



1  
00:00:07,310 --> 00:00:04,289  
that's what we call I so chemical

2  
00:00:09,630 --> 00:00:07,320  
weathering what happens there is that

3  
00:00:11,940 --> 00:00:09,640  
you have this acidic vapor that's

4  
00:00:14,730 --> 00:00:11,950  
altering the rock and if there's enough

5  
00:00:17,250 --> 00:00:14,740  
acidity there too and water to alter the

6  
00:00:19,110 --> 00:00:17,260  
rock to a bunch of other minerals not

7  
00:00:22,430 --> 00:00:19,120  
enough water to wash it anything away

8  
00:00:24,780 --> 00:00:22,440  
and so basically what happens is that

9  
00:00:26,580 --> 00:00:24,790  
you're altering the rock inside you're

10  
00:00:28,290 --> 00:00:26,590  
altering the entire rock to the extent

11  
00:00:29,790 --> 00:00:28,300  
that water does wick to the surface and

12  
00:00:31,140 --> 00:00:29,800  
evaporate you form a crust on the

13  
00:00:33,120 --> 00:00:31,150

outside that's actually a little more

14

00:00:34,560 --> 00:00:33,130

resistant because it's got that salt

15

00:00:36,810 --> 00:00:34,570

component its evaporated and

16

00:00:38,459 --> 00:00:36,820

precipitated so you end up with this

17

00:00:40,139 --> 00:00:38,469

rock that's completely altered its

18

00:00:41,790 --> 00:00:40,149

softer on the inside than on the surface

19

00:00:44,279 --> 00:00:41,800

and then as you see as it starts to fall

20

00:00:46,049 --> 00:00:44,289

apart you see the soft inside that

21

00:00:49,079 --> 00:00:46,059

crusty surface forming that interesting

22

00:00:50,970 --> 00:00:49,089

pattern that we see these on Mars we

23

00:00:52,950 --> 00:00:50,980

found them and it's evidence that you've

24

00:00:55,049 --> 00:00:52,960

had water activity but at a very low

25

00:00:56,579 --> 00:00:55,059

abundance of water just enough to alter

26

00:00:58,380 --> 00:00:56,589

this stuff but not to carry away the

27

00:01:01,349 --> 00:00:58,390

more soluble things that have been

28

00:01:03,000 --> 00:01:01,359

formed in the alteration process and you

29

00:01:04,680 --> 00:01:03,010

see that a lot of Death Valley to it's