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## Appendix List of Geological Survey photographs

(One-inch geological sheet Western Shetland) Taken by Messrs. W. D. Fisher and A. Christie

Copies of these photographs are deposited for public reference in the library of the Institute of Geological Sciences, South Kensington, London SW7 2DE, and in the library of the Scottish office, West Mains Road, Edinburgh 9. Prints and lantern slides are supplied at a fixed tariff on application to the Director. All negatives are 5 in by 4 in. Colour slides of many of the listed photographs are also available

### General

- Views northwards across St Magnus Bay from the south shore of of West Burra Firth [\(D881\)](#), [\(D882\)](#)
- View westward along the north shore of the Walls Peninsula to  
Papa Stour from the east end of West Burra Firth [\(D883\)](#)
- View northwards from the Walls Peninsula across Vementry Island to the granophyre cliffs of Muckle Roe [\(D903\)](#)
- General view of north coast of Vementry Island [\(D907\)](#)
- View from Vaila west-south-westwards to Foula [\(D932\)](#)
- View from Vaila northward across Vaila Sound towards Walls [\(D933\)](#), [\(D940\)](#)
- Coastal scenery along south shore of Vaila [\(D936\)](#), [\(D938\)](#)
- View looking north-eastward from Vaila across Green Head towards the hills of central Mainland [\(D942\)](#)
- Views of the rugged metamorphic terrain along the north coast of the Walls Peninsula [\(D876\)](#), [\(D908\)](#), [\(D950\)](#), [\(D951\)](#), [\(D987\)](#)
- Coastal scenery near Wester Wick, south end of Walls Peninsula [\(D973\)](#)
- Views looking across Clousta Voe, showing ridges formed by the differential erosion of the Clousta Volcanic Rocks [\(D992\)](#), [\(D993\)](#)

### Recent and Pleistocene

- Possible meltwater channels, west slope of Hill of Melby [\(D901\)](#)
- Glaciated pavement; north-west coast of Vementry Island [\(D916\)](#)
- Belt of morainic drift, Papa Stour [\(D931\)](#)

### Melby Formation

- Melby Fish Beds [\(D887\)](#), [\(D892\)](#), [\(D896\)](#)
- Cross-bedded and convoluted sandstones in Melby Formation [\(D888\)](#), [\(D889\)](#), [\(D891\)](#), [\(D893\)](#), [\(D894\)](#), [\(D895\)](#)
- Brecciated rhyolite resting on sandstone of Melby Formation [\(D885\)](#), [\(D886\)](#)

### Volcanic rocks of Papa Stour

- Basalt overlain by lower tuff, which is, in turn, overlain by the lower rhyolite [\(D921\)](#), [\(D922\)](#), [\(D923\)](#)
- Lower rhyolite resting on eroded pavement of rhyolitic tuff [\(D918\)](#), [\(D919\)](#), [\(D920\)](#)
- Lower rhyolitic tuff and tuffaceous sandstone; close-up view [\(D924\)](#)
- Upper rhyolitic tuff resting on eroded pavement of rhyolite [\(D925\)](#), [\(D926\)](#)
- Spherulitic texture in rhyolite [\(D927\)](#), [\(D928\)](#)

### Walls Formation

- Non-tectonised sandstones and mudstones, Vaila [\(D934\)](#), [\(D935\)](#)
- Non-tectonised, steeply inclined sediments at Trea Wick (Watsness) [\(D962\)](#), [\(D963\)](#)
- Lineation in sediments, Voe of Footabrough [\(D955\)](#)

Cleavage and minor plastic folds in calcareous siltstones [\(D956\)](#)  
Small-scale recumbent folding in calcareous mudstone [\(D960\)](#)  
Tectonically disturbed limestone-sandstone sequence [\(D958\)](#), [\(D959\)](#)  
Minor structures and calcite veining in steeply inclined calcareous sediments [\(D961\)](#)

### **Sandness Formation**

Faulted junction between Old Red Sandstone and metamorphic rocks, north shore of Walls Peninsula [\(D878\)](#)  
Steeply inclined sedimentary sequence and coastal scenery, west coast of Walls Peninsula [\(D897\)](#), [\(D898\)](#), [\(D899\)](#), [\(D900\)](#), [\(D964\)](#)  
Clousta Volcanic Rocks; topographic features and scenery [\(D917\)](#), [\(D992\)](#), [\(D993\)](#)  
Conglomerate in basal sediments of Sandness Formation [\(D989\)](#)  
Minor folds with steep axial plunges in fine-grained sediments interbedded with Clousta Volcanic Rocks [\(D994\)](#), [\(D997\)](#), [\(D996\)](#), [\(D997\)](#)

### **Minor intrusions**

Basalt dykes cutting gneiss, north shore of Walls Peninsula [\(D877\)](#)  
Felsite sill cutting Baggy gneiss, north shore of Walls Peninsula [\(D944\)](#)

### **Plutonic complexes**

Sharply defined inclined junction between Vementry Granite and gneiss [\(D904\)](#)  
Cliffs of Vementry Granite with Muckle Roe Granophyre in background [\(D905\)](#)  
Muckle Ward, Vementry, composed of Vementry Granite [\(D907\)](#), [\(D909\)](#)  
Intricate junction between Sandsting Granite and sediments of Walls Formation, south coast of Vementry. (Best seen in colour slides, not obvious in black and white prints) [\(D936\)](#), [\(D937\)](#), [\(D939\)](#)  
Inclined junction between Sandsting Granite and sediments of Walls Formation; east shore of Vaila Sound. (Best seen in colour slides) [\(D941\)](#), [\(D1042\)](#)  
Coastal cliffs and stacks of Sandsting Granite, Wester Wick [\(D966\)](#), [\(D968\)](#), [\(D969\)](#), [\(D973\)](#)  
Cliffs of Sandsting Granite cut by scapolite veins, east coast of Wester Wick [\(D967\)](#)  
Coastal exposures in diorite and microgranodiorite, shore north of Culswick Broch [\(D972\)](#)  
Regular, closely spaced jointing in Sandsting Granite; coast at Culswick [\(D975\)](#)  
Scapolite veins in granite-diorite complex; quarry at Mavis Grind [\(D1344\)](#)  
Net-vein complex of basic diorite and granite, with hybridization and local flow-foliation; coast at Wilson's Noup, Northmaven [\(D1345\)](#), [\(D1346\)](#), [\(D1347\)](#), [\(D1348\)](#)

### **Metamorphic rocks**

Extensive coastal exposures of gneiss with pegmatite and granite veining; north-west coast of Vementry [\(D910\)](#), [\(D912\)](#), [\(D915\)](#)  
Early tight folds ( $D_2$ ) in limestone, hornblende-schist and quartz granulite; north coast of Walls Peninsula [\(D952\)](#), [\(D953\)](#), [\(D983\)](#), [\(D985\)](#)  
Early linear structures ( $D_2$ ) in mica-schist and quartz-granulite; north coast of Walls Peninsula [\(D977\)](#), [\(D978\)](#), [\(D979\)](#)

Limestone and calc-silicate rock cut by complex of granite veins; north coast of Walls Peninsula [\(D988\)](#)  
Interbanded gneiss and amphibolite with tight folds ( $D_2$ ), cut by small normal faults; west coast of Vementry [\(D913\)](#)  
Tight conjugate folds ( $D_4$ ) in gneiss with granite and pegmatite veins; west coast of Vementry [\(D911\)](#)  
Conjugate folds and kink bands in platy gneisses along north shore of Walls Peninsula [\(D943\)](#), [\(D946\)](#), [\(D947\)](#), [\(D949\)](#), [\(D981\)](#), [\(D982\)](#)  
Amphibolite intensely net-veined by granite (agmatite); north coast of Walls Peninsula [\(D880\)](#)

## Photographs "D" number order

[P218474](#) (D876) S. shore of West Burra Firth, 448 m. ENE of Snarraness House. Looking W. General view of feldspathized gneiss forming shore. Snarra Ness Peninsula in background. [HU 2450 5750]

[P218475](#) (D877) S. shore of West Burra Firth, 448 m. ENE of Snarraness House. Two basalt dykes cutting feldspathized gneiss, looking due north. [HU 2450 5750]

[P218476](#) (D878) S. shore of West Burra Firth, 347 m. NE of Snarraness House. Junction between metamorphic rocks and Old Red Sandstone sediments faulted. [HU 2450 5750]

[P218478](#) (D880) S. shore of West Burrafirth, 549 m. NE of Snarraness House. Agmatite i.e. amphibolite intensely net veined by granite. [HU 2450 5750]

[P218479](#) (D881) View looking N. across St. Magnus Bay from SE of West Burrafirth, 689 m. NE of Snarraness House. Galta Stack and Isle of West Burra Firth in middle distance. Ronas Hill and coast of Esha Ness beyond. [HU 2450 5750]

[P218480](#) (D882) General view looking N. across St. Magnus Bay from hilltop 183 m. E. of Snarraness House. Crockna Vord (extreme right) and Isle of West Burra Firth in middle distance. Far distance left to right: coast of Esha Ness, Ronas Hill, granite cliffs of Muckle Roe. [HU 2450 5750]

[P218481](#) (D883) View from eastern end of West Burra Firth looking WNW along Firth. Island of Papa Stour in distance. General view. [HU 2550 5650]

[P218483](#) (D885) W. coast of Ness of Melby, 165 m. NW of Melby House. Brecciated base of rhyolite resting on Melby Sandstone. [HU 1850 5750]

[P218484](#) (D886) W. coast of Ness of Melby, 165 m. NW of Melby House. Brecciated base of rhyolite resting on Melby Sandstone. [HU 1850 5750]

[P218485](#) (D887) S. shore of Sound of Papa, 229 m. NW of Huxter. Lower Melby Fish Bed horizon showing gentle west-south-west trending flexures. [HU 1750 5750]

[P218486](#) (D888) S. shore of Sound of Papa, 274 m. NNW of Huxter. Thick cross-bedded sets in Melby Sandstone. Looking south-west, Foula faintly in background. [HU 1750 5750]

[P218487](#) (D889) S. shore of Sound of Papa, 274 m. NNW of Huxter. Disturbed and turned-over cross-bedding in Melby Sandstone. [HU 1750 5750]

[P218489](#) (D891) S. shore of Sound of Papa, 320 m. N. 5 degrees E. of Huxter. Cross-bedding in thick sets of red Melby Sandstone. [HU 1750 5750]

[P218490](#) (D892) S. shore of Quilva Taing, 430 m. W. of Huxter. Convolute cross-bedding in siltstones overlying lower Melby Fish Bed. Papa Stour in background. [HU 1750 5750]

[P218491](#) (D893) Coast of Geo of Quilvataing, 110 m. SSE of Quilva Taing. Contorted siltstone, in thin sets, overlying lower Melby Fish Bed. [HU 1750 5750]

[P218492](#) (D894) South-facing cliff of Foglabanks, 686 m. SW of Huxter. Cross-bedded sandstone with intercalations of red siltstone. [HU 1650 5650]

[P218493](#) (D895) Cliffs, 91 m. NE of Foglabanks. Showing small flexures and incipient faults in sandstone above Melby Fish Bed. [HU 1650 5650]

[P218494](#) (D896) Ledge of top of cliffs, 73 m. SE of Foglabanks and 686 m. SW of Huxter. Upper Melby Fish Bed. Foula in background. [HU 1650 5650]

[P218495](#) (D897) Bay of Deepdale, NW shore. 183 m. high sea cliffs formed along bedding planes of Walls Sandstone inclined at 45 degrees to south-west. [HU 1750 5550]

[P218496](#) (D898) Bay of Deepdale, S. shore. Cliffs of highly inclined and shattered Walls Sandstone. [HU 1750 5550]

[P218497](#) (D899) Sea cliffs and stacks of Walls Sandstone S. of Bay of Deepdale. As seen from north shore of Bay of Deepdale. [HU 1750 5450]

[P218498](#) (D900) NW shore of Green Caid, from NW. Highly inclined and shattered Walls Sandstone adjacent to major fault separating Walls Sandstone from Melby Sandstone.

[P218499](#) (D901) Western slope of hill of Melby. Showing ramifying system of small meltwater channels. [HU 1850 5550]

[P002680](#) (D903) Views from Wards of Hostigates, looking north to Vementry House, Mainland, Shetland Isles. Vementry Island is in middle distance and the granophyre cliffs of Muckle Roe can be seen in the far distance. The foreground is the typical topography of the calcareous series of metamorphic rocks. The metamorphic rocks are of late Precambrian age and the granophyre, part of the Northmaven Plutonic Complex, was intruded into the metamorphic rocks during the Devonian period. Vementry Island is composed of four main groups of rocks, the West Burra Firth Group as in the foreground, calc-schists and limestones; the Vementry Group of hornblende-schists; the Neeans Group of platy feldspathic muscovite-schist; lastly granite. [HU 3050 5950]

[P218501](#) (D904) Vementry Island, NE shore of Cow Head. Looking west to sharply defined granite-gneiss junction. [HU 3050 6050]

[P002681](#) (D905) Vementry Island, north-east shore of Cow Head, looking north, Mainland, Shetland Isles. Cliffs and islands in foreground are Vementry Granite, granophyre cliffs of Muckle Roe in background. Both the granite and granophyre are components of the Northmaven Plutonic Complex which was intruded into metamorphic country rocks during the Devonian period. [HU 3050 6050]

[P218503](#) (D907) Vementry Island, looking WNW from NW slope of Cow Head, towards Muckle Ward (centre). All Vementry Granite. Hornblende schists of Swarbacks Head in distance, right. [HU 3050 6050]

[P218504](#) (D908) Vementry Island. Looking SW from hill between Maa Loch and Loch of Reva. Showing consistent strike and south-south-westerly dip of metamorphic rocks in foreground. Cliffs of metamorphic rocks forming north part of Walls Peninsula in background. [HU 2950 6050]

[P218505](#) (D909) Vementry Island, view from W. coast, 686 m. NE of Heill Head. Looking east-south-east towards Muckle Ward formed of Vementry Granite. [HU 2850 6050]

[P218506](#) (D910) Vementry Island, W. coast, view from point 503 m. N. of Heill Head. Looking north across Whal Geo onto rocky shore. Contorted gneiss with pegmatite veining in foreground. [HU 2850 6050]

[P218507](#) (D911) Vementry Island, W. coast, 46 m. S. of Whal Geo and 503 m. NNE of Heill Head. Intense F3 conjugate type fold trending east-west. Granite pegmatite veins folded concordantly with gneiss. [HU 2850 6050]

[P218508](#) (D912) Vementry Island, W. coast; view from coast 119 m. N. of Whal Geo. Looking south along wide rock shelf towards Heill Head. Metamorphic rocks of Neeans Peninsula in background. [HU 2850 6050]

[P218509](#) (D913) Vementry Island, W. coast, 32 m. N. of Whal Geo. Interbanded acid gneiss and amphibolite with recumbent F2 folds. Cross-cutting granite veins with ptygmatic folding. Normal faults of small displacement. [HU 2850 6050]

[P218511](#) (D915) Vementry Island, W. coast. View looking northwards from high ground just S. of Corbie Geo. Showing felsite dykes and acid veins in gneiss and big amphibolite mass at head of Corbie Geo. Granophyre cliffs of Muckle Roe in middle distance. Ronas Hill in far distance left. [HU 2850 6150]

[P218512](#) (D916) Vementry Island, W. coast, head of Crooie Geo. Glaciated pavement. [HU 2850 6150]

[P218513](#) (D917) View from roadside between Vementry and Aith. Looking ESE across Loch of Clousta towards Clousta. Lower Old Red basalt lava dipping steeply to south forms prominent feature and a chain of islands in Loch of Clousta. [HU 3150 5850]

[P218514](#) (D918) Papa Stour, N shore of Hirdie Geo. Showing lower rhyolite resting on eroded pavement of rhyolitic tuff. Lyra Skerry (rhyolite) in background. [HU 1550 6050]

[P002682](#) (D919) Papa Stour, north shore of Hirdie Geo, looking north-west, Shetland Isles. The photograph shows in the foreground, rhyolitic tuff resting on amygdaloidal basalt. Lyra Skerry (right) and Fogla Skerry (left) both rhyolite, in background. The Old Red Sandstone sequence of the Melby area is well exposed on the island of Papa Stour and includes extrusive igneous rocks as well as sandstone. In detail, Papa Stour is composed of two thick flows of rhyolite with intercalated tuffs, underlain by basalts and sandstones. [HU 1550 6050]

[P218515](#) (D920) Papa Stour, N. shore of Hirdie Geo. Showing rhyolite resting on strongly truncated top of rhyolitic tuff. This rests, in turn, on amygdaloidal basalt. Lyra Skerry (right) and Fogla Skerry (left) both rhyolite, in background. [HU 1550 6050]

[P218516](#) (D921) Papa Stour, view from Aesha Bight looking NW to Aesha Head. Rubbly amygdaloidal basalt in foreground. Rhyolite resting on rhyolitic tuff at arch of Aesha Head. [HU 1450 6050]

[P218517](#) (D922) Arch of Aesha Head from SE. Rhyolite resting with roughly concordant junction on rhyolitic tuff. Tuff rests on irregular top of rubbly basalt. Cliff seen through arch is east face of Lyra Skerry, all rhyolite. [HU 1450 6050]

[P218518](#) (D923) Papa Stour, 32 m. SE of Aesha Head Arch. Close-up of junction between rubbly top of basalt full of sandstone veins and basal rhyolitic tuff. [HU 1450 6050]

[P218519](#) (D924) Papa Stour, 18 m. E. of Aesha Head Arch. Close-up of rhyolitic tuff showing alternation of sandy and tuffaceous beds and presence of large rhyolite blocks. [HU 1450 6050]

[P218520](#) (D925) Papa Stour, view from S. shore of Geo of Bordie looking N. towards the Kiln and Cribbie. Rhyolitic tuff on highly irregular weathered top of lower rhyolite. Coast of Esha Ness and Ronas Hill in background. [HU 1550 6250]

[P218521](#) (D926) Papa Stour, the Kiln, NE shore of Geo of Bordie. Irregular weathered top of lower rhyolite overlain by rhyolitic tuff containing large blocks of rhyolite. [HU 1550 6250]

[P218522](#) (D927) Papa Stour, 91 m. SE of Cribbie. Spherulitic rhyolite with vertical flow banding (close-up). [HU 1550 6250]

[P218523](#) (D928) Papa Stour, 91 m. SE of Cribbie. Spherulitic rhyolite with vertical flow banding. [HU 1550 6250]

[P218526](#) (D931) Looking S. from high ground between Sholma Wick and Culla Voe. Arcuate belt of morainic drift extending north-south across island from Culla Voe to Hamna Voe. Sandness Hill in background. [HU 1650 6150]

[P218527](#) (D932) Vaila. View from 146 m. of Vaila House looking west-south-west along Vaila Sound to Mucklaberry Tower. Foula in distance. [HU 2250 4650]

[P218528](#) (D933) Vaila. Looking north-east from Mucklaberry Tower across Vaila Sound towards Walls. Indurated sediment in foreground. Typical open Shetland voe (drowned valley). [HU 2250 4650]

[P218529](#) (D934) Vaila. North shore of Burrier Geo (Mucklaberry side) looking north-west. Evenly bedded indurated sediments of Walls Group dipping at 38 degrees to north-east. [HU 2250 4650]

[P218530](#) (D935) Vaila. South-west shore of Vaila looking north-west to Braga Ness and Wats Ness. Evenly bedded sandy sediment of Walls Group. [HU 2250 4550]

[P218531](#) (D936) Vaila. From western cliffs of Coukie Geo, looking to north-east shore of Coukie Geo and Gaada Stacks. Inclined irregular junction between Sandsting Granite and Walls Group sediments. [HU 2350 4550]

[P218531](#) (D936) Vaila. From western cliffs of Coukie Geo, looking to north-east shore of Coukie Geo and Gaada Stacks. Inclined irregular junction between Sandsting Granite and Walls Group sediments. [HU 2350 4550]

[P218532](#) (D937) Vaila. Telephoto view from western cliffs of Coukie Geo to north-east cliffs of geo, showing inclined irregular junction between Sandsting Granite and sediment and granite dyke cutting sediment in left of picture. [HU 2350 4550]

[P218533](#) (D938) Vaila. View from north shore of Coukie Geo looking south-east to cliffs of Sandsting Granite. Gaada Stacks in foreground, granite cliffs of Culswick with Culswick Broch in middle distance, cliffs of Wester Wick behind. [HU 2350 4550]

[P218534](#) (D939) Vaila. Coukie Geo, close-up of inclined junction of Sandsting Granite and sediments of Walls Group. Shows small apophyses of granite passing into sediments. [HU 2350 4550]

[P218535](#) (D940) Vaila. North shore of Vine Geo, composed of shattered sediment of Walls Group intensely veined with granite. Vaila Sound (typical drowned valley) in background. [HU 2450 4550]

[P218536](#) (D941) View from Green Head. Vaila, north-eastward to (left to right) Ram's Head (evenly bedded baked sediments with granite sills), Green Head (porphyritic microgranodiorite) and Bight of Seli Stack (roughly concordant granite-sediment junction). [HU 2450 4550]

[P002683](#) (D942) Telephoto view from Green Head, western Shetland, Shetland Isles. The island of Vaila, north-eastward to (left to right), Ram's Head, Green Head and Bight of Seli Stack. Hills of east Mainland in background. Vaila is composed mostly of Middle Old Red Sandstone Walls Formation, a series of highly folded sandstones that have undergone thermal metamorphism due to the intrusion of the Sandsting Complex, a granitic to ultrabasic intrusive igneous complex. Ram's Head is composed of thermally metamorphosed, evenly bedded baked sediment with a granite sill. Green Head is a porphyritic microgranodiorite and the Bight of Seli Stack a concordant granite-sediment junction. [HU 2450 4550]

[P218537](#) (D943) Summit of ridge of Muckle Hoo Field. Characteristic late conjugate folds (F3) all with dextral shift.

P218538 (D944) E. shore of Geo of Djubaberry. Felsite sill cutting flaggy granulitic gneiss.



[P218540](#) (D946) Shore of Cure Field, 183 m. WNW of Whalwick. Characteristic conjugate box fold (F3) in platy granulitic gneiss.

[P218541](#) (D947) Shore of Cure Field, 183 m. WNW of Whalwick (14 m. further S. than 6d). Zone of brittle conjugate box folds (F3).

[P218543](#) (D949) SE corner of Ayre of Staraset, 320 m. WNW of Whalwick. Brittle conjugate box folds in flaggy granulite, possibly associated with major fault belt.

[P218544](#) (D950) View looking E. from hillside just W. of Ayre of Whalwick towards Muckle Hoo Field. Characteristic scarp features in metamorphic terrain of Walls Peninsula.

[P218545](#) (D951) Looking NE from Pundswell Knowe along coast of Neeans Peninsula. Turl Stack and Muckle Hoo Field in middle distance.

[P218546](#) (D952) SW slope of Crokna Vord, 229 m. NE of Swarta Skerry. Early recumbent fold (F2) with axis parallel to regional lineation in limestone.

[P218547](#) (D953) Shore at extreme SW corner of Crockna Vord Peninsula, 91 m. E. of Swarta Skerries. Intense early recumbent folding (F2) in amphibolite with fine-grained granite veins.

[P218549](#) (D955) Coast just W. of Voe of Footabrough between Fidlar Stack and The Flaes. Strongly lineated bedding planes in Walls Group sediments. [HU 1850 4950]

[P218550](#) (D956) Coast just W. of Voe of Footabrough, between Fidlar Stack and The Flaes. Characteristic sequence of fine-grained sediments between sandstone posts showing thin calcareous bands and intense small-scale folding. Strongly developed axial plane cleavage. [HU 1850 4950]

[P218552](#) (D958) Coast between Wats Ness and Voe of Footabrough. North-west end of Ram's Head, showing 3.4 m. limestone and calcilutite interbedded with sandstone. [HU 1850 4950]

[P218553](#) (D959) Coast between Wats Ness and Voe of Footabrough. North-west end of Ram's Head from the south-west, 3.4 m. band of limestone and calcilutite in folded and faulted sandstones. [HU 1850 4950]

[P218554](#) (D960) E. shore of Wick of Watsness, SE end of Gorsendi Geo. Small-scale recumbent folds with fairly consistent axial planes in 3.4 m. limestone and calcilutite. [HU 1750 5050]

[P218555](#) (D961) NW corner of Wick of Watsness. Thinly banded calcareous horizon with minor convolutions and intense calcite veining. [HU 1750 5050]

[P218556](#) (D962) Wats Ness. N. shore of Trea Wick (western part). Showing Walls Group sediments steeply inclined to west. [HU 1750 5050]

[P218557](#) (D963) Wats Ness, N. shore of Trea Wick. Showing vertical strata with some minor folding. [HU 1750 5050]

[P002684](#) (D964) Coast between Voe of Dale and Bay of Deepdale, looking north-east from The Ness, Shetland Isles. Steeply inclined Old Red Sandstone (Devonian) Walls Group sediments forming many headlands and stacks. Sandness Hill in distance. The rocks belong to the Sandness Formation, the lower of two units that make up the Walls Group. The rocks are formed of sandstones and conglomerates and are thought to have been deposited in the floodplains of meandering rivers. They rest unconformably on much older metamorphic rocks. The submergence of the land coupled with the frequent strong winds of the area has been responsible for the rapid marine erosion along the exposed coasts which has produced the impressive cliffs with their bold headlands, geos, stacks and natural arches. [HU 1650 5250]

[P218559](#) (D966) Granite cliffs of Wester Wick. Looking W. from Lambigart and The Nev. General view. [HU 2850 4250]

[P002685](#) (D967) East shore of Wester Wick, looking north, Skelda Ness Peninsula, Shetland Isles. Veins of scapolite following joints in granite. Part of the Sandsting Complex a granitic to ultrabasic intrusive igneous complex. The granite around Wester Wick contains a number of lenticular, near-vertical north-north-west trending belts of intensely sheared rock. Sodic scapolite occurs both as a replacement product and as a vein filling mineral in these belts. Pale-coloured scapolite veins, inclined towards the west (left), can be seen in the foreground. The scapolite was probably introduced by hydrothermal solutions along active shear belts, joints and other lines of weakness at some time after the emplacement of the granite. [HU 2850 4250]

[P218560](#) (D968) Cliffs on NW shore of Wester Wick. Showing belt of crush-rock in granite. [HU 2850 4250]

[P218561](#) (D969) Looking SE from cliffs S. of Wester Wick towards Skelda Ness Peninsula. All in Sandsting Granite. Rooi Stack in foreground, Erne's Stack and Clett in middle distance. [HU 2850 4150]

[P218564](#) (D972) Looking N. from Taing of Keolki Field towards Green Head. Diorite in foreground, porphyritic microgranodiorite forms greater part of shore in middle distance.

[P218565](#) (D973) Looking SE from head of Burri Geo towards granite cliffs and stacks of Wester Wick. The two stacks in the foreground are part of a fault wedge of shattered sediment intensely veined with granite.

[P218565](#) (D973) Looking SE from head of Burri Geo towards granite cliffs and stacks of Wester Wick. The two stacks in the foreground are part of a fault wedge of shattered sediment intensely veined with granite.

[P218567](#) (D975) Cliffs forming N. shore of Kirkabreist. Showing closely spaced jointing in fine-grained granite. Cliffs and island in foreground are of diorite veined with granite.

[P218569](#) (D977) Western end of Bay of Garth. Strongly lineated surface on mica-schist. [HU 2150 5850]

[P218570](#) (D978) South-eastern corner of Bay of Garth. Rodding (mullion structure) in quartz granulite. [HU 2150 5850]

[P218571](#) (D979) South-eastern corner of Bay of Garth. Rodding in quartz granulite looking north-north-east along lineation. [HU 2150 5850]

[P218573](#) (D981) Coast between Bay of Garth and Skinhoga. Headland off E. shore of Ram's Head. Large late brittle conjugate fold (F3) in flaggy granulitic gneiss. [HU 2150 5850]

[P218574](#) (D982) W. coast of headland just S. of Skerry of Stools. Characteristic open brittle F3 folding on southern limb of antiform. [HU 2250 5850]

[P218575](#) (D983) Near NW corner of Skinhoga peninsula. Looking south-south-west along fold axis. Typical early fluid folding with axis parallel to lineation (F2, affecting hornblende schist and limestone). Shows contrast in fold style in limestone and schist. [HU 2250 5750]

[P218577](#) (D985) E. shore of Skinhoga peninsula looking S. Close-up of early (F2) fold in quartz-granulite interbedded with limestone. [HU 2250 5750]

[P218579](#) (D987) View from W. coast of Bay of Brenwell, 274 m. SSW of Corn Head looking E. to Snarra Ness. Granite veins in hornblende-schist in foreground. [HU 2250 5750]

[P218580](#) (D988) W. coast of Bay of Brenwell, 457 m. S. of Corn Head. Thick band of limestone and calc-silicate rock intensely veined by undeformed veins of granite. [HU 2250 5750]

[P218581](#) (D989) NW slope of Ayre of Breiwick on E. shore of Bay of Brenwell. Conglomerate in basal sediments of Sandness Group. [HU 2250 5650]



[P218584](#) (D992) Voe of Clousta. Looking WNW from Crouganess. Volcanic rocks and sediments of Sandness Group. Skyline ridge to right composed of flow of basalt lava. Metamorphic rocks of Shaabers Head in distance. [HU 3050 5750]

[P218585](#) (D993) Voe of Clousta. Looking NNE from coast near Skeotaing to Ness of Clousta. Rocky ridge formed by thick steeply-inclined flow of olivine-basalt lava. [HU 2950 5750]

[P218585](#) (D993) Voe of Clousta. Looking NNE from coast near Skeotaing to Ness of Clousta. Rocky ridge formed by thick steeply-inclined flow of olivine-basalt lava. [HU 2950 5750]

[P218586](#) (D994) E. coast of Uni Firth, at bend in shore line. Intense minor folding in shales and siltstones overlying Clousta Volcanic Group. Fold axes near-vertical, consistent north-south trend of axial planes. [HU 2850 5650]

[P218588](#) (D996) E. coast of Uni Firth, at bend in shore line. Intense minor folding in shales and siltstones overlying Clousta Volcanic Group. Fold axes near-vertical, consistent north-south trend of axial planes. [HU 2850 5650]

[P218589](#) (D997) E. coast of Uni Firth, at bend in shore line. Intense minor folding in shales and siltstones overlying Clousta Volcanic Group. Fold axes near-vertical, consistent north-south trend of axial planes. [HU 2850 5650]

[P218626](#) (D1042) Carlingheugh Bay, N. side. Faulted contact at Dark Cave of Lower Old Red Sandstone (to seaward). Seaward-dipping Lower Old Red Sandstone (Arbroath Sandstone) emerges from beneath unconformity at end of point. [NO 6753 4317]

[P218877](#) (D1344) Quarry, 300 m. SSE of Mavis Grind. Scapolite veins in granite-diorite complex. [HU 3420 6830]

[P218878](#) (D1345) Coast at Wilson's Noup, opposite Moo Stack. Granite-diorite net-vein complex. Margins mainly convolute. Some assimilation by granite. [HU 3000 7200]

[P218879](#) (D1347) SW slope of Wilson's Noup, 440 m. SE of Moo Stack. Granite-diorite net-vein complex, partly flow-foliated, showing both angular and fluid contacts and strongly hybridized diorite clasts. [HU 3030 7160]

[P218880](#) (D1348) S. slope of Wilson's Noup, 600 m. SE of Moo Stack. Granite-diorite net-vein complex, with varying hybridization of diorite and two generations of granite veins. [HU 3040 7150]