

**Indoor Radon Hazard Potential
of the
Sandy and Provo Areas, Utah**

Factors That Contribute To The Radon Hazard

- **Geologic**
- **Non-Geologic**

Geologic Factors

- **Rock and Sediment Type**
- **Sediment Source Material**
- **Permeability**
- **Porosity**
- **Moisture Content**
- **Depth To Ground Water**

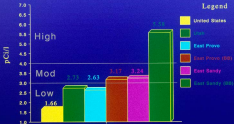
Non-Geologic Factors

- Home Construction
- Home Condition
- Weather
- Life Styles

Average Indoor Radon Levels

- United States 1.66 pCi/l
- Utah 2.73 pCi/l
- East Provo 2.63 pCi/l
- East Provo (BB) 3.17 pCi/l
- East Sandy 3.24 pCi/l
- East Sandy (BB) 5.58 pCi/l

Indoor Radon



Source Area Influence East Sandy

	eU (ppm)	Soil Rn (pCi/l)	Ground Water (% > 50 ft)	Indoor Rn (pCi/l)
BCC (alp)	4.1	225-450	0	2.7
LCC (alp)	6.9	640	60	5.2

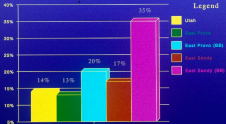
Source Area Influence East Provo

	eU (ppm)	Soil Rn (pCi/l)	Ground Water (% > 50 ft)	Indoor Rn (pCi/l)
PC (alp)	2.3	394	38	2.5
SRC (afy)	2.9	517	45	3.1

Homes Greater Than 4 pCi/l

- Utah 14%
- East Provo 13%
- East Provo (BB) 20%
- East Sandy 17%
- East Sandy (BB) 35%

Indoor Radon > 4 pCi/l



Rating Factors -- Wasatch Front

Factor Rating	eU (ppm)	Soil Rn (pCi/l)	Ground Water (% > 50 ft)
1	< 3.0	< 250	< 25
2	3.0-4.4	250-500	25-50
3	4.4-5.8	500-750	50-75
4	> 5.8	> 750	> 75

Hazard Ratings -- Wasatch Front

Hazard Rating

Hazard Potential

3-5

Low

6-9

Moderate

10-12

High

Conclusions

- Airborne Survey Effective For Reconnaissance
- Ground Survey Rapid and Effective
- Hazard Potential Map Qualitative and Probabilistic
- Effective Allocation of Resources
- Incentive To Test Indoors