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*Table 1 - Section A. Geographic coordinates of ARPA network water points*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| water point | X  WGS84\_UTM32 | Y  WGS84\_UTM32 | E  WGS84 | N  WGS84 |
|  |  |  |  |  |
| 10/AVT17 | 757990 | 4824646 | 12.1927 | 43.53018 |
| 10/AVT25 | 758330.5 | 4821254 | 12.19529 | 43.49956 |
| 10/AVT26 | 757232.9 | 4821733 | 12.18197 | 43.50425 |
| 10/AVT28 | 761243 | 4819416 | 12.23038 | 43.48203 |
| 10/AVT29 | 762679.1 | 4819027 | 12.24792 | 43.47802 |
| 10/AVT39 | 754742.8 | 4822167 | 12.15141 | 43.509 |
| 10/CEU1 | 783119.2 | 4809281 | 12.49516 | 43.38298 |
| 10/CEU11 | 785022.1 | 4806885 | 12.51736 | 43.36073 |
| 10/CEU13 | 786961.3 | 4806423 | 12.54101 | 43.35584 |
| 10/CEU15 | 789030.4 | 4806246 | 12.5664 | 43.35345 |
| 10/CEU16 | 788941.9 | 4805387 | 12.56486 | 43.34577 |
| 10/CEU17 | 786664.4 | 4805323 | 12.53678 | 43.34607 |
| 10/CEU18 | 790799.3 | 4804668 | 12.58735 | 43.33859 |
| 10/CEU19 | 791802.4 | 4805016 | 12.59988 | 43.34133 |
| 10/CEU2 | 789648.3 | 4804284 | 12.57297 | 43.33559 |
| 10/CEU21 | 788638.7 | 4803496 | 12.56013 | 43.32889 |
| 10/CEU22 | 789948.3 | 4803044 | 12.57601 | 43.32432 |
| 10/CEU5 | 788240.4 | 4804333 | 12.55566 | 43.33657 |
| 10/CEU8 | 784582.8 | 4808458 | 12.51277 | 43.37503 |
| 10/CTR10 | 792056.1 | 4718013 | 12.55762 | 42.55929 |
| 10/CTR15 | 791385 | 4715809 | 12.54834 | 42.53973 |
| 10/CTR16 | 791874.8 | 4715267 | 12.55402 | 42.53467 |
| 10/CTR2 | 794389 | 4720064 | 12.58704 | 42.57684 |
| 10/CTR21 | 796439 | 4719588 | 12.61173 | 42.57177 |
| 10/CTR22 | 797327 | 4718949 | 12.62219 | 42.56569 |
| 10/CTR23 | 794652.6 | 4717821 | 12.58909 | 42.55658 |
| 10/CTR29 | 795660.8 | 4716689 | 12.60076 | 42.54602 |
| 10/CTR3 | 796591.5 | 4721184 | 12.61441 | 42.58606 |
| 10/CTR31 | 801800.4 | 4719934 | 12.6771 | 42.5728 |
| 10/CTR32 | 796115.7 | 4717699 | 12.60682 | 42.55492 |
| 10/CTR7 | 796213.8 | 4721799 | 12.61014 | 42.59173 |
| 10/CTR9 | 793602.7 | 4717421 | 12.57612 | 42.55338 |
| 10/MVT11 | 782207.3 | 4778372 | 12.46811 | 43.10551 |
| 10/MVT12 | 779322.4 | 4774529 | 12.43079 | 43.07204 |
| 10/MVT13 | 778043.1 | 4774187 | 12.41493 | 43.06943 |
| 10/MVT14 | 780530.4 | 4773782 | 12.44522 | 43.06488 |
| 10/MVT15 | 779594.8 | 4772842 | 12.43328 | 43.05678 |
| 10/MVT17 | 779997.2 | 4770865 | 12.43722 | 43.03886 |
| 10/MVT18 | 777238.6 | 4770718 | 12.40334 | 43.03854 |
| 10/MVT19 | 776798.6 | 4769859 | 12.39752 | 43.03098 |
| 10/MVT20 | 778295.6 | 4768562 | 12.41522 | 43.01878 |
| 10/MVT21 | 776309.1 | 4767241 | 12.39023 | 43.00763 |
| 10/MVT23 | 777458.5 | 4766246 | 12.40381 | 42.99826 |
| 10/MVT24 | 774623.8 | 4765215 | 12.36859 | 42.99003 |
| 10/MVT27 | 775156.4 | 4763378 | 12.37421 | 42.97332 |

*Table 1 - Section B. Geographic coordinates of ARPA network water points*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| water point | X  WGS84\_UTM32 | Y  WGS84\_UTM32 | E  WGS84 | N  WGS84 |
|  |  |  |  |  |
| 10/MVT29 | 774540.5 | 4761824 | 12.3659 | 42.95957 |
| 10/MVT3 | 775271.4 | 4792191 | 12.38989 | 43.23228 |
| 10/MVT32 | 777222.3 | 4759735 | 12.39769 | 42.93982 |
| 10/MVT34 | 776506 | 4758530 | 12.38833 | 42.92925 |
| 10/MVT37 | 773398.7 | 4756753 | 12.34945 | 42.9144 |
| 10/MVT39 | 773976 | 4754639 | 12.35548 | 42.89518 |
| 10/MVT43 | 777881.7 | 4750154 | 12.40102 | 42.85345 |
| 10/MVT6 | 779535.7 | 4787282 | 12.43983 | 43.18659 |
| 10/MVT7 | 778695.1 | 4786068 | 12.42889 | 43.17599 |
| 10/MVT8 | 781255.1 | 4785701 | 12.46014 | 43.17174 |
| 10/VUM1 | 786715.2 | 4779348 | 12.52391 | 43.11259 |
| 10/VUM10 | 792641.1 | 4773392 | 12.59347 | 43.0568 |
| 10/VUM100 | 803760.1 | 4745330 | 12.71452 | 42.80026 |
| 10/VUM11 | 789439.2 | 4770494 | 12.55272 | 43.03198 |
| 10/VUM13 | 787716.4 | 4769970 | 12.53134 | 43.02792 |
| 10/VUM14 | 793623 | 4771771 | 12.60465 | 43.04186 |
| 10/VUM15 | 792218.8 | 4769514 | 12.58626 | 43.02211 |
| 10/VUM16 | 789398.1 | 4768028 | 12.55094 | 43.00983 |
| 10/VUM18 | 795653 | 4768106 | 12.62758 | 43.00813 |
| 10/VUM19 | 793610.5 | 4766299 | 12.60162 | 42.99268 |
| 10/VUM2 | 784875 | 4776559 | 12.4999 | 43.08822 |
| 10/VUM20 | 792389.4 | 4767046 | 12.58706 | 42.99987 |
| 10/VUM23 | 796117.2 | 4765265 | 12.63176 | 42.98242 |
| 10/VUM28 | 796366.6 | 4763574 | 12.63391 | 42.96713 |
| 10/VUM30 | 800580.3 | 4763401 | 12.68538 | 42.96392 |
| 10/VUM31 | 795917 | 4761921 | 12.62754 | 42.95244 |
| 10/VUM32 | 798288.1 | 4761562 | 12.65636 | 42.94829 |
| 10/VUM34 | 803049.6 | 4760984 | 12.71429 | 42.94121 |
| 10/VUM35 | 799490 | 4758853 | 12.66961 | 42.92348 |
| 10/VUM36 | 801125.8 | 4759083 | 12.68974 | 42.9249 |
| 10/VUM37 | 803794.1 | 4759565 | 12.72263 | 42.92817 |
| 10/VUM39 | 804183.4 | 4756603 | 12.72578 | 42.9014 |
| 10/VUM41 | 804237.8 | 4755420 | 12.7258 | 42.89075 |
| 10/VUM43 | 803706.3 | 4750654 | 12.71674 | 42.84813 |
| 10/VUM48 | 802727.1 | 4747491 | 12.70308 | 42.8201 |
| 10/VUM5 | 787266 | 4781918 | 12.532 | 43.13549 |
| 10/VUM50 | 806114.6 | 4747554 | 12.74446 | 42.81932 |
| 10/VUM51 | 805167.6 | 4743769 | 12.73086 | 42.78568 |
| 10/VUM54 | 805334.3 | 4740516 | 12.73113 | 42.75638 |
| 10/VUM6 | 790608.2 | 4774716 | 12.56925 | 43.06948 |
| 10/VUM60 | 785040 | 4774788 | 12.50102 | 43.07224 |
| 10/VUM61 | 788169.9 | 4775203 | 12.53961 | 43.07479 |
| 10/VUM63 | 786533.4 | 4774524 | 12.51919 | 43.06931 |
| 10/VUM65 | 786496.8 | 4773076 | 12.5180 | 43.05631 |
| 10/VUM66 | 784620.9 | 4772099 | 12.49451 | 43.04823 |

*Table 1 - Section C. Geographic coordinates of ARPA network water points*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| water point | X  WGS84\_UTM32 | Y  WGS84\_UTM32 | E  WGS84 | N  WGS84 |
|  |  |  |  |  |
| 10/VUM73 | 791133.7 | 4769286 | 12.57285 | 43.02048 |
| 10/VUM76 | 791025.8 | 4766590 | 12.57012 | 42.99629 |
| 10/VUM8 | 787582.1 | 4771172 | 12.53032 | 43.03878 |
| 10/VUM80 | 790637.5 | 4765358 | 12.56473 | 42.98537 |
| 10/VUM83 | 798917.7 | 4764597 | 12.66568 | 42.97531 |
| 10/VUM84 | 797839.7 | 4762839 | 12.65155 | 42.95994 |
| 10/VUM85 | 803222.2 | 4763676 | 12.71786 | 42.96534 |
| 10/VUM88 | 798846.9 | 4759977 | 12.66235 | 42.93383 |
| 10/VUM89 | 796440.2 | 4760581 | 12.63323 | 42.9402 |
| 10/VUM91 | 804450.7 | 4758421 | 12.73004 | 42.91763 |
| 10/VUM92 | 805121 | 4753603 | 12.73561 | 42.87407 |
| 10/VUM93 | 808270.7 | 4748833 | 12.77148 | 42.82994 |
| 10/VUM96 | 808398.3 | 4747115 | 12.7721 | 42.81445 |
| 13/AVA27(p) | 853115.4 | 4701881 | 13.28962 | 42.38894 |
| 13/C-M11(p) | 866481.9 | 4658851 | 13.42445 | 41.99637 |
| 13/FU1(p) | 874808.9 | 4663776 | 13.52782 | 42.03668 |
| 13/FU2(p) | 867827.6 | 4663573 | 13.44361 | 42.03815 |
| 13/FU3(p) | 882645.5 | 4654013 | 13.61585 | 41.94526 |
| 13/FU4(p) | 884990.6 | 4656336 | 13.64557 | 41.96498 |
| 13/FU5(p) | 876646.3 | 4663904 | 13.55003 | 42.03695 |
| 13/FU6(p) | 878779.2 | 4664142 | 13.57587 | 42.03807 |
| 13/SU34(p) | 901492.5 | 4676236 | 13.85763 | 42.13534 |
| 13/SU42(p) | 911738.1 | 4665479 | 13.97358 | 42.03351 |
| 13/TIR17(p) | 891561 | 4692323 | 13.7487 | 42.28475 |
| 13/AVA18(s) | 859590.9 | 4698307 | 13.36584 | 42.35388 |
| 13/AVA19(s) | 860318.6 | 4698437 | 13.37473 | 42.3547 |
| 13/AVA7bis(s) | 853845.5 | 4700898 | 13.29787 | 42.37978 |
| 13/AVA8(s) | 858920.2 | 4699757 | 13.35862 | 42.36721 |
| 13/CC1(s) | 924735.7 | 4632727 | 14.10648 | 41.7328 |
| 13/CF-CA1(s) | 953080.9 | 4654619 | 14.46253 | 41.91346 |
| 13/CF-CA2(s) | 949358 | 4653640 | 14.4171 | 41.90681 |
| 13/CF-CA3(s) | 948318 | 4652995 | 14.40413 | 41.90161 |
| 13/CF-CA4(s) | 947128.7 | 4657583 | 14.39333 | 41.94343 |
| 13/CF-CA5(s) | 948492.5 | 4667834 | 14.41752 | 42.03456 |
| 13/CF-CA6(s) | 947999.4 | 4669258 | 14.41267 | 42.04762 |
| 13/C-M1(s) | 884046.4 | 4659230 | 13.63609 | 41.99142 |
| 13/C-M10(s) | 851549.5 | 4665918 | 13.2489 | 42.06665 |
| 13/C-M12(s) | 903604.5 | 4635807 | 13.85542 | 41.77144 |
| 13/C-M13(s) | 908256.1 | 4636016 | 13.91132 | 41.77094 |
| 13/C-M14(s) | 911932.7 | 4633553 | 13.95369 | 41.74695 |
| 13/C-M15(s) | 913784.9 | 4632936 | 13.97545 | 41.74045 |
| 13/C-M16(s) | 913245.9 | 4629956 | 13.96693 | 41.71398 |
| 13/C-M18(s) | 876723.9 | 4651561 | 13.54307 | 41.92609 |
| 13/C-M19(s) | 873628.8 | 4651989 | 13.50613 | 41.9314 |
| 13/C-M2(s) | 884610.7 | 4655097 | 13.64019 | 41.95403 |

*Table 1 - Section D. Geographic coordinates of ARPA network water points*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| water point | X  WGS84\_UTM32 | Y  WGS84\_UTM32 | E  WGS84 | N  WGS84 |
|  |  |  |  |  |
| 13/C-M21(s) | 884481.1 | 4645262 | 13.63223 | 41.86581 |
| 13/C-M22(s) | 886039.6 | 4644129 | 13.6502 | 41.85488 |
| 13/C-M4(s) | 876864.8 | 4655291 | 13.54715 | 41.95951 |
| 13/C-M6(s) | 840093 | 4673074 | 13.11494 | 42.13597 |
| 13/C-M7(s) | 843919.9 | 4668709 | 13.15856 | 42.0951 |
| 13/C-M8(s) | 843919.9 | 4668709 | 13.15856 | 42.0951 |
| 13/CSA1(s) | 924279 | 4638767 | 14.10531 | 41.78723 |
| 13/CSA10(s) | 919717.7 | 4632601 | 14.04629 | 41.73433 |
| 13/CSA11(s) | 919354.9 | 4632502 | 14.04187 | 41.73364 |
| 13/CSA12(s) | 920310.3 | 4634354 | 14.05462 | 41.74975 |
| 13/CSA7(s) | 923183.2 | 4633853 | 14.08869 | 41.74373 |
| 13/CSA9(s) | 923776.1 | 4633822 | 14.09577 | 41.74314 |
| 13/FO-SA5(s) | 951146.7 | 4696547 | 14.47164 | 42.29048 |
| 13/FO-SA6(s) | 951027 | 4690005 | 14.46511 | 42.2319 |
| 13/FO-SA7(s) | 944332.8 | 4689670 | 14.38409 | 42.23273 |
| 13/FU20(s) | 880753.4 | 4665910 | 13.6008 | 42.05298 |
| 13/FU21(s) | 882166.9 | 4666070 | 13.61793 | 42.05373 |
| 13/GA3(s) | 892821.7 | 4670827 | 13.74944 | 42.09118 |
| 13/G-G1(s) | 905887 | 4661713 | 13.90055 | 42.00276 |
| 13/G-G2(s) | 902415.6 | 4663446 | 13.85998 | 42.02009 |
| 13/G-G3(s) | 910662.3 | 4658246 | 13.95559 | 41.96918 |
| 13/GS-S1(s) | 859104.7 | 4712927 | 13.36908 | 42.48538 |
| 13/GS-S10(s) | 898459.2 | 4698676 | 13.83645 | 42.33828 |
| 13/GS-S11(s) | 870503.8 | 4705325 | 13.50245 | 42.41177 |
| 13/GS-S12(s) | 859812.7 | 4706634 | 13.37372 | 42.42854 |
| 13/GS-S14(s) | 861713 | 4700367 | 13.39282 | 42.37139 |
| 13/GS-S15(s) | 858798.9 | 4699598 | 13.35706 | 42.36584 |
| 13/GS-S16(s) | 862150.4 | 4696737 | 13.39584 | 42.33859 |
| 13/GS-S17(s) | 867179 | 4700186 | 13.4589 | 42.3672 |
| 13/GS-S18(s) | 867189.1 | 4700001 | 13.4589 | 42.36554 |
| 13/GS-S19(s) | 895192.3 | 4691443 | 13.79199 | 42.27502 |
| 13/GS-S2(s) | 865812 | 4713461 | 13.45079 | 42.48704 |
| 13/GS-S20(s) | 895827.9 | 4690364 | 13.79894 | 42.26501 |
| 13/GS-S21(s) | 897903.1 | 4685194 | 13.82047 | 42.21757 |
| 13/GS-S22(s) | 900498.2 | 4682931 | 13.85024 | 42.19593 |
| 13/GS-S23(s) | 875003.2 | 4688194 | 13.54585 | 42.25581 |
| 13/GS-S24(s) | 898121.6 | 4681000 | 13.82024 | 42.17981 |
| 13/GS-S25(s) | 898094.1 | 4681091 | 13.81997 | 42.18065 |
| 13/GS-S26(s) | 898328.8 | 4679371 | 13.82163 | 42.16509 |
| 13/GS-S27(s) | 892887.9 | 4675835 | 13.75361 | 42.1361 |
| 13/GS-S28(s) | 897287.6 | 4673010 | 13.80474 | 42.10853 |
| 13/GS-S29(s) | 875891.1 | 4669602 | 13.54459 | 42.08847 |
| 13/GS-S3(s) | 873334.9 | 4713688 | 13.54219 | 42.48549 |
| 13/GS-S4(s) | 878303.8 | 4715447 | 13.60361 | 42.49887 |
| 13/GS-S5(s) | 883567 | 4712238 | 13.66531 | 42.46748 |

*Table 1 - Section E. Geographic coordinates of ARPA network water points*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| water point | X  WGS84\_UTM32 | Y  WGS84\_UTM32 | E  WGS84 | N  WGS84 |
|  |  |  |  |  |
| 13/GS-S7(s) | 895305 | 4708092 | 13.80475 | 42.42438 |
| 13/GS-S8(s) | 899026.4 | 4702285 | 13.8458 | 42.37037 |
| 13/GS-S9(s) | 898947.4 | 4700052 | 13.8433 | 42.35037 |
| 13/ML1(s) | 914180.6 | 4689049 | 14.0197 | 42.24371 |
| 13/ML2(s) | 926079 | 4687154 | 14.16195 | 42.22031 |
| 13/ML4(s) | 930104.4 | 4672850 | 14.19998 | 42.08981 |
| 13/ML5(s) | 927684.5 | 4664434 | 14.1647 | 42.01565 |
| 13/ML6(s) | 916034.1 | 4676000 | 14.03276 | 42.12565 |
| 13/ML7(s) | 919585.6 | 4681381 | 14.07943 | 42.17204 |
| 13/ML8(s) | 925494.7 | 4676933 | 14.14744 | 42.12895 |
| 13/ML9(s) | 918207.5 | 4680154 | 14.06193 | 42.16176 |
| 13/MR1(s) | 899948.6 | 4679246 | 13.84108 | 42.16315 |
| 13/MR2(s) | 899735.3 | 4681530 | 13.84007 | 42.18375 |
| 13/MR4(s) | 903220 | 4683643 | 13.88358 | 42.20093 |
| 13/MS1(s) | 904392.5 | 4651942 | 13.87587 | 41.91584 |
| 13/MS2(s) | 906413.9 | 4646433 | 13.89637 | 41.86537 |
| 13/MS3(s) | 906308.1 | 4645521 | 13.89447 | 41.85724 |
| 13/MS4(s) | 900858.5 | 4654258 | 13.83498 | 41.93843 |
| 13/MS5(s) | 898063.2 | 4660026 | 13.80528 | 41.99161 |
| 13/MS6(s) | 894307.5 | 4654045 | 13.75609 | 41.93981 |
| 13/MS7(s) | 894183.2 | 4652955 | 13.75386 | 41.93009 |
| 13/MS8(s) | 910151.4 | 4636606 | 13.93445 | 41.77526 |
| 13/PE56(s) | 920420.8 | 4703189 | 14.1053 | 42.36722 |
| 13/PE57(s) | 917592.2 | 4700573 | 14.06919 | 42.34527 |
| 13/PE67(s) | 920458 | 4704864 | 14.10697 | 42.38222 |
| 13/PE-FO1(s) | 935158.5 | 4709830 | 14.28855 | 42.41868 |
| 13/PG1(s) | 928828.5 | 4637035 | 14.1586 | 41.76925 |
| 13/PR1(s) | 924401.6 | 4658655 | 14.12105 | 41.96558 |
| 13/RT1(s) | 924351.4 | 4639886 | 14.10698 | 41.79723 |
| 13/SA14(s) | 952848.6 | 4690965 | 14.48783 | 42.23945 |
| 13/SA64(s) | 945959.9 | 4676488 | 14.39364 | 42.11361 |
| 13/SA-SI1(s) | 960619.5 | 4688630 | 14.57973 | 42.21398 |
| 13/SA-SI2(s) | 961347.4 | 4681761 | 14.58307 | 42.15198 |
| 13/S-E-C1(s) | 851617.3 | 4662241 | 13.24751 | 42.03359 |
| 13/S-E-C2(s) | 855128.5 | 4659354 | 13.28806 | 42.00609 |
| 13/S-E-C3(s) | 857120.6 | 4657272 | 13.31079 | 41.98649 |
| 13/S-E-C4(s) | 859227.3 | 4656233 | 13.33551 | 41.9762 |
| 13/S-E-C5(s) | 863207.6 | 4653856 | 13.38195 | 41.95304 |
| 13/S-E-C6(s) | 864481.1 | 4650643 | 13.39529 | 41.92359 |
| 13/S-E-C7(s) | 867344.5 | 4643521 | 13.42529 | 41.85831 |
| 13/S-E-C8(s) | 871579.1 | 4641699 | 13.47501 | 41.83997 |
| 13/S-P-V-C1(s) | 923587.8 | 4646011 | 14.1022 | 41.85259 |
| 13/S-P-V-C10(s) | 943212 | 4649934 | 14.34054 | 41.87704 |
| 13/S-P-V-C2(s) | 929067.1 | 4651512 | 14.17193 | 41.89898 |
| 13/S-P-V-C3(s) | 928482.6 | 4658609 | 14.17006 | 41.96296 |

*Table 1 - Section F. Geographic coordinates of ARPA network water points*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| water point | X  WGS84\_UTM32 | Y  WGS84\_UTM32 | E  WGS84 | N  WGS84 |
|  |  |  |  |  |
| 13/S-P-V-C5(s) | 930631 | 4662321 | 14.1986 | 41.99509 |
| 13/S-P-V-C6(s) | 931843.1 | 4656078 | 14.2086 | 41.93843 |
| 13/S-P-V-C7(s) | 938627.9 | 4655565 | 14.28971 | 41.93009 |
| 13/S-P-V-C8(s) | 941394.2 | 4654962 | 14.32249 | 41.92315 |
| 13/S-P-V-C9(s) | 942762 | 4651578 | 14.33638 | 41.89204 |
| 13/SU16(s) | 905983.4 | 4670881 | 13.90806 | 42.08498 |
| 13/SU20(s) | 907208.7 | 4670425 | 13.9225 | 42.08026 |
| 13/SU22(s) | 907407.1 | 4670189 | 13.92473 | 42.07803 |
| 13/SU24(s) | 911745.5 | 4666974 | 13.97472 | 42.04693 |
| 13/SU4(s) | 904721.3 | 4670376 | 13.89251 | 42.0811 |
| 13/SU5(s) | 904629.3 | 4670370 | 13.89139 | 42.0811 |
| 13/SU6(s) | 900546 | 4674873 | 13.84529 | 42.12359 |
| 13/SU7(s) | 900097.6 | 4675064 | 13.84001 | 42.12554 |
| 13/SU8(s) | 899625.7 | 4674449 | 13.8339 | 42.12026 |
| 13/SU9(s) | 898462.5 | 4675622 | 13.82068 | 42.13137 |
| 13/TIR3(s) | 893996.6 | 4691138 | 13.77734 | 42.27289 |
| 13/TO14(s) | 905873.9 | 4742544 | 13.95723 | 42.72804 |
| 13/TO27(s) | 888952 | 4736276 | 13.74696 | 42.68054 |
| 13/TO9(s) | 900456.6 | 4741113 | 13.89029 | 42.71804 |
| 13/VI41(s) | 886799.2 | 4750208 | 13.73029 | 42.80666 |

*Table 2 - Section A. Earthquakes whit > 4 occurred during the period 2004 – 2017 within a radial distance of 200 km from L’Aquila city (data from ISIDe Working Group, ‘‘Italian Seismological Instrumental and parametric database’’, http://iside.rm.ingv.it).*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Date | Latitude  N | Longitude  E | Depth/Km | Magnitude | Magnitude  type |
|  |  |  |  |  |  |
| 11/25/2004 | 43.132 | 15.443 | 10 | 4.9 | ML |
| 12/3/2004 | 43.087 | 15.504 | 10 | 4.2 | ML |
| 12/17/2004 | 43.092 | 15.371 | 10 | 4.2 | ML |
| 8/22/2005 | 41.365 | 12.446 | 17.4 | 4.6 | Mw |
| 10/4/2006 | 42.074 | 15.746 | 36.8 | 4.1 | Mw |
| 10/21/2006 | 43.628 | 12.980 | 36.3 | 4.2 | ML |
| 7/22/2007 | 41.905 | 13.671 | 15.7 | 4.0 | ML |
| 3/30/2009 | 42.321 | 13.376 | 9.8 | 4.0 | Mw |
| 4/6/2009 | 42.342 | 13.380 | 8.3 | 6.1 | Mw |
| 4/6/2009 | 42.352 | 13.346 | 9.7 | 4.7 | ML |
| 4/6/2009 | 42.417 | 13.402 | 11 | 4.1 | ML |
| 4/6/2009 | 42.377 | 13.319 | 8.5 | 4.0 | ML |
| 4/6/2009 | 42.364 | 13.456 | 8.7 | 4.3 | ML |
| 4/6/2009 | 42.300 | 13.429 | 10.5 | 4.2 | ML |
| 4/6/2009 | 42.36 | 13.328 | 8.7 | 4.9 | Mw |
| 4/6/2009 | 42.335 | 13.386 | 9.3 | 4.3 | Mw |
| 4/6/2009 | 42.356 | 13.383 | 9 | 4.1 | Mw |
| 4/6/2009 | 42.363 | 13.339 | 10 | 4.3 | Mw |
| 4/6/2009 | 42.463 | 13.385 | 9.7 | 5.0 | Mw |
| 4/7/2009 | 42.336 | 13.387 | 9.6 | 4.9 | Mw |
| 4/7/2009 | 42.303 | 13.486 | 17.1 | 5.4 | Mw |
| 4/7/2009 | 42.364 | 13.365 | 9.6 | 4.3 | Mw |
| 4/9/2009 | 42.489 | 13.351 | 11 | 5.2 | Mw |
| 4/9/2009 | 42.335 | 13.444 | 17.1 | 4.2 | Mw |
| 4/9/2009 | 42.445 | 13.434 | 9.8 | 4.1 | Mw |
| 4/9/2009 | 42.504 | 13.350 | 9.3 | 5.0 | Mw |
| 4/13/2009 | 42.498 | 13.377 | 9 | 4.8 | Mw |
| 4/23/2009 | 42.247 | 13.484 | 10.3 | 4.0 | ML |
| 4/23/2009 | 42.228 | 13.486 | 9.7 | 4.2 | Mw |
| 6/22/2009 | 42.445 | 13.354 | 13.8 | 4.4 | Mw |
| 7/12/2009 | 42.328 | 13.379 | 10.1 | 4.2 | Mw |
| 8/6/2009 | 41.648 | 13.669 | 15.7 | 4.0 | Mw |
| 9/20/2009 | 43.399 | 13.418 | 37.8 | 4.5 | Mw |
| 12/15/2009 | 43.007 | 12.271 | 8.8 | 4.2 | Mw |
| 1/10/2010 | 43.119 | 13.445 | 16.9 | 4.0 | ML |
| 1/12/2010 | 43.119 | 13.451 | 17.1 | 4.1 | Mw |
| 1/12/2010 | 43.135 | 13.433 | 18.1 | 4.1 | Mw |
| 8/28/2010 | 42.834 | 12.654 | 6.7 | 4.1 | Mw |
| 9/27/2012 | 41.1763 | 14.9208 | 10.3 | 4.2 | Mw |
| 12/5/2012 | 42.9153 | 13.6617 | 17.5 | 4.0 | ML |
| 2/16/2013 | 41.7143 | 13.5697 | 17.1 | 4.8 | Mw |

*Table 2 - Section B. Earthquakes whit > 4 occurred during the period 2004 – 2017 within a radial distance of 200 km from L’Aquila city (data from ISIDe Working Group, ‘‘Italian Seismological Instrumental and parametric database’’, http://iside.rm.ingv.it).*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Date | Latitude  N | Longitude  E | Depth/Km | Magnitude | Magnitude  type |
|  |  |  |  |  |  |
| 7/21/2013 | 43.5028 | 13.7152 | 8.6 | 4.0 | ML |
| 8/22/2013 | 43.5392 | 13.7238 | 8.9 | 4.2 | Mw |
| 12/29/2013 | 41.3952 | 14.4342 | 20.4 | 5.0 | Mw |
| 1/20/2014 | 41.3670 | 14.4518 | 17.2 | 4.2 | Mw |
| 12/24/2014 | 41.7067 | 14.9557 | 18 | 4.0 | Mw |
| 2/28/2015 | 41.9498 | 13.5340 | 10.6 | 4.1 | Mw |
| 5/29/2015 | 42.9652 | 14.3837 | 14.6 | 4.2 | Mw |
| 12/6/2015 | 42.4075 | 15.1968 | 10 | 4.2 | Mw |
| 12/6/2015 | 42.4007 | 15.2387 | 12 | 4.4 | Mw |
| 1/16/2016 | 41.5272 | 14.5987 | 10.2 | 4.3 | Mw |
| 5/30/2016 | 42.7003 | 11.9762 | 7.9 | 4.1 | Mw |
| 8/24/2016 | 42.6983 | 13.2335 | 8.1 | 6.0 | Mw |
| 8/24/2016 | 42.7123 | 13.2533 | 9 | 4.5 | ML |
| 8/24/2016 | 42.6008 | 13.2763 | 7.7 | 4.3 | Mw |
| 8/24/2016 | 42.7922 | 13.1507 | 8 | 5.3 | Mw |
| 8/24/2016 | 42.6143 | 13.2437 | 10.7 | 4.1 | Mw |
| 8/24/2016 | 42.7710 | 13.1238 | 6.2 | 4.4 | Mw |
| 8/24/2016 | 42.8197 | 13.1602 | 9.8 | 4.5 | Mw |
| 8/24/2016 | 42.6587 | 13.2147 | 10.3 | 4.2 | Mw |
| 8/24/2016 | 42.6535 | 13.2098 | 11.8 | 4.0 | Mw |
| 8/25/2016 | 42.7452 | 13.1927 | 9 | 4.3 | Mw |
| 8/25/2016 | 42.6003 | 13.2823 | 7.5 | 4.4 | Mw |
| 8/26/2016 | 42.6048 | 13.2915 | 8.7 | 4.8 | Mw |
| 8/27/2016 | 42.8428 | 13.2377 | 7.8 | 4.0 | Mw |
| 8/28/2016 | 42.8232 | 13.2323 | 8.7 | 4.2 | Mw |
| 9/3/2016 | 42.7698 | 13.1323 | 8.9 | 4.2 | Mw |
| 9/3/2016 | 42.8607 | 13.2173 | 8.3 | 4.3 | Mw |
| 10/16/2016 | 42.7477 | 13.1757 | 9.2 | 4.0 | Mw |
| 10/26/2016 | 42.8788 | 13.1272 | 9.3 | 4.5 | ML |
| 10/26/2016 | 42.8747 | 13.1243 | 8.1 | 5.4 | Mw |
| 10/26/2016 | 42.9020 | 13.1277 | 9.2 | 4.5 | ML |
| 10/26/2016 | 42.9048 | 13.0902 | 9.6 | 5.9 | Mw |
| 10/26/2016 | 42.8640 | 13.1223 | 9.9 | 4.5 | Mw |
| 10/27/2016 | 42.8427 | 13.1427 | 9.2 | 4.0 | Mw |
| 10/27/2016 | 42.9847 | 13.1205 | 8.7 | 4.1 | Mw |
| 10/27/2016 | 42.8747 | 13.0990 | 9.4 | 4.3 | Mw |
| 10/27/2016 | 42.8398 | 13.0983 | 9.1 | 4.2 | Mw |
| 10/29/2016 | 42.8113 | 13.0947 | 10.9 | 4.1 | Mw |
| 10/30/2016 | 42.8303 | 13.1092 | 10 | 6.5 | Mw |
| 10/30/2016 | 42.7743 | 13.1342 | 9.4 | 4.3 | ML |
| 10/30/2016 | 42.7668 | 13.1383 | 9.7 | 4.0 | ML |

*Table 2 - Section C. Earthquakes whit > 4 occurred during the period 2004 – 2017 within a radial distance of 200 km from L’Aquila city (data from ISIDe Working Group, ‘‘Italian Seismological Instrumental and parametric database’’, http://iside.rm.ingv.it).*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Date | Latitude  N | Longitude  E | Depth/Km | Magnitude | Magnitude  type |
|  |  |  |  |  |  |
| 10/30/2016 | 42.7163 | 13.1902 | 10.2 | 4.1 | ML |
| 10/30/2016 | 42.7133 | 13.1412 | 9.7 | 4.2 | ML |
| 10/30/2016 | 42.6943 | 13.2248 | 10.5 | 4.2 | ML |
| 10/30/2016 | 42.9273 | 13.1328 | 9.5 | 4.0 | ML |
| 10/30/2016 | 42.6822 | 13.1567 | 10.7 | 4.0 | ML |
| 10/30/2016 | 42.8367 | 13.0788 | 10.3 | 4.3 | Mw |
| 10/30/2016 | 43.0623 | 13.0662 | 7.7 | 4.0 | Mw |
| 10/30/2016 | 42.8448 | 13.0565 | 9.8 | 4.0 | Mw |
| 10/30/2016 | 42.8418 | 13.0757 | 9.7 | 4.5 | Mw |
| 10/30/2016 | 42.8063 | 13.1658 | 9.6 | 4.1 | Mw |
| 10/30/2016 | 42.7823 | 13.1503 | 8.5 | 4.0 | Mw |
| 10/31/2016 | 42.7612 | 13.0858 | 10.6 | 4.0 | Mw |
| 10/31/2016 | 42.8388 | 13.1263 | 9.5 | 4.0 | Mw |
| 11/1/2016 | 42.9902 | 13.1345 | 8.3 | 4.8 | Mw |
| 11/1/2016 | 42.8003 | 13.1567 | 9.4 | 4.0 | ML |
| 11/3/2016 | 43.0277 | 13.0493 | 8.1 | 4.7 | Mw |
| 11/12/2016 | 42.7187 | 13.2057 | 9.8 | 4.1 | Mw |
| 11/14/2016 | 42.8587 | 13.1562 | 10.9 | 4.1 | ML |
| 11/29/2016 | 42.5293 | 13.2803 | 11.1 | 4.4 | Mw |
| 12/11/2016 | 42.9048 | 13.1175 | 8.5 | 4.3 | ML |
| 1/18/2017 | 42.545 | 13.2768 | 10 | 5.1 | Mw |
| 1/18/2017 | 42.531 | 13.2838 | 9.6 | 5.5 | Mw |
| 1/18/2017 | 42.5277 | 13.2852 | 8.8 | 4.7 | ML |
| 1/18/2017 | 42.5375 | 13.2677 | 8.2 | 4.6 | ML |
| 1/18/2017 | 42.5808 | 13.311 | 8.7 | 4.0 | ML |
| 1/18/2017 | 42.5033 | 13.277 | 9.4 | 5.4 | Mw |
| 1/18/2017 | 42.5332 | 13.271 | 10.3 | 4.1 | ML |
| 1/18/2017 | 42.6197 | 13.2557 | 10.7 | 4.1 | Mw |
| 1/18/2017 | 42.4733 | 13.2747 | 9.5 | 5.0 | Mw |
| 1/18/2017 | 42.5998 | 13.2878 | 9 | 4.3 | Mw |
| 1/18/2017 | 42.5808 | 13.2327 | 10.9 | 4.2 | Mw |
| 2/3/2017 | 42.9932 | 13.0203 | 7.1 | 4.0 | Mw |
| 2/3/2017 | 42.992 | 13.0173 | 7.1 | 4.2 | Mw |
| 4/27/2017 | 42.9572 | 13.0458 | 7.9 | 4.0 | Mw |
| 4/27/2017 | 42.952 | 13.0467 | 7.9 | 4.0 | Mw |
| 7/22/2017 | 42.567 | 13.3255 | 13.3 | 4.0 | Mw |
| 12/3/2017 | 42.6242 | 13.3252 | 7.6 | 4.0 | Mw |

*Table 3 - State-of-art of satellite-based methods used to identify thermal anomalies in relation with earthquake occurrence (updated after [Tramutoli et al., 2015a])*

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Methods** | **Authors** | **Satellite TIR**  **sensors** | **Thermal Anomaly Definitions/Indices** | | **Reported Anomaly Intensities** | **Relation with EQ epicenter and time of occurrence** | | **EQ**  **Mag**  **interval** | **Validation\ Confutation** |
| **Affected area (km2)** | **Time- lag** |
| M1 | [*Qiang* et al., 1991, 1992, 1997; *Qiang* and *Dian*, 1992] | MFG/MVIRI | ∆T(x,y,t)=T(x,y,t)–T(t,H) | | 2-10K | 100-50.000 | 3 days before | 5.1÷7 | V |
| M2 | [*Huang and Luo,*1992] | NOAA/  AVHRR | ∆T(x,y,t)=T(x,y,t)–T(t,A) | | - - - - | - - - - | - - - - | - - - - | C |
| M3 | [*Tronin*, 1996, 2000; *Tronin* et al., 2002, 2004] | NOAA/  AVHRR | ∆T(x,y,t)=T(x,y,t)–T(t,H) | | ∆T(x,y,t)>  2∙T(t,H) | 35.000 | 6–24 days before  7 days after | 4.7÷7.3 | V |
| M4 | [*Xu* et al., 2000] | GMS | ∆T(x,y,t)=T(x,y,t)–T(t,H) | | >2K | 600.000 | 10 day before | Ms=7.6 | V |
| M5 | [*Lü* et al.,2000] | NOAA/  AVHRR | ∆T(x,y,t) =  T(x,y,t) – T(x,y,t’) with t’<t | | 8K | 40.000 | 1-2 days before | Ms=6.2 | V |
| M6 | [*Tramutoli* et al., 2001; *Di Bello* et al., *2004*] | NOAA/  AVHRR | ⊗∆V(x,y,m)= ⊗(x,y) | V(x,y,t)=  T(x,y,t) | ⊗∆V(x,y,m)> 0,6 | 100.000 | 3 days | Ms=6.9 | V&C |
| V(x,y,t)=  LST(x,y,t) | ⊗∆V(x,y,m)> 1 |
| [*Tramutoli* et al., 2005b, 2014b, 2015b; *Filizzola* et al., 2004, *Corrad*o et al., 2005, *Aliano* et al., 2007, 2008, 2008b; *Genzano* et al., 2007, 2009, 2009b, 2015; *Lisi* et al., 2010, 2015; *Pergola* et al., 2010; *Eleftheriou* et al., 2016] | NOAA/  AVHRR  MFG/MVIRI  GOES/  IMAGER  MSG/SEVIRI  EOS/MODISGMS/ VISSR | ⊗∆V(x,y,t)=[∆V(x,y,t)-V(x,y)]/V(x,y) with  ∆V(x,y,t)=V(x,y,t)–V(t)  V(x,y,t)=T(x,y,t)  or  V(x,y,t)=LST(x,y,t) | | ⊗(x,y,t)> 1,5÷4  (space/time persistence required) | 100 -500.000 | 1-25 days before 1-5 days after | Ms  4÷7.9 |
| M7 | [*Ouzounov and Freund*, 2004] | EOS/MODIS | ∆LST(t)=LST2002(d)- LST2001(d) | | 4K | 30.000 | 1-10 days days before | Ms=7.9 | V |
| [*Ouzouno*v et al., 2006] | EOS/MODIS | LST(ti)=LSTRMS(ti)- LSTRMS | | Ms  6.8÷7.9 |
| M8 | [*Saraf and Choudhury,* 2004, 2005a, 2005b 2005c; *Choudhury* et al., 2006; *Rawat* et al., 2011; *Saraf* et al., 2008, 2009, 2012] | NOAA/  AVHRR | Visual inspection | | 5-7K | 50.000-250.000 | 1-10 days before and 2-3 days after | Mw  5.8÷7.7 | V&C |
| M9 | [*Yoshioka* et al., 2005] | NOAA/  AVHRR | ∆T(x,y,t)=T(x,y,t)–T(t,D) | | 4-8K | 50.000 | 2/3 days before | Mw=6.8 | V&C |
| M10 | [*Lixin* et al., 2006; *Liu* et al., 2007] | NOAA/  AVHRR | Visual interpretation | | 4-5K | 80.000-920.000 | 1-25 days before and 2-3 days after | Ms=5.9 | V |
| M11 | [*Panda* et al., 2007] | EOS/MODIS | ∆T(x,y,t)=T(x,y,t)–T(x,y,t) | | 5-10K | 111.000 | 7 days before | Mw=7.6 | V |
| M12 | [*Halle* et al., 2008] | NOAA/  AVHRR | As M6 with V(x,y,t)=LST(x,y,t) | | ⊗(x,y,t)>  2-3 | 2.600-5.000 | 2-10 days before and 4-7 days after | 6.4÷7.8 | V&C |
| M13 | [*Eneva* et al., 2008] | EOS/MODIS | As M6 with V(x,y,t)=LST(x,y,t) | | ⊗(x,y,t)> 2,5÷3,5 | - - - - | 20 days before - 20 days after | 4.5÷6.6 | V&C |
| and with V(x,y) and V(x,y) computed on 31 days before t | |
| M14 | [*Huang* et al., 2008] | EOS/MODIS | Visual inspection | | 3-5K | - - - - | 1 day before | Ms=8 | V |
| M15 | [*Ouzounov* et al., 2006; *Bleier* et al., 2009] | EOS/MODIS  GOES/  IMAGER | T(x,y,ti)=T0+ati  (6pm<ti<6am) | | a > 0 | - - - - | 1-13 days before | Mw=7.7  M=5.4 | V |
| M16 | [*Piroddi* 2011; *Piroddi and Ranieri,* 2012; *Piroddi* et al., 2014] | MSG/SEVIRI | <T(x,y,ti)>=T0+ati  (6pm<ti<4am) | | 10.000 | 7 days before | Mw=6.3 | V&C |
| M17 | [*Chen* et al., 2010; *Ma* et al., 2010; *Saradjian and Akhoondzadeh,* 2011] | NOAA/AVHRR  EOS/MODIS | Wavelet transform | | 4-5K | - - - - | 15 days after | M >7 | V |
| M18 | [*Yang and Guo,* 2010] | MTSAT | ∆Tyear(x,y,d)=  [Tyear(x,y,d)–Tyear-n (x,y,d)]–Tyear(x,y,d-1) | | 4-5K | 30.000 | 1-14 days before | Ms=6.2 | V |
| M19 | [*Zhang* et al., 2010, 2011;  *Xie* et al., 2013] | FY-2C  FY-2E | Wavelet transform | | 4-10K | 10.000-600.000 | Several days to 2 months before | Ms  7.2÷9 | V |
| M20 | [*Saradjian and Akhoondzadeh* 2011] | EOS/MODIS | interquartile, wavelet transform and Kalman filter method | | 1-4K | - - - - | 1-20 days before | Mw  6.1÷6.6 | V |
| M21 | [*Zoran,* 2012  *Zoran* et al., 2016] | EOS/MODIS | ∆LST(x,y,t)=(LST(x,y,t)-<LST>(t))/LST(x,y,t) | | 10K | 30.000 | 15 days before | Mw=9 | V |
| M22 | [*Xiong* et al., 2013, 2015] | AATSR | As M6 using ⊗∆V(x,y,t)=[∆V(x,y,t)-V(x,y)]/V(x,y) | | ⊗(x,y,t)> 4 | 130000 | 33 days before and 1 day after | Mw=6.3 | V&C |
| T(x,y,t) = TIR signal measured in correspondence of the geographical coordinates (x,y) at the time t  LST(x,y,t) = LST products computed in correspondence of the geographical coordinates (x,y) at the time t  T(t,D) = spatial average over a seismically unperturbed zone (D) on the same image  T(t,A) = spatial average over the same area (A) of punctual air temperature data(from meteorological stations and other sources).  T(t,H) = spatial average over a selected restrict area (H) on the same image (*cloud-free, seismically unperturbed*)  ⊗∆V(x,y,m)=⊗(x,y) = monthly average of daily RETIRA index ⊗∆V(x,y,t)  <T(x,y,ti)>= average of T(x,y,ti) on ten days before  LSTRMS(ti) =square root of the mean value of the quantity LST2(x,y,ti) computed in an area of M×N km2 (in the considered case 100×100 km2) centered on the epicenter  LSTRMS = temporal average of LSTRMS(ti) computed on the precedent 60 or 90 days | | | | | T(x,y,t) = T0(x,y) + a(x,y)•t is the linear regression function computed on the base of 41 MSG-SEVIRI TIR values (41, 15-min slots between 6pm and 4am) T(x,y,ti) corresponding to the averages on the previous 9 days where a(x,y) is the coefficient of the linear regression <T(x,y,t)> is the average of T(x,y,ti) computed for each  LSTy(d)=spatial average of the LST(x,y,t) image collected night-time on the day d of the year y over an area of M×N km2 (in the considered case 100×100 km2) centered on the epicenter  d= Julian day  V = Validation performed to verify the presence of TIR anomalies in space-time relationship with Earthquakes  C = Confutation performed to verify the absence of TIR anomalies in absence of earthquakes in the same area and period of the year  a > 0= Referred to the intensity of anomalies, the authors consider in their work all the positive value of anomalies. T(x,y,ti)=T0+ati; <T(x,y,ti)>=T0+ati | | | | |
| MFG/MVIRI=Meteosat First Generation/Meteosat Visible and InfraRed Imager  NOAA/AVHRR = National Oceanic and Atmospheric Administration/Advanced Very High Resolution Radiometer  GMS = Geostationary Meteorological Satellite  GOES = Geostationary Operational Environmental Satellite/IMAGER | | | | | MSG/SEVIRI = Meteosat Second Generation/Spinning Enhanced Visible and Infrared Imager  EOS/MODIS= Earth Observing System/Moderate Resolution Imaging Spectroradiometer  MTSAT= Multifunctional Transport Satellites  FY-2C= Fengyan 2C | | | | |

*Table 4 – Reported cases of pre-seismic thermal anomalies identified by using the RST approach*

|  |  |  |  |
| --- | --- | --- | --- |
| **EVENT (date and magnitude)** | **RST TECHNIQUES** | **REFERENCE DATA-SET (sensor, month, years, hour)** | **K** |
| 23 November 1980, Irpinia-Basilicata-Italy Ms=6.9 | ⊗∆T(x,y,m) monthly average  [*Tramutoli* et al., 2001] | NOAA-AVHRR - November (1994-1998) - 17:00 19:00 | **0,6** |
| ⊗∆LST(x,y,m) monthly average  [*Di Bello* et al., 2004] | **1** |
| 7 September 1999, Athens, Greece Ms=5.9 | ⊗∆LST (x,y,t) daily analysis  [*Filizzola* et al., 2004] | NOAA-AVHRR - August and September (1995-1998) - 01:00 04:00 | **1,5** |
| METEOSAT - August and September (1995-1998) 24:00 GMT | **3** |
| 10 January 1998, Zhangbei, China  Ms=6.2 | ⊗∆LST (x,y,t) daily analysis  [*Li* et al., 2007] | NOAA-AVHRR – December -January (1996-1999) - 19:00 | **0** |
| 17 August 1999, Kocaeli-Izmit, Turkey Ms=7,8 | ⊗∆T (x,y,t) daily analysis  [*Tramutoli* et al., 2005] | METEOSAT August (1992-1998, 2000) - 24:00 GMT | **3,5** |
| ⊗T (x,y,t) daily analysis  [*Aliano* et al., 2008a] | METEOSAT August (1995-2000) - 24:00 GMT | **2** |
| ⊗∆SST (x,y,t) daily analysis  [*Halle* et al., 2008] | AVHRR 1997-2004 daytime | **2-3** |
| ⊗∆LST (x,y,t) daily analysis  [*Halle* et al., 2008] | AVHRR 1998-2004 daytime- night-time |
| 28 May 1995, Patras, Greece Mb=4,7 | ⊗∆T (x,y,t) daily analysis  [*Corrado* et al., 2005] | METEOSAT - May and June (1992-1999) - 24:00 GMT | **3** |
| 29 May 1995, Cyprus Greece-Turkey Mb=5,3 | **3** |
| 3 June 1995, Crete, Greece Greece Mb=4,2 | **3** |
| 18 June 1995, Crete, Greece Greece Mb=4,3 | **3** |
| 4 May 1996, Erzurum,Turkey Mb=4,3 | **3** |
| 13 June 1996, Ionian Sea (Southern Greece) Mb= 4.2 | **3** |
| 16 June 1996, Patras, Greece Mb= 4.3 | **3** |
| 17 June 1996, Crete, Greece Mb= 4.0 | **3** |
| 29 June 1996, Isparta, Turkey Mb= 5.1 | **3** |
| 21 May 2003 Boumerdes, Algeria Ms=6,9 | ⊗∆T (x,y,t) daily analysis  [*Aliano* et al., 2007, 2009] | METEOSAT - April and May (1992-1999) - 24:00 GMT | **3** |
| 26 January 2001, Gujarat, India Ms=7.9 | ⊗∆T (x,y,t) daily analysis  [*Genzano* et al., 2007] | METEOSAT - January and February (1999-2004) - 24:00 GMT | **3** |
| 26 September 1997, Umbria-Marche, Italy Ms=5.9 to 6.4 | ⊗∆T (x,y,t) daily analysis  [*Aliano* et al., 2008b] | METEOSAT - September (1992-2000) –24:00GMT | **2** |
| 16 October 1999, Hector Mine, California Ms=7,4 | ⊗∆T (x,y,t)) daily analysis  [*Aliano* et al., 2008a] | GOES (7-9-10)- October (1996-1999)- 24:00 LT | **2,5** |
| 23 October 1992, Mestia Tianeti, Georgia M=6.3 | ⊗∆T (x,y,t) daily analysis  [*Genzano* et al., 2009a] | METEOSAT 7 October (1992-1999) - 24:00 GMT | **3** |
| Feb-2000 December 2006  83 Eq SouthWestern US M=4,5÷6,6 | ⊗∆LST (x,y,t) statistical correlation analysis  [*Eneva*, 2008] | EOS-MODIS (Feb 2000–Dec 2006)  2442 daytime images  EOS\_MODIS (Jul 2002 – Dec 2006) 1625 nighttime images | **|2,5|** |
| 6 April 2009, Abruzzo, Italy Mw=6.3 | ⊗∆T (x,y,t) daily analysis  [*Genzano* et al., 2009b] | MSG-SEVIRI March and April (2005-2009) - 24:00 GMT | **4** |
| ⊗∆T (x,y,t) daily analysis  [*Pergola* et al., 2010] | EOS-MODIS March and April (2000-2009) - 24:00 GMT | **3,5** |
| ⊗∆T (x,y,t) daily analysis  [*Lisi* et al., 2010] | NOAA-AVHRR March and April (1995-2009) - 24:00 GMT | **3,5** |
| ⊗∆LST (x,y,t) daily analysis  [*Lisi* et al., 2015] | LST product from MSG-SEVIRI March and April (2005-2009) - 24:00 GMT | **3,5** |

*Table 5 - Section A. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 10/AVT15 | 12/28/2005 | 0.0167 |  | 10/AVT18 | 11/19/2007 | 0.003 |  | 10/AVT24 | 6/24/2008 | 0.0206 |
| 10/AVT15 | 5/15/2006 | 0.0053 |  | 10/AVT18 | 6/17/2008 | 0.0035 |  | 10/AVT24 | 12/18/2008 | 0.0143 |
| 10/AVT15 | 11/15/2006 | 0.0048 |  | 10/AVT18 | 12/09/2008 | 0.0039 |  | 10/AVT24 | 6/18/2009 | 0.0176 |
| 10/AVT15 | 5/14/2007 | 0.0087 |  | 10/AVT18 | 6/18/2009 | 0.0083 |  | 10/AVT24 | 12/09/2009 | 0.0168 |
| 10/AVT15 | 11/19/2007 | 0.005 |  | 10/AVT18 | 6/23/2010 | 0.0043 |  | 10/AVT24 | 6/23/2010 | 0.0219 |
| 10/AVT15 | 6/24/2008 | 0.0082 |  | 10/AVT18 | 6/13/2011 | 0.0089 |  | 10/AVT24 | 6/15/2011 | 0.0279 |
| 10/AVT15 | 12/18/2008 | 0.0053 |  | 10/AVT18 | 10/26/2011 | 0.009 |  | 10/AVT24 | 10/12/2011 | 0.0238 |
| 10/AVT15 | 6/18/2009 | 0.011 |  | 10/AVT21 | 12/27/2005 | 0.0208 |  | 10/AVT25 | 12/27/2005 | 0.0139 |
| 10/AVT15 | 12/09/2009 | 0.005 |  | 10/AVT21 | 5/15/2006 | 0.0092 |  | 10/AVT25 | 5/15/2006 | 0.0151 |
| 10/AVT15 | 6/23/2010 | 0.0082 |  | 10/AVT21 | 11/15/2006 | 0.0126 |  | 10/AVT25 | 11/16/2006 | 0.0101 |
| 10/AVT15 | 6/15/2011 | 0.0159 |  | 10/AVT21 | 05/10/2007 | 0.0111 |  | 10/AVT25 | 05/10/2007 | 0.0063 |
| 10/AVT15 | 10/12/2011 | 0.0133 |  | 10/AVT21 | 11/19/2007 | 0.0093 |  | 10/AVT25 | 11/20/2007 | 0.0078 |
| 10/AVT16 | 12/28/2005 | 0.0166 |  | 10/AVT21 | 6/17/2008 | 0.0185 |  | 10/AVT25 | 6/17/2008 | 0.0077 |
| 10/AVT16 | 5/16/2006 | 0.0135 |  | 10/AVT21 | 12/09/2008 | 0.0162 |  | 10/AVT25 | 12/09/2008 | 0.0095 |
| 10/AVT16 | 11/15/2006 | 0.0154 |  | 10/AVT22 | 12/27/2005 | 0.0148 |  | 10/AVT25 | 6/17/2009 | 0.0068 |
| 10/AVT16 | 5/14/2007 | 0.015 |  | 10/AVT22 | 5/15/2006 | 0.0133 |  | 10/AVT25 | 11/30/2009 | 0.0107 |
| 10/AVT16 | 11/19/2007 | 0.0216 |  | 10/AVT22 | 11/15/2006 | 0.0128 |  | 10/AVT25 | 6/23/2010 | 0.0099 |
| 10/AVT16 | 6/24/2008 | 0.0181 |  | 10/AVT22 | 05/10/2007 | 0.0136 |  | 10/AVT25 | 6/13/2011 | 0.0214 |
| 10/AVT16 | 12/18/2008 | 0.0121 |  | 10/AVT22 | 11/20/2007 | 0.017 |  | 10/AVT25 | 10/26/2011 | 0.013 |
| 10/AVT16 | 6/18/2009 | 0.0111 |  | 10/AVT22 | 6/17/2008 | 0.028 |  | 10/AVT26 | 12/27/2005 | 0.0132 |
| 10/AVT16 | 12/09/2009 | 0.0154 |  | 10/AVT22 | 12/09/2008 | 0.0269 |  | 10/AVT26 | 5/15/2006 | 0.0092 |
| 10/AVT16 | 6/23/2010 | 0.0179 |  | 10/AVT22 | 6/17/2009 | 0.0284 |  | 10/AVT26 | 11/15/2006 | 0.0076 |
| 10/AVT16 | 6/15/2011 | 0.0197 |  | 10/AVT22 | 11/30/2009 | 0.024 |  | 10/AVT26 | 05/10/2007 | 0.0077 |
| 10/AVT16 | 10/12/2011 | 0.021 |  | 10/AVT22 | 6/23/2010 | 0.0209 |  | 10/AVT26 | 11/20/2007 | 0.0054 |
| 10/AVT17 | 12/27/2005 | 0.0228 |  | 10/AVT23 | 12/28/2005 | 0.011 |  | 10/AVT26 | 6/17/2008 | 0.0088 |
| 10/AVT17 | 5/15/2006 | 0.0193 |  | 10/AVT23 | 5/16/2006 | 0.0088 |  | 10/AVT26 | 12/09/2008 | 0.0103 |
| 10/AVT17 | 11/15/2006 | 0.0237 |  | 10/AVT23 | 11/15/2006 | 0.0086 |  | 10/AVT26 | 6/17/2009 | 0.0094 |
| 10/AVT17 | 05/10/2007 | 0.0244 |  | 10/AVT23 | 5/14/2007 | 0.0099 |  | 10/AVT26 | 11/30/2009 | 0.0072 |
| 10/AVT17 | 11/19/2007 | 0.0118 |  | 10/AVT23 | 11/19/2007 | 0.0073 |  | 10/AVT26 | 6/23/2010 | 0.0082 |
| 10/AVT17 | 6/17/2008 | 0.0198 |  | 10/AVT23 | 6/24/2008 | 0.0075 |  | 10/AVT27 | 12/28/2005 | 0.0062 |
| 10/AVT17 | 12/09/2008 | 0.0319 |  | 10/AVT23 | 12/18/2008 | 0.0115 |  | 10/AVT27 | 5/16/2006 | 0.0057 |
| 10/AVT17 | 6/17/2009 | 0.0353 |  | 10/AVT23 | 6/18/2009 | 0.0095 |  | 10/AVT27 | 11/15/2006 | 0.0038 |
| 10/AVT17 | 11/30/2009 | 0.0201 |  | 10/AVT23 | 12/09/2009 | 0.0104 |  | 10/AVT27 | 5/14/2007 | 0.0061 |
| 10/AVT17 | 6/23/2010 | 0.0344 |  | 10/AVT23 | 6/23/2010 | 0.0104 |  | 10/AVT27 | 11/19/2007 | 0.0041 |
| 10/AVT17 | 6/13/2011 | 0.0419 |  | 10/AVT23 | 6/15/2011 | 0.0136 |  | 10/AVT27 | 6/24/2008 | 0.0076 |
| 10/AVT17 | 10/26/2011 | 0.0312 |  | 10/AVT24 | 12/28/2005 | 0.0149 |  | 10/AVT27 | 12/18/2008 | 0.0049 |
| 10/AVT18 | 12/27/2005 | 0.0077 |  | 10/AVT24 | 5/16/2006 | 0.0121 |  | 10/AVT27 | 6/18/2009 | 0.0046 |
| 10/AVT18 | 5/15/2006 | 0.0069 |  | 10/AVT24 | 11/15/2006 | 0.0111 |  | 10/AVT27 | 12/09/2009 | 0.0048 |
| 10/AVT18 | 11/16/2006 | 0.0054 |  | 10/AVT24 | 5/14/2007 | 0.0172 |  | 10/AVT27 | 6/23/2010 | 0.0064 |
| 10/AVT18 | 05/10/2007 | 0.0049 |  | 10/AVT24 | 11/19/2007 | 0.009 |  | 10/AVT27 | 6/15/2011 | 0.0044 |

*Table 5 - Section B. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 10/AVT27 | 10/12/2011 | 0.0066 |  | 10/AVT33 | 11/30/2009 | 0.0115 |  | 10/CEU12 | 12/21/2005 | 0.0119 |
| 10/AVT28 | 01/09/2006 | 0.024 |  | 10/AVT33 | 6/23/2010 | 0.0106 |  | 10/CEU12 | 11/21/2006 | 0.0216 |
| 10/AVT28 | 5/15/2006 | 0.0187 |  | 10/AVT39 | 6/15/2011 | 0.0206 |  | 10/CEU12 | 5/28/2007 | 0.0108 |
| 10/AVT28 | 11/15/2006 | 0.0213 |  | 10/AVT39 | 10/26/2011 | 0.0236 |  | 10/CEU12 | 11/20/2007 | 0.0086 |
| 10/AVT28 | 5/23/2007 | 0.023 |  | 10/CEU1 | 12/22/2005 | 0.013 |  | 10/CEU12 | 6/25/2008 | 0.015 |
| 10/AVT28 | 11/19/2007 | 0.0223 |  | 10/CEU1 | 5/17/2006 | 0.0085 |  | 10/CEU12 | 12/10/2008 | 0.0123 |
| 10/AVT28 | 6/17/2008 | 0.0242 |  | 10/CEU1 | 11/16/2006 | 0.0099 |  | 10/CEU12 | 6/22/2009 | 0.0167 |
| 10/AVT28 | 12/09/2008 | 0.0196 |  | 10/CEU1 | 5/23/2007 | 0.0119 |  | 10/CEU12 | 12/29/2009 | 0.0191 |
| 10/AVT28 | 6/17/2009 | 0.025 |  | 10/CEU1 | 11/20/2007 | 0.0084 |  | 10/CEU12 | 6/21/2010 | 0.0102 |
| 10/AVT28 | 11/30/2009 | 0.0185 |  | 10/CEU1 | 6/24/2008 | 0.0119 |  | 10/CEU13 | 12/22/2005 | 0.0205 |
| 10/AVT28 | 6/23/2010 | 0.0176 |  | 10/CEU1 | 12/10/2008 | 0.0096 |  | 10/CEU13 | 5/17/2006 | 0.0113 |
| 10/AVT28 | 6/13/2011 | 0.0364 |  | 10/CEU1 | 6/22/2009 | 0.0119 |  | 10/CEU13 | 11/21/2006 | 0.0121 |
| 10/AVT28 | 10/25/2011 | 0.0358 |  | 10/CEU1 | 12/09/2009 | 0.0106 |  | 10/CEU13 | 5/28/2007 | 0.0098 |
| 10/AVT29 | 12/27/2005 | 0.0233 |  | 10/CEU1 | 6/21/2010 | 0.01 |  | 10/CEU13 | 11/20/2007 | 0.0083 |
| 10/AVT29 | 5/15/2006 | 0.0259 |  | 10/CEU1 | 6/14/2011 | 0.0152 |  | 10/CEU13 | 6/24/2008 | 0.0206 |
| 10/AVT29 | 11/15/2006 | 0.0225 |  | 10/CEU1 | 11/15/2011 | 0.0188 |  | 10/CEU13 | 12/10/2008 | 0.0185 |
| 10/AVT29 | 5/23/2007 | 0.015 |  | 10/CEU10 | 12/22/2005 | 0.0054 |  | 10/CEU13 | 6/22/2009 | 0.0129 |
| 10/AVT29 | 11/19/2007 | 0.0272 |  | 10/CEU10 | 5/17/2006 | 0.0034 |  | 10/CEU13 | 12/09/2009 | 0.01 |
| 10/AVT29 | 6/17/2008 | 0.0138 |  | 10/CEU10 | 11/20/2006 | 0.0037 |  | 10/CEU13 | 6/21/2010 | 0.0203 |
| 10/AVT29 | 12/09/2008 | 0.0304 |  | 10/CEU10 | 5/28/2007 | 0.0039 |  | 10/CEU13 | 11/16/2011 | 0.024 |
| 10/AVT29 | 6/17/2009 | 0.015 |  | 10/CEU10 | 11/21/2007 | 0.0029 |  | 10/CEU15 | 12/21/2005 | 0.0138 |
| 10/AVT29 | 11/30/2009 | 0.0279 |  | 10/CEU10 | 6/25/2008 | 0.0039 |  | 10/CEU15 | 5/17/2006 | 0.0062 |
| 10/AVT29 | 6/23/2010 | 0.0293 |  | 10/CEU10 | 12/10/2008 | 0.0038 |  | 10/CEU15 | 11/16/2006 | 0.0067 |
| 10/AVT29 | 6/13/2011 | 0.032 |  | 10/CEU10 | 6/22/2009 | 0.0043 |  | 10/CEU15 | 5/23/2007 | 0.0093 |
| 10/AVT29 | 10/25/2011 | 0.0306 |  | 10/CEU10 | 12/10/2009 | 0.0036 |  | 10/CEU15 | 11/21/2007 | 0.008 |
| 10/AVT31 | 12/28/2005 | 0.014 |  | 10/CEU10 | 6/21/2010 | 0.0038 |  | 10/CEU15 | 6/25/2008 | 0.0068 |
| 10/AVT31 | 5/16/2006 | 0.0103 |  | 10/CEU10 | 6/22/2011 | 0.0038 |  | 10/CEU15 | 12/11/2008 | 0.0113 |
| 10/AVT31 | 11/15/2006 | 0.0098 |  | 10/CEU10 | 11/16/2011 | 0.0072 |  | 10/CEU15 | 6/22/2009 | 0.0056 |
| 10/AVT31 | 5/14/2007 | 0.0108 |  | 10/CEU11 | 12/22/2005 | 0.0118 |  | 10/CEU15 | 12/10/2009 | 0.0046 |
| 10/AVT31 | 11/19/2007 | 0.014 |  | 10/CEU11 | 5/17/2006 | 0.0147 |  | 10/CEU15 | 6/21/2010 | 0.0063 |
| 10/AVT31 | 6/24/2008 | 0.0137 |  | 10/CEU11 | 11/16/2006 | 0.0086 |  | 10/CEU16 | 12/22/2005 | 0.0202 |
| 10/AVT31 | 12/18/2008 | 0.0146 |  | 10/CEU11 | 5/23/2007 | 0.0207 |  | 10/CEU16 | 5/18/2006 | 0.0157 |
| 10/AVT33 | 12/27/2005 | 0.019 |  | 10/CEU11 | 11/20/2007 | 0.008 |  | 10/CEU16 | 11/20/2006 | 0.0131 |
| 10/AVT33 | 5/15/2006 | 0.0152 |  | 10/CEU11 | 6/24/2008 | 0.0092 |  | 10/CEU16 | 5/23/2007 | 0.0162 |
| 10/AVT33 | 11/16/2006 | 0.0138 |  | 10/CEU11 | 12/10/2008 | 0.0058 |  | 10/CEU16 | 11/21/2007 | 0.0119 |
| 10/AVT33 | 05/10/2007 | 0.0123 |  | 10/CEU11 | 6/22/2009 | 0.0096 |  | 10/CEU16 | 6/25/2008 | 0.0164 |
| 10/AVT33 | 11/19/2007 | 0.0103 |  | 10/CEU11 | 12/09/2009 | 0.0096 |  | 10/CEU16 | 12/11/2008 | 0.0127 |
| 10/AVT33 | 5/19/2008 | 0.0143 |  | 10/CEU11 | 6/21/2010 | 0.0094 |  | 10/CEU16 | 6/22/2009 | 0.0205 |
| 10/AVT33 | 10/30/2008 | 0.0114 |  | 10/CEU11 | 6/15/2011 | 0.0194 |  | 10/CEU16 | 12/29/2009 | 0.0119 |
| 10/AVT33 | 05/11/2009 | 0.0115 |  | 10/CEU11 | 11/15/2011 | 0.0237 |  | 10/CEU16 | 6/24/2010 | 0.02 |

*Table 5 - Section C. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 10/CEU16 | 6/22/2011 | 0.0232 |  | 10/CEU2 | 11/21/2007 | 0.0165 |  | 10/CEU22 | 6/23/2011 | 0.0187 |
| 10/CEU16 | 11/15/2011 | 0.0146 |  | 10/CEU2 | 6/25/2008 | 0.0104 |  | 10/CEU22 | 11/15/2011 | 0.0166 |
| 10/CEU17 | 12/21/2005 | 0.0158 |  | 10/CEU2 | 12/11/2008 | 0.0127 |  | 10/CEU3 | 12/21/2005 | 0.0189 |
| 10/CEU17 | 5/17/2006 | 0.0087 |  | 10/CEU2 | 6/25/2009 | 0.0125 |  | 10/CEU3 | 5/18/2006 | 0.0141 |
| 10/CEU17 | 11/21/2006 | 0.0135 |  | 10/CEU2 | 12/10/2009 | 0.0122 |  | 10/CEU3 | 11/20/2006 | 0.0123 |
| 10/CEU17 | 5/28/2007 | 0.0113 |  | 10/CEU2 | 6/24/2010 | 0.0201 |  | 10/CEU3 | 5/23/2007 | 0.0137 |
| 10/CEU17 | 11/21/2007 | 0.0146 |  | 10/CEU2 | 6/22/2011 | 0.0189 |  | 10/CEU3 | 11/21/2007 | 0.0168 |
| 10/CEU17 | 6/25/2008 | 0.007 |  | 10/CEU2 | 11/15/2011 | 0.0228 |  | 10/CEU3 | 6/24/2008 | 0.011 |
| 10/CEU17 | 12/11/2008 | 0.0055 |  | 10/CEU20 | 12/22/2005 | 0.0069 |  | 10/CEU5 | 12/21/2005 | 0.0177 |
| 10/CEU17 | 6/22/2009 | 0.01 |  | 10/CEU20 | 5/17/2006 | 0.0028 |  | 10/CEU5 | 5/18/2006 | 0.0241 |
| 10/CEU17 | 12/29/2009 | 0.014 |  | 10/CEU20 | 11/20/2006 | 0.0038 |  | 10/CEU5 | 11/20/2006 | 0.0176 |
| 10/CEU17 | 6/21/2010 | 0.0046 |  | 10/CEU20 | 5/28/2007 | 0.0047 |  | 10/CEU5 | 5/28/2007 | 0.02 |
| 10/CEU17 | 6/23/2011 | 0.0209 |  | 10/CEU20 | 11/21/2007 | 0.0025 |  | 10/CEU5 | 11/21/2007 | 0.0073 |
| 10/CEU17 | 11/15/2011 | 0.0294 |  | 10/CEU20 | 6/25/2008 | 0.0044 |  | 10/CEU5 | 5/19/2008 | 0.0096 |
| 10/CEU18 | 12/21/2005 | 0.0159 |  | 10/CEU20 | 12/10/2008 | 0.0046 |  | 10/CEU5 | 10/30/2008 | 0.025 |
| 10/CEU18 | 5/18/2006 | 0.0142 |  | 10/CEU20 | 6/22/2009 | 0.0045 |  | 10/CEU5 | 05/11/2009 | 0.0078 |
| 10/CEU18 | 11/20/2006 | 0.0143 |  | 10/CEU20 | 12/10/2009 | 0.0047 |  | 10/CEU5 | 6/21/2010 | 0.013 |
| 10/CEU18 | 5/23/2007 | 0.0102 |  | 10/CEU20 | 6/21/2010 | 0.0052 |  | 10/CEU5 | 6/22/2011 | 0.0181 |
| 10/CEU18 | 11/21/2007 | 0.0145 |  | 10/CEU20 | 6/22/2011 | 0.0052 |  | 10/CEU5 | 11/15/2011 | 0.0323 |
| 10/CEU18 | 5/19/2008 | 0.0121 |  | 10/CEU20 | 11/16/2011 | 0.0071 |  | 10/CEU6 | 12/22/2005 | 0.0112 |
| 10/CEU18 | 10/30/2008 | 0.0108 |  | 10/CEU21 | 12/21/2005 | 0.0231 |  | 10/CEU6 | 5/17/2006 | 0.0112 |
| 10/CEU18 | 05/11/2009 | 0.0108 |  | 10/CEU21 | 5/18/2006 | 0.0159 |  | 10/CEU6 | 11/16/2006 | 0.0077 |
| 10/CEU18 | 12/29/2009 | 0.0112 |  | 10/CEU21 | 11/21/2006 | 0.017 |  | 10/CEU6 | 5/28/2007 | 0.0117 |
| 10/CEU18 | 6/24/2010 | 0.0113 |  | 10/CEU21 | 5/28/2007 | 0.0166 |  | 10/CEU6 | 11/20/2007 | 0.0101 |
| 10/CEU18 | 6/22/2011 | 0.0155 |  | 10/CEU21 | 11/21/2007 | 0.0245 |  | 10/CEU6 | 6/24/2008 | 0.0073 |
| 10/CEU18 | 11/15/2011 | 0.024 |  | 10/CEU21 | 6/25/2008 | 0.0176 |  | 10/CEU6 | 12/10/2008 | 0.0057 |
| 10/CEU19 | 12/21/2005 | 0.0123 |  | 10/CEU21 | 12/11/2008 | 0.0152 |  | 10/CEU6 | 6/22/2009 | 0.009 |
| 10/CEU19 | 5/18/2006 | 0.0078 |  | 10/CEU21 | 6/25/2009 | 0.0184 |  | 10/CEU6 | 12/09/2009 | 0.0063 |
| 10/CEU19 | 11/20/2006 | 0.0059 |  | 10/CEU21 | 12/29/2009 | 0.0059 |  | 10/CEU6 | 6/21/2010 | 0.0109 |
| 10/CEU19 | 5/28/2007 | 0.0044 |  | 10/CEU21 | 6/24/2010 | 0.0117 |  | 10/CEU6 | 6/23/2011 | 0.0137 |
| 10/CEU19 | 11/21/2007 | 0.0049 |  | 10/CEU22 | 12/21/2005 | 0.0048 |  | 10/CEU6 | 11/15/2011 | 0.0165 |
| 10/CEU19 | 6/25/2008 | 0.0053 |  | 10/CEU22 | 5/18/2006 | 0.0242 |  | 10/CEU8 | 12/22/2005 | 0.0113 |
| 10/CEU19 | 12/11/2008 | 0.0055 |  | 10/CEU22 | 11/21/2006 | 0.0131 |  | 10/CEU8 | 5/17/2006 | 0.0072 |
| 10/CEU19 | 6/25/2009 | 0.005 |  | 10/CEU22 | 5/28/2007 | 0.0223 |  | 10/CEU8 | 11/20/2006 | 0.0077 |
| 10/CEU19 | 12/29/2009 | 0.0042 |  | 10/CEU22 | 11/21/2007 | 0.0133 |  | 10/CEU8 | 5/28/2007 | 0.0074 |
| 10/CEU19 | 6/24/2010 | 0.0049 |  | 10/CEU22 | 6/25/2008 | 0.0291 |  | 10/CEU8 | 11/21/2007 | 0.0071 |
| 10/CEU2 | 12/21/2005 | 0.0195 |  | 10/CEU22 | 12/10/2008 | 0.013 |  | 10/CEU8 | 6/25/2008 | 0.0096 |
| 10/CEU2 | 5/17/2006 | 0.017 |  | 10/CEU22 | 6/25/2009 | 0.0282 |  | 10/CEU8 | 12/10/2008 | 0.0118 |
| 10/CEU2 | 11/16/2006 | 0.0184 |  | 10/CEU22 | 12/10/2009 | 0.0065 |  | 10/CEU8 | 6/22/2009 | 0.009 |
| 10/CEU2 | 5/23/2007 | 0.0205 |  | 10/CEU22 | 6/21/2010 | 0.0246 |  | 10/CEU8 | 12/10/2009 | 0.0085 |

*Table 5 - Section D. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 10/CEU8 | 6/21/2010 | 0.0079 |  | 10/CTR12 | 5/23/2006 | 0.0114 |  | 10/CTR15 | 07/02/2009 | 0.0162 |
| 10/CEU8 | 6/22/2011 | 0.0061 |  | 10/CTR12 | 10/30/2006 | 0.0208 |  | 10/CTR15 | 11/09/2009 | 0.018 |
| 10/CEU8 | 11/16/2011 | 0.0072 |  | 10/CTR12 | 05/07/2007 | 0.0197 |  | 10/CTR15 | 5/17/2010 | 0.0167 |
| 10/CTR1 | 11/28/2005 | 0.0083 |  | 10/CTR12 | 11/08/2007 | 0.018 |  | 10/CTR15 | 5/31/2011 | 0.007 |
| 10/CTR1 | 5/22/2006 | 0.0074 |  | 10/CTR12 | 07/01/2008 | 0.0158 |  | 10/CTR15 | 11/07/2011 | 0.02 |
| 10/CTR1 | 11/07/2006 | 0.0087 |  | 10/CTR12 | 11/27/2008 | 0.0111 |  | 10/CTR16 | 11/02/2005 | 0.0176 |
| 10/CTR1 | 05/08/2007 | 0.0092 |  | 10/CTR12 | 6/29/2009 | 0.0149 |  | 10/CTR16 | 5/23/2006 | 0.0195 |
| 10/CTR1 | 11/15/2007 | 0.0095 |  | 10/CTR12 | 11/11/2009 | 0.013 |  | 10/CTR16 | 10/30/2006 | 0.019 |
| 10/CTR1 | 6/30/2008 | 0.0093 |  | 10/CTR12 | 5/19/2010 | 0.0181 |  | 10/CTR16 | 05/07/2007 | 0.0134 |
| 10/CTR1 | 12/01/2008 | 0.0078 |  | 10/CTR12 | 5/31/2011 | 0.0179 |  | 10/CTR16 | 11/08/2007 | 0.012 |
| 10/CTR1 | 6/24/2009 | 0.0078 |  | 10/CTR12 | 11/07/2011 | 0.0258 |  | 10/CTR16 | 07/02/2008 | 0.0273 |
| 10/CTR1 | 11/10/2009 | 0.0107 |  | 10/CTR13 | 11/02/2005 | 0.0199 |  | 10/CTR16 | 12/02/2008 | 0.0164 |
| 10/CTR1 | 5/18/2010 | 0.0102 |  | 10/CTR13 | 5/23/2006 | 0.0259 |  | 10/CTR16 | 07/02/2009 | 0.0133 |
| 10/CTR1 | 5/30/2011 | 0.0088 |  | 10/CTR13 | 10/30/2006 | 0.0195 |  | 10/CTR16 | 11/09/2009 | 0.0178 |
| 10/CTR1 | 10/18/2011 | 0.0123 |  | 10/CTR13 | 05/07/2007 | 0.0256 |  | 10/CTR16 | 5/17/2010 | 0.0176 |
| 10/CTR10 | 11/03/2005 | 0.0243 |  | 10/CTR13 | 11/08/2007 | 0.0214 |  | 10/CTR17 | 11/03/2005 | 0.0174 |
| 10/CTR10 | 5/23/2006 | 0.0201 |  | 10/CTR13 | 07/02/2008 | 0.0192 |  | 10/CTR17 | 5/23/2006 | 0.0098 |
| 10/CTR10 | 10/30/2006 | 0.0201 |  | 10/CTR13 | 11/27/2008 | 0.0232 |  | 10/CTR17 | 10/30/2006 | 0.0136 |
| 10/CTR10 | 05/07/2007 | 0.0125 |  | 10/CTR13 | 6/29/2009 | 0.0157 |  | 10/CTR17 | 05/07/2007 | 0.0127 |
| 10/CTR10 | 11/08/2007 | 0.0267 |  | 10/CTR13 | 11/09/2009 | 0.017 |  | 10/CTR17 | 11/12/2007 | 0.012 |
| 10/CTR10 | 07/02/2008 | 0.0133 |  | 10/CTR13 | 5/17/2010 | 0.0159 |  | 10/CTR17 | 07/01/2008 | 0.0143 |
| 10/CTR10 | 11/27/2008 | 0.0288 |  | 10/CTR14 | 11/03/2005 | 0.0116 |  | 10/CTR17 | 12/02/2008 | 0.01 |
| 10/CTR10 | 6/29/2009 | 0.0117 |  | 10/CTR14 | 5/23/2006 | 0.0075 |  | 10/CTR17 | 07/02/2009 | 0.0055 |
| 10/CTR10 | 11/09/2009 | 0.0092 |  | 10/CTR14 | 10/30/2006 | 0.0103 |  | 10/CTR17 | 11/09/2009 | 0.0038 |
| 10/CTR10 | 5/19/2010 | 0.0189 |  | 10/CTR14 | 05/07/2007 | 0.0186 |  | 10/CTR19 | 11/29/2005 | 0.0154 |
| 10/CTR10 | 06/06/2011 | 0.026 |  | 10/CTR14 | 11/08/2007 | 0.0188 |  | 10/CTR19 | 5/24/2006 | 0.0085 |
| 10/CTR10 | 11/08/2011 | 0.0263 |  | 10/CTR14 | 07/02/2008 | 0.0195 |  | 10/CTR19 | 11/06/2006 | 0.0133 |
| 10/CTR11 | 11/02/2005 | 0.0213 |  | 10/CTR14 | 11/27/2008 | 0.023 |  | 10/CTR19 | 05/07/2007 | 0.006 |
| 10/CTR11 | 5/23/2006 | 0.0153 |  | 10/CTR14 | 6/29/2009 | 0.0295 |  | 10/CTR19 | 11/15/2007 | 0.0076 |
| 10/CTR11 | 10/30/2006 | 0.0162 |  | 10/CTR14 | 11/09/2009 | 0.0229 |  | 10/CTR19 | 07/01/2008 | 0.0099 |
| 10/CTR11 | 05/07/2007 | 0.0169 |  | 10/CTR14 | 5/17/2010 | 0.0275 |  | 10/CTR19 | 12/02/2008 | 0.0144 |
| 10/CTR11 | 11/08/2007 | 0.0232 |  | 10/CTR14 | 06/06/2011 | 0.015 |  | 10/CTR19 | 6/29/2009 | 0.0072 |
| 10/CTR11 | 07/01/2008 | 0.0202 |  | 10/CTR14 | 11/07/2011 | 0.0144 |  | 10/CTR19 | 11/11/2009 | 0.0098 |
| 10/CTR11 | 11/27/2008 | 0.0246 |  | 10/CTR15 | 11/02/2005 | 0.0131 |  | 10/CTR19 | 5/19/2010 | 0.0118 |
| 10/CTR11 | 6/29/2009 | 0.0211 |  | 10/CTR15 | 5/23/2006 | 0.0171 |  | 10/CTR19 | 5/31/2011 | 0.011 |
| 10/CTR11 | 11/09/2009 | 0.0229 |  | 10/CTR15 | 10/30/2006 | 0.0136 |  | 10/CTR19 | 11/07/2011 | 0.0187 |
| 10/CTR11 | 5/17/2010 | 0.0232 |  | 10/CTR15 | 05/07/2007 | 0.0068 |  | 10/CTR2 | 11/03/2005 | 0.0201 |
| 10/CTR11 | 5/31/2011 | 0.0243 |  | 10/CTR15 | 11/08/2007 | 0.014 |  | 10/CTR2 | 5/24/2006 | 0.0082 |
| 10/CTR11 | 11/07/2011 | 0.0205 |  | 10/CTR15 | 07/02/2008 | 0.0171 |  | 10/CTR2 | 11/06/2006 | 0.0183 |
| 10/CTR12 | 11/02/2005 | 0.0277 |  | 10/CTR15 | 12/02/2008 | 0.0133 |  | 10/CTR2 | 05/09/2007 | 0.018 |

*Table 5 - Section E. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 10/CTR2 | 11/12/2007 | 0.0213 |  | 10/CTR23 | 10/30/2006 | 0.0071 |  | 10/CTR29 | 10/30/2006 | 0.0202 |
| 10/CTR2 | 6/30/2008 | 0.0245 |  | 10/CTR23 | 05/09/2007 | 0.0108 |  | 10/CTR29 | 05/09/2007 | 0.0182 |
| 10/CTR2 | 12/02/2008 | 0.0234 |  | 10/CTR23 | 11/12/2007 | 0.0101 |  | 10/CTR29 | 11/08/2007 | 0.0176 |
| 10/CTR2 | 6/29/2009 | 0.023 |  | 10/CTR23 | 07/01/2008 | 0.014 |  | 10/CTR29 | 07/01/2008 | 0.0185 |
| 10/CTR2 | 11/11/2009 | 0.0231 |  | 10/CTR23 | 11/27/2008 | 0.01 |  | 10/CTR29 | 11/27/2008 | 0.018 |
| 10/CTR2 | 5/17/2010 | 0.0217 |  | 10/CTR23 | 6/23/2009 | 0.0112 |  | 10/CTR29 | 6/23/2009 | 0.0243 |
| 10/CTR2 | 06/06/2011 | 0.0235 |  | 10/CTR23 | 11/09/2009 | 0.0083 |  | 10/CTR29 | 11/09/2009 | 0.0184 |
| 10/CTR2 | 11/09/2011 | 0.0287 |  | 10/CTR23 | 5/17/2010 | 0.0121 |  | 10/CTR29 | 5/17/2010 | 0.0185 |
| 10/CTR20 | 11/03/2005 | 0.0324 |  | 10/CTR25 | 11/28/2005 | 0.0119 |  | 10/CTR29 | 5/31/2011 | 0.0196 |
| 10/CTR20 | 5/24/2006 | 0.023 |  | 10/CTR25 | 5/22/2006 | 0.0094 |  | 10/CTR29 | 11/08/2011 | 0.0244 |
| 10/CTR20 | 11/08/2006 | 0.0254 |  | 10/CTR25 | 11/07/2006 | 0.0087 |  | 10/CTR3 | 11/29/2005 | 0.0115 |
| 10/CTR20 | 05/09/2007 | 0.0205 |  | 10/CTR25 | 05/08/2007 | 0.0088 |  | 10/CTR3 | 5/24/2006 | 0.0076 |
| 10/CTR20 | 11/12/2007 | 0.0291 |  | 10/CTR25 | 11/15/2007 | 0.0098 |  | 10/CTR3 | 11/06/2006 | 0.0078 |
| 10/CTR20 | 07/02/2008 | 0.0262 |  | 10/CTR25 | 07/02/2008 | 0.0084 |  | 10/CTR3 | 05/08/2007 | 0.0075 |
| 10/CTR20 | 11/27/2008 | 0.0276 |  | 10/CTR25 | 12/01/2008 | 0.0091 |  | 10/CTR3 | 11/12/2007 | 0.0091 |
| 10/CTR21 | 11/28/2005 | 0.0237 |  | 10/CTR25 | 6/24/2009 | 0.0122 |  | 10/CTR3 | 6/30/2008 | 0.0082 |
| 10/CTR21 | 5/22/2006 | 0.021 |  | 10/CTR25 | 11/10/2009 | 0.009 |  | 10/CTR3 | 12/02/2008 | 0.0058 |
| 10/CTR21 | 10/30/2006 | 0.0264 |  | 10/CTR25 | 5/18/2010 | 0.0125 |  | 10/CTR3 | 6/23/2009 | 0.0101 |
| 10/CTR21 | 05/09/2007 | 0.0254 |  | 10/CTR25 | 5/30/2011 | 0.0135 |  | 10/CTR3 | 11/09/2009 | 0.0065 |
| 10/CTR21 | 11/12/2007 | 0.0252 |  | 10/CTR26 | 11/28/2005 | 0.0127 |  | 10/CTR3 | 5/19/2010 | 0.0074 |
| 10/CTR21 | 07/01/2008 | 0.0193 |  | 10/CTR26 | 5/22/2006 | 0.0094 |  | 10/CTR31 | 11/29/2005 | 0.0255 |
| 10/CTR21 | 11/27/2008 | 0.0282 |  | 10/CTR26 | 11/07/2006 | 0.0083 |  | 10/CTR31 | 5/23/2006 | 0.0179 |
| 10/CTR21 | 6/23/2009 | 0.0165 |  | 10/CTR26 | 05/08/2007 | 0.0102 |  | 10/CTR31 | 05/09/2007 | 0.0162 |
| 10/CTR21 | 11/11/2009 | 0.0162 |  | 10/CTR26 | 11/15/2007 | 0.0124 |  | 10/CTR31 | 11/12/2007 | 0.0246 |
| 10/CTR21 | 5/19/2010 | 0.0282 |  | 10/CTR26 | 07/02/2008 | 0.0093 |  | 10/CTR31 | 07/02/2008 | 0.0176 |
| 10/CTR21 | 06/07/2011 | 0.032 |  | 10/CTR26 | 12/01/2008 | 0.0115 |  | 10/CTR31 | 12/02/2008 | 0.0101 |
| 10/CTR21 | 11/09/2011 | 0.0322 |  | 10/CTR26 | 11/11/2009 | 0.004 |  | 10/CTR31 | 07/02/2009 | 0.0176 |
| 10/CTR22 | 11/28/2005 | 0.0156 |  | 10/CTR27 | 11/28/2005 | 0.0305 |  | 10/CTR31 | 5/19/2010 | 0.0197 |
| 10/CTR22 | 5/22/2006 | 0.0133 |  | 10/CTR27 | 5/22/2006 | 0.0092 |  | 10/CTR31 | 06/07/2011 | 0.0323 |
| 10/CTR22 | 05/09/2007 | 0.0128 |  | 10/CTR27 | 11/07/2006 | 0.0208 |  | 10/CTR31 | 11/08/2011 | 0.0267 |
| 10/CTR22 | 11/12/2007 | 0.0196 |  | 10/CTR27 | 05/08/2007 | 0.0166 |  | 10/CTR32 | 11/03/2005 | 0.015 |
| 10/CTR22 | 6/30/2008 | 0.0155 |  | 10/CTR27 | 11/15/2007 | 0.0179 |  | 10/CTR32 | 5/24/2006 | 0.0102 |
| 10/CTR22 | 12/01/2008 | 0.0145 |  | 10/CTR27 | 6/30/2008 | 0.0217 |  | 10/CTR32 | 10/30/2006 | 0.0099 |
| 10/CTR22 | 6/23/2009 | 0.0202 |  | 10/CTR27 | 12/01/2008 | 0.0203 |  | 10/CTR32 | 05/09/2007 | 0.0084 |
| 10/CTR22 | 11/11/2009 | 0.0172 |  | 10/CTR27 | 6/24/2009 | 0.0185 |  | 10/CTR32 | 11/08/2007 | 0.0133 |
| 10/CTR22 | 5/18/2010 | 0.0148 |  | 10/CTR27 | 11/10/2009 | 0.0218 |  | 10/CTR32 | 07/01/2008 | 0.0129 |
| 10/CTR22 | 06/06/2011 | 0.0204 |  | 10/CTR27 | 5/18/2010 | 0.022 |  | 10/CTR32 | 11/27/2008 | 0.0088 |
| 10/CTR22 | 10/18/2011 | 0.0226 |  | 10/CTR27 | 5/31/2011 | 0.0273 |  | 10/CTR32 | 6/23/2009 | 0.0147 |
| 10/CTR23 | 11/03/2005 | 0.0117 |  | 10/CTR29 | 11/03/2005 | 0.0257 |  | 10/CTR32 | 11/09/2009 | 0.0089 |
| 10/CTR23 | 5/23/2006 | 0.0078 |  | 10/CTR29 | 5/24/2006 | 0.0198 |  | 10/CTR32 | 5/17/2010 | 0.0064 |

*Table 5 - Section F. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 10/CTR32 | 5/31/2011 | 0.0158 |  | 10/CTR6 | 6/23/2009 | 0.0113 |  | 10/CUC1 | 2/19/1999 | 0.0052 |
| 10/CTR32 | 11/08/2011 | 0.0148 |  | 10/CTR6 | 11/09/2009 | 0.0055 |  | 10/CUC1 | 06/09/1999 | 0.0072 |
| 10/CTR33 | 12/02/2008 | 0.0113 |  | 10/CTR6 | 5/19/2010 | 0.0066 |  | 10/CUC1 | 10/07/1999 | 0.0071 |
| 10/CTR33 | 6/23/2009 | 0.0169 |  | 10/CTR6 | 5/30/2011 | 0.0108 |  | 10/CUC1 | 12/10/1999 | 0.007 |
| 10/CTR33 | 11/11/2009 | 0.0155 |  | 10/CTR6 | 11/29/2011 | 0.0126 |  | 10/CUC1 | 04/04/2000 | 0.0076 |
| 10/CTR33 | 5/17/2010 | 0.021 |  | 10/CTR7 | 11/29/2005 | 0.0115 |  | 10/CUC1 | 7/16/2002 | 0.0083 |
| 10/CTR33 | 5/31/2011 | 0.016 |  | 10/CTR7 | 5/24/2006 | 0.0054 |  | 10/CUC1 | 1/18/2006 | 0.0064 |
| 10/CTR33 | 11/08/2011 | 0.0199 |  | 10/CTR7 | 11/06/2006 | 0.0045 |  | 10/CUC1 | 06/08/2006 | 0.0048 |
| 10/CTR34 | 11/28/2005 | 0.0058 |  | 10/CTR7 | 05/09/2007 | 0.0063 |  | 10/CUC1 | 11/28/2006 | 0.0069 |
| 10/CTR34 | 5/24/2006 | 0.0041 |  | 10/CTR7 | 11/12/2007 | 0.0086 |  | 10/CUC1 | 06/07/2007 | 0.006 |
| 10/CTR34 | 11/06/2006 | 0.0053 |  | 10/CTR7 | 07/01/2008 | 0.007 |  | 10/CUC1 | 11/28/2007 | 0.0061 |
| 10/CTR34 | 05/09/2007 | 0.0038 |  | 10/CTR7 | 12/02/2008 | 0.0092 |  | 10/CUC1 | 06/09/2008 | 0.0056 |
| 10/CTR34 | 11/08/2007 | 0.0049 |  | 10/CTR7 | 6/23/2009 | 0.0076 |  | 10/CUC1 | 11/26/2008 | 0.0071 |
| 10/CTR4 | 11/07/2006 | 0.0148 |  | 10/CTR7 | 11/09/2009 | 0.0062 |  | 10/CUC1 | 5/27/2009 | 0.0058 |
| 10/CTR4 | 07/02/2008 | 0.017 |  | 10/CTR7 | 5/19/2010 | 0.0075 |  | 10/CUC1 | 12/01/2009 | 0.0066 |
| 10/CTR4 | 12/01/2008 | 0.0186 |  | 10/CTR7 | 06/06/2011 | 0.0108 |  | 10/CUC1 | 06/09/2010 | 0.0078 |
| 10/CTR4 | 6/29/2009 | 0.0163 |  | 10/CTR7 | 11/09/2011 | 0.0119 |  | 10/CUC1 | 5/26/2011 | 0.0071 |
| 10/CTR4 | 11/10/2009 | 0.0204 |  | 10/CTR8 | 11/03/2005 | 0.029 |  | 10/CUC1 | 10/17/2011 | 0.0064 |
| 10/CTR4 | 5/18/2010 | 0.0202 |  | 10/CTR8 | 5/23/2006 | 0.021 |  | 10/CUC1 | 06/08/2016 | 0.0053 |
| 10/CTR4 | 5/31/2011 | 0.0174 |  | 10/CTR8 | 10/30/2006 | 0.0246 |  | 10/CUC1 | 11/08/2016 | 0.0063 |
| 10/CTR4 | 10/18/2011 | 0.0234 |  | 10/CTR8 | 05/07/2007 | 0.0237 |  | 10/CUC10 | 8/16/2004 | 0.0037 |
| 10/CTR5 | 11/28/2005 | 0.0179 |  | 10/CTR8 | 11/08/2007 | 0.0233 |  | 10/CUC10 | 5/25/2011 | 0.0084 |
| 10/CTR5 | 5/22/2006 | 0.0142 |  | 10/CTR8 | 07/01/2008 | 0.0214 |  | 10/CUC10 | 10/13/2011 | 0.0084 |
| 10/CTR5 | 11/07/2006 | 0.0128 |  | 10/CTR8 | 11/27/2008 | 0.0287 |  | 10/CUC10 | 06/09/2016 | 0.0065 |
| 10/CTR5 | 05/08/2007 | 0.0139 |  | 10/CTR9 | 11/03/2005 | 0.0239 |  | 10/CUC10 | 10/12/2016 | 0.0095 |
| 10/CTR5 | 11/15/2007 | 0.0139 |  | 10/CTR9 | 5/23/2006 | 0.016 |  | 10/CUC11 | 08/04/2004 | 0.0016 |
| 10/CTR5 | 6/30/2008 | 0.0131 |  | 10/CTR9 | 10/30/2006 | 0 |  | 10/CUC11 | 6/28/2011 | 0.0032 |
| 10/CTR5 | 12/01/2008 | 0.0102 |  | 10/CTR9 | 05/09/2007 | 0.015 |  | 10/CUC11 | 11/10/2011 | 0.0037 |
| 10/CTR5 | 6/24/2009 | 0.0142 |  | 10/CTR9 | 11/12/2007 | 0.0169 |  | 10/CUC11 | 06/09/2016 | 0.0023 |
| 10/CTR5 | 11/10/2009 | 0.0176 |  | 10/CTR9 | 07/01/2008 | 0.0137 |  | 10/CUC11 | 11/21/2016 | 0.0038 |
| 10/CTR5 | 5/18/2010 | 0.0202 |  | 10/CTR9 | 11/27/2008 | 0.019 |  | 10/CUC2 | 8/16/2004 | 0.0045 |
| 10/CTR5 | 5/30/2011 | 0.0232 |  | 10/CTR9 | 6/23/2009 | 0.0153 |  | 10/CUC2 | 1/18/2005 | 0.0071 |
| 10/CTR5 | 10/18/2011 | 0.0185 |  | 10/CTR9 | 11/09/2009 | 0.0178 |  | 10/CUC2 | 5/26/2011 | 0.0099 |
| 10/CTR6 | 11/29/2005 | 0.0092 |  | 10/CTR9 | 5/17/2010 | 0.0194 |  | 10/CUC2 | 10/17/2011 | 0.0097 |
| 10/CTR6 | 5/24/2006 | 0.0051 |  | 10/CTR9 | 5/31/2011 | 0.0233 |  | 10/CUC2 | 06/08/2016 | 0.0109 |
| 10/CTR6 | 11/08/2006 | 0.0062 |  | 10/CTR9 | 11/08/2011 | 0.0185 |  | 10/CUC2 | 11/08/2016 | 0.0098 |
| 10/CTR6 | 05/09/2007 | 0.0044 |  | 10/CUC1 | 4/15/1998 | 0.004 |  | 10/CUC4 | 8/16/2004 | 0.0079 |
| 10/CTR6 | 11/12/2007 | 0.0063 |  | 10/CUC1 | 06/10/1998 | 0.0043 |  | 10/CUC4 | 1/18/2005 | 0.0081 |
| 10/CTR6 | 07/01/2008 | 0.0069 |  | 10/CUC1 | 9/21/1998 | 0.0052 |  | 10/CUC4 | 5/26/2011 | 0.0088 |
| 10/CTR6 | 12/02/2008 | 0.0049 |  | 10/CUC1 | 12/09/1998 | 0.0049 |  | 10/CUC4 | 10/17/2011 | 0.0093 |

*Table 5 - Section G. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 10/CUC10 | 11/17/2008 | 0.0073 |  | 10/CUC2 | 10/07/1999 | 0.0097 |  | 10/CUC3 | 5/27/2009 | 0.0074 |
| 10/CUC10 | 11/28/2001 | 0.0066 |  | 10/CUC2 | 06/09/1999 | 0.0084 |  | 10/CUC4 | 12/08/1998 | 0.0074 |
| 10/CUC10 | 11/28/2007 | 0.0065 |  | 10/CUC2 | 12/10/1999 | 0.0108 |  | 10/CUC4 | 06/10/1998 | 0.0074 |
| 10/CUC10 | 11/30/2006 | 0.0062 |  | 10/CUC2 | 04/04/2000 | 0.0124 |  | 10/CUC4 | 03/01/1999 | 0.0084 |
| 10/CUC10 | 5/25/2006 | 0.006 |  | 10/CUC2 | 12/05/2006 | 0.0078 |  | 10/CUC4 | 06/09/1999 | 0.0092 |
| 10/CUC10 | 5/25/2011 | 0.0084 |  | 10/CUC2 | 06/07/2007 | 0.0085 |  | 10/CUC4 | 11/09/1999 | 0.0081 |
| 10/CUC10 | 5/25/2011 | 0.0084 |  | 10/CUC2 | 06/09/2008 | 0.0092 |  | 10/CUC4 | 10/12/1999 | 0.0088 |
| 10/CUC10 | 5/26/2009 | 0.0073 |  | 10/CUC2 | 12/01/2009 | 0.009 |  | 10/CUC4 | 04/04/2000 | 0.011 |
| 10/CUC10 | 9/25/1998 | 0.0056 |  | 10/CUC2 | 06/09/2010 | 0.0086 |  | 10/CUC4 | 12/05/2000 | 0.0073 |
| 10/CUC11 | 12/07/1998 | 0.0035 |  | 10/CUC2 | 06/08/2016 | 0.0109 |  | 10/CUC4 | 06/08/2006 | 0.0077 |
| 10/CUC11 | 10/07/1999 | 0.0045 |  | 10/CUC2 | 06/08/2016 | 0.0109 |  | 10/CUC4 | 06/07/2007 | 0.0086 |
| 10/CUC11 | 06/09/1999 | 0.0044 |  | 10/CUC2 | 11/08/2016 | 0.0098 |  | 10/CUC4 | 06/09/2008 | 0.0081 |
| 10/CUC11 | 11/09/1999 | 0.0038 |  | 10/CUC2 | 11/08/2016 | 0.0098 |  | 10/CUC4 | 12/01/2009 | 0.0078 |
| 10/CUC11 | 02/12/1999 | 0.0035 |  | 10/CUC2 | 1/17/2006 | 0.0093 |  | 10/CUC4 | 06/09/2010 | 0.0087 |
| 10/CUC11 | 04/03/2000 | 0.0048 |  | 10/CUC2 | 1/18/2005 | 0.0071 |  | 10/CUC4 | 06/08/2016 | 0.0078 |
| 10/CUC11 | 12/05/2000 | 0.0031 |  | 10/CUC2 | 10/17/2011 | 0.0097 |  | 10/CUC4 | 06/08/2016 | 0.0078 |
| 10/CUC11 | 07/10/2002 | 0.0057 |  | 10/CUC2 | 10/17/2011 | 0.0097 |  | 10/CUC4 | 11/08/2016 | 0.0086 |
| 10/CUC11 | 08/04/2004 | 0.0016 |  | 10/CUC2 | 11/26/2008 | 0.0082 |  | 10/CUC4 | 11/08/2016 | 0.0086 |
| 10/CUC11 | 12/05/2006 | 0.0047 |  | 10/CUC2 | 11/28/2007 | 0.0068 |  | 10/CUC4 | 1/18/2005 | 0.0081 |
| 10/CUC11 | 12/04/2007 | 0.0043 |  | 10/CUC2 | 2/19/1999 | 0.0077 |  | 10/CUC4 | 1/18/2006 | 0.0085 |
| 10/CUC11 | 06/05/2007 | 0.0032 |  | 10/CUC2 | 4/15/1998 | 0.0078 |  | 10/CUC4 | 10/17/2011 | 0.0093 |
| 10/CUC11 | 06/10/2008 | 0.0032 |  | 10/CUC2 | 5/25/2006 | 0.0089 |  | 10/CUC4 | 10/17/2011 | 0.0095 |
| 10/CUC11 | 06/03/2009 | 0.0035 |  | 10/CUC2 | 5/26/2011 | 0.0099 |  | 10/CUC4 | 11/15/2001 | 0.0104 |
| 10/CUC11 | 12/03/2009 | 0.0029 |  | 10/CUC2 | 5/26/2011 | 0.0099 |  | 10/CUC4 | 11/26/2008 | 0.008 |
| 10/CUC11 | 11/10/2011 | 0.0037 |  | 10/CUC2 | 5/27/2009 | 0.0074 |  | 10/CUC4 | 11/28/2006 | 0.0097 |
| 10/CUC11 | 11/10/2011 | 0.0037 |  | 10/CUC2 | 8/16/2004 | 0.0045 |  | 10/CUC4 | 11/28/2007 | 0.0081 |
| 10/CUC11 | 06/09/2016 | 0.0023 |  | 10/CUC2 | 9/21/1998 | 0.0056 |  | 10/CUC4 | 4/15/1998 | 0.0065 |
| 10/CUC11 | 06/09/2016 | 0.0023 |  | 10/CUC3 | 06/08/2006 | 0.0077 |  | 10/CUC4 | 5/26/2011 | 0.0088 |
| 10/CUC11 | 1/19/2006 | 0.0028 |  | 10/CUC3 | 06/07/2007 | 0.0079 |  | 10/CUC4 | 5/26/2011 | 0.009 |
| 10/CUC11 | 11/18/2008 | 0.003 |  | 10/CUC3 | 06/09/2008 | 0.0079 |  | 10/CUC4 | 5/27/2009 | 0.008 |
| 10/CUC11 | 11/21/2016 | 0.0038 |  | 10/CUC3 | 12/01/2009 | 0.0083 |  | 10/CUC4 | 7/16/2002 | 0.0086 |
| 10/CUC11 | 11/21/2016 | 0.0038 |  | 10/CUC3 | 06/09/2010 | 0.0087 |  | 10/CUC4 | 8/16/2004 | 0.0079 |
| 10/CUC11 | 11/28/2001 | 0.0023 |  | 10/CUC3 | 06/08/2016 | 0.009 |  | 10/CUC4 | 9/21/1998 | 0.0052 |
| 10/CUC11 | 5/25/2006 | 0.004 |  | 10/CUC3 | 11/08/2016 | 0.0082 |  | 10/CUC5 | 06/11/1998 | 0.0069 |
| 10/CUC11 | 6/16/2010 | 0.0032 |  | 10/CUC3 | 1/18/2006 | 0.0088 |  | 10/CUC5 | 11/10/1999 | 0.0061 |
| 10/CUC11 | 6/28/2011 | 0.0032 |  | 10/CUC3 | 10/17/2011 | 0.0093 |  | 10/CUC5 | 04/05/2000 | 0.0066 |
| 10/CUC11 | 6/28/2011 | 0.0033 |  | 10/CUC3 | 11/26/2008 | 0.008 |  | 10/CUC5 | 12/06/2000 | 0.0048 |
| 10/CUC11 | 9/25/1998 | 0.0031 |  | 10/CUC3 | 11/28/2006 | 0.008 |  | 10/CUC5 | 07/12/2002 | 0.0062 |
| 10/CUC2 | 12/09/1998 | 0.0078 |  | 10/CUC3 | 11/28/2007 | 0.0089 |  | 10/CUC5 | 08/05/2004 | 0.0025 |
| 10/CUC2 | 06/10/1998 | 0.0068 |  | 10/CUC3 | 5/26/2011 | 0.009 |  | 10/CUC5 | 12/03/2007 | 0.0041 |

*Table 5 - Section H. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 10/CUC5 | 06/04/2009 | 0.0065 |  | 10/CUC7 | 12/06/2000 | 0.0026 |  | 10/CUC8 | 12/16/2009 | 0.0039 |
| 10/CUC5 | 1/13/2005 | 0.0046 |  | 10/CUC7 | 12/03/2007 | 0.002 |  | 10/CUC8 | 12/21/2006 | 0.0038 |
| 10/CUC5 | 1/17/2006 | 0.005 |  | 10/CUC7 | 06/04/2009 | 0.0035 |  | 10/CUC8 | 5/23/2011 | 0.005 |
| 10/CUC5 | 10/13/1999 | 0.0059 |  | 10/CUC7 | 1/17/2006 | 0.0023 |  | 10/CUC8 | 5/23/2011 | 0.0049 |
| 10/CUC5 | 11/14/2011 | 0.0068 |  | 10/CUC7 | 10/13/1999 | 0.0025 |  | 10/CUC8 | 5/29/2006 | 0.0038 |
| 10/CUC5 | 11/14/2011 | 0.0067 |  | 10/CUC7 | 10/19/2016 | 0.0022 |  | 10/CUC8 | 6/13/2007 | 0.004 |
| 10/CUC5 | 11/21/2016 | 0.0083 |  | 10/CUC7 | 10/19/2016 | 0.0022 |  | 10/CUC8 | 6/15/1999 | 0.0056 |
| 10/CUC5 | 11/21/2016 | 0.0083 |  | 10/CUC7 | 11/14/2011 | 0.0027 |  | 10/CUC8 | 6/15/2016 | 0.008 |
| 10/CUC5 | 11/24/2008 | 0.0063 |  | 10/CUC7 | 11/14/2011 | 0.0027 |  | 10/CUC8 | 6/15/2016 | 0.008 |
| 10/CUC5 | 12/16/2009 | 0.0058 |  | 10/CUC7 | 11/24/2008 | 0.002 |  | 10/CUC8 | 6/26/2008 | 0.0041 |
| 10/CUC5 | 12/21/2006 | 0.0045 |  | 10/CUC7 | 12/16/2009 | 0.0022 |  | 10/CUC8 | 6/30/2010 | 0.0037 |
| 10/CUC5 | 2/25/1999 | 0.0037 |  | 10/CUC7 | 12/21/2006 | 0.0028 |  | 10/CUC8 | 9/22/1998 | 0.0042 |
| 10/CUC5 | 4/17/1998 | 0.0046 |  | 10/CUC7 | 2/25/1999 | 0.002 |  | 10/MPE2 | 7/13/2006 | 0.0188 |
| 10/CUC5 | 5/23/2011 | 0.0058 |  | 10/CUC7 | 4/17/1998 | 0.0016 |  | 10/MPE2 | 12/20/2006 | 0.0168 |
| 10/CUC5 | 5/23/2011 | 0.0057 |  | 10/CUC7 | 5/23/2011 | 0.0028 |  | 10/MPE2 | 6/18/2007 | 0.017 |
| 10/CUC5 | 5/29/2006 | 0.0041 |  | 10/CUC7 | 5/23/2011 | 0.0027 |  | 10/MPE2 | 12/11/2007 | 0.0041 |
| 10/CUC5 | 6/13/2007 | 0.0036 |  | 10/CUC7 | 5/29/2006 | 0.0018 |  | 10/MPE2 | 07/08/2008 | 0.0185 |
| 10/CUC5 | 6/13/2016 | 0.0067 |  | 10/CUC7 | 6/13/2007 | 0.0027 |  | 10/MPE2 | 12/18/2008 | 0.0171 |
| 10/CUC5 | 6/13/2016 | 0.0067 |  | 10/CUC7 | 6/13/2016 | 0.0029 |  | 10/MPE2 | 07/01/2009 | 0.0174 |
| 10/CUC5 | 6/15/1999 | 0.0045 |  | 10/CUC7 | 6/13/2016 | 0.0029 |  | 10/MPE2 | 12/09/2009 | 0.0197 |
| 10/CUC5 | 6/26/2008 | 0.0041 |  | 10/CUC7 | 6/15/1999 | 0.0023 |  | 10/MPE2 | 07/01/2010 | 0.0208 |
| 10/CUC5 | 6/30/2010 | 0.0056 |  | 10/CUC7 | 6/26/2008 | 0.0023 |  | 10/MPE2 | 10/27/2011 | 0.0286 |
| 10/CUC5 | 9/22/1998 | 0.0077 |  | 10/CUC7 | 6/30/2010 | 0.0019 |  | 10/MVT1 | 01/09/2006 | 0.0084 |
| 10/CUC6 | 12/03/2007 | 0.0066 |  | 10/CUC7 | 7/15/2002 | 0.0032 |  | 10/MVT1 | 5/16/2006 | 0.0205 |
| 10/CUC6 | 06/04/2009 | 0.0079 |  | 10/CUC7 | 9/22/1998 | 0.0023 |  | 10/MVT1 | 11/14/2006 | 0.0288 |
| 10/CUC6 | 1/17/2006 | 0.0075 |  | 10/CUC8 | 11/10/1999 | 0.0058 |  | 10/MVT1 | 05/10/2007 | 0.0217 |
| 10/CUC6 | 11/14/2011 | 0.0087 |  | 10/CUC8 | 04/06/2000 | 0.0054 |  | 10/MVT11 | 01/09/2006 | 0.0464 |
| 10/CUC6 | 11/21/2016 | 0.0118 |  | 10/CUC8 | 12/06/2000 | 0.0036 |  | 10/MVT11 | 5/16/2006 | 0.0334 |
| 10/CUC6 | 11/24/2008 | 0.009 |  | 10/CUC8 | 07/12/2002 | 0.0058 |  | 10/MVT11 | 11/14/2006 | 0.0328 |
| 10/CUC6 | 12/16/2009 | 0.0079 |  | 10/CUC8 | 08/05/2004 | 0.0029 |  | 10/MVT11 | 05/02/2007 | 0.0345 |
| 10/CUC6 | 12/21/2006 | 0.0077 |  | 10/CUC8 | 12/03/2007 | 0.0037 |  | 10/MVT11 | 11/05/2007 | 0.0237 |
| 10/CUC6 | 5/23/2011 | 0.008 |  | 10/CUC8 | 06/04/2009 | 0.0045 |  | 10/MVT11 | 5/28/2008 | 0.0369 |
| 10/CUC6 | 5/29/2006 | 0.0075 |  | 10/CUC8 | 12/12/2011 | 0.0049 |  | 10/MVT11 | 12/04/2008 | 0.0233 |
| 10/CUC6 | 6/13/2007 | 0.0067 |  | 10/CUC8 | 1/13/2005 | 0.0035 |  | 10/MVT11 | 6/16/2009 | 0.0343 |
| 10/CUC6 | 6/13/2016 | 0.0062 |  | 10/CUC8 | 1/17/2006 | 0.0042 |  | 10/MVT11 | 12/03/2009 | 0.0273 |
| 10/CUC6 | 6/26/2008 | 0.0071 |  | 10/CUC8 | 10/13/1999 | 0.0055 |  | 10/MVT11 | 5/25/2010 | 0.0203 |
| 10/CUC6 | 6/30/2010 | 0.0067 |  | 10/CUC8 | 10/19/2016 | 0.0041 |  | 10/MVT12 | 01/10/2006 | 0.0176 |
| 10/CUC7 | 06/11/1998 | 0.0024 |  | 10/CUC8 | 10/19/2016 | 0.0041 |  | 10/MVT12 | 05/08/2006 | 0.0105 |
| 10/CUC7 | 11/10/1999 | 0.0027 |  | 10/CUC8 | 11/24/2008 | 0.0039 |  | 10/MVT12 | 11/13/2006 | 0.0166 |
| 10/CUC7 | 04/05/2000 | 0.0028 |  | 10/CUC8 | 12/13/2011 | 0.0048 |  | 10/MVT12 | 05/02/2007 | 0.0152 |

*Table 5 - Section I. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 10/MVT12 | 11/05/2007 | 0.0123 |  | 10/MVT16 | 01/10/2006 | 0.0227 |  | 10/MVT19 | 11/05/2007 | 0.0166 |
| 10/MVT12 | 5/28/2008 | 0.0156 |  | 10/MVT16 | 05/08/2006 | 0.0201 |  | 10/MVT19 | 5/26/2008 | 0.0236 |
| 10/MVT12 | 12/04/2008 | 0.0145 |  | 10/MVT16 | 11/14/2006 | 0.0249 |  | 10/MVT19 | 12/04/2008 | 0.0177 |
| 10/MVT12 | 06/04/2009 | 0.0154 |  | 10/MVT16 | 05/02/2007 | 0.0213 |  | 10/MVT19 | 6/15/2009 | 0.0215 |
| 10/MVT12 | 11/12/2009 | 0.0149 |  | 10/MVT16 | 11/05/2007 | 0.0153 |  | 10/MVT19 | 11/12/2009 | 0.0166 |
| 10/MVT12 | 5/20/2010 | 0.0119 |  | 10/MVT16 | 5/28/2008 | 0.0177 |  | 10/MVT19 | 5/20/2010 | 0.0203 |
| 10/MVT13 | 01/10/2006 | 0.0286 |  | 10/MVT16 | 12/04/2008 | 0.031 |  | 10/MVT2 | 01/09/2006 | 0.0205 |
| 10/MVT13 | 05/08/2006 | 0.0209 |  | 10/MVT16 | 6/15/2009 | 0.0254 |  | 10/MVT2 | 5/17/2006 | 0.0243 |
| 10/MVT13 | 11/13/2006 | 0.0257 |  | 10/MVT16 | 11/12/2009 | 0.0212 |  | 10/MVT2 | 11/16/2006 | 0.0245 |
| 10/MVT13 | 05/02/2007 | 0.0246 |  | 10/MVT16 | 5/25/2010 | 0.0198 |  | 10/MVT2 | 05/10/2007 | 0.0221 |
| 10/MVT13 | 11/05/2007 | 0.0242 |  | 10/MVT16 | 06/09/2011 | 0.029 |  | 10/MVT2 | 11/20/2007 | 0.0216 |
| 10/MVT13 | 5/27/2008 | 0.0283 |  | 10/MVT16 | 11/30/2011 | 0.0282 |  | 10/MVT2 | 6/17/2008 | 0.0252 |
| 10/MVT13 | 12/04/2008 | 0.0333 |  | 10/MVT17 | 01/10/2006 | 0.0337 |  | 10/MVT2 | 12/18/2008 | 0.0218 |
| 10/MVT13 | 6/15/2009 | 0.0154 |  | 10/MVT17 | 05/08/2006 | 0.0161 |  | 10/MVT2 | 6/18/2009 | 0.0241 |
| 10/MVT13 | 11/12/2009 | 0.0234 |  | 10/MVT17 | 11/13/2006 | 0.0174 |  | 10/MVT2 | 11/30/2009 | 0.0206 |
| 10/MVT13 | 5/20/2010 | 0.0263 |  | 10/MVT17 | 05/02/2007 | 0.0137 |  | 10/MVT2 | 5/25/2010 | 0.0231 |
| 10/MVT13 | 06/09/2011 | 0.039 |  | 10/MVT17 | 11/06/2007 | 0.0201 |  | 10/MVT2 | 6/14/2011 | 0.03 |
| 10/MVT13 | 12/01/2011 | 0.0356 |  | 10/MVT17 | 5/26/2008 | 0.0355 |  | 10/MVT2 | 11/30/2011 | 0.0294 |
| 10/MVT14 | 01/10/2006 | 0.0233 |  | 10/MVT17 | 12/04/2008 | 0.0139 |  | 10/MVT20 | 01/04/2006 | 0.0337 |
| 10/MVT14 | 05/08/2006 | 0.0177 |  | 10/MVT17 | 6/15/2009 | 0.03 |  | 10/MVT20 | 05/08/2006 | 0.0183 |
| 10/MVT14 | 11/13/2006 | 0.03 |  | 10/MVT17 | 11/12/2009 | 0.0262 |  | 10/MVT20 | 11/13/2006 | 0.0228 |
| 10/MVT14 | 05/02/2007 | 0.0272 |  | 10/MVT17 | 5/20/2010 | 0.0281 |  | 10/MVT20 | 05/03/2007 | 0.0138 |
| 10/MVT14 | 11/06/2007 | 0.0216 |  | 10/MVT17 | 06/09/2011 | 0.0282 |  | 10/MVT20 | 11/05/2007 | 0.017 |
| 10/MVT14 | 5/28/2008 | 0.0281 |  | 10/MVT17 | 11/30/2011 | 0.0303 |  | 10/MVT20 | 5/26/2008 | 0.0178 |
| 10/MVT14 | 12/03/2008 | 0.0197 |  | 10/MVT18 | 01/10/2006 | 0.0187 |  | 10/MVT20 | 12/03/2008 | 0.0265 |
| 10/MVT14 | 6/15/2009 | 0.0451 |  | 10/MVT18 | 05/08/2006 | 0.0151 |  | 10/MVT20 | 05/12/2009 | 0.0235 |
| 10/MVT14 | 11/12/2009 | 0.0375 |  | 10/MVT18 | 11/13/2006 | 0.0187 |  | 10/MVT20 | 11/12/2009 | 0.0108 |
| 10/MVT14 | 5/20/2010 | 0.0247 |  | 10/MVT18 | 05/02/2007 | 0.0157 |  | 10/MVT20 | 5/24/2010 | 0.0106 |
| 10/MVT14 | 06/08/2011 | 0.0406 |  | 10/MVT18 | 11/05/2007 | 0.0166 |  | 10/MVT20 | 06/09/2011 | 0.0224 |
| 10/MVT14 | 12/06/2011 | 0.0419 |  | 10/MVT18 | 5/26/2008 | 0.0181 |  | 10/MVT20 | 12/01/2011 | 0.0248 |
| 10/MVT15 | 01/10/2006 | 0.033 |  | 10/MVT18 | 12/03/2008 | 0.0157 |  | 10/MVT21 | 01/04/2006 | 0.0254 |
| 10/MVT15 | 05/08/2006 | 0.0182 |  | 10/MVT18 | 6/15/2009 | 0.0177 |  | 10/MVT21 | 05/10/2006 | 0.0187 |
| 10/MVT15 | 11/13/2006 | 0.023 |  | 10/MVT18 | 11/12/2009 | 0.0169 |  | 10/MVT21 | 11/13/2006 | 0.0259 |
| 10/MVT15 | 05/02/2007 | 0.0177 |  | 10/MVT18 | 5/20/2010 | 0.0153 |  | 10/MVT21 | 05/02/2007 | 0.0222 |
| 10/MVT15 | 11/06/2007 | 0.0148 |  | 10/MVT18 | 06/08/2011 | 0.0242 |  | 10/MVT21 | 11/06/2007 | 0.0205 |
| 10/MVT15 | 5/28/2008 | 0.0137 |  | 10/MVT18 | 12/01/2011 | 0.0227 |  | 10/MVT21 | 5/26/2008 | 0.0258 |
| 10/MVT15 | 12/03/2008 | 0.0115 |  | 10/MVT19 | 01/04/2006 | 0.0249 |  | 10/MVT21 | 12/03/2008 | 0.0207 |
| 10/MVT15 | 6/15/2009 | 0.0173 |  | 10/MVT19 | 05/08/2006 | 0.0192 |  | 10/MVT21 | 6/15/2009 | 0.0215 |
| 10/MVT15 | 11/12/2009 | 0.0093 |  | 10/MVT19 | 11/13/2006 | 0.0177 |  | 10/MVT21 | 11/12/2009 | 0.0268 |
| 10/MVT15 | 5/20/2010 | 0.015 |  | 10/MVT19 | 05/02/2007 | 0.0199 |  | 10/MVT21 | 5/24/2010 | 0.0222 |

*Table 5 - Section J. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 10/MVT21 | 06/08/2011 | 0.0324 |  | 10/MVT29 | 11/06/2007 | 0.0211 |  | 10/MVT33 | 05/03/2007 | 0.019 |
| 10/MVT21 | 12/01/2011 | 0.0271 |  | 10/MVT29 | 5/27/2008 | 0.0225 |  | 10/MVT33 | 11/06/2007 | 0.01 |
| 10/MVT23 | 01/04/2006 | 0.0285 |  | 10/MVT29 | 12/03/2008 | 0.0208 |  | 10/MVT33 | 5/27/2008 | 0.0182 |
| 10/MVT23 | 05/10/2006 | 0.0209 |  | 10/MVT29 | 6/15/2009 | 0.0164 |  | 10/MVT33 | 12/03/2008 | 0.021 |
| 10/MVT23 | 11/13/2006 | 0.0185 |  | 10/MVT29 | 11/16/2009 | 0.0224 |  | 10/MVT33 | 6/15/2009 | 0.012 |
| 10/MVT23 | 05/03/2007 | 0.0151 |  | 10/MVT29 | 5/24/2010 | 0.0169 |  | 10/MVT33 | 11/16/2009 | 0.0139 |
| 10/MVT23 | 11/06/2007 | 0.0086 |  | 10/MVT3 | 01/09/2006 | 0.0253 |  | 10/MVT33 | 5/24/2010 | 0.0152 |
| 10/MVT23 | 5/26/2008 | 0.0327 |  | 10/MVT3 | 5/16/2006 | 0.0093 |  | 10/MVT34 | 01/03/2006 | 0.0561 |
| 10/MVT23 | 12/04/2008 | 0.0185 |  | 10/MVT3 | 11/16/2006 | 0.0167 |  | 10/MVT34 | 05/11/2006 | 0.036 |
| 10/MVT23 | 6/15/2009 | 0.0133 |  | 10/MVT3 | 05/10/2007 | 0.0142 |  | 10/MVT34 | 11/08/2006 | 0.0206 |
| 10/MVT23 | 11/12/2009 | 0.0177 |  | 10/MVT3 | 11/20/2007 | 0.0108 |  | 10/MVT34 | 05/03/2007 | 0.0428 |
| 10/MVT23 | 5/24/2010 | 0.0189 |  | 10/MVT3 | 5/28/2008 | 0.0115 |  | 10/MVT34 | 11/06/2007 | 0.0393 |
| 10/MVT24 | 01/04/2006 | 0.0192 |  | 10/MVT3 | 12/09/2008 | 0.0214 |  | 10/MVT34 | 5/26/2008 | 0.0329 |
| 10/MVT24 | 05/10/2006 | 0.0165 |  | 10/MVT3 | 6/17/2009 | 0.0111 |  | 10/MVT34 | 05/12/2009 | 0.0435 |
| 10/MVT24 | 11/13/2006 | 0.0225 |  | 10/MVT3 | 11/30/2009 | 0.0206 |  | 10/MVT34 | 11/16/2009 | 0.045 |
| 10/MVT24 | 05/03/2007 | 0.024 |  | 10/MVT3 | 5/25/2010 | 0.0108 |  | 10/MVT34 | 12/05/2011 | 0.0378 |
| 10/MVT24 | 11/06/2007 | 0.0192 |  | 10/MVT31 | 01/03/2006 | 0.0337 |  | 10/MVT37 | 01/03/2006 | 0.0371 |
| 10/MVT24 | 5/27/2008 | 0.0131 |  | 10/MVT31 | 05/10/2006 | 0.0147 |  | 10/MVT37 | 05/11/2006 | 0.0334 |
| 10/MVT24 | 12/03/2008 | 0.0185 |  | 10/MVT31 | 11/13/2006 | 0.0238 |  | 10/MVT37 | 11/08/2006 | 0.038 |
| 10/MVT24 | 6/15/2009 | 0.0128 |  | 10/MVT31 | 05/03/2007 | 0.0103 |  | 10/MVT37 | 05/03/2007 | 0.0358 |
| 10/MVT24 | 11/16/2009 | 0.0099 |  | 10/MVT31 | 11/06/2007 | 0.008 |  | 10/MVT37 | 5/27/2008 | 0.0342 |
| 10/MVT24 | 5/24/2010 | 0.0133 |  | 10/MVT31 | 5/27/2008 | 0.0304 |  | 10/MVT37 | 12/04/2008 | 0.0351 |
| 10/MVT24 | 06/08/2011 | 0.026 |  | 10/MVT31 | 12/03/2008 | 0.0276 |  | 10/MVT37 | 6/16/2009 | 0.0293 |
| 10/MVT24 | 12/01/2011 | 0.0254 |  | 10/MVT31 | 11/16/2009 | 0.0256 |  | 10/MVT37 | 11/16/2009 | 0.046 |
| 10/MVT27 | 01/03/2006 | 0.0257 |  | 10/MVT31 | 5/24/2010 | 0.0082 |  | 10/MVT37 | 5/24/2010 | 0.0308 |
| 10/MVT27 | 05/10/2006 | 0.0194 |  | 10/MVT31 | 06/08/2011 | 0.0271 |  | 10/MVT37 | 06/07/2011 | 0.0441 |
| 10/MVT27 | 11/08/2006 | 0.0211 |  | 10/MVT31 | 12/01/2011 | 0.0272 |  | 10/MVT37 | 12/05/2011 | 0.0433 |
| 10/MVT27 | 05/03/2007 | 0.0199 |  | 10/MVT32 | 01/03/2006 | 0.0272 |  | 10/MVT39 | 01/03/2006 | 0.0124 |
| 10/MVT27 | 11/06/2007 | 0.0177 |  | 10/MVT32 | 05/10/2006 | 0.0237 |  | 10/MVT39 | 05/11/2006 | 0.0108 |
| 10/MVT27 | 5/27/2008 | 0.0223 |  | 10/MVT32 | 11/08/2006 | 0.0229 |  | 10/MVT39 | 11/13/2006 | 0.017 |
| 10/MVT27 | 12/04/2008 | 0.0164 |  | 10/MVT32 | 05/03/2007 | 0.0267 |  | 10/MVT39 | 05/03/2007 | 0.0131 |
| 10/MVT27 | 6/15/2009 | 0.0201 |  | 10/MVT32 | 11/07/2007 | 0.0201 |  | 10/MVT39 | 11/07/2007 | 0.0144 |
| 10/MVT27 | 11/16/2009 | 0.0179 |  | 10/MVT32 | 5/26/2008 | 0.033 |  | 10/MVT39 | 5/27/2008 | 0.0121 |
| 10/MVT27 | 5/24/2010 | 0.0155 |  | 10/MVT32 | 12/03/2008 | 0.0231 |  | 10/MVT39 | 12/03/2008 | 0.0095 |
| 10/MVT27 | 06/08/2011 | 0.0265 |  | 10/MVT32 | 6/16/2009 | 0.0225 |  | 10/MVT39 | 6/16/2009 | 0.0122 |
| 10/MVT27 | 12/01/2011 | 0.0186 |  | 10/MVT32 | 11/11/2009 | 0.0221 |  | 10/MVT39 | 11/16/2009 | 0.0118 |
| 10/MVT29 | 01/03/2006 | 0.0279 |  | 10/MVT32 | 5/24/2010 | 0.0255 |  | 10/MVT39 | 5/24/2010 | 0.0099 |
| 10/MVT29 | 05/10/2006 | 0.0243 |  | 10/MVT33 | 01/03/2006 | 0.0115 |  | 10/MVT39 | 06/08/2011 | 0.0228 |
| 10/MVT29 | 11/08/2006 | 0.0251 |  | 10/MVT33 | 05/10/2006 | 0.021 |  | 10/MVT39 | 12/05/2011 | 0.0218 |
| 10/MVT29 | 05/03/2007 | 0.0189 |  | 10/MVT33 | 11/08/2006 | 0.0178 |  | 10/MVT4 | 01/09/2006 | 0.0367 |

*Table 5 - Section K. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 10/MVT4 | 5/17/2006 | 0.0083 |  | 10/MVT7 | 01/09/2006 | 0.0129 |  | 10/ORV10 | 12/17/2008 | 0.0025 |
| 10/MVT4 | 11/16/2006 | 0.0211 |  | 10/MVT7 | 5/16/2006 | 0.0153 |  | 10/ORV10 | 6/30/2009 | 0.0064 |
| 10/MVT4 | 05/10/2007 | 0.0252 |  | 10/MVT7 | 11/14/2006 | 0.0163 |  | 10/ORV10 | 12/14/2009 | 0.0028 |
| 10/MVT4 | 11/20/2007 | 0.0207 |  | 10/MVT7 | 05/02/2007 | 0.0215 |  | 10/ORV10 | 6/15/2010 | 0.003 |
| 10/MVT4 | 6/17/2008 | 0.0335 |  | 10/MVT7 | 11/05/2007 | 0.0132 |  | 10/ORV10 | 11/22/2011 | 0.0053 |
| 10/MVT4 | 6/18/2009 | 0.0192 |  | 10/MVT7 | 5/28/2008 | 0.0192 |  | 10/ORV11 | 01/11/2006 | 0.003 |
| 10/MVT4 | 11/30/2009 | 0.0241 |  | 10/MVT7 | 12/04/2008 | 0.0131 |  | 10/ORV11 | 06/07/2006 | 0.0014 |
| 10/MVT4 | 5/25/2010 | 0.0238 |  | 10/MVT7 | 6/16/2009 | 0.0247 |  | 10/ORV11 | 12/19/2006 | 0.0037 |
| 10/MVT4 | 6/14/2011 | 0.0357 |  | 10/MVT7 | 11/30/2009 | 0.0153 |  | 10/ORV11 | 6/14/2007 | 0.0016 |
| 10/MVT40 | 01/03/2006 | 0.0467 |  | 10/MVT7 | 5/25/2010 | 0.0181 |  | 10/ORV11 | 12/10/2007 | 0.0033 |
| 10/MVT40 | 05/11/2006 | 0.0315 |  | 10/MVT7 | 6/13/2011 | 0.0276 |  | 10/ORV11 | 07/07/2008 | 0.0018 |
| 10/MVT40 | 11/13/2006 | 0.022 |  | 10/MVT7 | 11/30/2011 | 0.0241 |  | 10/ORV11 | 12/17/2008 | 0.004 |
| 10/MVT40 | 05/03/2007 | 0.0243 |  | 10/MVT8 | 01/09/2006 | 0.0371 |  | 10/ORV11 | 6/30/2009 | 0.0037 |
| 10/MVT40 | 11/07/2007 | 0.0263 |  | 10/MVT8 | 5/16/2006 | 0.0297 |  | 10/ORV11 | 12/14/2009 | 0.0024 |
| 10/MVT40 | 5/27/2008 | 0.0287 |  | 10/MVT8 | 11/14/2006 | 0.0283 |  | 10/ORV11 | 6/14/2010 | 0.0024 |
| 10/MVT40 | 12/03/2008 | 0.0229 |  | 10/MVT8 | 05/02/2007 | 0.0292 |  | 10/ORV11 | 07/05/2011 | 0.0024 |
| 10/MVT40 | 6/16/2009 | 0.0392 |  | 10/MVT8 | 11/05/2007 | 0.0215 |  | 10/ORV11 | 11/21/2011 | 0.0052 |
| 10/MVT43 | 01/03/2006 | 0.0338 |  | 10/MVT8 | 5/28/2008 | 0.0193 |  | 10/ORV13 | 6/18/2007 | 0.0032 |
| 10/MVT43 | 05/11/2006 | 0.019 |  | 10/MVT8 | 12/04/2008 | 0.0342 |  | 10/ORV13 | 12/10/2007 | 0.0039 |
| 10/MVT43 | 11/14/2006 | 0.0219 |  | 10/MVT8 | 6/16/2009 | 0.0352 |  | 10/ORV13 | 07/08/2008 | 0.0023 |
| 10/MVT43 | 05/03/2007 | 0.0167 |  | 10/MVT8 | 12/03/2009 | 0.0176 |  | 10/ORV13 | 6/30/2009 | 0.0039 |
| 10/MVT43 | 11/07/2007 | 0.0162 |  | 10/MVT8 | 5/25/2010 | 0.0117 |  | 10/ORV13 | 12/14/2009 | 0.0037 |
| 10/MVT43 | 5/27/2008 | 0.0197 |  | 10/MVT8 | 6/14/2011 | 0.0288 |  | 10/ORV13 | 6/14/2010 | 0.0038 |
| 10/MVT43 | 12/03/2008 | 0.0136 |  | 10/MVT8 | 11/30/2011 | 0.0361 |  | 10/ORV13 | 07/07/2011 | 0.0036 |
| 10/MVT43 | 6/16/2009 | 0.0224 |  | 10/NAM1 | 7/13/2006 | 0.012 |  | 10/ORV13 | 11/21/2011 | 0.0067 |
| 10/MVT43 | 11/16/2009 | 0.0133 |  | 10/NAM1 | 12/20/2006 | 0.0084 |  | 10/ORV17 | 01/11/2006 | 0.0023 |
| 10/MVT43 | 5/24/2010 | 0.0147 |  | 10/NAM1 | 6/18/2007 | 0.0105 |  | 10/ORV17 | 06/05/2006 | 0.0008 |
| 10/MVT43 | 06/07/2011 | 0.0218 |  | 10/NAM1 | 12/11/2007 | 0.0116 |  | 10/ORV17 | 12/20/2006 | 0.0024 |
| 10/MVT43 | 12/05/2011 | 0.0219 |  | 10/NAM1 | 07/08/2008 | 0.0023 |  | 10/ORV17 | 6/14/2007 | 0.0013 |
| 10/MVT48 | 11/20/2007 | 0.0129 |  | 10/NAM1 | 07/01/2009 | 0.0104 |  | 10/ORV17 | 12/10/2007 | 0.0016 |
| 10/MVT48 | 5/28/2008 | 0.0265 |  | 10/NAM1 | 12/14/2009 | 0.0102 |  | 10/ORV17 | 07/07/2008 | 0.0015 |
| 10/MVT48 | 12/09/2008 | 0.0213 |  | 10/NAM1 | 6/15/2010 | 0.0094 |  | 10/ORV17 | 12/22/2008 | 0.0018 |
| 10/MVT48 | 6/17/2009 | 0.0243 |  | 10/NAM1 | 07/07/2011 | 0.0113 |  | 10/ORV17 | 07/01/2009 | 0.0009 |
| 10/MVT48 | 11/30/2009 | 0.0241 |  | 10/NAM1 | 12/14/2011 | 0.0173 |  | 10/ORV17 | 12/14/2009 | 0.0016 |
| 10/MVT48 | 5/25/2010 | 0.0197 |  | 10/ORV10 | 1/16/2006 | 0.0017 |  | 10/ORV17 | 6/14/2010 | 0.0013 |
| 10/MVT48 | 6/13/2011 | 0.0243 |  | 10/ORV10 | 06/05/2006 | 0.0031 |  | 10/ORV17 | 07/05/2011 | 0.0013 |
| 10/MVT48 | 11/30/2011 | 0.0262 |  | 10/ORV10 | 12/19/2006 | 0.0035 |  | 10/ORV17 | 11/21/2011 | 0.0027 |
| 10/MVT6 | 01/09/2006 | 0.0306 |  | 10/ORV10 | 6/14/2007 | 0.0034 |  | 10/ORV18 | 01/11/2006 | 0.0041 |
| 10/MVT6 | 5/16/2006 | 0.023 |  | 10/ORV10 | 12/10/2007 | 0.0031 |  | 10/ORV18 | 06/07/2006 | 0.0028 |
| 10/MVT6 | 11/14/2006 | 0.0222 |  | 10/ORV10 | 07/07/2008 | 0.0028 |  | 10/ORV18 | 12/19/2006 | 0.0039 |

*Table 5 - Section L. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 10/ORV18 | 6/14/2007 | 0.0027 |  | 10/ORV26 | 12/15/2009 | 0.0047 |  | 10/ORV6 | 6/15/2010 | 0.0052 |
| 10/ORV18 | 12/10/2007 | 0.004 |  | 10/ORV26 | 6/14/2010 | 0.0056 |  | 10/ORV6 | 11/22/2011 | 0.0079 |
| 10/ORV18 | 07/07/2008 | 0.0037 |  | 10/ORV26 | 07/04/2011 | 0.0104 |  | 10/ORV8 | 01/11/2006 | 0.0032 |
| 10/ORV18 | 12/17/2008 | 0.0037 |  | 10/ORV26 | 11/21/2011 | 0.0111 |  | 10/ORV8 | 06/05/2006 | 0.0053 |
| 10/ORV18 | 6/30/2009 | 0.0039 |  | 10/ORV3 | 01/11/2006 | 0.0024 |  | 10/ORV8 | 12/19/2006 | 0.005 |
| 10/ORV18 | 12/14/2009 | 0.0033 |  | 10/ORV3 | 06/05/2006 | 0.0036 |  | 10/ORV8 | 6/14/2007 | 0.0037 |
| 10/ORV18 | 6/14/2010 | 0.0036 |  | 10/ORV3 | 12/19/2006 | 0.0025 |  | 10/ORV8 | 12/11/2007 | 0.005 |
| 10/ORV18 | 07/05/2011 | 0.0041 |  | 10/ORV3 | 6/18/2007 | 0.004 |  | 10/ORV8 | 07/07/2008 | 0.0049 |
| 10/ORV18 | 11/21/2011 | 0.0027 |  | 10/ORV3 | 12/11/2007 | 0.0042 |  | 10/ORV8 | 12/22/2008 | 0.0048 |
| 10/ORV21 | 01/11/2006 | 0.0042 |  | 10/ORV3 | 07/08/2008 | 0.0037 |  | 10/ORV8 | 6/30/2009 | 0.0051 |
| 10/ORV21 | 06/07/2006 | 0.0026 |  | 10/ORV3 | 12/17/2008 | 0.0046 |  | 10/ORV8 | 12/14/2009 | 0.0027 |
| 10/ORV21 | 12/19/2006 | 0.0033 |  | 10/ORV3 | 6/30/2009 | 0.004 |  | 10/ORV8 | 6/14/2010 | 0.0059 |
| 10/ORV21 | 6/14/2007 | 0.0026 |  | 10/ORV3 | 12/14/2009 | 0.0038 |  | 10/ORV8 | 07/05/2011 | 0.0053 |
| 10/ORV21 | 12/10/2007 | 0.0031 |  | 10/ORV3 | 6/14/2010 | 0.006 |  | 10/TCH34 | 7/27/2011 | 0.0399 |
| 10/ORV21 | 07/07/2008 | 0.003 |  | 10/ORV3 | 07/04/2011 | 0.003 |  | 10/TCH34 | 11/02/2011 | 0.0399 |
| 10/ORV21 | 12/17/2008 | 0.0036 |  | 10/ORV3 | 11/21/2011 | 0.0044 |  | 10/TNN29 | 08/01/2011 | 0.033 |
| 10/ORV21 | 6/30/2009 | 0.0032 |  | 10/ORV33 | 01/11/2006 | 0.0086 |  | 10/TNN67 | 08/01/2011 | 0.0129 |
| 10/ORV21 | 12/14/2009 | 0.0034 |  | 10/ORV33 | 06/05/2006 | 0.0037 |  | 10/TNN67 | 10/11/2011 | 0.0139 |
| 10/ORV21 | 6/14/2010 | 0.0042 |  | 10/ORV33 | 12/19/2006 | 0.003 |  | 10/TNN71 | 08/03/2011 | 0.0192 |
| 10/ORV21 | 07/05/2011 | 0.0033 |  | 10/ORV33 | 6/14/2007 | 0.003 |  | 10/VAL1 | 4/15/1998 | 0.0055 |
| 10/ORV21 | 11/21/2011 | 0.004 |  | 10/ORV33 | 12/10/2007 | 0.0046 |  | 10/VAL1 | 06/10/1998 | 0.0066 |
| 10/ORV25 | 1/16/2006 | 0.007 |  | 10/ORV33 | 07/07/2008 | 0.005 |  | 10/VAL1 | 9/21/1998 | 0.0047 |
| 10/ORV25 | 06/05/2006 | 0.0106 |  | 10/ORV33 | 12/22/2008 | 0.0088 |  | 10/VAL1 | 03/01/1999 | 0.0064 |
| 10/ORV25 | 12/20/2006 | 0.0121 |  | 10/ORV33 | 07/01/2009 | 0.0051 |  | 10/VAL1 | 06/09/1999 | 0.0076 |
| 10/ORV25 | 6/14/2007 | 0.0068 |  | 10/ORV33 | 12/15/2009 | 0.0046 |  | 10/VAL1 | 10/12/1999 | 0.0086 |
| 10/ORV25 | 12/10/2007 | 0.0149 |  | 10/ORV33 | 6/14/2010 | 0.0092 |  | 10/VAL1 | 11/09/1999 | 0.0073 |
| 10/ORV25 | 07/08/2008 | 0.0141 |  | 10/ORV33 | 07/04/2011 | 0.0062 |  | 10/VAL1 | 04/03/2000 | 0.0068 |
| 10/ORV25 | 12/17/2008 | 0.0092 |  | 10/ORV33 | 11/21/2011 | 0.0098 |  | 10/VAL1 | 12/05/2000 | 0.0058 |
| 10/ORV25 | 07/01/2009 | 0.0113 |  | 10/ORV38 | 1/16/2006 | 0.0136 |  | 10/VAL1 | 07/10/2002 | 0.0094 |
| 10/ORV25 | 12/15/2009 | 0.0122 |  | 10/ORV38 | 06/05/2006 | 0.0052 |  | 10/VAL1 | 1/18/2006 | 0.0075 |
| 10/ORV25 | 6/14/2010 | 0.0129 |  | 10/ORV38 | 12/19/2006 | 0.0072 |  | 10/VAL1 | 5/25/2006 | 0.0062 |
| 10/ORV25 | 07/04/2011 | 0.0111 |  | 10/ORV38 | 07/08/2008 | 0.003 |  | 10/VAL1 | 12/05/2006 | 0.0047 |
| 10/ORV25 | 11/21/2011 | 0.0131 |  | 10/ORV6 | 01/11/2006 | 0.0046 |  | 10/VAL1 | 06/07/2007 | 0.0056 |
| 10/ORV26 | 1/16/2006 | 0.0144 |  | 10/ORV6 | 06/07/2006 | 0.0047 |  | 10/VAL1 | 11/28/2007 | 0.0051 |
| 10/ORV26 | 06/05/2006 | 0.0048 |  | 10/ORV6 | 12/19/2006 | 0.0046 |  | 10/VAL1 | 7/14/2008 | 0.0043 |
| 10/ORV26 | 6/14/2007 | 0.008 |  | 10/ORV6 | 6/18/2007 | 0.0052 |  | 10/VAL1 | 11/18/2008 | 0.0052 |
| 10/ORV26 | 12/10/2007 | 0.011 |  | 10/ORV6 | 12/10/2007 | 0.0057 |  | 10/VAL1 | 07/02/2009 | 0.0058 |
| 10/ORV26 | 07/07/2008 | 0.0056 |  | 10/ORV6 | 07/08/2008 | 0.0068 |  | 10/VAL1 | 12/16/2009 | 0.0052 |
| 10/ORV26 | 12/17/2008 | 0.0093 |  | 10/ORV6 | 12/22/2008 | 0.005 |  | 10/VAL1 | 6/30/2010 | 0.0059 |
| 10/ORV26 | 6/30/2009 | 0.0091 |  | 10/ORV6 | 12/15/2009 | 0.0049 |  | 10/VAL1 | 6/29/2011 | 0.0031 |

*Table 5 - Section M. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 10/VAL1 | 10/17/2011 | 0.0072 |  | 10/VAL3 | 6/30/2008 | 0.0081 |  | 10/VAL6 | 07/06/2009 | 0.0035 |
| 10/VAL1 | 06/09/2016 | 0.0046 |  | 10/VAL3 | 12/01/2008 | 0.0084 |  | 10/VAL6 | 12/28/2009 | 0.0029 |
| 10/VAL1 | 11/21/2016 | 0.0077 |  | 10/VAL3 | 6/24/2009 | 0.0089 |  | 10/VAL6 | 07/01/2010 | 0.0025 |
| 10/VAL2 | 4/20/1998 | 0.0034 |  | 10/VAL3 | 11/10/2009 | 0.008 |  | 10/VUM1 | 12/05/2005 | 0.0198 |
| 10/VAL2 | 06/12/1998 | 0.0023 |  | 10/VAL3 | 5/18/2010 | 0.0095 |  | 10/VUM1 | 4/18/2006 | 0.0228 |
| 10/VAL2 | 9/23/1998 | 0.0028 |  | 10/VAL3 | 5/25/2011 | 0.0086 |  | 10/VUM1 | 11/22/2006 | 0.0172 |
| 10/VAL2 | 02/05/1999 | 0.0025 |  | 10/VAL3 | 10/18/2011 | 0.0088 |  | 10/VUM1 | 5/29/2007 | 0.0227 |
| 10/VAL2 | 6/16/1999 | 0.0034 |  | 10/VAL3 | 5/30/2016 | 0.0053 |  | 10/VUM1 | 11/22/2007 | 0.0248 |
| 10/VAL2 | 10/08/1999 | 0.0037 |  | 10/VAL3 | 11/16/2016 | 0.0102 |  | 10/VUM1 | 5/29/2008 | 0.0301 |
| 10/VAL2 | 11/25/1999 | 0.0032 |  | 10/VAL4 | 4/20/1998 | 0.0035 |  | 10/VUM1 | 10/28/2008 | 0.0312 |
| 10/VAL2 | 4/14/2000 | 0.0029 |  | 10/VAL4 | 06/12/1998 | 0.0037 |  | 10/VUM1 | 5/14/2009 | 0.0269 |
| 10/VAL2 | 07/11/2002 | 0.0042 |  | 10/VAL4 | 9/23/1998 | 0.004 |  | 10/VUM1 | 11/17/2009 | 0.0279 |
| 10/VAL2 | 1/19/2006 | 0.0038 |  | 10/VAL4 | 02/05/1999 | 0.0046 |  | 10/VUM1 | 5/31/2010 | 0.0149 |
| 10/VAL2 | 5/22/2006 | 0.0034 |  | 10/VAL4 | 6/16/1999 | 0.0047 |  | 10/VUM1 | 6/16/2011 | 0.026 |
| 10/VAL2 | 11/08/2006 | 0.0022 |  | 10/VAL4 | 10/08/1999 | 0.0051 |  | 10/VUM1 | 11/02/2011 | 0.03 |
| 10/VAL2 | 05/08/2007 | 0.0021 |  | 10/VAL4 | 11/25/1999 | 0.0049 |  | 10/VUM10 | 12/15/2005 | 0.0126 |
| 10/VAL2 | 11/15/2007 | 0.002 |  | 10/VAL4 | 4/14/2000 | 0.0038 |  | 10/VUM10 | 4/26/2006 | 0.0096 |
| 10/VAL2 | 6/30/2008 | 0.0031 |  | 10/VAL4 | 07/11/2002 | 0.0047 |  | 10/VUM10 | 11/28/2006 | 0.0096 |
| 10/VAL2 | 12/01/2008 | 0.0026 |  | 10/VAL4 | 1/19/2006 | 0.0048 |  | 10/VUM10 | 5/30/2007 | 0.0153 |
| 10/VAL2 | 6/24/2009 | 0.0027 |  | 10/VAL4 | 5/22/2006 | 0.0041 |  | 10/VUM10 | 11/26/2007 | 0.01 |
| 10/VAL2 | 11/10/2009 | 0.0025 |  | 10/VAL4 | 11/07/2006 | 0.0033 |  | 10/VUM10 | 5/22/2008 | 0.0172 |
| 10/VAL2 | 5/18/2010 | 0.0041 |  | 10/VAL4 | 05/08/2007 | 0.0034 |  | 10/VUM10 | 10/28/2008 | 0.0121 |
| 10/VAL2 | 5/25/2011 | 0.0038 |  | 10/VAL4 | 11/15/2007 | 0.0028 |  | 10/VUM10 | 5/14/2009 | 0.0178 |
| 10/VAL2 | 10/18/2011 | 0.0025 |  | 10/VAL4 | 6/30/2008 | 0.017 |  | 10/VUM10 | 11/18/2009 | 0.0213 |
| 10/VAL2 | 5/20/2016 | 0.0022 |  | 10/VAL4 | 12/01/2008 | 0.0037 |  | 10/VUM10 | 6/30/2010 | 0.0209 |
| 10/VAL2 | 11/16/2016 | 0.0033 |  | 10/VAL4 | 6/24/2009 | 0.0043 |  | 10/VUM10 | 6/20/2011 | 0.02 |
| 10/VAL3 | 4/20/1998 | 0.0073 |  | 10/VAL4 | 11/10/2009 | 0.0035 |  | 10/VUM10 | 10/19/2011 | 0.0236 |
| 10/VAL3 | 06/12/1998 | 0.0078 |  | 10/VAL4 | 5/18/2010 | 0.0049 |  | 10/VUM100 | 11/30/2005 | 0.0262 |
| 10/VAL3 | 9/23/1998 | 0.0073 |  | 10/VAL4 | 5/25/2011 | 0.0046 |  | 10/VUM100 | 05/09/2006 | 0.0257 |
| 10/VAL3 | 02/05/1999 | 0.0082 |  | 10/VAL4 | 10/18/2011 | 0.0039 |  | 10/VUM100 | 12/04/2006 | 0.0207 |
| 10/VAL3 | 6/16/1999 | 0.0072 |  | 10/VAL4 | 5/30/2016 | 0.0036 |  | 10/VUM100 | 06/12/2007 | 0.0221 |
| 10/VAL3 | 10/08/1999 | 0.0096 |  | 10/VAL4 | 11/16/2016 | 0.0047 |  | 10/VUM100 | 12/04/2007 | 0.029 |
| 10/VAL3 | 11/25/1999 | 0.0092 |  | 10/VAL6 | 5/25/2011 | 0.0038 |  | 10/VUM100 | 06/10/2008 | 0.0294 |
| 10/VAL3 | 4/14/2000 | 0.0071 |  | 10/VAL6 | 10/13/2011 | 0.0031 |  | 10/VUM100 | 11/26/2008 | 0.0303 |
| 10/VAL3 | 07/11/2002 | 0.0121 |  | 10/VAL6 | 7/18/2006 | 0.0035 |  | 10/VUM100 | 5/27/2009 | 0.0279 |
| 10/VAL3 | 1/19/2006 | 0.008 |  | 10/VAL6 | 12/18/2006 | 0.0036 |  | 10/VUM100 | 12/01/2009 | 0.0301 |
| 10/VAL3 | 5/22/2006 | 0.0072 |  | 10/VAL6 | 6/21/2007 | 0.0031 |  | 10/VUM100 | 6/16/2010 | 0.0289 |
| 10/VAL3 | 11/07/2006 | 0.0057 |  | 10/VAL6 | 12/05/2007 | 0.0037 |  | 10/VUM100 | 11/17/2011 | 0.031 |
| 10/VAL3 | 05/08/2007 | 0.0072 |  | 10/VAL6 | 7/14/2008 | 0.004 |  | 10/VUM11 | 12/15/2005 | 0.0173 |
| 10/VAL3 | 11/15/2007 | 0.0048 |  | 10/VAL6 | 1/13/2009 | 0.0047 |  | 10/VUM11 | 4/19/2006 | 0.0105 |

*Table 5 - Section N. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 10/VUM11 | 11/23/2006 | 0.0152 |  | 10/VUM15 | 06/07/2010 | 0.008 |  | 10/VUM19 | 06/04/2008 | 0.0327 |
| 10/VUM11 | 5/30/2007 | 0.0123 |  | 10/VUM15 | 6/20/2011 | 0.0079 |  | 10/VUM19 | 11/13/2008 | 0.0344 |
| 10/VUM11 | 11/26/2007 | 0.0079 |  | 10/VUM16 | 12/13/2005 | 0.0333 |  | 10/VUM19 | 5/20/2009 | 0.0292 |
| 10/VUM11 | 06/03/2008 | 0.0084 |  | 10/VUM16 | 05/02/2006 | 0.0301 |  | 10/VUM19 | 11/19/2009 | 0.0505 |
| 10/VUM11 | 11/05/2008 | 0.0089 |  | 10/VUM16 | 11/23/2006 | 0.029 |  | 10/VUM19 | 06/03/2010 | 0.031 |
| 10/VUM11 | 5/19/2009 | 0.0118 |  | 10/VUM16 | 06/04/2007 | 0.0318 |  | 10/VUM2 | 12/05/2005 | 0.0228 |
| 10/VUM11 | 11/18/2009 | 0.0079 |  | 10/VUM16 | 11/27/2007 | 0.0258 |  | 10/VUM2 | 4/27/2006 | 0.0207 |
| 10/VUM11 | 06/03/2010 | 0.0091 |  | 10/VUM16 | 06/04/2008 | 0.035 |  | 10/VUM2 | 11/21/2006 | 0.0215 |
| 10/VUM11 | 6/20/2011 | 0.0171 |  | 10/VUM16 | 11/12/2008 | 0.0308 |  | 10/VUM2 | 5/29/2007 | 0.0161 |
| 10/VUM11 | 11/02/2011 | 0.0165 |  | 10/VUM16 | 5/19/2009 | 0.0344 |  | 10/VUM2 | 11/22/2007 | 0.0163 |
| 10/VUM13 | 12/19/2005 | 0.0032 |  | 10/VUM16 | 12/03/2009 | 0.0313 |  | 10/VUM2 | 5/29/2008 | 0.02 |
| 10/VUM13 | 4/19/2006 | 0.0036 |  | 10/VUM16 | 06/03/2010 | 0.0355 |  | 10/VUM2 | 11/04/2008 | 0.0189 |
| 10/VUM13 | 11/22/2006 | 0.0034 |  | 10/VUM16 | 6/30/2011 | 0.0333 |  | 10/VUM2 | 5/18/2009 | 0.0206 |
| 10/VUM13 | 06/04/2007 | 0.0049 |  | 10/VUM16 | 10/19/2011 | 0.0367 |  | 10/VUM2 | 11/17/2009 | 0.0176 |
| 10/VUM13 | 11/26/2007 | 0.0211 |  | 10/VUM17 | 12/13/2005 | 0.0339 |  | 10/VUM2 | 5/25/2010 | 0.017 |
| 10/VUM13 | 5/21/2008 | 0.0263 |  | 10/VUM17 | 05/02/2006 | 0.0167 |  | 10/VUM2 | 6/14/2011 | 0.0237 |
| 10/VUM13 | 10/28/2008 | 0.0259 |  | 10/VUM17 | 11/23/2006 | 0.0077 |  | 10/VUM2 | 10/20/2011 | 0.0256 |
| 10/VUM13 | 5/14/2009 | 0.0226 |  | 10/VUM17 | 06/04/2007 | 0.0236 |  | 10/VUM20 | 12/13/2005 | 0.0075 |
| 10/VUM13 | 11/18/2009 | 0.0222 |  | 10/VUM17 | 11/27/2007 | 0.0101 |  | 10/VUM20 | 05/02/2006 | 0.012 |
| 10/VUM13 | 5/31/2010 | 0.0167 |  | 10/VUM17 | 06/04/2008 | 0.0171 |  | 10/VUM20 | 11/23/2006 | 0.0072 |
| 10/VUM14 | 12/15/2005 | 0.0432 |  | 10/VUM17 | 11/05/2008 | 0.0188 |  | 10/VUM20 | 06/04/2007 | 0.0057 |
| 10/VUM14 | 4/26/2006 | 0.0294 |  | 10/VUM17 | 5/19/2009 | 0.0229 |  | 10/VUM20 | 11/27/2007 | 0.0122 |
| 10/VUM14 | 11/27/2006 | 0.0289 |  | 10/VUM17 | 11/19/2009 | 0.0085 |  | 10/VUM20 | 06/04/2008 | 0.0083 |
| 10/VUM14 | 06/06/2007 | 0.0271 |  | 10/VUM17 | 06/03/2010 | 0.0345 |  | 10/VUM20 | 11/05/2008 | 0.0102 |
| 10/VUM14 | 11/26/2007 | 0.0214 |  | 10/VUM18 | 12/13/2005 | 0.0113 |  | 10/VUM20 | 5/19/2009 | 0.0068 |
| 10/VUM14 | 06/03/2008 | 0.0286 |  | 10/VUM18 | 05/03/2006 | 0.018 |  | 10/VUM20 | 11/19/2009 | 0.0086 |
| 10/VUM14 | 11/12/2008 | 0.0171 |  | 10/VUM18 | 11/27/2006 | 0.0191 |  | 10/VUM20 | 06/03/2010 | 0.0079 |
| 10/VUM14 | 5/20/2009 | 0.0297 |  | 10/VUM18 | 06/06/2007 | 0.0302 |  | 10/VUM20 | 07/06/2011 | 0.0075 |
| 10/VUM14 | 11/25/2009 | 0.0169 |  | 10/VUM18 | 11/26/2007 | 0.0154 |  | 10/VUM20 | 10/19/2011 | 0.0093 |
| 10/VUM14 | 06/07/2010 | 0.0318 |  | 10/VUM18 | 06/03/2008 | 0.0398 |  | 10/VUM22 | 12/07/2005 | 0.0187 |
| 10/VUM14 | 6/20/2011 | 0.0393 |  | 10/VUM18 | 11/12/2008 | 0.0326 |  | 10/VUM22 | 4/26/2006 | 0.0096 |
| 10/VUM15 | 12/13/2005 | 0.0068 |  | 10/VUM18 | 5/20/2009 | 0.0398 |  | 10/VUM22 | 11/27/2006 | 0.0136 |
| 10/VUM15 | 4/19/2006 | 0.0028 |  | 10/VUM18 | 11/19/2009 | 0.0228 |  | 10/VUM22 | 06/06/2007 | 0.0157 |
| 10/VUM15 | 11/23/2006 | 0.0112 |  | 10/VUM18 | 06/03/2010 | 0.0372 |  | 10/VUM22 | 11/27/2007 | 0.0141 |
| 10/VUM15 | 5/30/2007 | 0.0073 |  | 10/VUM18 | 6/27/2011 | 0.0256 |  | 10/VUM22 | 5/21/2008 | 0.018 |
| 10/VUM15 | 11/26/2007 | 0.0122 |  | 10/VUM19 | 12/15/2005 | 0.0597 |  | 10/VUM22 | 10/28/2008 | 0.0189 |
| 10/VUM15 | 5/21/2008 | 0.0114 |  | 10/VUM19 | 05/02/2006 | 0.0573 |  | 10/VUM22 | 5/14/2009 | 0.0153 |
| 10/VUM15 | 10/28/2008 | 0.0132 |  | 10/VUM19 | 11/27/2006 | 0.0334 |  | 10/VUM22 | 11/24/2009 | 0.02 |
| 10/VUM15 | 5/14/2009 | 0.0106 |  | 10/VUM19 | 06/04/2007 | 0.0282 |  | 10/VUM22 | 06/07/2010 | 0.0067 |
| 10/VUM15 | 11/18/2009 | 0.0156 |  | 10/VUM19 | 11/27/2007 | 0.0489 |  | 10/VUM22 | 6/21/2011 | 0.0204 |

*Table 5 - Section O. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 10/VUM22 | 11/03/2011 | 0.0242 |  | 10/VUM27 | 11/26/2008 | 0.0143 |  | 10/VUM32 | 12/12/2005 | 0.016 |
| 10/VUM23 | 12/07/2005 | 0.0192 |  | 10/VUM27 | 5/27/2009 | 0.0121 |  | 10/VUM32 | 4/27/2006 | 0.0174 |
| 10/VUM23 | 4/26/2006 | 0.0131 |  | 10/VUM27 | 12/01/2009 | 0.0126 |  | 10/VUM32 | 11/30/2006 | 0.0216 |
| 10/VUM23 | 11/27/2006 | 0.0131 |  | 10/VUM27 | 06/09/2010 | 0.0135 |  | 10/VUM32 | 06/11/2007 | 0.0188 |
| 10/VUM23 | 06/06/2007 | 0.0167 |  | 10/VUM27 | 5/26/2011 | 0.0127 |  | 10/VUM32 | 12/05/2007 | 0.0165 |
| 10/VUM23 | 11/27/2007 | 0.0145 |  | 10/VUM27 | 10/17/2011 | 0.0173 |  | 10/VUM32 | 06/11/2008 | 0.0143 |
| 10/VUM23 | 06/04/2008 | 0.0177 |  | 10/VUM28 | 12/07/2005 | 0.0279 |  | 10/VUM32 | 11/17/2008 | 0.0189 |
| 10/VUM23 | 11/13/2008 | 0.0178 |  | 10/VUM28 | 4/27/2006 | 0.0166 |  | 10/VUM32 | 5/25/2009 | 0.0155 |
| 10/VUM23 | 5/20/2009 | 0.0166 |  | 10/VUM28 | 11/27/2006 | 0.0168 |  | 10/VUM32 | 11/23/2009 | 0.0164 |
| 10/VUM23 | 11/24/2009 | 0.0146 |  | 10/VUM28 | 06/06/2007 | 0.0196 |  | 10/VUM32 | 06/08/2010 | 0.0136 |
| 10/VUM23 | 06/07/2010 | 0.015 |  | 10/VUM28 | 11/29/2007 | 0.0194 |  | 10/VUM32 | 6/21/2011 | 0.0205 |
| 10/VUM23 | 6/21/2011 | 0.0168 |  | 10/VUM28 | 06/04/2008 | 0.0215 |  | 10/VUM32 | 10/11/2011 | 0.0181 |
| 10/VUM23 | 10/11/2011 | 0.019 |  | 10/VUM28 | 11/13/2008 | 0.0231 |  | 10/VUM33 | 12/12/2005 | 0.0129 |
| 10/VUM25 | 12/07/2005 | 0.0157 |  | 10/VUM28 | 5/20/2009 | 0.0196 |  | 10/VUM33 | 05/04/2006 | 0.0161 |
| 10/VUM25 | 4/26/2006 | 0.0127 |  | 10/VUM28 | 11/24/2009 | 0.0166 |  | 10/VUM33 | 12/04/2006 | 0.0128 |
| 10/VUM25 | 11/27/2006 | 0.0097 |  | 10/VUM28 | 06/07/2010 | 0.0178 |  | 10/VUM33 | 06/12/2007 | 0.0116 |
| 10/VUM25 | 06/06/2007 | 0.011 |  | 10/VUM28 | 6/27/2011 | 0.0231 |  | 10/VUM33 | 12/03/2007 | 0.0096 |
| 10/VUM25 | 11/27/2007 | 0.0097 |  | 10/VUM28 | 10/11/2011 | 0.0246 |  | 10/VUM33 | 06/11/2008 | 0.0136 |
| 10/VUM25 | 5/21/2008 | 0.0064 |  | 10/VUM30 | 12/12/2005 | 0.0315 |  | 10/VUM33 | 11/12/2008 | 0.0144 |
| 10/VUM25 | 10/28/2008 | 0.0101 |  | 10/VUM30 | 05/04/2006 | 0.0156 |  | 10/VUM33 | 5/26/2009 | 0.0147 |
| 10/VUM25 | 5/14/2009 | 0.0097 |  | 10/VUM30 | 11/28/2006 | 0.024 |  | 10/VUM33 | 11/25/2009 | 0.0113 |
| 10/VUM25 | 11/24/2009 | 0.0076 |  | 10/VUM30 | 06/12/2007 | 0.0229 |  | 10/VUM33 | 06/09/2010 | 0.0188 |
| 10/VUM25 | 06/07/2010 | 0.0076 |  | 10/VUM30 | 11/29/2007 | 0.0176 |  | 10/VUM33 | 6/21/2011 | 0.0143 |
| 10/VUM26 | 12/07/2005 | 0.0144 |  | 10/VUM30 | 06/11/2008 | 0.0185 |  | 10/VUM33 | 10/11/2011 | 0.0111 |
| 10/VUM26 | 4/26/2006 | 0.0097 |  | 10/VUM30 | 11/12/2008 | 0.0226 |  | 10/VUM34 | 12/06/2005 | 0.0339 |
| 10/VUM26 | 11/27/2006 | 0.0094 |  | 10/VUM30 | 5/26/2009 | 0.0197 |  | 10/VUM34 | 05/03/2006 | 0.036 |
| 10/VUM26 | 06/06/2007 | 0.0111 |  | 10/VUM30 | 11/25/2009 | 0.0185 |  | 10/VUM34 | 12/04/2006 | 0.0266 |
| 10/VUM26 | 11/29/2007 | 0.0107 |  | 10/VUM30 | 06/08/2010 | 0.0302 |  | 10/VUM34 | 06/11/2007 | 0.0282 |
| 10/VUM26 | 06/04/2008 | 0.0104 |  | 10/VUM31 | 12/12/2005 | 0.0168 |  | 10/VUM34 | 11/29/2007 | 0.022 |
| 10/VUM26 | 11/13/2008 | 0.0103 |  | 10/VUM31 | 05/02/2006 | 0.0103 |  | 10/VUM34 | 06/09/2008 | 0.0214 |
| 10/VUM26 | 5/20/2009 | 0.0115 |  | 10/VUM31 | 11/28/2006 | 0.0131 |  | 10/VUM34 | 11/13/2008 | 0.0236 |
| 10/VUM26 | 11/24/2009 | 0.009 |  | 10/VUM31 | 06/11/2007 | 0.0201 |  | 10/VUM34 | 5/25/2009 | 0.0318 |
| 10/VUM26 | 06/07/2010 | 0.011 |  | 10/VUM31 | 11/27/2007 | 0.0141 |  | 10/VUM34 | 11/25/2009 | 0.0245 |
| 10/VUM26 | 6/22/2011 | 0.011 |  | 10/VUM31 | 06/04/2008 | 0.0158 |  | 10/VUM34 | 06/09/2010 | 0.0256 |
| 10/VUM26 | 10/11/2011 | 0.0071 |  | 10/VUM31 | 11/12/2008 | 0.015 |  | 10/VUM34 | 6/21/2011 | 0.0331 |
| 10/VUM27 | 12/15/2005 | 0.007 |  | 10/VUM31 | 5/25/2009 | 0.0128 |  | 10/VUM35 | 12/15/2005 | 0.0217 |
| 10/VUM27 | 11/28/2006 | 0.0081 |  | 10/VUM31 | 11/23/2009 | 0.0149 |  | 10/VUM35 | 05/02/2006 | 0.0249 |
| 10/VUM27 | 06/07/2007 | 0.0107 |  | 10/VUM31 | 06/08/2010 | 0.0152 |  | 10/VUM35 | 06/11/2007 | 0.0257 |
| 10/VUM27 | 11/28/2007 | 0.0112 |  | 10/VUM31 | 6/27/2011 | 0.0447 |  | 10/VUM35 | 06/09/2008 | 0.0246 |
| 10/VUM27 | 06/09/2008 | 0.0121 |  | 10/VUM31 | 11/03/2011 | 0.0216 |  | 10/VUM35 | 11/12/2008 | 0.022 |

*Table 5 - Section P. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 10/VUM35 | 5/25/2009 | 0.0349 |  | 10/VUM4 | 11/17/2009 | 0.0139 |  | 10/VUM46 | 12/05/2006 | 0.0227 |
| 10/VUM35 | 11/23/2009 | 0.0295 |  | 10/VUM4 | 5/25/2010 | 0.0143 |  | 10/VUM46 | 06/05/2007 | 0.0207 |
| 10/VUM35 | 06/08/2010 | 0.0187 |  | 10/VUM4 | 6/20/2011 | 0.0208 |  | 10/VUM46 | 12/04/2007 | 0.0204 |
| 10/VUM36 | 05/09/2006 | 0.0199 |  | 10/VUM4 | 10/20/2011 | 0.0316 |  | 10/VUM46 | 06/10/2008 | 0.0228 |
| 10/VUM36 | 06/11/2007 | 0.0147 |  | 10/VUM41 | 12/06/2005 | 0.0187 |  | 10/VUM46 | 11/18/2008 | 0.0227 |
| 10/VUM36 | 12/03/2007 | 0.02 |  | 10/VUM41 | 05/03/2006 | 0.0231 |  | 10/VUM46 | 06/03/2009 | 0.0256 |
| 10/VUM36 | 06/09/2008 | 0.022 |  | 10/VUM41 | 11/30/2006 | 0.0256 |  | 10/VUM46 | 12/03/2009 | 0.0207 |
| 10/VUM36 | 11/17/2008 | 0.0227 |  | 10/VUM41 | 06/05/2007 | 0.023 |  | 10/VUM46 | 6/16/2010 | 0.0221 |
| 10/VUM36 | 5/25/2009 | 0.0249 |  | 10/VUM41 | 11/29/2007 | 0.0344 |  | 10/VUM46 | 6/28/2011 | 0.022 |
| 10/VUM36 | 11/23/2009 | 0.0225 |  | 10/VUM41 | 06/11/2008 | 0.024 |  | 10/VUM46 | 11/10/2011 | 0.0257 |
| 10/VUM36 | 06/08/2010 | 0.0221 |  | 10/VUM41 | 11/17/2008 | 0.0296 |  | 10/VUM47 | 12/01/2005 | 0.0359 |
| 10/VUM36 | 6/21/2011 | 0.0195 |  | 10/VUM41 | 5/26/2009 | 0.0249 |  | 10/VUM47 | 05/04/2006 | 0.0248 |
| 10/VUM36 | 11/23/2011 | 0.0237 |  | 10/VUM41 | 11/23/2009 | 0.0224 |  | 10/VUM47 | 12/04/2006 | 0.02 |
| 10/VUM37 | 12/06/2005 | 0.0128 |  | 10/VUM41 | 06/10/2010 | 0.0298 |  | 10/VUM47 | 06/12/2007 | 0.0245 |
| 10/VUM37 | 05/03/2006 | 0.0087 |  | 10/VUM41 | 6/29/2011 | 0.0364 |  | 10/VUM47 | 12/04/2007 | 0.024 |
| 10/VUM37 | 11/30/2006 | 0.0078 |  | 10/VUM41 | 11/17/2011 | 0.0444 |  | 10/VUM47 | 06/05/2008 | 0.0283 |
| 10/VUM37 | 06/05/2007 | 0.013 |  | 10/VUM42 | 11/30/2005 | 0.0255 |  | 10/VUM47 | 11/18/2008 | 0.0243 |
| 10/VUM37 | 12/04/2007 | 0.0124 |  | 10/VUM42 | 05/04/2006 | 0.0231 |  | 10/VUM47 | 06/03/2009 | 0.0301 |
| 10/VUM37 | 06/09/2008 | 0.019 |  | 10/VUM42 | 12/04/2006 | 0.0143 |  | 10/VUM47 | 11/25/2009 | 0.0218 |
| 10/VUM37 | 5/25/2009 | 0.0179 |  | 10/VUM42 | 06/05/2007 | 0.0224 |  | 10/VUM48 | 11/30/2005 | 0.0195 |
| 10/VUM37 | 11/25/2009 | 0.0078 |  | 10/VUM42 | 12/04/2007 | 0.019 |  | 10/VUM48 | 05/09/2006 | 0.02 |
| 10/VUM37 | 06/09/2010 | 0.0153 |  | 10/VUM42 | 06/10/2008 | 0.0237 |  | 10/VUM48 | 12/04/2006 | 0.0167 |
| 10/VUM39 | 12/06/2005 | 0.0271 |  | 10/VUM42 | 11/26/2008 | 0.0204 |  | 10/VUM48 | 06/12/2007 | 0.0289 |
| 10/VUM39 | 05/03/2006 | 0.0222 |  | 10/VUM42 | 5/27/2009 | 0.0216 |  | 10/VUM48 | 12/04/2007 | 0.0241 |
| 10/VUM39 | 11/30/2006 | 0.0231 |  | 10/VUM42 | 12/01/2009 | 0.0227 |  | 10/VUM48 | 06/10/2008 | 0.0309 |
| 10/VUM39 | 06/05/2007 | 0.0264 |  | 10/VUM42 | 6/15/2010 | 0.0276 |  | 10/VUM48 | 11/26/2008 | 0.0225 |
| 10/VUM39 | 11/29/2007 | 0.0242 |  | 10/VUM43 | 11/30/2005 | 0.0192 |  | 10/VUM48 | 5/27/2009 | 0.0235 |
| 10/VUM39 | 06/11/2008 | 0.0255 |  | 10/VUM43 | 05/04/2006 | 0.0132 |  | 10/VUM48 | 12/01/2009 | 0.0222 |
| 10/VUM39 | 11/17/2008 | 0.0239 |  | 10/VUM43 | 12/04/2006 | 0.0061 |  | 10/VUM48 | 6/16/2010 | 0.0177 |
| 10/VUM39 | 5/26/2009 | 0.0231 |  | 10/VUM43 | 6/21/2007 | 0.0154 |  | 10/VUM48 | 6/28/2011 | 0.0291 |
| 10/VUM39 | 11/23/2009 | 0.0237 |  | 10/VUM43 | 12/04/2007 | 0.0089 |  | 10/VUM48 | 11/23/2011 | 0.0232 |
| 10/VUM39 | 06/10/2010 | 0.0249 |  | 10/VUM43 | 06/10/2008 | 0.0144 |  | 10/VUM49 | 11/30/2005 | 0.0152 |
| 10/VUM4 | 12/20/2005 | 0.0202 |  | 10/VUM43 | 11/18/2008 | 0.0161 |  | 10/VUM49 | 05/09/2006 | 0.0136 |
| 10/VUM4 | 4/27/2006 | 0.0115 |  | 10/VUM43 | 5/27/2009 | 0.0156 |  | 10/VUM49 | 12/04/2006 | 0.0124 |
| 10/VUM4 | 11/22/2006 | 0.0113 |  | 10/VUM43 | 12/03/2009 | 0.0085 |  | 10/VUM49 | 6/13/2007 | 0.0142 |
| 10/VUM4 | 06/06/2007 | 0.0176 |  | 10/VUM43 | 6/15/2010 | 0.0209 |  | 10/VUM49 | 12/04/2007 | 0.0116 |
| 10/VUM4 | 11/29/2007 | 0.0135 |  | 10/VUM43 | 6/28/2011 | 0.0205 |  | 10/VUM49 | 5/22/2008 | 0.013 |
| 10/VUM4 | 5/29/2008 | 0.0176 |  | 10/VUM43 | 11/17/2011 | 0.0133 |  | 10/VUM49 | 10/29/2008 | 0.0161 |
| 10/VUM4 | 11/05/2008 | 0.022 |  | 10/VUM46 | 12/01/2005 | 0.0185 |  | 10/VUM49 | 06/03/2009 | 0.0111 |
| 10/VUM4 | 5/26/2009 | 0.0146 |  | 10/VUM46 | 05/09/2006 | 0.0174 |  | 10/VUM5 | 12/05/2005 | 0.0168 |

*Table 5 - Section Q. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 10/VUM5 | 4/18/2006 | 0.0262 |  | 10/VUM52 | 11/18/2008 | 0.0153 |  | 10/VUM57 | 5/18/2009 | 0.0162 |
| 10/VUM5 | 11/22/2006 | 0.0204 |  | 10/VUM53 | 11/30/2005 | 0.0262 |  | 10/VUM57 | 11/17/2009 | 0.0089 |
| 10/VUM5 | 5/29/2007 | 0.0198 |  | 10/VUM53 | 05/09/2006 | 0.0243 |  | 10/VUM57 | 5/31/2010 | 0.0144 |
| 10/VUM5 | 11/22/2007 | 0.0151 |  | 10/VUM53 | 12/05/2006 | 0.0203 |  | 10/VUM58 | 12/19/2005 | 0.0265 |
| 10/VUM5 | 5/29/2008 | 0.0294 |  | 10/VUM53 | 6/13/2007 | 0.0123 |  | 10/VUM58 | 4/18/2006 | 0.0225 |
| 10/VUM5 | 11/04/2008 | 0.0289 |  | 10/VUM53 | 12/05/2007 | 0.0177 |  | 10/VUM58 | 11/22/2006 | 0.0158 |
| 10/VUM5 | 5/18/2009 | 0.0308 |  | 10/VUM53 | 06/10/2008 | 0.0255 |  | 10/VUM58 | 5/29/2007 | 0.0157 |
| 10/VUM5 | 11/17/2009 | 0.0137 |  | 10/VUM53 | 11/18/2008 | 0.0153 |  | 10/VUM58 | 11/22/2007 | 0.017 |
| 10/VUM5 | 5/31/2010 | 0.0201 |  | 10/VUM53 | 06/03/2009 | 0.0232 |  | 10/VUM58 | 5/29/2008 | 0.022 |
| 10/VUM5 | 6/20/2011 | 0.0288 |  | 10/VUM54 | 11/30/2005 | 0.0129 |  | 10/VUM58 | 11/05/2008 | 0.0225 |
| 10/VUM5 | 11/02/2011 | 0.0279 |  | 10/VUM54 | 05/09/2006 | 0.0165 |  | 10/VUM58 | 5/18/2009 | 0.0245 |
| 10/VUM50 | 12/01/2005 | 0.0225 |  | 10/VUM54 | 12/04/2006 | 0.0157 |  | 10/VUM58 | 11/17/2009 | 0.0209 |
| 10/VUM50 | 05/09/2006 | 0.0166 |  | 10/VUM54 | 06/12/2007 | 0.017 |  | 10/VUM58 | 5/31/2010 | 0.0217 |
| 10/VUM50 | 11/30/2006 | 0.0171 |  | 10/VUM54 | 12/04/2007 | 0.015 |  | 10/VUM58 | 6/20/2011 | 0.0169 |
| 10/VUM50 | 06/12/2007 | 0.0173 |  | 10/VUM54 | 06/10/2008 | 0.0128 |  | 10/VUM58 | 11/02/2011 | 0.0213 |
| 10/VUM50 | 12/05/2007 | 0.0195 |  | 10/VUM54 | 11/18/2008 | 0.0125 |  | 10/VUM6 | 12/15/2005 | 0.0193 |
| 10/VUM50 | 06/05/2008 | 0.013 |  | 10/VUM54 | 5/27/2009 | 0.0121 |  | 10/VUM6 | 4/26/2006 | 0.0101 |
| 10/VUM50 | 11/17/2008 | 0.0218 |  | 10/VUM54 | 12/01/2009 | 0.014 |  | 10/VUM6 | 11/22/2006 | 0.0081 |
| 10/VUM50 | 5/26/2009 | 0.0193 |  | 10/VUM54 | 6/16/2010 | 0.0118 |  | 10/VUM6 | 5/30/2007 | 0.0092 |
| 10/VUM50 | 11/25/2009 | 0.0152 |  | 10/VUM54 | 6/29/2011 | 0.0141 |  | 10/VUM6 | 11/29/2007 | 0.0069 |
| 10/VUM50 | 6/15/2010 | 0.0216 |  | 10/VUM54 | 11/23/2011 | 0.0203 |  | 10/VUM6 | 06/03/2008 | 0.0075 |
| 10/VUM50 | 6/29/2011 | 0.0215 |  | 10/VUM55 | 12/05/2005 | 0.0248 |  | 10/VUM6 | 11/05/2008 | 0.0101 |
| 10/VUM50 | 11/17/2011 | 0.0263 |  | 10/VUM55 | 4/18/2006 | 0.0309 |  | 10/VUM6 | 5/25/2009 | 0.0076 |
| 10/VUM51 | 11/30/2005 | 0.0179 |  | 10/VUM55 | 11/22/2006 | 0.0268 |  | 10/VUM6 | 11/18/2009 | 0.0061 |
| 10/VUM51 | 05/09/2006 | 0.0123 |  | 10/VUM55 | 5/29/2007 | 0.0326 |  | 10/VUM6 | 06/10/2010 | 0.0079 |
| 10/VUM51 | 12/04/2006 | 0.009 |  | 10/VUM55 | 11/22/2007 | 0.0468 |  | 10/VUM6 | 6/16/2011 | 0.0119 |
| 10/VUM51 | 6/13/2007 | 0.0119 |  | 10/VUM55 | 5/29/2008 | 0.0371 |  | 10/VUM6 | 11/02/2011 | 0.0145 |
| 10/VUM51 | 12/04/2007 | 0.0134 |  | 10/VUM55 | 11/05/2008 | 0.04 |  | 10/VUM60 | 12/05/2005 | 0.0233 |
| 10/VUM51 | 06/10/2008 | 0.0156 |  | 10/VUM55 | 5/18/2009 | 0.0405 |  | 10/VUM60 | 4/19/2006 | 0.0213 |
| 10/VUM51 | 11/18/2008 | 0.0151 |  | 10/VUM55 | 11/17/2009 | 0.0196 |  | 10/VUM60 | 11/21/2006 | 0.0178 |
| 10/VUM51 | 06/03/2009 | 0.0136 |  | 10/VUM55 | 5/31/2010 | 0.0208 |  | 10/VUM60 | 5/29/2007 | 0.0211 |
| 10/VUM51 | 12/01/2009 | 0.0099 |  | 10/VUM55 | 6/16/2011 | 0.0334 |  | 10/VUM60 | 11/22/2007 | 0.0275 |
| 10/VUM51 | 6/16/2010 | 0.0106 |  | 10/VUM55 | 11/02/2011 | 0.0452 |  | 10/VUM60 | 5/29/2008 | 0.0188 |
| 10/VUM51 | 6/28/2011 | 0.0088 |  | 10/VUM57 | 12/05/2005 | 0.0208 |  | 10/VUM60 | 11/04/2008 | 0.027 |
| 10/VUM51 | 11/17/2011 | 0.0153 |  | 10/VUM57 | 4/18/2006 | 0.0142 |  | 10/VUM60 | 5/18/2009 | 0.022 |
| 10/VUM52 | 12/01/2005 | 0.0127 |  | 10/VUM57 | 11/22/2006 | 0.0118 |  | 10/VUM60 | 11/17/2009 | 0.0292 |
| 10/VUM52 | 05/09/2006 | 0.0234 |  | 10/VUM57 | 5/29/2007 | 0.0116 |  | 10/VUM60 | 5/25/2010 | 0.022 |
| 10/VUM52 | 12/05/2006 | 0.0229 |  | 10/VUM57 | 11/22/2007 | 0.0201 |  | 10/VUM61 | 12/19/2005 | 0.0309 |
| 10/VUM52 | 06/05/2007 | 0.0149 |  | 10/VUM57 | 5/29/2008 | 0.0109 |  | 10/VUM61 | 4/18/2006 | 0.017 |
| 10/VUM52 | 12/04/2007 | 0.0207 |  | 10/VUM57 | 11/04/2008 | 0.0139 |  | 10/VUM61 | 11/21/2006 | 0.0116 |

*Table 5 - Section R. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 10/VUM61 | 5/30/2007 | 0.0158 |  | 10/VUM65 | 5/31/2010 | 0.0161 |  | 10/VUM70 | 11/26/2007 | 0.0163 |
| 10/VUM61 | 11/22/2007 | 0.0227 |  | 10/VUM66 | 12/05/2005 | 0.0315 |  | 10/VUM70 | 06/03/2008 | 0.0246 |
| 10/VUM61 | 5/29/2008 | 0.0118 |  | 10/VUM66 | 4/19/2006 | 0.0254 |  | 10/VUM70 | 11/25/2009 | 0.0202 |
| 10/VUM61 | 11/04/2008 | 0.0091 |  | 10/VUM66 | 11/23/2006 | 0.0156 |  | 10/VUM70 | 6/15/2010 | 0.022 |
| 10/VUM61 | 5/18/2009 | 0.0121 |  | 10/VUM66 | 5/29/2007 | 0.0328 |  | 10/VUM70 | 6/16/2011 | 0.02 |
| 10/VUM61 | 11/17/2009 | 0.0156 |  | 10/VUM66 | 11/22/2007 | 0.0297 |  | 10/VUM70 | 11/02/2011 | 0.0215 |
| 10/VUM61 | 5/31/2010 | 0.0106 |  | 10/VUM66 | 06/03/2008 | 0.0382 |  | 10/VUM71 | 12/20/2005 | 0.0102 |
| 10/VUM61 | 6/20/2011 | 0.0282 |  | 10/VUM66 | 11/04/2008 | 0.0401 |  | 10/VUM71 | 05/02/2006 | 0.0094 |
| 10/VUM61 | 10/20/2011 | 0.0356 |  | 10/VUM66 | 5/19/2009 | 0.0279 |  | 10/VUM71 | 11/23/2006 | 0.008 |
| 10/VUM62 | 12/19/2005 | 0.0166 |  | 10/VUM66 | 11/18/2009 | 0.0301 |  | 10/VUM71 | 5/30/2007 | 0.0094 |
| 10/VUM62 | 4/18/2006 | 0.0245 |  | 10/VUM66 | 5/31/2010 | 0.0287 |  | 10/VUM71 | 11/26/2007 | 0.0101 |
| 10/VUM62 | 11/22/2006 | 0.0104 |  | 10/VUM66 | 6/16/2011 | 0.022 |  | 10/VUM71 | 06/03/2008 | 0.0108 |
| 10/VUM62 | 5/29/2007 | 0.011 |  | 10/VUM66 | 10/24/2011 | 0.0383 |  | 10/VUM71 | 11/05/2008 | 0.0094 |
| 10/VUM62 | 11/22/2007 | 0.0121 |  | 10/VUM69 | 12/19/2005 | 0.0128 |  | 10/VUM71 | 5/20/2009 | 0.0079 |
| 10/VUM62 | 5/29/2008 | 0.0131 |  | 10/VUM69 | 4/27/2006 | 0.0085 |  | 10/VUM71 | 11/23/2009 | 0.0142 |
| 10/VUM62 | 11/04/2008 | 0.0259 |  | 10/VUM69 | 11/22/2006 | 0.0065 |  | 10/VUM71 | 06/08/2010 | 0.0103 |
| 10/VUM62 | 5/18/2009 | 0.018 |  | 10/VUM69 | 5/30/2007 | 0.0105 |  | 10/VUM72 | 12/13/2005 | 0.0211 |
| 10/VUM62 | 11/17/2009 | 0.0094 |  | 10/VUM69 | 11/26/2007 | 0.0108 |  | 10/VUM72 | 4/19/2006 | 0.0159 |
| 10/VUM62 | 5/31/2010 | 0.0133 |  | 10/VUM69 | 06/03/2008 | 0.0121 |  | 10/VUM72 | 11/23/2006 | 0.0202 |
| 10/VUM63 | 12/15/2005 | 0.0259 |  | 10/VUM69 | 11/04/2008 | 0.0131 |  | 10/VUM72 | 06/06/2007 | 0.0222 |
| 10/VUM63 | 4/27/2006 | 0.0206 |  | 10/VUM69 | 5/19/2009 | 0.0105 |  | 10/VUM72 | 11/26/2007 | 0.0188 |
| 10/VUM63 | 11/21/2006 | 0.0212 |  | 10/VUM69 | 11/18/2009 | 0.0106 |  | 10/VUM72 | 5/21/2008 | 0.0187 |
| 10/VUM63 | 5/30/2007 | 0.0202 |  | 10/VUM69 | 06/03/2010 | 0.0094 |  | 10/VUM72 | 10/28/2008 | 0.0237 |
| 10/VUM63 | 11/22/2007 | 0.0183 |  | 10/VUM69 | 6/16/2011 | 0.0146 |  | 10/VUM72 | 5/14/2009 | 0.0164 |
| 10/VUM63 | 5/29/2008 | 0.0214 |  | 10/VUM7 | 12/20/2005 | 0.0141 |  | 10/VUM72 | 11/18/2009 | 0.0194 |
| 10/VUM63 | 11/04/2008 | 0.02 |  | 10/VUM7 | 4/19/2006 | 0.0114 |  | 10/VUM72 | 06/07/2010 | 0.012 |
| 10/VUM63 | 5/18/2009 | 0.022 |  | 10/VUM7 | 11/22/2006 | 0.0092 |  | 10/VUM72 | 07/06/2011 | 0.0208 |
| 10/VUM63 | 11/17/2009 | 0.0225 |  | 10/VUM7 | 5/29/2007 | 0.013 |  | 10/VUM72 | 10/19/2011 | 0.0279 |
| 10/VUM63 | 5/31/2010 | 0.0213 |  | 10/VUM7 | 11/22/2007 | 0.0116 |  | 10/VUM73 | 12/13/2005 | 0.0107 |
| 10/VUM63 | 6/14/2011 | 0.0227 |  | 10/VUM7 | 06/03/2008 | 0.0104 |  | 10/VUM73 | 4/19/2006 | 0.0067 |
| 10/VUM63 | 10/20/2011 | 0.0251 |  | 10/VUM7 | 11/04/2008 | 0.0222 |  | 10/VUM73 | 11/23/2006 | 0.007 |
| 10/VUM65 | 12/20/2005 | 0.019 |  | 10/VUM7 | 5/19/2009 | 0.0124 |  | 10/VUM73 | 5/30/2007 | 0.0071 |
| 10/VUM65 | 4/27/2006 | 0.0179 |  | 10/VUM7 | 11/17/2009 | 0.0134 |  | 10/VUM73 | 11/26/2007 | 0.0074 |
| 10/VUM65 | 11/22/2006 | 0.0123 |  | 10/VUM7 | 5/31/2010 | 0.0149 |  | 10/VUM73 | 06/03/2008 | 0.0083 |
| 10/VUM65 | 5/29/2007 | 0.0144 |  | 10/VUM7 | 6/16/2011 | 0.0211 |  | 10/VUM73 | 11/05/2008 | 0.0085 |
| 10/VUM65 | 11/22/2007 | 0.0154 |  | 10/VUM7 | 10/24/2011 | 0.0254 |  | 10/VUM73 | 5/19/2009 | 0.009 |
| 10/VUM65 | 06/03/2008 | 0.0213 |  | 10/VUM70 | 12/20/2005 | 0.0268 |  | 10/VUM73 | 11/18/2009 | 0.0075 |
| 10/VUM65 | 11/04/2008 | 0.0313 |  | 10/VUM70 | 4/26/2006 | 0.0174 |  | 10/VUM73 | 06/07/2010 | 0.0077 |
| 10/VUM65 | 5/19/2009 | 0.014 |  | 10/VUM70 | 11/23/2006 | 0.0118 |  | 10/VUM73 | 6/20/2011 | 0.0097 |
| 10/VUM65 | 11/17/2009 | 0.0158 |  | 10/VUM70 | 06/06/2007 | 0.0125 |  | 10/VUM74 | 12/20/2005 | 0.0021 |

*Table 5 - Section S. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 10/VUM74 | 4/27/2006 | 0.0056 |  | 10/VUM79 | 5/20/2009 | 0.0129 |  | 10/VUM83 | 06/12/2007 | 0.0175 |
| 10/VUM74 | 11/22/2006 | 0.0058 |  | 10/VUM79 | 11/19/2009 | 0.0164 |  | 10/VUM83 | 11/29/2007 | 0.0166 |
| 10/VUM74 | 6/21/2007 | 0.0055 |  | 10/VUM79 | 06/03/2010 | 0.0136 |  | 10/VUM83 | 06/11/2008 | 0.0221 |
| 10/VUM74 | 11/05/2008 | 0.0056 |  | 10/VUM8 | 12/19/2005 | 0.0354 |  | 10/VUM83 | 11/13/2008 | 0.0205 |
| 10/VUM74 | 11/18/2009 | 0.0036 |  | 10/VUM8 | 4/19/2006 | 0.0404 |  | 10/VUM83 | 5/25/2009 | 0.0114 |
| 10/VUM74 | 6/29/2010 | 0.0027 |  | 10/VUM8 | 11/22/2006 | 0.0213 |  | 10/VUM83 | 11/24/2009 | 0.0156 |
| 10/VUM74 | 6/30/2011 | 0.0085 |  | 10/VUM8 | 5/29/2007 | 0.0251 |  | 10/VUM83 | 06/08/2010 | 0.0156 |
| 10/VUM74 | 10/24/2011 | 0.0083 |  | 10/VUM8 | 11/26/2007 | 0.023 |  | 10/VUM83 | 6/29/2011 | 0.0227 |
| 10/VUM75 | 11/23/2006 | 0.0077 |  | 10/VUM8 | 06/04/2008 | 0.0292 |  | 10/VUM83 | 11/03/2011 | 0.025 |
| 10/VUM75 | 06/04/2007 | 0.0096 |  | 10/VUM8 | 11/04/2008 | 0.0366 |  | 10/VUM84 | 12/12/2005 | 0.0279 |
| 10/VUM76 | 12/12/2005 | 0.0092 |  | 10/VUM8 | 5/19/2009 | 0.0223 |  | 10/VUM84 | 4/27/2006 | 0.0233 |
| 10/VUM76 | 05/02/2006 | 0.0077 |  | 10/VUM8 | 11/18/2009 | 0.0301 |  | 10/VUM84 | 11/27/2006 | 0.02 |
| 10/VUM76 | 11/23/2006 | 0.0034 |  | 10/VUM8 | 5/31/2010 | 0.0301 |  | 10/VUM84 | 06/11/2007 | 0.0135 |
| 10/VUM76 | 06/04/2007 | 0.0036 |  | 10/VUM8 | 6/20/2011 | 0.0393 |  | 10/VUM84 | 11/29/2007 | 0.01 |
| 10/VUM76 | 11/27/2007 | 0.0038 |  | 10/VUM8 | 10/24/2011 | 0.0361 |  | 10/VUM84 | 5/22/2008 | 0.012 |
| 10/VUM76 | 06/04/2008 | 0.0034 |  | 10/VUM80 | 12/13/2005 | 0.0252 |  | 10/VUM84 | 10/28/2008 | 0.0105 |
| 10/VUM76 | 11/05/2008 | 0.01 |  | 10/VUM80 | 05/02/2006 | 0.0206 |  | 10/VUM84 | 5/25/2009 | 0.0145 |
| 10/VUM76 | 5/19/2009 | 0.0054 |  | 10/VUM80 | 11/23/2006 | 0.0175 |  | 10/VUM84 | 11/25/2009 | 0.0166 |
| 10/VUM76 | 11/19/2009 | 0.0035 |  | 10/VUM80 | 06/04/2007 | 0.025 |  | 10/VUM84 | 06/08/2010 | 0.0168 |
| 10/VUM76 | 06/03/2010 | 0.0033 |  | 10/VUM80 | 06/04/2008 | 0.0212 |  | 10/VUM84 | 6/27/2011 | 0.0234 |
| 10/VUM76 | 6/30/2011 | 0.0075 |  | 10/VUM80 | 11/12/2008 | 0.0214 |  | 10/VUM84 | 10/11/2011 | 0.0194 |
| 10/VUM76 | 10/19/2011 | 0.0098 |  | 10/VUM80 | 5/26/2009 | 0.0248 |  | 10/VUM85 | 12/12/2005 | 0.0074 |
| 10/VUM78 | 12/13/2005 | 0.0322 |  | 10/VUM80 | 11/19/2009 | 0.0281 |  | 10/VUM85 | 05/04/2006 | 0.0103 |
| 10/VUM78 | 05/02/2006 | 0.0193 |  | 10/VUM80 | 06/10/2010 | 0.0214 |  | 10/VUM85 | 12/04/2006 | 0.0052 |
| 10/VUM78 | 11/27/2006 | 0.019 |  | 10/VUM80 | 6/30/2011 | 0.0247 |  | 10/VUM85 | 06/12/2007 | 0.0092 |
| 10/VUM78 | 06/06/2007 | 0.0223 |  | 10/VUM80 | 10/19/2011 | 0.0279 |  | 10/VUM85 | 12/04/2007 | 0.0049 |
| 10/VUM78 | 11/26/2007 | 0.0111 |  | 10/VUM82 | 12/12/2005 | 0.0254 |  | 10/VUM85 | 06/11/2008 | 0.0152 |
| 10/VUM78 | 06/03/2008 | 0.019 |  | 10/VUM82 | 11/28/2006 | 0.0268 |  | 10/VUM85 | 11/17/2008 | 0.0045 |
| 10/VUM78 | 11/13/2008 | 0.0162 |  | 10/VUM82 | 06/04/2007 | 0.0166 |  | 10/VUM85 | 5/25/2009 | 0.0142 |
| 10/VUM78 | 5/20/2009 | 0.0224 |  | 10/VUM82 | 11/27/2007 | 0.0165 |  | 10/VUM85 | 11/25/2009 | 0.0043 |
| 10/VUM78 | 11/19/2009 | 0.0204 |  | 10/VUM82 | 06/04/2008 | 0.019 |  | 10/VUM85 | 06/10/2010 | 0.0141 |
| 10/VUM78 | 06/03/2010 | 0.0208 |  | 10/VUM82 | 11/12/2008 | 0.0183 |  | 10/VUM85 | 6/27/2011 | 0.0108 |
| 10/VUM78 | 07/06/2011 | 0.0189 |  | 10/VUM82 | 5/26/2009 | 0.0182 |  | 10/VUM85 | 10/17/2011 | 0.0123 |
| 10/VUM78 | 10/19/2011 | 0.0221 |  | 10/VUM82 | 11/23/2009 | 0.0182 |  | 10/VUM87 | 12/15/2005 | 0.0072 |
| 10/VUM79 | 12/07/2005 | 0.0159 |  | 10/VUM82 | 06/10/2010 | 0.0286 |  | 10/VUM87 | 05/04/2006 | 0.0097 |
| 10/VUM79 | 4/26/2006 | 0.01 |  | 10/VUM82 | 6/27/2011 | 0.0241 |  | 10/VUM87 | 06/07/2007 | 0.0055 |
| 10/VUM79 | 11/27/2006 | 0.0116 |  | 10/VUM82 | 12/13/2011 | 0.0195 |  | 10/VUM87 | 11/28/2007 | 0.0102 |
| 10/VUM79 | 06/11/2007 | 0.0218 |  | 10/VUM83 | 12/07/2005 | 0.023 |  | 10/VUM87 | 06/09/2008 | 0.0085 |
| 10/VUM79 | 06/04/2008 | 0.0227 |  | 10/VUM83 | 4/26/2006 | 0.0195 |  | 10/VUM87 | 11/26/2008 | 0.0111 |
| 10/VUM79 | 11/13/2008 | 0.0161 |  | 10/VUM83 | 11/27/2006 | 0.0169 |  | 10/VUM87 | 5/27/2009 | 0.0063 |

*Table 5 - Section T. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 10/VUM87 | 12/01/2009 | 0.0109 |  | 10/VUM90 | 11/12/2008 | 0.0188 |  | 10/VUM94 | 11/30/2006 | 0.0121 |
| 10/VUM87 | 06/09/2010 | 0.01 |  | 10/VUM90 | 5/25/2009 | 0.0197 |  | 10/VUM94 | 06/12/2007 | 0.0183 |
| 10/VUM87 | 5/26/2011 | 0.0075 |  | 10/VUM90 | 11/25/2009 | 0.0183 |  | 10/VUM94 | 12/05/2007 | 0.0123 |
| 10/VUM87 | 10/17/2011 | 0.0096 |  | 10/VUM91 | 12/06/2005 | 0.02 |  | 10/VUM94 | 06/10/2008 | 0.0139 |
| 10/VUM88 | 12/06/2005 | 0.0103 |  | 10/VUM91 | 05/03/2006 | 0.011 |  | 10/VUM94 | 11/17/2008 | 0.0162 |
| 10/VUM88 | 05/02/2006 | 0.0181 |  | 10/VUM91 | 11/30/2006 | 0.0138 |  | 10/VUM94 | 5/26/2009 | 0.0163 |
| 10/VUM88 | 11/30/2006 | 0.0137 |  | 10/VUM91 | 06/05/2007 | 0.0159 |  | 10/VUM94 | 11/26/2009 | 0.0113 |
| 10/VUM88 | 06/11/2007 | 0.0208 |  | 10/VUM91 | 11/29/2007 | 0.0173 |  | 10/VUM94 | 6/30/2010 | 0.0165 |
| 10/VUM88 | 12/03/2007 | 0.0148 |  | 10/VUM91 | 06/11/2008 | 0.0221 |  | 10/VUM94 | 6/29/2011 | 0.0158 |
| 10/VUM88 | 5/22/2008 | 0.0284 |  | 10/VUM91 | 11/13/2008 | 0.0207 |  | 10/VUM94 | 11/17/2011 | 0.0192 |
| 10/VUM88 | 11/12/2008 | 0.0114 |  | 10/VUM91 | 5/26/2009 | 0.0208 |  | 10/VUM95 | 12/01/2005 | 0.0117 |
| 10/VUM88 | 5/25/2009 | 0.0317 |  | 10/VUM91 | 11/23/2009 | 0.0084 |  | 10/VUM95 | 05/04/2006 | 0.0071 |
| 10/VUM88 | 11/23/2009 | 0.0278 |  | 10/VUM91 | 06/09/2010 | 0.0212 |  | 10/VUM95 | 11/30/2006 | 0.0052 |
| 10/VUM88 | 06/08/2010 | 0.0069 |  | 10/VUM91 | 6/27/2011 | 0.0058 |  | 10/VUM95 | 5/31/2007 | 0.0092 |
| 10/VUM88 | 6/27/2011 | 0.0172 |  | 10/VUM91 | 11/23/2011 | 0.0169 |  | 10/VUM95 | 12/05/2007 | 0.0113 |
| 10/VUM88 | 11/23/2011 | 0.0261 |  | 10/VUM92 | 12/01/2005 | 0.0255 |  | 10/VUM95 | 06/05/2008 | 0.0119 |
| 10/VUM89 | 12/06/2005 | 0.02 |  | 10/VUM92 | 05/03/2006 | 0.0288 |  | 10/VUM95 | 11/17/2008 | 0.0127 |
| 10/VUM89 | 05/02/2006 | 0.018 |  | 10/VUM92 | 11/30/2006 | 0.0242 |  | 10/VUM95 | 06/03/2009 | 0.012 |
| 10/VUM89 | 11/28/2006 | 0.0227 |  | 10/VUM92 | 06/05/2007 | 0.0342 |  | 10/VUM95 | 12/03/2009 | 0.0093 |
| 10/VUM89 | 06/04/2007 | 0.02 |  | 10/VUM92 | 11/28/2007 | 0.027 |  | 10/VUM96 | 12/01/2005 | 0.0054 |
| 10/VUM89 | 11/27/2007 | 0.0168 |  | 10/VUM92 | 06/11/2008 | 0.0324 |  | 10/VUM96 | 05/04/2006 | 0.0064 |
| 10/VUM89 | 06/11/2008 | 0.0254 |  | 10/VUM92 | 11/17/2008 | 0.0211 |  | 10/VUM96 | 11/30/2006 | 0.0065 |
| 10/VUM89 | 11/12/2008 | 0.0191 |  | 10/VUM92 | 5/26/2009 | 0.0284 |  | 10/VUM96 | 06/07/2007 | 0.0082 |
| 10/VUM89 | 5/25/2009 | 0.0222 |  | 10/VUM92 | 11/23/2009 | 0.0271 |  | 10/VUM96 | 12/05/2007 | 0.0109 |
| 10/VUM89 | 11/23/2009 | 0.0251 |  | 10/VUM92 | 06/10/2010 | 0.034 |  | 10/VUM96 | 06/05/2008 | 0.0066 |
| 10/VUM89 | 06/08/2010 | 0.0201 |  | 10/VUM92 | 6/29/2011 | 0.0261 |  | 10/VUM96 | 11/17/2008 | 0.0071 |
| 10/VUM9 | 12/19/2005 | 0.011 |  | 10/VUM93 | 12/01/2005 | 0.0082 |  | 10/VUM96 | 06/03/2009 | 0.0051 |
| 10/VUM9 | 4/27/2006 | 0.0056 |  | 10/VUM93 | 05/09/2006 | 0.0035 |  | 10/VUM96 | 11/26/2009 | 0.0073 |
| 10/VUM9 | 11/23/2006 | 0.0073 |  | 10/VUM93 | 12/05/2006 | 0.0034 |  | 10/VUM96 | 6/16/2010 | 0.0064 |
| 10/VUM9 | 06/12/2007 | 0.0144 |  | 10/VUM93 | 06/05/2007 | 0.0085 |  | 10/VUM96 | 6/28/2011 | 0.0099 |
| 10/VUM9 | 11/18/2009 | 0.0083 |  | 10/VUM93 | 12/04/2007 | 0.0079 |  | 10/VUM96 | 10/13/2011 | 0.0099 |
| 10/VUM9 | 5/31/2010 | 0.008 |  | 10/VUM93 | 06/10/2008 | 0.0031 |  | 10/VUM97 | 11/30/2005 | 0.0111 |
| 10/VUM9 | 08/03/2011 | 0.024 |  | 10/VUM93 | 11/18/2008 | 0.0087 |  | 10/VUM97 | 05/04/2006 | 0.0104 |
| 10/VUM9 | 10/24/2011 | 0.027 |  | 10/VUM93 | 06/03/2009 | 0.0047 |  | 10/VUM97 | 12/05/2006 | 0.0038 |
| 10/VUM90 | 12/06/2005 | 0.0219 |  | 10/VUM93 | 12/03/2009 | 0.007 |  | 10/VUM97 | 06/07/2007 | 0.0055 |
| 10/VUM90 | 05/02/2006 | 0.018 |  | 10/VUM93 | 6/16/2010 | 0.0065 |  | 10/VUM97 | 11/28/2007 | 0.0089 |
| 10/VUM90 | 11/30/2006 | 0.0183 |  | 10/VUM93 | 6/28/2011 | 0.0071 |  | 10/VUM97 | 5/22/2008 | 0.0135 |
| 10/VUM90 | 06/11/2007 | 0.0185 |  | 10/VUM93 | 11/10/2011 | 0.0098 |  | 10/VUM97 | 10/29/2008 | 0.0074 |
| 10/VUM90 | 12/03/2007 | 0.0142 |  | 10/VUM94 | 12/01/2005 | 0.0124 |  | 10/VUM97 | 06/03/2009 | 0.0181 |
| 10/VUM90 | 06/09/2008 | 0.0088 |  | 10/VUM94 | 05/04/2006 | 0.0143 |  | 10/VUM97 | 11/26/2009 | 0.0057 |

*Table 5 - Section U. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 10/VUM97 | 6/16/2010 | 0.0183 |  | 13/CF-CA1(s) | 4/19/2006 | 0.0044 |  | 13/CF-CA4(s) | 10/27/2006 | 0.004 |
| 10/VUM99 | 11/30/2005 | 0.0359 |  | 13/CF-CA1(s) | 11/06/2006 | 0.0043 |  | 13/CF-CA4(s) | 5/25/2009 | 0.0081 |
| 10/VUM99 | 05/09/2006 | 0.0195 |  | 13/CF-CA1(s) | 06/05/2007 | 0.0044 |  | 13/CF-CA4(s) | 10/28/2009 | 0.0129 |
| 10/VUM99 | 12/05/2006 | 0.0208 |  | 13/CF-CA1(s) | 11/05/2007 | 0.0022 |  | 13/CF-CA5(s) | 10/28/2003 | 0.0118 |
| 10/VUM99 | 06/07/2007 | 0.0101 |  | 13/CF-CA1(s) | 5/27/2008 | 0.0057 |  | 13/CF-CA5(s) | 5/19/2004 | 0.0064 |
| 10/VUM99 | 11/28/2007 | 0.0163 |  | 13/CF-CA1(s) | 11/11/2008 | 0.0026 |  | 13/CF-CA5(s) | 10/25/2004 | 0.0125 |
| 10/VUM99 | 06/10/2008 | 0.0147 |  | 13/CF-CA1(s) | 5/26/2009 | 0.0062 |  | 13/CF-CA5(s) | 4/15/2005 | 0.0173 |
| 10/VUM99 | 11/18/2008 | 0.0179 |  | 13/CF-CA1(s) | 11/23/2009 | 0.0247 |  | 13/CF-CA5(s) | 12/13/2005 | 0.0204 |
| 10/VUM99 | 06/03/2009 | 0.0183 |  | 13/CF-CA2(s) | 10/28/2003 | 0.0072 |  | 13/CF-CA5(s) | 04/11/2006 | 0.0066 |
| 10/VUM99 | 11/26/2009 | 0.0152 |  | 13/CF-CA2(s) | 5/19/2004 | 0.0097 |  | 13/CF-CA5(s) | 11/06/2006 | 0.0063 |
| 10/VUM99 | 6/16/2010 | 0.0247 |  | 13/CF-CA2(s) | 10/07/2004 | 0.0053 |  | 13/CF-CA5(s) | 06/06/2007 | 0.0057 |
| 13/AVA18(s) | 03/03/2010 | 0.0032 |  | 13/CF-CA2(s) | 5/23/2005 | 0.004 |  | 13/CF-CA5(s) | 11/27/2007 | 0.0081 |
| 13/AVA18(s) | 05/04/2010 | 0.0061 |  | 13/CF-CA2(s) | 12/13/2005 | 0.0081 |  | 13/CF-CA5(s) | 5/20/2008 | 0.0116 |
| 13/AVA18(s) | 7/14/2010 | 0.0067 |  | 13/CF-CA2(s) | 04/11/2006 | 0.001 |  | 13/CF-CA5(s) | 11/26/2008 | 0.0045 |
| 13/AVA18(s) | 11/25/2010 | 0.0059 |  | 13/CF-CA2(s) | 11/06/2006 | 0.0038 |  | 13/CF-CA5(s) | 5/25/2009 | 0.032 |
| 13/AVA18(s) | 02/09/2011 | 0.0053 |  | 13/CF-CA2(s) | 06/06/2007 | 0.0035 |  | 13/CF-CA5(s) | 11/12/2009 | 0.0305 |
| 13/AVA18(s) | 05/04/2011 | 0.0063 |  | 13/CF-CA2(s) | 11/27/2007 | 0.0036 |  | 13/CF-CA6(s) | 10/28/2003 | 0.0111 |
| 13/AVA18(s) | 7/13/2011 | 0.0127 |  | 13/CF-CA2(s) | 5/20/2008 | 0.0035 |  | 13/CF-CA6(s) | 5/19/2004 | 0.0202 |
| 13/AVA18(s) | 10/27/2011 | 0.0127 |  | 13/CF-CA2(s) | 11/27/2008 | 0.0061 |  | 13/CF-CA6(s) | 10/25/2004 | 0.0183 |
| 13/AVA18(s) | 3/14/2012 | 0.0029 |  | 13/CF-CA2(s) | 5/25/2009 | 0.0117 |  | 13/CF-CA6(s) | 4/15/2005 | 0.0152 |
| 13/AVA18(s) | 04/11/2012 | 0.0039 |  | 13/CF-CA2(s) | 11/12/2009 | 0.0119 |  | 13/CF-CA6(s) | 12/13/2005 | 0.0276 |
| 13/AVA18(s) | 07/03/2012 | 0.0061 |  | 13/CF-CA3(s) | 10/28/2003 | 0.0029 |  | 13/CF-CA6(s) | 04/11/2006 | 0.0154 |
| 13/AVA18(s) | 10/10/2012 | 0.0017 |  | 13/CF-CA3(s) | 5/18/2004 | 0.015 |  | 13/CF-CA6(s) | 11/06/2006 | 0.0072 |
| 13/AVA18(s) | 1/22/2013 | 0.0031 |  | 13/CF-CA3(s) | 10/07/2004 | 0.0074 |  | 13/CF-CA6(s) | 06/06/2007 | 0.0078 |
| 13/AVA18(s) | 04/03/2013 | 0.005 |  | 13/CF-CA3(s) | 4/14/2005 | 0.0106 |  | 13/CF-CA6(s) | 11/27/2007 | 0.0092 |
| 13/AVA18(s) | 08/05/2013 | 0.0042 |  | 13/CF-CA3(s) | 12/14/2005 | 0.0261 |  | 13/CF-CA6(s) | 5/20/2008 | 0.0163 |
| 13/AVA18(s) | 11/25/2013 | 0.0038 |  | 13/CF-CA3(s) | 4/19/2006 | 0.0067 |  | 13/CF-CA6(s) | 11/26/2008 | 0.004 |
| 13/AVA18(s) | 1/15/2014 | 0.003 |  | 13/CF-CA3(s) | 11/06/2006 | 0.0055 |  | 13/CF-CA6(s) | 5/25/2009 | 0.0237 |
| 13/CC1(s) | 10/28/2003 | 0.0141 |  | 13/CF-CA3(s) | 06/05/2007 | 0.0066 |  | 13/CF-CA6(s) | 11/12/2009 | 0.0417 |
| 13/CC1(s) | 5/27/2004 | 0.0313 |  | 13/CF-CA3(s) | 11/05/2007 | 0.0078 |  | 13/C-M1(s) | 11/04/2003 | 0.0036 |
| 13/CC1(s) | 12/07/2004 | 0.0093 |  | 13/CF-CA3(s) | 5/27/2008 | 0.0092 |  | 13/C-M1(s) | 05/05/2004 | 0.0145 |
| 13/CC1(s) | 05/10/2005 | 0.0119 |  | 13/CF-CA3(s) | 11/11/2008 | 0.0027 |  | 13/C-M1(s) | 10/20/2004 | 0.0023 |
| 13/CC1(s) | 12/28/2005 | 0.0042 |  | 13/CF-CA3(s) | 5/26/2009 | 0.0167 |  | 13/C-M1(s) | 05/03/2005 | 0.003 |
| 13/CC1(s) | 5/16/2006 | 0.0054 |  | 13/CF-CA3(s) | 11/23/2009 | 0.0494 |  | 13/C-M1(s) | 10/11/2005 | 0.0054 |
| 13/CC1(s) | 06/12/2007 | 0.0066 |  | 13/CF-CA4(s) | 1/13/2004 | 0.0049 |  | 13/C-M1(s) | 4/26/2006 | 0.0063 |
| 13/CF-CA1(s) | 10/26/2003 | 0.0091 |  | 13/CF-CA4(s) | 5/25/2004 | 0.0068 |  | 13/C-M1(s) | 10/16/2006 | 0.0083 |
| 13/CF-CA1(s) | 5/18/2004 | 0.0056 |  | 13/CF-CA4(s) | 10/21/2004 | 0.0043 |  | 13/C-M1(s) | 05/10/2007 | 0.012 |
| 13/CF-CA1(s) | 10/07/2004 | 0.0064 |  | 13/CF-CA4(s) | 4/19/2005 | 0.0086 |  | 13/C-M1(s) | 05/06/2009 | 0.014 |
| 13/CF-CA1(s) | 4/14/2005 | 0.0159 |  | 13/CF-CA4(s) | 10/27/2005 | 0.0047 |  | 13/C-M1(s) | 10/12/2009 | 0.0014 |
| 13/CF-CA1(s) | 11/29/2005 | 0.006 |  | 13/CF-CA4(s) | 5/18/2006 | 0.0024 |  | 13/C-M1(s) | 02/08/2010 | 0.004 |

*Table 5 - Section V. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 13/C-M1(s) | 5/25/2010 | 0.0049 |  | 13/C-M10(s) | 10/13/2009 | 0.0031 |  | 13/C-M11(p) | 9/15/2010 | 0.0041 |
| 13/C-M1(s) | 7/28/2010 | 0.0073 |  | 13/C-M10(s) | 03/02/2010 | 0.0021 |  | 13/C-M11(p) | 3/24/2011 | 0.0113 |
| 13/C-M1(s) | 12/14/2010 | 0.0044 |  | 13/C-M10(s) | 4/27/2010 | 0.0021 |  | 13/C-M11(p) | 6/23/2011 | 0.0078 |
| 13/C-M1(s) | 03/01/2011 | 0.0032 |  | 13/C-M10(s) | 09/01/2010 | 0.0027 |  | 13/C-M11(p) | 9/21/2011 | 0.0068 |
| 13/C-M1(s) | 04/12/2011 | 0.0031 |  | 13/C-M10(s) | 11/09/2010 | 0.0016 |  | 13/C-M11(p) | 12/06/2011 | 0.0075 |
| 13/C-M1(s) | 7/27/2011 | 0.0068 |  | 13/C-M10(s) | 02/08/2011 | 0.0031 |  | 13/C-M11(p) | 03/01/2012 | 0.009 |
| 13/C-M1(s) | 10/03/2011 | 0.0039 |  | 13/C-M10(s) | 04/05/2011 | 0.0017 |  | 13/C-M11(p) | 04/05/2012 | 0.0043 |
| 13/C-M1(s) | 03/01/2012 | 0.0061 |  | 13/C-M10(s) | 07/06/2011 | 0.0021 |  | 13/C-M11(p) | 03/01/2012 | 0.009 |
| 13/C-M1(s) | 04/05/2012 | 0.0022 |  | 13/C-M10(s) | 10/12/2011 | 0.002 |  | 13/C-M11(p) | 04/05/2012 | 0.0043 |
| 13/C-M1(s) | 07/05/2012 | 0.0066 |  | 13/C-M10(s) | 03/12/2012 | 0.0036 |  | 13/C-M11(p) | 07/05/2012 | 0.0066 |
| 13/C-M1(s) | 10/02/2012 | 0.0042 |  | 13/C-M10(s) | 4/18/2012 | 0.0012 |  | 13/C-M11(p) | 10/02/2012 | 0.0035 |
| 13/C-M1(s) | 1/15/2013 | 0.0041 |  | 13/C-M10(s) | 8/30/2012 | 0.0023 |  | 13/C-M11(p) | 5/20/2013 | 0.0108 |
| 13/C-M1(s) | 02/06/2013 | 0.0028 |  | 13/C-M10(s) | 10/30/2012 | 0.0026 |  | 13/C-M11(p) | 8/26/2013 | 0.0056 |
| 13/C-M1(s) | 06/03/2013 | 0.0053 |  | 13/C-M10(s) | 02/12/2013 | 0.0036 |  | 13/C-M11(p) | 11/20/2013 | 0.0062 |
| 13/C-M1(s) | 07/01/2013 | 0.0039 |  | 13/C-M10(s) | 06/06/2013 | 0.0013 |  | 13/C-M11(p) | 2/17/2014 | 0.011 |
| 13/C-M1(s) | 10/08/2013 | 0.0061 |  | 13/C-M10(s) | 07/11/2013 | 0.0027 |  | 13/C-M11(p) | 4/29/2014 | 0.0088 |
| 13/C-M1(s) | 2/17/2014 | 0.0062 |  | 13/C-M10(s) | 12/12/2013 | 0.0027 |  | 13/C-M11(p) | 9/18/2014 | 0.0088 |
| 13/C-M1(s) | 6/16/2014 | 0.0047 |  | 13/C-M10(s) | 03/11/2015 | 0.0022 |  | 13/C-M11(p) | 11/24/2014 | 0.0087 |
| 13/C-M1(s) | 9/16/2014 | 0.0047 |  | 13/C-M10(s) | 6/24/2015 | 0.0023 |  | 13/C-M11(p) | 3/25/2015 | 0.0091 |
| 13/C-M1(s) | 11/17/2014 | 0.0055 |  | 13/C-M10(s) | 09/10/2015 | 0.0037 |  | 13/C-M11(p) | 06/03/2015 | 0.0039 |
| 13/C-M1(s) | 1/13/2015 | 0.0066 |  | 13/C-M10(s) | 12/01/2015 | 0.003 |  | 13/C-M11(p) | 8/19/2015 | 0.0044 |
| 13/C-M1(s) | 4/22/2015 | 0.0062 |  | 13/C-M10(s) | 3/29/2016 | 0.0026 |  | 13/C-M11(p) | 02/09/2016 | 0.0043 |
| 13/C-M1(s) | 07/06/2015 | 0.0054 |  | 13/C-M10(s) | 6/15/2016 | 0.0015 |  | 13/C-M11(p) | 6/15/2016 | 0.0045 |
| 13/C-M1(s) | 12/10/2015 | 0.0065 |  | 13/C-M10(s) | 9/15/2016 | 0.0011 |  | 13/C-M11(p) | 08/08/2016 | 0.0071 |
| 13/C-M1(s) | 01/11/2016 | 0.0057 |  | 13/C-M10(s) | 10/12/2016 | 0.0014 |  | 13/C-M11(p) | 11/02/2016 | 0.0058 |
| 13/C-M1(s) | 04/06/2016 | 0.0049 |  | 13/C-M11(p) | 10/29/2003 | 0.0158 |  | 13/C-M12(s) | 11/11/2003 | 0.0065 |
| 13/C-M1(s) | 7/20/2016 | 0.0066 |  | 13/C-M11(p) | 6/16/2004 | 0.0046 |  | 13/C-M12(s) | 5/13/2004 | 0.0016 |
| 13/C-M1(s) | 10/24/2016 | 0.0047 |  | 13/C-M11(p) | 12/02/2004 | 0.0052 |  | 13/C-M12(s) | 10/26/2004 | 0.0024 |
| 13/C-M10(s) | 10/24/2003 | 0.0032 |  | 13/C-M11(p) | 06/08/2005 | 0.0082 |  | 13/C-M12(s) | 5/17/2005 | 0.0037 |
| 13/C-M10(s) | 04/05/2004 | 0.0025 |  | 13/C-M11(p) | 12/14/2005 | 0.0072 |  | 13/C-M12(s) | 11/03/2005 | 0.002 |
| 13/C-M10(s) | 10/21/2004 | 0.0021 |  | 13/C-M11(p) | 06/07/2006 | 0.0034 |  | 13/C-M12(s) | 05/11/2006 | 0.0014 |
| 13/C-M10(s) | 5/18/2005 | 0.003 |  | 13/C-M11(p) | 11/23/2006 | 0.0122 |  | 13/C-M12(s) | 10/26/2006 | 0.0074 |
| 13/C-M10(s) | 11/10/2005 | 0.0046 |  | 13/C-M11(p) | 07/02/2007 | 0.0097 |  | 13/C-M12(s) | 5/15/2007 | 0.0047 |
| 13/C-M10(s) | 05/03/2006 | 0.0028 |  | 13/C-M11(p) | 12/18/2007 | 0.006 |  | 13/C-M12(s) | 11/21/2007 | 0.0016 |
| 13/C-M10(s) | 10/10/2006 | 0.004 |  | 13/C-M11(p) | 7/31/2008 | 0.0195 |  | 13/C-M12(s) | 5/22/2008 | 0.0022 |
| 13/C-M10(s) | 5/16/2007 | 0.0036 |  | 13/C-M11(p) | 12/02/2008 | 0.0086 |  | 13/C-M12(s) | 10/28/2008 | 0.0016 |
| 13/C-M10(s) | 1/15/2008 | 0.0025 |  | 13/C-M11(p) | 6/17/2009 | 0.0058 |  | 13/C-M12(s) | 5/14/2009 | 0.002 |
| 13/C-M10(s) | 5/19/2008 | 0.0027 |  | 13/C-M11(p) | 11/25/2009 | 0.0019 |  | 13/C-M12(s) | 10/27/2009 | 0.0023 |
| 13/C-M10(s) | 10/29/2008 | 0.0058 |  | 13/C-M11(p) | 6/22/2010 | 0.0067 |  | 13/C-M12(s) | 3/16/2010 | 0.0016 |
| 13/C-M10(s) | 4/29/2009 | 0.0041 |  | 13/C-M11(p) | 07/01/2010 | 0.0253 |  | 13/C-M12(s) | 5/20/2010 | 0.001 |

*Table 5 - Section W. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 13/C-M12(s) | 8/19/2010 | 0.0018 |  | 13/C-M13(s) | 5/20/2010 | 0.0007 |  | 13/C-M14(s) | 3/30/2016 | 0.0009 |
| 13/C-M12(s) | 12/16/2010 | 0.001 |  | 13/C-M13(s) | 8/19/2010 | 0.0026 |  | 13/C-M14(s) | 6/13/2016 | 0.0006 |
| 13/C-M12(s) | 03/01/2011 | 0.0012 |  | 13/C-M13(s) | 12/16/2010 | 0.0009 |  | 13/C-M14(s) | 9/26/2016 | 0.001 |
| 13/C-M12(s) | 05/02/2011 | 0.0013 |  | 13/C-M13(s) | 2/24/2014 | 0.001 |  | 13/C-M14(s) | 12/05/2016 | 0.0019 |
| 13/C-M12(s) | 7/27/2011 | 0.0014 |  | 13/C-M13(s) | 6/23/2014 | 0.0011 |  | 13/C-M15(s) | 11/06/2003 | 0.0057 |
| 13/C-M12(s) | 10/03/2011 | 0.0014 |  | 13/C-M13(s) | 9/22/2014 | 0.0014 |  | 13/C-M15(s) | 5/13/2004 | 0.0034 |
| 13/C-M12(s) | 1/19/2012 | 0.0016 |  | 13/C-M13(s) | 12/01/2014 | 0.001 |  | 13/C-M15(s) | 10/26/2004 | 0.0023 |
| 13/C-M12(s) | 05/02/2012 | 0.001 |  | 13/C-M13(s) | 03/02/2015 | 0.0011 |  | 13/C-M15(s) | 5/17/2005 | 0.002 |
| 13/C-M12(s) | 08/01/2012 | 0.001 |  | 13/C-M13(s) | 6/15/2015 | 0.0031 |  | 13/C-M15(s) | 11/03/2005 | 0.0031 |
| 13/C-M12(s) | 10/09/2012 | 0.0014 |  | 13/C-M13(s) | 9/23/2015 | 0.0014 |  | 13/C-M15(s) | 05/11/2006 | 0.0021 |
| 13/C-M12(s) | 1/15/2013 | 0.0024 |  | 13/C-M13(s) | 12/02/2015 | 0.0036 |  | 13/C-M15(s) | 10/18/2006 | 0.0072 |
| 13/C-M12(s) | 3/21/2013 | 0.001 |  | 13/C-M13(s) | 3/30/2016 | 0.0011 |  | 13/C-M15(s) | 5/15/2007 | 0.0039 |
| 13/C-M12(s) | 06/03/2013 | 0.0012 |  | 13/C-M13(s) | 6/13/2016 | 0.0012 |  | 13/C-M15(s) | 11/21/2007 | 0.0022 |
| 13/C-M12(s) | 9/23/2013 | 0.0024 |  | 13/C-M13(s) | 9/26/2016 | 0.0017 |  | 13/C-M15(s) | 5/22/2008 | 0.003 |
| 13/C-M12(s) | 11/25/2013 | 0.0013 |  | 13/C-M13(s) | 12/05/2016 | 0.0031 |  | 13/C-M15(s) | 10/28/2008 | 0.0031 |
| 13/C-M12(s) | 2/24/2014 | 0.001 |  | 13/C-M14(s) | 11/06/2003 | 0.0057 |  | 13/C-M15(s) | 5/14/2009 | 0.0035 |
| 13/C-M12(s) | 6/23/2014 | 0.0015 |  | 13/C-M14(s) | 5/13/2004 | 0.0023 |  | 13/C-M15(s) | 10/27/2009 | 0.002 |
| 13/C-M12(s) | 9/22/2014 | 0.0027 |  | 13/C-M14(s) | 10/26/2004 | 0.0031 |  | 13/C-M15(s) | 3/16/2010 | 0.0009 |
| 13/C-M12(s) | 12/01/2014 | 0.0017 |  | 13/C-M14(s) | 5/17/2005 | 0.0016 |  | 13/C-M15(s) | 6/28/2010 | 0.0009 |
| 13/C-M12(s) | 03/02/2015 | 0.0011 |  | 13/C-M14(s) | 11/03/2005 | 0.001 |  | 13/C-M15(s) | 9/22/2010 | 0.0031 |
| 13/C-M12(s) | 6/15/2015 | 0.0014 |  | 13/C-M14(s) | 5/30/2006 | 0.0012 |  | 13/C-M15(s) | 12/16/2010 | 0.0009 |
| 13/C-M12(s) | 9/23/2015 | 0.0019 |  | 13/C-M14(s) | 10/26/2006 | 0.0053 |  | 13/C-M15(s) | 2/24/2014 | 0.0023 |
| 13/C-M12(s) | 12/09/2015 | 0.0029 |  | 13/C-M14(s) | 06/05/2007 | 0.0015 |  | 13/C-M15(s) | 6/23/2014 | 0.0011 |
| 13/C-M12(s) | 3/30/2016 | 0.0015 |  | 13/C-M14(s) | 11/21/2007 | 0.0014 |  | 13/C-M15(s) | 9/22/2014 | 0.0014 |
| 13/C-M12(s) | 6/13/2016 | 0.0014 |  | 13/C-M14(s) | 5/22/2008 | 0.0016 |  | 13/C-M15(s) | 12/01/2014 | 0.0011 |
| 13/C-M12(s) | 9/26/2016 | 0.0021 |  | 13/C-M14(s) | 10/18/2008 | 0.0012 |  | 13/C-M15(s) | 03/02/2015 | 0.0008 |
| 13/C-M13(s) | 11/11/2003 | 0.0018 |  | 13/C-M14(s) | 5/14/2009 | 0.0019 |  | 13/C-M15(s) | 6/15/2015 | 0.0026 |
| 13/C-M13(s) | 06/03/2004 | 0.0013 |  | 13/C-M14(s) | 10/27/2009 | 0.0007 |  | 13/C-M15(s) | 9/23/2015 | 0.0024 |
| 13/C-M13(s) | 11/23/2004 | 0.0011 |  | 13/C-M14(s) | 3/16/2010 | 0.0007 |  | 13/C-M15(s) | 12/02/2015 | 0.003 |
| 13/C-M13(s) | 5/17/2005 | 0.0001 |  | 13/C-M14(s) | 6/28/2010 | 0.0008 |  | 13/C-M15(s) | 3/30/2016 | 0.0021 |
| 13/C-M13(s) | 11/03/2005 | 0.0015 |  | 13/C-M14(s) | 9/22/2010 | 0.001 |  | 13/C-M15(s) | 6/13/2016 | 0.0016 |
| 13/C-M13(s) | 05/11/2006 | 0.0019 |  | 13/C-M14(s) | 12/16/2010 | 0.0008 |  | 13/C-M15(s) | 9/26/2016 | 0.0018 |
| 13/C-M13(s) | 10/18/2006 | 0.0021 |  | 13/C-M14(s) | 2/24/2014 | 0.0006 |  | 13/C-M15(s) | 12/05/2016 | 0.0019 |
| 13/C-M13(s) | 06/05/2007 | 0.0015 |  | 13/C-M14(s) | 6/23/2014 | 0.0007 |  | 13/CM16(s) | 6/28/2010 | 0.0013 |
| 13/C-M13(s) | 12/05/2007 | 0.001 |  | 13/C-M14(s) | 9/22/2014 | 0.002 |  | 13/C-M16(s) | 11/13/2003 | 0.0019 |
| 13/C-M13(s) | 5/22/2008 | 0.0023 |  | 13/C-M14(s) | 12/01/2014 | 0.0008 |  | 13/C-M16(s) | 5/27/2004 | 0.0079 |
| 13/C-M13(s) | 11/18/2008 | 0.0018 |  | 13/C-M14(s) | 03/02/2015 | 0.0011 |  | 13/C-M16(s) | 10/26/2004 | 0.0015 |
| 13/C-M13(s) | 06/08/2009 | 0.0012 |  | 13/C-M14(s) | 6/15/2015 | 0.0008 |  | 13/C-M16(s) | 05/10/2005 | 0.0025 |
| 13/C-M13(s) | 10/27/2009 | 0.0009 |  | 13/C-M14(s) | 9/23/2015 | 0.0019 |  | 13/C-M16(s) | 4/20/2006 | 0.0039 |
| 13/C-M13(s) | 3/16/2010 | 0.0013 |  | 13/C-M14(s) | 12/14/2015 | 0.0013 |  | 13/C-M16(s) | 10/18/2006 | 0.0031 |

*Table 5 - Section X. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 13/C-M16(s) | 4/26/2007 | 0.0038 |  | 13/C-M6(s) | 05/03/2005 | 0.0028 |  | 13/CSA12(s) | 5/26/2009 | 0.0299 |
| 13/C-M16(s) | 12/05/2007 | 0.0011 |  | 13/C-M6(s) | 05/03/2006 | 0.006 |  | 13/CSA12(s) | 10/15/2009 | 0.0081 |
| 13/C-M16(s) | 07/03/2008 | 0.0054 |  | 13/C-M7(s) | 10/27/2003 | 0.0086 |  | 13/CSA12(s) | 3/18/2010 | 0.015 |
| 13/C-M16(s) | 11/18/2008 | 0.0023 |  | 13/C-M7(s) | 11/24/2004 | 0.0015 |  | 13/CSA12(s) | 05/12/2010 | 0.0093 |
| 13/C-M16(s) | 06/08/2009 | 0.002 |  | 13/C-M7(s) | 12/19/2005 | 0.0066 |  | 13/CSA12(s) | 09/08/2010 | 0.0163 |
| 13/C-M16(s) | 10/15/2009 | 0.0014 |  | 13/C-M7(s) | 05/03/2006 | 0.0017 |  | 13/CSA12(s) | 11/10/2010 | 0.012 |
| 13/C-M16(s) | 3/17/2014 | 0.0018 |  | 13/C-M7(s) | 5/15/2007 | 0.002 |  | 13/CSA12(s) | 2/23/2011 | 0.0114 |
| 13/C-M16(s) | 6/30/2014 | 0.0019 |  | 13/C-M8(s) | 10/27/2003 | 0.007 |  | 13/CSA12(s) | 08/03/2011 | 0.0232 |
| 13/C-M16(s) | 12/22/2014 | 0.0027 |  | 13/C-M8(s) | 06/04/2004 | 0.0059 |  | 13/CSA12(s) | 11/24/2011 | 0.0154 |
| 13/C-M16(s) | 6/22/2015 | 0.002 |  | 13/C-M8(s) | 5/18/2005 | 0.0019 |  | 13/CSA7(s) | 3/24/2010 | 0.0035 |
| 13/C-M16(s) | 09/08/2015 | 0.0022 |  | 13/CSA10(s) | 6/15/2006 | 0.0077 |  | 13/CSA7(s) | 05/12/2010 | 0.0015 |
| 13/C-M16(s) | 11/25/2015 | 0.0013 |  | 13/CSA10(s) | 10/18/2006 | 0.0083 |  | 13/CSA7(s) | 09/08/2010 | 0.002 |
| 13/C-M16(s) | 6/20/2016 | 0.0018 |  | 13/CSA10(s) | 06/05/2007 | 0.006 |  | 13/CSA7(s) | 2/23/2011 | 0.003 |
| 13/C-M16(s) | 9/28/2016 | 0.0017 |  | 13/CSA10(s) | 12/05/2007 | 0.0066 |  | 13/CSA7(s) | 05/11/2011 | 0.0018 |
| 13/CM17(s) | 6/28/2010 | 0.0007 |  | 13/CSA10(s) | 6/17/2008 | 0.0212 |  | 13/CSA7(s) | 08/03/2011 | 0.0028 |
| 13/C-M17(s) | 11/13/2003 | 0.0054 |  | 13/CSA10(s) | 11/03/2008 | 0.007 |  | 13/CSA7(s) | 12/14/2011 | 0.0025 |
| 13/C-M17(s) | 5/27/2004 | 0.0092 |  | 13/CSA10(s) | 5/26/2009 | 0.01 |  | 13/CSA7(s) | 03/08/2012 | 0.0029 |
| 13/C-M17(S) | 05/10/2005 | 0.0025 |  | 13/CSA10(s) | 10/15/2009 | 0.0098 |  | 13/CSA7(s) | 06/06/2012 | 0.002 |
| 13/C-M17(s) | 10/20/2005 | 0.0083 |  | 13/CSA10(s) | 3/18/2010 | 0.0103 |  | 13/CSA7(s) | 09/05/2012 | 0.0012 |
| 13/C-M17(s) | 5/30/2006 | 0.0011 |  | 13/CSA10(s) | 05/12/2010 | 0.0087 |  | 13/CSA7(s) | 11/07/2012 | 0.0072 |
| 13/C-M17(s) | 05/07/2007 | 0.0023 |  | 13/CSA10(s) | 09/08/2010 | 0.0067 |  | 13/CSA7(s) | 2/19/2013 | 0.0071 |
| 13/C-M17(s) | 6/17/2008 | 0.003 |  | 13/CSA10(s) | 11/10/2010 | 0.0113 |  | 13/CSA7(s) | 5/16/2013 | 0.0013 |
| 13/C-M17(s) | 5/26/2009 | 0.0018 |  | 13/CSA10(s) | 2/23/2011 | 0.0065 |  | 13/CSA7(s) | 7/22/2013 | 0.001 |
| 13/C-M17(s) | 10/15/2009 | 0.0013 |  | 13/CSA10(s) | 05/11/2011 | 0.0089 |  | 13/CSA7(s) | 10/24/2013 | 0.0015 |
| 13/C-M19(s) | 6/21/2006 | 0.0061 |  | 13/CSA10(s) | 08/03/2011 | 0.0076 |  | 13/CSA7(s) | 3/25/2014 | 0.0027 |
| 13/C-M19(s) | 10/20/2006 | 0.0114 |  | 13/CSA10(s) | 11/23/2011 | 0.0085 |  | 13/CSA7(s) | 5/20/2014 | 0.0016 |
| 13/C-M19(s) | 5/31/2007 | 0.0038 |  | 13/CSA10(s) | 03/08/2012 | 0.0074 |  | 13/CSA7(s) | 9/25/2014 | 0.0016 |
| 13/C-M19(s) | 11/22/2007 | 0.0024 |  | 13/CSA10(s) | 06/06/2012 | 0.0067 |  | 13/CSA7(s) | 11/03/2014 | 0.0018 |
| 13/C-M19(s) | 6/19/2008 | 0.011 |  | 13/CSA10(s) | 09/05/2012 | 0.0082 |  | 13/CSA7(s) | 2/18/2015 | 0.0019 |
| 13/C-M19(s) | 11/04/2008 | 0.0022 |  | 13/CSA10(s) | 11/07/2012 | 0.008 |  | 13/CSA7(s) | 05/11/2015 | 0.0013 |
| 13/C-M19(s) | 05/06/2009 | 0.0038 |  | 13/CSA10(s) | 2/19/2013 | 0.007 |  | 13/CSA7(s) | 7/20/2015 | 0.0027 |
| 13/C-M19(s) | 10/13/2009 | 0.0043 |  | 13/CSA10(s) | 5/16/2013 | 0.0077 |  | 13/CSA7(s) | 10/13/2015 | 0.0038 |
| 13/C-M19(s) | 02/08/2010 | 0.0026 |  | 13/CSA10(s) | 7/22/2013 | 0.0062 |  | 13/CSA7(s) | 2/15/2016 | 0.0013 |
| 13/C-M19(s) | 5/25/2010 | 0.002 |  | 13/CSA10(s) | 10/24/2013 | 0.0049 |  | 13/CSA7(s) | 05/11/2016 | 0.0012 |
| 13/C-M19(s) | 7/28/2010 | 0.0053 |  | 13/CSA12(s) | 6/15/2006 | 0.0146 |  | 13/CSA7(s) | 9/21/2016 | 0.0009 |
| 13/C-M19(s) | 12/14/2010 | 0.0018 |  | 13/CSA12(s) | 10/18/2006 | 0.0134 |  | 13/CSA7(s) | 11/15/2016 | 0.0009 |
| 13/C-M20(s) | 6/21/2006 | 0.0164 |  | 13/CSA12(s) | 06/05/2007 | 0.0233 |  | 13/FO-SA5(s) | 10/20/2003 | 0.0146 |
| 13/C-M20(s) | 10/20/2006 | 0.0134 |  | 13/CSA12(s) | 12/05/2007 | 0.0127 |  | 13/FO-SA5(s) | 4/19/2004 | 0.0213 |
| 13/C-M20(s) | 05/06/2009 | 0.0234 |  | 13/CSA12(s) | 6/17/2008 | 0.0305 |  | 13/FO-SA5(s) | 11/22/2004 | 0.0103 |
| 13/C-M6(s) | 04/05/2004 | 0.0051 |  | 13/CSA12(s) | 11/03/2008 | 0.0112 |  | 13/FO-SA5(s) | 4/20/2005 | 0.0279 |

*Table 5 - Section Y. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 13/FO-SA5(s) | 10/24/2005 | 0.0138 |  | 13/FU1(p) | 5/18/2006 | 0.0061 |  | 13/FU2(p) | 11/22/2005 | 0.0069 |
| 13/FO-SA5(s) | 5/16/2006 | 0.0052 |  | 13/FU1(p) | 11/15/2006 | 0.0086 |  | 13/FU2(p) | 5/18/2006 | 0.0132 |
| 13/FO-SA5(s) | 10/17/2006 | 0.0184 |  | 13/FU1(p) | 5/16/2007 | 0.0097 |  | 13/FU2(p) | 11/15/2006 | 0.0066 |
| 13/FO-SA5(s) | 05/08/2007 | 0.0158 |  | 13/FU1(p) | 11/27/2007 | 0.0078 |  | 13/FU2(p) | 5/16/2007 | 0.0133 |
| 13/FO-SA5(s) | 11/22/2007 | 0.0201 |  | 13/FU1(p) | 11/04/2008 | 0.0061 |  | 13/FU2(p) | 11/27/2007 | 0.0127 |
| 13/FO-SA5(s) | 05/06/2008 | 0.0162 |  | 13/FU1(p) | 5/13/2009 | 0.005 |  | 13/FU2(p) | 06/04/2008 | 0.0151 |
| 13/FO-SA5(s) | 1/20/2009 | 0.0123 |  | 13/FU1(p) | 11/05/2009 | 0.0035 |  | 13/FU2(p) | 11/04/2008 | 0.0152 |
| 13/FO-SA5(s) | 5/14/2009 | 0.0297 |  | 13/FU1(p) | 2/17/2010 | 0.0077 |  | 13/FU2(p) | 5/29/2009 | 0.0187 |
| 13/FO-SA5(s) | 10/19/2009 | 0.0416 |  | 13/FU1(p) | 05/03/2010 | 0.0041 |  | 13/FU2(p) | 11/05/2009 | 0.0041 |
| 13/FO-SA6(s) | 10/20/2003 | 0.0122 |  | 13/FU1(p) | 07/06/2010 | 0.0045 |  | 13/FU2(p) | 3/25/2010 | 0.007 |
| 13/FO-SA6(s) | 4/23/2004 | 0.0142 |  | 13/FU1(p) | 8/26/2010 | 0.0042 |  | 13/FU2(p) | 5/13/2010 | 0.0056 |
| 13/FO-SA6(s) | 11/22/2004 | 0.0021 |  | 13/FU1(p) | 11/03/2010 | 0.0035 |  | 13/FU2(p) | 08/10/2010 | 0.0129 |
| 13/FO-SA6(s) | 4/26/2005 | 0.023 |  | 13/FU1(p) | 2/24/2011 | 0.0041 |  | 13/FU2(p) | 11/03/2010 | 0.0082 |
| 13/FO-SA6(s) | 10/24/2005 | 0.0191 |  | 13/FU1(p) | 5/19/2011 | 0.0084 |  | 13/FU2(p) | 03/03/2011 | 0.0067 |
| 13/FO-SA6(s) | 5/16/2006 | 0.0135 |  | 13/FU1(p) | 09/07/2011 | 0.0052 |  | 13/FU2(p) | 5/26/2011 | 0.0032 |
| 13/FO-SA6(s) | 10/17/2006 | 0.0227 |  | 13/FU1(p) | 11/02/2011 | 0.0091 |  | 13/FU2(p) | 7/20/2011 | 0.0136 |
| 13/FO-SA6(s) | 05/08/2007 | 0.0101 |  | 13/FU1(p) | 3/14/2012 | 0.0048 |  | 13/FU2(p) | 10/19/2011 | 0.01 |
| 13/FO-SA6(s) | 11/22/2007 | 0.0202 |  | 13/FU1(p) | 5/17/2012 | 0.0034 |  | 13/FU2(p) | 1/25/2012 | 0.0101 |
| 13/FO-SA6(s) | 05/06/2008 | 0.0215 |  | 13/FU1(p) | 08/07/2012 | 0.0059 |  | 13/FU2(p) | 05/09/2012 | 0.0134 |
| 13/FO-SA6(s) | 1/20/2009 | 0.0157 |  | 13/FU1(p) | 11/20/2012 | 0.0051 |  | 13/FU2(p) | 08/07/2012 | 0.0203 |
| 13/FO-SA6(s) | 5/14/2009 | 0.0367 |  | 13/FU1(p) | 3/21/2013 | 0.004 |  | 13/FU2(p) | 10/23/2012 | 0.0096 |
| 13/FO-SA6(s) | 10/19/2009 | 0.0486 |  | 13/FU1(p) | 5/20/2013 | 0.0065 |  | 13/FU2(p) | 3/18/2013 | 0.0114 |
| 13/FO-SA7(s) | 10/20/2003 | 0.0046 |  | 13/FU1(p) | 8/26/2013 | 0.0053 |  | 13/FU2(p) | 5/20/2013 | 0.0101 |
| 13/FO-SA7(s) | 4/23/2004 | 0.0078 |  | 13/FU1(p) | 10/08/2013 | 0.0059 |  | 13/FU2(p) | 8/26/2013 | 0.0122 |
| 13/FO-SA7(s) | 11/29/2004 | 0.048 |  | 13/FU1(p) | 1/13/2014 | 0.0033 |  | 13/FU2(p) | 10/08/2013 | 0.0215 |
| 13/FO-SA7(s) | 4/26/2005 | 0.0184 |  | 13/FU1(p) | 6/16/2014 | 0.0046 |  | 13/FU2(p) | 2/17/2014 | 0.0114 |
| 13/FO-SA7(s) | 10/24/2005 | 0.0211 |  | 13/FU1(p) | 09/08/2014 | 0.0056 |  | 13/FU2(p) | 4/29/2014 | 0.0207 |
| 13/FO-SA7(s) | 5/16/2006 | 0.0075 |  | 13/FU1(p) | 11/17/2014 | 0.0064 |  | 13/FU2(p) | 07/08/2014 | 0.019 |
| 13/FO-SA7(s) | 10/17/2006 | 0.0229 |  | 13/FU1(p) | 1/13/2015 | 0.0056 |  | 13/FU2(p) | 10/15/2014 | 0.0215 |
| 13/FO-SA7(s) | 05/08/2007 | 0.0109 |  | 13/FU1(p) | 03/04/2015 | 0.0031 |  | 13/FU2(p) | 03/04/2015 | 0.0129 |
| 13/FO-SA7(s) | 11/22/2007 | 0.0205 |  | 13/FU1(p) | 5/18/2015 | 0.0038 |  | 13/FU2(p) | 05/04/2015 | 0.0158 |
| 13/FO-SA7(s) | 05/06/2008 | 0.0154 |  | 13/FU1(p) | 7/13/2015 | 0.005 |  | 13/FU2(p) | 12/16/2015 | 0.0396 |
| 13/FO-SA7(s) | 1/20/2009 | 0.0142 |  | 13/FU1(p) | 10/06/2015 | 0.0094 |  | 13/FU2(p) | 05/05/2016 | 0.0223 |
| 13/FO-SA7(s) | 5/14/2009 | 0.0203 |  | 13/FU1(p) | 01/11/2016 | 0.0063 |  | 13/FU2(p) | 11/02/2016 | 0.0142 |
| 13/FO-SA7(s) | 10/19/2009 | 0.0284 |  | 13/FU1(p) | 4/20/2016 | 0.0053 |  | 13/FU20(s) | 5/15/2008 | 0.0203 |
| 13/FU1(p) | 10/29/2003 | 0.0063 |  | 13/FU1(p) | 07/07/2016 | 0.0052 |  | 13/FU20(s) | 11/04/2008 | 0.0133 |
| 13/FU1(p) | 5/19/2004 | 0.0057 |  | 13/FU1(p) | 10/05/2016 | 0.0031 |  | 13/FU20(s) | 05/06/2009 | 0.0292 |
| 13/FU1(p) | 10/27/2004 | 0.0043 |  | 13/FU2(p) | 06/07/2004 | 0.0148 |  | 13/FU20(s) | 10/12/2009 | 0.0125 |
| 13/FU1(p) | 5/26/2005 | 0.0048 |  | 13/FU2(p) | 10/27/2004 | 0.0127 |  | 13/FU20(s) | 3/17/2010 | 0.0164 |
| 13/FU1(p) | 11/16/2005 | 0.0076 |  | 13/FU2(p) | 5/26/2005 | 0.0085 |  | 13/FU20(s) | 05/03/2010 | 0.0132 |

*Table 5 - Section Z. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 13/FU20(s) | 07/06/2010 | 0.018 |  | 13/FU4(p) | 11/02/2011 | 0.0129 |  | 13/FU5(p) | 5/27/2015 | 0.0082 |
| 13/FU20(s) | 11/04/2010 | 0.0129 |  | 13/FU4(p) | 3/14/2012 | 0.0016 |  | 13/FU5(p) | 8/24/2015 | 0.0143 |
| 13/FU20(s) | 2/24/2011 | 0.0197 |  | 13/FU4(p) | 3/14/2012 | 0.0016 |  | 13/FU5(p) | 02/09/2016 | 0.0103 |
| 13/FU20(s) | 5/19/2011 | 0.0073 |  | 13/FU4(p) | 5/17/2012 | 0.0024 |  | 13/FU5(p) | 3/16/2016 | 0.0168 |
| 13/FU20(s) | 7/20/2011 | 0.0138 |  | 13/FU4(p) | 5/17/2012 | 0.0024 |  | 13/FU5(p) | 5/30/2016 | 0.0175 |
| 13/FU20(s) | 11/09/2011 | 0.0092 |  | 13/FU4(p) | 11/20/2012 | 0.0044 |  | 13/FU5(p) | 7/20/2016 | 0.0164 |
| 13/FU20(s) | 1/25/2012 | 0.0136 |  | 13/FU4(p) | 2/25/2013 | 0.0029 |  | 13/FU5(p) | 10/05/2016 | 0.0103 |
| 13/FU20(s) | 05/09/2012 | 0.0108 |  | 13/FU4(p) | 5/14/2013 | 0.0054 |  | 13/FU6(p) | 2/17/2010 | 0.0089 |
| 13/FU20(s) | 7/19/2012 | 0.0117 |  | 13/FU4(p) | 09/12/2013 | 0.0063 |  | 13/FU6(p) | 05/03/2010 | 0.0043 |
| 13/FU20(s) | 10/23/2012 | 0.0091 |  | 13/FU4(p) | 11/07/2013 | 0.0055 |  | 13/FU6(p) | 07/06/2010 | 0.0057 |
| 13/FU20(s) | 02/05/2013 | 0.0088 |  | 13/FU4(p) | 3/19/2014 | 0.0066 |  | 13/FU6(p) | 11/03/2010 | 0.004 |
| 13/FU20(s) | 04/09/2013 | 0.014 |  | 13/FU4(p) | 06/04/2014 | 0.0026 |  | 13/FU6(p) | 2/24/2011 | 0.0061 |
| 13/FU20(s) | 07/01/2013 | 0.0153 |  | 13/FU4(p) | 8/25/2014 | 0.0028 |  | 13/FU6(p) | 5/19/2011 | 0.0036 |
| 13/FU20(s) | 11/20/2013 | 0.0136 |  | 13/FU4(p) | 10/22/2014 | 0.0069 |  | 13/FU6(p) | 09/07/2011 | 0.003 |
| 13/FU20(s) | 1/13/2014 | 0.0158 |  | 13/FU4(p) | 5/27/2015 | 0.0019 |  | 13/FU6(p) | 11/02/2011 | 0.0282 |
| 13/FU21(s) | 5/15/2008 | 0.0257 |  | 13/FU4(p) | 8/24/2015 | 0.004 |  | 13/FU6(p) | 3/14/2012 | 0.0065 |
| 13/FU21(s) | 11/04/2008 | 0.0116 |  | 13/FU4(p) | 12/15/2015 | 0.0096 |  | 13/FU6(p) | 3/14/2012 | 0.0065 |
| 13/FU21(s) | 05/06/2009 | 0.0402 |  | 13/FU4(p) | 5/30/2016 | 0.0031 |  | 13/FU6(p) | 5/17/2012 | 0.0029 |
| 13/FU21(s) | 3/17/2010 | 0.0132 |  | 13/FU4(p) | 7/20/2016 | 0.0041 |  | 13/FU6(p) | 5/17/2012 | 0.0029 |
| 13/FU21(s) | 05/03/2010 | 0.0118 |  | 13/FU5(p) | 2/17/2010 | 0.0163 |  | 13/FU6(p) | 10/24/2012 | 0.0023 |
| 13/FU21(s) | 08/10/2010 | 0.0101 |  | 13/FU5(p) | 05/03/2010 | 0.0088 |  | 13/FU6(p) | 02/05/2013 | 0.0026 |
| 13/FU21(s) | 11/04/2010 | 0.0124 |  | 13/FU5(p) | 11/03/2010 | 0.006 |  | 13/FU6(p) | 04/08/2013 | 0.0052 |
| 13/FU21(s) | 2/24/2011 | 0.0095 |  | 13/FU5(p) | 2/24/2011 | 0.0123 |  | 13/FU6(p) | 8/26/2013 | 0.0058 |
| 13/FU21(s) | 5/19/2011 | 0.0125 |  | 13/FU5(p) | 5/19/2011 | 0.0085 |  | 13/FU6(p) | 11/20/2013 | 0.0164 |
| 13/FU21(s) | 7/20/2011 | 0.0104 |  | 13/FU5(p) | 09/07/2011 | 0.0033 |  | 13/FU6(p) | 2/17/2014 | 0.0057 |
| 13/FU21(s) | 11/02/2011 | 0.0201 |  | 13/FU5(p) | 11/02/2011 | 0.0201 |  | 13/FU6(p) | 04/07/2014 | 0.0069 |
| 13/FU21(s) | 1/25/2012 | 0.0078 |  | 13/FU5(p) | 3/14/2012 | 0.0134 |  | 13/FU6(p) | 09/08/2014 | 0.0065 |
| 13/FU21(s) | 05/09/2012 | 0.0076 |  | 13/FU5(p) | 5/17/2012 | 0.0116 |  | 13/FU6(p) | 10/13/2014 | 0.0067 |
| 13/FU21(s) | 7/19/2012 | 0.0132 |  | 13/FU5(p) | 5/17/2012 | 0.0116 |  | 13/FU6(p) | 3/23/2015 | 0.0061 |
| 13/FU21(s) | 11/13/2012 | 0.021 |  | 13/FU5(p) | 7/19/2012 | 0.0114 |  | 13/FU6(p) | 5/18/2015 | 0.0053 |
| 13/FU21(s) | 02/05/2013 | 0.0046 |  | 13/FU5(p) | 11/20/2012 | 0.0026 |  | 13/FU6(p) | 07/06/2015 | 0.0106 |
| 13/FU21(s) | 04/08/2013 | 0.0034 |  | 13/FU5(p) | 2/25/2013 | 0.0045 |  | 13/FU6(p) | 10/06/2015 | 0.0108 |
| 13/FU21(s) | 07/01/2013 | 0.0123 |  | 13/FU5(p) | 5/14/2013 | 0.0132 |  | 13/FU6(p) | 4/20/2016 | 0.0059 |
| 13/FU21(s) | 11/25/2013 | 0.0128 |  | 13/FU5(p) | 09/12/2013 | 0.0157 |  | 13/FU6(p) | 07/07/2016 | 0.0034 |
| 13/FU21(s) | 1/13/2014 | 0.0294 |  | 13/FU5(p) | 11/07/2013 | 0.0079 |  | 13/FU6(p) | 08/03/2016 | 0.003 |
| 13/FU4(p) | 07/06/2010 | 0.0033 |  | 13/FU5(p) | 3/19/2014 | 0.0199 |  | 13/FU6(p) | 11/24/2016 | 0.0056 |
| 13/FU4(p) | 11/03/2010 | 0.0025 |  | 13/FU5(p) | 06/04/2014 | 0.0049 |  | 13/G-G1(s) | 10/21/2003 | 0.005 |
| 13/FU4(p) | 2/24/2011 | 0.0035 |  | 13/FU5(p) | 8/25/2014 | 0.0182 |  | 13/G-G1(s) | 5/17/2004 | 0.0038 |
| 13/FU4(p) | 5/19/2011 | 0.0022 |  | 13/FU5(p) | 10/22/2014 | 0.0168 |  | 13/G-G1(s) | 11/02/2004 | 0.0024 |
| 13/FU4(p) | 09/07/2011 | 0.0061 |  | 13/FU5(p) | 02/11/2015 | 0.0243 |  | 13/G-G1(s) | 5/16/2005 | 0.0024 |

*Table 5 - Section A1. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 13/G-G1(s) | 10/13/2005 | 0.003 |  | 13/G-G2(s) | 12/06/2011 | 0.0044 |  | 13/GS-S1(s) | 10/25/2004 | 0.0021 |
| 13/G-G1(s) | 5/17/2006 | 0.0021 |  | 13/G-G2(s) | 3/26/2012 | 0.0019 |  | 13/GS-S1(s) | 05/02/2005 | 0.0002 |
| 13/G-G1(s) | 10/12/2006 | 0.0052 |  | 13/G-G2(s) | 06/12/2012 | 0.0074 |  | 13/GS-S1(s) | 10/12/2005 | 0.0025 |
| 13/G-G1(s) | 05/09/2007 | 0.0033 |  | 13/G-G2(s) | 9/19/2012 | 0.0027 |  | 13/GS-S1(s) | 5/15/2006 | 0.0018 |
| 13/G-G1(s) | 11/20/2007 | 0.0028 |  | 13/G-G2(s) | 12/12/2012 | 0.0018 |  | 13/GS-S1(s) | 10/11/2006 | 0.0029 |
| 13/G-G1(s) | 5/27/2008 | 0.0045 |  | 13/G-G2(s) | 3/26/2013 | 0.0027 |  | 13/GS-S1(s) | 06/04/2007 | 0.0022 |
| 13/G-G1(s) | 10/27/2008 | 0.006 |  | 13/G-G2(s) | 5/27/2013 | 0.003 |  | 13/GS-S1(s) | 1/18/2008 | 0.002 |
| 13/G-G1(s) | 05/05/2009 | 0.0049 |  | 13/G-G2(s) | 07/08/2013 | 0.002 |  | 13/GS-S1(s) | 5/13/2008 | 0.0023 |
| 13/G-G1(s) | 2/23/2010 | 0.0028 |  | 13/G-G2(s) | 10/14/2013 | 0.0026 |  | 13/GS-S1(s) | 10/08/2008 | 0.0016 |
| 13/G-G1(s) | 5/19/2010 | 0.0021 |  | 13/G-G3(s) | 10/21/2003 | 0.0027 |  | 13/GS-S1(s) | 05/12/2009 | 0.0025 |
| 13/G-G1(s) | 08/11/2010 | 0.0018 |  | 13/G-G3(s) | 5/17/2004 | 0.0024 |  | 13/GS-S1(s) | 10/19/2009 | 0.002 |
| 13/G-G1(s) | 12/06/2010 | 0.0024 |  | 13/G-G3(s) | 11/02/2004 | 0.001 |  | 13/GS-S1(s) | 3/15/2010 | 0.0018 |
| 13/G-G1(s) | 2/19/2014 | 0.0021 |  | 13/G-G3(s) | 5/16/2005 | 0.0015 |  | 13/GS-S1(s) | 4/19/2010 | 0.0027 |
| 13/G-G1(s) | 06/11/2014 | 0.003 |  | 13/G-G3(s) | 10/13/2005 | 0.0015 |  | 13/GS-S1(s) | 7/21/2010 | 0.0019 |
| 13/G-G1(s) | 9/23/2014 | 0.0018 |  | 13/G-G3(s) | 5/17/2006 | 0.0018 |  | 13/GS-S1(s) | 11/15/2010 | 0.0014 |
| 13/G-G1(s) | 12/10/2014 | 0.0023 |  | 13/G-G3(s) | 11/08/2006 | 0.0062 |  | 13/GS-S1(s) | 02/02/2011 | 0.0007 |
| 13/G-G1(s) | 3/25/2015 | 0.0034 |  | 13/G-G3(s) | 05/09/2007 | 0.0019 |  | 13/GS-S1(s) | 04/12/2011 | 0.0007 |
| 13/G-G1(s) | 6/17/2015 | 0.0022 |  | 13/G-G3(s) | 12/06/2007 | 0.0026 |  | 13/GS-S1(s) | 9/28/2011 | 0.0043 |
| 13/G-G1(s) | 8/26/2015 | 0.0028 |  | 13/G-G3(s) | 5/28/2008 | 0.0031 |  | 13/GS-S1(s) | 11/24/2011 | 0.0028 |
| 13/G-G1(s) | 12/21/2015 | 0.0076 |  | 13/G-G3(s) | 11/03/2008 | 0.0027 |  | 13/GS-S1(s) | 1/19/2012 | 0.0035 |
| 13/G-G1(s) | 3/15/2016 | 0.0026 |  | 13/G-G3(s) | 05/05/2009 | 0.0032 |  | 13/GS-S1(s) | 04/04/2012 | 0.0011 |
| 13/G-G1(s) | 6/20/2016 | 0.0023 |  | 13/G-G3(s) | 10/06/2009 | 0.0016 |  | 13/GS-S1(s) | 08/02/2012 | 0.0016 |
| 13/G-G1(s) | 9/19/2016 | 0.0026 |  | 13/G-G3(s) | 2/23/2010 | 0.0015 |  | 13/GS-S1(s) | 10/18/2012 | 0.0015 |
| 13/G-G1(s) | 11/21/2016 | 0.0018 |  | 13/G-G3(s) | 5/19/2010 | 0.0015 |  | 13/GS-S1(s) | 2/21/2013 | 0.0111 |
| 13/G-G2(s) | 10/13/2003 | 0.0063 |  | 13/G-G3(s) | 08/11/2010 | 0.0021 |  | 13/GS-S1(s) | 04/04/2013 | 0.004 |
| 13/G-G2(s) | 06/01/2004 | 0.0073 |  | 13/G-G3(s) | 12/06/2010 | 0.0015 |  | 13/GS-S1(s) | 9/16/2013 | 0.0058 |
| 13/G-G2(s) | 12/01/2004 | 0.0015 |  | 13/G-G3(s) | 2/19/2014 | 0.0013 |  | 13/GS-S1(s) | 12/04/2013 | 0.0018 |
| 13/G-G2(s) | 5/24/2005 | 0.0036 |  | 13/G-G3(s) | 6/26/2014 | 0.0018 |  | 13/GS-S10(s) | 10/27/2003 | 0.003 |
| 13/G-G2(s) | 12/14/2005 | 0.0033 |  | 13/G-G3(s) | 9/25/2014 | 0.0032 |  | 13/GS-S10(s) | 7/22/2004 | 0.003 |
| 13/G-G2(s) | 06/07/2006 | 0.0015 |  | 13/G-G3(s) | 12/10/2014 | 0.002 |  | 13/GS-S10(s) | 10/15/2004 | 0.0013 |
| 13/G-G2(s) | 11/27/2006 | 0.0042 |  | 13/G-G3(s) | 3/17/2015 | 0.0023 |  | 13/GS-S10(s) | 5/20/2005 | 0.0034 |
| 13/G-G2(s) | 6/18/2007 | 0.0044 |  | 13/G-G3(s) | 6/17/2015 | 0.002 |  | 13/GS-S10(s) | 10/27/2005 | 0.0035 |
| 13/G-G2(s) | 07/03/2008 | 0.0062 |  | 13/G-G3(s) | 09/01/2015 | 0.0023 |  | 13/GS-S10(s) | 04/11/2006 | 0.0022 |
| 13/G-G2(s) | 11/20/2008 | 0.0035 |  | 13/G-G3(s) | 10/19/2015 | 0.0033 |  | 13/GS-S10(s) | 9/27/2006 | 0.0028 |
| 13/G-G2(s) | 6/16/2009 | 0.0033 |  | 13/G-G3(s) | 03/03/2016 | 0.0016 |  | 13/GS-S10(s) | 5/24/2007 | 0.0022 |
| 13/G-G2(s) | 10/21/2009 | 0.007 |  | 13/G-G3(s) | 6/20/2016 | 0.0018 |  | 13/GS-S10(s) | 9/18/2007 | 0.0042 |
| 13/G-G2(s) | 9/28/2010 | 0.0029 |  | 13/G-G3(s) | 9/21/2016 | 0.0014 |  | 13/GS-S10(s) | 7/31/2008 | 0.0018 |
| 13/G-G2(s) | 2/14/2011 | 0.0033 |  | 13/G-G3(s) | 12/12/2016 | 0.0014 |  | 13/GS-S10(s) | 10/15/2008 | 0.0032 |
| 13/G-G2(s) | 6/16/2011 | 0.0041 |  | 13/GS-S1(s) | 10/17/2003 | 0.0049 |  | 13/GS-S10(s) | 06/10/2009 | 0.0057 |
| 13/G-G2(s) | 9/22/2011 | 0.0058 |  | 13/GS-S1(s) | 05/11/2004 | 0.0014 |  | 13/GS-S10(s) | 9/23/2009 | 0.0052 |

*Table 5 - Section B1. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 13/GS-S10(s) | 2/25/2010 | 0.0029 |  | 13/GS-S12(s) | 05/10/2004 | 0.0074 |  | 13/GS-S15(s) | 10/15/2008 | 0.0038 |
| 13/GS-S10(s) | 05/04/2010 | 0.0035 |  | 13/GS-S12(s) | 11/03/2004 | 0.0029 |  | 13/GS-S15(s) | 05/04/2009 | 0.0026 |
| 13/GS-S10(s) | 7/20/2010 | 0.0033 |  | 13/GS-S12(s) | 4/28/2005 | 0.0037 |  | 13/GS-S15(s) | 10/19/2009 | 0.0042 |
| 13/GS-S10(s) | 10/05/2010 | 0.0039 |  | 13/GS-S12(s) | 10/27/2005 | 0.0041 |  | 13/GS-S15(s) | 03/11/2010 | 0.0038 |
| 13/GS-S10(s) | 3/31/2011 | 0.0072 |  | 13/GS-S12(s) | 05/03/2006 | 0.0038 |  | 13/GS-S15(s) | 4/26/2010 | 0.0031 |
| 13/GS-S10(s) | 6/23/2011 | 0.0024 |  | 13/GS-S12(s) | 11/07/2006 | 0.0041 |  | 13/GS-S15(s) | 7/19/2010 | 0.0148 |
| 13/GS-S10(s) | 9/13/2011 | 0.0018 |  | 13/GS-S12(s) | 1/28/2008 | 0.0024 |  | 13/GS-S15(s) | 11/15/2010 | 0.003 |
| 13/GS-S10(s) | 11/08/2011 | 0.0057 |  | 13/GS-S12(s) | 05/12/2009 | 0.0055 |  | 13/GS-S15(s) | 02/01/2011 | 0.0027 |
| 13/GS-S10(s) | 3/22/2012 | 0.0029 |  | 13/GS-S12(s) | 11/02/2009 | 0.003 |  | 13/GS-S15(s) | 04/04/2011 | 0.0013 |
| 13/GS-S10(s) | 06/05/2012 | 0.0027 |  | 13/GS-S12(s) | 03/01/2010 | 0.0091 |  | 13/GS-S15(s) | 07/07/2011 | 0.004 |
| 13/GS-S10(s) | 9/20/2012 | 0.0076 |  | 13/GS-S12(s) | 04/08/2010 | 0.0022 |  | 13/GS-S15(s) | 10/13/2011 | 0.007 |
| 13/GS-S10(s) | 12/03/2012 | 0.002 |  | 13/GS-S12(s) | 07/01/2010 | 0.0253 |  | 13/GS-S15(s) | 1/31/2012 | 0.0038 |
| 13/GS-S10(s) | 3/26/2013 | 0.0024 |  | 13/GS-S12(s) | 07/07/2010 | 0.0015 |  | 13/GS-S15(s) | 04/11/2012 | 0.0032 |
| 13/GS-S10(s) | 6/18/2013 | 0.0078 |  | 13/GS-S12(s) | 12/15/2010 | 0.0008 |  | 13/GS-S15(s) | 1/28/2013 | 0.0049 |
| 13/GS-S10(s) | 9/17/2013 | 0.0031 |  | 13/GS-S14(s) | 11/10/2003 | 0.0083 |  | 13/GS-S15(s) | 04/04/2013 | 0.0035 |
| 13/GS-S10(s) | 12/04/2013 | 0.0011 |  | 13/GS-S14(s) | 05/11/2004 | 0.0073 |  | 13/GS-S15(s) | 7/24/2013 | 0.0044 |
| 13/GS-S11(s) | 10/24/2003 | 0.0032 |  | 13/GS-S14(s) | 11/22/2004 | 0.0041 |  | 13/GS-S15(s) | 12/04/2013 | 0.004 |
| 13/GS-S11(s) | 05/10/2004 | 0.0019 |  | 13/GS-S14(s) | 5/27/2005 | 0.0056 |  | 13/GS-S15(s) | 2/13/2014 | 0.0048 |
| 13/GS-S11(s) | 11/22/2004 | 0.0001 |  | 13/GS-S14(s) | 11/15/2005 | 0.0106 |  | 13/GS-S15(s) | 04/09/2014 | 0.004 |
| 13/GS-S11(s) | 5/27/2005 | 0.003 |  | 13/GS-S14(s) | 5/22/2006 | 0.0046 |  | 13/GS-S15(s) | 07/10/2014 | 0.0017 |
| 13/GS-S11(s) | 11/15/2005 | 0.0013 |  | 13/GS-S14(s) | 11/21/2006 | 0.011 |  | 13/GS-S15(s) | 10/06/2014 | 0.0034 |
| 13/GS-S11(s) | 5/22/2006 | 0.0013 |  | 13/GS-S14(s) | 6/13/2007 | 0.0103 |  | 13/GS-S15(s) | 1/26/2015 | 0.0101 |
| 13/GS-S11(s) | 11/21/2006 | 0.0024 |  | 13/GS-S14(s) | 12/19/2007 | 0.0029 |  | 13/GS-S15(s) | 04/08/2015 | 0.0043 |
| 13/GS-S11(s) | 6/13/2007 | 0.0017 |  | 13/GS-S14(s) | 07/02/2008 | 0.0106 |  | 13/GS-S15(s) | 07/08/2015 | 0.0047 |
| 13/GS-S11(s) | 07/02/2008 | 0.0023 |  | 13/GS-S14(s) | 6/17/2009 | 0.0025 |  | 13/GS-S15(s) | 10/12/2015 | 0.0052 |
| 13/GS-S11(s) | 6/17/2009 | 0.005 |  | 13/GS-S14(s) | 11/16/2009 | 0.002 |  | 13/GS-S15(s) | 05/09/2016 | 0.0025 |
| 13/GS-S11(s) | 11/16/2009 | 0.0009 |  | 13/GS-S14(s) | 2/22/2010 | 0.0041 |  | 13/GS-S15(s) | 7/18/2016 | 0.0035 |
| 13/GS-S11(s) | 07/07/2010 | 0.0015 |  | 13/GS-S14(s) | 4/29/2010 | 0.0086 |  | 13/GS-S15(s) | 10/03/2016 | 0.0029 |
| 13/GS-S11(s) | 3/26/2014 | 0.0012 |  | 13/GS-S14(s) | 7/19/2010 | 0.0089 |  | 13/GS-S16(s) | 10/16/2003 | 0.016 |
| 13/GS-S11(s) | 5/28/2014 | 0.0018 |  | 13/GS-S14(s) | 11/15/2010 | 0.0056 |  | 13/GS-S16(s) | 05/11/2004 | 0.0145 |
| 13/GS-S11(s) | 09/09/2014 | 0.0015 |  | 13/GS-S15(s) | 10/16/2003 | 0.006 |  | 13/GS-S16(s) | 10/05/2004 | 0.008 |
| 13/GS-S11(s) | 12/17/2014 | 0.0017 |  | 13/GS-S15(s) | 04/02/2004 | 0.0062 |  | 13/GS-S16(s) | 05/03/2005 | 0.0018 |
| 13/GS-S11(s) | 3/24/2015 | 0.0014 |  | 13/GS-S15(s) | 10/05/2004 | 0.0037 |  | 13/GS-S16(s) | 10/06/2005 | 0.0083 |
| 13/GS-S11(s) | 6/18/2015 | 0.0015 |  | 13/GS-S15(s) | 4/27/2005 | 0.0062 |  | 13/GS-S16(s) | 04/10/2006 | 0.0033 |
| 13/GS-S11(s) | 9/29/2015 | 0.0024 |  | 13/GS-S15(s) | 11/10/2005 | 0.0045 |  | 13/GS-S16(s) | 10/09/2006 | 0.0157 |
| 13/GS-S11(s) | 11/30/2015 | 0.0019 |  | 13/GS-S15(s) | 4/19/2006 | 0.0025 |  | 13/GS-S16(s) | 4/17/2007 | 0.0101 |
| 13/GS-S11(s) | 1/20/2016 | 0.0025 |  | 13/GS-S15(s) | 11/07/2006 | 0.0063 |  | 13/GS-S16(s) | 05/07/2008 | 0.0067 |
| 13/GS-S11(s) | 6/23/2016 | 0.0014 |  | 13/GS-S15(s) | 4/17/2007 | 0.0061 |  | 13/GS-S16(s) | 10/06/2008 | 0.0012 |
| 13/GS-S11(s) | 09/07/2016 | 0.0014 |  | 13/GS-S15(s) | 11/19/2007 | 0.0031 |  | 13/GS-S16(s) | 05/04/2009 | 0.0014 |
| 13/GS-S11(s) | 11/09/2016 | 0.0008 |  | 13/GS-S15(s) | 05/09/2008 | 0.0031 |  | 13/GS-S16(s) | 11/24/2009 | 0.0028 |

*Table 5 - Section C1. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 13/GS-S16(s) | 2/22/2010 | 0.0082 |  | 13/GS-S17(s) | 1/31/2012 | 0.0019 |  | 13/GS-S18(s) | 07/07/2011 | 0.0014 |
| 13/GS-S16(s) | 12/23/2010 | 0.011 |  | 13/GS-S17(s) | 04/03/2012 | 0.0007 |  | 13/GS-S18(s) | 10/13/2011 | 0.0025 |
| 13/GS-S16(s) | 2/21/2013 | 0.0194 |  | 13/GS-S17(s) | 07/03/2012 | 0.002 |  | 13/GS-S18(s) | 1/31/2012 | 0.0021 |
| 13/GS-S16(s) | 05/09/2013 | 0.0085 |  | 13/GS-S17(s) | 10/10/2012 | 0.001 |  | 13/GS-S18(s) | 04/03/2012 | 0.0008 |
| 13/GS-S16(s) | 08/05/2013 | 0.0127 |  | 13/GS-S17(s) | 1/22/2013 | 0.0015 |  | 13/GS-S18(s) | 07/03/2012 | 0.0021 |
| 13/GS-S16(s) | 10/15/2013 | 0.0164 |  | 13/GS-S17(s) | 04/03/2013 | 0.0015 |  | 13/GS-S18(s) | 10/10/2012 | 0.0009 |
| 13/GS-S16(s) | 1/15/2014 | 0.0126 |  | 13/GS-S17(s) | 7/24/2013 | 0.0022 |  | 13/GS-S18(s) | 1/22/2013 | 0.0021 |
| 13/GS-S16(s) | 2/18/2014 | 0.0171 |  | 13/GS-S17(s) | 12/17/2013 | 0.0015 |  | 13/GS-S18(s) | 04/03/2013 | 0.0016 |
| 13/GS-S16(s) | 4/15/2014 | 0.0013 |  | 13/GS-S17(s) | 2/13/2014 | 0.0016 |  | 13/GS-S18(s) | 7/24/2013 | 0.0016 |
| 13/GS-S16(s) | 07/10/2014 | 0.0057 |  | 13/GS-S17(s) | 04/09/2014 | 0.0017 |  | 13/GS-S18(s) | 12/17/2013 | 0.0021 |
| 13/GS-S16(s) | 10/06/2014 | 0.0086 |  | 13/GS-S17(s) | 7/21/2014 | 0.002 |  | 13/GS-S18(s) | 2/13/2014 | 0.0018 |
| 13/GS-S16(s) | 1/26/2015 | 0.012 |  | 13/GS-S17(s) | 10/20/2014 | 0.0018 |  | 13/GS-S18(s) | 04/09/2014 | 0.0015 |
| 13/GS-S16(s) | 04/08/2015 | 0.0131 |  | 13/GS-S17(s) | 1/14/2015 | 0.0022 |  | 13/GS-S18(s) | 7/21/2014 | 0.0021 |
| 13/GS-S16(s) | 07/08/2015 | 0.0093 |  | 13/GS-S17(s) | 4/27/2015 | 0.0025 |  | 13/GS-S18(s) | 10/20/2014 | 0.0025 |
| 13/GS-S16(s) | 10/12/2015 | 0.0149 |  | 13/GS-S17(s) | 8/18/2015 | 0.0009 |  | 13/GS-S18(s) | 1/14/2015 | 0.0013 |
| 13/GS-S16(s) | 3/17/2016 | 0.0265 |  | 13/GS-S17(s) | 10/12/2015 | 0.0028 |  | 13/GS-S18(s) | 4/27/2015 | 0.0018 |
| 13/GS-S16(s) | 5/26/2016 | 0.0111 |  | 13/GS-S17(s) | 02/08/2016 | 0.0022 |  | 13/GS-S18(s) | 8/18/2015 | 0.0008 |
| 13/GS-S16(s) | 7/18/2016 | 0.0016 |  | 13/GS-S17(s) | 04/05/2016 | 0.0013 |  | 13/GS-S18(s) | 10/12/2015 | 0.0022 |
| 13/GS-S17(s) | 10/16/2003 | 0.0022 |  | 13/GS-S17(s) | 8/18/2016 | 0.0014 |  | 13/GS-S18(s) | 02/08/2016 | 0.0019 |
| 13/GS-S17(s) | 04/02/2004 | 0.0023 |  | 13/GS-S17(s) | 10/19/2016 | 0.0038 |  | 13/GS-S18(s) | 04/05/2016 | 0.0006 |
| 13/GS-S17(s) | 10/05/2004 | 0.0026 |  | 13/GS-S18(s) | 10/16/2003 | 0.003 |  | 13/GS-S18(s) | 8/18/2016 | 0.0014 |
| 13/GS-S17(s) | 4/27/2005 | 0.0027 |  | 13/GS-S18(s) | 04/02/2004 | 0.0026 |  | 13/GS-S18(s) | 10/19/2016 | 0.0042 |
| 13/GS-S17(s) | 10/06/2005 | 0.0016 |  | 13/GS-S18(s) | 10/05/2004 | 0.0046 |  | 13/GS-S19(s) | 10/30/2003 | 0.0176 |
| 13/GS-S17(s) | 04/10/2006 | 0.0017 |  | 13/GS-S18(s) | 4/27/2005 | 0.0015 |  | 13/GS-S19(s) | 4/14/2004 | 0.0139 |
| 13/GS-S17(s) | 10/03/2006 | 0.0032 |  | 13/GS-S18(s) | 10/06/2005 | 0.0014 |  | 13/GS-S19(s) | 10/05/2004 | 0.0071 |
| 13/GS-S17(s) | 4/18/2007 | 0.0021 |  | 13/GS-S18(s) | 04/10/2006 | 0.0016 |  | 13/GS-S19(s) | 05/11/2005 | 0.006 |
| 13/GS-S17(s) | 11/14/2007 | 0.0033 |  | 13/GS-S18(s) | 10/03/2006 | 0.002 |  | 13/GS-S19(s) | 10/10/2005 | 0.0113 |
| 13/GS-S17(s) | 05/07/2008 | 0.0016 |  | 13/GS-S18(s) | 4/18/2007 | 0.0025 |  | 13/GS-S19(s) | 05/08/2006 | 0.0084 |
| 13/GS-S17(s) | 10/06/2008 | 0.0072 |  | 13/GS-S18(s) | 11/14/2007 | 0.0027 |  | 13/GS-S19(s) | 10/03/2006 | 0.0185 |
| 13/GS-S17(s) | 05/04/2009 | 0.0014 |  | 13/GS-S18(s) | 05/07/2008 | 0.0026 |  | 13/GS-S19(s) | 05/07/2007 | 0.0111 |
| 13/GS-S17(s) | 10/07/2009 | 0.0016 |  | 13/GS-S18(s) | 10/06/2008 | 0.0027 |  | 13/GS-S19(s) | 11/26/2007 | 0.0115 |
| 13/GS-S17(s) | 2/22/2010 | 0.0017 |  | 13/GS-S18(s) | 05/04/2009 | 0.0012 |  | 13/GS-S19(s) | 05/07/2009 | 0.0276 |
| 13/GS-S17(s) | 4/26/2010 | 0.0017 |  | 13/GS-S18(s) | 10/07/2009 | 0.0017 |  | 13/GS-S19(s) | 10/21/2009 | 0.007 |
| 13/GS-S17(s) | 7/13/2010 | 0.0014 |  | 13/GS-S18(s) | 2/22/2010 | 0.0012 |  | 13/GS-S19(s) | 03/01/2010 | 0.0011 |
| 13/GS-S17(s) | 10/11/2010 | 0.0012 |  | 13/GS-S18(s) | 4/26/2010 | 0.0013 |  | 13/GS-S19(s) | 04/08/2010 | 0.0139 |
| 13/GS-S17(s) | 11/23/2010 | 0.0021 |  | 13/GS-S18(s) | 7/13/2010 | 0.0019 |  | 13/GS-S19(s) | 08/04/2010 | 0.0109 |
| 13/GS-S17(s) | 02/01/2011 | 0.0022 |  | 13/GS-S18(s) | 10/11/2010 | 0.001 |  | 13/GS-S19(s) | 10/26/2010 | 0.0074 |
| 13/GS-S17(s) | 04/04/2011 | 0.0011 |  | 13/GS-S18(s) | 11/23/2010 | 0.0022 |  | 13/GS-S19(s) | 6/19/2014 | 0.0033 |
| 13/GS-S17(s) | 07/07/2011 | 0.0017 |  | 13/GS-S18(s) | 02/01/2011 | 0.0013 |  | 13/GS-S19(s) | 8/19/2014 | 0.0117 |
| 13/GS-S17(s) | 10/13/2011 | 0.002 |  | 13/GS-S18(s) | 04/04/2011 | 0.0009 |  | 13/GS-S19(s) | 10/27/2014 | 0.0131 |

*Table 5 - Section D1. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 13/GS-S19(s) | 3/16/2015 | 0.0124 |  | 13/GS-S20(s) | 10/26/2010 | 0.0113 |  | 13/GS-S21(s) | 10/20/2008 | 0.0111 |
| 13/GS-S19(s) | 05/06/2015 | 0.0119 |  | 13/GS-S20(s) | 2/27/2012 | 0.0101 |  | 13/GS-S21(s) | 05/07/2009 | 0.0202 |
| 13/GS-S19(s) | 07/09/2015 | 0.0138 |  | 13/GS-S20(s) | 4/16/2012 | 0.0091 |  | 13/GS-S21(s) | 10/21/2009 | 0.0081 |
| 13/GS-S19(s) | 1/13/2016 | 0.0071 |  | 13/GS-S20(s) | 7/17/2012 | 0.01 |  | 13/GS-S21(s) | 03/01/2010 | 0.0083 |
| 13/GS-S19(s) | 4/28/2016 | 0.0126 |  | 13/GS-S20(s) | 10/16/2012 | 0.0031 |  | 13/GS-S21(s) | 04/08/2010 | 0.0153 |
| 13/GS-S19(s) | 7/14/2016 | 0.0129 |  | 13/GS-S20(s) | 2/13/2013 | 0.006 |  | 13/GS-S21(s) | 08/04/2010 | 0.0104 |
| 13/GS-S19(s) | 11/14/2016 | 0.0064 |  | 13/GS-S20(s) | 08/05/2013 | 0.0055 |  | 13/GS-S21(s) | 10/26/2010 | 0.0086 |
| 13/GS-S2(s) | 11/24/2003 | 0.0021 |  | 13/GS-S20(s) | 10/08/2013 | 0.008 |  | 13/GS-S21(s) | 2/25/2014 | 0.0098 |
| 13/GS-S2(s) | 05/10/2004 | 0.0053 |  | 13/GS-S20(s) | 2/25/2014 | 0.0103 |  | 13/GS-S21(s) | 4/15/2014 | 0.0081 |
| 13/GS-S2(s) | 12/15/2004 | 0.0016 |  | 13/GS-S20(s) | 4/15/2014 | 0.0083 |  | 13/GS-S21(s) | 8/19/2014 | 0.0118 |
| 13/GS-S2(s) | 05/02/2005 | 0.0018 |  | 13/GS-S20(s) | 6/19/2014 | 0.0091 |  | 13/GS-S21(s) | 11/06/2014 | 0.0091 |
| 13/GS-S2(s) | 5/15/2006 | 0.0017 |  | 13/GS-S20(s) | 8/19/2014 | 0.0117 |  | 13/GS-S21(s) | 2/19/2015 | 0.0092 |
| 13/GS-S2(s) | 06/04/2007 | 0.0017 |  | 13/GS-S20(s) | 8/19/2014 | 0.0082 |  | 13/GS-S21(s) | 4/22/2015 | 0.0094 |
| 13/GS-S2(s) | 5/13/2008 | 0.0013 |  | 13/GS-S20(s) | 10/27/2014 | 0.0081 |  | 13/GS-S21(s) | 09/08/2015 | 0.0157 |
| 13/GS-S2(s) | 10/08/2008 | 0.0011 |  | 13/GS-S20(s) | 11/06/2014 | 0.0091 |  | 13/GS-S21(s) | 10/13/2015 | 0.0158 |
| 13/GS-S2(s) | 03/12/2014 | 0.0011 |  | 13/GS-S20(s) | 2/19/2015 | 0.0062 |  | 13/GS-S21(s) | 2/18/2016 | 0.0196 |
| 13/GS-S2(s) | 6/19/2014 | 0.0019 |  | 13/GS-S20(s) | 3/16/2015 | 0.007 |  | 13/GS-S21(s) | 4/26/2016 | 0.0159 |
| 13/GS-S2(s) | 09/04/2014 | 0.0016 |  | 13/GS-S20(s) | 4/22/2015 | 0.0094 |  | 13/GS-S21(s) | 8/30/2016 | 0.0243 |
| 13/GS-S2(s) | 11/06/2014 | 0.0028 |  | 13/GS-S20(s) | 05/06/2015 | 0.0062 |  | 13/GS-S21(s) | 10/18/2016 | 0.0161 |
| 13/GS-S2(s) | 3/19/2015 | 0.0016 |  | 13/GS-S20(s) | 07/09/2015 | 0.0081 |  | 13/GS-S22(s) | 11/03/2003 | 0.0257 |
| 13/GS-S2(s) | 06/11/2015 | 0.0006 |  | 13/GS-S20(s) | 09/08/2015 | 0.0045 |  | 13/GS-S22(s) | 6/15/2004 | 0.0252 |
| 13/GS-S2(s) | 09/09/2015 | 0.0011 |  | 13/GS-S20(s) | 10/13/2015 | 0.0188 |  | 13/GS-S22(s) | 10/05/2004 | 0.0045 |
| 13/GS-S2(s) | 7/27/2016 | 0.0011 |  | 13/GS-S20(s) | 1/13/2016 | 0.0065 |  | 13/GS-S22(s) | 6/14/2005 | 0.0118 |
| 13/GS-S2(s) | 10/03/2016 | 0.0016 |  | 13/GS-S20(s) | 4/28/2016 | 0.0127 |  | 13/GS-S22(s) | 11/14/2005 | 0.0144 |
| 13/GS-S20(s) | 10/30/2003 | 0.0295 |  | 13/GS-S20(s) | 7/14/2016 | 0.0075 |  | 13/GS-S22(s) | 05/08/2006 | 0.0094 |
| 13/GS-S20(s) | 4/14/2004 | 0.0217 |  | 13/GS-S20(s) | 11/14/2016 | 0.0047 |  | 13/GS-S22(s) | 12/04/2006 | 0.0147 |
| 13/GS-S20(s) | 10/05/2004 | 0.0078 |  | GS-520 | 2/18/2016 | 0.0236 |  | 13/GS-S22(s) | 6/20/2007 | 0.0155 |
| 13/GS-S20(s) | 05/11/2005 | 0.0119 |  | GS-520 | 4/26/2016 | 0.019 |  | 13/GS-S22(s) | 2/14/2008 | 0.0185 |
| 13/GS-S20(s) | 10/10/2005 | 0.0148 |  | GS-520 | 8/30/2016 | 0.0246 |  | 13/GS-S22(s) | 5/20/2008 | 0.0103 |
| 13/GS-S20(s) | 05/08/2006 | 0.0114 |  | GS-520 | 10/18/2016 | 0.02 |  | 13/GS-S22(s) | 10/21/2009 | 0.003 |
| 13/GS-S20(s) | 10/03/2006 | 0.0219 |  | 13/GS-S21(s) | 10/30/2003 | 0.0155 |  | 13/GS-S22(s) | 9/21/2010 | 0.0064 |
| 13/GS-S20(s) | 05/07/2007 | 0.016 |  | 13/GS-S21(s) | 4/14/2004 | 0.0165 |  | 13/GS-S22(s) | 02/07/2011 | 0.0088 |
| 13/GS-S20(s) | 11/26/2007 | 0.0154 |  | 13/GS-S21(s) | 10/05/2004 | 0.006 |  | 13/GS-S22(s) | 4/19/2011 | 0.0158 |
| 13/GS-S20(s) | 5/20/2008 | 0.024 |  | 13/GS-S21(s) | 05/11/2005 | 0.0098 |  | 13/GS-S22(s) | 9/28/2011 | 0.0157 |
| 13/GS-S20(s) | 10/20/2008 | 0.015 |  | 13/GS-S21(s) | 10/10/2005 | 0.0102 |  | 13/GS-S22(s) | 12/06/2011 | 0.0142 |
| 13/GS-S20(s) | 05/07/2009 | 0.0297 |  | 13/GS-S21(s) | 05/08/2006 | 0.0094 |  | 13/GS-S22(s) | 3/27/2012 | 0.0071 |
| 13/GS-S20(s) | 10/21/2009 | 0.0098 |  | 13/GS-S21(s) | 10/03/2006 | 0.0147 |  | 13/GS-S22(s) | 05/03/2012 | 0.007 |
| 13/GS-S20(s) | 03/01/2010 | 0.0132 |  | 13/GS-S21(s) | 05/07/2007 | 0.0099 |  | 13/GS-S22(s) | 09/04/2012 | 0.0211 |
| 13/GS-S20(s) | 04/08/2010 | 0.0186 |  | 13/GS-S21(s) | 11/26/2007 | 0.007 |  | 13/GS-S22(s) | 12/19/2012 | 0.0061 |
| 13/GS-S20(s) | 08/04/2010 | 0.0131 |  | 13/GS-S21(s) | 08/04/2008 | 0.0059 |  | 13/GS-S22(s) | 3/26/2013 | 0.0034 |

*Table 5 - Section E1. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 13/GS-S22(s) | 5/13/2013 | 0.0079 |  | 13/GS-S23(s) | 1/22/2013 | 0.001 |  | 13/GS-S24(s) | 06/12/2013 | 0.0158 |
| 13/GS-S22(s) | 9/17/2013 | 0.0056 |  | 13/GS-S23(s) | 04/03/2013 | 0.0011 |  | 13/GS-S24(s) | 09/10/2013 | 0.0039 |
| 13/GS-S22(s) | 11/21/2013 | 0.0063 |  | 13/GS-S23(s) | 08/07/2013 | 0.0014 |  | 13/GS-S24(s) | 12/03/2013 | 0.0022 |
| 13/GS-S22(s) | 2/25/2014 | 0.009 |  | 13/GS-S23(s) | 10/15/2013 | 0.0011 |  | 13/GS-S24(s) | 2/25/2014 | 0.0094 |
| 13/GS-S22(s) | 4/15/2014 | 0.0098 |  | 13/GS-S23(s) | 1/15/2014 | 0.0012 |  | 13/GS-S24(s) | 4/15/2014 | 0.0062 |
| 13/GS-S22(s) | 8/19/2014 | 0.0114 |  | 13/GS-S23(s) | 4/15/2014 | 0.0009 |  | 13/GS-S24(s) | 8/19/2014 | 0.0107 |
| 13/GS-S22(s) | 10/27/2014 | 0.0112 |  | 13/GS-S23(s) | 07/10/2014 | 0.0119 |  | 13/GS-S24(s) | 11/06/2014 | 0.0087 |
| 13/GS-S22(s) | 2/17/2015 | 0.0163 |  | 13/GS-S23(s) | 10/06/2014 | 0.001 |  | 13/GS-S24(s) | 2/19/2015 | 0.0026 |
| 13/GS-S22(s) | 4/21/2015 | 0.0032 |  | 13/GS-S23(s) | 1/14/2015 | 0.0016 |  | 13/GS-S24(s) | 4/22/2015 | 0.0103 |
| 13/GS-S22(s) | 09/03/2015 | 0.02 |  | 13/GS-S23(s) | 04/08/2015 | 0.002 |  | 13/GS-S24(s) | 09/08/2015 | 0.007 |
| 13/GS-S22(s) | 10/13/2015 | 0.0168 |  | 13/GS-S23(s) | 8/18/2015 | 0.0007 |  | 13/GS-S24(s) | 10/13/2015 | 0.0144 |
| 13/GS-S22(s) | 02/11/2016 | 0.0158 |  | 13/GS-S23(s) | 10/12/2015 | 0.0012 |  | 13/GS-S24(s) | 2/18/2016 | 0.0177 |
| 13/GS-S22(s) | 4/26/2016 | 0.0159 |  | 13/GS-S23(s) | 1/13/2016 | 0.0016 |  | 13/GS-S24(s) | 4/26/2016 | 0.0153 |
| 13/GS-S22(s) | 8/30/2016 | 0.0208 |  | 13/GS-S23(s) | 04/05/2016 | 0.0013 |  | 13/GS-S24(s) | 8/30/2016 | 0.0238 |
| 13/GS-S22(s) | 11/07/2016 | 0.0194 |  | 13/GS-S23(s) | 09/12/2016 | 0.0013 |  | 13/GS-S24(s) | 10/18/2016 | 0.0155 |
| 13/GS-S23(s) | 10/16/2003 | 0.0019 |  | 13/GS-S24(s) | 10/14/2003 | 0.0042 |  | 13/GS-S25(s) | 10/14/2003 | 0.0082 |
| 13/GS-S23(s) | 04/02/2004 | 0.0024 |  | 13/GS-S24(s) | 9/30/2004 | 0.008 |  | 13/GS-S25(s) | 07/01/2004 | 0.0132 |
| 13/GS-S23(s) | 10/05/2004 | 0.0049 |  | 13/GS-S24(s) | 5/18/2005 | 0.0039 |  | 13/GS-S25(s) | 9/30/2004 | 0.0075 |
| 13/GS-S23(s) | 4/28/2005 | 0.005 |  | 13/GS-S24(s) | 9/27/2005 | 0.0034 |  | 13/GS-S25(s) | 5/18/2005 | 0.0101 |
| 13/GS-S23(s) | 10/06/2005 | 0.0009 |  | 13/GS-S24(s) | 5/16/2006 | 0.0117 |  | 13/GS-S25(s) | 9/27/2005 | 0.0034 |
| 13/GS-S23(s) | 04/10/2006 | 0.0017 |  | 13/GS-S24(s) | 9/29/2006 | 0.0125 |  | 13/GS-S25(s) | 5/18/2006 | 0.0143 |
| 13/GS-S23(s) | 10/09/2006 | 0.0019 |  | 13/GS-S24(s) | 05/07/2007 | 0.013 |  | 13/GS-S25(s) | 9/29/2006 | 0.0098 |
| 13/GS-S23(s) | 4/17/2007 | 0.0014 |  | 13/GS-S24(s) | 09/11/2007 | 0.0043 |  | 13/GS-S25(s) | 05/07/2007 | 0.0072 |
| 13/GS-S23(s) | 11/14/2007 | 0.0019 |  | 13/GS-S24(s) | 08/05/2008 | 0.0106 |  | 13/GS-S25(s) | 09/11/2007 | 0.0052 |
| 13/GS-S23(s) | 05/08/2008 | 0.0014 |  | 13/GS-S24(s) | 11/10/2008 | 0.0066 |  | 13/GS-S25(s) | 08/05/2008 | 0.0066 |
| 13/GS-S23(s) | 10/06/2008 | 0.0029 |  | 13/GS-S24(s) | 5/13/2009 | 0.0096 |  | 13/GS-S25(s) | 11/10/2008 | 0.0045 |
| 13/GS-S23(s) | 05/04/2009 | 0.0011 |  | 13/GS-S24(s) | 09/03/2009 | 0.0097 |  | 13/GS-S25(s) | 5/13/2009 | 0.0054 |
| 13/GS-S23(s) | 10/07/2009 | 0.0034 |  | 13/GS-S24(s) | 2/18/2010 | 0.01 |  | 13/GS-S25(s) | 09/03/2009 | 0.0047 |
| 13/GS-S23(s) | 03/01/2010 | 0.0012 |  | 13/GS-S24(s) | 4/26/2010 | 0.0083 |  | 13/GS-S25(s) | 2/18/2010 | 0.005 |
| 13/GS-S23(s) | 4/26/2010 | 0.0011 |  | 13/GS-S24(s) | 07/05/2010 | 0.0094 |  | 13/GS-S25(s) | 4/26/2010 | 0.0045 |
| 13/GS-S23(s) | 7/13/2010 | 0.0009 |  | 13/GS-S24(s) | 10/14/2010 | 0.0078 |  | 13/GS-S25(s) | 07/05/2010 | 0.0097 |
| 13/GS-S23(s) | 11/23/2010 | 0.0012 |  | 13/GS-S24(s) | 3/14/2011 | 0.0099 |  | 13/GS-S25(s) | 10/14/2010 | 0.0062 |
| 13/GS-S23(s) | 02/01/2011 | 0.0011 |  | 13/GS-S24(s) | 05/03/2011 | 0.01 |  | 13/GS-S25(s) | 3/14/2011 | 0.0082 |
| 13/GS-S23(s) | 04/04/2011 | 0.0006 |  | 13/GS-S24(s) | 07/05/2011 | 0.0101 |  | 13/GS-S25(s) | 05/03/2011 | 0.0082 |
| 13/GS-S23(s) | 07/07/2011 | 0.0009 |  | 13/GS-S24(s) | 10/04/2011 | 0.0094 |  | 13/GS-S25(s) | 07/05/2011 | 0.01 |
| 13/GS-S23(s) | 10/13/2011 | 0.0015 |  | 13/GS-S24(s) | 03/06/2012 | 0.0096 |  | 13/GS-S25(s) | 10/04/2011 | 0.0109 |
| 13/GS-S23(s) | 1/31/2012 | 0.0011 |  | 13/GS-S24(s) | 05/08/2012 | 0.0095 |  | 13/GS-S25(s) | 03/06/2012 | 0.0078 |
| 13/GS-S23(s) | 04/03/2012 | 0.0007 |  | 13/GS-S24(s) | 07/10/2012 | 0.0033 |  | 13/GS-S25(s) | 05/08/2012 | 0.006 |
| 13/GS-S23(s) | 07/03/2012 | 0.0005 |  | 13/GS-S24(s) | 11/20/2012 | 0.0102 |  | 13/GS-S25(s) | 07/10/2012 | 0.0041 |
| 13/GS-S23(s) | 10/10/2012 | 0.0012 |  | 13/GS-S24(s) | 3/20/2013 | 0.0084 |  | 13/GS-S25(s) | 11/20/2012 | 0.0084 |

*Table 5 - Section F1. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 13/GS-S25(s) | 3/20/2013 | 0.0053 |  | 13/GS-S26(s) | 11/20/2012 | 0.006 |  | 13/GS-S28(s) | 5/18/2004 | 0.0233 |
| 13/GS-S25(s) | 06/12/2013 | 0.0045 |  | 13/GS-S26(s) | 3/20/2013 | 0.0073 |  | 13/GS-S28(s) | 11/02/2004 | 0.0208 |
| 13/GS-S25(s) | 09/10/2013 | 0.0048 |  | 13/GS-S26(s) | 06/12/2013 | 0.0074 |  | 13/GS-S28(s) | 4/28/2005 | 0.0036 |
| 13/GS-S25(s) | 12/03/2013 | 0.0026 |  | 13/GS-S26(s) | 09/10/2013 | 0.0072 |  | 13/GS-S28(s) | 10/19/2005 | 0.0197 |
| 13/GS-S25(s) | 2/25/2014 | 0.0041 |  | 13/GS-S26(s) | 12/03/2013 | 0.0072 |  | 13/GS-S28(s) | 4/19/2006 | 0.0279 |
| 13/GS-S25(s) | 4/15/2014 | 0.0062 |  | 13/GS-S26(s) | 2/25/2014 | 0.0109 |  | 13/GS-S28(s) | 10/17/2006 | 0.0378 |
| 13/GS-S25(s) | 8/19/2014 | 0.0089 |  | 13/GS-S26(s) | 4/15/2014 | 0.007 |  | 13/GS-S28(s) | 05/02/2007 | 0.0319 |
| 13/GS-S25(s) | 11/06/2014 | 0.0085 |  | 13/GS-S26(s) | 8/19/2014 | 0.0124 |  | 13/GS-S28(s) | 11/29/2007 | 0.0155 |
| 13/GS-S25(s) | 2/19/2015 | 0.0033 |  | 13/GS-S26(s) | 11/06/2014 | 0.0096 |  | 13/GS-S28(s) | 05/08/2008 | 0.0327 |
| 13/GS-S25(s) | 4/22/2015 | 0.0088 |  | 13/GS-S26(s) | 2/19/2015 | 0.0091 |  | 13/GS-S28(s) | 10/23/2008 | 0.0314 |
| 13/GS-S25(s) | 09/08/2015 | 0.0124 |  | 13/GS-S26(s) | 4/22/2015 | 0.0124 |  | 13/GS-S28(s) | 10/06/2009 | 0.0049 |
| 13/GS-S25(s) | 10/13/2015 | 0.0078 |  | 13/GS-S26(s) | 09/08/2015 | 0.0205 |  | 13/GS-S28(s) | 2/23/2010 | 0.0229 |
| 13/GS-S25(s) | 2/18/2016 | 0.0083 |  | 13/GS-S26(s) | 10/13/2015 | 0.0234 |  | 13/GS-S28(s) | 5/19/2010 | 0.0158 |
| 13/GS-S25(s) | 4/26/2016 | 0.0082 |  | 13/GS-S26(s) | 2/18/2016 | 0.0242 |  | 13/GS-S28(s) | 08/11/2010 | 0.0255 |
| 13/GS-S25(s) | 8/30/2016 | 0.0101 |  | 13/GS-S26(s) | 4/26/2016 | 0.0205 |  | 13/GS-S28(s) | 12/15/2010 | 0.0187 |
| 13/GS-S25(s) | 10/18/2016 | 0.0068 |  | 13/GS-S26(s) | 8/30/2016 | 0.03 |  | 13/GS-S28(s) | 3/27/2014 | 0.0229 |
| 13/GS-S26(s) | 10/14/2003 | 0.0138 |  | 13/GS-S26(s) | 10/18/2016 | 0.0198 |  | 13/GS-S28(s) | 06/11/2014 | 0.0233 |
| 13/GS-S26(s) | 6/24/2004 | 0.0108 |  | 13/GS-S27(s) | 10/20/2003 | 0.0168 |  | 13/GS-S28(s) | 8/27/2014 | 0.0227 |
| 13/GS-S26(s) | 9/30/2004 | 0.011 |  | 13/GS-S27(s) | 05/06/2004 | 0.0048 |  | 13/GS-S28(s) | 11/11/2014 | 0.0291 |
| 13/GS-S26(s) | 5/18/2005 | 0.0121 |  | 13/GS-S27(s) | 11/02/2004 | 0.0056 |  | 13/GS-S28(s) | 2/26/2015 | 0.0241 |
| 13/GS-S26(s) | 9/27/2005 | 0.009 |  | 13/GS-S27(s) | 4/28/2005 | 0.0022 |  | 13/GS-S28(s) | 09/01/2015 | 0.0138 |
| 13/GS-S26(s) | 5/18/2006 | 0.0145 |  | 13/GS-S27(s) | 10/19/2005 | 0.0043 |  | 13/GS-S28(s) | 10/07/2015 | 0.038 |
| 13/GS-S26(s) | 9/29/2006 | 0.0159 |  | 13/GS-S27(s) | 4/19/2006 | 0.0031 |  | 13/GS-S28(s) | 3/21/2016 | 0.0209 |
| 13/GS-S26(s) | 05/07/2007 | 0.0169 |  | 13/GS-S27(s) | 10/17/2006 | 0.0072 |  | 13/GS-S28(s) | 6/20/2016 | 0.0199 |
| 13/GS-S26(s) | 09/11/2007 | 0.0097 |  | 13/GS-S27(s) | 05/02/2007 | 0.0075 |  | 13/GS-S28(s) | 11/24/2016 | 0.0281 |
| 13/GS-S26(s) | 08/05/2008 | 0.0126 |  | 13/GS-S27(s) | 11/29/2007 | 0.0126 |  | 13/GS-S29(s) | 11/04/2003 | 0.0014 |
| 13/GS-S26(s) | 11/10/2008 | 0.0102 |  | 13/GS-S27(s) | 05/08/2008 | 0.0097 |  | 13/GS-S29(s) | 4/21/2004 | 0.0021 |
| 13/GS-S26(s) | 5/13/2009 | 0.019 |  | 13/GS-S27(s) | 2/23/2010 | 0.0171 |  | 13/GS-S29(s) | 10/20/2004 | 0.0021 |
| 13/GS-S26(s) | 09/03/2009 | 0.0199 |  | 13/GS-S27(s) | 5/19/2010 | 0.0033 |  | 13/GS-S29(s) | 4/27/2005 | 0.0078 |
| 13/GS-S26(s) | 2/18/2010 | 0.0142 |  | 13/GS-S27(s) | 08/11/2010 | 0.0048 |  | 13/GS-S29(s) | 10/11/2005 | 0.0036 |
| 13/GS-S26(s) | 4/26/2010 | 0.0102 |  | 13/GS-S27(s) | 12/15/2010 | 0.0038 |  | 13/GS-S29(s) | 4/26/2006 | 0.0044 |
| 13/GS-S26(s) | 07/05/2010 | 0.0194 |  | 13/GS-S27(s) | 3/27/2014 | 0.0059 |  | 13/GS-S29(s) | 10/16/2006 | 0.0041 |
| 13/GS-S26(s) | 10/14/2010 | 0.0087 |  | 13/GS-S27(s) | 9/16/2014 | 0.0146 |  | 13/GS-S29(s) | 05/10/2007 | 0.0075 |
| 13/GS-S26(s) | 3/14/2011 | 0.009 |  | 13/GS-S27(s) | 11/13/2014 | 0.0048 |  | 13/GS-S29(s) | 11/22/2007 | 0.0027 |
| 13/GS-S26(s) | 05/03/2011 | 0.0111 |  | 13/GS-S27(s) | 3/25/2015 | 0.0058 |  | 13/GS-S29(s) | 5/19/2008 | 0.0033 |
| 13/GS-S26(s) | 07/05/2011 | 0.0074 |  | 13/GS-S27(s) | 5/20/2015 | 0.003 |  | 13/GS-S29(s) | 10/16/2008 | 0.0051 |
| 13/GS-S26(s) | 10/04/2011 | 0.0125 |  | 13/GS-S27(s) | 9/30/2015 | 0.0025 |  | 13/GS-S29(s) | 05/06/2009 | 0.0035 |
| 13/GS-S26(s) | 03/06/2012 | 0.0069 |  | 13/GS-S27(s) | 12/21/2015 | 0.0033 |  | 13/GS-S29(s) | 10/12/2009 | 0.0016 |
| 13/GS-S26(s) | 05/08/2012 | 0.0082 |  | 13/GS-S27(s) | 11/09/2016 | 0.001 |  | 13/GS-S29(s) | 02/08/2010 | 0.0023 |
| 13/GS-S26(s) | 07/10/2012 | 0.0071 |  | 13/GS-S28(s) | 10/21/2003 | 0.0283 |  | 13/GS-S29(s) | 5/25/2010 | 0.0019 |

*Table 5 - Section G1. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 13/GS-S29(s) | 7/28/2010 | 0.0035 |  | 13/GS-S4(s) | 10/22/2015 | 0.0008 |  | 13/GS-S6(s) | 9/20/2012 | 0.0048 |
| 13/GS-S29(s) | 12/14/2010 | 0.0025 |  | 13/GS-S5(s) | 12/18/2003 | 0.0005 |  | 13/GS-S6(s) | 12/04/2012 | 0.0015 |
| 13/GS-S29(s) | 03/05/2014 | 0.0018 |  | 13/GS-S5(s) | 5/31/2004 | 0.0007 |  | 13/GS-S6(s) | 3/26/2013 | 0.0015 |
| 13/GS-S29(s) | 04/07/2014 | 0.0036 |  | 13/GS-S5(s) | 11/30/2004 | 0.0007 |  | 13/GS-S6(s) | 6/19/2013 | 0.0039 |
| 13/GS-S29(s) | 07/08/2014 | 0.0021 |  | 13/GS-S5(s) | 6/28/2005 | 0.0005 |  | 13/GS-S6(s) | 9/17/2013 | 0.002 |
| 13/GS-S29(s) | 10/13/2014 | 0.0024 |  | 13/GS-S5(s) | 11/05/2005 | 0.0009 |  | 13/GS-S6(s) | 12/04/2013 | 0.0012 |
| 13/GS-S29(s) | 5/18/2015 | 0.0034 |  | 13/GS-S5(s) | 6/27/2006 | 0.0007 |  | 13/GS-S6(s) | 2/17/2014 | 0.0026 |
| 13/GS-S29(s) | 7/13/2015 | 0.0024 |  | 13/GS-S5(s) | 11/24/2006 | 0.0012 |  | 13/GS-S6(s) | 04/09/2014 | 0.0011 |
| 13/GS-S29(s) | 10/06/2015 | 0.0056 |  | 13/GS-S5(s) | 5/31/2007 | 0.0013 |  | 13/GS-S6(s) | 08/06/2014 | 0.0009 |
| 13/GS-S29(s) | 01/11/2016 | 0.002 |  | 13/GS-S5(s) | 01/02/2008 | 0.0012 |  | 13/GS-S6(s) | 10/29/2014 | 0.0023 |
| 13/GS-S29(s) | 4/20/2016 | 0.0028 |  | 13/GS-S5(s) | 7/17/2008 | 0.0006 |  | 13/GS-S6(s) | 2/18/2015 | 0.005 |
| 13/GS-S29(s) | 07/07/2016 | 0.0029 |  | 13/GS-S5(s) | 06/08/2009 | 0.0007 |  | 13/GS-S6(s) | 4/15/2015 | 0.0012 |
| 13/GS-S29(s) | 10/05/2016 | 0.002 |  | 13/GS-S5(s) | 12/03/2009 | 0.0005 |  | 13/GS-S6(s) | 7/29/2015 | 0.0025 |
| 13/GS-S3(s) | 8/31/2004 | 0.001 |  | 13/GS-S5(s) | 06/08/2010 | 0.0006 |  | 13/GS-S6(s) | 11/11/2015 | 0.0043 |
| 13/GS-S3(s) | 6/27/2006 | 0.0009 |  | 13/GS-S5(s) | 10/12/2010 | 0.0003 |  | 13/GS-S6(s) | 2/23/2016 | 0.0042 |
| 13/GS-S3(s) | 11/16/2006 | 0.0005 |  | 13/GS-S5(s) | 6/30/2015 | 0.0005 |  | 13/GS-S6(s) | 4/18/2016 | 0.004 |
| 13/GS-S3(s) | 06/12/2007 | 0.0009 |  | 13/GS-S5(s) | 10/22/2015 | 0.0006 |  | 13/GS-S6(s) | 8/16/2016 | 0.0064 |
| 13/GS-S3(s) | 7/17/2008 | 0.001 |  | 13/GS-S6(s) | 10/27/2003 | 0.0009 |  | 13/GS-S6(s) | 10/10/2016 | 0.0048 |
| 13/GS-S3(s) | 6/17/2009 | 0.001 |  | 13/GS-S6(s) | 7/15/2004 | 0.0033 |  | 13/GS-S7(s) | 10/27/2003 | 0.0019 |
| 13/GS-S3(s) | 12/03/2009 | 0.0005 |  | 13/GS-S6(s) | 9/27/2004 | 0.0018 |  | 13/GS-S7(s) | 7/15/2004 | 0.0041 |
| 13/GS-S3(s) | 06/08/2010 | 0.0005 |  | 13/GS-S6(s) | 5/24/2005 | 0.0017 |  | 13/GS-S7(s) | 9/27/2004 | 0.0014 |
| 13/GS-S3(s) | 10/01/2014 | 0.0008 |  | 13/GS-S6(s) | 10/27/2005 | 0.0016 |  | 13/GS-S7(s) | 5/24/2005 | 0.0018 |
| 13/GS-S3(s) | 7/16/2015 | 0.0007 |  | 13/GS-S6(s) | 04/11/2006 | 0.0011 |  | 13/GS-S7(s) | 10/27/2005 | 0.0014 |
| 13/GS-S3(s) | 10/22/2015 | 0.0007 |  | 13/GS-S6(s) | 9/27/2006 | 0.004 |  | 13/GS-S7(s) | 04/11/2006 | 0.002 |
| 13/GS-S3(s) | 03/08/2016 | 0.0009 |  | 13/GS-S6(s) | 05/11/2007 | 0.0029 |  | 13/GS-S7(s) | 9/27/2006 | 0.004 |
| 13/GS-S4(s) | 12/18/2003 | 0.0003 |  | 13/GS-S6(s) | 9/14/2007 | 0.0016 |  | 13/GS-S7(s) | 05/11/2007 | 0.0028 |
| 13/GS-S4(s) | 5/31/2004 | 0.0009 |  | 13/GS-S6(s) | 08/06/2008 | 0.002 |  | 13/GS-S7(s) | 9/14/2007 | 0.0016 |
| 13/GS-S4(s) | 11/30/2004 | 0.0006 |  | 13/GS-S6(s) | 10/17/2008 | 0.002 |  | 13/GS-S7(s) | 08/06/2008 | 0.002 |
| 13/GS-S4(s) | 6/28/2005 | 0.0008 |  | 13/GS-S6(s) | 5/28/2009 | 0.0032 |  | 13/GS-S7(s) | 10/17/2008 | 0.0021 |
| 13/GS-S4(s) | 11/05/2005 | 0.0008 |  | 13/GS-S6(s) | 9/21/2009 | 0.0041 |  | 13/GS-S7(s) | 5/28/2009 | 0.0032 |
| 13/GS-S4(s) | 6/27/2006 | 0.0012 |  | 13/GS-S6(s) | 2/25/2010 | 0.0029 |  | 13/GS-S7(s) | 9/21/2009 | 0.0036 |
| 13/GS-S4(s) | 11/24/2006 | 0.0009 |  | 13/GS-S6(s) | 05/04/2010 | 0.0023 |  | 13/GS-S7(s) | 2/25/2010 | 0.0032 |
| 13/GS-S4(s) | 5/31/2007 | 0.0029 |  | 13/GS-S6(s) | 7/20/2010 | 0.0016 |  | 13/GS-S7(s) | 05/04/2010 | 0.0014 |
| 13/GS-S4(s) | 01/02/2008 | 0.0007 |  | 13/GS-S6(s) | 10/05/2010 | 0.0021 |  | 13/GS-S7(s) | 7/20/2010 | 0.0012 |
| 13/GS-S4(s) | 7/17/2008 | 0.0007 |  | 13/GS-S6(s) | 3/31/2011 | 0.0026 |  | 13/GS-S7(s) | 10/05/2010 | 0.0016 |
| 13/GS-S4(s) | 06/08/2009 | 0.0007 |  | 13/GS-S6(s) | 6/23/2011 | 0.0014 |  | 13/GS-S7(s) | 3/31/2011 | 0.0023 |
| 13/GS-S4(s) | 12/03/2009 | 0.0005 |  | 13/GS-S6(s) | 9/13/2011 | 0.0017 |  | 13/GS-S7(s) | 6/23/2011 | 0.0009 |
| 13/GS-S4(s) | 06/08/2010 | 0.0007 |  | 13/GS-S6(s) | 11/08/2011 | 0.0039 |  | 13/GS-S7(s) | 9/13/2011 | 0.0008 |
| 13/GS-S4(s) | 10/12/2010 | 0.0003 |  | 13/GS-S6(s) | 3/22/2012 | 0.0019 |  | 13/GS-S7(s) | 11/08/2011 | 0.0024 |
| 13/GS-S4(s) | 6/30/2015 | 0.0007 |  | 13/GS-S6(s) | 06/05/2012 | 0.0021 |  | 13/GS-S7(s) | 3/23/2012 | 0.0016 |

*Table 5 - Section H1. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 13/GS-S7(s) | 06/05/2012 | 0.0013 |  | 13/GS-S8(s) | 3/22/2012 | 0.0017 |  | 13/ML1(s) | 10/23/2003 | 0.0063 |
| 13/GS-S7(s) | 9/20/2012 | 0.0031 |  | 13/GS-S8(s) | 06/05/2012 | 0.0015 |  | 13/ML1(s) | 07/07/2004 | 0.0109 |
| 13/GS-S7(s) | 12/04/2012 | 0.0008 |  | 13/GS-S8(s) | 9/20/2012 | 0.0045 |  | 13/ML1(s) | 10/01/2004 | 0.0043 |
| 13/GS-S7(s) | 3/26/2013 | 0.0013 |  | 13/GS-S8(s) | 12/04/2012 | 0.0013 |  | 13/ML1(s) | 5/25/2005 | 0.0092 |
| 13/GS-S7(s) | 6/19/2013 | 0.0031 |  | 13/GS-S8(s) | 3/26/2013 | 0.0016 |  | 13/ML1(s) | 10/05/2005 | 0.0024 |
| 13/GS-S7(s) | 9/17/2013 | 0.0016 |  | 13/GS-S8(s) | 6/19/2013 | 0.0037 |  | 13/ML1(s) | 4/13/2006 | 0.0046 |
| 13/GS-S7(s) | 12/04/2013 | 0.0008 |  | 13/GS-S8(s) | 9/17/2013 | 0.0017 |  | 13/ML1(s) | 10/02/2006 | 0.0035 |
| 13/GS-S7(s) | 2/17/2014 | 0.0023 |  | 13/GS-S8(s) | 12/04/2013 | 0.0009 |  | 13/ML1(s) | 5/16/2007 | 0.0025 |
| 13/GS-S7(s) | 04/09/2014 | 0.001 |  | 13/GS-S9(s) | 10/27/2003 | 0.0023 |  | 13/ML1(s) | 9/27/2007 | 0.0043 |
| 13/GS-S7(s) | 08/06/2014 | 0.0009 |  | 13/GS-S9(s) | 7/22/2004 | 0.0015 |  | 13/ML1(s) | 7/29/2008 | 0.0034 |
| 13/GS-S7(s) | 10/29/2014 | 0.0019 |  | 13/GS-S9(s) | 10/15/2004 | 0.0015 |  | 13/ML1(s) | 10/22/2008 | 0.0033 |
| 13/GS-S7(s) | 2/18/2015 | 0.0048 |  | 13/GS-S9(s) | 5/20/2005 | 0.0037 |  | 13/ML1(s) | 05/08/2009 | 0.0038 |
| 13/GS-S7(s) | 4/15/2015 | 0.0011 |  | 13/GS-S9(s) | 10/27/2005 | 0.0115 |  | 13/ML1(s) | 09/01/2009 | 0.0048 |
| 13/GS-S7(s) | 7/29/2015 | 0.0019 |  | 13/GS-S9(s) | 04/11/2006 | 0.0034 |  | 13/ML1(s) | 02/09/2010 | 0.0049 |
| 13/GS-S7(s) | 11/11/2015 | 0.0035 |  | 13/GS-S9(s) | 9/27/2006 | 0.0035 |  | 13/ML1(s) | 04/08/2010 | 0.0064 |
| 13/GS-S7(s) | 2/23/2016 | 0.0042 |  | 13/GS-S9(s) | 5/24/2007 | 0.0024 |  | 13/ML1(s) | 07/06/2010 | 0.0077 |
| 13/GS-S7(s) | 4/18/2016 | 0.0042 |  | 13/GS-S9(s) | 9/18/2007 | 0.004 |  | 13/ML1(s) | 10/14/2010 | 0.0061 |
| 13/GS-S7(s) | 8/16/2016 | 0.0059 |  | 13/GS-S9(s) | 08/06/2008 | 0.0027 |  | 13/ML1(s) | 3/24/2011 | 0.0031 |
| 13/GS-S7(s) | 10/10/2016 | 0.0047 |  | 13/GS-S9(s) | 10/15/2008 | 0.0022 |  | 13/ML1(s) | 05/04/2011 | 0.0076 |
| 13/GS-S8(s) | 10/27/2003 | 0.0018 |  | 13/GS-S9(s) | 06/10/2009 | 0.0016 |  | 13/ML1(s) | 07/06/2011 | 0.0093 |
| 13/GS-S8(s) | 7/29/2004 | 0.0016 |  | 13/GS-S9(s) | 9/23/2009 | 0.0022 |  | 13/ML1(s) | 10/03/2011 | 0.0062 |
| 13/GS-S8(s) | 10/15/2004 | 0.0014 |  | 13/GS-S9(s) | 2/25/2010 | 0.0033 |  | 13/ML1(s) | 03/08/2012 | 0.0044 |
| 13/GS-S8(s) | 5/20/2005 | 0.0017 |  | 13/GS-S9(s) | 05/04/2010 | 0.0027 |  | 13/ML1(s) | 05/10/2012 | 0.0019 |
| 13/GS-S8(s) | 10/27/2005 | 0.0015 |  | 13/GS-S9(s) | 7/20/2010 | 0.002 |  | 13/ML1(s) | 07/03/2012 | 0.0056 |
| 13/GS-S8(s) | 04/11/2006 | 0.0014 |  | 13/GS-S9(s) | 10/05/2010 | 0.0024 |  | 13/ML1(s) | 12/17/2012 | 0.0061 |
| 13/GS-S8(s) | 9/27/2006 | 0.0031 |  | 13/GS-S9(s) | 3/31/2011 | 0.0047 |  | 13/ML1(s) | 3/20/2013 | 0.0019 |
| 13/GS-S8(s) | 5/24/2007 | 0.0011 |  | 13/GS-S9(s) | 6/23/2011 | 0.0018 |  | 13/ML1(s) | 6/21/2013 | 0.0033 |
| 13/GS-S8(s) | 9/18/2007 | 0.0024 |  | 13/GS-S9(s) | 9/13/2011 | 0.0021 |  | 13/ML1(s) | 09/10/2013 | 0.0049 |
| 13/GS-S8(s) | 08/07/2008 | 0.0054 |  | 13/GS-S9(s) | 11/08/2011 | 0.0061 |  | 13/ML1(s) | 12/03/2013 | 0.005 |
| 13/GS-S8(s) | 10/15/2008 | 0.0021 |  | 13/GS-S9(s) | 3/22/2012 | 0.003 |  | 13/ML1(s) | 02/05/2014 | 0.0046 |
| 13/GS-S8(s) | 06/10/2009 | 0.0022 |  | 13/GS-S9(s) | 06/05/2012 | 0.0027 |  | 13/ML1(s) | 4/14/2014 | 0.0033 |
| 13/GS-S8(s) | 9/23/2009 | 0.0016 |  | 13/GS-S9(s) | 9/20/2012 | 0.0077 |  | 13/ML1(s) | 8/20/2014 | 0.0086 |
| 13/GS-S8(s) | 2/25/2010 | 0.0017 |  | 13/GS-S9(s) | 12/04/2012 | 0.002 |  | 13/ML1(s) | 11/12/2014 | 0.0059 |
| 13/GS-S8(s) | 05/04/2010 | 0.0012 |  | 13/GS-S9(s) | 3/26/2013 | 0.0024 |  | 13/ML1(s) | 2/23/2015 | 0.006 |
| 13/GS-S8(s) | 7/20/2010 | 0.0011 |  | 13/GS-S9(s) | 6/19/2013 | 0.0061 |  | 13/ML1(s) | 4/23/2015 | 0.003 |
| 13/GS-S8(s) | 10/05/2010 | 0.002 |  | 13/GS-S9(s) | 9/17/2013 | 0.003 |  | 13/ML1(s) | 7/27/2015 | 0.0088 |
| 13/GS-S8(s) | 3/31/2011 | 0.0028 |  | 13/GS-S9(s) | 12/04/2013 | 0.001 |  | 13/ML1(s) | 11/02/2015 | 0.004 |
| 13/GS-S8(s) | 6/23/2011 | 0.0012 |  | 13/GS-S9(s) | 6/23/2016 | 0.0017 |  | 13/ML1(s) | 2/24/2016 | 0.0114 |
| 13/GS-S8(s) | 9/13/2011 | 0.0013 |  | 13/GS-S9(s) | 7/27/2016 | 0.0015 |  | 13/ML1(s) | 4/21/2016 | 0.0101 |
| 13/GS-S8(s) | 11/08/2011 | 0.0037 |  | 13/GS-S9(s) | 11/28/2016 | 0.0014 |  | 13/ML1(s) | 08/04/2016 | 0.0245 |

*Table 5 - Section I1. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 13/ML1(s) | 10/13/2016 | 0.008 |  | 13/ML2(s) | 11/22/2016 | 0.0072 |  | 13/ML4(s) | 11/22/2016 | 0.0032 |
| 13/ML2(s) | 10/23/2003 | 0.005 |  | 13/ML4(s) | 11/25/2003 | 0.0013 |  | 13/ML5(s) | 11/25/2003 | 0.0021 |
| 13/ML2(s) | 4/21/2004 | 0.004 |  | 13/ML4(s) | 4/28/2004 | 0.0019 |  | 13/ML5(s) | 4/27/2004 | 0.0011 |
| 13/ML2(s) | 10/07/2004 | 0.0046 |  | 13/ML4(s) | 10/12/2004 | 0.0045 |  | 13/ML5(s) | 10/12/2004 | 0.0021 |
| 13/ML2(s) | 4/18/2005 | 0.001 |  | 13/ML4(s) | 04/12/2005 | 0.0043 |  | 13/ML5(s) | 04/12/2005 | 0.0025 |
| 13/ML2(s) | 10/26/2005 | 0.0076 |  | 13/ML4(s) | 10/20/2005 | 0.0037 |  | 13/ML5(s) | 10/20/2005 | 0.0073 |
| 13/ML2(s) | 5/19/2006 | 0.0006 |  | 13/ML4(s) | 5/18/2006 | 0.0007 |  | 13/ML5(s) | 5/18/2006 | 0.0013 |
| 13/ML2(s) | 10/27/2006 | 0.0067 |  | 13/ML4(s) | 10/19/2006 | 0.001 |  | 13/ML5(s) | 10/19/2006 | 0.0026 |
| 13/ML2(s) | 11/23/2007 | 0.0029 |  | 13/ML4(s) | 11/20/2007 | 0.0014 |  | 13/ML5(s) | 5/29/2007 | 0.0011 |
| 13/ML2(s) | 05/12/2008 | 0.0037 |  | 13/ML4(s) | 5/13/2008 | 0.0017 |  | 13/ML5(s) | 12/10/2007 | 0.0012 |
| 13/ML2(s) | 1/21/2009 | 0.0056 |  | 13/ML4(s) | 1/19/2009 | 0.0019 |  | 13/ML5(s) | 5/13/2008 | 0.0014 |
| 13/ML2(s) | 5/14/2009 | 0.0071 |  | 13/ML4(s) | 5/14/2009 | 0.0031 |  | 13/ML5(s) | 1/19/2009 | 0.0015 |
| 13/ML2(s) | 10/20/2009 | 0.0128 |  | 13/ML4(s) | 10/19/2009 | 0.0022 |  | 13/ML5(s) | 5/21/2009 | 0.0014 |
| 13/ML2(s) | 3/19/2010 | 0.0081 |  | 13/ML4(s) | 3/22/2010 | 0.0034 |  | 13/ML5(s) | 10/20/2009 | 0.0046 |
| 13/ML2(s) | 6/15/2010 | 0.0095 |  | 13/ML4(s) | 6/15/2010 | 0.0065 |  | 13/ML5(s) | 3/22/2010 | 0.0029 |
| 13/ML2(s) | 8/18/2010 | 0.0072 |  | 13/ML4(s) | 8/18/2010 | 0.0047 |  | 13/ML5(s) | 6/15/2010 | 0.0037 |
| 13/ML2(s) | 10/27/2010 | 0.0168 |  | 13/ML4(s) | 10/27/2010 | 0.0083 |  | 13/ML5(s) | 8/18/2010 | 0.0038 |
| 13/ML2(s) | 3/28/2011 | 0.0072 |  | 13/ML4(s) | 3/28/2011 | 0.0028 |  | 13/ML5(s) | 10/27/2010 | 0.0068 |
| 13/ML2(s) | 6/13/2011 | 0.0086 |  | 13/ML4(s) | 6/13/2011 | 0.0051 |  | 13/ML5(s) | 3/28/2011 | 0.0026 |
| 13/ML2(s) | 9/27/2011 | 0.0019 |  | 13/ML4(s) | 9/27/2011 | 0.0031 |  | 13/ML5(s) | 6/13/2011 | 0.0033 |
| 13/ML2(s) | 11/15/2011 | 0.0082 |  | 13/ML4(s) | 11/16/2011 | 0.0026 |  | 13/ML5(s) | 09/02/2011 | 0.0028 |
| 13/ML2(s) | 3/21/2012 | 0.0046 |  | 13/ML4(s) | 3/21/2012 | 0.0028 |  | 13/ML5(s) | 11/21/2011 | 0.0029 |
| 13/ML2(s) | 6/27/2012 | 0.0019 |  | 13/ML4(s) | 6/26/2012 | 0.0039 |  | 13/ML5(s) | 3/28/2012 | 0.0017 |
| 13/ML2(s) | 9/19/2012 | 0.0072 |  | 13/ML4(s) | 9/19/2012 | 0.0038 |  | 13/ML5(s) | 6/26/2012 | 0.0013 |
| 13/ML2(s) | 11/06/2012 | 0.0152 |  | 13/ML4(s) | 11/06/2012 | 0.0066 |  | 13/ML5(s) | 9/19/2012 | 0.0037 |
| 13/ML2(s) | 3/19/2013 | 0.002 |  | 13/ML4(s) | 3/19/2013 | 0.0012 |  | 13/ML5(s) | 11/06/2012 | 0.0059 |
| 13/ML2(s) | 06/04/2013 | 0.0038 |  | 13/ML4(s) | 06/04/2013 | 0.002 |  | 13/ML5(s) | 3/19/2013 | 0.0011 |
| 13/ML2(s) | 9/26/2013 | 0.003 |  | 13/ML4(s) | 9/26/2013 | 0.0023 |  | 13/ML5(s) | 06/04/2013 | 0.0016 |
| 13/ML2(s) | 11/05/2013 | 0.0022 |  | 13/ML4(s) | 11/05/2013 | 0.0016 |  | 13/ML5(s) | 9/26/2013 | 0.0018 |
| 13/ML2(s) | 3/18/2014 | 0.0021 |  | 13/ML4(s) | 3/18/2014 | 0.0013 |  | 13/ML5(s) | 11/05/2013 | 0.0012 |
| 13/ML2(s) | 06/10/2014 | 0.0015 |  | 13/ML4(s) | 06/10/2014 | 0.0011 |  | 13/ML5(s) | 3/18/2014 | 0.0009 |
| 13/ML2(s) | 9/18/2014 | 0.0034 |  | 13/ML4(s) | 9/18/2014 | 0.0017 |  | 13/ML5(s) | 06/10/2014 | 0.0009 |
| 13/ML2(s) | 11/11/2014 | 0.0052 |  | 13/ML4(s) | 11/11/2014 | 0.0019 |  | 13/ML5(s) | 9/18/2014 | 0.0016 |
| 13/ML2(s) | 3/23/2015 | 0.0014 |  | 13/ML4(s) | 3/23/2015 | 0.0013 |  | 13/ML5(s) | 11/11/2014 | 0.0016 |
| 13/ML2(s) | 06/04/2015 | 0.0017 |  | 13/ML4(s) | 06/04/2015 | 0.0011 |  | 13/ML5(s) | 3/24/2015 | 0.001 |
| 13/ML2(s) | 9/22/2015 | 0.0058 |  | 13/ML4(s) | 9/22/2015 | 0.0024 |  | 13/ML5(s) | 06/04/2015 | 0.0008 |
| 13/ML2(s) | 12/02/2015 | 0.01 |  | 13/ML4(s) | 10/15/2015 | 0.0032 |  | 13/ML5(s) | 9/22/2015 | 0.0025 |
| 13/ML2(s) | 3/15/2016 | 0.0057 |  | 13/ML4(s) | 3/15/2016 | 0.0027 |  | 13/ML5(s) | 10/15/2015 | 0.0026 |
| 13/ML2(s) | 6/23/2016 | 0.0056 |  | 13/ML4(s) | 6/23/2016 | 0.0032 |  | 13/ML5(s) | 3/15/2016 | 0.0027 |
| 13/ML2(s) | 9/20/2016 | 0.0094 |  | 13/ML4(s) | 9/20/2016 | 0.0044 |  | 13/ML5(s) | 6/23/2016 | 0.0024 |

*Table 5 - Section J1. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 13/ML5(s) | 9/20/2016 | 0.0039 |  | 13/ML7(s) | 7/29/2008 | 0.0015 |  | 13/ML9(s) | 03/08/2012 | 0.0011 |
| 13/ML5(s) | 11/22/2016 | 0.0032 |  | 13/ML7(s) | 10/22/2008 | 0.0021 |  | 13/ML9(s) | 05/10/2012 | 0.0016 |
| 13/ML6(s) | 10/23/2003 | 0.006 |  | 13/ML7(s) | 05/08/2009 | 0.0053 |  | 13/ML9(s) | 07/03/2012 | 0.0035 |
| 13/ML6(s) | 07/07/2004 | 0.0061 |  | 13/ML7(s) | 09/01/2009 | 0.0035 |  | 13/ML9(s) | 12/17/2012 | 0.0074 |
| 13/ML6(s) | 10/01/2004 | 0.0022 |  | 13/ML7(s) | 02/09/2010 | 0.002 |  | 13/ML9(s) | 3/20/2013 | 0.0011 |
| 13/ML6(s) | 5/25/2005 | 0.0033 |  | 13/ML7(s) | 04/08/2010 | 0.0021 |  | 13/ML9(s) | 6/21/2013 | 0.0009 |
| 13/ML6(s) | 10/20/2005 | 0.0051 |  | 13/ML7(s) | 07/06/2010 | 0.0051 |  | 13/ML9(s) | 09/10/2013 | 0.0028 |
| 13/ML6(s) | 4/13/2006 | 0.0045 |  | 13/ML7(s) | 10/04/2010 | 0.0031 |  | 13/ML9(s) | 12/03/2013 | 0.0018 |
| 13/ML6(s) | 10/02/2006 | 0.0049 |  | 13/ML7(s) | 02/05/2014 | 0.0021 |  | 13/ML9(s) | 02/05/2014 | 0.0014 |
| 13/ML6(s) | 5/16/2007 | 0.0031 |  | 13/ML7(s) | 4/14/2014 | 0.001 |  | 13/ML9(s) | 4/14/2014 | 0.0008 |
| 13/ML6(s) | 09/12/2007 | 0.0029 |  | 13/ML7(s) | 8/20/2014 | 0.0007 |  | 13/ML9(s) | 8/20/2014 | 0.0021 |
| 13/ML6(s) | 7/29/2008 | 0.0038 |  | 13/ML7(s) | 11/12/2014 | 0.0026 |  | 13/ML9(s) | 11/12/2014 | 0.0024 |
| 13/ML6(s) | 10/16/2008 | 0.0032 |  | 13/ML7(s) | 3/30/2015 | 0.0007 |  | 13/ML9(s) | 2/23/2015 | 0.002 |
| 13/ML6(s) | 6/17/2009 | 0.0059 |  | 13/ML7(s) | 4/23/2015 | 0.0014 |  | 13/ML9(s) | 4/23/2015 | 0.0013 |
| 13/ML6(s) | 09/09/2009 | 0.002 |  | 13/ML7(s) | 7/27/2015 | 0.0009 |  | 13/ML9(s) | 7/27/2015 | 0.001 |
| 13/ML6(s) | 02/09/2010 | 0.0027 |  | 13/ML7(s) | 11/02/2015 | 0.0012 |  | 13/ML9(s) | 11/02/2015 | 0.007 |
| 13/ML6(s) | 04/08/2010 | 0.0034 |  | 13/ML7(s) | 08/04/2016 | 0.0017 |  | 13/ML9(s) | 2/24/2016 | 0.0021 |
| 13/ML6(s) | 07/06/2010 | 0.0065 |  | 13/ML7(s) | 10/13/2016 | 0.001 |  | 13/ML9(s) | 4/21/2016 | 0.0022 |
| 13/ML6(s) | 10/04/2010 | 0.0032 |  | 13/ML7(s) | 2/24/2016 | 0.0016 |  | 13/ML9(s) | 08/04/2016 | 0.0036 |
| 13/ML6(s) | 3/24/2011 | 0.0035 |  | 13/ML7(s) | 4/21/2016 | 0.0019 |  | 13/ML9(s) | 10/13/2016 | 0.0021 |
| 13/ML6(s) | 05/04/2011 | 0.008 |  | 13/ML9(s) | 07/07/2004 | 0.0047 |  | 13/MR1(s) | 10/14/2003 | 0.0019 |
| 13/ML6(s) | 07/06/2011 | 0.0062 |  | 13/ML9(s) | 10/01/2004 | 0.0016 |  | 13/MR1(s) | 6/22/2004 | 0.0028 |
| 13/ML6(s) | 10/03/2011 | 0.0032 |  | 13/ML9(s) | 5/25/2005 | 0.0012 |  | 13/MR1(s) | 10/05/2004 | 0.0018 |
| 13/ML6(s) | 03/08/2012 | 0.0029 |  | 13/ML9(s) | 10/20/2005 | 0.0012 |  | 13/MR1(s) | 5/18/2005 | 0.0024 |
| 13/ML6(s) | 05/10/2012 | 0.0039 |  | 13/ML9(s) | 4/13/2006 | 0.0013 |  | 13/MR1(s) | 10/05/2005 | 0.0026 |
| 13/ML6(s) | 07/03/2012 | 0.0157 |  | 13/ML9(s) | 10/02/2006 | 0.0015 |  | 13/MR1(s) | 5/16/2006 | 0.0022 |
| 13/ML6(s) | 12/17/2012 | 0.0021 |  | 13/ML9(s) | 5/16/2007 | 0.001 |  | 13/MR1(s) | 9/29/2006 | 0.0022 |
| 13/ML6(s) | 3/20/2013 | 0.0027 |  | 13/ML9(s) | 09/12/2007 | 0.0014 |  | 13/MR1(s) | 05/07/2007 | 0.0022 |
| 13/ML6(s) | 6/21/2013 | 0.0022 |  | 13/ML9(s) | 7/29/2008 | 0.0011 |  | 13/MR1(s) | 09/11/2007 | 0.0018 |
| 13/ML6(s) | 09/10/2013 | 0.0033 |  | 13/ML9(s) | 10/16/2008 | 0.0012 |  | 13/MR1(s) | 08/05/2008 | 0.0025 |
| 13/ML6(s) | 12/03/2013 | 0.0044 |  | 13/ML9(s) | 6/17/2009 | 0.0042 |  | 13/MR1(s) | 11/10/2008 | 0.0019 |
| 13/ML7(s) | 10/23/2003 | 0.0019 |  | 13/ML9(s) | 09/09/2009 | 0.0047 |  | 13/MR1(s) | 5/13/2009 | 0.0038 |
| 13/ML7(s) | 07/09/2004 | 0.0162 |  | 13/ML9(s) | 02/09/2010 | 0.001 |  | 13/MR1(s) | 09/03/2009 | 0.0082 |
| 13/ML7(s) | 10/01/2004 | 0.0018 |  | 13/ML9(s) | 04/08/2010 | 0.0011 |  | 13/MR1(s) | 2/18/2010 | 0.0031 |
| 13/ML7(s) | 5/25/2005 | 0.0025 |  | 13/ML9(s) | 07/06/2010 | 0.0022 |  | 13/MR1(s) | 4/29/2010 | 0.0021 |
| 13/ML7(s) | 10/26/2005 | 0.0021 |  | 13/ML9(s) | 10/04/2010 | 0.0017 |  | 13/MR1(s) | 07/05/2010 | 0.0046 |
| 13/ML7(s) | 4/13/2006 | 0.0022 |  | 13/ML9(s) | 3/24/2011 | 0.0011 |  | 13/MR1(s) | 10/14/2010 | 0.0024 |
| 13/ML7(s) | 10/02/2006 | 0.003 |  | 13/ML9(s) | 05/04/2011 | 0.0028 |  | 13/MR1(s) | 3/14/2011 | 0.0025 |
| 13/ML7(s) | 5/16/2007 | 0.0011 |  | 13/ML9(s) | 07/06/2011 | 0.0036 |  | 13/MR1(s) | 05/03/2011 | 0.0031 |
| 13/ML7(s) | 9/27/2007 | 0.0022 |  | 13/ML9(s) | 10/03/2011 | 0.0023 |  | 13/MR1(s) | 07/05/2011 | 0.0046 |

*Table 5 - Section K1. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 13/MR1(s) | 10/24/2011 | 0.0064 |  | 13/MR2(s) | 06/12/2013 | 0.0042 |  | 13/MS1(s) | 05/02/2011 | 0.0043 |
| 13/MR1(s) | 03/06/2012 | 0.0022 |  | 13/MR2(s) | 12/03/2013 | 0.0133 |  | 13/MS1(s) | 7/27/2011 | 0.0059 |
| 13/MR1(s) | 05/08/2012 | 0.0024 |  | 13/MR2(s) | 2/25/2014 | 0.0177 |  | 13/MS1(s) | 10/03/2011 | 0.0059 |
| 13/MR1(s) | 07/10/2012 | 0.0017 |  | 13/MR2(s) | 4/15/2014 | 0.014 |  | 13/MS1(s) | 3/21/2012 | 0.0031 |
| 13/MR1(s) | 11/20/2012 | 0.0047 |  | 13/MR2(s) | 8/19/2014 | 0.02 |  | 13/MS1(s) | 05/02/2012 | 0.0017 |
| 13/MR1(s) | 3/20/2013 | 0.0016 |  | 13/MR2(s) | 11/06/2014 | 0.0176 |  | 13/MS1(s) | 9/19/2012 | 0.0005 |
| 13/MR1(s) | 06/12/2013 | 0.004 |  | 13/MR2(s) | 2/19/2015 | 0.0068 |  | 13/MS1(s) | 12/12/2012 | 0.0015 |
| 13/MR1(s) | 09/10/2013 | 0.0024 |  | 13/MR2(s) | 4/22/2015 | 0.0194 |  | 13/MS1(s) | 3/21/2013 | 0.0009 |
| 13/MR1(s) | 12/03/2013 | 0.0025 |  | 13/MR2(s) | 09/08/2015 | 0.0148 |  | 13/MS1(s) | 5/27/2013 | 0.0016 |
| 13/MR1(s) | 2/25/2014 | 0.0039 |  | 13/MR2(s) | 10/13/2015 | 0.0249 |  | 13/MS1(s) | 07/08/2013 | 0.0049 |
| 13/MR1(s) | 4/15/2014 | 0.0018 |  | 13/MR2(s) | 2/18/2016 | 0.0309 |  | 13/MS1(s) | 10/14/2013 | 0.0045 |
| 13/MR1(s) | 8/19/2014 | 0.004 |  | 13/MR2(s) | 4/26/2016 | 0.0282 |  | 13/MS1(s) | 1/21/2014 | 0.005 |
| 13/MR1(s) | 11/12/2014 | 0.0013 |  | 13/MR2(s) | 8/30/2016 | 0.0408 |  | 13/MS1(s) | 4/14/2014 | 0.001 |
| 13/MR1(s) | 2/19/2015 | 0.0015 |  | 13/MR2(s) | 10/18/2016 | 0.0305 |  | 13/MS1(s) | 08/11/2014 | 0.0059 |
| 13/MR1(s) | 4/21/2015 | 0.0014 |  | 13/MR4(s) | 5/16/2006 | 0.0021 |  | 13/MS1(s) | 10/29/2014 | 0.0011 |
| 13/MR1(s) | 09/08/2015 | 0.0081 |  | 13/MR4(s) | 10/25/2006 | 0.0018 |  | 13/MS1(s) | 3/30/2015 | 0.0057 |
| 13/MR1(s) | 10/13/2015 | 0.0054 |  | 13/MR4(s) | 06/11/2009 | 0.0015 |  | 13/MS1(s) | 06/08/2015 | 0.0028 |
| 13/MR1(s) | 2/18/2016 | 0.0057 |  | 13/MR4(s) | 9/16/2009 | 0.0035 |  | 13/MS1(s) | 9/30/2015 | 0.0027 |
| 13/MR1(s) | 4/26/2016 | 0.0036 |  | 13/MR4(s) | 02/09/2010 | 0.0025 |  | 13/MS1(s) | 12/09/2015 | 0.0092 |
| 13/MR1(s) | 8/30/2016 | 0.006 |  | 13/MR4(s) | 04/08/2010 | 0.0031 |  | 13/MS1(s) | 3/15/2016 | 0.0013 |
| 13/MR1(s) | 10/18/2016 | 0.0042 |  | 13/MR4(s) | 7/19/2010 | 0.0028 |  | 13/MS1(s) | 06/06/2016 | 0.0046 |
| 13/MR2(s) | 10/14/2003 | 0.0142 |  | 13/MR4(s) | 10/04/2010 | 0.0033 |  | 13/MS1(s) | 9/19/2016 | 0.004 |
| 13/MR2(s) | 07/01/2004 | 0.0116 |  | 13/MS1(s) | 10/29/2003 | 0.0068 |  | 13/MS1(s) | 11/21/2016 | 0.0046 |
| 13/MR2(s) | 9/30/2004 | 0.0112 |  | 13/MS1(s) | 05/07/2004 | 0.0054 |  | 13/MS2(s) | 11/10/2003 | 0.0026 |
| 13/MR2(s) | 5/18/2005 | 0.0153 |  | 13/MS1(s) | 11/26/2004 | 0.0035 |  | 13/MS2(s) | 5/17/2004 | 0.002 |
| 13/MR2(s) | 9/27/2005 | 0.0153 |  | 13/MS1(s) | 5/31/2005 | 0.0064 |  | 13/MS2(s) | 5/31/2005 | 0.0028 |
| 13/MR2(s) | 5/18/2006 | 0.0193 |  | 13/MS1(s) | 12/15/2005 | 0.0131 |  | 13/MS2(s) | 12/15/2005 | 0.0054 |
| 13/MR2(s) | 9/29/2006 | 0.0151 |  | 13/MS1(s) | 05/04/2006 | 0.0046 |  | 13/MS2(s) | 5/23/2006 | 0.0073 |
| 13/MR2(s) | 5/13/2009 | 0.0164 |  | 13/MS1(s) | 10/12/2006 | 0.0096 |  | 13/MS2(s) | 11/13/2006 | 0.0029 |
| 13/MR2(s) | 09/03/2009 | 0.0135 |  | 13/MS1(s) | 4/16/2007 | 0.0053 |  | 13/MS2(s) | 6/18/2007 | 0.0028 |
| 13/MR2(s) | 2/18/2010 | 0.0133 |  | 13/MS1(s) | 1/17/2008 | 0.0057 |  | 13/MS2(s) | 03/05/2014 | 0.0024 |
| 13/MR2(s) | 4/26/2010 | 0.0163 |  | 13/MS1(s) | 5/27/2008 | 0.0055 |  | 13/MS2(s) | 4/14/2014 | 0.003 |
| 13/MR2(s) | 07/05/2010 | 0.0229 |  | 13/MS1(s) | 10/16/2008 | 0.0084 |  | 13/MS2(s) | 08/11/2014 | 0.0021 |
| 13/MR2(s) | 10/14/2010 | 0.0123 |  | 13/MS1(s) | 06/03/2009 | 0.0097 |  | 13/MS2(s) | 10/29/2014 | 0.003 |
| 13/MR2(s) | 3/14/2011 | 0.0209 |  | 13/MS1(s) | 10/29/2009 | 0.0042 |  | 13/MS2(s) | 3/30/2015 | 0.0026 |
| 13/MR2(s) | 05/03/2011 | 0.0172 |  | 13/MS1(s) | 3/29/2010 | 0.0035 |  | 13/MS2(s) | 06/08/2015 | 0.0018 |
| 13/MR2(s) | 07/05/2011 | 0.0211 |  | 13/MS1(s) | 5/18/2010 | 0.004 |  | 13/MS2(s) | 9/30/2015 | 0.0019 |
| 13/MR2(s) | 10/04/2011 | 0.0188 |  | 13/MS1(s) | 7/22/2010 | 0.0051 |  | 13/MS2(s) | 3/15/2016 | 0.0021 |
| 13/MR2(s) | 05/08/2012 | 0.016 |  | 13/MS1(s) | 12/06/2010 | 0.0077 |  | 13/MS2(s) | 06/06/2016 | 0.0017 |
| 13/MR2(s) | 3/20/2013 | 0.0116 |  | 13/MS1(s) | 03/01/2011 | 0.0044 |  | 13/MS2(s) | 9/19/2016 | 0.0021 |

*Table 5 - Section L1. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 13/MS2(s) | 11/21/2016 | 0.0017 |  | 13/MS3(s) | 11/21/2016 | 0.0011 |  | 13/MS5(s) | 10/16/2008 | 0.0057 |
| 13/MS3(s) | 10/29/2003 | 0.0036 |  | 13/MS4(s) | 10/29/2003 | 0.0053 |  | 13/MS5(s) | 06/03/2009 | 0.0023 |
| 13/MS3(s) | 5/14/2004 | 0.007 |  | 13/MS4(s) | 05/07/2004 | 0.0083 |  | 13/MS5(s) | 10/29/2009 | 0.0024 |
| 13/MS3(s) | 11/26/2004 | 0.0015 |  | 13/MS4(s) | 11/25/2004 | 0.0022 |  | 13/MS5(s) | 2/23/2010 | 0.0021 |
| 13/MS3(s) | 5/31/2005 | 0.0027 |  | 13/MS4(s) | 5/31/2005 | 0.0042 |  | 13/MS5(s) | 5/25/2010 | 0.002 |
| 13/MS3(s) | 05/04/2006 | 0.0017 |  | 13/MS4(s) | 12/20/2005 | 0.0115 |  | 13/MS5(s) | 7/22/2010 | 0.003 |
| 13/MS3(s) | 10/12/2006 | 0.0043 |  | 13/MS4(s) | 05/04/2006 | 0.004 |  | 13/MS5(s) | 12/06/2010 | 0.0031 |
| 13/MS3(s) | 4/16/2007 | 0.0037 |  | 13/MS4(s) | 10/12/2006 | 0.0053 |  | 13/MS5(s) | 03/05/2014 | 0.0021 |
| 13/MS3(s) | 11/28/2007 | 0.0022 |  | 13/MS4(s) | 4/16/2007 | 0.0074 |  | 13/MS5(s) | 4/14/2014 | 0.0028 |
| 13/MS3(s) | 5/27/2008 | 0.0027 |  | 13/MS4(s) | 1/24/2008 | 0.0053 |  | 13/MS5(s) | 08/11/2014 | 0.0035 |
| 13/MS3(s) | 10/16/2008 | 0.0041 |  | 13/MS4(s) | 5/27/2008 | 0.0044 |  | 13/MS5(s) | 10/29/2014 | 0.0039 |
| 13/MS3(s) | 06/03/2009 | 0.0091 |  | 13/MS4(s) | 10/16/2008 | 0.0048 |  | 13/MS5(s) | 3/30/2015 | 0.0046 |
| 13/MS3(s) | 10/29/2009 | 0.0018 |  | 13/MS4(s) | 06/03/2009 | 0.0033 |  | 13/MS5(s) | 06/08/2015 | 0.0016 |
| 13/MS3(s) | 3/29/2010 | 0.0018 |  | 13/MS4(s) | 10/29/2009 | 0.0027 |  | 13/MS5(s) | 09/01/2015 | 0.002 |
| 13/MS3(s) | 5/18/2010 | 0.0014 |  | 13/MS4(s) | 3/29/2010 | 0.0028 |  | 13/MS5(s) | 12/09/2015 | 0.0072 |
| 13/MS3(s) | 7/22/2010 | 0.0006 |  | 13/MS4(s) | 5/18/2010 | 0.0017 |  | 13/MS5(s) | 3/15/2016 | 0.0013 |
| 13/MS3(s) | 12/06/2010 | 0.0012 |  | 13/MS4(s) | 7/22/2010 | 0.0014 |  | 13/MS5(s) | 06/06/2016 | 0.0026 |
| 13/MS3(s) | 03/01/2011 | 0.0009 |  | 13/MS4(s) | 12/06/2010 | 0.003 |  | 13/MS5(s) | 9/19/2016 | 0.0021 |
| 13/MS3(s) | 05/02/2011 | 0.0007 |  | 13/MS4(s) | 03/05/2014 | 0.0022 |  | 13/MS5(s) | 11/21/2016 | 0.002 |
| 13/MS3(s) | 7/27/2011 | 0.0009 |  | 13/MS4(s) | 4/14/2014 | 0.0024 |  | 13/MS6(s) | 11/04/2003 | 0.0013 |
| 13/MS3(s) | 10/03/2011 | 0.0009 |  | 13/MS4(s) | 08/11/2014 | 0.0024 |  | 13/MS6(s) | 4/21/2004 | 0.0028 |
| 13/MS3(s) | 1/18/2012 | 0.0049 |  | 13/MS4(s) | 10/29/2014 | 0.0022 |  | 13/MS6(s) | 10/20/2004 | 0.0018 |
| 13/MS3(s) | 05/02/2012 | 0.0036 |  | 13/MS4(s) | 3/30/2015 | 0.0034 |  | 13/MS6(s) | 05/03/2005 | 0.0024 |
| 13/MS3(s) | 9/19/2012 | 0.0043 |  | 13/MS4(s) | 06/08/2015 | 0.0011 |  | 13/MS6(s) | 10/11/2005 | 0.0037 |
| 13/MS3(s) | 12/12/2012 | 0.0039 |  | 13/MS4(s) | 9/30/2015 | 0.0021 |  | 13/MS6(s) | 5/25/2006 | 0.0028 |
| 13/MS3(s) | 3/21/2013 | 0.0018 |  | 13/MS4(s) | 12/09/2015 | 0.0046 |  | 13/MS6(s) | 10/23/2006 | 0.0024 |
| 13/MS3(s) | 5/27/2013 | 0.005 |  | 13/MS4(s) | 3/15/2016 | 0.0023 |  | 13/MS6(s) | 5/15/2007 | 0.0037 |
| 13/MS3(s) | 07/08/2013 | 0.0006 |  | 13/MS4(s) | 06/06/2016 | 0.0012 |  | 13/MS6(s) | 11/21/2007 | 0.0037 |
| 13/MS3(s) | 10/14/2013 | 0.0009 |  | 13/MS4(s) | 9/19/2016 | 0.0016 |  | 13/MS6(s) | 5/22/2008 | 0.0061 |
| 13/MS3(s) | 1/21/2014 | 0.0008 |  | 13/MS4(s) | 11/21/2016 | 0.0028 |  | 13/MS6(s) | 10/28/2008 | 0.0044 |
| 13/MS3(s) | 4/14/2014 | 0.0063 |  | 13/MS5(s) | 10/21/2003 | 0.0061 |  | 13/MS6(s) | 5/14/2009 | 0.0039 |
| 13/MS3(s) | 08/11/2014 | 0.0009 |  | 13/MS5(s) | 05/07/2004 | 0.0066 |  | 13/MS6(s) | 10/27/2009 | 0.0017 |
| 13/MS3(s) | 10/29/2014 | 0.0063 |  | 13/MS5(s) | 11/02/2004 | 0.0026 |  | 13/MS6(s) | 3/22/2010 | 0.0038 |
| 13/MS3(s) | 3/30/2015 | 0.0017 |  | 13/MS5(s) | 5/16/2005 | 0.0019 |  | 13/MS6(s) | 5/20/2010 | 0.0019 |
| 13/MS3(s) | 06/08/2015 | 0.0006 |  | 13/MS5(s) | 10/13/2005 | 0.0023 |  | 13/MS6(s) | 8/19/2010 | 0.0019 |
| 13/MS3(s) | 9/30/2015 | 0.0016 |  | 13/MS5(s) | 05/04/2006 | 0.0021 |  | 13/MS6(s) | 03/10/2014 | 0.0026 |
| 13/MS3(s) | 12/09/2015 | 0.0017 |  | 13/MS5(s) | 10/12/2006 | 0.0058 |  | 13/MS6(s) | 6/16/2014 | 0.0032 |
| 13/MS3(s) | 3/15/2016 | 0.0047 |  | 13/MS5(s) | 05/09/2007 | 0.0048 |  | 13/MS6(s) | 9/15/2014 | 0.0026 |
| 13/MS3(s) | 06/06/2016 | 0.0011 |  | 13/MS5(s) | 1/17/2008 | 0.0048 |  | 13/MS6(s) | 11/24/2014 | 0.0045 |
| 13/MS3(s) | 9/19/2016 | 0.0014 |  | 13/MS5(s) | 5/27/2008 | 0.0048 |  | 13/MS6(s) | 3/25/2015 | 0.0041 |

*Table 5 - Section M1. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 13/MS6(s) | 06/03/2015 | 0.003 |  | 13/MS8(s) | 12/05/2007 | 0.0023 |  | 13/PG1(s) | 12/13/2007 | 0.0053 |
| 13/MS6(s) | 08/03/2015 | 0.0028 |  | 13/MS8(s) | 5/22/2008 | 0.0053 |  | 13/PG1(s) | 6/17/2008 | 0.0082 |
| 13/MS6(s) | 12/02/2015 | 0.0041 |  | 13/MS8(s) | 10/28/2008 | 0.0029 |  | 13/PG1(s) | 11/03/2008 | 0.0045 |
| 13/MS6(s) | 02/09/2016 | 0.0024 |  | 13/MS8(s) | 06/08/2009 | 0.0027 |  | 13/PG1(s) | 06/04/2009 | 0.0109 |
| 13/MS6(s) | 4/26/2016 | 0.0031 |  | 13/MS8(s) | 10/27/2009 | 0.0016 |  | 13/PG1(s) | 10/15/2009 | 0.0035 |
| 13/MS6(s) | 08/03/2016 | 0.0046 |  | 13/MS8(s) | 3/16/2010 | 0.0025 |  | 13/PR1(s) | 11/14/2003 | 0.007 |
| 13/MS6(s) | 11/02/2016 | 0.0022 |  | 13/MS8(s) | 5/20/2010 | 0.0018 |  | 13/PR1(s) | 4/27/2004 | 0.0023 |
| 13/MS7(s) | 11/04/2003 | 0.0014 |  | 13/MS8(s) | 8/19/2010 | 0.0035 |  | 13/PR1(s) | 10/12/2004 | 0.0023 |
| 13/MS7(s) | 4/21/2004 | 0.0027 |  | 13/MS8(s) | 12/16/2010 | 0.0021 |  | 13/PR1(s) | 11/26/2004 | 0.011 |
| 13/MS7(s) | 10/20/2004 | 0.0021 |  | 13/MS8(s) | 2/24/2014 | 0.0024 |  | 13/PR1(s) | 4/19/2005 | 0.0067 |
| 13/MS7(s) | 05/03/2005 | 0.0025 |  | 13/MS8(s) | 6/23/2014 | 0.0025 |  | 13/PR1(s) | 10/20/2005 | 0.0068 |
| 13/MS7(s) | 10/11/2005 | 0.0037 |  | 13/MS8(s) | 9/22/2014 | 0.003 |  | 13/PR1(s) | 5/18/2006 | 0.0018 |
| 13/MS7(s) | 5/25/2006 | 0.0033 |  | 13/MS8(s) | 12/01/2014 | 0.0026 |  | 13/PR1(s) | 10/19/2006 | 0.0036 |
| 13/MS7(s) | 10/23/2006 | 0.0048 |  | 13/MS8(s) | 03/02/2015 | 0.0033 |  | 13/PR1(s) | 8/24/2007 | 0.0021 |
| 13/MS7(s) | 5/15/2007 | 0.0045 |  | 13/MS8(s) | 9/23/2015 | 0.0034 |  | 13/PR1(s) | 12/10/2007 | 0.0028 |
| 13/MS7(s) | 5/14/2009 | 0.0039 |  | 13/MS8(s) | 12/02/2015 | 0.0019 |  | 13/PR1(s) | 5/13/2008 | 0.0046 |
| 13/MS7(s) | 10/27/2009 | 0.0024 |  | 13/MS8(s) | 3/30/2016 | 0.0024 |  | 13/PR1(s) | 1/19/2009 | 0.0071 |
| 13/MS7(s) | 3/22/2010 | 0.0039 |  | 13/MS8(s) | 6/13/2016 | 0.0017 |  | 13/PR1(s) | 5/21/2009 | 0.0067 |
| 13/MS7(s) | 5/20/2010 | 0.0023 |  | 13/MS8(s) | 9/26/2016 | 0.0012 |  | 13/PR1(s) | 10/20/2009 | 0.0108 |
| 13/MS7(s) | 8/19/2010 | 0.0019 |  | 13/MS8(s) | 12/05/2016 | 0.0024 |  | 13/PR1(s) | 3/22/2010 | 0.0034 |
| 13/MS7(s) | 03/10/2014 | 0.0029 |  | 13/PE-FO1(s) | 10/20/2003 | 0.0158 |  | 13/PR1(s) | 6/15/2010 | 0.007 |
| 13/MS7(s) | 6/16/2014 | 0.0031 |  | 13/PE-FO1(s) | 4/14/2004 | 0.0174 |  | 13/PR1(s) | 8/18/2010 | 0.0107 |
| 13/MS7(s) | 9/16/2014 | 0.0031 |  | 13/PE-FO1(s) | 11/11/2004 | 0.0223 |  | 13/PR1(s) | 10/27/2010 | 0.0079 |
| 13/MS7(s) | 11/24/2014 | 0.0041 |  | 13/PE-FO1(s) | 4/14/2005 | 0.0261 |  | 13/PR1(s) | 3/28/2011 | 0.0018 |
| 13/MS7(s) | 3/25/2015 | 0.0047 |  | 13/PE-FO1(s) | 10/19/2005 | 0.0263 |  | 13/PR1(s) | 6/13/2011 | 0.0087 |
| 13/MS7(s) | 06/03/2015 | 0.0023 |  | 13/PE-FO1(s) | 5/15/2006 | 0.0125 |  | 13/PR1(s) | 9/28/2011 | 0.0081 |
| 13/MS7(s) | 08/03/2015 | 0.0044 |  | 13/PE-FO1(s) | 10/23/2006 | 0.0253 |  | 13/PR1(s) | 11/21/2011 | 0.0058 |
| 13/MS7(s) | 12/14/2015 | 0.0047 |  | 13/PE-FO1(s) | 5/15/2007 | 0.0195 |  | 13/PR1(s) | 3/28/2012 | 0.002 |
| 13/MS7(s) | 02/09/2016 | 0.002 |  | 13/PE-FO1(s) | 12/11/2007 | 0.0176 |  | 13/PR1(s) | 6/26/2012 | 0.0021 |
| 13/MS7(s) | 4/26/2016 | 0.0017 |  | 13/PE-FO1(s) | 1/21/2009 | 0.021 |  | 13/PR1(s) | 9/19/2012 | 0.0064 |
| 13/MS7(s) | 08/03/2016 | 0.0041 |  | 13/PE-FO1(s) | 05/07/2009 | 0.0419 |  | 13/PR1(s) | 11/06/2012 | 0.0072 |
| 13/MS7(s) | 11/02/2016 | 0.0022 |  | 13/PE-FO1(s) | 10/19/2009 | 0.0409 |  | 13/PR1(s) | 3/19/2013 | 0.0016 |
| 13/MS8(s) | 11/06/2003 | 0.0054 |  | 13/PG1(s) | 10/28/2003 | 0.0055 |  | 13/PR1(s) | 06/04/2013 | 0.003 |
| 13/MS8(s) | 5/13/2004 | 0.0036 |  | 13/PG1(s) | 5/18/2004 | 0.0072 |  | 13/PR1(s) | 9/26/2013 | 0.0031 |
| 13/MS8(s) | 10/26/2004 | 0.0021 |  | 13/PG1(s) | 12/01/2004 | 0.0019 |  | 13/PR1(s) | 11/05/2013 | 0.0029 |
| 13/MS8(s) | 5/17/2005 | 0.0002 |  | 13/PG1(s) | 05/05/2005 | 0.0037 |  | 13/PR1(s) | 3/18/2014 | 0.0012 |
| 13/MS8(s) | 11/03/2005 | 0.0028 |  | 13/PG1(s) | 10/25/2005 | 0.0044 |  | 13/PR1(s) | 06/10/2014 | 0.0023 |
| 13/MS8(s) | 05/11/2006 | 0.0042 |  | 13/PG1(s) | 4/27/2006 | 0.0057 |  | 13/PR1(s) | 9/18/2014 | 0.0036 |
| 13/MS8(s) | 10/26/2006 | 0.0035 |  | 13/PG1(s) | 10/05/2006 | 0.0075 |  | 13/PR1(s) | 11/11/2014 | 0.0044 |
| 13/MS8(s) | 5/15/2007 | 0.0089 |  | 13/PG1(s) | 4/26/2007 | 0.0087 |  | 13/PR1(s) | 3/24/2015 | 0.0014 |

*Table 5 - Section N1. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 13/PR1(s) | 06/04/2015 | 0.0024 |  | 13/G-G4(s) | 2/15/2016 | 0.0015 |  | 13/S-E-C1(s) | 4/27/2010 | 0.0011 |
| 13/PR1(s) | 9/22/2015 | 0.0061 |  | 13/G-G4(s) | 05/11/2016 | 0.0021 |  | 13/S-E-C1(s) | 7/20/2010 | 0.0022 |
| 13/PR1(s) | 10/15/2015 | 0.0037 |  | 13/G-G4(s) | 9/21/2016 | 0.0021 |  | 13/S-E-C1(s) | 11/09/2010 | 0.0017 |
| 13/PR1(s) | 3/15/2016 | 0.003 |  | 13/G-G4(s) | 11/15/2016 | 0.0016 |  | 13/S-E-C1(s) | 02/08/2011 | 0.0012 |
| 13/PR1(s) | 6/23/2016 | 0.0044 |  | 13/SA-SI1(s) | 5/17/2004 | 0.0048 |  | 13/S-E-C1(s) | 04/05/2011 | 0.0007 |
| 13/PR1(s) | 9/20/2016 | 0.0136 |  | 13/SA-SI1(s) | 11/22/2004 | 0.0018 |  | 13/S-E-C1(s) | 07/06/2011 | 0.0013 |
| 13/PR1(s) | 11/22/2016 | 0.0092 |  | 13/SA-SI1(s) | 4/20/2005 | 0.0093 |  | 13/S-E-C1(s) | 10/12/2011 | 0.0025 |
| 13/G-G4(s) | 5/20/2004 | 0.0041 |  | 13/SA-SI1(s) | 10/24/2005 | 0.0088 |  | 13/S-E-C1(s) | 4/18/2012 | 0.0015 |
| 13/G-G4(s) | 10/28/2004 | 0.0027 |  | 13/SA-SI1(s) | 5/16/2006 | 0.0033 |  | 13/S-E-C1(s) | 07/05/2012 | 0.0032 |
| 13/G-G4(s) | 05/05/2005 | 0.009 |  | 13/SA-SI1(s) | 10/17/2006 | 0.0054 |  | 13/S-E-C1(s) | 10/30/2012 | 0.0026 |
| 13/G-G4(s) | 10/25/2005 | 0.0033 |  | 13/SA-SI1(s) | 05/08/2007 | 0.0038 |  | 13/S-E-C1(s) | 3/18/2013 | 0.0011 |
| 13/G-G4(s) | 4/27/2006 | 0.0031 |  | 13/SA-SI1(s) | 5/14/2009 | 0.0075 |  | 13/S-E-C1(s) | 5/29/2013 | 0.0051 |
| 13/G-G4(s) | 10/05/2006 | 0.0041 |  | 13/SA-SI1(s) | 10/19/2009 | 0.0086 |  | 13/S-E-C1(s) | 9/23/2013 | 0.0027 |
| 13/G-G4(s) | 05/08/2007 | 0.0063 |  | 13/SA-SI2(s) | 5/19/2004 | 0.0175 |  | 13/S-E-C1(s) | 12/12/2013 | 0.0011 |
| 13/G-G4(s) | 6/17/2008 | 0.0053 |  | 13/SA-SI2(s) | 10/25/2004 | 0.0068 |  | 13/S-E-C1(s) | 2/26/2014 | 0.0011 |
| 13/G-G4(s) | 5/26/2009 | 0.0044 |  | 13/SA-SI2(s) | 04/05/2005 | 0.0203 |  | 13/S-E-C1(s) | 4/16/2014 | 0.0015 |
| 13/G-G4(s) | 11/19/2009 | 0.0028 |  | 13/SA-SI2(s) | 11/28/2005 | 0.0187 |  | 13/S-E-C1(s) | 7/22/2014 | 0.0011 |
| 13/G-G4(s) | 04/07/2010 | 0.0019 |  | 13/SA-SI2(s) | 4/26/2006 | 0.0108 |  | 13/S-E-C1(s) | 12/04/2014 | 0.0018 |
| 13/G-G4(s) | 6/28/2010 | 0.0016 |  | 13/SA-SI2(s) | 11/06/2006 | 0.0135 |  | 13/S-E-C1(s) | 03/11/2015 | 0.0015 |
| 13/G-G4(s) | 9/16/2010 | 0.0019 |  | 13/SA-SI2(s) | 06/04/2007 | 0.0093 |  | 13/S-E-C1(s) | 6/25/2015 | 0.0008 |
| 13/G-G4(s) | 2/23/2011 | 0.0015 |  | 13/SA-SI2(s) | 11/20/2007 | 0.018 |  | 13/S-E-C1(s) | 8/19/2015 | 0.0011 |
| 13/G-G4(s) | 5/18/2011 | 0.0032 |  | 13/SA-SI2(s) | 05/12/2008 | 0.0185 |  | 13/S-E-C1(s) | 12/01/2015 | 0.0018 |
| 13/G-G4(s) | 08/03/2011 | 0.0027 |  | 13/SA-SI2(s) | 11/12/2008 | 0.0179 |  | 13/S-E-C1(s) | 02/03/2016 | 0.0011 |
| 13/G-G4(s) | 12/14/2011 | 0.0023 |  | 13/SA-SI2(s) | 11/12/2008 | 0.0179 |  | 13/S-E-C1(s) | 06/08/2016 | 0.0019 |
| 13/G-G4(s) | 3/29/2012 | 0.0008 |  | 13/SA-SI2(s) | 5/26/2009 | 0.0255 |  | 13/S-E-C1(s) | 07/11/2016 | 0.0018 |
| 13/G-G4(s) | 6/13/2012 | 0.0055 |  | 13/SA-SI2(s) | 11/11/2009 | 0.0533 |  | 13/S-E-C1(s) | 12/01/2016 | 0.0027 |
| 13/G-G4(s) | 09/12/2012 | 0.0023 |  | 13/S-E-C1(s) | 10/24/2003 | 0.0068 |  | 13/S-E-C2(s) | 11/07/2003 | 0.0087 |
| 13/G-G4(s) | 11/14/2012 | 0.0016 |  | 13/S-E-C1(s) | 04/08/2004 | 0.0089 |  | 13/S-E-C2(s) | 04/06/2004 | 0.0061 |
| 13/G-G4(s) | 2/19/2013 | 0.0048 |  | 13/S-E-C1(s) | 10/21/2004 | 0.0018 |  | 13/S-E-C2(s) | 11/09/2004 | 0.0024 |
| 13/G-G4(s) | 5/16/2013 | 0.0017 |  | 13/S-E-C1(s) | 5/19/2005 | 0.0025 |  | 13/S-E-C2(s) | 05/12/2005 | 0.0021 |
| 13/G-G4(s) | 7/22/2013 | 0.0022 |  | 13/S-E-C1(s) | 10/18/2005 | 0.0016 |  | 13/S-E-C2(s) | 11/21/2005 | 0.0018 |
| 13/G-G4(s) | 10/24/2013 | 0.0025 |  | 13/S-E-C1(s) | 05/02/2006 | 0.0015 |  | 13/S-E-C2(s) | 05/09/2006 | 0.0038 |
| 13/G-G4(s) | 3/17/2014 | 0.0009 |  | 13/S-E-C1(s) | 10/10/2006 | 0.002 |  | 13/S-E-C2(s) | 11/02/2006 | 0.0043 |
| 13/G-G4(s) | 5/20/2014 | 0.0026 |  | 13/S-E-C1(s) | 05/03/2007 | 0.0021 |  | 13/S-E-C2(s) | 5/21/2007 | 0.0041 |
| 13/G-G4(s) | 9/25/2014 | 0.0029 |  | 13/S-E-C1(s) | 11/15/2007 | 0.0012 |  | 13/S-E-C2(s) | 02/05/2008 | 0.0022 |
| 13/G-G4(s) | 11/03/2014 | 0.0041 |  | 13/S-E-C1(s) | 5/19/2008 | 0.0016 |  | 13/S-E-C2(s) | 6/19/2008 | 0.0076 |
| 13/G-G4(s) | 2/18/2015 | 0.0015 |  | 13/S-E-C1(s) | 10/29/2008 | 0.0039 |  | 13/S-E-C2(s) | 11/13/2008 | 0.0046 |
| 13/G-G4(s) | 05/11/2015 | 0.0016 |  | 13/S-E-C1(s) | 4/29/2009 | 0.0022 |  | 13/S-E-C2(s) | 5/29/2009 | 0.0024 |
| 13/G-G4(s) | 7/20/2015 | 0.0033 |  | 13/S-E-C1(s) | 10/13/2009 | 0.0021 |  | 13/S-E-C2(s) | 10/13/2009 | 0.0058 |
| 13/G-G4(s) | 10/13/2015 | 0.0048 |  | 13/S-E-C1(s) | 03/02/2010 | 0.0016 |  | 13/S-E-C2(s) | 03/02/2010 | 0.0017 |

*Table 5 - Section O1. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 13/S-E-C2(s) | 4/27/2010 | 0.0012 |  | 13/S-E-C3(s) | 7/20/2010 | 0.0025 |  | 13/S-E-C4(s) | 11/17/2009 | 0.0016 |
| 13/S-E-C2(s) | 7/20/2010 | 0.0029 |  | 13/S-E-C3(s) | 11/09/2010 | 0.0013 |  | 13/S-E-C4(s) | 03/02/2010 | 0.0017 |
| 13/S-E-C2(s) | 02/08/2011 | 0.0012 |  | 13/S-E-C3(s) | 02/08/2011 | 0.0011 |  | 13/S-E-C4(s) | 4/27/2010 | 0.0014 |
| 13/S-E-C2(s) | 04/05/2011 | 0.0009 |  | 13/S-E-C3(s) | 04/05/2011 | 0.0009 |  | 13/S-E-C4(s) | 9/13/2010 | 0.0016 |
| 13/S-E-C2(s) | 7/28/2011 | 0.0015 |  | 13/S-E-C3(s) | 07/06/2011 | 0.0012 |  | 13/S-E-C4(s) | 2/15/2011 | 0.0011 |
| 13/S-E-C2(s) | 10/12/2011 | 0.0039 |  | 13/S-E-C3(s) | 10/12/2011 | 0.0038 |  | 13/S-E-C4(s) | 04/05/2011 | 0.0014 |
| 13/S-E-C2(s) | 4/18/2012 | 0.0011 |  | 13/S-E-C3(s) | 03/12/2012 | 0.0037 |  | 13/S-E-C4(s) | 7/28/2011 | 0.0046 |
| 13/S-E-C2(s) | 8/22/2012 | 0.0011 |  | 13/S-E-C3(s) | 4/18/2012 | 0.0009 |  | 13/S-E-C4(s) | 10/12/2011 | 0.001 |
| 13/S-E-C2(s) | 10/17/2012 | 0.0015 |  | 13/S-E-C3(s) | 8/22/2012 | 0.0009 |  | 13/S-E-C4(s) | 4/18/2012 | 0.0016 |
| 13/S-E-C2(s) | 3/18/2013 | 0.0012 |  | 13/S-E-C3(s) | 10/17/2012 | 0.001 |  | 13/S-E-C4(s) | 8/22/2012 | 0.0023 |
| 13/S-E-C2(s) | 06/06/2013 | 0.0025 |  | 13/S-E-C3(s) | 3/18/2013 | 0.0021 |  | 13/S-E-C4(s) | 10/17/2012 | 0.0009 |
| 13/S-E-C2(s) | 8/29/2013 | 0.001 |  | 13/S-E-C3(s) | 5/21/2013 | 0.0037 |  | 13/S-E-C4(s) | 3/18/2013 | 0.0019 |
| 13/S-E-C2(s) | 12/12/2013 | 0.0015 |  | 13/S-E-C3(s) | 8/29/2013 | 0.001 |  | 13/S-E-C4(s) | 5/21/2013 | 0.0031 |
| 13/S-E-C2(s) | 2/26/2014 | 0.0016 |  | 13/S-E-C3(s) | 10/30/2013 | 0.0015 |  | 13/S-E-C4(s) | 8/29/2013 | 0.0019 |
| 13/S-E-C2(s) | 4/16/2014 | 0.0013 |  | 13/S-E-C3(s) | 03/03/2014 | 0.0011 |  | 13/S-E-C4(s) | 10/30/2013 | 0.0008 |
| 13/S-E-C2(s) | 7/22/2014 | 0.0016 |  | 13/S-E-C3(s) | 5/27/2014 | 0.0017 |  | 13/S-E-C4(s) | 03/03/2014 | 0.0019 |
| 13/S-E-C2(s) | 12/04/2014 | 0.002 |  | 13/S-E-C3(s) | 07/02/2014 | 0.0011 |  | 13/S-E-C4(s) | 5/27/2014 | 0.0028 |
| 13/S-E-C2(s) | 03/11/2015 | 0.0033 |  | 13/S-E-C3(s) | 12/04/2014 | 0.0019 |  | 13/S-E-C4(s) | 07/02/2014 | 0.0019 |
| 13/S-E-C2(s) | 6/25/2015 | 0.0014 |  | 13/S-E-C3(s) | 3/23/2015 | 0.0027 |  | 13/S-E-C4(s) | 12/04/2014 | 0.0033 |
| 13/S-E-C2(s) | 09/10/2015 | 0.0019 |  | 13/S-E-C3(s) | 6/24/2015 | 0.0006 |  | 13/S-E-C4(s) | 3/23/2015 | 0.0028 |
| 13/S-E-C2(s) | 12/01/2015 | 0.0025 |  | 13/S-E-C3(s) | 6/24/2015 | 0.0011 |  | 13/S-E-C4(s) | 8/19/2015 | 0.0016 |
| 13/S-E-C2(s) | 02/03/2016 | 0.0013 |  | 13/S-E-C3(s) | 8/19/2015 | 0.0016 |  | 13/S-E-C4(s) | 12/16/2015 | 0.0044 |
| 13/S-E-C2(s) | 6/15/2016 | 0.0016 |  | 13/S-E-C3(s) | 12/16/2015 | 0.0014 |  | 13/S-E-C4(s) | 02/03/2016 | 0.0014 |
| 13/S-E-C2(s) | 07/11/2016 | 0.0033 |  | 13/S-E-C3(s) | 02/03/2016 | 0.0016 |  | 13/S-E-C4(s) | 04/06/2016 | 0.0024 |
| 13/S-E-C2(s) | 12/01/2016 | 0.0023 |  | 13/S-E-C3(s) | 04/06/2016 | 0.0014 |  | 13/S-E-C4(s) | 5/18/2016 | 0.0031 |
| 13/S-E-C3(s) | 11/07/2003 | 0.0078 |  | 13/S-E-C3(s) | 5/18/2016 | 0.0014 |  | 13/S-E-C4(s) | 9/15/2016 | 0.0024 |
| 13/S-E-C3(s) | 04/06/2004 | 0.006 |  | 13/S-E-C3(s) | 9/15/2016 | 0.0017 |  | 13/S-E-C4(s) | 11/10/2016 | 0.002 |
| 13/S-E-C3(s) | 11/09/2004 | 0.0023 |  | 13/S-E-C3(s) | 11/10/2016 | 0.0009 |  | 13/S-E-C5(s) | 11/05/2003 | 0.0059 |
| 13/S-E-C3(s) | 5/19/2005 | 0.0024 |  | 13/S-E-C4(s) | 11/07/2003 | 0.0059 |  | 13/S-E-C5(s) | 4/21/2004 | 0.0018 |
| 13/S-E-C3(s) | 11/10/2005 | 0.0016 |  | 13/S-E-C4(s) | 04/06/2004 | 0.0038 |  | 13/S-E-C5(s) | 10/21/2004 | 0.0018 |
| 13/S-E-C3(s) | 05/09/2006 | 0.0011 |  | 13/S-E-C4(s) | 11/09/2004 | 0.0017 |  | 13/S-E-C5(s) | 05/09/2005 | 0.0016 |
| 13/S-E-C3(s) | 10/10/2006 | 0.0017 |  | 13/S-E-C4(s) | 5/19/2005 | 0.0022 |  | 13/S-E-C5(s) | 11/10/2005 | 0.0035 |
| 13/S-E-C3(s) | 05/03/2007 | 0.0013 |  | 13/S-E-C4(s) | 11/17/2005 | 0.0024 |  | 13/S-E-C5(s) | 05/02/2006 | 0.0025 |
| 13/S-E-C3(s) | 11/15/2007 | 0.0017 |  | 13/S-E-C4(s) | 05/09/2006 | 0.0026 |  | 13/S-E-C5(s) | 10/10/2006 | 0.0025 |
| 13/S-E-C3(s) | 5/19/2008 | 0.0015 |  | 13/S-E-C4(s) | 11/02/2006 | 0.0059 |  | 13/S-E-C5(s) | 05/03/2007 | 0.0021 |
| 13/S-E-C3(s) | 10/09/2008 | 0.0027 |  | 13/S-E-C4(s) | 5/21/2007 | 0.0039 |  | 13/S-E-C5(s) | 02/05/2008 | 0.0016 |
| 13/S-E-C3(s) | 4/29/2009 | 0.0017 |  | 13/S-E-C4(s) | 12/12/2007 | 0.0032 |  | 13/S-E-C5(s) | 5/14/2008 | 0.0017 |
| 13/S-E-C3(s) | 10/08/2009 | 0.0011 |  | 13/S-E-C4(s) | 6/18/2008 | 0.0051 |  | 13/S-E-C5(s) | 10/09/2008 | 0.0026 |
| 13/S-E-C3(s) | 03/02/2010 | 0.0013 |  | 13/S-E-C4(s) | 11/13/2008 | 0.0026 |  | 13/S-E-C5(s) | 5/20/2009 | 0.003 |
| 13/S-E-C3(s) | 4/27/2010 | 0.001 |  | 13/S-E-C4(s) | 5/29/2009 | 0.0021 |  | 13/S-E-C5(s) | 10/08/2009 | 0.001 |

*Table 5 - Section P1. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 13/S-E-C5(s) | 03/08/2010 | 0.0013 |  | 13/S-E-C6(s) | 10/08/2009 | 0.0018 |  | 13/S-E-C7(s) | 5/20/2009 | 0.0019 |
| 13/S-E-C5(s) | 4/14/2010 | 0.0014 |  | 13/S-E-C6(s) | 03/08/2010 | 0.002 |  | 13/S-E-C7(s) | 10/08/2009 | 0.0011 |
| 13/S-E-C5(s) | 7/29/2010 | 0.0011 |  | 13/S-E-C6(s) | 4/14/2010 | 0.0016 |  | 13/S-E-C7(s) | 03/08/2010 | 0.0012 |
| 13/S-E-C5(s) | 11/01/2010 | 0.0011 |  | 13/S-E-C6(s) | 7/29/2010 | 0.0014 |  | 13/S-E-C7(s) | 4/14/2010 | 0.0012 |
| 13/S-E-C5(s) | 2/15/2011 | 0.0008 |  | 13/S-E-C6(s) | 11/01/2010 | 0.0013 |  | 13/S-E-C7(s) | 7/29/2010 | 0.001 |
| 13/S-E-C5(s) | 04/12/2011 | 0.0007 |  | 13/S-E-C6(s) | 2/15/2011 | 0.0014 |  | 13/S-E-C7(s) | 11/01/2010 | 0.0008 |
| 13/S-E-C5(s) | 07/06/2011 | 0.0011 |  | 13/S-E-C6(s) | 04/12/2011 | 0.0007 |  | 13/S-E-C7(s) | 03/03/2014 | 0.0008 |
| 13/S-E-C5(s) | 10/19/2011 | 0.0019 |  | 13/S-E-C6(s) | 07/06/2011 | 0.0015 |  | 13/S-E-C7(s) | 5/27/2014 | 0.0018 |
| 13/S-E-C5(s) | 03/12/2012 | 0.0024 |  | 13/S-E-C6(s) | 10/19/2011 | 0.0033 |  | 13/S-E-C7(s) | 7/22/2014 | 0.0014 |
| 13/S-E-C5(s) | 4/18/2012 | 0.001 |  | 13/S-E-C6(s) | 03/12/2012 | 0.0022 |  | 13/S-E-C7(s) | 10/15/2014 | 0.0018 |
| 13/S-E-C5(s) | 8/22/2012 | 0.0007 |  | 13/S-E-C6(s) | 5/16/2012 | 0.0013 |  | 13/S-E-C7(s) | 03/11/2015 | 0.0012 |
| 13/S-E-C5(s) | 10/17/2012 | 0.0006 |  | 13/S-E-C6(s) | 8/22/2012 | 0.0015 |  | 13/S-E-C7(s) | 6/24/2015 | 0.0017 |
| 13/S-E-C5(s) | 3/27/2013 | 0.0011 |  | 13/S-E-C6(s) | 10/17/2012 | 0.001 |  | 13/S-E-C7(s) | 09/10/2015 | 0.0031 |
| 13/S-E-C5(s) | 06/06/2013 | 0.002 |  | 13/S-E-C6(s) | 3/27/2013 | 0.0018 |  | 13/S-E-C7(s) | 12/16/2015 | 0.0015 |
| 13/S-E-C5(s) | 8/29/2013 | 0.0011 |  | 13/S-E-C6(s) | 06/06/2013 | 0.0014 |  | 13/S-E-C7(s) | 2/17/2016 | 0.0021 |
| 13/S-E-C5(s) | 10/30/2013 | 0.001 |  | 13/S-E-C6(s) | 8/29/2013 | 0.0012 |  | 13/S-E-C7(s) | 5/18/2016 | 0.0011 |
| 13/S-E-C5(s) | 03/03/2014 | 0.0009 |  | 13/S-E-C6(s) | 10/30/2013 | 0.001 |  | 13/S-E-C7(s) | 08/08/2016 | 0.002 |
| 13/S-E-C5(s) | 5/27/2014 | 0.0014 |  | 13/S-E-C6(s) | 03/03/2014 | 0.001 |  | 13/S-E-C7(s) | 11/10/2016 | 0.0019 |
| 13/S-E-C5(s) | 7/22/2014 | 0.0012 |  | 13/S-E-C6(s) | 5/27/2014 | 0.0014 |  | 13/S-E-C8(s) | 10/23/2003 | 0.0028 |
| 13/S-E-C5(s) | 10/15/2014 | 0.0015 |  | 13/S-E-C6(s) | 7/22/2014 | 0.0017 |  | 13/S-E-C8(s) | 04/06/2004 | 0.0037 |
| 13/S-E-C5(s) | 03/11/2015 | 0.0012 |  | 13/S-E-C6(s) | 10/15/2014 | 0.0015 |  | 13/S-E-C8(s) | 10/21/2004 | 0.0013 |
| 13/S-E-C5(s) | 6/24/2015 | 0.0007 |  | 13/S-E-C6(s) | 03/11/2015 | 0.0013 |  | 13/S-E-C8(s) | 5/19/2005 | 0.0015 |
| 13/S-E-C5(s) | 8/19/2015 | 0.0017 |  | 13/S-E-C6(s) | 6/24/2015 | 0.0013 |  | 13/S-E-C8(s) | 10/18/2005 | 0.0016 |
| 13/S-E-C5(s) | 12/16/2015 | 0.0014 |  | 13/S-E-C6(s) | 09/10/2015 | 0.0021 |  | 13/S-E-C8(s) | 05/02/2006 | 0.001 |
| 13/S-E-C5(s) | 02/03/2016 | 0.0011 |  | 13/S-E-C6(s) | 12/16/2015 | 0.0021 |  | 13/S-E-C8(s) | 11/02/2006 | 0.003 |
| 13/S-E-C5(s) | 5/18/2016 | 0.0013 |  | 13/S-E-C6(s) | 2/17/2016 | 0.0019 |  | 13/S-E-C8(s) | 05/03/2007 | 0.0016 |
| 13/S-E-C5(s) | 08/08/2016 | 0.0012 |  | 13/S-E-C6(s) | 5/18/2016 | 0.0014 |  | 13/S-E-C8(s) | 12/18/2007 | 0.0021 |
| 13/S-E-C5(s) | 11/10/2016 | 0.0011 |  | 13/S-E-C6(s) | 08/08/2016 | 0.0016 |  | 13/S-E-C8(s) | 5/14/2008 | 0.0017 |
| 13/S-E-C6(s) | 11/05/2003 | 0.0043 |  | 13/S-E-C6(s) | 11/10/2016 | 0.0012 |  | 13/S-E-C8(s) | 10/09/2008 | 0.0037 |
| 13/S-E-C6(s) | 04/05/2004 | 0.0035 |  | 13/S-E-C7(s) | 10/23/2003 | 0.0036 |  | 13/S-E-C8(s) | 5/20/2009 | 0.0022 |
| 13/S-E-C6(s) | 10/21/2004 | 0.0017 |  | 13/S-E-C7(s) | 04/06/2004 | 0.0028 |  | 13/S-E-C8(s) | 10/08/2009 | 0.0024 |
| 13/S-E-C6(s) | 05/09/2005 | 0.0006 |  | 13/S-E-C7(s) | 11/09/2004 | 0.0016 |  | 13/S-E-C8(s) | 03/08/2010 | 0.0016 |
| 13/S-E-C6(s) | 10/18/2005 | 0.0018 |  | 13/S-E-C7(s) | 05/12/2005 | 0.0023 |  | 13/S-E-C8(s) | 4/27/2010 | 0.0015 |
| 13/S-E-C6(s) | 05/02/2006 | 0.0014 |  | 13/S-E-C7(s) | 11/21/2005 | 0.0017 |  | 13/S-E-C8(s) | 7/29/2010 | 0.0016 |
| 13/S-E-C6(s) | 10/10/2006 | 0.0024 |  | 13/S-E-C7(s) | 05/09/2006 | 0.0013 |  | 13/S-E-C8(s) | 11/01/2010 | 0.0014 |
| 13/S-E-C6(s) | 05/03/2007 | 0.003 |  | 13/S-E-C7(s) | 11/02/2006 | 0.0051 |  | 13/S-E-C8(s) | 2/15/2011 | 0.0008 |
| 13/S-E-C6(s) | 11/15/2007 | 0.0016 |  | 13/S-E-C7(s) | 5/27/2007 | 0.0046 |  | 13/S-E-C8(s) | 04/12/2011 | 0.0011 |
| 13/S-E-C6(s) | 5/14/2008 | 0.0025 |  | 13/S-E-C7(s) | 11/15/2007 | 0.0015 |  | 13/S-E-C8(s) | 7/28/2011 | 0.001 |
| 13/S-E-C6(s) | 10/09/2008 | 0.0059 |  | 13/S-E-C7(s) | 5/14/2008 | 0.0016 |  | 13/S-E-C8(s) | 10/19/2011 | 0.0032 |
| 13/S-E-C6(s) | 5/20/2009 | 0.0017 |  | 13/S-E-C7(s) | 10/09/2008 | 0.0031 |  | 13/S-E-C8(s) | 5/16/2012 | 0.0017 |

*Table 5 - Section Q1. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 13/S-E-C8(s) | 8/22/2012 | 0.002 |  | 13/S-P-VC10(s) | 5/25/2009 | 0.0086 |  | 13/S-P-V-C2(s) | 10/27/2009 | 0.0032 |
| 13/S-E-C8(s) | 10/17/2012 | 0.0008 |  | 13/S-P-VC10(s) | 10/28/2009 | 0.0052 |  | 13/S-P-V-C2(s) | 3/22/2010 | 0.0022 |
| 13/S-E-C8(s) | 06/06/2013 | 0.0008 |  | 13/S-P-VC10(s) | 3/19/2010 | 0.0018 |  | 13/S-P-V-C2(s) | 06/07/2010 | 0.0045 |
| 13/S-E-C8(s) | 8/29/2013 | 0.0011 |  | 13/S-P-VC10(s) | 06/07/2010 | 0.0076 |  | 13/S-P-V-C2(s) | 8/27/2010 | 0.002 |
| 13/S-E-C8(s) | 10/30/2013 | 0.0013 |  | 13/S-P-VC10(s) | 8/27/2010 | 0.006 |  | 13/S-P-V-C2(s) | 11/05/2010 | 0.0057 |
| 13/S-E-C8(s) | 03/03/2014 | 0.0014 |  | 13/S-P-VC10(s) | 11/05/2010 | 0.0113 |  | 13/S-P-V-C2(s) | 3/28/2011 | 0.002 |
| 13/S-E-C8(s) | 5/27/2014 | 0.0013 |  | 13/S-P-VC10(s) | 3/28/2011 | 0.0047 |  | 13/S-P-V-C2(s) | 6/13/2011 | 0.0031 |
| 13/S-E-C8(s) | 7/22/2014 | 0.0023 |  | 13/S-P-VC10(s) | 6/13/2011 | 0.0076 |  | 13/S-P-V-C2(s) | 9/27/2011 | 0.0054 |
| 13/S-E-C8(s) | 10/15/2014 | 0.0018 |  | 13/S-P-VC10(s) | 9/28/2011 | 0.0098 |  | 13/S-P-V-C2(s) | 11/16/2011 | 0.0029 |
| 13/S-E-C8(s) | 6/24/2015 | 0.0007 |  | 13/S-P-VC10(s) | 11/16/2011 | 0.0056 |  | 13/S-P-V-C2(s) | 3/28/2012 | 0.0031 |
| 13/S-E-C8(s) | 09/10/2015 | 0.0024 |  | 13/S-P-VC10(s) | 3/28/2012 | 0.0056 |  | 13/S-P-V-C2(s) | 5/24/2012 | 0.0029 |
| 13/S-E-C8(s) | 12/16/2015 | 0.0029 |  | 13/S-P-VC10(s) | 5/24/2012 | 0.0057 |  | 13/S-P-V-C2(s) | 9/19/2012 | 0.0027 |
| 13/S-E-C8(s) | 2/17/2016 | 0.0021 |  | 13/S-P-VC10(s) | 9/19/2012 | 0.0042 |  | 13/S-P-V-C2(s) | 12/03/2012 | 0.0013 |
| 13/S-E-C8(s) | 5/18/2016 | 0.0019 |  | 13/S-P-VC10(s) | 12/03/2012 | 0.0019 |  | 13/S-P-V-C2(s) | 3/25/2013 | 0.0013 |
| 13/S-E-C8(s) | 08/08/2016 | 0.0015 |  | 13/S-P-VC10(s) | 3/25/2013 | 0.0017 |  | 13/S-P-V-C2(s) | 06/04/2013 | 0.0014 |
| 13/S-E-C8(s) | 11/10/2016 | 0.0011 |  | 13/S-P-VC10(s) | 06/04/2013 | 0.0041 |  | 13/S-P-V-C2(s) | 9/26/2013 | 0.0029 |
| 13/S-P-VC1(s) | 10/28/2003 | 0.0026 |  | 13/S-P-VC10(s) | 9/26/2013 | 0.0038 |  | 13/S-P-V-C2(s) | 11/05/2013 | 0.0019 |
| 13/S-P-VC1(s) | 5/15/2004 | 0.0034 |  | 13/S-P-VC10(s) | 11/05/2013 | 0.0017 |  | 13/S-P-V-C2(s) | 3/18/2014 | 0.0006 |
| 13/S-P-VC1(s) | 11/23/2004 | 0.0013 |  | 13/S-P-VC10(s) | 3/18/2014 | 0.0007 |  | 13/S-P-V-C2(s) | 06/10/2014 | 0.0016 |
| 13/S-P-VC1(s) | 05/05/2005 | 0.003 |  | 13/S-P-VC10(s) | 06/10/2014 | 0.0025 |  | 13/S-P-V-C2(s) | 9/18/2014 | 0.0015 |
| 13/S-P-VC1(s) | 10/20/2005 | 0.002 |  | 13/S-P-VC10(s) | 9/18/2014 | 0.0018 |  | 13/S-P-V-C2(s) | 11/11/2014 | 0.0027 |
| 13/S-P-VC1(s) | 4/20/2006 | 0.0046 |  | 13/S-P-VC10(s) | 11/11/2014 | 0.0052 |  | 13/S-P-V-C2(s) | 06/04/2015 | 0.0018 |
| 13/S-P-VC1(s) | 10/05/2006 | 0.0022 |  | 13/S-P-VC10(s) | 06/04/2015 | 0.0029 |  | 13/S-P-V-C2(s) | 9/22/2015 | 0.0017 |
| 13/S-P-VC1(s) | 4/26/2007 | 0.004 |  | 13/S-P-VC10(s) | 9/22/2015 | 0.0047 |  | 13/S-P-V-C2(s) | 10/15/2015 | 0.0026 |
| 13/S-P-VC1(s) | 2/19/2008 | 0.0032 |  | 13/S-P-VC10(s) | 10/15/2015 | 0.0046 |  | 13/S-P-V-C2(s) | 3/15/2016 | 0.0019 |
| 13/S-P-VC1(s) | 6/17/2008 | 0.0058 |  | 13/S-P-VC10(s) | 3/29/2016 | 0.0048 |  | 13/S-P-V-C2(s) | 6/23/2016 | 0.0026 |
| 13/S-P-VC1(s) | 11/03/2008 | 0.002 |  | 13/S-P-VC10(s) | 6/23/2016 | 0.0073 |  | 13/S-P-V-C2(s) | 9/20/2016 | 0.0026 |
| 13/S-P-VC1(s) | 5/26/2009 | 0.003 |  | 13/S-P-VC10(s) | 9/20/2016 | 0.0021 |  | 13/S-P-V-C2(s) | 11/22/2016 | 0.0027 |
| 13/S-P-VC1(s) | 10/15/2009 | 0.0019 |  | 13/S-P-VC10(s) | 11/22/2016 | 0.0016 |  | 13/S-P-V-C3(s) | 12/02/2003 | 0.0061 |
| 13/S-P-VC1(s) | 04/07/2010 | 0.0023 |  | 13/S-P-V-C2(s) | 12/05/2003 | 0.0011 |  | 13/S-P-V-C3(s) | 5/20/2004 | 0.001 |
| 13/S-P-VC1(s) | 6/28/2010 | 0.0017 |  | 13/S-P-V-C2(s) | 5/24/2004 | 0.0013 |  | 13/S-P-V-C3(s) | 04/12/2005 | 0.0046 |
| 13/S-P-VC1(s) | 9/16/2010 | 0.0016 |  | 13/S-P-V-C2(s) | 10/20/2004 | 0.003 |  | 13/S-P-V-C3(s) | 10/20/2005 | 0.0055 |
| 13/S-P-VC10(s) | 5/24/2004 | 0.006 |  | 13/S-P-V-C2(s) | 5/17/2005 | 0.0011 |  | 13/S-P-V-C3(s) | 5/18/2006 | 0.0017 |
| 13/S-P-VC10(s) | 10/19/2004 | 0.007 |  | 13/S-P-V-C2(s) | 10/20/2005 | 0.0033 |  | 13/S-P-V-C3(s) | 10/17/2006 | 0.0033 |
| 13/S-P-VC10(s) | 7/26/2005 | 0.0232 |  | 13/S-P-V-C2(s) | 5/18/2006 | 0.0007 |  | 13/S-P-V-C3(s) | 5/29/2007 | 0.0025 |
| 13/S-P-VC10(s) | 5/23/2006 | 0.0032 |  | 13/S-P-V-C2(s) | 10/19/2006 | 0.0013 |  | 13/S-P-V-C3(s) | 12/10/2007 | 0.0007 |
| 13/S-P-VC10(s) | 5/28/2007 | 0.002 |  | 13/S-P-V-C2(s) | 5/29/2007 | 0.0016 |  | 13/S-P-V-C3(s) | 5/13/2008 | 0.0034 |
| 13/S-P-VC10(s) | 11/26/2007 | 0.002 |  | 13/S-P-V-C2(s) | 5/22/2008 | 0.0013 |  | 13/S-P-V-C3(s) | 1/19/2009 | 0.0042 |
| 13/S-P-VC10(s) | 5/22/2008 | 0.0045 |  | 13/S-P-V-C2(s) | 1/19/2009 | 0.0026 |  | 13/S-P-V-C3(s) | 5/21/2009 | 0.0063 |
| 13/S-P-VC10(s) | 1/19/2009 | 0.0025 |  | 13/S-P-V-C2(s) | 5/25/2009 | 0.0026 |  | 13/S-P-V-C3(s) | 10/20/2009 | 0.0083 |

*Table 5 - Section R1. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 13/S-P-V-C3(s) | 3/22/2010 | 0.0053 |  | 13/S-P-V-C5(s) | 12/02/2003 | 0.0156 |  | 13/S-P-V-C6(s) | 04/12/2005 | 0.0066 |
| 13/S-P-V-C3(s) | 6/15/2010 | 0.0082 |  | 13/S-P-V-C5(s) | 5/20/2004 | 0.01 |  | 13/S-P-V-C6(s) | 10/20/2005 | 0.0066 |
| 13/S-P-V-C3(s) | 8/18/2010 | 0.005 |  | 13/S-P-V-C5(s) | 10/19/2004 | 0.0173 |  | 13/S-P-V-C6(s) | 5/18/2006 | 0.0015 |
| 13/S-P-V-C3(s) | 10/27/2010 | 0.0052 |  | 13/S-P-V-C5(s) | 04/12/2005 | 0.0079 |  | 13/S-P-V-C6(s) | 10/19/2006 | 0.005 |
| 13/S-P-V-C4(s) | 4/27/2004 | 0.0039 |  | 13/S-P-V-C5(s) | 10/20/2005 | 0.0163 |  | 13/S-P-V-C6(s) | 5/29/2007 | 0.003 |
| 13/S-P-V-C4(s) | 10/12/2004 | 0.0022 |  | 13/S-P-V-C5(s) | 5/18/2006 | 0.003 |  | 13/S-P-V-C6(s) | 12/10/2007 | 0.0023 |
| 13/S-P-V-C4(s) | 04/12/2005 | 0.0055 |  | 13/S-P-V-C5(s) | 10/19/2006 | 0.011 |  | 13/S-P-V-C6(s) | 5/23/2008 | 0.0054 |
| 13/S-P-V-C4(s) | 10/20/2005 | 0.008 |  | 13/S-P-V-C5(s) | 5/29/2007 | 0.0044 |  | 13/S-P-V-C6(s) | 1/19/2009 | 0.0038 |
| 13/S-P-V-C4(s) | 5/18/2006 | 0.0015 |  | 13/S-P-V-C5(s) | 12/10/2007 | 0.0057 |  | 13/S-P-V-C6(s) | 5/21/2009 | 0.0025 |
| 13/S-P-V-C4(s) | 10/17/2006 | 0.0038 |  | 13/S-P-V-C5(s) | 5/23/2008 | 0.0085 |  | 13/S-P-V-C6(s) | 10/20/2009 | 0.0129 |
| 13/S-P-V-C4(s) | 5/29/2007 | 0.0018 |  | 13/S-P-V-C5(s) | 1/19/2009 | 0.0105 |  | 13/S-P-V-C6(s) | 3/22/2010 | 0.0085 |
| 13/S-P-V-C4(s) | 12/10/2007 | 0.002 |  | 13/S-P-V-C5(s) | 5/21/2009 | 0.0032 |  | 13/S-P-V-C6(s) | 6/15/2010 | 0.0129 |
| 13/S-P-V-C4(s) | 5/13/2008 | 0.0025 |  | 13/S-P-V-C5(s) | 10/20/2009 | 0.0222 |  | 13/S-P-V-C6(s) | 8/18/2010 | 0.0135 |
| 13/S-P-V-C4(s) | 1/19/2009 | 0.0019 |  | 13/S-P-V-C5(s) | 3/22/2010 | 0.0147 |  | 13/S-P-V-C6(s) | 10/27/2010 | 0.0067 |
| 13/S-P-V-C4(s) | 5/21/2009 | 0.0035 |  | 13/S-P-V-C5(s) | 6/15/2010 | 0.0174 |  | 13/S-P-V-C7(s) | 12/05/2003 | 0.0019 |
| 13/S-P-V-C4(s) | 10/20/2009 | 0.0065 |  | 13/S-P-V-C5(s) | 8/18/2010 | 0.0201 |  | 13/S-P-V-C7(s) | 5/24/2004 | 0.0015 |
| 13/S-P-V-C4(s) | 3/22/2010 | 0.0082 |  | 13/S-P-V-C5(s) | 10/27/2010 | 0.0088 |  | 13/S-P-V-C7(s) | 10/19/2004 | 0.0024 |
| 13/S-P-V-C4(s) | 6/15/2010 | 0.0071 |  | 13/S-P-V-C5(s) | 3/28/2011 | 0.0106 |  | 13/S-P-V-C7(s) | 4/19/2005 | 0.0033 |
| 13/S-P-V-C4(s) | 8/18/2010 | 0.009 |  | 13/S-P-V-C5(s) | 6/13/2011 | 0.0239 |  | 13/S-P-V-C7(s) | 5/23/2006 | 0.0093 |
| 13/S-P-V-C4(s) | 10/27/2010 | 0.0054 |  | 13/S-P-V-C5(s) | 9/28/2011 | 0.0167 |  | 13/S-P-V-C8(s) | 1/13/2004 | 0.003 |
| 13/S-P-V-C4(s) | 3/28/2011 | 0.0069 |  | 13/S-P-V-C5(s) | 11/21/2011 | 0.0103 |  | 13/S-P-V-C8(s) | 5/27/2004 | 0.0026 |
| 13/S-P-V-C4(s) | 6/13/2011 | 0.0121 |  | 13/S-P-V-C5(s) | 3/28/2012 | 0.0152 |  | 13/S-P-V-C8(s) | 10/21/2004 | 0.0081 |
| 13/S-P-V-C4(s) | 9/28/2011 | 0.01 |  | 13/S-P-V-C5(s) | 6/26/2012 | 0.0049 |  | 13/S-P-V-C8(s) | 5/19/2005 | 0.0069 |
| 13/S-P-V-C4(s) | 11/21/2011 | 0.0042 |  | 13/S-P-V-C5(s) | 9/19/2012 | 0.0054 |  | 13/S-P-V-C8(s) | 10/24/2005 | 0.0121 |
| 13/S-P-V-C4(s) | 3/28/2012 | 0.0068 |  | 13/S-P-V-C5(s) | 11/06/2012 | 0.0088 |  | 13/S-P-V-C8(s) | 5/23/2006 | 0.0032 |
| 13/S-P-V-C4(s) | 6/26/2012 | 0.0029 |  | 13/S-P-V-C5(s) | 3/19/2013 | 0.0036 |  | 13/S-P-V-C8(s) | 10/24/2006 | 0.0034 |
| 13/S-P-V-C4(s) | 9/19/2012 | 0.0035 |  | 13/S-P-V-C5(s) | 06/04/2013 | 0.0077 |  | 13/S-P-V-C8(s) | 5/28/2007 | 0.0043 |
| 13/S-P-V-C4(s) | 11/06/2012 | 0.0068 |  | 13/S-P-V-C5(s) | 9/26/2013 | 0.006 |  | 13/S-P-V-C8(s) | 11/26/2007 | 0.0033 |
| 13/S-P-V-C4(s) | 3/19/2013 | 0.0023 |  | 13/S-P-V-C5(s) | 11/05/2013 | 0.0018 |  | 13/S-P-V-C8(s) | 5/25/2009 | 0.0081 |
| 13/S-P-V-C4(s) | 06/04/2013 | 0.0029 |  | 13/S-P-V-C5(s) | 3/26/2014 | 0.0026 |  | 13/S-P-V-C8(s) | 10/28/2009 | 0.0055 |
| 13/S-P-V-C4(s) | 9/26/2013 | 0.0039 |  | 13/S-P-V-C5(s) | 06/10/2014 | 0.005 |  | 13/S-P-V-C8(s) | 3/19/2010 | 0.0029 |
| 13/S-P-V-C4(s) | 11/05/2013 | 0.0031 |  | 13/S-P-V-C5(s) | 9/18/2014 | 0.0035 |  | 13/S-P-V-C8(s) | 06/07/2010 | 0.0093 |
| 13/S-P-V-C4(s) | 3/18/2014 | 0.0011 |  | 13/S-P-V-C5(s) | 11/11/2014 | 0.0058 |  | 13/S-P-V-C8(s) | 08/11/2010 | 0.0145 |
| 13/S-P-V-C4(s) | 06/10/2014 | 0.0022 |  | 13/S-P-V-C5(s) | 3/24/2015 | 0.0039 |  | 13/S-P-V-C8(s) | 11/05/2010 | 0.0064 |
| 13/S-P-V-C4(s) | 9/18/2014 | 0.0037 |  | 13/S-P-V-C5(s) | 06/04/2015 | 0.0052 |  | 13/S-P-V-C9(s) | 1/13/2004 | 0.0053 |
| 13/S-P-V-C4(s) | 11/11/2014 | 0.0049 |  | 13/S-P-V-C5(s) | 9/22/2015 | 0.0115 |  | 13/S-P-V-C9(s) | 5/27/2004 | 0.0076 |
| 13/S-P-V-C4(s) | 3/24/2015 | 0.0026 |  | 13/S-P-V-C5(s) | 10/15/2015 | 0.0112 |  | 13/S-P-V-C9(s) | 10/21/2004 | 0.0051 |
| 13/S-P-V-C4(s) | 06/04/2015 | 0.0035 |  | 13/S-P-V-C6(s) | 12/02/2003 | 0.0055 |  | 13/S-P-V-C9(s) | 4/19/2005 | 0.0112 |
| 13/S-P-V-C4(s) | 9/22/2015 | 0.0074 |  | 13/S-P-V-C6(s) | 5/20/2004 | 0.0045 |  | 13/S-P-V-C9(s) | 10/24/2005 | 0.0155 |
| 13/S-P-V-C4(s) | 10/15/2015 | 0.0071 |  | 13/S-P-V-C6(s) | 11/12/2004 | 0.0042 |  | 13/S-P-V-C9(s) | 5/23/2006 | 0.0039 |

*Table 5 - Section S1. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 13/S-P-V-C9(s) | 10/24/2006 | 0.0067 |  | 13/SU16(s) | 07/05/2016 | 0.0054 |  | 13/G-G5(s) | 3/21/2016 | 0.0032 |
| 13/S-P-V-C9(s) | 5/28/2007 | 0.0029 |  | 13/SU16(s) | 11/17/2016 | 0.0101 |  | 13/G-G5(s) | 6/15/2016 | 0.0019 |
| 13/S-P-V-C9(s) | 5/22/2008 | 0.0069 |  | 13/G-G5(s) | 10/17/2003 | 0.0057 |  | 13/G-G5(s) | 9/13/2016 | 0.0043 |
| 13/S-P-V-C9(s) | 1/19/2009 | 0.008 |  | 13/G-G5(s) | 04/03/2004 | 0.0093 |  | 13/G-G5(s) | 10/17/2016 | 0.005 |
| 13/S-P-V-C9(s) | 5/25/2009 | 0.0129 |  | 13/G-G5(s) | 11/25/2004 | 0.0032 |  | 13/SU42(p) | 03/04/2010 | 0.0059 |
| 13/S-P-V-C9(s) | 10/28/2009 | 0.0176 |  | 13/G-G5(s) | 4/28/2005 | 0.007 |  | 13/SU42(p) | 6/23/2010 | 0.0026 |
| 13/S-P-V-C9(s) | 3/19/2010 | 0.0159 |  | 13/G-G5(s) | 10/27/2005 | 0.0067 |  | 13/SU42(p) | 8/25/2010 | 0.005 |
| 13/S-P-V-C9(s) | 06/07/2010 | 0.0143 |  | 13/G-G5(s) | 4/19/2006 | 0.0027 |  | 13/SU42(p) | 11/25/2010 | 0.0044 |
| 13/S-P-V-C9(s) | 08/11/2010 | 0.0143 |  | 13/G-G5(s) | 10/05/2006 | 0.0074 |  | 13/SU42(p) | 2/17/2011 | 0.007 |
| 13/S-P-V-C9(s) | 11/05/2010 | 0.0175 |  | 13/G-G5(s) | 05/02/2007 | 0.0045 |  | 13/SU42(p) | 6/23/2011 | 0.0077 |
| 13/SU16(s) | 04/01/2010 | 0.0086 |  | 13/G-G5(s) | 11/20/2007 | 0.0042 |  | 13/G-G6(s) | 10/18/2003 | 0.0059 |
| 13/SU16(s) | 6/17/2010 | 0.0039 |  | 13/G-G5(s) | 5/28/2008 | 0.0055 |  | 13/G-G6(s) | 04/03/2004 | 0.0038 |
| 13/SU16(s) | 8/25/2010 | 0.007 |  | 13/G-G5(s) | 10/27/2008 | 0.0055 |  | 13/G-G6(s) | 11/25/2004 | 0.0008 |
| 13/SU16(s) | 11/25/2010 | 0.0027 |  | 13/G-G5(s) | 05/05/2009 | 0.0084 |  | 13/G-G6(s) | 05/05/2005 | 0.0022 |
| 13/SU16(s) | 03/03/2011 | 0.0023 |  | 13/G-G5(s) | 10/06/2009 | 0.003 |  | 13/G-G6(s) | 10/27/2005 | 0.0064 |
| 13/SU16(s) | 05/05/2011 | 0.0026 |  | 13/G-G5(s) | 2/24/2010 | 0.0014 |  | 13/G-G6(s) | 4/19/2006 | 0.0025 |
| 13/SU16(s) | 9/28/2011 | 0.0008 |  | 13/G-G5(s) | 05/12/2010 | 0.0023 |  | 13/G-G6(s) | 10/05/2006 | 0.0023 |
| 13/SU16(s) | 11/30/2011 | 0.0049 |  | 13/G-G5(s) | 08/03/2010 | 0.0039 |  | 13/G-G6(s) | 05/02/2007 | 0.0018 |
| 13/SU16(s) | 3/26/2012 | 0.0044 |  | 13/G-G5(s) | 10/14/2010 | 0.0029 |  | 13/G-G6(s) | 11/20/2007 | 0.0016 |
| 13/SU16(s) | 5/23/2012 | 0.0027 |  | 13/G-G5(s) | 2/17/2011 | 0.002 |  | 13/G-G6(s) | 5/28/2008 | 0.0024 |
| 13/SU16(s) | 09/11/2012 | 0.015 |  | 13/G-G5(s) | 6/16/2011 | 0.0039 |  | 13/G-G6(s) | 10/27/2008 | 0.0022 |
| 13/SU16(s) | 12/11/2012 | 0.0027 |  | 13/G-G5(s) | 7/21/2011 | 0.003 |  | 13/G-G6(s) | 05/05/2009 | 0.0027 |
| 13/SU16(s) | 1/30/2013 | 0.0031 |  | 13/G-G5(s) | 11/01/2011 | 0.0036 |  | 13/G-G6(s) | 10/06/2009 | 0.0028 |
| 13/SU16(s) | 04/10/2013 | 0.0024 |  | 13/G-G5(s) | 3/19/2012 | 0.0025 |  | 13/G-G6(s) | 2/24/2010 | 0.0014 |
| 13/SU16(s) | 07/03/2013 | 0.002 |  | 13/G-G5(s) | 5/23/2012 | 0.0024 |  | 13/G-G6(s) | 06/01/2010 | 0.0015 |
| 13/SU16(s) | 10/10/2013 | 0.0033 |  | 13/G-G5(s) | 8/29/2012 | 0.0027 |  | 13/G-G6(s) | 08/03/2010 | 0.0013 |
| 13/SU16(s) | 2/19/2014 | 0.003 |  | 13/G-G5(s) | 11/26/2012 | 0.002 |  | 13/G-G6(s) | 10/14/2010 | 0.001 |
| 13/SU16(s) | 06/11/2014 | 0.0031 |  | 13/G-G5(s) | 02/06/2013 | 0.0023 |  | 13/G-G6(s) | 11/01/2011 | 0.0017 |
| 13/SU16(s) | 08/06/2014 | 0.0278 |  | 13/G-G5(s) | 5/27/2013 | 0.0034 |  | 13/G-G6(s) | 2/17/2011 | 0.0011 |
| 13/SU16(s) | 9/16/2014 | 0.0155 |  | 13/G-G5(s) | 9/17/2013 | 0.0052 |  | 13/G-G6(s) | 6/16/2011 | 0.0013 |
| 13/SU16(s) | 11/13/2014 | 0.0198 |  | 13/G-G5(s) | 10/14/2013 | 0.0025 |  | 13/G-G6(s) | 7/21/2011 | 0.0012 |
| 13/SU16(s) | 1/29/2015 | 0.0268 |  | 13/G-G5(s) | 1/21/2014 | 0.0033 |  | 13/G-G6(s) | 3/19/2012 | 0.0008 |
| 13/SU16(s) | 2/19/2015 | 0.0145 |  | 13/G-G5(s) | 2/19/2014 | 0.0023 |  | 13/G-G6(s) | 5/23/2012 | 0.0011 |
| 13/SU16(s) | 3/17/2015 | 0.0164 |  | 13/G-G5(s) | 4/23/2014 | 0.0037 |  | 13/G-G6(s) | 8/29/2012 | 0.0009 |
| 13/SU16(s) | 6/29/2015 | 0.0085 |  | 13/G-G5(s) | 9/16/2014 | 0.0031 |  | 13/G-G6(s) | 11/26/2012 | 0.0008 |
| 13/SU16(s) | 7/15/2015 | 0.0032 |  | 13/G-G5(s) | 12/10/2014 | 0.0041 |  | 13/G-G6(s) | 1/30/2013 | 0.0026 |
| 13/SU16(s) | 08/05/2015 | 0.0128 |  | 13/G-G5(s) | 2/19/2015 | 0.0046 |  | 13/G-G6(s) | 04/10/2013 | 0.0008 |
| 13/SU16(s) | 10/07/2015 | 0.0256 |  | 13/G-G5(s) | 4/28/2015 | 0.0044 |  | 13/G-G6(s) | 07/03/2013 | 0.0011 |
| 13/SU16(s) | 1/21/2016 | 0.0036 |  | 13/G-G5(s) | 09/01/2015 | 0.0055 |  | 13/G-G6(s) | 10/14/2013 | 0.001 |
| 13/SU16(s) | 04/12/2016 | 0.0125 |  | 13/G-G5(s) | 10/19/2015 | 0.006 |  | 13/G-G6(s) | 2/19/2014 | 0.0009 |

*Table 5 - Section T1. CO2 fugacity values computed on water points from ARPA network of Central Italy*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |  | Sample | Date | fCO2(g) |
|  |  |  |  |  |  |  |  |  |  |  |
| 13/G-G6(s) | 6/26/2014 | 0.0013 |  |  |  |  |  |  |  |  |
| 13/G-G6(s) | 9/23/2014 | 0.0013 |  |  |  |  |  |  |  |  |
| 13/G-G6(s) | 12/10/2014 | 0.0017 |  |  |  |  |  |  |  |  |
| 13/G-G6(s) | 4/28/2015 | 0.0018 |  |  |  |  |  |  |  |  |
| 13/G-G6(s) | 10/19/2015 | 0.0017 |  |  |  |  |  |  |  |  |
| 13/G-G6(s) | 3/21/2016 | 0.0024 |  |  |  |  |  |  |  |  |
| 13/G-G6(s) | 6/15/2016 | 0.001 |  |  |  |  |  |  |  |  |
| 13/G-G6(s) | 11/24/2016 | 0.0014 |  |  |  |  |  |  |  |  |
| 13/SU9(s) | 6/15/2006 | 0.0038 |  |  |  |  |  |  |  |  |
| 13/TIR3(s) | 6/13/2006 | 0.0088 |  |  |  |  |  |  |  |  |
| 13/TIR3(s) | 10/05/2006 | 0.0191 |  |  |  |  |  |  |  |  |
| 13/TIR3(s) | 05/07/2007 | 0.0133 |  |  |  |  |  |  |  |  |
| 13/TIR3(s) | 9/27/2007 | 0.0088 |  |  |  |  |  |  |  |  |
| 13/TIR3(s) | 08/05/2008 | 0.0106 |  |  |  |  |  |  |  |  |
| 13/TIR3(s) | 11/10/2008 | 0.0086 |  |  |  |  |  |  |  |  |
| 13/TIR3(s) | 06/11/2009 | 0.007 |  |  |  |  |  |  |  |  |
| 13/TIR3(s) | 9/16/2009 | 0.0125 |  |  |  |  |  |  |  |  |
| 13/TIR3(s) | 2/16/2010 | 0.0111 |  |  |  |  |  |  |  |  |
| 13/TIR3(s) | 4/29/2010 | 0.007 |  |  |  |  |  |  |  |  |
| 13/TIR3(s) | 07/05/2010 | 0.0096 |  |  |  |  |  |  |  |  |
| 13/TIR3(s) | 10/18/2010 | 0.0044 |  |  |  |  |  |  |  |  |
| 13/TIR3(s) | 2/14/2011 | 0.0093 |  |  |  |  |  |  |  |  |
| 13/TIR3(s) | 04/11/2011 | 0.0108 |  |  |  |  |  |  |  |  |
| 13/TIR3(s) | 07/11/2011 | 0.0046 |  |  |  |  |  |  |  |  |
| 13/TIR3(s) | 10/24/2011 | 0.0181 |  |  |  |  |  |  |  |  |

*Table 6. Descriptive statistics of selected manifestations that showed anomalies over the observation period 2004-2017. The number of analyses with values out of the interval Average ± 2 (per total number of available analyses) is given in the column “Anomalies / total analyses”*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *Manifestation* | *Minimum* | *Average* | *Maximum* | *2* | *Anomalies / total analyses* |
|  |  |  |  |  |  |
| CFCA1 | 0.002 | 0.008 | 0.025 | 0.012 | 1/13 |
| CFCA3 | 0.003 | 0.013 | 0.049 | 0.026 | 1/13 |
| CFCA5 | 0.005 | 0.013 | 0.032 | 0.018 | 1/13 |
| CFCA6 | 0.004 | 0.017 | 0.042 | 0.020 | 1/13 |
| CM1S | 0.001 | 0.006 | 0.015 | 0.006 | 3/39 |
| FOSA5 | 0.005 | 0.019 | 0.042 | 0.020 | 1/13 |
| FOSA6 | 0.002 | 0.020 | 0.049 | 0.024 | 1/13 |
| FU2 | 0.003 | 0.013 | 0.040 | 0.014 | 1/37 |
| FU20 | 0.007 | 0.014 | 0.029 | 0.010 | 1/21 |
| FU21 | 0.003 | 0.014 | 0.040 | 0.018 | 1/20 |
| GSS24 | 0.002 | 0.009 | 0.018 | 0.008 | 2/40 |
| GSS26 | 0.009 | 0.012 | 0.023 | 0.008 | 3/41 |
| ML1 | 0.002 | 0.005 | 0.011 | 0.004 | 4/41 |
| MR2 | 0.004 | 0.018 | 0.041 | 0.014 | 1/33 |