1
00:00:12,150 --> 00:00:10,150
[Music]

2
00:00:14,390 --> 00:00:12,160
billions of years ago mars was able to

3
00:00:16,390 --> 00:00:14,400
have highly explosive volcanism and it's

4
00:00:18,470 --> 00:00:16,400
not just a one-off but we had many

5
00:00:20,950 --> 00:00:18,480
episodes of highly explosive volcanism

6
00:00:22,950 --> 00:00:20,960
in a sort of short geologic window two

7
00:00:25,109 --> 00:00:22,960
folks found these things that look like

8
00:00:26,550 --> 00:00:25,119
impact craters in arabia terra but

9
00:00:27,910 --> 00:00:26,560
they're missing some features and they

10
00:00:29,509 --> 00:00:27,920
have some different features that

11
00:00:41,270 --> 00:00:29,519
actually make them look more like

12
00:00:46,150 --> 00:00:43,670
on earth we can't actually see this far

13
00:00:48,310 --> 00:00:46,160

in the past in many places because we

14
00:00:51,029 --> 00:00:48,320
have erosion on earth so we don't have

15
00:00:53,750 --> 00:00:51,039
access to a great geologic record for

16
00:00:55,510 --> 00:00:53,760
three billion years ago on earth on mars

17
00:00:57,910 --> 00:00:55,520
we can see that

18
00:01:01,110 --> 00:00:57,920
we're trying to understand just how

19
00:01:03,029 --> 00:01:01,120
large explosions or large lava flows on

20
00:01:08,550 --> 00:01:03,039
places like earth but also other planets

21
00:01:13,910 --> 00:01:11,350
so we know from just the last century

22
00:01:15,990 --> 00:01:13,920
the very large volcanoes do have a

23
00:01:17,990 --> 00:01:16,000
climate impact this tells us something

24
00:01:19,990 --> 00:01:18,000
really important about the history of