

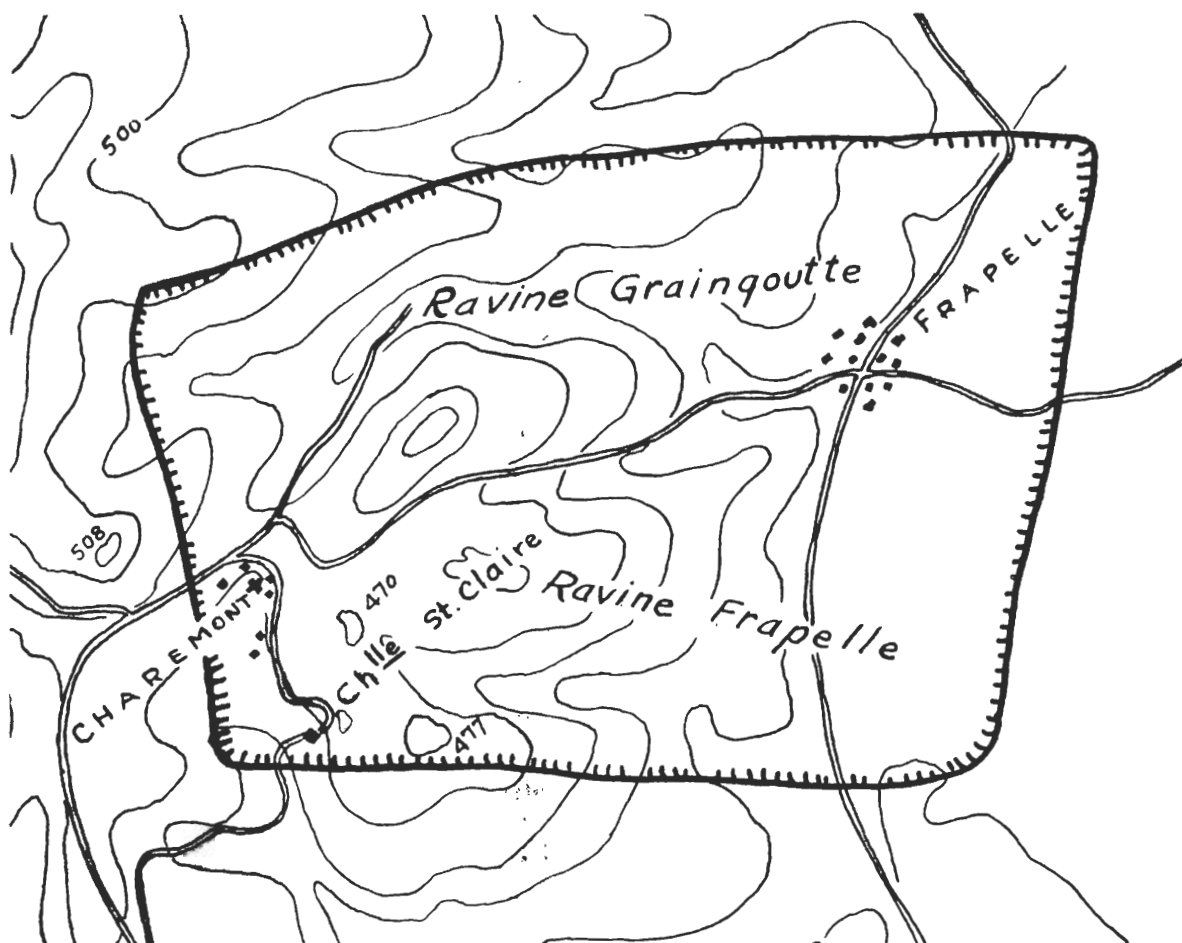
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U. S. ARMY CHEMICAL CORPS HISTORICAL STUDIES

GAS WARFARE IN WORLD WAR I

THE 5th DIVISION CAPTURES FRAPELLE

August 1918



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U. S. Army Chemical Corps Historical Office

Office of the Chief Chemical Officer

Washington, D.C.

Study No. 7

March 1958

**The 5th Division Captures Frapelle
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by

Rexmond C. Cochrane

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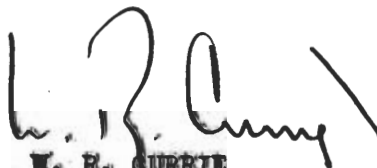
Rexmond C. Cochrane, Ph.D.

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U.S. Army Chemical Corps

This is an accepted draft study on gas warfare in World War I



W. R. CURRIE
Brigadier General, USA
Asst CCMLC for Planning & Doctrine

Foreword

This is a tentative study of the gas experience of the 5th Division during World War I. This study is not presented as a definitive and official history, but is reproduced for current reference use within the Military Establishment pending the publication of an approved history.

The author was assisted in his research by Mr. Guy F. Goodfellow and Mrs. Charlotte M. Bolin.

Note to Readers: Comments and suggestions relative to accuracy and adequacy of treatment are invited, and may be transmitted to the Chief, U.S. Army Chemical Corps Historical Office, Army Chemical Center, Maryland.

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THE 5TH DIVISION CAPTURES FRAPELLE
August 1918

Few operations in World War I seem so filled with contradictions as the assault on Frapelle by the 5th Division. French and American communiques hailed the operation as a notable achievement at the time, but in retrospect Shipley Thomas was to say more truly:

...at one time [Frapelle] had been heavily garrisoned. But the new [German] system of defense pulled practically the entire garrison back to the second line and the battalion in the attack met no resistance....Then, while the Germans shelled the town the Americans reversed the trenches and connected them with the American trenches. Next morning the Germans attempted to re-enter Frapelle but were repelled....The casualties suffered were heavy for the result achieved. A total of 571 casualties of whom 1 officer and 35 men were killed and 11 officers and 176 men were gassed, was a costly affair for taking so small a section of useless trench, except that it gave the division its first taste of actual war.¹

The contradictions begin with Thomas's data on the cost of Frapelle and are met with throughout the records of the division itself, in the effort to arrive at the true probable cost and the circumstances of that cost.

If there was any merit in capturing Frapelle, a village fully exposed to enemy observation and situated in a natural gas trap in the Vosges Mountains, there was less in the determination of the division to hold it against repeated mustard gassing. Responsible officers of the division simply ignored standing orders on gas defense, and reaped a harvest of mustard gas and gas fright casualties.

For purposes of comparison, the present study begins with an account of a gas projector attack against elements of the division two months before the

¹

The History of the A.E.F. (New York, 1920), p. 199.

gas attack of the Frapelle operation. Both enemy attacks are notable examples of the use of gas in trench warfare.

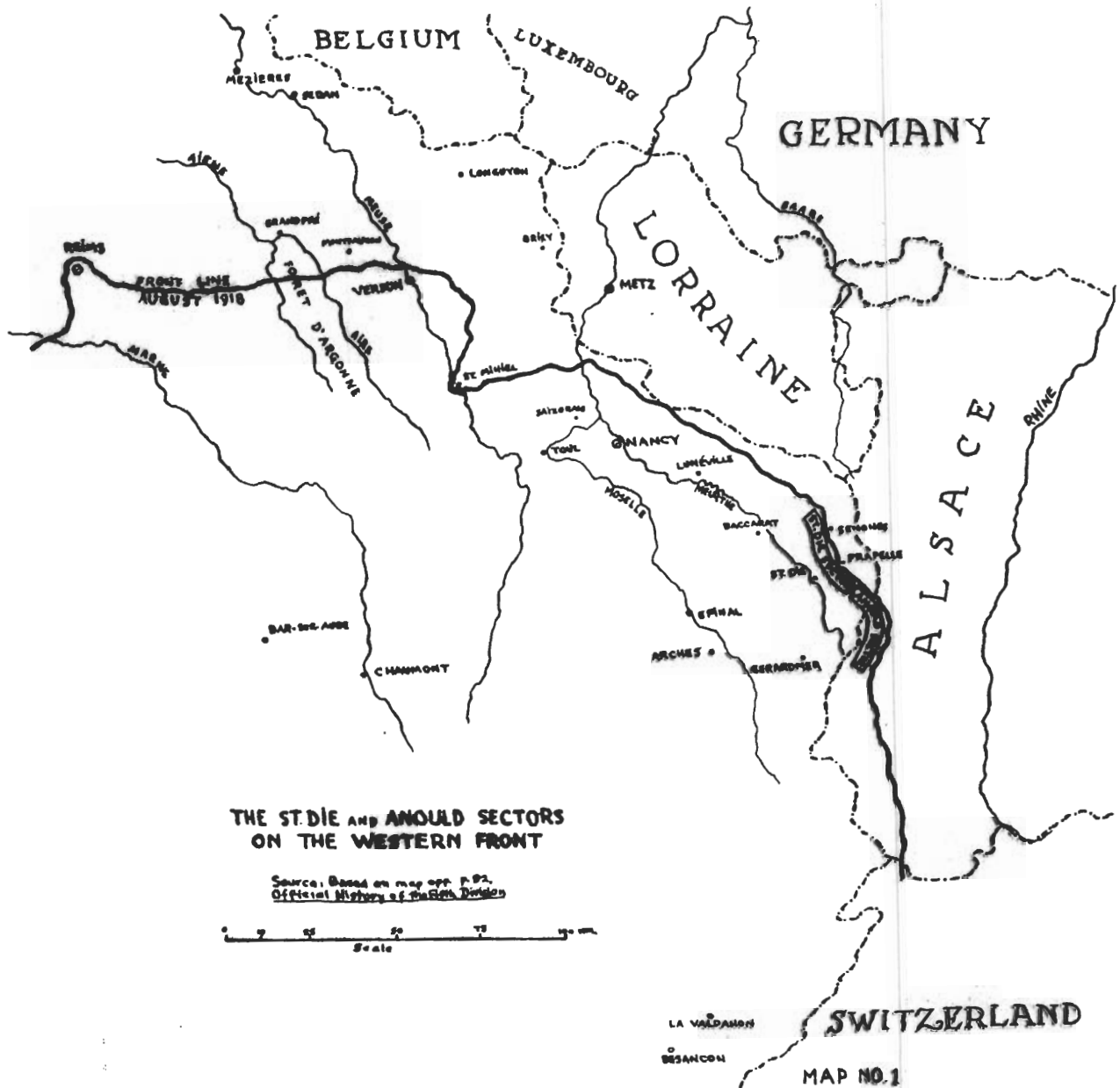
In the Anould Sector

The 5th Division, commanded by Maj. Gen. John E. McMahon, was organized at Camp Logan, Texas, in December 1917 with Regular Army units brought from North Carolina, Georgia, and Texas, and arrived in France in May 1918, to complete its training at Bar-sur-Aube (Map No. 1).

Its principal elements were the 60th and 61st Infantry, 9th Brigade, under Brig. Gen. Joseph C. Castner; the 6th and 11th Infantry, 10th Brigade under Brig. Gen. Walter H. Gordon; the 19th, 20th, and 21st FA, 5th FA Brigade, under Brig. Gen. Clement A. F. Flagler; and the 13th, 14th, and 15th Machine Gun Battalions, the 7th Engineers, and the 5th Sanitary Train.

The 5th Division, during its training in the States and in France, appears to have received unusually thorough and continuous gas defense training. Possibly the fact that General McMahon was an artillery officer and therefore apt to be more concerned with the hazards presented by gas warfare than were infantry or cavalry officers, may account for his insistence on sound gas training.

Immediately upon arriving at Bar-sur-Aube, the Acting Division Gas Officer, Capt. J. S. Craigie, requested the appointment of regimental and battalion gas officers and gas NCOs, and with them began training the division. Most of these gas specialists had attended gas schools in the States, but to refresh them, authority was received to send one officer and 15 men from each regiment each week to take the six-day course at the AEF Gas Schools. On



their return, all line officers and NCO's were given three 40-minute lectures on gas defense and the troops were given further instruction and put through the gas chamber.²

On 1 June, after four weeks at Bar-sur-Aube, the division was declared ready for the front and assigned to General Le Conte's XXXIII French Corps, Seventh French Army, holding the sector above Gerardmer in the Vosges (Map No. 2 and 3). On the night of 14 - 15 June, after a week's training in trench warfare tactics back of the line, the 60th, 61st and 11th Infantry were brigaded with elements of the 21st French Division and on the morning of the 16th, relieved the 70th French Division in the front line trenches the Anould sector.³ The 6th Infantry and 13th MG Battalion, sent as temporary support for the 26th Division in the line northwest of Toul, rejoined the division on 23 June.⁴

The Anould sector spanned 28 kilometers, from the Fave valley south to the Honeck valley, amid some of the highest peaks of the Vosges. From the CP's, the French could look down on the enemy lines and beyond as far as the plain of Alsace. Even short stretches of the Rhine could be seen in the distance. Similarly, the enemy had observation of the valley of the Meurthe,

2

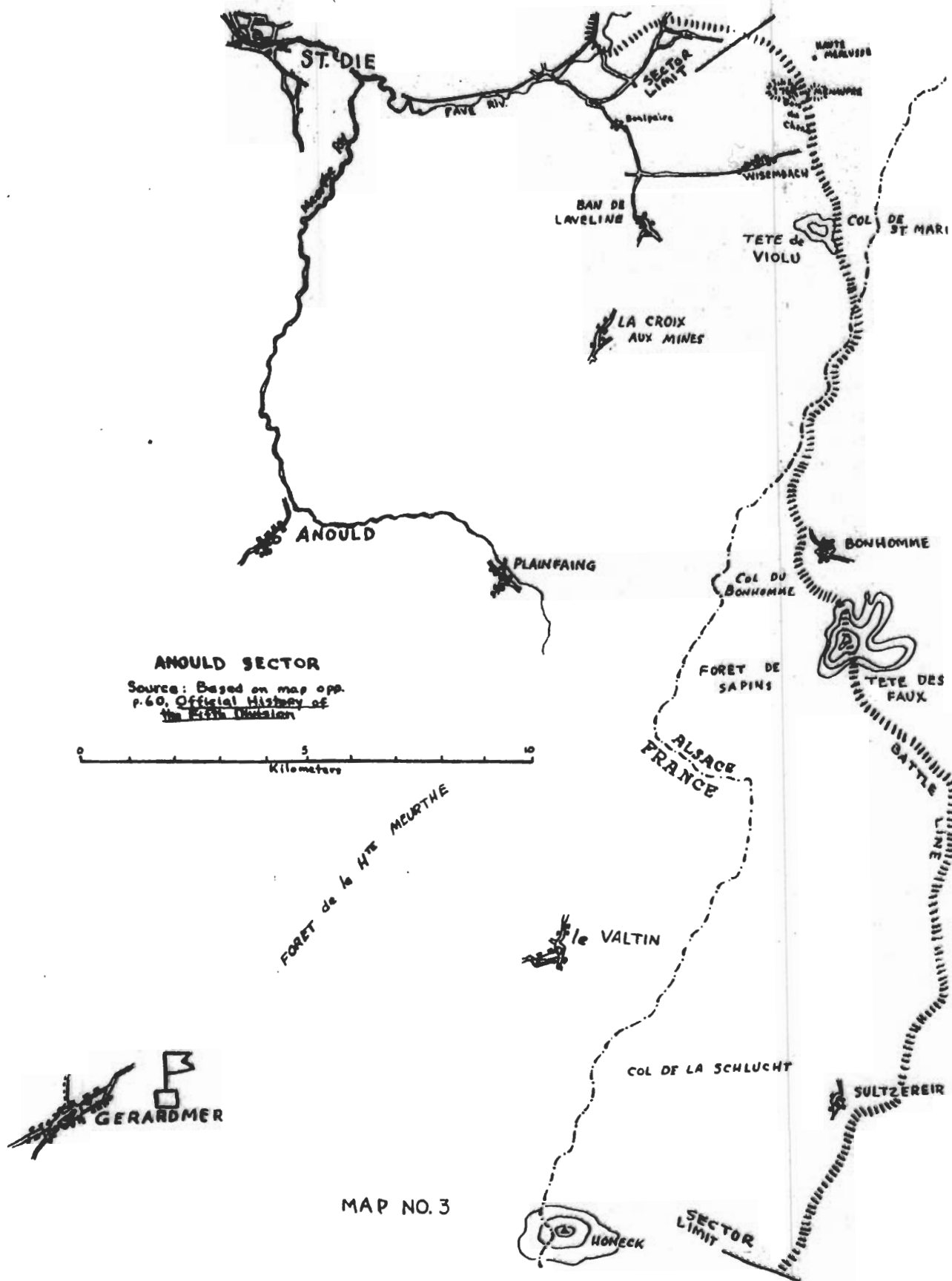
Rpt, 1st Lt J. L. Cauthorn, postwar Asst DGO, Particulars of Gas Attacks, n.d., based on records no longer in 5th Div files (GAF-5th Div).

3

GO 18, 70th Fr Div, 11 Jun (5th Div Box 12, 32.7); FO 4, 5th Div, 11 a.m., 11 Jun; FO 7, 5th Div, 4 p.m., 12 Jun (5th Div Box 8, 32.1).

4

MS. Brief History of the 5th Div (61 pp.), 24 Jun 1919, pp. 1 - 4 (5th Div Box 3, 11.4). The operational section of the MS is substantially the same in the published Official History of the Fifth Division (423 pp.), Washington, D.C., 1919.



the valley of the Fave, and the valley leading to the pass, Col de St. Marie.

The first line trenches of the French crossed the summits of Tete de Voilu and Tete des Faux and spanned three passes, Col de St. Marie, Col de Bonhomme, and Col de la Schlucht. This line across the mountains was held by a series of combat groups several hundred meters apart, each combat group being wired in and supported by neighboring combat groups. Because of the difficulties of the wooded terrain in this sector, it was said, patrols operated only by day. The distance between the French and German lines varied from 75 yards to as much as a mile and a half in places.

The 5th Division troops were the first Americans to arrive in this rest sector and for that reason they were restrained by the permanent troops in the sector, the French Territorials, from activity that would announce their presence to the enemy or stir the troops opposite to unwonted hostilities. The first gas attack on the 5th Division was not, however, directed at the new troops but was, as the division learned later, the customary preparation for one of the enemy raids made periodically on this front.⁵

An officer of the 60th Infantry has left a graphic description of the entrance into the front line trenches near the top of the sector on the night of 15 June, and the gas attack that came the next night.

As soon as darkness had fallen on Saturday the 15th, we started under the guidance of a Frenchman to climb up the hill to relieve some French infantry who were occupying several combat groups in this, the Wisembach sector. As soon as we started, this French guide began to wag his head and point up the hill and whisper, 'Boche, Boche.' About every four or five steps he would point and listen and repeat the word 'Boche.'

5

Ltr, Peacock BIO to RIO 61st Inf, 14 Jul, sub: German raids and gas attacks in the St. Die sector (5th Div Box 18, 33.6).

The nearer the top of the hill we got and the nearer to the trenches, the more quiet and stealthy we went. We had almost reached the top of the hill and were halted and wondering how long before the Boche would open fire on us when all at once about twenty or thirty men with lanterns and torches and all kinds of lights suddenly appeared from out of the side of the hill and began jabbering and yelling at one another.

We were all amazed. It took us about three minutes to find out that this was the French platoon that we were to relieve and for which we had used so much caution in getting into this position without noise and without being discovered. We were finally posted and told to go to a dugout and go to sleep. We remained in this position all day and the next night without anything unusual occurring. We were just beginning to get accustomed to the quiet life when the next morning (the 17th) about 2 a.m. the Boche opened up with an artillery bombardment. He threw over a fairly heavy concentration of gas and shrapnel, concentrating on one combat group. Twenty-one casualties were suffered, most of them gas. As is usual with green troops, as soon as the artillery opened the men all got up on the parapet and began to throw hand grenades at the artillery. We remained in this sector occupying various combat group positions for about nine days after, nothing unusual occurring.⁶

Enemy Projector Attack

The gas attack had been carefully prepared. On 13 June, the 38th Pioneer Battalion arrived in the vicinity of Lusschhof (Lusse?) and was attached to the 5th Ersatz Reserve Regiment, 39th Bavarian Reserve Division, to take part in a series of local operations planned by that division north and south of the Fave.⁷ Two operations north of the Fave were cancelled when orders transferred the pioneers to another front, but that south of the Fave was carried out.

6

Rpt, 1st Lt E. Beall, Jr., 60th Inf, n.d. (5th Div Box 26, 65.2).

7

For info on the German pioneer bns, see CWS Weekly Sum of Info for 9 Oct (War Dept Hist Box 298). Above the 5th Ers Res Regt was said to be the 2nd and 6th Bav Res Regts, and in support, elements of the 6th and 8th Landstrum Regts. (Daily Intel Rpt, 60th Inf, 17 Jun [5th Div Box 24, 20.1]).

In the operation, the pioneer battalion was to support six raiding parties totaling two companies in attacks on French (and American) combat groups dug in on the Chena summits and forest ravines to the north, whose shelters and reserve positions in the thick woods were believed favorably located for gas attack.

On the night of 15 June, two companies of pioneers began their installations south of Haute Merluse, on the edge of the wood on Menaupre ridge and on the edge of the Tanzwald, only a short distance from the positions of the French and Americans and concealed from their view only by darkness. Undetected, a total of 1,183 projectors were dug in, all but approximately 120 loaded with green cross (phosgene) shells, the remainder with high explosive, since blue cross (diphenylchlorarsine) shells could not be obtained in time.

The light rain that had fallen since noon of the 16th ceased just an hour before 0250 on 17 June when 923 of the gas projectors and 106 HE projectors were discharged simultaneously on the French positions. Fouled wiring, a tube burst, and a short circuit accounted for the failure of the other 152 projectors.

Allowing an hour for the gas to disperse sufficiently, during which time all available minenwerfers in the Bavarian division put down heavy diversionary fire north of the Fave, above the intended point of penetration, the German raiding parties advanced and entered the first French trenches. There they were caught and stopped by flanking machine gun fire. Unable to proceed, the raiders returned to their own lines.⁸

8

Rpt...of 38th Pioneer Bn, 18 Jun, in Hanslian, MS. Gasangriffe an der Amerikanischen Front, pp. 50 - 56 (CMLHO).

Observers with the German pioneer battalion reported a good pattern in the impact area but had no knowledge of the effectiveness of the shoot.

In his initial report on the phosgene gas attack, 1st Lt. A. M. Fisher, 5th Division Gas Officer, said 2 deaths occurred and 20 men were evacuated.⁹ More detailed accounts of the attack reveal important discrepancies with the account left by the 38th Pioneers.

Approximately 54 men from G and H Companies, 60th Infantry, including their machine gun complement, and 60 men from two companies of the 64th French Infantry, 21st Division, were in the Laveline sector on a mountain-side between the command post and Ka Volme (Hill 766) when the attack occurred on the morning of 17 June. The attack began, said Lieutenant Fisher, with what he estimated to be 450 diphosgene smooth-bore minenwerfer shells, followed by a bombardment of almost 2,000 phosgene artillery shells, and accompanied by a very heavy bombardment with high explosive and shrapnel. Since this mass of fire was confined to a target area 800 by 1,000 meters, many of the casualties resulted when the concussion of exploding shells delayed adjustment of gas masks.

1st Lt. R. P. Enochs, platoon leader of Company G, who commanded the combat group caught in the gas attack, said in a postwar account that his "whole area was dense with phosgene-chlorine gas," enveloping his troops at Tete de Nialle, Tenialle, and Hills 204 and 206[sic],¹⁰ The gas shelling

9

Telg to C of Gas Serv, 10:50 a.m., 18 Jun, quoted in Spencer, I. 155. See also GAF-5th Div.

10

No maps of sufficient detail have been found in 5th Div files or in the Cartographic Branch, National Archives, to show minor features in the Anould and St. Die sectors.

Note: It seems probable that Hills 204 and 206 should read 604 and 606.

lasted for about forty-five minutes. When rain began falling as the gas bombardment ended, driving the gas to lower ground, he and his men removed their masks. Of the 54 men under his command, 19 became gas casualties and 5 were wounded during the gas shelling, while 2 were killed and 3 wounded in the subsequent HE bombardment. Of approximately 60 French infantrymen with his men, 40 became gas casualties through delay in masking. At the end of the HE bombardment, said Lieutenant Enochs, a few of the enemy advanced up Hill 606 and down the ravine to Tenaille, where they were driven off.¹¹

The commander of the 21st French Division was to describe the attack as "a very violent bombardment of gas minen (projectors) on Heights 766 and 762.8." Losses were fairly high, he said, owing to the suddenness of the gas attack. "Men next in the support parallel who were right under the projectors had not time to put their masks on and did not protect themselves." He reported 12 killed and about 60 gassed or wounded that night in the Franco-American forces.¹²

Another post-war account, by Capt. E. A. Wilcox, who succeeded Fisher as DGO after the war repeated Fisher's total of 2,450 minenwerfer, 77-mm., and 105-mm. gas shells,¹³ but said that 2 gas deaths and 23 gas wounded had

11

Rpts quoted in Spencer, MS History of Gas Attacks upon the A.E.F. during the World War (RACD 460, 15 Feb 1928), I. 154-156 (CMLHO). Daily Intell Rpt, 60th Inf, 17 - 18 Jun (5th Div Box 24, 20.1), rptd 3 Amers killed, 3 wounded, 20 gassed; 7 French killed, 3 wounded, 16 gassed.

12

Rpt, Col de Gouvello, CO 21st Div, 20 Jun (5th Div Box 18, 32.7).

13

The German account says 923 18cm gas projector flasks, each containing 5170cc of phosgene (approximately 5.4 qts), and 106 18 cm HE minenwerfer shells were fired.

occurred in the 60th Infantry, and 45 gas wounded in the 64th French Infantry, or more than 60 percent of the men exposed.¹⁴

Except for the observation that two separate groups of enemy soldiers approached the lines and were repulsed, neither the French nor the Americans seem to have been aware that the enemy had intended a concerted series of heavy forays along this front. With the flare-up past, the troops settled down in their positions on the heights, and the artillery on both sides resumed their daily harassing missions.

In the two-week period that included the projector attack from 13 to 27 June, the enemy reportedly fired 9,869 small, medium, and large caliber shells into the Anould sector. The 5th Division Surgeon's summary report shows that in that same period 8 men in the division were killed by shell fire and 5 by small arms (presumably while on patrol), 14 men were wounded by small arms and 3 by grenades, and a total of 27 men were gassed. Also of interest is that 9 men were killed and 19 wounded accidentally -- as opposed to 13 killed and 22 wounded in line of duty -- through careless handling of pistols, rifles, and grenades.¹⁵

Coincidental with its first gas attack, the division received a copy of new standing orders for defense against gas, recently compiled by the Gas

14

Spencer, I. 156 - 157. Also in postwar rpt, 1st Lt J. L. Cauthorn, Asst DGO, Particulars of Gas Attacks, n.d. (GAF-5th Div).

This rpt of casualties agrees with MS Medical History of the 5th Div (Med Dept Box 3475, Folder 1) which says 3 men were killed outright during the gas bombardment and 25 were severely gassed. Two of the latter died as a result of disobeying a medical sergeant who told them to lie quietly until evacuated.

15

Fortnightly SOI, 21st Fr Div, 23 - 27 Jun (5th Div Box, 22-21); MS Medical History of the 5th Div, p. 9 (Med Dept Box 3475, Folder 1).

Service in preparation for its revision of the gas defense manual in July. These orders were published as received, in General Orders 19 on 19 June.¹⁶ Soon to be of considerable significance to the 5th Division were the paragraphs in these orders concerning the evacuation of yperited terrain where the military situation permitted such movement.

As the division prepared to leave the Anould sector, General McMahon said that in the coming period of retraining all officers were to wear their masks one full hour each week, in addition to the daily half-hour period when troops and officers alike were to wear their masks during drill. In addition, gas mask adjustment would be practiced each day at retreat.¹⁷

General McMahon had only the projector attack to look back on when in July Colonel (soon to become Brigadier General) Fries, Chief of the Chemical Warfare Service (as the recently reorganized Gas Service was called), wrote to him concerning the growing importance of offensive gas warfare, and asked what percentage of gas shells he would like his division to be supplied with. Colonel Fries enclosed the two letters on the subject written in May and June by Col. Paul B. Malone of the 2nd Division. General McMahon answered:

In my opinion, the percentage of gas shells to be supplied as compared with the total number of shells depends greatly on the kind of warfare that

16

The only copy of the orders with ltr of transmittal that has been found is in 92nd Div Box 81, see ltr, Actg C of Def Div, Gas Serv, to all gas officers, 14 Jun, sub: Orders for Gas Defense. The orders were sent by direction of C of Gas Serv at the special request of the Gen Staff, AEF, to all DGOs for submission to divisional commanders. GO 19, 5th Div, is in 5th Div Box 16, 64.2.

17

Memo: Tng of Troops in the Arches Tng Area, 1 Jul (5th Div Box 14, 50.4).

is being waged. For trench warfare, it appears that the number of gas shells should be less than the number of high explosives, but for a war of movement, I believe that the proportion should be the same. The experience of this division has been rather limited as regards the subject of Gas Warfare, but it is the opinion of every officer with whom I have discussed the subject that we should be prepared to return four times the number of gas shells received from the enemy. There is nothing more discouraging to our troops than to be the subject of a projector attack without any means of reply in kind. As an artillery officer, I can easily conceive that the most efficacious means of neutralizing the fire of a battery would be by the use of a large number of gas shells, rather than projectiles of other character. I concur entirely with the view expressed by [Malone] the commanding officer of the 23rd Infantry.¹⁸

North to St. Die

The sector had become quiet again when on 3 - 4 July the 9th Brigade left the Anould sector for Epinal for further training, leaving the 10th Brigade, extended in combat groups, to hold the sector in company with the Territorials.¹⁹ On 15 July, with the arrival of a French unit for rest and retraining, the 10th Brigade was relieved and marched north to the St. Die sector, immediately above the Anould sector, and was there joined by the 9th Brigade.²⁰

Four days later, on the 19th, the 5th Division relieved the 62nd French Division, taking over a 25-kilometer front from north of the Plaine river valley, south to the valley of the Fave (Maps No. 4 and 5). With the

18

Ltr, CG 5th Div to C CWS, 23 Jul, sub: Gas Warfare (5th Div Box 323, 470.6). See similar corresp in 1st Div Box 173, ltr 9946; GAF-2nd Div; 35th Div Box 164, 470.6.

19

FO 13, 5th Div, 1 Jul (5th Div Box 8, 32.1).

20

FO 17, 5th Div, 9:00 p.m., 11 Jul.