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UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

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Craters of the Moon National Monument

N-22
FILE NO. N48

REPORT ON A BAKPACK TRIP TO SOUTH END OF MONUMENT, September 12-15, 1960

David C. Ochsner
Chief Park Naturalist

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IN REPLY REFER TO:
N48

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
Craters of the Moon National Monument
Arco, Idaho

September 19, 1960

Memorandum

To: Superintendent, Craters of the Moon

From: Chief Park Naturalist, Craters of the Moon

Subject: Backpack Trip to South End of Monument, September 12-15

On Monday morning, Ranger-Naturalist Sanchez and I left headquarters about 8:00 a.m. and drove to the west side of Echo Crater. From Echo Crater we hiked southeast through the saddle between the Watchman and Sentinel, around the east flank of Split Butte, and arrived at Sheep Trail Butte about 11:30 a.m.

This route to Sheep Trail Butte is quite easy because there is a minimum of lava flows to cross -- therefore very little "lava hopping". Total hiking time (with packs) was slightly over two hours, not counting rest and photographic stops.

On arrival at the Limbert Camp on the east side of Sheep Trail Butte, Mr. Sanchez and I immediately checked the waterhole in the butte to determine if we would be able to establish our camp. The waterhole was filled with clear, cold water. Therefore this is undoubtedly a very reliable water source for overnight trips in this area.

After lunch we climbed Fissure Butte to get a "bird's-eye" view of the surrounding country and to take photographs. On our return to camp, we collected the single sheep (bighorn) horn that Mr. Sanchez found in June, 1959 between Fissure and Sheep Trail Buttes. After dinner we walked around the rim of Sheep Trail Butte, primarily to get some evening shots of the nested craters in the butte.

For the benefit of future backpackers in this area, the Limbert Camp has a wood stove fashioned from a washtub. This stove effects a marked saving on water because the cooking pots are not blackened. The wood supply in the vicinity of the camp is sufficient for many years.

On Tuesday, we hiked southeast along the rift, visiting Vermillion Chasm and the spatter vents southeast thereof. Many photographs were taken for the monument files. In the afternoon we looked for and found the southeast corner of the monument. The brasscap on this corner was labeled incorrectly, and an attempt was made to correct it by the General Land Office survey party. However, we did confirm this 1/4 corner by walking a half mile north to section corner of sections $\frac{13 \mid 18}{24 \mid 19}$.

From this point we hiked west toward Two Point Butte and on the way met John Murtaugh who had hiked down Tuesday morning (Mr. Murtaugh was sick on Monday, so could not accompany us). We all then proceeded back toward camp along the Great Rift. On the way we checked the ice caves and waterholes shown on the topographic map southeast of Vermillion Chasm. These waterholes occur in fissures which are very difficult to enter, but they do contain great quantities of water and ice. The waterhole opposite the reputed Powell-Ferris Marker is the easiest to enter (through a spatter vent on a fissure), but to get reasonably pure water requires flashlight or lantern. A person could probably also resort to using a small bucket and rope to obtain water from some of these waterholes. Judging from the debris on the surface of the water, birds and small mammals use the exposed waterholes very extensively.

Mr. Murtaugh explored the area northwest of Two Point Butte on Wednesday while Mr. Sanchez and I hiked southeast to Blacktail Butte. It took us roughly three hours to reach this butte -- much of the terrain is over a broken-up pahoehoe flow containing many thermal cracks and rather deep fissures. On the return trip we went about 3/4 of a mile to the west and avoided crossing much of this rough flow.

About one mile northwest of Blacktail Butte, we encountered the magnificent fissure which extends through and beyond this butte. This fissure is capped by an extensive series of brilliant and varied spatter cones and ramparts ranging in size down to 18" high by 12" in diameter. The northern end of this fissure contains ice and water which could be obtained with difficulty. Again, a 30-foot rope and small bucket would prove helpful. This waterhole is marked with a cairn.

The terrain rises abruptly over smooth pahoehoe containing large contraction cracks. Many limber pines and junipers grow on the flows immediately around the butte. By hiking the easiest route into the cone, we arrived on a smooth, level pahoehoe flow surrounded on three sides by cinder slopes. The chain of spatter vents continues along the east side of the lava flow advancing up the slopes.

Some evidence of Indian occupation was collected. Two unfinished points were found, along with chert and volcanic glass chips.

This is an excellent camping spot because a waterhole is present in one of the spatter vents above the upper end of the lava flow. The water is cold and was the best tasting water we obtained on the entire trip. The water is at the end of a slight downward crawl of about 20 feet -- a flashlight or candle is almost a necessity. In early summer the water level is probably much higher.

The next vent south in the cone also contains a waterhole, but this was not investigated. However, more evidence of Indian occupation was gathered here, including one potsherd.

From this vent we climbed to the rim of the cone. The rift southeastward is offset slightly to the east but parallel with the one extending northwest. Because a thunderstorm was moving toward us, we did not linger on the rim. The return hike took less than 2½ hours because we selected easier terrain to cross.

We were very impressed with the features in and around Blacktail Butte. The fissure system is unusually striking, and we do not believe a similar combination of features is presently within the monument. It is our considered opinion that this area is definitely worthy of inclusion in the monument. This possibility should be investigated.

Thursday morning we hiked back to Echo Crater, traveling to the west of the Sentinel, and arrived at headquarters about 12:30 p.m.

Other than several Clark's Nutcrackers and a couple of chipmunks, we did not observe any wildlife.

David C. Ochsner

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Chief Park Naturalist

SEPT 1960

The north flow from the Watchman.
Negative No. 584

SEPT 1960

Preparing dinner at the Limbert Camp. This "stove" was left at the camp for the use of future trips in this area. Neg. No. 599.

SEPT 1960

The view north along the Great Rift from the summit of Fissure Butte. Neg. No. 587

SEPT 1960

The view south along the Great Rift from the summit of Fissure Butte. Sheep Trail Butte on left, Two Point on right and Blacktail butte in Horizon. Neg. No. 597.

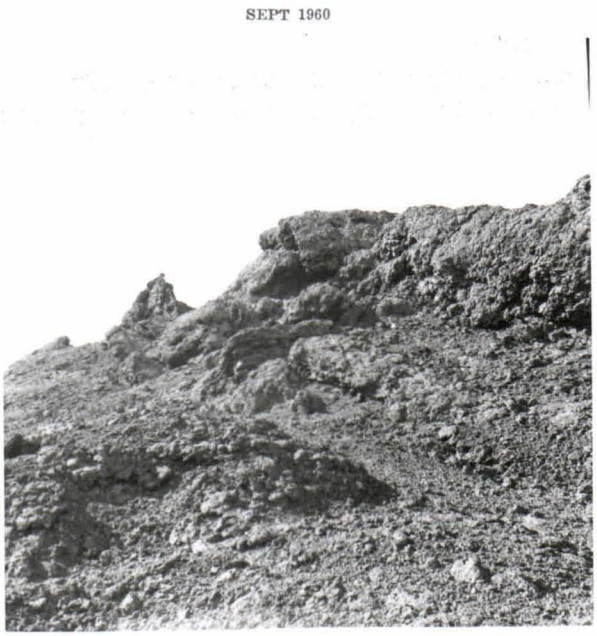
From the summit of Sheep Trail Butte, Fissure Butte is seen toward the north. Neg. No. 590.

To the south of Sheep Trail Butte is Two Point Butte. Sheep Trail Butte contains many nested craters. Neg. No. 591

Vermillion Chasm from the north. Neg. No. 598.

A spatter vent in the interior of Vermillion Chasm. Neg. No. 583.

The numerous piles of spatter in Vermillion Chasm are brilliant and fresh looking. Neg. No. 601.



Vermillion Chasm is a trough surrounded by spatter ramparts. Neg. No. 600.

SEPT 1960

To the north over Vermillion Chasm lie the Pioneer Mountains in the haze. Neg. No. 613.

SEPT 1960

Spatter ramparts and deep fissures lie to the south of Vermillion Chasm. Neg. No. 608.

SEPT 1960

Approaching a spatter rampart south of Vermillion Chasm. Neg. No. 607.

SEPT 1960

A closer view of the above pictured rampart. Neg. No. 606.

SEPT 1960

The reputed Powell-Ferris marker south of Vermillion Chasm. Water was available in deep fissures about 100 yards from the marker. Neg. No. 610.

SEPT 1960

Pete Sanchez checks the GLO survey stake on the southeast corner of the monument. Neg. No. 612.

SEPT 1960

From the north end of the Blacktail Butte fissure the cones of the monument are barely visible. Neg. No. 594.

SEPT 1960

Junipers abound near the south boundary of the monument. Neg. No. 611.

SEPT 1960

Looking southeast along the Blacktail Butte fissure. Water is available near this point. Neg. No. 602.

SEPT 1960

A closer view of the north side of Blacktail Butte. Neg. No. 592.

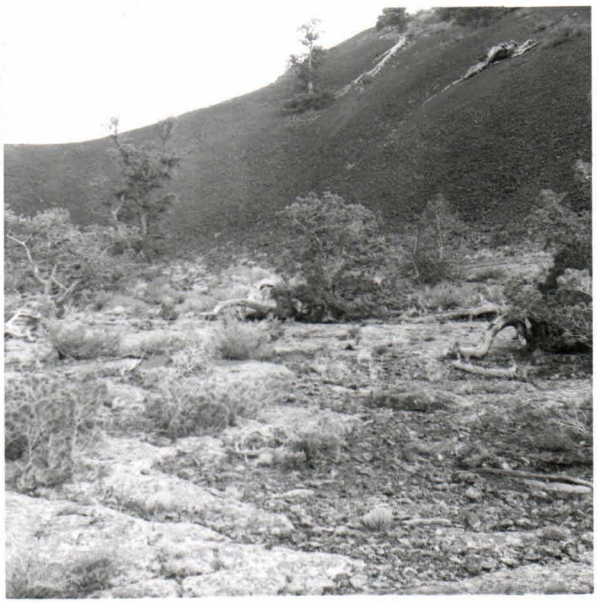
SEPT 1960

A breached spatter cone north of Blacktail Butte. Neg No. 605.

SEPT 1960

Spatter ramparts on the Blacktail Butte fissure. Neg. No. 604.

SEPT 1960



This flat, smooth pahoehoe flow in one of the vents of Blacktail Butte contains evidence of Indian occupation. Neg. No. 589.

SEPT 1960

Spatter vents and fissures extend into the cinder piles of Blacktail Butte. This fissure contains clear, cold water. Neg. No. 588.

SEPT 1960

Looking down onto the spatter vent that contains water and the archeological site in Blacktail Butte. Neg. No. 596.

SEPT 1960

A second vent in Blacktail Butte contained an extension of the fissure over which were large, brilliant walls of spatter. A second water hole is in this vent. Neg. No. 593.