

Lab 5 did the best job of consistently maintaining the 10.0% CO₂ in the leaching columns for all 5 rock types as shown in Table 7.2. Labs 2, 4, 6 and 7 usually measured CO₂ amounts far less than the 10% target value as shown by the monthly median values in Table 7.2. Lab 3 frequently exceeded the 10% CO₂ target gas mixture, which could result in higher alkalinity concentrations in laboratory leaching than the actual mine environment. Labs 2 and 7 occasionally met the 10% CO₂ target.

Table 7.2. Median CO₂ content in leaching columns (percent).

		Lab 2		Lab 3		Lab 4		Lab 5		Lab 6		Lab 7	
		C1	C2	C1	C2	C1	C2	C1	C2	C1	C2	C1	C2
HCS- IN	Jan.	7.5	8.5	11.7	13.8	5.3	5.8	10.5	10.5	-	-	7.0	7.0
	Feb.	4.0	4.0	12.0	12.0	5.0	5.0	10.5	10.5	2.5	2.0	7.0	6.5
	Mar.	5.5	4.0	6.0	10.0	5.0	5.0	10.3	10.6	2.5	2.3	6.0	6.0
	Apr.	4.0	4.0	9.0	8.0	5.3	5.0	10.5	10.3	2.8	3.0	5.5	5.3
LKFC- PA	Jan.	7.5	5.3	12.9	14.1	6.0	5.75	10.5	10.5	-	-	7.0	7.0
	Feb.	3.5	3.0	11.0	11.0	5.5	5.0	10.5	10.3	2.0	2.0	7.5	6.5
	Mar.	3.0	3.5	10.0	10.0	5.0	5.0	10.0	10.0	1.8	2.0	6.0	6.5
	Apr.	3.0	2.5	9.0	9.3	5.3	5.3	10.3	10.0	2.8	3.0	5.5	5.5
KBF- WV	Jan.	7.5	7.5	16.2	13.7	6.0	5.8	9.5	8.0	-	-	7.0	7.0
	Feb.	5.0	4.0	11.5	12.5	5.0	5.0	10.5	9.0	3.0	3.5	7.0	7.8
	Mar.	3.5	3.5	10.0	10.0	5.0	5.0	10.3	8.5	1.5	1.0	5.0	5.5
	Apr.	3.0	3.0	9.0	10.0	5.0	5.0	10.2	9.5	2.5	1.5	5.0	5.5
BCS ₃ - PA	Jan.	8.3	8.0	8.3	12.2	5.5	5.5	8.5	7.0	-	-	6.0	6.5
	Feb.	5.0	3.5	11.0	12.0	5.0	5.0	9.8	7.5	3.5	3.5	6.0	6.5
	Mar.	4.0	3.5	10.0	10.0	5.0	5.0	9.5	8.0	2.5	2.3	6.0	6.0
	Apr.	3.0	3.5	9.0	10.0	5.0	5.0	9.8	8.5	3.3	3.0	6.0	6.0
MKSS- PA	Jan.	6.0		12.3		4.8		9.0		-		7.5	
	Feb.	4.0		12.0		4.0		9.5		2.5		7.0	
	Mar.	3.0		10.0		4.0		9.0		2.5		5.5	
	Apr.	4.0		10.0		4.3		9.0		4.0		5.5	

The variations in CO₂ values within and between labs are shown in boxplots in Figure 7.5. The boxplots show that Labs 3 and 5 did the best job of controlling the CO₂ near to the 10% target value. Lab 3 had a median CO₂ content of 10.0%, but the spread from the median to the upper quartile is from 10 to 12%, and there are a few CO₂ values greater than 12%. Lab 5 had a median of 9%, and the interquartile range is smaller than Lab 3, with fewer values exceeding the target of 10%.