



ScanIT – Optimizing core logging data acquisition





What do we do?



Specialists in Innovative Core Storage Solutions

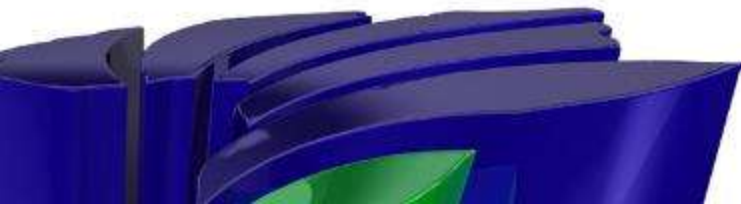
- Unique Core Trays
- ScanIT - Core Logging Software
- Stacking Pods
- Core Depth Markers
- Core Grips
- Logging Benches
- Core Tray Photography Kits
- Core Tray Lids
- Geological Consumables



UCP Africa – Our Mission



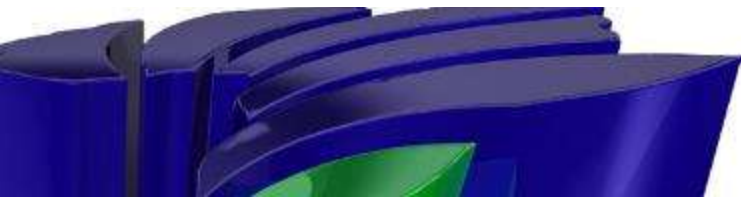
- Our core trays are SHEQ Compliant
- Adjustable logging benches
- Increasing efficiency in the shed yard
- Ergonomic solutions to improve productivity
- A holistic approach to core storage
- Core tray photography friendly



Stacking pods – storage



- Transport stacks from drill site to core shed
- No need to strap trays
- Pods stack
- Pallet jack or fork lift
- Engineer approved





ScanIT

Core logging software

ScanIT – Hardware



FIELD UNIT comprises an iPhone mounted on a camera cradle designed to slide along a UCP core tray.



The **ALIGNMENT TOOLS** are used to rotate the core towards the camera, ensuring that the orientation line appears in the center of the channel.



The tilting roller bed **WORK BENCH** with the attached camera accessory provides an ergonomic option allowing the operator to be seated when logging or photographing the core.

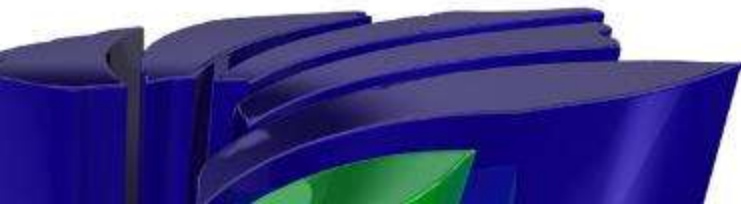
ScanIT – Hardware



The adjustable aluminium cradle can be used on various core trays.

This can significantly reduce the time taken to photograph historical core.

ScanIT currently utilizes UCP Africa Core Tray Images, with the generic core tray version in the pipeline.



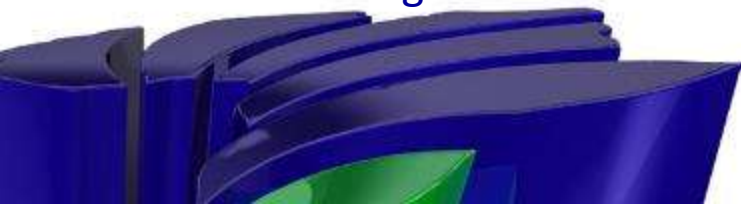
ScanIT – core photography



ScanIT utilizes a Smart Device mounted on a cradle, specifically designed to manually slide along using a UCP core tray as a guide



This method of photography produces an undistorted high-resolution image of the core tray, due to the moving lens and focal distance.



ScanIT – Setting up your borehole



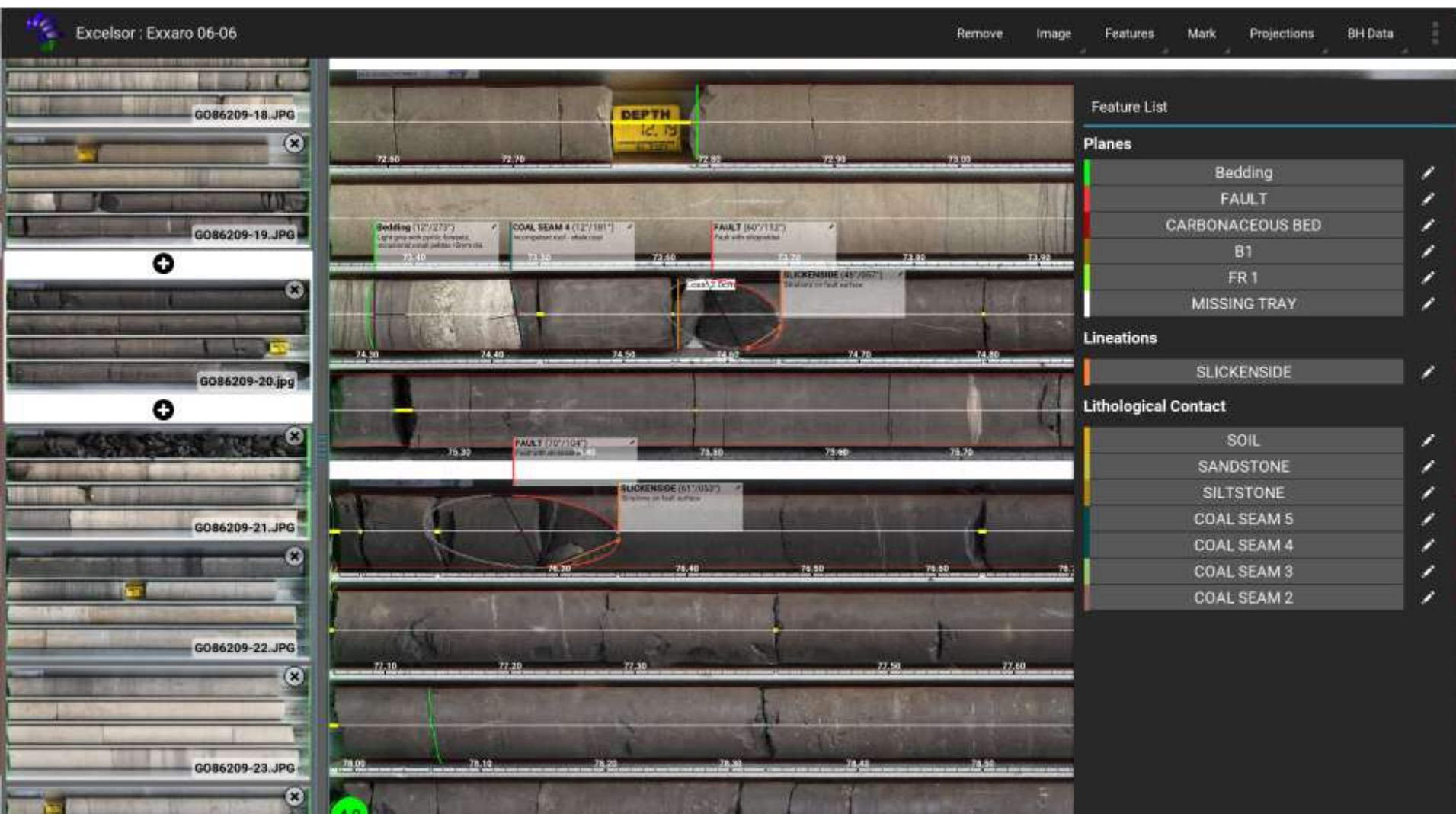
ScanIT

Cancel

Borehole Name	ZFN_15
Responsible Geologist	Tshego Majane
Drilling Company	
Driller's Name	
Core Orientation	Top of Core
Type of Orientation Tool	
Collar Easting (X)	0
Collar Northing (Y)	0
Collar Elevation (Z)	0
Inclination	-0.1
Azimuth	90
Start Depth	0
Automatic Detection	Gap and Depth Marker Detection
Image Scale	Original Image Size
	Create Borehole

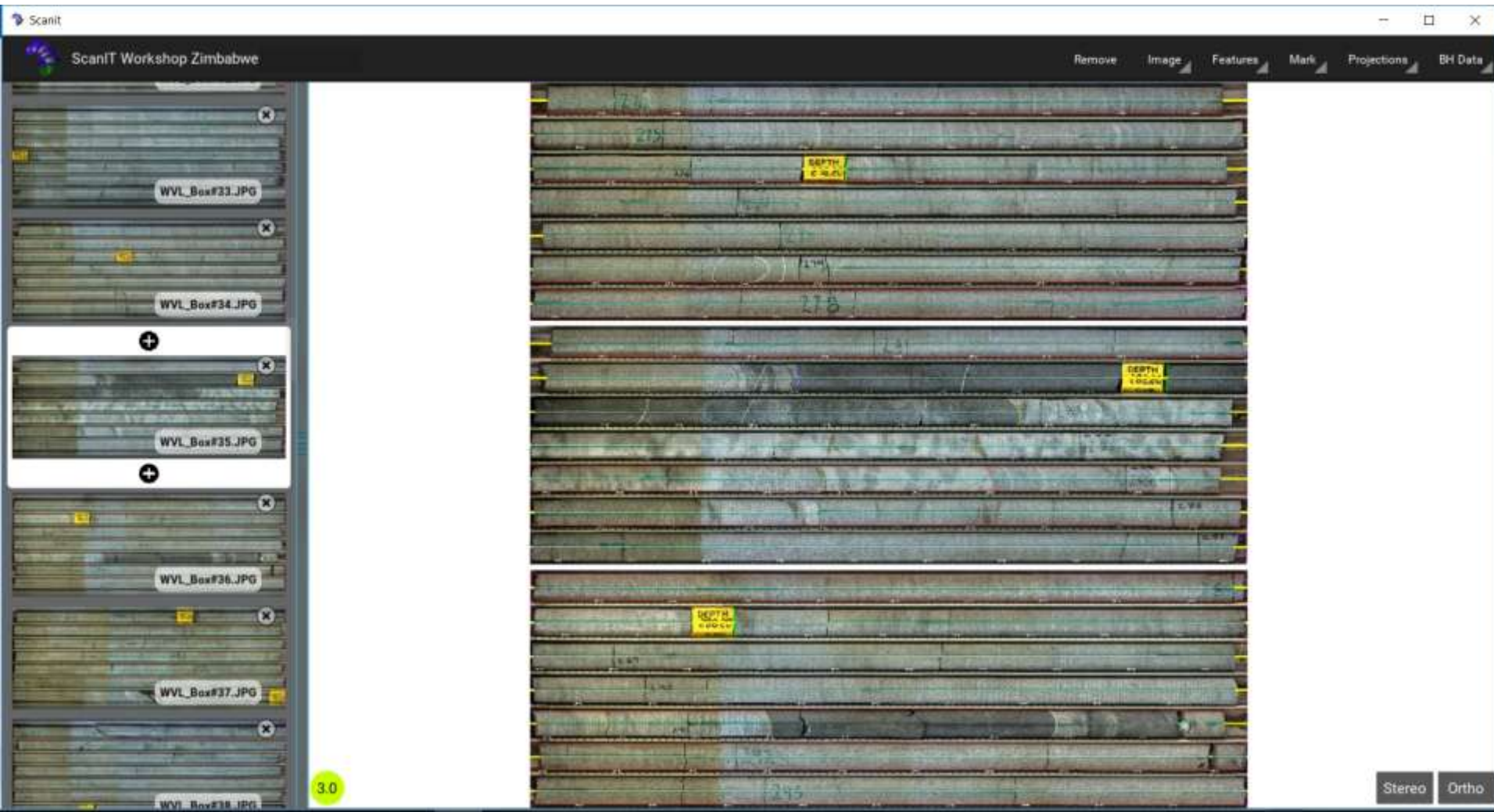


ScanIT – introduction



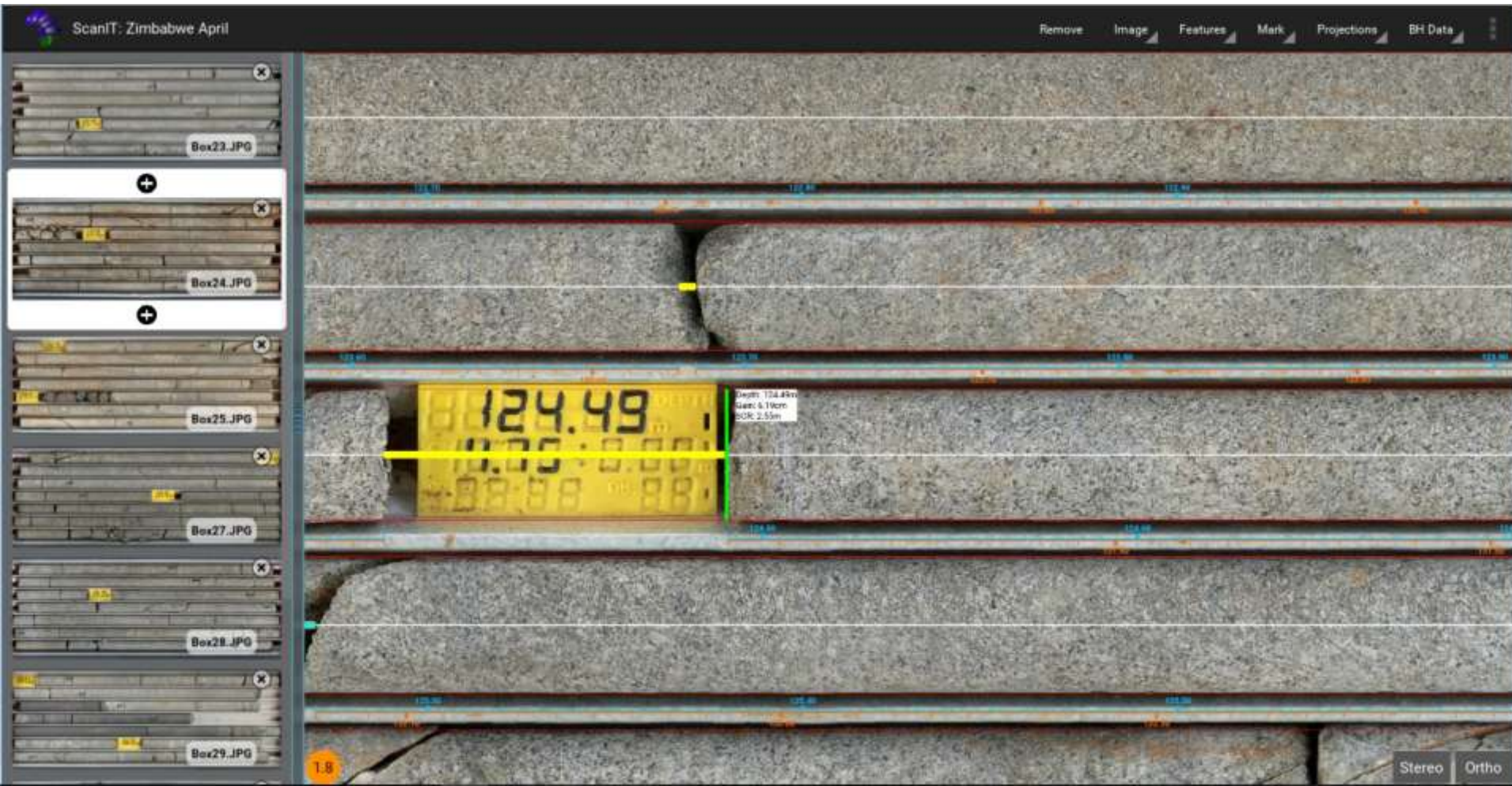
ScanIT – user interface

- View whole borehole
- Log in 3 tray view



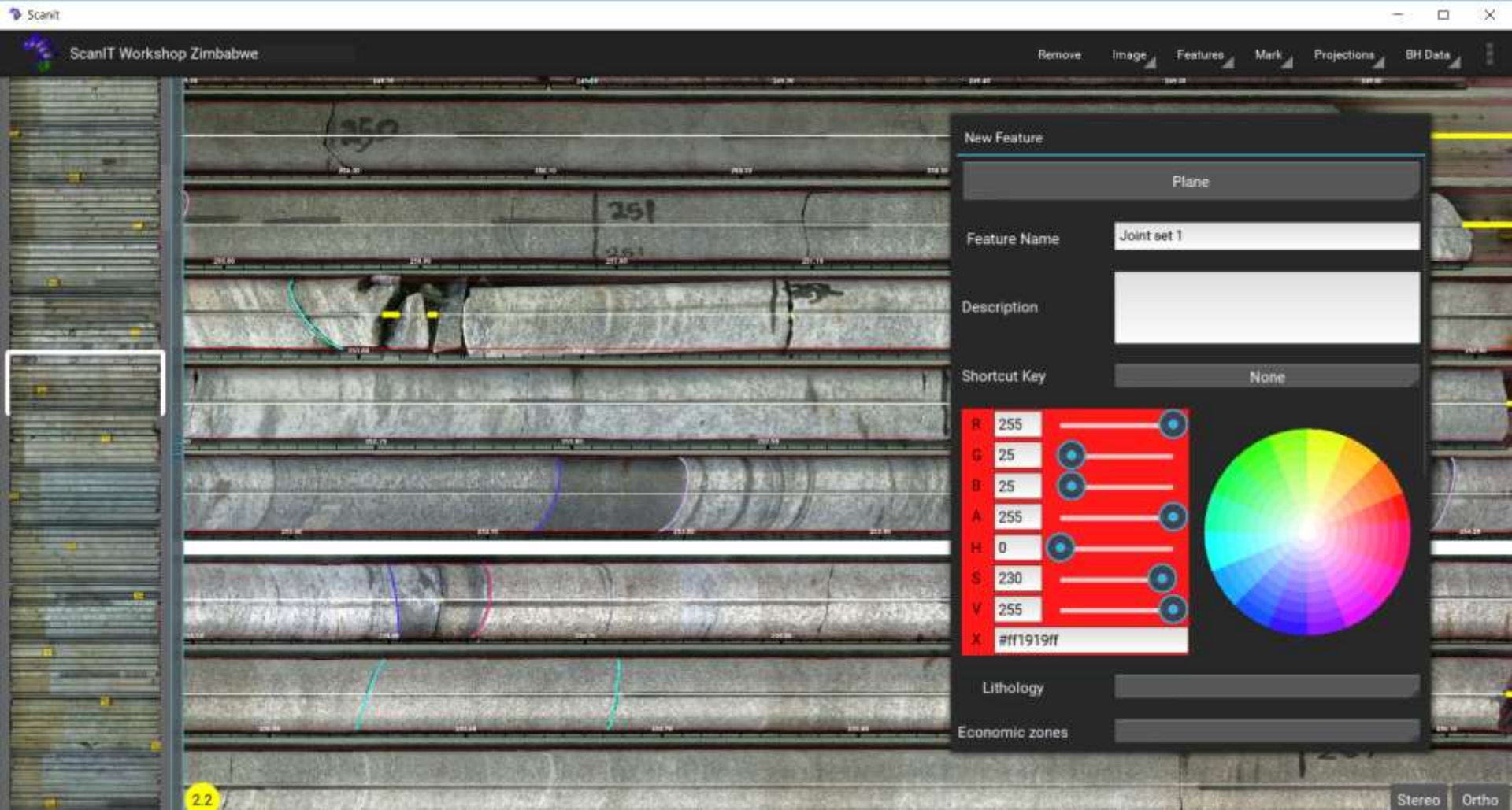
ScanIT – best practice for core logging

- OCR – Optical Character Recognition
- Up-hole & down-hole rulers
- Forced breaks
- Natural gaps
- Core loss
- Core gain
- Solid core recovery



ScanIT – features

- Lithologies, planes, lineations
- Customised RGB colours
- Import project specific logging dictionaries
- Features shortcut keys



ScanIT – logging

- Best fit plane
- Dropdown parameters
- Instant editing
- Dip & Dip Direction

ScanIT

Feature: ANOSP

Remove Image Features Mark Projections BH Data

Chrome Stringer (18°/348°) ✓

ANOSP (17°/004°)
Speckled Anorthosite

252.80

253.80

253.90

Logging Options

- Rock
- Contact
- Texture
- Alt_Def
- Colour
- Grainsize
- Condition
- Minor Rock
- Clast Mode
- Roundness
- Clast Sort
- Structure
- Name
- Density
- Att to Bed
- Fabric
- Lin Type

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
1	Secondary Description	Material Description	Modifier 1			Colour 1	Colour 2	Colour 3	Moisture	Consistency	Fabric							MICRO		Weathering	Strength Terms	
2	T Silty	S SOIL	t with a trace clay or silt			p pale	g Grey	g /grey	d Dry	h Hard	t thinly laminated							b brecciated		D Decomposed to a soil	D	
3	C Clayey	C CLAY	c with clay or silt clayey or silty in place			d dark	l brown	b /brown	m moist	s Soft	c coarse grained							ml medium bedded		T Totally weathered,		
4	A sandy	N METAGREYWACKE	s with trace of sand or gravel			m mottled	b black	l /black	w wet		m medium grained							w widely bedded		H Highly weathered,		
5	a Carbanaceous	t SANDTONE	g gravelly			u dull	g green	e /green												M Mildly weathered		
6		O QUARTZITE				s Shiny	o orange													S Slightly weathered		
7		L SILTSTONE																		U Unweathered, the		
8		G GRANITE																				
9																						
10																						

Lithological Logging Dictionary +

22

Stereo Ortho

ScanIT – customized logging dictionary

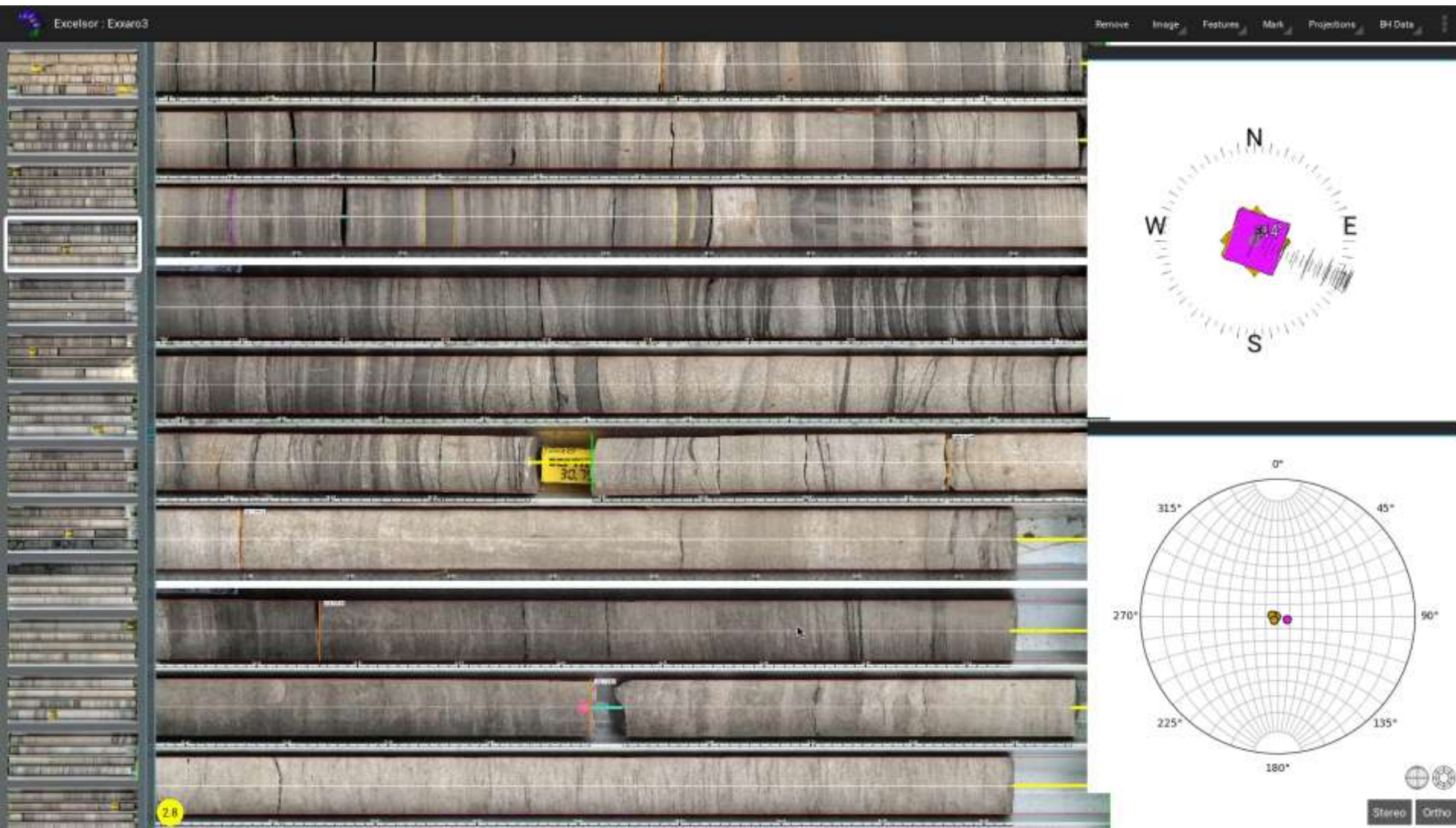


C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
Primary Colour	Secondary Colour	Grainsize		LITHOLOGY	Description 1	Description 2	Top contact	Bottom contact							
BL	black	BL	/black,	VFC very fine grained	DS SANDSTONE	DS clayey soil,	DS very soft and friable,	BRESS Brecciated top contact	BRESS Brecciated bottom contact						
BR	brown	BR	/brown,	S fine grained	SD SILTSTONE	SD Intercalated with carbonaceous l	MM with occasional gritty bands	BRKC Broken top contact	BRKC Broken bottom contact.						
CR	cream	CR	/cream,	FM fine-medium grained.	FR BITUMINOUS COAL	FR friable and highly broken in parts.		CHLC Chilled top contact	CHLC Chilled bottom contact.						
GR	green	GR	/green,	F medium grained	QW ANTHRACITE	QW ,with upward fining cycles.		DIFC Diffuse top contact	DIFC Diffuse bottom contact						
GY	grey	GY	/grey	FC fine-coarse grained.	LK DOLERITE DYKE	LK Irregular bedding.		DISC Disseminated top contact	DISC Disseminated bottom contact						
OL	olive	OL	/olive,	CV coarse-very coarse	VE SOIL	II , with occasional minor buff coloured sandstone layers.		DISIRC Disrupted irregular top contact	DISIRC Disrupted irregular bottom contact						
ORNC	orange	ORNC	/orange,	FX fine crystalline	AR ARCOSE	MM massive with very little bedding.		EROSC Erosional top contact	EROSC Erosional bottom contact						
				MX medium crystalline grained.				FAULC Faulted top contact	FAULC Faulted bottom contact						
				MC medium to coarse grained.				FRZC Frozen top contact	FRZC Frozen						
				CX coarsely crystalline				GRADC Gradational top contact	GRADC Gradational						
								GRADCI Gradational and Irregular	GRADC Gradational Irregular						
								GRNDC Ground top contact	GRNDC Ground						
								INTRC Intrusive top contact	INTRC Intrusive						
								IRC Irregular	IRC Irregular						
								INTDC Jointed	INTDC Jointed						
								SC Sharp top contact	POTC Potholed						
								SFRZC Sharp frozen	SC Sharp bottom contact						
								SIRC Sharp irregular	SFRZC Sharp frozen						
								SWVYC Sharp wavy	SIRC Sharp irregular						
								SHRC Sheared	SWVYC Sharp wavy						
								VAGC Vague	SHRC Sheared						
									VAGC Vague						

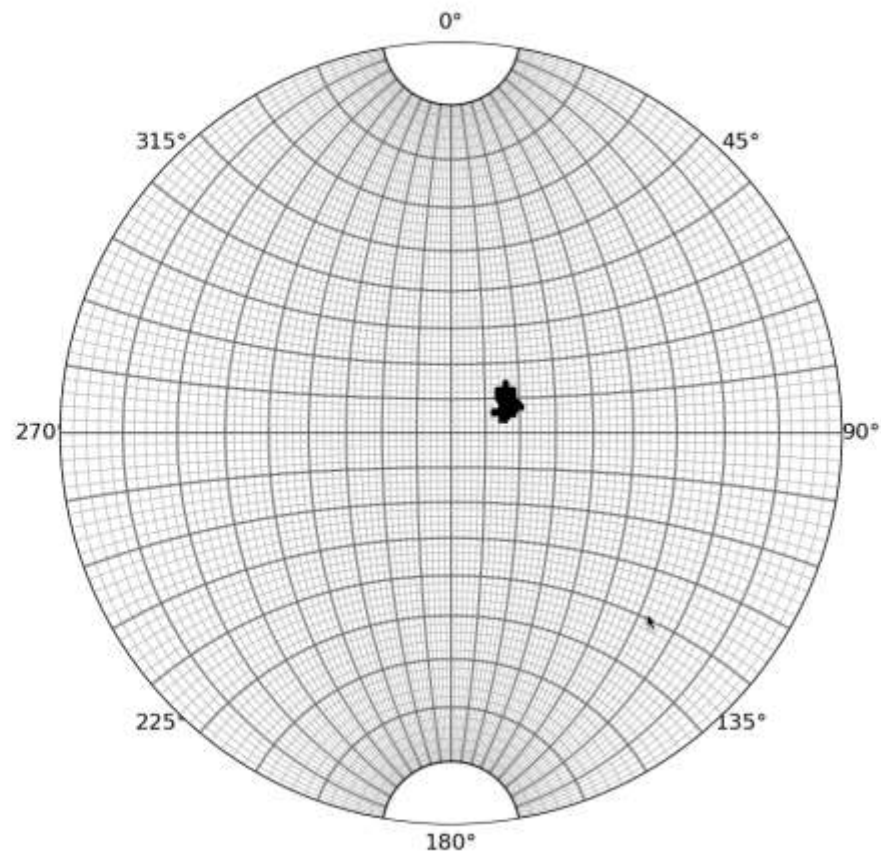
ScanIT – live logging

- Live stereonet
- Live orthographic projection
- Live validation

Immediate data QAQC



ScanIT – stereonet



Close

Projection **Equal Angle**

Start (m) **111.00** End (m) **38167** **Apply**

Miscellaneous **0**

Borehole

Features

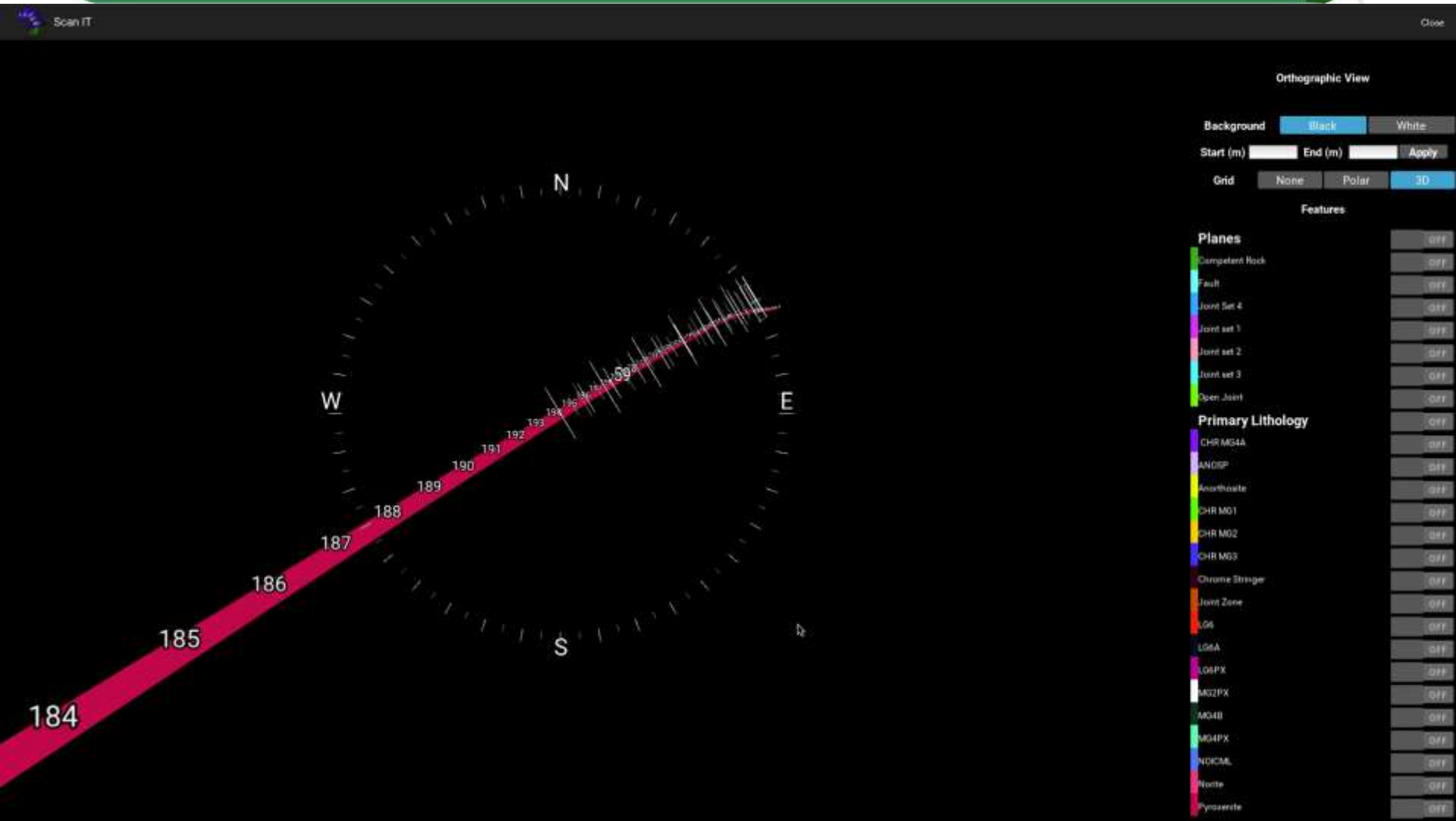
Planes

- Competent Rock
- Fault
- Joint Set 4
- Joint set 1
- Joint set 2
- Joint set 3
- Open Joint
- quartzite vein

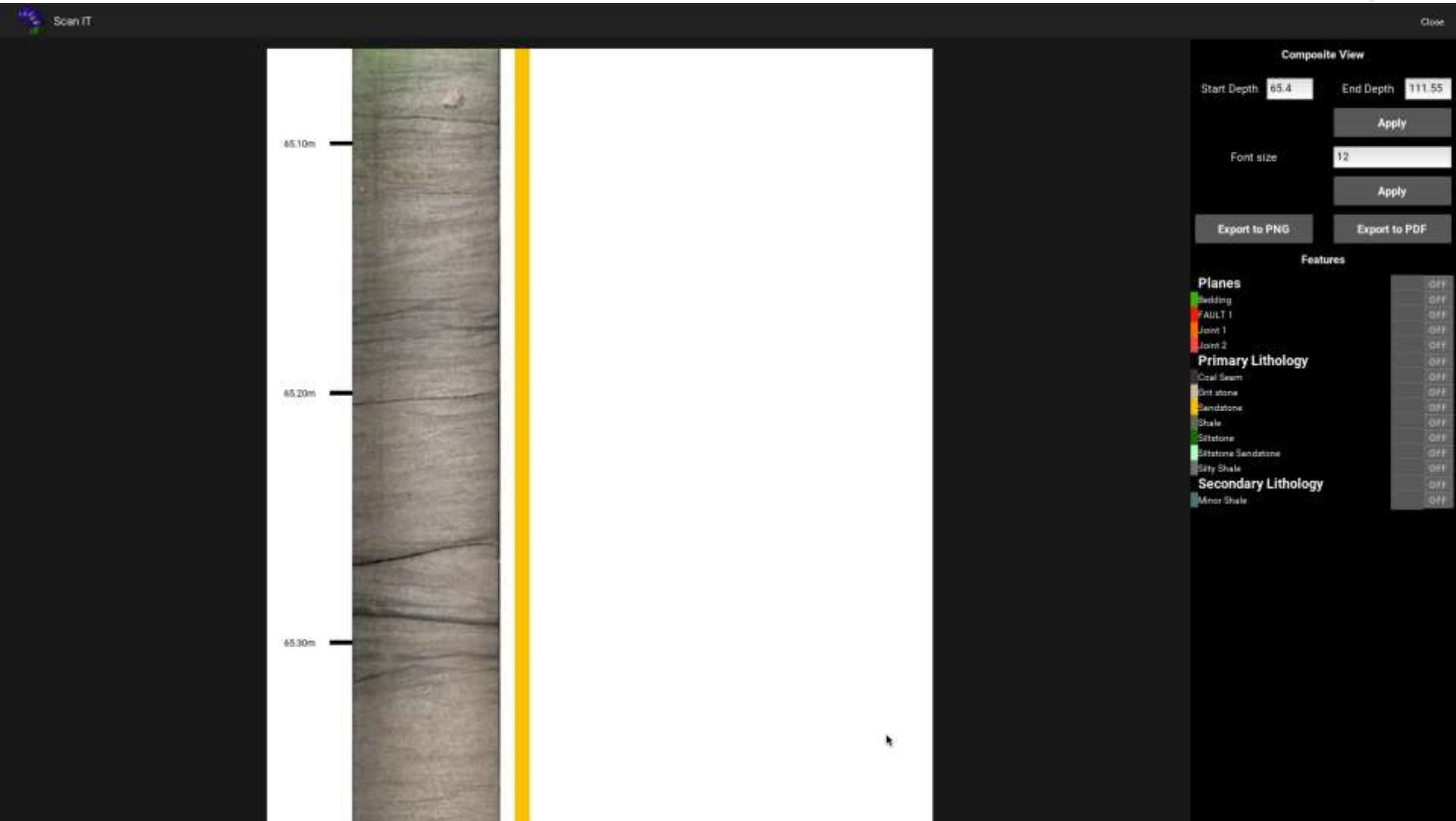
Primary Lithology

- CHR MG4A
- ANOSP
- Anorthosite
- CHR MG1
- CHR MG2
- CHR MG3
- Chrome Stringer
- Joint Zone
- LG6
- LG6A
- LG6PX
- MG2PX
- MG4B
- MG6PX
- NGICML
- Norite
- Pyroxenite

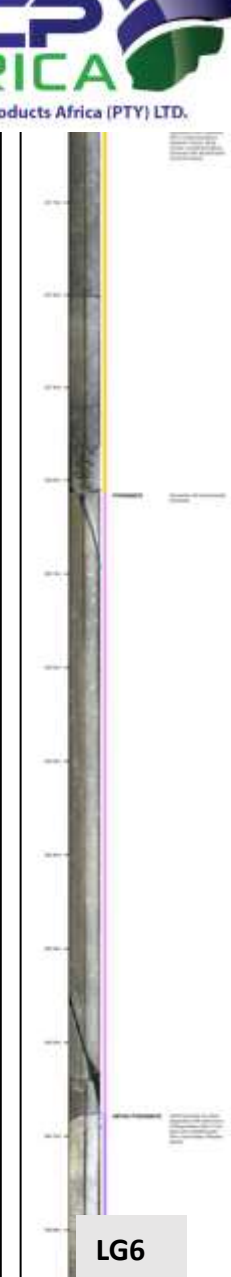
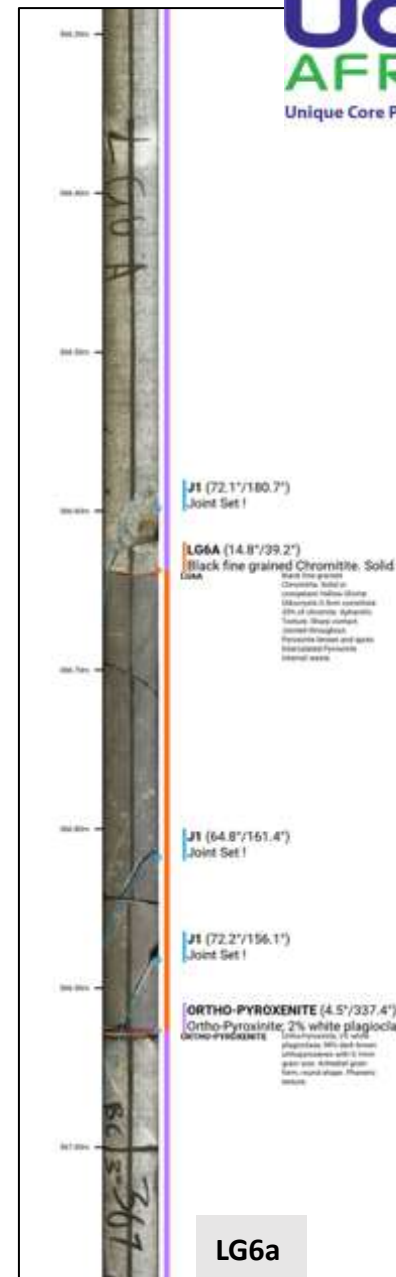
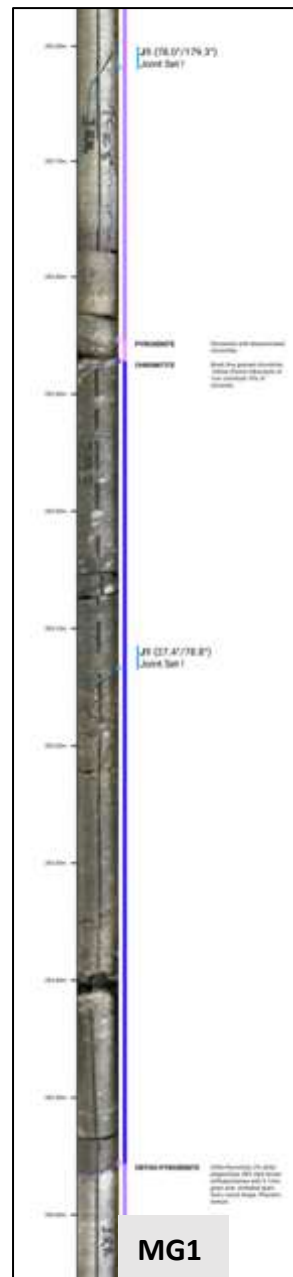
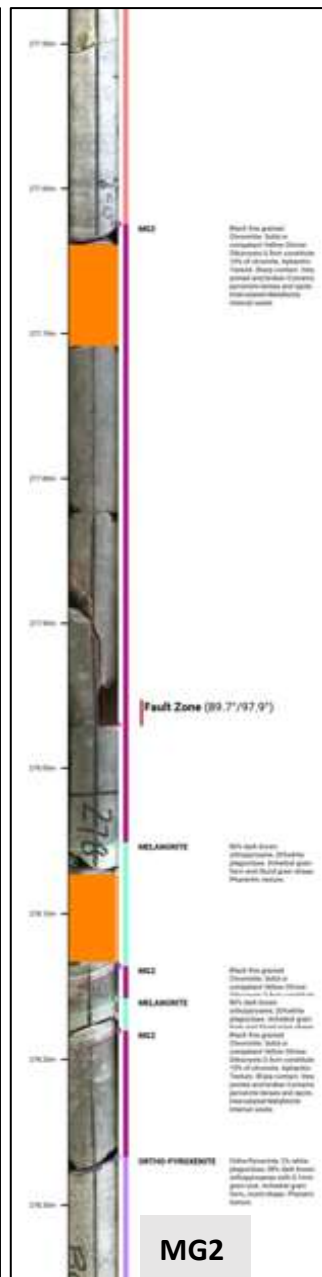
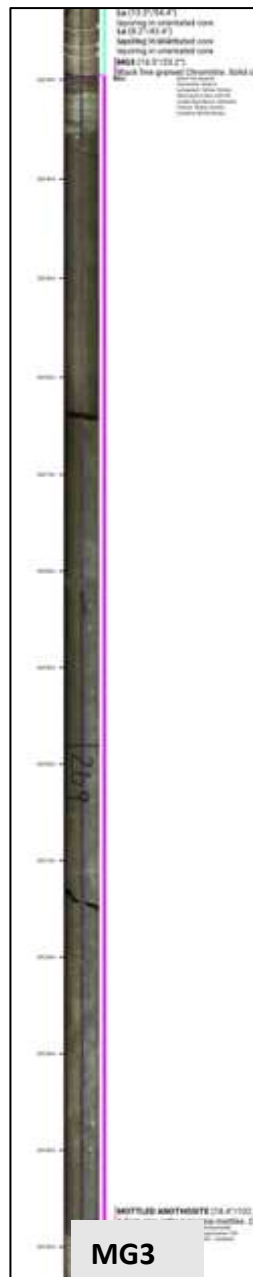
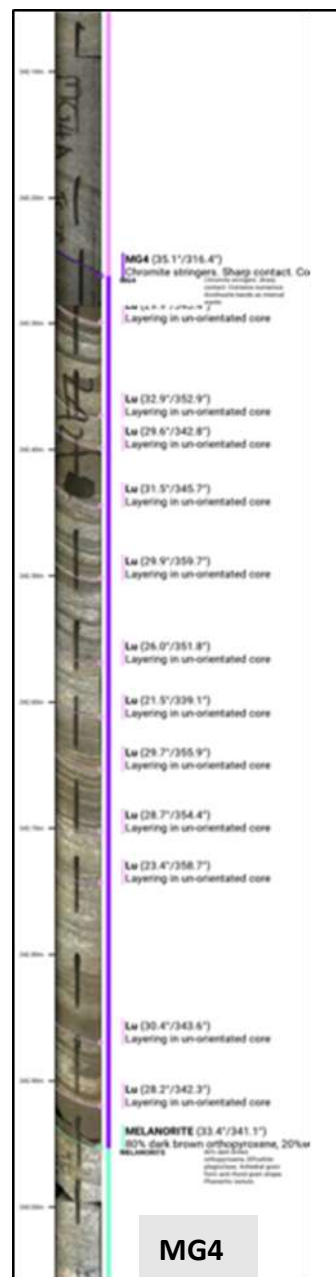
ScanIT – 3D orthographic



ScanIT – composite log



ScanIT – composite log - PDF export



ScanIT – Exports data in Microsoft Excel



Excel File Edit View Insert Format Tools Data Window Help

AutoSave 100% Wed 16:49 Grant Wilson

Home Insert Draw Page Layout Formulas Data Review View

Calibri (Body) 11 A+ A- Wrap Text General Conditional Formatting Format as Table Normal Bold Good Neutral Calculate Check Cell Exploratory Input Insert Delete Format Auto-sum Find Sort & Filter Find & Select Ideas

Recover Unsaved Workbooks. We were able to save changes to one or more files. Do you want to recover them? Yes No

C13 x -fx -69.3

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1																				
2																				
3		Company	Example																	
4		Project	Example																	
5		Start Date	Example																	
6		Responsible Geologist	Example																	
7		Drilling Company	Example																	
8		Driller's Name																		
9		Type of Orientation Tool	Boart Longyear TruCore																	
10		Collar Easting	X																	
11		Collar Northing	Y																	
12		Collar Elevation	Z																	
13		Inclination	-69.3																	
14		Azimuth	328.0																	
15		Start Depth	0																	
16		Estimated Depth																		
17		TOC / BOC	BOC																	
18																				
19																				
20																				
21																				
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33																				

Ready

DETAILS SURVEY DATA GEOLOGICAL LOG LITHOLOGICAL BOREHOLE LOG STRUCTURAL DICTIONARY LITHOLOGICAL DICTIONARY STRUCTURAL DATABASE LITHOLOGICAL DATABASE FEATURES STRUCTURAL LOG LITHOLOGICAL LOG

ScanIT Export – survey data



1	Drill Hole No	CollarEasting	CollarNorthing	CollarElevation	Final Length	Survey No	Depth [m]	Inclination	Azimuth	Northing	Easting	Elevation [m]
2	0	0	0	0	400	1	0	-69,90	53	0,00	0,00	0,00
3						2	24	-69,90	53	5,10	6,65	-22,49
4						3	30	-70,00	53	6,34	8,29	-28,13
5						4	36	-69,90	53	7,58	9,93	-33,76
6						5	42	-70,00	52	8,84	11,56	-39,40
7						6	48	-69,90	52	10,11	13,17	-45,04
8						7	54	-70,00	52	11,39	14,79	-50,67
9						8	60	-70,10	52	12,65	16,40	-56,31
10						9	66	-69,90	52	13,92	18,01	-61,95
11						10	72	-69,80	52	15,19	19,64	-67,58
12						11	78	-69,70	51	16,49	21,26	-73,21
13						12	84	-69,80	52	17,78	22,89	-78,84
14						13	90	-69,90	53	19,04	24,53	-84,47
15						14	96	-70,00	53	20,29	26,16	-90,11
16						15	102	-70,10	53	21,52	27,80	-95,75
17						16	108	-70,10	53	22,74	29,44	-101,39
18						17	114	-70,30	53	23,96	31,07	-107,04
19						18	120	-70,30	54	25,16	32,69	-112,69
20						19	126	-70,40	54	26,34	34,32	-118,34
21						20	132	-70,60	54	27,52	35,94	-123,99
22						21	138	-70,70	54	28,69	37,55	-129,65
23						22	144	-70,90	55	29,84	39,16	-135,32
24						23	150	-71,00	55	30,96	40,76	-140,99

ScanIT Export – structural log



COORDINATES				PLANAR STRUCTURES					LINEAR STRUCTURES			
DEPTH (m)	X	Y	Z	Plane ID	Description	alpha (°)	Dip	Dip Direction	Line ID	Description	Plunge	Trend
134.90	28700.83	-41677.00	993.74	LEUCONORITE	70% white plagioclase, 30% dark	73.14	16.16	63.90				
135.56	28700.84	-41677.00	993.08	Lu	Layering in un orientated core	70.62	19.12	0.12				
135.90	28700.84	-41677.00	992.74	J1	Joint Set I	27.96	61.36	81.95				
136.38	28700.85	-41677.00	992.26	PEGMATITE VEIN	Pegmatite Vein	48.99	41.71	242.77				
136.56	28700.85	-41676.99	992.08	LEUCONORITE	70% white plagioclase, 30% dark	65.74	24.95	254.34				
137.15	28700.85	-41676.99	991.49	Lo	layoring in orientated core	58.11	31.65	137.81				
138.09	28700.87	-41676.99	990.55	Lu	Layering in un orientated core	65.99	23.76	135.27				
138.71	28700.87	-41676.98	989.93	Lu	Layering in un orientated core	68.18	21.32	110.40				
139.08	28700.88	-41676.98	989.56	J1	Joint Set I	19.65	70.99	270.45				
139.92	28700.89	-41676.98	988.72	Lo	layoring in orientated core	64.42	24.86	60.43				
140.78	28700.90	-41676.97	987.86	Lu	Layering in un orientated core	71.39	17.96	37.16				
142.98	28700.92	-41676.96	985.66	Fault Zone		24.28	64.99	59.94				
144.06	28700.93	-41676.96	984.58	J1	Joint Set I	34.33	55.12	107.99				
144.96	28700.94	-41676.95	983.69	J2		5.51	85.13	215.88				
146.58	28700.96	-41676.94	982.06	J1	Joint Set I	60.49	28.84	38.76				
148.41	28700.99	-41676.93	980.23	J1	Joint Set I	51.93	37.54	112.73				
149.84	28701.00	-41676.92	978.80	Lu	Layering in un orientated core	66.82	23.41	315.57				
150.09	28701.01	-41676.92	978.55	Lu	Layering in un orientated core	63.36	26.86	316.05				
150.84	28701.02	-41676.92	977.80	Lu	Layering in un orientated core	70.79	19.45	313.69				
151.47	28701.02	-41676.91	977.18	J1	Joint Set I	51.08	39.33	183.41				
151.87	28701.03	-41676.91	976.77	J1	Joint Set I	53.38	37.07	185.68				
152.53	28701.04	-41676.91	976.11	J2		12.96	76.97	334.16				
154.40	28701.06	-41676.89	974.24	Lo	layoring in orientated core	78.07	12.08	317.21				
156.72	28701.09	-41676.88	971.92	Lu	Layering in un orientated core	55.69	34.34	328.65				
157.16	28701.09	-41676.87	971.49	Lu	Layering in un orientated core	66.89	23.35	312.81				
157.24	28701.09	-41676.87	971.41	Lu	Layering in un orientated core	57.32	32.89	315.41				
159.98	28701.13	-41676.85	968.66	Lu	Layering in un orientated core	76.17	14.14	302.42				
170.73	28701.25	-41676.76	957.92	Lo	layoring in orientated core	71.75	17.73	349.20				
171.04	28701.25	-41676.76	957.61	Lo	layoring in orientated core	68.47	21.16	338.65				
171.78	28701.26	-41676.75	956.86	Lo	layoring in orientated core	55.81	33.44	6.76				
172.45	28701.27	-41676.74	956.19	Lo	layoring in orientated core	65.03	24.06	25.36				
172.63	28701.27	-41676.74	956.02	Lo	layoring in orientated core	60.08	29.05	18.93				
175.56	28701.31	-41676.70	953.09	Lo	layoring in orientated core	64.61	24.73	356.31				
175.63	28701.31	-41676.70	953.01	Lo	layoring in orientated core	59.24	29.97	6.77				
176.60	28701.32	-41676.69	952.04	Lo	layoring in orientated core	66.04	23.26	359.78				
178.26	28701.35	-41676.67	950.29	Lo	layoring in orientated core	62.22	22.20	242.20				



Borehole Setup

Survey Data Input Template

Geological Borehole Log

Features

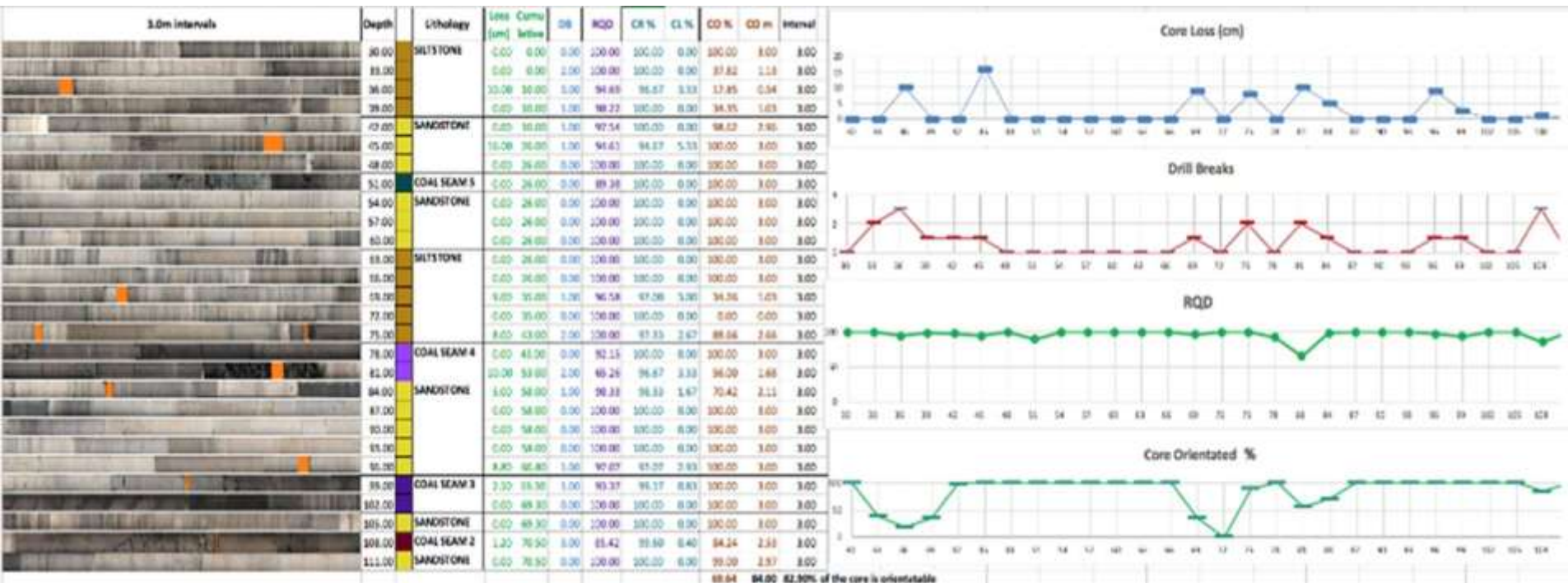
Structural data Internal Angles

Structural Dip & Dip Direction

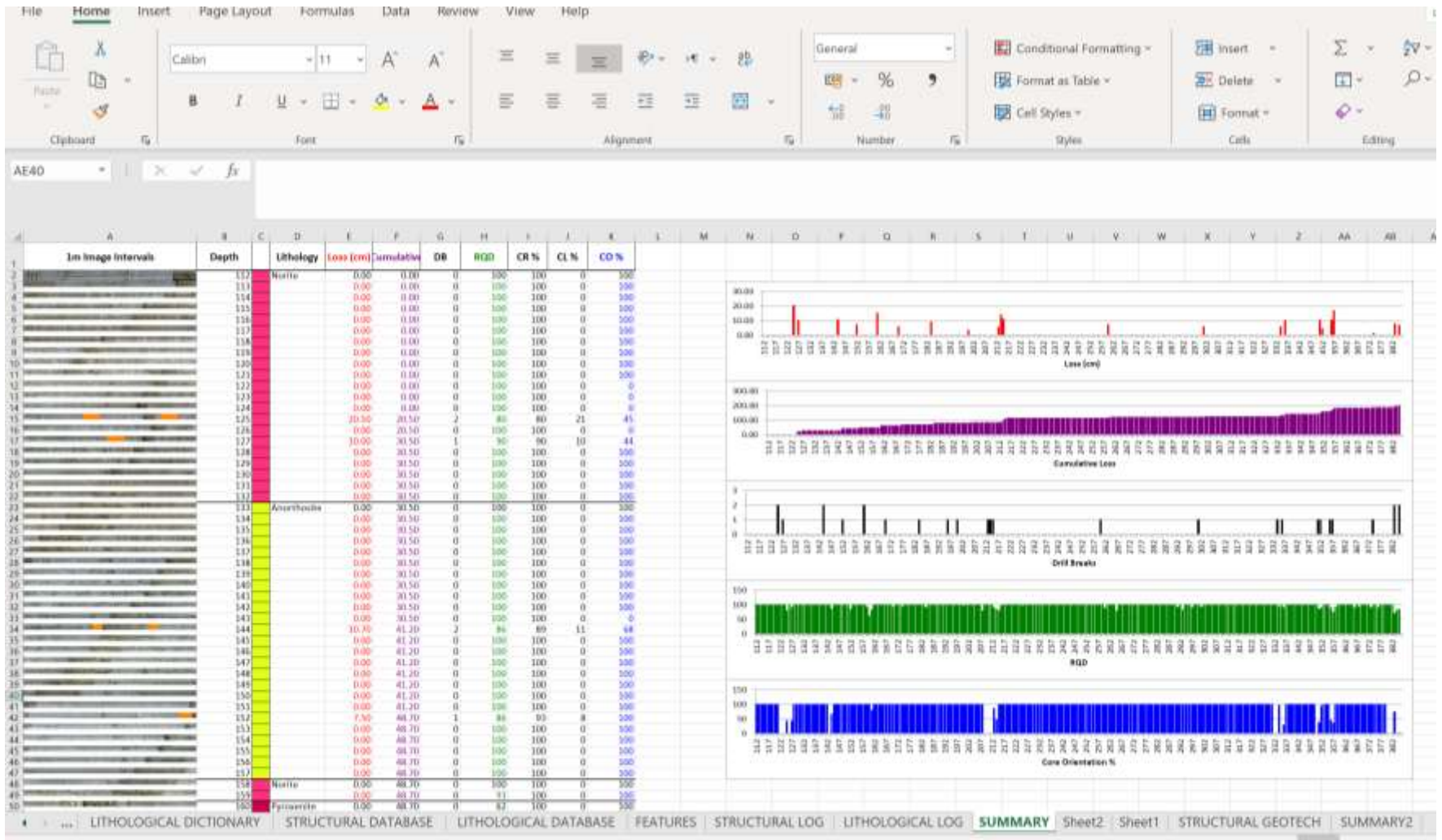
Geotech

ScanIT export – geotechnical data output

- RQD (1m, 2m, 3m intervals)
- Core recovery %
- Core loss %
- Drill breaks
- Core orientation % potential



ScanIT export – geotechnical data output



ScanIT – borehole statistics

