

Radon Testing And Challenges In Rural Alaska

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Radon Testing Overview

Testing has been done in AK for about 30 yrs.

- University of Alaska Fairbanks, Cooperative Extension Service
 - EPA Radon Outreach Program
- Alaska Native Tribal Health Consortium
 - Subawards
- Other

Radon awareness is slowly recently making it's way to much of rural and urban Alaska.



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UAF Past Testing Overview: AK Hubs



University of Alaska Fairbanks, Cooperative Extension Service

- 1987: 38 homes above Fairbanks, AK 229m contours
- 1989: 1,312 homes with statewide detectors
- 1996 – 1998: 57 homes tested in Fairbanks during heating seasons

1989 Results: Radon Concentrations Over EPA Action Level

State region	% of tests over EPA action level
Interior	18
Southcentral	13
Anchorage	4
Southeast	2
Northern/Western	2

UAF 1991 – 2014 HUB Testing Results

Percentage of tests
>4pCi/L

Zip code	% >4 pCi/L	Community
99737	67	Delta Junction
99743	62	Healy
99712	59	Fairbanks-Two Rivers
99762	58	Nome
99780	50	Forty Mile Country
99708	49	Fairbanks-College
99710	43	Fairbanks-Downtown
99619	40	Kodiak
99707	38	Fairbanks-Post Office
99709	36	Fairbanks-Goldstream
99701	35	Fairbanks-Downtown
99654	32	Wasilla
99755	29	Healy
99645	28	Palmer
99603	27	Homer
99775	24	Fairbanks-College
99516	24	Anchorage-Turnigan Arm
99669	20	Soldotna
99705	20	North Pole
99706	19	Delta Junction-Healy Lake
99513	18	Anchorage-Downtown
99702	11	Salcha
99731	10	Delta Junctions-Fort Greely
99577	8	Eagle River
99507	7	Anchorage-Hillside
99503	5	Anchorage-Midtown
99801	2	Juneau

Image: Art Nash, UAF Cooperative Extension



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ANTCH Subaward Radon Projects

2016

- Craig Tribal Association & Organized Village of Kaasan
 - Craig = 105 long term tests
 - 4 homes <4.0 pC/L
 - Kasaan = 25 tests
 - Inconclusive

2018

- Seldovia Village Tribe
 - 60 Homes
 - Corentium Home Detectors (not recommended)
 - National Radon Proficiency Program (NRPP) uncertified
 - Used to increase awareness & outreach



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Other Radon Testing

Alutiiq Tribe of Old Harbor (EPA IGAP)

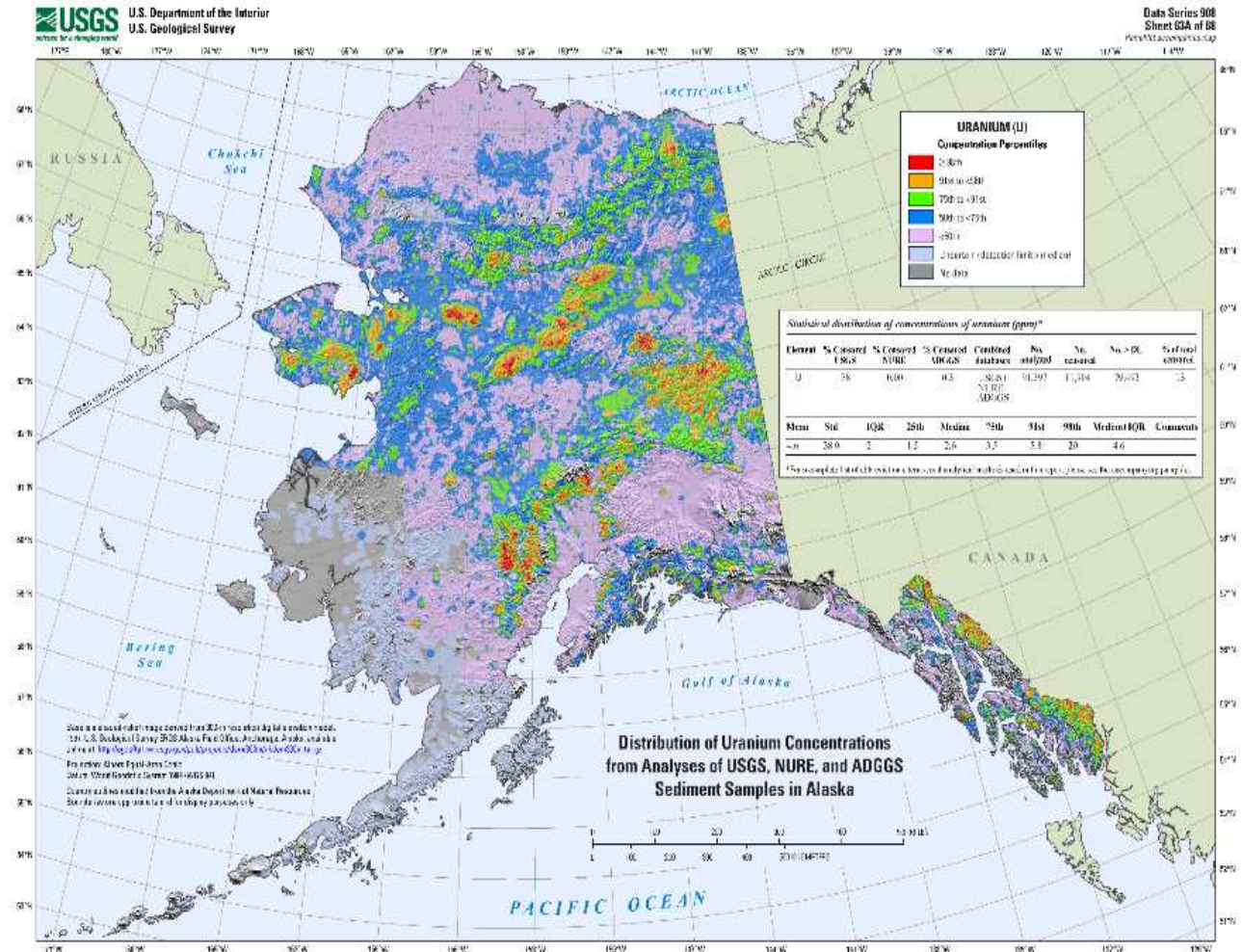
- 2 rounds of testing
- 1 round of approximately 60 Charcoal tests deployed All Invalid
 - Did not reach the lab in time
- 2nd round used uncertified equipment
 - Not accurate
 - Used for awareness
- Office of Children's Services
 - Unsure of all community locations and amount of tests deployed
 - Testing homes fostering / adopting



Challenge Considerations

Geological:

- Uranium
- Fractures (cracks)
- Route Altering
 - Earthquakes, water levels, melting permafrost, seasons



U.S. Geological Survey Data Series 908 (2016)



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Testing Challenge Considerations

Size

- 663,268 square miles, twice the size of Texas
- Population 739,795
- Mainly hubs and cities getting tested

Radon Test

- Laboratories
- Occupants
- Weather
- Planes



Image: Amazon



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Next Steps

- Increase radon awareness around the state
- Work closely with other entities doing testing
- Alternate solutions for testing challenges
 - Certified monitors
 - Planned community testing
 - Weather
 - Communicating with transportation





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OUR VISION:

*Alaska Native people are the
healthiest people in the world.*