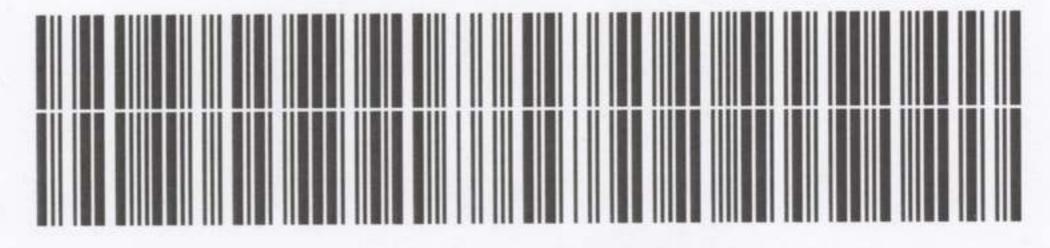
AWM4 Australian Imperial Force unit war diaries, 1914-18 War

Tunnelling & Survey

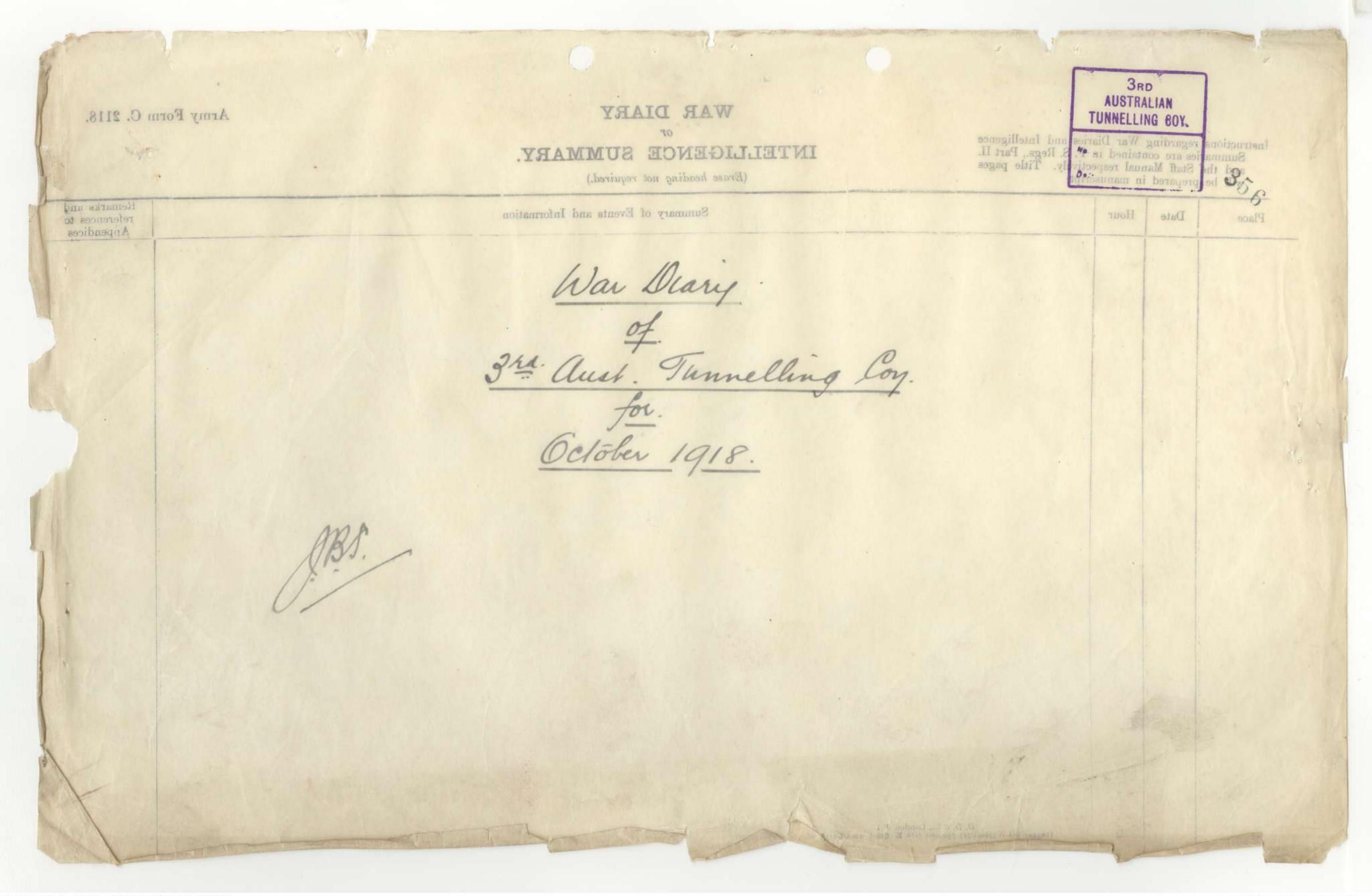
Item number: 16/4/33 Part 1

Title: 3rd Australian Tunnelling Company

October 1918



AWM4-16/4/33PART1



AUSTRALIAN WAR MEMORIAL RCDIG1007588

3RD AUSTRALIAN TUNNELLING BOY.

WAR DIARY

Instructional regarding War Diaries and Intelligence Summaries are contained in F. S. Regs., Part II. and the Staff Manual respectively. Title pages will be prepared in manuscript. INTELLIGENCE SUMMARY. (Erase heading not required.) Remarks and Summary of Events and Information references to Hour Date Place Appendices D. D. N. L., London E.C (18349) Wt W5300/P713 750,000 3/18 E 688 Forms/G2118/16

AUSTRALIAN WAR MEMORIAL RCDIG1007588

Army Form C. 2118.

INTELLIGENCE SUMMARY.

3RD AUSTRALIAN TUNNELLING BOY.

Army Form C. 2118.

Instructions regarding War Diaries and Intelligence Summaries are contained in F. S. Regs., Part II. and the Staff Manual respectively. Title pages will be prepared in manuscript. (Erase heading not required.)

Place	Date Ho	October 1	Summary of Events and Information	Remarks and references to Appendices
	Get. 1.		The Month of October the Company was engaged on the hew - Loss - Author - Behune - Meurching Strong the on 1/10/18: AIF. 24 Officers 661 QR. B.E. F altached 29 OR. Menchy: ROGRESS: - X- Mection worked on Knave Cake Dugonts & Avenue Ougonts at Gronehy: NB Section was road forming & repairing the Loss-Mulliet Road & Salvaging rails for tramway Noc Section with Betheine Area, removed the Illines Now 26 + 33 & stored osciploswis in Magazin on South Lide of Canal. Charge in Mune N- 46 was removed totoled in Magazino from Seide Canal. NED Section repaired timbers in old German Bugout at Hulluch & Carried out repairs on the Vermeller- Gullich Road. Ne Investigation parky from each Section advanced with the Infantry after the retreating even Caps. B.O. Ne article 4 News JB. Show N.C. was convened to collect evidence in regard to desappearance deept. Nac Campbell on 11/4/18.	ine of
	6ct.2.	WORK CON	PROGRESS: - NOA Section was engaged on the Knave Crake Sugarto & Connections also avenue Buganto at Su Theo work was stopped on the night shift: B. Letion corried on with repairs to door - Hulliet Road & tramway at aloos. C. Section worked on road repairs in the Bethene area & examined 20 Good Mones. D. Section worked on the Vermelles - Mullied Road, forming, repairing the road & cart. metal. Certain repairs to old German Engants were carried out near Hullieth. An Investigation Party from each Certain carried on as on previous day.	



Army Form C. 2118.

Summaries are c	ontained anual resp	iaries and Intelligence n F. S. Regs., Part II. cectively. Title pages script. INTELLIGENCE SUMMARY. (Erase heading not required.)	356
Place Date	Hour	Summary of Events and Information .	Remarks and references to Appendices
6e1.3		WORK in PROGRESS: - A Section worked on Construction of Vermellas-Hulluch Road. C. t. D. Party: B. Section effected repairs to Loss-Hulluch Tramway & Salvagning rails. Repaired Posen Alley Bridge & Carted metal to Loss-Hulluch Road. C. t. D. Party as work in 1st Capo area 5th array. C. Section were busy on repairs to roads in the Bothune area (Map 36 A. S. E. X 7. 14415). Remorning road mines & Charges on bridges. C. t. D. Party. D. Section worked on Vermelles-Hulluch Road, repairing Carting metal & filling in Craters. C. 1. D. Parties from each Section as work in 5th army 1st Corps area.	
Get. W. Sand botomars of the St. Shaw. M. e. to accounts of the Strigents News. Canteen Mrs. Get.	8 carries	NORK IN PROGRESS: - A Section on Vermelles Hullich road linaturation. Cot. D. Java Hallicot. Salvaging rails eto. B. Section on Low-Hullich road Construction of repairs to Java-Hallicot. Salvaging rails eto. L. D. Bord Repairs in Bethine area of remorning hoad mines of filling in Shell holes. C. Koad Repairs in Bethine Aread. C. L. D. Lineatizating cellars eto. D. Letian on Manuella Hullich Road, Carling mutal of filling in Craters. Company Order 1025: - The following lecame Craamolius on to low I Bassala Road on affolia. Thoughout R.C. 1183 Turkey & Horards of 85 the J. Hampson, it says Jones Co. 1202 Hilliams C. A. 1849 District R.C. 1183 Turkey & Horards of 85 the J. Hampson, it says Jones Co. 1202 Hilliams C. A. 1849 District R.C. 1183 Turkey & Horards 1021: Appreciative references made by Stilling formander reward are in termolo about Hollich I. Company, 1037: Himto Time Cate who was on the myse of Stilling formander reward are in termolo about Hollich II. Company, 1037: Himto Time Cate who was not were not be to the Caption of the Caption of the Market Time Property Co. 3. HORK 16 PROGRESS: A Centron pharming Nullich - Norder Meurolin Norde. Removing tank traps as the gold of Stelling in Craters at 1850 00.50. B. Setion. Repairing Low-old Borses Road. Illing in Shell Holes at Meurolin. Removing tanks traps as the golding the attacket Polisique Alone Old Borses Road. Illing in Shell Holes. B. Setion. Repairing Low-old Borses Road. Illing in Shell Holes. B. Setion. Repairing Low-old Borses Road. Illing in Shell Holes. B. Setion. Repairing Low-old Borses Road. Illing in Shell Holes. C. Jeeken Jilling in Craters of Borses Road. Filling in Shell Holes. B. Setion. Repairing Low-old Borses Road. Filling in Shell Holes. B. Setion. Repairing Low-old Borses Road. Filling in Shell Holes. B. Setion. Repairing Low-old Borses Road. Filling in Shell Holes. B. Setion. Repairing to the Road. C. John Borses Road. Removed Borses Road. Filling in Shell Holes. B. Setion. Repairing to the Road. B. Setion. Re	Knity DAG. A.

INTELLIGENCE SUMMARY.

3RD AUSTRALIAN TUNNELLING BOY.

Army Form C. 2118.

Instructions regarding War Diaries and Intelligence Summaries are contained in F. S. Regs., Part II. and the Staff Manual respectively. Title pages will be prepared in manuscript.

(Erase heading not required.)

Place	Date /9/3.	Hour	Summary of Events and Information Ap	arks and rences to pendices
	601.	9 16.	Continued: - D'Section. Horking on Lens-Halluch & Lens-La Barree Moads. Filling in Crahes. Carting metal, windering & cleaning of roads. Salvaging timber from old German Digonto & Galleries. Drawing mine charges from Hullich. N. Elie & D'Ecoges Tunnels & Manning Tunnels. Cleaning up tunnels. C. 1. D. Parties at work in 5 "Army 1st loops area. COMPANY ORDER: - 5858 Spr. Wabon J. A. Wounded & gassed on 10/10/18. Notice of results of 5" army Inter-Tunnelling Coy. Bullet Bayonte Mustaky Competition held at dirighents/of/18. 1051: - 1214 Syt. A.C. Yeardye wounded on Slus-La Bassen Road 15/10/18.	
	bet.	26	MORK in PROGRESS: A Section started the Construction of a wooden best budge across the Dauk Deule Canal at Meurchin on the 17th with timber Salved in the focality and worked stransport with pointoons of 18th aght Program work in advanced positions, to cross, 4 proved of great value. Biciati C. t.D. Meonewhed of 7 press 14ft span a about 100 ft over all. Biciati C. t.D. Meonewhed of 7 press 14ft span a about 100 ft over all. Biciati C. t.D. Meonewhed of 10 press 14ft span a about 100 ft over all. Biciati C. t.D. Meonewhed of the assembling of parts 4 the Construction of a Stal. Arothers 20 ft. Span Type Bridge across the Hank Stalk Canal at Port a Mandit 4 worked steadily at this Bridge about the 2 during the Stark Construction proceed with 1270.30 Biffly C. D. Dearties at work in the 5th army 15th Corps area. Irrest gation proceed with the 19th Areas occupied by 16th 15 \$158 th 1650. Growing to temporary stoppings of advances for forward for the C.D. was employed felling inshell holes of informing to forward roads near Melalin, Holdain, desdain on the 19th Corp. But 19th C.D. was employed felling inshell holes of informing the forward roads near Melalin, Holdain, desdain on the 19th Corp. Stad Puerless, moved forward from Bracepterson to Corp. 255.	
			CONFANY ORDER. 1059: - Capt. A.J. Helman. M.C. appointed 2th Command. Lieut E.P. Horn appointed adjutant & G.M. 939 C.S. M. Bowley P.R. appointed acting Regimental S.M: 1070 C. 9.M.S. Loggie A.B. appointed acting R. G. M.S. to date from \$10/18. 10 other promotions for Lagrants. 1062: - 4262 Spr Alexander F. gassed on 15/10/18. 1066: - The Head Quarter of J. Aust. Tuly. Coy. moved for Brucquenast on 19/10/18.	
			2353 Wt. W2544/1454 700,000 5/15 D. D. & L. A.D.S.S./Forms/C. 2118.	

INTELLIGENCE SUMMARY.

3RD AUSTRALIAN TUNNELLING BOY.

Army Form C. 2118.

Summar and the	ries are co	ontained anual resp	aries and Intelligence n. F. S. Regs., Part II. ectively. Title pages cript. TUNNELLING 80Y. INTELLIGENCE SUMMARY. (Erase heading not required.)	356
Place	Date /9/8	Hour	Summary of Events and Information	Remarks and references to Appendices
	Get.	27.	HORK IN PROGRESS: A.B.C + D Sections worked on Pont à Moudit Bridge across Hank Deule Canal.	
	Get. S	28 31.	HORK in PROGRESS: A "Section building trestle budge across La Bassée Canal at Bawing dynolishing German-constructed dams in da Bassée Canal (8.186.50.40) (C Ba 40.00)+ (C.130.50.70) B, C &D Sections worked on Pont a Maudit Bridge, which was completed on 30/10/18. and officially opened by General Holland, S.O.C. 12. Corps, 5-Urmy, The 31/10/18. Prof. 31/10/18. Prof. 31/10/18. Bushes Ponton Bridge at Pont-a Vendin, 4 looded Name for Templeuve. Salved 2 tinker argons, at Heurehin Bridge & erecks brush wood Sereens on Lide of Bridge (H.6d. 50 40) Guarded a maintainess bridge 4 approvehes at Pont-a-Saulk (P. 150.95.95) for 3 days.	
			Resume of Work done during Month of Belohen 1918: - During the first twee days of this month the diagont's under Construction in the Sivenchy area were the completed. Guing to the Change on the whole Weeken Front and the reheat of the enemy, he work of his Company for the first three weeks consisted almost entirely to road making and repairing in the evacuated areas portion of the 5"Urmy 1" Corps area, assisting in maintaining lines of communication to the forward partition. All four Sections of the Company moved from Ild. On at Bracquement to forward helpto to order to be nearer their sphere of work. The C.I.D. Parties did good and continuous works to advanced positions of the 1" Corps area, keeping in touch with the advancing sufantry. It undreds of road and auti-tast mines were unearthed and destroyed. Houses cellars, beliefs, chakaira aerodromes and cross boads were examined for mines of booky traps "Many were discovered and rendered ineffective. Several delayed action actal traps of a dangerous nature, were found and destroyed. Shell and Mine Craters, where they Hocked 2353 Wi. W2514/1454 700,000 5/15 D.D.&L. A.D.S.S./Forms/C. 2118. The Moads of Communication, were filled in by	

3RD AUSTRALIAN TUNNELLING 80Y.

Army Form C. 2118.

Place Date	Hour	Summary of Events and Information	Remarks and references to Appendices
Ge	4. 1918.	Resume Continued: by the Tunnellers as occasion demanded. On the 19th october, Stad Guarters moved out from Bracquemont to new bileto at Pont a Maudit on he Hauk Deuk Canal, thus tearing up he roots of two spears Settlement in one billets locality in trance. It Pont a Maudit, it Shel tridge of the 120h. Shan Hopkins Type was assembled and built across the Sauk Deuk Caual. This work of considerable proportions was Completed in Jacques and opened officially by General Holland S.O.C Littlaps 5thmy on 3thet, who, in a short address the assembled Tunnellers, thanked Thom for their work on the bridge, and paid them high Compliments for the work done by the Frances. The Coy at all times. Compliments for the work done by the Francest The Coy at all times. At Meurchin by H. Section. On the Completion of this bridge in Section moved to the La Bassie Canal where another timber budge to be local of the worth was taken in hand, and was in course of freetom 4 nearly completed at the end of the month. Several concrete dame excelled by the enemy across the da Bassie lavel have also demotished, by means of explosives. Buring this period the alled armies made great advances; to lertain Sections following up the retenting enemy of a short Audition. It he end of this month, he latest news was that Turkey and Austria had asked for an armistice of the termany was in a parlow condition of uncertainty of discretes.	
		CORRESPONDENCE R + I:- Oppendices added 1 to 7	6.

War Deary.

Fra. Aust. Tulg. Coy. October 1918.

Appendise 1.

350

Fifth Army.
G.A.186/4.
2nd October, 1918.

I Cerps.

The Army Commander yesterday inspected the extensive tunnelled works near HULLUCH, and desires me to may convey to you his appreciation of the results achieved. I am also to ask that the Officers, N.C.O's and men of the 3rd Australian Tunnelling Company be informed that the Army Commander congratulates them upon the magnificent work they have performed, which he considers is a lasting monument to their efficiency and industry.

Sd C.B.B.WHITE,
Major General, G.S.

Cepies te:- C.E. C.ef M.

2.

· 3rd Australian Tunnelling Coy@-

Ne. 153 (G.b). 3rd Octeber, 1918.

Ferwarded for infermation.

sd o.C.DOWNES, Major,

fer Brig: General, General Staff, I Cerps.

Ceps te:-

C.E., I Cerps.

0.G., 170th. (T) Co. R.E.,
0.G., 250th. " " "
0.G., 251st. " " "
0.G., 257th. " " "

The M.

The following are extracts from Intelligence Summaries, which may be of use to investigation parties during an advance:-

- (1). Anti-tank mines are said to be placed in the wire between WINGLES and BENIFONTAINES.
- (2). Prisoners state that road mines exist near WINGLES at H.5.d.5.0. and H.10.b.2.7. and that the roads are mined as far back as WAVRIN.
 - (3). The following bridges on the HAUTE DEULE Canal have been prepared for demolition:
 Railway Bridge B.30.d.9.0.

 Road " H.6.d.7.3.

Prisoners are stated to be filling in lock at DON with a view to flooding the country to the S.W.

- (4). Five craters have been blown in cross roads N.W.of FLEURBAIX and 4 S. of BOIS du BIEZ.

 Escaped Portuguese prisoners say that roads have been mined in back areas.
- (5). A prisoner of the 9th. Res. Div. states that the country W.of ILLIES is being thickly mined with light trench mortar land mines.

 All along the roads and field paths E. of ILLIES are large pits camouflaged.
- (6). It is thought that the new work W. of FLEURBAIX FAUQUICSART Rd. at N.2 B & C, and H.32.d. is a line of anti-tank mines. The work consists of 3 lines of holes 18" diam. and spaced about same distance as wiring stakes; the line is about a mile long.

 A similar line of holes crosses the old "No man's Land" W. of SUGAR LOAF (N.9.c.); this line is 1200yds. long. It is not unlikely that the recent work in front of the wire between BOIS du BIEZ and LORGIES may also be a line of anti-tank mines, although it has the appearance of rifle pits. At nearly all points where these lines crosses road a crater has been blown
- (7). A crater has been blown S. of ERQUINGHEM-LYS.
- (8). Six craters have been observed W. of AUBER.
- (9). Two new craters are visible in the MEUVE CHAPELLE area.
- (10). PETILLON Cross Roads (N.2.0) have been mined.
- (11). VENDIN-BOUVIN-LA BASSEE Line. A prisoner reports that the wire in front of this line has been sown with anti-tank mines.
 - (12). AUBERS. New crater on main road at 36.5.W./N.26.b.62.18. since 25-9-18. (21 HAB 694 of 42 HAB 221).
 - (13). HAISNES. Grater on main road at 44A/B.25.a.5.8. (2 HA 58. No previous photo).
 - (14). ILLIES. Trench across road at T.21.a.4.9. dug between 16-9-18 and 24-9-18. Filled in since 24-9-18. Anti-tank mine suspected. (2 HA 41 of 21 HAB 524 and 21 HAB 671).

26th.September 1918.



appendise 3

- Prisoners state that read mines exist near WINGLES at H.5.4.5.0 and H'10,b.2.7., and that the reads are mined as far each as WAVRIN.
- The following bridges on the HAUTE DEULE Canal have been prepared fer demolition :-Railway Bridge H.30.d.9.0. " E. b.d.7.3.
- Five craters have been blown in cross reads H.W. of FLEURBAIX and 4 S. of Bols du BlbZ. Escaped Portuguese princhers say that reads have been mined in back areas,

Tio a.d

- 4. A prisoner of the 9th Res. Div. states that the country W. of ILLIES is being thickly mined with light tranch merter land All along the reads and field paths H. of HALIES are large pits comouflaged.
- VENDIN BOUVIN LA BASSES Line. A prisoner reports that the wire in front of this line has been sown with anti-tank mines.

Copy tent to o'c Sections.
and all officers on investigation work.

Dirajor.

250

APPENDIX /!

pm pp

appendise 4

C.E., I Corps No.3332/5

SECRET

O.C., 170th Tunn. Coy., R.E.
O.C., 3rd Australian Tunn. Coy.

O.C., 560th A.T.Coy., R.E.

AMENDMENTS to C.E., I Corps No.3332/5 dated 3.9.18, NOTES ON THE EMPLOYMENT OF I CORPS R.E. IN THE EVENT OF AN ENEMY WITHDRAJAL OPPOSITE I CORPS FRONT.

Page 2.

560th A.T.Coy., R.E. REPAIR OF BRIDGES.

Delete Stage III, and substitute:-

Stage III. Reconnoitre and do all necessary repairs to follow-ing Bridges:-

(a). Canal Bridge - LA BASSEE.

(b). Bridge over FLOT DE WINGLES, BENIFONTAINE. H.8.d.

(c). Canal Bridge - MEURCHIN.

H.6.d. C.13.c.

(d). Canal Bridge - BAUVIN.

for Chief Engineer, I Corps

2.10.18.
Copies to: - C.R.E., I orps Troops
"G", I Corps

"G", I Corps
"Q", I Corps
C.E., Fifth Army.
D.A.D.Roads, I Corps
W.S.O., I Corps
Labour Commandant, I Corps

"Q",15th Division
"Q",16th Division
"Q",55th Division
C.R.E.,15th Division
C.R.E.,16th Division
C.R.E.,55th Division

appendix 5/21



Description of Rope Haulage used by 3rd Australian Tunnelling Company for lifting chalk spoil from HYTHE Tunnel to surface during construction of Tunnel System.

During the construction of HYTHE Tunnel by the 3rd Australian Tunnelling Company a rope haulage was used for lifting the spoil from the Tunnel to the surface a distance of 60 feet on a 1 to 1 incline, equivalent to 49 feet vertical.

The system adopted is illustrated in the sketches attached -

(see sketch "A").

The chalk was bagged at the faces and trucked to a small chamber at the foot of the incline through which the haulage rope worked.

The bags were hung on the rope by means of hooks (one shown on sketch "C") which gripped the rope tightly and were easkly to engage by hand with the rope at the bottom of the incline and disengage by hand at the top. Sometimes two bags were hung on the same hook.

About 50 hooks were used. They were collected at the top of the incline placed in a sandbag and returned down the bag slide (a shallow trough 18" wide fixed on the steps of the incline).

A home rope of " circumference was used. Three turns were made on the bollard of the winch and the ends fixed together with a long splice. The pulley at the top of the incline was swung from a double purchase block so that the stretch of the rope could be taken up. The jockey pulley in front of the winch was hung in the same manner. The

speed of the rope averaged 150 feet per minute.

The winding bollard was driven by an electric motor through a countershaft and friction gearing. The bollard was set on a cam shaft so that by moving a lever the friction gear wheels could be engaged or disengaged as required. (See sketch "B").

Four men were employed. One winch driver. One bag "hooker". One bag "hanger"at foot of incline. One bag "dropper"at top of incline.

The average rate of haulage was 500 bags of chalk per hour. Although it was possible for short periods to work at double that speed. The spoil from 18 to 15 faces was easily dealt with.

The plant was designed and constructed by the Australian Elect-

rical Mechanical Mining and Boring Company.

AUSTRALIAN
TUNNELLING COY.
No.... 3138

Date....

Controller of Mines, Fifth Army/

Herewith, please, description and sketches of Rope Haulage Plant used for elevating spoil to surface during the construction of HYTHE Tunner through HILL 70.

The method was so satisfactory that it would be of benefit to

circulate the information to other units.

Although a steel rope in place of the hemp rope was not tried at HYTHE Tunnel, in experiments made by the Aust. E.M.M. & B.Coy., during construction of the plant, a steel rope was used and a hook specially designed to suit the rope. It was found to be quite effective. For inclines 100 feet and over in length, the steel rope would, I think, be more satisfactory than the hemp rope owing to the stretch being much less and the life greater.

8/10/18.

C.O., 3rd Australian Tunnelling Company.

O.Cop A" Section.

m mDn

SECRET.

JRGENT.

AUSTRALIAN
TUNNELLING COY.

No. 3141

Date. 3-10-18

appendix 6

" "C" " (for information).

According to Reports from Lieutenants Allen and Ashcroft it is absolutely necessary during the preliminary stages of each advance to have an Officer with each of the C.I.D. parties attached to front line Battalions.

The reserve party should be split in two and continue examination of what becomes the back area of each battalion and render harmless any traps found, in addition to collecting other necessary information. Each back party would work under orders of the Officer with the front line party.

Please detail Lieutenants Taylor and Cavanagh to work with left Battalions of 46th and 44th Infantry Brigades respectively starting immediately.

An officer will be sent to work with the left Battalion of the 45th Infantry Brigade and an officer to replace Lieut. Cavanagh on the road construction work.

The front line Investigation parties with each battalion should not exceed

1 Officer. 1 N.C.O. 5 Sappers. 8 Infantry.

and the back area investigation

party behind each battalion should not exceed

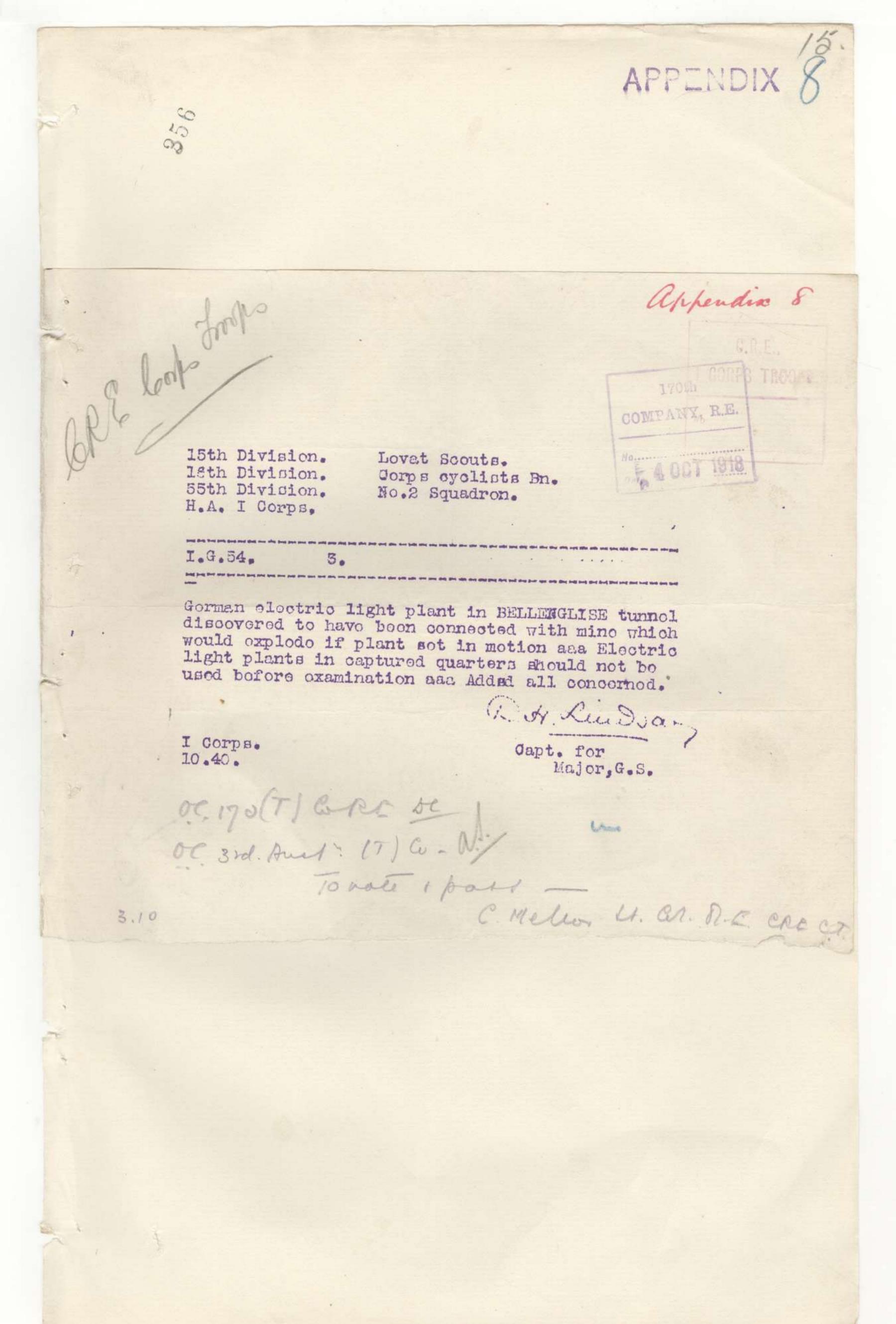
1 N.C.O. 3 Sappers. 4 Infantry.

Please organise your Investigation parties accordingly as soon as possible.

C.O. 3rd Australian Tunnelling Company.

Copy Cile

appendex AUSTRALIAN IMPERIAL 39/3/45 FORCE BF 100 107 707 1-Headquarters. Australian Imperial Force, Care H. Q., Fifth Army, 3rd October, 1918. Principal Chaplain, General Headquarters. On the recommendation of the Senior Presbyterian Chaplain, A.I.F. approval has been given for the undermentioned changes in postings of Presbyterian Chaplains of the A.I.F. -Chaplain the Rev. W. J. GRAY from Australian General Base Depot to 3rd Australian Tunnelling Company. Chaplain the Rev. F. W. RANKIN from England to Australian General Base Depot. The necessary instructions to give effect to these moves have been issued. General. Commanding Australian Imperial Force. - 2 -0.C., 3rd Aust. Tunnelling Coy. For information. Plboleman bapl VLieut-Colonel, A.A.G. A.I.F. H.Q. A.I.F. 3:10.18.



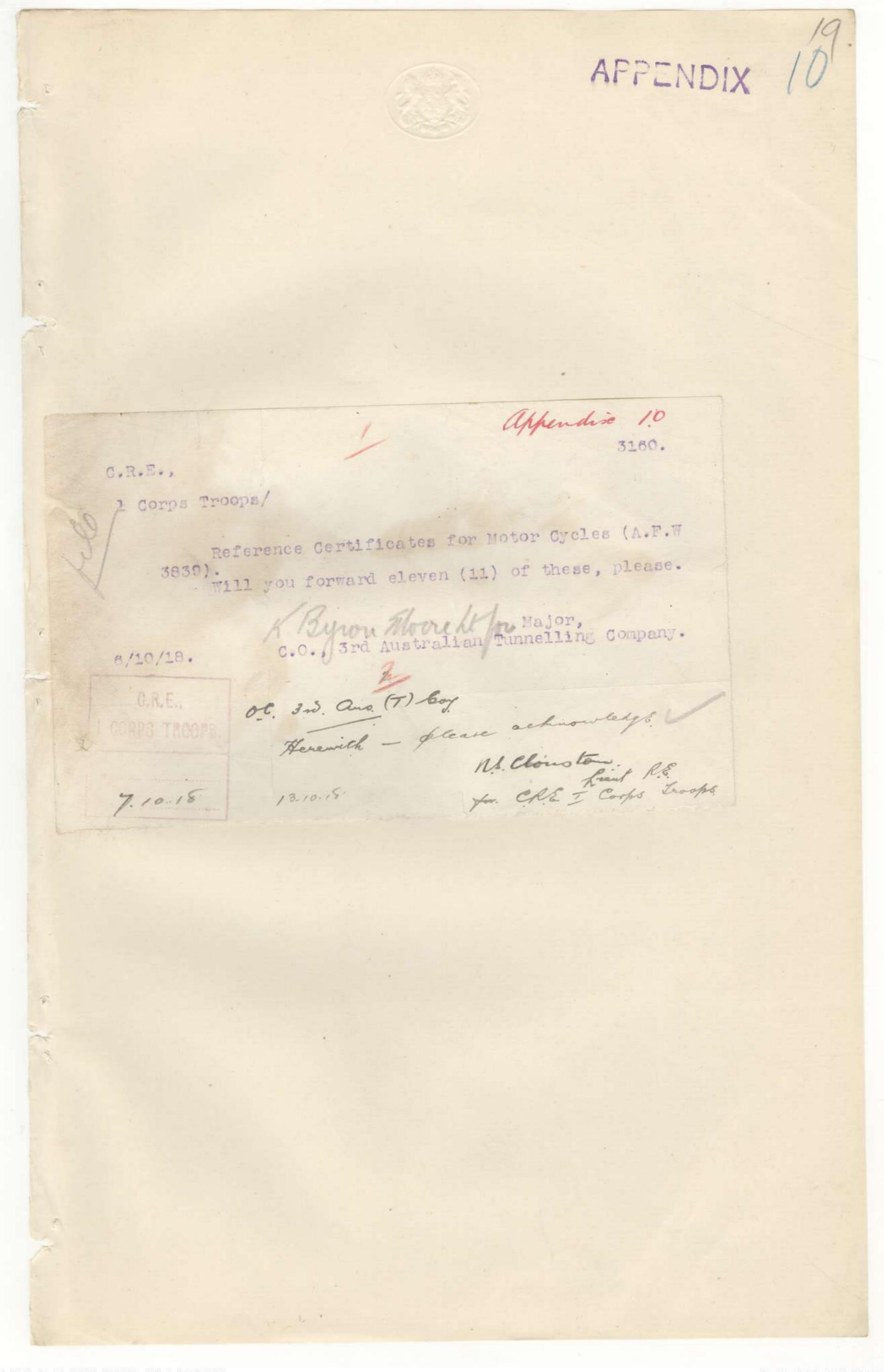


The C.O. 3rd Australian Tunnelling Company/ The following data have been collected regarding line holes put In conjunction with Major David's Search for down near MARQUEFFLES:-Groad Metal . Map. Ref . Depth Distance Series. No. from next of REMARKS. Sample. Hele. Bere. Clay 2' Shale 9' 11' A . 11' 11'm 81 11' No Shale loose rock at 11' 11' Clay 2' Shale 9' A6 61611 Clay 6' & struck quartzute. Clay. 6:611-Rock struck at 6'. 416". 41 27 11 11 41 41 11' 2' Clay Red Shale 9'. Clay & loose stone A15. 11' 11' Clay. Flints in Clay. Clay, Struck rock at 6'. Clay. Clay, Rock at 4' 9 Broken Rock from 3' 316" Rock struck at 3'6" 31611 31611 11 31611 11' Shale 11. " for total depth 11' 81 struck at 6' Rock 51611 0 11 11 51611 Rock mixed with Clay at 5' 81 Shale 11' 5' Green Shale & Clay 6' Reddish Dl. 11' Green Sand and Clay: Sandstone. " Rock at 81 81 61 7890 Quartzite. 8. Red Shale & Quartzite on Sufface. 8' All Red Shale 11' " " " 81 E1 . * Green Sand and Clay 81 Shale 121 " 5' Red Shale 5' 100 19 81 61 Green Sand & Red Shale Broken Quartzite 10' Broken Rock all the way, at 8'. 12 51

			2. ap. 9.	17.
Series. No.	from next	Depth of Bore	REMARKS. Sam	ole.
Series. No. F. 12345678901112 K 12345677123456712345677712345677123456771234567712345677123456777123456777123457712345677712345777123457771234577712345777123457777777777777777777777	from next hole.	Depth of Bore 8893168 35233888888555513881936691666831	Clay 2' Red Shale 6' """"""""""""""""""""""""""""""""""""	ole.
N 1 2 3 3		81	Clay 1' and broken shale 5'. In Shale	
P 1			8' Clay 2' Shale. 9' " 1' "	
			BSKaw Liens. 3no aust. Trees. Con.	

Series A. Straight row of 15' holes 6' apart running approx. S. to N. /8 0 15' from row of trees. B. 16 holes " to Series A 6' apart 22 yards away from Series A. 10 00 F. 2 " 20' apart running approx. S.to N. " Parallel to Series F 24 yards away to W. running approx S. to N. H. 5 " near Light Rly at side of slack dump J. 12 " surrounding shell hole near Rly cutting. K. 7 " 62' S.of shell hole running approx. E. to W. L. 4 " 39' S.of Series K. running E. to W. M. 3 " (side holes 30' and 60' apart) from centre hole) to W. of Marqueffles Farm. N. 4 " irregularly chosen in garden at S. side of farm buildings. P. 1 " on Bash side of Farm Buildings.

In each series read numbered holes wrammy consecutively from the approx. direction S.to N. or E.to W. and holes around the crater clockwise, starting with the most Northerly as No.1.



APPENDIX 20.

500

_Copy___

appendix . 11

O.C., 3rd Australian Tunnelling Coy.

In accordance with instructions from C.E.11th Corps as per wire 114/39 dated 4-10-18 I took over work on blue road as shown on attached plan. The 215 A.T.Coy removed all tools they had been using on this work. On Monday 7th I sent a party to clear the road from T.16c to T.6d.

This road is in good order for lorry traffic.
About 12 loads of metal were put on the road where the macadam has

sunk away from the paved read.

The principal work along this road consists of making up the side where

the pavee is higher than the metal road.

A suspicious trench across the road at Tllc 20.20 was investigated

but nothing of the nature of a mine was discovered.

There is a dump of metal at T. 11c 10.96 which can be used for patching

the read.
The read is in good order through Fournes en Weppedas far as 0.10a
70.90 which is furtherest point I reached.

Labour Company. The 71st Labour Company personnel was not used on this work.

At the present time there is no work for this party to do on these forward roads.

Stores. All stores which were drawn from R.E.Park Burbure have been returned and at present there are no stores dumped anywhere on the read.

Bridges. I attach herewith report from O.C. 215 A.T.Coy in reference to Bridges at V.13b 50.90 and V.14a 70.90.

General. In accordance with verbal instructions received from you on 7th inst. I ceased work in this area and took over work in 1st Corps area at 10.00 on 8-10-18.

I have not been advised who was to take over the above work from me.

(Sgd) A.C.Morris, Capt. O.C. "C" Section, 3rd Aust. Tlkg Coy.

8-10-18.

ap. 1 12 21.

3rd Aus Pralian Tunnelling Company/

Herewith result of reconnaissance of demolition charges.

I have not visited any charges behind the red line on accompanying map.

A number of charges have been removed by 170 Tunnelling Company and a special report handed in by the officer who carried out this work.

This report I understand was handed to C.E. lat Corps.
I visited the 170 Tunnelling Company and I was informed by the officer in charge of this work that he had removed the following

charges	1:0		
	Bridge		F.4.b.4.30
2	H		F.4.b.2.6
3	n n		x.28.c_6.6.
345930	g .		X.28.0.5.7.
5	#		X.28.c.4.9.
9	11		F_3.d_4.5_
30	44		F.3.0.45.45.
11	. 18		F.7.a.70.85.
13	- H		E.5.d.5.10.
14	19		E.5.d.5.18.
15	Pent Neuf .		B.5.0.9.7.
16	Railway Bridge		E.18.b.75.20.
17	11 11		E.18.4.50.70.
18			
	Dand dumntian		E.15.d.8.3.
19	Road junction		E.17.d.5.2.
20			B.10.a.4.4.
30	10 m to 10 m		
31	" Bridge		E.10.a.8.7.
37			- 7 - 7 6
- 44	Road Bridge		E.7.d.3.6.
77			
78			
79 80		- 4	
80			
81			
86			
87			
88			

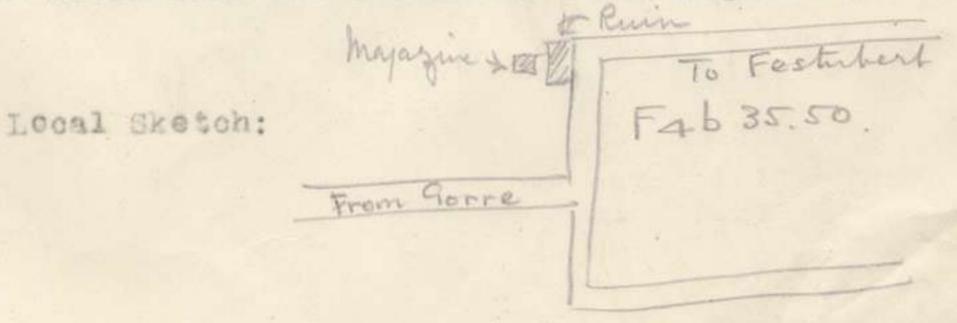
I could find no magazine where explosives hah been stored at any of these bridges or central magazines.

Serial No.6. Bridge X 28.a.1.3.

This was not a Bridge demolition but consisted of Bore-holes under the road.

The charge consisting of ten (10) tubes 2'0" long filled with 0.0. slabsand three (3) bags, about 90lbs, of Blastine removed to central magazine at rear of house at Northern corner of Tuning Fork road at F.46.35.50.

Also twopipes 2" diameter were removed from foot bridge on South side of Gorre road and stored at above magazine.



ap. 12. 22

Serial N90.7.

charge has been removed but no trace found of the explosives.

Serial No .12.

E.6.a. \$5.85. Bridge demolition.charge has been withdrawn, consists of makke 60 slabs of G.C. Store at central magazine at B.26.E.5.a.6.5.

170 Tunnelling Coy have reported on these.

21

Do not exist.

23 24 25

26 Road Bridge over Canal.E.5.a.6.5.
Charge consisting of Ammonal and Blastine in cases has been removed and stored in magazine aut in Road embankment on Bethune side of Canal at

E.5.a.6.5. contains 10 cases of Ammonal, 3 cases Blastine G.C. fuse and detenators for girders, also 60 plugs of G.C. for bridge demolition of Serial No.B.12.

- 27 Bridge W.24.c.95.05.
 Charge has been withdrawn and stored in magazine on
 North side of canal on hast sade of road. Contains 13
 cases of Ammonal, 1 case G.C. 10 bags Ammonal primers and
 detonatorsm. This magazine could be used for explosives
 for B.29.
- charge has been withdrawn, could find no trace of explosives.

30 Have been reported by 170 Tunnelling Coy?

Reported taken out by 82 Coy.R.E.and stored in central magazine at 35 E.5.a.2.50.: 1 could not find this magazine.

Road Bridge. B.S.a.2.4.

Charge. 200 lbs G.C., removed and scored in magazine
Weide of the road and 30'from road.

36 feet on Bethune side of Bridge.

Charge 100 lbs 0.0. removed and stored in magazine at B.26. also removed 22 Ms 9.C. 4 time amm. and 100 plugo of Blastine from B. 35 Mag. and stored at B.26.

Culvert D.12,a.9.9.
Charge 4 torpedoes 5'0 long, removed and placed in wateratight box at side of road; no detenators or fuse.

for footbridge placed in magazine on right of light railway about 5 yards behind hedge on bank of canal.

- Serial No. 40. Arched Brick Bridge V 30.c.7.0.

 Charge 200 lbs G.C. remeved and placed in magazine 40 yards

 North from road on bank of creek. This magazine also

 contains a small charge for feet bridge at V 30.b.5.0.
- Charge 41. V.30.0.7.6. Steel girder bridge.
 Charge 200 lbs G.C. removed and placed in central magazine
 50 yards S.W. from road in bank of canal, also contains
 small charge for bridge at Y.30.5.70.75.
- Charge 42. V.18.c.7.0. Steel Girder Bridge.

 Charge 100 lbs G.C.stored in magazine 70 yards from light railway in bank of canal. Magazine also contains charges for bridges at V24.B.1.5. and V.24.b.0.7.

43

44 Reported by 170 Tunnelling Coy.

45

- 46 Steel girder W.28.b.6.1.
 500 lbs G.C. remeved and placed in magazine in tunnel in the railway embankment about 10 yards N.H.of read
- 47. D.5.b.8.0. Level Cressing.
 Charge placed in locked magazine 130 yards W of level oressing.

48

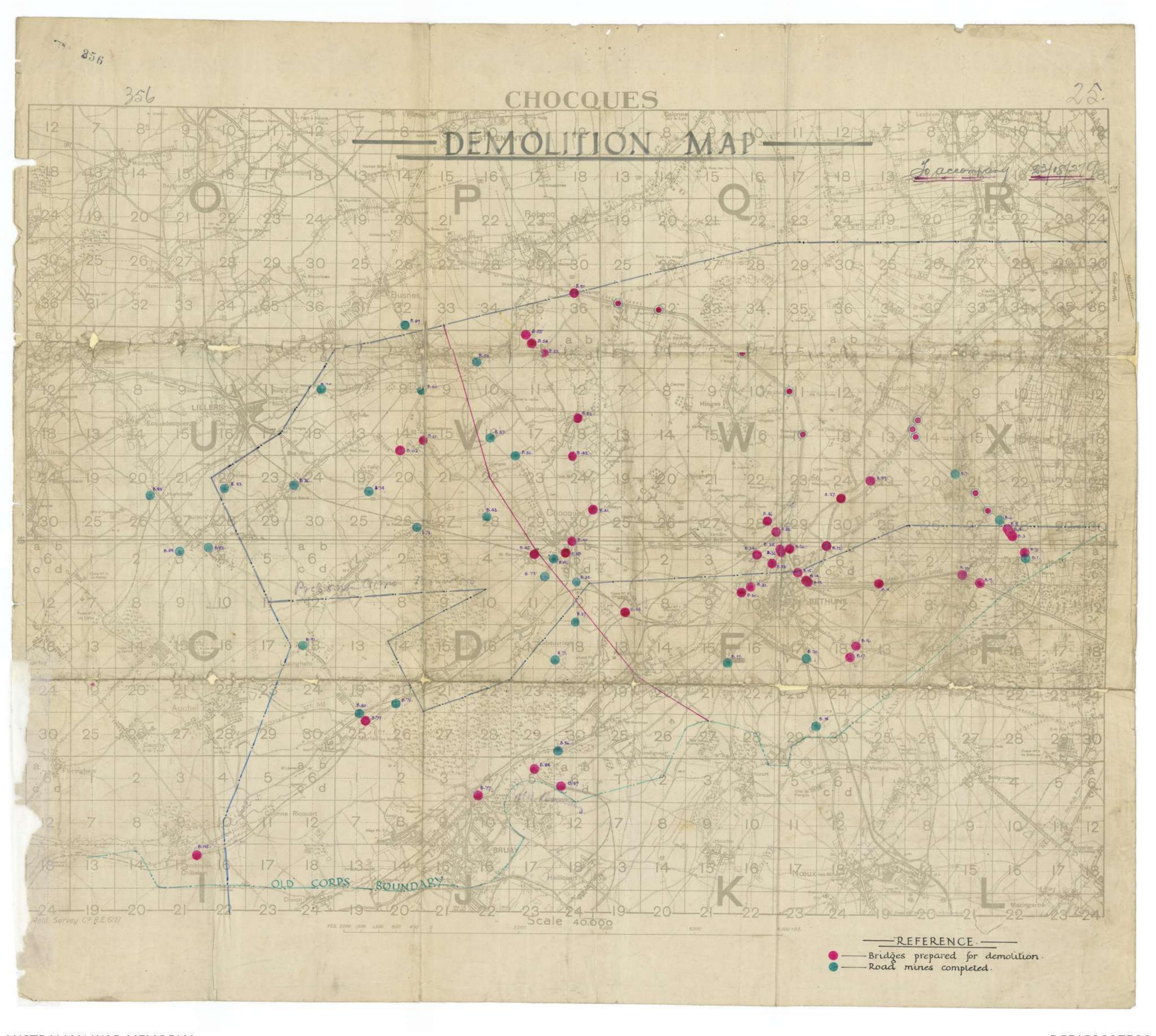
- Charge 51 P.36.a.9.7. Drawbridge
 Charge has been removed and stored in magazine at Q.31.a.
 8.2.on side of canal.
 - Charge 52. V.18.b.0.7: Girder Bridge.
 Charge 120 lbs G.C. stored in magazine 10 yards to South
 of road on canal bank; Contains no fuse or detonators.
- Charge 53 V.5.d.5.90. Road Bridge.
 Charge has been removed; no trace found of explosives.
 - 54. V.5.a.9.5. Brick Bridge.
 20 lbs G.C.charge removed and stored in magazine at V.5.a.
 7.9. A small gun shelter close to girder bridge.
 - 55 V.5.a.7.8. Feet Bridge. Charge has been removed; no trace of explosives.
 - V.17.c.25.00. Read Crater.

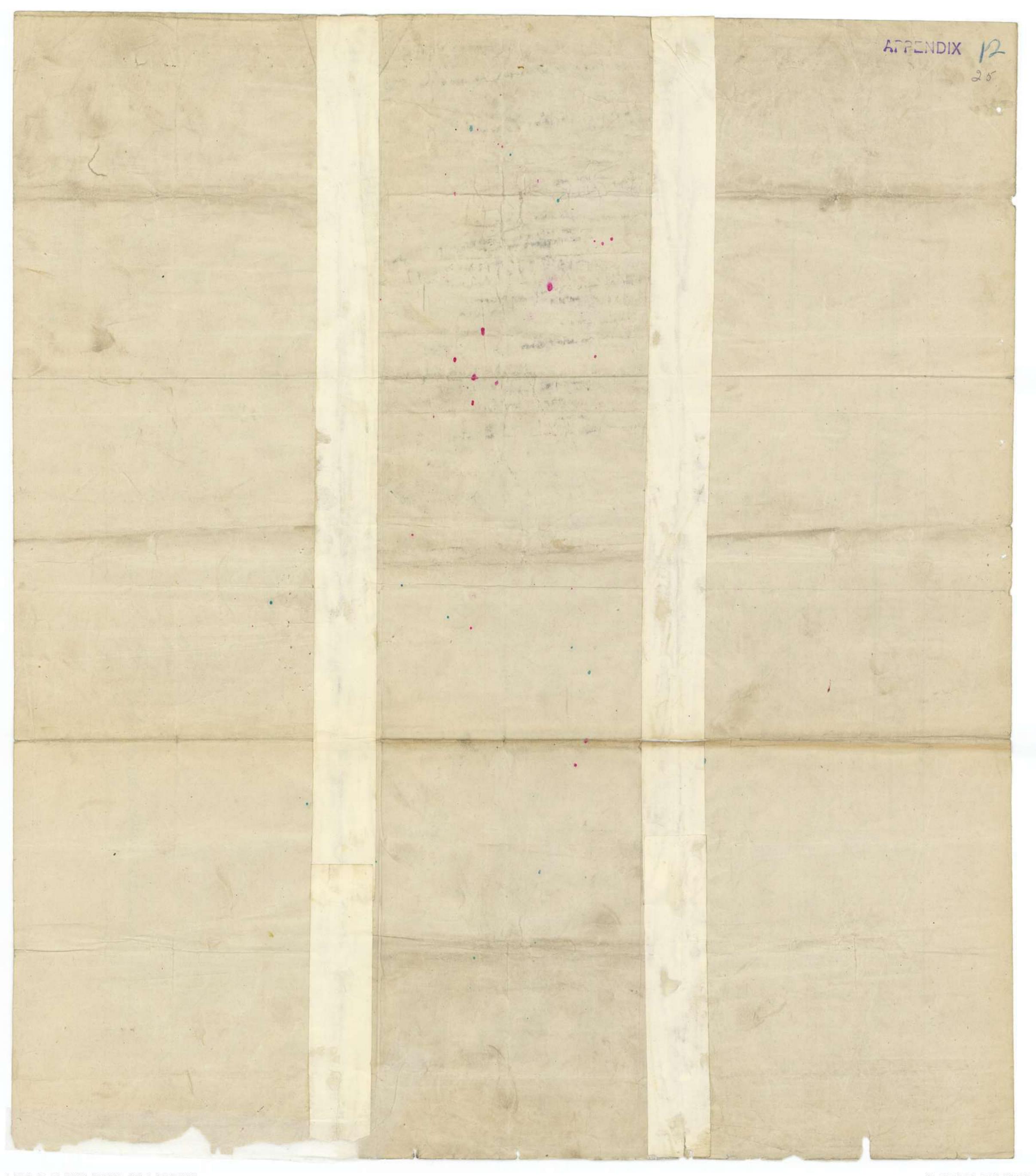
 4 Torpedoes placed in watertight bex about 10 yards N of read at site. No detenators or fuse:
 - V.4.c.4.3. Read Grater.

 4 Terpedces placed in watertight bex about 10 syards to N of read at site. No fuse or detenators.
 - P.32.d.10.10. Road Crat er

 4 Torpedoes in watertight box about 10 yards w of road near hedge. Contains bag with primers and detonators.
 - 57. V 16d 0.8. Road Crater 4 torpoedolo placed in a watertythe Bose about 10 yes North of Road at tite. No Juse or detonators.

ap. 11. 24 In all cases where fuses were tested no failures were Fuch FUSES. found. The fuse was tested with primer and detonator. Fuses were found at some charges such as 3. 4 & 5. These had been burnt apparently for testing purposes. Charge 36. Fuse was taken from the centre of the charge under the read way and was in good order. '(Sgd) A.C.Morris, Captain,
O.C. "C" Section,
3rd Australian Tunnelling Company; 8/10/18.





Controller of Mines.

sailings in August and on three days in September, it was found that the percentages of other ranks proceeding on leave worked out as under:-

Over	18.	15.	IR.	10.	under 10 mont	ns.
Asser.	34	19.25	78.5%	4.5%	-8%	
Sopt.	2%	13.2%	78.4%	17%	2.6%	

months is increasing, and it follows that, as there are still 106,283 other ranks in the country who have not had leave for over 12 months, preference is not being given to those who have been longest out of the United Eingdom.

explanation will be called for in the case of any unit contravening para. (a) of G.R.O. 4700.

AND YOU WIRE AND AND NOW WHEN YOU YOU AND YOU WISH YOU WAS YOU AND YOU WAS YOU

9-10-18.

(sgd) B.C.MALONEY. Capt.S.C., for Lieutenant-Colonel, A.A.G., Fifth Army.

CONTROLLER OF

MINES.

FIETH ARMY.

0.0., 170th. (T) GO.R.E. 0.0.. 250th. " " " 0.0., 251st. " " " 0.0., 257th. " " "

O.C., Fifth Army Mine School.

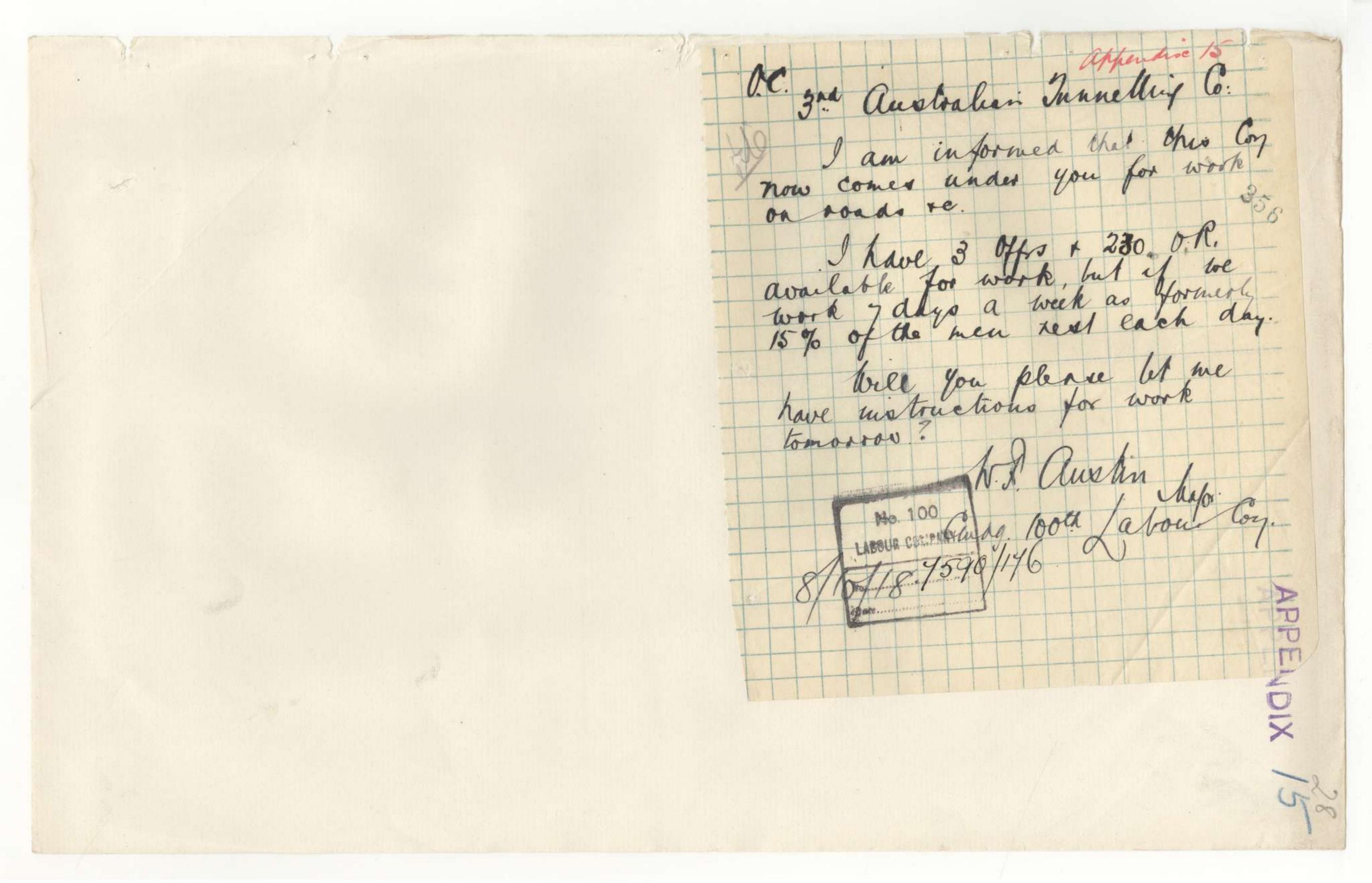
For information.

1. Holand

Controller of Mines, Fifth Army.

au

APPENDIX appendise 14 CONTROLLER OF MINES. 0.C., 170th. (T) CO.E.E. FIFTH ARMY. 0.0., 250th. M.37/32. #,04,.251st. No 9mlOmlGa U.C., 257th. 0.0., Srd. Aust. (T) 00.0 The following enemy ruse is reported from 400 MD MS 100 400 UD CAR CAR HIS 400 400 HIS 470 another Army Front:-The girders of a bridge are destroyed by the enemy on retirement but the abutments left apparently quite intact. A new bridge is placed in position on the existing abutments by our troops. A week or so later one of the abutments goes up, a carefully concested delay action mine having been laid therein by the enemy prior to his withdrawal. there send com to beething to inform Lt-Col.R.Bos Controller of Mines, Fifth Army.



AUSTRALIAN WAR MEMORIAL RCDIG1007588

3943. 29.

Controller of Mines, Fifth Army.

Further to my 3943 of 18-9-18.

Will you please also include in your fortnightly returns a statement of total number of British Demolition Charges removed (the first return to be from 8th August), with a note of the weight of explosives involved.

(Sgd.) B.W.Y.DANFORD. Lt-Col., for Inspector of Mines.

9-10-18.

0.0., 250 (E) CO. R.E.

0.0., Srd. Aust.(T) Co.

and not not the own one of the sale of the sale of the

GONTROLLER OF MILLES, FIFTH ARMY.

For necessary action please. First return to be rendered with return

asked for in previous letter due on 25-10-18.

Controller of Wines, Fifth Army.

The Controller of Mines. Fifth Army/ appendisc 17.

AUSTRALIAN TUNNELLING COV.

3210.

13/10/18.

Reference report called for in I. of M's 3943.

The total number of Land Mines, traps and charges removed by this unit between October 1st and October 11th is as follows:-

	Number.	Approx. weight.	Remarks.
Land Mines	789	93840 lbs.	Including 53 mines under roads.
Delay Action Mines	8	2040 lbs.	Including 8 gas projectors with charges.
Other Traps	4	280 lbs.	
Demolition Charges	99	Secon Ibs.	Including a magazines with explosives pre-pared for de-molition.

Approximate total weight of explosives involved = 54 tons.

major,

C.O., 3rd Australian Tunnelling Company.

30

300

SECRET

C.E., I Corps No. 3332/5

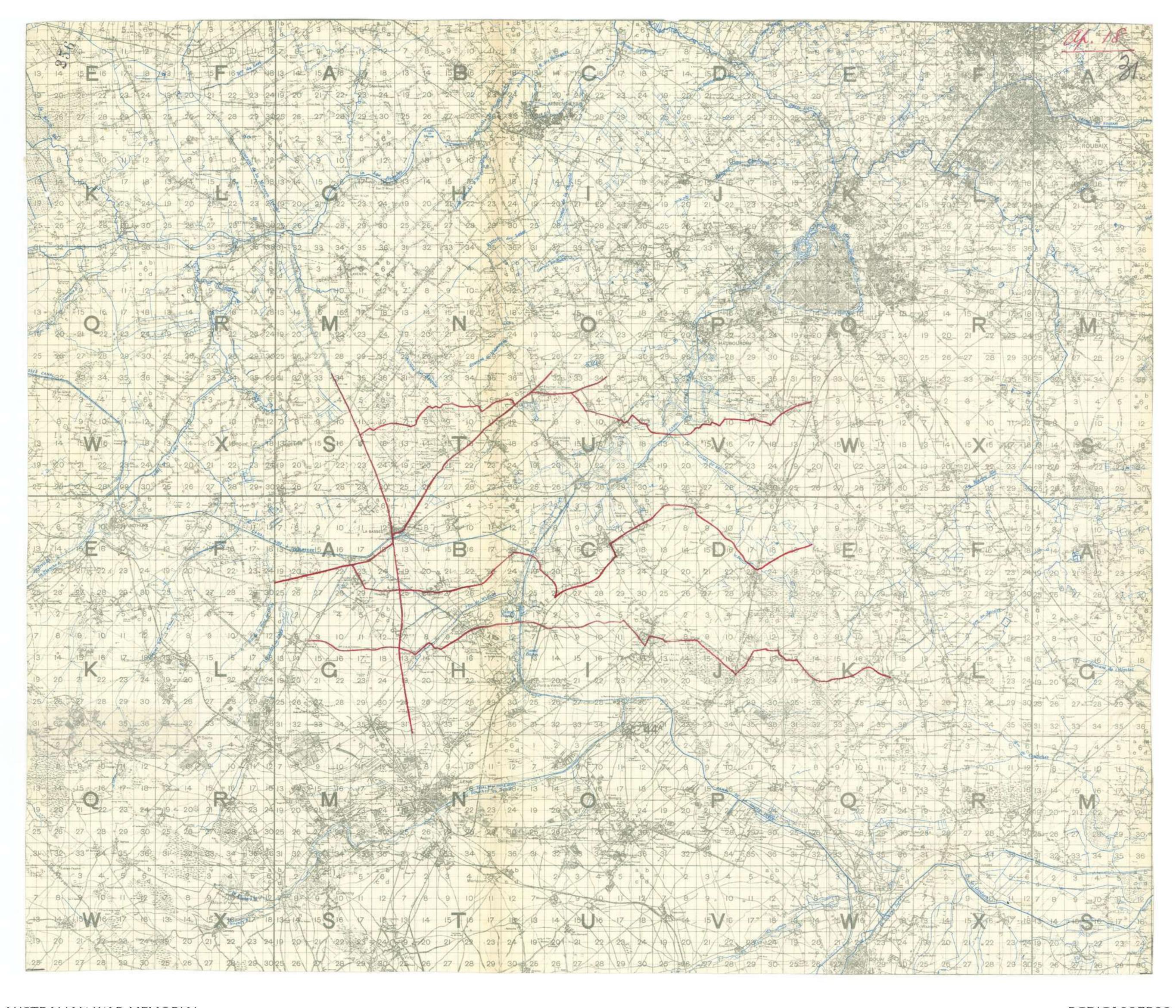
O.C., 3rd Australian Tunnelling Coy.

Herewith copy of Map shewing, so far as the area in and adjacent to that occupied by I Corps is concerned, forecast of Forward communications (complete scheme): Priority raods for re-construction.

This is forwarded in connection with the investigation you are making for mines and booby traps.

9.10.18.

Captain, R.E. for Chief Engineer, I Corps.



OK Stanstracion Mining Coy It is understood that the detachment of the 71st Labour Company now working for you does met work now work west of Lacouture, as this place is equidistant between the detacliment counts of the it would be more Convenient of the detaeliment could rejam is ATG work from there. The 1419 Camp 36-M27 d g. 2. If this switte you I will orde. the move. Conde 69 Latrown Group Commencing back 15% of

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AUSTRALIAN WAR MEMORIAL

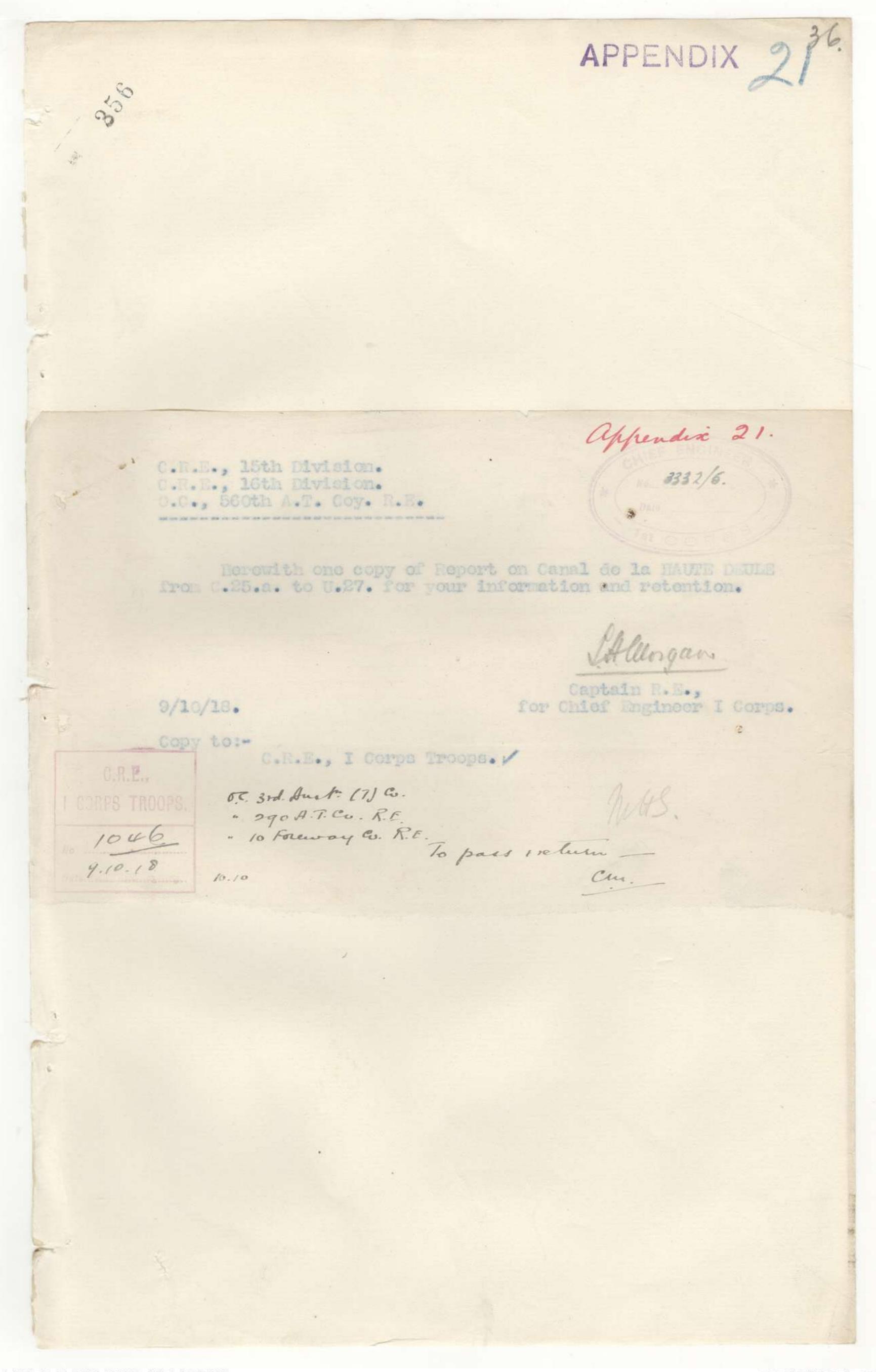
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AUSTRALIAN WAR MEMORIAL RCDIG1007588

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AUSTRALIAN WAR MEMORIAL



PORT OF CAUAL DE LA HAUTE DEULE, SPOR C.25.2. to U.27. DIX 2/36

1. Southern portion (from T.HEAD southwards), C.15.c.9.V. to C.25.0.

Average width at water level 91 feet

Average width between Tou-paths 100 feet

Dopth of unter S foot

Eron water level to Ton-path ***** 5 ft. 5 ins.

Width of Tow-paths:-

Rest side 15 feet.

B. Hortbern portion (from T.HEAD to DOH), C.15.d.10.95. to U.27.c.8590

Average wieth at water lovel 61 feet 9 ins.

Average wieth between tempeths 68 feet

Dopth of poter ********* 7 feet

From writer level to tour oth 1 Foot 9 inc.

Width of tow-paths :-

Fast side 16 feet.

The average width of the Canal at the bottom is:-

HOREFIERI portion 35 Foot 9 inc.

The bottom is mud, and merages 2 to 3 feet in depth.

average height of tempeths shows surrounding country:- From I to Sift.

From Reilway bridge, C.S.s.l.l. to DCEL the Festern benk of the Canal, a stone coping was placed, presumbly to provent traffic from falling into the water.

Talks. From Consl T. northwerds, the Festern side was stone faced (laid dry); the Enstern side was piled and sheeted.

Streem on Bestern slds of Gernl from 2.50 to U.27.s.85.30.

Average width Is foot

This streem flows SCHIE to HORTH and Syphone under the Canal at C.15.c.

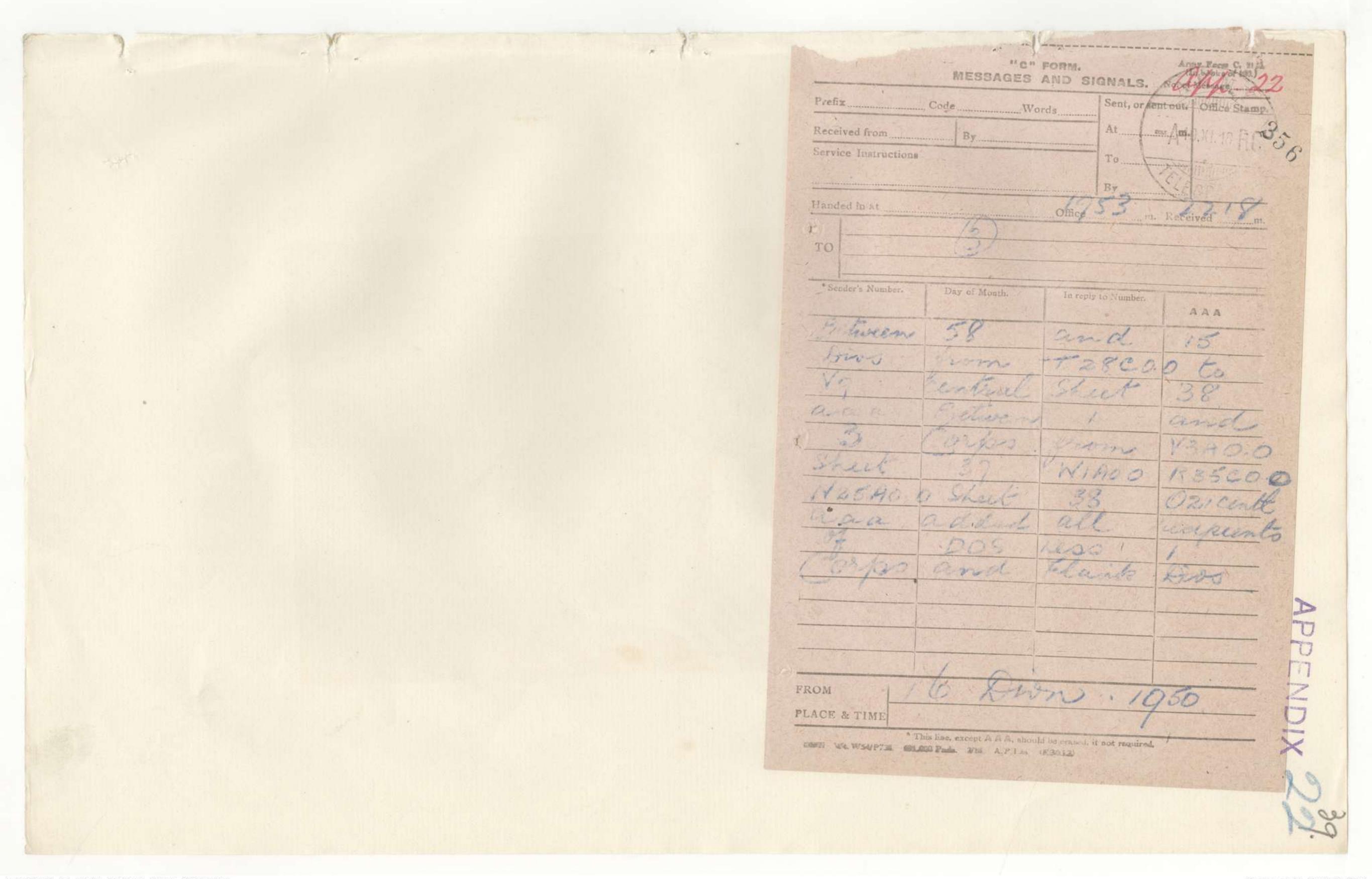
PLOT OF CAHAL. The flow of the Canal is from SCOTH to BLATH, of which about one quarter of its quantity flowed West at Canal T into Cahal D'Aine a Bassie.

ROADE APPROACHING CARAL. These were of 3rd clas quality, and could only be called and tracks, they were not Escades, only that leading from BERGLAS to BASVES and from BASSE BUS to DOS.

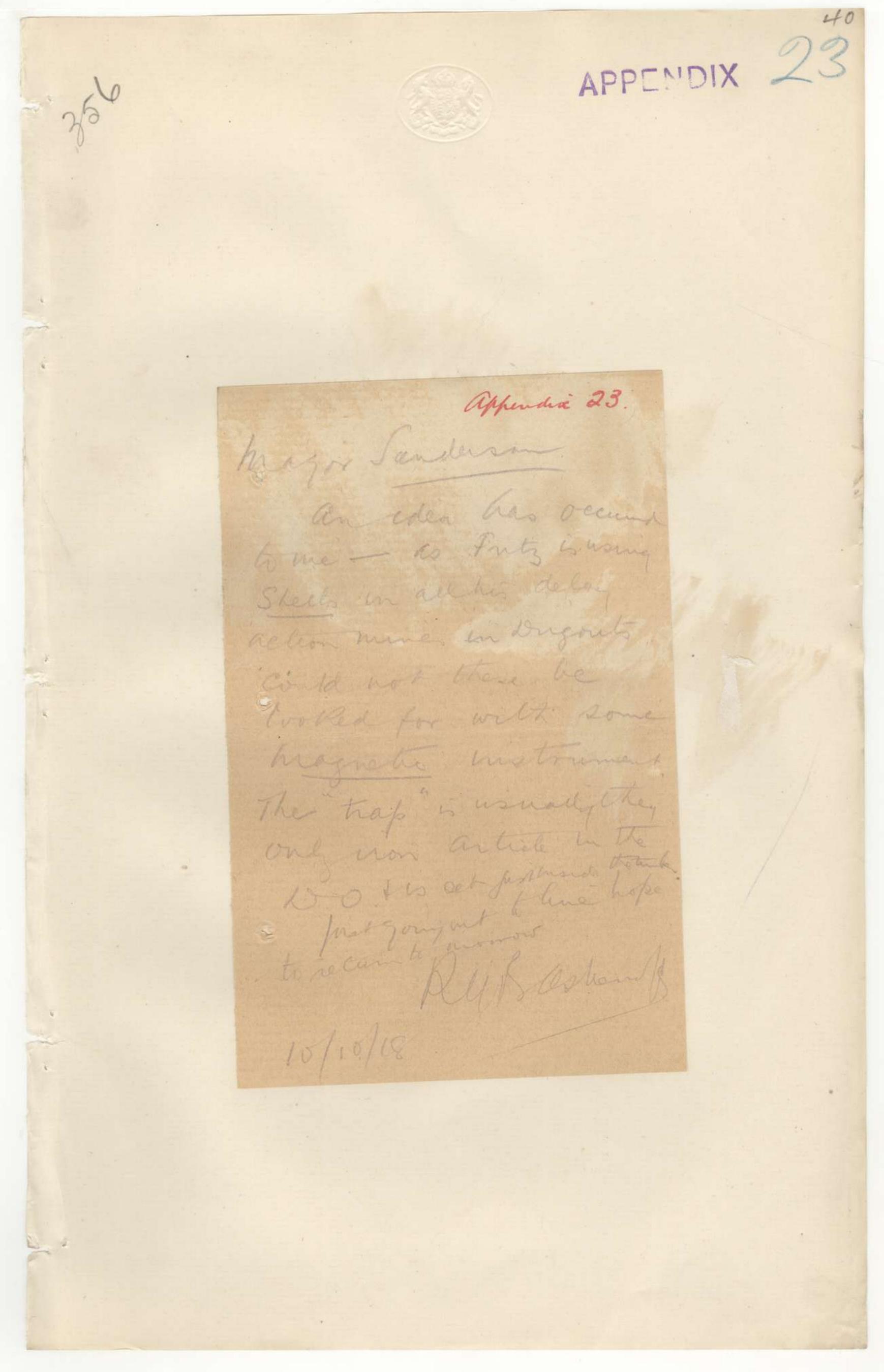
ap. 21 37. CANAL DE LA HAUTE DEULE Towpath Towpath < 16' -> -Brick Concrete Average Section of Canal - C.13 to C.25. Towpath Towpath LEVIE OF YES WATER LEVEL 775416 Piles & boarding Average Section of Canal C.13. to U.27. Wall WATER Section of Wall from Railway Bridge to C.3.

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AUSTRALIAN WAR MEMORIAL RCDIG1007588



AUSTRALIAN WAR MEMORIAL RCDIG1007588



(Preven mortar 6"+9.75") in his mines laid m dugouts PulBoses roads Et. - for delay action. - Thave been conducting some rough experiments mi locating Shells &F with an compass & a number of tests under different conditions have proved the method thoroughly successful in scartly locating the ashell placed on the other side of a wall. a deflection of from. 30°- 40° of was obeserved in possing the compass past the hidden Object. in the floor or froma tecause a Vertical needle is required - but Shewing the Efficacy of the magnetic test a dip in the needle of the when pressed over the object sought for. neperments Could be carried out with proper appliance which will not or turied object but will be able to Indicate the approximate distance away R.g. Blakeroft Kuns 10/10/18.

3197
10-10-18

of this unit.
shells mostly in
jectors and bulk

recticable.
a four inch close
r and not knowing
otly by means of
were made and in

The Controller of Mines.

Reference the attached report by Lieutenant Ashcroft of this unit.
It is a most valuable suggestion. The enemy is using shells mostly in nearly all his demolition charges, often with gas projectors and bulk explosives packed around them.

I have tested the method and found it reliable and practicable.

In the test a shell was carefully concealed behind a four inch close timber wall. Without any other indications whatsoever and not knowing where the shell was placed I located the position exactly by means of a geophone compass as sketched below. Several tests were made and in each case the result was perfectly satisfactory. For testing the floor and roof of a dugout a magnetic needle pivoted to swing on a vertical plane is necessary.

Reedle

A small and simple instrument with a powerful magnetic set to swing herizontally and vertically could be easily obtained and would be exceedingly valuable in investigation work for delay action mines.

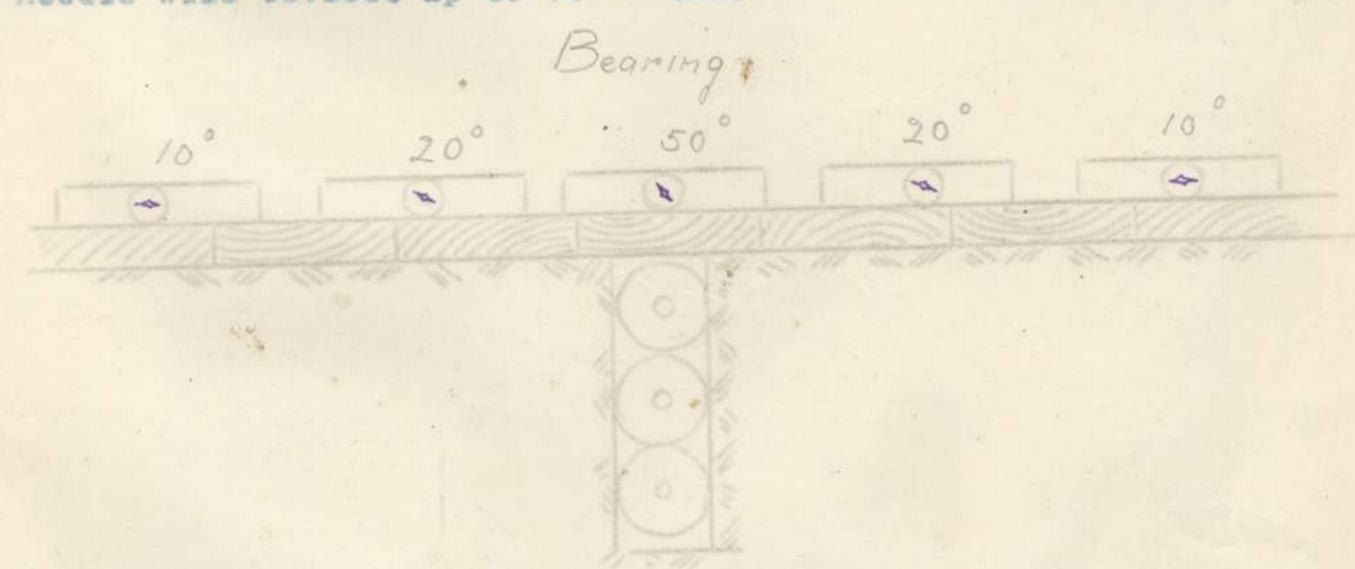
I am testing the sides of all H.Qrs in enemy dugouts recently occupied in the areas captured by the 15th Division, with a geophone compass as used in the experimental tests. Unfortunately a magnetic needle with universal movement is not available otherwise the floors and roofs could also be investigated in the same manner.

Sketch of Compass used.



Method of using.

Move the compass along the timber wall of the dugout and observe deflection of the needle. When passing in front of the trap (if a shell) the needle will deflect up to 40° - thus



I strongly recommend that an instrument designed on the principles indicated be issued as early as possible to each investigation party.

Alex Landerson. Major.

C.O. 3rd Australian Tunnelling Company.

10-10-18.

C.E., Fifth Army E/15/4

C.E., I Corps 1374/54

Chief Engineer, Fifth Army 23

The following method of locating mines consisting of shells hidden behind the timbering of dugouts has been used with success:

A compass is fixed on a wooden lath and passed along the wall of the dugout. A deflection on the compass indicates the presence of a shell.

10.10.18.

for Major, General, Engineer-in-Chief.

X X X

- 3 -

O.C., 3rd Australian Tunn. Coy.

For information.

12.10.18.

Captain, R.E. for Chief Engineer, I Corps.

3rd Australian Tunnelling Coy.

He BOOBY TRAPS.

As the enemy is using large shells (Trench Mortar 6" and 9.75") in his mines laid in Dugouts, Pill boxes, reads atc. for delay action - I have been conducting some rough expensiments in locating shells etc. with an ordinary compass, 56 and a number of tests under different conditions have proved the method theroughly successful in exactly locating a shell placed on the other side of a wall. A deflection of from 30° - 40° was observed in passing the compass past the hidden object.

I could not test for shells buried in the floor or ground because a "Vertical" needle is required - but showing A the efficacy of the magnetic test a dip in the needle of the ordinary compass is even noticeable when passed ever the object sought for.

Experiments could be carried out with proper appliances which will not only locate the exact position of the hidden or buried object but will be able to indicate the approximate distance away.

10-10-18.

(Sgd) R.G.R.Ashcroft, Lieut. 3rd Aust.Tunnelling Coy.

us

APPENDIX 23 0.0., 250 (T) Coy. E.E. 0.0., 250 " " " " 0.0., 257 " " " H.37/38. 15-10-18. O.C., 3rd.Aust. (T) Coy. O.C., Fifth Army Mine School Herewith 4 copies of reports on experiments in locating shells, etc., with a compass, for your information. for Controller of Mines, Fifth Army.

C. O.,

3rd Australian Tunnelling Coy.

Re BOOBY TRAPS.

As the enemy is using large shells (Trench Mortar 6" and 9.75") in his mines laid in Dugouts, Pill Boxes, "oads, etc., and for delay action - I have been conducting some rough experiments in locating shells etc. with an ordinary compass, and a number of tests under different conditions have proved the method thoroughly successful in exactly locating a shell placed on the other side of a wall.

A deflection of from 30° - 40° was observed in passing the compass past the hidden object.

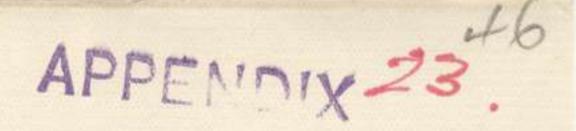
I could not test for shells buried in the floor or ground because a "Vertical" needle is required - but showing the efficacy of the magnetic test a dip in the needle of the ordinary compass is even noticeable when passed over the object sought for.

Experiments could be carried out with proper appliances which will not only locate the exact position of the hidden or buried object but will be able to indicate the approximate distance away.

10.10.18.

(Sd.) R.G.B. ASHCROFT, Lieut.

3rd Aust. Tunnelling Coy.



3rd Australian Tunnelling Coy No.3107.

Controller of Mines, Fifth Army.

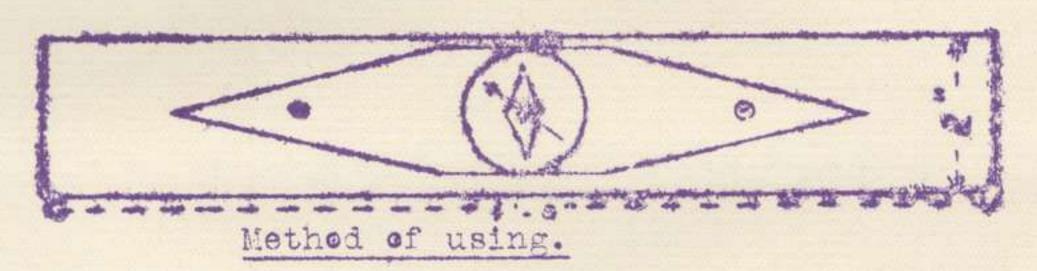
Reference the attached report by Lieutenant ASHCROFT of this Unit. It is a most valuable suggestion. The enemy is using shells in nearly all his demolition charges, often with gas projectors and bulk explosives packed round them.

In the test a shell was carefully concealed behind a four inch close imber wall. Without any other indications whatshever and not knowing where the shell was placed I located the position exactly by means of a geophone compass as sketched below. Several tests were made and in each case the result was perfectly satisfactory. For testing the floor and reof of a dugent a magnetic needle pivoted to swing on a vertical plane is necessary.

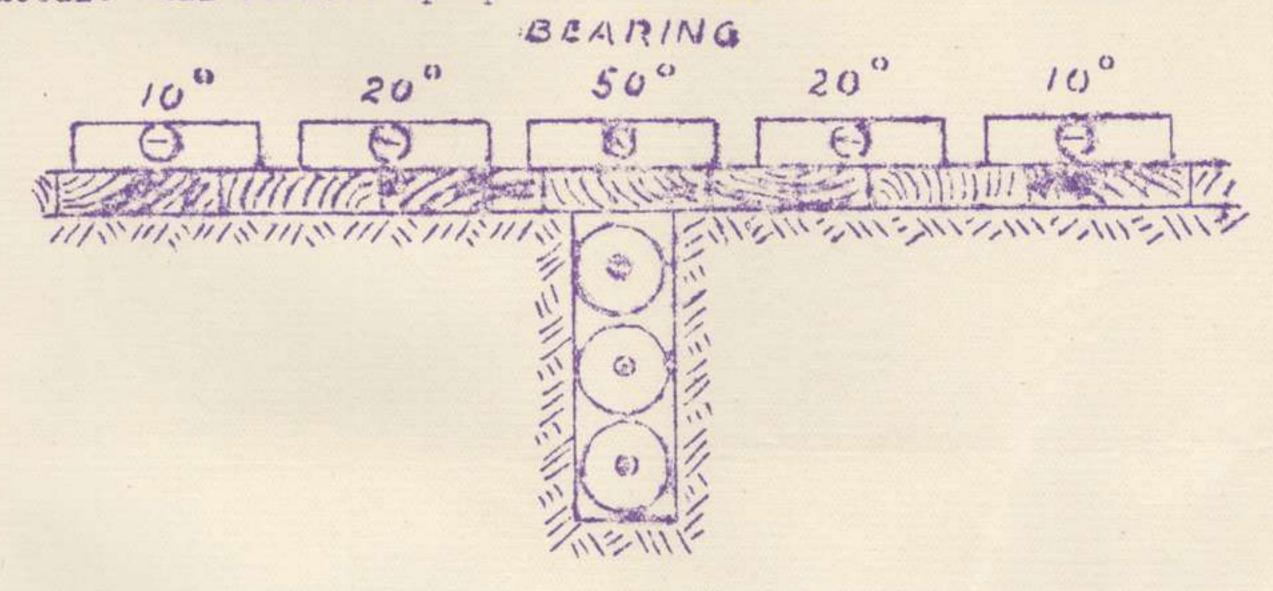
A small and simple instrument with a powerful magnetic needle set to swing horizontally and vertically could be easily obtained and would to exceedingly valuable in investigation work for delay action mines.

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Sketch of Compass used.



Move the compass along the timber wall of the dugout and observe deflection of the needle. When passing in front of the trap (if a shell) the needle will deflect up to 40 - thus :-



I strongly recommend that an instrument designed on the principles indicated be issued as early as possible to each investigation party.

(Sd.) ALEX SANDERSON,
Major,
C.O., 3rd Australian Tunnelling Company.

10.10.18.

O.C. 3 Wastralians Will you study the question of breaching the dams at the T head on the ain-La Bassee Canal hear its junction with the Hante Denle, to him we are able to get at them. I can que que a certain amount of information legarding them. 11/10/15 CE I Conpo

Chief Anginoer, Mitth Army 110. 0/2/1. 48 Chief Engineer, I Corps. Copy of B-in-C's letter No. R.E. 11952/22, dated 9/10/1918 herewith for information and supply of information required by 27th inst. Columns 1, 2, 5, 4, 5 will be completed by Water Supply Officer, Fifth Army for work done by the army direct. (Sd) H.I.BULKELEY, Major R.E., for C.E. Fifth Army. 10/10/18. Copy to: - Water Supply Officer (for action) C.R.B., I Corps Troops. G.R.E., 16th Division. 3rd Australian Tunnolling Coy. For information. Information, as called for, should be forworded so as to reach this Office by 25th instant.

Captain R.E.,

for Chief Engineer I Corps. 11/10/18. the heaviout weights bedue con be best described by the mileses of read he commerced the darker engines to nontion in his Despetch some of the larger engineering warms too mines the the the the heart the advance in August Themsolling Companies are bending in remorks of the booky transs classed as explosive withorns; other verther totals, also on this work, conside produce further totals, tole, it moning appear best to collect the he meth headings of information y, (B) nitidges, (B) Roads. tout total mumber of bridges or interpretation the pomicon bridges The mamber of pumps install tempters of pipe line laid. apectel. ENWHM AUSTRALIAN WAR MEMORIAL

F	I	F	T	H	A	R	M	Y	F	R	0	N	T.

N	WATER SUPPLY					BRIDGES ERECTE			ROADS REPAIR	REPAIRED FOR.	
ation plants erected.	(2) No of Pumps installed.	(5) Approx. total yield Galls.	(4) Miles of Pipe laid.	(5) Bore- holes Sunk	(6) Heavy	(7) Tanks No	(8) Light No	(9) Pontoon No.	(10) Horse transport miles.	(11) Heavy Transport. Miles.	
}					Hank Bente	5	2				
										2	

Controller of Mines, Fifth Army.

Comme The following method of locating mines consistiff of shells hidden behind the timbering of dugouts, has been used with success:-

A compass is fixed on a wooden lath and passed along the wall of the dugout. A deflection on the compass indicates the presence of a shell.

G.H.Q. 10-10-18. (sgd) B.W.Y.DAMPORD. Lt-Col. for Inspector of Mines.

4140 *

O.C., 3rd. Aust. (T) O.C., Fifth Army Wine School.

CONTROLLER OF MIWES. FIFTH ARMY. M.37/35. Modit=10-18.

For information.

Lt-Col.R.E. Controller of Mines; Fifth Army.

Uppendix 26

3204.

Controller of Mines, FIFTH ARMY.

Reference Inspector of mines memo 4135 of 11-10-18. Nominal roll of Officers and O.R's on detachment attached, please.

11-10-18. C.O. 3rd Hustralian Tunnelling Coy.

арр. 26 NOMINAL ROLL OF OFFICERS & O.R'S ON DETACHMENT.

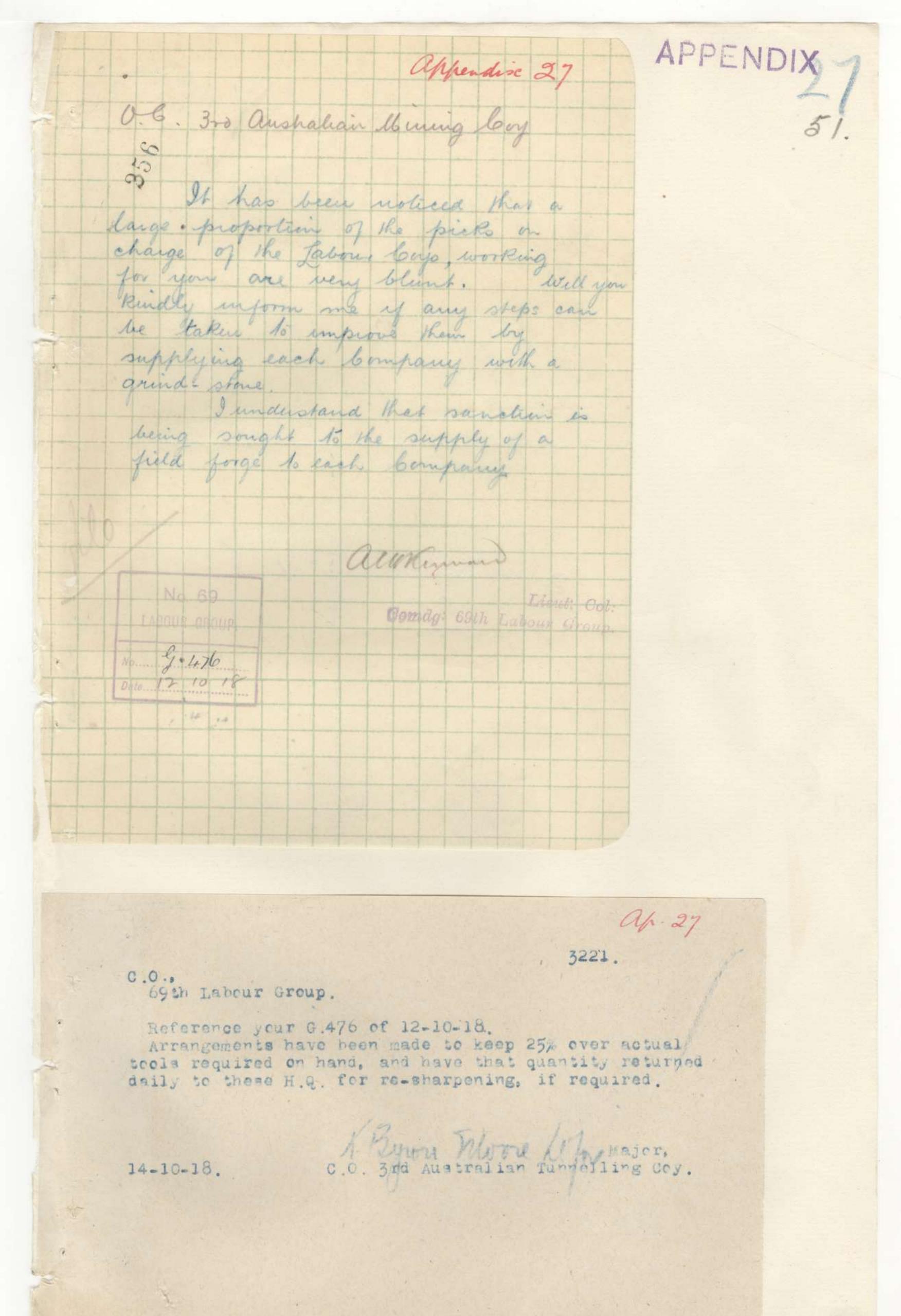
Lieut.W.W.GRAINGER M.C. Engineer Offr, Ist Corps H.Arty. Instructor, 1st Army Mine School.

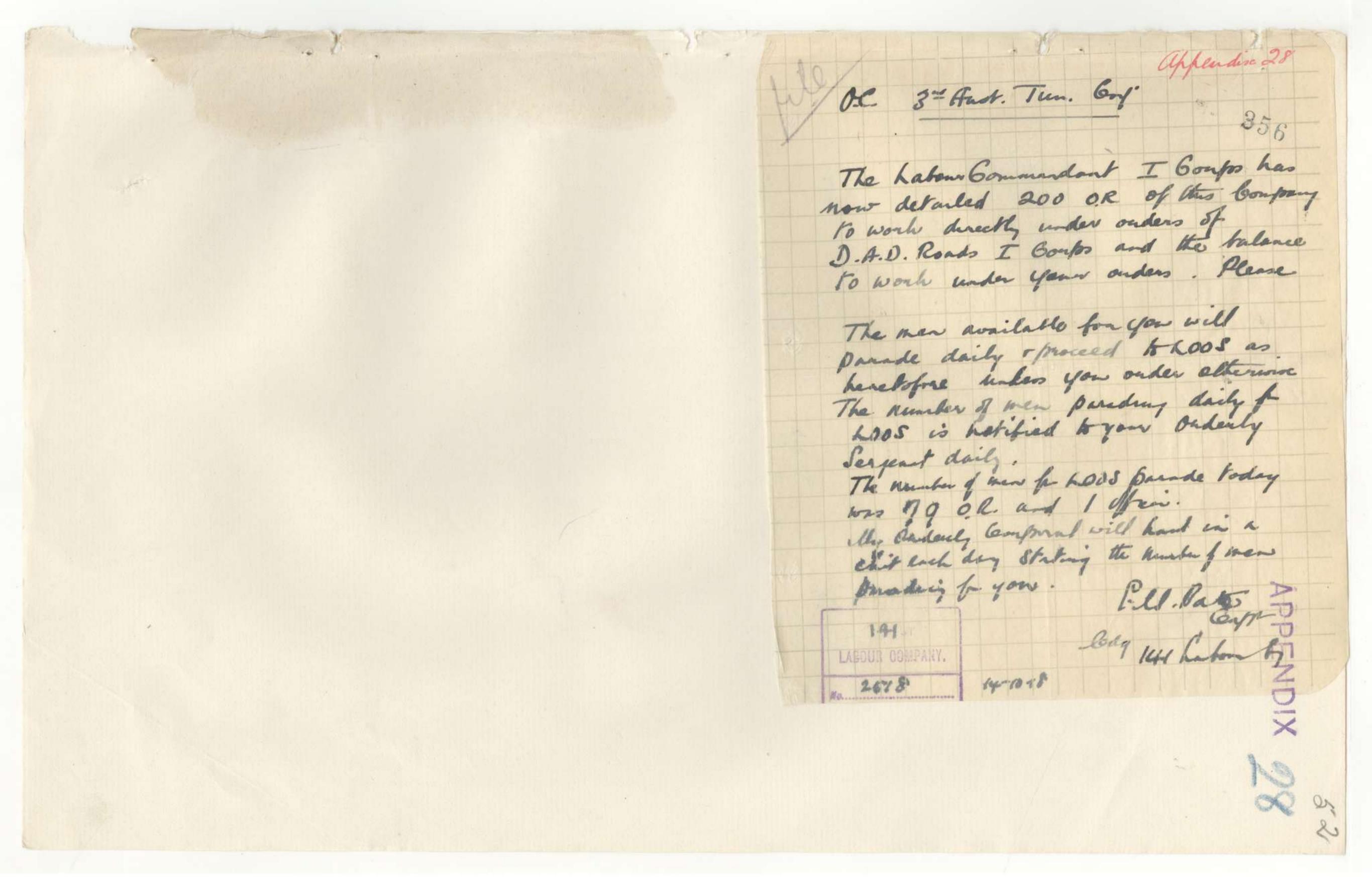
A .L .KENNEDY Temp.attchd E.in C.Staff G.H.Q. " C.S.HONMAN

1st Army Mine School (N.C.OX Instr). 1045 Sgt JONES H.S. " " (Offre Servant). 998 Spr FISHER H. (Ordarly). 918 " BARRATT T. (Fitter) 4396 " MILLWARD H.B. " Corps Heavy Arty . (Offre Servant). 5854 " WALKER W. G.H.Q. Lt C.S. HONMAN'S Servant. 2403 " REDFERN F.

1208 " WATTS G.J. Minx Yard . (Fitter) (Clerk). 4229 CP1 EDWARDS W.H.D. Aust.Corps H.Q.

K. Bywan Moment forsor. C.O. 3rd Augiralian Tunnelling Company. 11-10-18





AUSTRALIAN WAR MEMORIAL RCDIG1007588

APPENDIX 31

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4. Ohre Kongdacton

appendix 31.

CONT. SLLER OF MINES, FIFTH ARMY.

NeM.7/95. 14-10-18.

O.C., 3rd.Aust. (T) Coy.

Any special mining stores which will not be required by you in the event of an advance and consequent move of Headquarters, may be sent to the H.Q. of 170th. (T) Coy. R.E. (map reference F.7.a.3.8., sheet 44B).

Please arrange with O.C., 170th. (T) Coy.

direct as to personnel to be left behind as storemen.

Lt-Col.R.E., Controller of Mines, Fifth Army.

Copy to:- O.C., 170 (T) Coy. R.E.

APPENDIX



7/0

-1st Corps No 664 (G.O). Copy.
SECRET.

C.R.E. Corps Troops.
0.18 14-10-18.

WARNING ORDER.

13-10-18.

- 1. 58th Division (less Divisional Artillery) is being tropped from First Army to Fifth Army and will be taken over by 1 .ps at 12 noon October 14th.
- 2. The boundary between I Corps and VIII Corps will then be as filows:-

Q.1.c.O.O. - Q.4.c.O.O. - Q.5.d.1.2. - along Railway (exclusive) to R.8.c.4.4. - R.9.c.O.O. - due East to M.11.c.9.O. - along Railway (exclusive) to N.21.c.6.O. - due East to O.22.d.O.O. - P.9d.O.O. - due East to Q.11.c.O.O. - G.25.d.O.O. - G.23.b.8.3.

lat Corps to have right of use of LENS, - SALLAUMINES - HENIN LIETARD DOURGES read and that part of the OSTRICOURT - LEFOREST - MONCHEAUX
read in VIII Corps area.

3. Detail of troops to be transferred will be issued later.

Appendere 336.

SECRET.

G. 0.0. 16th Div. Arty. 16th Div. Pngro. 47th Inf. Bde. 48th Inf. Bde. 49th Inf. Bde. 11th Hants (F). 16th Bn. M.G.C. A.D.M.S. non. I Corps. 15th Division. 55th Division. - 3rd Aust. Tunnelling Coy. A.E. No. 2 Sqn. R.A.F. 16th Div. No. G.66/32. 13th October 1918.

ACTION TO BE TAKEN IN THE EVENT OF AN ENEMY RETIREMENT.

- 1. Herewith 16th Division Instruction No. 5.
- 2. Pleaso aclmowledge recoipt. L

Gonoral Staff, 16th Division.

SECRET.

ACTION TO BE TAKEN IN THE EVENT OF AN ENEMY RETIREMENT.

16TH DIVISION. INSTRUCTION NO. 5. does guidrocaus vilausum sysou hodoulformoo to onif o ve however sa

In the event of the enomy evacuating the line of the Canal at present held by him, the action to be taken by 16th Division for crossing the Canal will be as follows :-

1. Formation of Bridges and Bridgeheads.

The Bdc. in the line will push patrols across the Canal by means of rafts already arranged for. These patrols will form small bridgeheads to cover the erection of 2 light foot bridges to be erected under arrangements to be made by B.G.C. Bde. in the line in conjunction with the C.R.E. and will be placed approximately as One at C.19.c.2.4. follows:-

One at C.13.c.75.30.

As soon as these crossings are established, the Bde. in the line will push forward to form a bridgehoud on the approximate line C.26.c.9.G - East edge of BAUVIN - Road running from C.20.a.9.0 to C.14.a.85.25, and will mop up BAUVIN.

Touch will be established with the 15th Division on the right, and the left flank of the bridgehead will be refused so as to join the

Canal DE LA HAUTE at approximatoly C.13.b.70.85.

After establishing the bridgehead montioned in this para, the Bde. in the line will be disposed with one battalion holding the line of the Canal and two battalions on East side of Canal to hold the line of the bridgehead and to carry out the advance to the first objective.

- When the bridgehead mentioned in para 2 has been established, two 3. pontoon bridges will be erected under arrangements to be made by the C.R.E. at approximatoly: - B.30.d.9.8 and C.13.c.8.3. At the same timo the Bde. in the line will push forward to the first objective, viz., the line C.27.d.O.4 - East edge of PROVIN - railway at C.16.a.2.2. A separate party will be told off to deal with the ground to the North within the Divisional Boundary . i.o., (Square C.8. and neighbourhood) which lies to the North of the main line of advance.
- All arrangements for materials etc. for all the above bridges will be made by the C.R.E., and a dump of road material is being formed under his direction at B.16.a.6.8, whonce it can be taken forward as required for the improvement of the approaches/and exits from them on the East side of the Canal. to the bridges
- The O.C. Signals will be prepared to lay lines across the Canal 5. to connect up to Battn. H.Q. of the leading Battalion, but additional arrangements will be made to ensure communication being maintained by all other available means should it be found impossible to lay these lines.
- The action of the Support Brigade will be as follows:-Two Battalions will be held in readiness to occupy, on receipt of orders from these H.Q. the positions vacated by the Support and Reserve Battalions of the Brigade in the line.
- It is probable that a further objective will be allotted to the 77 . Division by I Corps shortly after the capture of the first objective, and the Brigade in the line will be prepared to push on,

covered by

2.

covered by an advanced guard, should a further forward movement be so ordered. The first objective will however be consolidated as soon as reached, by a line of consolidated posts mutually supporting each other.

- The Divnl. artillery is at present so placed/by slight 8. adjustments it can cover the advance to the first objective. Should a further objective be given, the B.G. R.A. will make the necessary arrangements for the move of guns to cover the advance.
- O.C. M.G. En, will arrange to cover the bridgeheads mentioned in paras. 2 and 3, with 3 sections of the forward M.G. Company and will also send forward one sub-section by each footbridge to work in liaison with the Bde. in the line.

When the pontoon bridges, mentioned in para, 3, have been erceted, a second Coy. 16th M.G. Bn. will move forward (on wheels) across the Canal to positions from which the first objective can be covered.

- Roads on the E. side of the Canal will be put into a state of 10. ropair under arrangements to be made by the C.R.E. who will demand working parties as necessary from the 11th Hants Pioneers.
- One Troop, King Edward's Horso, will remain attached to the 11. Bde. in the line. The party of 3rd Aust. Tunnelling Coy. R.E. will also work under the directions of B.G.C. Bde. in the line.

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the buildeshear and to come the advence be the breakenblad only

13th October 1918. General Staff, 16th Division.

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tribles retlation one that begoeste of lity outland at the

Copies to:-

G.O.C. 16th Div. Arty. 16th Div. Engrs. 16th Div. Sig. Coy. 47th Inf. Bde. 43th Inf. Bde. 49th Inf. Bde. 11th Hants. (P). 16th Bn. M.G.C. A.D.M.S. I Coros. 15th Div. the enthorn of the Eugenbar -and the model of 55th Div. 3rd Aust. Tunnelling Coy. R.E. No. 2 Sqn. R.A.F.

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no deug of bound ordies like enti ent al pasmint ode ten jeviseride

appendise 94

O.C., 3rd Australian Tunnelling Coy.

There are three German concrete shelters at B.23.d.3.8 (near BILLY-BERCLAU) which I intend using as a Forward Communication Centre.

These apparently have not been passed as "safe".

Would you be good enough to have them examined at the earliest opportunity, and advise me when done?

14.10.18

O.C. Signals, 16th Division.

Appendia 35-60

SEORET.

G. O. O. staff Captain. Bdo. Sig. Officor. Bdo. Int. Officer. 6th Somerset L.I. 18th Gloucs Regt. 34th London Rogt. 49th L.T.M.Battory. 155 Field Coy, R.E. ,156 Field Coy, R.E. 157 Field Coy, R.E. C. R. E. Right Bdo. 55th Div. Left. Bdo. 15th Div. 16th Div. Arty. 180th Bdo. R.F.A. 11th Hants (P). 16th Bn. M.G.C. A.D.H.S. 16th Div. "G". 16th Div. "Q". 3rd Aus Tun. Coy. 144th Coy, A.S.C. 47th Inf. Bdo. 48th Inf. Bdo.

49th Inf. Bde. No. S.O. 781/1. 15-10-18.

ACTION TO BE TAKEN IN THE EVENT OF AN ENERY RETIRESENT.

1. Horowith 49th Inf. Bdo.

Instruction No. 2 - Formation of Bdo. Groups.

Instruction No. 3 - Forward Communications.

2. Please acknow Ledge Roccipt.

a/Brigado Hajor, 49th Infantry Brigado.

BIRL thu mist



SECRET.

ACTION TO BE TAKEN IN THE EVENT OF AN ENEMY RETIREMENT.

49th INFANTRY BRIGADE INSTRUCTION No. 2.

FORMATION OF BRIGADE GROUPS.

In the event of the enemy vacating the line of the CANAL DE LA HAUTE DEULE and of his retiring to a considerable distance, it may become necessary for the whole of the Division to murch forward covered by an advanced guard. The following is a forecast of the probable constitution of Groups to be formed in this event.

(a) 47th Infantry Brigade Group, i.e. Leading Brigade.

47th Inf. Bdo. 47th T.M. Battory. One Sect. 16th Div. Sig. Coy. 130th Brigade R.F.A. B Gopdres 48th Bde. R.G.A. Mobile Section W.T.M. Bdo. (6" Newtons), 100 8 guns. 156th Field Coy, R.E. and the acculated accumulation of the life in "A" doy. leth Bn. N.G.O. Recention Camp plan & M.C. . 11th Hants (P) t od where the diller Losson in 143rd Coy Div. Train. . gental Jeroseman T Jan o. 111th Field Ambulanco. One Troop Hing Edward's Horso. Party 3rd Australian Tunnelling doy, R.H. (8 Off & 18 O.R). D.A.P.N. and 50 O.R. & 30 horsos.

(b) 48th Inf. Bde. Group, 1.d. Support Bde.

48th Inf. Bdo. - 48th T.N.B. 1 Sec. 18th Div. Sig. Coy. 177th Bdo. R.F.A. 2 6" Hows, 48th Bdo. R.G.A. 155th Field Coy, R.E. "B" doy. 16th Bn. N.G.O. 145th doy. 16th Div. Train. 112th Flold Ambulance.

(c) 49th Inf. Bde. Group. 1:0. Reserve Bde.

49th Inf. Bde. 40th T.M.B. One Soo. 18th Div. Sig. Coy. 157th Field Coy, R.E. "O" doy leth Bn. M.G.C. 144th Coy, Div. Train. 113th Field Ambulance.

(a) Div'l H.Q. Group.

13th Div. H.Q. 16th Div. R.A. H.Q. 18th Div. D.A.C. 16th D.E.H.Q. 16th M.G.Bn. H.Q. "D" doy, 18th Bn. M. A.C. H.Q. & H.Q.Soo. 18th Div. Sig. doy. H.Q. and 148 Coy, Dive Trains 48th Rob. Vet. Soution. 16th Div. H.T. Coy. H.Q. 317th Empt. Coy.

621 APPERIDIX 35

326

BOUNTED -2- IRL TO MOITHER ..

The remaining ten guns M.T.M.Bde. (6" Newtons) will be concentrated at CAMBRIN or some other suitable place to be arranged by B.G.R.A. in consultation with 16th Div. "?" and will come under I Corps for Administrative purposes. A Guard of will come under I Corps for Administrative purposes. A Guard of N.O.O and 3 men will be left over these T.M's and the remainder of the personnel will join the D.A.O. and move forward with it, and will be available as reinforcements as required.

. C . ON MOITPURTENTANTED AND METER PORT - SAFEL

- Unless there is any reason to the contrary, the whole of the Artillory of the Support Bde. Group will usually march near the head of that group column so as to be readily available to reinferce the leading Bde. if required to do so on receipt of orders.
- 4. The Div. Reception Camp will be abolished as such. "B"
 Roholons at present at this Camp will march to and will remain
 with the Transport Lines of their own units. The H.Q. of the
 Reception Camp plus 1 N.C. guide per unit will move to
 personnel railhead, ready to receive drafts, etc. and to forward
 to unit Transport Lines.
- The above groups are based on the present positions of Inf. Bdes. and it will be readily seen that Artillery and probably the 11th Hants (P) may have to be transferred from one group to another, e.g. if 49th Inf. Bde. were ordered to become the leading Bde. and 47th Inf. Bde. to become the Reservo Bde. the Artillery belonging to 47th Inf. Bdo. Group would in all probability be transferred in toto to 49th Inf. Bdo. Group.

6. The formation of groups will not come into being until ordered from 18th Div. H.Q.

18th Oct. 1918.

a/Brigado Major, 40th Infantry Brigade.

Section and the state of the section of the section

SECRET.

ACTION TO BE TAKEN IN THE EVENT OF AN ENEMY RETIREMENT.

49th INFAMTRY BRIGHT INSTRUCTION NO. 3.

FORWARD COLLIUNICATIONS.

1. The existing Forward Communication Systom is as follows :-

(a) Telephone and Telegraph.

The Hain Cable Route forward of Bde. H.Q. A.23.c.80.35, consists of a seven pair cable running by a carefully selected route to a Forward communication centre at B.26.b.9.9, thence to B.27.b.3.1. where it enters German buried bable route terminating at B.23.d.3.8. (near Bn. H.Q. in BILLY-BERCLAU.

The Forward Communication Centre at B.26.b.9.9 is manned by Signallers of the 180th Bde. R.F.A. and is mainly used for Battery Communications. for the Div. Artillery Group. In addition to the above Main Route, the Inf. Bde. and Arty. Group each have an alternative line forward.

(b) Visual.

Thore is a Visual Transmitting Station at the SUGAR FACTORY DOUVRIN. This Station receives from the Bn. at BILLY-BERCLAU and sends to Inf. Bde. H.Q. at AUCHY.

(c) Wiroless.

A wireless sot installed at Bn. H.Q. BILLY BERCHAU, B.23.d.1.9 works to the set installed at Inf. Bde. H.Q. AUCHY.

(d) Amplifier and Power Buzzer.

An Amplifier and Power Buzzer set at Inf. Edo. H.Q. works to an Amplifier and Power Buzzer Set at DOUVRIN. This in turn works to another set installed at Bn. H.Q. at BILLY BERGLAU.

Power Puzzers are installed at both Coy. H.Q. in the Line. These send to the Amplifier and Power Buzzer Set at Bn. H.Q. BILLY-BERGLAU.

(c) Despatch Riders.

Cyclist Despatch Riders are available at Communication Contro. B.26.d.9.9 to carry messages in case of breakdown.

2. ARRANGEMENTS FOR FORWARD COMMUNICATIONS IN THE EVENT OF A FURTHER ADVANCE.

(a) Tolephone and Tolegraph.

(i) As soon as the advance E. of LA HAUTE DEULE GLAAL commences, the Forward Communication dentre will be opened at B.23.d.3.8.

(ii) The Forward Parti. of Artillery and Infantry Signallers attached to Div. Sig. Coy. will run forward 3 cables to the CANAL BANK at C.19.c.2.5, where a Communication Centre will be established immediately after the leading infantry have crossed the Canal.

(iii) As soon as BAUVIN is reported clear of the enemy dables will be extended to that village and a Forward Communication Centre will be established at C.20.c.O.5. (approx).

64 APPENDIX35

DESCRIPTION AND REAL REPORT AND AND AND AND REAL PROPERTY.

(iv) The number of corouits between BILLY BERULAU and BAUVIN will be increased to five as soon as circumstances permit.

(v) Bns. and Batteries will run short lines to the nearest Communication Controp and will be responsible for their maintenance. (vi) As the advance continues, the cable route will be extended to PRCVIN. and a Communication Contro will be established at C.21.d.l.3. (approx).

* A T A T L B T

(vii) 0.0. 16th Div. Sig. Coy. Will arrange for domminication Centres to be marked with largo notice boards placed in conspiratous positions.

The words TO FORWARD COLDUNICATION CENTRE ... will be painted on each board.

(b) Visual.

Communication Centres will be in visual communication with one anothor,

Visual will also be arranged direct between Inf. Bdes. and Bna. and between Arty. Bdes. and Estteries independent of forward Communication Centres and Main Line of Communication.

(o) Wireless.

The wireless sot at present installed at Bn. H.Q. BILLY BERGLAU will move forward with Bn. H.Q. and will send to Adv. Bdo. H.Q. which will be ostablished at BILLY BERGLAU (B.23.d.1.9)

(d) Despatch Riders.

0.0. leth Div. Sig. Coy. will arrange to have oyoliet. Dospatuh Riders at all Forward Communication Centres to carry messages in the ovent of a Broak-down.

B.G.O. Bdo. in the line will, from the Troop of K.E.H. attached to him place at the disposal of O.J. 16th Div. Sig. Coy. any mounted Dospatch Riders up to a total of 'S, who may be required for duty at Forward Communication Centres

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APPENDIX Office of Origin and Service Instructions Day of Month. Setwation as follows Bust 1 but to 26 m ceaer Canal anne From Place This above may be forwarded as now corrected. (Z) Signature of Addressor or person authorised to telegraph in his name. * This line should be erased if not required. (3796.) Wt. W 492/M1647. 650,000 Pads. 5/17. H.W. & V., Ld. (E. 1187.)