

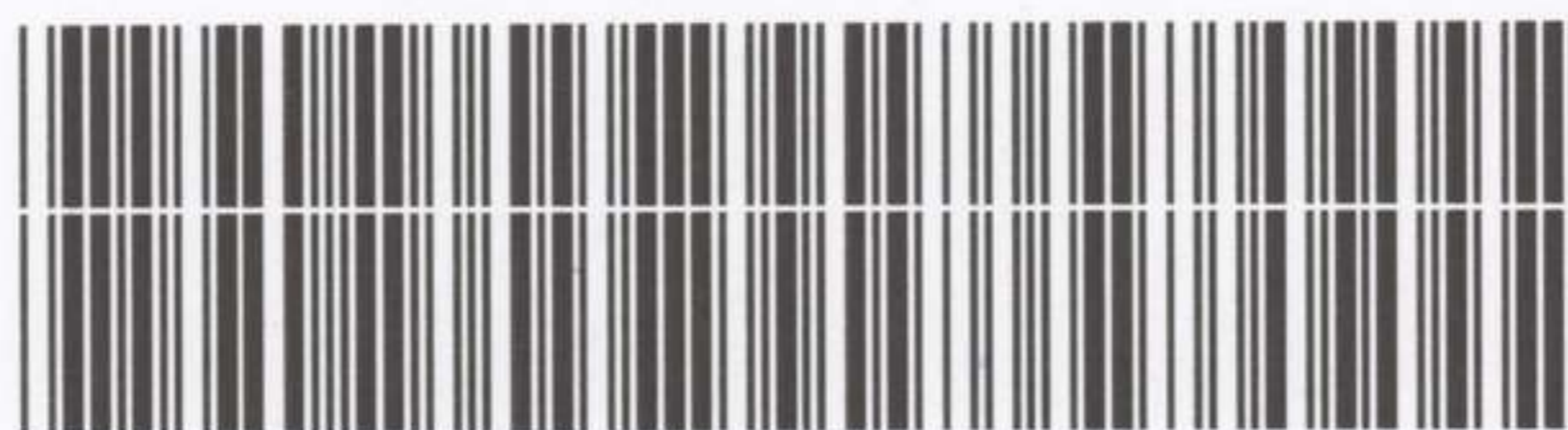
AWM4
Australian Imperial Force unit war diaries,
1914-18 War

Engineers

Item number: 14/7/22

Title: Headquarters 1st Australian
Divisional Engineers

October 1917



AWM4-14/7/22

O. J. Quinn

WAR DIARY

Army Form C. 2118.

1st. Aust. Div. Engineers Headquarters.

or

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.

~~INTELLIGENCE SUMMARY~~

(Erase heading not required.) *1st to 3rd* October 1917.

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Place	Date	Hour	Summary of Events and Information	Remarks and references to Appendices
KRUISSTRAAT	1st.		A busy day in the office preparing for forthcoming operations. 1st. and 2nd. Field Coys. will do forward work on Strong Points and 3rd. Field Company in reserve. Have arranged to relieve 1st. and 2nd. on attack night as soon after attack as possible.	<i>See</i>
KRUISSTRAAT	2nd.		Went to D.H.Q. at LILLE GATE with G.S.O. 11 to inspect quarters etc. Busy day fixing up for work to be done there etc.	<i>See</i>
YPRES.	3rd.		Moved up to D.H.Q. at LILLE GATE, live there during the operation. Arranged to construct Cupolas for our accomodation.	<i>See</i>
	4th.		Attack took place at 6 a.m. this morning and was a complete success. 1st. Field Company doing strong points on Right and 2nd. on Left. Lieutenant LYDDON killed. Good reports came in all day. 3rd. Field Company relieved 1st. and 2nd. by 9 p.m.	<i>See</i>
	5th.		Went up to WESTHOEK and saw HELLES and JABBER Tracks which are in fair order. Saw G.O.C.'s of 1st. and 2nd. Brigades. 1st. Field Company relieved 3rd. Field Company at 9 p.m.	<i>See</i>
	6th.		Office work.	<i>See</i>
	7th.		Office work.	<i>See</i>
	8th.		Office work arranged for working parties etc. The main thing now is to get duckboard tracks up towards the front line.	<i>See</i>

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1ST AUSTRALIAN
DIVL. ENGINEERS.
No.
Date

WAR DIARY

or

INTELLIGENCE SUMMARY

(Erase heading not required.)

Original

Army Form C. 2118.

113

1st 63rd October 1917.

Place	Date	Hour	Summary of Events and Information	Remarks and references to Appendices
Ypres	9 th		Preparing to hand over to 5 th Aust Div. Getting everything ready.	<u>sum</u>
do	10 th		Handed over to C.R.S. 5 th Aust Div. at 10 am and went back to Kruisstraat. Had conference with O.S.C. 1 st & 2 nd Lt. re work to be done etc.	<u>sum</u>
Kruisstraat	11 th		Busy day in office squaring up correspondence etc.	<u>sum</u>
"	12 th		do.	<u>sum</u>
"	13 th		Office work & arranging work of Field Coy.	<u>sum</u>
"	14 th		Office work.	<u>sum</u>
"	15 th		Went down to S.H.Q. to see Div. Commander re future movements of Division.	<u>sum</u>
"	16 th		Office work.	<u>sum</u>
"	17 th		Office work & inspection of Field Coy. Lewis.	<u>sum</u>
"	18 th		Office work and inspection of Field Coy. work.	<u>sum</u>
"	19 th		} Office work and inspection of Field Coy work etc.	<u>sum</u>
"	20 th			

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WAR DIARY
or
INTELLIGENCE SUMMARY.

(Erase heading not required.)

Original

Army Form C. 2118.

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1015 3rd October 1917

Place	Date	Hour	Summary of Events and Information	Remarks and references to Appendices
Kruisstraat	21 st		Went up to D.H.Q. to see Div Commandr. re future moves etc	<u>AMM</u>
	22 nd		Preparing to move to Ypres went up with Camp Commandt. to inspect D.H.Q.	<u>AMM</u>
	23 rd		Went up to Ypres and saw C.O.S. 4 th Aust. Div. re taking over and inspected quarters	<u>AMM</u>
Ypres	24 th		Moved up to Ypres with D.H.Q. and took over quarters in Ramparts and 3 rd Flc. started in to make improvements.	<u>AMM</u>
Ypres	25 th		Inspected Moat Baths with C.O. 4 th Flc. & arranged for 3 rd Flc. to assist in the work. Then went on to Inf Barracks & inspected improvements & work on	<u>AMM</u>
	26 th		D.H.Q. proceeding satisfactorily. 2 nd Inf Bds. attacked this morning in conjunction with Canadians. 2 nd Field Co. took part and constructed a strong point. Lt. Reid was mortally wounded.	<u>AMM</u>
	27 th		Busy day in office making reports etc	<u>AMM</u>
	28 th		do.	<u>AMM</u>

H. Q.,
1ST AUSTRALIAN
DIVL. ENGINEERS.
No.
Date.

WAR DIARY
or
INTELLIGENCE SUMMARY

Army Form C. 2118.

Original

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(Erase heading not required.)

pt 5 31st October 1917

Place	Date	Hour	Summary of Events and Information	Remarks and references to Appendices
Ypres	29 th		Went down to Inf. Barracks with Lieut. Comdr. & inspected the work being done there. Returned via the Moort Baths. Inspected the baths again later with Corps Baths Officer.	
"	30 th		CRE. Corps Troops came up & we had a consultation with Lieut. Comdr. re accomodation in Ypres especially in regard to Inf. Barracks which has now been handed over to the Div. to improve.	
"	31 st		Inspected Inf. Barracks with O.C. 1 st Fl. as he is taking over the work.	

Sumner Col.
CRE 1st Aust Div.

H.Q., Divisional Engineers,
1st. Australian Division,
12th. October 1917.

REPORT on OPERATIONS Between 19th. & 23rd. September 1917.

1. Preliminary Arrangements.

Acting on Instructions No.6 issued with Divisional Order No. 31 the Field Companies and Pioneers were told off to carry out works as follows:-

2nd. Field Company in right sector with 2nd. Infantry Brigade to construct strong points at
 (1) LONE HOUSE. (2) BLACK WATCH CORNER.
 (3) J.15.b.0.9. (4) Bank from J.14.b.8.6. to J.14.b.8.9.

3rd. Field Company in left sector with 3rd. Infantry Brigade to construct strong points at
 (1) J.9.c.85.20. (2) J.9. central
 (3) J.9.a.5.3. (4) J.9.c.1.5.

1st. Field Company in reserve.

1st. Pioneer Bn. to be responsible for the maintenance and extension of all communications including tramways, Duckwalk tracks and Communication Trenches.

To construct two main tracks.-

- (1) From J.13.a.5.9. forward through GLENCORSE Wood to J.9.a.5.3.
- (2) From OLAPHAM JUNCTION to strong point at J.15.b.0.9.

2. Operations.

Previous to Zero Hour the Field Companies and Pioneer Bn. moved up to dugouts in ZILLEBEKE Bund. Officers Commanding 2nd. and 3rd. Field Companies and Major SPECKMAN 1st. Pioneer Bn were at Brigade Headquarters at HOOGE Crater and acted as liason officers.

The Engineers and Pioneers followed closely on the heels of the Infantry and got to work on their allotted tasks as soon as the position was clear for them to work.

All the strong points and tracks were well in hand soon after the Infantry had obtained their objectives and by night not only were all the strong points constructed but they were nearly all joined one to another by communication trenches.

The tracks being made by the Pioneers were also completed.

At 8.p.m. on 20th. the 1st. Field Company was ordered to relieve the 2nd. and 3rd. Field Companies on the strong points, as the latter had been continually at work for over 18 hours.

The relief was completed by 3.a.m. on 21st. and the 1st. Field Company continued the improvement of the strong points and they also improved the communications linking them up.

The 1st. Field Company did splendid work on the strong posts until relieved by the 2nd. Field Company, the relief being complete at 2.a.m. on 22nd.

The 2nd. Field Company maintained and improved the strong points but were unable to do much work owing to the exhausted state of the men from their previous exertions.

As the 5th. Australian Division were to relieve the 1st. Division on 23rd. it was decided that no more Engineer work was necessary on the strong posts the 2nd. Field Company was withdrawn at 10.p.m on 22nd.

The 1st. Field Company	was	commanded	by	Major R.J.DYER	DSO.
2nd.	do		do	Major L.F.S.MATHER	D.S.O.
3rd.	do		do	Major P.J.SAVAGE	D.S.O.

The 1st. Pioneer Bn. was commanded by Lieut. Colonel W.A. HENDERSON with Major C. SPECKMAN M.C. as Second in Command.

Copies of the ~~minutes~~ detailed accounts of operations are attached. Map attached.

W.A. Henderson

H.Q., Divisional Engineers,
1st. Australian Division,
13th. October 1917.

OPERATIONS from 19th. September to 9th. October 1917.

Notes on Works etc. and Lessons to be learnt.

1. PRELIMINARY WORK.

The Sappers and Pioneers were engaged on preliminary works, chiefly road making and tramway construction, from 7th. September and they were worked almost continuously right up to the operations.

During this period the Infantry were allowed to rest and went into the operations quite fresh, whereas the Sappers and Pioneers were very much worn and tired from their hard work and were not as fit as they should have been to carry out their difficult and arduous tasks during the operations. I consider that the Sappers and Pioneers should be given just as much rest as the Infantry before and between operations. The remedy of course is to provide sufficient Corps Troops so that Divisions could retain their technical troops for actual operations.

2. STRONG POINTS.

In each phase of the operations 8 Strong Posts were constructed in the Divisional front at points previously ~~was~~ selected by the General Staff. In each case all these posts were actually constructed approximately on the sites selected, the Sappers moving up immediately behind the Infantry and starting work as soon as it was possible to reach the sites.

A section of a Field Company was told off to each point.

The following stores were carried by each Strong Point party:-

French Wire	12 coils.
Sandbags	500
Screw Pickets (small)	50
Screw Pickets (large)	50
Picks	50
Shovels	20
Plain wire	1 coil.
Tracing tapes	6
Wire cutters	4 pairs
Axes, hand	2
Notice Boards "-" Strong Point	2
Camouflage	100 yards.

3. ATTACHED INFANTRY.

In the first phase of the operations one of the forward Field Companies had 100 Infantry attached as carrying party and they proved extremely useful. The other Forward Company had no Infantry and consequently their work was much curtailed for want of material. The Reserve Company had 100 Infantry attached which were taken up when they relieved the other Companies.

In the second phase 100 Infantry were attached to each Field Company some days prior to the operations and they proved extremely useful.

For the work that Field Companies are called on to do in the present class of warfare it is very essential that they should be supplied with unskilled labour to act as carriers etc. and in my opinion these men should be permanently attached and absorbed into the Companies, but if this cannot be done the Infantry should be attached to Field Companies at least two weeks before operations to enable the Field Company officers to get to know the men. A good strong class of man should be provided as the work is very strenuous.

/4. TRACKS.

4. TRACKS.

The Pioneer Bn. was detailed to maintain and extend all tracks and the importance of good tracks cannot be overestimated. If bad weather is likely they should be duckboarded but this is naturally slow work. Otherwise the tracks should be marked by white pickets and tape.

Two tracks were provided in each Divisional area and were marked every 50 yards with a board giving the name of the track and the Brigade which was to use it. This prevented all possible confusion.

5. MULE TRACKS.

These are very important and should be constructed if time labour and material permits, if only to prevent the duckboard tracks from being used by the mules and consequently being continually destroyed.

6. ROADS.

The making of good roads is, of course, very important. Laying planks is the best and quickest method. Single way roads are very inadequate to carry the traffic unless circuits can be formed. In any case traffic control is very necessary as soon as a road is open for traffic or even before. Great trouble was caused through motor lorries using single way roads in both directions.

It is considered that a riband should be firmly spiked down on each side of the road to prevent vehicles sliding off when the track is wet or muddy.

7. ENGINEER STORES and MATERIAL.

Good supplies of Engineer stores, road and tramway material should be pushed forward as far as possible before an operation and the supply should be kept up. A special stores party is really necessary and Divisions should be supplied in their Divisional Dumps and should not have to send back, but should be at liberty to use all their energies in pushing staff forward.

Definite Dumps should be formed and material should not be allowed to be dumped promiscuously along the roads particularly on the formation. It would pay to have special parties told off to collect such stores and material into dumps.

8. LIGHT RAILWAYS.

Although Light Railway lines ran well forward during each phase of the operations they were absolutely useless from an engineering point of view and although on a couple of occasions they tried to carry road slabs the result was not a success.

While admitting that the carriage of ammunition is of first importance, unless ~~an~~ road and other material is carried forward the means of getting the ammunition forward from railhead is considerably retarded.

In my opinion at least one line of light railway should be pushed forward in each Corps area, if not in each Divisional area, with the object of assisting the men in the front line trenches.

9. TRAMWAYS.

An endeavour was made during each phase of the operations to push forward a nine pound 60 c.m. push track to get up rations, engineer stores etc. and assist in bringing back wounded. The lines were not sufficiently far forward before the attack was made for them to be of much use, but I am of opinion that they would be of immense assistance to relieve congestion on roads and to save stretcher bearers.

/They

They should be well laid on wooden sleepers if possible and either a mule track provided at the side or the centre boarded and slatted so that mule and foot traffic could be used between the rails.

10. RECONNAISSANCE.

An officer and two surveyors were told off to make a reconnaissance of captured ground and were provided with a map with accommodation table attached, which they filled in and the information proved extremely useful and saved a vast amount of trouble when handing over to another Division.

A sample of map is attached.

11. REPORTS.

Each officer in charge of a strong point was supplied with several copies of a report form and a ~~3/4~~ 1/2500 map with form attached. This proved extremely useful and enabled the reports to be clearly understood.

The forms were forwarded every two hours and the maps every four hours.

Lieut. Colonel,
C.R.E., 1st. Australian Division.

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REPORTS ON STRONG POINTS ETC.

DATE TIME..... No. of POST.....

LENGTH of FIRE TRENCH.....

AVERAGE DEPTH of FIRE TRENCH.....

No. of MEN POST WILL ACCOMODATE.....

AMOUNT of WIRE ENTANGLEMENT.....

NUMBER of MACHINE GUNS in POST.....

LENGTH of C.T. towards

do do

do do

ARE THERE any DUGOUTS in POST.....

If so what CLASS.....

WHAT Battalion occupies trenches in front of you

do behind you

do on right

do on left

Is there a GARRISON in your POST

If so WHAT Battalion and HOW MANY

ENEMY SHELLING.....

OUR SHELLING

CASUALTIES to date. KILLED..... WOUNDED

REMARKS:-

.....

.....

.....

.....

.....

(7)

.....Lieut.
No. Section. Field Coy.

H.Q., Divisional Engineers,
1st. Australian Division,
13th. October 1917.

REPORT on OPERATIONS 1st. October - 5th. October 1917.

1. PRELIMINARY ARRANGEMENTS.

Acting on Instructions No. 8 issued with Divisional Order No. 39 the Field Companies were given the following instructions:-

Prior to the operations the 1st. and 2nd. Field Companies were engaged on various works on WESTHOEK RIDGE, constructing an Advanced Dressing Station, providing accommodation etc.

At 10.p.m. on night of 2nd. October the 3rd. Field Company relieved the 1st. and 2nd. Field Companies to enable the latter to obtain a days rest.

The 1st. Field Company and attached Infantry were told off to work in Right Brigade Sector with 1st. Infantry Brigade to construct strong points at

J.5.b.15.15.	Post A
J.5.b.00.70	Post B
D.29.d.10.00	Post C
J.5.a.55.65	Post G

The 2nd. Field Company with attached Infantry were told off to work in Left Brigade Area with 2nd. Infantry Brigade and to construct strong points at

D.29.c.95.40.	Post D
D.29.a.85.10	Post E
D.29.a.45.40	Post F
D.29.c.40.95	Post H

3rd. Field Company were held in reserve with orders to be prepared to relieve the 1st. and 2nd. Field Companies after dark on attack night.

The 1st. Pioneer Bn. was made responsible for the maintenance and extension of all communications, including Tramways, Mule tracks, and Communication Trenches and to establish two main routes:-

- (i) From WESTHOEK RIDGE at J.8.c.1.9. to G Strong Point at ~~xx~~.
J.5.a.~~55.55~~
55.65 to be known as JABBER TRACK.
- (ii) From WESTHOEK RIDGE at J.7.b.9.3. to Strong Point H at D.29.c.40.95 to be known as HELLES TRACK.

2.

Previous to Zero hour on 4th. October the 1st. Field Company was at I.12.a.6.0. 2nd. Field Company on WESTHOEK RIDGE, and 3rd. Field Company at billets.

As before the Engineers and Pioneers followed closely on the Infantry and work was commenced on their various tasks as soon as they were reached, and the work was well in hand three hours after Zero and work was being done at all points.

At 5.p.m. the 3rd. Field Company was sent up to relieve the 1st. and 2nd. Field Companies, the relief being complete by 9.p.m. the latter returning to their billets for a much needed rest.

The 1st. Field Company relieved the 3rd. Field Company at 9.p.m. on 5th. October and as strong points needed little further attention all efforts were concentrated on JABBER and HELLES Track to get them duckboarded on account of the sloppy state of the ground.

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On 6th. October owing to the necessity for getting the tracks put in order the 2nd. Field Company were sent up to work on HELLES TRACK while the 1st. worked on JABBER TRACK, and 200 infantry were obtained to assist in carrying the duckboards. In the afternoon permission was given for the whole work to be concentrated on HELLES^{Track} and both Companies and Infantry parties were put on.

The work was continued on 8th. and 9th. October and the track was extended to within 20 yards of strong point H.

On 6th. October the 3rd. Field Company were put on to extend and ~~maintain~~ maintain the tramway from WESTHOEK forwards and they remained on this job even after the Division was relieved on 9th. instant.

The 1st. Field Company was commanded by Major R.J. DYER D.S.O.
The 2nd. Field Company was commanded by Major L.F.S. MATHER D.S.O.
The 3rd. Field Company was commanded by Major P.J. SAVAGE D.S.O.
The 1st. Pioneer Bn. was commanded by Lieut. Colonel W.A. HENDERSON with Major C. SPECKMAN M.C. as second in command.

Lieut. Colonel,
C.R.E., 1st. Australian Division.

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Sept. Oct 1917.

REMARKS ON RECENT OPERATIONS AND LESSONS LEARNED.

1. Plank Roads.

For rapidly carrying on a road planking is by far the quickest and most satisfactory method. The road should be laid on four longitudinal stringers to which the planks should be securely spiked. If the ground is bad the stringers should be laid on fascines or logs at intervals of 5' or so according to the ground. Care should be taken that the stringers are bedded down and the spaces filled with earth before laying the planks so that they are supported throughout their length. All roads should be double width if possible to permit of two way traffic. The formation should always be made sufficiently wide to take a double track and the single track should be laid down on one side of it. Drains should be invariably be dug on each side, the inner edge to be at least 3' from the edge of the planking. Ribands are very necessary on both sides of the road and should be fairly heavy and well spiked down, they are specially required when the planks are slippery.

It is estimated that provided material is carried up to the job 100 men can form and lay 100 yards in 6 hours.

If traffic cannot be kept off the road during construction, which is very desirable, a good system of traffic control should be organised from the start. Plank roads, if well constructed will carry lorries and heavy guns but should only be used for them in cases of emergency.

It is suggested that when time and material permits a very good permanent road could be made of the plank road by using it as a foundation and putting metal and gravel directly on top of it.

2. Mule Tracks.

Very necessary indeed. If mule tracks are not put down the mules walk on the tramway tracks and duckboards and cause a vast amount of damage. Mule tracks can be made of short fascines or hurdles but it is considered that "Mule mats", i.e. heavy duckboards 5' long by 4' wide are the best. None of these were available in this Division during recent operations but I understand they were used with great success by the 3rd. Australian Division. Two of these tracks side by side form a very good track for light artillery.

3. Trench Board Tracks.

These are absolutely essential particularly in bad weather. If possible they should be double throughout and a broad board 3' wide with 3 longitudinals is considered the best but owing to the exigencies of the situation it is generally necessary to lay a single track first. A single track is too narrow particularly for stretcher bearers and for everyone in the dark. They should be laid on trestles to lift them out of the mud and time spent in doing this when constructing is well repaid when the question of maintenance arises.

In bad weather all duckboards should be wired before leaving the yard and should be wired with stout No.8 wire. Wire netting is very unsatisfactory as it wears away and the last state is worse than the first. If netting has to be used each board should be covered separately, otherwise shells will tear out a large gap instead of only one or two boards.

4. Making of Tracks.

It was found necessary to mark all tracks with white pickets and with notice boards every 100 yards, the boards being 18"x 12" painted white with 4" black block lettering. They should be 3' out of the ground. The boards contained the name of the track, its ultimate destination, if known, and if for an attack the Brigade which was to use it.

Tracks should always be named and it is considered advisable to name them after some place which the track passes e.g. BELLES Track, JABBER Track etc. as it greatly facilitates the locating of it and gives a good idea of its general situation.

/ Forward tracks

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4. Marking of Tracks (Continued).

Forward tracks were marked by white pickets and when first put in tapes were run from picket to picket. The tapes were marked before-hand alternately black and white to distinguish them from the Infantry guiding tapes. Luminous paint is also very useful on the pickets.

5. Assistance from Light Railways:

As far as the Division was concerned no assistance whatever was rendered by the Light Railways in any of the operations though in many cases they could have been of great assistance particularly in the evacuation of wounded. No Light Railway Officer visited Divisional Headquarters to ascertain even in what way they might have been of assistance.

6. Tramways.

It is considered that tramways are by far the best means of getting up all stores and materials but to be of any real value they should connect with the Light Railways and tractors should take the ~~loads~~ loads as far forward as possible. Where pack mules can go there is no reason why tractors should not go also and thus save both mules and men. In recent operations the tramways were tried but were not sufficiently far forward at the beginning of operations to be of any great value and could therefore not be relied on. The best form of push track is one laid on the top of duckboards 3' wide. This forms a good walking surface for the men and also provides a good bed for the track. 9 lb rail can be used on duckboards but if laid in any other way 20 lb on wooden sleepers is the best and if it is ~~intended~~ intended to use tractors 20 lb is absolutely necessary. In any case a good walking track should be provided between the rails as it is considered better to do this than to try and keep men from walking on it.

Fish plates should never be used, as, if struck by a shell a long length of line is frequently torn out by the fish plates keeping the rails together. The rails should be spiked to the sleepers.

7. Water Supply.

Water was supplied to the forward troops by the installation of 100 gallon tanks sunk in the ground and well protected at various dumps from which water was carried or packed forward in petrol tins. There was no shortage of water during recent operations. Any form of pipe supply is almost out of the question owing to the heavy shell fire.

8. Trench Systems etc.

The only regular trench systems put in were strong points at pre-determined spots which were afterwards linked to one another by Communication trenches. The strong points were constructed by one Section of a Field Company under an officer with an Infantry carrying party of 25 and assistance from the garrison. Within 3 or 4 hours of Zero fairly good posts were constructed and within 12 hours very good posts existed and were connected in most cases to one another.

Communication trenches were made over bad ridges etc. The usual trench was about 3' wide by 4' deep. Sufficient wire was carried up to each post to do about 50 yards of single French wire entanglement. Revetting was done in some cases ~~xxxxxxl~~ but local material had to be used. Trench boards were out of the question owing to the difficulty of getting them up until the tracks were completed.

9. Engineer Reconnaissance.

Engineer Reconnaissance before-hand is very necessary and was carried out with a view chiefly to determining probable routes ~~for~~ tracks forward. Oblique photographs were found of great value in this respect.

/ 10. Fixing positions

(D)

10. Fixing Positions on Maps etc.

As far as the work being done under Engineer supervision was concerned very little difficulty was experienced in locating the sites of strong points and in each of the two operations 8 strong points were constructed on the sites selected beforehand on the map. Oblique photographs proved of great value in locating the sites for strong points. Engineer officers in charge of strong points reported on the condition of captured dugouts but it is considered advisable to tell off a small party of surveyors specially for the purposes of making an engineer reconnaissance of the forward area.

11. Sufficiency of R.E. and Pioneer Personnel:

It is considered that provided carrying parties are supplied, the Engineer and Pioneer personnel is sufficient for Divisional operations but only provided that sufficient Corps Troops are available to carry on back work while the Divisional Engineers and Pioneers are withdrawn with the Infantry for a rest.

In recent operations the Engineers and Pioneers of the Division were employed on roads, tramways etc. from 7th. September to 20th. September. They took a very active and exhausting part in the operations and were again employed on communications etc. up to 4th. October when they again took a similar and still more exhausting part in the operations and have remained at work continuously up to the present date.

It is too much to expect of any troops as they were under shell fire the whole time and continually getting casualties. The only remedy is to be found in supplying more Corps Troops for back work. It is useless to try and rest a Company at a time as it only throws extra work on the remaining Companies.

At the beginning of the operations each Field Company had at least 2 supernumery officers and at present time they are all below strength in officers which emphasises the necessity for supernumery engineer officers. The Pioneers had the same experience.

12. Attachment of Infantry.

It is considered that if Engineers are to be of use in offensive operations it is necessary to attach an Infantry party. In recent operations 100 Infantry were attached to each Field Company for the operations and they proved extremely useful and enabled a large amount of stores to be carried up. It was found that it was not possible for the party to return for more stores and they were used to assist in making the strong point, but if R.E. Dumps were close enough to the site of the Posts it would be advantageous to send them back for more stores. The Infantry should be attached to the Field Companies sufficiently long before operations to enable the Field Company Officers to get to know their men.

It is considered unnecessary to attach Infantry to ^SPioneer Battalion as they have enough men to provide their own working parties.

Lieut. Colonel,
G.R.E., 1st. Australian Division.

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10. Fixing Positions on Maps etc.

As far as the work being done under this heading is concerned very little difficulty was experienced in locating the sites of strong points and in each of the operations 2 strong points were connected on the sites selected on the map. Other photographs proved to be of little value in locating the sites for strong points. In charge of strong points reported on the map it is considered advisable to have a party of surveyors especially for the purpose of an engineer reconnaissance of the forward area.



11. Utilization of S.E. and Pioneer Companies

It is considered that provided carrying parties are supplied, the Pioneer and Pioneer companies are sufficient for divisional operations but only provided that sufficient Pioneer troops are available to carry on back work while the Pioneer companies and Pioneer are withdrawn with the Infantry for a rest. In recent operations the Pioneer and Pioneer companies were employed on roads, tramways etc. from 7th September to 20th September. They took a very active and exhausting part in the operations and were again employed on communications etc. up to 4th October when they again took a similar and still more exhausting part in the operations and have remained at work continuously up to the present date. It is too much to expect of any troops as they were under shell fire the whole time and continually getting casualties. The only remedy is to be found in supplying more Pioneer troops for back work. It is useless to try and rest a Pioneer company as it only throws extra work on the remaining companies. At the beginning of the operations each Pioneer company had at least 2 supplementary officers and at present time they are all below strength in officers which emphasizes the necessity for supplementary engineer officers. The Pioneer had the same experience.

12. Attachment of Infantry

It is considered that if Engineers are to be of use in offensive operations it is necessary to attach an Infantry party. In recent operations 100 Infantry were attached to each Pioneer company for the operations and they proved extremely useful and enabled a large amount of stores to be carried up. It was found that it was not possible for the party to return for more stores and they were used to assist in making the strong point, but if S.E. troops were also attached to the site of the point it would be advantageous to send them back for more stores. The Infantry should be attached to the Pioneer companies sufficiently long before operations to enable the Pioneer companies to get to know their men. It is considered unnecessary to attach Infantry to Pioneer battalions as they have enough men to provide their own working parties.

Major General,
S.E. Australian Division.

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