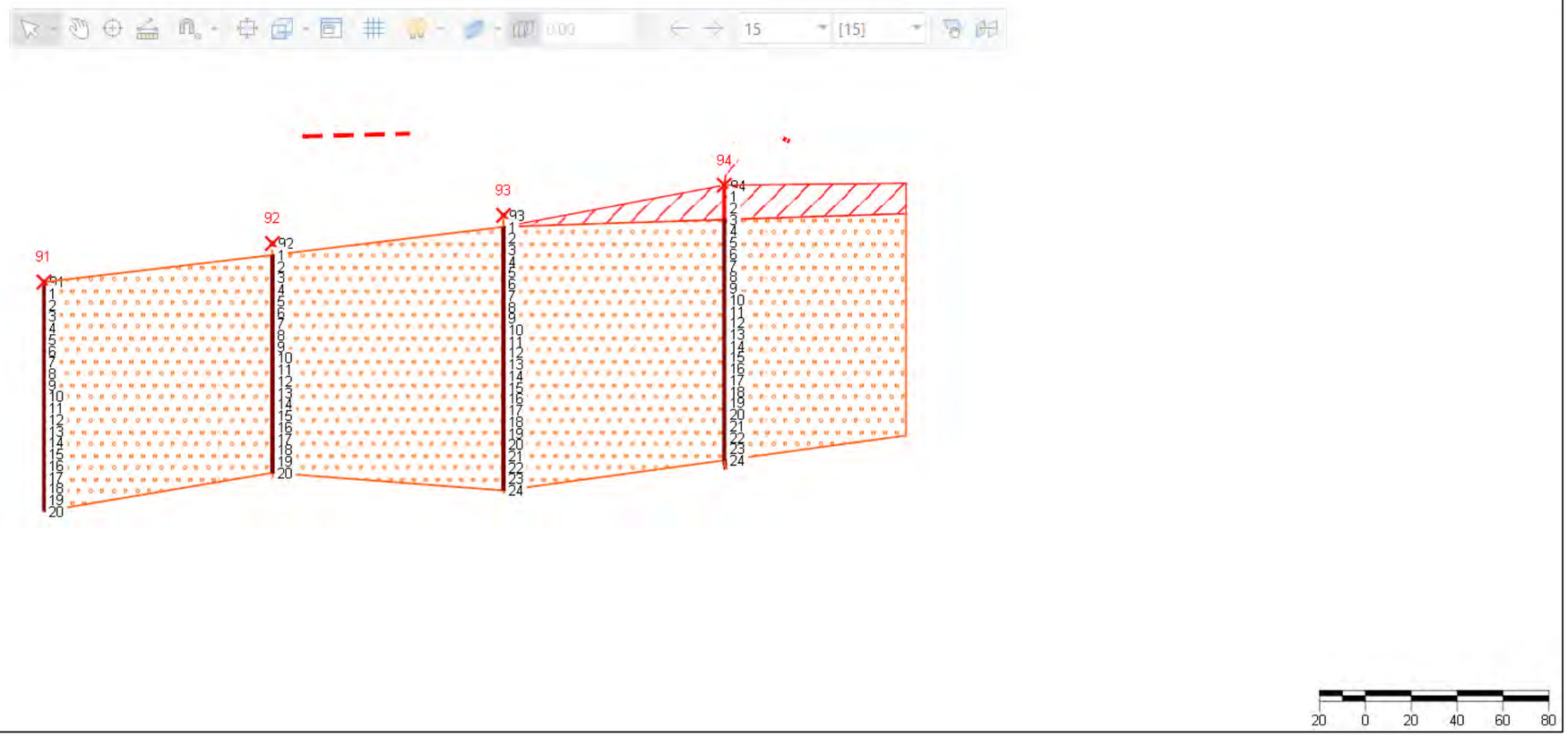

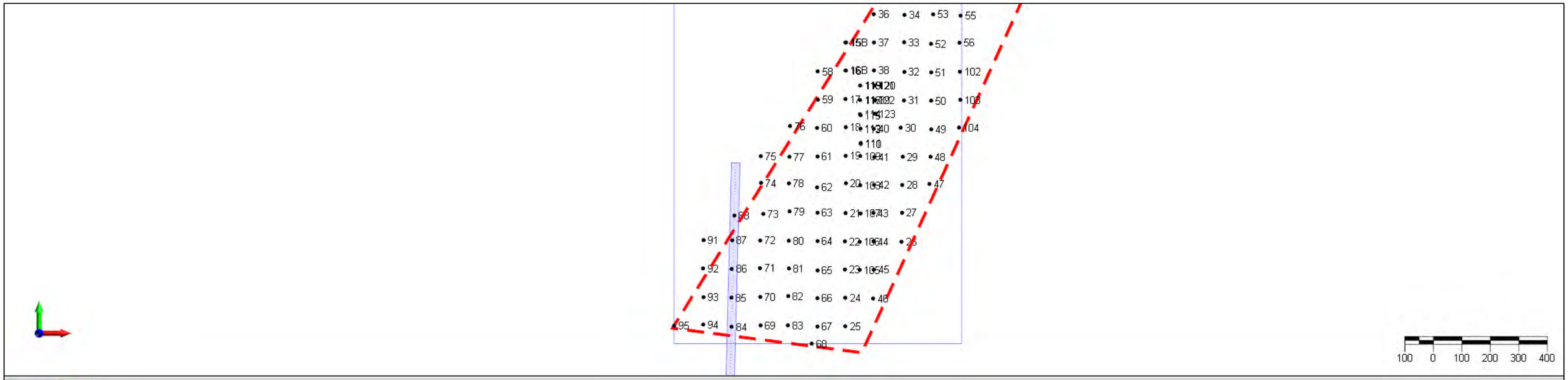
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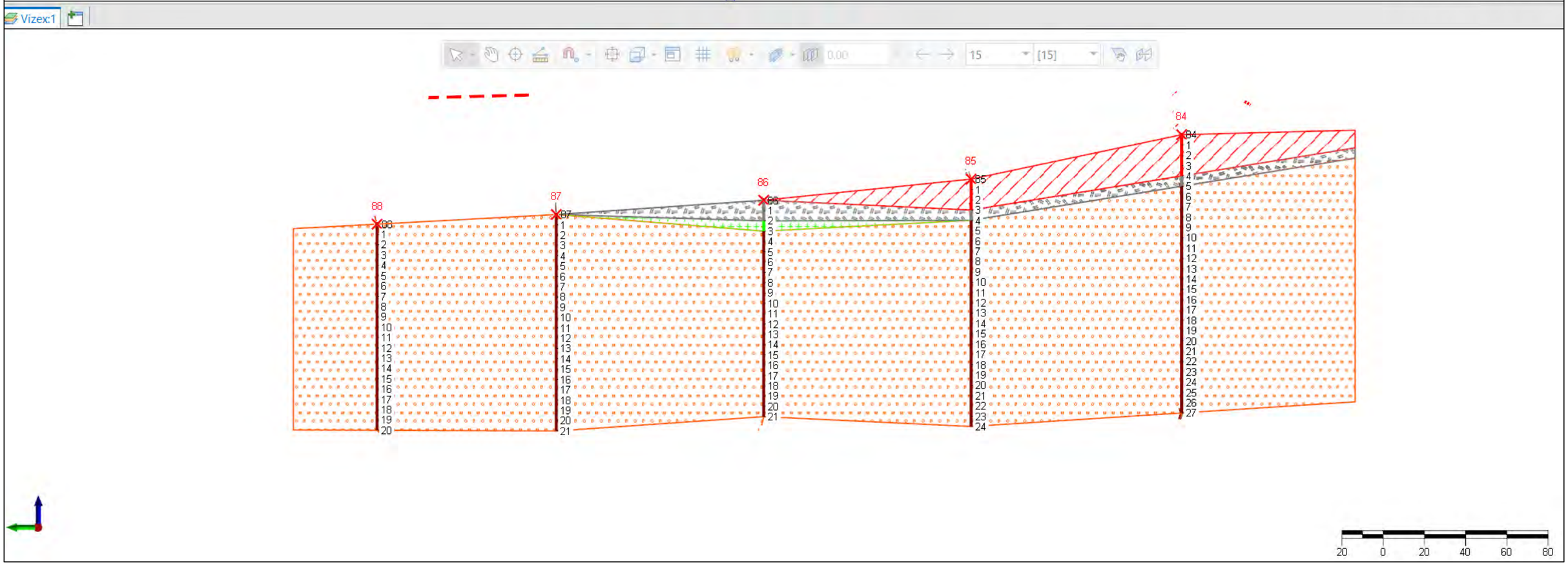
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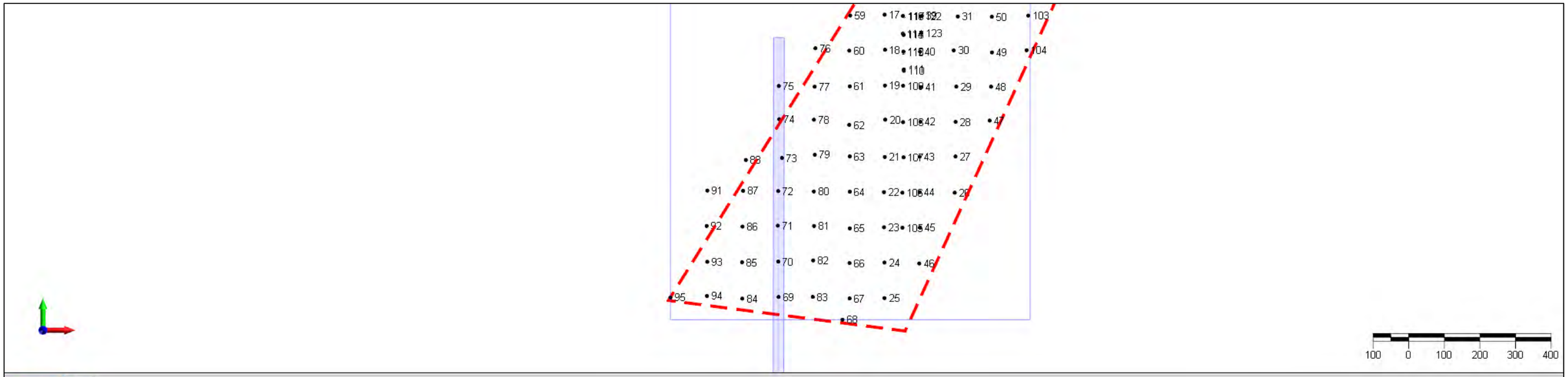
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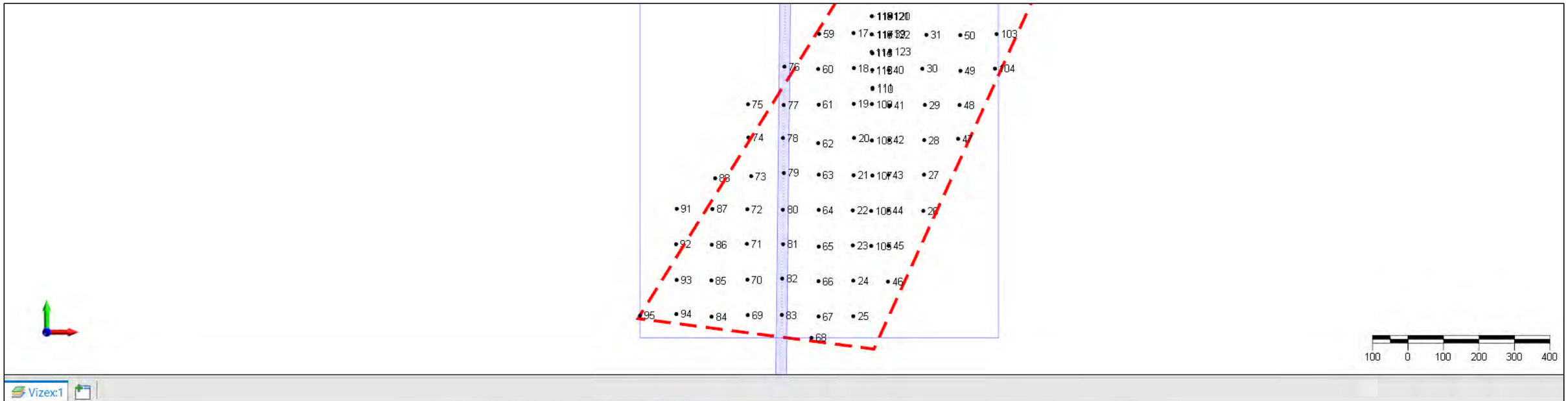
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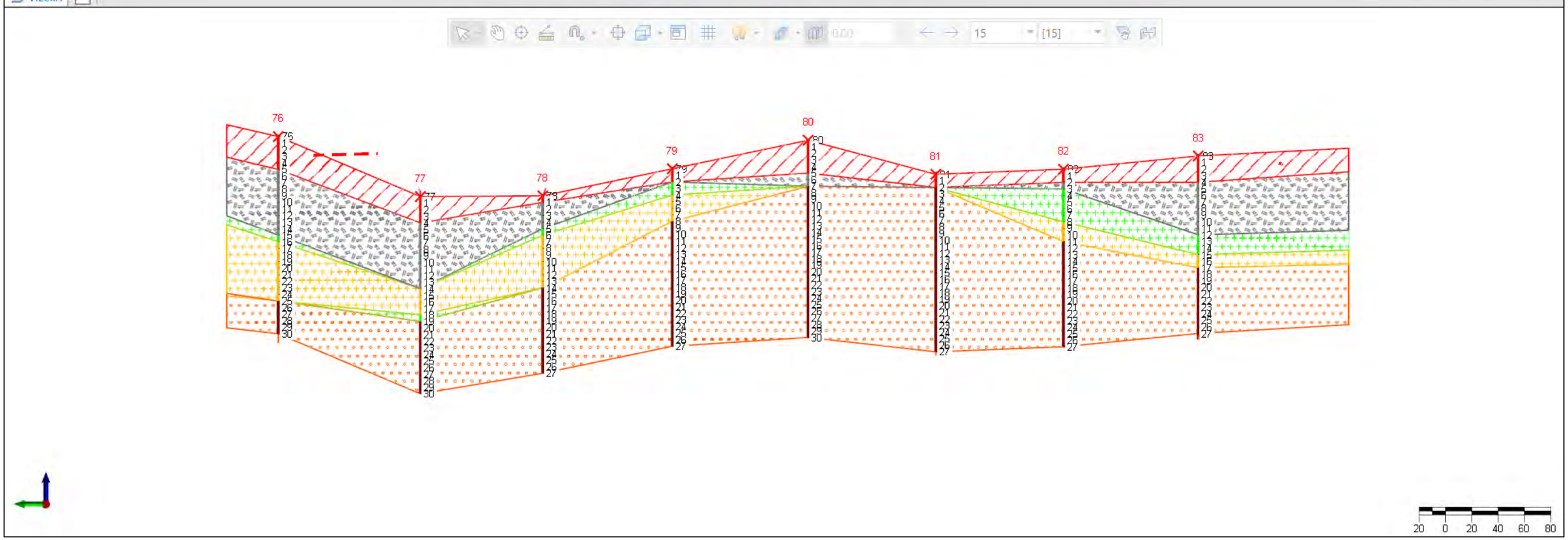
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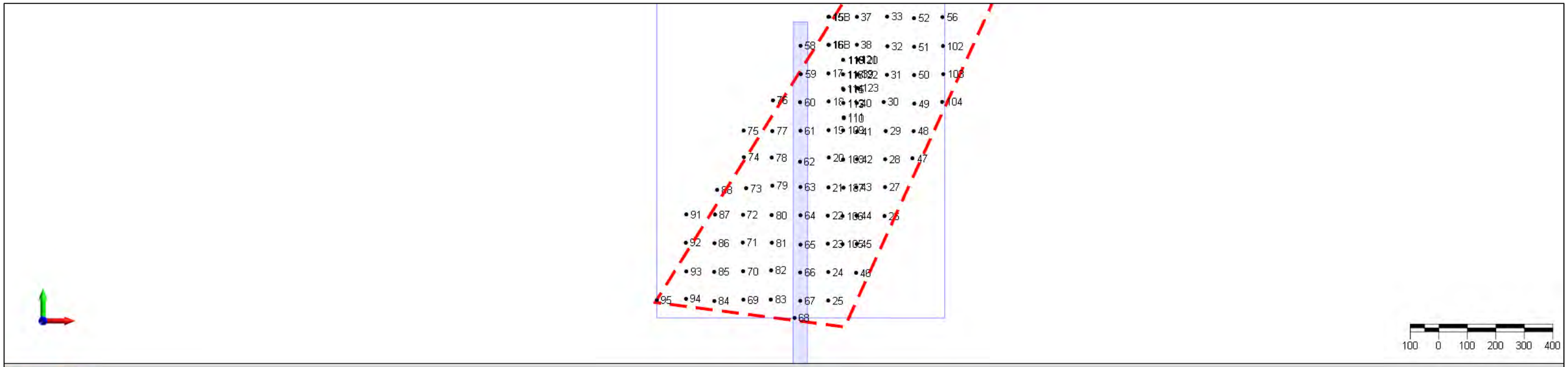
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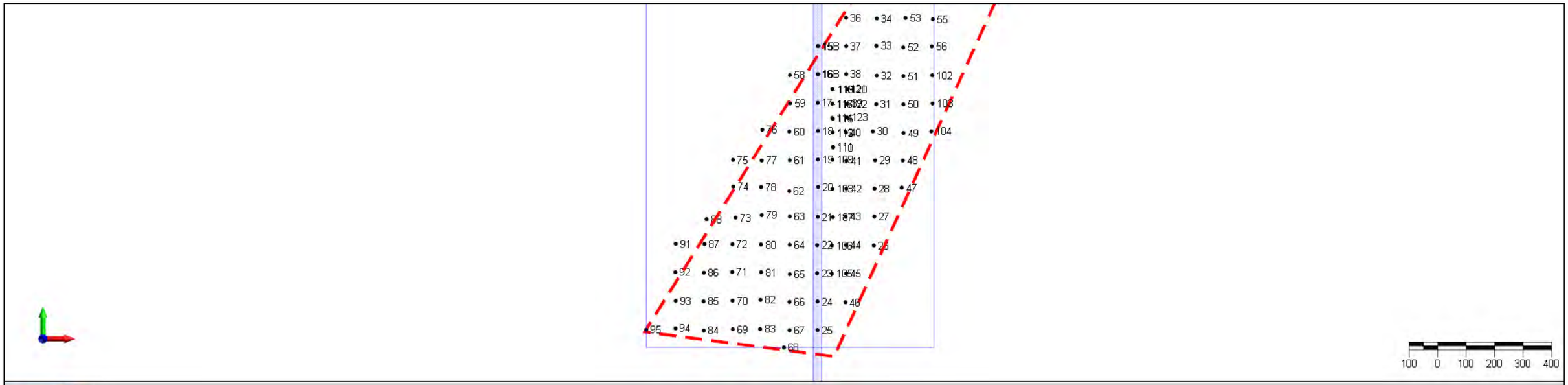
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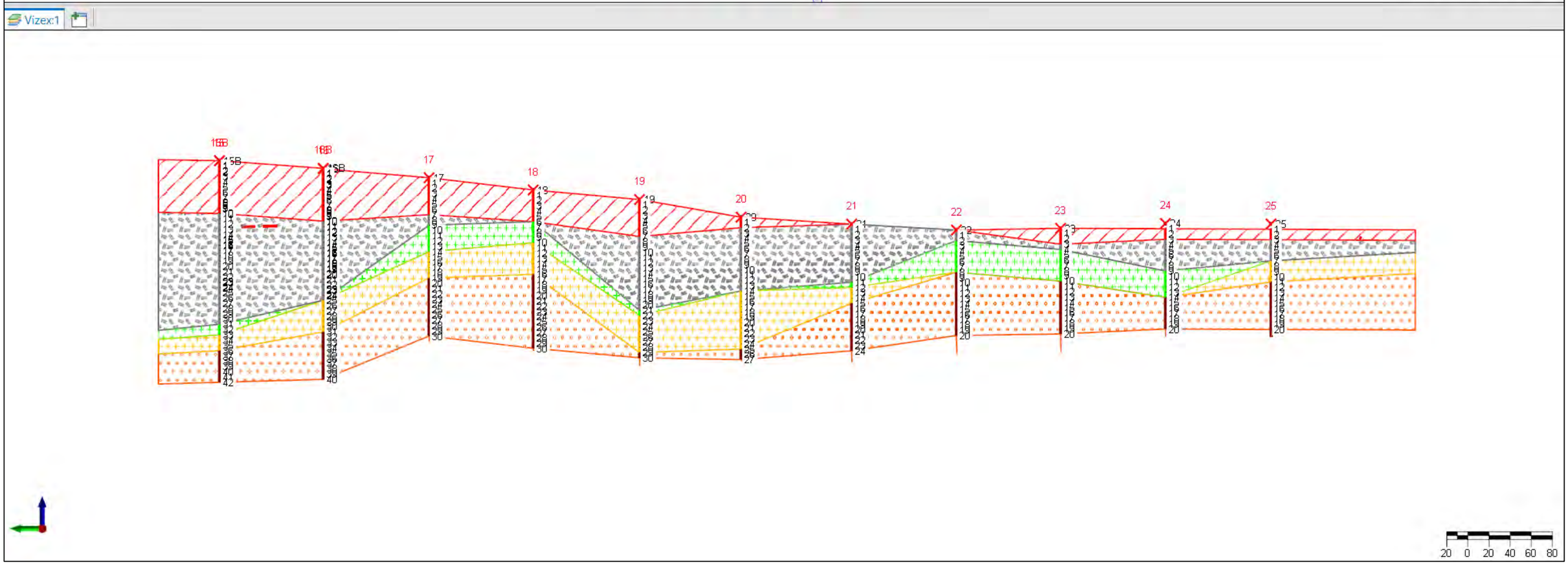
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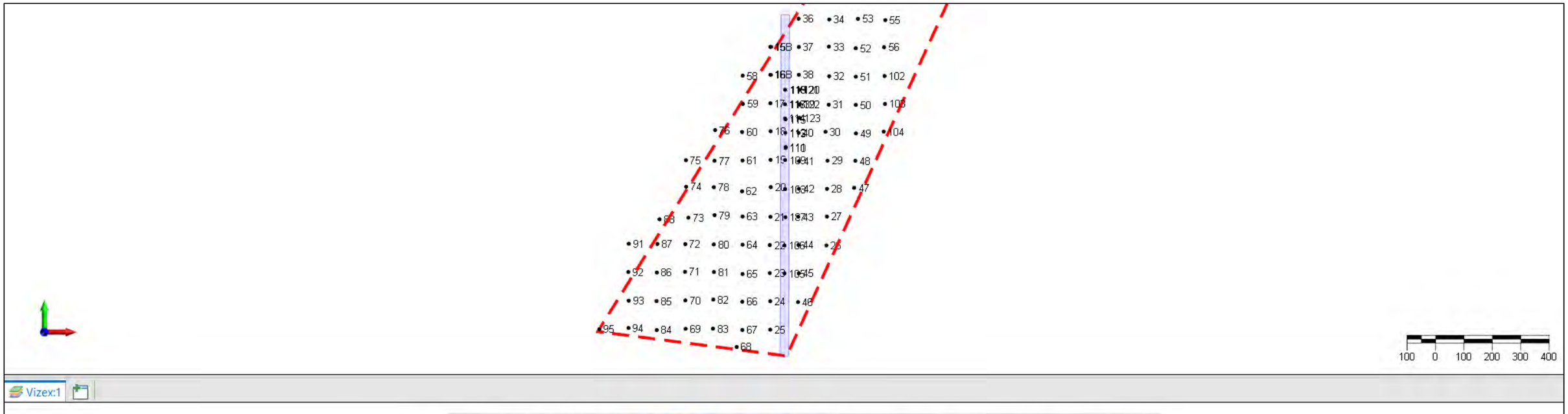
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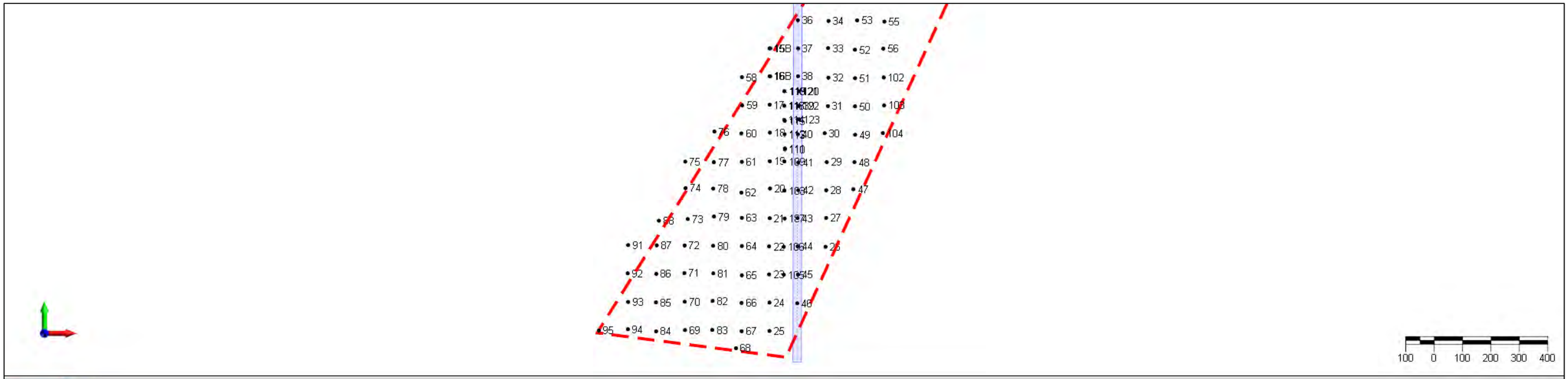
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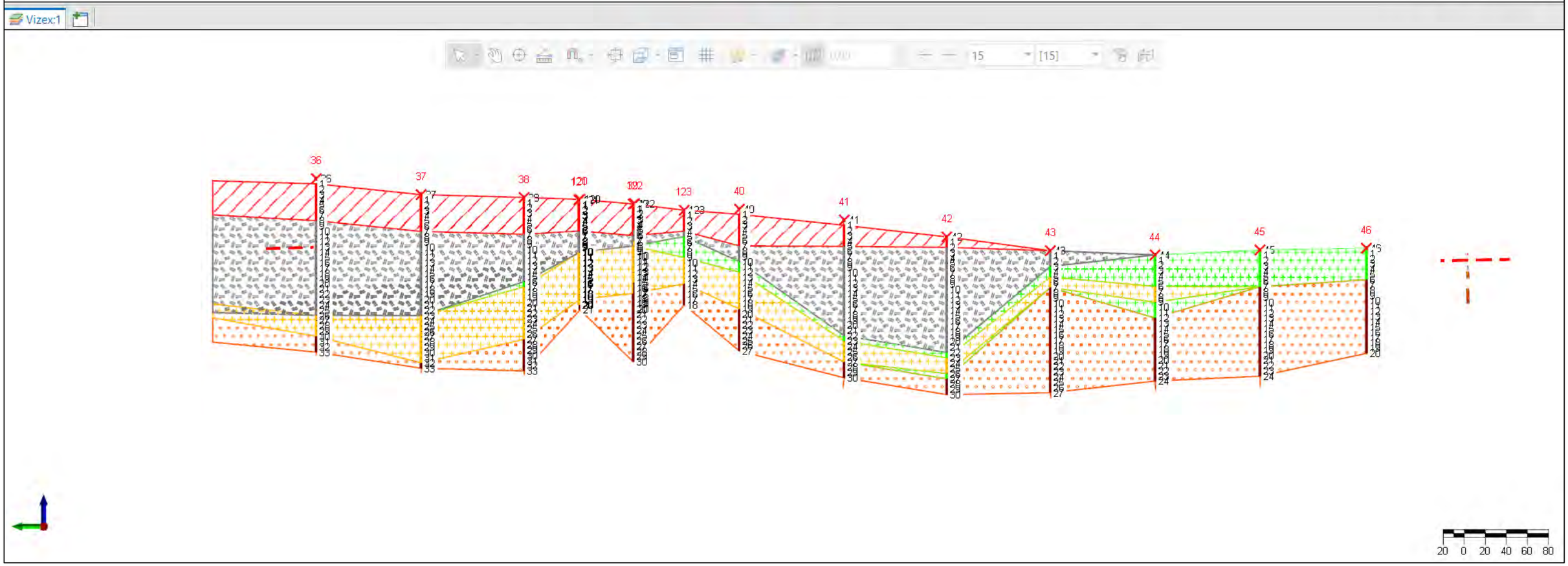
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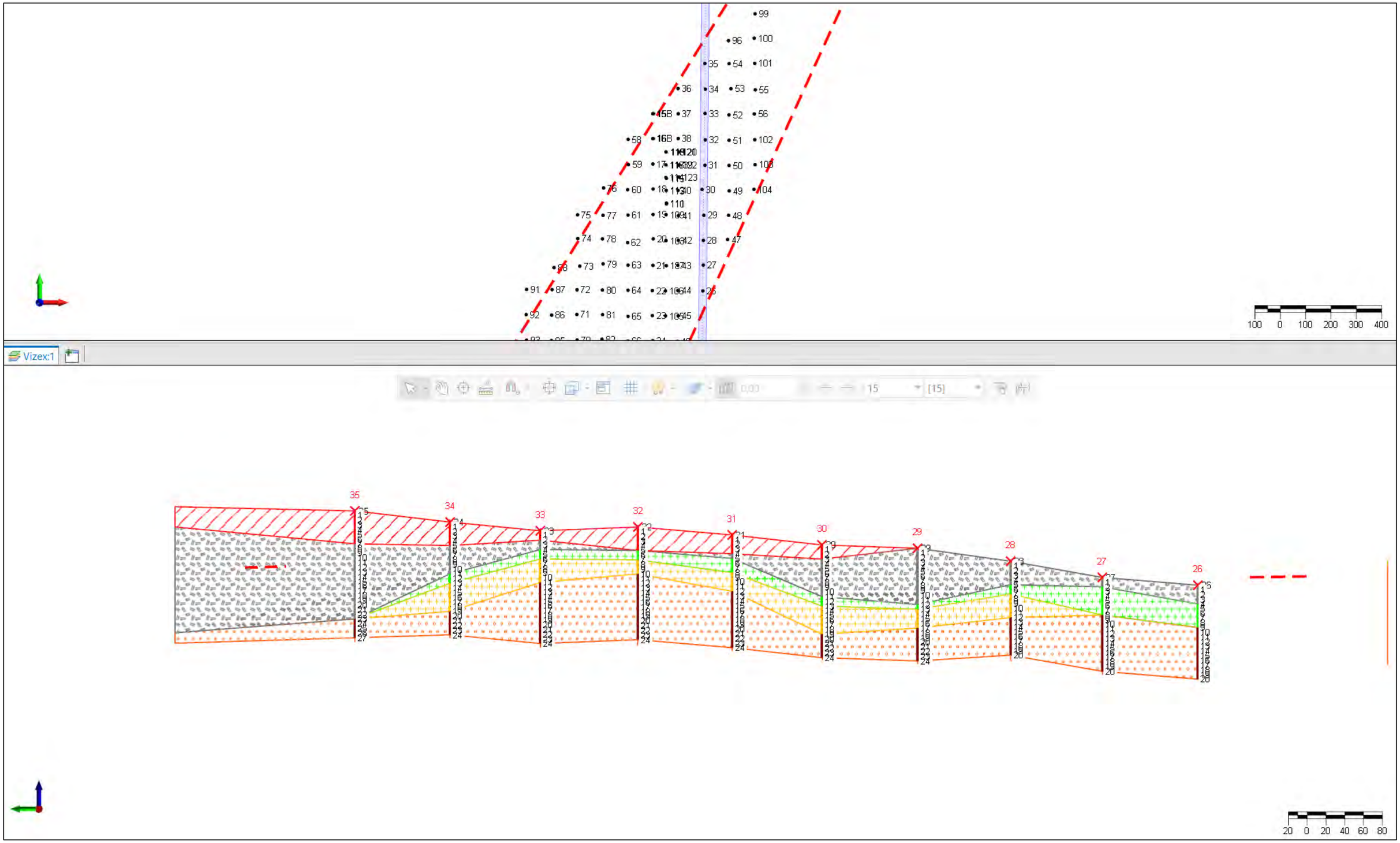
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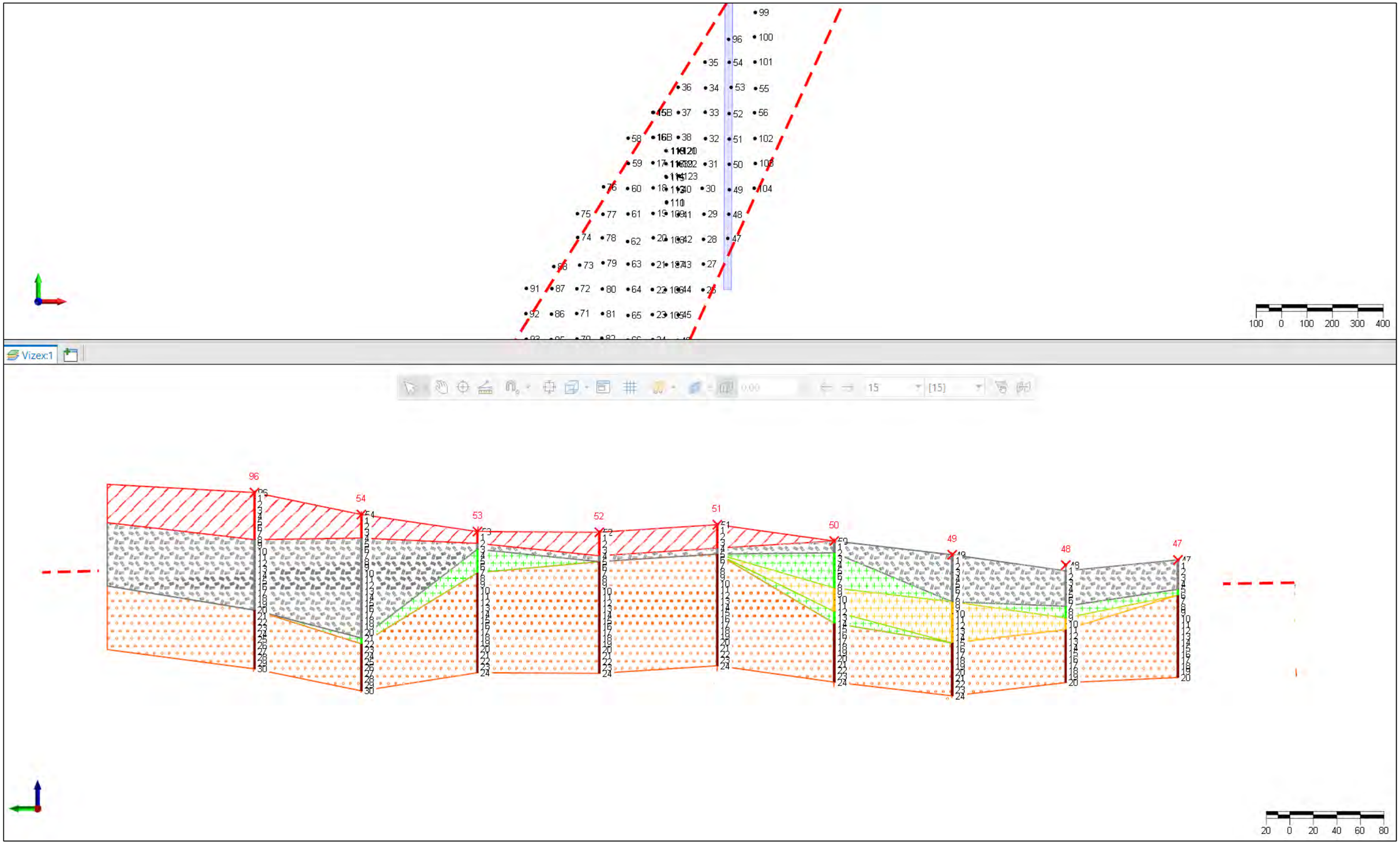
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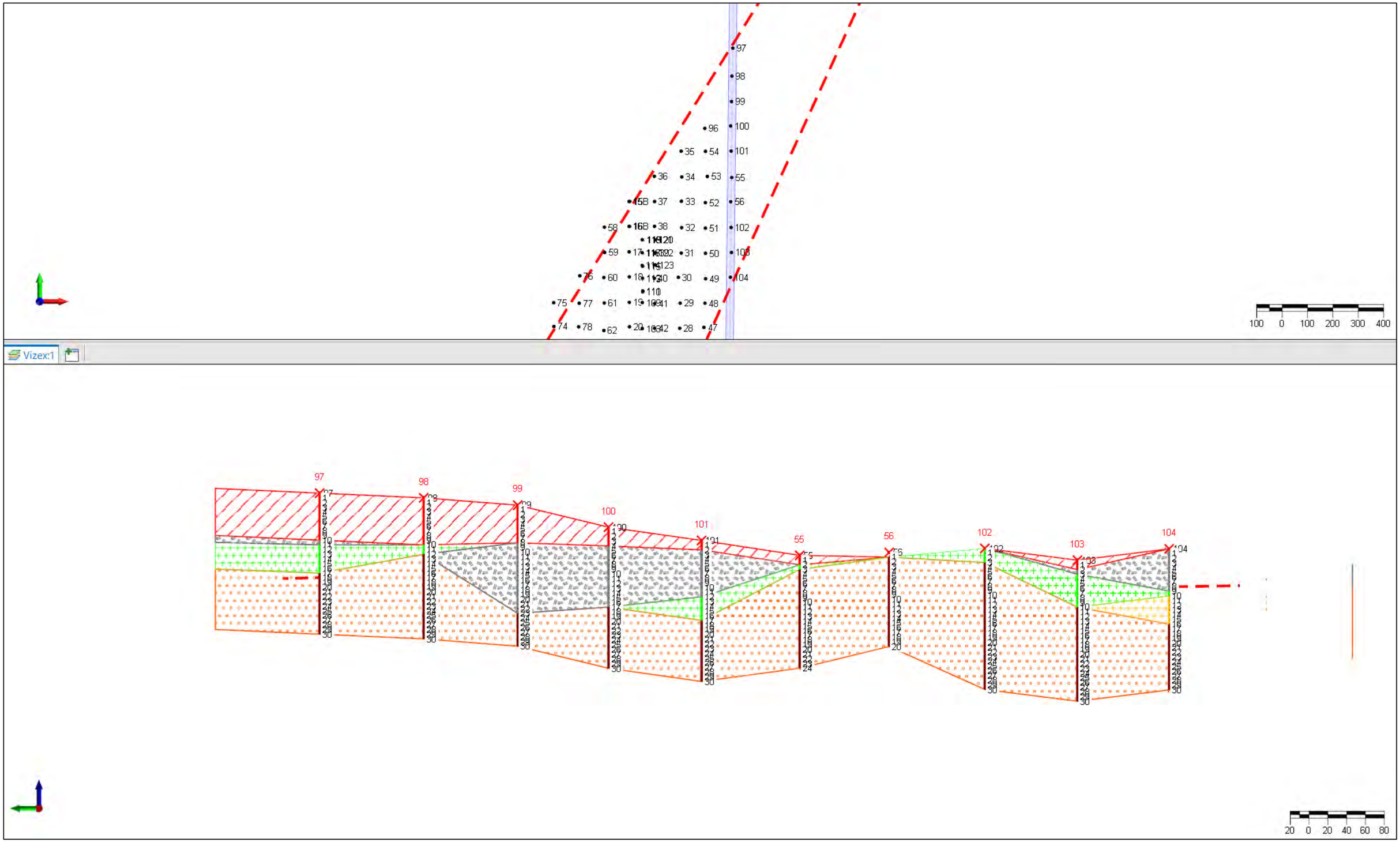
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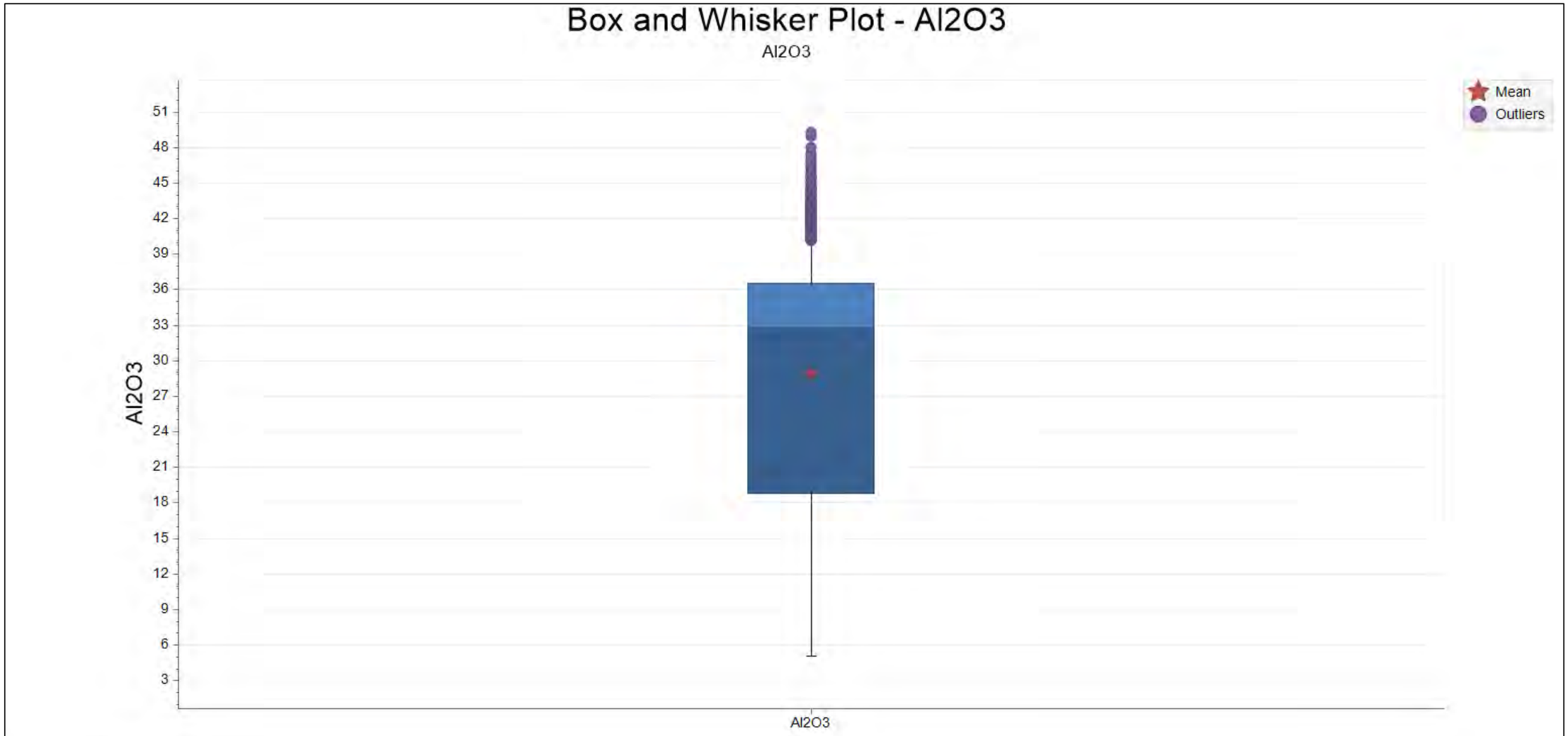
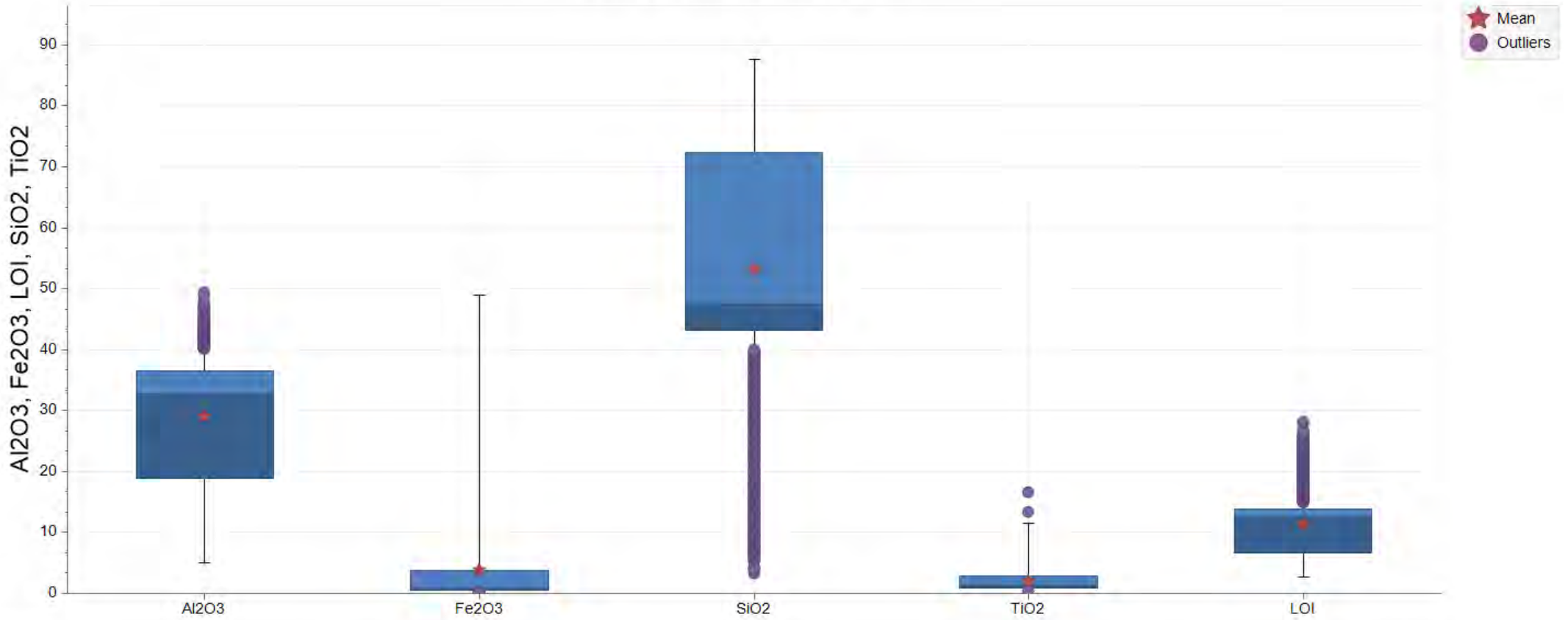


No of Records	2841
No of Points	2776
Minimum	5.06
Maximum	49.27
Mean	28.9844
Variance	83.7223
Std Dev	9.14999
COV	0.315687
Quartile 1	18.84
Median	32.78
Quartile 3	36.56
Outliers Min	-102.555
Outliers Max	40.0677
Medcouple	-0.506297

Box and Whisker Plo

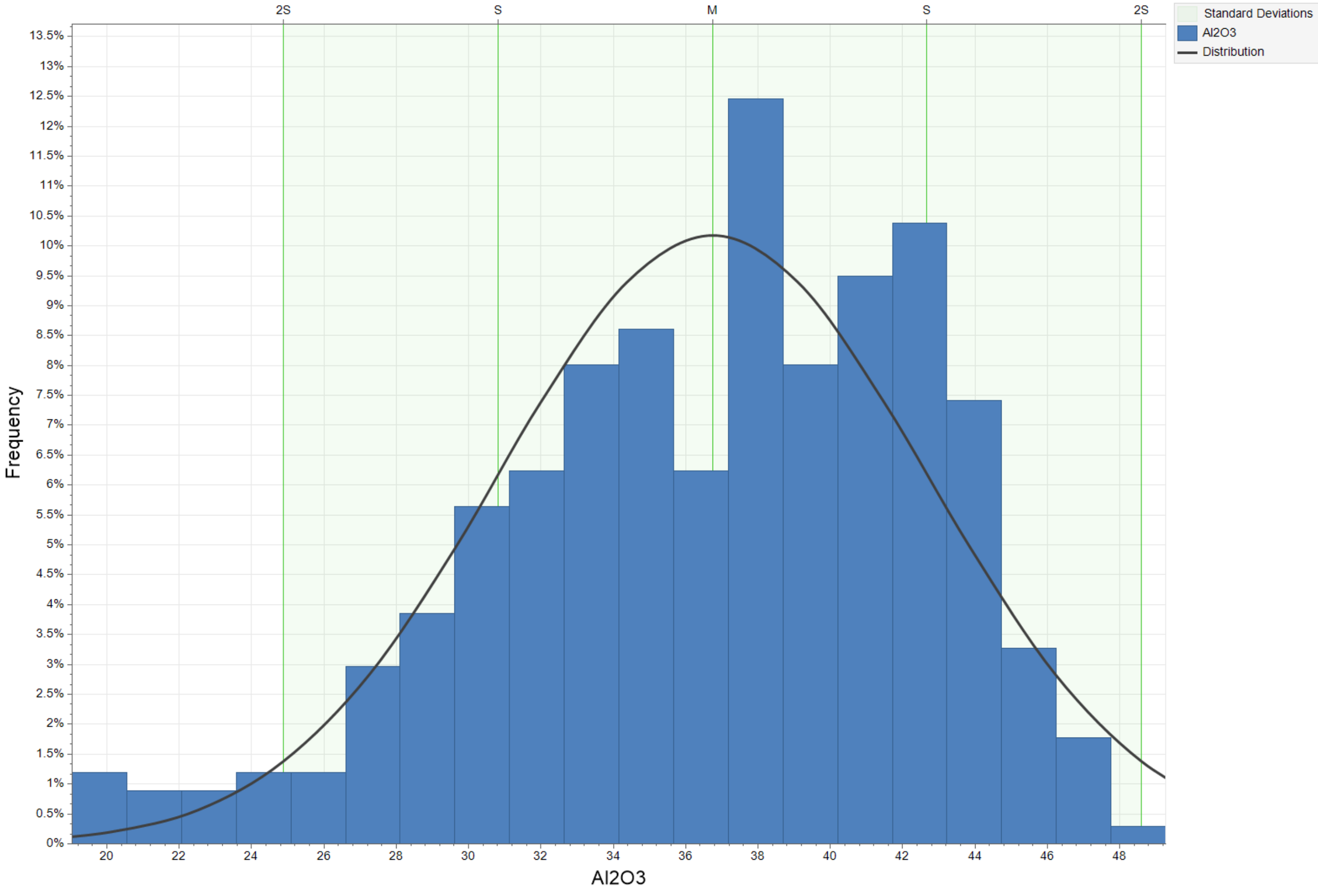
Al2O3, Fe2O3, SiO2, TiO2, LOI

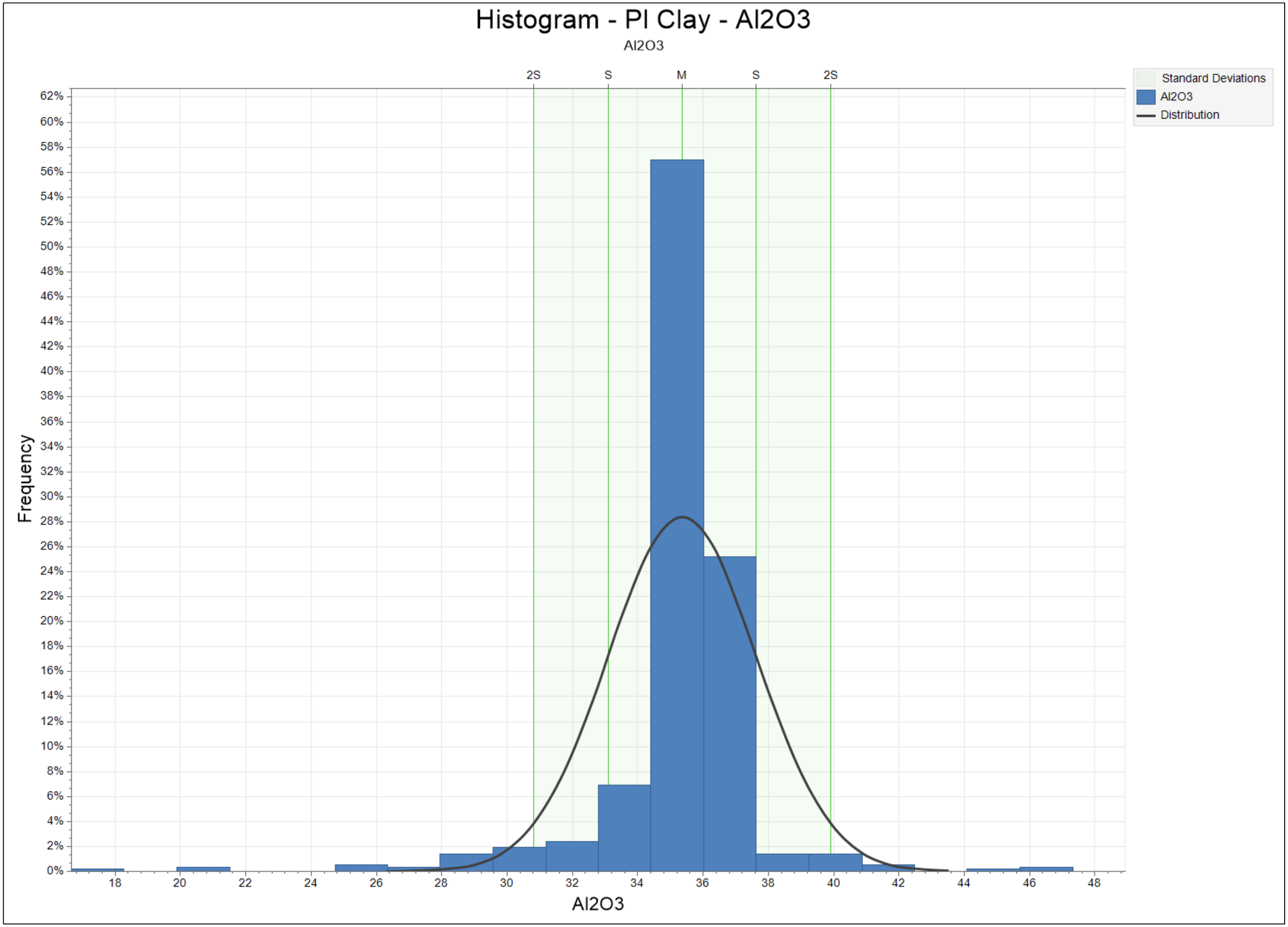


No of Points	2776	2776	2776	2776	2776
Minimum	5.06	0.13	3.19	0.31	2.65
Maximum	49.27	49	87.7	16.5	28.02
Mean	28.9844	3.74033	53.3346	1.98836	11.3855
Variance	83.7223	42.7021	341.46	2.19208	21.9988
Std Dev	9.14999	6.53468	18.4786	1.48057	4.69028
COV	0.315687	1.74709	0.346466	0.744617	0.411952
Quartile 1	18.84	0.45	43.2	0.9	6.69
Median	32.78	0.84	47.55	1.48	12.595
Quartile 3	36.56	3.74	72.4	2.7925	13.8
Outliers Min	-102.555	0.238474	39.9804	0.344682	-58.9995
Outliers Max	40.0677	56.1277	382.665	12.4434	14.7446
Medcouple	-0.506297	0.78744	0.652597	0.407895	-0.605991

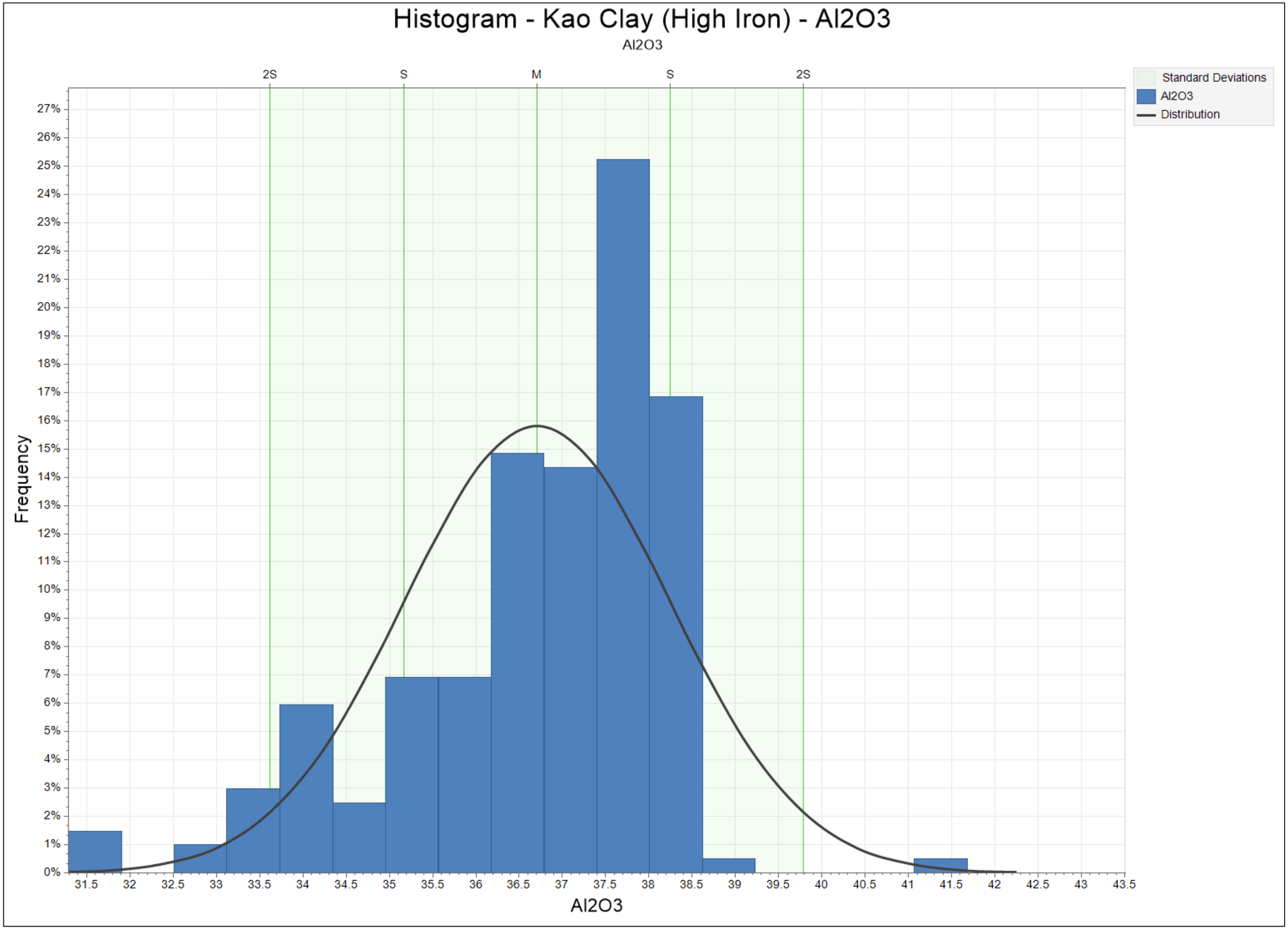
Number of records	2841

Histogram - Baux Clay - Al2O3



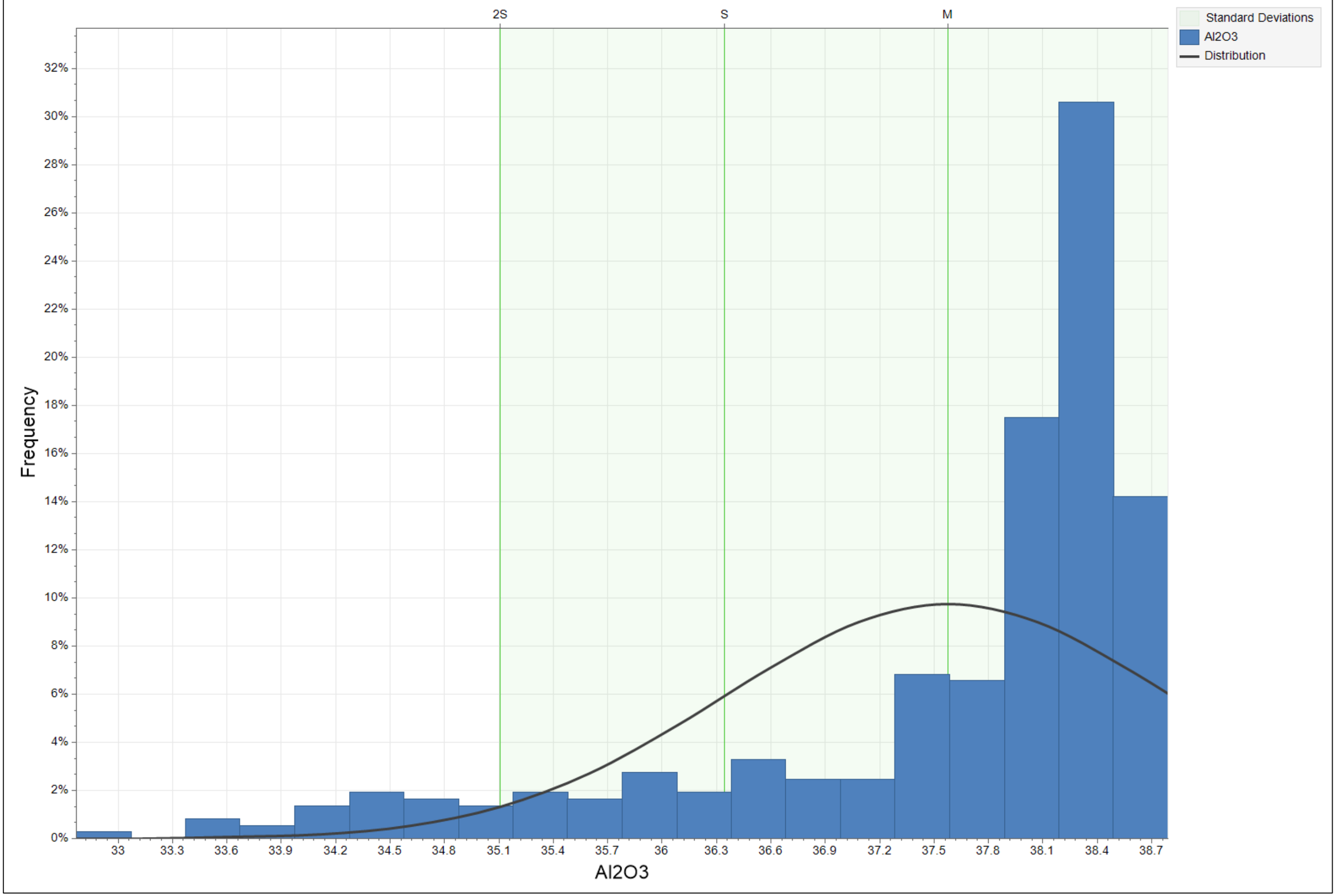

Histogram - PI Clay - Al2O3
Al2O3
2S
S
M
S
2S
Standard Deviations
Al2O3
Distribution
Frequency
62%
60%
58%
56%
54%
52%
50%
48%
46%
44%
42%
40%
38%
36%
34%
32%
30%
28%
26%
24%
22%
20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
18
20
22
24
26
28
30
32
34
36
38
40
42
44
46
48
Al2O3

Histogram - Kao Clay (High Iron) - Al2O3

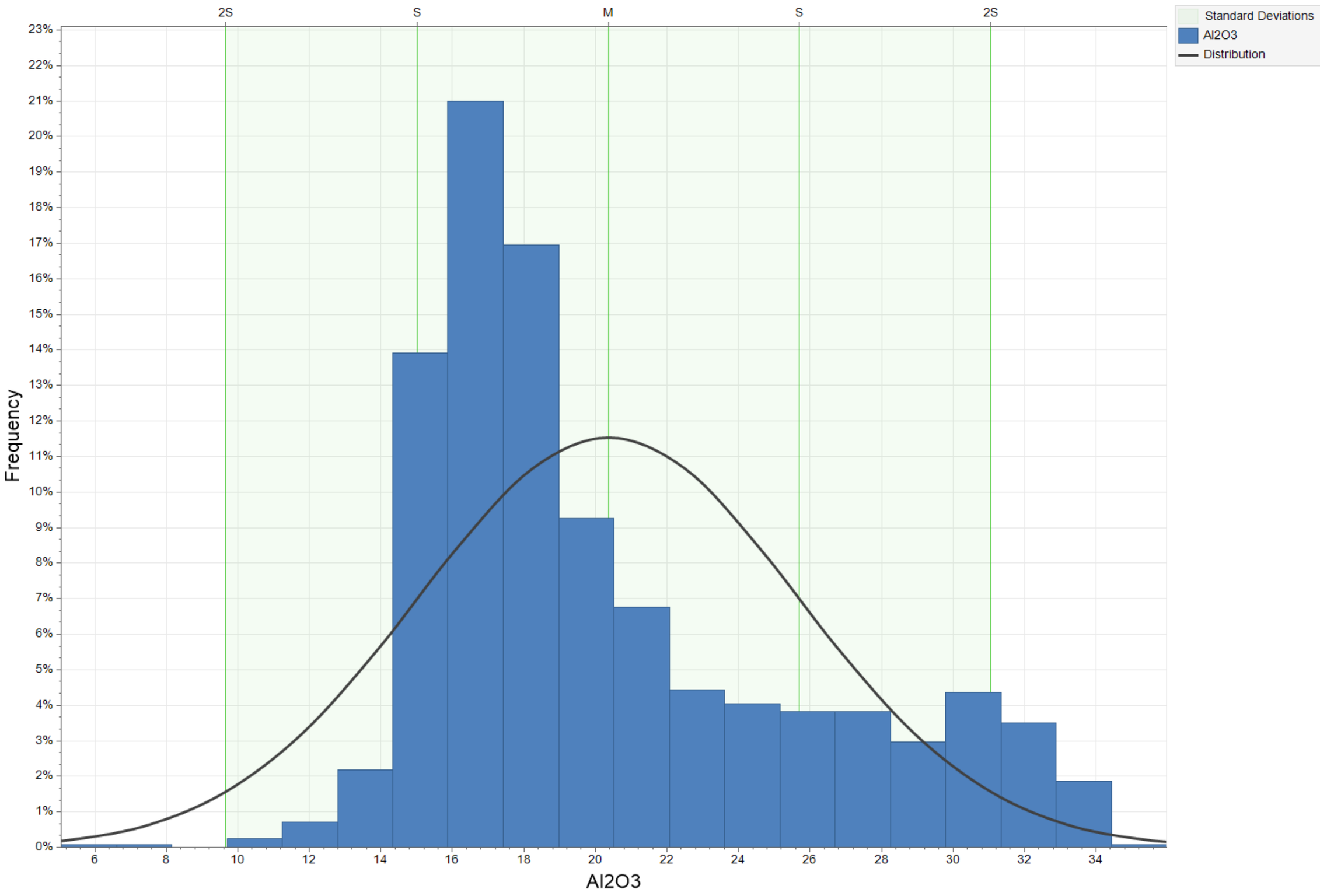


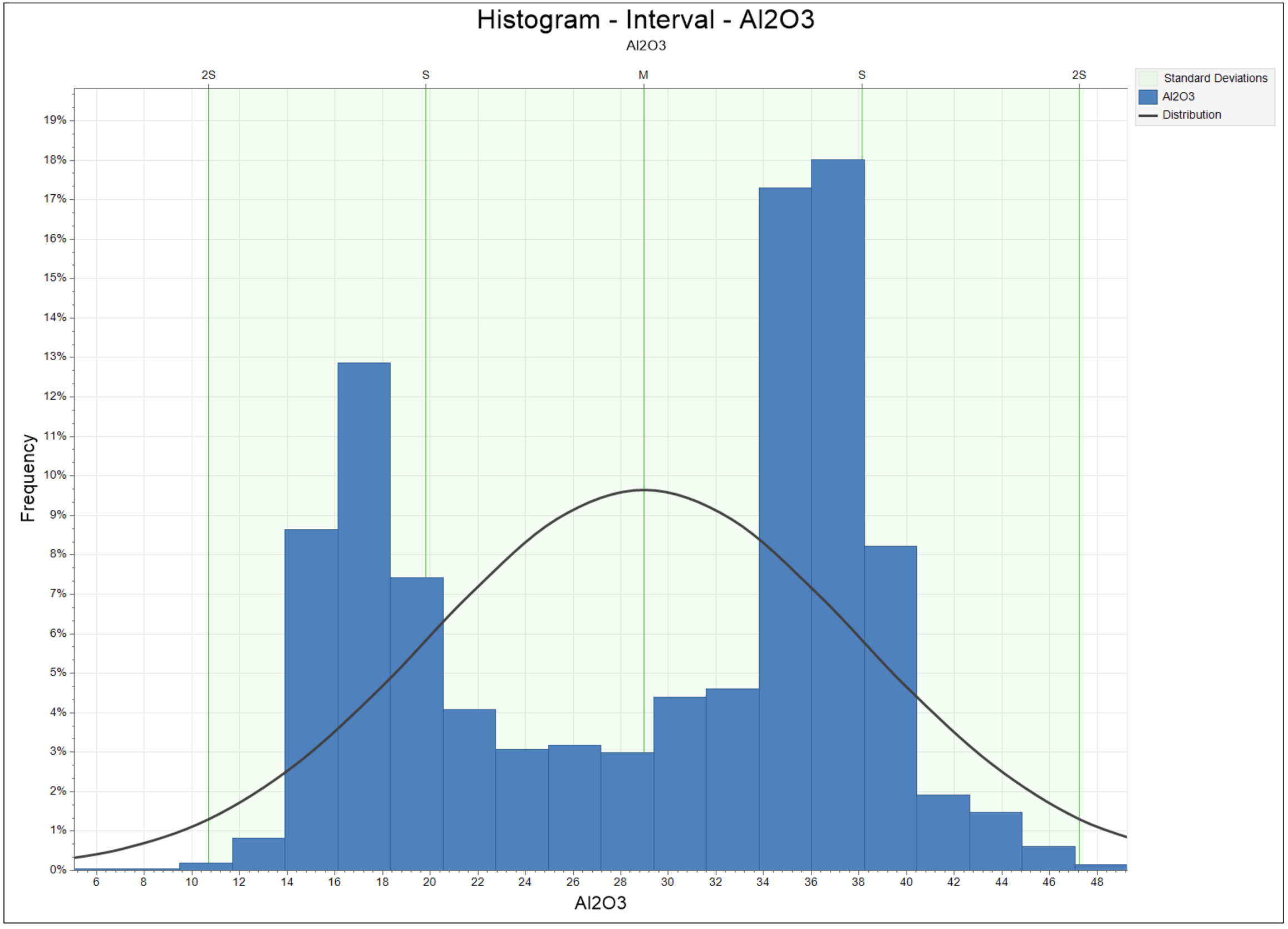
Histogram - Kao Clay (Low Iron) - Al2O3

Al2O3



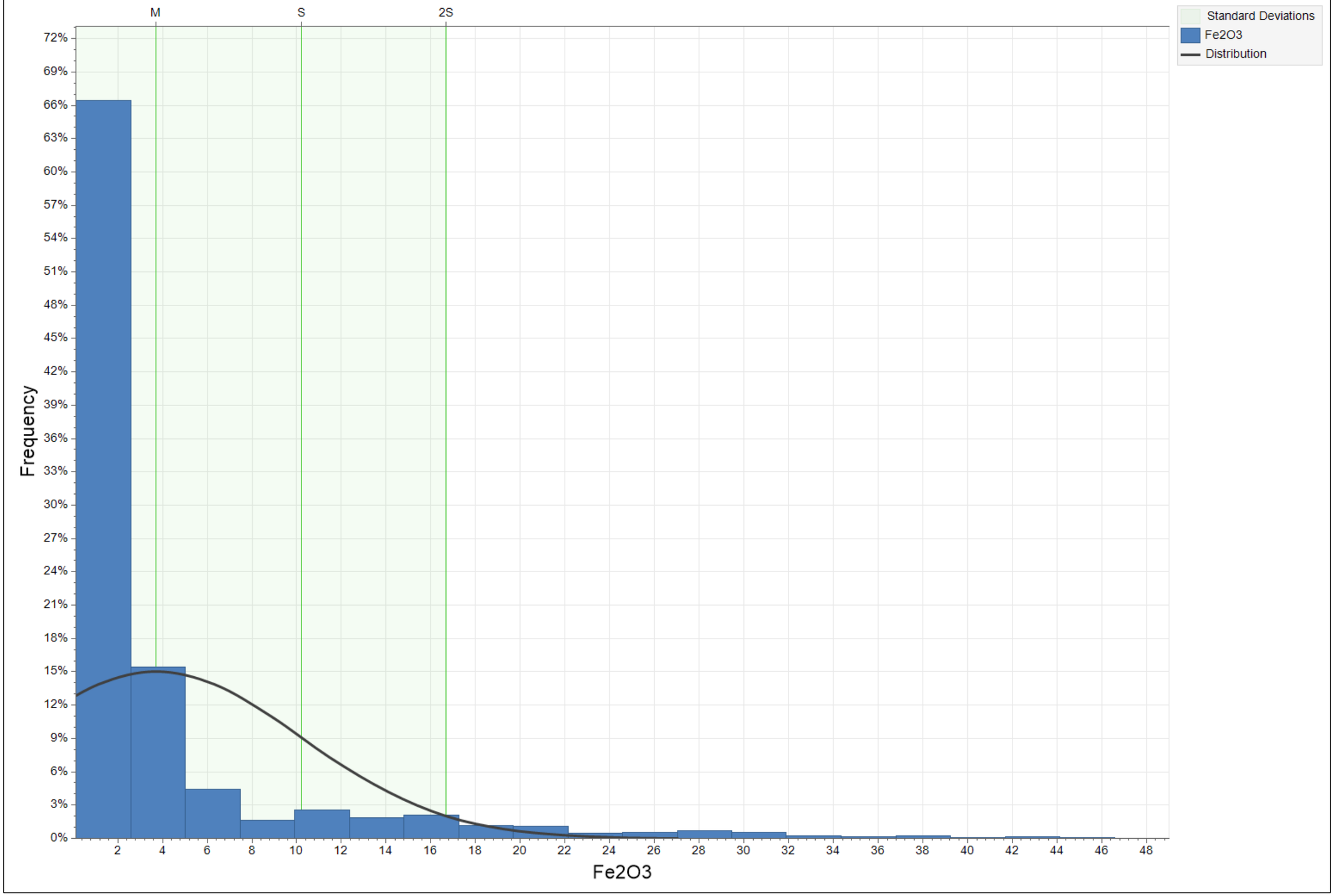
Histogram - Sa Clay - Al2O3

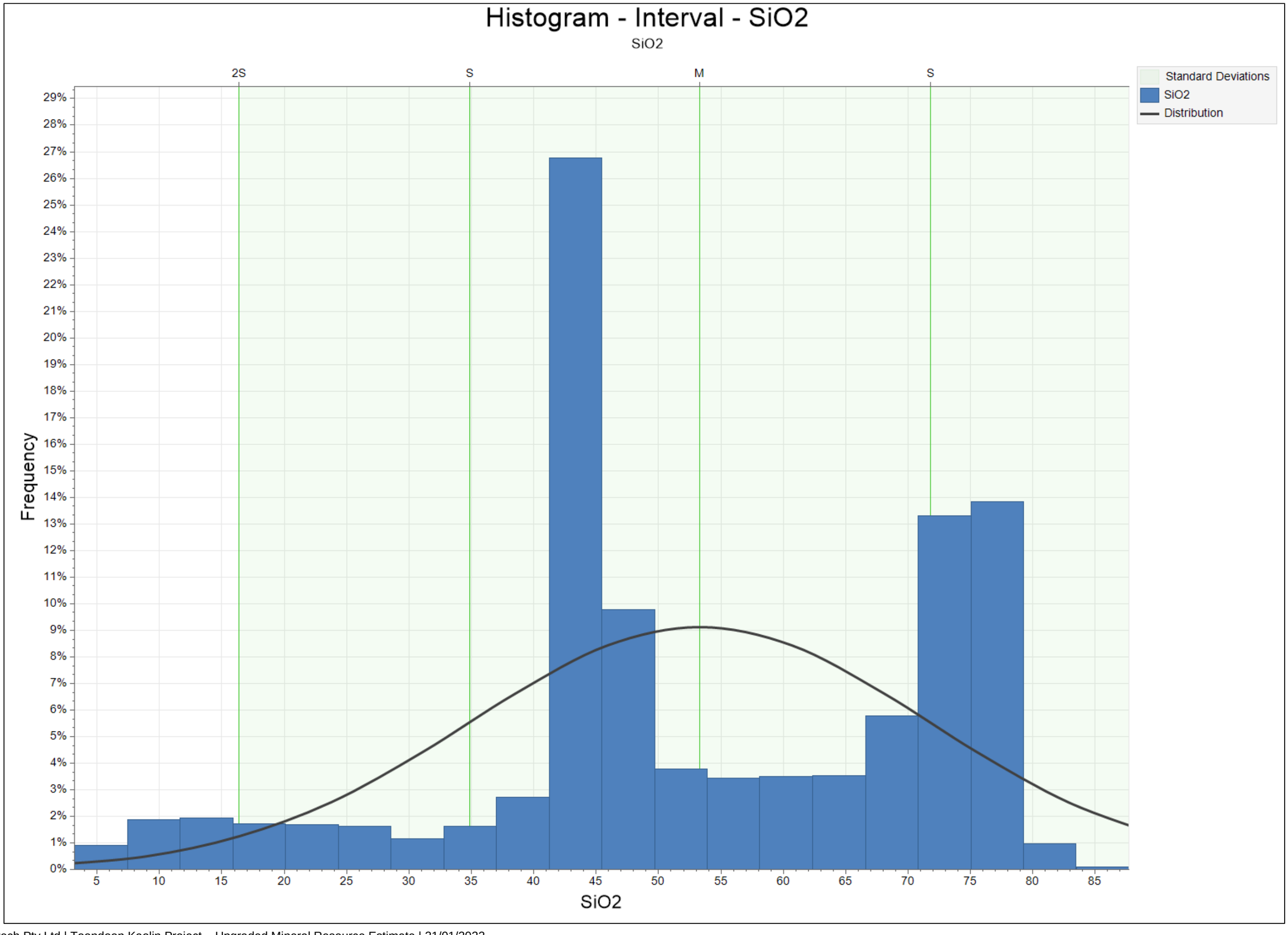



Histogram - Interval - Al2O3
Al2O3
2S
S
M
S
2S
Standard Deviations
Al2O3
Distribution
Frequency
19%
18%
17%
16%
15%
14%
13%
12%
11%
10%
9%
8%
7%
6%
5%
4%
3%
2%
1%
0%
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
42
44
46
48
Al2O3

Histogram - Interval - Fe2O3

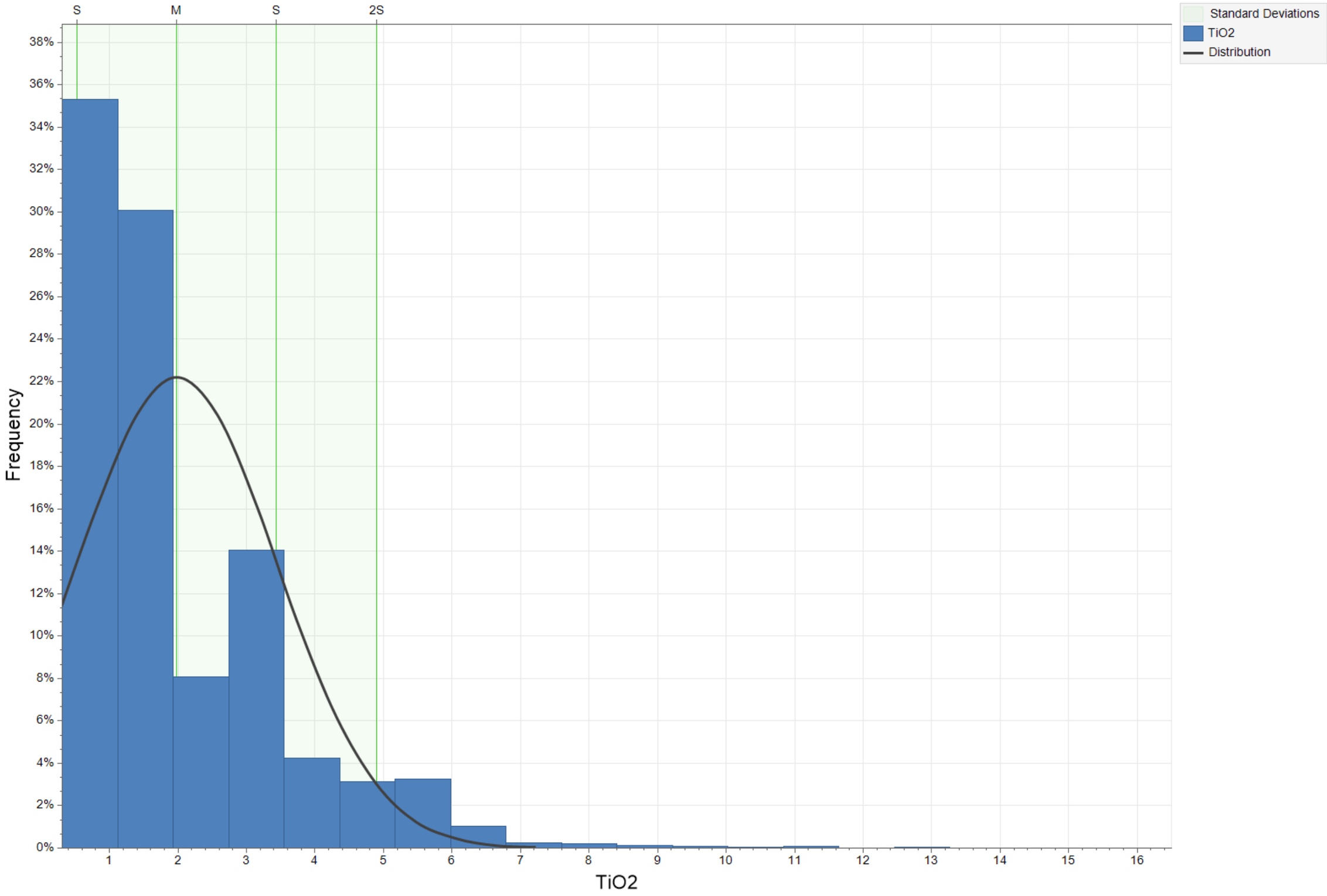
Fe2O3



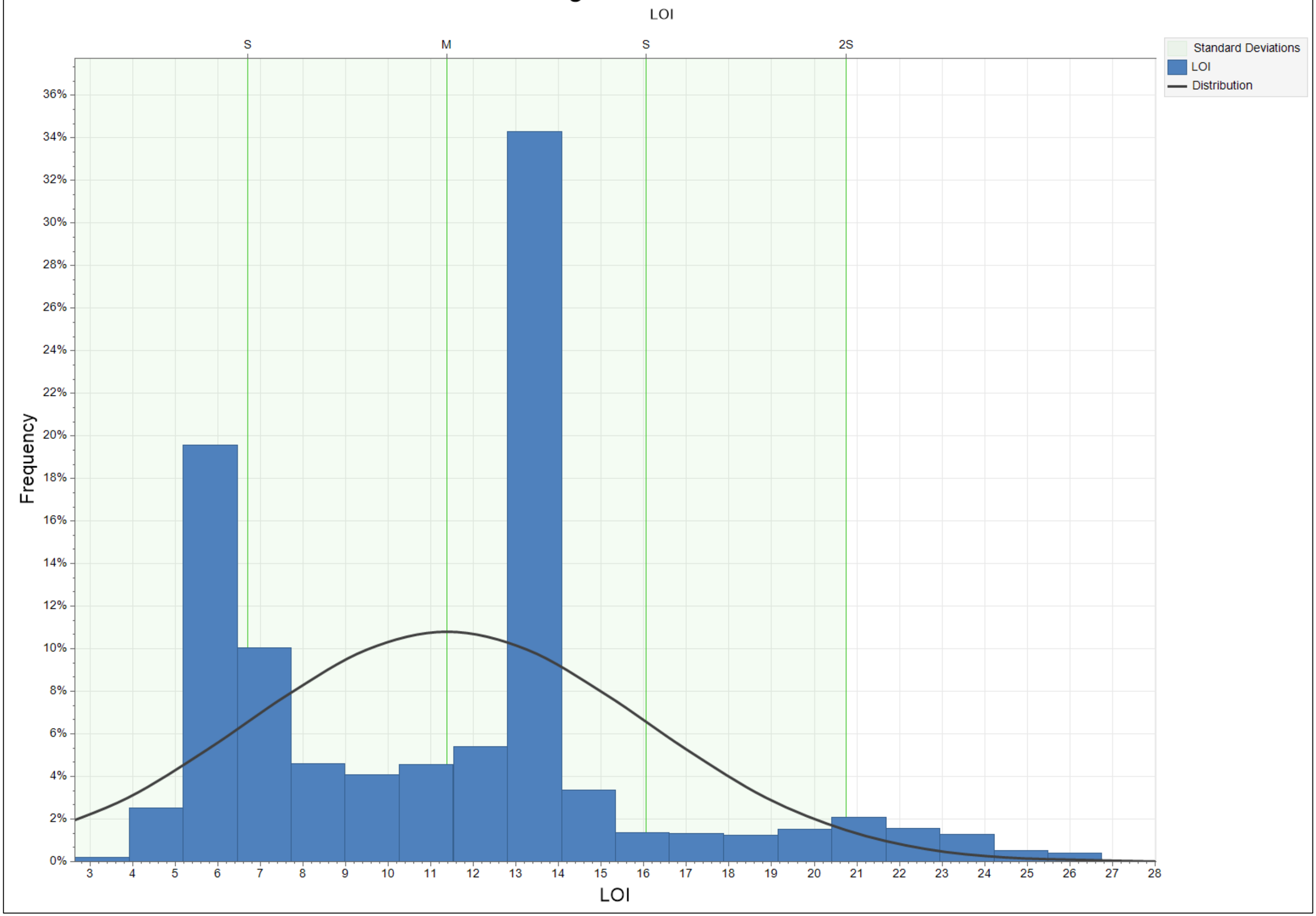

Histogram - Interval - SiO2
SiO2
2S
S
M
S
Standard Deviations
SiO2
Distribution
Frequency
29%
28%
27%
26%
25%
24%
23%
22%
21%
20%
19%
18%
17%
16%
15%
14%
13%
12%
11%
10%
9%
8%
7%
6%
5%
4%
3%
2%
1%
0%
5
10
15
20
25
30
35
40
45
50
55
60
65
70
75
80
85
SiO2

Histogram - Interval - TiO2

TiO2

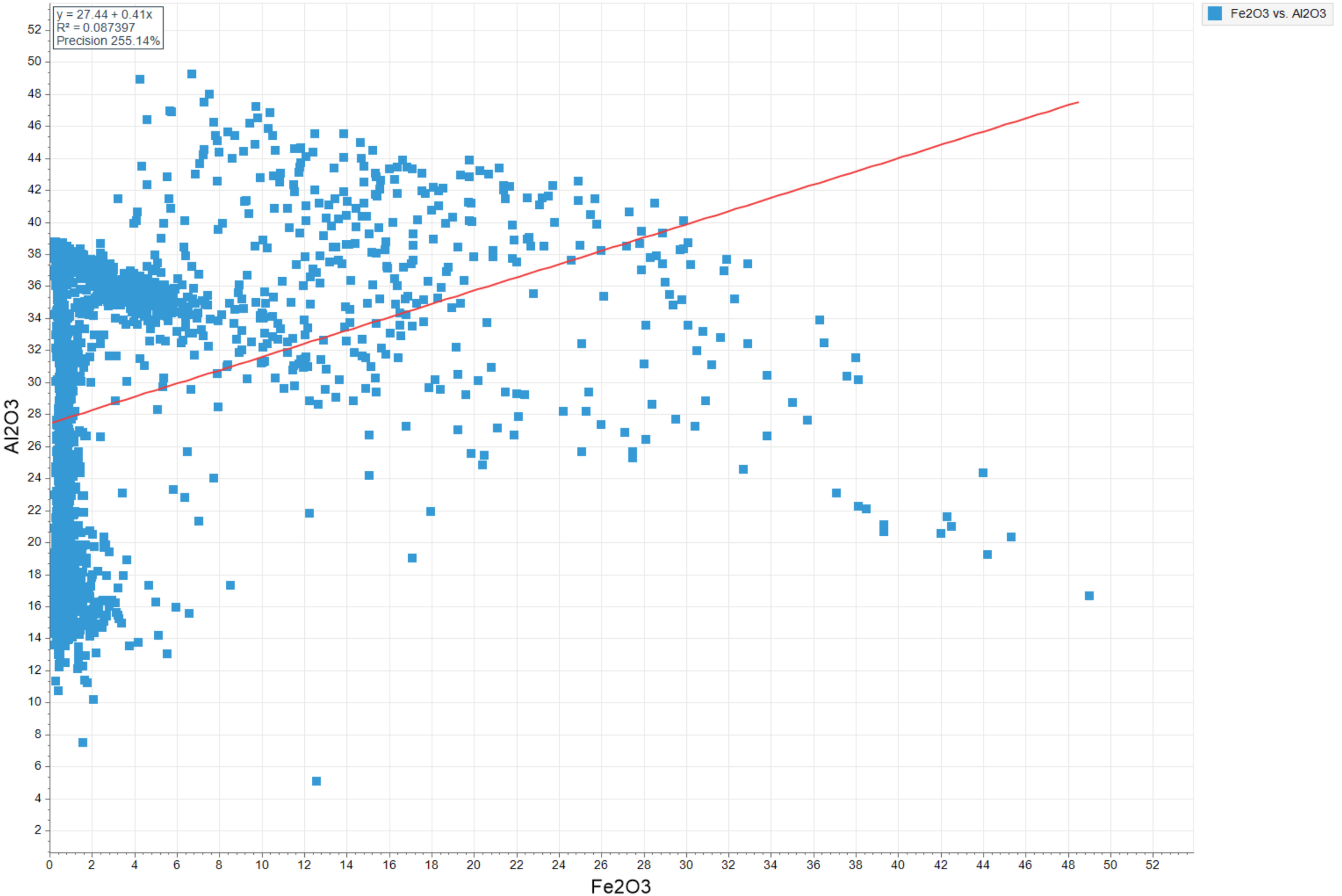


Histogram - Interval - LOI



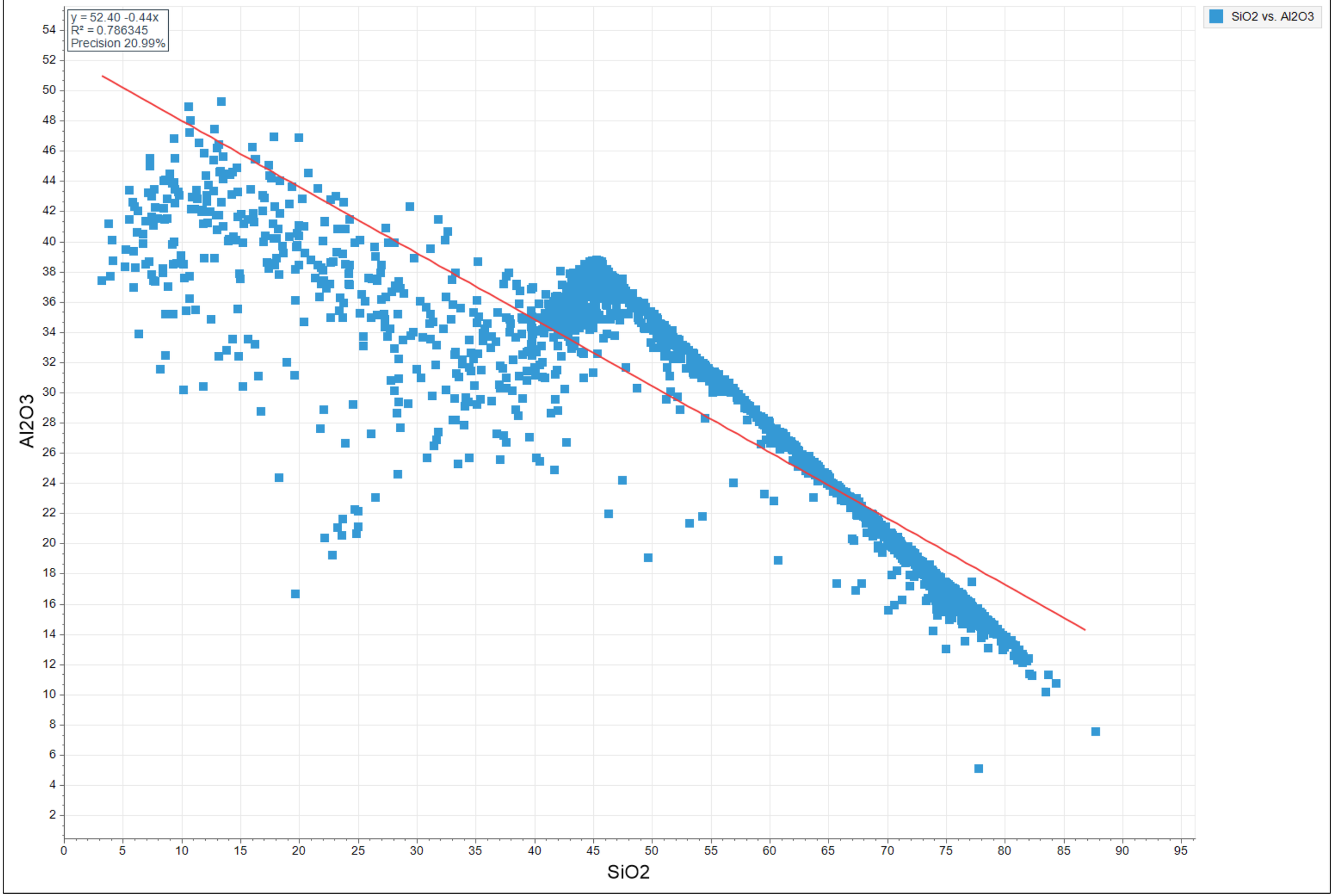
Scattergram - Al2O3 vs Fe2O3

Fe2O3, Al2O3



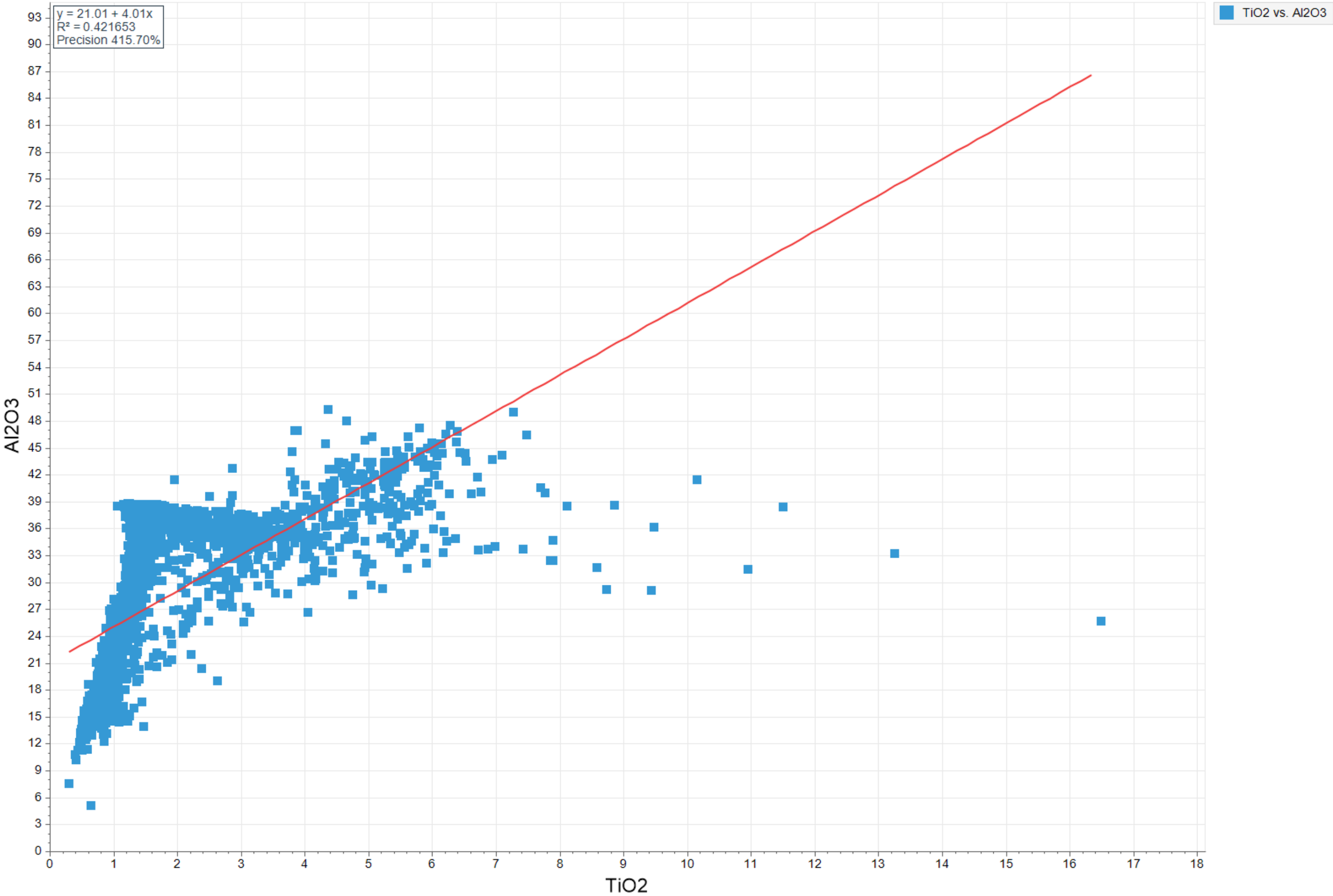
Scattergram - Al2O3 vs SiO2

SiO2, Al2O3



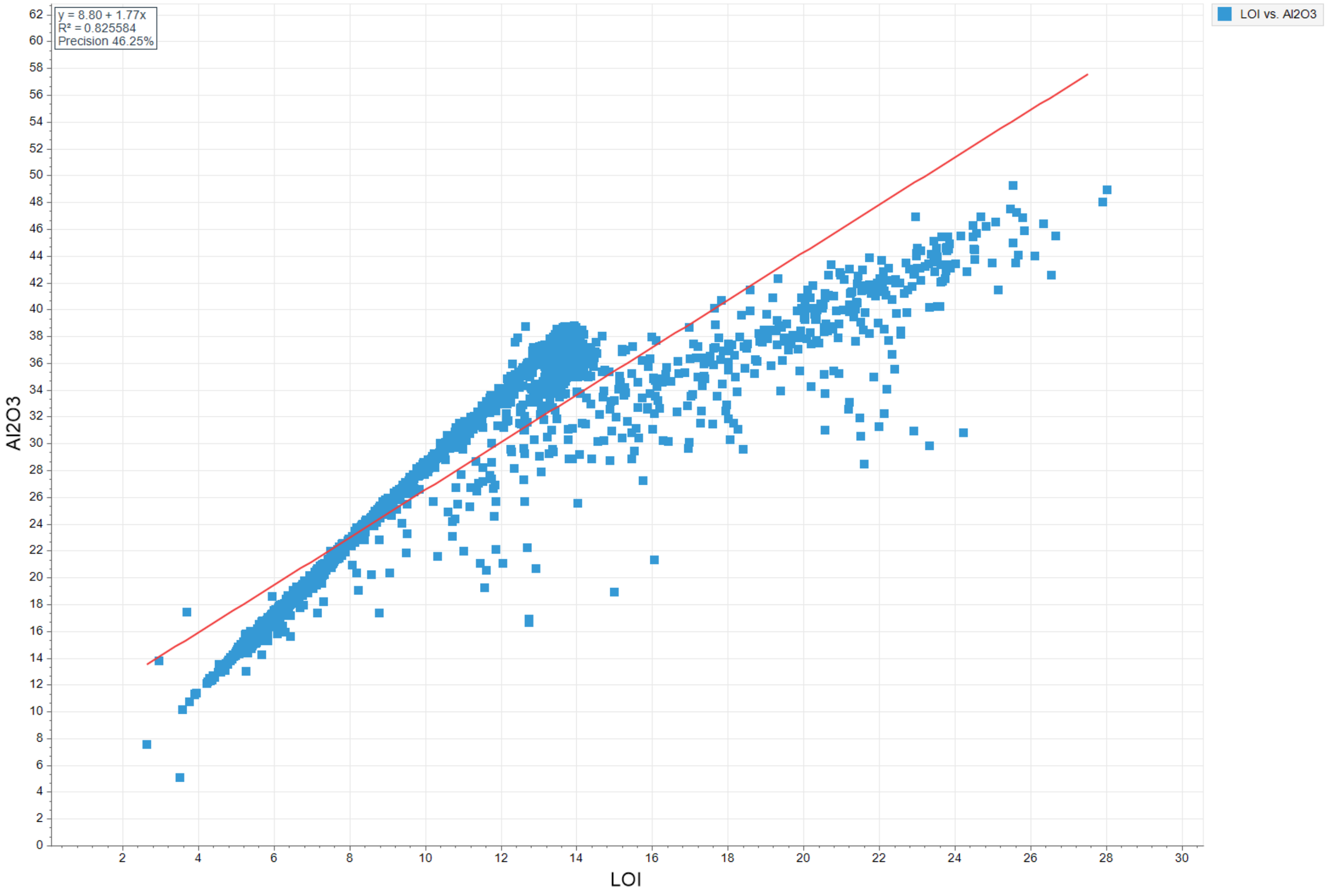
Scattergram - Al2O3 vs TiO2

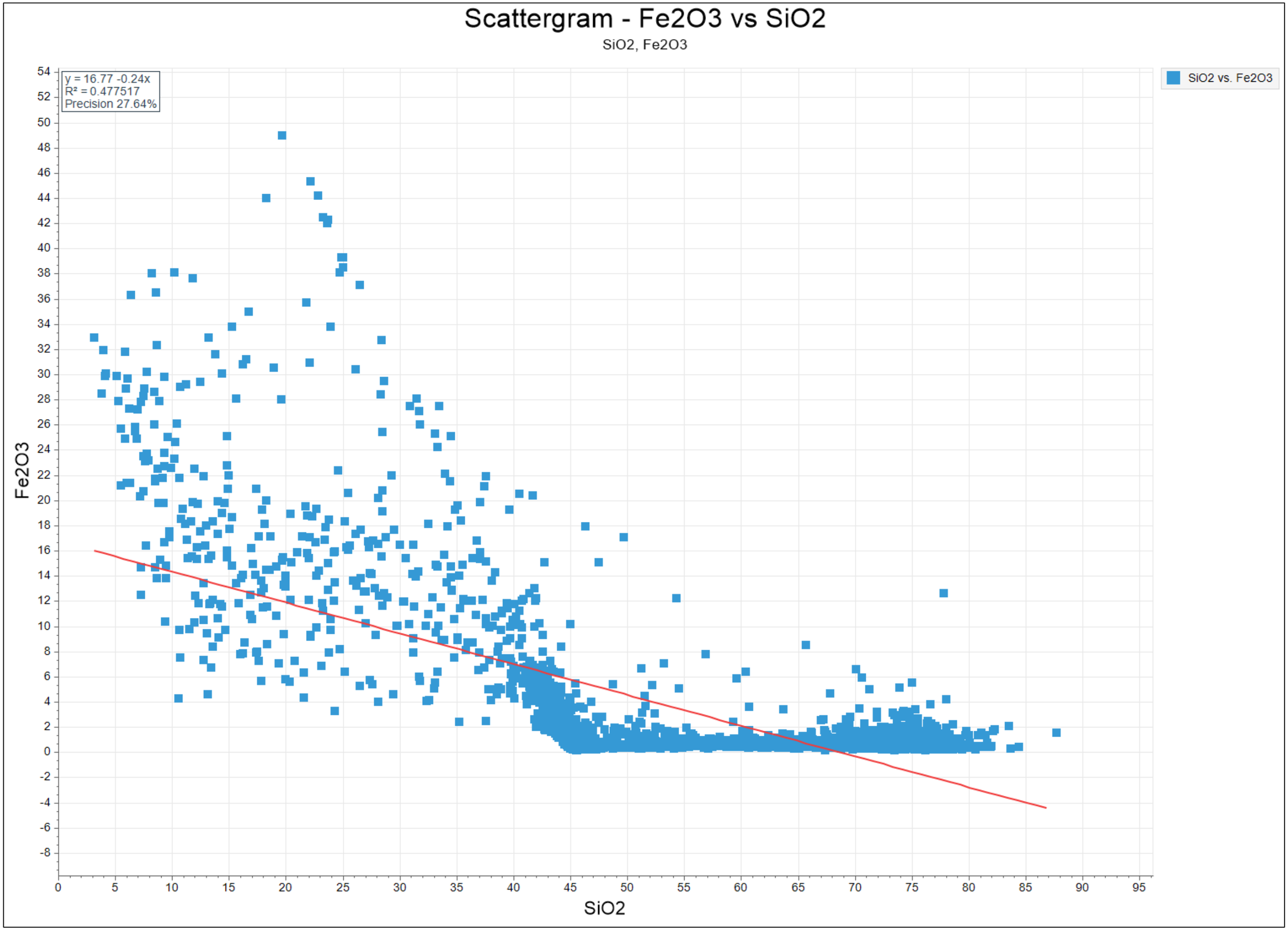
TiO2, Al2O3

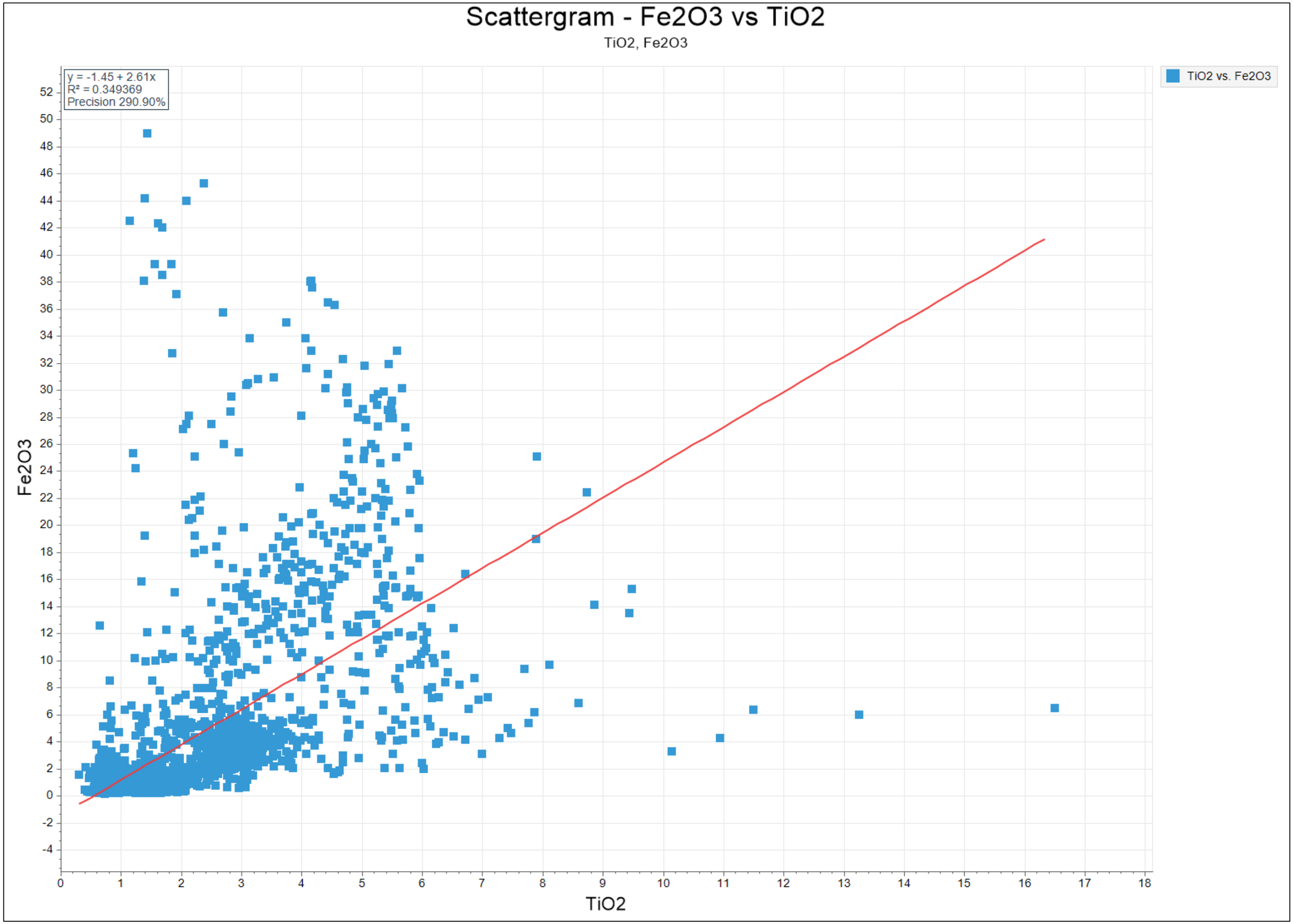


Scattergram - Al2O3 vs LOI

LOI, Al2O3

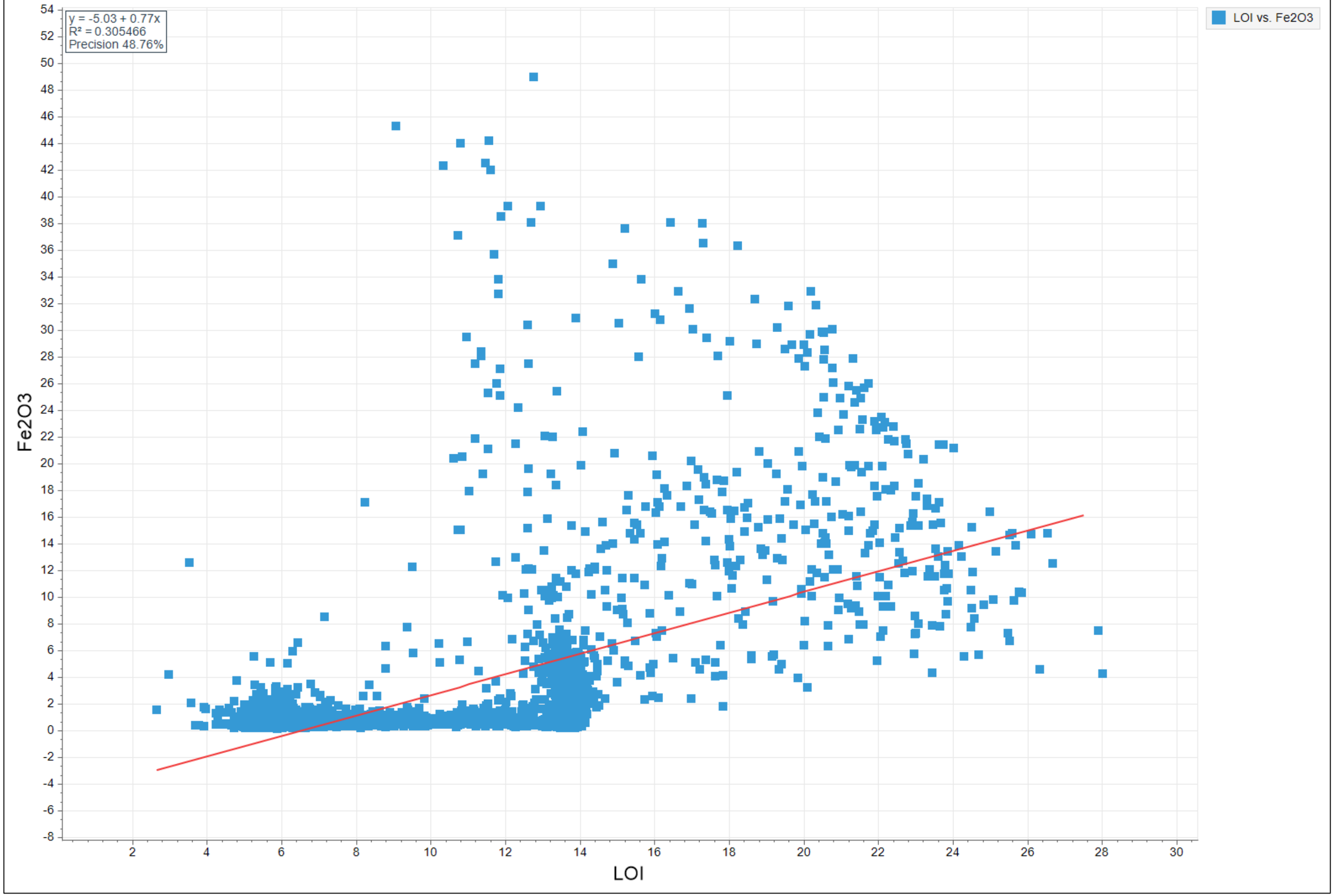


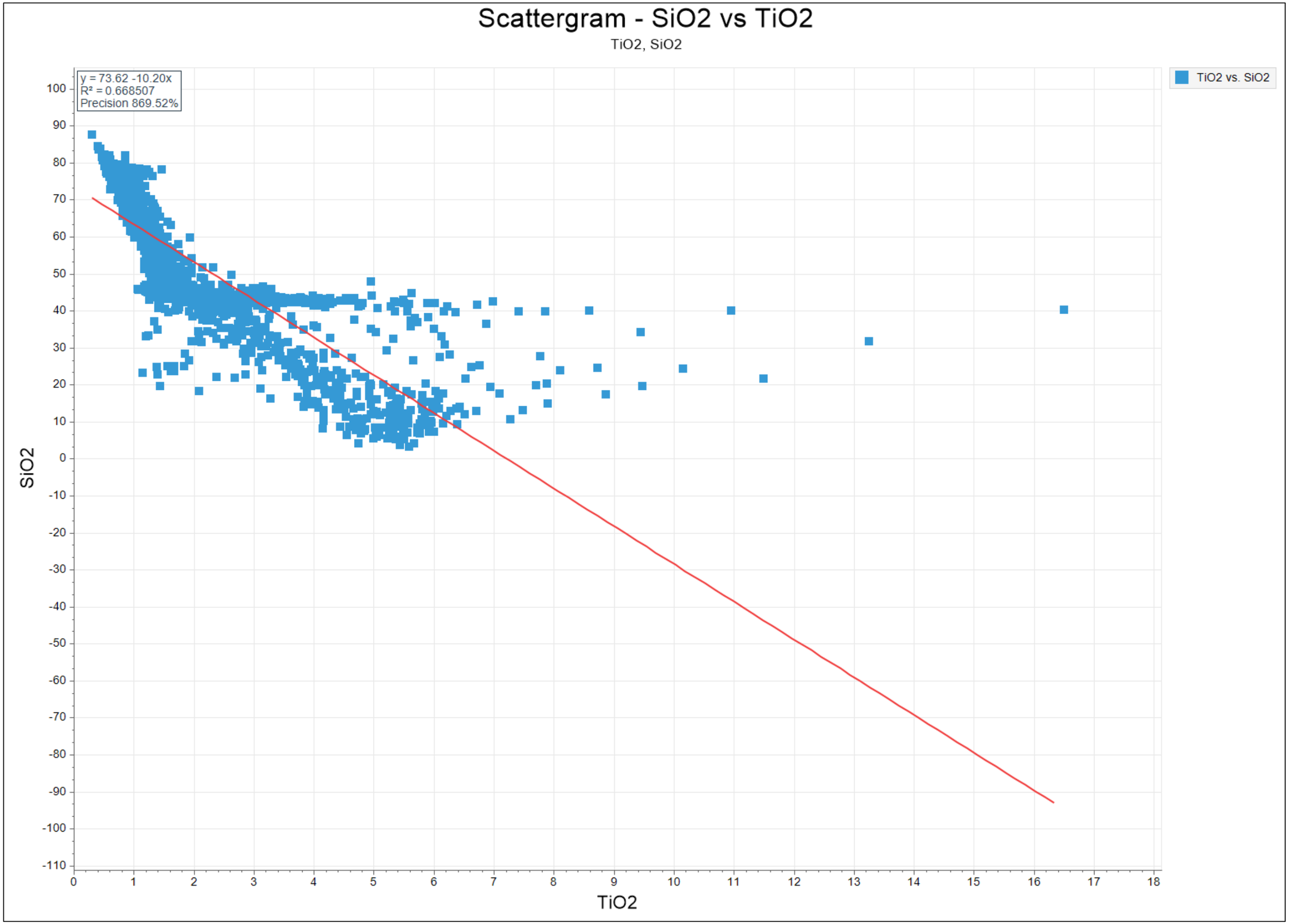

Scattergram - Fe2O3 vs SiO2
SiO2, Fe2O3
y = 16.77 -0.24x
R² = 0.477517
Precision 27.64%
SiO2 vs. Fe2O3
Fe2O3
SiO2
54
52
50
48
46
44
42
40
38
36
34
32
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
0
5
10
15
20
25
30
35
40
45
50
55
60
65
70
75
80
85
90
95

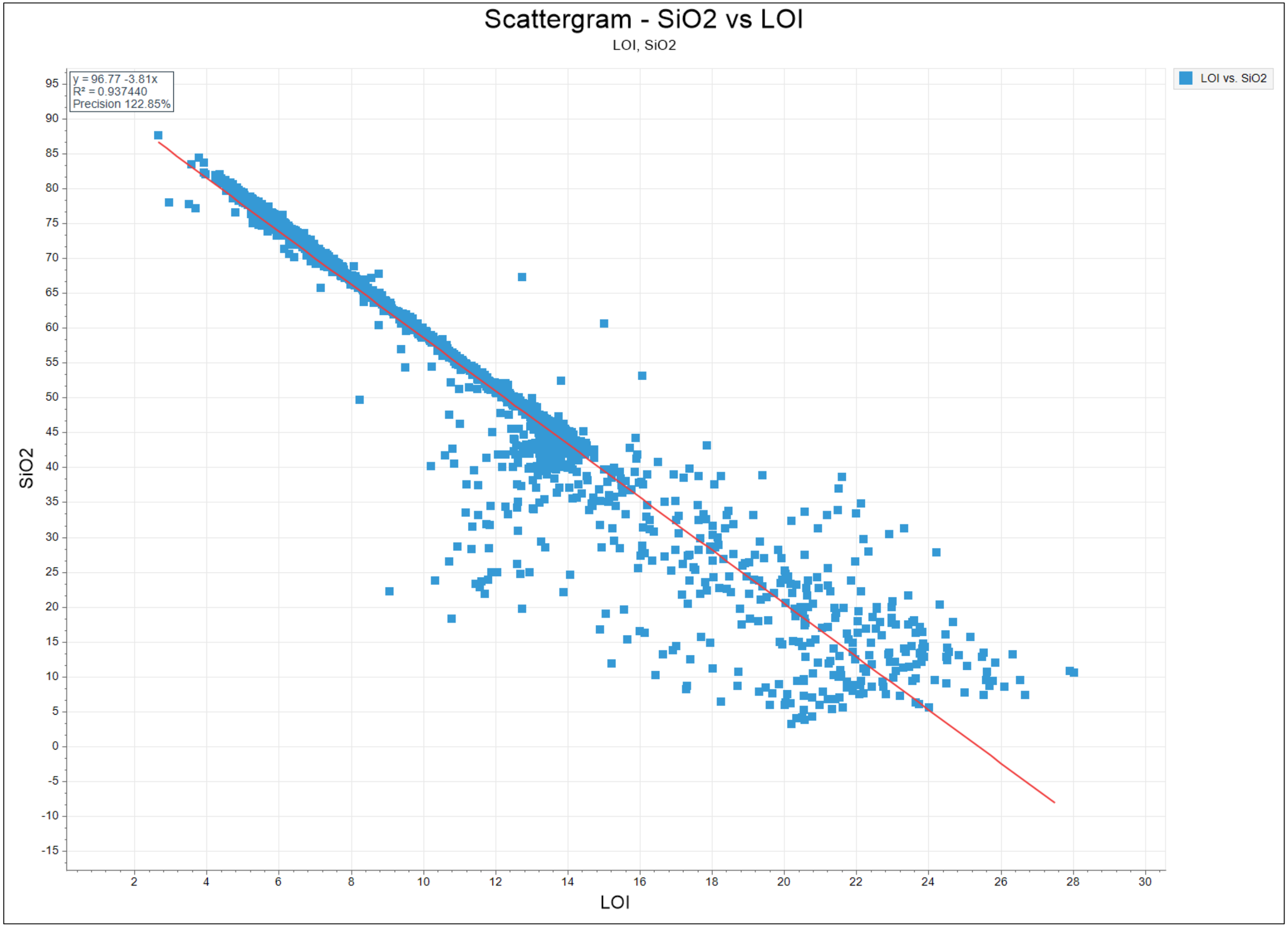

Scattergram - Fe2O3 vs TiO2
TiO2, Fe2O3
y = -1.45 + 2.61x
R² = 0.349369
Precision 290.90%
TiO2 vs. Fe2O3
Fe2O3
TiO2

Scattergram - Fe2O3 vs LOI

LOI, Fe2O3

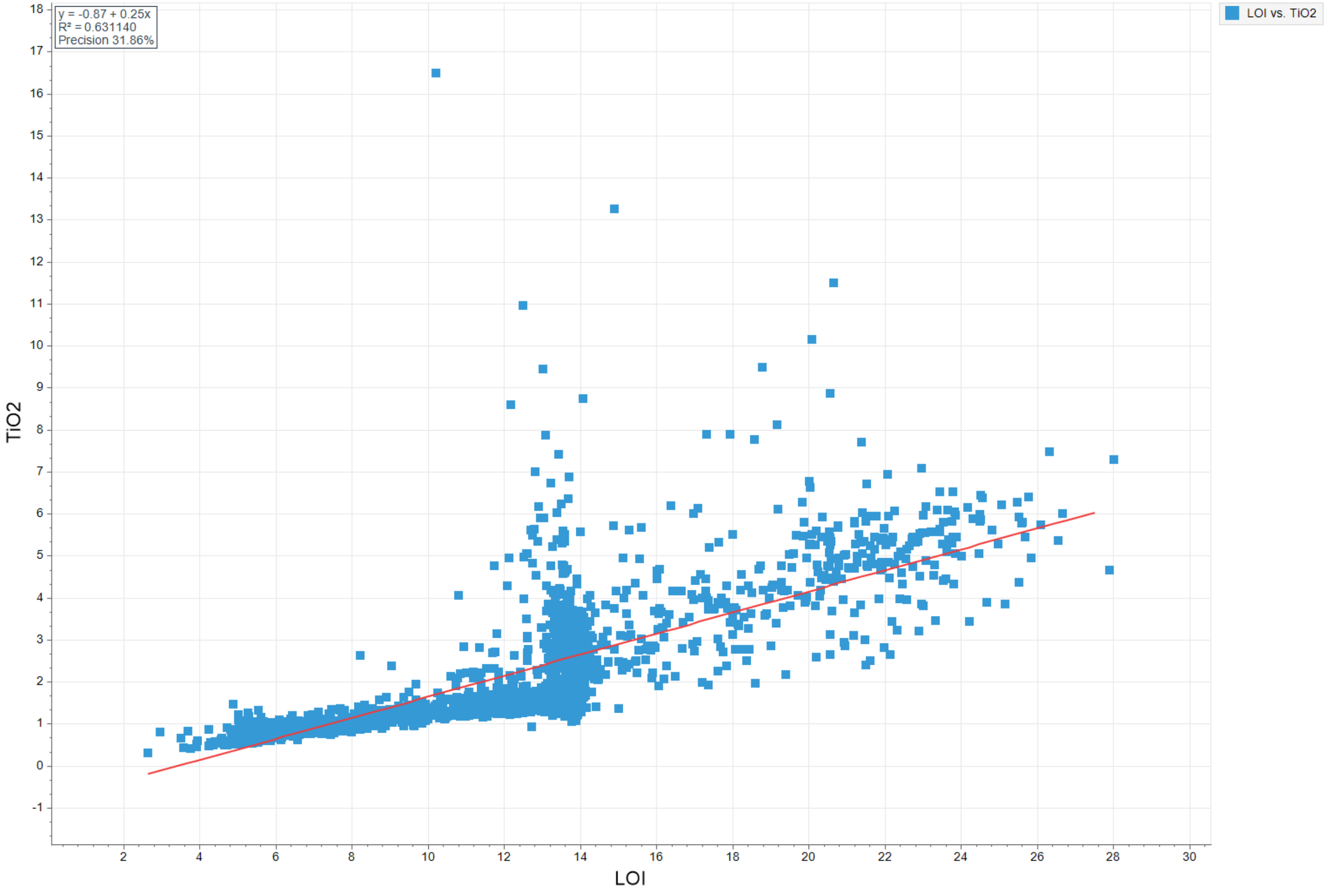



Scattergram - SiO2 vs TiO2
TiO2, SiO2
y = 73.62 -10.20x
R² = 0.668507
Precision 869.52%
TiO2 vs. SiO2
SiO2
TiO2
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18


Scattergram - SiO2 vs LOI
LOI, SiO2
y = 96.77 -3.81x
R² = 0.937440
Precision 122.85%
LOI vs. SiO2
SiO2
LOI
95
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0
-5
-10
-15
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30

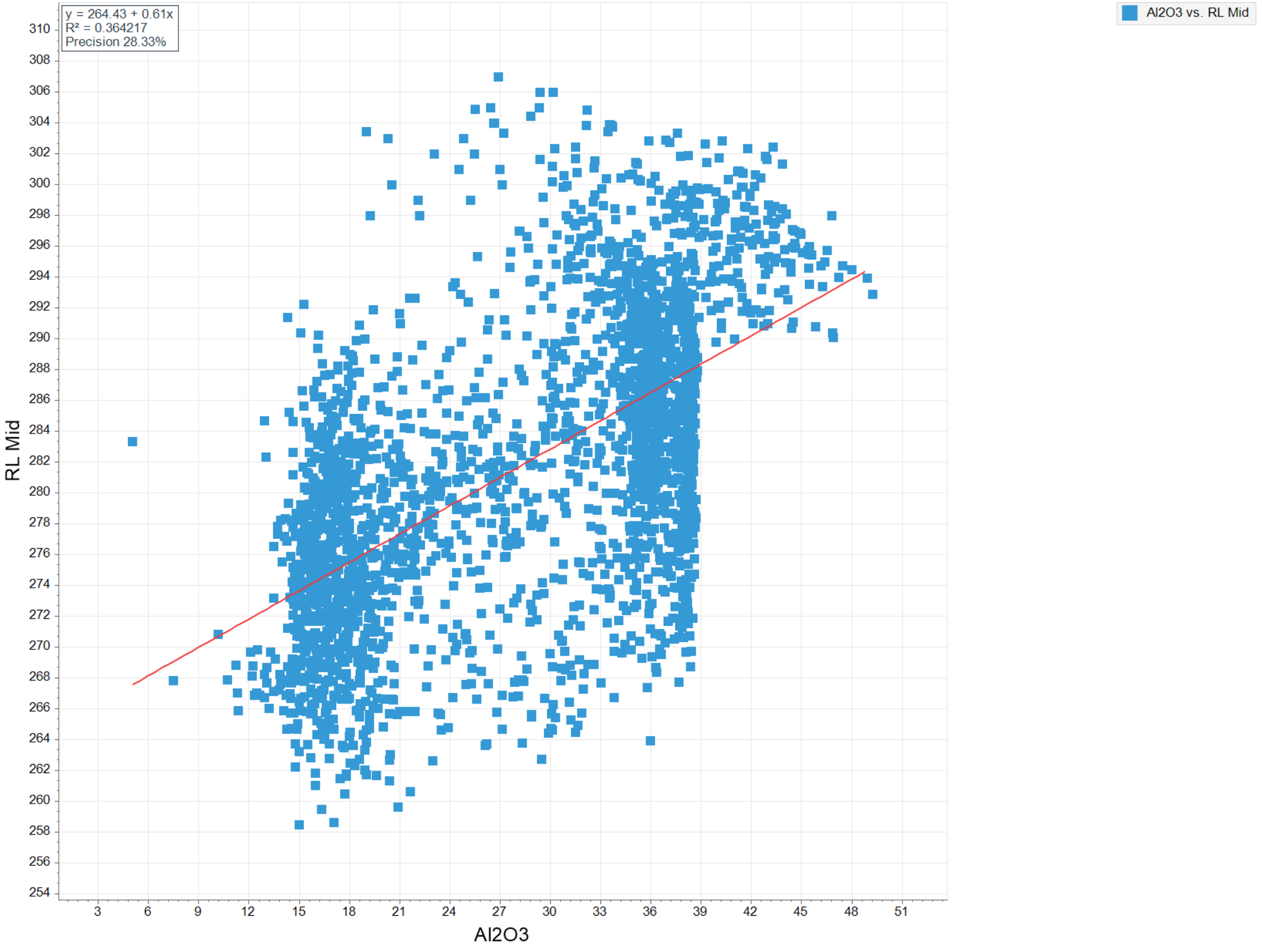
Scattergram - TiO2 vs LOI

LOI, TiO2



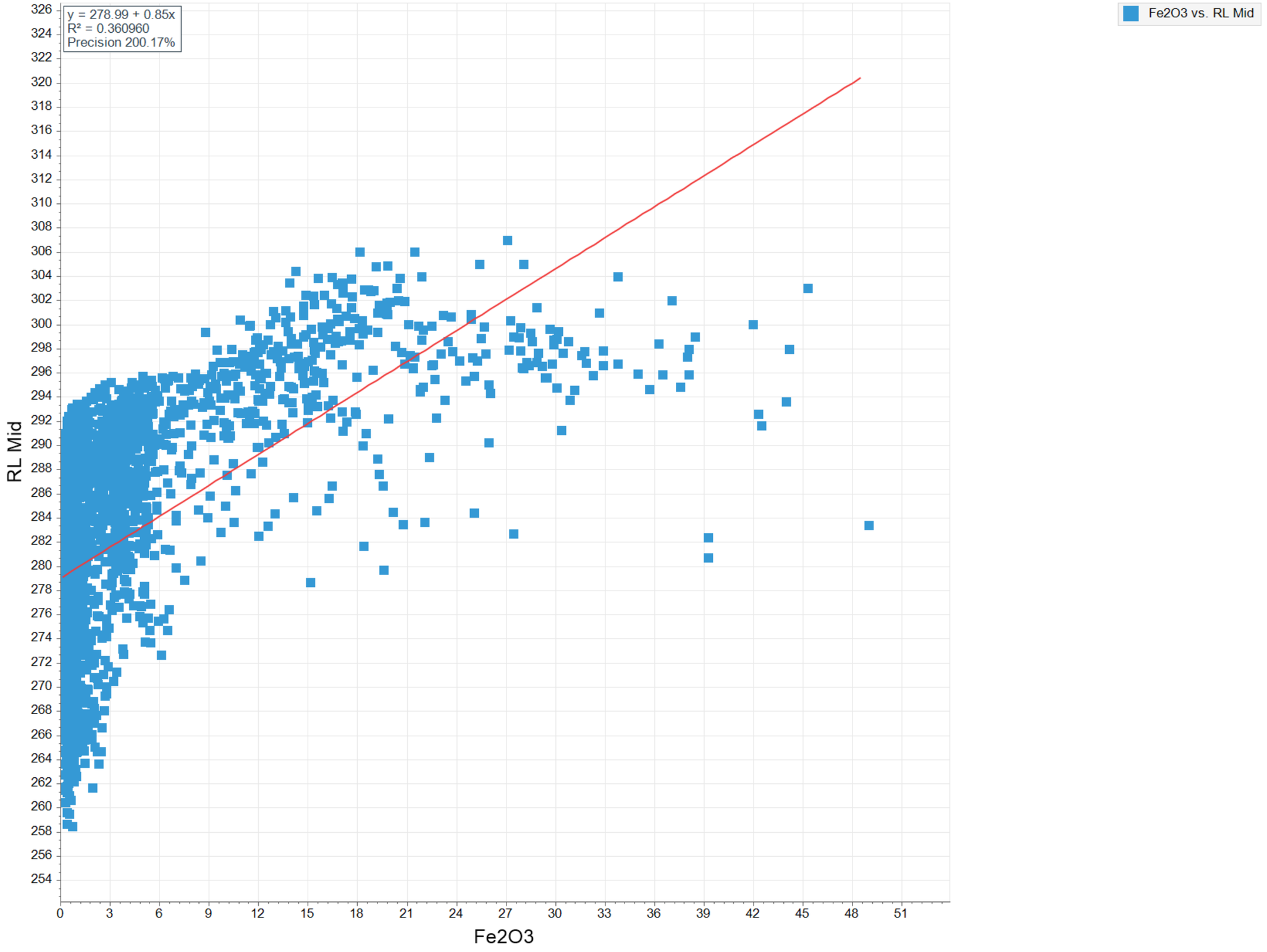
Scattergram - RL vs Al2O3

Al2O3, RL Mid



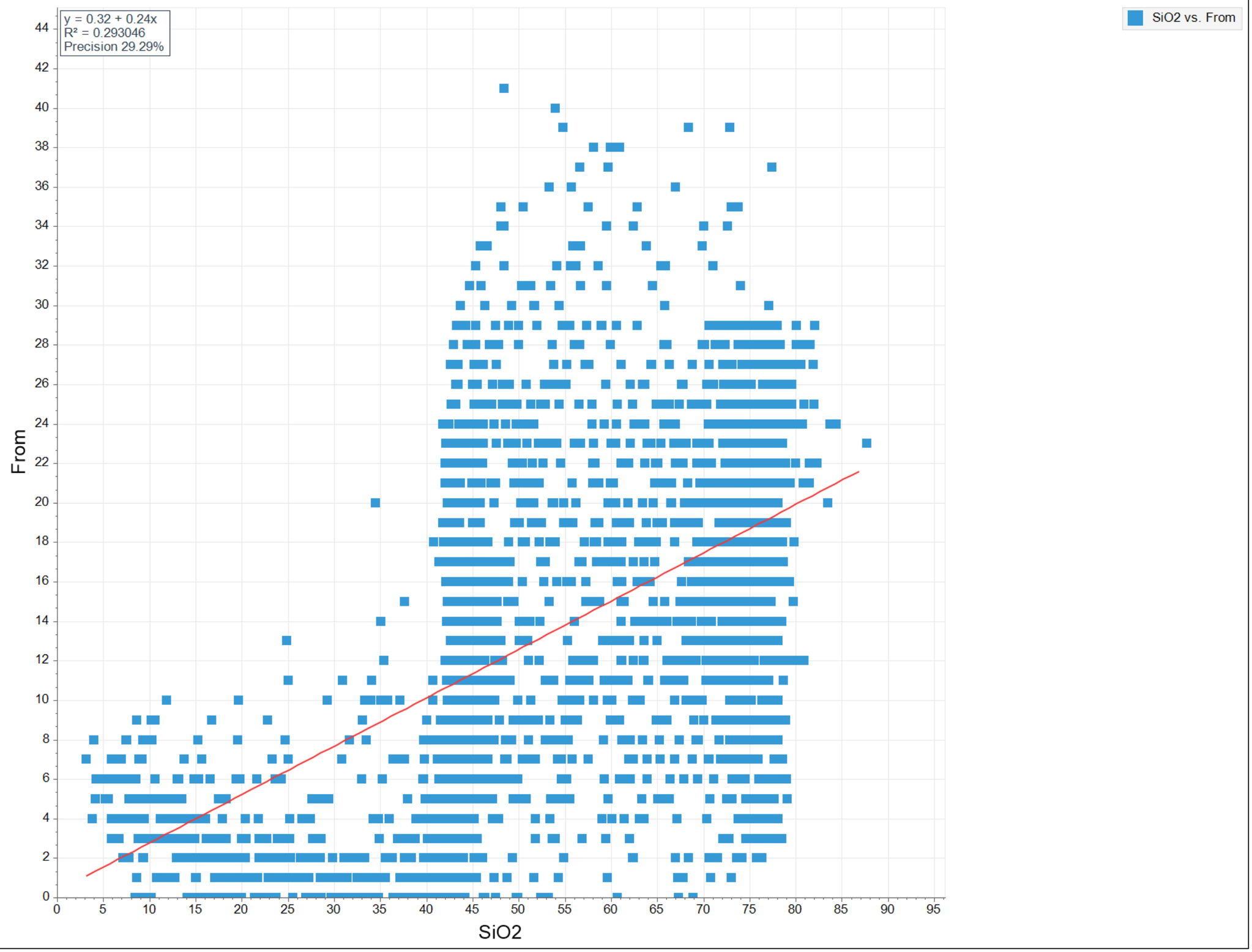
Scattergram - RL vs Fe2O3

Fe2O3, RL Mid



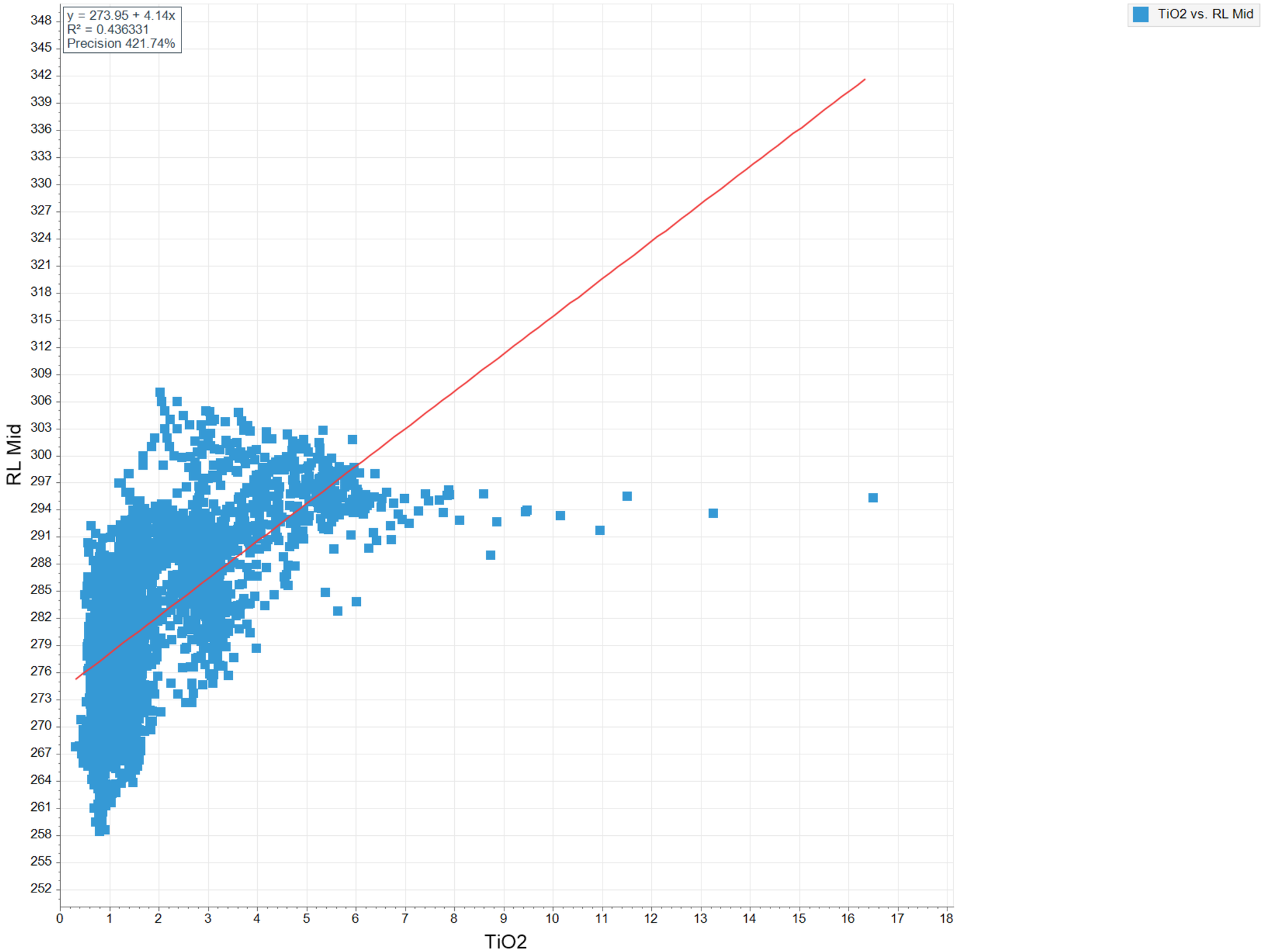
Scattergram - Depth vs SiO2

SiO2, From



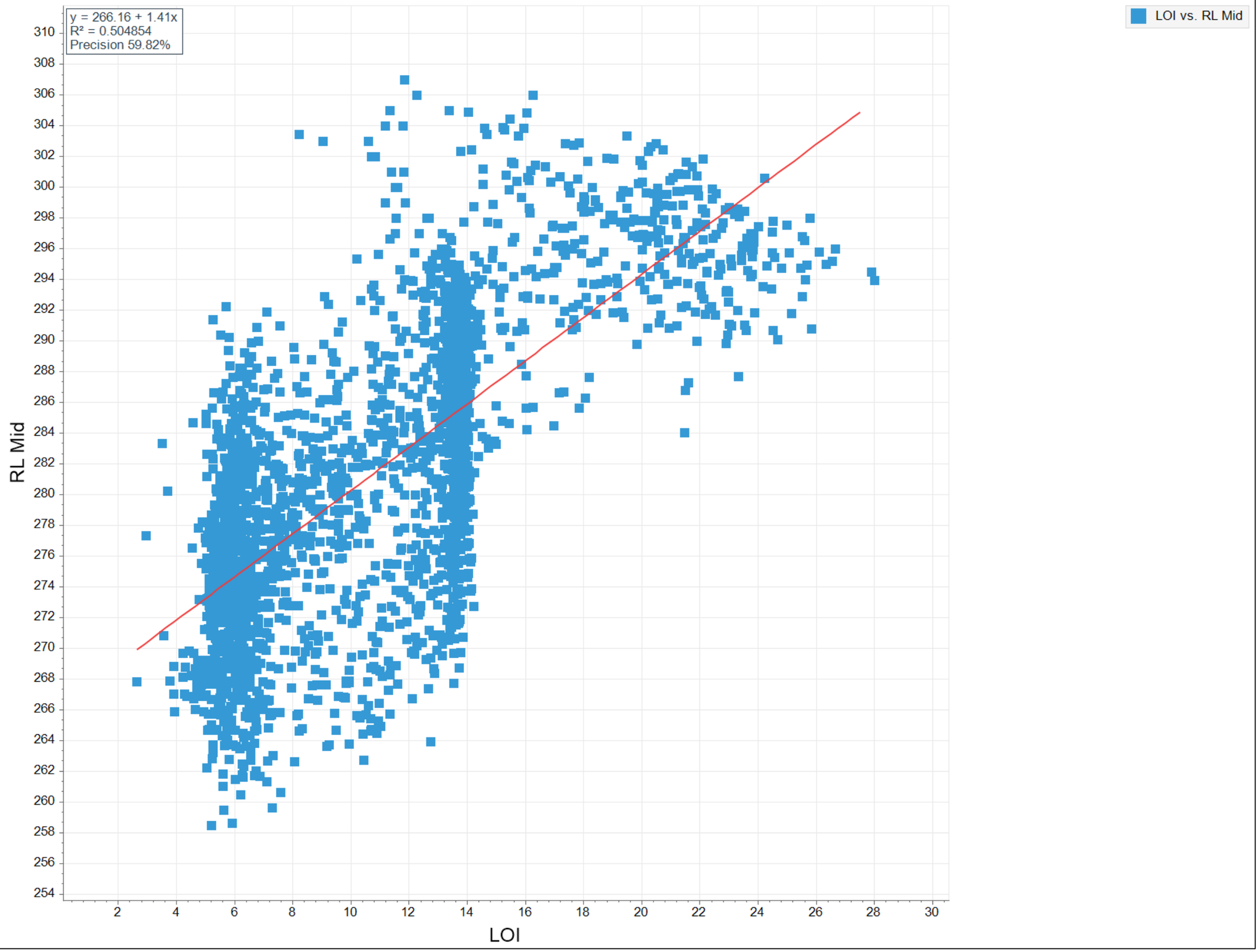
Scattergram - RL vs TiO2

TiO2, RL Mid



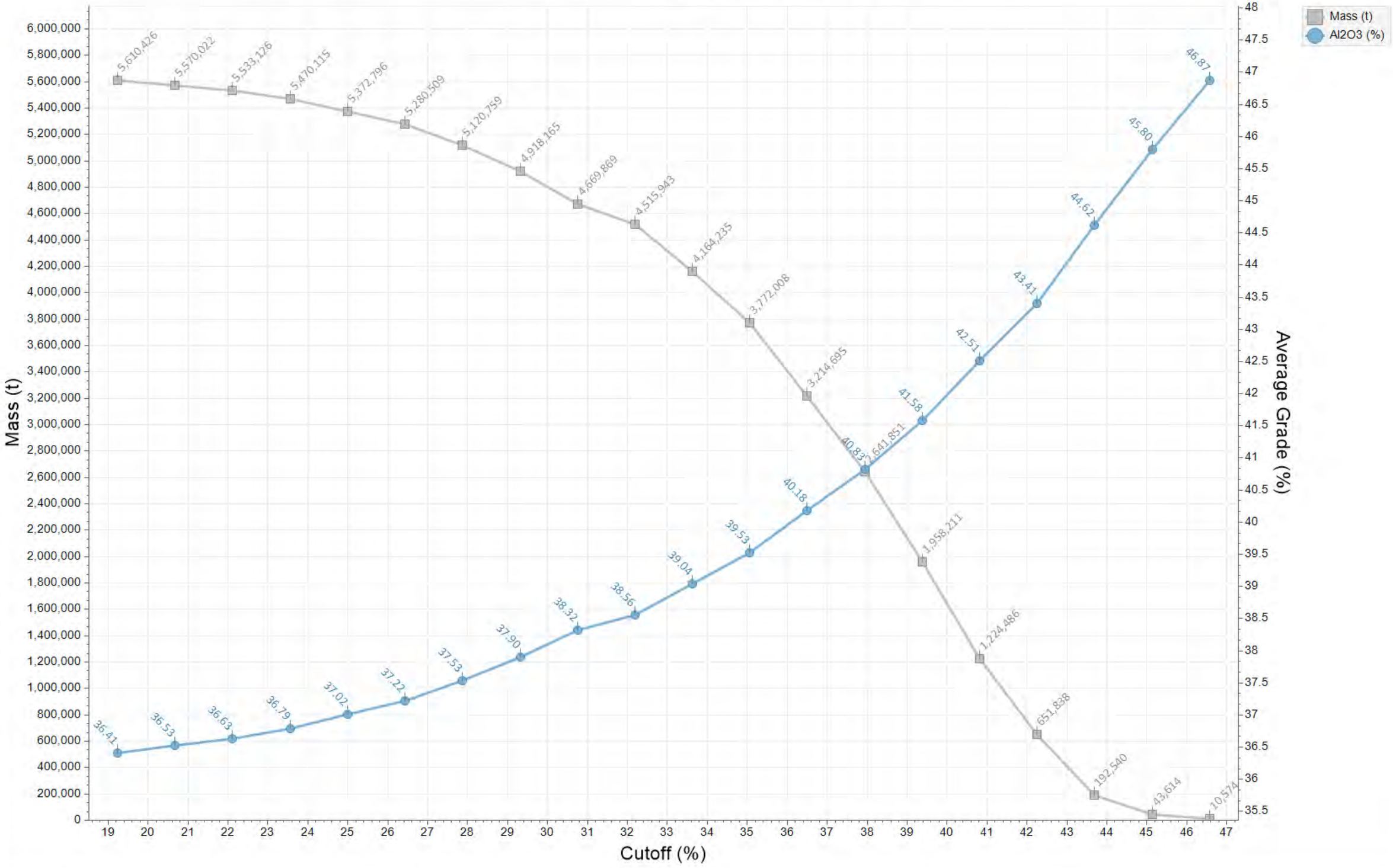
Scattergram - RL vs LOI

LOI, RL Mid



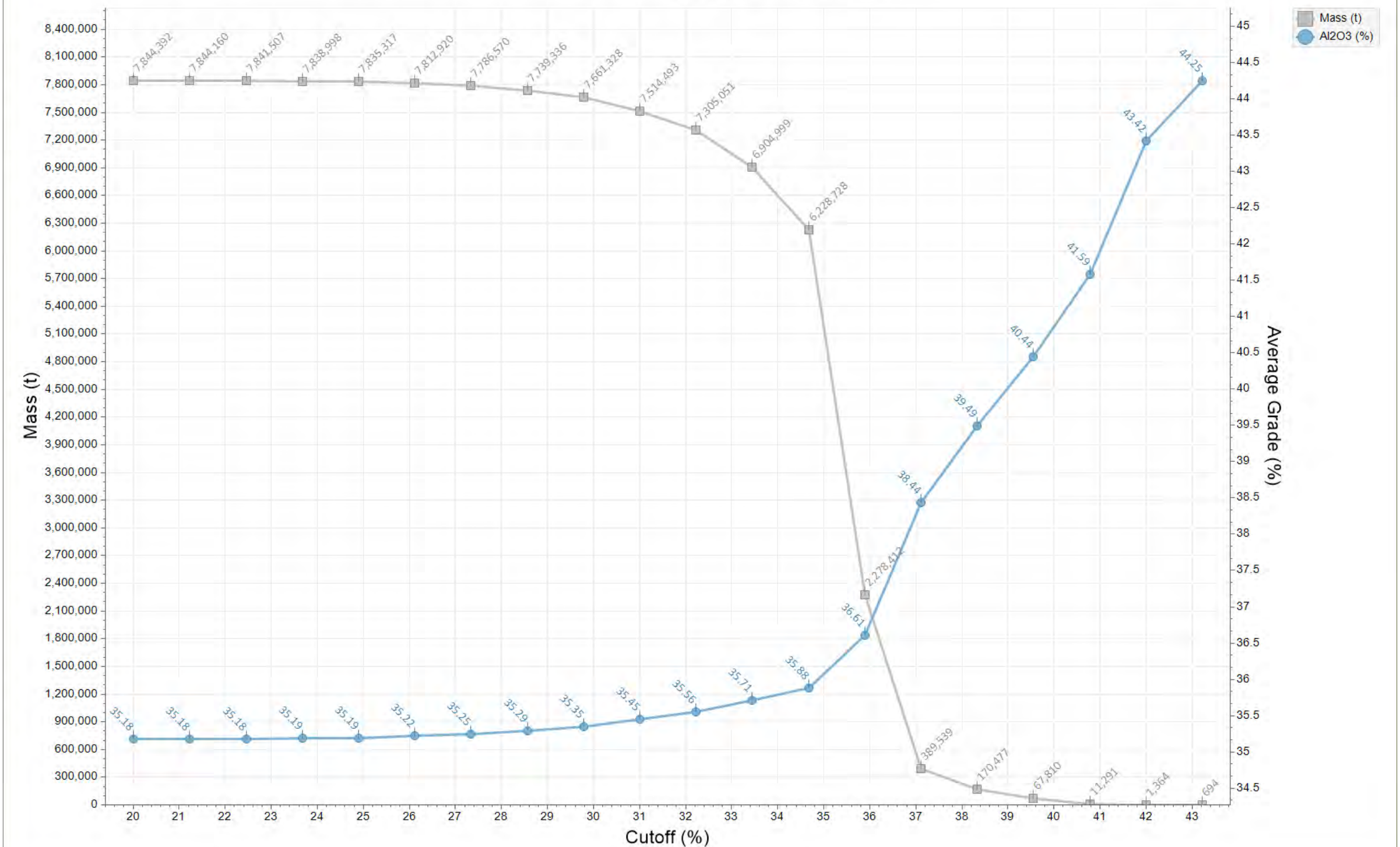
Grade Tonnage Curve - Baux Clay

Al2O3



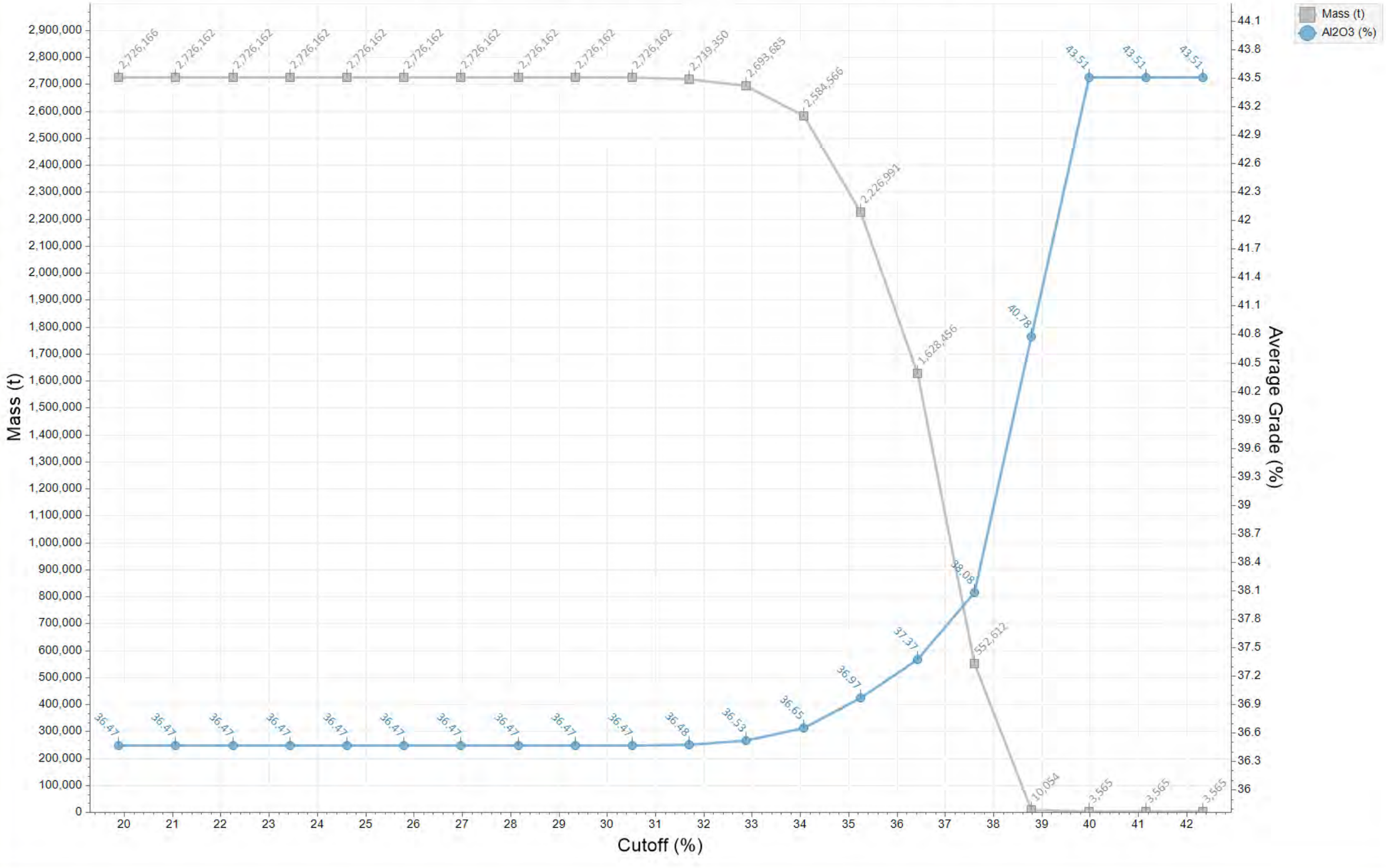
Grade Tonnage Curve - Pl Clay

Al2O3



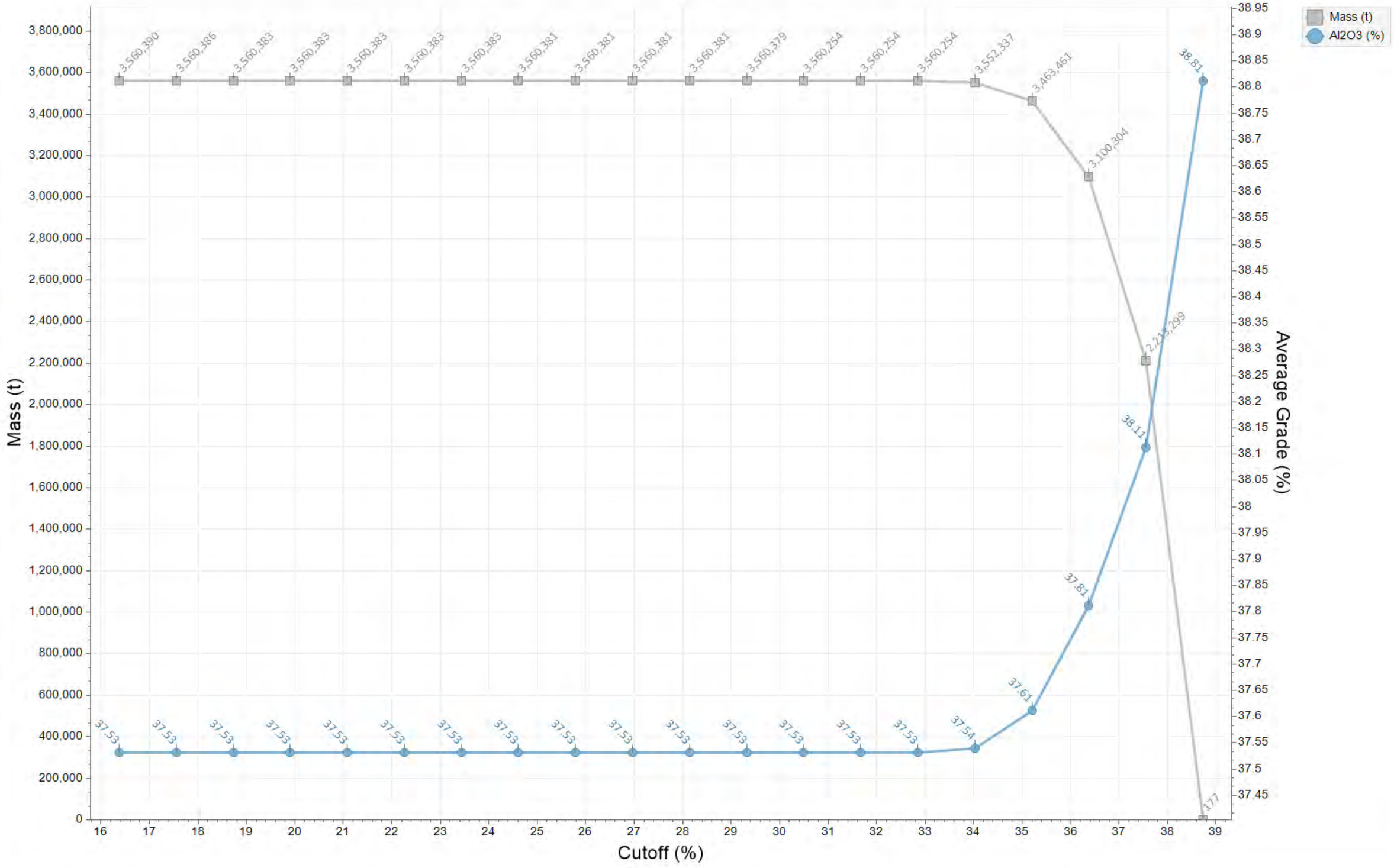
Grade Tonnage Curve - Kao Clay (High Iron)

Al2O3



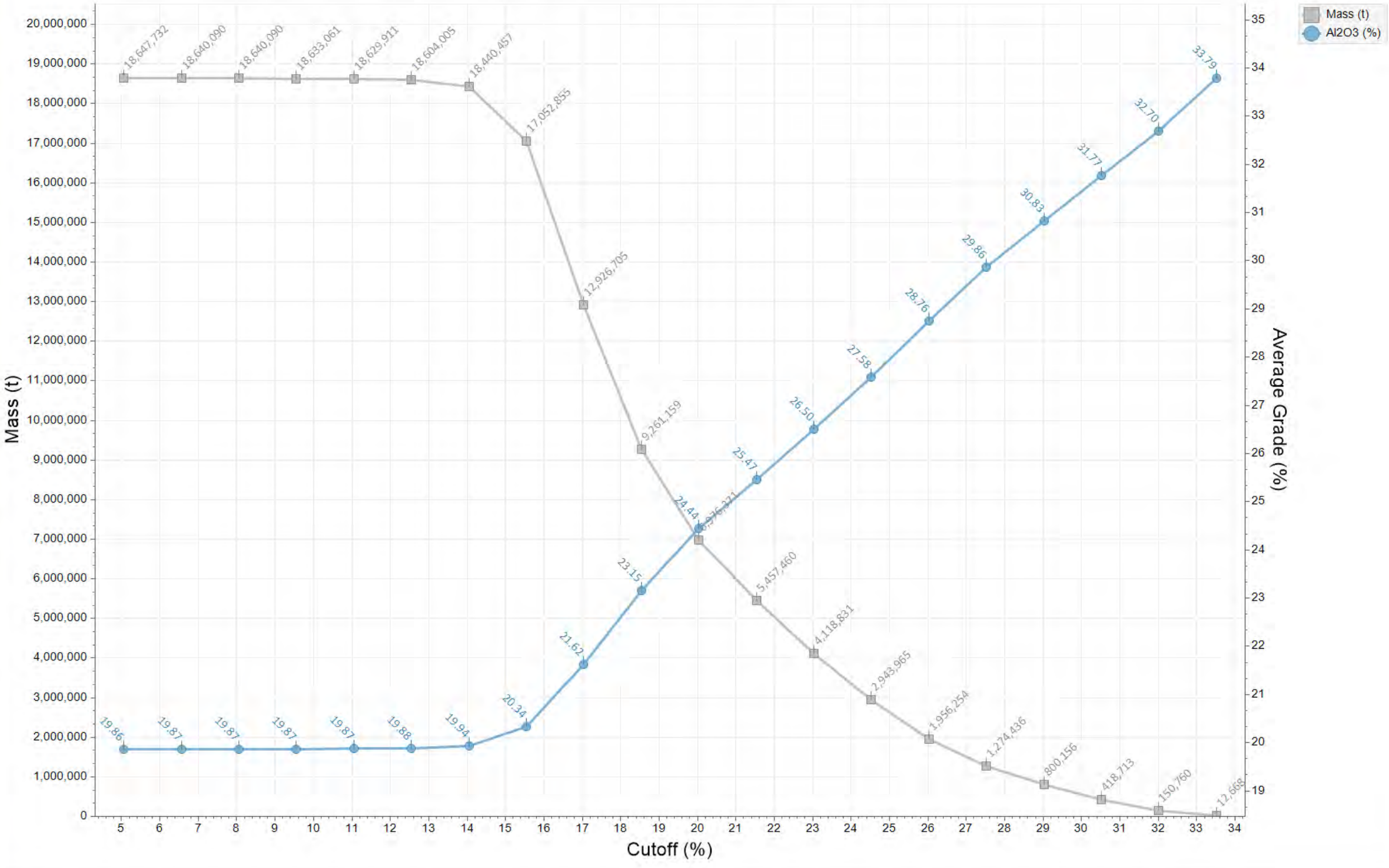
Grade Tonnage Curve - Kao Clay (Low Iron)

Al2O3



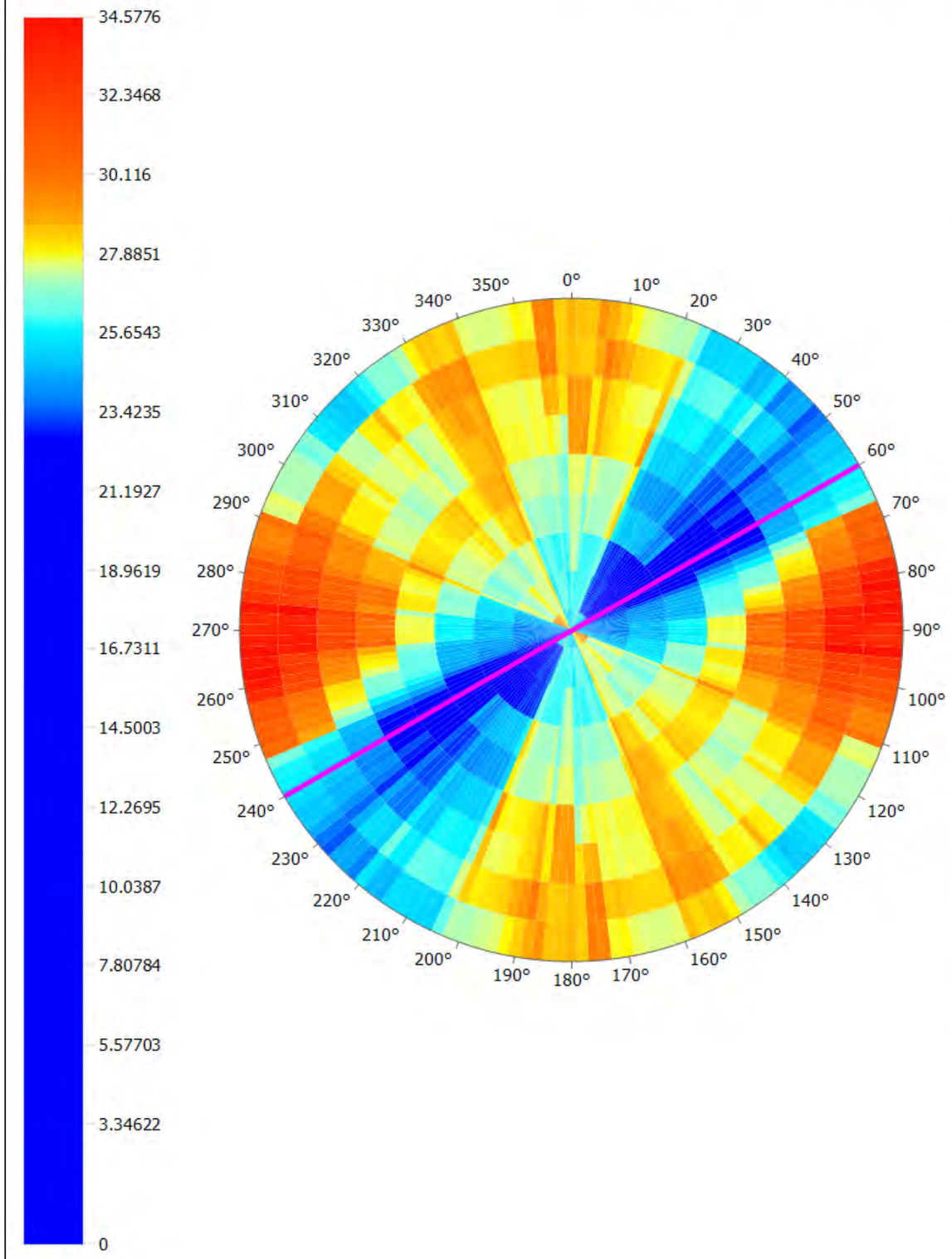
Grade Tonnage Curve - Sa Clay

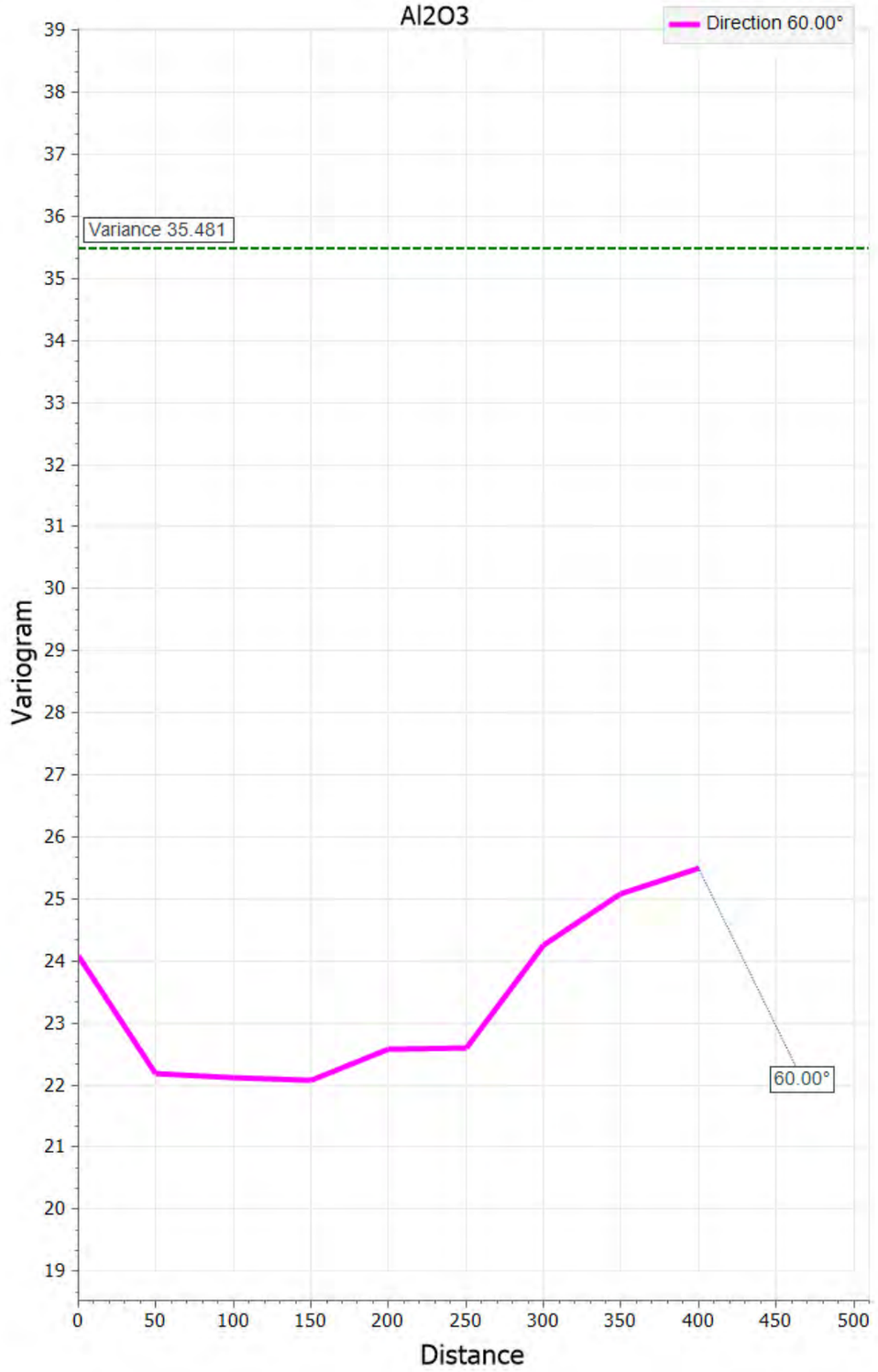
Al2O3



Semivariogram Map - Baux Clay - Al2O3

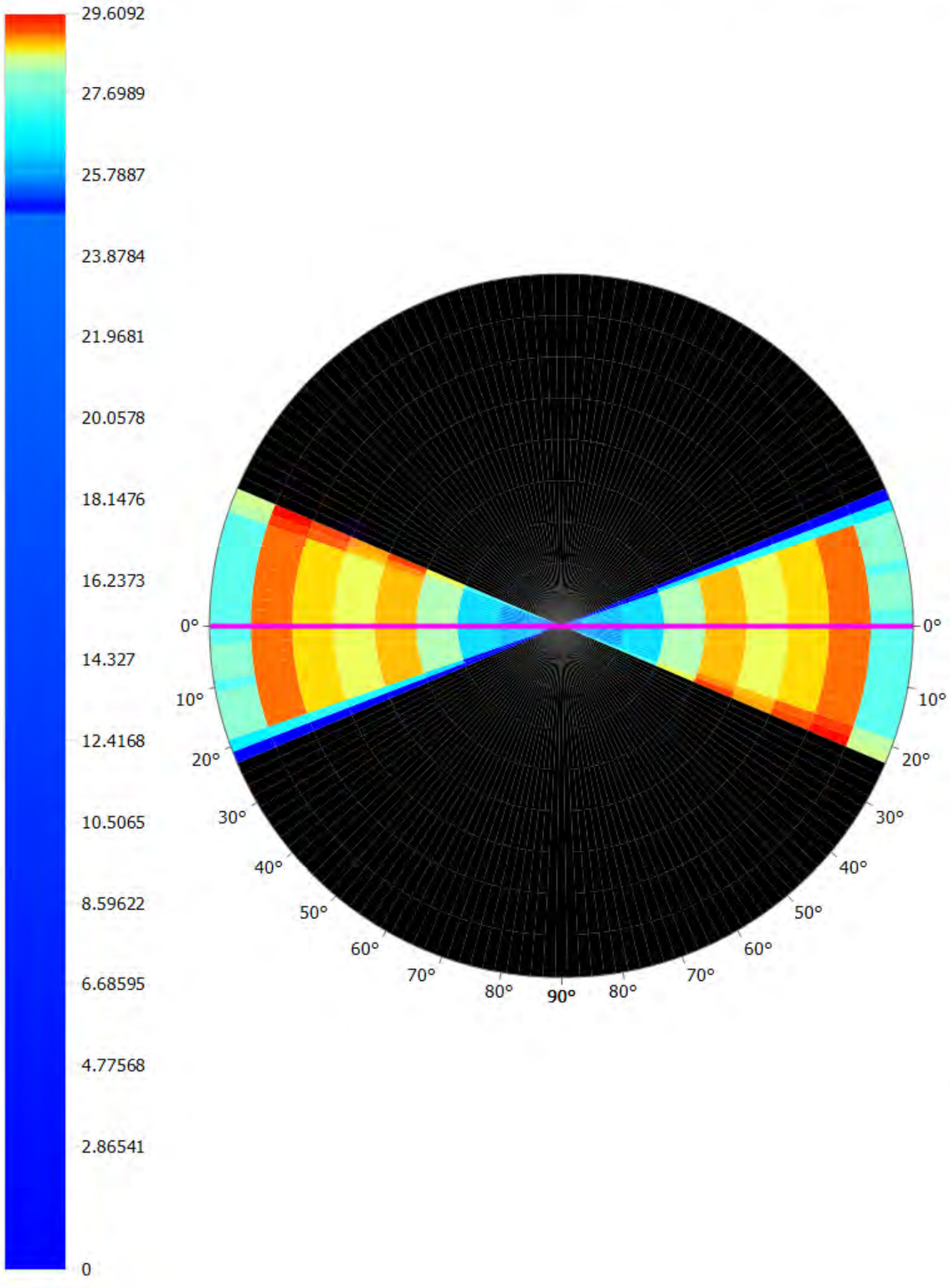
Strike Variogram

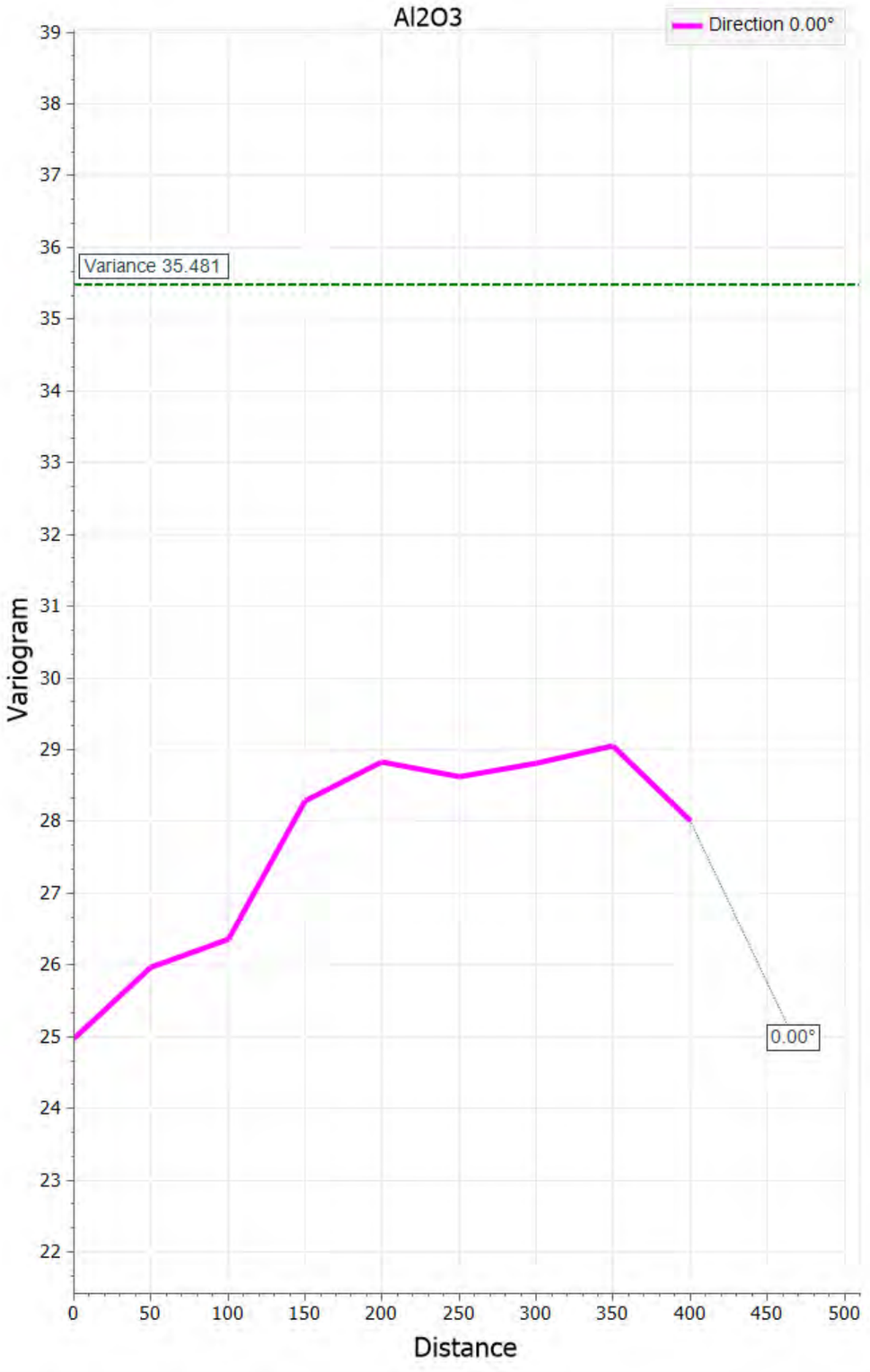




Semivariogram Map - Baux Clay - Al2O3

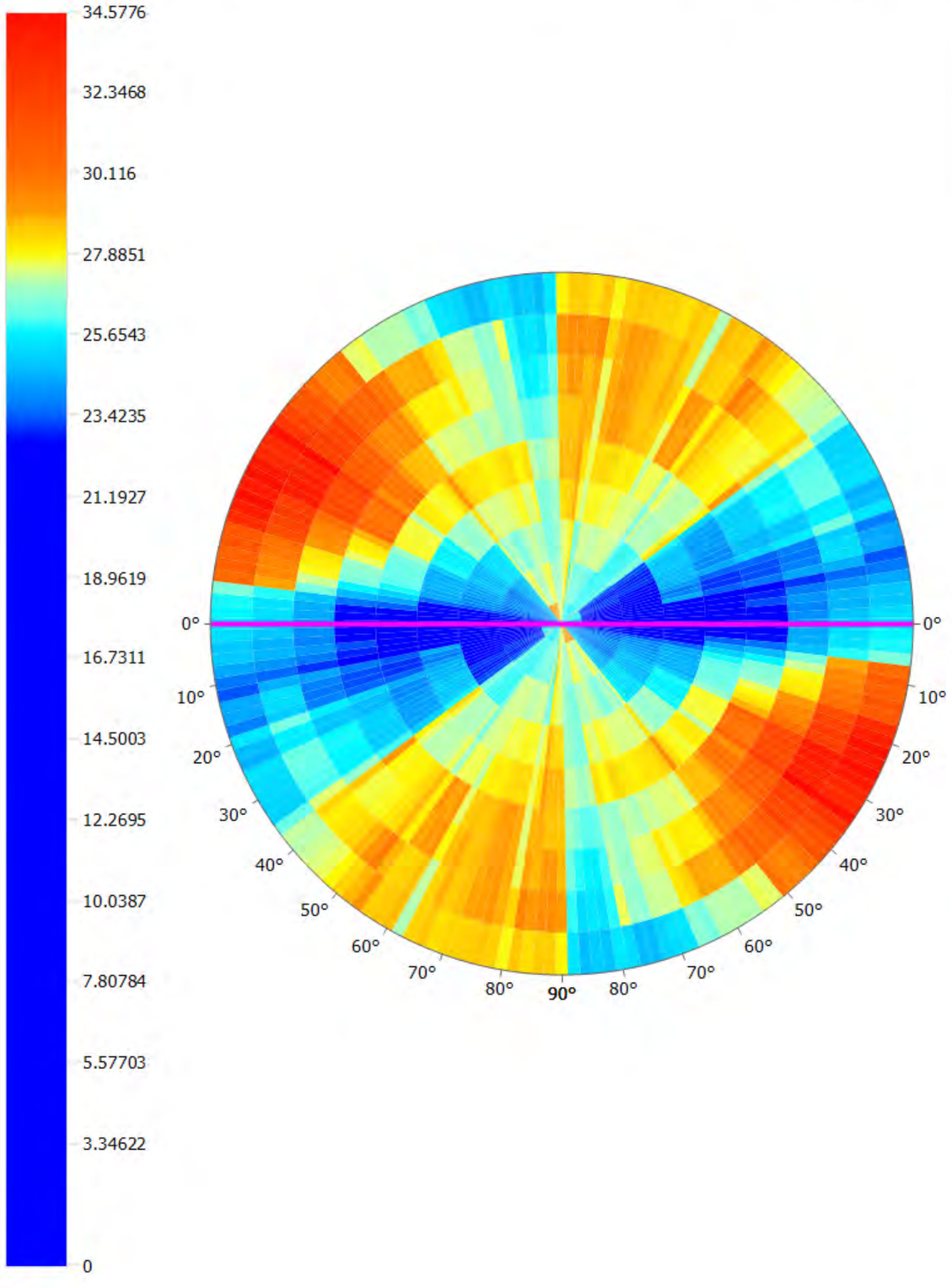
Dip Variogram

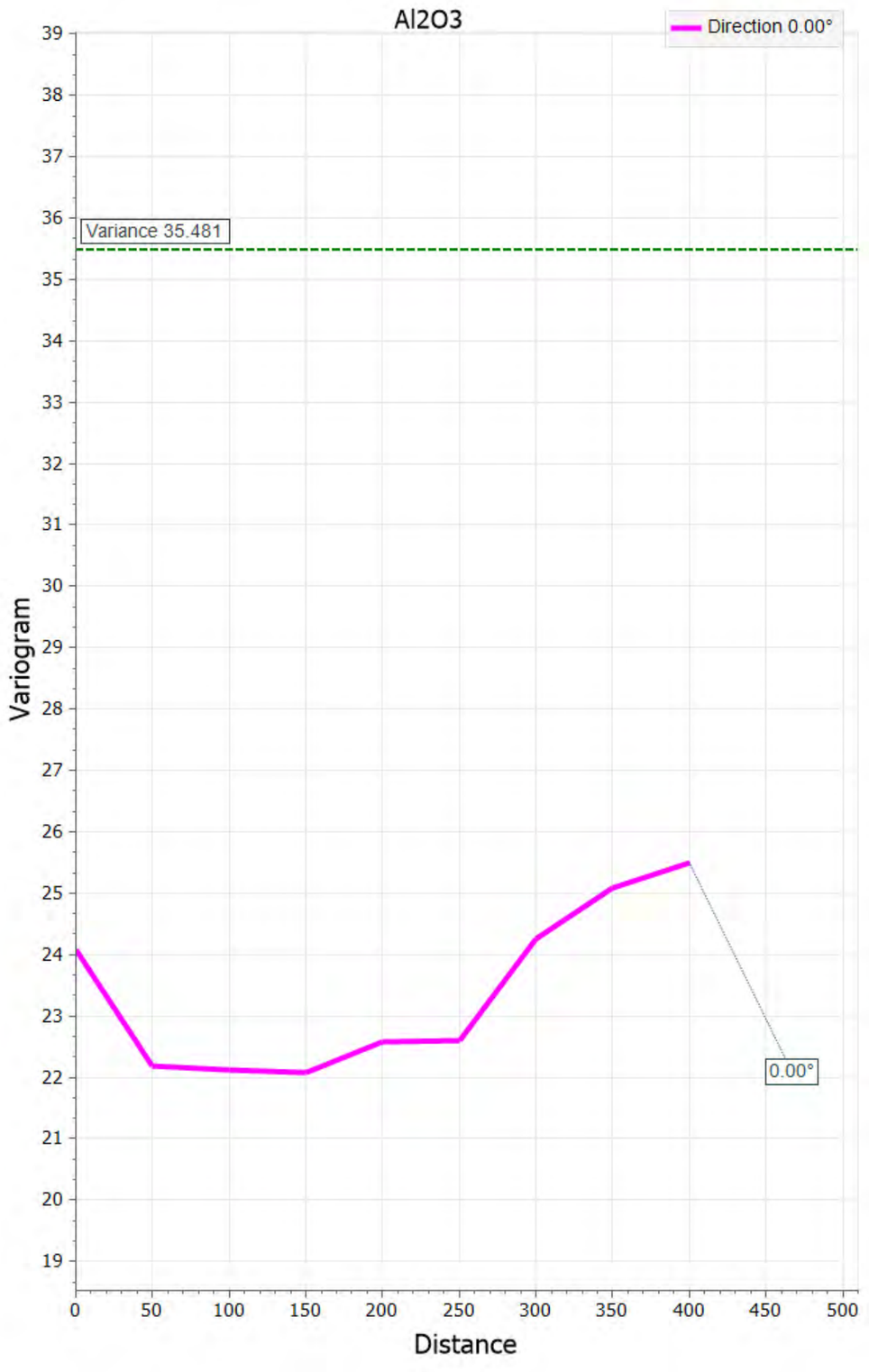




Semivariogram Map - Baux Clay - Al2O3

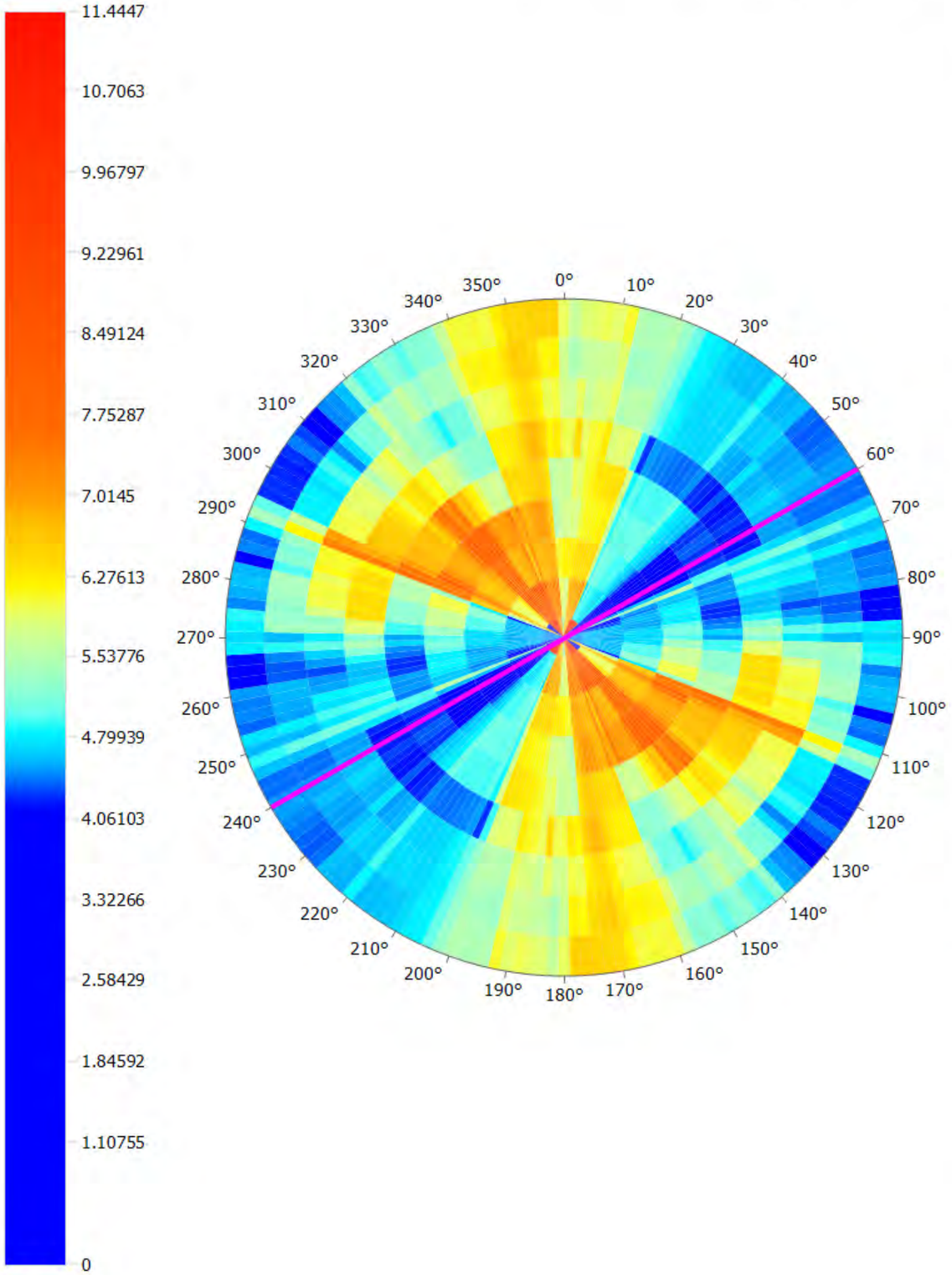
Pitch Variogram

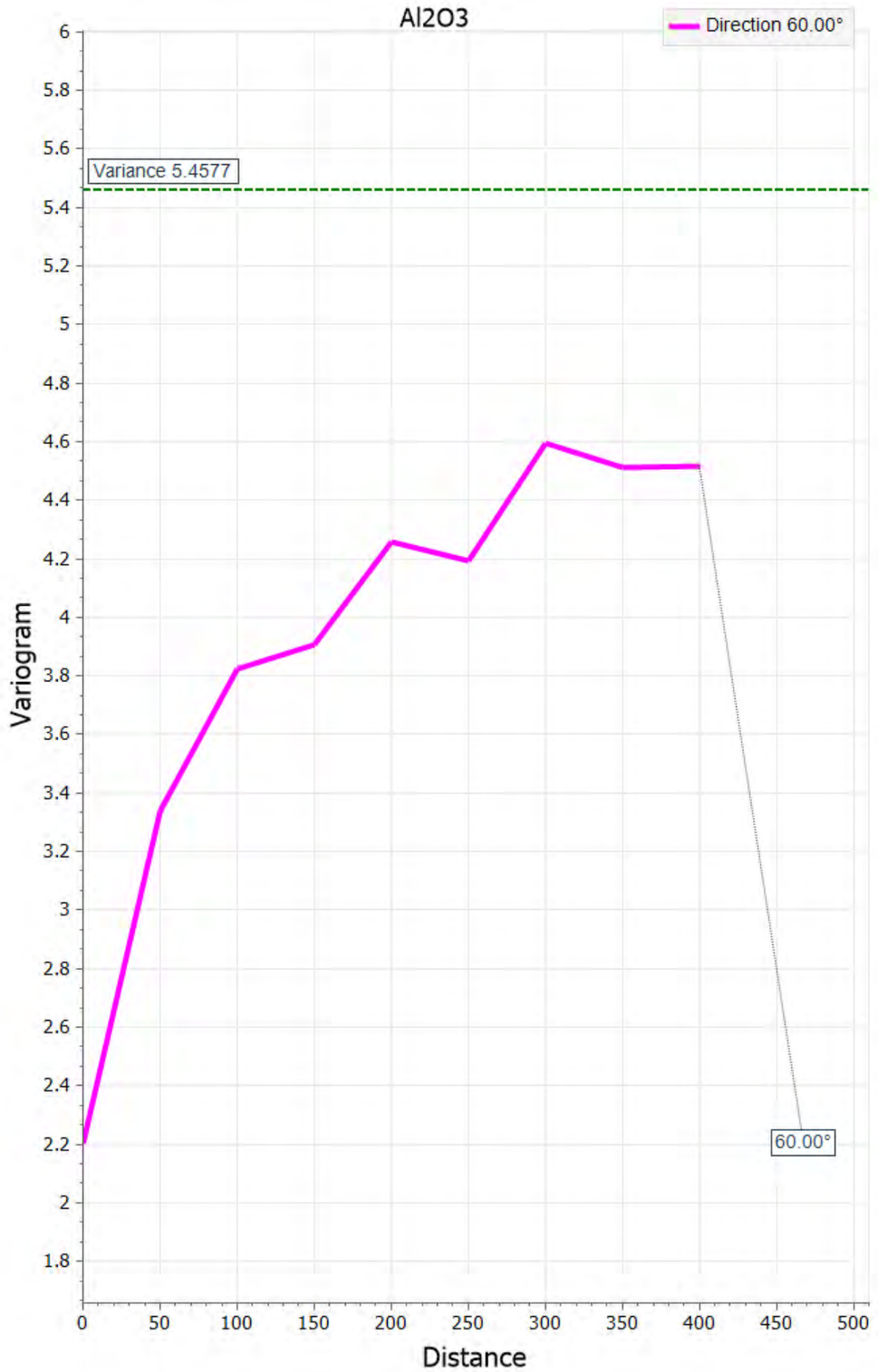




Semivariogram Map - PI Clay - Al2O3

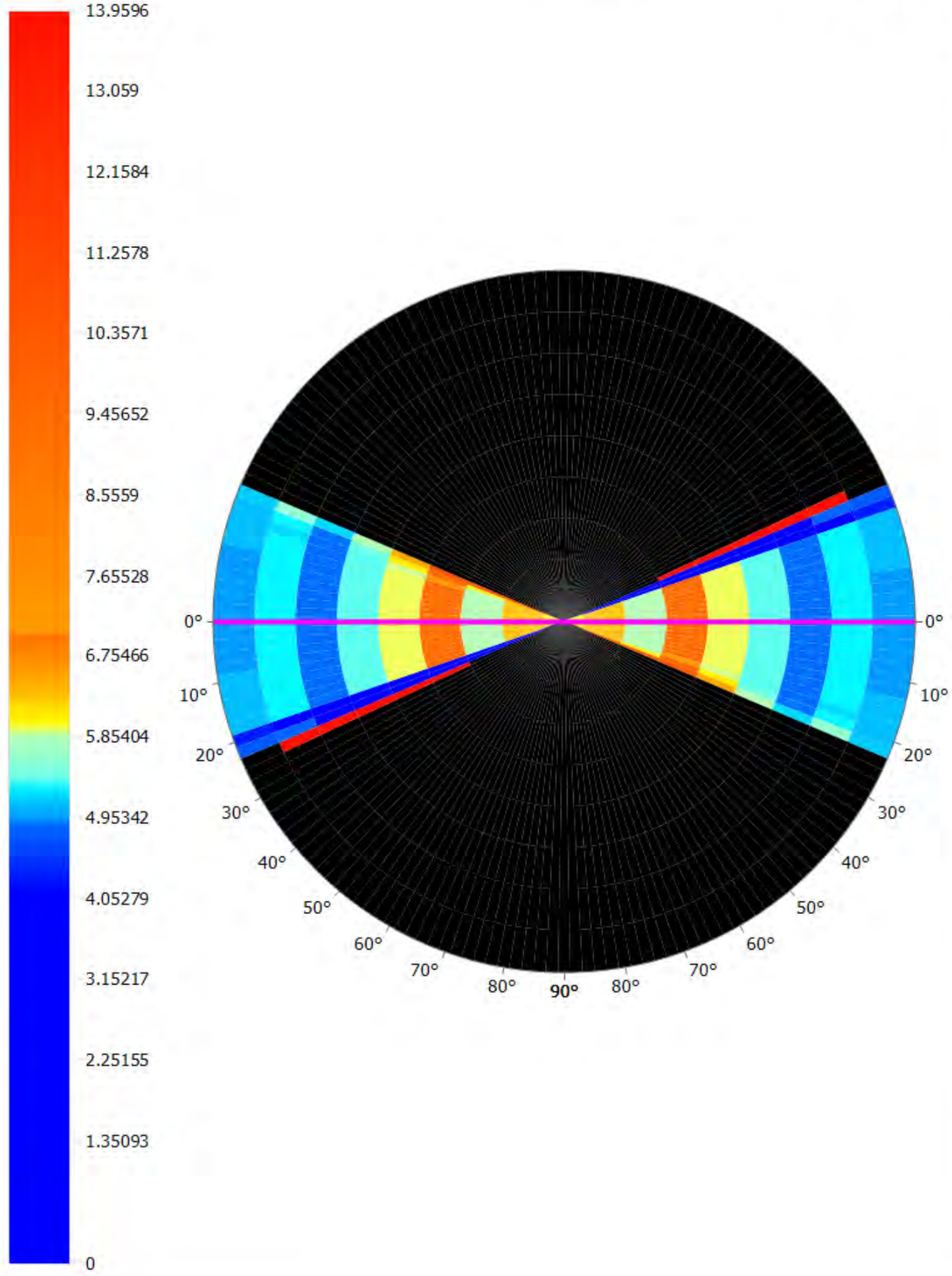
Strike Variogram





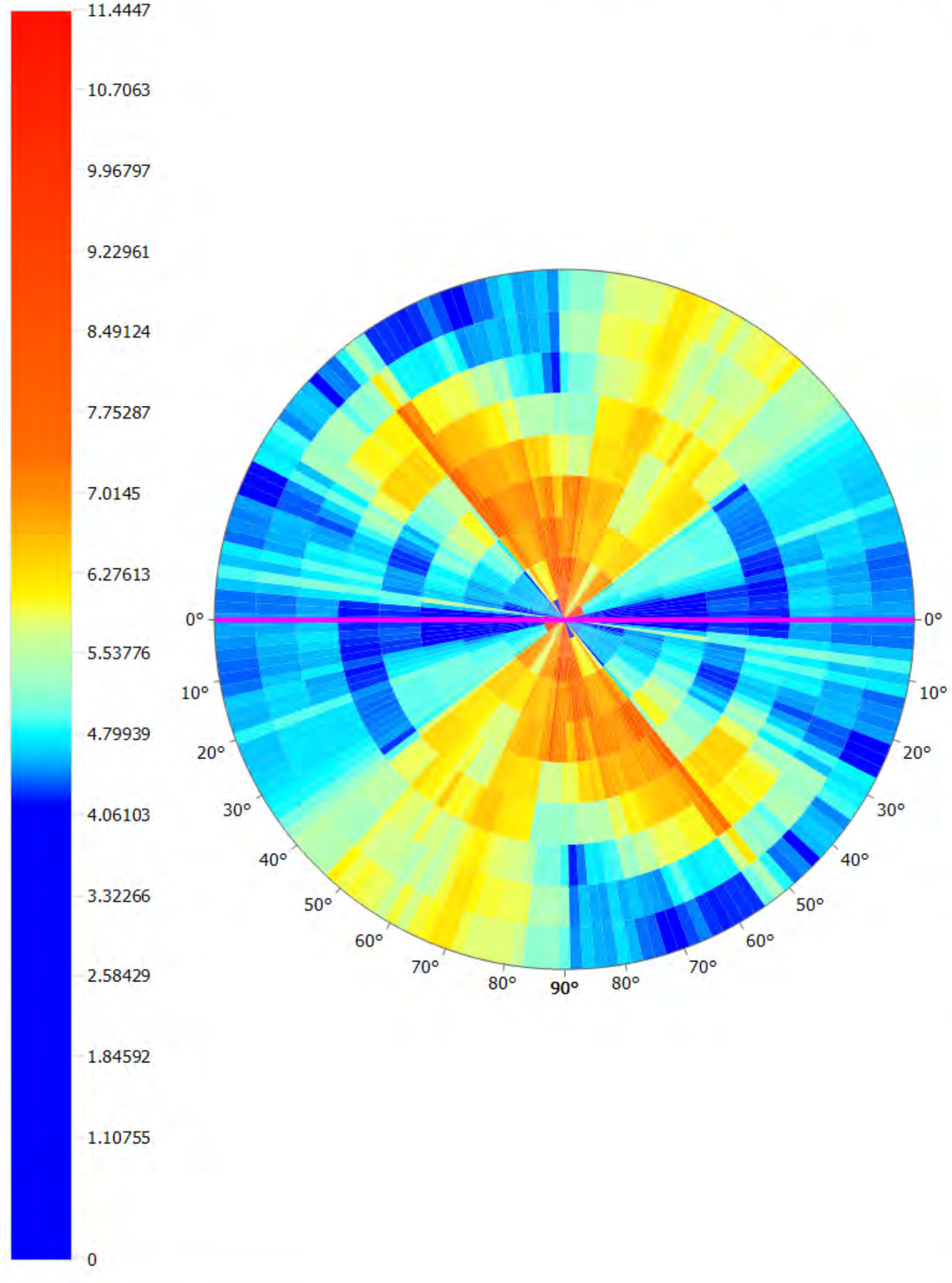
Semivariogram Map - Pl Clay - Al2O3

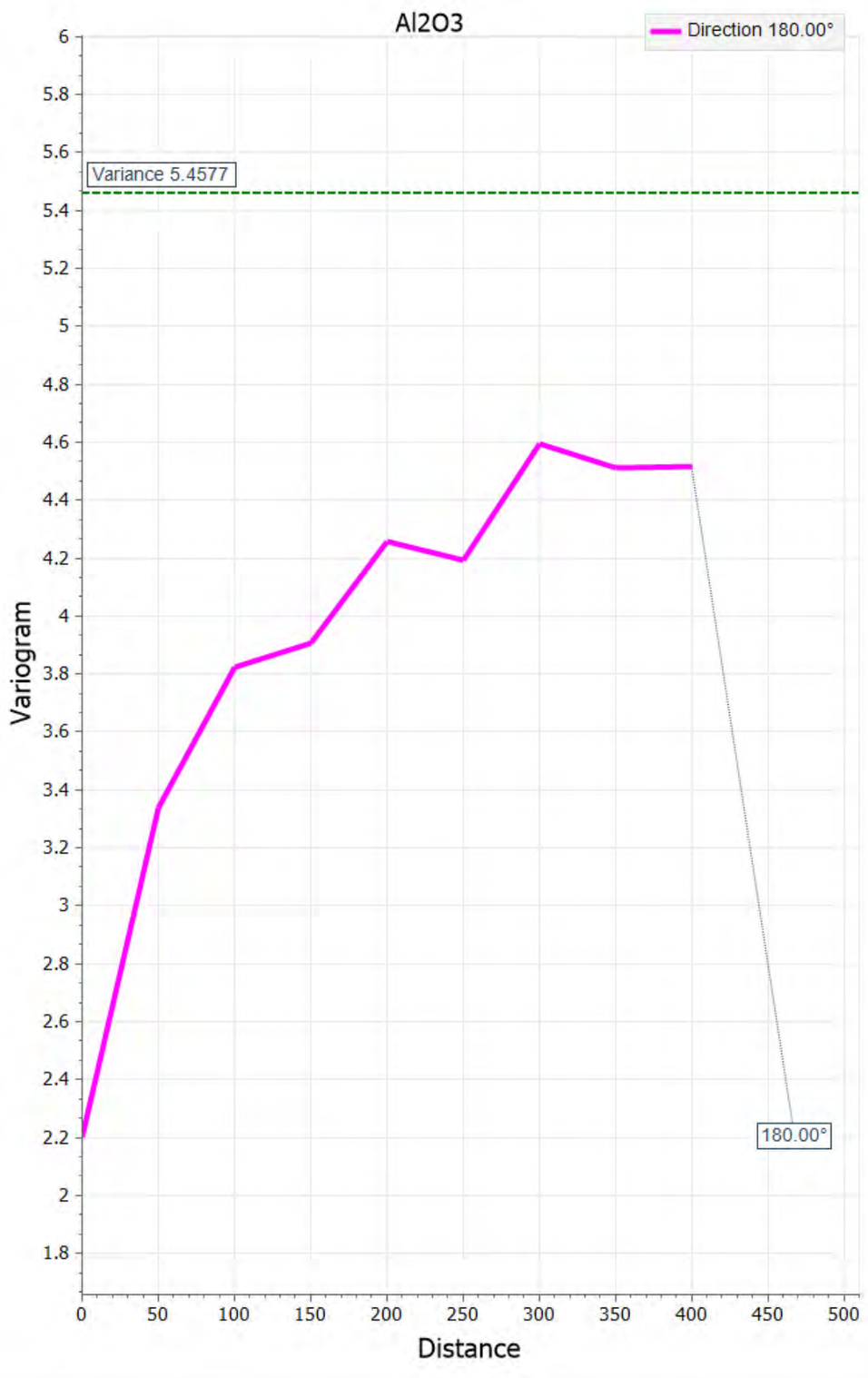
Dip Variogram



Semivariogram Map - PI Clay - Al2O3

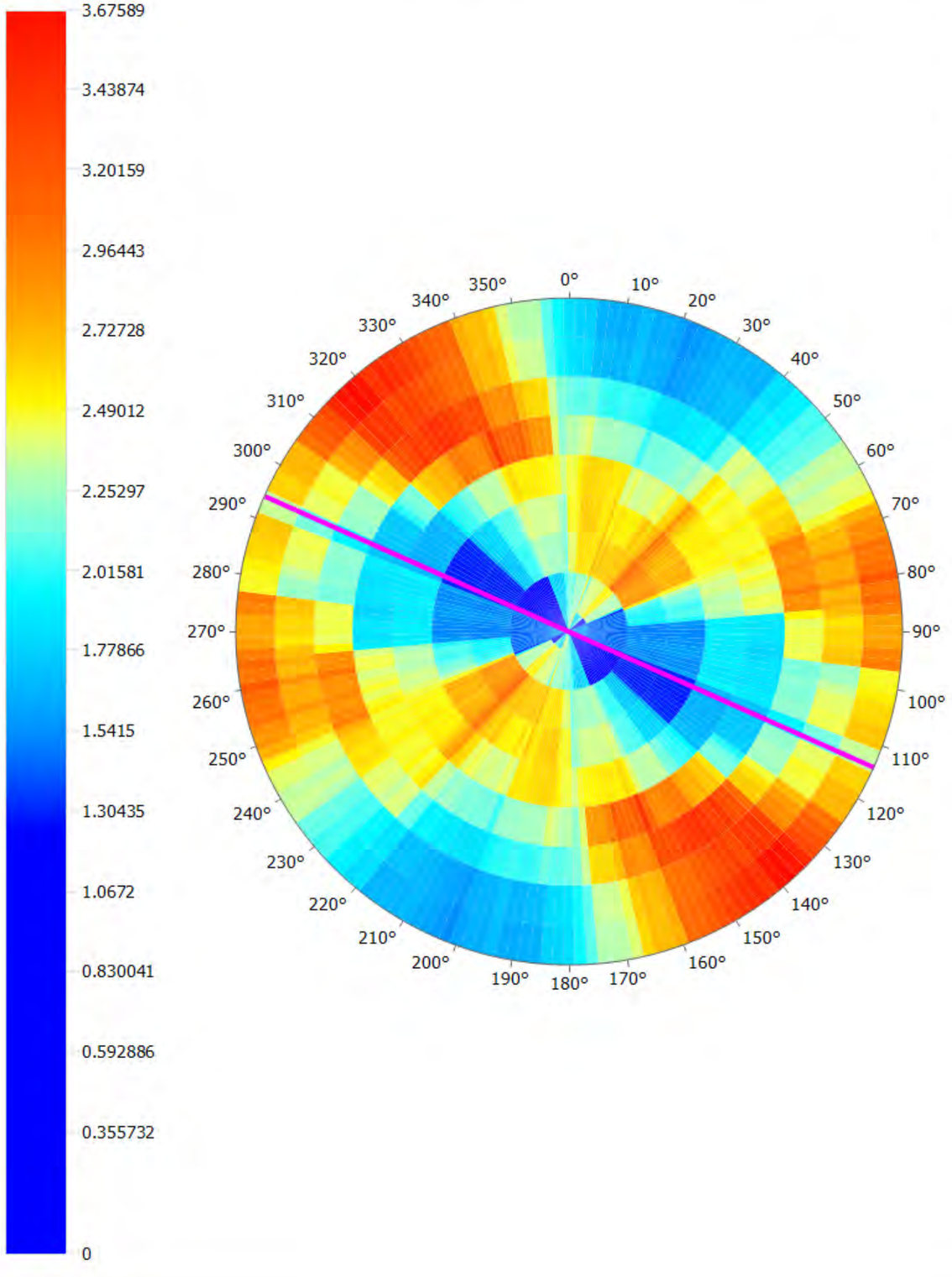
Pitch Variogram

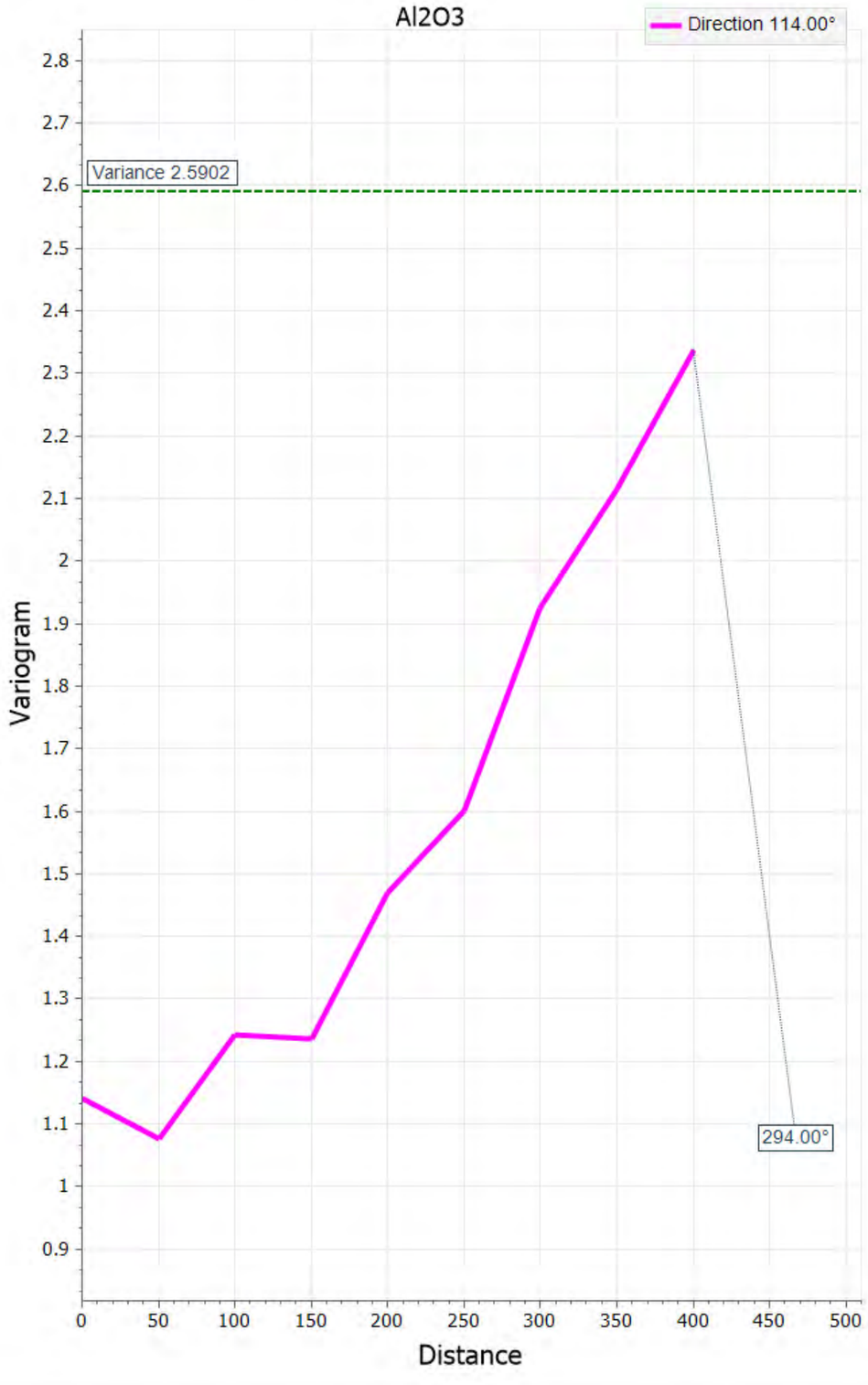




Semivariogram Map - Kao Clay (High Iron) - Al2O3

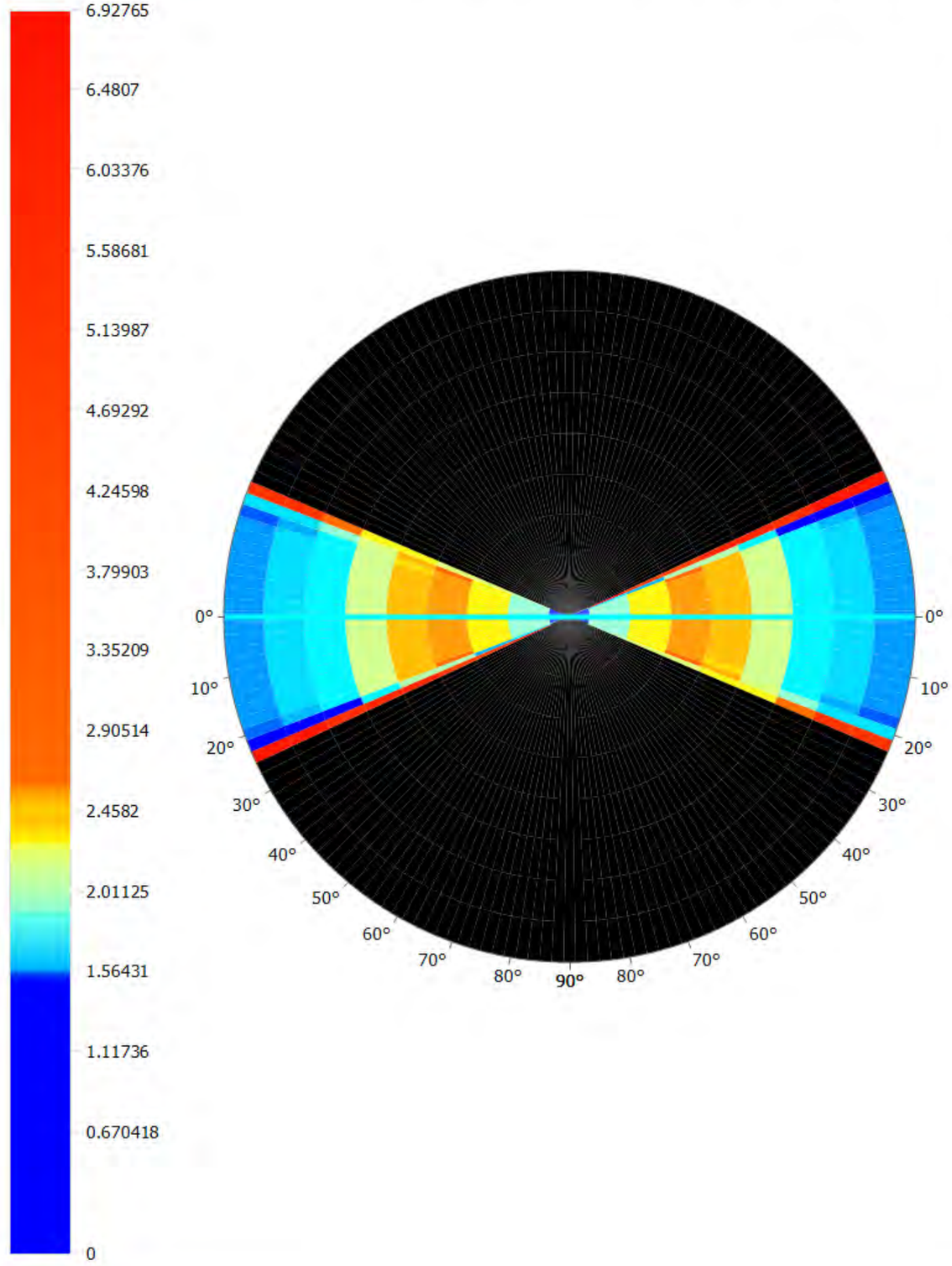
Strike Variogram

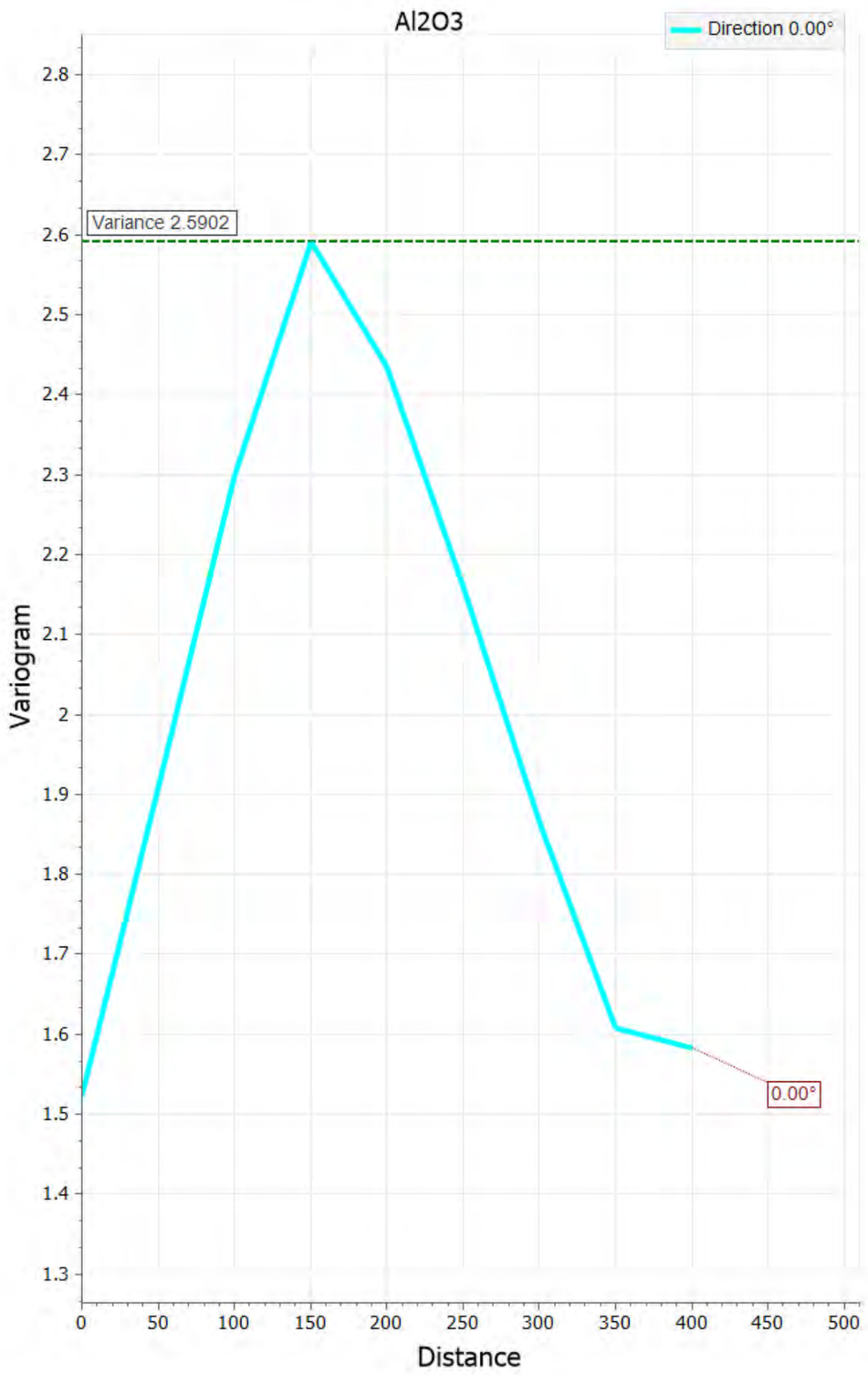




Semivariogram Map - Kao Clay (High Iron) - Al2O3

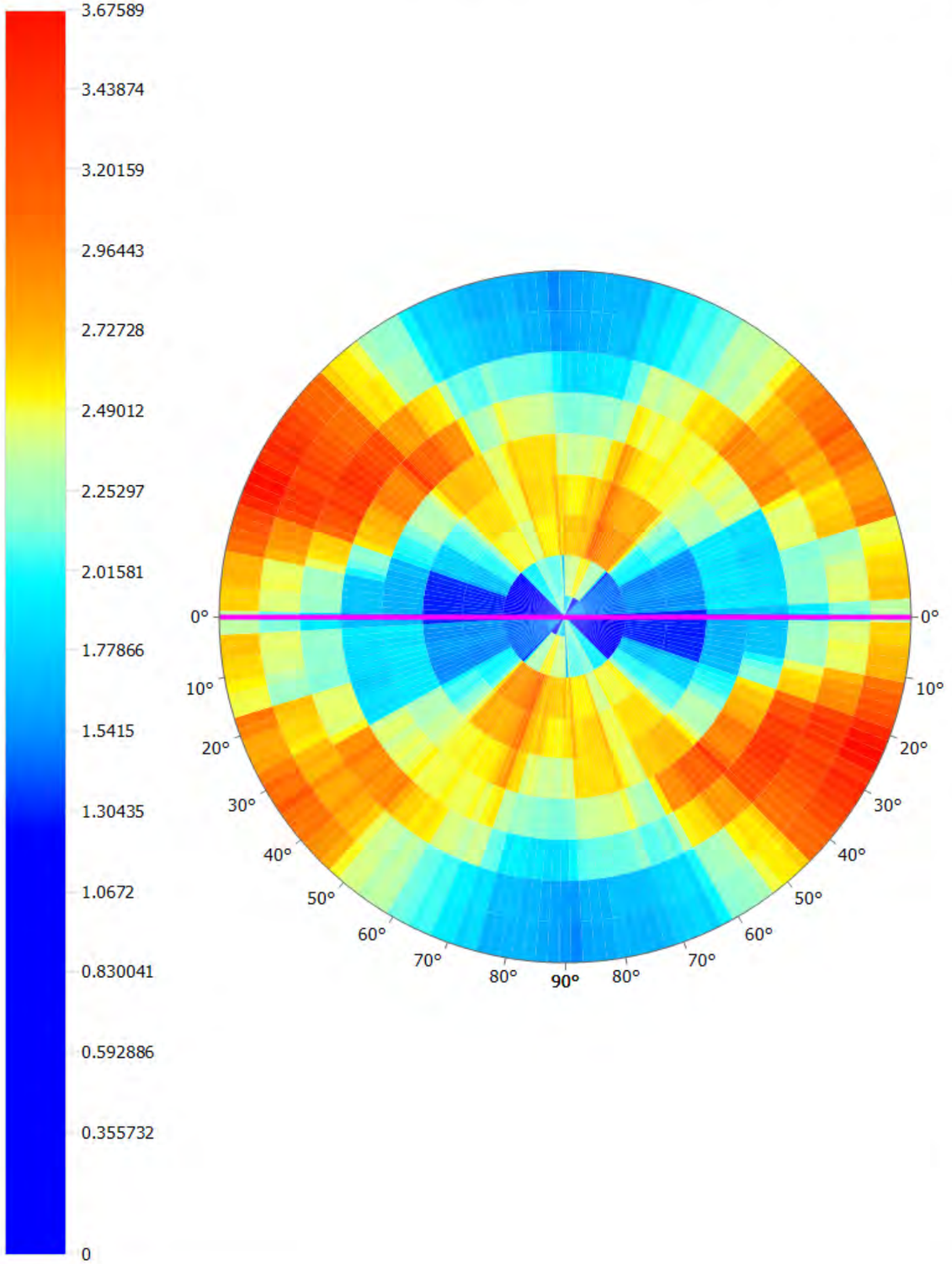
Dip Variogram

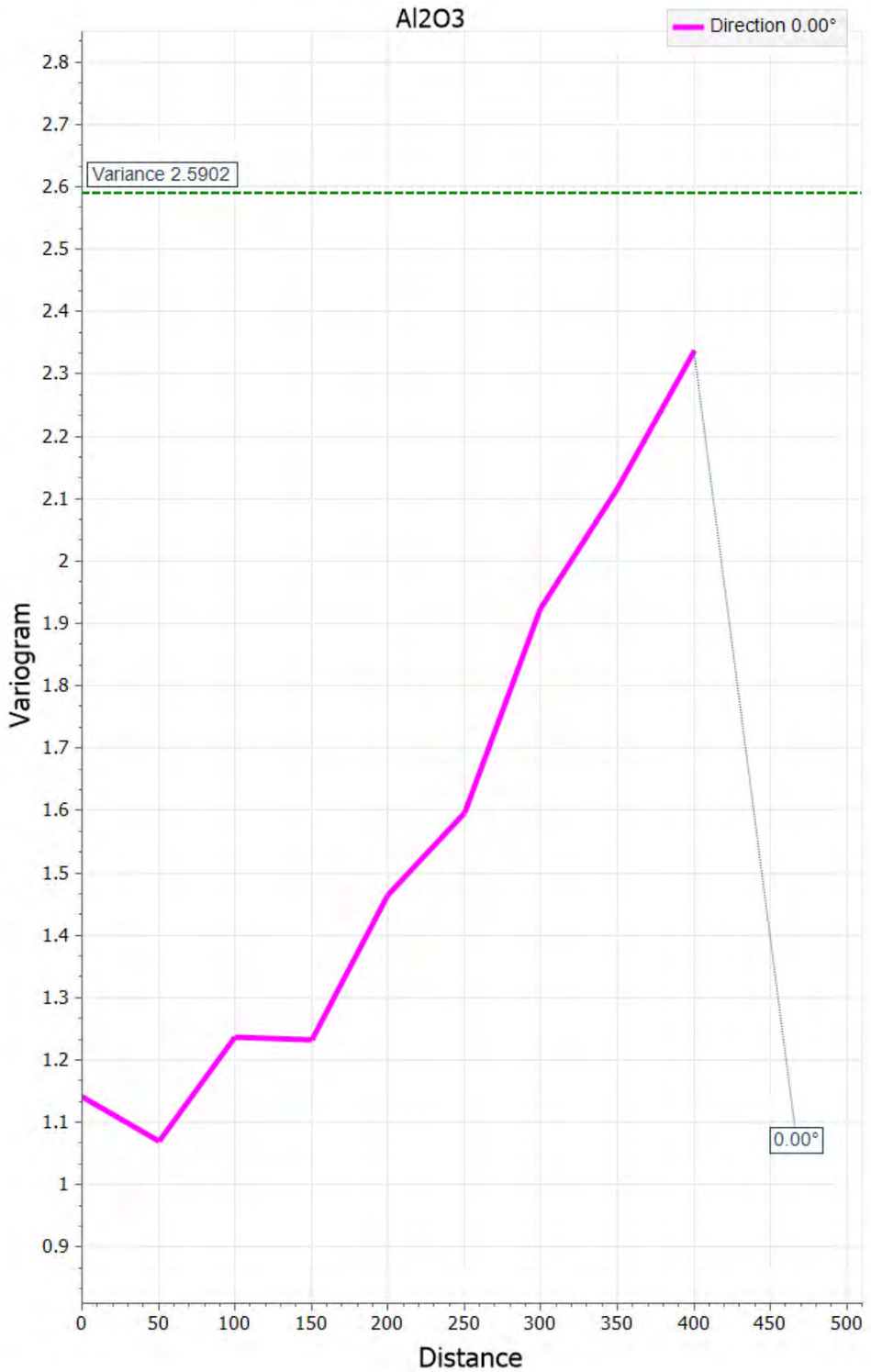




Semivariogram Map - Kao Clay (High Iron) - Al2O3

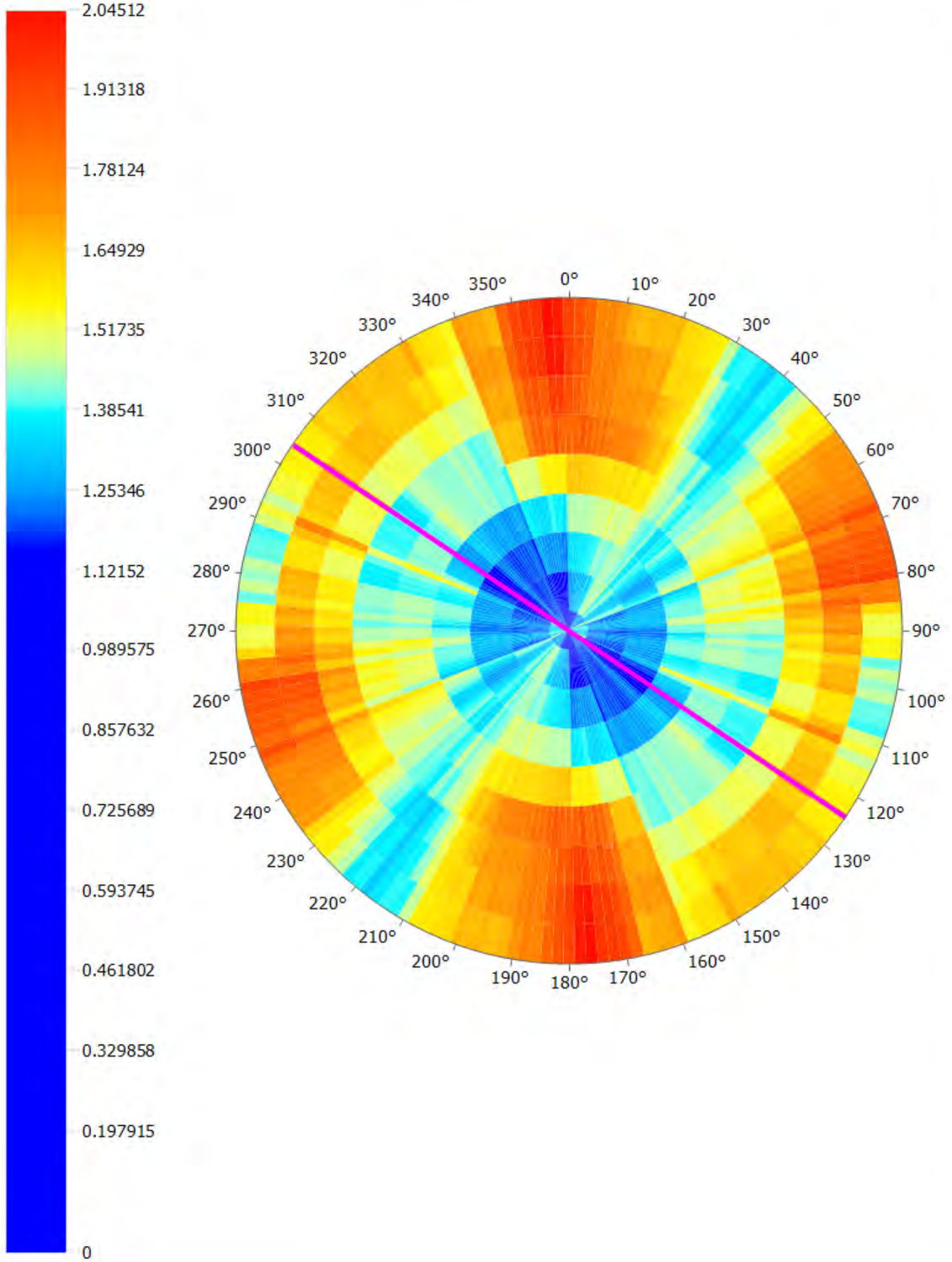
Pitch Variogram

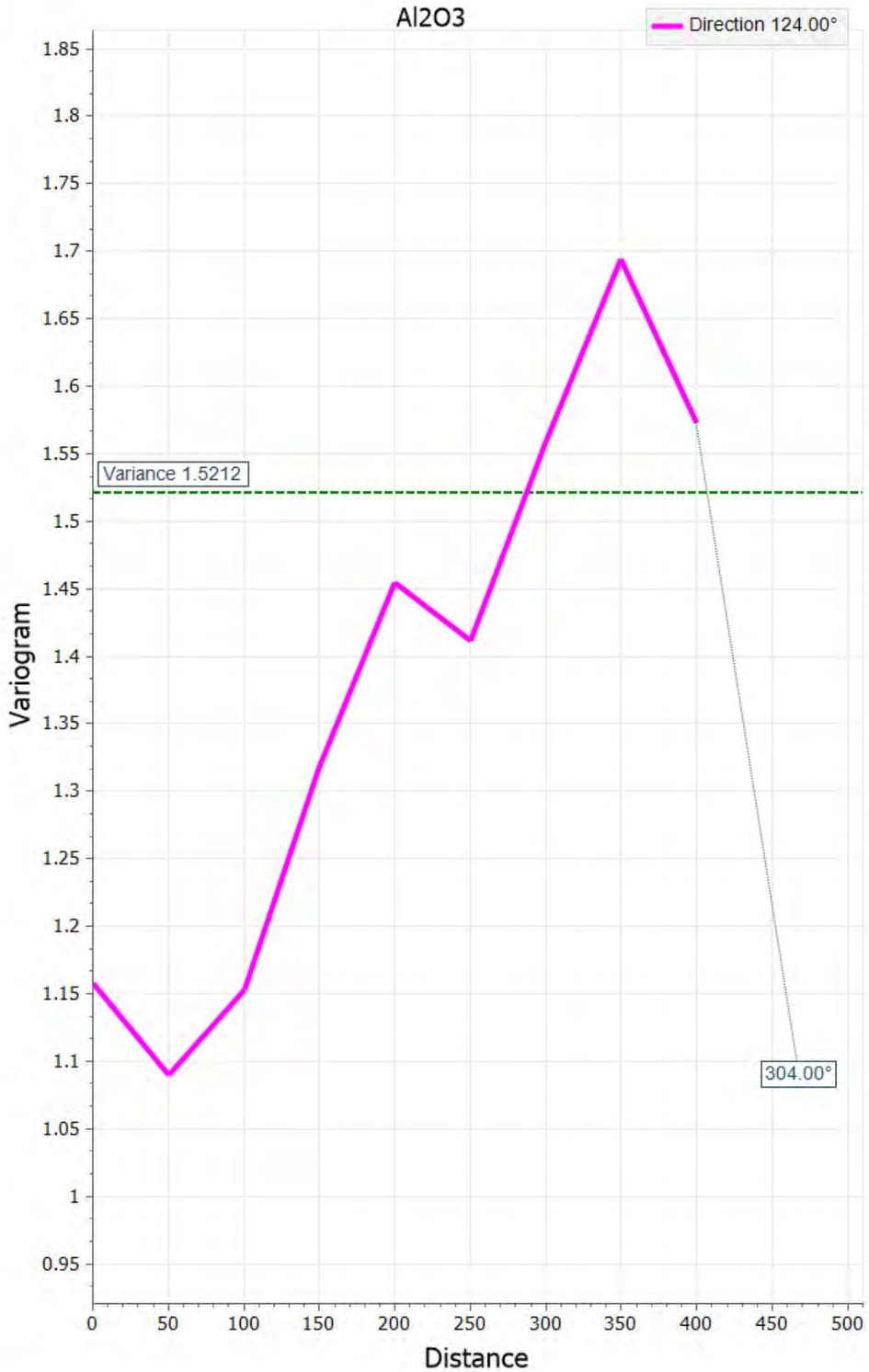




Semivariogram Map - Kao Clay (Low Iron) - Al2O3

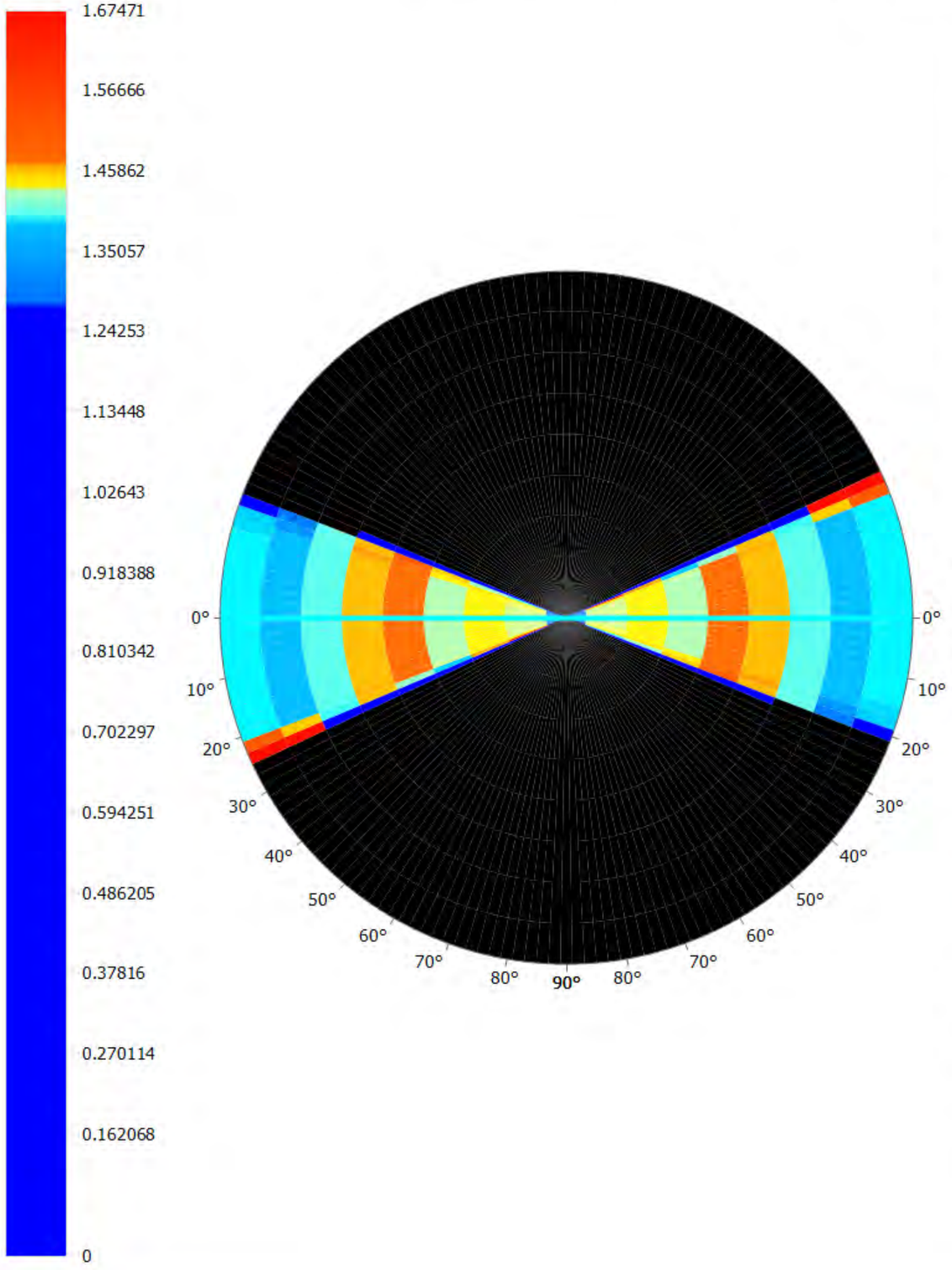
Strike Variogram

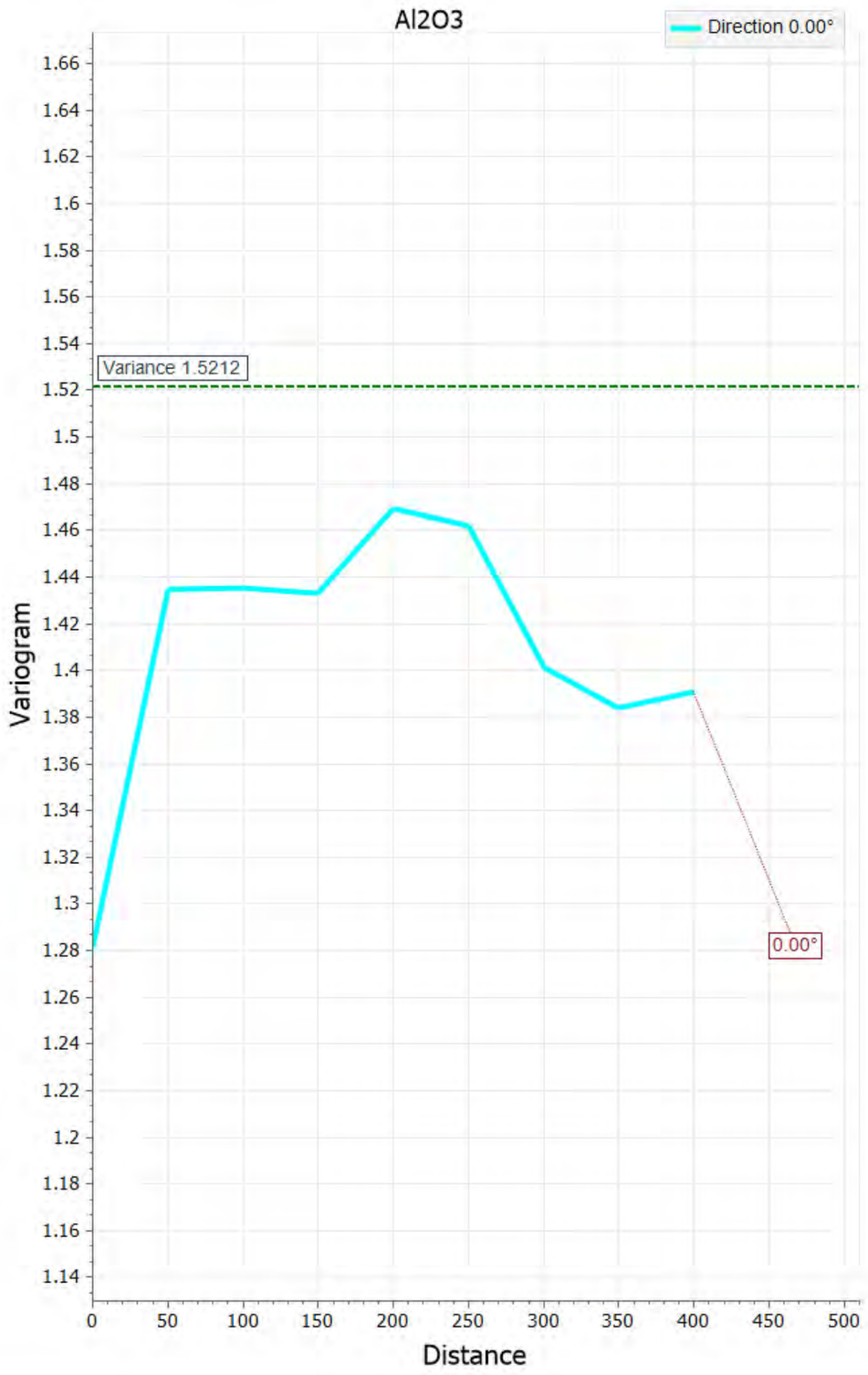




Semivariogram Map - Kao Clay (Low Iron) - Al2O3

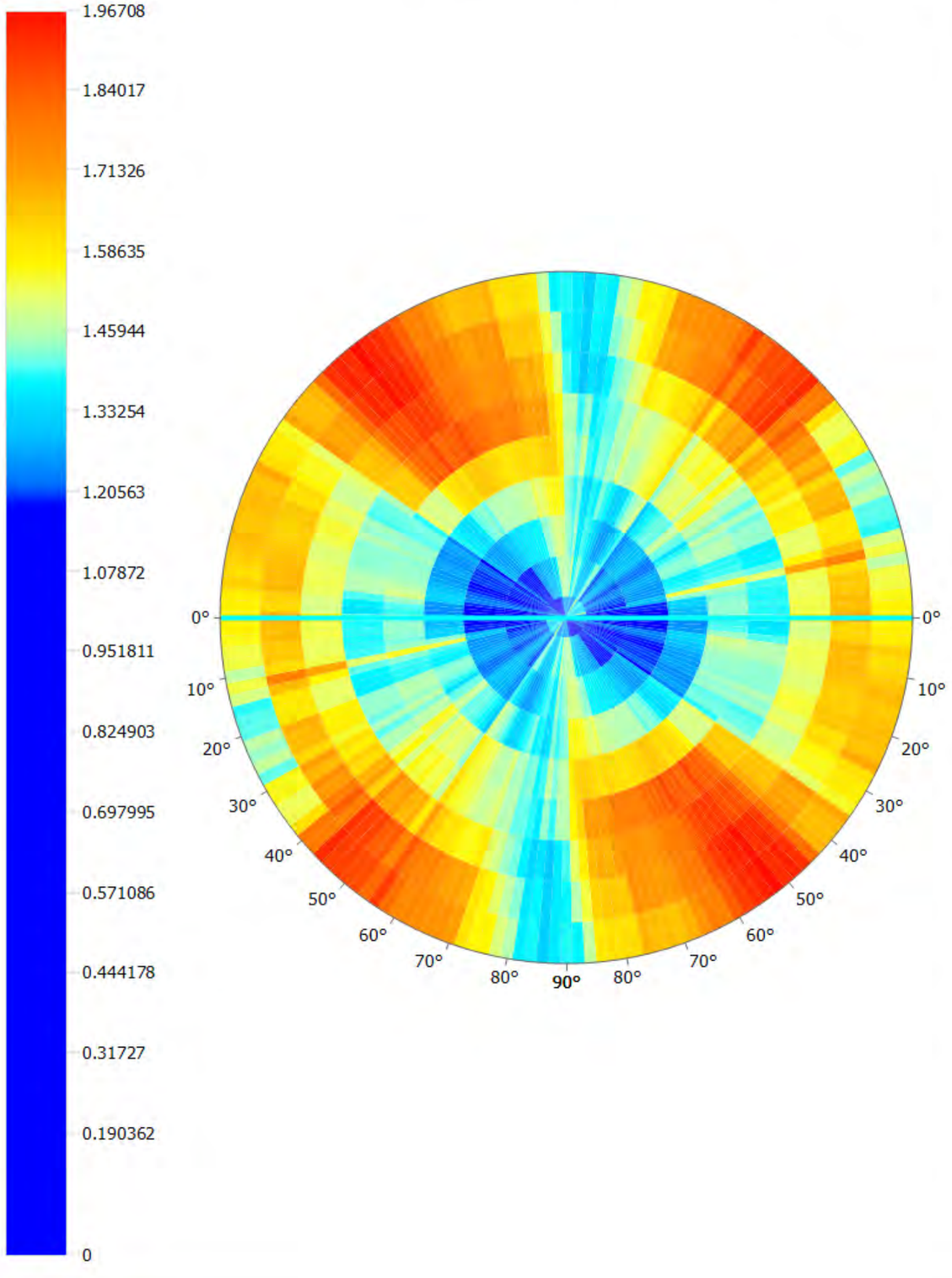
Dip Variogram

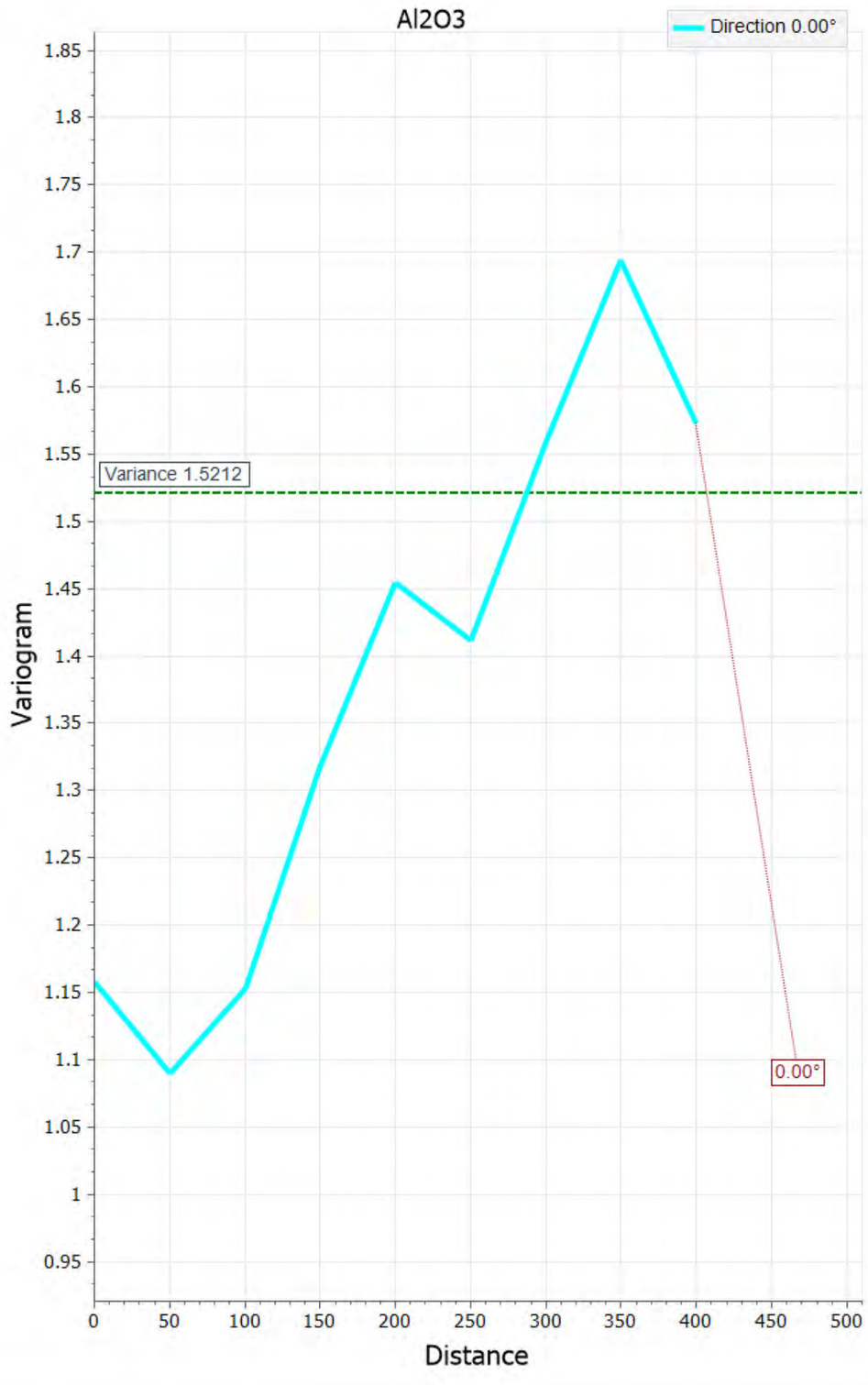




Semivariogram Map - Kao Clay (Low Iron) - Al2O3

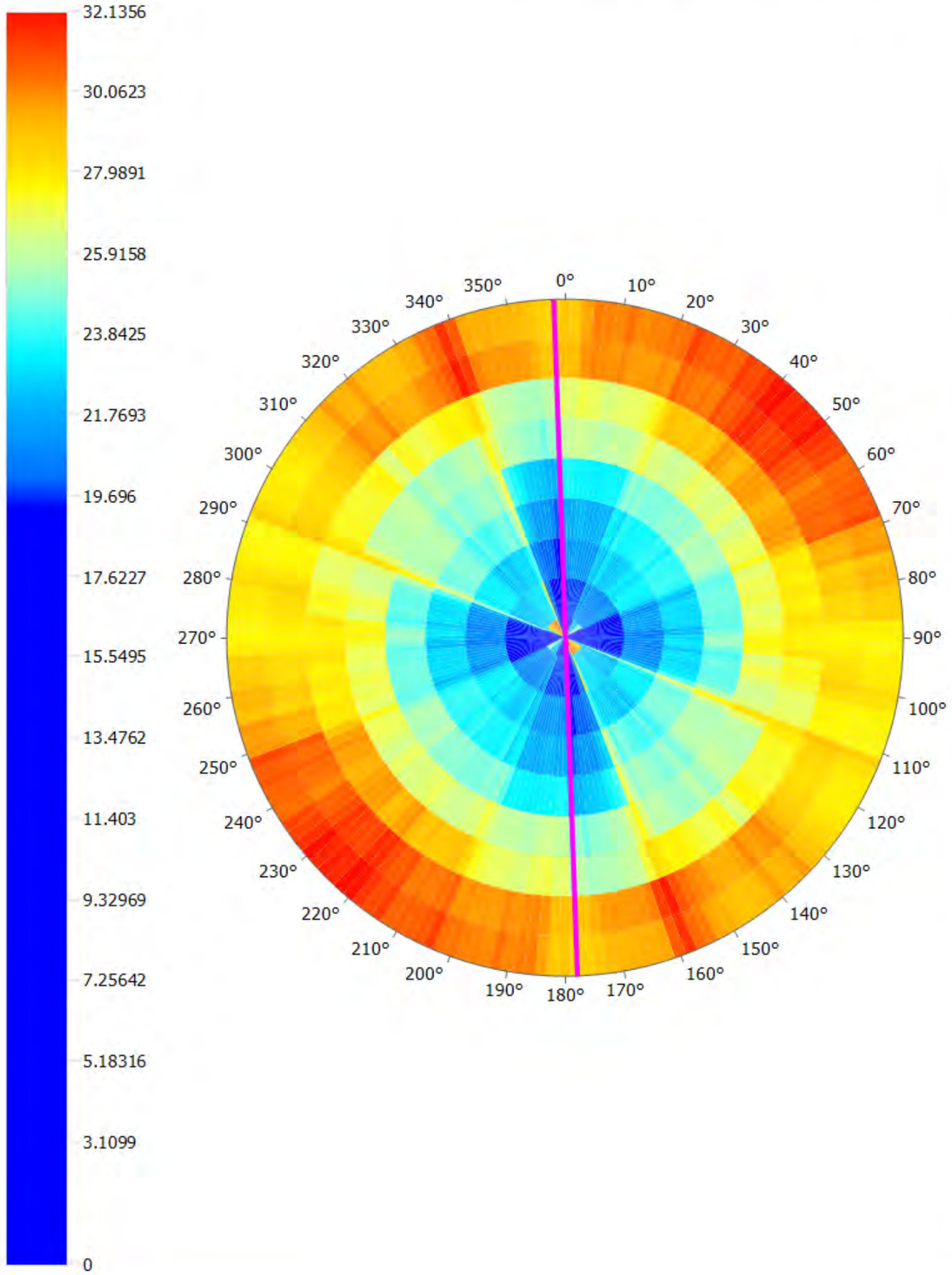
Pitch Variogram

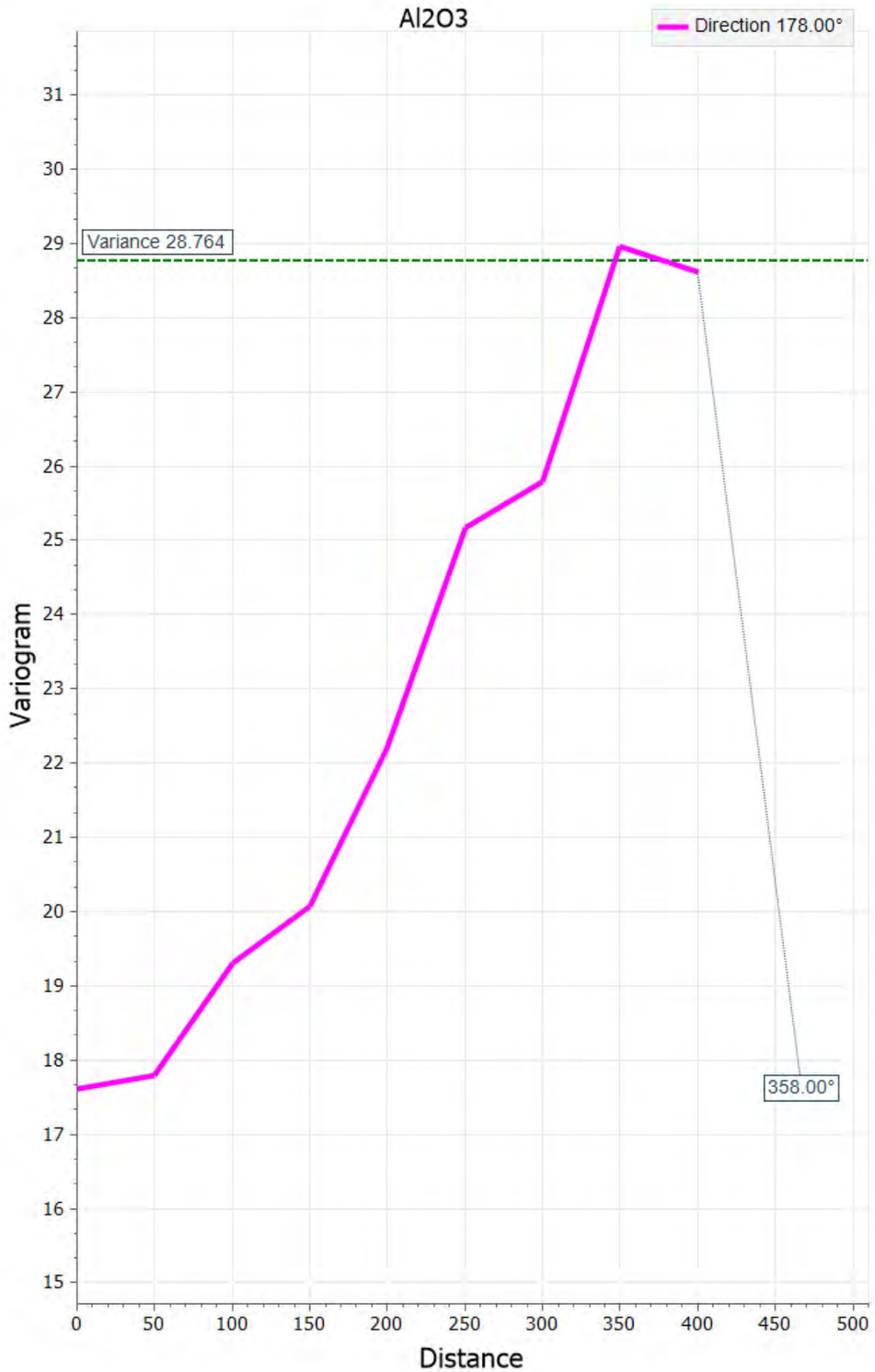




Semivariogram Map - Sa Clay - Al2O3

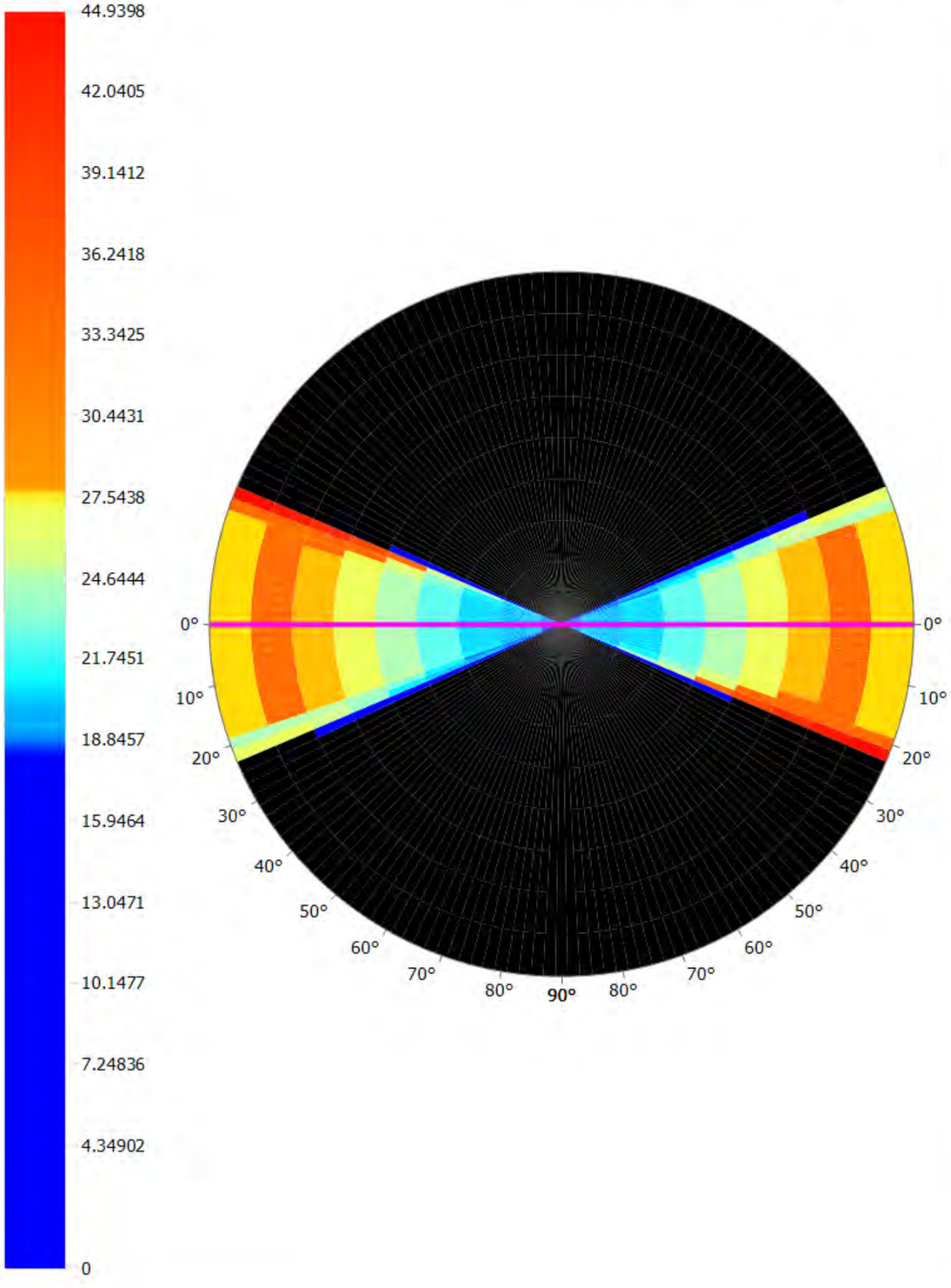
Strike Variogram

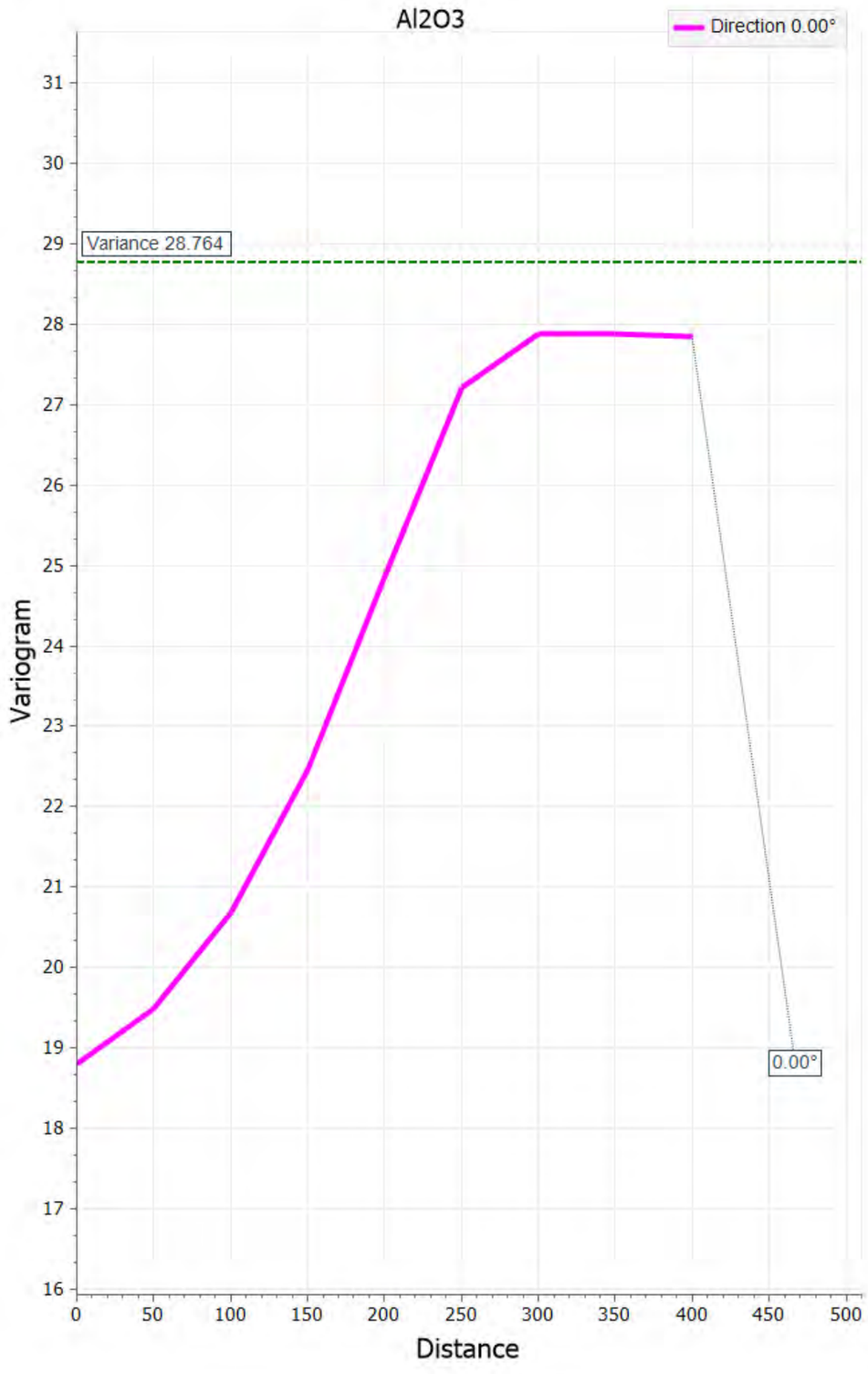




Semivariogram Map - Sa Clay - Al2O3

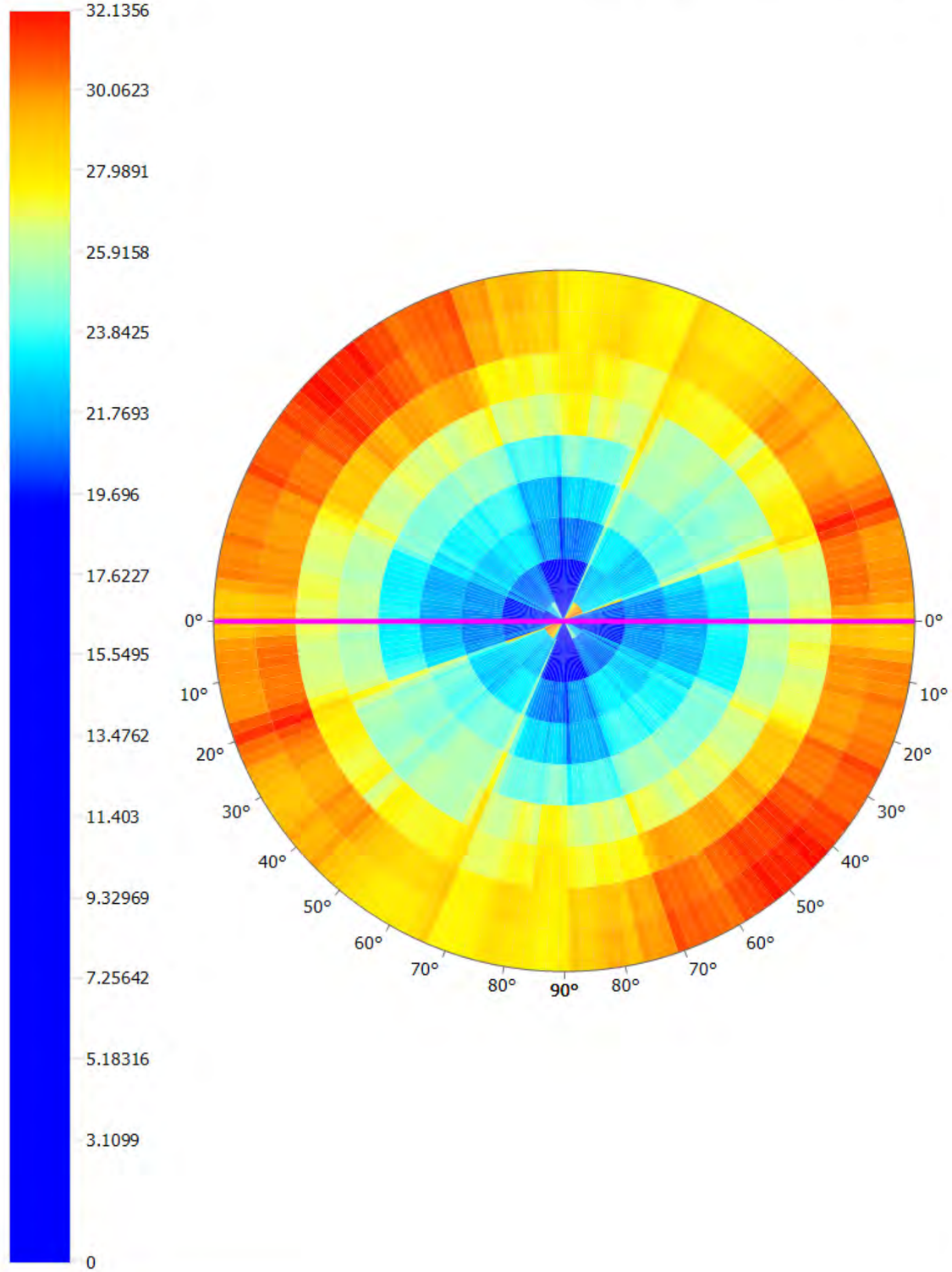
Dip Variogram

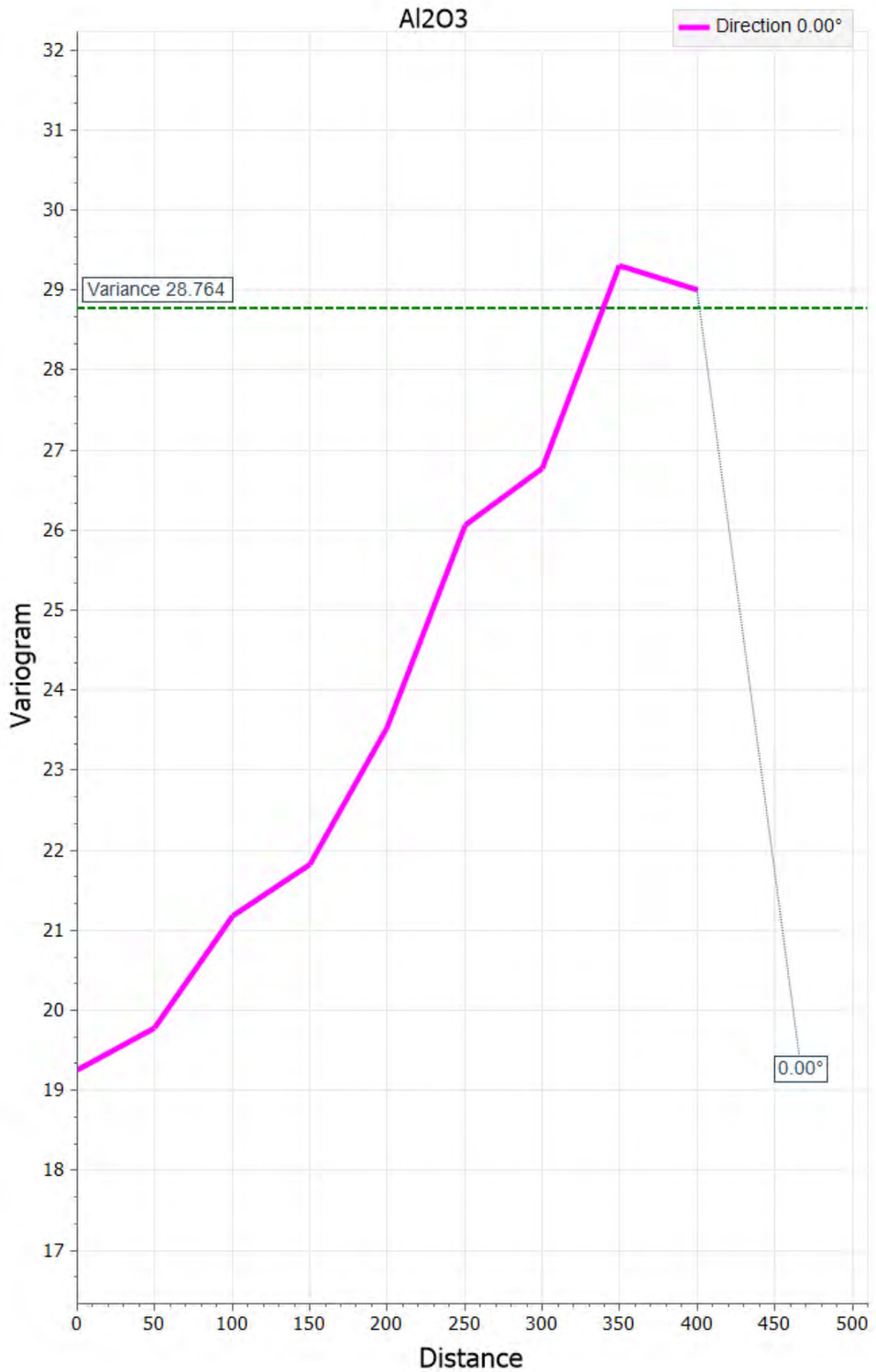


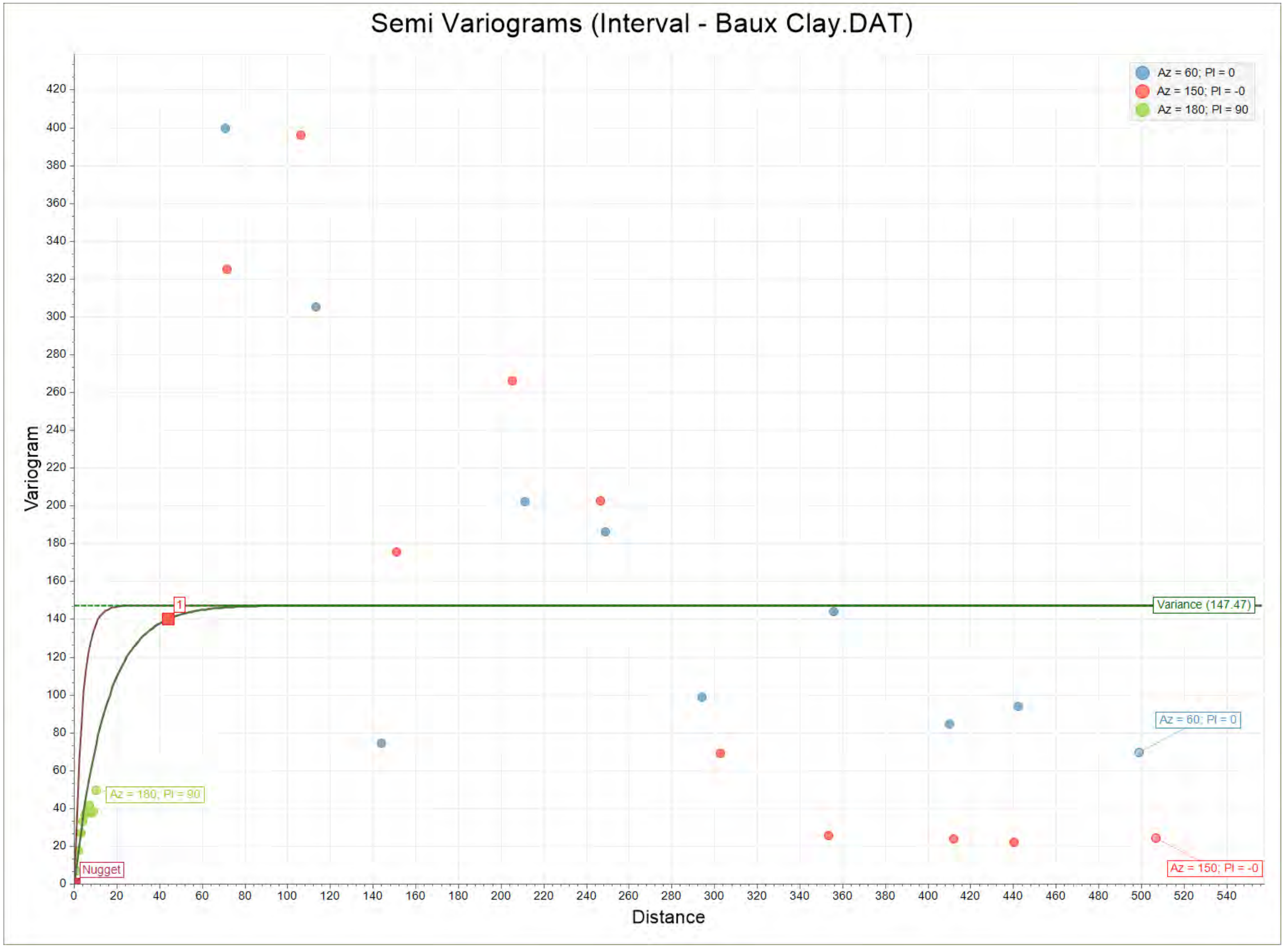


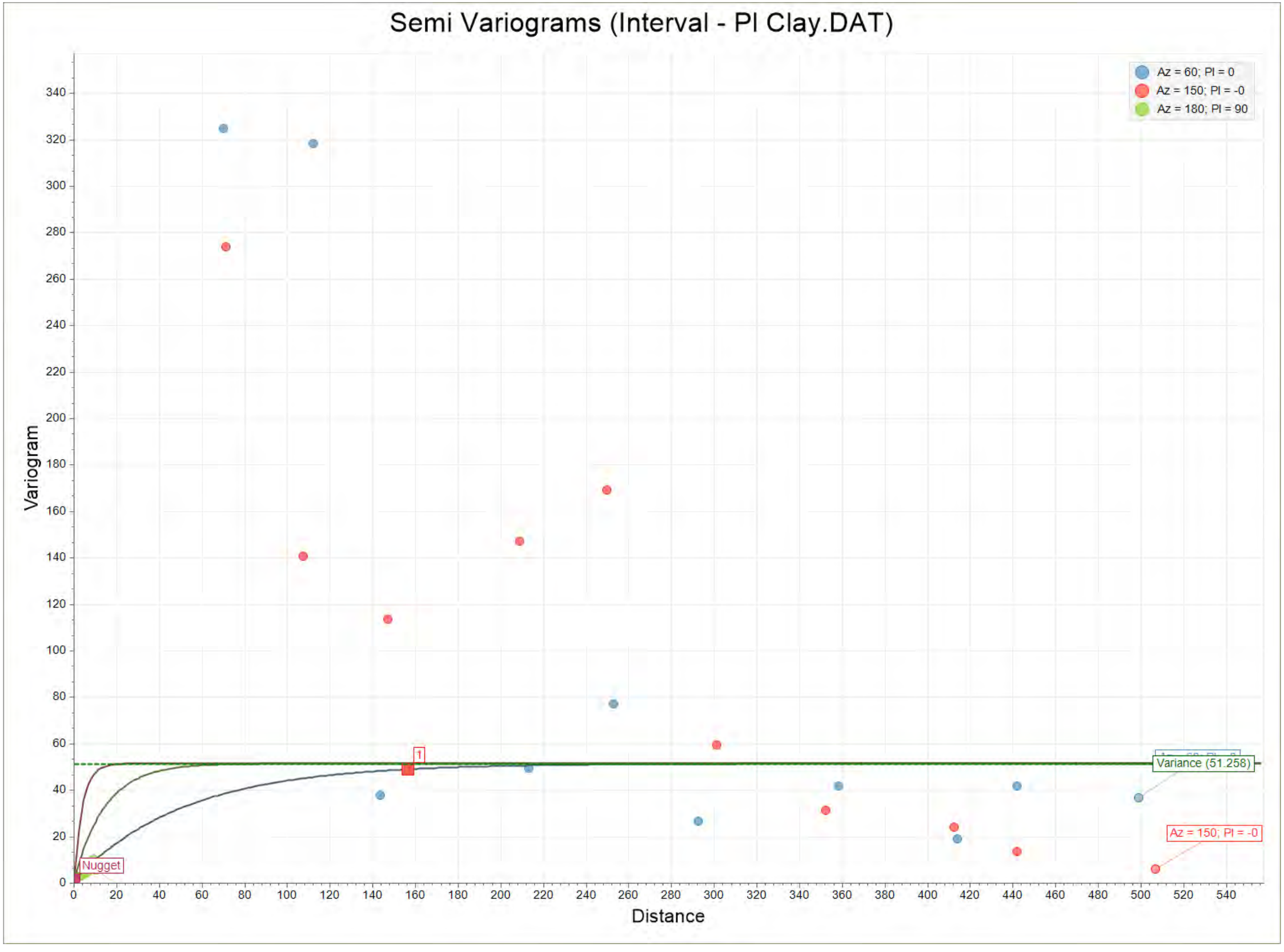
Semivariogram Map - Sa Clay - Al2O3

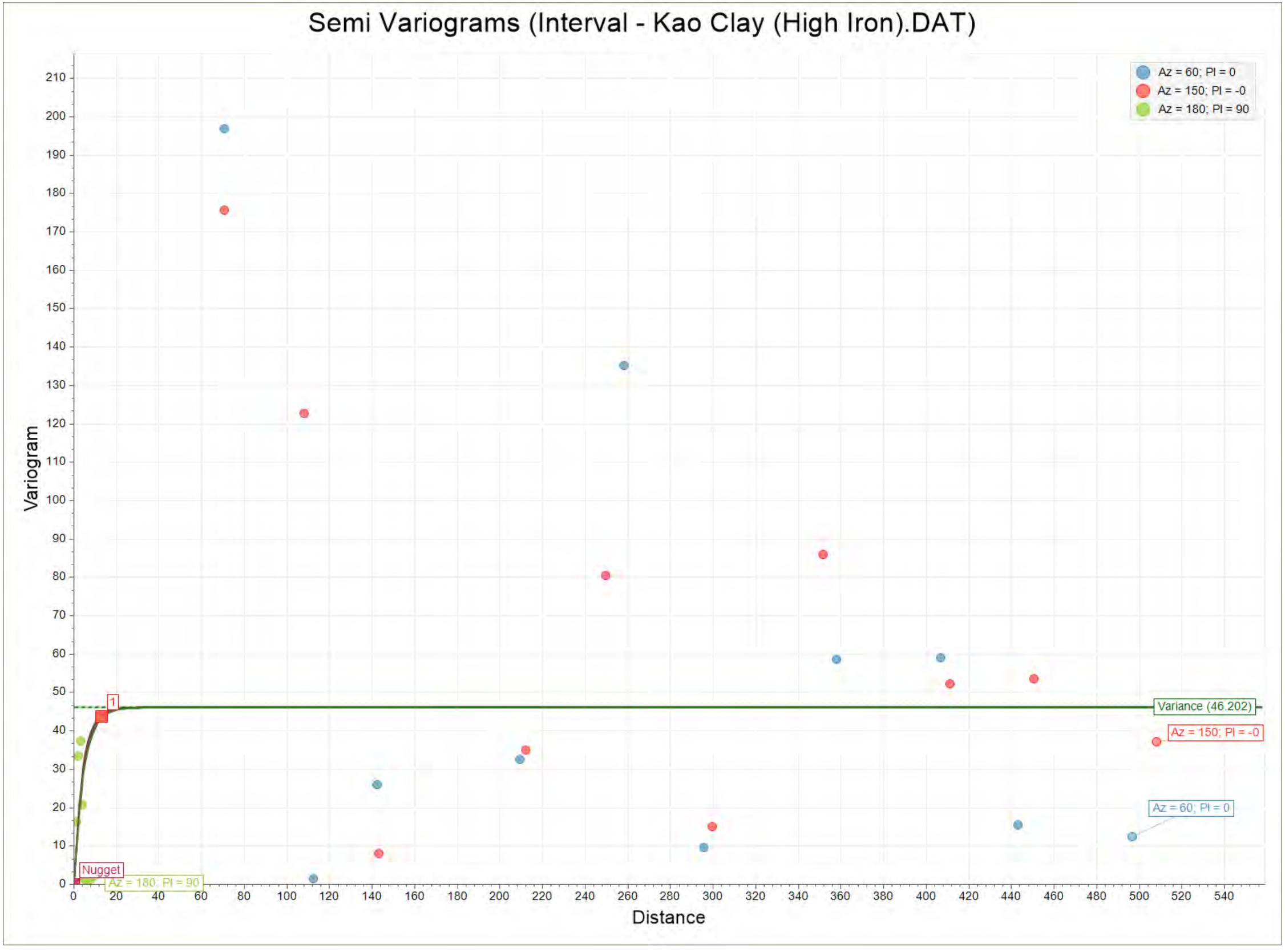
Pitch Variogram

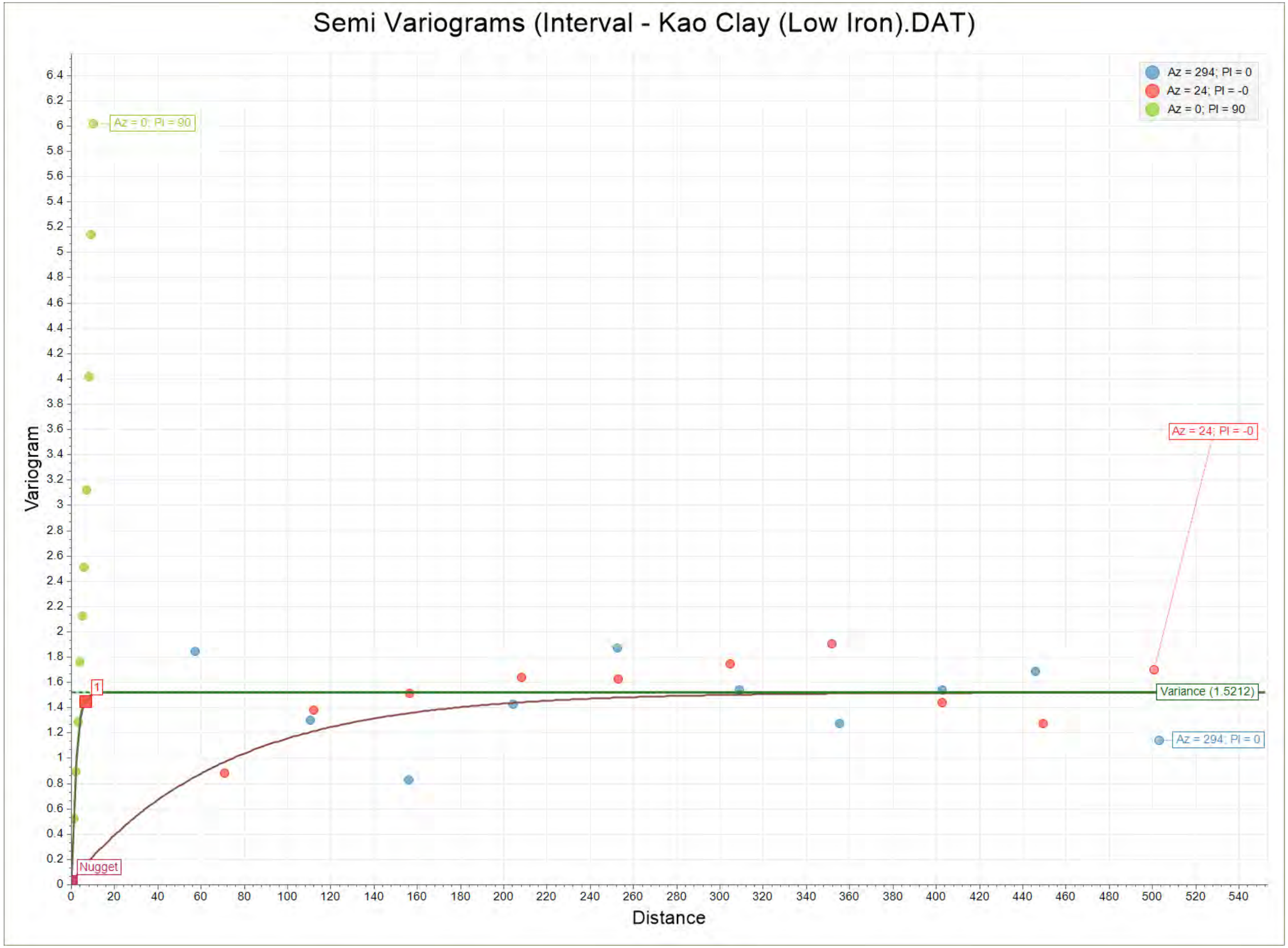


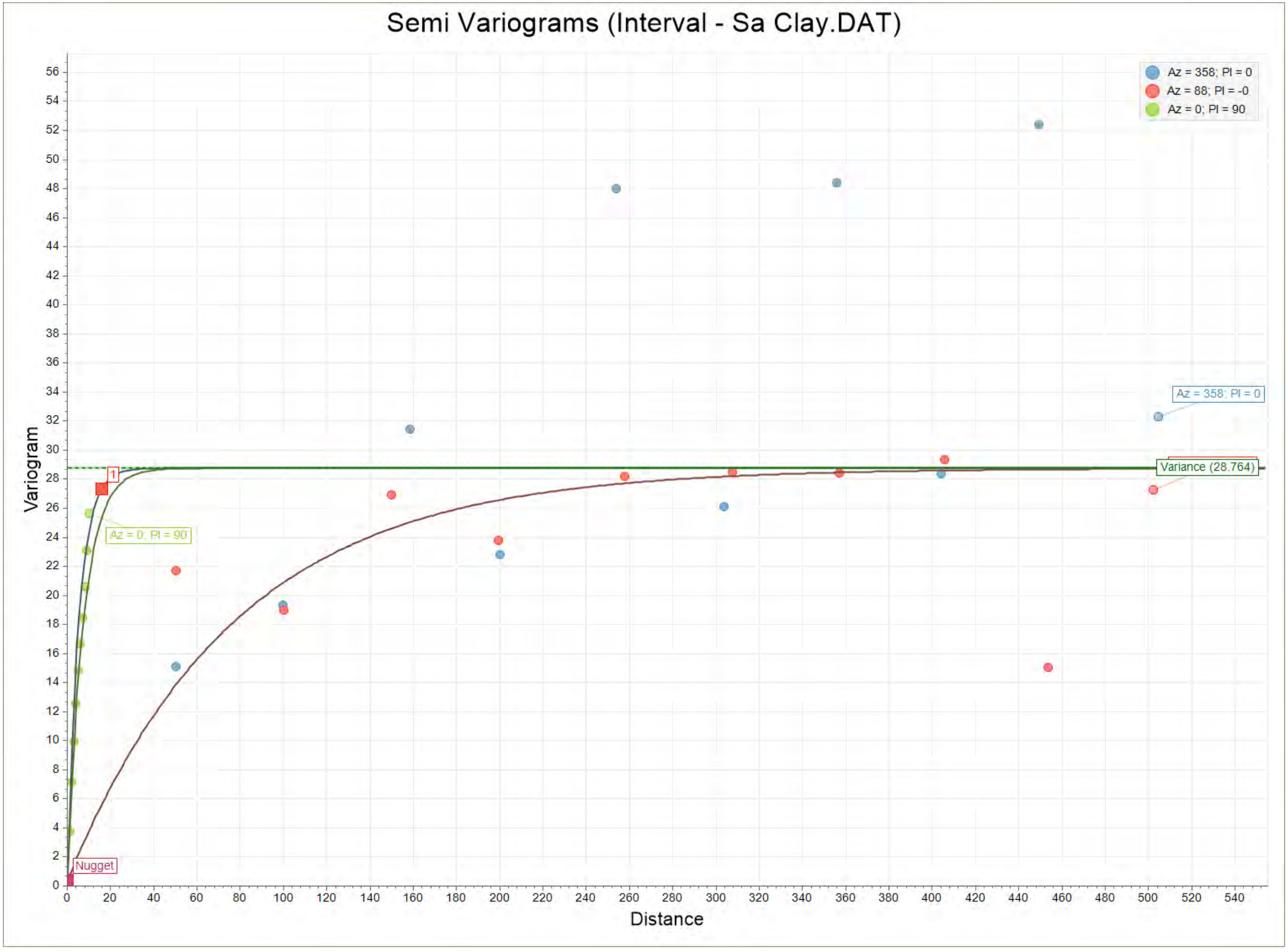



Semi Variograms (Interval - Baux Clay.DAT)
Az = 60; Pl = 0
Az = 150; Pl = -0
Az = 180; Pl = 90
Variogram
Distance
Variance (147.47)
1
Nugget
Az = 60; Pl = 0
Az = 150; Pl = -0
Az = 180; Pl = 90

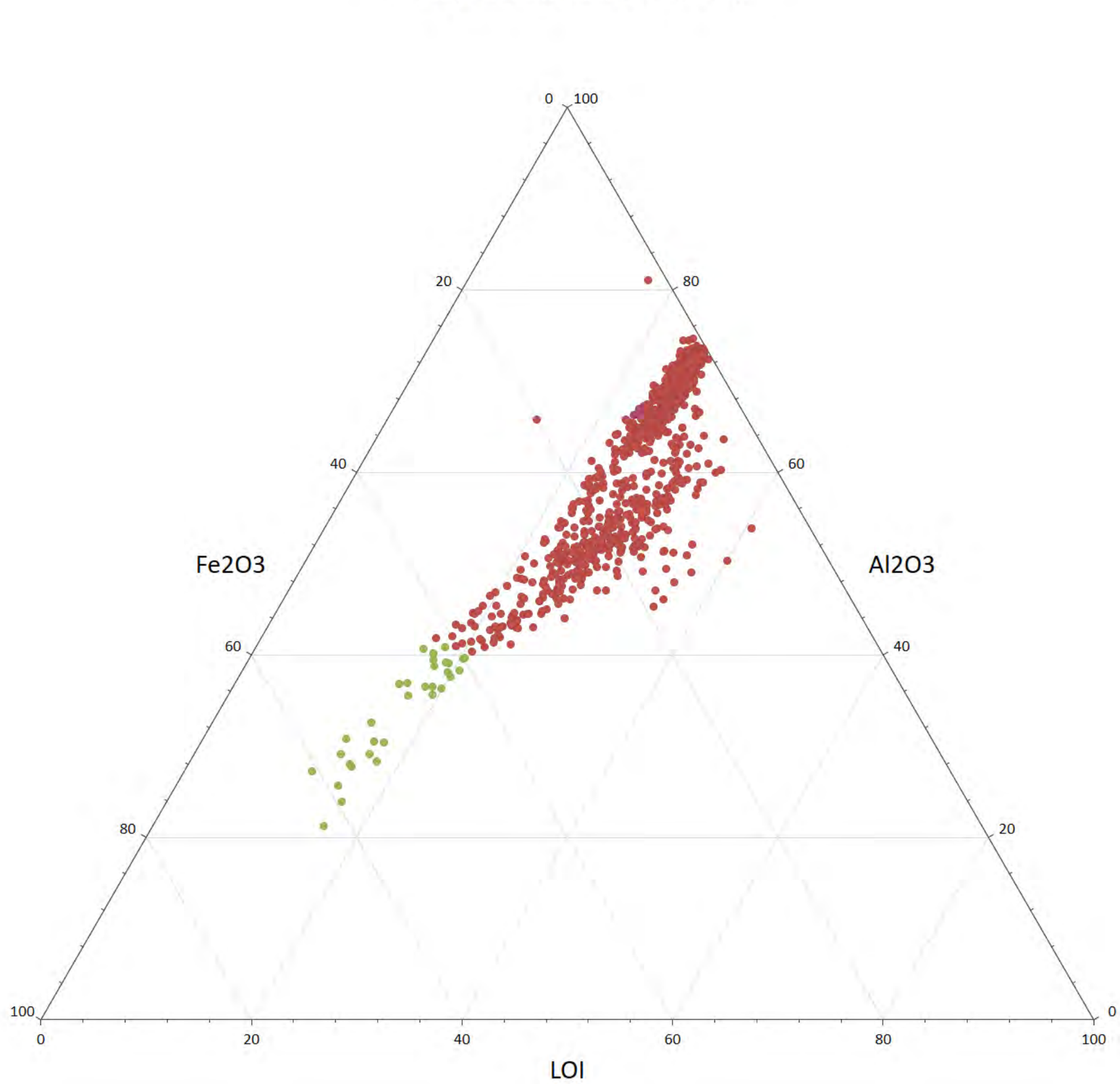

Semi Variograms (Interval - PI Clay.DAT)
Az = 60; PI = 0
Az = 150; PI = -0
Az = 180; PI = 90
Variogram
Distance
Nugget
1
Variance (51.258)
Az = 150; PI = -0
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
320
340
360
380
400
420
440
460
480
500
520
540

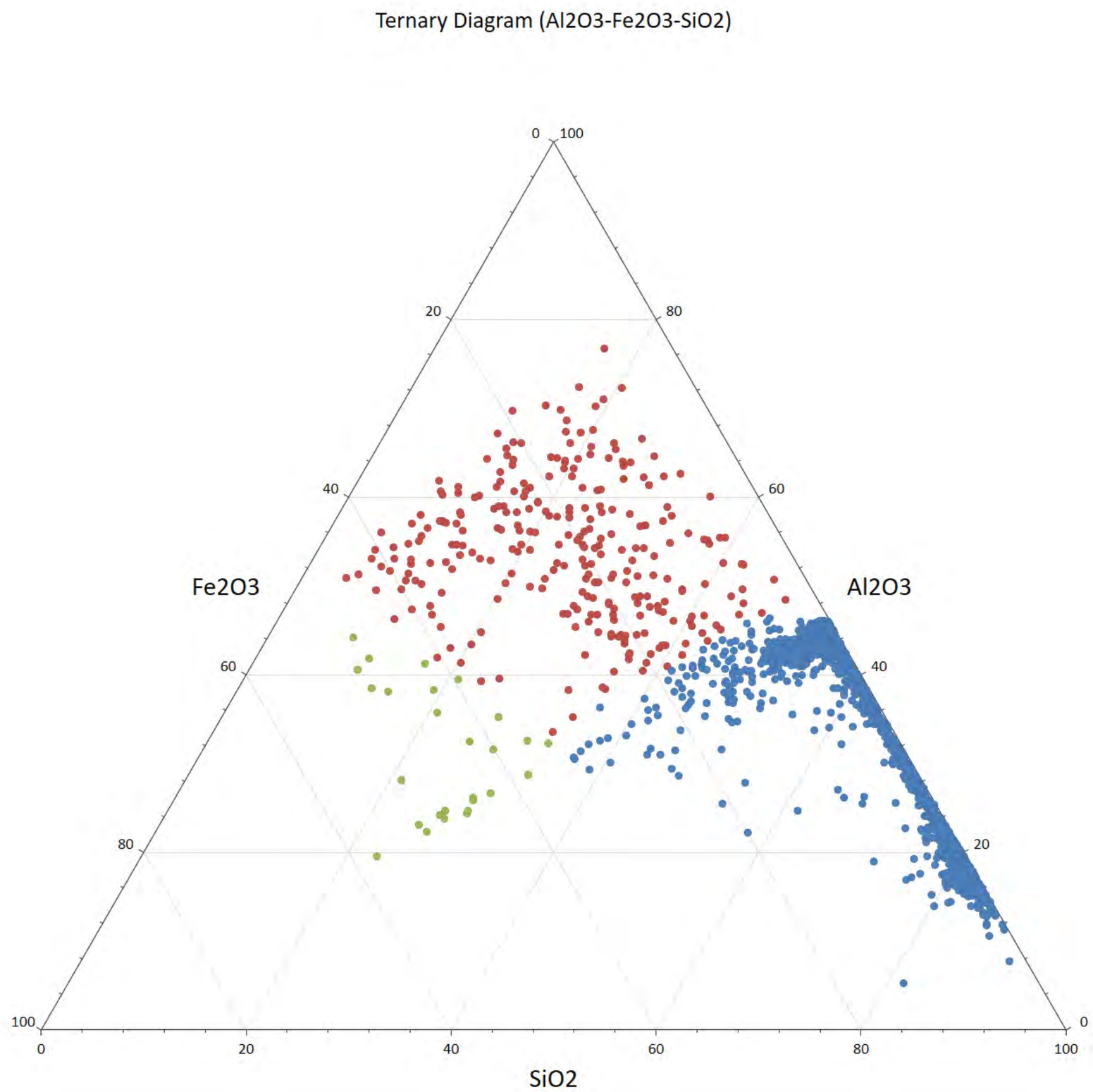

Semi Variograms (Interval - Kao Clay (High Iron).DAT)
Az = 60; Pl = 0
Az = 150; Pl = -0
Az = 180; Pl = 90
Variogram
Distance
Variance (46.202)
Az = 150; Pl = -0
Az = 60; Pl = 0
Nugget
Az = 180; Pl = 90
1

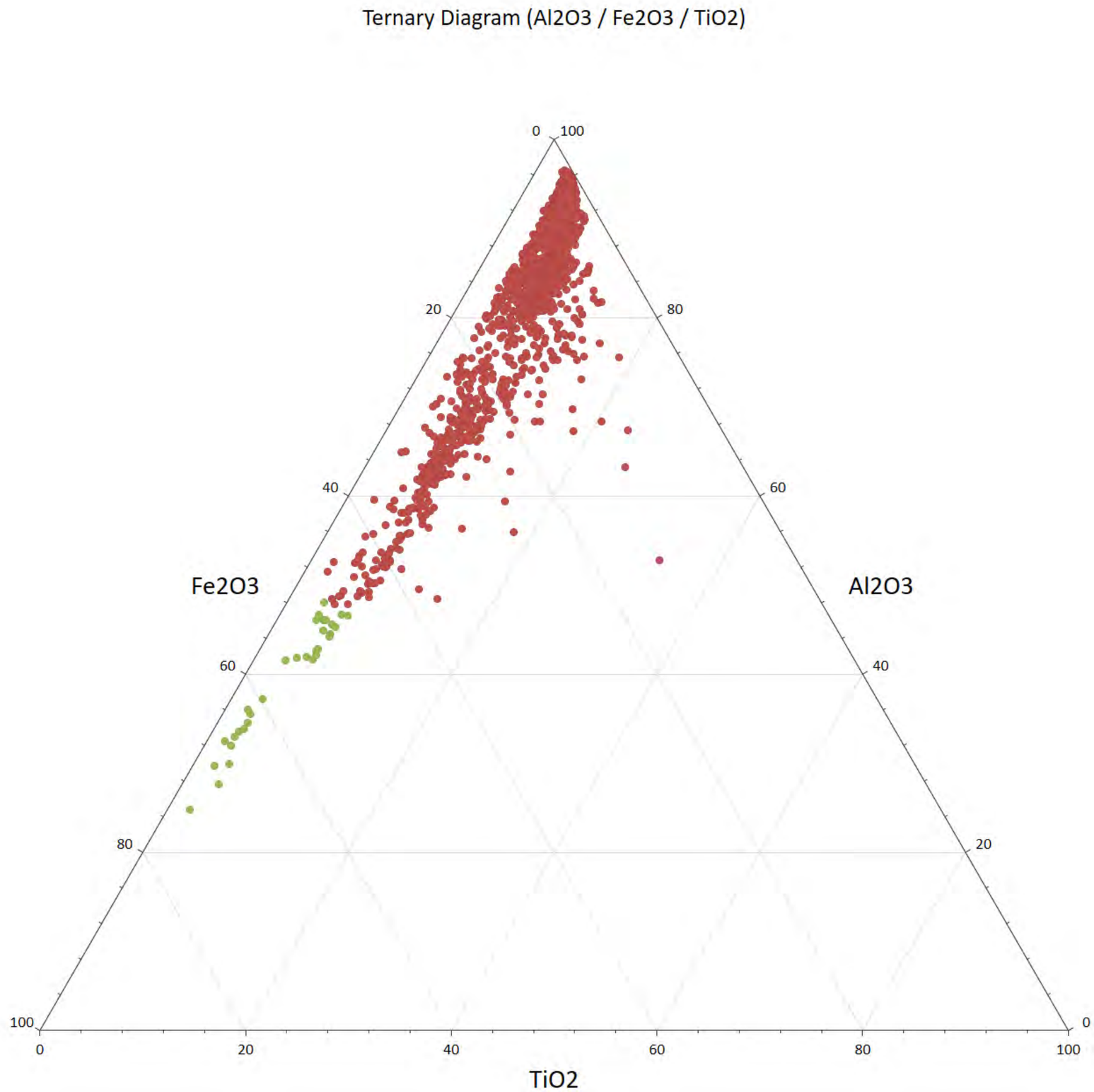

Semi Variograms (Interval - Kao Clay (Low Iron).DAT)
Az = 294; Pl = 0
Az = 24; Pl = -0
Az = 0; Pl = 90
Variogram
Distance
Az = 0; Pl = 90
Az = 24; Pl = -0
Az = 294; Pl = 0
Variance (1.5212)
Nugget
1

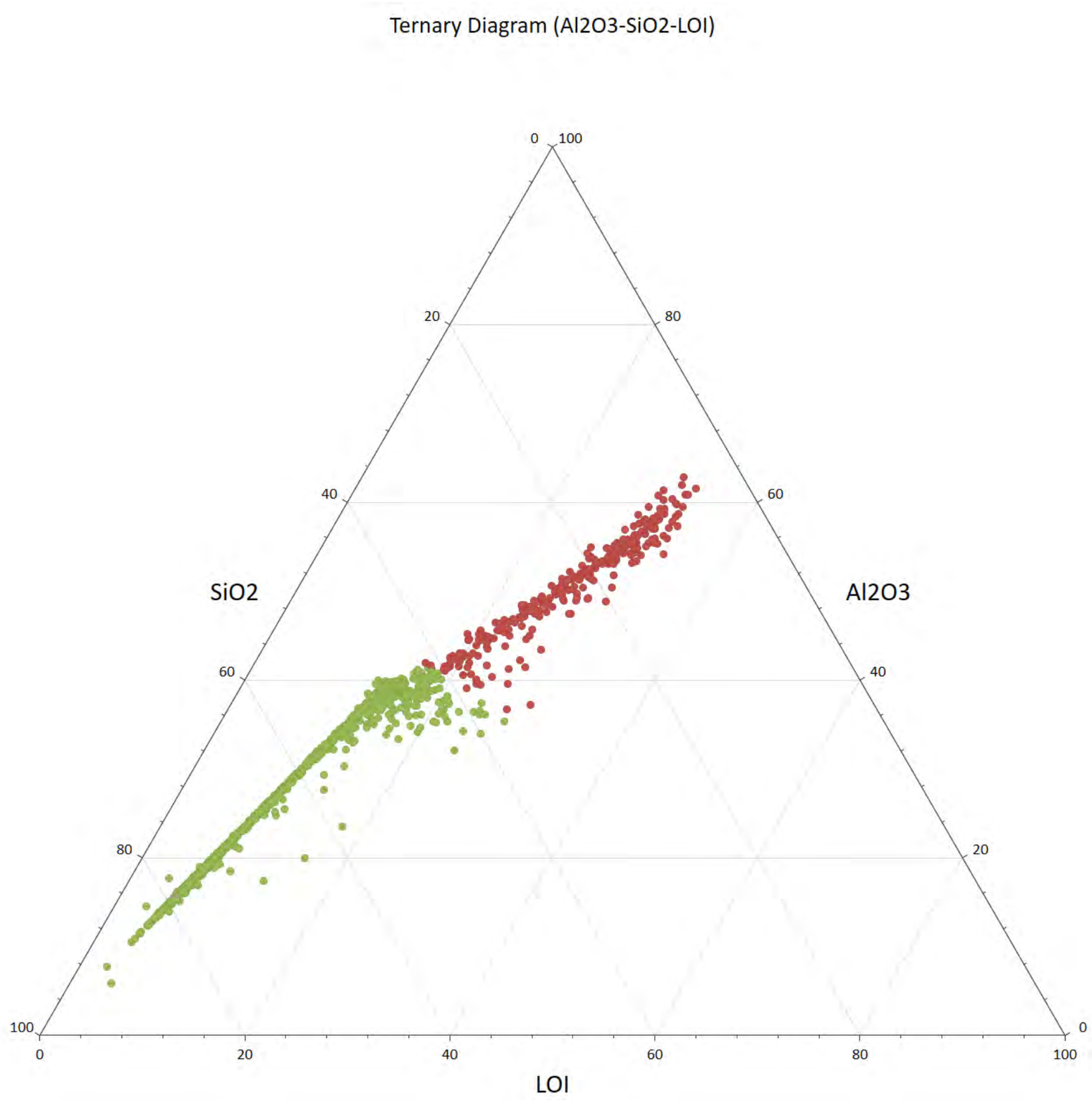

Semi Variograms (Interval - Sa Clay.DAT)
Az = 358; Pl = 0
Az = 88; Pl = -0
Az = 0; Pl = 90
Variogram
Distance
Az = 358; Pl = 0
Variance (28.764)
1
Az = 0; Pl = 90
Nugget

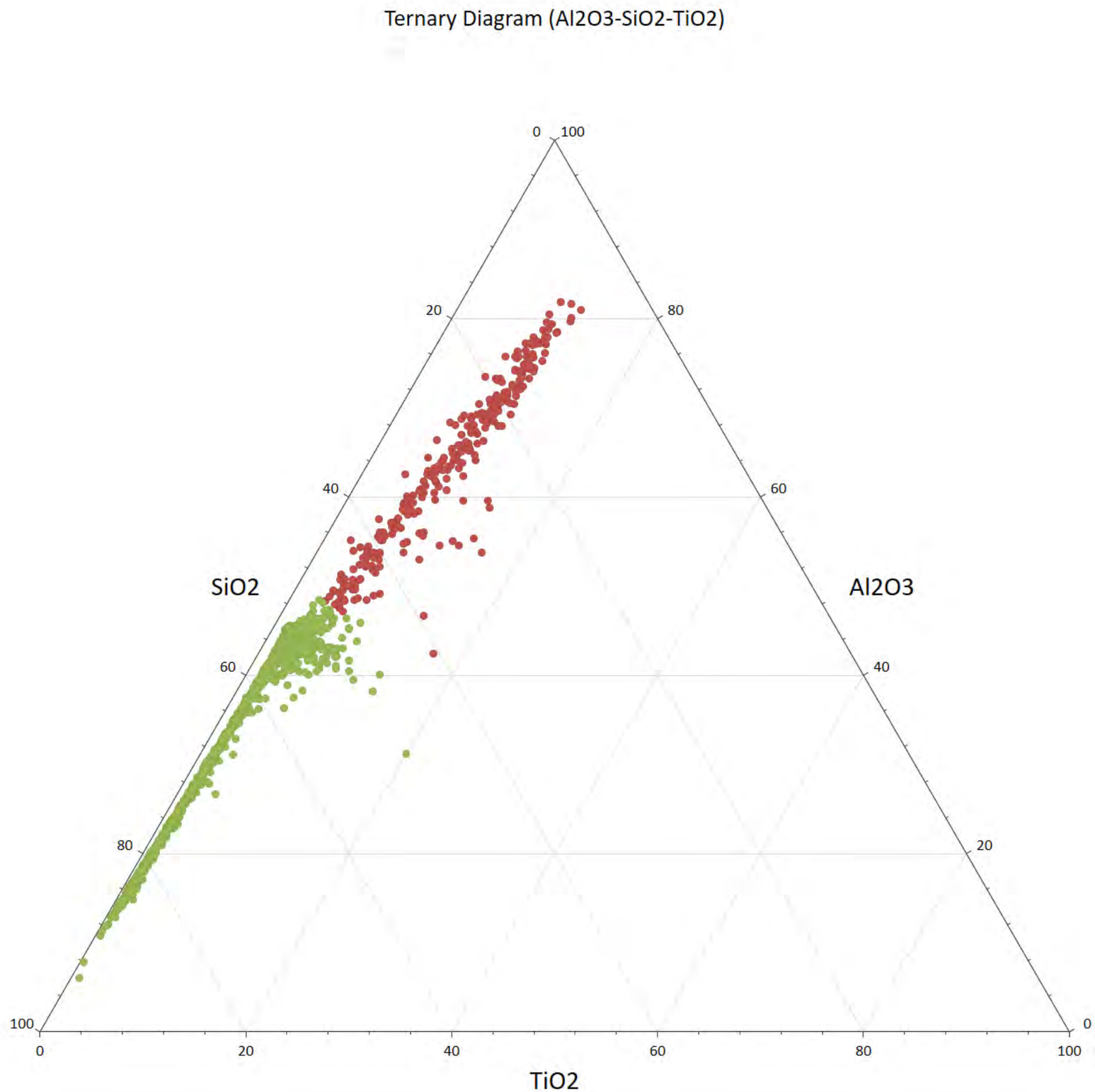
Ternary Diagram (Al2O3-Fe2O3-LOI)

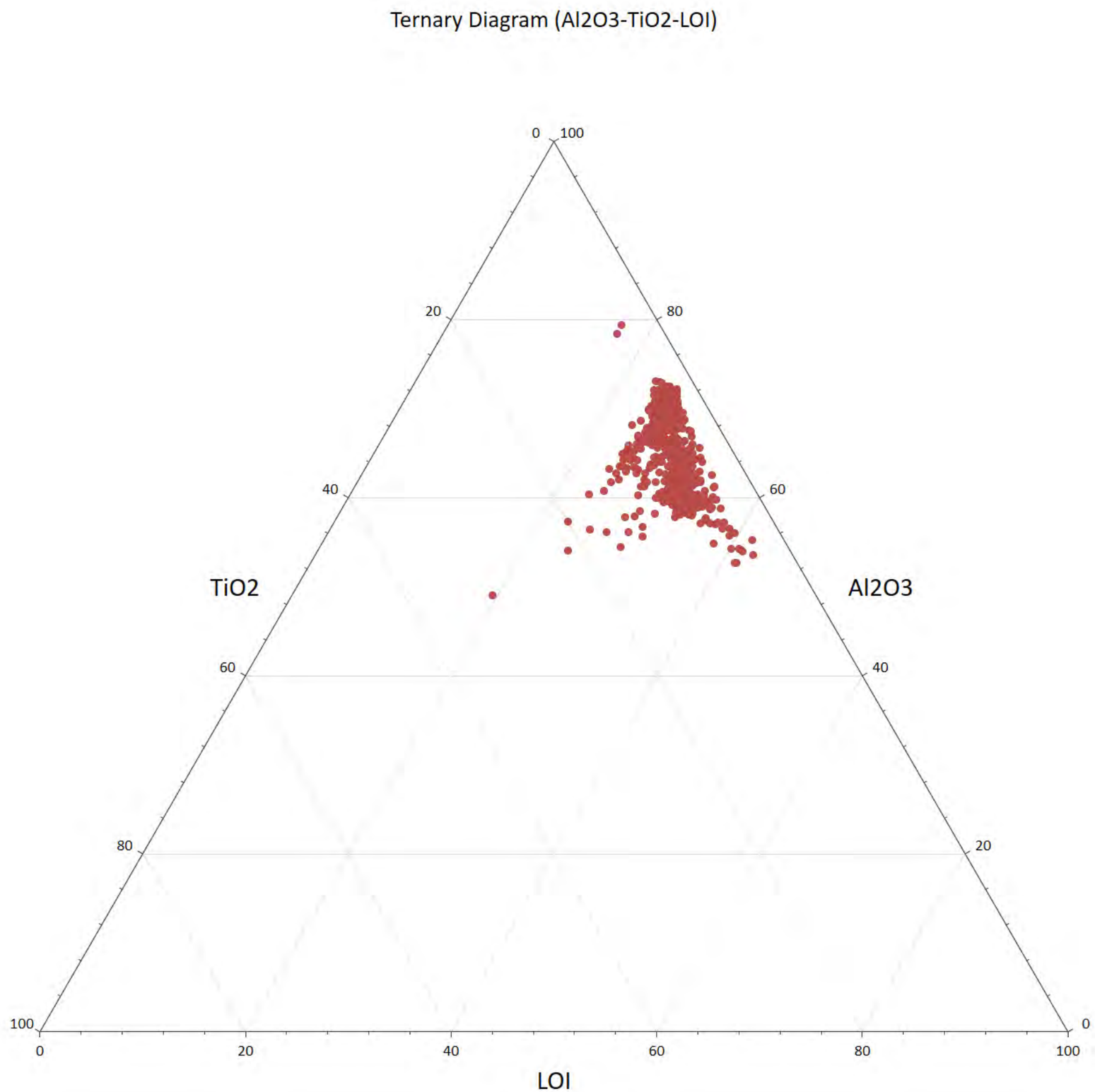



Ternary Diagram (Al2O3-Fe2O3-SiO2)
Data
0
100
20
80
40
60
60
40
80
20
100
0
Fe2O3
Al2O3
SiO2
0
20
40
60
80
100


Ternary Diagram (Al2O3 / Fe2O3 / TiO2)
Data
Fe2O3
Al2O3
TiO2
0
100
20
80
40
60
60
40
80
20
100
0
0
20
40
60
80
100


Ternary Diagram (Al2O3-SiO2-LOI)
Data
SiO2
Al2O3
LOI
0
20
40
60
80
100


Ternary Diagram (Al2O3-SiO2-TiO2)
Data
SiO2
Al2O3
TiO2
0
100
20
80
40
60
60
40
80
20
100
0
0
20
40
60
80
100


Ternary Diagram (Al2O3-TiO2-LOI)
Data
TiO2
Al2O3
LOI
0
100
20
80
40
60
60
40
80
20
100
0
0
20
40
60
80
100

Q-Q Plot - ALS Duplicates Chemistry - Al2O3

Al2O3

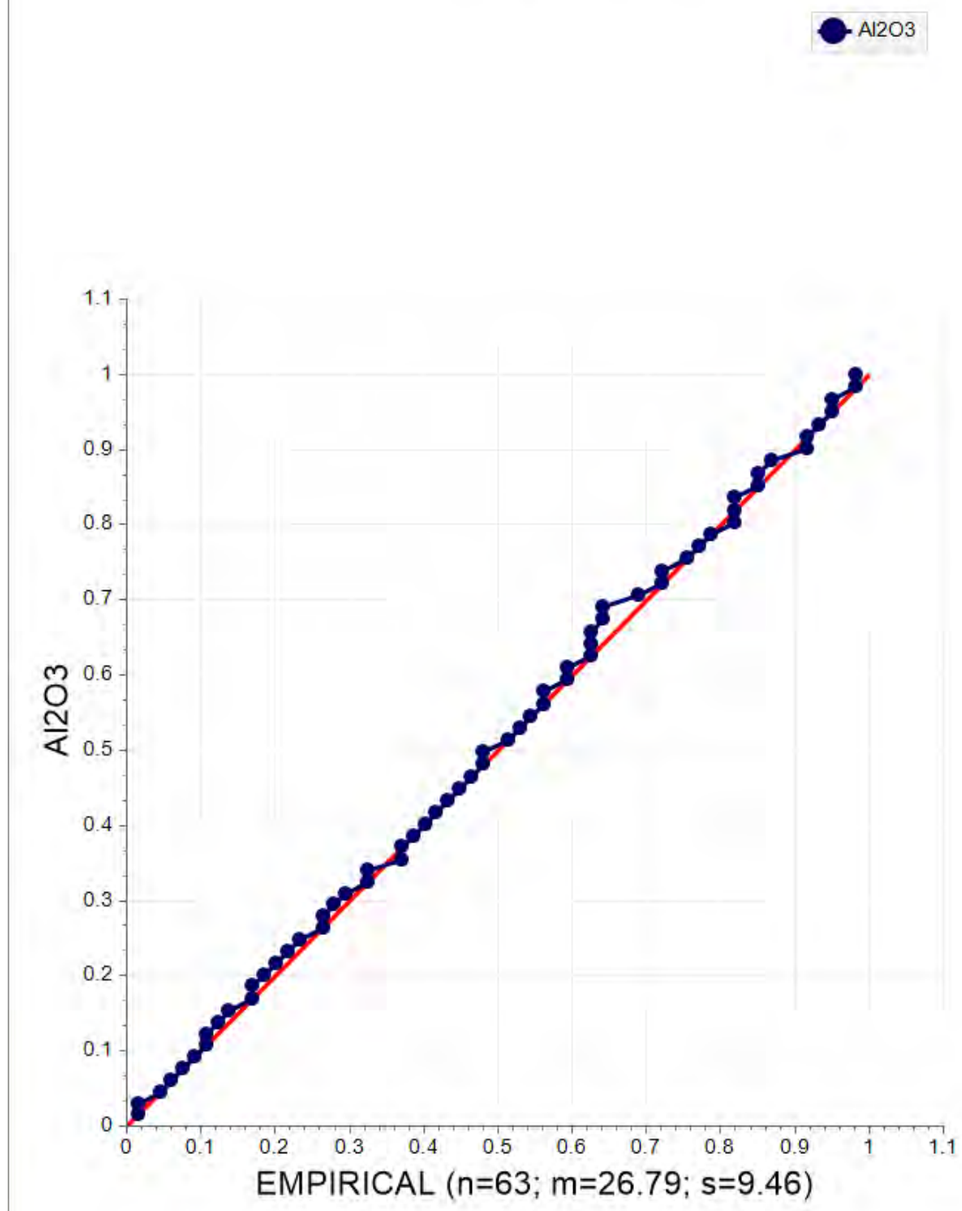


Chart Type	Probability-Probability
Y Axis	
Input File	Interval - ALS Duplicates Chemistry (Duplicates)
Y Name	Al2O3
Sample Ny	63
Mean	26.800
Variance	89.560
Std Dev	9.464
Corr Coeff	0.999
X Var / Y Var	0.999
Chi² Degrees of Freedom	-1
Experimental Chi²	0.001
Critical Chi² 5%	nan
Critical Chi² 10%	nan
X Axis	
Input File	Interval - ALS Duplicates Chemistry (Original)
X Name	Al2O3
Sample Nx	63
Mean	26.7935
Variance	89.4432
Std Dev	9.45744

Q-Q Plot - ALS Duplicates Chemistry - Fe2O3

Fe2O3

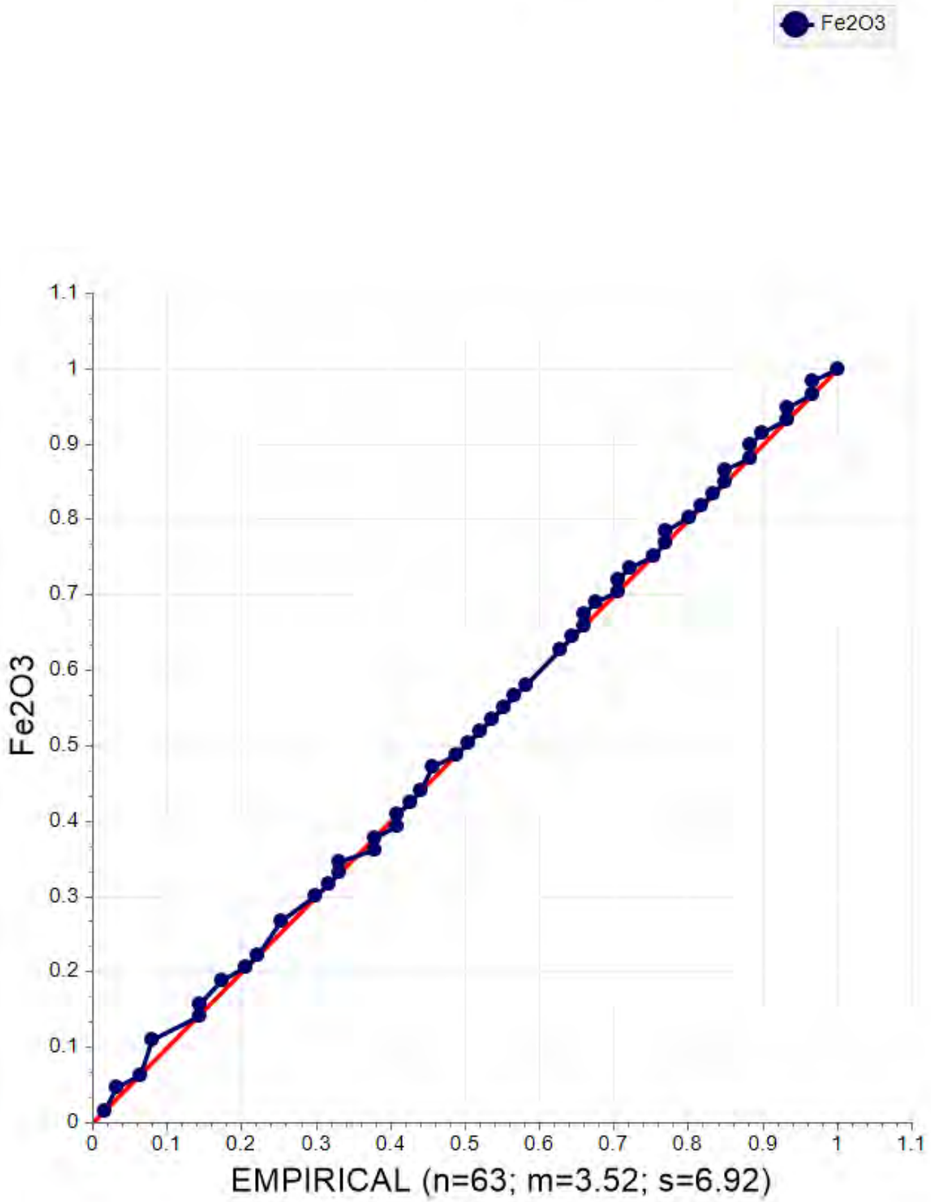


Chart Type	Probability-Probability
Y Axis	
Input File	Interval - ALS Duplicates Chemistry (Duplicates)
Y Name	Fe2O3
Sample Ny	63
Mean	3.510
Variance	47.538
Std Dev	6.895
Corr Coeff	0.999
X Var / Y Var	1.006
Chi² Degrees of Freedom	1
Experimental Chi²	0.011
Critical Chi² 5%	3.841
Critical Chi² 10%	2.706
X Axis	
Input File	Interval - ALS Duplicates Chemistry (Original)
X Name	Fe2O3
Sample Nx	63
Mean	3.52
Variance	47.8432
Std Dev	6.91688

Q-Q Plot - ALS Duplicates Chemistry - SiO2

SiO2

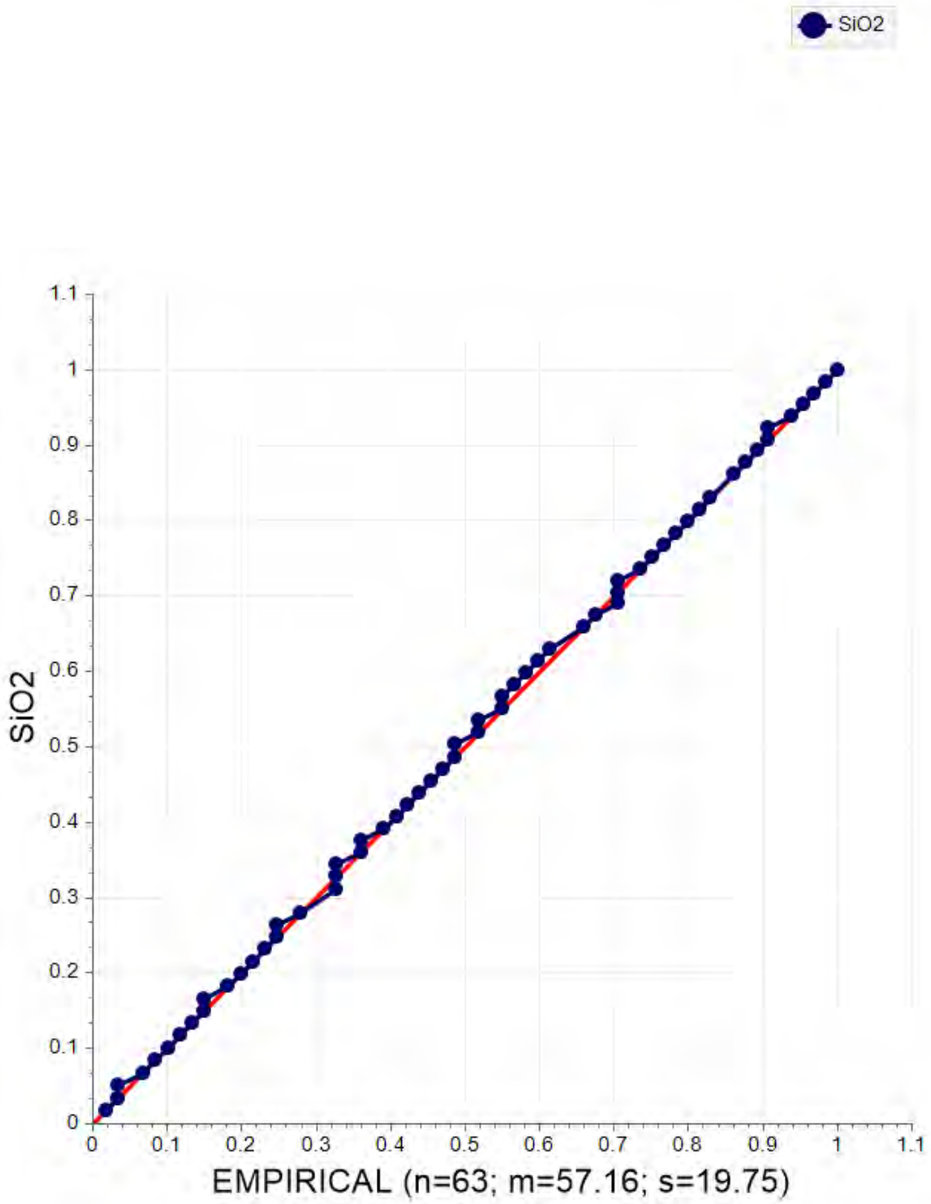


Chart Type	Probability-Probability
Y Axis	
Input File	Interval - ALS Duplicates Chemistry (Duplicates)
Y Name	SiO2
Sample Ny	63
Mean	57.171
Variance	389.867
Std Dev	19.745
Corr Coeff	1.000
X Var / Y Var	1.001
Chi² Degrees of Freedom	0
Experimental Chi²	0.153
Critical Chi² 5%	nan
Critical Chi² 10%	nan
X Axis	
Input File	Interval - ALS Duplicates Chemistry (Original)
X Name	SiO2
Sample Nx	63
Mean	57.162
Variance	390.236
Std Dev	19.7544

Q-Q Plot - ALS Duplicates Chemistry - TiO2

TiO2

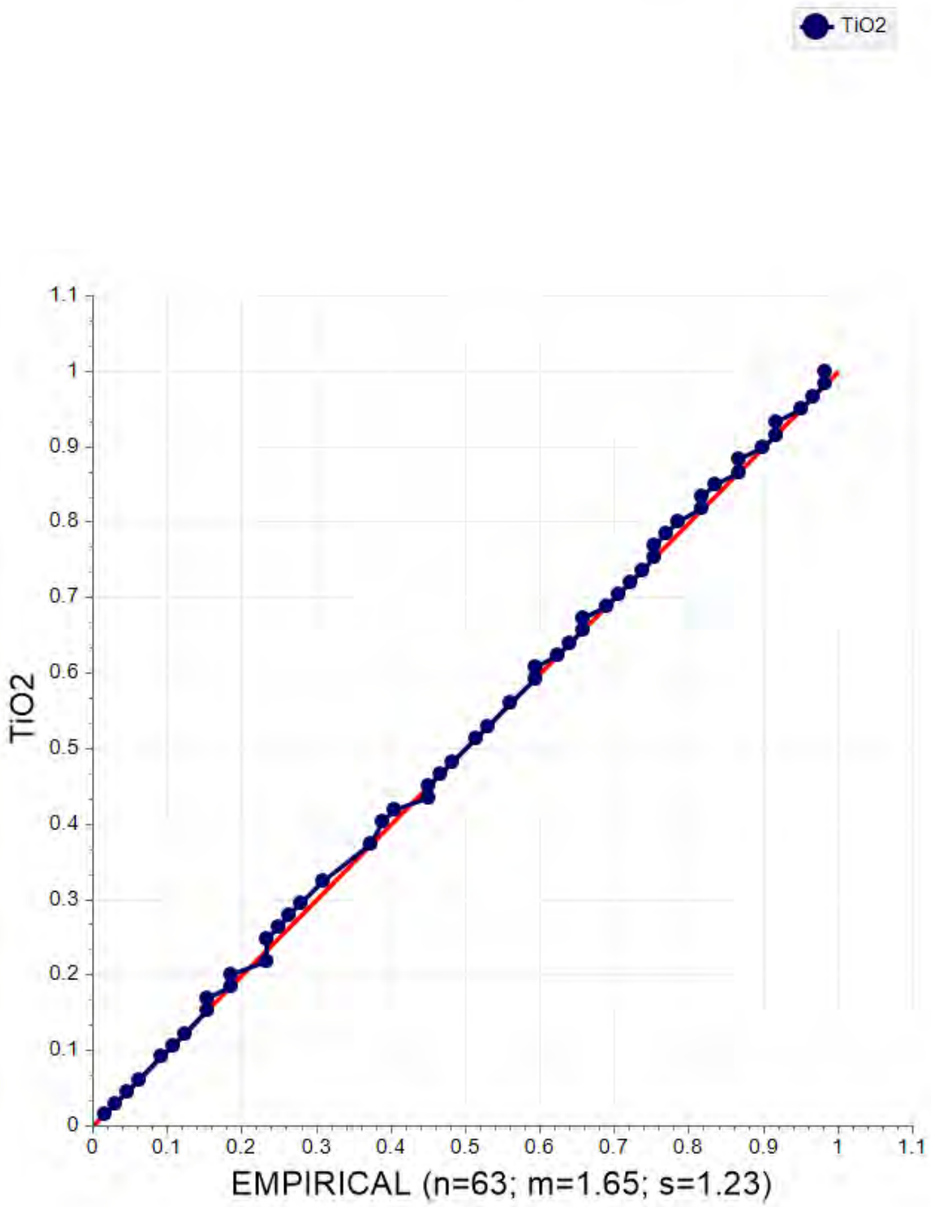


Chart Type	Probability-Probability
Y Axis	
Input File	Interval - ALS Duplicates Chemistry (Duplicates)
Y Name	TiO2
Sample Ny	63
Mean	1.651
Variance	1.528
Std Dev	1.236
Corr Coeff	1.000
X Var / Y Var	0.997
Chi² Degrees of Freedom	1
Experimental Chi²	1.537
Critical Chi² 5%	3.841
Critical Chi² 10%	2.706
X Axis	
Input File	Interval - ALS Duplicates Chemistry (Original)
X Name	TiO2
Sample Nx	63
Mean	1.65042
Variance	1.52438
Std Dev	1.23466

Q-Q Plot - ALS Duplicates Chemistry - LOI

LOI

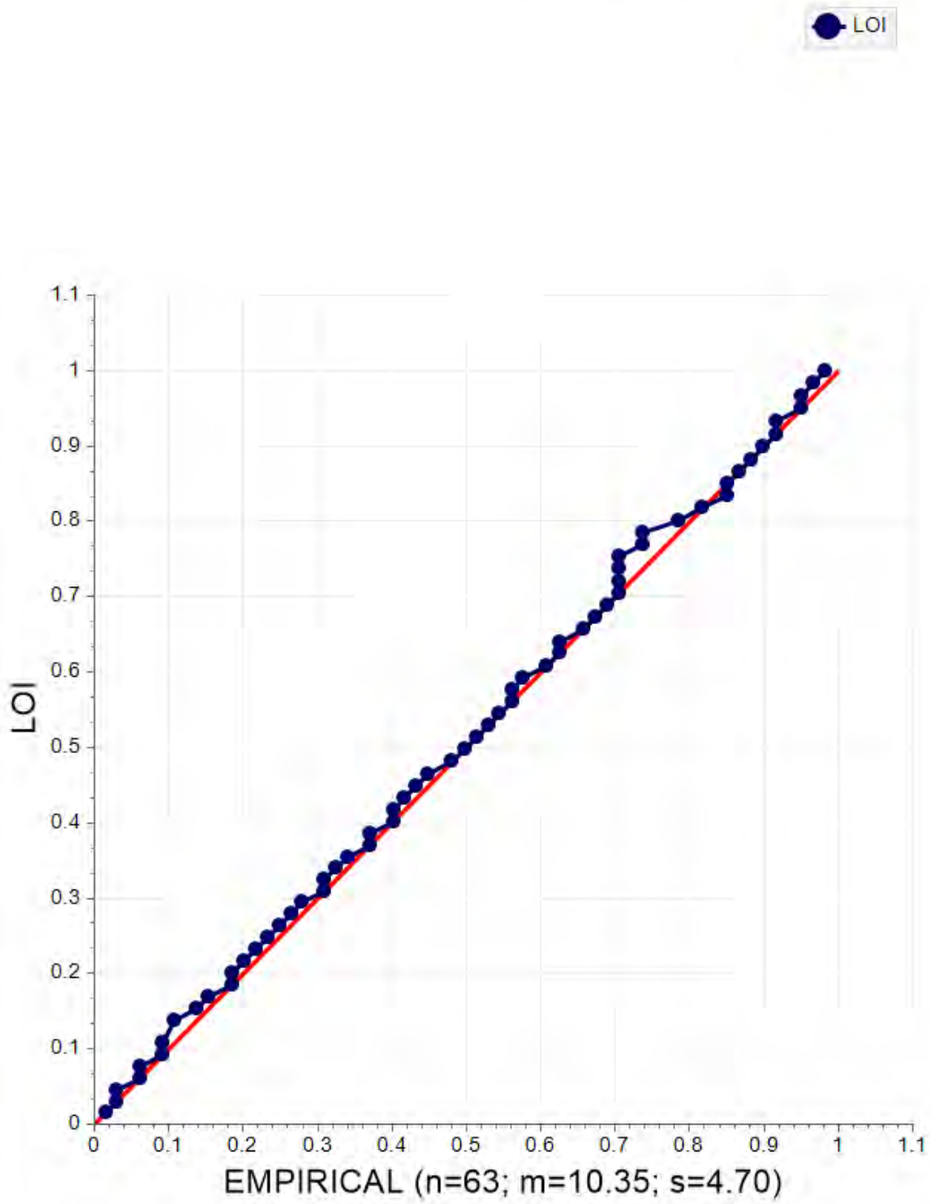


Chart Type	Probability-Probability
Y Axis	
Input File	Interval - ALS Duplicates Chemistry (Duplicates)
Y Name	LOI
Sample Ny	63
Mean	10.343
Variance	22.090
Std Dev	4.700
Corr Coeff	0.999
X Var / Y Var	1.002
Chi² Degrees of Freedom	-1
Experimental Chi²	0.000
Critical Chi² 5%	nan
Critical Chi² 10%	nan
X Axis	
Input File	Interval - ALS Duplicates Chemistry (Original)
X Name	LOI
Sample Nx	63
Mean	10.3519
Variance	22.1347
Std Dev	4.70475

Q-Q Plot - Previous Duplicates Chemistry - Al2O3

Al2O3

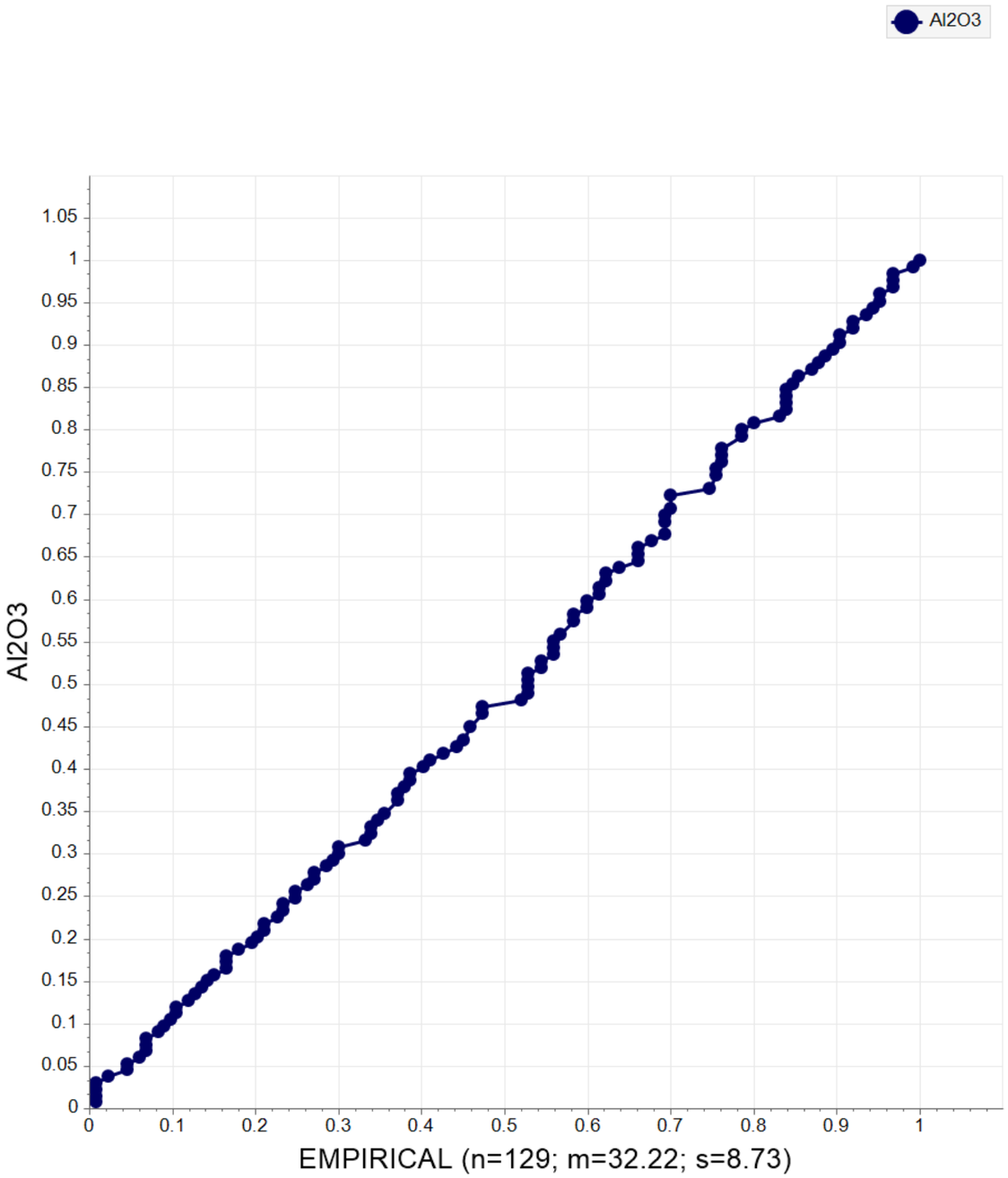


Chart Type	Probability-Probability
Y Axis	
Input File	Interval - Previous Duplicates Chemistry (Original)
Y Name	Al2O3
Sample Ny	129
Mean	32.286
Variance	77.126
Std Dev	8.782
Corr Coeff	0.999
X Var / Y Var	0.988
Chi² Degrees of Freedom	1
Experimental Chi²	4.913
Critical Chi² 5%	3.841
Critical Chi² 10%	2.706
X Axis	
Input File	Interval - Previous Duplicates Chemistry (Duplicates)
X Name	Al2O3
Sample Nx	129
Mean	32.2176
Variance	76.2207
Std Dev	8.73045

Q-Q Plot - Previous Duplicates Chemistry - Fe2O3

Fe2O3

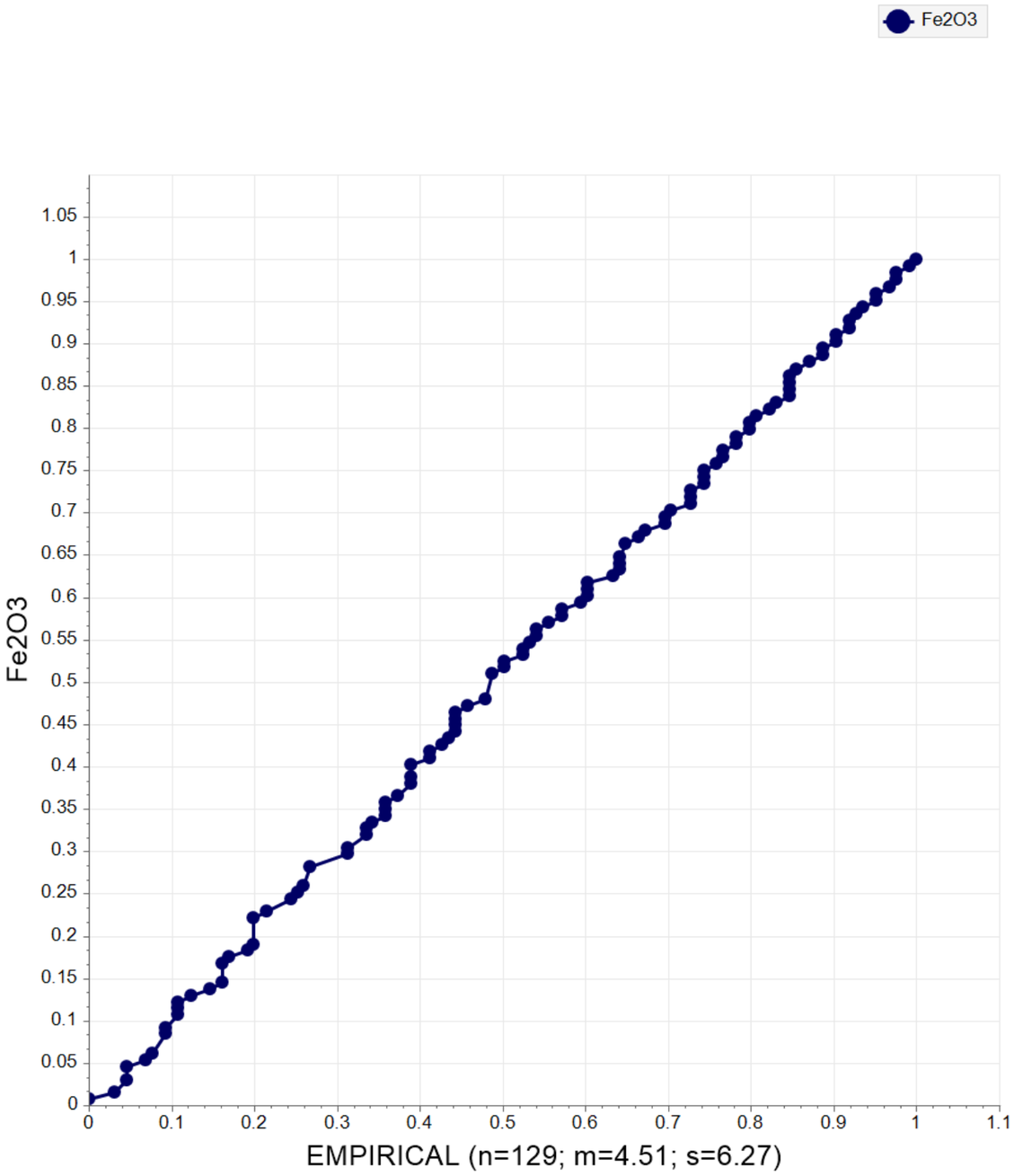


Chart Type	Probability-Probability
Y Axis	
Input File	Interval - Previous Duplicates Chemistry (Original)
Y Name	Fe2O3
Sample Ny	129
Mean	4.501
Variance	39.518
Std Dev	6.286
Corr Coeff	0.999
X Var / Y Var	0.995
Chi² Degrees of Freedom	2
Experimental Chi²	1.699
Critical Chi² 5%	5.991
Critical Chi² 10%	4.605
X Axis	
Input File	Interval - Previous Duplicates Chemistry (Duplicates)
X Name	Fe2O3
Sample Nx	129
Mean	4.51033
Variance	39.3179
Std Dev	6.2704

Q-Q Plot - Previous Duplicates Chemistry - SiO2

SiO2

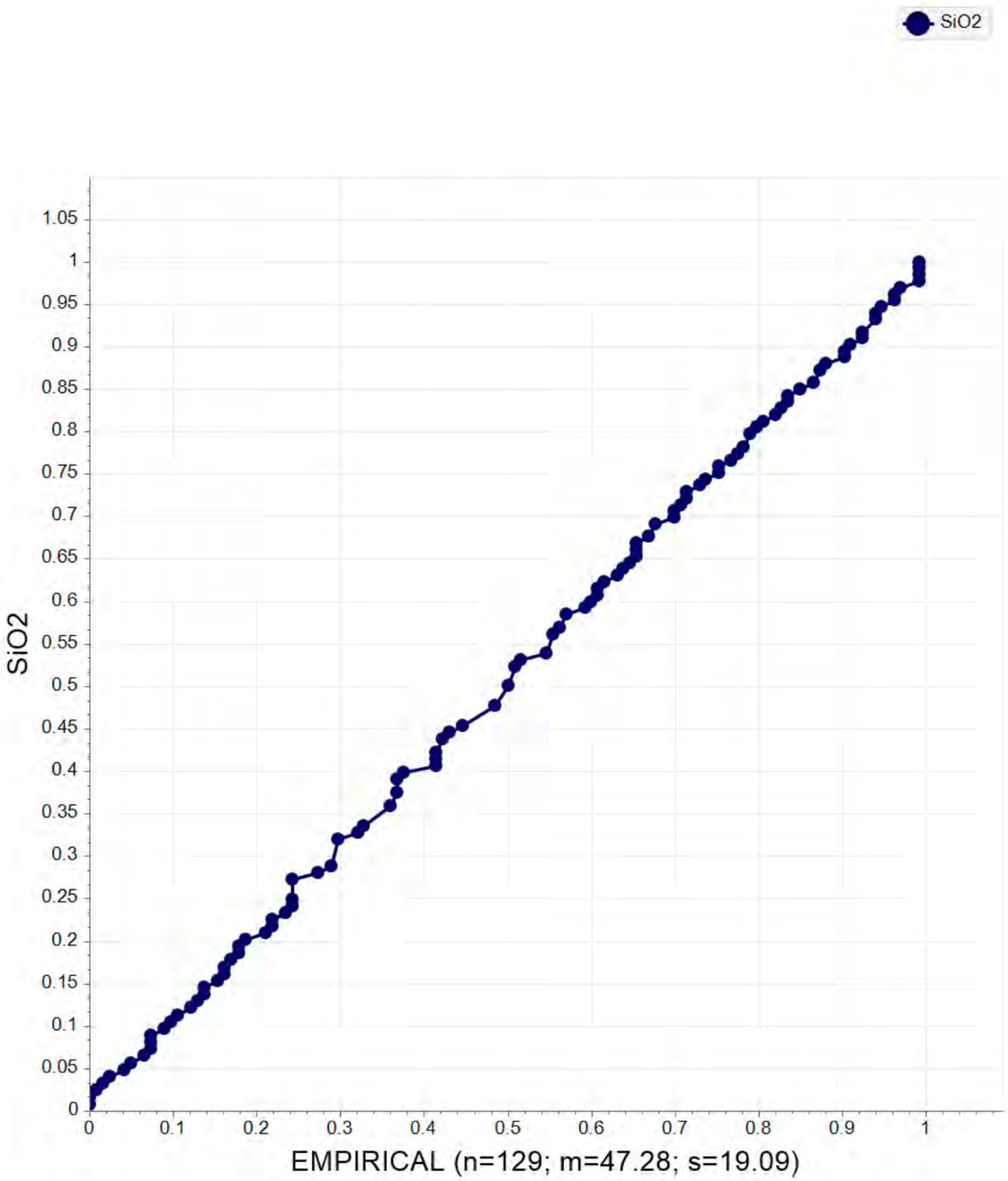


Chart Type	Probability-Probability
Y Axis	
Input File	Interval - Previous Duplicates Chemistry (Original)
Y Name	SiO2
Sample Ny	129
Mean	47.199
Variance	368.894
Std Dev	19.207
Corr Coeff	1.000
X Var / Y Var	0.988
Chi² Degrees of Freedom	2
Experimental Chi²	0.843
Critical Chi² 5%	5.991
Critical Chi² 10%	4.605
X Axis	
Input File	Interval - Previous Duplicates Chemistry (Duplicates)
X Name	SiO2
Sample Nx	129
Mean	47.2817
Variance	364.333
Std Dev	19.0875

Q-Q Plot - Previous Duplicates Chemistry - TiO2

TiO2

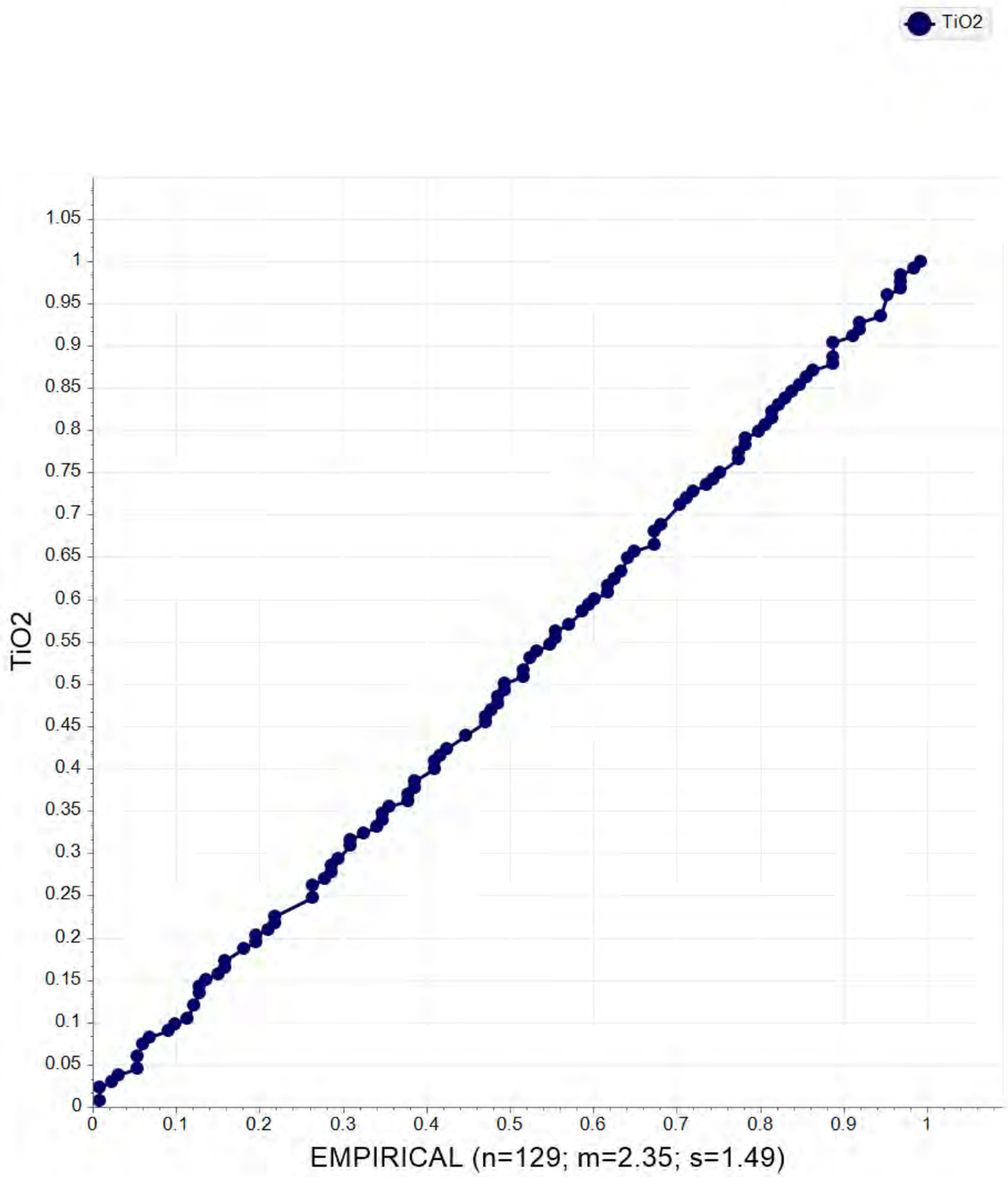


Chart Type	Probability-Probability
Y Axis	
Input File	Interval - Previous Duplicates Chemistry (Original)
Y Name	TiO2
Sample Ny	129
Mean	2.351
Variance	2.203
Std Dev	1.484
Corr Coeff	1.000
X Var / Y Var	1.003
Chi² Degrees of Freedom	2
Experimental Chi²	0.884
Critical Chi² 5%	5.991
Critical Chi² 10%	4.605
X Axis	
Input File	Interval - Previous Duplicates Chemistry (Duplicates)
X Name	TiO2
Sample Nx	129
Mean	2.34936
Variance	2.20992
Std Dev	1.48658

Q-Q Plot - Previous Duplicates Chemistry - LOI

LOI

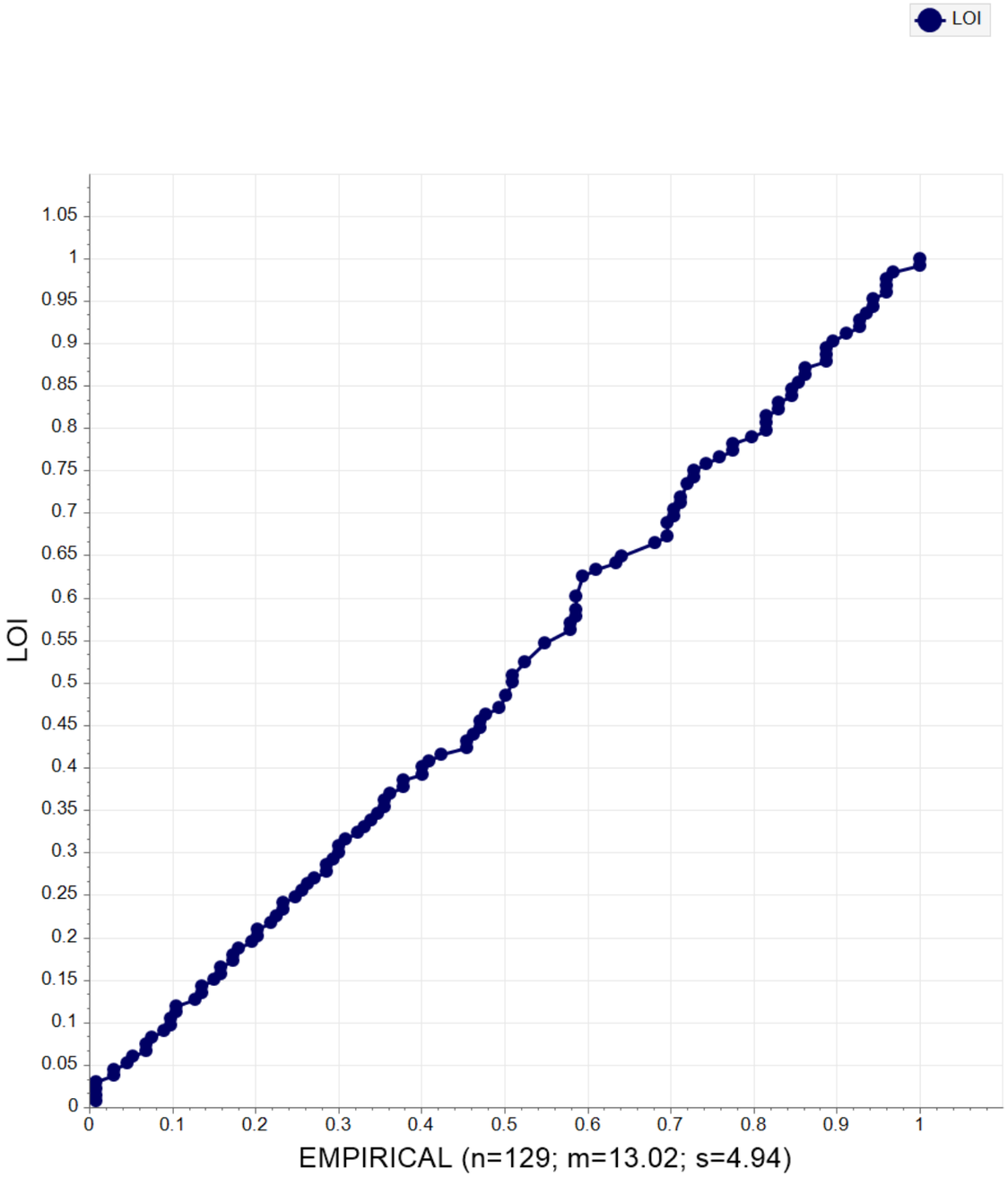


Chart Type	Probability-Probability
Y Axis	
Input File	Interval - Previous Duplicates Chemistry (Original)
Y Name	LOI
Sample Ny	129
Mean	13.051
Variance	24.691
Std Dev	4.969
Corr Coeff	0.999
X Var / Y Var	0.988
Chi² Degrees of Freedom	1
Experimental Chi²	2.740
Critical Chi² 5%	3.841
Critical Chi² 10%	2.706
X Axis	
Input File	Interval - Previous Duplicates Chemistry (Duplicates)
X Name	LOI
Sample Nx	129
Mean	13.0241
Variance	24.3902
Std Dev	4.93864

Q-Q Plot - ALS Duplicates Chemistry - Al2O3

Al2O3

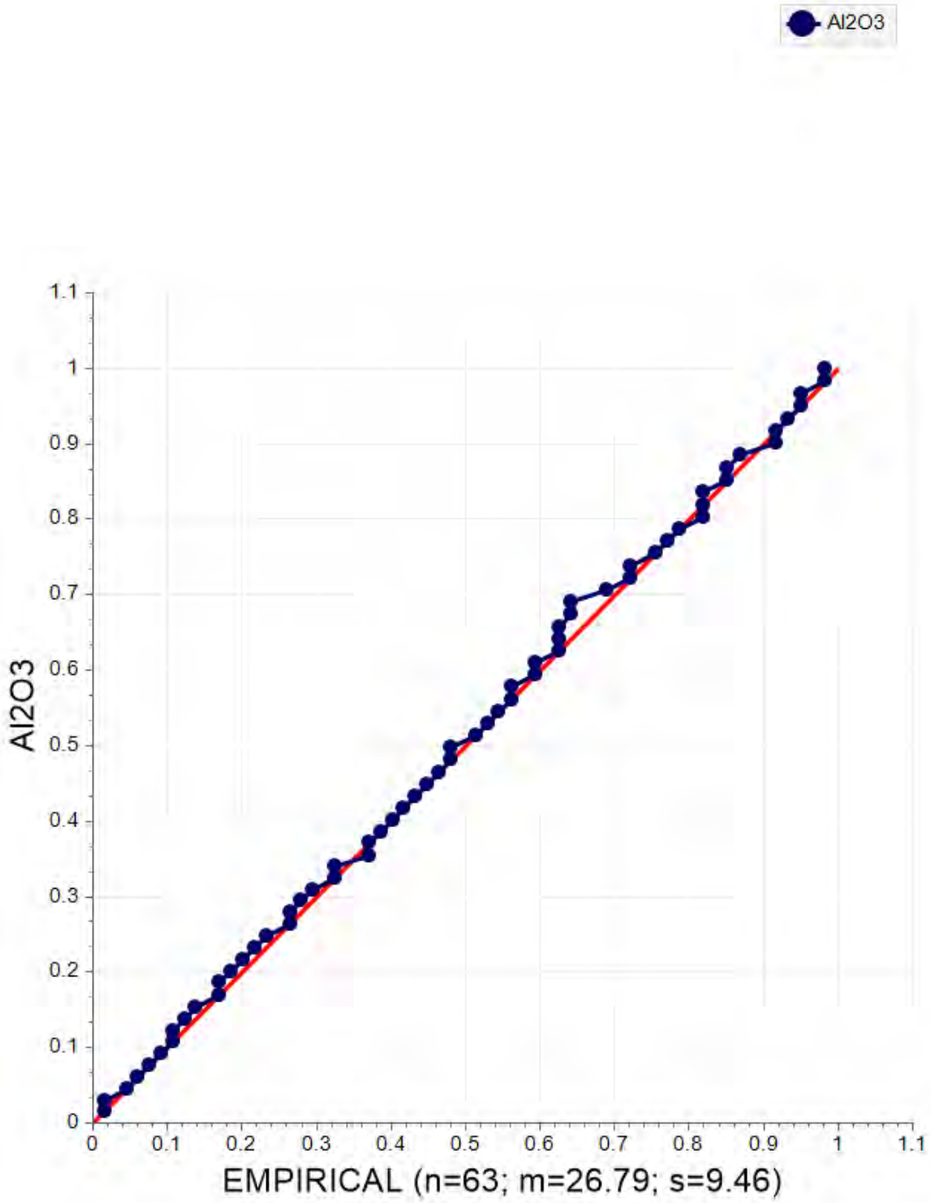


Chart Type	Probability-Probability
Y Axis	
Input File	Interval - ALS Duplicates Chemistry (Duplicates)
Y Name	Al2O3
Sample Ny	63
Mean	26.800
Variance	89.560
Std Dev	9.464
Corr Coeff	0.999
X Var / Y Var	0.999
Chi² Degrees of Freedom	-1
Experimental Chi²	0.001
Critical Chi² 5%	nan
Critical Chi² 10%	nan
X Axis	
Input File	Interval - ALS Duplicates Chemistry (Original)
X Name	Al2O3
Sample Nx	63
Mean	26.7935
Variance	89.4432
Std Dev	9.45744

Q-Q Plot - ALS Duplicates Chemistry - Fe2O3

Fe2O3

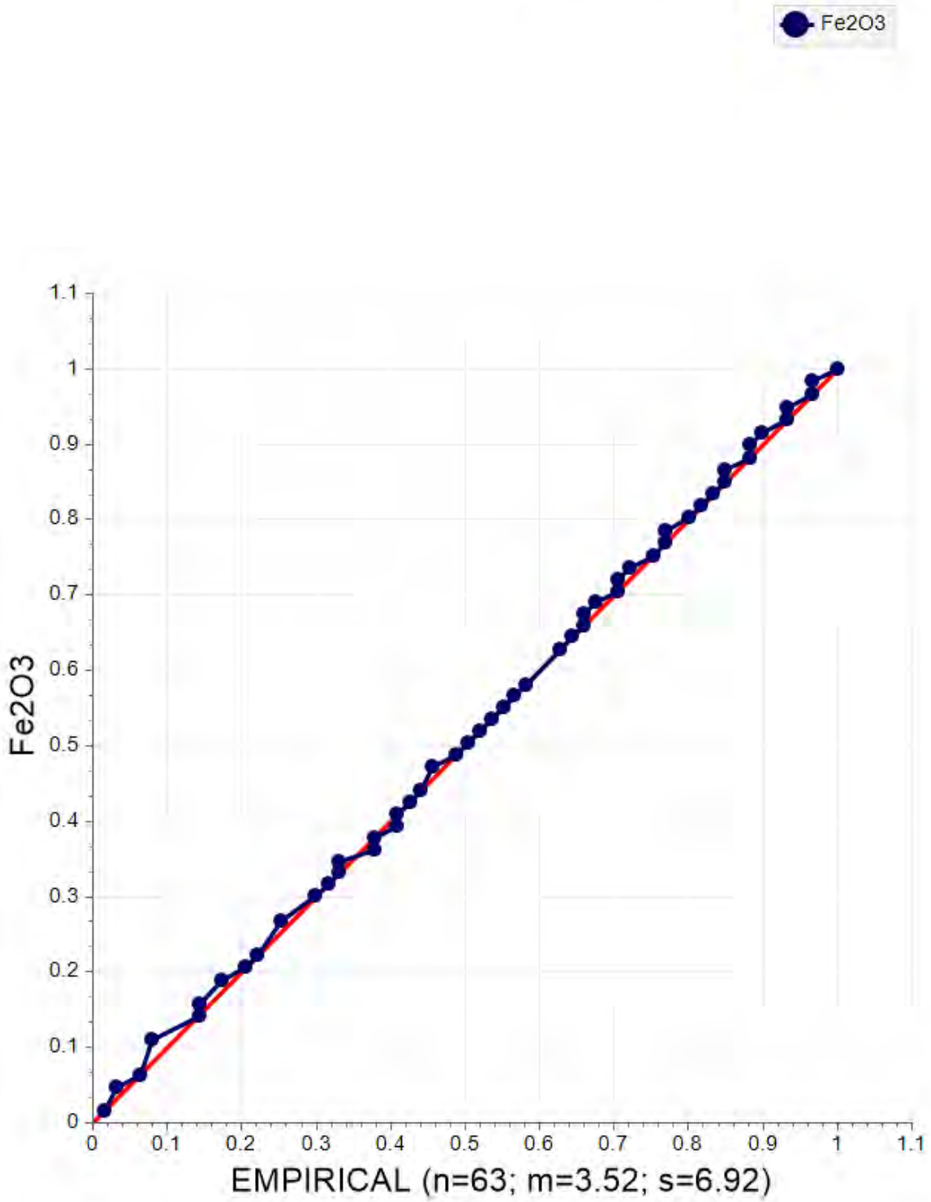


Chart Type	Probability-Probability
Y Axis	
Input File	Interval - ALS Duplicates Chemistry (Duplicates)
Y Name	Fe2O3
Sample Ny	63
Mean	3.510
Variance	47.538
Std Dev	6.895
Corr Coeff	0.999
X Var / Y Var	1.006
Chi² Degrees of Freedom	1
Experimental Chi²	0.011
Critical Chi² 5%	3.841
Critical Chi² 10%	2.706
X Axis	
Input File	Interval - ALS Duplicates Chemistry (Original)
X Name	Fe2O3
Sample Nx	63
Mean	3.52
Variance	47.8432
Std Dev	6.91688

Q-Q Plot - ALS Duplicates Chemistry - SiO2

SiO2

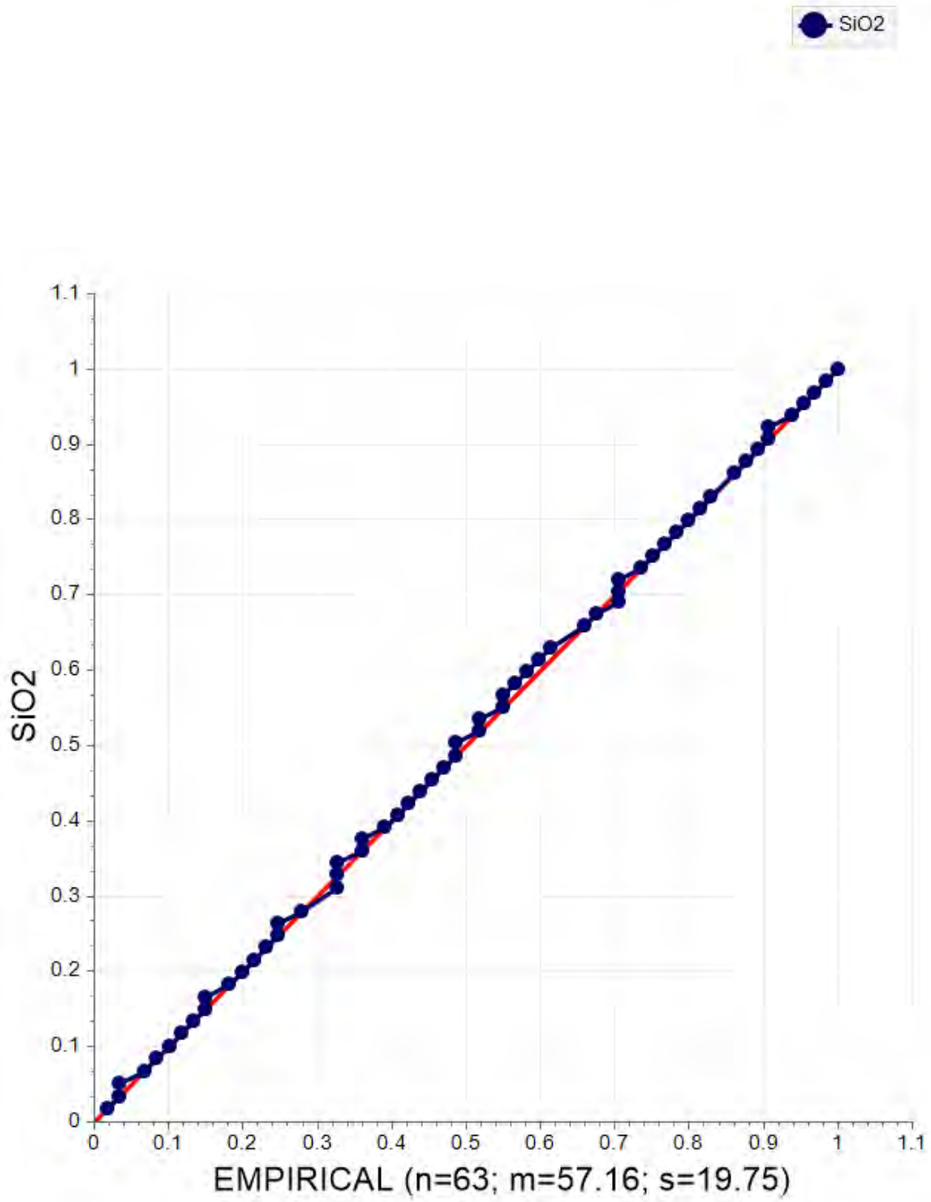


Chart Type	Probability-Probability
Y Axis	
Input File	Interval - ALS Duplicates Chemistry (Duplicates)
Y Name	SiO2
Sample Ny	63
Mean	57.171
Variance	389.867
Std Dev	19.745
Corr Coeff	1.000
X Var / Y Var	1.001
Chi² Degrees of Freedom	0
Experimental Chi²	0.153
Critical Chi² 5%	nan
Critical Chi² 10%	nan
X Axis	
Input File	Interval - ALS Duplicates Chemistry (Original)
X Name	SiO2
Sample Nx	63
Mean	57.162
Variance	390.236
Std Dev	19.7544

Q-Q Plot - ALS Duplicates Chemistry - TiO2

TiO2

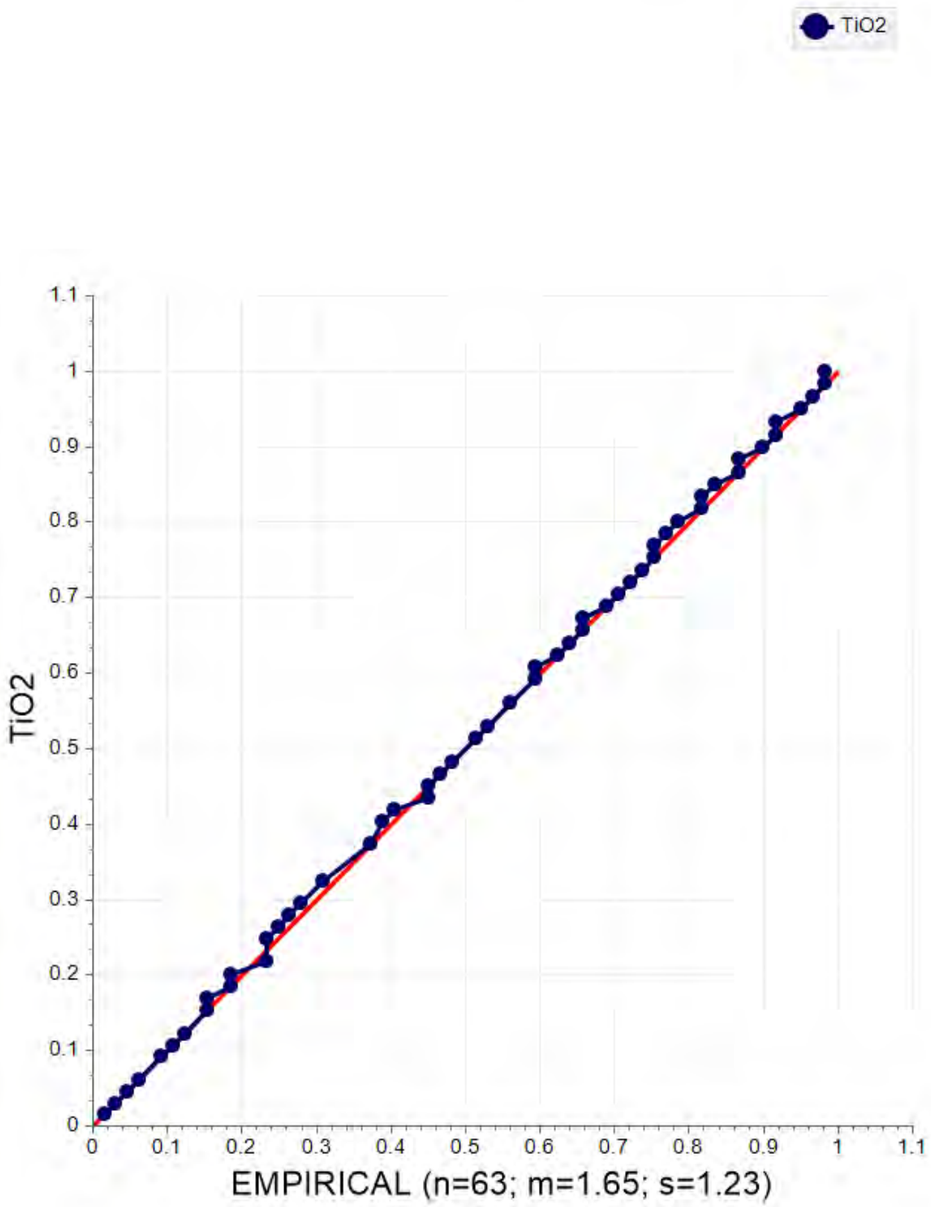


Chart Type	Probability-Probability
Y Axis	
Input File	Interval - ALS Duplicates Chemistry (Duplicates)
Y Name	TiO2
Sample Ny	63
Mean	1.651
Variance	1.528
Std Dev	1.236
Corr Coeff	1.000
X Var / Y Var	0.997
Chi² Degrees of Freedom	1
Experimental Chi²	1.537
Critical Chi² 5%	3.841
Critical Chi² 10%	2.706
X Axis	
Input File	Interval - ALS Duplicates Chemistry (Original)
X Name	TiO2
Sample Nx	63
Mean	1.65042
Variance	1.52438
Std Dev	1.23466

Q-Q Plot - ALS Duplicates Chemistry - LOI

LOI

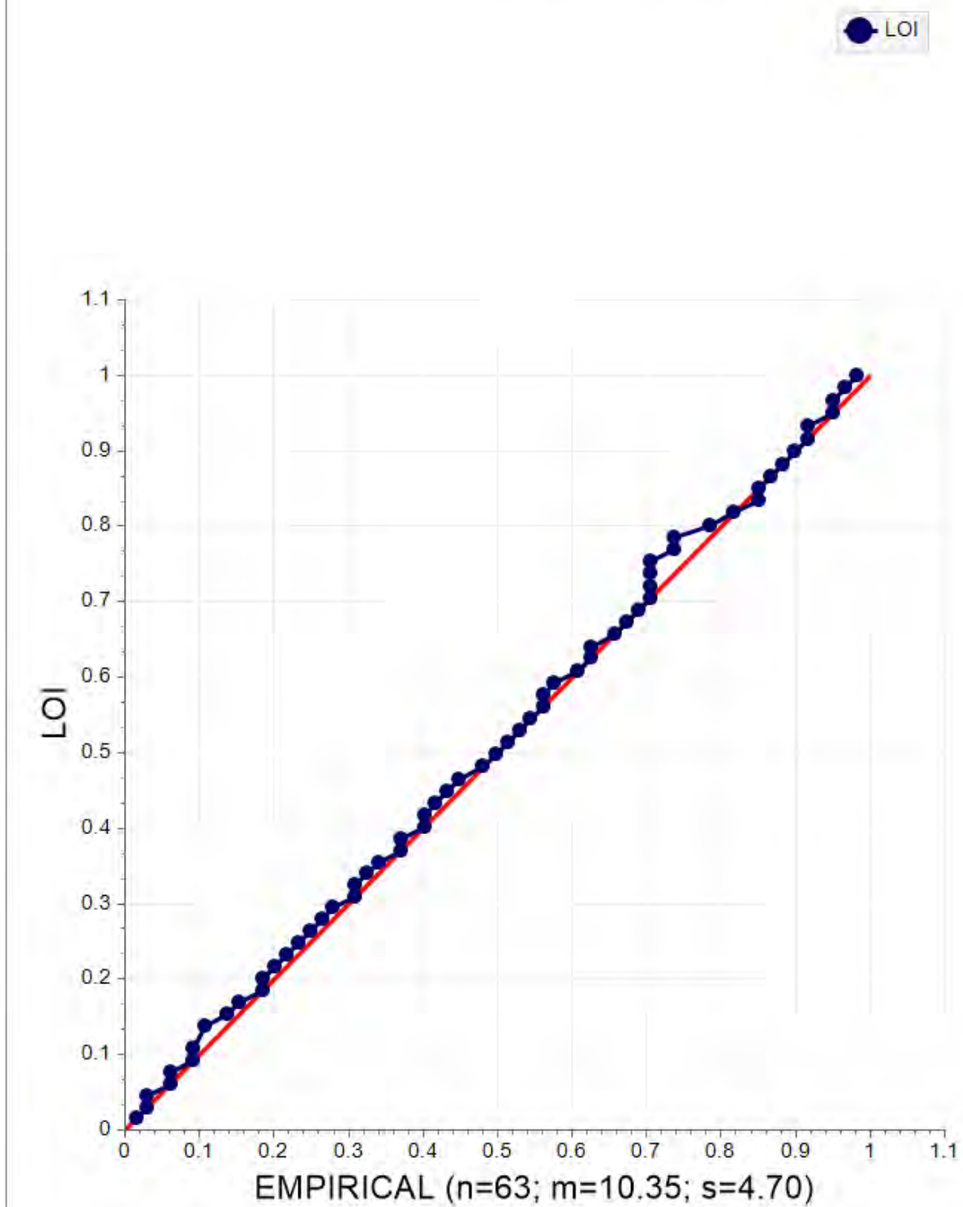
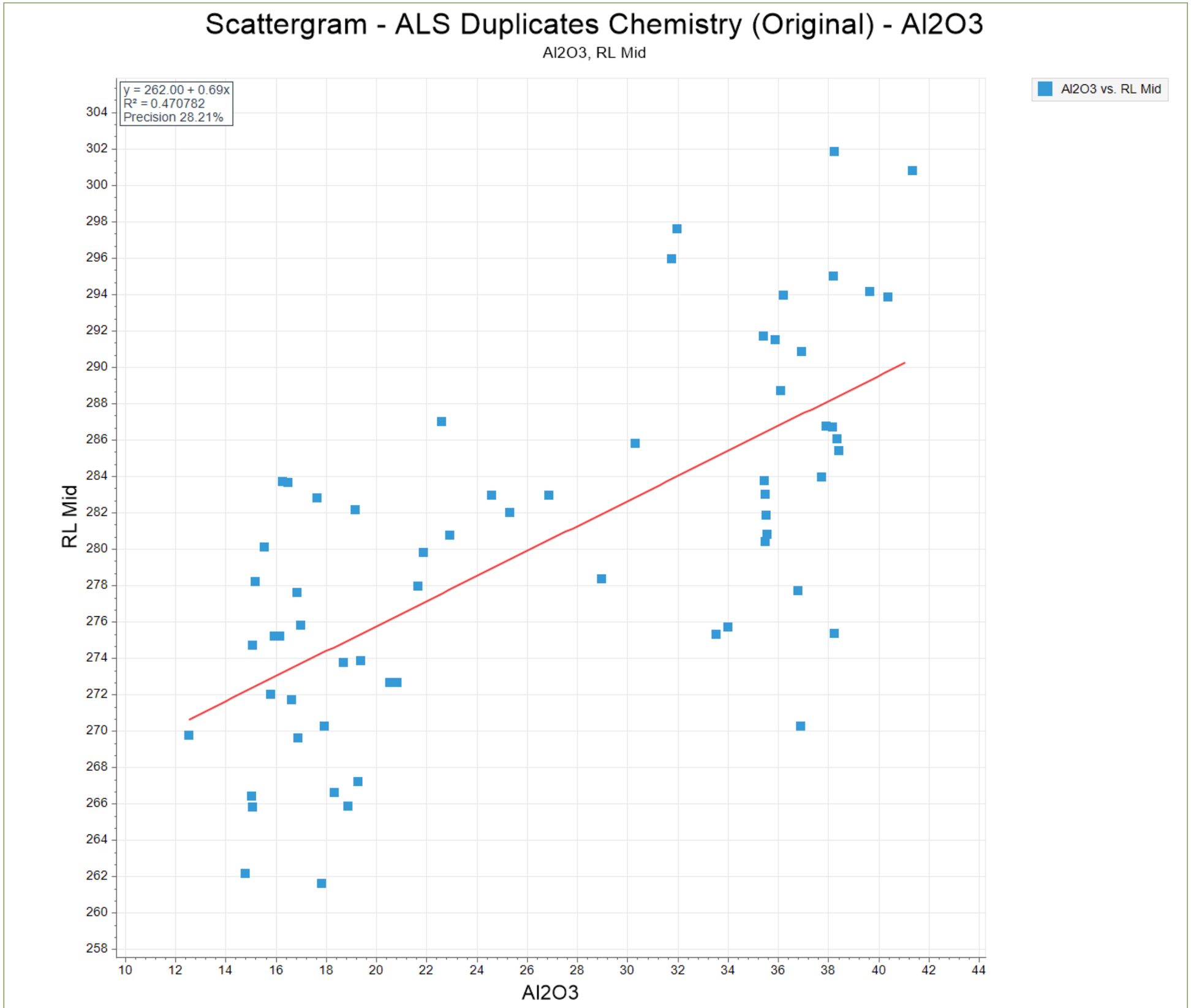


Chart Type	Probability-Probability
Y Axis	
Input File	Interval - ALS Duplicates Chemistry (Duplicates)
Y Name	LOI
Sample Ny	63
Mean	10.343
Variance	22.090
Std Dev	4.700
Corr Coeff	0.999
X Var / Y Var	1.002
Chi² Degrees of Freedom	-1
Experimental Chi²	0.000
Critical Chi² 5%	nan
Critical Chi² 10%	nan
X Axis	
Input File	Interval - ALS Duplicates Chemistry (Original)
X Name	LOI
Sample Nx	63
Mean	10.3519
Variance	22.1347
Std Dev	4.70475


Scattergram - ALS Duplicates Chemistry (Original) - Al2O3
Al2O3, RL Mid
y = 262.00 + 0.69x
R² = 0.470782
Precision 28.21%
Al2O3 vs. RL Mid
RL Mid
Al2O3
304
302
300
298
296
294
292
290
288
286
284
282
280
278
276
274
272
270
268
266
264
262
260
258
10
12
14
16
18
20
22
24
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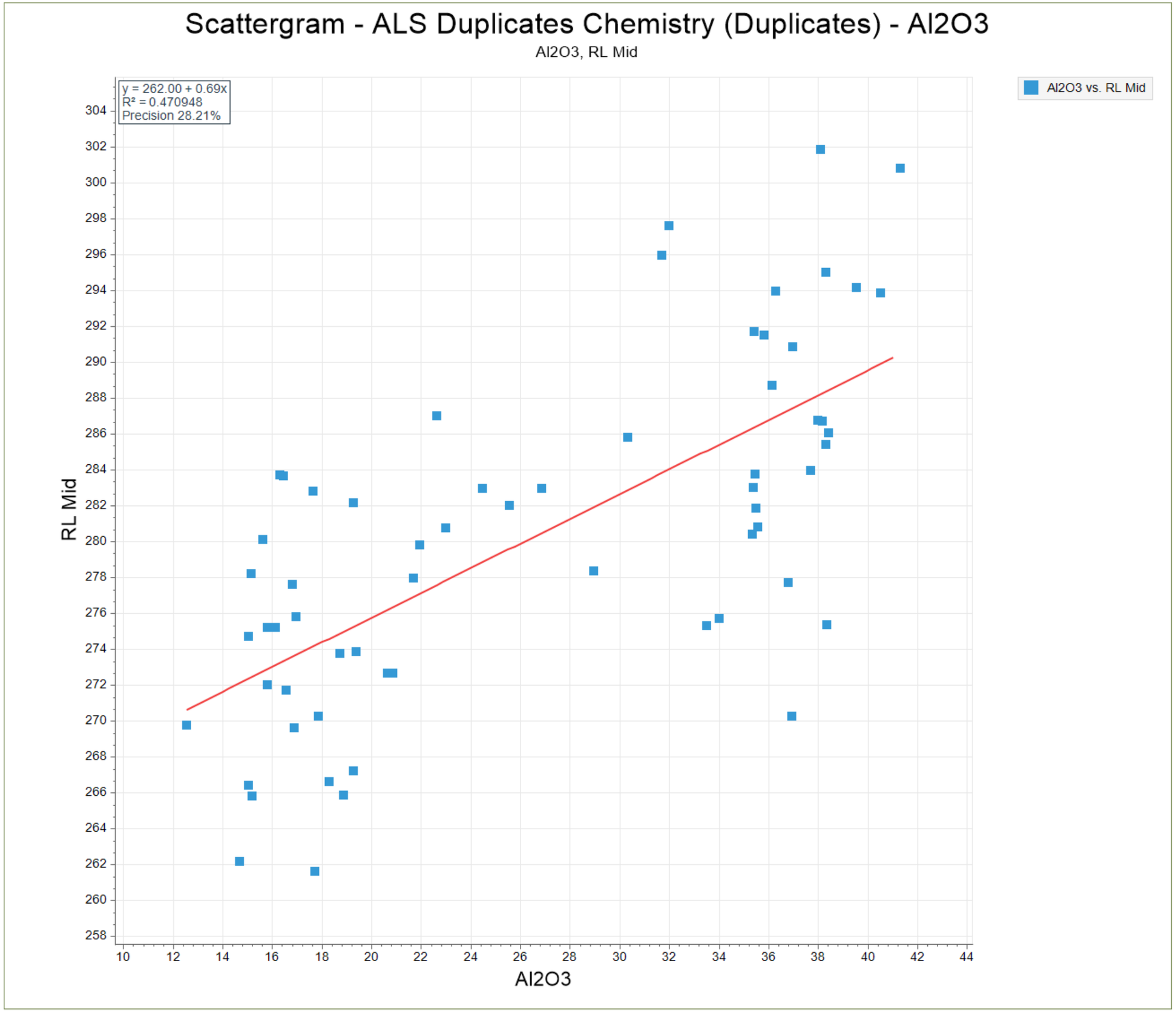
44


Scattergram - ALS Duplicates Chemistry (Duplicates) - Al2O3
Al2O3, RL Mid
y = 262.00 + 0.69x
R² = 0.470948
Precision 28.21%
Al2O3 vs. RL Mid
RL Mid
Al2O3
304
302
300
298
296
294
292
290
288
286
284
282
280
278
276
274
272
270
268
266
264
262
260
258
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12
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22
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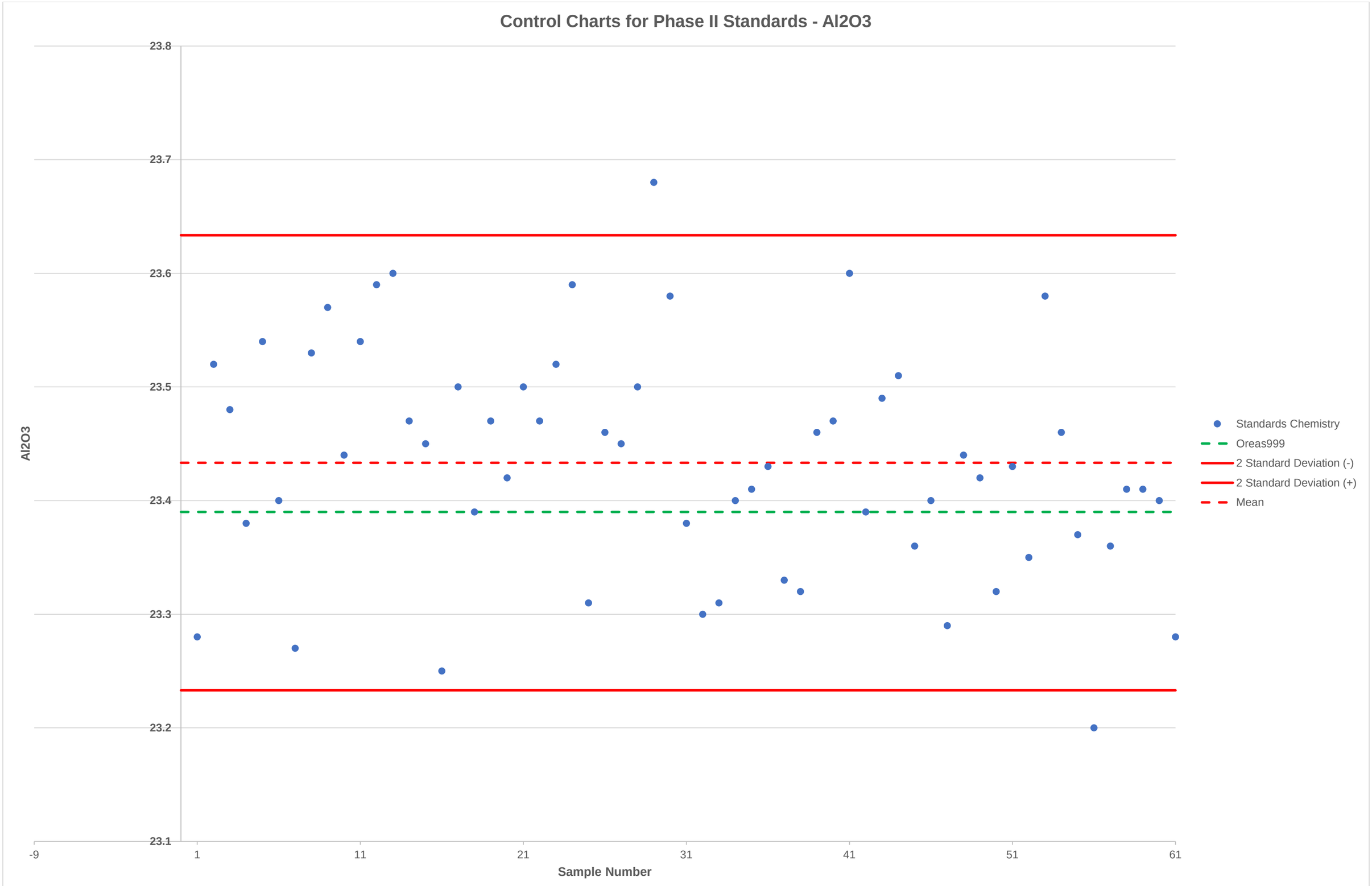
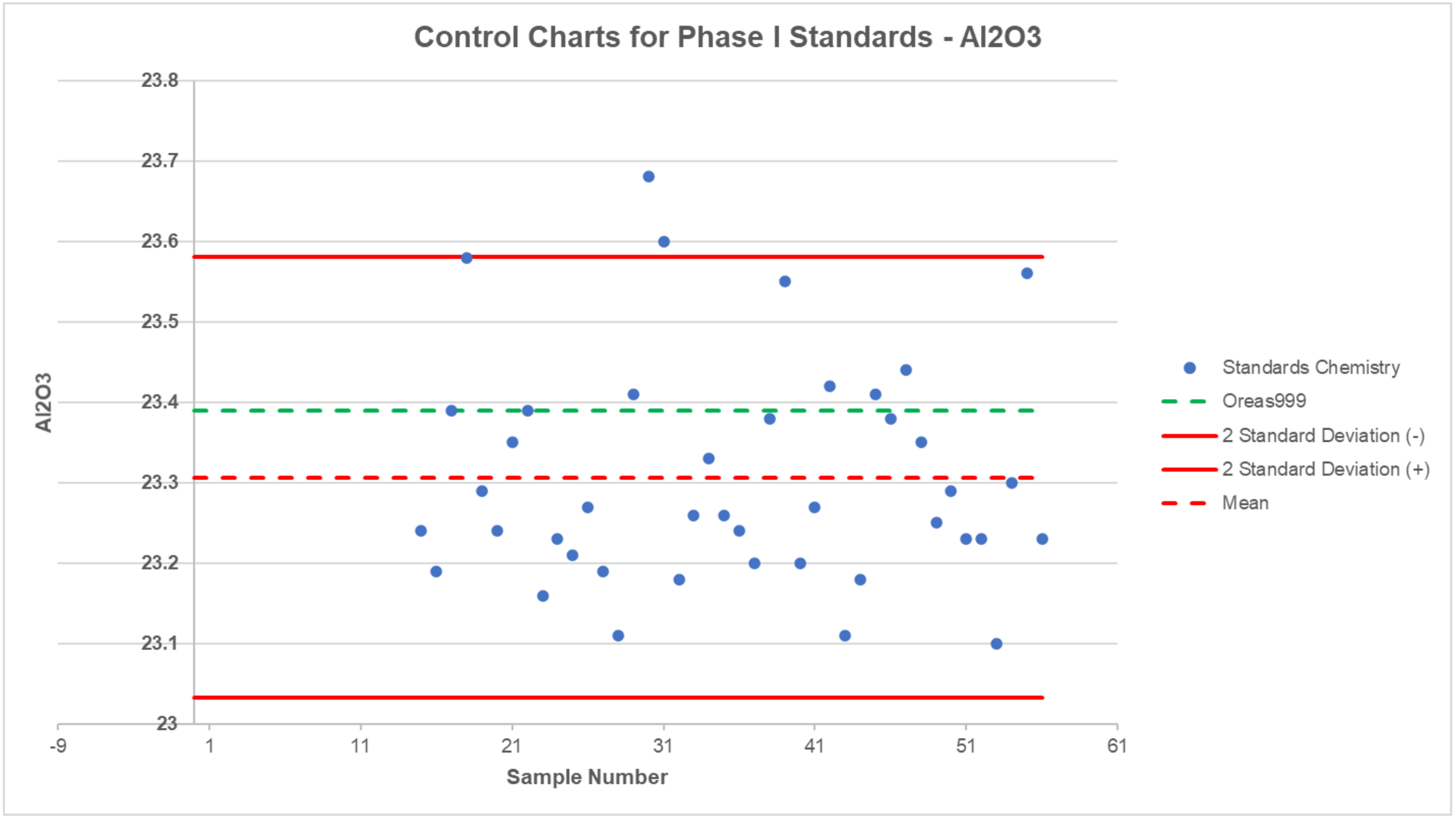
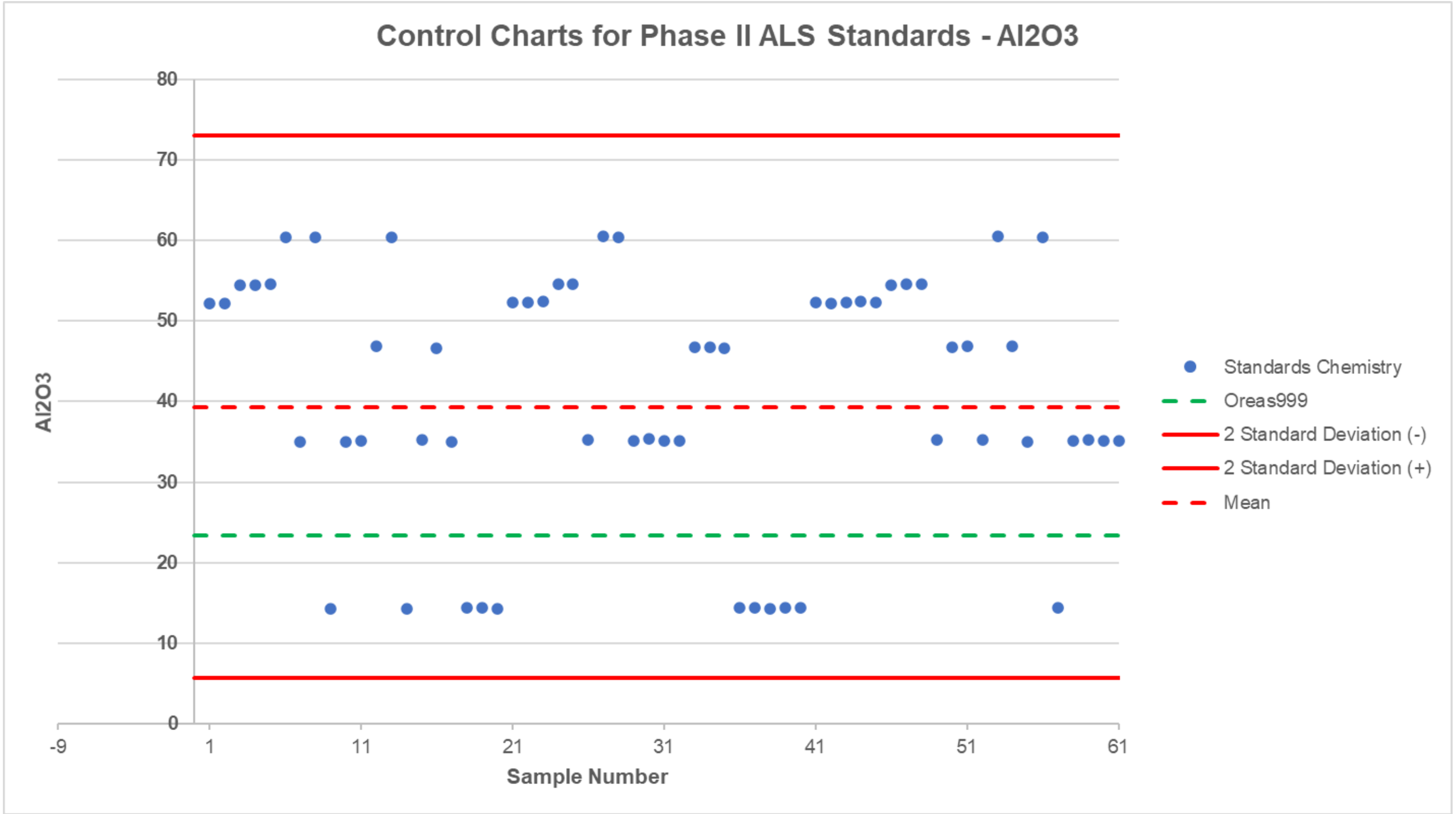
44


Control Charts for Phase II Standards - Al2O3
23.8
23.7
23.6
23.5
23.4
23.3
23.2
23.1
Al2O3
-9
1
11
21
31
41
51
61
Sample Number
Standards Chemistry
Oreas999
2 Standard Deviation (-)
2 Standard Deviation (+)
Mean


Control Charts for Phase I Standards - Al2O3
Al2O3
23.8
23.7
23.6
23.5
23.4
23.3
23.2
23.1
23
-9
1
11
21
31
41
51
61
Sample Number
Standards Chemistry
Oreas999
2 Standard Deviation (-)
2 Standard Deviation (+)
Mean


Control Charts for Phase II ALS Standards - Al2O3
Al2O3
80
70
60
50
40
30
20
10
0
-9
1
11
21
31
41
51
61
Sample Number
Standards Chemistry
Oreas999
2 Standard Deviation (-)
2 Standard Deviation (+)
Mean

Appendix C | JORC Table 1

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	Description Competent Professional – Chris Ainslie
Database integrity	The database was originally constructed, validated and electronically provided by Graham Rolfe (Rock-Ex-Enterprises Pty Ltd) to Ausrocks Pty Ltd. Ausrocks reformatted the database into appropriate file formats checking the veracity of the assay results. The data was further validated and cross checked against the geological logs. Micromine 2022 validated the files which were used for the Mineral Resource Estimate. To ensure continuity and validity across the data sets, three separate files which cross-referenced the data were used. These were as follows: • Collar File – This file contains the Hole ID, Location (Northing, Easting and Z value), Azimuth and Inclination of each hole. • Interval File – A file containing the information collected at intervals (depth from, depth to) downhole. This included colour, hue and sample assay values. • Survey File – Showing the azimuth, orientation, or each hole. Note all holes were drilled vertically, which simplified the data. Sample intervals were collected at 1m throughout the drilling program. No sample bias based on the sample interval length.
Site visits	The Competent Person (Graham Rolfe) undertook a site visit and was present for both drilling campaign. The Competent Person (Chris Ainslie) undertook a site visit on 10 December 2021.
Geological Interpretation	5 lithologies determined by geochemistry and geological interpretation – Bauxitic Clay, Plastic Clay, Kaolinite Clay (High Iron), Kaolinite Clay (Low Iron) and Sandy Clay. The interpreted geology of the Toondoon Kaolin Project is relatively robust, and any alternative interpretation of the deposit is considered unlikely to have a significant influence on the Mineral Resource Estimate undertaken. The known nature and formation of the deposit, together with consistent high grades achieved in drillholes, places a high degree of confidence in the geological interpretation. The detailed level of drilling has enabled confidence of the interpreted geology. Continuity of geology and grade (assays) can be readily identified and traced between drillholes.
Dimensions	The Resource is approximately 2,000 long (NE-SW) and averages 500m wide (NW-SE) covering a surface area of approx. 82.5 hectares. The approximate average depth for each domain is as follows: • Bauxitic Clay: 4.0m • Plastic Clay: 5.7m • Kaolinite Clay (High Iron): 2.0m • Kaolinite Clay (Low Iron): 4.3m • Sandy Clay: 13.3
Estimation and modeling techniques	Micromine 2022 was used to complete the Upgraded Mineral Resource Estimate in accordance with the JORC 2012 Code. A block model was generated to model the overall deposit shape and volume. The block model was defined by the top of the resource (topography), the base of the resource (base of the drillholes) and the interpreted geological boundaries. Parent blocks were sized at 10mE x 10mN x 1mRL. Sub-blocks were sized at 1mE x 1mN x 1mRL. The block model was optimised and the average Al_2O_3 grade and quantity of the resource at varied reporting levels was computed.

	The block model was subject statistical and geostatistical analysis and the Ordinary Kriging (OK) method was used to populate the blocks. The Inverse Distance Weighting (IDW) method was used to check the model and yielded similar results. Swath plots were used to validate the interpolation technique to ensure accuracy. All assayed elements were modelled in the block model. The following parameters and assumptions formed the basis for the Upgrade MRE in accordance with the JORC Code (2012). • Topography – DEM sourced by drone survey • The resource boundary was determined by a combination of Mining Lease Boundary, geological interpretation and area of influence considerations. • 5 lithologies determined by geochemistry and geological interpretation – Bauxitic Clay, Plastic Clay, Kaolinite Clay (High Iron), Kaolinite Clay (Low Iron) and Sandy Clay. • A 32% Al_2O_3 grade aided with the determination of the domain boundaries which were determined by analysis of raw assay data down each individual drill hole. The grade applied is consistent with industry practice for these types of Kaolin deposits. • As advised by the Project Geologist, no cut-off grade was applied to the Bauxitic Clay, Plastic Clay, Kaolinite Clay (High Iron) and Kaolinite Clay (Low Iron) domains for the estimation process. A cut-off grade of 23% Al_2O_3 was applied to the Sandy Clay domain for the estimation process. All assayed elements were reported as secondary elements constrained to the cut-off grade. • No topsoil considerations as advised by the Project Geologist. • Density values as provided by the Project Geologist.
Moisture	Mineral resource tonnages are estimated and reported as dry metric tonnes.
Cut-off parameters	As advised by the Project Geologist, no cut-off grade was applied to the Bauxitic Clay, Plastic Clay, Kaolinite Clay (High Iron) and Kaolinite Clay (Low Iron) domains for the estimation process. A cut-off grade of 23% Al_2O_3 was applied to the Sandy Clay domain for the estimation process. All assayed elements were reported as secondary elements constrained to the cut-off grade. A 32% Al_2O_3 grade aided with the determination of the domain boundaries which were determined by analysis of raw assay data down each individual drill hole. The grade applied is consistent with industry practice for these types of Kaolin deposits.
Mining factors or assumptions	No specifics have been factored into this MRE. Mining by open cut method is assumed and the block model vertical dimension of 1m reflects this assumption for small-medium equipment.
Metallurgical factors or assumptions	No metallurgical factors or assumptions have been included or deemed required at this stage of the resource estimation.
Environmental factors or assumptions	No environmental factors or assumptions have been included at this stage of the resource estimation.
Bulk density	Ten samples from bull-dozed trenching were submitted to ALS for specific gravity analyses using the OA-GRA 08a method. The method records the specific gravity relative to unity with submersion of a wax coated a sample into water. The average SG for the rock types bauxitic clay, kaolinite clay and sandy clay were determined and the average for the respective rock types was calculated. No plastic clay was recovered so no analysis was conducted for this rock type. The sandy clay consists of kaolinite clay and fine to medium grained quartz. It could be anticipated that the SG of the sandy clay would be higher than the kaolinite. However, it is generally lower indicating there must be more pore space, resulting in a lower SG.

	The grey plastic clay generally consists of kaolinite with iron oxides and anatase. As the amount of quartz, iron oxide and anatase in the kaolinite does not have a consistent effect on the SG measurements, these elements will have little effect on the SG of the grey plastic clay. Therefore, it can be assumed that the SG of the plastic clay will be similar to the kaolinite clay i.e., 1.74 t/m^3. The assumed density values used in the MRE were: • Bauxitic Clay: 2.05 t/m^3 • Plastic Clay: 1.74 t/m^3 • Kaolinite Clay: 1.74 t/m^3 • Sandy Clay: 1.69 t/m^3
Classification	The Toondoon Kaolin Project has been broadly defined by drilling and the geological controls are reasonably well understood. The drill spacing and interpreted geological continuity allowed three resource categories to be defined (Measured, Indicated and Inferred Mineral Resource) in accordance with the JORC 2012 Code In accordance with the JORC Code (2012), requirements were developed to allow for areas of the Toondoon Kaolin Project to be classified as a Measured, Indicated and Inferred Mineral Resource. • To meet the requirements of a Measured Mineral Resource, drillholes had to show geological continuity between gridded drillholes with a confirmatory spacing (100m x 100m with infill holes with a minimum of one hole drilled in between each 4 x 100m drillhole 'square'). • To meet the requirements of an Indicated Mineral Resource, drillholes had to show geological continuity between gridded drillholes with a reconnaissance spacing (100m x 100m) • To meet the requirements of an Inferred Mineral Resource, drillholes showed geological continuity between gridded drillholes with a reconnaissance spacing (100m x 100m) but had limited cross sectional control (2 or 3 drillholes in cross section). The result appropriately reflects the Competent Persons view of the deposit.
Audits or reviews	All calculations have been reviewed internally by Ausrocks.
Discussion of relative accuracy/ confidence	It is the opinion of the Competent Person that the relative accuracy and confidence level across the reported geological intervals is adequate, given the drill density and the continuity of geochemical samples.

Appendix D | Summary of Results – All Elements

Resource Category	Lithology	Volume (BCM)	Density	Tonnes (T)	Al_2O_3	BaO	CaO	CoO	Cr_2O_3	Fe_2O_3	K2O	MgO	MnO	Na_2O	P_2O_5	SO_3	SiO_2	SrO	TiO_2	V_2O_5	Zn	ZrO_2	Total	LOI
Measured	Baux Clay	747,529	2.05	1,532,434	38.81	0.01	0.02	0.01	0.04	13.86	0.06	0.09	0.01	0.14	0.02	0.36	21.92	0.01	4.53	0.05	0.01	0.07	100.06	20.07
Measured	Pl Clay	1,379,319	1.74	2,400,015	35.45	0.01	0.01	0.01	0.03	4.98	0.02	0.08	0.01	0.18	0.02	0.16	41.39	0.01	3.38	0.04	0.01	0.04	100.02	14.20
Measured	Kao Clay (High Iron)	507,678	1.74	883,360	36.79	0.01	0.01	0.01	0.02	1.92	0.05	0.06	0.01	0.12	0.08	0.06	44.92	0.02	2.19	0.04	0.01	0.08	99.99	13.63
Measured	Kao Clay (Low Iron)	900,692	1.74	1,567,204	37.48	0.01	0.01	0.01	0.01	0.41	0.12	0.05	0.01	0.11	0.10	0.04	46.50	0.03	1.59	0.02	0.01	0.07	100.00	13.43
Measured	Sa Clay	801,505	1.69	1,354,543	26.79	0.01	0.01	0.01	0.01	0.73	0.14	0.04	0.01	0.07	0.08	0.04	61.24	0.02	1.21	0.02	0.01	0.05	100.00	9.52
Indicated	Baux Clay	1,505,565	2.05	3,086,408	37.04	0.01	0.02	0.01	0.04	16.05	0.05	0.08	0.01	0.10	0.03	0.27	22.62	0.01	4.19	0.05	0.01	0.07	100.06	19.43
Indicated	Pl Clay	2,617,846	1.74	4,555,052	35.22	0.01	0.01	0.01	0.03	4.84	0.03	0.09	0.01	0.20	0.02	0.17	42.09	0.01	3.15	0.04	0.01	0.04	100.02	14.06
Indicated	Kao Clay (High Iron)	952,405	1.74	1,657,185	36.48	0.01	0.01	0.01	0.02	2.32	0.08	0.06	0.01	0.14	0.09	0.06	45.24	0.02	1.85	0.04	0.01	0.08	100.00	13.49
Indicated	Kao Clay (Low Iron)	1,145,509	1.74	1,993,186	37.57	0.01	0.01	0.01	0.01	0.40	0.12	0.06	0.01	0.13	0.11	0.04	46.43	0.03	1.58	0.02	0.01	0.08	100.00	13.41
Indicated	Sa Clay	1,458,433	1.69	2,464,752	26.10	0.01	0.01	0.01	0.01	0.76	0.14	0.04	0.01	0.08	0.08	0.04	62.15	0.02	1.21	0.02	0.01	0.05	100.00	9.25
Inferred	Baux Clay	483,699	2.05	991,583	30.73	0.01	0.01	0.01	0.05	27.86	0.03	0.08	0.01	0.09	0.05	0.17	22.44	0.01	3.19	0.06	0.01	0.05	100.00	15.18
Inferred	Pl Clay	511,106	1.74	889,324	34.19	0.01	0.01	0.01	0.04	5.88	0.03	0.11	0.02	0.24	0.04	0.11	42.41	0.01	3.55	0.04	0.01	0.04	100.00	13.31
Inferred	Kao Clay (High Iron)	106,679	1.74	185,621	34.81	0.01	0.01	0.01	0.02	6.00	0.15	0.08	0.01	0.10	0.08	0.08	44.02	0.02	1.46	0.03	0.01	0.06	99.99	13.07
Inferred	Sa Clay	192,606	1.69	325,504	28.04	0.01	0.01	0.01	0.01	2.22	0.13	0.06	0.01	0.06	0.08	0.04	57.93	0.02	1.19	0.02	0.01	0.06	100.00	10.12

zeotech

Zeotech Limited | ACN 137 984 297

Proxy Voting Form

If you are attending the meeting in person, please bring this with you for Securityholder registration.

Holder Number:

Your proxy voting instruction must be received by **2.00pm (AEST) on Monday, 29 August 2022** being **not later than 48 hours** before the commencement of the Meeting. Any Proxy Voting instructions received after that time will not be valid for the scheduled Meeting.

SUBMIT YOUR PROXY VOTE ONLINE

Vote online at https://investor.automic.com.au/#/loginsah

Login & Click on 'Meetings'. Use the Holder Number as shown at the top of this Proxy Voting form.

- ✓ **Save Money:** help minimise unnecessary print and mail costs for the Company.
- ✓ **It's Quick and Secure:** provides you with greater privacy, eliminates any postal delays and the risk of potentially getting lost in transit.
- ✓ **Receive Vote Confirmation:** instant confirmation that your vote has been processed. It also allows you to amend your vote if required.

SUBMIT YOUR PROXY VOTE BY PAPER

Complete the form overleaf in accordance with the instructions set out below.

YOUR NAME AND ADDRESS

The name and address shown above is as it appears on the Company's share register. If this information is incorrect, and you have an Issuer Sponsored holding, you can update your address through the investor portal: **https://investor.automic.com.au/#/home** Shareholders sponsored by a broker should advise their broker of any changes.

STEP 1 – APPOINT A PROXY

If you wish to appoint someone other than the Chair of the Meeting as your proxy, please write the name of that Individual or body corporate. A proxy need not be a Shareholder of the Company. Otherwise if you leave this box blank, the Chair of the Meeting will be appointed as your proxy by default.

DEFAULT TO THE CHAIR OF THE MEETING

Any directed proxies that are not voted on a poll at the Meeting will default to the Chair of the Meeting, who is required to vote these proxies as directed. Any undirected proxies that default to the Chair of the Meeting will be voted according to the instructions set out in this Proxy Voting Form, including where the Resolutions are connected directly or indirectly with the remuneration of KMP.

STEP 2 - VOTES ON ITEMS OF BUSINESS

You may direct your proxy how to vote by marking one of the boxes opposite each item of business. All your shares will be voted in accordance with such a direction unless you indicate only a portion of voting rights are to be voted on any item by inserting the percentage or number of shares you wish to vote in the appropriate box or boxes. If you do not mark any of the boxes on the items of business, your proxy may vote as he or she chooses. If you mark more than one box on an item your vote on that item will be invalid.

APPOINTMENT OF SECOND PROXY

You may appoint up to two proxies. If you appoint two proxies, you should complete two separate Proxy Voting Forms and specify the percentage or number each proxy may exercise. If you do not specify a percentage or number, each proxy may exercise half the votes. You must return both Proxy Voting Forms together. If you require an additional Proxy Voting Form, contact Automic Registry Services.

SIGNING INSTRUCTIONS

Individual: Where the holding is in one name, the Shareholder must sign.
Joint holding: Where the holding is in more than one name, all Shareholders should sign.
Power of attorney: If you have not already lodged the power of attorney with the registry, please attach a certified photocopy of the power of attorney to this Proxy Voting Form when you return it.
Companies: To be signed in accordance with your Constitution. Please sign in the appropriate box which indicates the office held by you.
Email Address: Please provide your email address in the space provided.

By providing your email address, you elect to receive all communications despatched by the Company electronically (where legally permissible) such as a Notice of Meeting, Proxy Voting Form and Annual Report via email.

CORPORATE REPRESENTATIVES

If a representative of the corporation is to attend the Meeting the appropriate 'Appointment of Corporate Representative' should be produced prior to admission. A form may be obtained from the Company's share registry online at https://automic.com.au.

Contact

Return your completed form

BY MAIL
Automic
GPO Box 5193
Sydney NSW 2001

IN PERSON
Automic
Level 5, 126 Phillip Street
Sydney NSW 2000

BY EMAIL
meetings@automicgroup.com.au

BY FACSIMILE
+61 2 8583 3040

All enquiries to Automic

PHONE
1300 288 664 (Within Australia)
+61 2 9698 5414 (Overseas)

AUTOMIC

STEP 1: Appoint Your Proxy

Complete and return this form as instructed only if you do not vote online

I/We being a Shareholder entitled to attend and vote at the General Meeting of Zeotech Limited, to be held at **2.00pm (AEST) on Wednesday, 31 August 2022 at Hyatt Hotel Canberra, 120 Commonwealth Ave, Yarralumla ACT 2600** hereby:

Appoint the Chairman of the Meeting (Chair) OR if you are not appointing the Chairman of the Meeting as your proxy, please write in the box provided below the name of the person or body corporate you are appointing as your proxy or failing the person so named or, if no person is named, the Chair, or the Chair's nominee, to vote in accordance with the following directions, or, if no directions have been given, and subject to the relevant laws as the proxy sees fit and at any adjournment thereof.

The Chair intends to vote undirected proxies in favour of all Resolutions in which the Chair is entitled to vote.
Unless indicated otherwise by ticking the "for"," "against" or "abstain" box you will be authorising the Chair to vote in accordance with the Chair's voting intention.

STEP 2: Your Voting Direction

Resolutions		For	Against	Abstain
1.	Approval of Kalotech Acquisition and issue of Consideration Shares to Zilotech, a Related Party	☐	☐	☐

Please note: *If you mark the abstain box for a particular Resolution, you are directing your proxy not to vote on that Resolution on a show of hands or on a poll and your votes will not be counted in computing the required majority on a poll.*

ZEO

STEP 3: Sign Here + Contact Details

SIGNATURE OF SECURITYHOLDERS – THIS MUST BE COMPLETED

Individual or Securityholder 1	Securityholder 2	Securityholder 3
Sole Director and Sole Company Secretary	Director	Director / Company Secretary

Contact Name:

Email Address:

Contact Daytime Telephone

Date (DD/MM/YY) ☐☐ / ☐☐ / ☐☐

By providing your email address, you elect to receive all of your communications despatched by the Company electronically (where legally permissible).