URANIUM CONCENTRATIONS OF YUCCA MOUNTAIN VICINITY AND DEATH VALLEY SPRINGS (Paces et.al., 1998)

Conc(g/g)*Spa(Ci/g)*10^12=Pci/g
Conc(g/L)*Spa(Ci/g)*10^12=Pci/L
Assume Water Sample Density = 1000 g/l
Assume Conc.is proposional to Activity

Spa(U238) 3.46E-07 Ci/g
U234 Spa= 6.12E-03 Ci/g
MCL Uranium=20Pci/L

Yucca Mountain Vicinity		234U/238U activity	Uranium ug/g	U238 Pci/g	U234 Pci/g	U Pci/g	U Pci/L
	Boundary Pt	8.2	0.5	0.0188	0.1542	0.1730	173
	Boundary Pt	1.4	0.1	0.0144	0.0202	0.0346	34.6
	Boundary Pt	1.3	2	0.3009	0.3911	0.6920	692
	Boundary Pt	1.1	20	3.2952	3.6248	6.9200	6920
Mean	**(Approximate)**	**2.8**	**3**	0.2732	0.7648	1.0380	1038

Death Valley Springs		234U/238U activity	Uranium ug/g	U238 Pci/g	U234 Pci/g	U Pci/g	U Pci/L
	Boundary Pt	5.2	3	0.1674	0.8706	1.0380	1038
	Boundary Pt	1.9	0.18	0.0215	0.0408	0.0623	62.28
	Boundary Pt	1.5	26	3.5984	5.3976	8.9960	8996
	Boundary Pt	0.2	2	0.5767	0.1153	0.6920	692
Mean	**(Approximate)**	**2.2**	**3.2**	0.3460	0.7612	1.1072	1107.2

Note: Data Compiled from Plate 16. Uranium Concentrations Versus 234U/238U Activity Ratios.

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Table 5. Isotopic Composition of DVNM Sampled Springs and Creeks

No	Sample Name	δ18O, ™	δ2H, ™	Conc. Sr, ppm	δ87Sp	Conc. U (ppb)	Measured 234U/238U activity		Beta Analytical Data Age	C13/C12	UTM - X (m) Easting	UTM - Y (m) Northing
1	Anvil Spg 980708	-11.87	-89.0	0.1811	16.15	21.244	1.254	(0.007)	2,710+-40BP	(7.2/mil)	492357.0	3975186.0
2	Buried Wagon Spg -042398	-13.2	-106.7	23.9990	6.42	11.667	1.660	(0.022)			498166.5	4050816.3
3	Burns#1 Spg 061698	-11.47	-92.7	0.8944	4.50	3.061	2.441	(0.020)			483135.8	4027730.1
4	Cordwood Spg 052798	-13.10	-98.8	0.0236	2.09	2.377	4.439	(0.023)			493024.0	4087677.0
5	Dripping Spg 980709	-13.05	-96.4	1.0364	26.68	0.936	1.490	(0.010)	6,430+-40BP	(0.7/mil)	496409.5	4019395.5
6	Hummingbird Spg 050198	-14.70	-104.5	0.3010	28.00	0.380	1.626	(0.027)			490288.3	4008308.5
7	Ibex Spg 061898	-7.06	-76.3	0.7146	16.96	0.759	2.796	(0.021)	3,880+-50BP	(3.5/mil)	553254.0	3958614.0
8	Johnnie Shoshone Spg 050198	-14.10	-93.8	0.3365, 0.3291	21.50, 21.60	8.502	2.832	(0.017)			493610.9	4011201.6
9	Knoll Spg 052798	-12.8	-93.8	0.0232	1.17	0.718	3.702	(0.032)			494311.0	4088262.0
10	Lime Kiln Spg. 061698	-13.52	-99.9	0.4559	33.91	6.021	1.212	(0.006)			485700.0	3996422.0
11	Little Willow Spg 052798	-13.0	-97.5	0.0262	1.92	4.620	2.666	(0.014)			493841.0	4087646.0
12	McDonald Spg 061698	-12.90	-95.8	0.6199	-0.23	3.747	5.308	(0.028)			498441.0	4084069.0
13	McLean Spg 042398	-11, -11.2	-97.4	26.1898	6.52	25.222	1.546	(0.020)	1,540+-40BP	(6.9/mi)	498315.6	4050575.9
14	Navel Spg 042398	-10.0, -10.2	-75.6	0.5164	5.96	2.038	2.786	(0.018)			525503.0	4026081.3
15	Owl Hole Spg 980706	-6.20	-74.3	8.2533	6.03	10.412	2.384	(0.013)	104.8+-0.5% PMC	(11.0/mil)	531915.0	3943786.0
16	Salisbury Spg 061798	-10.68	-82.7	0.0428	1.62	0.152	1.931	(0.016)	103.5+-0.6% PMC	(15.9/mil)	552496.0	3976264.0
17	Salt Creek-980709	-0.3*	-51.8, -55.7*	3.6847	7.81	17.569	1.505	(0.046)			512139.0	4021930.0
18	Saratoga Spg 061898	-10.78	-89.8	3.0642	10.23	16.229	1.732	(0.009)			552284.0	3948472.0
19	Strozzi Ranch Spg 050298	-13.10	-98.5	0.0177	1.65	1.779	4.026	(0.029)			490402.6	4088049.6
20	Surprise CynCrk Spg 052998	-13.20	-95.4	0.4540	34.03	6.591	1.200	(0.007)			484500.0	3996239.0
21	Thorndike Spg 050198	-13.90	-100.7	0.1297	17.30	0.668	2.397	(0.028)			493285.3	4009722.9
22	Upper Emigrant Spg 980707	-13.0	-98.5	1.1121	17.36	10.396	2.806	(0.016)			482544.0	4030966.0
23	Upper Navel Seep 042398	-9.9, -10.0	-79.2	0.7697	5.85	2.807	2.519	(0.062)			525637.7	4026026.2
24	Wildrose Spg 052998	-14.30	-106.5	1.2358	10.64	2.405	1.207	(0.007)			482584.0	4013281.0
25	Willow Spg 043098	-11.40	-91.6	0.5992	4.39	0.685	1.922	(0.011)	1,850+_50BP	(10.4/mil)	528048.0	3989246.0

δ18O ανδ δ2H φρομ ϑ.Φ. Ωηελαν, ΥΣΓΣ, Δενϖερ; Σρ ανδ δ87Σρ φρομ Ζ.Ε. Πετερμαν, ΥΣΓΣ, Δενϖερ; Υ ανδ 234Υ/238Υ φρομ ϑ.Β. Παχεσ, ΥΣΓΣ, Δενϖερ.

* High salinity affects both the precision and accuracy of stable isotope determinations.