



Bergvesenet

Postboks 3021, 7002 Trondheim

Rapportarkivet

Bergvesenet rapport nr BV 3843	Intern Journal nr 275/93	Internt arkiv nr	Rapport lokalisering Trondheim	Gradering Fortrolig
Kommer fra ..arkiv	Ekstern rapport nr	Oversendt fra Sulfidmalm a.s.	Fortrolig pga Muting	Fortrolig fra dato:
Tittel Exploration 1992, along the Skogfoss arch in Pasvik, Finnmark. Oksfjell, Svartfjell, Finntjørn areas. Appendix A. Summary of Oksfjell 1992 Drilling				
Forfatter Hudson- Edwards, Karen Hodges, Daryl		Dato Nov 1992	Bedrift Sulfidmalm A/S	
Kommune Sør-Varanger	Fylke Finnmark	Bergdistrikt Troms og Finnmark	1: 50 000 kartblad 24334 23331	1: 250 000 kartblad Kirkenes
Fagområde Geologi Geofysikk Geokjemi Boring	Dokument type Rapport		Forekomster Oksfjell Svartfjell Finntjørn	
Råstofftype Malm/metall	Emneord Ni Cu Co S			
Sammendrag Dette er tekstdelen til en stor samlerapport fra arbeidene innen mutingsområdene i Skogfoss - Oksfjellområdet i Pasvik. BV 3842 Tekst del med figurer og tabeller. BV 3843 Appendix A. Summary of Oksfjell 1992 Drilling BV 3844 Appendix B. Drill log and sections BV 3845 Appendix C. A report on a combined helicopter-borne Mag, EM and VLF-EM survey in Pasvik. BV 3846 Appendix D. Technical report for ground geophysical surveys in Skogfoss, Pasvik				

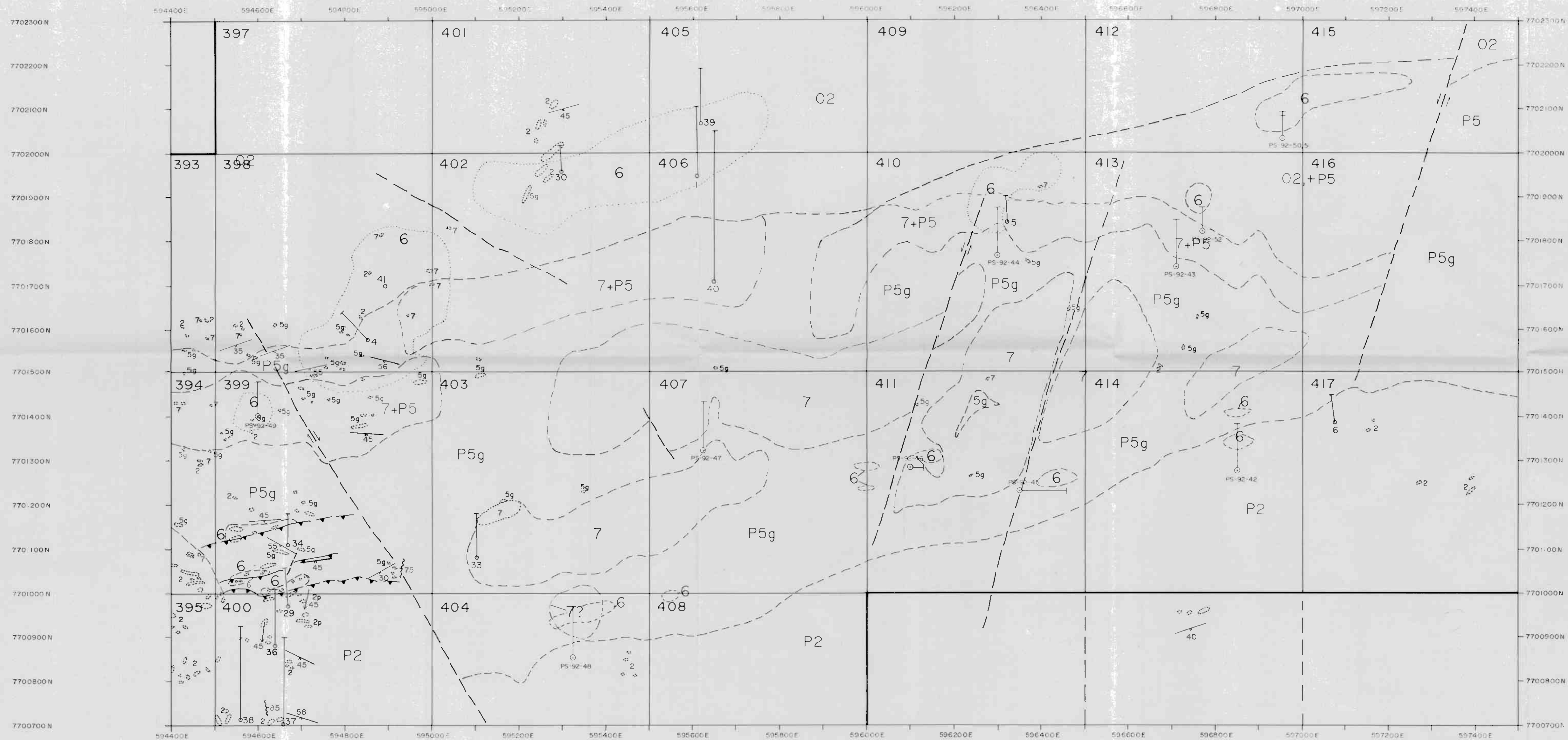
APPENDIX A
SUMMARY OF OKSFJELL 1992 DRILLING

TABLE 1. DRILL RESULTS PASVIK, NORWAY (OKSFJELL) (1)

Hole	Location (UTM)	Az/Dip/Length	Target/Result
PS-42	596850E / 7701275N	000° / -55 / 163.5 m	T: Ultramafic #3, located within Upper Productive Fm, tested toward boudined end. R: Hole intersected 4.36m Ultramafic w/ 1% dissem Po in Middle Productive Formation
PS-43	596710E / 7701740N	000° / -55 / 183.23	T: Offset of proposed Ultramafic #2. Penetration from upper faulted contact. R: Hole intersected 3.52m Ultramafic Body w/in Lower Productive Formation; 1-2% Vein Cpy in sediments above UM; & wide hornfelsed zone (2.36m above, 0.9m below)
PS-44	596298E / 7701765N	000° / -55 / 189.9 m	T: Ultramafic #2, at north intersection of N-S conductive zone and Lower Productive Formation. R: Hole intersected 60.72m Gb-Wehrlite Body (41.48m Ultramafic) with 2 carbonate-magnetite Bx zones (.37 & 1.2m) w/ 2-3% Cpy
PS-45	596350E / 7701230N	090° / -50 / 167.40	T: Intersection of N-S conductive zone, strong N-S fault (?), Upper Productive Formation and possible tectonized extension of Ultramafic #3. R: Hole intersected 3 UM bodies (3.28, 3.09, 4.34m) in Mid Prod Fm. 2 w. 3-4% Po, Tr Cpy
PS-46	596100E / 7701282.5	090° / -80 / 175.45	T: Test magnetic body within N-S conductive zone. R: Hole intersected 82.33m Gabbro-Diabase body in Middle Productive Formation
PS-47	595625E / 7701320N	000° / -55 / 171.18	T: Ultramafic # 2 in Middle Productive Fm. R: Hole intersected Middle Productive Fm and ended in 73m of Gabbro-Diabase
PS-48	595325E / 7700850N	000° / -55 / 180.80	T: Ultramafic #2 or #3 in the Upper Prod Fm. R: Hole int 4 UM bodies (3.70, 2.15, 3.55, 10.10m) in Middle Productive Formation
PS-49	594600E / 7701400N	000° / -80 / 275.3	T: Down plunge (faulted?) extent of Ultramafic #1. Complex pinchout, irregular EM conductor at surface. R: Hole intersected 5.28m Ultramafic Body within Lower Productive Formation, but failed to intersect proposed extension of Hole 41 ultramafic
PS-50	596954E / 7702032N	000° / -80 / 159.8	T: Test strong magnetic body (Ultramafic) within Lower Productive Formation. R: Hole intersected 64.46m Gabbro-Wehrlite Body w/ Tr-1% Cpy in Pxenite & Tr-1% in UM
PS-51	596954E / 7702032N	000° / -80 / 86.0 m	T: Test up-dip projection of strong magnetic body (Ultramafic) intersected in Hole 50 within Lower Productive Formation R: Hole collared in and intersected 55.85m Gabbro-Wehrlite body w/ Tr Cpy specks & Tr-2.5% Po in UM
PS-52	596770E / 7701820N	000° / -80 / 165.56	T: Follow-up DDH PS-43: continue to test strongly magnetic Ultramafic in Lower Productive Formation R: Hole intersected 28.84m Ultramafic Body with Tr-2% Po over 4.15m near base of body and 1-2% Cpy in 0.5m qtz zone above body
TOTAL:		1918.12m	

1992 OKSFJELL, PASVIK DRILLING											
Hole	UTM E	UTM N	Elev (m)	Az	Dip	Length(m)	Start	Stop	Logged	Contract Cost(NOK)	NOK/m
PS-92-42	596650	7701275	128	000°	-55°	163.50	1 Jul	4 Jul	KAH-E	75669	463
PS-92-43	596710	7701740	141	000°	-55°	183.23	4 Jul	7 Jul	KAH-E	80315	438
PS-92-44	596298	7701765	141	000°	-55°	189.90	7 Jul	10 Jul	KAH-E	84140	443
PS-92-45	596350	7701230	130	090°	-50°	167.40	10 Jul	13 Jul	KAH-E	74515	445
PS-92-46	596100	7701282	141	090°	-80°	175.45	13 Jul	16 Jul	KAH-E	79035	450
PS-92-47	595625	7701320	148	000°	-55°	171.18	16 Jul	19 Jul	DH	78561	459
PS-92-48	595325	7700850	130	000°	-55°	180.80	20 Jul	23 Jul	KAH-E	80814	447
PS-92-49	594600	7701400	210	000°	-80°	275.30	27 Jul	1 Aug	KAH-E	126908	461
PS-92-50	596954	7702032	130	000°	-80°	159.80	5 Aug	9 Aug	KAH-E	71805	449
PS-92-51	596954	7702032	130	000°	-45°	86.00	9 Aug	11 Aug	KAH-E	39849	463
PS-92-52	596770	7701820	141	000°	-80°	165.56	11 Aug	14 Aug	KAH-E	73079	441
Mobilization										56000	
De-mobilization										50000	
					TOTAL	1918.12			TOTAL	970690	AV:451

A/S SULFIDMALM		
	Recapitulation of Pasvik Area Exploration Expenses	
	Pasvik (904) and South Pasvik (906) Projects	
Expenditure	Proposed	Actual
	Project 904	Project 904
SALARIES		
Geology	150,000	290,172
Geophysics	70,000	23,345
Drilling	280,000	126,597
Subtotal	500,000	440,114
TRAVEL	80,000	64,094
FIELD EXPENSES		
Geology	80,000	143,936
Geophysics	25,000	21,406
Drilling	120,000	98,457
Subtotal	225,000	263,799
ASSAYS		
Geology	25,000	0
Drilling	100,000	21,720
Subtotal	125,000	21,720
GEOLOGY CONTRACTS	0	128,700
GEOPHYSICS CONTRACTS		
Ground	180,000	0
Airborne	0	0
Subtotal	180,000	0
DIAMOND DRILLING CONTRACTS	1,000,000	1,174,226
ENVIRONMENTAL	0	15,451
PROPERTY	90,000	
Acquisition		0
Maintenance		14,150
Subtotal	90,000	14,150
TOTALS	2,200,000	2,122,254



LEGEND

STRATIGRAPHIC UNITS

- P PILGULARVI SUITE
- O KOLOSJOKI SUITE

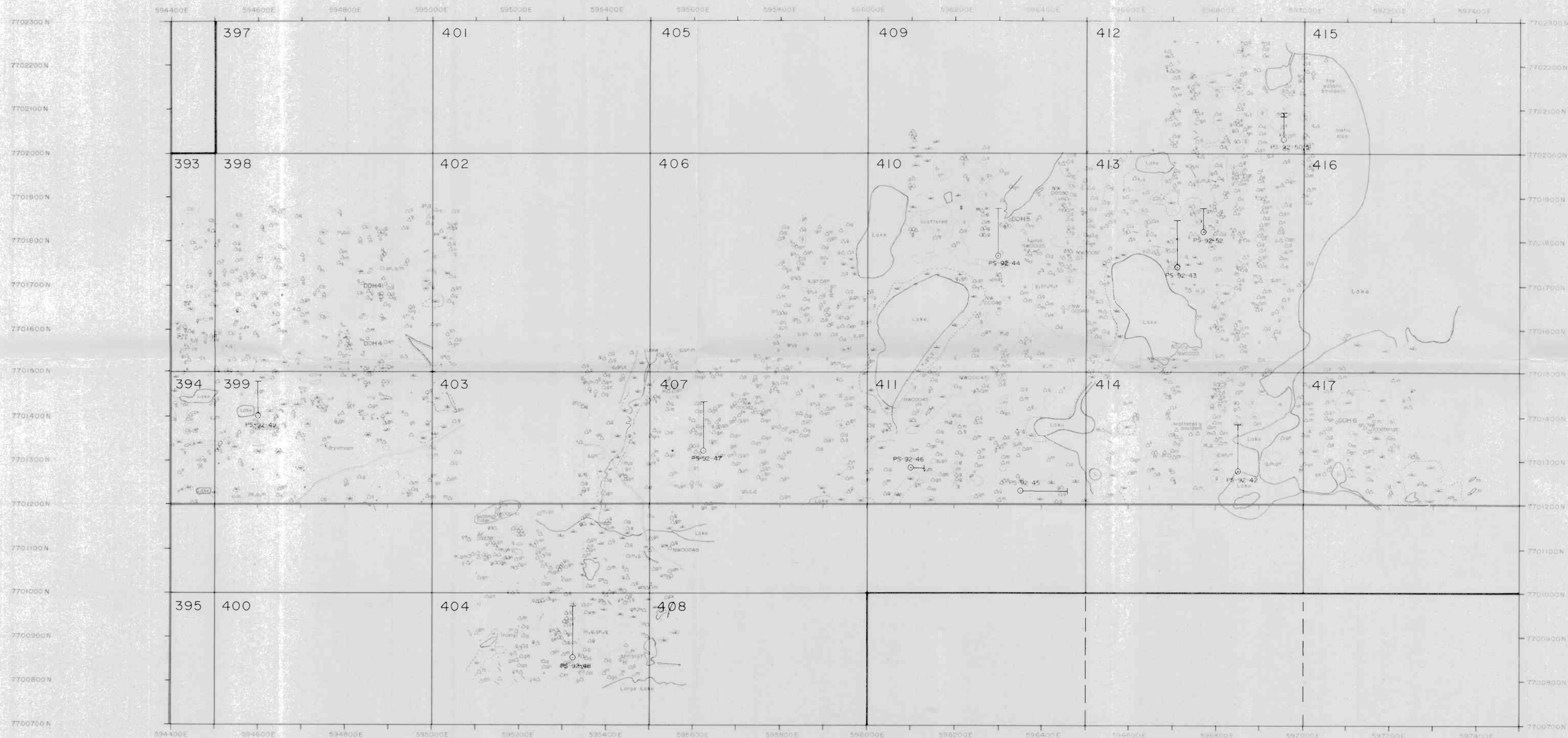
LITHOLOGICAL UNITS

- 7 GABBROIC INTRUSIONS
- 6 ULTRAMAFIC INTRUSIONS
- 5 SEDIMENTARY ROCKS
- 2 MAFIC VOLCANICS
- g GRAPHITIC
- p PILLOWED
- - - FAULT, APPROXIMATE
- - - THRUST FAULT, KNOWN, ASSUMED
- - - GEOLOGICAL CONTACT, APPROXIMATE
- NON-OUTCROPPING UNIT
- OUTCROP
- S, FOLIATION AND DIP
- SS SHEARING AND DIP
- MINOR FOLD AXIS AND PLUNGE
- DRILL HOLE

Claim Boundary
408=Claim N° 408/1990-FB

0 50 100 200 300 400 500
SCALE METRES

A/S SULFIDMALM		Exploration Department Kristiansand, Norway
OKSFJELL EAST AREA GEOLOGICAL INTERPRETATION		
MAP A		PASVIK, NORWAY
Project No 015-904	N.T.S. No 24331 V, 2333 I	Scale 1:5000
Date November 1991	Geologist K.A.H.	Drafted by



- ROCK TYPES**
- m MAFIC VOLCANIC (Pitgariet or Kolosjoki)
 - g GABBRO-DIABASE
 - gn GNEISS (Archean)
 - px PYROXENITE
 - um ULTRAMAFIC, SERPENTINIZED
 - s BLACK SHALE (Productive Formation)
 - q QUARTZ
- SYMBOLS**
- S CLEAVAGE AND DIP
 - + MARKED GRID PICKET
 - Δ BOULDER OR SMALL GROUP OF BOULDERS
 - Δ BOULDER FIELD
 - OUTCROP
 - SMALL LAKE
 - STREAM
 - PROMINENT PINE TREE
 - DEAD PINE TREE
 - WALKING TRAIL
 - DDH 40 Diamond Drill Hole Site
 - AF09197, NW00040 LITHOGEOCHEMICAL SAMPLE

Claim Boundary
408=Claim N° 408/1990-FB

0 50 100 200 300 400 500
SCALE METRES

SAMPLE	STRAT.UNIT	ROCK TYPE	SiO2	Al2O3	CaO	MgO	Na2O	K2O	Fe2O3	MnO	TiO2	P2O5	Cr2O3	LOI	SUM	S	NI	Cu	Co	Zn	Rb	Sr	Y	Zr	Nb	Ba		
NW00034	PROD	SH. TUFF	40.3	14.7	0.10	12.3	0.05	0.02	20	0.20	1.6	0.1	0.04	7.62	97.3	2920	285	44	57	387	16	<10	<10	73	11	119		
NW00040	PROD	SH.	40.1	13.72	3.42	24.11	0.07		19.7	0.19	1.19	0.15	0.37	10.7	99.9	1300	1990	251	137	112	13		30	91	19	108		
NW00041	PROD	GABBRO-DIABASE	47.8	14.4	12.8	9.32	1.58	0.06	11.3	0.16	0.792	0.06	0.05	1.7	100.1	<50	1300	242	147	44	90	<10	166	12	72	15	41	
NW00042	PROD	GABBRO-DIABASE	45.6	11.7	8.01	7.12	1.30	0.09	20.6	0.29	2.17	0.15	<0.1	1.93	92.1	4100	75	185	25	143	15	52	33	132	20	69		
NW00045	PROD	BLACK SHALE	51.9	9.64	0.45	1.69	0.6	1.73	32.8	0.05	1.2	0.07	0.05	10.2	100.5	17000	<10		57	<10						427		
NW00046	PROD	BLACK SHALE	62.4	10.7	0.45	1.12	0.95	1.89	14.5	0.08	0.668	0.06	0.03	7.23	100.4	2650	15	80	16	184	59	76	14	133	16	314		
NW00047	PROD	GABBRO-DIABASE	43.6	11.5	9.97	6.66	1.13	0.23	21.7	0.22	1.95	0.07	<0.1	1.93	95.8	205	90	183	66	112	33	67	15	47	<10	44		
NW00049	PROD	BLACK SHALE	58.2	13.3	1.05	1.66	1.36	1.91	14.1	0.08	1.45	0.18	0.03	5.95	99.4	6910	<10		197	<10		81	86	96	<10	187	44	344
NW00050	PROD	MAFIC TUFF	49	13.6	6.69	7.35	2.59	0.06	14.8	0.25	1.21	0.11	0.05	3.23	99	75	82	56	55	108	<10		97	11	60	32	72	
NW00051	PROD	MAFIC TUFF	51.9	14.6	1.54	7.29	2.46	0.03	14.8	0.16	1.68	0.12	0.01	6.7	99.4	347	111	97	44	109	16	70	<10	80	16	74		
NW00059	PROD	MAFIC TUFF	49.4	14.2	9.48	6.50	3.06	0.15	15.7	0.2	1.31	0.07	0.03	1.47	98.9	205	99	80	44	91	<10		129	14	89	11	65	
NW00123	PROD	BLACK SHALE	53.4	18.3	0.43	2.75	2.01	3.59	9.7	0.05	2.17	0.07	0.04	7.39	100.1	651	54	69	15	116	140	111	16	246	19	533		
NW00124	PROD	MAFIC TUFF	51.1	14.9	0.45	8.05	2.31	0.03	14.5	0.21	1.59	0.1	0.03	5.19	98.7	179	123	62	49	119	<10		94	26	85	13	122	
NW00125	PROD	BLACK SHALE	64.7	14.5	1.17	1.4	1.31	2.55	6.47	0.08	1.26	0.36	0.04	6.59	100.1	756	65	94	10			107	176	14	171	50	380	
AF09197	PROD	MAFIC TUFF	44.5	13.3	6.98	8.89	1.36	0.02	13.8	0.2	1.06	0.1	0.03	9.23	99.5	<50	189	42	65	94	19	60	25	72	15	83		
AF09238	PROD	BLACK SHALE	NI	CL	CO	MO	SI	PO																				
			8	30.6	6	1	1	1																				

A/S SULFIDMALM

OUTCROP AND BOULDER GEOLOGY
OKSFJELL EAST AREA

MAP B

Exploration Department
Kristiansand, Norway

PASVIK, NORWAY

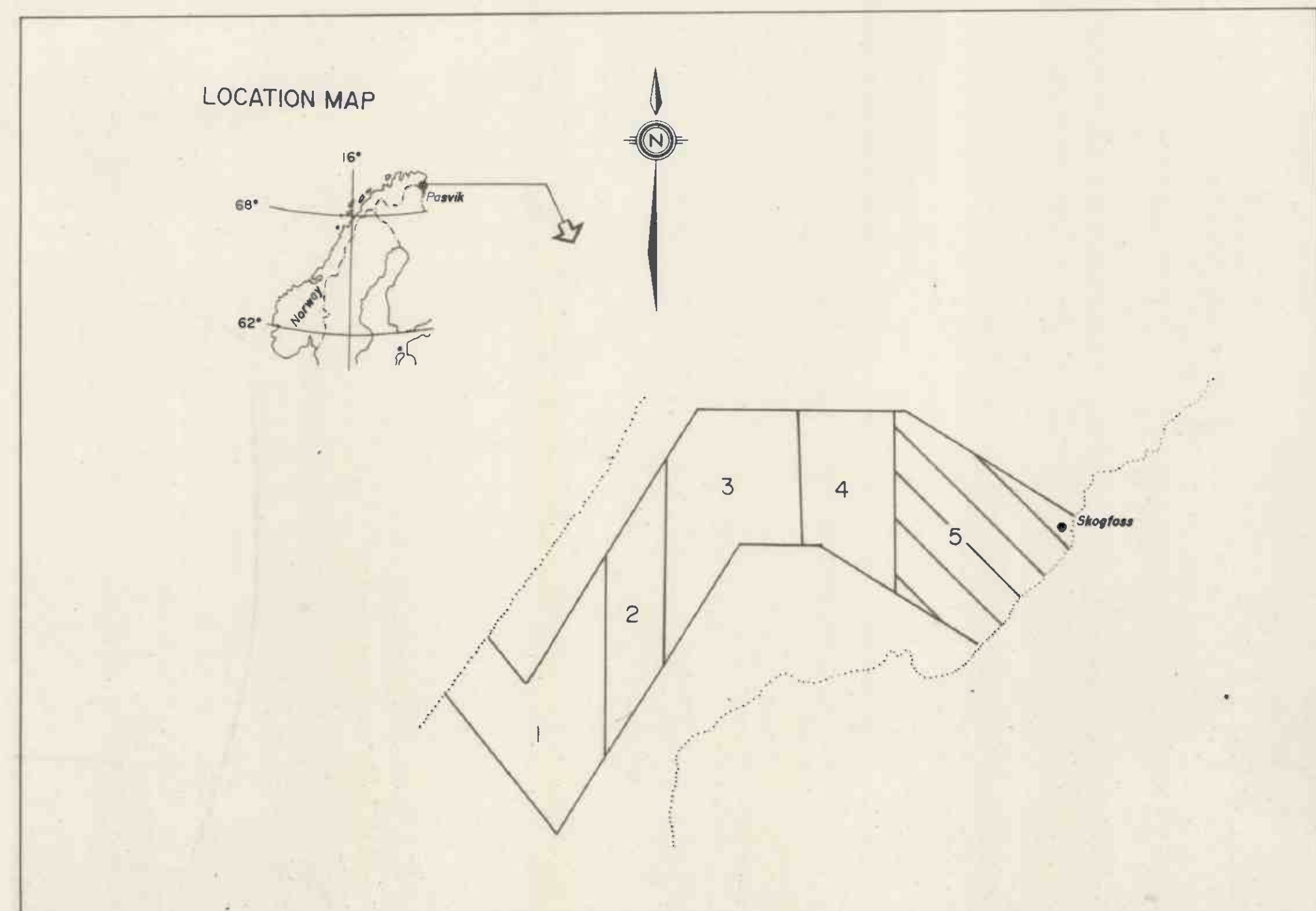
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Date Oct 1991

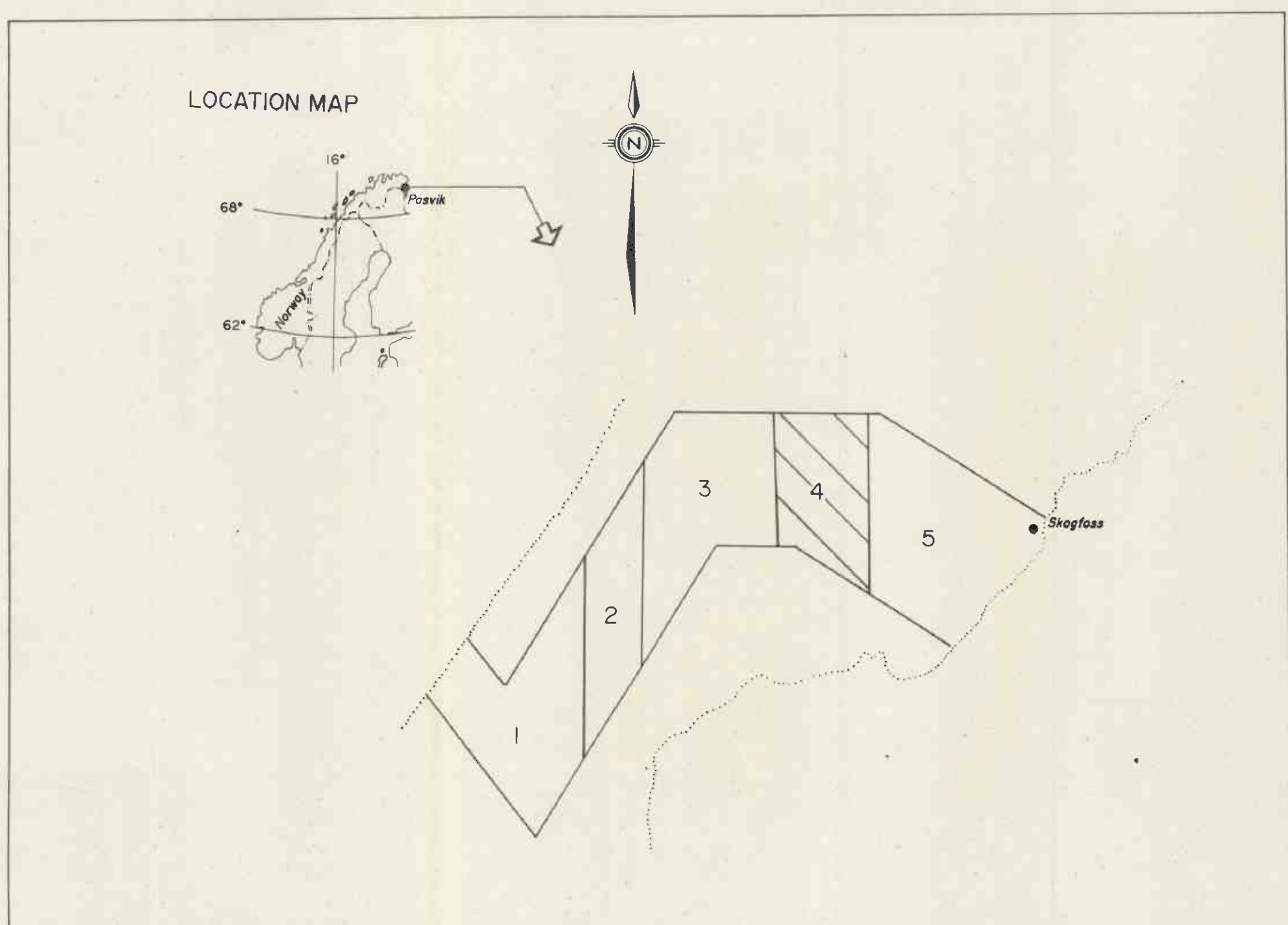
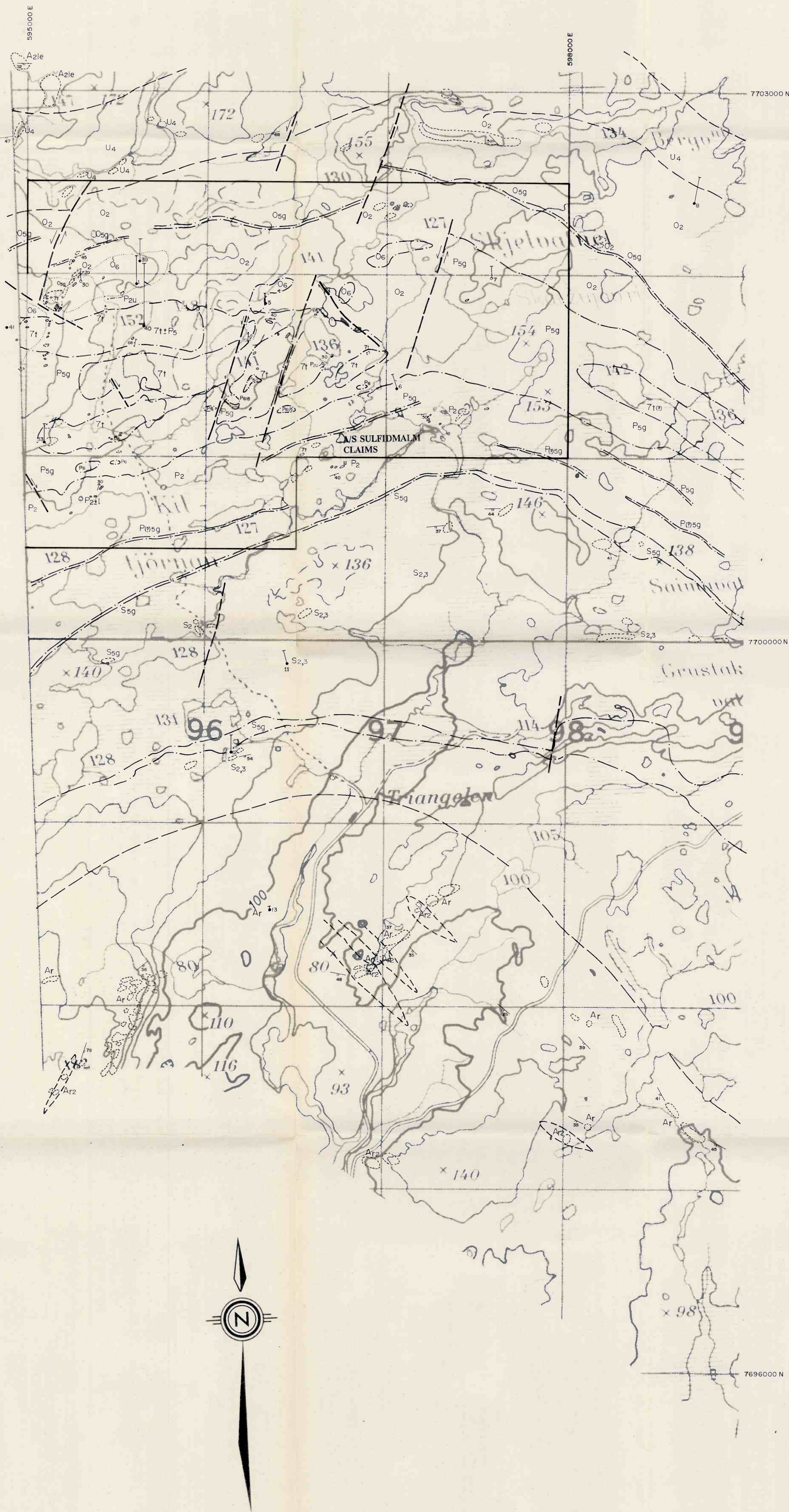
N.T.S. No 24331V, 23331
Geologist: KAH

Scale 1:5000
Drafted by H.R. / KAH

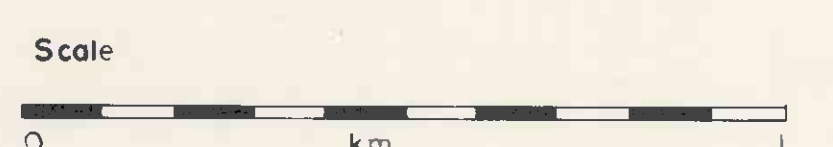


- LEGEND**
- STRATIGRAPHIC FORMATIONS**
- SOUTH PECHENGA SERIES
 - PILGUBAVI VOLCANICS
 - KOLOSIOKI SUITE
 - KUETSJARI SUITE
 - AHMALAHTI SUITE
- LITHOLOGICAL UNITS**
- GABBRO INTRUSIONS
 - ULTRAMAFIC INTRUSIONS
 - SEDIMENTARY ROCKS
 - MAFIC VOLCANICS
 - GRAPHITIC
 - FILLOWED
- FAULT, APPROXIMATE**
- THRUST FAULT, KNOWN, ASSUMED**
- GEOLOGICAL CONTACT, APPROXIMATE**
- NON-OUTCROPPING UNIT**
- OUTCROP**
- S₁ FOLIATION AND DIP**
- SHEARING AND DIP**
- MINOR FOLD AXIS AND PLUNGE**
- DRILL HOLE**





- LEGEND**
- STRATIGRAPHIC FORMATIONS**
- SOUTHERN PECHENGA SERIES
 - PILGRUAVI VOLCANICS
 - KOLOSIOKI SUITE
 - KUETSIARVI SUITE
 - AHMALAHTI SUITE
- LITHOLOGICAL UNITS**
- GABBRO INTRUSIONS
 - ULTRAMAFIC INTRUSIONS
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- GEOLOGICAL CONTACT, APPROXIMATE
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- OUTCROP
- S FOLIATION AND DIP
- f SHEARING AND DIP
- MINOR FOLD AXIS AND PLUNGE
- DRILL HOLE



MAP 4 OF 5

A/S SULFIDMALM Exploration Department
Kristiansand, Norway

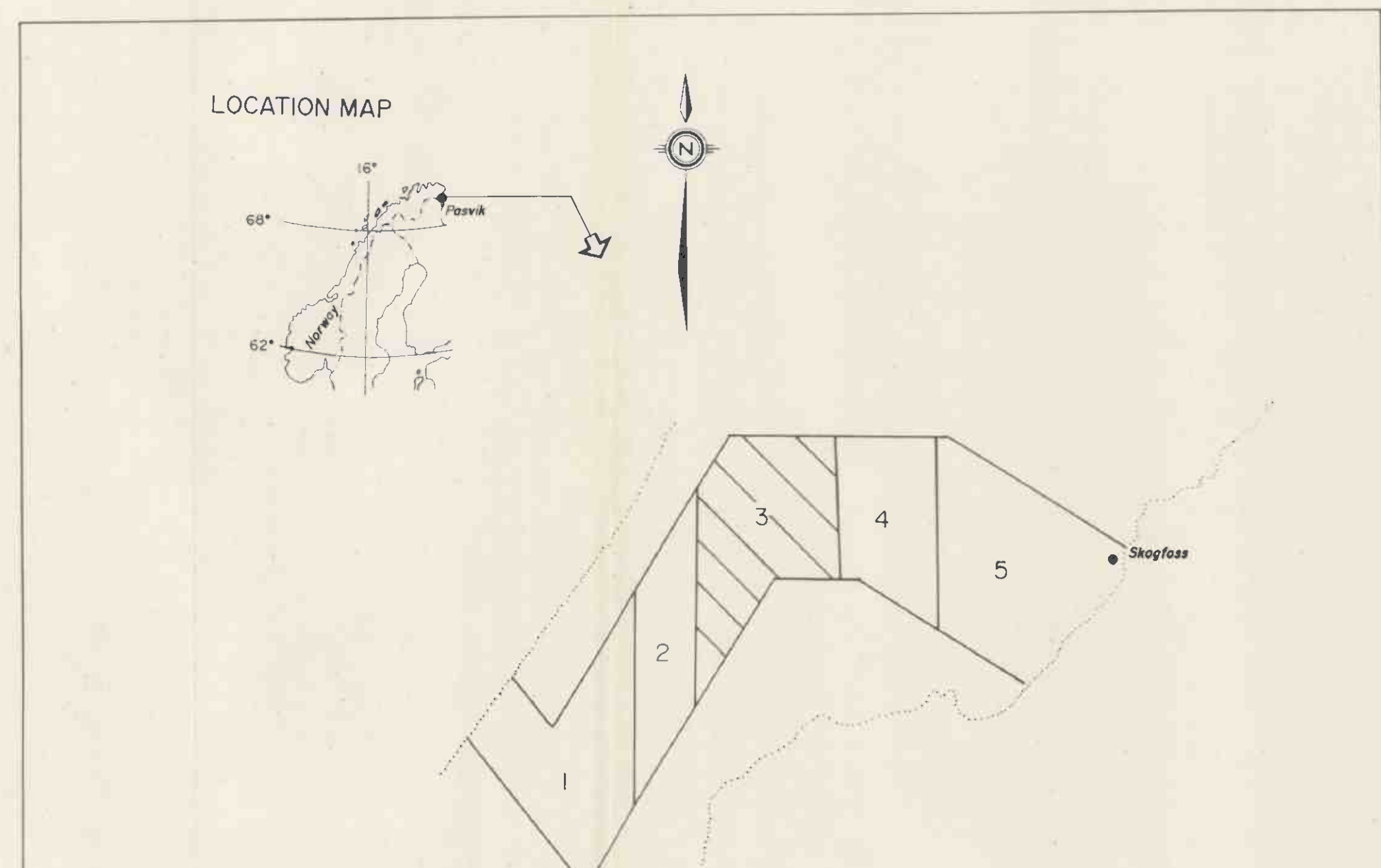
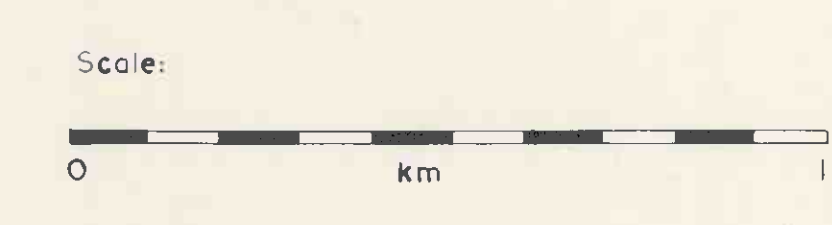
Geological Interpretation
Oksfjell, Norge

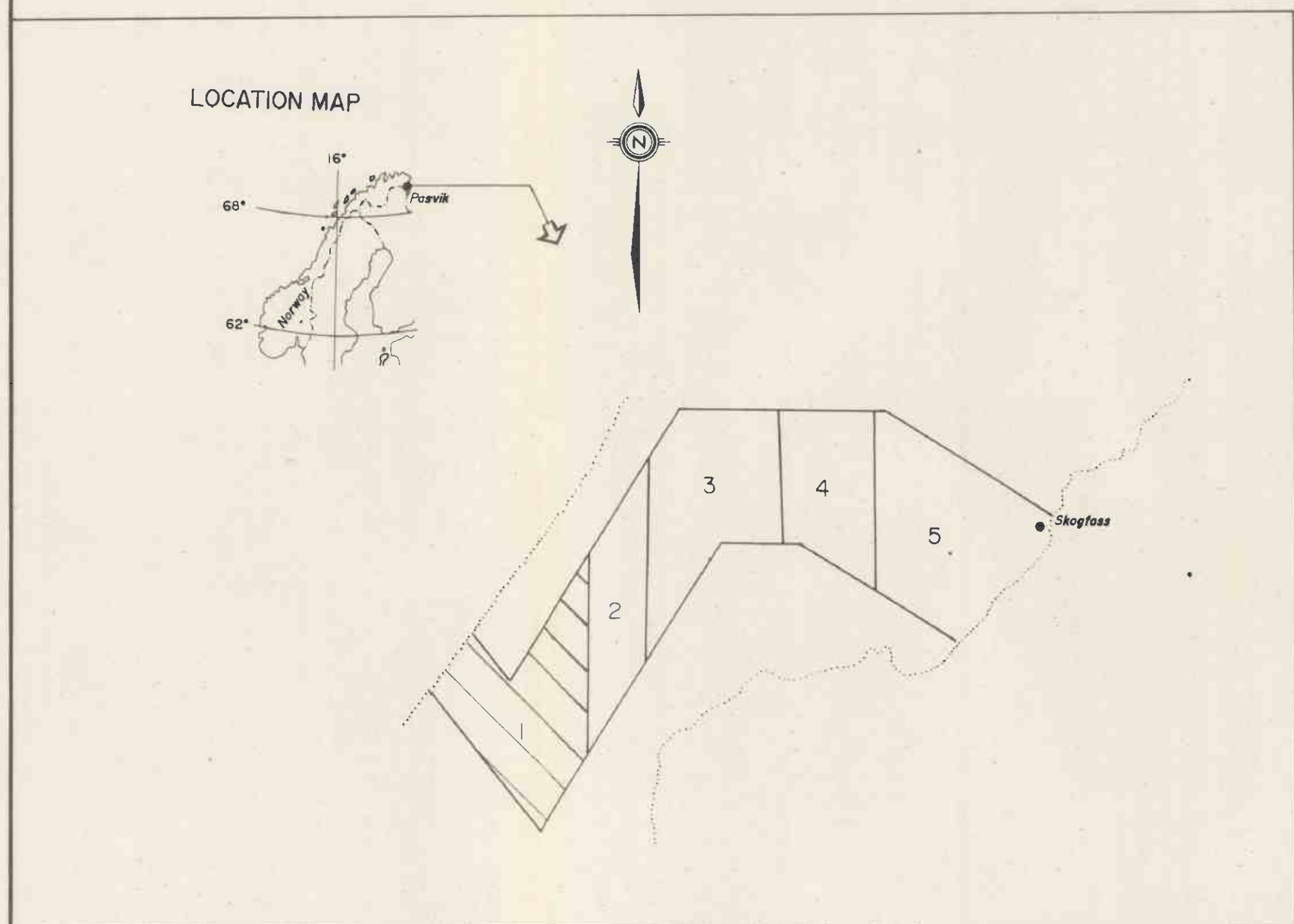
PASVIK, NORWAY

Project No. 015-904 N.T.S. No. Skagfoss 24331V Scale 1:10,000
Date Geologist Drafted by



- LEGEND
- STRATIGRAPHIC FORMATIONS
- Ar SOUTH PECHENGA SERIES
 - Azle PILGULAVI VOLCANICS
 - U2 KOLOSIOKI SUITE
 - U4 KUETSJARVI SUITE
 - U2.4 AHMALAHTI SUITE
- LITHOLOGICAL UNITS
- P2 GABBRO INTRUSIONS
 - P2.1 ULTRAMAFIC INTRUSIONS
 - P2.2 SEDIMENTARY ROCKS
 - P2.3 MAFIC VOLCANICS
 - P2.4 GRAPHITIC
 - P2.5 PILLOWED
 - P2.6 FAULT, APPROXIMATE
 - P2.7 THRUST FAULT, KNOWN, ASSUMED
 - P2.8 GEOLOGICAL CONTACT APPROXIMATE
 - P2.9 NON-OUTCROPPING UNIT
 - P2.10 OUTCROP
 - P2.11 S, FOLIATION AND DIP
 - P2.12 SHEARING AND DIP
 - P2.13 MINOR FOLD AXIS AND PLUNGE
 - P2.14 DRILL HOLE





- LEGEND
- STRATIGRAPHIC FORMATIONS
- Ar ARCTIC
 - P₁ PULCHRA
 - P₂ PULCHRA
 - U₁ KUETSARVI SUITE
 - U₂ KUETSARVI SUITE
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 - U₉₈ KUETSARVI SUITE
 - U₉₉ KUETSARVI SUITE
 - U₁₀₀ KUETSARVI SUITE
- LITHOLOGICAL UNITS
- Gabbro intrusions
 - Ultramafic intrusions
 - Sedimentary rocks
 - Mafic volcanics
 - Graphitic
 - Filled
 - Fault, approximate
 - Thrust fault, known, assumed
 - Geological contact, approximate
 - Non-outcropping unit
 - Outcrop
 - S₁ foliation and dip
 - Shearing and dip
 - Minor fold axis and plunge
 - Drill hole

