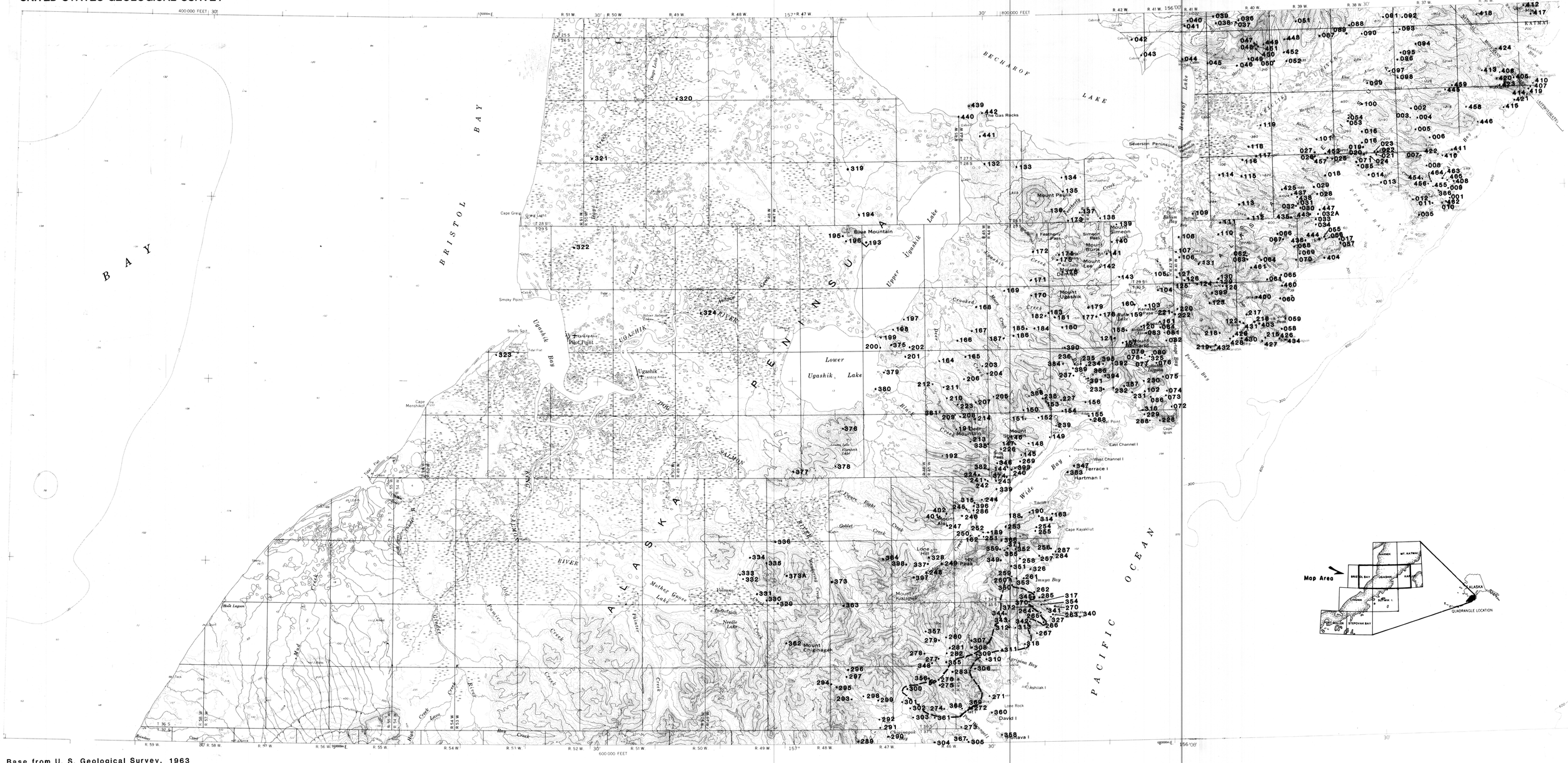
DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

OPEN FILE REPORT
OF 81-253



Base from U. S. Geological Survey, 1963

SCALE 1:250000

CONTOUR INTERVAL 200 FEET

Scintillometer Data and Substrate Type

MAP LOCALITY NUMBER	COUNTS PER SECOND	SUBSTRATE TYPE	STRATIGRAPHIC UNIT
001	21	vegetation over alluvium	-
002	29	vegetation over sed. bedrock	Jsl
003	27	gravel over sed. bedrock	Jss
004	22	vegetation over alluvium	-
005	24	vegetation over alluvium	-
006	23	vegetation over alluvium	-
007	22	gravel over alluvium	-
008	20	gravel over alluvium	-
009	15	vegetation over alluvium	-
010	18	vegetation over alluvium	-
011	26	vegetation over alluvium	-
012	27	vegetation over alluvium	-
013	25	gravel over alluvium	-
014	38	vegetation over sed. bedrock	Jsl
015	30	gravel over sed. bedrock	Jsl
016	28	vegetation over sed. bedrock	Jss
017	24	gravel and sand alluvium	-
018	23	gravel and sand alluvium	-
019	22	vegetation over sed.bedrock	Jss
020	25	vegetation over alluvium	-
021	37	vegetation over alluvium	-
022	25	vegetation over allumium	-
023	23	vegetation over alluvium	-
024	24	vegetation over alluvium	-
025	16	vegetation over alluvium	-
026	17	vegetation over alluvium	-
027	26	gravel over alluvium	-
028	32	gravel over sed. bedrock	Jsl
029	27	gravel over sed. bedrock	Jss
030	37	gravel over alluvium	-
031	30	gravel over alluvium	-
032	28	gravel over alluvium	-
032A	31	gravel over alluvium	-
033	30	gravel over alluvium	-
034	19	gravel and sand over alluvium	-
035	24	vegetation over sed. bedrock	Ŧls
036	17	gravel and sand over alluvium	-
037	18	gravel and sand over alluvium	-
038	18	vegetation over alluvium	-
039	15	vegetation over sed. bedrock	Jns
040	09	gravel over sed. bedrock	Jns
041	18	vegetation over alluvium	-
042	11	vegetation over alluvium	-
043	16	gravel and sand over alluvium	-
044	15	vegetation over alluvium	-
045	16	vegetation over alluvium	-
046	21	vegetation over alluvium	-
047	18	vegetation over alluvium	-
048	23	vegetation over alluvium	-
049	18	vegetation over alluvium	-
050	14	gravel and sand over alluvium	Qv
051	31	gravel over vol. bedrock	Qv
052	30	gravel over alluvium	-
053	29	gravel over alluvium	-
054	22	vegetation over alluvium	-
055	24	vegetation over alluvium	-
056	23	vegetation over alluvium	-
057	22	vegetation over sed. bedrock	Jss
058	25	vegetation and gravel over alluvium	-
059	26	sed. bedrock	Jss
060	23	gravel over alluvium	-
061	18	gravel over alluvium	-
062	20	sand and vegitation over sed. bedrock	Jsl
063	19	gravel over sed. bedrock	Jsl
064	21	vegetation over alluvium	-
065	23	vegetation over sed. bedrock	Jss
066	27	vegetation over sed. bedrock	Jsl
067	25	vegetation over sed. bedrock	Jsl
068	24	vegetation over sed. bedrock	Jsl
069	16	vegetation over sed. bedrock	Jsl
070	29	vegetation over alluvium	-
071	24	gravel over alluvium	-
072	20	vegetation over int. bedrock	quartz diorite
073	25	vegetation over alluvium	-
074	29	vegetation over alluvium	-
075	22	vegetation over sed. bedrock	Jss
076	32	gravel over sed. bedrock	Jss
077	33	vegetation over int. bedrock	dacite
078	26	vegetation over int. bedrock	dacite
079	24	vegetation over int. bedrock	dacite
080	26	vegetation over int. bedrock	dacite
081	22	vegetation sed. bedrock	Jsl
082	32	gravel over sed. bedrock	Jsl
083	26	vegetation over int. bedrock	dacite
084	27	vegetation over alluvium	-
085	28	sand over alluvium	-
086	20	sed. bedrock	Jns
087	18	vegetation over alluvium	-
088	29	vegetation over sed. bedrock	Jnsl
089	24	vegetation over alluvium	-
090	21	vegetation over alluvium	-
091	15	vegetation over alluvium	-
092	31	gravel over alluvium	-
093	22	vegetation over alluvium	-
094	08	vegetation over alluvium	-
095	10	vegetation over alluvium	-
096	10	vegetation and gravel over alluvium	-
097	08	vegetation over alluvium	-
098	09	vegetation over alluvium	-
099	08	vegetation over alluvium	-

MAP LOCALITY NUMBER	COUNTS PER SECOND	SUBSTRATE TYPE	STRATIGRAPHIC UNIT
100	10	gravel over sed. bedrock	Jns
101	08	gravel and sand over alluvium	-
102	10	gravel over alluvium	-
103	30	vegetation over alluvium	-
104	26	vegetation over alluvium	-
105	21	gravel over alluvium	-
106	24	vegetation over alluvium	-
107	25	gravel and sand over alluvium	-
108	19	vegetation over alluvium	-
109	25	gravel over alluvium	-
110	34	vegetation over alluvium	-
111	28	vegetation over alluvium	-
112	33	vegetation over alluvium	-
113	29	gravel over alluvium	-
114	21	sand over alluvium	-
115	22	vegetation over alluvium	-
116	23	vegetation over alluvium	-
117	27	gravel over alluvium	-
118	28	gravel over alluvium	-
119	26	vegetation over alluvium	-
120	20	gravel over sed. bedrock	Jns1
121	14	gravel over sed. bedrock	Jns
122	26	gravel over sed. bedrock	Jss
123	29	vegetation over alluvium	-
124	30	vegetation over alluvium	-
125	31	vegetation over alluvium	-
126	28	vegetation over alluvium	-
127	22	vegetation over alluvium	-
128	28	gravel over alluvium	-
129	20	vegetation over alluvium	-
130	31	vegetation over alluvium	-
131	32	gravel over alluvium	-
132	13	vegetation over vol. bedrock	Qds
133	26	vegetation over vol. bedrock	Qds
134	16	vegetation over alluvium	-
135	18	vegetation over sed. bedrock	Jns
136	12	vegetation over sed. bedrock	Jns
137	17	vegetation over sed. bedrock	Jns
138	20	vegetation over alluvium	-
139	17	vegetation over sed. bedrock	Jns
140	19	vegetation over alluvium	-
141	25	vegetation over alluvium	-
142	29	vegetation over alluvium	-
143	30	gravel over alluvium	-
144	24	vegetation over alluvium	-
145	15	vegetation over sed. bedrock	Jns
146	21	gravel over sed. bedrock	Jsl
147	28	vegetation over alluvium	-
148	23	vegetation over alluvium	-
149	29	vegetation over alluvium	-
150	30	vegetation over alluvium	-
151	20	vegetation and gravel over alluvium	-
152	22	vegetation over alluvium	-
153	20	gravel over alluvium	-
154	24	vegetation over sed. bedrock	Jsl
155	26	vegetation over sed. bedrock	Jss
156	25	vegetation over alluvium	-
157	32	vegetation over alluvium	-
158	27	vegetation over alluvium	-
159	21	vegetation over alluvium	-
160	25	vegetation over alluvium	-
161	27	vegetation over sed. bedrock	Jsl
162	30	gravel over alluvium	-
163	26	sand over sed. bedrock	Jns
164	28	sand over alluvium	-
165	24	gravel over alluvium	-
166	23	vegetation over alluvium	-
167	25	vegetation over alluvium	-
168	26	vegetation over alluvium	-
169	12	vegetation over alluvium	-
170	28	vegetation over alluvium	-
171	22	vegetation over sed. bedrock	Jns
172	30	gravel over alluvium	-
173	24	sand over alluvium	-
174	28	gravel and sand over alluvium	-
175	27	vegetation over alluvium	-
176	24	gravel over sed. bedrock	Jns
177	22	gravel over alluvium	-
178	26	vegetation over sed. bedrock	Jns
179	28	vegetation over sed. bedrock	Jns
180	26	vegetation over alluvium	-
181	28	vegetation over sed. bedrock	Jns
182	21	sand over alluvium	-
183	27	vegetation over sed. bedrock	Jns
184	29	vegetation over alluvium	-
185	30	vegetation over sed. bedrock	Jns
186	23	vegetation over alluvium	-
187	25	sand over alluvium	-
188	34	sand over sed. bedrock	Jk
189	35	sand and gravel over sed. bedrock	Jk
190	30	sand and gravel over sed. bedrock	Jsl
191	21	vegetation over sed. bedrock	Jns
192	27	gravel over sed.bedrock	Jns
193	19	vegetation over int. bedrock	Qds
194	11	vegetation over alluvium	-
195	09	vegetation over int. bedrock	Qds
196	14	vegetation over int. bedrock	Qds
197	08	vegetation over sed. bedrock	Jns
198	11	vegetation over alluvium	-
199	10	vegetation over sed. bedrock	Jsl

MAP LOCALITY NUMBER	COUNTS PER SECOND	SUBSTRATE TYPE	STRATIGRAPHIC UNIT
200	21	vegetation over sed. bedrock	Jsl
201	20	vegetation over sed. bedrock	Jns
202	14	vegetation over sed. bedrock	Jnr
203	29	vegetation over alluvium	-
204	30	vegetation over alluvium	-
205	31	vegetation and gravel over alluvium	-
206	28	vegetation and gravel over alluvium	-
207	26	sand over alluvium	-
208	28	sand over alluvium	-
209	27	gravel over alluvium	-
210	26	vegetation over alluvium	-
211	31	vegetation over alluvium	-
212	26	vegetation over alluvium	-
213	19	gravel over sed. bedrock	Jns
214	14	vegetation over sed. bedrock	Jns
215	23	vegetation over sed. bedrock	Jss
216	33	vegetation over alluvium	-
217	24	gravel and sand over alluvium	-
218	23	vegetation over alluvium	-
219	25	vegetation over sed. bedrock	Jss
220	24	vegetation over sed. bedrock	Jsl
221	32	vegetation over alluvium	-
222	26	vegetation over alluvium	-
223	25	gravel over sed. bedrock	Jns
224	23	gravel over sed. bedrock	Jns
225	no data		
226	33	gravel over sed bedrock	Jsl
227	25	vegetation over sed. bedrock	Jss
228	22	vegetation over int. bedrock	quartz diorite
229	21	vegetation over sed. bedrock	Jsl
230	30	int. bedrock	quartz diorite
231	26	vegetation over sed. bedrock	Jsl
232	21	vegetation over alluvium	-
233	26	vegetation over sed. bedrock	Jss
234	20	vegetation over alluvium	-
235	25	gravel over alluvium	-
236	33	vegetation over sed. bedrock	Jss
237	22	vegetation and sand over alluvium	-
238	22	sand over alluvium	-
239	24	gravel over alluvium	-
240	26	sand over sed. bedrock	Jk
241	33	sand and gravel over sed. bedrock	Jk
242	31	sand and gravel over sed. bedrock	Jk
243	33	vegetation over sed. bedrock	Jk
244	31	gravel over sed. bedrock	Jk
245	34	gravel over sed. bedrock	Jk
246	29	gravel over sed. bedrock	Jk
247	37	gravel over sed. bedrock	Jk
248	38	gravel over sed. bedrock	Jk
249	39	gravel and sed. bedrock	Jk
250	31	vegetation over alluvium	-
251	33	gravel over sed. bedrock	Jk
252	29	gravel over alluvium	-
253	30	gravel over sed. bedrock	Jk
254	35	gravel over sed. bedrock	Jsl
255	24	gravel over sed. bedrock	Jss
256	30	vegetation over sed. bedrock	Jss
257	26	vegetation over alluvium	-
258	36	vegetation over alluvium	-
259	36	gravel over sed. bedrock	Jns
260	54	gravel and sed. bedrock	Jnsl
261	33	gravel over sed. bedrock	Jnsl
262	20	vegetation over sed. bedrock	Kc
263	20	vegetation over alluvium	-
264	75	gravel over int. bedrock	quartz diorite
265	35	vegetation over sed. bedrock	unknown
266	54	gravel over int. bedrock	quartz diorite
267	38	vegetation over int. bedrock	quartz diorite
268	22	sand over alluvium	-
269	24	vegetation over sed. bedrock	Jk
270	34	vegetation over sed. bedrock	Kc
271	42	vegetation over alluvium	-
272	49	vegetation over int. bedrock	quartz diorite
273	28	vegetation over int. bedrock	andesite ?
274	60	gravel over int. bedrock	quartz diorite
275	90	unknown bedrock	-
276	52	gravel over unknown bedrock	-
277	44	gravel over sed. bedrock	unknown
278	38	gravel over sed. bedrock	unknown
279	44	gravel over sed. bedrock	unknown
280	47	gravel and sand over sed. bedrock	unknown
281	45	gravel and sand over sed. bedrock	unknown
282	41	sand over alluvium	-
283	84	cobbles over int. bedrock	unknown
284	19	vegetation over sed. bedrock	Jns
285	28	vegetation over sed. bedrock	Kc
286	28	vegetation over sed. bedrock	Jk
287	29	vegetation over sed. bedrock	Jns
288	19	vegetation and gravel over sed. bedrock	Jns
289	40	vegetation over unknown bedrock	-
290	30	sand over alluvium	-
291	27	gravel and vegetation over alluvium	-
292	40	gravel and vegetation over alluvium	-
293	44	gravel over int. bedrock	andesite
294	31	vegetation over altered bedrock	-
295	40	cobbles over altered bedrock	Tt
296	45	gravel over sed. bedrock	Jnsl
297	42	gravel over vol. bedrock	Qv
298	34	gravel and vegetation over alluvium	-
299	42	gravel over alluvium	-

MAP LOCALITY NUMBER	COUNTS PER SECOND	SUBSTRATE TYPE	STRATIGRAPHIC UNIT
300	53	gravel over sed. bedrock	Jsl
301	22	vegetation over alluvium	-
302	40	gravel over alluvium	-
303	44	gravel over alluvium	-
304	28	vegetation over unknown bedroc	-
305	24	sand over vol. bedrock	-
306	39	vegetation over int. bedrock	quartz diorite
307	40	gravel over sed. bedrock	unknown
308	46	gravel over int. bedrock	quartz diorite
309	50	vegetation over int. bedrock	quartz diorite
310	42	gravel over int. bedrock	quartz diorite
311	50	vegetation over int. bedrock	quartz diorite
312	66	gravel over int. bedrock	quartz diorite
313	56	gravel over alluvium	-
314	32	vegetation over sed. bedrock	Jns
315	33	gravel over sed. bedrock	Jss
316	34	vegetation and sed. bedrock	Jsl
317	36	sed. bedrock	Kc
318	55	vegetation and int. bedrock	quartz diorite
319	20	vegetation over alluvium	-
320	08	vegetation over alluvium	-
321	09	vegetation over alluvium	-
322	15	vegetation over alluvium	-
323	25	vegetation over alluvium	-
324	21	vegetation over alluvium	-
325	18	vegetation over int. bedrock	dacite
326	31	vegetation over int. bedrock	quartz diorite
327	34	vegetation and int. bedrock	quartz diorite
328	27	gravel over sed. bedrock	Jsl
329	30	gravel over sed. bedrock	Tt
330	38	vegetation over sed. bedrock	Tt
331	16	vegetation over sed. bedrock	Tt
332	30	vegetation over alluvium	-
333	12	vegetation over alluvium	-
334	33	vegetation over vol. bedrock	Tm
335	38	vegetation over alluvium	-
336	11	vegetation over alluvium	-
337	28	vegetation over sed. bedrock	Jk
338	22	vegetation over sed. bedrock	Jsl
339	25	vegetation over alluvium	-
340	34	vegetation over vol. bedrock	Tv
341	20	gravel over int. bedrock	quartz diorite
342	46	vegetation over int. bedrock	quartz diorite
343	54	intrusive bedrock	quartz diorite
344	52	sand over int. bedrock	quartz diorite
345	54	vegetation over int. bedrock	quartz diorite
346	26	vegetation over sed. bedrock	Jsl
347	25	vegetation over sed. bedrock	Jss
348	09	altered bedrock	unknown
349	08	gravel over sed. bedrock	Jnsl
350	15	sed. bedrock	Jnsl
351	33	sed. bedrock	Jnsl
352	31	sed. bedrock	Jnsl
353	43	vegetation over sed. bedrock	Jnsl
354	26	gravel over int. bedrock	quartz diorite
355	42	vegetation over vol. bedrock	unknown
356	15	altered bedrock	unknown
357	33	vegetation over sed. bedrock	unknown
358	24	vegetation over int. bedrock	unknown
359	06	snow and sed. bedrock	unknown
360	20	vegetation and int. bedrock	quartz diorite
361	25	int. bedrock	quartz diorite
362	07	snow and vol. bedrock	Qv
363	25	sed. bedrock	Jnsl
364	26	sed. bedrock	Jnsl
365	28	sed. bedrock	Jss
366	34	sed. bedrock	Jss
367	40	int. bedrock	quartz diorite
368	66	int. bedrock	quartz diorite
369	52	int. bedrock	quartz diorite
370	48	vegetation over sed. bedrock	Jns
371	26	sed. bedrock	Jns
372	42	vegetation over altered bedrock	unknown
373	23	gravel over sed. bedrock	KJs
373A	43	sed. bedrock	Tt
374	24	gravel over sed. bedrock	Jk
375	22	gravel over sed. bedrock	Jns
376	23	gravel over sed. bedrock	Jns
377	16	gravel and sed. bedrock	Jns
378	24	gravel over sed. bedrock	Jns
379	13	vegetation over sed. bedrock	Jns
380	14	vegetation over sed. bedrock	Jns
381	20	gravel over sed. bedrock	Jns
382	26	vegetation over sed. bedrock	Jss
383	30	gravel over sed. bedrock	Jss
384	28	gravel over sed. bedrock	Jns
385	26	vegetation over sed. bedrock	Jss
386	24	vegetation over sed. bedrock	LJ
387	22	sed. bedrock	Jns
388	23	vegetation and sed. bedrock	Jns
389	24	vegetation over alluvium	-
390	27	gravel over sed. bedrock	Jns
391	26	vegetation over sed. bedrock	Jss
392	22	sed. bedrock	Jsl
393	25	vegetation over alluvium	-
394	24	sed. bedrock	Jns
395	35	sed. bedrock	Jsl
396	24	sand and sed. bedrock	Jk
397	32	sed. bedrock	Jns
398	38	sed. bedrock	Jsl

MAP LOCALITY NUMBER	COUNTS PER SECOND	SUBSTRATE TYPE	STRATIGRAPHIC UNIT
399	20	vegetation and sed. bedrock	Jss
400	27	gravel over sed. bedrock	Jss
401	21	gravel over sed. bedrock	Jss
402	28	sed. bedrock	Jss
403	29	vegetation over sed. bedroc	Jsl
404	24	sand over sed. bedrock	Jsl
405	21	vegetation and int. bedrock	quartz diorite
406	20	gravel and vegetation over sed. bedrock	Jsl
407	16	vegetation over int. bedrock	quartz diorite
408	15	vegetation over sed. bedrock	Ŧls
409	25	sand over alluvium	-
410	22	vegetation over sed. bedrock	Jss
411	24	vegetation over sed. bedrock	Jss
412	28	sed. bedrock	Jnsl
413	25	sed. bedrock	Jns
414	23	vegetation over sed. bedrock	Jss
415	24	vegetation over sed. bedrock	Jss
416	20	vegetation over sed. bedrock	Jss
417	28	sed. bedrock	Jss
418	27	sed. bedrock	Jnsl
419	19	vegetation over int. bedrock	quartz diorite
420	32	sed. bedrock	Jss
421	14	vegetation over sed. bedrock	Jss
422	28	vegetation over sed. bedrock	Jss
423	29	vegetation and sed. bedrock	Jss
424	26	gravel over sed. bedrock	Jss
425	30	gravel over alluvium	-
426	24	vegetation over sed. bedrock	Jss
427	20	sed. bedrock	Jss
428	22	gravel over sed. bedrock	Jss
429	24	gravel and sed. bedrock	Jss
430	19	vegetation over sed. bedrock	Jss
431	25	vegetation over sed. bedrock	Jss
432	17	vegetation over alluvium	Jss
433	no data		
434	22	sed. bedrock and gravel	Jss
435	31	gravel over sed. bedrock	Jss
436	33	gravel over sed. bedrock	Jss
437	36	gravel over sed. bedrock	Jss
438	37	gravel over sed. bedrock	Jsl
439	13	vegetation over int. bedrock	quartz diorite
440	19	sand over alluvium	-
441	24	vol. bedrock	Qv
442	28	vegetation over vol. bedrock	Qv
443	35	gravel over sed. bedrock	Jsl
444	22	gravel over sed. bedrock	Jsl
445	19	gravel over sed. bedrock	Jss
446	22	sand over sed. bedrock	Jss
447	19	sand over alluvium	-
448	15	gravel over sed. bedrock	Jnsl
449	20	vegetation and vol. bedrock	Qv
450	25	vegetation over sed. bedrock	Jnsl
451	26	vegetation and gravel over sed. bedrock	Jnsl
452	30	vegetation over sed. bedrock	Jnsl
453	28	vegetation and sed. bedrock	Jns
454	33	gravel and sed. bedrock	Jss
455	28	gravel over sed. bedrock	Jk
456	25	vegetation over sed. bedrock	Jsl
457	20	vegetation over sed. bedrock	Jns
458	23	sand over alluvium	-
459	31	gravel over sed. bedrock	Jsl
460	21	sand over alluvium	-
461	23	sed. bedrock	Jsl
462	22	vegetation over sed. bedrock	Ŧls
463	25	cobbles over sed.bedrock	LJ
464	33	sed. bedrock	LJ
465	26	sed. bedrock	LJ

KEY TO STRATIGRAPHIC UNITS

Qv -Quaternary volcanic rocks
Qds -Quaternary dacite
Tv -Tertiary volcanic rocks
Tt -Tolstoi Formation
Kc -Chignik Formation
KJs -Staniukovich Formation
Jnsl-Naknek Formation (siltstone)
Jns -Naknek Formation (sandstone and conglomerate)
Jsl -Shelikof Formation (siltstone)
Jss -Shelikof Formation (sandstone and conglomerate)
Jk -Kialagvik Formation
LJ -unnamed Lower Jurassic
Ŧls-unnamed Triassic limestone

—————50—————

50 counts per second contour line

Locality map and scintillometer data for the Ugashik and Karluk quadrangles, Alaska

By Robert L. Detterman, William H. Allaway, Jr., and Richard H. Rossiter

Scintillometer data were collected routinely in 1980 as part of the field investigations in the Ugashik and Karluk quadrangles. The instrument used was a Geometrics Model GR-101A, mounted in the helicopter. The data, in counts per second (cps), were obtained at most of the sites occupied during the investigation by the helicopter pilot (Rossiter) while the geologists or geochemists were occupying their sample site. The instrument was checked morning and evening at the base station.

In general the Ugashik and Karluk quadrangles have a very low level of gamma ray radiation. The background count ranged between 3 and 6 cps A majority of the sites gave less than 30 cps, and the highest value recorded was 90 cps; this site (No. 275) was about 8 km northwest of Fort Wrangell. A 50-cps contour line is added to the map to indicate the area of highest gamma ray radiation. The contour line encloses an area in which all readings exceeded 50 cps.

About 60 percent of the sites occupied were for stream-sediment samples, and were, therefore, located on thick alluvium which probably dampened the results obtained. The dampening effect of thick gravel deposits was particularly evident from the few stations on glacial moraines in the western part of the area where most values were less than 15 cps.

Sites on bedrock or bedrock with a thin covering of soil and vegetation give a more accurate indication of the gamma ray radiation present. A few generalizations can be made from our limited data. Quaternary volcanic rocks gave low cps values, mainly less than 15 cps with most less than 10 cps. The Gas Rocks, located on the south side of Becharof Lake, were an exception; they indicated 28 cps. The older Tertiary and Cretaceous sedimentary rocks, and the upper Jurassic Naknek Formation generally gave less than 30 cps. Shale and siltstone of the deep-water turbidite deposits in the Shelikof and Kialagvik Formations were slightly more radioactive with readings in the 30 to 40 cps range. The field mapping of bedrock units is not complete, but the spatial distribution of >30 cps values in the Shelikof and Kialagvik Formations suggests there may be a gamma ray-rich horizon within the shaly portions of these formations. The unnamed lower Jurassic and upper Triassic rock generally gave results between 20 and 30 cps.

The area of highest values between Imuya and Chiginagak Bays has not been completely mapped geologically. There are numerous small intrusive plugs ranging from quartz diorite to hypabyssal dacite intruding a volcanic and sedimentary sequence, and there has been considerable alteration and mineralization of those rocks. Rock samples obtained for spectrographic analysis indicate slightly anomalous amounts of copper (150 ppm), lead (50 ppm), silver (0.7 ppm), chromium (500ppm, and manganese (2,000 ppm). The samples at present are too few (17) to be meaningful. At the present time we do not know the source of the gamma ray radiation. A detailed investigation of the area within the 50 cps contour line will be conducted in 1981.

This report is preliminary and has not been reviewed for conformity with Geological Survey editorial standards.

LOCALITY MAP AND SCINTILLOMETER DATA FOR THE UGASHIK AND KARLUK QUADRANGLES, ALASKA

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