

Secret

War Diary
for
"J" Special Company
for
April 1917

War Diaries for 'J' Company Special Brigade Royal Engineers

01 April 1917 To 30 April 1917

ARRAS	01/04/1917	VISITS To VI Corps H.Q. Arrangements were made for communications in the operation G1/P Station for HQ to be RUSSELL CAVE, RONVILLE, (ADV 3rd Div, G28.d.20.30.) 3rd Division H.Q. This arrangement was confirmed, and an advance report centre for J Company was assayed at 76 Bde H.Q. G.35.b.55.60. in tunnel. OPERATIONS The final 260 projectors were installed without mishap STRENGTH 8 Off, 1 W.O., 12 Sergeants, 35 Corporals, 167 men Total 223 Attached 1 Off, 1 man ('B' Coy) Total 2 8 Off, 8 Sergeants, 21 Corporals, 93 men ('H' Coy) Total 125	See report of operation under dated April 4th.	Capt J.A. Carpenter
ARRAS	02/04/1917	CORRESPONDANCE: Orders received from formation as follows Copy No 15 Addendum No 7 and 9 to FUTURE OPERATIONS, VI Corps Part I (OPERATIONS). (INSTRUCTIONS re LIVENS PROJECTORS and Employment of 4" STOKES MOTARS) 3rd Division Instruction No 17 (Addendum No 1). (? for 15 Division front.) By these it was arranged that O.C. 'J' Special Company who was Senior Company Commander in VI Corps operations, should keep O.C. 'O' Special Company (Capt N.P. CAMPBELL) warned as to Zero, re Rocket signals were arranged (Addendum April 4th. See below in report of the operation April 4th) 8.0 pm OPERATIONS. The charge blocks and technical stores necessary for the operation were taken into the store dug outs through the tunnel at St SAUVEUR. STRENGTH. 8 Off, 1 W.O., 12 Sergeants, 35 Cpls, 167 men Total 223 Attached. 3 Off, 8 Sergeants, 21 Cpls, 93 men ('H' Coy) Total 125. Total 348. 1 Off & 1 man of 'B' Coy left.		Capt J. A. CARPENTER.

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ARRAS 03/04/1917 10 am. VISITS 20 3RD Div H.Q. to arrange final details of communication.

ORDERS RECEIVED VI Corps O.O. No 100 (Future Operations). 15 Div Instruction 17 (Addendum 2) re Projector arrangements.

STRENGTH 8 Off, 1 W.O., 12 Sergeants, 35 Corporals, 167* - Total 223 Attached 1 Off, 8 Sergeants, 21 Corporals, 93 ('H' Coy) Total 125 Total 348 * Includes 5 Lace Corporals.

4.30 pm OPERATIONS The company moved into the line to receive drums expected, and to carry out the discharge of the drums from Projectors. O.C. J Coy and CAPT LAYCOCK went to their stations (see P.21 and below. The drums were late in arriving owing to the shelling of the BAUDIMONT GATE, but they arrived just in time to be placed in position. In the line, pistol heads and fuses had to be fitted.

Capt J. A.
CARPENTER.

ARRAS 04/04/1917 The report of the operation now follows.

REPORT ON Capt J. A.
OPERATION 4th April CARPENTER.
1917

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ARRAS	05/04/1917	GENERAL The company has been resting. As yet there is no intelligence regarding our operation of yesterday. Appendix 6 re further intelligence on October NIEUPOORT attack is appended. RECOMMENDATIONS Recommendations have been sent to VI Corps in our JG/730 as follows:- 2nd LIEUT VALENTINE FRANCIS FARR R.E., J Special Company R.E. for the MILITARY CROSS. No 129512 Lance Corporal ROBERT SEAMAN R.E. J Special Company R.E. for the MILITARY MEDAL. This Officer and the NCO on the morning of April 4th in the front line near IODINE ST, when they discovered that some of the batteries had not fired owing to the breakage of connections by explosions, they took an exploder into the line and, regardless of all danger, mounted the parados in full view of the enemy (by daylight) in order to get the batteries fired. This was repeated several times and for many minutes each time in spite of expected heavy retaliation. By their action and example the whole batteries were fired successfully. No 147178 Sergeant HERBERT JAGGER R.E. J Special Company R.E. for the MERITORIOUS SERVICE MEDAL. The NCO has shown the greatest coolness and his work was especially conspicuous in this attack. By his energy, courage, and personal example, he has always been a focal help to his juniors, and his good work contributed to the absolute success of the operation. On several occasions including the battle of LOOS, Sept 25 1915 at HOHERNZOLLERN he brought back wounded by day under heavy fire from NO MAN'S LAND, though this was not a part of his normal duties. STRENGTH 8 Off, 1 W.O., 12 Sgts, 35 Corporals, 166 men Total 222 Attached 3 Off, 8 Sgts, 21 Corporals, 90 men ('H' Coy) Total 125 Total 347	Appendix 6	Capt J. A. CARPENTER.
ARRAS	06/04/1917	STRENGTH 8 Off, 1 W.O., 12 Sgts, 35 Corporals, 164 men Total 220. 2 men to Base Attached 3 Off, 8 Sgts, 21 Corporals, 93 men ('H' Coy) Total 125 Total 345		Capt J. A. CARPENTER.
ARRAS	07/04/1917	STRENGTH Same as above Nothing of importance has occurred.		Capt J. A. CARPENTER.
ARRAS	08/04/1917	STRENGTH 8 Off, 1 W.O., 12 Sgts, 35 Corporals, 161 men Total 217. 3 men evacuated sick 'J' Coy Attached 3 Off, 8 Sgts, 21 Corporals, 92 men ('H' Coy) Total 124. 1 man evacuated sick 'H' Coy. Total 341 Orders have been received from C.S.C. R.E. THIRD ARMY that when opportunity offers, (by reason of the expected advance of the line) officer's parties are to proceed to TILLOY to collect information on April 4th attack.		Capt J. A. CARPENTER.

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ARRAS	09/04/1917	STRENGTH 8 Off, 1 W.O., 12 Sgts, 35 Corporals, 161 men Total 217. Attached 3 Off, 8 Sgts, 21 Corporals, 91 men ('H' Coy) Total 123 Total 340 CASUALTIES. 'H' Special Coy. 1 O.R. WOUNDED in action. 1 O.R. WOUNDED in action (AT DUTY) 5.30 am. The great attack on the fronts of the FIRST and THIRD ARMIES was launched at 5.30 am. At the time of writing the advance has proceeded with the greatest success and with few casualties from CROISILLES (Right, THIRD ARMY) to GIVENCHY (Left, FIRST ARMY). Many prisoners have been seen coming in. Most of the Officers proceeded to TILLOY with small fatigue parties, but at present very little can be done. Tomorrow there will be more to report. LT LAWFORD reports finding two drums on the western edge of the village, and some dug outs still smelling of gas, which have been walled up. There were also quantities of portions of German Gas-masks about, and much vaceline.	Capt J. A. CARPENTER.
ARRAS	10/04/1917	The general line THELUS-FAMPOUX-MONCHY-LE-PREUX has been reached, 11,000 prisoners and 120 guns being taken. Many more drums were found in TILLOY, see Part II of report to be rendered on the technical side of the operation. Under date April 12th. STRENGTH 8 Off, 1 W.O., 12 Sgts, 35 Corporals, 159 men Total 215. Attached 3 Off, 8 Sgts, 21 Corporals, 91 men ('H' Coy) Total 123 CASUALTIES. 'J' Sp Coy. 1 O.R. Wounded in action, 1 O.R. MISSING (believed wounded) 'H' Sp Coy. 1 O.R. Wounded in action, 1 O.R. WOUNDED in act (AT DUTY)	Capt J. A. CARPENTER.
ARRAS	11/04/1917	STRENGTH 8 Off, 1 W.O., 12 Sgts, 34 Corporals, 159 men Total 214. 1 Corporal to Cadet School England Attached 3 Off, 8 Sgts, 21 Corporals, 90 men ('H' Coy) Total 122. Total 336 CASUALTY. 1 O.R. GASED (IN ACTION) dated 8th April (Previously only reported as sick) 2.30 pm. A conference of O.C. Special Companies R.E. THIRD ARMY, O.C. 'J', 'O', 'Q' and 'Z' special companies was held at 'Q' Sp Coys H.Q., ARRAS. Lessons learned from the recent attack were discussed, and suggestions for an establishment of technical 'PROJECTOR' stores agreed on for forwarding to H.Q. SPECIAL BRIGADE R.E. Information has been received from prisoners that between 400 and 500 enemy were killed in BLANGY and ST LAURENT BLANGY on April 4 (probably by 'Q' Coys Discharge), and between 200 and 300 in FAMPOUX (probably by 'J' Coy's Discharge and some of 'O' Coy's). No information yet with regard to TILLOY, FEUCHY, and the trenches, regarding casualties to the enemy.	Capt J. A. CARPENTER.

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ARRAS	12/04/1917	STRENGTH 8 Off, 1 W.O., 12 Sgts, 33 Corporals, 158 men Total 212. 1 Corporal to Cadet School England, 1 pioneer to base. Attached 3 Off, 8 Sgts, 21 Corporals, 90 men ('H' Coy) Total 122. Total 334		Capt J. A. CARPENTER.
		Information has been received that CAPT CARPENTER is appointed as CHEMICAL ADVISER, XVIII Corps; CAPT LAYCOCK will become Company Commander, and LT G.I. PAINE R.E. (who arrived April 10th in place of 2LT B.C. BEVAN R.E. transferred to 'L' Special Company R.E.) will be Second-in-Command, on CAPT CARPENTER'S Departure.		
		OPERATIONS. Following the completion of the investigation of TILLOY, the further report of a technical nature has been sent to O.C. Special Coy R.E. THIRD ARMY as below.		
ARRAS	13/04/1917	STRENGTH 8 Off, 1 W.O., 12 Sgts, 33 Corporals, 158 men Total 212. (2 Corporals to England, Cadet School). Attached 3 Off, 8 Sgts, 21 Corporals, 90 men ('H' Coy) Total 122. Total 334	TECHNICAL REPORT ON APRIL 4TH OPERATION	Capt J. A. CARPENTER.
ARRAS	14/04/1917	O.C. Special Brigade R.E. and O.C. Special Companies R.E. Third Army, visited J Company and the line at midday. Continuation of salvage of projectors from the line		Capt J. A. CARPENTER.
		STRENGTH 8 Off, 1 W.O., 12 Sgts, 33 Corporals, 160 men Total 214. Attached 3 Off, 8 Sgts, 21 Corporals, 90 men ('H' Coy) Total 122. Total 336		
		(2 ASC Drivers taken on strength, 2LT S.L. LIZIUS R.E., 'H' Sp Coy R.E. ? to 'H' Coy, LT R.M. BEESLEY R.E. arrived in place of above)		
ARRAS	15/04/1917	COMMAND Capt J.A. CARPENTER R.E. is Departing to be C.A. XVIII Corps The command of the company will now be under CAPT CHARLES LAYCOCK R.E., and second in command will be LIEUT G.I. PAINE R.E. (Authority H.Q. Special Brigade Letter F416 of 7.4.17)		Capt J. A. CARPENTER.
		Departures - Capt J.A. Carpenter & two other ranks to XVIIIth Corps H.Q.		
		Wire from VIth Corps to report myself to GS01, 29th DIV at 11 am 16th		

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ARRAS	16/04/1917	Capt C. Laycock R.E. taken command of 'J' Special Coy R.E., at about 8 pm 15th wire came from C.S.C. R.E. THIRD ARMY ordering preparation for removal of 3 sections 'H' Coy attached. Later instructions were received by DR to move these three sections to BIEFVILLERS LES BAPAUMES. These three sections accordingly moved off from ARRAS at 10.30 am 16-4-17 reported to GSO 1, 29th DIV at 11 am. Made arrangement for projector operation against GUEMAPPE along with 'O' Spec Coy R.E. Went to VIth Corps afternoon about the proposal. 29th DIV at 7 pm cancelled the operation. Weather, rainy with fine intervals, wind S.S.W. Departures LT VANDERMIN with 37 section 'H' Spec Coy R.E. 2nd LT Woolner with 38 section 'H' Spec Coy R.E. 2nd LT Beegley with 39 section 'H' Spec Coy R.E.		Capt LAYCOCK
ARRAS	17/04/1917	10 am. Wire from VIth Corps to report at XVIIIth DIV & XVth DIV H.Q's to discuss operations at 11 am. 11 am. Report to XVIIth DIV - not required by them as they are using 'O' Spec Coy R.E. 5 pm. Report to XVth DIV - find they are taking over part of line from 29th DIV. Made arrangements to put 400 projectors, if possible to fire into GUEMAPPE. Proceed with operation. Weather mainly fine, some showers, wind about S.W. to W. Departures 1 O.R with 1 motor cycle on detachment	See Appendix 7. proposed scheme	Capt LAYCOCK
ARRAS	18/04/1917	6 pm. To 12 pm. 160 projectors dug into position at N.12.c.7.6. One O.R. slightly wounded Weather mainly fine, some rain, wind about W. Departures 1 O.R wounded to hospital.	See Appendix No.8 Operation C1	Capt LAYCOCK
ARRAS	19/04/1917	11 am. Operation C1 postponed 24 hours. Men standing by in billets. Weather. Mainly fine, some showers, wind W. to W.N.W. Arrivals. 1 O.R. from ENGLAND (returned casualty).		Capt LAYCOCK

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ARRAS	20/04/1917	10 pm to 12 pm. 226 Projectors dug into position at N.12.c.7.6. at night. Total now in position 386. 9 O.R. wounded whilst carrying out this operation, of which 4 remain at duty. Weather. Fine, Wind W. to N.W. Arrivals. 2 O.R. from hospital.	Appendix No.8 Operation C1	Capt LAYCOCK
ARRAS	21/04/1917	Departures. 3 O.R. to hospital wounded, 2 O.R. to hospital wounded, ? (Shell). 1 O.R. to Hosp ? total 6. 5 pm. Report to VIth Corps & 15th DIV that wind (being about N) is likely to be unfavourable for operations night of 21st - 22nd. Operation postponed 24 hours, Drums were not carried up to the line therefore.		Capt LAYCOCK
ARRAS	22/04/1917	12 am. Report to 15th DIV that wind is more unfavourable, operation cancelled unless wind improves. Wind not improved by 10 pm so operation cancelled. Weather. Fine, wind N. by W. to N.N.E. No 129512 Lnce Cpl Seaman awarded MILITARY MEDAL for gallantry in action 4-4-17		Capt LAYCOCK
ARRAS	23/04/1917	Assault begins by Infantry on the front, Company clearing up, moving stores etc. Weather. Bright & Fine, wind N. to N.N.E. Departures. 2 O.R. to 3rd Army anti gas school on detachment.		Capt LAYCOCK
ARRAS	24/04/1917	The company carried on salving projectors used in the firing on Tilloy from the old front line. Weather. Bright & Fine, wind N. to N.E.		Capt LAYCOCK
ARRAS	25/04/1917	Company salving projectors & material. Weather. Bright & Fine, wind Northerly.		Capt LAYCOCK

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ARRAS	26/04/1917	Company salving projectors etc. Weather. Fine, wind N.W. to N.	Capt LAYCOCK
ARRAS	27/04/1917	Company salving projectors etc. Weather. Fine, wind N.W.	Capt LAYCOCK
ARRAS	28/04/1917	6 pm. Called at VIth Corps H.Q. & made appointment with B.G.G.S. at 4 o'clock pm 29th to discuss operation proposed on BOIS DU SART and BOIS du VERT (E of MONCHY LE PREUX). Company salving projectors. 7.0 pm. Arrivals. - 14 men (new draft from DEPOT) Weather. Fine & bright, wind W.N.W. to E.	Capt LAYCOCK
ARRAS	29/04/1917	4 pm Reported to B.G.G.S. VIth Corps at 12th DIV H.Q. He told me to report to 3rd DIV 'G' at 6 pm. when G.O.C. 3rd DIV would decide whether we could be of any use to him. 6 pm Reported to G.S.01 3rd DIV who informed me that G.O.C. after a consultation with his Brigade Generals had decided not to use this unit. Weather. Fine & warm, wind N.W. to W.	Capt LAYCOCK
ARRAS	30/04/1917	Company standing by in readiness to assist 'O' Special Coy if required. 'O' Spec Coy having an operation proceeding with 12th DIV (on left of 3rd DIV) near MONCHY LE PREUX Weather. Fine & warm, wind N.W. to N. Departures. 2 O.R. to Hospital.	Capt LAYCOCK

TRANSCRIPTION.

APRIL 1917 WAR DIARY – OPERATION OF 4-4-1917

“J” Special Company R.E.

ARRAS 7.4.17 SPECIAL COMPANIES R.E. THIRD ARMY

Report for ‘J’ Special Company and ‘H’ Special Company Sections

(attached) LIVENS PROJECTOR DISCHARGE

April 4th 1917 (Operation G1/P)

FRONT OLD FRONT LINE 3rd Divn VI Corps

1. LOCATION

Ref ARRAS and NEUVILLE VITASSE Trench Maps 1/10,000

- a. 900 projectors were installed in the front line of J1 Sector

G.36.a.20.20. to G.30.c.90.30.

Infantry carried on nights 30/31 March, 31/1 April, ½ April, ¾ April

- b. From DUMPS - A ICELAND ST G.29.c.45.30.

B IMPERIAL ST G.29.c.75.80

- c. TARGETS in TILLOY-LES-MAFFLAINES

Right 300 - N.1.a.40.95.

Centre 300 - H.31.c.60.30.

Left 300 - H.31.c (Dugouts along road)

- d. HEADQUARTERS

Section H.Q. at firing dug outs on appended sketch (Table E)

Reports sent by runner to 76 Inf Bde Adv H.Q. in tunnel at

G.35.b.51/2.6 where CAPT C. LAYCOCK R.E. was stationed.

O.C. Coy CAPT J.A. CARPENTER R.E. was at 3rd Div Adv H.Q. RUSSEL

CAVE, RONVILLE G.28.d.20.30.

2. COMMUNICATIONS

Established with O.C. ‘O’ Sp Coy, CAPT N.P. CAMPBELL R.E. at 44 Bde

G.29.a.70.80 by runner. He was in touch with his section in 12th and 15th Div

fronts. Established with 3rd Divn and with CAPT LAYCOCK by telephone and the use of code. All arrangements worked perfectly.

3. PREPARATIONS and SIGNALS

The DRUMS were carried up on night of April ¾. They were loaded and complete by about 5.0 am. A SIGNAL ROCKET (golden rain) was fired from 76 Bde H.Q. at 5.30 am to warn all sections on the VI Corps front that drums would be discharged at 6.15 am, according to their orders of 3rd Division.

4. **ZERO** was 6.15 am. Wind S. by W. 7 mph.

Zero was communicated before departure. Had any change occurred, they were to be warned through CAPT LAYCOCK using code on the telephone, and thence runner.

5. **OBSERVATIONS.** DETAILS OF DISCHARGE.

At Zero about 70% discharged at once (all on LT TAIT's front). The remainder had their circuits broken by the slightly previous discharge of those which fired through shock and falling trench (the trench was extremely soft, and with no revetment). However by taking exploders with them to the front line they were able to get practically all fired.

The percentage fired at or about Zero were

Section		No of projectors	No of Drums	No Discharged	Percentage
41	L ^T LAWFORD	125	125	119	95.2
42	L ^T TAIT	125	125	125	100
43	2L ^T SANTER	125	124	124	100
44	2L ^T ALLCHIN	125	125	125	100
45	2L ^T FARR	100	100	99	99
Total 'J' Coy		600	599	592	99%

37	L ^T VANDERMIN	100	97	83	83
38	2L ^T WOOLNER	100	100	97	97
39	2L ^T LIZIUS	100	100	80	80
Grand Total		900	896	852	95

Four drums were left in C.Ts by carrying parties these were not found till afterwards.

LT VANDERMIN and 2LT LIZIUS had several projectors damaged by shell fire, they could not be fired. Some were buried altogether after the discharge and could not be fired even with the exploder. These drums were subsequently salvaged and brought back to workshops, all having been fired that could have been.

6. **BEHAVIOUR of OUR MEN**

All worked magnificently, and great gallantry and devotion to duty was shown by all Officers and men.

In many cases it was found necessary to carry on rejoining and exploding on the parados in full view of the enemy by daylight. This was done without the

slightest hesitation in spite of expected retaliation by the enemy (a few recommendations are being forwarded to VI Corps a confidential copy of these attached)

7. EFFECT ON OUR LINES

The front line trench used was practically destroyed by the shock and almost filled up owing to the soft character of the ground. This made the firing of the remainder more difficult; several projectors had to be dug out and reset on the spot. It speaks well for the charging and fusing that nearly all of these were able to be fired. Projectors fired appear to be twelve feet in the ground.

8. OBSERVATIONS

Reports received from direct observation from O.Ps, from the line, and from aeroplane observation summarise as follows

- (1) The fusing and detonation of the drums was perfect. It appears that practically no duds were present.
- (2) The targets were well covered with a dense cloud. The roads, TILLOY WOOD, and the main CAMBRAI road N. of TILLOY were hit and covered.
(Note. From experiments made at SIMENCOURT, O.C. 'J' Coy decided to use an extra half pound of powder to ensure the full range being obtained. This was exactly justified. To ensure the half pound firing with the rest, small holes were punched in the charge covering lid.)
- (3) The cloud drifted laterally along the second system of the enemy's line, moving slightly E. of N. until it reached that projected by 'O' Company.

9. ENEMY'S BEHAVIOUR

The enemy showed very little activity, and practically no retaliation was given for well over an hour.

10. SUGGESTIONS

- (1) A greater establishment of luminous compasses (50 per company)
- (2) An adequate number of clinometers and laying sticks (50 per company)
- (3) A very great number of staples for fixing leads. There was an insufficient number for this attack. A Company establishment of about at least 4000 is needed. We were unable to obtain these as expected from No 8 R.E. Park.
- (4) A slight gap should be left on the flanks of batteries, and leads should not be allowed to stay near the projectors of other batteries, but should be stapled well down.
- (5) The leads of the charge blocks are too long. On account of this infantry carrying parties continually broke the circuits right up to one hour before Zero.

- 11 The staff of VI Corps has congratulated the companies for their work done, and was pleased with the successful discharge and the observations made.

Capt J.A. Carpenter R.E.

TRANSCRIPTION.

APRIL 1917 WAR DIARY – OPERATION OF 4-4-1917

“J” Special Company R.E.

ARRAS 13.4.17

J Special Company R.E. SPECIAL COMPANIES R.E. (and Att H Coy Sectn) continuation of JB/1506 of 5.4.17

Report on discharge of LIVENS PROJECTOR April 4th 1917
PART II Technical Details

Para 12 **TRANSPORT OF MATERIAL** As the lorries arrived very late on the first night of carrying it was decided to take them all up and unload at the Dumps instead of ARRAS. This was done, the whole of the projectors for the second and third nights being in ? at the dumps. On the night 3/4 April, the convoy of lorries containing drums was diverted owing to shelling of BAUDIMONT GATE. The NCO i/c lorries lost his way after misdirection by the TOWN MAJOR and arrived, minus one lorry three hours late. The last lorry did not arrive until 2.0 am. Hence the carrying parties did not complete the carrying until one hour before Zero. Even then many drums were left in the C.Ts and men had to come down to fetch them. Despite of all this, all except four were found and fused and loaded just in time.

The carrying parties were a source of trouble in upsetting the electrical connections. Seeing wires stapled in the sides of the trench they hauled themselves round corners thereby the resulting slack then became tangled and broken by following men. This went on up to nearly Zero, so that practically all jointing and testing had to be redone at the last moment.

13. **LAYING OF PROJECTORS** DIGGING

The ground was exceedingly soft and there was no revetment. Four push picks per section therefore quickly allowed the projectors to be dug in. The laying was rendered difficult by the lack of good clinometers but improved clinometers were made and used. On the third night clinometers and sighting sticks arrived. It was impossible to use base plates, improved base plates of angle irons would have been used had we been able to get the latter commodity.

14 **CIRCUITS**

The circuits were prepared by using ordinary laped joints in most cases, though the copper connectors were used to some extent. In the absence of the proper crimping pliers, the latter were found unsatisfactory. The main leads were doubled and with a coil of about 40 feet slack dug slightly in near the end of the battery. Unfortunately the ideal arrangements were to some extent upset by the carrying parties and this was of course aggravated by the lack of staples. Each battery had from 16 to 20 projectors to one exploder the exact number depending on the natural boundaries of batteries (eg the ends of bays or traverses).

15 **MATERIAL**

The material supplied was in good condition. On arrival in the trench as the pistol heads were unscrewed, the fuses and detonators inserted and the heads screwed on. Many pistol heads were choked with mud on arrival owing to their having scraped the sides of the communication trenches or having been dropped in the mud on their way up. These were cleaned out as far as possible (just one or two duds were found due to this in TILLOY subsequently, see para 13). The charge blocks were excellent, a few duds. No. 14 fuses were found, but replaced by good ones which we had in reserve.

16. **FIRING** At Zero the great majority were discharged but still several batteries failed to fire. The synchronisation of 'J' and 'O' Companies was excellent. Failure to fire was entirely due to cut circuits and had the trench been of fair firmness it is probable that, even with an inadequate supply of staples, this would have been largely avoided. The shock of the firing batteries (a fraction of a second earlier than the other) brought down avalanches of earth breaking circuits & burying them in mud. Hence great difficulty was experienced when attempts were made to fire them but owing to very fine work on the part of Officers, NCOs & men, their attempts were completely successful (Report Part 1 para 5 & 6). The projectors buried themselves about five feet & are now being reclaimed.

17 **INVESTIGATION OF TARGETS**

Parties have ransacked TILLOY on April 9, 10, 11 & today (12). The information obtained is as follows.

- (1) Enemy gassed. These must have been removed none were found.
- (2) Dugouts. Only a few left the whole place was one mass of debris & shell holes. Such dug outs as were entered smelt slightly of gas in some instances and contained kit respirators, spare respirator drums (also found everywhere in the village) and many tins of Vaseline, obviously to protect arms.

- (3) Anti Gas Appliances. No curtains, blankets, gas cartridges or fans were found.
- (4) Location of Drums. These were well distributed in the three areas corresponding to the three targets intended. They were found in the S.W. corner of the village all along both sides of the roads leading N.E. through the village to the CAMBRAI road & about the CAMBRAI ROAD, but many of the latter group had been blown by the wind to the northern side.
- (5) Number of Drums. Evidence of the falling of many drums was found and in many cases the ground smelt strongly of gas where they had landed. About 50 duds were found not properly exploded of which 26 were in a leaking condition & therefore buried. 24 were brought back & investigated.

18 **INVESTIGATION OF DUDS.** 24 were investigated, 6 were complete, the BROCK lighter having failed to ignite the fuse of these. 1 because pallet was jammed and did not hit cartridge. It was found that in 2 cases the detonator had broken off from the fuse. 3 were full. Explosion had not occurred in the GAIN TUBE Detonator had exploded. 8 had exploded charge & all but had blown off 1 left the GAIN TUBE intact. Of these 2 were empty owing to a crack in the drum's central tube. Empty GAIN tubes had split. Drum had emptied through this. 1 partly empty, gaine tube blown off inside still leaking. 1 Stokes pistol head still ?, but gaine tube burst. Chemical action had then taken place on the cap the drums being partly empty. 1 complete explosion appears to have taken place but not sufficiently to burst the drum. The gas had emptied through the twisted copper tube. 1 leaked badly as soon as unscrewed slightly & had to be buried.

The conclusions seem

- (1) That the bursting charge is not sufficient.
- (2) That the detonator is apt to break off from the fuse thereby preventing its explosion even if the fuse had burned.
- (3) That there is plenty of opportunity for a 'set back'.

19 **FURTHER SUGGESTIONS**

It is believed that the suggestions in para 10 re increase of establishment of luminous compasses, cells and galvanometer, laying sticks, clinometers & staples and the undue length of charge block leads are receiving attention. In addition the following points are brought up.

- (1) The painting of galvanometer needles with luminous paint.
- (2) The protection of the holes & exposed parts of the pistol leads from mud (even if carried in sandbags.)
- (3) The conclusions in para 18 (on 'dud')

Capt J.A. Carpenter R.E.

TRANSCRIPTION.

APRIL 1917 WAR DIARY APPENDIX 6

"J" Special Company R.E.

ARRAS 6.4.17

APPENDIX No 6. Further information received on 'J' & 'H' Coys October attack

Gas Attack made by the British Army on the French Front near Nieuport (5.10.16)

A gas attack was made on Oct 5th 1916 by us on the French front at NIEUPORT. It was thought that the German Naval Division opposite might be found inexperienced in defence against gas, as it was known from the repeated statements of prisoners that a gas discharge in the neighbourhood of the area was considered to be impossible by the German Commanders.

The operation was successfully carried out after a fortnights delay due to unfavourable winds, and at a very small cost to ourselves, 8 R.E. being gassed and 2 of the French Infantry, all very slightly. 1800 cylinders of white star gas was discharged. After a successful raid made by the Germans a few days before the attack it was no longer hoped that a surprise would be effected; and the behaviour of the enemy when the discharge commenced left no doubt as to his being fully prepared for the operation. Nor was there any particular reason at the time for supposing that any damage had been done by gas.

A man of the 1st Malvosen Reg^t who deserted earlier in March of this year gave the following information (Ref 1/40,000 Sheet 12). For some weeks last autumn listening posts in the POLDER sector had reported sounds of hammering on metal in the adjacent hostile trenches. On the evening of October 2nd a party of the 2nd Battalion 1st Malvosen Regiment (then in the front line of the POLDER sector) consisting of 10 volunteers of each company, together with a detachment of Pioneers left with the following orders.

- (1) To establish what unit was in front of them
- (2) To destroy machine gun positions if possible.
- (3) To ascertain the meaning of the hammering and what preparations were being made.

The deserter himself saw the party leave about 18 o'clock and return 20 minutes later with about 20 prisoners, as he thinks of a French Regiment No 141. The raiders reported that preparations were being made for a gas attack. Prior to October 2nd there had been no special gas alarm orders. No one thought gas attacks were possible because the coast winds changed so frequently. After Oct 2nd standing orders for gas alarms were issued to all units, and a gas attack was expected daily except on the 5th when the gas officer of deserter's

battalion reported that the wind was too strong. The Deserter subsequently heard this Officer say that he had been taught that gas would be broken up and rendered ineffective in any wind more than half as strong as that of October 5th. The following was the distribution on the night of Oct 5th.

Sea Sector. 5th Mal Regiment – all Third Battalion in the act of relief. The resting battalion having come from OSTEND to take over. POLDER Sector – 1st Mal Regiment, 1st battalion in front, 3rd battalion in OSTEND, all 2nd battalion on fatigues, ie off loading cement, stores & gravel at embankment on M17, reloading on to field railway trucks and pushing latter into front line. LOMBARTZDE Sector 2 battalions of 4tgh Mal Regiment distributed as 1st regiment, ie the 1st battalion in the front line, the 3rd on fatigues, the 2nd in OISTEND. BAMBURG Sector – 12 battalion of 2nd Mal Regiment.

The gas affected all sectors but principally POLDER and LOMBARTZYDE. Two battalions of the 5th Regiment were in the front trenches which the gas apparently missed. The gas apparently also missed a battalion of the 2nd Regiment. At 23 o'clock on the 5th October the Deserter with a platoon of 37 men was pushing a truck about M15, and heard the gas alarm sounded. All put on their masks. The gas came on them quickly, but some had insufficient time, the masks of others did not fit, many others tore their masks where the respirator is attached to the material. 17 of the above 37 were gassed of whom 11 died on the ground and the remainder have never rejoined. The Deserter attributed his safety and that of others to finding an adjacent dressing station protected by a gas-proof curtain, where all stayed till 2 o'clock when the attack was over.

The remainder of that night, and all the following day and next night hundreds of dead and gassed were being carried out of all parts of the POLDER and LOMBARTZYDE sectors on to the road M.15 AB and M.1 OC.

Deserter's 7th Company was 180 strong on 5th Oct and lost 68 gassed of whom the majority are known to have died. Deserter believes all 8 Companies of his Regiment suffered similarly as did also the reserves battalion of the 5th Regiment, and the 4th Mal. Regiment and 1st Marine Pioneer Company suffered still more heavily. No one actually believed in the possibility of a gas attack before Oct 2nd and the men had not been adequately trained in the gas alarm nor had their masks been properly fitted and tested. The masks did not fit, and were of much inferior quality to those now issued. The respirators were so bad that men with weak lungs were forced to remove their masks. The fatigue battalions of the 4tgh Mal Regiment had left their masks on their rifles and packs, and the 1st Pioneer Companies had left their masks in MIDDLEKERKE.

The Deserter heard the Divisional Chaplain say at Church Parade on Oct 8th at OSTEND that the Division had to deplore the loss of 700 men dead after the recent gas attack and who

had been buried in the divisional sector. This is apart from gassed cases sent to OSTEND and BRUGES, of whom many died on route and in hospitals owing to the lack of adequate appliances for treating such large numbers sufficiently quickly.

It was currently estimated in the 1st Mal Regiment that there had been 1500 gas casualties in the division counting the 5 battalions principally affected and the divisional units, of whom the great majority ultimately died.

Before October 2nd French deserters had come over and said that preparations for a gas attack were in progress.

The gas was so strong that after the attack Deserter's Company could not unlock the bolts of their rifles, and all metal arms and equipment of his battalion were rendered unserviceable and handed into stores. Their rifles and side arms were described as 'as if they had been in a well'. The gas seemed to come in 6 separate waves, and the effects were felt as far back as RAVRSYDE. Several transport horses of the Pioneers were killed in MIDDELKERKE. Many dug outs in this sector now have gas-proof curtains fitted, and the gas-masks have been changed, fitted and tested.

TRANSCRIPTION.

APRIL 1917 WAR DIARY APPENDIX 7

"J" Special Company R.E.

ARRAS 18.4.17

PROPOSED SCHEME for use of LIVENS PROJECTORS against the village of GUEMAPPE

Reference attached map –

- (i) **GENERAL PRINCIPLE** It is proposed to strafe GUEMAPPE with a flight of 400 drums of gas projected by means of LIVENS projectors from some point behind the present front line, at some time about dawn on 21st April 17.
- (ii) **POSITION OF PROJECTORS** Projectors will be dug in behind a small natural bank running S.S.W. & N.N.E. at N.12.c.7.6. This will easily accommodate 400 projectors
- (iii) **TARGETS** The targets will be along the line AB in GUEMAPPE (marked in green) in order that the groups will fall so as to cover the portion of the village marked in green.
- (iv) **CARRYING OF PROJECTORS** At present 200 are dumped on the ARRAS-CASMBRAI road at a point 300 yards E of FEUCHY CHAPEL. These projectors will be carried up by 'J' Special Coy R.E. and dug in on the night 18th – 19th.

A further 200 projectors are available on the ARRAS-CAMBRAI ROAD at the point G.30.c.5.2. sheet 51B (where our old front line cuts the road). For carrying these up to the forward dump (ie point N.4.a.1.1. sheet v51b) 4 lorries would be required to report to 'J' Coy guides wearing red, white & green brassard at BAUDIMONT GATE ARRAS at 6 pm 19th inst. The projectors will be fastened on poles & loaded by 'J' Coy on to the lorries and off loaded at the forward dump. Carrying parties of infantry will then be required to carry these from this point to the position as follows.

8 parties of 50 men exclusive of NCOs carrying 25 projectors per party. They would report to an Officer of 'J' Special Coy at this point at intervals of 20 minutes, the first party must be returned by the carrying parties to the dump. They will be guided to position by guides provided by J Coy. The whole of the projectors (400 in all) will be dug into position by J Special Coy.

- (v) **Carrying of Drums** 400 drums are at present laying in cellars at G.29.c.9.9. in FAUBOURG ST SAUVEUR. On the night of the 30th – 21st 4 lorries will be required to report to guides wearing red, white & green brassard of J Special Coy at the

BAUDIMONT GATE ARRAS at 6 pm. These lorries will then proceed to the cellars and after being loaded by J Coy with drums will proceed to the point N.4.a.1.1. where they will be off loaded. Carrying parties of infantry will then be required as follows.

Ten carrying parties will be required, each party 40 strong exclusive of NCOs ie 400 in all, each party to carry 40 drums (1 per man). These will be loaded and guided by J Coy guides to the position. The parties will come up at intervals of 20 minutes the first party at 8.30 pm on the night of the 20th. The drums will then be placed in position by 2.0 am or thereabouts when all should be ready for firing.

- (vi) **WIND** The wind limits for this operation are S.W to N.W. If the wind is distinctly unfavourable and shows no sign of improving on afternoon of the 20th, the carrying of the drums can be postponed until the next night or cancelled as late as 6 pm on the 20th or 21st.

This course would be preferable to putting the drums in position with no prospect of a favourable wind as it would entail a great risk to remove the drums in daylight, if it was not possible to discharge them at the given time.

- (vii) **COMMUNICATIONS** Communications can be kept by a system of J Coy runners to the nearest brigade or battalion H.Q. whence wind messages can be sent to DIV H.Q. as soon as it is decided to carry up the drums. **ZERO**. I would suggest Zero at 5.30 am 21st. This can be communicated to Section Commanders at the positions by the runners.

- (viii) **INFANTRY ACTION** It will be necessary to clear the troops out of the line immediately in front of the projector positions. This can be done half an hour before firing takes place.

TRANSCRIPTION.

APRIL 1917 WAR DIARY APPENDIX 8

"J" Special Company R.E.

ARRAS 19.4.17

OPERATION ORDER NO C1 (MAP REF Sheet 51c)

GENERAL SCHEME 400 drums will be fired into GUEMAPPE from projector positions at N.12.c.7.5. The operation will be carried out in 3 nights and will comprise,

1st NIGHT Carrying and digging in by J Special Company R.E. of 200 light projectors.

2nd NIGHT Loading of 200 projectors on to 4 lorries at N.4.d.1.6. by J Coy loading parties, whence the projectors will be carried by infantry carrying parties to the positions. These projectors will be then dug in by J Company.

3rd NIGHT Loading of 400 drums on to 4 lorries at GT.29.c.9.9. and unloading at N.4.d.1.6. whence the drums will be carried to position by infantry carrying parties. Loading projectors & wiring all ready for firing by J Company.

DETAIL FOIR 2ND AND 3RD NIGHTS

2ND night a loading party of 16 men under 2/LT SANTER will proceed at 5.0 pm to G.20.c.5.2. and pole and rope 200 projectors. 4 lorries will arrive at BAYDIMONT GATE at 6.0 pm when they will be met by J Company guides (wearing red, white & green brassard). They will then proceed to G.20.c.5.2. and after being loaded will proceed to N.4.d.1,6. where they will be unloaded. They will then return to their unit.

Commencing at 8.30 at intervals of 20 minutes from that time 8 carrying parties each consisting of 1 Officer, 4 NCOs, 55 men will arrive at the dump. Each party will pick up 25 projectors and will then be guided by J Company guides to the position. They will be loaded and return to the dump with poles and slings. Digging and laying parties of J Coy at the rate of 10 per section under their own Officers (or senior sergeants in the case of 43 section) will parade at 6.0 pm and proceed to the position where they will dig in and lay their projectors. Each section will then have 80 projectors and the order of digging in will be according to diagram.

N

SECT 41	L ^T LAWFORD
SECT 43	2/L ^T SANTER
SECT 45	2/L ^T FARR
SECT 44	2/L ^T ALLCHIN
SECT 42	L ^T TAIT

S

3RD NIGHT At about 6.0 pm a loading party of 16 men under 2/LT FARR will proceed to G.29.c.9.9. where on the arrival of lorries they will load 400 drums on to the 4 lorries and unload at N.4.d.1.6. 4 lorries will report to J Company guide at BAUDIMONT GATE ARRAS at 6.0 pm and will be guided to G.290.lc.9.9. afterwards proceeding as above. Commencing at 8.30 pm at intervals of 20 minutes 10 infantry carrying parties each consisting of 1 Officer, 3 NCOs, 44 men will arrive at the dump. Each party will pick up 40 drums and be guided by J Coy's guides to the position the drums will be handed over to J Coy's Officers. At 6.0 pm J Coy's lorry will be loaded up with 400 propellant charges, fuses, wire, exploders etc. and will proceed to the point N.4.d.1.6. where parties detailed from each section will receive their portions of these stores. These will be immediately fitted into the projectors and connections made. The drums will then be placed in position by the men detailed from each section for this operation. During the whole of the 3rd nights operation box respirators will be worn in the '**ALERT**' position.

TESTING Lines must be kept tested throughout the night every 10 or 15 minutes.

FIRING Firing will take place at a ZERO to be notified later.

AFTER FIRING All sections will detail personnel to inspect projectors after firing. If any undischarged drums are found, they must be at once reconnected and fired. Immediately this is done cover should be taken in dug outs about N.12.a.8.1.

WIND Wind limits are S.W. to N.W.

COMMUNICATION From 10.0 pm of the 3rd night, wind messages will be sent by runner to LT PAINE R.E. at Batt H.Q. at N.11.d.7.7. whence they will be transmitted by phone to CAPT LAYCOCK R.E. at Bde H.Q. at N.10.sd.3.7. or by runner if the phone breaks down. Runners will be detailed and trained for this purpose.

