

WP	Minerals	Summary - All Studies																	
Lab Group	Study Type	Study Open Date Minimum	Study Open Date Maximum	Class Name	Number of Analytes	Number of individual Labs	Average Number PT per Year	Total Number Data Points	Total Number Not Acceptable	Failure Rate	Average Absolute z score	Average Recovery	Average Recovery Standard Deviation	Z _{CALC} Failure Rate	Significance of difference H0:p1=p2 Failure Rate	H0: p1=p2 (< 5% Significant) Failure Rate	F _{CALC} Average Recovery Variance	Critical F at p=0.05 for Average Recovery Variance / probability H0:V1=V2	F Test Average Recovery Variance (F _{CALC} < Critical F)
1PT	WP	5/9/2005	12/10/2007	Minerals	7	38	0.99	440	20	4.55%	1.0135	98.7%	7.8%	1.725	0.042	Significantly Different	1.542	1.147	Significantly Different
2PT	WP	6/6/2005	4/14/2008	Minerals	7	17	2.65	780	21	2.69%	0.9356	98.6%	6.3%					0.0000	prob H0: V1=V2
Studies by Accreditation Period (12 months)																			
1PT	WP	6/18/2007	12/10/2007	Minerals	7	32	NA	192	10	5.21%	0.9686	98.2%	9.3%	2.099	0.018	Significantly Different	2.494	1.234	Significantly Different
2PT	WP	6/18/2007	4/14/2008	Minerals	7	16	NA	320	6	1.88%	0.8632	99.2%	5.9%					0.0000	prob H0: V1=V2
1PT	WP	6/12/2006	3/12/2007	Minerals	7	36	NA	184	8	4.35%	1.0274	99.1%	6.5%	1.235	0.108	Same	1.544	1.241	Significantly Different
2PT	WP	6/12/2006	5/14/2007	Minerals	7	16	NA	299	7	2.34%	0.9658	98.0%	5.2%					0.0004	prob H0: V1=V2
1PT	WP	5/9/2005	12/5/2005	Minerals	7	16	NA	64	2	3.13%	1.1081	99.4%	6.1%	0.606	0.272	Same	0.533	1.395	Significantly Different
2PT	WP	6/6/2005	3/13/2006	Minerals	7	13	NA	161	8	4.97%	1.0234	98.4%	8.4%					0.9975	prob H0: V1=V2

WP Analyte Summary						
Lab Group	Number of Analytes	Failure Rate Number of analytes Significantly Different High	Failure Rate Percentage of Analytes Significantly Different High	Number of Analytes	Average Recovery Variance Number of analytes Significantly Different High	Average Recovery Variance Percentage Significantly Different High
1PT	7	1	14.3%	7	3	42.9%
2PT	7	0	0.0%	7	0	0.0%
Same	7	6	85.7%	7	4	57.1%

Lab Group	Study Type	Study Open Date Minimum	Study Open Date Maximum	Analyte Name	NELAC Analyte Number	Number of individual Labs	Average Number PT per Year	Total Number Data Points	Total Number Not Acceptable	Failure Rate	Average Absolute z score	Average Recovery	Average Recovery Standard Deviation	Z _{CALC} Failure Rate	Significance of difference H0:p1=p2 Failure Rate	H0: p1=p2 (< 5% Significant) Failure Rate	F _{CALC} Average Recovery Variance	Critical F at p=0.05 for Average Recovery Variance/ probability H0:V1=V2	F Test Average Recovery Variance (F _{CALC} < Critical F)
1PT	WP	6/6/2005	12/10/2007	Calcium	1035	24	1.08	65	4	6.15%	1.2709	99.2%	6.8%	0.625	0.266	Same	2.057	1.419	Significantly Different
2PT	WP	6/6/2005	4/14/2008	Calcium	1035	15	2.85	122	5	4.10%	1.0515	98.2%	4.7%					0.0003	prob H0: V1=V2
1PT	WP	6/6/2005	12/10/2007	Magnesium	1085	23	1.00	58	2	3.45%	0.9473	99.4%	6.7%	1.235	0.108	Same	0.921	1.441	Same
2PT	WP	6/6/2005	4/14/2008	Magnesium	1085	15	2.71	116	1	0.86%	0.8997	99.2%	7.0%					0.6294	prob H0: V1=V2
1PT	WP	6/6/2005	12/10/2007	Potassium	1125	20	1.17	59	2	3.39%	0.9449	97.2%	8.7%	0.020	0.492	Same	1.161	1.439	Same
2PT	WP	6/6/2005	4/14/2008	Potassium	1125	15	2.71	116	4	3.45%	0.8077	99.1%	8.1%					0.2475	prob H0: V1=V2
1PT	WP	6/6/2005	12/10/2007	Sodium	1155	29	1.08	79	4	5.06%	0.8792	98.3%	11.8%	1.326	0.092	Same	3.113	1.400	Significantly Different
2PT	WP	6/6/2005	4/14/2008	Sodium	1155	15	2.71	116	2	1.72%	0.8216	98.7%	6.7%					0.0000	prob H0: V1=V2
1PT	WP	5/9/2005	12/10/2007	Alkalinity as CaCO3	1505	34	0.90	79	3	3.80%	0.9476	99.5%	6.2%	1.749	0.040	Significantly Different	1.721	1.455	Significantly Different
2PT	WP	6/6/2005	4/14/2008	Alkalinity as CaCO3	1505	14	1.97	79	0	0.00%	0.7840	99.2%	4.7%					0.0088	prob H0: V1=V2
1PT	WP	6/6/2005	12/10/2007	Calcium Hardness as CaCO	1550	20	0.82	41	4	9.76%	1.1808	99.8%	6.5%	1.294	0.098	Same	1.056	1.520	Same
2PT	WP	6/6/2005	4/14/2008	Calcium Hardness as CaCO	1550	13	2.61	97	4	4.12%	1.1723	98.7%	6.3%					0.4049	prob H0: V1=V2
1PT	WP	5/9/2005	12/10/2007	Total Hardness as CaCO3	1755	30	0.94	73	2	2.74%	1.0076	98.4%	4.7%	0.377	0.353	Same	0.719	1.394	Same
2PT	WP	6/6/2005	4/14/2008	Total Hardness as CaCO3	1755	16	2.93	134	5	3.73%	0.9884	97.6%	5.5%					0.9386	prob H0: V1=V2

WS		Minerals		Summary - All Studies																
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1PT	WS	6/13/2005	1/7/2008	Minerals	7	35	1.20	527	33	6.26%	0.7452	100.5%	9.8%	3.266	0.001	Significantly Different	3.872	1.166	Significantly Different	
2PT	WS	5/16/2005	4/7/2008	Minerals	7	12	2.00	419	8	1.91%	0.6528	99.5%	5.0%					0.0000	prob H0: V1=V2	
Studies by Accreditation Period (12 months)																				
1PT	WS	7/9/2007	1/7/2008	Minerals	7	30	NA	192	13	6.77%	0.7870	101.5%	8.6%	1.399	0.081	Same	2.286	1.294	Significantly Different	
2PT	WS	7/9/2007	4/7/2008	Minerals	7	9	NA	149	5	3.36%	0.7470	98.4%	5.7%					0.0000	prob H0: V1=V2	
1PT	WS	7/10/2006	6/11/2007	Minerals	7	32	NA	181	11	6.08%	0.7757	100.0%	11.2%	1.896	0.029	Significantly Different	8.440	1.319	Significantly Different	
2PT	WS	7/10/2006	4/9/2007	Minerals	7	11	NA	124	2	1.61%	0.5933	99.0%	3.9%					0.0000	prob H0: V1=V2	
1PT	WS	6/13/2005	1/9/2006	Minerals	7	34	NA	154	9	5.84%	0.6572	99.9%	9.5%	2.488	0.006	Significantly Different	4.019	1.311	Significantly Different	
2PT	WS	5/16/2005	1/9/2006	Minerals	7	12	NA	146	1	0.68%	0.6071	101.1%	4.7%					0.0000	prob H0: V1=V2	

WP Analyte Summary						
Lab Group	Number of Analytes	Failure Rate Number of analytes Significantly Different High	Failure Rate Percentage of Analytes Significantly Different High	Number of Analytes	Average Recovery Variance Number of analytes Significantly Different High	Average Recovery Variance Percentage Significantly Different High
1PT	7	3	42.9%	7	4	57.1%
2PT	7	0	0.0%	7	0	0.0%
Same	7	4	57.1%	7	3	42.9%

Lab Group	Study Type	Study Open Date Minimum	Study Open Date Maximum	Analyte Name	NELAC Analyte Number	Number of individual Labs	Average Number PT per Year	Total Number Data Points	Total Number Not Acceptable	Failure Rate	Average Absolute z score	Average Recovery	Average Recovery Standard Deviation	Z _{CALC} Failure Rate	Significance of difference H0:p1=p2 Failure Rate	H0: p1=p2 (< 5% Significant) Failure Rate	F _{CALC} Average Recovery Variance	Critical F at p=0.05 for Average Recovery Variance / probability H0:V1=V2	F Test Average Recovery Variance (F _{CALC} < Critical F)
1PT	WS	6/13/2005	1/7/2008	Calcium	1035	28	1.35	97	8	8.25%	0.7767	101.0%	7.7%	1.702	0.044	Significantly Different	2.360	1.492	Significantly Different
2PT	WS	7/11/2005	4/7/2008	Calcium	1035	11	1.96	59	1	1.69%	0.5134	99.9%	5.0%					0.0003	prob H0: V1=V2
1PT	WS	7/11/2005	1/7/2008	Magnesium	1085	20	1.30	65	5	7.69%	0.7351	101.4%	6.2%	0.847	0.199	Same	1.540	1.568	Same
2PT	WS	7/11/2005	4/7/2008	Magnesium	1085	11	1.69	51	2	3.92%	0.7605	99.8%	5.0%					0.0570	prob H0: V1=V2
1PT	WS	7/11/2005	1/7/2008	Potassium	1125	15	1.02	38	6	15.79%	1.1101	101.4%	22.3%	2.397	0.008	Significantly Different	15.823	1.647	Significantly Different
2PT	WS	7/11/2005	4/7/2008	Potassium	1125	10	1.86	51	1	1.96%	0.6007	98.2%	5.6%					0.0000	prob H0: V1=V2
1PT	WS	6/13/2005	1/7/2008	Sodium	1155	29	0.94	70	4	5.71%	0.6548	101.4%	15.1%	1.614	0.053	Same	8.713	1.600	Significantly Different
2PT	WS	7/11/2005	4/7/2008	Sodium	1155	10	1.60	44	0	0.00%	0.7578	100.1%	5.1%					0.0000	prob H0: V1=V2
1PT	WS	7/11/2005	1/7/2008	Alkalinity (as CaCO3)	1505	30	1.32	99	3	3.03%	0.8461	99.4%	5.0%	0.070	0.472	Same	1.131	1.479	Same
2PT	WS	5/16/2005	4/7/2008	Alkalinity (as CaCO3)	1505	11	1.95	62	2	3.23%	0.8603	99.2%	4.7%					0.3044	prob H0: V1=V2
1PT	WS	9/12/2005	1/7/2008	Calcium Hardness as CaC	1550	20	1.16	54	4	7.41%	0.7278	100.6%	7.6%	1.747	0.040	Significantly Different	2.484	1.514	Significantly Different
2PT	WS	6/13/2005	4/7/2008	Calcium Hardness as CaC	1550	11	2.39	74	1	1.35%	0.5320	99.7%	4.8%					0.0002	prob H0: V1=V2
1PT	WS	6/13/2005	1/7/2008	Total Hardness as CaCO3	1755	33	1.23	104	3	2.88%	0.5626	99.6%	5.3%	0.730	0.233	Same	1.143	1.430	Same
2PT	WS	6/13/2005	4/7/2008	Total Hardness as CaCO3	1755	11	2.52	78	1	1.28%	0.6121	99.8%	4.9%					0.2695	prob H0: V1=V2