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付属資料 1

インセプション協議議事録

議 事 録	
訪問先	地質鉱山局 (Department of Geology and Mines : DGM)
日 時	平成 18 年 6 月 5 日 (月) 13:35~16:10
面会者	<p>Dr. Simone Phichit - Deputy Permanent Secretary of Ministry of Industry and Handicraft (MIH)</p> <p>Mr. Thongphath Inthavong - Director General of Department of Geology and Mines (DGM)</p> <p>Ms. Chansavath Boupha - Deputy Director General (DGM)</p> <p>Mr. Khampha Phommakaysone - Director of Geology Division (DGM)</p> <p>Mr. Oudom Phommachanh - Director of Geo-Mines Information Center (DGM)</p> <p>Ms. Phengsy Sirithongdy - Deputy Director of Mineral Analysis Center (DGM)</p> <p>Mr. Eravanh Boungnaphalom - Acting Director of Mining Concession Management Division (DGM)</p> <p>Mr. Chanmany Saysombat - Deputy Director of Administration and External Cooperation (DGM)</p>
同行者	<p>JICA 経済開発部資源・省エネルギーチーム：足立職員</p> <p>JICA ラオス事務所：関根職員、RATTANA 職員</p>
調査団	柴田、後藤、根岸、白井、気賀沢、亀海、津田
議事内容	<ul style="list-style-type: none"> ・ (Simone 次官) 今回のプロジェクトの予算はどの程度か？ ・ (足立) 約 1.5million US\$ である。 ・ (Simone 次官) プロジェクトの対象地域は？ ・ (柴田) ラオス側の要請で、ラオス国南部の「Attapeu 地域」に決定した。 ・ (Simone 次官) ラオス側地質屋の育成は？ ・ (柴田) 本調査団には、3名の日本人地質屋がいる。1人の日本人地質屋に対し、2人のラオス人地質屋を配置し、最大6人のラオス人地質屋の現地調査が可能と考える。また日本での研修については、1人/年程度を考えている。 ・ (Simone 次官) 今回のプロジェクトで優良な鉱徴地の発見等の成果が挙げれば、JICA のサポートは継続するのか？ ・ (柴田) 日本にも鉱山会社があり、今回のプロジェクトで良い兆候が認められれば、継続した調査が実施される可能性はあると考える。

議 事 録

議事内容

- (Chansavath 副局長) GIS 及び化学分析分野の人材育成については何人程度が対象か？
- (柴田) 地質と同様と考えている。但し、DGM の要員配置や機器・機材の状態により多少変更の可能性はある。
- (足立) 本プロジェクトは、「Study プロジェクト」であるため機材供与がない。その点について理解を願う。
- (Simone 次官) 世銀のプロジェクトのように JICA プロジェクトでも成果を期待している。今回の調査団では、本プロジェクトでどのような機材を使用するのか？
- (柴田) パソコン、GPS 等を使用する。
- (Phengsy 副部長) 分析機器が古くて故障しているものもあり、このプロジェクトで修理をしてもらうことはできるだろうか？
- (足立) 価格次第である。
- (Oudom 部長) 予算が少ないため、フィールド調査の出張旅費が捻出できない。
- (柴田) 本件については後日協議しましょう。

以 上

付属資料 2

ステアリングコミッティ議事録

(第1回～第6回)

議 事 録	
会議名	第1回ステアリングコミッティ
場 所	地質鉱山局 (Department of Geology and Mines : DGM)
日 時	平成18年10月20日 (月) 09:00～10:30
出席者	Dr. Simone Phichit - Deputy Permanent Secretary of Ministry of Industry and Handicraft (MIH) (中途退出) Mr. Chansone Senebouttalath - Deputy Director General (DGM) Ms. Chansavath Boupha - Deputy Director General (DGM) Mr. Khampha Phommakaysone - Director of Geology Division (DGM)
同行者	JICA ラオス事務所：関根職員
調査団	柴田、白井、気賀沢、亀海
議事内容	<p>1. 開会の挨拶 (Simone 次官)</p> <p>2. 調査状況の説明</p> <ul style="list-style-type: none"> ・ 全体スケジュールと第二次現地調査のスケジュール、地質調査関係の進捗状況の概要説明 (柴田総括) ・ GIS の進捗状況と今後の実施計画の説明 (気賀沢団員) ・ 化学分析の進捗状況と今後の実施計画の説明 (亀海団員) <p>3. 検討事項</p> <ul style="list-style-type: none"> ・ (白井団員・気賀沢団員) 近々DGMの組織変更が予定されており、地質局と鉱山局の2つに分かれることになることから、Web Site も2つにしたいという意見が出されている。これについて、調査団としては現状の DGM の維持管理能力から判断して2つのサイトの運営は無理であり、当面は1つでやることを提案する。現在の Geo-Mines Information Center の組織はそのまま地質局に属するとのことなので、鉱山局ではサイトの運営は困難と思われる。また顧客にとっては両者の情報が一体となっているほうが望ましいことであり、分けるのは Customer Oriented に反するものである。ただし、窓口を2つ作ることは可能なので、入り口はそれぞれの局のものとし、中は同じものにアクセスする形を提案する。 ・ (Chansavath 副局長) 地質局と鉱山局が個々に Web Site を運営することが基本であるが、現状の能力から判断して2つのサイトを運営することは無理なので、調査団の提案を受け入れることとしたい。 <p>4. 質疑応答</p> <ul style="list-style-type: none"> ・ (Chansone 副局長) 配布された第二次調査計画書に示されている分析項目のうち、DGM の分析センターで実施するものは何か？

	<ul style="list-style-type: none">・（柴田総括） 鉍石分析と薄片・研磨片作成を予定している。数量は調査計画書に示している。 <p>5. 閉会の挨拶（Chansone 副局長）</p> <ul style="list-style-type: none">・ 調査団が示した調査計画について同意する。良い成果が出ることを期待している。
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議 事 録	
会議名	第2回ステアリングコミッティ
場 所	地質鉱山局 (Department of Geology and Mines : DGM)
日 時	平成 19 年 2 月 26 日 (月) 09:00~10:30
出席者	Dr. Simone Phichit - Deputy Permanent Secretary of Ministry of Industry and Handicraft (MIH) Mr. Thongphath Inthavong- Director General (DGM) Mr. Khampha Phommakaysone - Director of Geology Division (DGM) Mr. Oudom Phommachanh - Director of Geo-Mines Information Center(DGM)
同行者	
調査団	柴田
議事内容	<p>1. 調査状況の説明</p> <ul style="list-style-type: none"> ・調査全般 (柴田) ・アタプ地域地質調査状況 (Mr. Khampha) Nong Fa 湖の宝石、Ban Dakyoy 村北方の軍が鉱区を所有している金鉱床、国道 18 号線沿いのカオリナイト変質帯、風化した花崗岩中のカリ長石分布域、金・銅鉱徴地について詳細に説明。 ・化学分析及び GIS の状況 (柴田) <p>2. 次年度調査について</p> <ul style="list-style-type: none"> ・計画概要の説明 (柴田) ・1 : 10,000 地質調査地区の選定については、 Mr. Khampha の説明にあった興味ある地区を含めて、今後検討する。6 月に DGM で分析結果や地質図を元に検討を行い、候補地を選定する。 ・化学分析および GIS 関連の機器について、老朽化と備品不足のために作業能率が低いことから、この是正が大きな課題であり、調査団と DGM で検討していくこととする。 <p>3. 閉会の挨拶 (Thongphath 局長)</p> <ul style="list-style-type: none"> ・本年度の調査によって多くの有用な情報が得られた。 ・本調査については、プログラムも大変よいし、実際の業務もよくやっていると思っている。 ・また、次年度計画も非常によいと思う。 ・よい成果が出ることを期待している。そして本プロジェクトの後、日本の公的機関や企業とより親密な関係が築けるようになることを期待している。

議 事 録	
会議名	第4回ステアリングコミッティ
場 所	地質局 (Department of Geology : DGE0)
日 時	平成 19 年 11 月 8 日 (木) 14:00~16:00
出席者	Mr. Chansone Senebouttalath: Director General of DGE0 Ms. Chansavath Boupha: Deputy Director General of DGE0 Mr. Khampha Phommakaysone: Deputy Director General of DGE0 Dr. Simone Phichit: Deputy Director General of DOM 関根次長 : JICA ラオス事務所
同行者	
調査団	柴田
議事内容	<p>1. 開会の挨拶 (Chansone 局長)</p> <p>2. 第 5 次調査の実施計画および調査状況の説明</p> <ul style="list-style-type: none"> ・ 第 5 次調査の調査計画とスケジュール ・ ベトナム調査団との地質情報交換、地質マッピングの検討 ・ 1/1 万詳細調査の位置と調査状況 ・ カナダの PDAC への出展計画 ・ 本邦研修について (Mr. Khampha を招聘) ・ 渡辺博士 (産総研) と小林氏 (JICA) の来訪について <p>3. 質疑応答</p> <ul style="list-style-type: none"> ・ 要望 (Simone 副局長) ボラーベン高原ではオーストラリアの会社をメインとしたグループの探査が進められており、高品位のボーキサイトが確認されている。埋蔵量は 800 万トンであると報告されている。この探査結果も報告書に含めて欲しい。 ・ (柴田) 了解した。 ・ Q1 (Simone 副局長) 現在この JICA プロジェクトによってアタプ地域の地質・鉱床の基礎データが収集されている。この地区の資源開発を政府は期待しており、また State Company や Private Company が興味を持ってこの調査を注視している。そこで、収集した基礎データを公開することはできないだろうか？ ・ A1 (柴田) まだ調査の途中であり、一般に公開するのは待つて欲しい。できれば来年度にラオスや日本で開催することを計画しているセミナーまで待つて欲しい。日本の機関や Private Company も興味を持っているので、それも考慮して欲しい。 ・ Q2 (Khampha 副局長) この件に関し、政府内での検討に限ってのデータの使用は可能か？ エネルギー・鉱山省に報告をする必要があるため。できれば 12 月にでも地化学探査結果図の ArcGIS データ等が

欲しい。途中経過のもので構わない。

- ・ A2 (柴田) 政府内の使用に限定するという事で了解した。12月に来る津田君にデータを託すことにする。
- ・ Q3 (Simone 副局長) PDAC セミナー参加についての質問だが、プレゼンテーションはやるのか？
- ・ A3 (柴田) ブースによる展示・説明を行う。
- ・ Q4 (Simone 副局長) それはいい。以前自分が参加した時に、ベトナムの大臣が自国の資源ポテンシャルや資源政策についてプレゼンをやっていたが、そのようなことは考えていないのか？
- ・ A4 (柴田) 考えていなかったが、そういう希望であれば検討したい。PDACの資料を早急に調べてみる。
- ・ 要望 (Simone 副局長) できればラオスの資源ポテンシャルと資源政策の2項目についてプレゼンをしたい。
- ・ Q5 (Chansavath 副局長) グラファイトファーマス原子吸光分析装置の修理は今年度行わないのか？金の微量分析や水質の分析に使いたいので、もし可能であれば修理して欲しい。
- ・ A5 (柴田) 検討中である。昨年度技術者をタイから呼んで調べた結果、本体には問題がないがアルゴンガスが注入されないことが判明した。しかし、具体的にどの部分のパーツに問題があるかは各パーツを持ってきて調べてみないと分からなく、パーツはオーストラリアから取り寄せないといけないとのことであった。このような状況から、修理については未だ検討中である。
- ・ Q6 (Simone 副局長) ホームページの作成はどうなっているのか？
- ・ A6 (柴田) 世銀の協力で作成したものをベースに拡張していくことで構想はできている。現在必要なデータベースを ArcGIS で作成中である。
- ・ Q7 (Chansavath 副局長) 現在 ArcGIS については1ライセンスしかなく、PC 1台のみの使用であり、作業上、トレーニング上とも限られたものとなっている。ライセンス数を増やすことはできないだろうか。
- ・ A7 (柴田) 今年度はプロッターのリースが精一杯であった。これから作業量はますます増えるであろうし、次年度調査で検討したい。しかし、DGEO側でも購入の検討、努力をお願いしたい。

4. 閉会の挨拶 (Chansone 局長)

議 事 録	
会議名	第5回ステアリングコミッティ
場 所	地質局 (Department of Geology : DGE0)
日 時	平成 20 年 2 月 6 日 (木) 13:30~16:00
出席者	Mr. Chansone Senebouttalath: Director General of DGE0 Ms. Chansavath Boupha: Deputy Director General of DGE0 Mr. Khampha Phommakaysone: Deputy Director General of DGE0 Mr. Oudom Phommachanh - Director of Geo-Mines Information Center, DGE0 Dr. Simone Phichit: Deputy Director General of DOM Dr. Bountheung Phengthavongsa: Deputy Director of the Cabinet of MEM 関根次長 : JICA ラオス事務所
同行者	
調査団	柴田、杉田
議事内容	<p>1. 開会の挨拶 (Chansone 局長)</p> <p>2. インテリムレポートおよび第6次調査の実施計画の説明</p> <ul style="list-style-type: none"> ・インテリムレポートの概要説明、特に地質調査について ・1/1 万詳細地質調査の状況説明 ・カナダの PDAC への出展について ・ Mr. Khampha による本邦研修について ・化学分析の状況 ・次年度の調査計画概要 <p>3. 質疑応答</p> <ul style="list-style-type: none"> ・ Q1 (Simone 副局長) 第7章のまとめに「鉱業セクターの機能強化や情報整備が未だ不十分な状態である」と書かれているが、ただ不十分だと書かれても困る。今どのレベルにあり、今後何が必要か、それによってどのレベルに達するのかを明確にして欲しい。 ・ (柴田) 了解した。最終報告書にはそのように書くつもりでいる。 ・ 参考意見 (Khampha 副局長) 将来計画においては他のドナーとの協力体制やすみわけも必要と考えられる。 ・ Q2 (Simone 副局長) Website の更新は遅くとも今年の7月までに完了するように協力して欲しい。7月にフィリピンで鉱業関係の会議が開かれるので。 ・ A2 (柴田、杉田) 了解した。 ・ Q3 (Oudon 部長) 2008 年末までにすべての 1/20 万地質図は完成しないが、1/100 万地質図の改訂はどうするのか? ・ A3 (柴田) 完成している地区のものを使って改訂する予定。今後他

	<p>の1/20万シートが完成した時点で、また改訂を行う必要が生じる。</p> <ul style="list-style-type: none"> ・ Q4（ラオス側）鉱業法、GISの専門家の派遣を要請したが、JICA事務所から断られた。 ・ A4（関根次長）JICA事務所としては、鉱業セクターは近年十分な利益を上げており、ラオス側で必要な専門家は雇用できると考えている。 ・ 意見（ラオス側）鉱業セクターからの歳入は確かに大幅に増えているが、DGEOとDOMに分配される予算は相変わらず少ないのが現状である。 ・ Q5（関根次長）鉱業法の専門家が欲しいというが、現在鉱業法の改正はどのような状況なのか？ ・ A5（Simone 副局長）DGEOとDOMでの内部チェックが終わりMEMに提出したが、エキスパートにチェックしてもらうようにとのコメントがあり、世銀に依頼して専門家にチェックをしてもらっている段階である。 ・ Q6（関根次長）では日本からの専門家は不要なのでは？ ・ A6（Simone 副局長）いろいろな専門家の目で見たいと思っている。 ・ Q7（関根次長）専門家の要請においては目的と指導分野をもっと具体的に書いて欲しい。 ・ A7（Simone 副局長）了解した。 ・ Q8（Chansone 局長）DGEOにはこれまでに作成された様々な報告書が蓄積されている。色々な言語で書かれており日本語のものもある。しかしそれらは倉庫で眠っており、見える状態になっていない。これらのコンパイルやデータベース化に協力してもらえるプロジェクトを計画できないものだろうか？ ・ 意見（Simone 副局長）DOMも同じ様な問題を抱えている。 ・ A8（柴田）今後そのような問題についても検討していきましょう。 <p>4. 閉会の挨拶（Chansone 局長）</p>
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議 事 録	
会議名	第6回ステアリングコミッティ
場 所	地質局 (Department of Geology : DGEO)
日 時	平成20年6月16日 (月) 14:00~17:00
出席者	Ms. Chansavath Boupha: Deputy Director General of DGEO Mr. Khampha Phommakaysone: Deputy Director General of DGEO Dr. Simone Phichit: Deputy Director General of DOM Mr. Oudon Phommachanh: Director of Geo-Mines Information Center, DGEO Mr. Siphandone Vilayhack: Director of Geology, DGEO
同行者	
調査団	柴田、後藤、根岸、亀海、杉田
議事内容	<p>1. 開会の挨拶 (Chansavath 副局長)</p> <ul style="list-style-type: none"> ・今回の打ち合わせはこれまでの成果の確認であるが、それにあわせて今後どのように進めていくかについても検討してほしい。 <p>2. 柴田総括による前年度成果と本年度計画の概要説明</p> <ul style="list-style-type: none"> ・Q1 (Dr. Simone) 延長することになった場合、どのような調査を行うのか? ボーリングも行うのか? ・A1 (柴田) 地質精査、土壌地化探、沢砂地化探、トレンチ調査、物探として IP 探査である。ボーリングは行わない。 <p>3. 亀海団員による化学分析についての説明</p> <ul style="list-style-type: none"> ・要望 (Chansavath 副局長) DGEO ラボではいろいろな分析をやろうと思っている。外部からの分析結果だけでなく、DGEO ラボでも分析を行って結果を確認したい。他に、水の管理に関して STEA は水の環境分析用のラボを作りたいと思っているが、DGEO として水の分析もできるようにしたいと思っている。 DGEO ラボの方向性、改善点、メンテの方針等を具体的にまとめてもらえるとありがたい。また、DGEO ラボに必要なものは何か?たとえばスペアパーツ、機器など。今必要なもの、将来必要なもの。そのような物をリストアップしてもらいたい。我々は何が必要なのかわからないので、予算立て出来ない。 ・Q2 (Simone 副局長) DGEO ラボで他機関から受注して分析することは出来ないか?国際的にスタンダードなレベルまで分析技術を向上出来ないか?政府予算でラボに関する初期投資を行うとしても、その後の運営は DGEO ラボが自立してやっていかなければならないと思っている。 ・A2 (柴田、亀海) DGEO ラボがビジネスとして分析を行うとなると相

	<p>当たってんことである。大きな投資も必要である。チェック機関としてラボなのか？ビジネスとしてのラボなのか？DGEOとしてラボをどうしたいのか方針を決める必要がある。</p> <ul style="list-style-type: none"> ・ Q3 (Simone 副局長) 私が考えている DGEO ラボの役割は、基本的にはチェック機能としてのラボである。たとえばどこかの会社から試料の分析結果を見せられた際、分析結果が正しいのかどうかについて確認するための役割、これが基本である。 <p>4. 後藤、根岸団員による地質調査/地化学探査についての説明</p> <ul style="list-style-type: none"> ・ Q4 (柴田) これまで軍管轄の金鉱山のことを Army Mine という呼び方をしているが、適切と思えない。正式名はないのか？ ・ A4 (Khampha 副局長) 正式名ない。「Bo Vantat Mine」がいいかも知れない。 <p>5. 杉田団員による GIS データ整備についての説明</p> <ul style="list-style-type: none"> ・ (柴田) HP の update は何故出来ないのか？鉱山の状況や鉱区取得状況等の Contents については更新されているようだが、組織変更関連は以前のままで、HP トップページも DGM のままである。何かできない理由があるのだろうか？ ・ (Simone 副局長) 更新は STEA でしか出来ない。更新を行う場合、まず DGEO 内委員会で検討し、その後 STEA に更新を依頼する。 ・ (Chansavath 副局長) 本件については DGEO 側で検討する。 ・ Q5 (Dr. Simone) 今回示された GIS データはすでに DGEO 内に整備されているのか？たとえば鉱区データを他に見せる場合、鉱区図内に河川などの他の情報が入っていると見やすいのでたいへん良い。 ・ A5 (柴田) 個々の GIS データは着々と整備が進んできている。いろいろな情報を GIS データとして整備し、見やすい図面を準備・提供する方向で行っているところである。 ・ Q6 (Dr. Simone) ArcGIS ソフトはどこから調達しているか？ ・ A6 (柴田) ArcGIS ソフトの製造元である ESRI 社のラオス代理店 (Geomatics 社) からである。 <p>6. その他</p> <ul style="list-style-type: none"> ・ (柴田) 当初の計画通り、9月終了の予定で報告書作成を進めてゆく。 ・ (柴田) HP の更新については、関係者で早急に話し合い、対応を考えたい。
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付属資料 3

ドラフトファイナルレポート

協議議事録

MINUTES OF MEETING
ON
DRAFT FINAL REPORT
FOR
GEOLOGICAL MAPPING AND MINERAL INFORMATION
SERVICE PROJECT
FOR
PROMOTION OF MINING INDUSTRY
IN
LAO P.D.R.

AGREED UPON BETWEEN
DEPARTMENT OF GEOLOGY (DGEO),
DEPARTMENT OF MINES (DOM)
AND
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

Vientiane, August 7, 2008

Mr. Yoshiaki Shibata
Team Leader,
JICA Project Team

Ms. Chansavath Boupha
Deputy Director General,
Department of Geology
Ministry of Energy and Mines
Lao P.D.R.

Mr. Khamtanh Vonghansipaseuth
Deputy Director General,
Department of Mines
Ministry of Energy and Mines
Lao P.D.R.

The JICA Project Team submitted 20 copies of the Draft Final Report of the Project on “Geological Mapping and Mineral Information Service Project for Promotion of Mining Industry in Lao P.D.R.” (hereinafter referred to as “the Project”) to the Department of Geology (DGEO) and the Department of Mines (DOM), the Ministry of Energy and Mines in the Government of Lao P.D.R..

Discussions on the Draft Final Report were made between the parties on 7th August 2008.

After discussions, the Draft Final Report was accepted in principle, and the following specific points were noted.

1. Comments on the Draft Final Report

DGEO and DOM expressed full satisfaction with the the results of the Project and appreciated the recommendation for institutional strengthening and technical development of DGEO and DOM.

JICA proposed that geological and mineral resources maps of Attapeu area at the scale of 1:200,000 with explanatory notes and the revised geological and mineral resources maps of Lao P.D.R. at the scale of 1:1,000,000 with its explanatory note should be printed and submitted to DGEO. DGEO and DOM agreed to these proposal by JICA.

DGEO and DOM requested that a priority and detailed comments should be given as to the recommendations in the Draft Final Report. The Project Team agreed for this.

DGEO and DOM agreed that they would add further comments on the Draft Final Report as well as DGEO/DOM website contents, if any, by 31st August. The JICA Project Team agreed to take comments provided by DGEO and DOM, if any, into the completion of the Final Report and finalization of updated DGEO/DOM website.

2. Gratitude to the Cooperation

The DGEO and DOM expressed their gratitude to JICA and its Project Team and stated that the JICA Project would highly contribute to geological and mineral resources data preparation, capacity development of DGEO and DOM and promotion of mineral development in Lao P.D.R..

The JICA Project Team replied that they were also very grateful for the cooperation of the DGEO and DOM staffs in particular.

付属資料 4

地表地質記載データ表

Annex 4 Outcrop List (Team A 1/29)

Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
1	01A001	1674225	681700	Bldr	Q	debris: fragments of sandstone		
2	01A002	1673640	681080	MS	J3-K	reddish brown, mudstone interbedded with very fine sandstone layers		
3	01A003	1673420	677530	BA	Q	dark grey, basalt lava		
4	01A004	1677333	679761	Bldr	Q	terrace deposits		AS001
5	01A005	1673025	679761	MS	J3-K	mudstone interbedded with sandstone		AS002
6	01A006	1672920	476015			water fall		
7	01A007	1672905	675700	Bldr	Q	debris: fragments of sandstone		
8	01A008	1672800	675390	SS	J3-K	sandstone		AS003
9	01A009	1672425	674550	SS	J3-K	sandstone and mudstone		AS004
10	01A010	1671405	672745	SS, F	J3-K	light grey, fine sandstone	A002	
11	01A011	1668582	669675	BA	β Q II-III	grey, andesitic basalt	A003	
12	01A012	1668772	669739	BA	β N2-Q1	andesitic basalt		AS005
13	01A013	1674000	676925	Bldr	β N2-Q1	floats of mudstone and basalt		AS006
14	01A014	1671046	665200	Lat	β N2-Q1	laterite: rock of bauxite	A004	
15	01A015	1676522	634896	BA	β Q II-III	dark grey basalt, porous, porous	A005	
16	01A016	1631580	679015	SS.	J3-K	light grey, massive, medium sandstone		
17	01A017	1632135	678350	SS	J3-K	light grey, medium sandstone with parallel laminated	A006	AS007
18	01A018	1632582	677947	SS	J3-K	light brownish grey, medium to fine sandstone with parallel laminae		
19	01A019	1633060	677828	SS	J3-K	light brown, medium sandstone		
20	01A020	1633121	677765	SS	J3-K	light brownish grey. Medium sandstone		
21	01A021	1633201	677695	SS	J3-K	medium sandstone		
22	01A022	1633605	677400			location only		
23	01A023	1633715	677130	SS	J3-K	light grey, medium sandstone		
24	01A024	1634421	677183	ST	J3-K	bluish grey, siltstone with very fine sandstone	A008,A009	
25	01A025	1641450	699730	MS	J3-K	reddish brown, massive mudstone interbedded with sandstone		
26	01A026	1641720	699970	SS	C	grey, fine sandstone with laminae		
27	01A027	1638825	699020	Bldr	Q	alluvial deposits		AS008
28	01A028	1638285	701680	Bldr	J1-2	alluvial deposits		AS009
29	01A029	1642700	707430	Bldr	J1-2	alluvial deposits		AS010
30	01A030	1648510	705920	Bldr	J1-2	alluvial deposits		AS011
31	01A031	1636485	718010	Bldr	J1-2	alluvial deposits		AS012
32	01A032	1635753	709186	Bldr	J1-2	alluvial deposits		AS013
33	01A033	1636120	709069	Bldr	J1-2	alluvial deposits		AS014
34	01A034	1637488	709040	Bldr	J1-2	alluvial deposits		AS015
35	01A035	1660549	664856	BA	β Q II-III	grey, glassy olivine basalt	A007	
36	01A036	1655616	667990			location only		
37	01A037	1653027	670298	SS	K2	light grey, fine sandstone	A009	
38	01A038	1637917	672516	Lat	K2	laterite: hematite fragments, origin of sandstone		
39	01A039	1637967	672753	Lat	K2	laterite: hematite fragments, origin of sandstone		
40	01A040	1642057	674679	Lat	K2	laterite: hematite fragments, origin of sandstone		
41	01A041	1644813	674276	SS	K2	weathered, reddish brown, laterite and yellow sandstone		
42	01A042	1655678	667965	SS	K2	weathered, medium sandstone	A010	
43	01A043	1653210	675119	SS	J3-K	weathered, brown, coarse to medium sandstone with cross lamination	A011	AS016
44	01A044	1652758	675249	MS	K2	yellow to red mudstone interbedded with grey, medium sandstone		
45	01A045	1652525	675407	SS	K2	white, medium sandstone	A012	
46	01A046	1650715	676866	SS	K2	light purplish to pinkish grey, coarse sandstone with pebble gravel fragments	A013	
47	01A047	1650107	679900	SS	K2	light purplish grey, medium sandstone	A014	
48	01A048	1650364	682263	SS	K2	light grey, fine sandstone with cross and parallel laminae	A015	
49	01A049	1649720	683251	SS	K2	white, medium sandstone		
50	01A050	1631139	732334	WT	T1-2	light greenish grey, rhyolitic welded tuff with pumice		

Annex 4 Outcrop List (Team A 2/29)

Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
51	01A051	1628600	733645	PH	Q	alluvial deposits		
52	01A052	1628044	735051	PH	T1-2	strongly weathered, soft, phyllite		
53	01A053	1628056	734907	PH	O3-S	phyllite		
54	01A054	1628435	734631	PH	O3-S	red phyllite		
55	01A055	1628571	734470	PH	O3-S	dark grey, phyllite (psamitic)	A016	
56	01A056	1628733	734545	PH	O3-S	dark grey, phyllite (psamitic)		
57	01A057	1626810	734630	PH	O3-S	grey, phyllite (psamitic)		
58	01A058	1628770	734415	PH	O3-S	weathered, red phyllite with quartz lenses		
59	01A059	1628576	734291	PH	O3-S	weathered, red phyllite with quartz lenses		
60	01A060	1628347	734307	PH	O3-S	weathered, red phyllite with quartz lenses		
61	01A061	1623250	734024	SS	T1-2	light grey, fine sandstone		
62	01A062	1628339	733920	RH	T1-2	light pinkish white, rhyolitic, massive	A017	
63	01A063	1628540	733862	TU	T1-2	light grey, coarse, crystalline tuff	A018	
64	01A064	1628766	733585	WT	T1-2	light greenish grey, rhyolitic welded tuff with pumice, and rhyolitic		
65	01A065	1628751	733670	TU	T1-2	light greenish grey, rhyolitic lapilli to coarse tuff with pumice, and rhyolitic	A019	
66	01A066	1628841	733769	PH	O3-S	brown, phyllite with quartz nodule		
67	01A067	1629016	733592	TU	T1-2	pale greenish grey, rhyolitic lapilli to coarse tuff		
68	01A068	1629149	733447	TU	T1-2	pale greenish grey, rhyolitic fine tuff		
69	01A069	1629678	733315	TU	T1-2	light grey, rhyolitic fine tuff to coarse tuff	A020	
70	01A070	1630252	732812	RH	T1-2	brown, weathered, rhyolitic		
71	01A071	1632166	731737	TU	T1-2	white green, pumice tuff with green pumice elongated	A021	
72	01A072	1664052	669850	SS	J3-K	light grey, conglomeratic sandstone		AS017
73	01A073	1664987	665860	BA	β Q II-III	float stone of basalt		
74	01A074	1684040	665123	BA	β Q II-III	grey, aphanitic basalt, porous		
75	01A075	1660540	664864	BA	β Q II-III	basalt		AS018
76	01A076	1657467	667881	BA	β Q II-III	float stone of grey, aphanitic basalt, porous		
77	01A077	1656153	668340	BA	β Q II-III	grey aphanitic basalt		
78	01A078	1655677	667975	SS	J3-K	sandstone		AS019
79	01A079	1653037	670306	SS	J3-K	sandstone		AS020
80	01A080	1666754	665819	BA	β Q II-III	basalt		AS021
81	01A081	1666232	694252	ST	J1-2	grey, massive siltstone		
82	01A082	1666418	694432	SS	J3-K	light grey, conglomeratic coarse sandstone		
83	01A083	1667505	694468	SS	J3-K	light grey, medium sandstone	A022	
84	01A084	1668578	693015	SS	J3-K	light grey, conglomeratic coarse sandstone		
85	01A085	1669265	692288	MS	J3-K	grey, massive mudstone		
86	01A086	1669701	691881	SS	J3-K	light grey, conglomeratic coarse sandstone	A023	
87	01A087	1669490	690765	MS	J3-K	brown mudstone		
88	01A088	1669191	690200	SS	J3-K	light grey, conglomeratic coarse sandstone		
89	01A089	1669206	689825	MS	J3-K	reddish brown, mudstone interbedded and very medium sandstone layers		
90	01A090	1669570	689280	SS	J3-K	light brown, medium sandstone with parallel lamination	A024	
91	01A091	1668218	688360	SS	J3-K	pale brownish, conglomeratic coarse sandstone with cross lamination		
92	01A092	1666740	689523	MS	J3-K	purplish grey, massive mudstone		
93	01A093	1666315	689943	ST	J3-K	grey, siltstone		
94	01A094	1665947	689510	SS	J3-K	grey, bedded sandstone with a bluish grey mudstone bed and few reddish grey mudstone	A025,A026	
95	01A095	1665360	672390	SS	J3-K	grey, medium sandstone		
96	01A096	1667473	694508	SS	J3-K	yellowish grey, medium sandstone with parallel lamination		
97	01A097	1667509	694563	SS	J3-K	brown, conglomeratic sandstone		
98	01A098	1667503	694586	ST	J3-K	light yellow, siltstone. Medium sandstone, massive		
99	01A099	1667540	694586	ST	J3-K	light yellow, siltstone. Medium sandstone, massive		
100	01A100	1667588	694850	SS, M	J3-K	float stone of fine to medium sandstone with lamination	A027	

Annex 4 Outcrop List (Team A 3/29)

Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
101	01A101	1667563	694830		J3-K	670m point, float stone of fine to medium sandstone with lamination		
102	01A102	1667638	695805	Bldr	J3-K	Debris of sandstone		
103	01A103	1667696	695992	ST	J3-K	reddish brown, siltstone		
104	01A104	1777715	696035	SS	J3-K	greenish grey, tuffaceous, medium sandstone with parallel lamination	A028	
105	01A105	1667685	696120	ST	J3-K	reddish brown, siltstone with mica		
106	01A106	1669816	696202	ST	J3-K	reddish brown, siltstone with mica		
107	01A107	1668042	696560	ST	J3-K	reddish brown, siltstone with mica, and fine sandstone		
108	01A108	1668020	696626	SS	J3-K	reddish brown, very fine sandstone		
109	01A109	1668046	696722		PR1	location only		
110	01A110	1627345	774678	AR	OhpPR3	float stone of amphibolites	A030	
111	01A111	1627249	774539	QT	OhpPR3	light grey, fine serpentine (chlorite?) and kaolinite clay	A031	
112	01A112	1626984	774335	GR	γ4-5	strongly weathered, brown to light brown, fine biotite granite	A032	
113	01A113	1626922	774387	GR	γ4-5	grey, cataclastic, mylonite of granite	33, A034,A035	
114	01A114	1626840	774330	GN	PR1	weathered, pale brown, augen gneiss		
115	01A115	1626702	774102	GN	PR1	pyrite dissemination in sheared gneiss	A036	
116	01A116	1626595	773990	GN	PR1	quartz vein (2.5m) in bluish grey, cataclasite		
117	01A117	1626520	773430	GN	PR1	light grey, layered gneiss		
118	01A118	1626703	772935	GN	PR1	grey, layered, micro folding gneiss		
119	01A119	1627825	771048	GA	OhpPR3	strongly weathered, grey, layered, hornblende gabbro	A037	
120	01A120	1628440	770182	GA	OhpPR3	light yellowish grey, fine altered gabbro with quartz vein network	A038	
121	01A121	1628411	769955	GA	OhpPR3	grey, medium to fine gabbro with chalcopyrite dissemination in mafic mineral	A039	
122	01A122	1629021	769320	GA	OhpPR3	grey, medium gabbro with layering	A040	
123	01A123	1629685	768490	SC	C-O1	brownish grey, pelitic, biotite schist	A041,A042	
124	01A124	1629845	768447	SS	C-O1	slate of sandstone	A043	
125	01A125	1630140	768265	SL	C-O1	white, fine quartzite or silicified rock		
126	01A126	1631598	766755	SL	C-O1	light grey, pelitic slate	A044	
127	01A127	1633192	765225	SL	C-O1	dark grey, pelitic slate	A045	
128	01A128	1633085	764835	SL	C-O1	white, fine quartzite slate	A046	
129	01A129	1634715	763805	SL	C-O1	psamitic slate		
130	01A130	1636236	762687	SL	C-O1	grey, pelitic slate	A047	
131	01A131	1636834	762043	SL	C-O1	grey, siliceous slate	A048	
132	01A132	1636338	762440	SL	C-O1	mineralized block in slate	A049,A050	
133	01A133	1631167	767089	Bldr	C-O1	alluvial deposits: clay, sand, gravel		AS022
134	01A134	1630457	767582	SS	C-O1	grey, massive, medium sandstone	A051	AS023
135	01A135	1629061	769042	Bldr	OhpPR3	alluvial deposits: clay, sand, gravel		AS024
136	01A136	1628250	770638	Bldr	OhpPR3	alluvial deposits: clay, sand, gravel		AS025
137	01A137	1628447	770520	GA	OhpPR3	greenish to bluish grey, medium gabbro		AS026
138	01A138	1627456	772000	Bldr	OhpPR3	alluvial deposits: clay, sand, gravel		AS027
139	01A139	1635976	769762	GR	γ4-5	grey, medium to coarse biotite granite	A052	
140	01A140	1635903	770030	GR	γ4-5	white, weathered, granite, argillized		
141	01A141	1635261	770060	GR	γ4-5	biotite granite, weathered	A053	
142	01A142	1633654	769563	GA	OhpPR3	dark grey, medium gabbro		
143	01A143	1632982	768810	GA	OhpPR3	dark grey, medium gabbro		
144	01A144	1632802	767864	GA	OhpPR3	white, argillized, altered gabbro	A054	
145	01A145	1651778	718287	SS	J1-2	grey, medium sandstone with granule conglomeratic sandstone		AS028
146	01A146	1652983	715623	SS	J1-2	weathered, light grey, medium sandstone		AS029
147	01A147	1653760	714410	ST	J1-2	light grey to light bluish grey siltstone		
148	01A148	1654297	713990	SS	J1-2	grey limestone and dark grey calcareous fine sandstone		AS030
149	01A149	1654910	713540	ST	J1-2	light grey, siltstone, massive		AS031
150	01A150	1655213	713300	ST	J1-2	siltstone		AS032

Annex 4 Outcrop List (Team A 4/29)

Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
151	01A151	1657424	711577	ST	J1-2	reddish brown and whit blue, siltstone to mudstone		AS033
152	01A152	1658296	710100	ST	J1-2	grey, very fine sandstone and reddish brown, siltstone		
153	01A153	1658587	709575	CG	T1-2	cobble gravel conglomerate consisting of rhyolitic volcanic tuff		
154	01A154	1658745	709304	TU	T1-2	light grey, weathered, pumiceous coarse tuff		
155	01A155	1660323	707757	TU	T1-2	light grey, weathered, pumiceous coarse tuff		
156	01A156	1660449	707760	MS	J1-2	grey, massive, mudstone and conglomeratic medium sandstone		AS034
157	01A157	1661401	707643	SS	J1-2	light grey, medium sandstone with cobble gravel conglomerate		
158	01A158	1662016	707540	SS	J1-2	grey, medium sandstone with granule quartzite		
159	01A159	1664069	706636	SS	J1-2	brown, siliceous sandstone	A055	AS035
160	01A160	1631436	744536	ST	Q	alluvial deposits: clay, sand, gravel		AS036
161	01A161	1632336	743982	Bldr	$\gamma\delta$ -2	alluvial deposits: clay, sand, gravel		AS037
162	01A162	1632828	743930	GR	$\gamma\delta$ -2	strongly weathered, sheared granite	A056	AS038
163	01A163	1634328	742708	GR	$\gamma\delta$ -2	strongly weathered, sheared granite		AS039
164	01A164	1635827	741848	GR	$\gamma\delta$ -2	strongly weathered, sheared granite		AS040
165	01A165	1636444	741485	GR	$\gamma\delta$ -2	mylonite consisting of granite	A057	
166	01A166	1636809	741514	GR	$\gamma\delta$ -2	mylonite consisting of granite	A058	AS041
167	01A167	1638610	740760	GR	$\gamma\delta$ -2	float stone of sheared granite		AS042
168	01A168	1633731	730148	TU	T1-2	pale greenish grey, rhyolitic lapilli tuff		
169	01A169	1633498	729613	MS	J1-2	grey, flakey, mudstone		
170	01A170	1633769	728776	TU	J1-2	pale to white, pumiceous, fine to coarse tuff		
171	01A171	1634741	724530	MS	J1-2	weathered, brown, mudstone		
172	01A172	1635176	722000	MS	J1-2	alternation of mudstone and siltstone		
173	01A173	1637913	711845	MS	J1-2	grey, mudstone		
174	01A174	1639788	709452	ST	J1-2	reddish brown, siltstone interbedded with white fine sandstone		
175	01A175	1618860	684332	TU	T1-2	brown, andesitic lapilli tuff	A059	
176	01A176	1623227	681851	Bldr	J1-2	alluvial deposits: clay, sand, gravel		AS043
177	01A177	1623405	686328	Bldr	T1-2	alluvial deposits: clay, sand, gravel		AS044
178	01A178	1626248	687020	WT	T1-2	light grey, light purple, grey white, rhyolitic welded tuff		SA045
179	01A179	1626784	687331	WT	T1-2	float stone: rhyolitic, welded tuff, crystalline tuff, lapilli tuff		AS046
180	01A180	1628044	688440	CG	T1-2	dark brown, volcanic conglomerate by lateritization	A060	AS047
181	01A181	1629370	691141	Bldr	T1-2	alluvial deposits: clay, silt, sand, gravel		AS048
182	01A182	1626490	692254	CG	T1-2	conglomerate with clay matrix		AS049
183	01A183	1624200	694171	ST	J1-2	massive siltstone interbedded with very fine sandstone		AS050
184	01A184	1624681	697930	Bldr	J1-2	alluvial deposits: clay, silt, sand, gravel		AS051
185	01A185	1637056	697175	MS	J1-2	reddish brown to purple, mudstone		
186	01A186	1629723	709372	SS	J1-2	white to light grey, medium sandstone, quartz rich		
187	01A187	1628963	709310	TU	T1-2	weathered brecciated, rhyolitic lapilli tuff with quartz grains		
188	01A188	1628504	709357	TU	T1-2	pale brown, fine tuff, weathered		
189	01A189	1628324	709495	TU	T1-2	weathered, light brown, andesitic coarse tuff, chloritization, zeolite in holes		
190	01A190	1627805	709625	TU	T1-2	greenish grey, andesitic tuff		
191	01A191	1627645	709796	TU	T1-2	pale greenish grey, dacitic tuff	A061	
192	01A192	1627175	710024	TU	T1-2	greenish grey, andesitic coarse tuff	A062	
193	01A193	1627046	709946	TU	T1-2	pale greenish grey, dacitic tuff, brecciated by fault		
194	01A194	1626668	709867		T1-2	location		
195	01A195	1626178	710187	TU	T1-2	float stone: rhyolitic tuff, tuff breccia, lapilli tuff	A063	AS052
196	01A196	1626380	710142	Bldr	T1-2	alluvial deposits: clay, silt, sand, gravel		AS053
197	01A197	1626896	709982	TU	T1-2	white, rhyolitic tuff, sheared		
198	01A198	1630195	710273	Bldr	T1-2	alluvial deposits: clay, silt, sand, gravel		AS054
199	01A199	1640067	759955	Bldr	O3-S	alluvial deposits: clay, silt, sand, gravel		AS055
200	01A200	1641253	760164	Bldr	O3-S	alluvial deposits: clay, silt, sand, gravel		AS056

Annex 4 Outcrop List (Team A 5/29)

Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
201	01A201	1650048	704270	Bldr	J1-2	alluvial deposits: clay, silt, sand, gravel		AS057
202	01A202	1653845	703277	Bldr	J1-2	alluvial deposits: clay, silt, sand, gravel		AS058
203	01A203	1671349	702520	SS	J1-2	grey, fine sandstone, very hard	A064	AS059
204	01A204	1671451	702243	SS	J1-2	grey, fine sandstone, very hard		AS060
205	01A205	1670207	702982	SS	J1-2	grey, fine sandstone, very hard	A065	AS061
206	01A206	1660063	703335	SS	J1-2	grey, fine sandstone, calcareous, very hard	A066	
207	01A207	1669776	703480	LS	J1-2	dark grey, limestone	A067	
208	01A208	1668920	703966	MS	J1-2	dark grey, calcareous mudstone		
209	01A209	1668847	704076	MS	J1-2	dark grey, mudstone		AS062
210	01A210	1668215	704679	TU	J1-2	white, light brown, rhyolitic tuff, fine grained	A068	
211	01A211	1667860	705031	MS	J1-2	reddish brown, mudstone, massive		
212	01A212	1667365	705294	Bldr	J1-2	alluvial deposits: clay, silt, sand, gravel		AS063
213	01A213	1665793	705690	MS	J1-2	yellow, mudstone		
214	01A214	1631324	711781	SS	J1-2	weathered, brownish grey, medium sandstone		
215	01A215	1630299	712254	Bldr	J1-2	alluvial deposits: clay, silt, sand, gravel		AS064
216	01A216	1630520	713972	SS	J1-2	weathered, grey, fine to medium sandstone		
217	01A217	1632483	714879	MS	J1-2	reddish brown to grey, mudstone and medium to fine sandstone		
218	01A218	1632957	715470	Bldr	J1-2	alluvial deposits: clay, silt, sand, gravel		AS065
219	01A219	1636143	716227	SS	J1-2	weathered, brownish grey, fine to medium sandstone	A069	
220	01A220	1634680	722703	SS	J1-2	weathered, brownish grey, fine to medium sandstone		
221	01A221	1634556	722700	MS	J1-2	reddish brown to grey, mudstone and medium to fine sandstone	A070	
222	01A222	1634393	722605	SS	J1-2	weathered, sandstone		
223	01A223	1633790	722045	MS	J1-2	reddish brown, mudstone interbedded with thin sandstone		
224	01A224	1631882	722657	SS	J1-2	weathered, sandstone		
225	01A225	1631016	722700	SS	J1-2	grey, bedded sandstone		AS067
226	01A226	1631225	722983	SS	J1-2	light grey, calcareous fine to medium sandstone	A071	
227	01A227	1649400	696289	Bldr	J1-2	alluvial deposits: clay, silt, sand, gravel		AS068
228	01A228	1647216	695131	Bldr	J1-2	alluvial deposits: clay, silt, sand, gravel		AS069
229	01A229	1646738	694788	SS	J1-2	grey, medium sandstone, bedded		
230	01A230	1646526	694741	Bldr	J1-2	alluvial deposits: clay, silt, sand, gravel		AS070
231	01A231	1645376	694290	SS	J1-2	grey medium to fine sandstone		
232	01A232	1644802	693841	MS	J1-2	reddish brown to purple, mudstone		
233	01A233	1643929	693140	MS	J1-2	alluvial deposits: clay, silt, sand, gravel		AS071
234	01A234	1642658	692595	Bldr	J1-2	grey, fine to medium sandstone		AS072
235	01A235	1646540	701508	Bldr	J1-2	float stones of silicified wood	A072	
236	01A236	1647176	700531	CG	J1-2	weathered, brown, silicified laterite of conglomerate	A073	
237	01A237	1647409	699519	SS	J1-2	strongly weathered, light brownish grey, sandstone		
238	01A238	1648532	698240	CG	J1-2	conglomerate		
239	01A239	1645425	702380	Fossile	J1-2	scatter of wood rocks		
240	01A240	1645321	702915	Fossile	J1-2	scatter of wood rocks		
241	01A241	1643876	707000	Fossile	J1-2	scatter of wood rocks		
242	01A242	1638039	705560	MS	J1-2	reddish brown, mudstone and very fine sandstone		
243	01A243	1628483	746940	GR	$\gamma\delta$ -2	weathered, hornblende-biotite granite		
244	01A244	1626370	748737	GR	$\gamma\delta$ -2	weathered, hornblende-biotite granite		
245	01A245	1624457	750214	GR	$\gamma\delta$ -2	grey, coarse grained, hornblende-biotite granite	A074	AS073
246	01A246	1624553	749995	GR	$\gamma\delta$ -2	weathered, hornblende-biotite granite		AS074
247	01A247	1624647	749955	Bldr	$\gamma\delta$ -2	gravels of quartz, alluvial deposit of gold		
248	01A248	1625314	749545	GR	$\gamma\delta$ -2	weathered, brown, hornblende-biotite granite		
249	01A249	1625872	748864	GR	$\gamma\delta$ -2	weathered, brown, hornblende-biotite granite		
250	01A250	1625960	748816	RH	$\gamma\delta$ -2	rhyolite dyke		

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Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
251	01A251	1626120	748699	AN	$\gamma\delta$ -2	andesite porphyry dyke	A075	
252	01A252	1626752	748512	GD	$\gamma\delta$ -2	sheared granodiorite		
253	01A253	1626733	748556	GD	$\gamma\delta$ -2	floats of granodiorite	A076	
254	01A254	1627031	748019	Bldr	$\gamma\delta$ -2	alluvial deposits: clay, silt, sand, gravel		AS075
255	01A255	1628173	747250	GD	$\gamma\delta$ -2	sheared granodiorite		
256	01A256	1628727	746963	GR	$\gamma\delta$ -2	weathered, coarse grained, hornblende-biotite granite		AS076
257	01A257	1630441	745988	GR	$\gamma\delta$ -2	pale greenish grey, medium grained, hornblende-biotite granite		AS077
258	01A258	1630553	745506	Bldr	O3-S	alluvial deposits: clay, silt, sand, gravel		AS078
259	01A259	1630033	741713	Bldr	O3-S	waterfall, alluvial deposits: clay, silt, sand, gravel		
260	01A260	1630068	741775	PH	O3-S	weathered, phyllite	A078	
261	01A261	1630460	742210	PH	O3-S	weathered, phyllite		
262	01A262	1630330	742422	PH	O3-S	weathered, brown, fine, phyllite		AS079
263	01A263	1630432	742522	PH	O3-S	weathered, brown, fine, phyllite		AS080
264	01A264	1630585	742870	PH	O3-S	weathered, phyllite		
265	01A265	1630833	743233	Bldr	O3-S	alluvial deposits: clay, silt, sand, gravel		AS081
266	01A266	1630918	743488	Bldr	O3-S	alluvial deposits: clay, silt, sand, gravel		AS082
267	01A267	1630963	743521	GD	O3-S	pale green, granodiorite with pyrite dissemination with quartz vein	A080,A081	
268	01A268	1631186	744280	Bldr	O3-S	alluvial deposits: clay, silt, sand, gravel		AS083
269	01A269	1631241	744567	PH	O3-S	weathered, brown, phyllite	A082	
270	01A270	1632403	747911	GR	$\gamma\delta$ -2	medium grained, hornblende-biotite granodiorite	A083	
271	01A271	1632725	748476	GD	$\gamma\delta$ -2	coarse grained, hornblende-biotite granodiorite	A084	AS084
272	01A272	1632614	748190	DI	$\gamma\delta$ -2	mylonite of diorite	A085	
273	01A273	1631662	747030	GD	$\gamma\delta$ -2	medium grained, hornblende-biotite granodiorite, sheared	A086	
274	01A274	1632660	746525	GD	$\gamma\delta$ -2	medium grained, hornblende-biotite granodiorite, sheared		
275	01A275	1632832	746328	Bldr	$\gamma\delta$ -2	alluvial deposits: clay, silt, sand, gravel		AS085
276	01A276	1632637	746200	GD	$\gamma\delta$ -2	grey, cataclastic, hornblende-biotite granodiorite	A087	
277	01A277	1632416	746871	Bldr	$\gamma\delta$ -2	alluvial deposits: clay, silt, sand, gravel		AS086
278	01A278	1632845	745427	GD	$\gamma\delta$ -2	pale greenish grey, medium grained, hornblende-biotite granodiorite, sheared	A088	
279	01A279	1632141	745170	Bldr	$\gamma\delta$ -2	alluvial deposits: clay, silt, sand, gravel		AS087
280	01A280	1673893	664956	BA	β Q II-III	dark grey, olivine basalt, glassy	A089	AS088
281	01A281	1673238	663808	BA	β Q II-III	dark grey, olivine basalt, glassy, porous		AS089
282	01A282	1675970	665088	BA	β Q II-III	dark grey, olivine basalt, glassy, porous		AS090
283	01A283	1676198	665222	BA	β Q II-III	dark grey, olivine basalt, glassy, porous		
284	01A284	1677554	665920	BA	β Q II-III	dark grey, olivine basalt, glassy, porous		AS091
285	01A285	1679168	666024	BA	β Q II-III	float stones of olivine basalt		
286	01A286	1680050	667447	Bldr	J3-K	alluvial deposits: clay, silt, sand, gravel		AS092
287	01A287	1679735	667070	Bldr	J3-K	alluvial deposits: clay, silt, sand, gravel		AS093
288	01A288	1671757	670061	BA	J3-K	dark grey, olivine basalt, glassy, porous	A090	AS094
289	01A289	1680252	668495	Bldr	J3-K	alluvial deposits: clay, silt, sand, gravel (basalt)		AS095
290	01A290	1680317	668650	Bldr	J3-K	alluvial deposits: clay, silt, sand, gravel (basalt)		AS096
291	01A291	1680193	669110	MD	J3-K	greenish grey to reddish brown, mudstone to siltstone, massive		
292	01A292	1680018	669250	Bldr	J3-K	strongly weathered, light brownish grey, sandstone		
293	01A293	1680075	669545	Bldr	J3-K	strongly weathered, light brownish grey, sandstone		
294	01A294	1680674	670516	SS	J3-K	weathered, pale brown, medium to coarse sandstone		
295	01A295	1680837	670980	SS	J3-K	purplish grey, medium to fine sandstone, laminated	A091	
296	01A296	1681206	671271	MD	J3-K	light grey, mudstone to mudstone, hard		
297	01A297	1681980	671292	SS	J3-K	purple, medium to fine sandstone, laminated		
298	01A298	1682301	671320	MD	J3-K	reddish brown to purple, mudstone		
299	01A299	1682558	671563	SS	J3-K	reddish brown to purple, fine sandstone	A092	
300	01A300	1626424	661003	SS	J1-2	purple, medium to fine sandstone, cross and parallel laminated		

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Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
301	01A301	1631192	655890	SS	J1-2	grey, medium to fine sandstone, cross laminated	A093	
302	01A302	1631192	565061	Bldr	J1-2	alluvial deposits: clay, silt, sand, gravel (basalt)		AS097
303	01A303	1630986	656209	SS	J1-2	purple, medium to fine sandstone, cross and parallel laminated		
304	01A304	1630863	656506	ST	J1-2	reddish brown siltstone to mudstone, and purplish grey fine sandstone		
305	01A305	1631113	657540	SS	J1-2	medium to coarse sandstone, massive, parallel laminated		
306	01A306	1631400	659121	Bldr	J1-2	alluvial deposits: clay, silt, sand, gravel (basalt)		AS098
307	01A307	1631282	659704	Bldr	J1-2	alluvial deposits: clay, silt, sand, gravel (basalt)		AS099
308	01A308	1630382	660348	Bldr	J1-2	alluvial deposits: clay, silt, sand, gravel (basalt)		AS100
309	01A309	1629110	660728	SS	J1-2	medium to coarse, sandstone, cross lamination		
310	01A310	1628215	660795	Bldr	J1-2	alluvial deposits: clay, silt, sand, gravel (basalt)		AS101
311	01A311	1627534	660991	SS	J1-2	purple to reddish brownish grey, medium sandstone	A094	
312	01A312	1641470	738878	Bldr	$\gamma\delta$ -2	alluvial deposits: clay, silt, sand, gravel (basalt)		AS102
313	01A313	1642048	738650	GD	$\gamma\delta$ -2	strongly weathered, medium to coarse grained, hornblende to biotite granodiorite		
314	01A314	1642424	738505	GD	$\gamma\delta$ -2	weathered, mylonite of granodiorite	A095	
315	01A315	1643169	738223	GD	$\gamma\delta$ -2	grey, cataclastic granodiorite	A096	AS103
316	01A316	1643509	738084	GD	$\gamma\delta$ -2	mylonite of granodiorite	A097	
317	01A317	1643342	737900	GD	$\gamma\delta$ -2	grey, cataclastic granodiorite	A098	AS104
318	01A318	1644272	735937	GD	$\gamma\delta$ -2	granodiorite		AS105
319	01A319	1645547	735501	GD	$\gamma\delta$ -2	greenish grey, hornblende-biotite granodiorite, sheared	A099	AS106
320	01A320	1645867	735935	GD	$\gamma\delta$ -2	medium grained, hornblende-biotite granodiorite		AS107
321	01A321	1646930	735585	GD	$\gamma\delta$ -2	green, sheared granodiorite, cataclastic		AS108
322	01A322	1647299	735437	GD	$\gamma\delta$ -2	strongly weathered, sheared granodiorite, cataclastic		AS109
323	01A323	1647650	735515		$\gamma\delta$ -2	location only		
324	01A324	1647398	735254	Bldr	$\gamma\delta$ -2	alluvial deposits: clay, silt, sand, gravel (basalt)		AS110
325	01A325	1647795	734553	Bldr	$\gamma\delta$ -2	alluvial deposits: clay, silt, sand, gravel (basalt)	A100	AS111
326	01A326	1647817	734522	GD	$\gamma\delta$ -2	greenish grey, medium grained, granodiorite	A101	AS112
327	01A327	1638210	750613	GD	$\gamma\delta$ -2	weathered, very coarse grained, hornblende-biotite granodiorite, porphyritic		AS113
328	01A328	1637522	750570	GD	$\gamma\delta$ -2	pinkish grey, very coarse grained, hornblende-biotite granodiorite, porphyritic	A102	
329	01A329	1636862	750648	GD	$\gamma\delta$ -2	pinkish grey, very coarse grained, hornblende-biotite granodiorite, porphyritic		AS114
330	01A330	1636898	751206	GD	$\gamma\delta$ -2	pinkish grey, very coarse grained, hornblende-biotite granodiorite, porphyritic		
331	01A331	1636828	751699	RH	$\gamma\delta$ -2	light grey to yellowish grey, fine rhyolite	A103	
332	01A332	1636350	752752	PO	$\gamma\delta$ -2	grey, porphyry with weak dissemination of chalcopyrite and pyrite	A104	
333	01A333	1635785	753265	Bldr	$\gamma\delta$ -2	alluvial deposits: clay, silt, sand, gravel (basalt)		AS115
334	01A334	1635907	753106	GD	$\gamma\delta$ -2	pinkish grey, very coarse grained, hornblende-biotite granodiorite, porphyritic		
335	01A335	1636339	752790	GD	$\gamma\delta$ -2	pinkish grey, very coarse grained, hornblende-biotite granodiorite, porphyritic		
336	01A336	1636819	751776	GD	$\gamma\delta$ -2	weathered, pinkish grey, very coarse grained, hornblende-biotite granodiorite, porphyritic		
337	01A337	1647167	735883	GD	$\gamma\delta$ -2	greenish grey, medium grained, hornblende-biotite granodiorite, porphyritic	A105	
338	01A338	1647866	716517	Bldr	$\gamma\delta$ -2	floats stones of old sandstone with pure quartz, optical		
339	01A339	1647952	736451	GD	$\gamma\delta$ -2	strongly weathered, medium, hornblende-biotite granodiorite, argillized		
340	01A340	1648530	736590	CG	$\gamma\delta$ -2	boulders of sandy conglomerate with pure and optical quartz grains		
341	01A341	1649285	736608	GR	$\gamma\delta$ -2	weathered, medium grained, hornblende-biotite granite		
342	01A342	1649750	736535	GR	$\gamma\delta$ -2	hornblende-biotite granite		
343	01A343	1650252	736522	TU	C	pale to light greenish grey, white, tuff	A106	
344	01A344	1650625	736237	CG	C	white to light grey, conglomerate with pure and optical quartz fragments	A107	
345	01A345	1651304	735530	SS	C	white to light grey, siltstone to very fine sandstone		
346	01A346	1651308	735611	ST	C	grey to bluish grey, siltstone, massive	A108	
347	01A347	1651480	735660	SS	C	grey, fine to medium sandstone, massive		
348	01A348	1651670	735785	SS	C	grey, siltstone and sandstone		
349	01A349	1649808	736490	Bldr	C	alluvial deposits: clay, silt, sand, gravel (basalt)		AS116
350	01A350	1677559	608568	Bldr	β Q II-III	floats of olivine basalt	A109	

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Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
351	01A351	1676331	609531	Bldr	β N2-Q1	bolders of pyroxene basalt		AS117
352	01A352	1677020	616177	BA, OI	β N2-Q1	dark grey, glassy, olivine basalt consructed waterfall	A110	AS118
353	01A353	1680394	618895	BA, Px	β N2-Q1	black to dark grey, pyroxene basalt	A111	AS119
354	01A354	1679589	621568	BA, OI	β N2-Q1	bolders of olivine basalt		AS120
355	01A355	1678530	622387	BA, Px	β N2-Q1	black to dark grey, pyroxene basalt lava flow	A112	AS121
356	01A356	1681315	625260	BA, Px	β N2-Q1	black to dark grey, pyroxene basalt lava flow		AS122
357	01A357	1681866	639718	BA, Px	β N2-Q1	bolders of pyroxene basalt		AS123
358	01A358	1679206	632526	BA, Px	β N2-Q1	bolders of pyroxene basalt		AS124
359	01A359	1681755	617845	SS	J3-K	white to light grey, weathered, conglomeratic sandstone	A113	AS125
360	01A360	1682275	617377	BA	β N2-Q1	dark grey, stroyly weathered, muddy, basalt		
361	01A361	1682649	617047	BA	β N2-Q1	bolders of pyroxene basalt		AS126
362	01A362	1682874	616138	BA, Px	β N2-Q1	bolders of pyroxene basalt		AS127
363	01A363	1687178	614765	AN, PI	β N2-Q1	grey, plagioclase andesite with plagioclase phenocrysts	A114	
364	01A364	1687395	614635	AN, PI	β N2-Q1	grey, plagioclase andesite with plagioclase phenocrysts	A115	
365	01A365	1688196	615719	AN, PI	β N2-Q1	grey, plagioclase andesite with plagioclase phenocrysts		
366	01A366	1689051	616880	BA, Px	β N2-Q1	bolders of pyroxene basalt		AS128
367	01A367	1690319	617492	BA, Px	β N2-Q1	bolders of pyroxene basalt		
368	01A368	1693880	617536	Bldr	β N2-Q1	bravels, sand, silt		AS129
369	01A369	1694148	617031	AN, PI	β N2-Q1	grey, vesicular, plagioclase andesite with plagioclase phenocrysts	A115	
370	01A370	1693796	611655	SS	β N2-Q1	laterite of sandstone		
371	01A371	1694007	613940	AN, PI	β N2-Q1	grey, vesicular, plagioclase andesite with plagioclase phenocrysts	A116	
372	01A372	1690119	623697	BA, OI	β Q II-III	dark grey, glassy, vesicular, olivine basalt		
373	01A373	1690054	628448	BA, OI	β Q II-III	bolders of olivine basalt, epidotized	A117	AS130
374	01A374	1693202	627860	BA, OI	β Q II-III	bolders of olivine basalt, vesicular		
375	01A375	1697330	629480	BA, OI	β Q II-III	bolders of olivine basalt, vesicular		AS131
376	01A376	1696972	631205	BA, Px	β N2-Q1	bolders of pyroxene basalt, vesicular		AS132
377	01A377	1690978	632754	BA, OI	β Q II-III	black, olivine basalt with lherzolite, pyroxinite, serpentinite (promitive magma)	A118	
378	01A378	1679983	633252	BA, Px	β N2-Q1	dark grey, glassy, pyroxene basalt, vesicular		
379	01A379	1680715	633394	BA, Px	β N2-Q1	dark grey, glassy, pyroxene basalt, vesicular		
380	01A380	1681515	633456	AN, PI	β N2-Q1	darkgrey, plagioclase andesite, basaltic, plagioclase ohenocrysts	A119	
381	01A381	1682757	633312	BA, Px	β N2-Q1	dark grey, glassy, pyroxene basalt, vesicular		
382	01A382	1683574	633055	BA, OI	β Q II-III	grey, olivine basalt, vesicular		
383	01A383	1684377	633377	BA, OI	β Q II-III	grey, olivine basalt, vesicular		
384	01A384	1684772	633381	BA, OI	β Q II-III	grey, massive, olivine basalt	A120	
385	01A385	1686421	633118	AN, PI	β N2-Q1	darkgrey, plagioclase andesite, basaltic, plagioclase ohenocrysts	A121	
386	01A386	1688398	632986	AN, PI	β N2-Q1	darkgrey, plagioclase andesite, basaltic, plagioclase ohenocrysts	A122	AS133
387	01A387	1683665	631292	AN, PI	β N2-Q1	darkgrey, plagioclase andesite, basaltic, plagioclase ohenocrysts	A123	
388	01A388	1683972	629568	AN, PI	β N2-Q1	darkgrey, plagioclase andesite, basaltic, plagioclase ohenocrysts	A124	
389	01A389	1684801	626991	AN, PI	β N2-Q1	darkgrey, plagioclase andesite, basaltic, plagioclase ohenocrysts	A125	
390	01A390	1684527	624460	AN, PI	β N2-Q1	darkgrey, plagioclase andesite, basaltic, plagioclase ohenocrysts		
391	01A391	1684531	622638	AN, PI	β N2-Q1	dark grey, glassy, pyroxene basalt, vesicular		
392	01A392	1683759	619368	BA	β N2-Q1	dark greenish grey, massive, dolerite	A126	
393	01A393	1683025	618039	BA, Px	β N2-Q1	dark grey, glassy, pyroxene basalt, vesicular	A127	
394	01A394	1682471	617327	CG	β N2-Q1	volcanic conglomerate in outcrop and bolders of pyroxene basalt in stream		AS134
395	01A395	1693439	643196	Bldr	β N2-Q1	bravels, sand, silt		AS135
396	01A396	1693739	643387	Bldr	β N2-Q1	bravels, sand, silt		AS136
397	01A397	1696294	643575	Bldr	β N2-Q1	bravels, sand, silt		AS137
398	01A398	1691695	639788	Bldr	β N2-Q1	bravels, sand, silt		AS138
399	01A399	1690636	641221	Bldr	β N2-Q1	bravels, sand, silt		AS139
400	01A400	1663277	643645	BA, OI	β N2-Q1	grey, olivine basalt, vesicular	A128	

Annex 4 Outcrop List (Team A 9/29)

Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
401	01A401	1662580	643270	BA, OI	βN2-Q1	bolders of olivine basalt		AS140
402	01A402	1662244	642185	BA, OI	βN2-Q1	bolders of olivine basalt	A129	
403	01A403	1662044	641026	BA, Ne-OI	βQ IV	dark grey to black, vesicular, nepheline-olivine basalt, nepheline phenocrysts	A130	AS141
404	01A404	1659562	639197	BA, Ne-OI	βQ IV	dark grey to black, vesicular, nepheline-olivine basalt, nepheline phenocrysts, lopy pahoehoe lava flows	A131	
405	01A405	1658800	637854	BA, Ne-OI	βQ IV	dark grey to black, vesicular, nepheline-olivine basalt, nepheline phenocrysts	A132	AS142
406	01A406	1659000	638421	BA, Ne-OI	βQ IV	dark grey to black, vesicular, nepheline-olivine basalt, nepheline phenocrysts		
407	01A407	1660793	640270		βQ II-III	location of T road junction		
408	01A408	1662139	641447	BA, OI	βQ II-III	dark grey, vesicular, olivine basalt		
409	01A409	1664310	643904	BA, OI	βQ II-III	grey, vesicular, olivine basalt	A133	
410	01A410	1667091	643868	BA, OI	βQ II-III	bolders of olivine basalt		AS143
411	01A411	1666896	644430	BA, OI	βQ II-III	bolders of olivine basalt	A134	
412	01A412	1666515	645961		βQ II-III	location		
413	01A413	1667986	649250	BA, Px	βN2-Q1	dark grey, glassy, vesicular, pyroxene basalt	A135	AS144
414	01A414	1665012	648690	BA, OI	βQ II-III	grey, vesicular, olivine basalt	A136	AS145
415	01A415	1667587	647344	BA, OI	βQ II-III	grey, vesicular, olivine basalt		
416	01A416	1668278	544801	BA, OI	βQ II-III	grey, vesicular, olivine basalt		
417	01A417	1668685	643535	BA, OI	βQ II-III	grey, vesicular, olivine basalt	A137	
418	01A418	1671425	640241	BA, OI	βQ II-III	grey, vesicular, olivine basalt		AS146
419	01A419	1669152	636990	BA, OI	βQ II-III	grey, vesicular, olivine basalt		AS147
420	01A420	1676519	634900	BA, OI	βQ II-III	grey, vesicular, olivine basalt	A139	
421	01A421	1667390	629635	SS	J3-K	grey, medium to coarse sandstone with cross lamination interbedded with grey thin mudstone		
422	01A422	1668860	630099	BA, Px	βN2-Q1	dark grey, glassy, pyroxene basalt, massive	A140	
423	01A423	1674313	656266	BA, OI	βQ II-III	bolders of olivine basalt	A141	AS148
424	01A424	1677129	656436	BA, OI	βQ II-III	bolders of olivine basalt	A142	AS149
425	01A425	1678688	650360	BA, OI	βQ II-III	dark grey, vesicular, olivine basalt, olivine phenocrysts	A143	AS150
426	01A426	1678185	650318	BA, OI	βQ II-III	bolders of olivine basalt		AS151
427	01A427	1684835	655230	BA, OI	βQ II-III	sundstone outcrop in stream and bolders of olivine basalt in stream		AS152
428	01A428	1684564	655067	BA, OI	βQ II-III	bolders of dark grey, olivine basalt		
429	01A429	1683343	653536	BA, Px	βN2-Q1	gark grey, pyroxene basalt in outcrop on road		AS153
430	01A430	1681391	651477	AN, Pl	βN2-Q1	grey, plagioclase andesite with plagioclase phenocrysts on road	A144	
431	01A431	1680373	651530	BA, OI	βQ II-III	bolders of olivine basalt and plagioclase-pyroxene basaltic andesite		
432	01A432	1679537	651080	BA, OI	βQ II-III	bolders of olivine basalt	A145	
433	01A433	1689495	643587	BA	βN2-Q1	dark greenish grey, massive, dolerite, stock/dyke	A146	
434	01A434	1629141	768558	GA	OhpPR3	greenish grey, argillized gabbro with serpentine, talc and malachite	A147	
435	01A435	1628967	768564	GA	OhpPR3	strongly weathered, argillized isotropic gabbro, sheared		
436	01A436	1629000	768477	BA	OhpPR3	strongly argillized daibase		
437	01A437	1629064	768124	BA	OhpPR3	strongly argillized daibase		
438	01A438	1629128	767982	GA	OhpPR3	reddish brown, strongly argilled, isotropic gabbro, sheared	A148	
439	01A439	1629187	767802	SS	C-O1	weathered, light brown, sandstone with fossile (trilobites?)	A149	
440	01A440	1629243	767618	CG	C-O1	floats of grey siliceous conglomerate and garl grey shale		
441	01A441	1629245	767455	GA	OhpPR3	strongly weathered, brown, gabbro		
442	01A442	1628994	767022	GA	OhpPR3	pale greenish grey, argillized, gabbro		
443	01A443	1629135	766291	GA	OhpPR3	pale greenish grey, argillized, gabbro		
444	01A444	1629127	766050	SS	C-O1	pale greenish grey, argillized, sandstone		
445	01A445	1629115	765896	GN	PR2-C1	strongly weathered, gneiss, like sand		
446	01A446	1628742	765264	GN	PR2-C1	grey, fine to coarse, heterogeneous, gneiss	A150	AS154
447	01A447	1628905	764937	GR	γδ4-2	pale grey, coarse grained, leucocratic granite	A151	
448	01A448	1628946	764804	GR	γδ4-2	weathered, red, sheared granite		
449	01A449	1629054	764634	GR	γδ4-2	weathered, coarse to medium, biotite granite		
450	01A450	1629046	764543	BA	OhpPR3	weathered diabase?		

Annex 4 Outcrop List (Team A 10/29)

Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
451	01A451	1629059	766844	GR	γ4-5	strongly weathered, yellowish grey, biotite granite, like sand		
452	01A452	1635656	769068	GR	γ4-5	strongly weathered, yellowish grey, biotite granite, like sand		
453	01A453	1635953	768870	GR	γ4-5	strongly weathered, yellowish grey, biotite granite, like sand		
454	01A454	1636066	768856	GR	γ4-5	strongly weathered, yellowish grey, biotite granite, like sand		
455	01A455	1637135	768550	GR	γ4-5	strongly weathered, yellowish grey, biotite granite, like sand		
456	01A456	1637496	768000	GR	γ4-5	strongly weathered, yellowish grey, biotite granite, like sand		
457	01A457	1637406	767956	GR	γ4-5	strongly weathered, yellowish grey, biotite granite, like sand		
458	01A458	1637581	767293	GR	γ4-5	strongly weathered, yellowish grey, biotite granite, like sand		
459	01A459	1637850	766816	GR	γ4-5	strongly weathered, yellowish grey, biotite granite, like sand		
460	01A460	1637946	766417	GR	γ4-5	strongly weathered, yellowish grey, biotite granite, like sand		
461	01A461	1638250	766144	GR	γ4-5	strongly weathered, yellowish grey, biotite granite, like sand		
462	01A462	1638698	765978	GR	γ4-5	light grey, coarse to fine, heterogeneous, biotite granite	A152	AS155
463	01A463	1637698	767112	GR	γ4-5	light grey, coarse to fine, heterogeneous, biotite granite		AS156
464	01A464	1636008	769685	GR	γ4-5	light grey, coarse to fine, heterogeneous, biotite granite	A153	AS157
465	01A465	1646086	746752	GR	γδ3-2	pinkish grey, feldspar porphyritic, hornblende-biotite granite, feldspar diameter: max. 4cm		AS158
466	01A466	1646082	746760	GR	γδ3-2	pinkish grey, feldspar porphyritic, hornblende-biotite granite, feldspar diameter: max. 4cm		AS159
467	01A467	1645816	746837	GR	γδ3-2	pinkish grey, feldspar porphyritic, hornblende-biotite granite, feldspar diameter: max. 4cm		
468	01A468	1644692	747305	GR	γδ3-2	pinkish grey, feldspar porphyritic, hornblende-biotite granite, feldspar diameter: max. 4cm		
469	01A469	1644612	747545	GR	γδ3-2	pinkish grey, feldspar porphyritic, hornblende-biotite granite, feldspar diameter: max. 4cm		AS160
470	01A470	1644470	747628	GR	γδ3-2	pinkish grey, feldspar porphyritic, hornblende-biotite granite, feldspar diameter: max. 4cm	A154	AS161
471	01A471	1644474	747577	GR	γδ3-2	pinkish grey, feldspar porphyritic, hornblende-biotite granite, feldspar diameter: max. 4cm		AS162
472	01A472	1643182	747677	GR	γδ3-2	pinkish grey, feldspar porphyritic, hornblende-biotite granite, feldspar diameter: max. 4cm		
473	01A473	1642280	747607	GR	γδ3-2	pinkish grey, feldspar porphyritic, hornblende-biotite granite, feldspar diameter: max. 4cm		
474	01A474	1641960	747822	GR	γδ3-2	pinkish grey, feldspar porphyritic, hornblende-biotite granite, feldspar diameter: max. 4cm		
475	01A475	1641239	747981	GR	γδ3-2	pinkish grey, feldspar porphyritic, hornblende-biotite granite, feldspar diameter: max. 4cm		
476	01A476	1640757	748017	GR	γδ3-2	pinkish grey, feldspar porphyritic, hornblende-biotite granite, feldspar diameter: max. 4cm		AS163
477	01A477	1640313	747875	GR	γδ3-2	pinkish grey, feldspar porphyritic, hornblende-biotite granite, feldspar diameter: max. 4cm		
478	01A478	1677154	694553	SS	J1-2	greenish grey, medium to fine sandstone		
479	01A479	1678170	694998	ST	J1-2	reddish brown, siltstone to very fine sandstone, and calcareous siltstone		AS164
480	01A480	1677661	695184	ST	J1-2	reddish brown, siltstone		
481	01A481	1676279	695859	SS	J1-2	greenish grey, medium to fine sandstone, and many floats of dacitic tuff		AS165
482	01A482	1675684	695735	ST	J1-2	reddish brown, siltstone, massive		
483	01A483	1675251	695886	ST	J1-2	reddish brown, siltstone, massive, and woodstone		
484	01A484	1674667	696120	ST	J1-2	reddish brown, siltstone, bedded		
485	01A485	1674238	696240	ST	J1-2	reddish brown, siltstone, massive		
486	01A486	1673260	696104	SS	J1-2	grey, very fine sandstone, bedded		
487	01A487	1672919	696125	SS	J1-2	grey, very fine sandstone, bedded		
488	01A488	1672704	696381	ST	J1-2	reddish brown siltstone to very fine sandstone, like turbidite		
489	02A001	1670660	761195	QZT	Cam-O1	quartzite bolder in soil on the mountain ridge		
490	02A002	1670688	761240	PH	Cam-O1	muddy phyllite		
491	02A003	1670840	761575	SL	Cam-O1	weathered, reddish brown and yellowish red, muddy slate		
492	02A004	1670850	761657	SL	Cam-O1	muddy slate with quartz veins (W:10 cm, N60W40N)	A161	
493	02A005	1760658	761856			location only		
494	02A006	1670655	761950	SL	Cam-O1	grey, muddy slate	A162	AS171
495	02A007	1670496	761835	SL	Cam-O1	weathered, reddish brown, muddy slate		
496	02A008	1670210	761974	SS	Cam-O1	grey, medium sandstone and white quartzite blocks in soil		
497	02A009	1669873	762002	SL	Cam-O1	weathered, silty phyllite to slate		
498	02A010	1669683	762052	SL	Cam-O1	weathered, light brown to light grey, sandy slate,		
499	02A011	1669426	762180	QZT	Cam-O1	white, quartzite, hard and compact		
500	02A012	1669175	762155	SL	Cam-O1	weathered, muddy and sandy slates		

Annex 4 Outcrop List (Team A 11/29)

Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
501	02A013	1670650	760720	QZT	Cam-O1	floats of quartzite		
502	02A014	1670860	760168	SL	Cam-O1	brown soil, and weathered, reddish brown muddy slate to phyllite		
503	02A015	1671045	760125	SL	Qiii	dark grey, basaltic volcanic lapilli, secondary deposit	A173, A255	
504	02A016	1671479	760000	Spn	Cam-O1	granule sand of spinel in Noug Fa Lake	A174	
505	02A017	1671612	759845	SL	Cam-O1	strongly weathered, purplish grey, muddy phyllite to slate		
506	02A018	1671520	759358	SS	Cam-O1	weathered, yellowish brown, conglomeratic sandstone with wood fragments		
507	02A019	1671245	759067	SL	Cam-O1	strongly weathered, grey to yellow, muddy slate		
508	02A020	1671181	758782	SL	Cam-O1	strongly weathered, yellow, silty phyllite to slate		
509	02A021	1670717	758610	CG	Cam-O1	gravels of conglomerate, and ruby and sapphire grains and sand		AS172
510	02A022	1670515	758535	PH	Cam-O1	weathered, grey, muddy phyllite		
511	02A023	1670206	758500	SL	Cam-O1	weathered, light grey, sandy slate		
512	02A024	1670029	758605	SL	Cam-O1	weathered, light grey, alternation of muddy and sandy slate		
513	02A025	1669703	758385	QZT	Cam-O1	weathered, white quartzite, massive, medium grain		
514	02A026	1669115	758245	SS	Cam-O1	gravels of sandstone		AS173
515	02A027	1665178	758612	PH	Cam-O1	light bluish grey, silty to muddy phyllite	A175	AS174
516	02A028	1665600	759750	QZT	Cam-O1	white, quartzite, hard and compact		
517	02A029	1665680	759895	QZT	Cam-O1	white to brownish grey, quartzite, hard, compact, massive	A176	
518	02A030	1665580	759976	QZT	Cam-O1	white to brownish grey, quartzite, hard, compact, massive		
519	02A031	1665750	760150	SL	Cam-O1	black, muddy, slate		
520	02A032	1665713	760625	SL	Cam-O1	brownish grey, alternation of sandy and silty slates	A177	AS175
521	02A033	1665650	761050	QZT	Cam-O1	light grey to white, quartzite and sandstone, strongly weathered		
522	02A034	1665475	761416	QZT	Cam-O1	grey, muddy slate, and floats of basalt, quartzite, sandstone and mudstone		AS176
523	02A035	1665410	761590	QZT	Cam-O1	floats of quartzite		
524	02A036	1664897	762170	QZT	Cam-O1	floats of quartzite		
525	02A037	1664550	762500	QZT	Cam-O1	floats of quartzite		
526	02A038	1663963	763117	QZT	Cam-O1	floats of quartzite		
527	02A039	1664011	763031	QZT	Cam-O1	white, quartzite, hard and compact, mineralized rocks from pit for exploration	A178	
528	02A040	1663946	762785	SL	Cam-O1	grey, muddy slate in vertical shaft mine		
529	02A041	1663798	763005	SL	Cam-O1	grey, muddy slate in tunnel	A179	
530	02A042	1663450	764850	BA	β N2-Q1	dark grey, andesitic basalt		
531	02A043	1663450	764850	QZT	Cam-O1	breccia of quartzite		
532	02A044	1663082	765016		Cam-O1	sand, silt		AS177
533	02A045	1662958	765054		Cam-O1	sand, silt		AS178
534	02A046	1662843	765292	QZT	Cam-O1	floats of quartzite		
535	02A047	1663004	765186	QZT	Cam-O1	breccia of quartzite		
536	02A048	1663032	765144	BA	β N2-Q1	dark grey, andesitic basalt	A179	
537	02A049	1663319	765000	BA	β N2-Q1	volcanic center (photo)		
538	02A050	1663617	765045	BA	β N2-Q1	dark grey, andesitic basalt		
539	02A051	1663963	764938	SL	Cam-O1	weathered, brownish grey, muddy slate		
540	02A052	1664476	765028	BA	β N2-Q1	dark grey, andesitic basalt near lake of volcanic center	A180	
541	02A053	1665528	765131	BA	β N2-Q1	bolder of basalt in stream		
542	02A054	1665937	765181	SL	Cam-O1	weathered, brownish grey, muddy slate		AS179
543	02A055	1665870	765090	SL	Cam-O1	weathered, brownish grey, muddy slate		AS180
544	02A056	1666004	764930	PH	Cam-O1	reddish brown, muddy slate to phyllite		
545	02A057	1666246	764911	QZT	Cam-O1	weathered, white quartzite, massive, medium grain		
546	02A058	1666332	764855	PH	Cam-O1	light grey, silty to muddy phyllite		
547	02A059	1666900	764760	QZT	Cam-O1	block of quartzite on the road		
548	02A060	1666973	764715	SL	Cam-O1	reddish brown, muddy slate to phyllite		
549	02A061	1667038	764754	PH	Cam-O1	quartzite in silty phyllite, schistosity perpendicular to bed		
550	02A062	1667373	764637	PH	Cam-O1	weathered, light brown, muddy phyllite		

Annex 4 Outcrop List (Team A 12/29)

Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
551	02A063	1667473	763666	PH	Cam-O1	light grey, muddy phyllite		
552	02A064	1667524	763448	PH	Cam-O1	light grey, alternation of sandy phyllite and silty to muddy phyllite		
553	02A065	1668242	762973	PH	Cam-O1	light grey, alternation of sandy phyllite and silty to muddy phyllite		
554	02A066	1668382	762942	QZT	Cam-O1	blocks of white, quartzite, massive in soil		
555	02A067	1668516	762877	PH	Cam-O1	strongly weathered, muddy to silty phyllite		
556	02A068	1668691	762765	QZT	Cam-O1	light grey to white, quartzite and sandstone, strongly weathered		
557	02A069	1668890	762712	QZT	Cam-O1	light grey to white, quartzite and sandstone, strongly weathered		
558	02A070	1668989	762666	PH	Cam-O1	alternation of muddy phyllite and quartzose sandstone		
559	02A071	1669040	762498	PH	Cam-O1	light grey, silty to muddy phyllite		
560	02A072	1629158	764240	GR	γ 42	strongly weathered, yellowish brown, medium grained, potassium feldspar porphyritic granodiorite		
561	02A073	1629303	764174	GR	γ 42	strongly weathered, yellowish brown, medium grained, potassium feldspar porphyritic granodiorite		
562	02A074	1629796	763742	GR	γ 42	strongly weathered, yellowish brown, medium grained, potassium feldspar porphyritic granodiorite		
563	02A075	1630444	762762	GR	γ 42	strongly weathered, yellowish brown, medium grained, potassium feldspar porphyritic granodiorite		AS181
564	02A076	1630496	762306	GN	PR2	grey, hornblende gneiss, medium grained,		A182, A183
565	02A077	1630454	762344	GR	γ 42	bluish grey, biotite granite intruded by dark grey diabase (W:2m, NS90)		A184, A185
566	02A078	1630474	762416	GN	PR2	grey, biotite - hornblende gneiss, medium grained, and quartz veins (W20 - 30 cm, L: 30m, N45W65W)	A186	
567	02A079	1625215	643498	CG	T1-2	brown, pebble gravel conglomerate, brown oxidized, lateritic		
568	02A080	1625480	644055	BA	β N2-Q1	grey, plagioclase - pyroxene basalt	A187	
569	02A081	1625788	650813	BA	Qiiii	grey, olivine basalt		A188, A189
570	02A082	1625321	658039	BA	Qiiii	dark grey, nepheline - olivine - pyroxene basalt	A190	
571	02A083	1706033	753902	GA	OhpPR3	grey, medium grained, gabbro, ophyolitic	A191	
572	02A084	1706185	764043	GN	γ 83-2	strongly weathered, white gneiss, kaolinitized, heterogeneous, fine to medium grained, and floats of quartzite		
573	02A085	1705806	765142	GN	γ 83-2	strongly weathered, white gneiss, kaolinitized, heterogeneous, fine to medium grained		
574	02A086	1706079	765618	QZT	Cam-O1	gravels of quartzite in stream		
575	02A087	1706096	765782	GN	γ 83-2	strongly weathered, white gneiss, kaolinitized, heterogeneous, fine to medium grained		
576	02A088	1706054	765850	PH	T1-2	reddish brown, muddy slate to phyllite	A192	
577	02A089	1706077	766337	PH	T1-2	reddish brown, muddy slate to phyllite		
578	02A090	1706200	766670	CG	T1-2	red, conglomerate, matrix: sandy and silty, granule fragments: marble, sand, quartz		
579	02A091	1706190	766843	CG	T1-2	red, conglomerate, matrix: sandy and silty, granule fragments: marble, sand, quartz		
580	02A092	1706334	763840	GR	γ 83-2	strongly weathered, white biotite granite, kaolinitized, coarse grained		
581	02A093	1706329	763651	GR	γ 83-2	mylonite of biotite granite, kaolinitized	A193	
582	02A094	1706586	763150	QZT	γ 83-2	quartzite, compact and hard, medium to fine grained		
583	02A095	1706745	762390	GR	γ 83-2	strongly weathered, white biotite granite, kaolinitized, coarse grained		
584	02A096	1706588	761965	GR	γ 83-2	strongly weathered, white biotite granite, kaolinitized, coarse grained		
585	02A097	1707034	761130	CG	γ 83-2	dark grey, breccia to conglomerate with marble, schist and granite		
586	02A098	1707270	761407	GR	γ 83-2	light grey, hornblende - biotite granite, kaolinitized, coarse grained	A194	
587	02A099	1708379	760849	GR	γ 83-2	light grey, hornblende - biotite granite, kaolinitized, coarse grained		
588	02A100	1708397	760722	GR	γ 83-2	light grey, hornblende - biotite granite, kaolinitized, coarse grained	A195	
589	02A101	1708387	760387	GA	dyke	dark grey, fine grained, gabbro dyke ? (W: 100m)	A196	
590	02A102	1708247	759426	QZT	γ 83-2	gravels of quartzite and granite, landslide		
591	02A103	1708180	759174	GR	γ 83-2	mylonitized granite, weathered, fault	A197	
592	02A104	1708120	758627	GR	γ 83-2	cataclastic muscovite granite in fault zone, right lateral strike slip fault		
593	02A105	1708210	758291	GN	γ 83-2	strongly weathered, white gneiss, kaolinitized, heterogeneous, fine to medium grained		
594	02A106	1708206	757794	GR	γ 83-2	pebble to bolder conglomerate, fragments: granite, schist, sandstone and limestone (marble)		
595	02A107	1708147	757655	GR	γ 83-2	strongly weathered, light grey, hornblende - biotite granite, kaolinitized, coarse grained		
596	02A108	1708723	757402	GR	γ 83-2	pebble to bolder conglomerate, fragments: granite, schist, sandstone and limestone (marble)		
597	02A109	1709106	757150	GR	γ 83-2	pebble to bolder conglomerate, fragments: granite, schist, sandstone and limestone (marble)		
598	02A110	1709441	756348	SL	T1-2	reddish brown, hard shale to slate, massive	A198	
599	02A111	1709532	755593	SL	T1-2	reddish brown, hard shale to slate, massive		
600	02A112	1709668	754094	MS	T1-2	weathered, red, mudstone		

Annex 4 Outcrop List (Team A 13/29)

Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
601	02A113	1708612	753222	MS	T1-2	weathered, red, mudstone		
602	02A114	1708197	753013	MS	T1-2	weathered, red, mudstone		
603	02A115	1707981	752960	GA	OhpPR3	strongly weathered, greenish grey, layered gabbro, more basic		
604	02A116	1707568	752822	SE	OhpPR3	greenish grey, serpentine (dunite)	A199	
605	02A117	1706843	753131	GA	OhpPR3	dark grey, medium to fine gabbro	A200	
606	02A118	1706786	753923	GA	OhpPR3	dark grey, medium to fine gabbro	A201	
607	02A119	1705812	753843	PH	T1-2	black, shale, phylitic		
608	02A120	1705510	753592	MS	T1-2	yellowish brown, mudstone	A202	
609	02A121	1705113	753819	MS	T1-2	weathered, yellowish brown, mudstone, massive		
610	02A122	1704894	754072	MS	T1-2	dark grey, mudstone, laminated	A203	
611	02A123	1704672	754845	MS	T1-2	light grey, mudstone, massive		
612	02A124	1704117	753746	SS	T1-2	grey, fine sandstone		
613	02A125	1703919	753668	MS	T1-2	weathered, reddish brown, mudstone		
614	02A126	1703729	755157	MS	T1-2	thin beds (3 to 5) of hard coal in mudstone		
615	02A127	1704360	755955	CG	T1-2	boundary of conglomerate (fragments: mainly granite, rarely: sandstone and limestone) and reddish brown mudstone		
616	02A128	1703825	755960	CG	T1-2	pebble to bolder conglomerate, fragments: granite, schist, sandstone and limestone (marble), and conglomeratic sandstone		
617	02A129	1703865	755819	CG	T1-2	alternation of conglomerate, grey sandstone and mudstone		
618	02A130	1703533	755158	MS	T1-2	hard coal bed interbedded in mudstone	A204	
619	02A131	1704115	754350	MS	T1-2	alternation of mudstone, sandstone and thin bed of coal		
620	02A132	1704020	753929	MS	T1-2	alternation of mudstone and sandstone		
621	02A133	1703299	752895	SL	T1-2	white to brown to yellow, muddy slate		
622	02A134	1702812	751962	SL	T1-2	white to brown to yellow, muddy slate		
623	02A135	1703046	751258	PH	T1-2	light grey, siltstone, phylitic		
624	02A136	1703767	750558	PH	T1-2	strongly weathered, yellow to brown, mudstone, phylitic		
625	02A137	1704453	749917	CG	T1-2	strongly weathered, yellow to brown, pebble gravel conglomerate with thin mudstone		
626	02A138	1704857	749425	GA		floats of gabbro		
627	02A139	1704986	749208	MS	T1-2	reddish brown, mudstone, massive		
628	02A140	1704835	748948	TU	N	brownish grey, hornblende - biotite andesitic coarse tuff	A205	
629	02A141	1704405	747947	TU	N	brownish grey, hornblende - biotite andesitic coarse tuff		
630	02A142	1704549	747647	TU	N	brownish grey, hornblende - biotite andesitic coarse tuff	A206	
631	02A143	1705954	747708	TU	N	brownish grey, hornblende - biotite andesitic coarse tuff	A207	
632	02A144	1706550	746648	BA	βN2-Q1	dark grey, pyroxene basalt	A208	
633	02A145	1706965	745975	MS	N	strongly weathered, light grey, mudstone including conglomerate (W: 40 cm)		
634	02A146	1707566	745113	BA	βN2-Q1	brown, laterite from basalt		
635	02A147	1706658	743806	BA	βN2-Q1	brown, laterite from basalt		
636	02A148	1705394	742805	TU	N	brownish grey, hornblende - biotite andesitic coarse tuff	A209	
637	02A149	1704744	741837	TU	N	brownish grey, hornblende - biotite andesitic coarse tuff		
638	02A150	1704890	741588		βN2-Q1	location of village (Ban Dagrang)		
639	02A151	1703458	740552	BA	βN2-Q1	brown, laterite from basalt		
640	02A152	1703005	740209	SS	T1-2	yellow, alternation of fine sandstone and mudstone		
641	02A153	1702096	739457	TU	N	brownish grey, hornblende - biotite andesitic coarse tuff	A210	
642	02A154	1701280	738897	ST	T1-2	light grey, alternation of fine sandstone and siltstone		
643	02A155	1700645	738629	TU	T1-2	strongly weathered, white to yellow, silicified, welded tuff (older)	A211	
644	02A156	1700341	738084			location of village and road junction		
645	02A157	1700355	738013	TU	T1-2	white, rhyolitic welded tuff		
646	02A158	1699729	736779			location of village and road junction		
647	02A159	1699564	736772	BA	C	dark grey, pyroxene basalt		
648	02A160	1699565	736570	TU	N	boundary of basalt flow (upper) and hornblende - biotite andesitic tuff (lower)		
649	02A161	1698871	736429	PH	T1-2	strongly weathered, white to yellow, mudstone, phylitic		
650	02A162	1698538	736515	TU	N	brownish grey, hornblende - biotite andesitic coarse tuff		

Annex 4 Outcrop List (Team A 14/29)

Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
651	02A163	1697976	736589	TU	N	brownish grey, hornblende - biotite andesitic coarse tuff		
652	02A164	1696845	735871	TU	βN2-Q1	float of dark grey, pyroxene basalt	A212	
653	02A165	1668398	699406	ST	J1-2	reddish brown, alternation of mudstone and siltstone		
654	02A166	1670905	700418	ST	J1-2	reddish brown, alternation of mudstone and siltstone		
655	02A167	1671300	701103	ST	J1-2	reddish brown, alternation of mudstone and siltstone		
656	02A168	1671631	701181	MS	J1-2	reddish brown, flaky mudstone and siltstone and bluish grey mudstone, calcareous		
657	02A169	1671971	701410	SS	J1-2	bluish grey to grey, calcareous sandstone, fine to medium		
658	02A170	1672340	701713	SS	J1-2	light grey, alternation of fine to medium quartzose sandstone		
659	02A171	1672441	701691	SS	J1-2	greenish grey, cherty fine sandstone to chert	A213	
660	02A172	1672517	701716	LS	J1-2	dark grey, limestone (upper) and yellow medium sandstone (lower)	A229	
661	02A173	1673207	702007	TU	J1-2	grey, tuffaceous fine sandstone, limestone and conglomeratic tuff (with fossils)	A228	
662	02A174	1673574	702093	TU	T1-2	light grey, rhyolitic tuff		
663	02A175	1673754	702148	TU	T1-2	brown, andesitic coarse tuff	A214	
664	02A176	1673707	702207	TU	T1-2	brown, tuffaceous volcanic conglomerate, fragments: pinkish white rhyolite, tuff, subangular to rounded, diameter: less than 20cm		
665	02A177	1674088	702259	TU	T1-2	reddish brown, andesitic tuff breccia, diameter 40cm to 10cm, fragments: grey andesitic tuff and andesite		
666	02A178	1674119	702355	TU	T1-2	light grey, dacitic to rhyolitic tuff	A215	
667	02A179	1674626	703008	SS	C	light grey, quartz rich, medium sandstone	A216	
668	02A180	1674977	703060	ST	C	grey, siltstone	A217	
669	02A181	1675114	702949	SS	C	grey, medium sandstone, hard compact with thin mudstones		
670	02A182	1675445	702698	SS	C	grey, medium sandstone		AS182
671	02A183	1675504	703119	SS	C	grey, lithic medium sandstone		
672	02A184	1675638	703107	SS	C	Fault in grey sandstone, brecciated		
673	02A185	1675807	703138	SS	C	grey, lithic medium sandstone		AS183
674	02A186	1675940	703147	SS	C	grey, lithic medium to fine sandstone	A218	
675	02A187	1676190	703136	SS	C	grey, lithic medium to fine sandstone		AS184
676	02A188	1676254	703248	SS	C	grey, lithic medium to fine sandstone		AS185
677	02A189	1676390	703506	SS	C	grey, lithic medium to coarse sandstone		
678	02A190	1676618	703611	SS	C	grey, alternation of fine sandstone and siltstone		
679	02A191	1676838	703909	SS	C	grey, fine alternation of sandstone and siltstone		
680	02A192	1677040	703987	SS	C	grey, lithic medium to fine sandstone		
681	02A193	1677230	704188	SS	C	greenish grey, granule sandstone, tuffaceous, fragments: cherty rock and lithic sandstone		
682	02A194	1677362	704242	TU	C	greenish grey, rhyolitic tuff to lapilli tuff		
683	02A195	1677742	704842	SS	C	grey, lithic medium to coarse sandstone		
684	02A196	1678030	704870	SS	C	grey, lithic medium to fine sandstone		AS186
685	02A197	1677749	705102	TU	C	light grey, fine tuff to tuff breccia		
686	02A198	1677700	705250	SS	C	grey, granule sandstone		
687	02A199	1677479	705293	SS	C	grey, granule sandstone		
688	02A200	1677300	705550	SS	C	grey, lithic medium to fine sandstone		
689	02A201	1677000	705750	SS	C	grey, lithic medium to fine sandstone		
690	02A202	1676700	706000	SS	C	grey, lithic medium to fine sandstone		
691	02A203	1676450	706150	TU	C	greenish grey, rhyolitic tuff		
692	02A204	1676265	706218	TU	C	light green, soft tuff	A220	AS187
693	02A205	1676200	706250	TU	C	greenish grey, andesitic coarse tuff	A221	AS188
694	02A206	1676173	706400	SS	C	grey, lithic fine sandstone		
695	02A207	1676099	706696	SS	C	grey, lithic medium to fine sandstone		
696	02A208	1675971	706972	SS	C	grey, lithic fine sandstone		
697	02A209	1675853	707258	SS	C	grey, lithic fine sandstone		
698	02A210	1675845	707427	CG	C	medium sandstone (lower) and greenish grey, tuffaceous granule conglomerate		
699	02A211	1675950	707608	SS	C	grey, lithic medium to fine sandstone		
700	02A212	1676238	707590	TU	C	greenish grey, dacitic to rhyolitic tuff to lapilli tuff	A223, A224	

Annex 4 Outcrop List (Team A 15/29)

Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
701	02A213	1676150	707850	SS	C	grey, lithic medium to fine sandstone		
702	02A214	1676079	707935	SS	C	grey, lithic medium to fine sandstone		
703	02A215	1676093	708129	SS	C	grey, lithic medium to fine sandstone		
704	02A216	1676300	708156	arg	C	argillized zone, white, fault: N30W		
705	02A217	1676500	708420	TU	C	light greenish grey, dacitic to rhyolitic tuff (upper) and sandstone and mudstone (lower)	A225	
706	02A218	1676582	708495		C	Location only		
707	02A219	1676493	708614	TU	T1-2	grey, rhyolitic welded tuff		
708	02A220	1676420	709080	SS	T1-2	grey, lithic, medium to coarse sandstone		
709	02A221	1676194	709260	SS	C	boundary (unconformity) of grey sandstone and greenish grey dacitic lapilli tuff		
710	02A222	1676010	709480	TU	C	pale green, rhyolitic fine to medium tuff, massive		
711	02A223	1676163	709673	TU	T1-2	rhyolitic tuff		AS189
712	02A224	1676236	709725	TU	T1-2	rhyolitic tuff		AS190
713	02A225	1675252	709440	SS	T1-2	weathered, brown, medium to coarse sandstone, hard and compact	A226	
714	02A226	1674400	707947	BA	β N2-Q1	dark grey, pyroxene basalt	A227	
715	02A227	1673563	707392	SS	C	grey, sandstone		
716	02A228	1672777	706641	CG	C	alternation of sandstone and conglomerate		
717	02A229	1672873	706391	TU	C	light green, rhyolitic tuff (upper) and sandstone (lower)		
718	02A230	1672580	706131	TU	C	alternation of sandstone and siltstone		
719	02A231	1672453	705602	TU	T1-2	strongly weathered, brown, dacitic lapilli tuff with quartz and tuff fragments		
720	02A232	1672781	705038	TU	T1-2	strongly weathered, reddish brown, rhyolitic tuff		
721	02A233	1673072	704682	SS	C	strongly weathered, brown, medium to coarse sandstone		
722	02A234	1673153	704262	SS	C	strongly weathered, brown, medium to coarse sandstone		
723	02A235	1672506	703440		C	white, kaoline clay, evaporite?, widely distributed		
724	02A236	1686030	722030	MS	C	alternation of mudstone and siltstone, and bolder of basalt in stream		AS191
725	02A237	1686070	722050	MS	C	alternation of mudstone and siltstone, and bolder of basalt in stream		AS192
726	02A238	1678530	723385	BA	β N2-Q1	dark grey, pyroxene basalt	A230	AS193
727	02A239	1678696	724374	BA	β N2-Q1	Gravels of pyroxene basalt in stream		AS194
728	02A240	1678464	725326	BA	β N2-Q1	floats of pyroxene basalt in stream		
729	02A241	1679039	725630	BA	γ δ -2	west part: floats of pyroxene basalt, east part: biotite granite, coarse grained	A231	
730	02A242	1679178	726091	BA	β N2-Q1	floats of pyroxene basalt on top of mountain		
731	02A243	1679621	726939	BA	β N2-Q1	dark grey, pyroxene basalt		
732	02A244	1679724	727190	BA	β N2-Q1	floats of pyroxene basalt		AS195
733	02A245	1679780	727175	SC	D1-2	bluish grey, biotite schist to green schist	A232	AS196
734	02A246	1680110	727365	BA	β N2-Q1	floats of pyroxene basalt		
735	02A247	1680940	728052	BA	β N2-Q1	floats of pyroxene basalt		
736	02A248	1681541	728539	BA	β N2-Q1	floats of pyroxene basalt		
737	02A249	1682154	729203	BA	β N2-Q1	dark grey, pyroxene basalt		
738	02A250	1681967	730015	BA	β N2-Q1	gravels of pyroxene basalt in stream		AS197
739	02A251	1682187	730308	GR	γ δ -2	biotite granite, coarse grained, weathered, kaolinite		
740	02A252	1682450	730460	BA	β N2-Q1	floats of pyroxene basalt		
741	02A253	1682654	730595	BA	β N2-Q1	floats of pyroxene basalt		
742	02A254	1683409	730952	BA	β N2-Q1	floats of pyroxene basalt		
743	02A255	1684598	731269	BA	β N2-Q1	dark grey, pyroxene basalt flow	A233	AS198
744	02A256	1684579	731363	BA	β N2-Q1	dark grey, pyroxene basalt flow		AS199
745	02A257	1684670	732370	BA	β N2-Q1	dark grey, pyroxene basalt flow		
746	02A258	1684360	733481	BA	β N2-Q1	floats of pyroxene basalt		
747	02A259	1684534	733845	BA	β N2-Q1	floats of pyroxene basalt		
748	02A260	1684974	735025	BA	β N2-Q1	floats of pyroxene basalt		
749	02A261	1685163	735233	CG	D1-2	conglomerate of quartz, sandstone and tuff		
750	02A262	1685167	735582	SS	D1-3	floats of medium to fine sandstone		

Annex 4 Outcrop List (Team A 16/29)

Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
751	02A263	1685164	735674	BA	D1-4	Bolders of basalt, rhyolite, rhyolitic tuff, welded tuff, quartz rich conglomerate, medium sandstone in the stream		AS200
752	02A264	1685370	735494	SS	D1-5	light grey, tuffaceous, fine to coarse sandstone		
753	02A265	1685908	735115	TU	D1-6	light grey, siliceous rhyolitic tuff	A234	
754	02A266	1686062	733111	TU	D1-7	brown, biotite dacitic tuff intruded by white rhyolite with thin quartz veins	A235	
755	02A267	1685296	735777	SS	D1-8	floats of lithic conglomerate to conglomeratic sandstone		
756	02A268	1685739	735936	SS	D1-9	floats of medium to fine sandstone		
757	02A269	1685873	736024	SS	N	weathered, brown tuffaceous coarse sandstone to sandy tuff	A236	
758	02A270	1685991	736074	BA	βN2-Q1	floats of pyroxene basalt in dark brown soil		
759	02A271	1686513	736361	BA	βN2-Q1	floats of pyroxene basalt in dark brown soil		
760	02A272	1686724	737322	BA	βN2-Q1	floats of pyroxene basalt lateritized in dark brown soil		
761	02A273	1686833	738562	BA	βN2-Q1	dark grey, pyroxene basalt lava	A237	AS201
762	02A274	1687284	737655	BA	βN2-Q1	floats of pyroxene basalt lateritized in dark brown soil		
763	02A275	1688374	738160	BA	βN2-Q1	floats of pyroxene basalt lateritized in dark brown soil		
764	02A276	1689064	738161	BA	βN2-Q1	bolders of pyroxene basalt		
765	02A277	1690132	738437	BA	βN2-Q1	bolders of pyroxene basalt		
766	02A278	1700106	738722	BA	βN2-Q2	floats of pyroxene basalt in dark brown soil		
767	02A279	1699720	739202	BA	βN2-Q3	floats of pyroxene basalt lateritized in dark brown soil		
768	02A280	1699268	739923	BA	βN2-Q4	floats of pyroxene basalt lateritized in dark brown soil		
769	02A281	1699216	741042	BA	βN2-Q4	floats of pyroxene basalt lateritized in dark brown soil		
770	02A282	1698179	742025	TU	N	light brown, biotite dacitic tuff, massive	A238	
771	02A283	1697963	742355	TU	N	light brown, biotite dacitic tuff, massive		
772	02A284	1697870	742439	TU	N	light brown, biotite dacitic tuff, massive		
773	02A285	1702351	742264	TU	N	light brown, biotite dacitic tuff, massive		
774	02A286	1703917	741902	TU	N	light brown, biotite dacitic tuff, massive		
775	02A287	1704954	747295	TU	N	light brown, biotite dacitic tuff to tuff breccia	A243	
776	02A288	1702931	747055	TU	N	light brown, biotite dacitic tuff, massive		
777	02A289	1701324	747253	SL	T1-2	light brown, silty slate		
778	02A290	1697749	750670	SL	T1-2	light purple to light brown, muddy slate	A239	
779	02A291	1697565	752035	BA	βN2-Q4	bolders of pyroxene basalt		
780	02A292	1697468	751352	BA	βN2-Q4	bolders of pyroxene basalt		
781	02A293	1697617	750974	SL	T1-2	strongly weathered, yellow to reddish brown, muddy slate and sandy slate		
782	02A294	1698178	750186	BA	βN2-Q4	floats of pyroxene basalt lateritized in dark brown soil		
783	02A295	1698555	749786	BA	βN2-Q4	floats of pyroxene basalt lateritized in dark brown soil		
784	02A296	1698677	749495	MS	βN2-Q4	strongly weathered, yellowish brown to white, alternation of mudstone, medium sandstone and siltstone		
785	02A297	1699723	749190	BA	βN2-Q4	floats of pyroxene basalt lateritized in dark brown soil		
786	02A298	1700310	748092	SS	T1-2	weathered, reddish brown, oxidized, fine sandstone to siltstone with goethite and limonite		
787	02A299	1700510	747905	SS	T1-2	weathered, reddish brown, oxidized, fine sandstone with goethite and limonite, and medium to fine sandstone and muddy slate	A240	
788	02A300	1700793	747462	SL	T1-2	light purple to light brown, muddy to silty slate	A241	
789	02A301	1701668	747074	BA	βN2-Q4	bolders of dark grey, pyroxene basalt lateritized in soil		
790	02A302	1701800	747056	TU	N	brown, biotite dacitic tuff		
791	02A303	1702376	746975	BA	βN2-Q4	bolders of dark grey, pyroxene basalt		
792	02A304	1703494	746831	TU	N	brown, biotite dacitic tuff with quartz grains	A242	
793	02A305	1704092	746683	TU	N	brown, biotite dacitic, fine to coarse tuff with quartz grains	A243	
794	02A306	1658082	757804			location: Van Yiengdark		
795	02A307	1657617	757983	Green SC	BA	green schist: basalt	A244	
796	02A308	1656886	757534	Green SC	BA	green schist: basalt		
797	02A309	1656691	757180	Green SC	BA	green schist: basalt		
798	02A310	1656710	756898	Green SC	dyke	pinkish white, rhyolite	A245	
799	02A311	1656650	756584	QZT	Cam-O1	white, quartzite		
800	02A312	1656650	756300	QZT	Cam-O1	white, quartzite		AS202

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Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
801	02A313	1656620	756250	SS	Cam-O1	light grey, sandy schist to sandstone	A245	AS203
802	02A314	1656850	755650	RH	Cam-O1	Bolders: rhyolite, quartzite, sandstone, biotite-schist		AS204
803	02A315	1656547	755060	SS	Cam-O1	light grey, medium sandstone		
804	02A316	1656579	754712	DI	$\gamma\delta 3-2$	very coarse grained, hornblende diorite	A246	
805	02A317	1656371	754300		Cam-O1	bolders: granite, sandstone, quartzite		AS205
806	02A318	1656300	754280	GR	$\gamma\delta 4-2$	pinkish grey, medium to fine grained, biotite granite	A247	AS206
807	02A319	1656561	753959	GD	Cam-O1	bolders: K-f porphyritic granodiorite, sandstone, biotite-schist		AS207
808	02A320	1656670	753579	GR	$\gamma\delta 4-2$	medium grained, biotite granite		AS208
809	02A321	1656995	752982	GN	$\gamma\delta 3-2$	gneiss, heterogenous, hornblende-biotite granodiorite, medium to fine grained	A248	
810	02A322	1657052	752986	GN	$\gamma\delta 3-2$	gneiss, heterogenous, hornblende-biotite granodiorite, medium to fine grained		AS209
811	02A323	1657218	752828	GN	$\gamma\delta 3-2$	gneiss, heterogenous, hornblende-biotite granodiorite, medium to fine grained		
812	02A324	1657742	752249	GN	$\gamma\delta 3-2$	gneiss, heterogenous, hornblende-biotite granodiorite, medium to fine grained	A249	AS210
813	02A325	1658274	751836	GD	$\gamma\delta 3-2$	potassic feldspar porphyritic, hornblende- biotite granodiorite, coarse grained		
814	02A326	1658654	751465	GD	$\gamma\delta 3-2$	potassic feldspar porphyritic, hornblende- biotite granodiorite, coarse grained		
815	02A327	1658890	750910	GD	$\gamma\delta 3-2$	potassic feldspar porphyritic, hornblende- biotite granodiorite, coarse grained		AS211
816	02A328	1658976	751006	GD	$\gamma\delta 3-2$	potassic feldspar porphyritic, hornblende- biotite granodiorite, coarse grained		AS212
817	02A329	1658836	750768	GD	$\gamma\delta 3-2$	potassic feldspar porphyritic, hornblende- biotite granodiorite, coarse grained		AS213
818	02A330	1659393	750481	GR	$\gamma\delta 4-2$	light grey, medium grained, biotite granite	A250	AS214
819	02A331	1659967	748995	GD	$\gamma\delta 3-2$	potassic feldspar porphyritic, hornblende- biotite granodiorite, coarse grained		AS215
820	02A332	1659943	748970	GD	$\gamma\delta 3-2$	cataclaste of potassic feldspar porphyritic, hornblende- biotite granodiorite, coarse grained	A251	AS216
821	02A333	1659590	749394	GR	$\gamma\delta 4-2$	cataclaste of medium grained, biotite granite		
822	02A334	1659244	749875	QTZ	Cam-O1	white, quartzite		
823	02A335	1659104	751716	GD	$\gamma\delta 3-2$	potassic feldspar porphyritic, hornblende- biotite granodiorite, coarse grained		AS217
824	02A336	1659067	752030	GD	$\gamma\delta 3-2$	potassic feldspar porphyritic, hornblende- biotite granodiorite, coarse grained		AS218
825	02A337	1658997	752187	GD	$\gamma\delta 3-2$	potassic feldspar porphyritic, hornblende- biotite granodiorite, coarse grained	A252	AS219
826	02A338	1658725	753005	GD	$\gamma\delta 3-2$	potassic feldspar porphyritic, hornblende- biotite granodiorite, coarse grained		
827	02A339	1658791	753560	DI	$\gamma\delta 3-2$	very coarse grained, hornblende diorite		
828	02A340	1658717	753404	DI	$\gamma\delta 3-2$	aprite float in very coarse grained, hornblende diorite		
829	02A341	1658880	753591	DI	$\gamma\delta 3-2$	very coarse grained, hornblende diorite		
830	02A342	1659062	753947	Bio SC	Cam-O1	grey, samitic biotite schist		
831	02A343	1659072	753820	DI	$\gamma\delta 3-2$	very coarse grained, hornblende diorite		
832	02A344	1659477	754232	DI	$\gamma\delta 3-2$	very coarse grained, hornblende diorite		
833	02A345	1659482	754199	Green SC	Cam-O1	green schist: basalt	A253	
834	02A346	1659577	754463	GA	OhpPR3	coarse grained, meta gabbro		
835	02A347	1659816	754522	GA	OhpPR3	coarse grained, meta gabbro	A254	
836	02A348	1660266	755041	Bio SC	PR2-C1	grey, samitic biotite schist to gneiss		
837	02A349	1660634	755511	Bio SC	PR2-C1	grey, samitic biotite schist to gneiss		
838	02A350	1661171	756644	Bio SC	Cam-O1	grey, samitic biotite schist, weathered		
839	02A351	1662115	756796	SL	O3-S	weathered, yellowish grey, silty slate to phyllite		
840	02A352	1627079	774170	GA	OhpPR3	white kaoline clay in gabbro, very strong weathered	A255	
841	02A353	1626425	773455	GN	PR2-C1	light, grey, medium to moderate, gneiss, heterogenous		AS220
842	02A354	1628350	769928	GA	OhpPR3	gark grey, gabbro, layered		AS221
843	02A355	1629058	769363	GA	OhpPR3	gark grey, gabbro, layered		AS222
844	02A356	1629231	768855	GA	OhpPR3	bolders: gark grey, gabbro, layered		AS223
845	02A357	1635253	770050	GR	$\gamma\delta 4-2$	grey, coarse to medium grained, biotite granite, heterogenous		AS224
846	02A358	1634451	769759	GR	$\gamma\delta 4-2$	grey, coarse to medium grained, biotite granite, heterogenous		AS225
847	02A359	1633100	768990	GR	$\gamma\delta 4-2$	dark grey, gabbro, coarse grained, interuded by biotite granite	A257	AS226
848	02A360	1632798	767884	GA	OhpPR3	dark grey, gabbro, coarse grained, meta	A258	AS227
849	02A361	1632863	767570	GN	PR2-C1	light grey, banded, gneiss, intruded by biotite granite, coarse to medium grained (mixed zone)		
850	02A362	1632434	767212	GN	PR2-C1	light grey, banded, gneiss (mixed zone)		

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Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
851	02A363	1631850	767080	GR	$\gamma\delta 4-2$	coarse grained, biotite granite (mixed zone)		AS228
852	02A364	1632578	765865	SC	Cam-O1	dark grey, biotite schist, mineralized by pyrite veins and dissemination and quartz veins	A259,A260	AS229
853	02A365	1634716	763858	SC	Cam-O1	dark grey, biotite schist, mineralized by pyrite veins and dissemination		AS230
854	02A366	1634645	763807	SC	Cam-O1	psammitic biotite schist with alternation of thin sandy and silty parts	A261	AS231
855	02A367	1636631	761817	SC	Cam-O1	bolders: white quartzite, gneiss, biotite schist		AS232
856	02A368	1636687	761765	SC	Cam-O1	dark grey, biotite schist, mineralized by pyrite veins and dissemination		AS233
857	02A369	1639182	758135	SC	Cam-O1	grey,psammitic, biotite schist	A262	AS234
858	02A370	1638608	756850	GD	$\gamma\delta 3-2$	potassic feldspar porphyritic, hirnblende- biotite granodiorite, coarse grained		AS235
859	02A371	1640040	754707	GD	$\gamma\delta 3-2$	potassic feldspar porphyritic, hirnblende- biotite granodiorite, coarse grained		AS236
860	02A372	1639576	750785	GD	$\gamma\delta 3-2$	potassic feldspar porphyritic, hirnblende- biotite granodiorite, coarse grained		AS237
861	02A373	1633625	729034	LS	J1-2	grey. Limestone with fossile	A256	
862	03A001	1640160	735225	Alluvial	Qa	boulders of quartz veins		AS501
863	03A002	1640244	735210	Alluvial	Qa	boulders of quartz veins		AS502
864	03A003	1640272	735245	Alluvial	Qa	boulders of quartz veins		AS503
865	03A004	1640345	735263	Alluvial	Qa	boulders of quartz veins		AS504
866	03A005	1640375	735230	SL		slate with sericite		AS505
867	03A006	1640402	735202	SL		slate with sericite		AS506
868	03A007	1640418	735277	SL		slate with sericite		
869	03A008	1640492	735288	SL		slate with sericite		AS507
870	03A009	1640640	735237	SL		slate with sericite		AS508
871	03A010	1640706	735320	SL		slate with sericite		
872	03A011	1640714	735330	SL		slate with sericite		AS509
873	03A012	1640740	735315	Alluvial	Qa	boulders of quartz veins		AS510
874	03A013	1640778	735252	Alluvial	Qa	boulders of quartz veins		AS511
875	03A014	1640910	735245	Alluvial	Qa	boulders of quartz veins		AS512
876	03A015	1641075	735050	Alluvial	Qa	boulders of quartz veins		AS513
877	03A016	1641182	735045	Alluvial	Qa	boulders of quartz veins		AS514
878	03A017	1641300	734870	Alluvial	Qa	boulders of quartz veins		AS515
879	03A018	1641284	734852	SL		slate with sericite		AS516
880	03A019	1641575	734830	Alluvial	Qa	boulders of quartz veins		AS517
881	03A020	1641505	734850	SL		(biotite?-) muscovite schist	A3001	AS518
882	03A021	1641167	734910	SL		Quartz vein (W: 30cm, N45W90) in slate with sericite and limonite.	A3002	
883	03A022	1641132	735020	Alluvial	Qa	boulders of quartz veins		AS519
884	03A023	1640000	735112	SL		slate with sericite		AS520
885	03A024	1639277	734943	SS		reddish brown, medium sandstone, massive		AS521
886	03A025	1639415	735162	CG		breccia to conglomerate, fragments: quartz, ϕ_{av} :10cm, ϕ_{mx} :20cm,	A3003	
887	03A026	1639440	735255	CG		breccia to conglomerate, fragments: quartz, ϕ_{av} :10cm, ϕ_{mx} :20cm,		AS522
888	03A027	1639400	735266	CG		breccia to conglomerate, fragments: quartz, ϕ_{av} :10cm, ϕ_{mx} :20cm,		AS523
889	03A028	1639407	735335	CG		breccia to conglomerate, fragments: quartz, ϕ_{av} :10cm, ϕ_{mx} :20cm,		
890	03A029	1639380	735404	SL		light grey, slate with sericite		
891	03A030	1639306	735526	SL		slate with sericite		AS524
892	03A031	1639412	735675	SL		slate with sericite		AS525
893	03A032	1639383	735685	SL		slate with sericite		AS526
894	03A033	1639430	735772	SL		slate with sericite		AS527
895	03A034	1639457	735991	SL		slate with sericite		AS528
896	03A035	1639439	736109	SL		slate with sericite		AS529
897	03A036	1639783	735135	SL		slate with sericite		AS530
898	03A037	1640013	734798	SL		slate with sericite		AS531
899	03A038	1639722	734635	SS		reddish brown, sandstone		AS532
900	03A039	1639770	734460	SS		reddish brown, sandstone	A3004	

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Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
901	03A040	1639749	734407	SS		reddish brown, sandstone		AS533
902	03A041	1639844	734060	SS		reddish brown, sandstone		AS534
903	03A042	1640020	734090	SS		reddish brown, sandstone		AS535
904	03A043	1640070	734188	SL		muddy, slate with sericite		AS536
905	03A044	1640095	734130	SL		muddy, slate with sericite		AS537
906	03A045	1640277	734037	CG		conglomerate, fragments: schist, quartz, ϕ_{av} :5cm, ϕ_{mx} :30cm, rounded to subangular		AS538
907	03A046	1640358	733960	SL		muddy, slate with sericite		AS539
908	03A047	1640392	733800	SL		muddy, slate with sericite		AS540
909	03A048	1640499	733776	SL		muddy, slate with sericite		
910	03A049	1640541	733778	SL		muddy, slate with sericite		AS541
911	03A050	1640593	733752	SL		muddy, slate with sericite		AS542
912	03A051	1640596	733797	SL		muddy, slate with sericite		AS543
913	03A052	1640749	733688	SL		muddy, slate with sericite		AS544
914	03A053	1640827	733749	SL		quartz vein (W:40cm, 10cm, N40W90) in muddy, slate with sericite	A3004	
915	03A054	1640865	733726	SL		muddy, slate with sericite		
916	03A055	1641001	733785	SL		muddy, slate with sericite		AS545
917	03A056	1641040	733820	SL		muddy, slate with sericite		AS546
918	03A057	1641114	733925	SL		muddy, slate with sericite		AS547
919	03A058	1641144	733930	SL		muddy, slate with sericite quartz vein (W:50cm,, N30W90)	A3005	AS548
920	03A059	1641227	733450	SL		muddy, slate with sericite		AS549
921	03A060	1641120	733455	SL		muddy, slate with sericite		AS550
922	03A061	1642836	737611	GD		biotite-hornblende granodiorite	A3006	AS551
923	03A062	1642837	737575	GD		biotite-hornblende granodiorite		AS552
924	03A063	1642570	737086	GD		biotite-hornblende granodiorite		AS553
925	03A064	1642540	737078	GD		mylonite of biotite-hornblende granodiorite with epidote and chlorite	A3008	AS554
926	03A065	1642588	737030	GD		biotite-hornblende granodiorite quartz vein (W:40cm, N65W90), with sheared zone between granodiorite and biotite schist	A3009	
927	03A066	1642512	736900	GD		cataclaste of biotite-hornblende granodiorite with epidote and chlorite		AS555
928	03A067	1642475	736935	GD		cataclaste of biotite-hornblende granodiorite with epidote and chlorite		AS556
929	03A068	1642442	736921	GD		biotite-hornblende granodiorite with malachite films along the fractures	A3010	AS557
930	03A069	1642300	736916	GD		biotite-hornblende granodiorite		AS558
931	03A070	1642283	736907	GD		biotite-hornblende granodiorite		AS559
932	03A071	1642285	736930	GD		biotite-hornblende granodiorite		AS560
933	03A072	1642240	736980	GD		biotite-hornblende granodiorite		AS561
934	03A073	1641943	736946	GD		biotite-hornblende granodiorite		AS562
935	03A074	1641927	736955	GD		biotite-hornblende granodiorite		AS563
936	03A075	1641165	736991	GD		biotite-hornblende granodiorite		
937	03A076	1641505	737007	GD		biotite-hornblende granodiorite		AS564
938	03A077	1641497	737020	GD		biotite-hornblende granodiorite, malachite films in granodiorite	A3011	AS565
939	03A078	1639736	734423	SS		reddish brown, medium sandstone, massive		
940	03A079	1639817	734321	SS		reddish brown, medium sandstone, massive		
941	03A080	1639860	733940	TU, Pm		purplish grey, dacitic tuff, ϕ_{av} :2cm, ϕ_{mx} :5cm	A3012	
942	03A081	1639805	733831	TU		pale green, fine tuff		
943	03A082	1639783	733756	TU		pale green, fine tuff		
944	03A083	1639680	733668	TU		pale green, fine tuff		
945	03A084	1639661	733482	TU		pale green, fine tuff, massive		AS566
946	03A085	1639525	733417	TU		white dacitic tuff with quartz grains		
947	03A086	1639150	734327	TU		white dacitic tuff with quartz grains		AS567
948	03A087	1638700	735100	TU		white dacitic tuff with quartz grains		AS568
949	03A088	1638874	735232	TU		N-S fault boundary of pale grey dacitic tuff (W) with pyrite dissemination and reddish brown sandstone (E)	A3014	AS569
950	03A089	1638960	735290	SS		reddish brown, medium sandstone, massive		AS570

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Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
951	03A090	1643480	737941	GD		biotite-hornblende granodiorite, medium grained, epidote-chlorite	A3015	
952	03A091	1643775	737850	GD		biotite-hornblende granodiorite, medium grained, epidote-chlorite		
953	03A092	1643805	737849	GD		biotite-hornblende granodiorite, medium grained, epidote-chlorite		
954	03A093	1643810	737802	GD		weathered, biotite-hornblende granodiorite, medium grained		AS571
955	03A094	1643800	737801	GD		biotite-hornblende granodiorite, medium grained, epidote-chlorite	A3016	AS572
956	03A095	1644029	737583	GD		biotite-hornblende granodiorite, medium grained, epidote-chlorite, sheared, N30W70W	A3017	
957	03A096	1644025	737550	GD		biotite-hornblende granodiorite, medium grained, epidote-chlorite, pyrite disseminated	A3018	AS573
958	03A097	1644190	737395	GD		biotite-hornblende granodiorite, medium grained, epidote-chlorite		
959	03A098	1644420	737095	GD		biotite-hornblende granodiorite, medium grained, epidote-chlorite		AS574
960	03A099	1644495	737030	GD		biotite-hornblende granodiorite, medium grained, epidote-chlorite, pyrite disseminated	A3019a	
961	03A100	1644486	736962	GD		biotite-hornblende granodiorite, medium grained, epidote-chlorite		AS575
962	03A101	1638622	740635	GD		biotite-hornblende granodiorite, medium grained, epidote-chlorite, sheared, N50W75S		
963	03A102	1638680	740493	GD		biotite-hornblende granodiorite, medium grained, epidote-chlorite, sheared, N20W80E		AS576
964	03A103	1638667	740438	GD		biotite-hornblende granodiorite, medium grained, epidote-chlorite, sheared		AS577
965	03A104	1638702	740268	GD		biotite-hornblende granodiorite, medium grained, epidote-chlorite, sheared		
966	03A105	1638676	740130	GD		biotite-hornblende granodiorite, medium grained, epidote-chlorite, sheared, quartz veins (Width:20cm, N80W75N)	A3019b	
967	03A106	1638639	739963	GD		biotite-hornblende granodiorite, medium grained, epidote-chlorite, Foliation N40E70W	A3020	AS578
968	03A107	1638901	739637	GD		biotite-hornblende granodiorite, medium grained, epidote-chlorite, sheared, N10W80E		
969	03A108	1638897	739600	GD		biotite-hornblende granodiorite, medium grained, epidote-chlorite		AS579
970	03A109	1638886	739573	GD		biotite-hornblende granodiorite, medium grained, epidote-chlorite		AS580
971	03A110	1638761	739270	GD		biotite-hornblende granodiorite, medium grained, epidote-chlorite		
972	03A111	1638903	739162	GD		Mylonite of biotite-hornblende granodiorite, medium grained, epidote-chlorite, Foliation N35W85W		
973	03A112	1638893	739088	SC,Qz		light grey, muscovite-quartz schist	A3021	
974	03A113	1638884	739014	SC,Qz		light grey, muscovite-quartz schist, schistosity N10W90	A3022	AS581
975	03A114	1638899	740690	GD		biotite-hornblende granodiorite, epidote-chlorite, sheared, N45W25E, with quartz veins (W:1-2cm, malachite along fractures)	A3023, A302	AS582
976	03A115	1636815	741460	GD		cataclastic, biotite-hornblende granodiorite, medium grained, epidote-chlorite, sheared, N70W70E, foliation:N45W75S		AS583
977	03A116	1636770	741474	GD		cataclastic, biotite-hornblende granodiorite, medium grained, epidote-chlorite-pyrite, foliation:N45W75E	A3025	
978	03A117	1636768	741250	GD		biotite-hornblende granodiorite, medium grained, epidote-chlorite		AS584
979	03A118	1636838	741266	GD		biotite-hornblende granodiorite, medium grained, epidote-chlorite, sfoliation:N40W70W		
980	03A119	1636870	741175	GD		biotite-hornblende granodiorite, medium grained, epidote-chlorite		AS585
981	03A120	1636918	741140	GD		biotite-hornblende granodiorite, medium grained, epidote-chlorite, foliation:N80W45S		AS586
982	03A121	1636995	741127	GD		biotite-hornblende granodiorite, medium grained, epidote-chlorite		AS587
983	03A122	1636938	741000	GD		biotite-hornblende granodiorite, medium grained, epidote-chlorite, foliation:N70W75S		AS588
984	03A123	1637067	740900	GD		biotite-hornblende granodiorite, medium grained, epidote-chlorite		AS589
985	03A124	1637027	740845	GD		biotite-hornblende granodiorite, medium grained, chlorite, sheared:EW80S, foliation:N60E40N	A3026	AS590
986	03A125	1636963	740692	GD		biotite-hornblende granodiorite, medium grained, chlorite, light pink granite (A3027)	A3027	AS591
987	03A126	1636957	740642	GD		biotite-hornblende granodiorite, medium grained, chlorite,		AS592
988	03A127	1636981	740445	GD		biotite-hornblende granodiorite, medium grained, chlorite, foliation:N30W65E		AS593
989	03A128	1636993	740432	GD		biotite-hornblende granodiorite, medium grained, chlorite, foliation:N80W60S	A3028	AS594
990	03A129	1637005	740403	GD		biotite-hornblende granodiorite, medium grained, chlorite,		AS595
991	03A130	1636930	740333	GR		light pinkish grey, biotite-hornblende granite, medium grained, chlorite, few malachite in fracture	A3029	
992	03A131	1636820	740260	GD		biotite-hornblende granodiorite, medium grained, chlorite,		AS596
993	03A132	1636776	740166	GD		biotite-hornblende granodiorite, medium grained, chlorite,	A3030	AS597
994	03A133	1636794	740139	GD		biotite-hornblende granodiorite, medium grained, chlorite,		AS598
995	03A134	1636806	740100	GD		biotite-hornblende granodiorite, medium grained, chlorite,	A3031	AS599
996	03A135	1636803	739967	GD		biotite-hornblende granodiorite, medium grained, chlorite,		AS600
997	03A136	1636924	739835	GD		biotite-hornblende granodiorite, medium grained, chlorite,		AS601
998	03A137	1636940	739891	GR		biotite-hornblende granite, medium grained, chlorite,		AS602
999	03A138	1636944	739840	GR		biotite-hornblende granite, medium grained, chlorite,		AS603
1000	03A139	1637054	739656	GR		biotite-hornblende granite, medium grained, chlorite,		

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Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
1001	03A140	1637068	739629	GD		biotite-hornblende granodiorite, medium grained, chlorite, sheared:N40W80N	A3032	AS604
1002	03A141	1636922	739672	GD		biotite-hornblende granodiorite, medium grained, chlorite, sheared:N40W80N		AS605
1003	03A142	1636914	739556	GD		cataclastic, biotite-hornblende granodiorite, medium grained, chlorite, sheared:N55W90		AS606
1004	03A143	1636951	739486	SC,Qz		light grey, muscovite-quartz schist, schistosity N20W90		
1005	03A144	1636988	739415	SC,Qz		light grey, muscovite-quartz schist		
1006	03A145	1637016	739388	SC,Qz		light grey, muscovite-quartz schist, schistosity N40W80S		AS607
1007	03A146	1636963	739334	SC,Qz		light grey, muscovite-quartz schist, schistosity N50W90		AS608
1008	03A147	1635817	741762	GD		greenish grey, cataclastic, biotite-hornblende granodiorite, medium grained, epidote-chlorite, sheared:N50W70N	A3033	AS609
1009	03A148	1635717	741539	GD		greenish grey, cataclastic, biotite-hornblende granodiorite, medium grained, chlorite, foliation:N80W60S	A3034	
1010	03A149	1635716	741537	GD		greenish grey, biotite-hornblende granodiorite, medium grained, chlorite		AS610
1011	03A150	1635614	741470	GD		greenish grey, biotite-hornblende granodiorite, medium grained, chlorite		AS611
1012	03A151	1635570	741213	GD		greenish grey, biotite-hornblende granodiorite, medium grained, chlorite		AS612
1013	03A152	1635568	741206	GD		greenish grey, biotite-hornblende granodiorite, medium grained, chlorite		AS613
1014	03A153	1635590	741170	GD		a trench (N30E, 50cmx10m) in greenish grey, biotite-hornblende granodiorite, medium grained, chlorite, pyrite dissemination	A3035	
1015	03A154	1635553	741100	GD		greenish grey, biotite-hornblende granodiorite, medium grained, chlorite		AS614
1016	03A155	1635528	740975	GD		greenish grey, biotite-hornblende granodiorite, medium grained, chlorite		AS615
1017	03A156	1635474	740870	GD		greenish grey, biotite-hornblende granodiorite, medium grained, chlorite		
1018	03A157	1635487	740700	SC,Qz		schist?		AS616
1019	03A158	1635409	740591	SC,Qz		schist?		
1020	03A159	1635725	740988	GD		greenish grey, biotite-hornblende granodiorite, medium grained, chlorite		AS617
1021	03A160	1634646	742300	Qa		gravel (granodiorite, quartz), sand, silt, clay		AS618
1022	03A161	1634752	741795	Qa		gravel (granodiorite, quartz), sand, silt, clay		AS619
1023	03A162	1634518	741715	Qa		gravel (granodiorite, quartz), sand, silt, clay		AS620
1024	03A163	1634523	741682	GD		quartz vein (Width:2.5m, NS90)	A3036	
1025	03A164	1634440	741571	Qa		gravel (granodiorite, quartz), sand, silt, clay		AS621
1026	03A165	1634535	741400	GD		biotite schist, sheared granodiorite origin (N20W80W)		AS622
1027	03A166	1634606	741320	Qa		gravel (granodiorite, quartz), sand, silt, clay		AS623
1028	03A167	1634631	741300	GD		biotite schist, sheared granodiorite origin (N30W90)		AS624
1029	03A168	1634742	740892	GD		biotite schist, sheared granodiorite origin		AS625
1030	03A169	1634791	740860	GD		silicified breccia, sheared granodiorite, width:3m+, N30W70W	A3037	AS626
1031	03A170	1634766	740830	CG	Ne	conglomerate, fragments: schist, quartz, ϕ av:5cm, ϕ mx:30cm, rounded to subangular	A3038	
1032	03A171	1634730	740717	GD		weathered, argillized, sheared granodiorite	A3039	AS627
1033	03A172	1634675	740655	GD		weathered, argillized, sheared granodiorite		AS628
1034	03A173	1634877	740495	GD		light grey, silicified granodiorite	A3040	
1035	03A174	1634886	740439	GD		quartz vein and silicified breccia (Width:2m, N80W70S) in granodiorite	A3041	
1036	03A175	1634880	740386	Qa		gravel (granodiorite, quartz), sand, silt, clay		AS629
1037	03A176	1634910	740385	Qa		gravel (granodiorite, quartz), sand, silt, clay		AS630
1038	03A177	1634954	740397	GD		quartz vein and silicified breccia (Width:3-2cm, N40W70N) in sheared granodiorite	A3042	
1039	03A178	1635038	740185	GR		granite	A3043	AS631
1040	03A179	1635165	740072	GR		sheared, biotite granite, N60W90-80N		AS632
1041	03A180	1635168	740070	GR		sheared, biotite granite, N60W90		AS633
1042	03A181	1635428	739908	GR		mylonite of biotite granite, N50W85N		
1043	03A182	1635554	739855	GR		granite		AS634
1044	03A183	1635561	739750	GR		granite		AS635
1045	03A184	1635600	739810	GR		granite		AS636
1046	03A185	1635828	739710	GR		mylonite of granite with quartz vein (N30W70W) and sheared slate	A3044	AS637
1047	03A186	1635955	739695	SL		Trench: sheared slate with quartz veins and many pyrite vein and films, N45W90	A3045	
1048	03A187	1635980	739666	SL		Trench: sheared slate with quartz veins and many pyrite vein and films, N40W90		AS638
1049	03A188	1636180	739638	SL		Trench: sheared slate with quartz veins and many pyrite vein and films, N30W80W	A3046	
1050	03A189	1636388	739333	SL		weathered, sheared, mylonitic granite N50W90		AS639

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Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
1051	03A190	1636475	739195	Qa	Qa	gravel (schist, granite, quartz), sand, silt, clay		AS640
1052	03A191	1636635	739026	CG		conglomerate: fragments of granite, tuff, quartz, basalt, matrix: granitic sand		
1053	03A192	1636670	738952	CG		conglomerate: fragments of granite, tuff, quartz, basalt, matrix: granitic sand		AS641
1054	03A193	1636680	738950	CG		conglomerate: fragments of granite, tuff, quartz, basalt, matrix: granitic sand		AS642
1055	03A194	1636710	738910	SL		grey, sheared sandy slate with pyrite films, N65W70SW		
1056	03A195	1636775	738870	GR		mylonite of granite (N70W90) and sheared slate	A3047	AS643
1057	03A196	1636885	738722	GR		mylonite of granite, argillized, (N70W90)		AS644
1058	03A197	1636935	738710	GR		mylonite of granite (N70W90)		AS645
1059	03A198	1636956	738716	GR		mylonite of granite (N60W65N)	A3048	
1060	03A199	1637332	738795	SL		sheared slate (N70W90)		AS646
1061	03A200	1637300	738758	SL		sheared slate		AS647
1062	03A201	1637351	738678	GD		hornblende-biotite granodiorite, medium grained, sheared and mylonite of granodiorite	A3049	
1063	03A202	1637444	738625	Qa		Bolder of quartzite, granodiorite, schist		AS648
1064	03A203	1637530	738630	GD		hornblende-biotite granodiorite, medium grained, weathered, argillized		AS649
1065	03A204	1637596	738565	GD		hornblende-biotite granodiorite, medium grained, sheared and mylonite of granodiorite		AS650
1066	03A205	1637690	738498	GD		hornblende-biotite granodiorite, medium grained, sheared and mylonite of granodiorite		AS651
1067	03A206	1637857	738408	GD		hornblende-biotite granodiorite, medium grained, sheared and mylonite of granodiorite		AS652
1068	03A207	1637860	738392	GD		hornblende-biotite granodiorite, medium grained, sheared and mylonite of granodiorite		AS653
1069	03A208	1638150	738635	GD		hornblende-biotite granodiorite, medium grained, sheared and mylonite of granodiorite		
1070	03A209	1637948	741548	GD		hornblende-biotite granodiorite, medium grained, sheared		AS654
1071	03A210	1637945	741805	GD		hornblende-biotite granodiorite, medium grained	A3051	AS655
1072	03A211	1638045	741837	GD		hornblende-biotite granodiorite, medium grained, weathered		AS656
1073	03A212	1638150	741763	GD		hornblende-biotite granodiorite, medium grained		AS657
1074	03A213	1638170	741845	GD		mylonite of granodiorite		
1075	03A214	1638224	741777	GD		mylonite of granodiorite		AS658
1076	03A215	1638308	741915	GD		hornblende-biotite granodiorite, medium grained, sheared and mylonite of granodiorite	A3052a	
1077	03A216	1638348	741950	GD		hornblende-biotite granodiorite, medium grained		
1078	03A217	1638439	742030	GD		cataclasite of granodiorite		AS659
1079	03A218	1638427	742045	GD		cataclasite to mylonite of granodiorite		AS660
1080	03A219	1638454	742140	GD		hornblende-biotite granodiorite, medium grained, sheared	A3052b	AS661
1081	03A220	1638356	742222	GD		hornblende-biotite granodiorite, medium grained, sheared		AS662
1082	03A221	1638350	742266	GD		cataclasite to mylonite of granodiorite	A3053	
1083	03A222	1638347	742300	Qa		Bolder of quartzite, granodiorite, schist		AS663
1084	03A223	1638344	742288	GD		hornblende-biotite granodiorite, medium grained		AS664
1085	03A224	1637727	742225	GD		hornblende-biotite granodiorite, medium grained	A3054	AS665
1086	03A225	1637650	741845	GD		hornblende-biotite granodiorite, medium grained		AS666
1087	03A226	1635167	744285	GD, porphyry		granodiorite porphyry, with pyrite dissemination	A3055	AS667
1088	03A227	1635165	744222	GD, porphyry		granodiorite porphyry		AS668
1089	03A228	1635137	744330	GD, porphyry		granodiorite porphyry		AS669
1090	03A229	1635027	744751	GD, porphyry		granodiorite porphyry		AS670
1091	03A230	1634690	745232	GD, porphyry		granodiorite porphyry		AS671
1092	03A231	1634661	745286	GD, porphyry		granodiorite porphyry	A3056	AS672
1093	03A232	1634659	745365	GD, porphyry		granodiorite porphyry		AS673
1094	03A233	1634564	744950	GD, porphyry		granodiorite porphyry		AS674
1095	03A234	1634440	744880	GD, porphyry		granodiorite porphyry		AS675
1096	03A235	1634342	744682	GD		hornblende-biotite granodiorite, medium grained	A3057	
1097	03A236	1634237	744488	GD		hornblende-biotite granodiorite, medium grained		AS676
1098	03A237	1634240	744482	GD		hornblende-biotite granodiorite, medium grained		AS677
1099	03A238	1634280	744415	GD		hornblende-biotite granodiorite, medium grained	A3058	AS678
1100	03A239	1635645	744371	GD		mylonite of granodiorite	A3059	AS679

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Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
1101	03A240	1635824	744280	GD		mylonite of granodiorite		AS680
1102	03A241	1636060	744368	GD, porphyry		granodiorite porphyry	A3060	AS681
1103	03A242	1635483	744030	GD		hornblende-biotite granodiorite, medium grained		AS682
1104	03A243	1635380	743755	GD		hornblende-biotite granodiorite, medium grained		AS683
1105	03A244	1635680	743520	GD		hornblende-biotite granodiorite, medium grained		AS684
1106	03A245	1635676	743550	GD		hornblende-biotite granodiorite, medium grained		AS685
1107	03A246	1635785	743535	GD		mylonite of granodiorite		
1108	03A247	1635917	743640	GD		mylonite of granodiorite		AS686
1109	03A248	1636093	743685	GD		mylonite of granodiorite		
1110	03A249	1636167	743762	QV		quartz vein with malachite, coveline, gold? Width: 1.5m to 2m, length: more than 30m, direction: N40E65S	A3061	
1111	03A250	1636142	743760	GD		hornblende-biotite granodiorite, medium grained		AS687
1112	03A251	1636260	743787	GD		hornblende-biotite granodiorite, medium grained		AS688
1113	03A252	1636303	743794	GD		hornblende-biotite granodiorite, medium grained	A3062	AS689
1114	03A253	1638200	745170	GD		hornblende-biotite granodiorite, medium grained	A3063	AS690
1115	03A254	1638555	745376	Qa		sand		AS691
1116	03A255	1638900	745290	GD		hornblende-biotite granodiorite, medium grained		
1117	03A256	1638950	745210	DI		diorite, heterogeneous	A3064	AS692
1118	03A257	1639485	744840	DI		diorite, heterogeneous		
1119	03A258	1639592	744915	DI		diorite, heterogeneous	A3065	
1120	03A259	1644738	735058	GD		hornblende-biotite granodiorite, medium grained, epidote<chlorite	A3066	AS693
1121	03A260	1644700	735105	GD		hornblende-biotite granodiorite, medium grained, epidote<chlorite		AS694
1122	03A261	1644493	735145	GD		hornblende-biotite granodiorite, medium grained, epidote<chlorite		
1123	03A262	1644440	735180	GD		hornblende-biotite granodiorite, medium grained, epidote<chlorite		AS695
1124	03A263	1644425	735156	GD		hornblende-biotite granodiorite, medium grained, epidote<chlorite		AS696
1125	03A264	1644200	734922	GD		cataclasis of hornblende-biotite granodiorite, medium grained, epidote<chlorite		AS697
1126	03A265	1644186	734810	GD		mylonite of hornblende-biotite granodiorite, medium grained, epidote<chlorite		AS698
1127	03A266	1644169	734817	GD		mylonite of hornblende-biotite granodiorite, medium grained, epidote<chlorite		AS699
1128	03A267	1643916	734755	GD		hornblende-biotite granodiorite, medium grained, epidote<chlorite		AS700
1129	03A268	1643893	734685	GD		hornblende-biotite granodiorite, medium grained, epidote<chlorite		AS701
1130	03A269	1643885	734701	GD		hornblende-biotite granodiorite, medium grained, epidote<chlorite		AS702
1131	03A270	1643807	734879	GD		mylonite of hornblende-biotite granodiorite, medium grained, epidote<chlorite		AS703
1132	03A271	1643490	734998	GD		hornblende-biotite granodiorite, medium grained, epidote>chlorite	A3067	AS704
1133	03A272	1643230	735066	GD		hornblende-biotite granodiorite, medium grained, epidote>chlorite	A3068	AS705
1134	03A273	1643237	735056	GD		hornblende-biotite granodiorite, medium grained, epidote>chlorite		AS706
1135	03A274	1643140	735040	GD		hornblende-biotite granodiorite, medium grained, epidote>chlorite		AS707
1136	03A275	1644670	734205	GD		mylonitic hornblende-biotite granodiorite, medium grained, epidote>chlorite, pyrite dissemination		AS708
1137	03A276	1644600	734095	GD		mylonitic hornblende-biotite granodiorite, medium grained, epidote>chlorite		AS709
1138	03A277	1644542	733990	Qa		gravel		AS710
1139	03A278	1644245	733925	GD		mylonite of hornblende-biotite granodiorite, medium grained, epidote<chlorite		AS711
1140	03A279	1644226	734029	GD		mylonite of hornblende-biotite granodiorite, medium grained, epidote<chlorite		AS712
1141	03A280	1644141	734025	GD		mylonite of hornblende-biotite granodiorite, medium grained, epidote<chlorite	A3069	
1142	03A281	1644055	734020	GD		cataclasis of hornblende-biotite granodiorite, medium grained, epidote<chlorite		
1143	03A282	1643985	733968	GD		mylonite of hornblende-biotite granodiorite, medium grained, epidote<chlorite		AS713
1144	03A283	1643980	733990	GD		mylonite of hornblende-biotite granodiorite, medium grained, epidote<chlorite		AS714
1145	03A284	1644136	734344	GD		hornblende-biotite granodiorite, medium grained, epidote<chlorite		AS715
1146	03A285	1644622	734130	GD		quartz floats in hornblende-biotite granodiorite, medium grained, epidote<chlorite in hill ridge	A3070	
1147	03A286	1633803	741264	SS		fine sandstone	A3071	AS716
1148	03A287	1633846	741270	SC		gravel of quartz schist		AS717
1149	03A288	1633755	741154	Qa		gravel of quartz schist and sand		AS718
1150	03A289	1633607	741221	SC		pale grey, sheared, muscovite schist with quartz veins, chlorite, including fragments of fine sandstone	A3072	

Annex 4 Outcrop List (Team A 24/29)

Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
1151	03A290	1633497	741325	SS		broken, fine sandstone with muscovite, sandy slate		
1152	03A291	1633440	741349	Qa		bolder of granodiorite, schist and slate		AS719
1153	03A292	1633456	741305	Qa		bolder of granodiorite, schist and slate		AS720
1154	03A293	1633867	741121	CG		conglomerate: fragments of sandstone and slate		AS721
1155	03A294	1633967	741076	Qa		bolder of granodiorite, schist and slate		AS722
1156	03A295	1634560	741145	Qa		bolder of granodiorite, schist and slate		AS723
1157	03A296	1635927	762859	SL		fault (N10E80W) in turbidities of very fine sandstone, siltstone and mudstone		
1158	03A297	1636216	762939	SL		turbidities of very fine sandstone, siltstone and mudstone		AS724
1159	03A298	1636202	762408	SL		turbidities of very fine sandstone, siltstone and mudstone		AS725
1160	03A299	1636246	762458	SC		quartz lenses and pyrite dissemination in turbidities of very fine sandstone, siltstone and mudstone	A3073	
1161	03A300	1636275	762390	SC		quartz lenses and pyrite dissemination in sheared zone of turbidities of very fine sandstone, siltstone and mudstone	A3074	
1162	03A301	1636316	762400	SC		quartz lenses and pyrite dissemination in sheared zone of turbidities of very fine sandstone, siltstone and mudstone	A3075, A3075, A3077	
1163	03A302	1636392	762400	SL		turbidities of very fine sandstone, siltstone and mudstone		AS726
1164	03A303	1636580	762350	SL		quartz lenses and pyrite dissemination in turbidities of very fine sandstone, siltstone and mudstone	A3078	
1165	03A304	1636580	762315	SL		turbidities of very fine sandstone, siltstone and mudstone		
1166	03A305	1637145	762198	SL		turbidities of very fine sandstone, siltstone and mudstone		AS727
1167	03A306	1637234	762575	SL		turbidities of very fine sandstone, siltstone and mudstone		AS728
1168	03A307	1637307	762663	SL		turbidities of very fine sandstone, siltstone and mudstone		AS729
1169	03A308	1637392	762852	SC		quartz veins (W:1m, N30E 8-W) in biotite-muscovite schist	A3079, A3080	AS730
1170	03A309	1637543	162792	SC		hornfels of biotite-muscovite schist	A3081	
1171	03A310	1637695	762830	SC		hornfels of biotite-muscovite schist		AS731
1172	03A311	1637695	762800	SC		hornfels of biotite-muscovite schist		AS732
1173	03A312	1637972	762701	SC		pyrite dissemination in hornfels of biotite-muscovite schist	A3082	AS733
1174	03A313	1638073	762440	GD		heterogeneous, hornblende- biotite granodiorite, many biotite segregated, medium to coarse grained	A3083	
1175	03A314	1638084	762479	GD		heterogeneous, hornblende- biotite granodiorite, many biotite segregated, medium to coarse grained		AS734
1176	03A315	1637563	762779	SC		biotite-muscovite psamitic schist		AS735
1177	03A316	1638233	762499	GD		heterogeneous, hornblende- biotite granodiorite, many biotite segregated, medium to coarse grained		AS736
1178	03A317	1638333	762550	GD		heterogeneous, hornblende- biotite granodiorite (younger), many biotite segregated, medium to coarse grained and fine grained two mica granite	A3084, A308	AS737
1179	03A318	1638615	762630	GR		medium to coarse grained and fine grained two mica granite		AS738
1180	03A319	1638538	762660	GR		medium to coarse grained and fine grained two mica granite (older), heterogeneous, hornblende- biotite granodiorite and hornblende- biotite andesite	A3086, A308	AS739
1181	03A320	1638725	762796	GD		heterogeneous, hornblende- biotite granodiorite (younger), many biotite segregated, medium to coarse grained and fine grained two mica granite	A3088	
1182	03A321	1638780	762790	GD		pyrite disseminated in heterogeneous, hornblende- biotite granodiorite, many biotite segregated, medium to coarse grained	A3089	
1183	03A322	1638780	762780	GD		heterogeneous, hornblende- biotite granodiorite, many biotite segregated, medium to coarse grained		AS740
1184	03A323	1639009	762744	GD		feldspar porphyritic, heterogeneous, hornblende- biotite granodiorite, many biotite segregated, medium to coarse grained	A3090	
1185	03A324	1639152	762627	GD		pyrite disse. and quartz veins with pyrite in heterogeneous, hornblende- biotite granodiorite, many biotite segregated, medium to coarse grained	A3091	AS741
1186	03A325	1639160	762581	GD		heterogeneous, hornblende- biotite granodiorite, many biotite segregated, medium to coarse grained, pyrite dissemination	A3092	AS742
1187	03A326	1639240	761580	GD		quartz vein (20cm, N30E60E) in feldspar porphyritic, heterogeneous, hornblende- biotite granodiorite		AS743
1188	03A327	1639470	762350	GD		heterogeneous, hornblende- biotite granodiorite, many biotite segregated, medium to coarse grained	A3093	AS744
1189	03A328	1639550	762330	GD		heterogeneous, hornblende- biotite granodiorite, many biotite segregated, and aplite dyke (1m, N25W40W) with pyrite disseminated	A3094	AS745
1190	03A329	1639730	762220	GD		heterogeneous, hornblende- biotite granodiorite, many biotite segregated, and biotite andesite dyke (N40E, 40cm+)		AS746
1191	03A330	1639775	762183	AN		Hornblende-biotite andesite dyke (W:5m, N50E75W9	A3095	
1192	03A331	1639857	762180	GD		feldspar porphyritic, heterogeneous, hornblende- biotite granodiorite, many biotite segregated, medium to coarse grained		
1193	03A332	1640008	762137	GD		feldspar porphyritic, heterogeneous, hornblende- biotite granodiorite, many biotite segregated, including xenolith of biotite schist	A3096	
1194	03A333	1639950	762069	GD		heterogeneous, hornblende- biotite granodiorite, many biotite segregated, and biotite andesite dyke (N40E, 40cm+)	A3097	
1195	03A334	1639328	762838	GD		Bolder of heterogeneous, hornblende- biotite granodiorite and mylonite		AS747
1196	03A335	1639330	762860	GD		Bolder of heterogeneous, hornblende- biotite granodiorite, mylonite, quartz schist		AS748
1197	03A336	1638350	762492	GD		heterogeneous, hornblende- biotite granodiorite, many biotite segregated, medium to coarse grained	A3098	AS749
1198	03A337	1638370	762460	GD		porphyritic, heterogeneous, hornblende- biotite granodiorite, many biotite segregated, medium to coarse grained	A3099	AS750
1199	03A338	1638500	762400	GD		mylonite of heterogeneous, hornblende- biotite granodiorite, including pyrite disseminated, and aplite dyke (1m, N15W60W)		
1200	03A339	1638490	762278	GD		fault and fault breccia (W:1m, N70E70N) in cataclasis of hornblende- biotite granodiorite, including pyrite disseminated		

Annex 4 Outcrop List (Team A 25/29)

Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
1201	03A340	1638468	762095	GD		porphyritic, heterogeneous, hornblende- biotite granodiorite, many biotite segregated, medium to coarse grained		AS751
1202	03A341	1638492	762090	GD		porphyritic, heterogeneous, hornblende- biotite granodiorite, many biotite segregated, medium to coarse grained		AS752
1203	03A342	1638423	761996	GD		porphyritic, heterogeneous, hornblende- biotite granodiorite, many biotite segregated, medium to coarse grained		AS753
1204	03A343	1638460	761863	GD		porphyritic, heterogeneous, hornblende- biotite granodiorite, many biotite segregated, with pyrite dissemination	A3100	
1205	03A344	1638455	761842	GD		porphyritic, heterogeneous, hornblende- biotite granodiorite, many biotite segregated, with pyrite dissemination		AS754
1206	03A345	1638506	761812	GD		fault and fault breccia (W:1m, N30W80N) in cataclaste of hornblende- biotite granodiorite, including pyrite disseminated		AS755
1207	03A346	1637411	762949	SS		turbidities of medium to fine sandstone with pyrite dissemination and films (photo)	A3103	
1208	03A347	1637430	763045	SC		biotite schist with quartz veins (W: 10-20cm, N10W80W)	A3101	
1209	03A348	1637460	763083	SS		quartz vein in turbidities of medium to fine sandstone with pyrite dissemination	A3102	
1210	03A349	1637490	763120	SS		turbidities of medium to fine sandstone with pyrite dissemination and films		AS756
1211	03A350	1637466	763118	SS		turbidities of medium to fine sandstone with pyrite dissemination and films		AS757
1212	03A351	1637625	762745	GD		heterogeneous, hornblende- biotite granodiorite, many biotite segregated, medium to coarse grained		
1213	03A352	1637725	762610	GD		heterogeneous, hornblende- biotite granodiorite, many biotite segregated, medium to coarse grained		
1214	03A353	1637693	762524	GD		porphyritic, heterogeneous, hornblende- biotite granodiorite, many biotite segregated, medium to coarse grained		AS758
1215	03A354	1637700	762522	GD		porphyritic, heterogeneous, hornblende- biotite granodiorite, many biotite segregated, medium to coarse grained		AS759
1216	03A355	1638345	762707	GD		porphyritic, heterogeneous, hornblende- biotite granodiorite, many biotite segregated, medium to coarse grained		
1217	03A356	1638366	762800	SS		weathered, yellowish white, sandstone, argillized	A3105a	
1218	03A357	1638365	762830	SS		turbidities of medium to fine sandstone with pyrite dissemination and films	A3104	AS760
1219	03A358	1636223	762655	SL		turbidities of very fine sandstone, siltstone and mudstone		AS761
1220	03A359	1635986	762835	SL		turbidities of very fine sandstone, siltstone and mudstone		AS762
1221	03A360	1635033	742330	GD		sheared, cataclastic, hornblende-biotite granodiorite, weak chlorite, with very few of pyrite dissemination		AS763
1222	03A361	1635230	742280	GD		quartz vein (W:10-15cm, L:30m, N25E80E), in sheared, cataclastic, hornblende-biotite granodiorite, weak chlorite		
1223	03A362	1635553	742291	GD		sheared, cataclastic, hornblende-biotite granodiorite, weak chlorite	A3105b	AS764
1224	03A363	1635375	742280	GD		hornblende-biotite granodiorite, weak chlorite		AS765
1225	03A364	1635527	742160	GD		sheared, cataclastic, hornblende-biotite granodiorite, weak chlorite		AS766
1226	03A365	1635690	742085	GD		sheared, cataclastic, hornblende-biotite granodiorite, weak chlorite		
1227	03A366	1635782	742055	GD		epidote vein (W:5cm, N20W80E) along fracture in weakly sheared, hornblende-biotite granodiorite, weak chlorite		
1228	03A367	1636119	741902	GD		cataclastic, hornblende-biotite granodiorite, weak to moderate chlorite		
1229	03A368	1636241	741881	GD		hornblende-biotite granodiorite, weak to moderate chlorite	A3106	
1230	03A369	1636282	741863	GD		weak pyrite dissemination along fracture in hornblende-biotite granodiorite, weak to moderate chlorite		
1231	03A370	1636400	741670	GD		hornblende-biotite granodiorite, weak to moderate chlorite		
1232	03A371	1636530	741781	GD		hornblende-biotite granodiorite, weak to moderate chlorite		
1233	03A372	1636597	741715	GD		hornblende-biotite granodiorite, weak to moderate chlorite		
1234	03A373	1636747	741709	GD		network quartz vein (1 - 2mm) in hornblende-biotite granodiorite, moderate chlorite	A3107	
1235	03A374	1636805	741750	GD		porphyry copper system mineralization in ho-bi granodiorite, 1st: qz vein & chl. 2nd: ser & Cnv. Malc. Azr and Cov	A3108a	
1236	03A375	1636774	741700	GD		network quartz vein (1 - 2mm) in hornblende-biotite granodiorite, moderate chlorite		AS767
1237	03A376	1692091	689210	SS & MU		alternation of grey fine sandstone and grey mudstone to siltstone, calcareous		
1238	03A377	1692156	689242	SS & MU		alternation of grey sandstone(10-20cm) and red mudstone (5-10 cm)		
1239	03A378	1692184	689271	SS & MU		alternation of grey sandstone(10-20cm) and red mudstone to siltstone (5-10 cm)		
1240	03A379	1692212	689385	SS & MU		alternation of grey sandstone(10-20cm) and red mudstone to siltstone (5-10 cm)		
1241	03A380	1692352	689570	SS & MU		alternation of grey sandstone(10-20cm) and red mudstone to siltstone (5-10 cm) and float stone of quartz vein	A3108b	AS768
1242	03A381	1692394	689562	SS & MU		alternation of grey sandstone(10-20cm) and red mudstone to siltstone (5-10 cm)	A3109	AS769
1243	03A382	1692480	689460	SS & MU		alternation of grey sandstone(10-20cm) and red mudstone to siltstone (5-10 cm) and float stone of quartz vein	A3110	
1244	03A383	1692620	689472	SS & MU		alternation of grey sandstone(10-20cm) and red mudstone to siltstone (5-10 cm) and float stone of quartz vein		
1245	03A384	1692701	689365	SS & MU		alternation of grey sandstone(10-20cm) and red mudstone to siltstone (5-10 cm) and float stone of quartz vein		AS770
1246	03A385	1692882	689582	SS & MU		alternation of grey sandstone(10-20cm) and red mudstone to siltstone (5-10 cm) and float stone of quartz vein		
1247	03A386	1692911	689620	SS & MU		alternation of grey sandstone(10-20cm) and red mudstone to siltstone (5-10 cm) and float stone of quartz vein		AS771
1248	03A387	1692970	689605	SS & MU		alternation of grey sandstone(10-20cm) and red mudstone to siltstone (5-10 cm) and float stone of quartz vein		AS772
1249	03A388	1693022	689545	SS & MU		alternation of grey sandstone(10-20cm) and red mudstone to siltstone (5-11 cm) and float stone of quartz vein		
1250	03A389	1693107	689515	SS & MU		alternation of grey sandstone(10-20cm) and red mudstone to siltstone (5-12 cm) and float stone of quartz vein		AS773

Annex 4 Outcrop List (Team A 26/29)

Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
1251	03A390	1693237	689676	SS & MU		alternation of grey sandstone(10-20cm) and red mudstone to siltstone (5-13 cm) and float stone of quartz vein		
1252	03A391	1693320	689532	SS & MU		alternation of grey sandstone(10-20cm) and red mudstone to siltstone (5-10 cm) and float stone of silicified wood		
1253	03A392	1693481	689666	SS & MU		alternation of grey sandstone(10-20cm) and red mudstone to siltstone (5-11 cm) and float stone of quartz vein		
1254	03A393	1692863	690396	SS & MU		alternation of grey sandstone(10-20cm) and red mudstone to siltstone (5-13 cm) and float stone of quartz vein		
1255	03A394	1692618	690169	SS & MU		alternation of grey sandstone(1-1.5m) and red mudstone to siltstone (5-11 cm) and float stone of quartz vein		
1256	03A395	1692570	690025	SS & MU		alternation of grey sandstone(10-20cm) and red mudstone to siltstone (5-11 cm) and float stone of quartz vein		
1257	03A396	1692464	689961	SS & MU		alternation of grey sandstone(10-20cm) and red mudstone to siltstone (5-11 cm) and float stone of quartz vein		
1258	03A397	1692376	689752	SS & MU		alternation of grey sandstone(10-20cm) and red mudstone to siltstone (5-11 cm) and float stone of quartz vein		
1259	03A398	1638767	741278	GD		pale green, cataclastic of granodiorite, sheared, chlorite, very few pyrite dissemination and biotite andesite dyke (NS85W)	A3111, A312	
1260	03A399	1638810	741286	GD		hornblende-biotite granodiorite, chlorite	A3113	
1261	03A400	1638793	741170	GD		hornblende-biotite granodiorite, chlorite		
1262	03A401	1638950	741115	GD		hornblende-biotite granodiorite, chlorite		
1263	03A402	1639068	741062	GD		hornblende-biotite granodiorite, chlorite>>epidote, weak sheared		
1264	03A403	1639180	741062	GD		quartz vein (W:3cm, N30E85N) in hornblende-biotite granodiorite, chlorite>>epidote, weak sheared	A3114, A315	
1265	03A404	1639345	741128	GD		hornblende-biotite granodiorite, chlorite>>epidote, weak sheared		AS774
1266	03A405	1639362	741093	GD		hornblende-biotite granodiorite, chlorite>>epidote		AS775
1267	03A406	1639495	740960	GD		hornblende-biotite granodiorite, chlorite>>epidote		AS776
1268	03A407	1639603	741000	GD		hornblende-biotite granodiorite, weak chlorite>>epidote		
1269	03A408	1639643	740900	GD		hornblende-biotite granodiorite	A3116	
1270	03A409	1635281	732337	WT		Quarry: dacitic, pumice tuff to welded tuff (kaolinite) with quartz veins		
1271	03A410	1633771	731354	WT		Quarry: dacitic, pumice tuff to welded tuff (kaolinite and sericite) with quartz veins		
1272	03A411	1638142	701220	Q		Brickworks: bentonite in Quaternary clay		
1273	04A001	1636851	741668	GD		network quartz veins (N30W - N20W, Width: 10m) in granodiorite, Cpy, Azurite, Malachite, Alt: chl+ser+sil		
1274	04A002			GD		Granodiorite, with network quartz veins (N20W), Alt: chl+ser+sil, Miner: malachite,		
1275	04A003			GD		sheared, granodiorite with quartz vein (N30W), Alt: sil+chl+ser, Miner: malachite+Azurite		
1276	04A004			GD		Quartz vein with chalcopyrite and malachite, in cataclastic of granodiorite, Alt: chl+ser+sil		
1277	04A005	1636290	741750	GD		Malachite along fracture in granodiorite (cataclastic)	A4001	
1278	04A006	1636423	741801	GD		location		
1279	04A007	1636320	742010	GD		granodiorite, Alt: ep+chl, relatively fresh		
1280	04A008	1636300	742037	GD		granodiorite, Alt: ep+chl, relatively fresh	A4002	
1281	04A009	1636281	742180	GD		Malachite and black copper (A4003, 50cm x 3m) along fracture in granodiorite (cataclastic) with network quartz and quartz vein (20cm, N80W80N, A4007)	A4003, A4007	
1282	04A010	1636304	742040	GD		network quartz vein in granodiorite, chl+ser		
1283	04A011	1636183	742234	GD		granodiorite, weal chl,	A4004	
1284	04A012	1635620	742203	GD		quartz vein (N40W70W, W: 1.5m) in granodiorite, chl, cataclastic sheared (N20W75E)		
1285	04A013	1635685	742283	GD		granodiorite, weal chl,		
1286	04A014	1635772	742366	GD		granodiorite, weal chl, sheared (N20W)	A4005	
1287	04A015	1635866	742395	GD		granodiorite, ser+chl+sil, network quartz	A4006	
1288	04A016	1635888	742505	GD		location		
1289	04A017	1636100	742210	GD		location		
1290	04A018	1636281	742180	GD		Malachite and black copper (A4003, 50cm x 3m) along fracture in granodiorite (cataclastic) with network quartz and quartz vein (20cm,		
1291	04A019	1636333	742075	GD		granodiorite, weal chl,		
1292	04A020	1636422	742132	GD		granodiorite, chl+ep		
1293	04A021	1636491	742160	GD		granodiorite, chl+ep+sil		
1294	04A022	1636515	742202	GD		malachite films along fractures in granodiorite, chl+ep+sil	A4008	
1295	04A023	1636820	741976	GD		malachite films along fractures in granodiorite, chl+ep+sil	A4009	
1296	04A024	1636900	742105	GD		granodiorite, weal chl,		
1297	04A025	1637067	742007	GD		granodiorite, weal chl,		
1298	04A026	1636978	741890	GD		granodiorite, weal chl,		
1299	04A027	1637076	741852	GD		granodiorite, weal chl,		
1300	04A028	1637161	741730	GD		granodiorite, weal chl,		

Annex 4 Outcrop List (Team A 27/29)

Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
1301	04A029	1691930	688845	SS		malachite & azurite films in fracture of grey, calcareous, medium sandstone (Thickness: 10 cm), chl + sil		
1302	04A030	1691997	688760	ST		reddish brown, siltstone to mudstone		
1303	04A031	1691981	688741	SS		malachite & azurite, chalcopryrite dissemination in fracture of calcareous, medium sandstone (Thickness: 3m), chl + sil	A4010	
1304	04A032	1692000	688700	SS		malachite, chalcopryrite dissemination in fracture of calcareous, medium sandstone (Thickness: 4m), chl + sil	A4011	
1305	04A033	1692023	688712	SS		malachite, chalcopryrite dissemination in fracture of calcareous, medium sandstone (Thickness: 4m), chl + sil	A4012	
1306	04A034	1692165	688746	SS		malachite, chalcopryrite dissemination in fracture of calcareous, medium sandstone (Thickness: 3m) with fossils, chl + sil		
1307	04A035	1692420	688643	SS		grey, calcareous, medium sandstone with fossils		
1308	04A036	1602482	688580	MD		dark grey, mudstone to siltstone and grey sandstone beds		
1309	04A037	1692593	688730	SS		chalcopryrite dissemination, malachite and azurite films in fracture of calcareous, medium sandstone (Thickness: 1m) with fossils, chl + sil	A4013	
1310	04A038	1692595	688812	SS		chalcopryrite dissemination, malachite and azurite films in fracture of calcareous, medium sandstone (Thickness: 10cm) with fossils, chl + sil	A4014	
1311	04A039	1692850	688720	SS		malachite in fracture of calcareous, medium sandstone (Thickness: 1m) with fossils, chl + sil	A4015	
1312	04A040	1692890	688585	SS		malachite and azurite in fracture of calcareous, medium sandstone (Thickness: 2m) with fossils, chl + sil	A4016	
1313	04A041	1693175	688692	ST		reddish brown, siltstone to mudstone and sandstone		
1314	04A042	1692912	688485	SS		malachite in fracture of calcareous, medium sandstone (Thickness: 50cm) with fossils, chl + sil		
1315	04A043	1692785	688262	SS		malachite and azurite in fracture of calcareous, medium sandstone (Thickness: 50cm) with fossils, chl + sil	A4017	
1316	04A044	1692985	688300	SS		malachite and azurite in fracture of calcareous, medium sandstone (Thickness: 50cm) with fossils, chl + sil		
1317	04A045	1693248	688355	SS		malachite and azurite in fracture of calcareous, medium sandstone (Thickness: 50cm) with fossils, chl + sil	A4018	
1318	04A046	1693315	688352	ST		reddish brown, siltstone to mudstone and sandstone		
1319	04A047	1691921	687574	CG	Qt	terrace deposits		
1320	04A048	1692013	687642	SS		grey, fine sandstone to siltstone beds		
1321	04A049	1692092	687690	SS		grey, fine sandstone beds		
1322	04A050	1692190	687692	LS		grey, fine sandy limestone to calcareous siltstone beds		
1323	04A051	1692250	687714	LS		grey, fine sandy limestone to calcareous siltstone beds		
1324	04A052	1692277	687830	LS		grey, massive limestone (chemical deposit, 50cm) including fossils in grey fine sandstone and dark grey mudstone		
1325	04A053	1692496	687904		Qa	floats of quartz veins]		
1326	04A054	1692560	688000	LS		grey, massive limestone (chemical deposit, 50cm) including fossils in grey fine sandstone and dark grey mudstone		
1327	04A055	1692617	688052	SS		grey, fine sandstone beds		
1328	04A056	1692758	687964	LS		grey, massive limestone (chemical deposit, 50cm) including fossils in grey fine sandstone and dark grey mudstone		
1329	04A057	1692788	687971	ST		quartz and calcite veins in siltstone		
1330	04A058	1692877	687973	LS		grey, massive limestone (chemical deposit, 50cm) including fossils in grey fine sandstone and dark grey mudstone		
1331	04A059	1693048	687892	SS		grey, fine sandstone beds		
1332	04A060	1693289	687841	SS		alternation of sandstone and siltstone		
1333	04A061	1693460	687801	SS		alternation of sandstone and siltstone		
1334	04A062	1693525	687935	SS		malachite, pyrite dissemination in fracture of calcareous, medium sandstone (Thickness: 50cm) with fossils, chl + sil	A4019	
1335	04A063	1693430	688175	ST		reddish brown, siltstone and mudstone, massive		
1336	04A064	1693263	688060	SS		malachite, pyrite dissemination in fracture of calcareous, medium sandstone (Thickness: 30 - 40cm) with fossils, chl + sil	A4020	
1337	04A065	1693155	688040	SS		malachite and azurite, chalcopryrite and pyrite dissemination in fracture of calcareous, medium sandstone (Thickness: 50cm) with fossils, chl + sil	A4021	
1338	04A066	1693188	688161	ST		reddish brown, siltstone and mudstone, massive		
1339	04A067	1693155	688462	ST		reddish brown, siltstone and mudstone, massive		
1340	04A068	1693027	688796	ST		reddish brown, siltstone and mudstone, massive		
1341	04A069	1692865	688901	ST		reddish brown, siltstone and mudstone, massive		
1342	04A070	1692817	788975	ST		reddish brown, siltstone and mudstone, massive		
1343	04A071	1692765	689027	SS		light grey, very fine sandstone and siltstone		
1344	04A072	1692660	689108	SS		light grey, very fine sandstone and siltstone		
1345	04A073	1692626	689095	SS		malachite and azurite, quartz veins in fracture of calcareous, medium sandstone (Thickness: 50cm) with fossils, chl + sil	A4022	
1346	04A074	1692347	689192	ST		bluish grey, siltstone and mudstone, massive		
1347	04A075	1691283	687705	CG	Qt	terrace deposits		
1348	04A076	1690914	687831		Qa	floats of quartz veins]		
1349	04A077	1690901	688058	SS		alternation of grey sandstone and siltstone		
1350	04A078	1691042	687980	SS		alternation of grey to dark grey sandstone and siltstone		

Annex 4 Outcrop List (Team A 28/29)

Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
1351	04A079	1690965	688316	LS		grey, massive limestone (chemical deposit, 50cm) including fossils in grey fine sandstone and dark grey mudstone		
1352	04A080	1690929	688403	LS		dark grey, massive limestone		
1353	04A081	1690872	688535	LS		dark grey, muddy limestone beds		
1354	04A082	1690785	688630	LS		dark grey, muddy limestone beds		
1355	04A083	1690711	688824	SS		alternation of grey fine sandstone and siltstone beds		
1356	04A084	1690750	688880	LS		grey, massive limestone (chemical deposit, 50cm) including fossils in grey fine sandstone and dark grey mudstone		
1357	04A085	1690627	689031	LS		grey, massive limestone (chemical deposit, 50cm) including fossils in grey fine sandstone and dark grey mudstone		
1358	04A086	1690635	689165	SS		malachite in fracture of calcareous, medium sandstone (Thickness: 19cm) with fossils, chl + sil	A4023	
1359	04A087	1690785	689140	SS		malachite in fracture of calcareous, medium sandstone (Thickness: 20cm) with fossils, chl + sil		
1360	04A088	1690988	689181	SS		malachite in fracture of calcareous, medium sandstone (Thickness: 20cm) with fossils, chl + sil		
1361	04A089	1691175	689122	SS		malachite in fracture of calcareous, medium sandstone (Thickness: 20cm) with fossils, chl + sil		
1362	04A090	1690589	689220	SS		malachite in fracture of calcareous, medium sandstone (Thickness: 20cm) with fossils, chl + sil		
1363	04A091	1690460	689130	SS		light grey, very fine sandstone and siltstone beds		
1364	04A092	1690613	689281	ST		reddish brown, siltstone and mudstone, massive		
1365	04A093	1690648	689335	ST		reddish brown, siltstone and mudstone, massive		
1366	04A094	1690656	689506	ST		reddish brown, siltstone and mudstone, massive		
1367	04A095	1690744	689618	ST		reddish brown, siltstone and mudstone, massive		
1368	04A096	1690501	689685		Qa	floats of quartz veins (2m)		
1369	04A097	1690544	689763	ST		reddish brown, siltstone and mudstone, massive		
1370	04A098	1690345	689857	ST		reddish brown, siltstone and mudstone, massive		
1371	04A099	1690231	689855	ST		reddish brown, siltstone and mudstone, massive		
1372	04A100	16989839	689665	ST		malachite in fracture of calcareous, medium sandstone (Thickness: 20cm) with fossils, chl + sil	A4024	
1373	04A101	1689691	689606	SS		light grey, very fine sandstone and siltstone beds		
1374	04A102	1689382	689553	SS		light grey, very fine sandstone and siltstone beds		
1375	04A103	1690854	690090	SS		malachite in fracture of calcareous, medium sandstone (Thickness: 20cm) with fossils, chl + sil	A4025	
1376	04A104	1692107	689474	ST		malachite in fracture of calcareous, medium siltstone (Thickness: 20cm) with fossils, chl + sil		
1377	04A105	1691350	690900	SS		light grey, very fine sandstone and siltstone beds		
1378	04A106	1691185	690796	SS		light grey, calcareous very fine sandstone and siltstone beds and quartz vein (5cm x 2m+)	A4026	
1379	04A107	1690992	690950	SS		light grey, very fine sandstone and siltstone beds		
1380	04A108	1690635	690980	SS		light grey, very fine sandstone and siltstone beds		
1381	04A109	1690475	690655	SS		light grey, very fine sandstone and siltstone beds		
1382	04A110	1690652	690595	ST		reddish brown, siltstone and mudstone, massive		
1383	04A111	1690647	690481	ST		reddish brown, siltstone and mudstone, massive		
1384	04A112	1690642	690294	ST		malachite and azurite in fracture of bluish grey, medium sandstone (Thickness: 20cm) with fossils, and chl + sil. Cpv+Malc+Azuz mass	A4027, A4028	
1385	04A113	1690430	680147	SS		brown, very fine sandstone and siltstone beds		
1386	04A114	1690190	690035	ST		reddish brown, siltstone and mudstone, massive		
1387	04A115	1689906	690110	ST		reddish brown, siltstone and mudstone, massive		
1388	04A116	1689725	690255	ST		reddish brown, siltstone and mudstone, massive		
1389	04A117	1689730	689946	ST		reddish brown, siltstone and mudstone, massive		
1390	04A118	1689642	689876	ST		reddish brown, siltstone and mudstone, massive		
1391	04A119	1689616	689609	SS		light grey, very fine sandstone and siltstone beds		
1392	04A120	189715	689715	SS		malachite and azurite in fracture of bluish grey, medium sandstone (Thickness: 20cm) with fossils, and chl + sil. Cpv+Malc+Azuz mass		
1393	04A121	1691580	690990	SS		brown grey, siltstone and mudstone, massive		
1394	04A122	1691660	691000	SS		brown, very fine sandstone and siltstone beds		
1395	04A123	1692003	690947	SS		grey, very fine sandstone and siltstone beds		
1396	04A124	1692255	691035	SS		grey, very fine sandstone and siltstone beds		
1397	04A125	1692390	691005	SS		brownish grey, very fine sandstone and siltstone beds		
1398	04A126	1692295	690840	SS		grey, very fine sandstone and siltstone beds		
1399	04A127	1692327	690750	SS		grey, very fine sandstone and siltstone beds		
1400	04A128	1692174	690510	SS		grey, very fine sandstone and siltstone beds		

Annex 4 Outcrop List (Team B 1/21)

Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
1	01B001	681682	1674227	AL	Q	debris deposit, sandstone bre(sub angular). dominant		
2	01B002	681081	1673848	MD/SS	J ₃ -K	mudstone dominant, well bedded		
3	01B003	677526	1673418	Px.BA	βN ₂ -Q ₁	lava, dk.gry.		
4	01B004	686095	1641659	M.SS	J ₃ -K	float(Bldr), CG<M., lt.gry.	B001	
5	01B005	685728	1641888	F.SS / ST	J ₃ -K	sandstone dominant, well bedded, lt.rd.brn.		
6	01B006	685115	1641768	F.SS / ST	J ₃ -K	sandstone dominant, well bedded, lt.rd.brn.		
7	01B007	684830	1641967	M.SS	J ₃ -K	massive, with lamination, lt.gry.	B002	
8	01B008	684214	1641800	M.SS	J ₃ -K	massive, with lamination, lt.gry.		
9	01B009	684073	1641617	M.SS	J ₃ -K	massive, with lamination, lt.gry.		
10	01B010	683457	1641482	F.SS	J ₃ -K	well bedded, lt.brn.	B003	
11	01B011	683354	1641396	F.SS	J ₃ -K	well bedded, lt.brn.		
12	01B012	683209	1641300	ST / Vf.SS	J ₃ -K	well bedded, lt.brn.	B004	
13	01B013	683190	1641383	M.SS	J ₃ -K	float(Bldr), M.SS, lt.gry.		
14	01B014	687417	1640809	M.SS	J ₁₋₂	massive, very hard, lt.grn.gry.	B005	BS001
15	01B015	665938	1631178	Vf.SS / M.SS	J ₃ -K	Vf.SS dominant, well bedded, rd.brn.(Vf.SS), gry.(M.SS)		
16	01B016	666217	1631378	Vf.SS / F.SS	J ₃ -K	Vf.SS dominant, well bedded, rd.brn.		
17	01B017	666284	1631467	M.SS	J ₃ -K	massive, well bedded, lt.rd.brn.	B006	
18	01B018	666310	1631785	M.SS	J ₃ -K	massive, lt.gry.		
19	01B019	666310	1631784	Vf.SS	J ₃ -K	alternation of 01B018, laminated, mica inc., lt.rd.brn.	B007	
20	01B020	666347	1632205	Vf.SS. to F.SS	J ₃ -K	alternation of 01B018, well bedded, laminated, lt.rd.brn.		
21	01B021	666412	1632353	M.SS	J ₃ -K	boundary of M.SS / Vf.SS of 01B020, ripplemark inc., lt.gry.		
22	01B022	665563	1630910	AL	Q	near J ₃ -K		BS002
23	01B023	667110	1629293	AL	Q	near J ₃ -K		BS003
24	01B024	664981	1625218	MS / ST	J ₃ -K	mudstone dominant, well bedded, hard, rd.brn.	B008	BS004
25	01B025	736195	1641309	Musc.SC	O-S	Qz.lense inc. along fractures, wt. to lt.gry.	B009	
26	01B026	736597	1640727	Musc.SC	O-S	pelitic(black) schist and meta SS inc. with fold(NW plunge)		
27	01B027	736451	1640450	met SS	O-S	massive, competent layer to Musc.SC, lt.grn.gry.	B010	
28	01B028	736093	1640388	LS	O-S	competent layer to Musc.SC, with fold(NW plunge), dk.gry.		
29	01B029	736033	1640313	RH	?	dike, wt.bleaching and silicified, Kao.alt., along brittle fault	B011	
30	01B030	735801	1640220	Musc.SC	O-S	strong weathered, west contact of RH dike(01B029)		
31	01B031	735356	1639994	Musc.SC	O-S	strong weathered		BS005
32	01B032	732639	1636826	IB	T ₁₋₂	andesitic, lith.bre.inc., dense welded, lt.pur.	B012	BS006
33	01B033	732092	1635725	IB	T ₁₋₂	dacitic, pumice inc., weak welded in place, Smc.alt. in place	B013	
34	01B034	732021	1635387	IB	T ₁₋₂	rhyolitic, pumice inc., weak welded in place		BS007
35	01B035	731518	1633971	IB	T ₁₋₂	rhyolitic, crystalline, Qz.porph.		BS008
36	01B036	731349	1633739	IB	T ₁₋₂	rhyolitic, elongated pumice inc., Epi.-Chl.alt., weak welded		
37	01B037	670135	1623392	AL	Q	near J ₃ -K		BS009
38	01B038	671120	1623906	AL	Q	near J ₃ -K		BS010
39	01B039	678516	1626973	AL	Q	near J ₃ -K		BS011
40	01B040	682451	1630684	AL	Q	near J ₃ -K		BS012
41	01B041	684697	1632872	AL	Q	near J ₃ -K		BS013
42	01B042	688863	1636694	AL	Q	near J ₃ -K		BS014
43	01B043	690057	1637823	AL	Q	near J ₃ -K		BS015
44	01B044	635598	1678413	Px.BA	βQ _{II-III}	lava, amygdaloid vesicles inc., bomb inc., dk.gry.		
45	01B045	635658	1678559	Px.BA	βQ _{II-III}	margin of vent(caldera), same as 01B044		
46	01B046	687684	1649960	Vf.SS	J ₃ -K	well bedded, weathered to wt. in place, lt.gry.	B014	
47	01B047	686906	1650802	M.SS / Vf.SS / CG	J ₃ -K	M.SS dominant, normal grading, lt.gry.	B015	
48	01B048	684528	1650566	M.SS	J ₃ -K	massive, lt.gry.		
49	01B049	684660	1651881	M.SS	J ₃ -K	bedded, cross laminated, lt.gry.		
50	01B050	685282	1653239	M.SS	J ₃ -K	bedded, cross laminated, lt.gry.		
51	01B051	686105	1653689	M.SS	J ₃ -K	well bedded, cross laminated, lt.gry.		

Annex 4 Outcrop List (Team B 2/21)

Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
52	01B052	736726	1641134	Musc.SC	O-S	Qz.lense inc. along fractures, wt. to lt.gry.		
53	01B053	738416	1640632	Musc.SC	O-S	strong weathered, Qz.lense inc., lt.rd.brn.		
54	01B054	740337	1640961	MY	$\gamma\beta_4^2$	S-C mylonite, elongated Qz.inc., origin: granite, pal.grn.gry.	B016	
55	01B055	741432	1641218	Hbl.Bio.GD	$\gamma\beta_4^2$	medium, silicified(strong), Epi.-Chl.alt.(moderate) in place	B017	
56	01B056	743557	1641053	PH	C?	sheared, rd.brn.		
57	01B057	744270	1640763	PH	C?	pelitic schist in place, heterogeneous, lt.gry. to pal.grn.gry.		
58	01B058	744754	1640030	SC / QT / LS	C?	tectonic melange, competent: QT / LS with fold(SE plunge)	B018	
59	01B059	746652	1640204	Hbl.Bio.GR	$\gamma\beta_4^2$	strong weathered, CG(unconsolidate) and SS.covered on GR		
60	01B060	748145	1640151	Hbl.Bio.GR	$\gamma\beta_4^2$	medium, strong weathered to lt.brn., Mag sus.:8.5(SI)		
61	01B061	748373	1639578	Hbl.Bio.GD	$\gamma\beta_4^2$	medium, k-f porph., Epi.alt. in place(mod.), py.diss(weak).	B019	
62	01B062	744969	1639992	Hbl.Bio.GD	$\gamma\beta_4^2$	medium, k-f porph., Epi.alt. in place(mod.), py.diss(weak).		BS016
63	01B063	739958	1640775	MY	$\gamma\beta_4^2$	S-C mylonite, elongated Qz.inc., origin: granite, pal.grn.gry.		BS017
64	01B064	686303	1656048	M.SS / Vf.SS / ST	J ₃ -K	M.SS dominant, normal grading, lt.gry. to lt.rd.brn(Vf.SS,ST).	B020	
65	01B065	685534	1657097	M.SS	J ₃ -K	CG and MD interbedded, Pbl inc., cross laminated, lt.rd.brn.	B021	
66	01B066	683939	1659534	C.SS / CG	K ₂	C.SS(Qz.arenite) dominant, wt.	B022	
67	01B067	682290	1662639	M.SS	K ₂	unconsolidate, under 01B066, lt.gry. to wt.		
68	01B068	682105	1664072	C.SS / M.SS	K ₂	C.SS(Qz.arenite) dominant, Pbl.inc, laminated, wt.		
69	01B069	680023	1665292	C.SS / M.SS	K ₂	C.SS(Qz.arenite) dominant, Pbl.inc, wt.	B023	
70	01B070	678908	1664973	M.SS	K ₂	Qz.arenite, Pbl.inc, lt.gry. to wt.		
71	01B071	676795	1665632	M.SS	K ₂	Qz.arenite, Pbl.inc, lt.gry. to wt.		
72	01B072	672342	1665370	C.SS	K ₂	Qz.arenite, Pbl.inc, lt.gry. to wt.		BS018
73	01B073	684286	1696614	MS / Vf.SS	J ₁₋₂	MS dominant, well bedded, lt.rd.brn.		
74	01B074	683442	1696702	Px.BA	βN_2-Q_1	lava, amygdaloid vesicles inc., glassy, dk.gry.	B024	BS019
75	01B075	682385	1695700	Px.BA	βN_2-Q_1	lava, amygdaloid vesicles inc., glassy, dk.gry.		
76	01B076	682346	1694651	Vf.SS / MS	J ₁₋₂	Vf.SS. dominant, well bedded, pisolite inc., lt.rd.brn.		
77	01B077	683262	1690720	MS	J ₁₋₂	massive, lt.rd.brn.		BS020
78	01B078	683048	1690507	F.SS / MS	J ₁₋₂	F.SS dominant, well bedded, laminated, lt.gry./lt.rd.brn.		
79	01B079	685992	1688869	F.SS / MS	J ₁₋₂	F.SS dominant, well bedded, laminated, lt.gry./lt.rd.brn.		BS021
80	01B080	686381	1687472	F.SS	J ₁₋₂	massive, well bedded, laminated in part, lt.rd.brn.		BS022
81	01B081	687472	1684079	AL	Q	near J ₁₋₂		BS023
82	01B082	688824	1680133	AL	Q	near J ₁₋₂		BS024
83	01B083	690739	1677603	F.SS	J ₁₋₂	massive, laminated, lt.rd.brn.		
84	01B084	692219	1679812	F.SS	J ₁₋₂	massive, well bedded, laminated, lt.rd.brn.	B025	BS025
85	01B085	690878	1676374	Px.BA	βN_2-Q_1	float, lava, amygdaloid vesicles inc., glassy, dk.gry.		BS026
86	01B086	693474	1674763	AL	Q	near J ₁₋₂		BS027
87	01B087	696593	1668811	Vf.SS	J ₁₋₂	massive, lt.rd.brn.		
88	01B088	748985	1639065	Hbl.Bio.GD	$\gamma\beta_4^2$	med.~coar., k-f porph., Epi.alt. in place(mod.)	B026	
89	01B089	750799	1639511	Hbl.Bio.GD	$\gamma\beta_4^2$	med.~coar., strong weathered		BS028
90	01B090	750772	1640027	Hbl.Bio.GD	$\gamma\beta_4^2$	med.~coar., k-f porph., Py.diss. in place, Mag sus.:10.46(SI)		
91	01B091	752478	1640606	Hbl.Bio.GD	$\gamma\beta_4^2$	med.~coar., k-f porph.		BS029
92	01B092	753663	1640861	Hbl.Bio.GD	$\gamma\beta_4^2$	coar., k-f porph., weak foliated, Mag sus.:9.03(SI)	B027	
93	01B093	753954	1640354	Hbl.Bio.GD	$\gamma\beta_4^2$	coar., k-f porph., weak foliated, Mag sus.:10.29(SI)		
94	01B094	755837	1639090	Hbl.Bio.GD	$\gamma\beta_4^2$	coar., k-f porph., foliated, Mag sus.:4.47(SI)		
95	01B095	756809	1638278	MY.GD	$\gamma\beta_4^2$	strong foliated, Qz.fish inc., coar., k-f porph., foliated	B028	
96	01B096	757046	1638424	MY.GD / Met.SS	$\gamma\beta_4^2$	very contact: cataclastic(GD) / hornfelsic(SS)		
97	01B097	757084	1638605	Hbl.Bio.GD	$\gamma\beta_4^2$	med. to coar., silicified(mod.)&epi.-chl.alt(mod.).		
98	01B098	757540	1638625	MG	$\gamma\beta_4^2$	migmatite zone(w:200m), strong foliated, 2nd Bi generated	B029	
99	01B099	757842	1638839	MG / Musc.SC	$\gamma\beta_4^2$	very contact: gradually change MG to SC		
100	01B100	758162	1639131	PR		porphyrite, dev schistosity(weak), Py.diss., pal.grn.gry.	B030	
101	01B101	758306	1638853	Musc.SC / MG	$\gamma\beta_4^2$	Musc.SC dominant with shear zone, strong weathered		
102	01B102	758577	1638609	Musc.SC / Grap.SC	O-S?	tectonic melange, Musc.SC. dominant		

Annex 4 Outcrop List (Team B 3/21)

Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
103	01B103	758995	1638803	Musc.SC / QT / SS	O-S?	tectonic melange, Musc.SC. dominant, competent: QT		
104	01B104	760774	1639051	Musc.SC / Grap.SC	O-S?	strong weathered		
105	01B105	761128	1638824	Musc.SC	O-S?	with Qz vein(w:5m), with grn Cu.	B031	
106	01B106	761256	1638444	Musc.SC / Blk.SC	O-S?	in shear zone(w:4m, brittle to ductile), Qz.vein&Py.diss(strong)	B032	
107	01B107	761456	1638307	PR / SL	C?	PR: silicified, pal.grn.gry., SL: silicified, brittle fault inc., lt.brn.		
108	01B108	761748	1637343	PH	C?	in shear zone(w:15m, brittle), Qz.vein&Py.diss(strong)	B033	
109	01B109	761870	1637130	PH	C?	host rock of Loc.01B108 occurrence		BS030
110	01B110	762011	1636821	PH	C?	in shear zone(w:80m, brittle), Qz.vein&Py.diss(strong)	B034	
111	01B111	762069	1636799	PH	C?	in shear zone(w:80m, brittle), Qz.vein&Py.diss(strong) with grn Cu.		BS031
112	01B112	726284	1648110	TU.C.SS	T ₁₋₂	dev.schistosity(weak), gravel(met.SS) inc., lt.wt.gry.	B035	
113	01B113	727797	1647318	TU.M.SS / ST	T ₁₋₂	TU.M.SS.dominant, dacitic tuff in place, pal.grn.gry.		
114	01B114	728242	1647546	AD TU	T ₁₋₂	quenched dike?, glassy, jointed, pal.purp.	B036	
115	01B115	729180	1648197	grn.SC / Musc.SC	O-S	grn SC. dominant, strong weathered, with Qz.vein(w:10cm)		
116	01B116	730148	1649210	Musc.SC	O-S	weathered, gry.wt.	B037	
117	01B117	729114	1650466	Musc.SC	O-S	weathered, lt.brn.		
118	01B118	729413	1652001	Musc.SC	O-S	strong weathered, lt.brn., with Qz.vein(w:5cm)		
119	01B119	729760	1652877	Musc.SC	O-S	strong weathered, lt.brn., with Qz.vein(w:5cm)		
120	01B120	729836	1652840	Qz.AR	C?	medium grain, wt.	B038	
121	01B121	730179	1653226	SL	C?	strong weathered, with Qz.vein, lt.brn.		
122	01B122	730572	1653716	Qz.AR	C?	uncosolidate, with Qz.vein-lets(w:0.5cm), wt. to lt.gry.		
123	01B123	730532	1654582	Qz.AR	C?	strong weathered(kao.alt.), schistose in place		
124	01B124	730785	1654741	PH	C?	strong weathered, lt.rd.brn.		
125	01B125	731329	1655047	met.C.SS	C?	conglomeratic, mylonite-like,schistose & silicified, Py.diss.	B039	
126	01B126	729727	1652605	Musc.SC	O-S	strong weathered, lt.brn., with Qz.vein(w:5cm)		BS032
127	01B127	729416	1650296	Musc.SC	O-S	strong weathered, lt.brn.		BS033
128	01B128	721389	1650262	ST / Vf.SS	C?	well bedded, weathered, lt.gry. to dk.gry.		
129	01B129	720753	1651964	DA TU	T ₁₋₂	quenched dike?, glassy, jointed, lt.rd.gry.	B040	
130	01B130	720863	1652184	RH vol Bre.	T ₁₋₂	Bre.:RH&RH TU(10 to 30cm, sub.ang., 2 to 5%)		
131	01B131	721025	1652833	RH vol Bre.	T ₁₋₃	reworked facies, inconsolidated, Bre.:RH&RH TU(ang., 10%)		
132	01B132	721310	1653526	met.F.SS	T ₁₋₃ ?	weak schistose, lt.rd.brn.		
133	01B133	721346	1653832	Vf.SS	T ₁₋₃ ?	massive, hard, pal.grn.gry.		
134	01B134	721421	1654565	Musc.SC	O-S	weathered, lt.gry. to wt.		
135	01B135	721804	1655212	Musc.SC	O-S	strong weathered, lt.gry. to wt.		
136	01B136	721651	1656470	pel.SC	O-S	folded, dk.gry.		
137	01B137	721730	1657667	Musc.SC	O-S	strong weathered, with Qz.vein(w:5cm), lt.gry. to wt.		
138	01B138	722526	1657565	PH	C?	weathered, lt.gry. to dk.gry.		
139	01B139	723009	1658518	grn.SC	O-S	weathered, similar to Musc.SC		
140	01B140	721664	1657253	Musc.SC	O-S	strong weathered, lt.gry. to wt.		BS034
141	01B141	721280	1653732	Vf.SS	T ₁₋₃ ?	massive, hard, pal.grn.gry.		BS035
142	01B142	720151	1651059	SS.	J ₁₋₂	well bedded		BS036
143	01B143	717362	1646035	Vf.SS / ST	J ₁₋₂	well bedded, int.3m, Vf.SS dominant, lt.rd.brn.		
144	01B144	718344	1645315	AL	Q	near J ₁₋₂		BS037
145	01B145	716538	1642617	F.SS / Vf.SS	J ₁₋₂	well bedded, F.SS dominant, lt.rd.brn.		
146	01B146	717505	1640407	AL	Q	near J ₁₋₂		BS038
147	01B147	723034	1658881	grn.SC	O-S?	gradually change to SL, lt. to pal.gry.	B041	
148	01B148	723567	1659558	SL	C?	schistose, gradually change to SC, pal.grn.gry.		BS042
149	01B149	724559	1660905	SL	C?	strong weathered, well shistose, lt.rd.brn. to gry.		
150	01B150	724838	1661863	SL	C?	lt.gry. to dk.gry.		BS041
151	01B151	724881	1661987	F.SS	C?	massive, weak bedded, unconsolidate, lt.gry.		
152	01B152	725573	1663152	SL	C?	schistose, lt.grn.gry.		
153	01B153	727684	1663855	Px.BA	βN ₂ -Q ₁	float, lava, amygdaloid vesicles inc., glassy, dk.gry.		

Annex 4 Outcrop List (Team B 4/21)

Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
154	01B154	727700	1664472	Px.BA	βN_2-Q_1	lava, amygdaloid vesicles inc., glassy, dk.gry.	B042	
155	01B155	728088	1665289	Px.BA	βN_2-Q_1	lava, aphyric, glassy, dk.gry.	B044	
156	01B156	726883	1667771	Px.BA	βN_2-Q_1	lava, aphyric, glassy, dk.gry.		
157	01B157	725263	1670966	Px.BA	βN_2-Q_1	float, lava, glassy, dk.gry.		
158	01B158	723794	1673577	Px.BA	βN_2-Q_1	lava, aphyric, glassy, dk.gry.		
159	01B159	723960	1674574	Px.BA	βN_2-Q_1	lava, weathered, jointed, aphyric, glassy, dk.gry.		
160	01B160	723924	1674654	Px.BA	βN_2-Q_1	lava, aphyric, glassy, dk.gry.		BS039
161	01B161	724463	1675495	Hbl.Bio.GD	$\gamma B_4^2?$	float, fine grained, hematitization	B043	BS040
162	01B162	727057	1663439	SL	C?	schistose, strong to mod.weathered, lt.brn.		
163	01B163	699773	1668049	AL	Q	near J_{1-2}		BS043
164	01B164	699161	1663104	Vf.SS	J_{1-2}	well bedded, dk.gry.		BS044
165	01B165	700208	1662283	AL	Q	near J_{1-2}		BS045
166	01B166	699082	1662071	Vf.SS	J_{1-2}	gm.Cu diss.along fractures, well bedded, lt.rd.brn.	B045	
167	01B167	698987	1661770	F.SS(Musc.) / F.SS	J_{1-2}	crosslamonated(F.SS), lt.rd.brn(Musc.SS), lt.brn(SS.).	B046	BS046
168	01B168	700858	1658302	AL	Q	near J_{1-2}		BS047
169	01B169	699040	1655978	F.SS	J_{1-2}	well bedded, cross laminated, loose, lt.rd.gry to brn.		BS048
170	01B170	702993	1653994	ST / Vf.SS	J_{1-2}	well bedded, shaly, small crack dev., dk.gry(ST), lt.rd.brn.(SS)	B047	BS049
171	01B171	702464	1652753	F.SS	J_{1-2}	int. sandy tuff layer(w:3cm), well bedded, lt.gry.		BS050
172	01B172	698181	1652127	AL	Q	near J_{1-2}		BS051
173	01B173	698099	1648914	AL	Q	near J_{1-2}		BS052
174	01B174	684095	1695958	Vf.SS	J_{1-2}	bedded, same facies as Loc.01B073, lt.brn.		
175	01B175	685656	1693170	calc.F.SS / SH	$J_2, T_2, P_2?$	calcareous, bedded, lt.gry. / pal.gry.	B048	BS053
176	01B176	685897	1693108	calc.SH	$J_2, T_2, P_2?$	calcareous, massive, upper of Loc.01B175, hard, dk.gry.	B049	
177	01B177	688667	1691770	F.SS	$J_2, T_2, P_2?$	laminated, hard, pal.grn.gry.		
178	01B178	688881	1691898	Vf.SS / F.SS	$J_2, T_2, P_2?$	Malc.Azr.&gm.Cu.diss., <u>mollusca fossil</u> inc., bedded, pal.grn.gry.	B050	
179	01B179	689188	1692096	F.SS / Vf.SS	$J_2, T_2, P_2?$	weak bedded, laminated, pal.grn.gry. / lt.rd.brn.		BS054
180	01B180	690625	1691483	F.SS	$J_2, T_2, P_2?$	massive, bedded, pal.grn.gry.		
181	01B181	692757	1692292	calc.Vf.SS	$J_2, T_2, P_2?$	shaly in place, massive, lt.gry.		BS055
182	01B182	693256	1692550	F.SS	$J_2, T_2, P_2?$	with Qz.vein, strong weathered, pal.grn.gry.		
183	01B183	693591	1692589	LS / calc.SH	$J_2, T_2, P_2?$	massive, dk.gry.		
184	01B184	693889	1692482	LS	$J_2, T_2, P_2?$	pelitic, massive, with Cal.network, dk.gry.		
185	01B185	695534	1692025	LS	$J_2, T_2, P_2?$	pelitic, dk.gry.		BS056
186	01B186	695400	1691975	calc.F.SS / calc.SH	$J_2, T_2, P_2?$	under part of LS of Loc.01B185, lt.gry. to lt.rd.brn.		BS057
187	01B187	696035	1691324	Vf.SS	$J_2, T_2, P_2?$	slaty, cross laminated, lt.rd.brn.		
188	01B188	696583	1691315	LS	$J_2, T_2, P_2?$	well bedded, dk.gry.		
189	01B189	697825	1690917	Vf.SS / calc.F.SS	$J_2, T_2, P_2?$	well bedded, ltrd.brn. / lt.gm.gry.		
190	01B190	699043	1691591	Vf.SS	$J_2, T_2, P_2?$	massive, jt.dev., weathered, rd.brn.		
191	01B191	699489	1691761	Vf.SS	$J_2, T_2, P_2?$	<u>mollusca fossil</u> inc. same as Loc.01B178, well bedded	B051	
192	01B192	700582	1692889	ST	$J_2, T_2, P_2?$	looks like SH, well bedded, rd.brn. to pal.grn.gry.		
193	01B193	700759	1692878	ST	$J_2, T_2, P_2?$	rd.brn., same as Loc.01B192		BS058
194	01B194	700803	1693058	ST	$J_2, T_2, P_2?$	rd.brn., same as Loc.01B192		BS059
195	01B195	701707	1693591	ST	$J_2, T_2, P_2?$	gm.Cu.diss., F.SS.int.(w:10cm), weak bedded, lt.rd.brn.	B052	
196	01B196	702349	1693942	F.SS	$J_2, T_2, P_2?$	ST.int., well bedded, lt.brn.		
197	01B197	703460	1693328	SH	$J_2, T_2, P_2?$	with shear(cataclastic), vertical fractures(slaty) dev.		BS060
198	01B198	667445	1704640	(OL?)Px.BA	βN_2-Q_1	lava, amygdaloid vesicles dev., glassy, water fall(10m), dk.gry.	B053	
199	01B199	671617	1698378	Vf.SS / ST	$J_{1-2}?$	strong weathered, massive, bedded, lt.rd.brn.		
200	01B200	671067	1697868	AL	Q	near $J_{1-2}(?)$		BS061
201	01B201	671447	1697278	(OL?)Px.BA	βN_2-Q_1	lava, amygdaloid vesicles dev., glassy, water fall(10m), bl.gry.		
202	01B202	671676	1697050	Px.BA / Vf.SS	βN_2-Q_1	BA cover $J_{1-2}(?)$ (boundary)		
203	01B203	671759	1696884	Vf.SS	$J_3-K?$	same as Loc.01B202 SS., weak laminated, weathere to drd.brn.		
204	01B204	680072	1695152	Vf.SS	$J_3-K?$	massive, hard, lt.gry.		

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Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
205	01B205	681062	1695116	Vf.SS / ST	J ₃ -K?	well bedded, pal.grn.gry.		
206	01B206	681455	1695351	M.SS	J ₃ -K?	very loose, bedded, lt.brn.		
207	01B207	703649	1693116	IG / SH	T?,P?	IG(same as Loc.01B032, chl.-epi.alt), boundary: fault	B054	
208	01B208	704367	1692324	AL	Q	near IG		BS062
209	01B209	705852	1691394	F.SS	J?,T?,P?	Vf.SS.in place, massive, finicky fractures dev., lt.gry.		
210	01B210	706762	1691559	ST	J?,T?,P?	mollusca fossil inc., massive, pal.grn.gry.	B055	
211	01B211	707759	1691040	F.SS	J?,T?,P?	same as Loc.01B209, pal.grn.gry.		BS063
212	01B212	708829	1691132	Vf.SS	J?,T?,P?	weak slaty, lt.brn.		
213	01B213	708912	1691416	SL / Vf.SS	J?,T?,P?	shear in place(cataclastic), boundary is irregular, lt.to dk.gry.		BS064
214	01B214	708970	1691360	ST / Vf.SS	J?,T?,P?	same as Loc.01B213 facies, mod.silicified, dk.gry.		BS065
215	01B215	709022	1691745	Vf.SS	J?,T?,P?	weathered, loose, lt.brn.to lt.rd.gry.		
216	01B216	709643	1691825	Cgl.F.SS	J?,T?,P?	with shear(brittle), kao.alt., Pbl.(QTmain)2% inc., pal.gry.		
217	01B217	709864	1692281	SL	J?,T?,P?	well schistose, gradually change from ST/SS., lt. to pal.grn.gry.		
218	01B218	709960	1692579	ark.M.SS	J?,T?,P?	massive, lt.gry.	B056	BS066
219	01B219	679211	1694025	F.SS	J ₃ -K?	well laminated, rd.brn.		
220	01B220	677613	1693715	Vf.SS	J ₃ -K?	well bedded, rd.brn.		BS068
221	01B221	677570	1693153	ST	J ₃ -K?	massive, weathered, rd.brn.		
222	01B222	677519	1692961	ST	J ₃ -K?	Vf.SS.int.(10cm), bedded, weathered, rd.brn.		
223	01B223	677378	1692559	F.SS	J ₃ -K?	M.SS int., bedded, massive, lt.gry.		
224	01B224	677290	1692187	Vf.SS	J ₃ -K?	bedded, lt.rd.brn.		
225	01B225	676950	1691942	F.SS	J ₃ -K?	massive, very hard, lt.rd.gry. to lt.rd.brn.	B057	BS067
226	01B226	681401	1688129	Vf.SS	J ₁₋₂ ? J ₃ -K?	weathered, rd.brn.		
227	01B227	681061	1687571	Vf.SS / ST	J ₁₋₂ ? J ₃ -K?	hard, well bedded, cross laminated, int.1m/0.5m, lt.rd.brn.		
228	01B228	680756	1687322	Vf.SS	J ₁₋₂ ? J ₃ -K?	hard, well bedded, cross laminated, rd.brn.	B058	
229	01B229	680629	1687245	M.SS	J ₃ -K	cliff, massive, very hard, well bedded, thick:20m<, pal.grn.gry.	B059	
230	01B230	680325	1687213	M.SS / Cgl / Vf.SS	J ₃ -K	boundary, upper of 01B299, laminated, pal.grn.gry./rd.brn.	B060	
231	01B231	681852	1688731	AL	Q	near J ₁₋₂ (?), J ₃ -K(?)		BS069
232	01B232	682106	1688899	AL	Q	near J ₁₋₂ (?), J ₃ -K(?)		BS070
233	01B233	738455	1690292	(Ol?)Px.BA	βN ₂ -Q ₁	laterized, lava, amygdaloid vesicles dev., glassy, dk.gry.		
234	01B234	734339	1696932	PH / SL	C?	micro folding many inc., 1cm/0.5cm, weathered, dk.gry./pal/gry.	B061	
235	01B235	734023	1696997	PH	C?	mica schist in place, with Qz vein(w:5cm), pal.gry.	B062	
236	01B236	733726	1697192	F.SS / MS	C?	slaty in place, gradually from 01B235, weathered, pal.gry.	B063	
237	01B237	732881	1697110	SL / PH	C?	bedding and cleavage dev., lt.brn./pal.gry.	B064	
238	01B238	731684	1696792	SL / PH	C?	strong weathered, rd.brn.		
239	01B239	723931	1697302	Ol.BA	βN ₂ -Q ₁	laterized, lava, amygdaloid vesicles dev., glassy, dk.gry.	B065	
240	01B240	720830	1697473	(Ol?)Px.BA	βN ₂ -Q ₁	strong laterized, in bouxite prospect area, rd.brn.		
241	01B241	721242	1696793	(Ol)Px.BA	βN ₂ -Q ₁	lava, glassy, water fall, dk.gry.	B066	
242	01B242	722586	1693588	Vf.SS	T?,P?,C?	strong weathered, well bedded		
243	01B243	722545	1693501	Cgl.Qz.AR	T?,P?,C?	coarse grain, pebble(QZ,CH), loose, cover 01B242, wt.	B067	
244	01B244	722694	1692287	F.SS / Cgl.Qz.AR	T?,P?,C?	strong weathered, well bedded, slaty along bedding		
245	01B245	722394	1692217	F.SS / Cgl.Qz.AR	T?,P?,C?	strong weathered, well bedded, slaty along bedding		BS071
246	01B246	723113	1677106	AL	Q	near BA(βN ₂ -Q ₁)		BS072
247	01B247	723353	1677700	GR	γβ ₄ ? β ₄ ?	strong weathered, coarse,		
248	01B248	722287	1679723	(Ol?)Px.BA	βN ₂ -Q ₁	float, lava, amygdaloid vesicles dev., glassy, dk.gry.		
249	01B249	721670	1680700	DA	T?	float, strong bleached, pal.gry.	B068	
250	01B250	721458	1681161	Vf.SS	T?,P?,C?	unconsolidate, like J, weak bedded, rd.brn.		
251	01B251	721459	1681357	SL	T?,P?,C?	strong weathered, well schistose, lt.brn.		
252	01B252	721777	1681705	(Ol?)Px.BA	βN ₂ -Q ₁	lava, amygdaloid vesicles dev., glassy, dk.gry.	B069	BS073
253	01B253	720764	1684355	DA	T?	weathered, silicified in place, joint dev., pal.gry.	B070	
254	01B254	721972	1686085	F.SS	T?,P?,C?	slight schistose along lamina, clastic Musc.many inc., lt.gry.		
255	01B255	721965	1686069	F.SS	T?,P?,C?	slight schistose along lamina, clastic Musc.many inc., lt.gry.		

Annex 4 Outcrop List (Team B 6/21)

Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
256	01B256	722071	1690575	(Ol.?)Px.BA	βN_2-Q_1	strong lateritized, rd.brn.		
257	01B257	720379	1697882	SL	T?,P?,C?	strong weathered, lt.brn.		
258	01B258	719403	1697948	(Ol.?)Px.BA	βN_2-Q_1	lava, aphiric, glassy, dk.gry.		B071
259	01B259	717273	1699113	Cgl.Qz.AR	N-Q	abut to base(T?,P?,C?), deposit before BA		B072
260	01B260	716730	1698344	F.SS / Cgl.Qz.AR	T?,P?,C?	same as 01B244, bedded, rd.brn.to wt.		B073
261	01B261	716688	1697817	M.SS / F.SS	T?,P?,C?	well bedded, massive, 50cm/30cm, loose		
262	01B262	716462	1697690	PH	T?,P?,C?	well schistose, with Qz.vein along schistosity, lt.gry.		
263	01B263	716264	1697595	F.SS	T?,P?,C?	well bedded, gradually from 01B262, lt.brn.		
264	01B264	715713	1697023	M.SS	T?,P?,C?	well bedded, very hard, dk.gry.to lt.brn.		
265	01B265	712959	1696327	Qz.AR	T?,P?,C?	medium grain, massive, with Qz. vein		B074
266	01B266	712276	1696614	GR?, QT?	$\gamma\beta_4^{2?}$	like pegmatite, massive		B075
267	01B267	711787	1695905	F.SS	T?,P?,C?	massive, like BA, hard, lt.brn.		
268	01B268	711536	1694954	F.SS	T?,P?,C?	massive, like BA, hard, lt.brn.		BS076
269	01B269	711011	1694746	F.SS	T?,P?,C?	weathered, pal.gry.		
270	01B270	710696	1694031	Vf.SS	T?,P?,C?	massive, with Qz.vein(0.5cm), weathered, pal.gry.		
271	01B271	710504	1693499	Cgl / F.SS	T?,P?,C?	with shear (w:20cm, gauge), Cgl.(SS., 2-3cm)		B076
272	01B272	710305	1693394	Vf.SS	T?,P?,C?	very hard, schistose in place,		
273	01B273	710153	1693341	Qz.AR	T?,P?,C?	medium grain, laminated with shearing, very hard, lt.blu.gry.		
274	01B274	735729	1654425	Cgl.AR	T?,P?,C?	float, hard		BS077
275	01B275	735826	1654665	Cgl.AR	T?,P?,C?	massive, pebble:SL, 0.5cm, 1%		B077
276	01B276	736022	1654653	Bio.GD	$\gamma\beta_4^{2?}$	massive, coarse grain, cover by Cgl.Qz.SS, weathered		B078
277	01B277	736314	1654639	Bio.GD	$\gamma\beta_4^{2?}$	massive, coarse grain, cover by Cgl.Qz.SS, weathered		BS078
278	01B278	734848	1655879	Cgl.AR	T?,P?,C?	float, Cgl.:GR:LS=8:1.5:0.5, from NE hill		
279	01B279	734736	1656196	Cgl.AR	T?,P?,C?	like chert in place, hard, schistose in part, lt.gry		
280	01B280	733357	1656596	AL	Q	near Cgl.AR		BS079
281	01B281	726809	1647568	IB	T ₁₋₂	dacitic to andesitic, altered(chl.) lense inc., well welded, lt.gry.		B079 BS080
282	01B282	728581	1647525	Vf.SS	T?,P?,C?	with shear(cataclastic), lamina & shear dev., rd.brn.		BS081
283	01B283	730677	1654009	F.SS	T?,P?,C?	Au bearing by pan concentrate		BS082 BS082 dc
284	01B284	731664	1655228	M.SS	T?,P?,C?	massive, glassy, very hard, dk.gry.		BS083
285	01B285	731990	1655125	M.SS	T?,P?,C?	massive, glassy, very hard, epi.-chl.alt. along fracture, dk.gry.		BS084
286	01B286	732582	1655305	M.SS	T?,P?,C?	massive, glassy, very hard, dk.gry.		
287	01B287	732692	1656065	M.SS / ST	T?,P?,C?	M.SS dominant, lt.gry./dk.gry.		
288	01B288	733183	1656259	AL	Q	near M.SS		BS085
289	01B289	731676	1661421	Hbl.Bio.GD	$\gamma\beta_4^{2?}$	massive, weathered, pinkish Kf inc.		B080
290	01B290	736898	1654867	Hbl.Bio.GD	$\gamma\beta_4^{2?}$	massive, medium grain(fine in place), k-f.pinkish		
291	01B291	737806	1656116	Hbl.Bio.GD	$\gamma\beta_4^{2?}$	massive, coarse grain, melanoclastic(more than 01B276)		BS086
292	01B292	737870	1656074	Hbl.Bio.GD	$\gamma\beta_4^{2?}$	massive, coarse grain, same as 01B291		BS087
293	01B293	737580	1655897	Hbl.Bio.GD	$\gamma\beta_4^{2?}$	massive, coarse grain, same as 01B292, weak epi.chl.alt.		B081
294	01B294	735963	1654470	Cgl.AR / Bio.GR	T?,P?,C?	boundary 01B275/01B276, Cgl.Qz.SS cover GR, base:pebble		B082
295	01B295	732673	1658290	Cgl.AR	T?,P?,C?	near Cgl.AR		BS088
296	01B296	732613	1658673	Cgl.AR	T?,P?,C?	near Cgl.AR		BS089
297	01B297	735955	1654230	Cgl.AR	T?,P?,C?	same facies of 01B294		BS090
298	01B298	738805	1656294	Bio.GR	T?,P?,C?	same facies of 01B294		BS091
299	01B299	738720	1656368	Hbl.Bio.GD	$\gamma\beta_4^{2?}$	Kf. porph.(pinkish), coarse grain		BS092
300	01B300	740163	1659605	Qz.DI	$\gamma\beta_4^{2?}$	with shear, fine grain, mylonitic?, lt.grn.gry.		BS093
301	01B301	740106	1659731	Qz.DI	$\gamma\beta_4^{2?}$	with shear, fine grain, mylonitic?, lt.grn.gry.		B083 BS094
302	01B302	740073	1661095	Qz.DI	$\gamma\beta_4^{2?}$	with shear, fine grain, mylonitic?, lt.grn.gry.		BS095
303	01B303	740087	1661080	Hbl.Bio.GD	$\gamma\beta_4^{2?}$	porphyritic, heterogeneous, marginal facies of kf.porph.GD		B084 BS096
304	01B304	739337	1663236	AL	Q	float: GR&SL		BS097
305	01B305	739394	1663447	Qz.DI	$\gamma\beta_4^{2?}$	fine grain, heterogen., with Qz.veinlets(w:0.5 to 1.0cm)		B085 BS098
306	01B306	737252	1664345	Qz.DI	$\gamma\beta_4^{2?}$	float, fine grain		BS099

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Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
307	01B307	737114	1664629	Qz.DI	$\gamma\beta_4^{2?}$	float, fine grain		BS100
308	01B308	735627	1664812	Bio.Hbl.GD	$\gamma\beta_4^{2?}$	heterogen., marginal facies, near contact of Qz.DI	B086	BS101
309	01B309	735203	1665323	Hbl.Bio.GD	$\gamma\beta_4^{2?}$	coarse, massive, same as 01B299		BS102
310	01B310	735173	1665655	AL	Q	near GD		BS103
311	01B311	734935	1666189	Hbl.Bio.GD	$\gamma\beta_4^{2?}$	Kf.porph.(pinkish), coarse, massive		BS104
312	01B312	734050	1666728	Bio.Hbl.GD	$\gamma\beta_4^{2?}$	Kf.porph.(pinkish), coarse, massive	B087	BS105
313	01B313	734005	1666700	Bio.GR	$\gamma\beta_4^{2?}$	siliceous facies of 01B312		BS106
314	01B314	736183	1666446	Bio.Hbl.GD	$\gamma\beta_4^{2?}$	Kf.porph.(pinkish), coarse, massive		BS107
315	01B315	738421	1668515	Qz.DI	$\gamma\beta_4^{2?}$	with shear(brittle), silisified(quenched facies), Qz.network inc.	B093	BS108
316	01B316	738498	1668467	Bio.Px.Hbl.GB?	$\gamma\beta_4^{2?}$	Qz.DI?, coarse, heterogeneous, melanoclastic, Qz.network inc.	B088	BS109
317	01B317	739386	1668530	SL	C?	contact of GB,DI contact, dk.gry.		BS110
318	01B318	740001	1668605	M.SS	C?	hornfelsic, with Qz.veinlets, and lense(w:5cm), dk.gry.		
319	01B319	740407	1668856	DI	$\gamma\beta_4^{2?}$	with ductile shear(mafic elongated), fine grain, lt.grn.gry.	B089	
320	01B320	740608	1668907	SL	C?	dk.gry., same as 01B317		
321	01B321	740863	1668883	psm.SC / GR	$\gamma\beta_4^{2?}$ C?	migmatitic, many micro folding inc., GR:two mica, SC:Bio.inc.	B090	
322	01B322	741808	1669570	Two Mica GR	$\gamma\beta_4^{2?}$	leucoclastic, med.grain, near gneiss		BS111
323	01B323	741802	1669469	GR / GN	$\gamma\beta_4^{2?}$	migmatitic zone, dev.many gneissose st.	B091	BS112
324	01B324	741507	1669290	Bio.GN	$\gamma\beta_4^{2?}$ C?	gneiss dominant zone, strong gneissose	B092	
325	01B325	738228	1668197	Bio.Hbl.GD	$\gamma\beta_4^{2?}$	Kf.porph.(pinkish), med., massive to weak foliated		
326	01B326	738017	1667491	Bio.Hbl.GD	$\gamma\beta_4^{2?}$	Kf.porph.(pinkish), coarse, foliated(mylonitic?), shuleren inc.	B094	BS113
327	01B327	738032	1667506	Bio.Hbl.GD	$\gamma\beta_4^{2?}$	Kf.porph.(pinkish), coarse, foliated(mylonitic?), shuleren inc.		BS114
328	01B328	740441	1658124	Qz.DI	$\gamma\beta_4^{2?}$	with strong sheared(mafic not elongated)		BS115
329	01B329	740416	1658132	Qz.DI	$\gamma\beta_4^{2?}$	with strong sheared(mafic not elongated)		BS116
330	01B330	739768	1657485	Hbl.Bio.GD	$\gamma\beta_4^{2?}$	Kf.porph.(pinkish), coarse, sheared in place(schistose)	B095	
331	01B331	707548	1637747	F.SS	J ₁₋₂	well bedded, with crossed lamination, lt.rd.brn.		
332	01B332	706104	1636643	Vf.SS	J ₁₋₂	massive, rd.brn.		BS117
333	01B333	705994	1636540	M.SS / F.SS	J ₁₋₂	well bedded, with crossed lamination, rd.brn.		
334	01B334	703804	1635444	AL	Q	near J ₁₋₂		BS118
335	01B335	703901	1635118	AL	Q	near J ₁₋₂		BS119
336	01B336	703341	1634205	F.SS	J ₁₋₂	well bedded, massive, rd.brn.		
337	01B337	704318	1633662	M.SS	J ₁₋₂	well bedded, with crossed lamination, rd.brn.		BS120
338	01B338	705630	1633323	M.SS / F.SS	J ₁₋₂	well bedded, 5m/2m, with crossed lamination, rd.brn.		
339	01B339	707127	1631422	M.SS / F.SS	J ₁₋₂	well bedded, 40cm/10cm, mica inc.many, rd.brn.		BS121
340	01B340	707945	1631304	F.SS	J ₁₋₂	massive, lt.gry.		BS122
341	01B341	707946	1631395	F.SS	J ₁₋₂	massive, lt.gry.		BS123
342	01B342	710107	1630344	AL	Q	near J ₁₋₂		BS124
343	01B343	710101	1630579	AL	Q	near J ₁₋₂		BS125
344	02B001	746304	1670485	Hbl.Bio.GD	$\gamma\beta_4^{2?}$	med., massive, weak epi.chl.alt., near gneissic rocks		BS126
345	02B002	746502	1670731	Musc.SC	O-S	lt.gry., inc.chlorite		
346	02B003	747613	1671598	Bldr(Ol.BA / SS)	βN_2-Q_1	BA:SS=9:1, BA=lava, amygdaloid vesicles dev., glassy, dk.gry.		
347	02B004	747951	1672347	Bldr(CG / SL / SS)	D?	CG:SL:SS=4:4:2, CG=Pbl(QT,10%)		
348	02B005	748432	1672989	met.SS	D?	dk.gry, bi.generate, weak to mod.schistose		
349	02B006	748594	1673296	GR	$\gamma\beta_4^{2?}$	heterogeneous, gneissose, med.grain, margin of GD	B096	BS127
350	02B007	748962	1674072	Cgl.SS	D?	arenaceous, Cgl=Pbl(QT, 10%)		
351	02B008	748718	1674830	M.SS	D?	weathered to rd.brn, arenaceous		
352	02B009	748567	1675483	M.SS	D?	lt.brn, arenaceous, glassy(weak met.), weak bedded		
353	02B010	748935	1675897	Ol.BA	βN_2-Q_1	lava, amygdaloid vesicles dev., glassy, dk.gry., inc.nepheline?	B097	BS128
354	02B011	746142	1670767	Hbl.Bio.GD	$\gamma\beta_4^{2?}$	med., massive, weak epi.chl.alt., near gneissic rocks		BS129
355	02B012	746599	1669716	met.SS	O-S?	hornfelsic, gneissic in part, dk.gry		
356	02B013			DA	$\gamma\beta_4^{2?}$	blueish gry., glassy, limited distribution, jointed	B098	
357	02B014	748527	1669194	met.SS	O-S?	hornfelsic, gneissic in part, dk.gry		BS130

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Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
358	02B015	748590	1669280	Hbl.Bio.GD	$\gamma\beta_4^{2?}$	med., massive, weak epi.chl.alt., near gneissic rocks	B099	
359	02B016	749894	1670130	SL	O-S?	schistose, bi.generate, phyllitic in place, Qz.lense inc.	B100	BS131
360	02B017	749929	1670630	QT	O-S?	massive, small distribution		
361	02B018	749978	1670854	Cgl.SS / M.SS	D?	loose, lt.gry., alt.int.10m, Cgl:QT(pebble)		
362	02B019	751628	1670552	M.SS	D?	lt.brn, arenaceous, glassy(weak met.), same as 02B009		
363	02B020	752920	1670657	F.SS	D?	jointed, weathered to lt.brn.		
364	02B021	753034	1670684	F.SS / Vf.SS	D?	laminated, alt.int.1~0.5cm, hard		BS132
365	02B022	753922	1669558	F.SS	D?	strong weathered to lt.brn., jointed		
366	02B023	755232	1668922	Cgl.SS	D?	very loose, strong weathered to lt.brn., Cgl:pebble(SS,SL,QT)	B101	
367	02B024	755581	1668912	Cgl.SS	D?	very loose, strong weathered to lt.brn., Cgl:pebble(SS,SL,QT)		
368	02B025	755749	1668938	F.SS	D?	slaty, well bedded, mod weathered to lt.brn.		BS133
369	02B026	769312	1637244	Hbl.Bio.GD	$\gamma\beta_4^{2?}$	med., heterogeneous, weak foli., weak chl.alt.	B102	BS134
370	02B027	769131	1637726	Bio.SY	$\gamma\beta_4^{2?}$	coarse grain, aplitic, mod.epi.-chl.alt.	B103	
371	02B028	769117	1637820	Hbl.Bio.GD	$\gamma\beta_4^{2?}$	med.grain, heterogeneous, weak foli., weak chl.alt.		
372	02B029	769040	1638149	Hbl.Bio.GD	$\gamma\beta_4^{2?}$	fine to med.grain, melanoclastic & heterogeneous		BS135
373	02B030	769023	1638151	Hbl.Bio.GD	$\gamma\beta_4^{2?}$	fine to med.grain, melanoclastic & heterogeneous		BS136
374	02B031	768533	1638729	Hbl.Bio.GD	$\gamma\beta_4^{2?}$	med.grain, k-f.porphyrritic, bleached		
375	02B032	768515	1638801	Bio.GR	$\gamma\beta_4^{2?}$	fine to med.grain, melanoclastic & heterogeneous	B104	BS137
376	02B033	757856	1679194	QT	PC-O?	lt.gry. to lt.rd.gry., massive		
377	02B034	757945	1679206	SL	D?	lt.gry., weathered(moderate)		
378	02B035	758371	1679507	QT	PC-O?	lt.gry. to lt.rd.gry., Qz.network dev(w:1 to 5cm).	B105	BS138
379	02B036	758514	1679731	CG	D?T ₁₋₂ ?	pebble(SS:QT:SL=5:3:2), hard, with Qz.veins(w:10cm)	B106	
380	02B037	758577	1679989	C.SS / CG	D?T ₁₋₂ ?	lamination dev.in place		
381	02B038	758703	1680422	QT	C-O?	boulder, lt.gry. to lt.rd.gry., massive		BS139
382	02B039	758721	1680475	CG	D?T ₁₋₂ ?	pebble to cobble(QT:SS=8:2, sub angular to rounded), hard		BS140
383	02B040	759143	1680993	CG	D?T ₁₋₂ ?	pebble to cobble(QT:SS=8:2, sub angular to rounded), hard		
384	02B041	759635	1681880	CG	D?T ₁₋₂ ?	pebble to cobble(QT:SS=8:2, sub angular to rounded), hard		
385	02B042	760042	1681917	QT	PC-O?	boulder, lt.gry. to lt.rd.gry., massive		BS141
386	02B043	760389	1682293	QT	PC-O?	boulder, lt.gry. to lt.rd.gry., massive, right bank is CG		BS142
387	02B044	761041	1682952	CG	D?T ₁₋₂ ?	pebble (QT:SS=8:2, sub angular to rounded), matrix:maddy		
388	02B045	761194	1682860	CG / SL	D?T ₁₋₂ ?	CG:same facies as 02B044, SL:rd.gry., alt.with CG		
389	02B046	761853	1683284	QT	PC-O?	boulder, lt.gry. to lt.rd.gry., massive, right bank is CG		BS143
390	02B047	762168	1683730	QT	PC-O?	boulder, lt.gry. to lt.rd.gry., massive, right bank is CG		
391	02B048	762328	1684159	CH	PC-O?	lt.gry., conglometric and schistose in place,		
392	02B049	762480	1684505	CH / QT	PC-O?	origin of chert is SS/MS alt., with schistosity	B107	BS144
393	02B050	762904	1684932	QT	PC-O?	boulder, lt.gry. to lt.rd.gry., massive		
394	02B051	763276	1684964	gm.SC / Bio.SC	O-S?	shear zone, right lateral?, hanging:Bio.SC, foot:gm.SC	B108a,b	
395	02B052	763828	1684597	QT	PC-O?	boulder, lt.gry. to lt.rd.gry., massive		BS145
396	02B053	763978	1684722	QT	PC-O?	boulder, lt.gry. to lt.rd.gry., massive		BS146
397	02B054	764116	1685092	SL	O-S?	lt.gry., origin is F.SS/Vf.SS alt.		
398	02B055	764276	1686032	SL	O-S?	lt.gry., origin is F.SS/Vf.SS alt.		
399	02B056	764215	1686238	CH	PC-O?	banded(SS/MS alt.), lt.gry. to dk.gry.	B109a,b	BS147
400	02B057	763893	1684379	Bio.SC	O-S?	dk.gry., well schistose		
401	02B058	764214	1684107	LS	PC-C?	dk.gry to lt.gry., massive		BS148
402	02B059	764256	1684055	LS	PC-C?	dk.gry to lt.gry., massive	B110	BS149
403	02B060	764507	1683703	LS	PC-C?	cream color, massive, coral facies in place		
404	02B061	764722	1683126	LS	PC-C?	cream color, massive, coral facies in place		BS150
405	02B062	764686	1683068	LS	PC-C?	cream color, massive, coral facies in place		BS151
406	02B063	764447	1682671	SL	O-S?	with bouding like Qz.lense		
407	02B064	764588	1682117	QT	PC-O?	lt.gry., origin is Qz.SS		BS152
408	02B065	765122	1681989	QT	PC-O?	lt.gry., origin is Qz.SS		

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Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
409	02B066	765225	1681900	SL	O-S?	dk.gry, intra folding dev.		BS153
410	02B067	758436	1679851	AD.IB	D?T ₁₋₂ ?	intercurrent in CG, dk.purple color	B111	
411	02B068	759583	1676435	SL	O-S?	float, lt.brn., weathered		
412	02B069	760012	1675227	Qz.AR	D?	wt., massive, loose, weak oxidied	B112	
413	02B070	760110	1675185	SL	O-S?	with Qz.network, strong weathered, origin is SS/MS alt.		
414	02B071	760347	1674670	Qz.AR	D?	wt., massive, loose, weak oxidied		
415	02B072	760408	1674442	Qz.AR	D?	wt., massive, with Qz.network, loose, weak oxidied		
416	02B073	760429	1673970	grn.SC	O-S?	lt.grn.gry., strong weathered,	B113	
417	02B074	760625	1673285	grn.SC	O-S?	lt.grn.gry., slaty in place, strong weathered,		
418	02B075	760148	1671944	Qz.AR	D?	wt., massive, with Qz.network, loose, weak oxidied		
419	02B076	762051	1671179	SL	O-S?	lt.brn., strong weathered		
420	02B077	762287	1671342	SL	O-S?	lt.gry. to rd.brn, strong weathered		BS154
421	02B078	762306	1671296	SL	O-S?	lt.gry. to rd.brn, strong weathered		BS155
422	02B079	763000	1672226	SL	O-S?	lt.gry. to rd.brn, strong weathered		BS156
423	02B080	763321	1671774	SL	O-S?	rd.brn, strong weathered		
424	02B081	763912	1672063	grn.SC	O-S?	lt.grn.gry., moderate weathered,		BS157
425	02B082	764043	1672312	QT	PC-O?	wt to lt.gry., laminated, origin is SS/MS	B114	
426	02B083	764294	1672353	QT	PC-O?	wt., massive		BS158
427	02B084	764501	1672321	QT	PC-O?	wt., massive		BS159
428	02B085	762708	1671482	QT	PC-O?	wt., massive		
429	02B086	655490	1631167	(Ol?)Px.BA	βN_2-Q_1	strong lateritized, brn.	B115	
430	02B087	652465	1636367	Ol.BA	βN_2-Q_1	lava, amygdaloid vesicles dev., glassy, dk.gry.	B116	BS160
431	02B088	653325	1639210	Ol.BA	βN_2-Q_1	float, amygdaloid vesicles dev., glassy, dk.gry.		
432	02B089	652900	1650573	Ol.BA	βN_2-Q_1	float, amygdaloid vesicles dev., glassy, dk.gry.	B117	
433	02B090	651305	1652592	Ol.BA	βN_2-Q_1	lava, amygdaloid vesicles dev., glassy, dk.gry.		BS161
434	02B091	646926	1654939	Ol.BA	βN_2-Q_1	lava, amygdaloid vesicles dev., glassy, dk.gry. weak hematized		BS162
435	02B092	646536	1655941	Px.BA	βN_2-Q_1	lava, aphiric, glassy, dk.gry.	B118	
436	02B093	645436	1659173	Cgl.C.SS	J ₃ -K	arenaceous, generate topographic cliff	B119	
437	02B094	645367	1659459	M.SS	J ₃ -K	lt.gry. to rd.brn., inc. lamination, with oxidation		
438	02B095	644661	1665034	(Ol)Px.BA	βN_2-Q_1	waterfall, dk.gry., glassy and hard		
439	02B096	602616	1644245	M.SS	J ₃ -K	rd.gry., inc. lamination, with limonitization		
440	02B097	609065	1647361	AL	Q	river deposits, topographic very flat plane		
441	02B098	612005	1646514	AL	Q	river deposits with goethite layer, topographic very flat plane	B120	
442	02B099	612469	1646952	Ol.BA	βN_2-Q_1	lava, aphiric, glassy, dk.gry., not vesicles	B121	
443	02B100	614662	1647135	(Ol)Px.BA	βN_2-Q_1	lava, amygdaloid vesicles dev., glassy, dk.gry., inc.nepheline?	B122	
444	02B101	616624	1648254	(Ol)Px.BA	βN_2-Q_1	lava, amygdaloid vesicles dev., glassy, dk.gry.		BS163
445	02B102	617475	1650036	(Ol)Px.BA	βN_2-Q_1	lava, amygdaloid vesicles dev., glassy, dk.gry.		
446	02B103	621460	1651600	(Ol)Px.BA	βN_2-Q_1	lava, amygdaloid vesicles dev., glassy, dk.gry.		
447	02B104	623949	1651821	(Ol)Px.BA.AD	βN_2-Q_1	lava, Plag.porphyrific, glassy, dk.gry., not vesicles		
448	02B105	623914	1652254	(Ol)Px.BA.AD	βN_2-Q_1	lava, Plag.porphyrific, amygdaloid vesicles dev., glassy, dk.gry.	B123	
449	02B106	624264	1652548	(Ol)Px.BA.AD	βN_2-Q_1	lava, Plag.porphyrific, amygdaloid vesicles dev., glassy, dk.gry.		BS164
450	02B107	625424	1651157	(Ol)Px.BA.AD	βN_2-Q_1	lava, Plag.porphyrific, amygdaloid vesicles dev., glassy, dk.gry.		
451	02B108	624630	1649886	(Ol)Px.BA.AD	βN_2-Q_1	lava, Plag.porphyrific, amygdaloid vesicles dev., glassy, dk.gry.		
452	02B109	623635	1649050	(Ol)Px.BA.AD	βN_2-Q_1	lava, Plag.porphyrific, amygdaloid vesicles dev., glassy, dk.gry.		
453	02B110	621485	1648601	(Ol)Px.BA.AD	βN_2-Q_1	lava, Plag.porphyrific, amygdaloid vesicles dev., glassy, dk.gry.		
454	02B111	617627	1641582	Ol.BA	βN_2-Q_1	lava, amygdaloid vesicles dev., glassy, dk.gry.	B124	
455	02B112	617252	1641624	Ol.BA	βN_2-Q_1	lava, amygdaloid vesicles dev., glassy, dk.gry.		BS165
456	02B113	613532	1641986	(Ol)Px.BA	βN_2-Q_1	lava, amygdaloid vesicles dev., glassy, dk.gry.		
457	02B114	613737	1642313	(Ol)Px.BA	βN_2-Q_1	lava, amygdaloid vesicles dev., glassy, dk.gry.		BS166
458	02B115	614280	1673361	(Ol)Px.BA	βN_2-Q_1	lava, amygdaloid vesicles dev., glassy, dk.gry.		
459	02B116	620308	1636411	(Ol)Px.BA	βN_2-Q_1	lava, amygdaloid vesicles dev., glassy, dk.gry.		BS167

Annex 4 Outcrop List (Team B 10/21)

Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
460	02B117	623559	1637536	(Ol.)Px.BA	βN_2-Q_1	lava, amygdaloid vesicles dev., glassy, dk.gry.	B125	
461	02B118	626822	1634112	Ol.BA	βN_2-Q_1	lava, aphyric, glassy, dk.gry., not vesicles	B126	BS168
462	02B119	638295	1622170	Ol.BA	βN_2-Q_1	lava, aphyric, glassy, dk.gry., not vesicles	B127	BS169
463	02B120	636359	1625198	(Ol.?)Px.BA	βN_2-Q_1	float, aphyric, glassy, dk.gry., not vesicles		
464	02B121	636009	1625417	BA	βN_2-Q_1	strong lateritization, brn. to dk.gry.in parts		
465	02B122	632261	1626356	Bio.DA.IB	T ₁₋₂	looks like Qz.porphry, ser.alt.mod., Qz grain size is max.6mm	B128	
466	02B123	632057	1626490	Bio.DA.IB	T ₁₋₂	lt.gry., strong glassy, inc. welded structures, weak oxidized	B129	BS170
467	02B124	630890	1626665	Bio.DA.IB	T ₁₋₂	lt.gry., strong glassy, inc. welded structures, oxidized in parts		
468	02B125	644818	1625874	Px.BA	βN_2-Q_1	float, aphyric, glassy, dk.gry.		
469	02B126	645879	1626366	Px.BA.AD	βN_2-Q_1	float, Plag.porphyrific in parts, glassy, dk.gry.		
470	02B127	646396	1626487	Px.BA.AD	βN_2-Q_1	float, Plag.porphyrific in parts, glassy, dk.gry.		
471	02B128	647688	1626276	Px.BA.AD	βN_2-Q_1	float, Plag.porphyrific in parts, glassy, dk.gry.		
472	02B129	648144	1625972	Px.BA	βN_2-Q_1	foot breccia lava, glassy, dk.gry., vesicles in parts	B130	BS171
473	02B130	649202	1625934	BA	βN_2-Q_1	moderate lateritization, lt.brn., vesicles in parts		BS172
474	02B131	650770	1625796	Ol.BA	βN_2-Q_1	float, amygdaloid vesicles dev., glassy, dk.gry.		
475	02B132	651960	1625296	AL	Q	river deposits, there are many pabble in the ground		BS173
476	02B133	654719	1624082	Ol.BA	βN_2-Q_1	float, aphyric, glassy, dk.gry., not vesicles		
477	02B134	655693	1624298	Ol.BA	βN_2-Q_1	float, aphyric, glassy, dk.gry., not vesicles		BS174
478	02B135	658417	1625091	Ol.BA	βN_2-Q_1	lava, amygdaloid vesicles dev., glassy, dk.gry.	B131	
479	02B136	758870	1650938	Bio.SC	PC-O	dk.gry., with Qz.lense(w:2 to 5cm)		
480	02B137	759188	1650917	Musc.SC	PC-O	lt.gry., with Qz.lense(w:2 to 5cm)		
481	02B138	761229	1650684	Musc.SC	PC-O	mylonitic, Qz.cryst.orienteted, lt.gry., strong weathered	B135	
482	02B139	761717	1650520	Musc.SC	PC-O	mylonitic, Qz.cryst.orienteted, lt.gry., strong weathered		BS175
483	02B140	762686	1650299	grn.SC / Musc.SC	PC-O	grn.SC.dominated alternation, strong weathered		
484	02B141	763173	1650375	grn.SC / Musc.SC	PC-O	grn.SC.dominated alternation, strong weathered		BS176
485	02B142	763900	1650620	Met.SS / GN	PC-O	boundary Met.SS and GN, Met.SS with mylonitic st.	B136	BS180
486	02B143	764001	1650696	Gar.GN	PC-O	banded, there are strong sulfied ore as floats in stream	B137	BS179
487	02B144	763970	1650791	Gar.GN	PC-O	mixed facies SS.and Gr., with many Qz.network		
488	02B145	764035	1651007	Gar.GN	PC-O	banded, there are strong sulfied Met.SS. as floats in stream	B138	
489	02B146	764101	1651171	Bio.GN	PC-O	banded, sandy facies		BS177
490	02B147	764130	1651430	Met.SS / GN	PC-O	boundary Met.SS and GN with brittle fault with oxidized		
491	02B148	764098	1651480	Bio.GN	PC-O	well dev.irregular banded st.		
492	02B149	764079	1651645	Bio.GN	PC-O	with py.diss.Qz.lense, banded st. and Qz.lense is concordant	B139	
493	02B150	764050	1651790	Bio.GN	PC-O	well dev.banded st.	B140	BS178
494	02B151	759014	1656444	Musc.SC	PC-O	Au Mine, with Qz.vein(w:140cm), can't observe sulfied	B144	
495	02B152	759036	1656418	Musc.SC	PC-O	Au Mine, with Qz.vein(w:80cm), can't observe sulfied, with sher	B141a,b B142a,b,c	
496	02B153	758715	1656401	Px.BA	PC-O	Au Mine, look like miro gabbro when weatherd, dk.gry.		
497	02B154	759031	1655836	Musc.SC	PC-O	lt.brn., strong weathered		
498	02B155	759199	1655726	Bio.SC / Musc.SC / QT	PC-O	boundary Bio.SC. and Musc.SC is sheared,		
499	02B156	759257	1655950	SL	PC-O?	dk.gry, with Py.diss., gradually change to Bio.SC in parts		BS181
500	02B157	759150	1656100	Bio.SC	PC-O	with Qz.vein with barite(w:15cm)	B145	
501	02B158	759184	1656226	Bio.SC / SL	PC-O	strongly sheared in parts, with Qz. vein in footwall of shear		BS182
502	02B159	759220	1656250	SL	PC-O?	dk.gry, with Py.diss., gradually change to Bio.SC in parts	B146	BS183
503	02B160	759162	1656212	MY	PC-O	mylonitic facies in Musc.SC, with right-lateral elongated Qz.	B147	
504	02B161	759094	1657237	Musc.SC / Bio.SC	PC-O	Au Mine, with Qz.stockwork (w:300cm) along drift		
505	02B162	758504	1651318	AL	Q	river deposits		BS184
506	02B163	628119	1635055	Ol.BA	βN_2-Q_1	lava, inc.spinel, amygdaloid vesicles dev., glassy, dk.gry.	B148	
507	02B164	629820	1637370	Ol.BA	βN_2-Q_1	lava, inc.spinel, amygdaloid vesicles dev., glassy, dk.gry.		
508	02B165	630291	1638220	Ol.BA	βN_2-Q_1	lava, inc.spinel, amygdaloid vesicles dev., glassy, dk.gry.		BS185
509	02B166	630913	1637680	Ol.BA	βN_2-Q_1	lava, not amygdaloid, glassy, dk.gry.		BS186
510	02B167	633585	1637842	Ol.BA	βN_2-Q_1	lava, not amygdaloid, glassy, dk.gry.		BS187

Annex 4 Outcrop List (Team B 11/21)

Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
511	02B168	636854	1641701	Ol.BA	βN_2-Q_1	lava, amygdaloid vesicles dev., glassy, dk.gry.	B149	
512	02B169	637350	1644115	Ol.BA	βN_2-Q_1	lava, Ol.porph.remarkably, not amygdaloid, glassy, dk.gry.		
513	02B170	636670	1644411	(Ol.)Px.BA	βN_2-Q_1	float, lava, not amygdaloid, glassy, dk.gry.		BS188
514	02B171	639475	1645095	Ol.BA	βN_2-Q_1	float, Ol.porph.remarkably, not amygdaloid, glassy, dk.gry.		
515	02B172	641250	1645510	Ol.BA	βN_2-Q_1	float, Ol.porph.remarkably, vesicles dev., glassy, dk.gry.		BS189
516	02B173	640622	1648295	Ol.BA	βN_2-Q_1	lava, Ol.porph.remarkably, vesicles dev., glassy, dk.gry.	B150	
517	02B174	640961	1649091	Ol.BA	βN_2-Q_1	lava, Ol.porph.remarkably, vesicles dev., glassy, dk.gry.		
518	02B175	640616	1651151	Ol.BA	βN_2-Q_1	lava, Ol.porph.remarkably, vesicles dev., glassy, dk.gry.		
519	02B176	640023	1652490	Ol.BA	βN_2-Q_1	lava, Ol.porph.remarkably, vesicles dev., glassy, dk.gry.		
520	02B177	640350	1654061	Ol.BA	βN_2-Q_1	lava, Ol.porph.remarkably, vesicles dev., glassy, dk.gry.		
521	02B178	640667	1655987	Ol.BA	βN_2-Q_1	lava, Ol.porph.remarkably, inc.spinel, vesicles dev., dk.gry.	B151	
522	02B179	640231	1657970	Ol.BA	βN_2-Q_1	lava, Ol.porph.remarkably, vesicles dev., glassy, dk.gry.		
523	02B180	640137	1658536	Ol.BA	βN_2-Q_1	ropy lava, Ol.porph.remarkably, vesicles dev., glassy, dk.gry.	B152	
524	02B181	640264	1660782	Ol.BA	βN_2-Q_1	lava, weathered, amygdaloid vesicles dev., glassy, dk.gry.		
525	02B182	640967	1662008	Ol.BA	βN_2-Q_1	lava, amygdaloid vesicles dev., glassy, dk.gry.		
526	03B001	735286	1640904	AL	Q	float(Pbl), SC<Qz., lt.brn.		BS501
527	03B002	735303	1640924	Musc.SC	P-T	inc. boudinage Qz.lense(2cm), weathered, lt.brn.	B501	BS502
528	03B003	735322	1640960	Musc.SC	P-T	inc. boudinage Qz.lense(2cm), weathered, lt.brn.		
529	03B004	735412	1641050	Musc.SC	P-T	inc. boudinage Qz.lense(2cm), weathered, lt.brn.		
530	03B005	735453	1641081	AL	Q	float(Pbl), SC<Qz., lt.brn.		BS503
531	03B006	735453	1641071	AL	Q	float(Pbl), SC<Qz., lt.brn.		BS504
532	03B007	735383	1640713	AL	Q	float(Pbl), SC<Qz., lt.brn.		BS505
533	03B008	735523	1640678	Musc.SC	P-T	strong weathered, lt.brn to brn.		
534	03B009	735565	1640663	AL	Q	float(Pbl), SC<Qz., lt.brn.		BS506
535	03B010	735710	1640663	AL	Q	float(Pbl), Bio.SC<Da.<Qz.<Musc.SC, lt.brn.		BS507
536	03B011	735715	1640670	AL	Q	float(Pbl), Qz.<Bio.SC & Musc.SC, lt.brn.		BS508
537	03B012	735875	1640770	AL	Q	float(Pbl), Qz.<Bio.SC & Musc.SC, lt.brn.		BS509
538	03B013	735868	1640778	AL	Q	float(Pbl), Qz.<Bio.SC & Musc.SC, lt.brn.		BS510
539	03B014	735844	1640793	AL	Q	float(Pbl), Qz.<Bio.SC & Musc.SC, lt.brn.		BS511
540	03B015	735869	1640932	Qz.Bio.SC	P-T	inc. boudinage Qz.lense(10cm), strong weathered, lt.brn.		BS512
541	03B016	735874	1640884	AL	Q	float(Pbl), Qz.<Bio.SC & Musc.SC, lt.brn.		BS513
542	03B017	735409	1640001	AL	Q	float(Pbl), SC & Qz., lt.brn.		BS514
543	03B018	735690	1640056	Musc.SC	P-T	strong weathered, brn.		BS515
544	03B019	735695	1640061	Musc.SC	P-T	strong weathered, brn.		BS516
545	03B020	736000	1639999	AL	Q	float(Pbl), SC & Qz., lt.brn.		BS517
546	03B021	736376	1640105	Musc.SC	P-T	strong weathered, brn.		BS518
547	03B022	736459	1640108	AL	Q	float(Pbl), SC & Qz., lt.brn.		BS519
548	03B023	736553	1640093	Musc.SC	P-T	weathered, lt.brn.		BS520
549	03B024	736619	1640148	Qz.Bio.SC	P-T	inc. boudinage Qz.lense(20cm), weathered, brn.		
550	03B025	736651	1640145	Qz.Bio.SC	P-T	inc. boudinage Qz.lense(20cm), hard, weathered lt.brn.		BS521
551	03B026	736255	1640052	AL	Q	float(Pbl), Qz. & Bio.SC & Musc.SC, lt.brn.		BS522
552	03B027	735227	1640695	Musc.SC	P-T	slight.Kao.alt(?), weathered, lt.brn. to pal.gry.		
553	03B028	734923	1640855	Musc.SC	P-T	weathered, lt.brn.		
554	03B029	734672	1641249	Musc.SC	P-T	with Chl.SC, weathered, lt.brn.		
555	03B030	734408	1641583	psm.SC (Oz.Musc.SC)	P-T	inc. boudinage Qz.lense(30-50cm), form fold		
556	03B031	734217	1641617	psm.SC (Oz.Musc.SC)	P-T	inc. boudinage Qz.lense(30-50cm), form fold		
557	03B032	734184	1641707	Aplite dy	P-T	w:5m, jointed, pal.yw.	B502	BS523
558	03B033	734180	1641717	psm.SC (Bio.Oz.SC)	P-T	inc. boudinage Qz.lense(10cm), hard, weathered lt.brn.		BS524
559	03B034	733936	1641698	Musc.SC	P-T	slaty in part, pal.gry.		
560	03B035	733930	1641730	Musc.SC	P-T	slaty in part, weathered to lt.gry.		BS525
561	03B036	733607	1641780	SL	P-T	Musc.SC.in parts, inc.Qz.lense(30cm), weathered to lt.brn.	B503	BS526

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Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
562	03B037	733606	1641790	SL	P-T	Musc.SC.in parts, inc.Qz.lense(30cm), weathered to lt.brn.		BS527
563	03B038	735851	1641502	psm.SC (Qz.SC)	P-T	float, moderate weathered to lt.gry.		
564	03B039	735349	1641751	psm.SC (Qz.SC)	P-T	float, moderate weathered to lt.gry.	B504	
565	03B040	735103	1642085	psm.SC (Qz.SC)	P-T	float, recrystallized&silicified, weathered to lt.gry.	B505	
566	03B041	734588	1642471	MY (Qz.SC)	P-T	original rock is sandstone(Qz.SC), s-c mylonite	B506	
567	03B042	734363	1642660	MY (Qz.SC)	P-T	original rock is sandstone(Qz.SC), s-c mylonite		
568	03B043	734129	1642793	MY (Qz.SC)	P-T	original rock is sandstone(Qz.SC), s-c mylonite, Qz.size:3mm		
569	03B044	733911	1642793	psm.SC (Qz.SC)	P-T	original facies of 03B043 mylonite		
570	03B045	736220	1641286	psm.SC (Musc.Qz.SC)	P-T	looks like mylonite but Qz.not orientated, Qz.size:1mm		
571	03B046	736192	1641339	psm.SC (Musc.Qz.SC)	P-T	with mylonite, same outcrop along 18B of last year		
572	03B047	735927	1643216	AL	Q	near GD		BS528
573	03B048	735842	1643185	Bio.GD	P-T	glassy, looks like dacite dyke, dk.gry.	B507 B508	BS529
574	03B049	735830	1642992	Bio.Hbl.GD	P-T	heterogeneous, glassy, Hbl.porphyrific(2-4mm), grn.gry.	B509	
575	03B050	735786	1642946	Bio.Hbl.GD	P-T	heterogeneous, glassy, Hbl.porphyrific(2-4mm), grn.gry.		BS530
576	03B051	735895	1642759	AL	Q	near GD, GD pebble only on stream		BS531
577	03B052	735958	1642734	AL	Q	near GD, GD pebble only on stream		BS532
578	03B053	736009	1642627	Hbl.Bio.GD	P-T	inc.muscovite?, massive, med.grain		BS533
579	03B054	736046	1642666	Hbl.Bio.GD	P-T	inc.muscovite?, massive, med.grain		BS534
580	03B055	736126	1642478	AL	Q	near GD		BS535
581	03B056	736064	1642202	Hbl.Bio.GD	P-T	inc.muscovite?, massive, epi.alt.(mod.), Hbl.porp.(5mm)	B510	BS536
582	03B057	736208	1642421	Hbl.Bio.GD	P-T	inc.muscovite?, massive, epi.alt.(mod.), Hbl.porp.(5mm)		BS537
583	03B058	738854	1641372	Hbl.Bio.GD	P-T	massive, Epi.alt.(weak), med.grain, pal.grn.		
584	03B059	738547	1641409	Hbl.Bio.GD	P-T	massive, Epi.alt.(weak), med.grain, pal.grn.		
585	03B060	738497	1641395	Hbl.Bio.GD	P-T	inc.muscovite?, massive, Epi.alt.(weak), med.grain		BS538
586	03B061	738483	1641428	Hbl.Bio.GD	P-T	inc.muscovite?, massive, Epi.alt.(weak), med.grain		BS539
587	03B062	738344	1641524	Hbl.Bio.GD	P-T	foliated(weak), glassy in parts, med.grain, Hbl.porp.(5mm)		
588	03B063	738130	1641674	Bio.GR	P-T	schistose(weak), silicified(weak), Bio.seggregated.		BS540
589	03B064	738044	1641776	AL	Q	near GD, with pebble of Cal.-Epi.altered rocks(float)		BS541
590	03B065	738052	1641786	AL	Q	near GD, with pebble of Cal.-Epi.altered rocks(float)		BS542
591	03B066	737850	1641660	Hbl.Bio.GD	P-T	massive, Epi.alt.(moderate), med.grain, pal.grn.	B511	
592	03B067	737923	1641847	Hbl.Bio.GD	P-T	boulder, weathered(moderate)		
593	03B068	737656	1642139	MY (GD)	P-T	original rock is GD, inc.muscovite, Bio.remain as clots.		BS543
594	03B069	737668	1642171	Hbl.Bio.GD	P-T	heterogene, epi.alt.along fractures(mod.), glassy in parts		
595	03B070	737719	1642251	Hbl.Bio.GD	P-T	boulder, massive, glassy in parts, med.grain		BS544
596	03B071	737740	1642453	Hbl.Bio.GD	P-T	boulder, massive, glassy in parts, med.grain, weathered		BS545
597	03B072	737635	1642550	Hbl.Bio.GD	P-T	boulder, massive, glassy in parts, med.grain, weathered		BS546
598	03B073	737678	1642547	Hbl.Bio.GD	P-T	boulder, massive, glassy in parts, med.grain, weathered		BS547
599	03B074	737582	1642860	Hbl.Bio.GD	P-T	foliated(mod.), Epi.alt.(mod.), med.grain, Hbl.porp.(5mm) with Qz.-Epi.vein(cut foliation, discordant)		
600	03B075	737976	1643311	Hbl.Bio.GD	P-T	malachite diss.(strong) in shear(mylonitic) and foliation GD: silicified(mod.-strong) with kaolinite alt over mineralization	B512 B513	
601	03B076	736408	1643929	Hbl.Bio.GD	P-T	weathered to pal.grn. to pal.gry.(strong), Kao.alt.?(weak)		
602	03B077	736386	1643409	AL	Q	near GD, Qz. and GD.pebble inc.		BS548
603	03B078	736495	1643154	Hbl.Bio.GD	P-T	weathered to pal.grn. to pal.gry.(strong), Kao.alt.?(weak)		BS549
604	03B079	736640	1643016	Hbl.Bio.GD	P-T	weathered to pal.grn. to pal.gry.(strong), with Qz.vein, Kao.alt.?		BS550
605	03B080	736615	1642998	Hbl.Bio.GD	P-T	silicified(weak-mod.), med.grain, schistose(mod.-strong)		
606	03B081	736643	1642909	CA (GD)	P-T	cataclastic zone(w:5m), GD was silicified(mod.)		
607	03B082	736220	1643455	AL	Q	near GD, with silicified GD&Qz.pebble on stream floor		BS551
608	03B083	740054	1639771	AL	Q	near GD, with Qz.pebble on stream floor		BS552
609	03B084	740010	1639703	Hbl.Bio.GD	P-T	Hbl.porph.(5mm), schistose(weak), Kao.?(weak)		
610	03B085	740025	1639604	CA (GD)	P-T	cataclastic zone(w:5m), inc.shear band of Bio., Kao.alt.?		
611	03B086	739948	1639532	Musc.SC / Chl.SC	P-T	alternation zone of Musc.and Chl.SC, folded(NW plunge), near boundary of GD		
612	03B087	739841	1639536	Musc.SC	P-T	with Qz.lense(boudinage), schistosity show monocline		BS553

Annex 4 Outcrop List (Team B 13/21)

Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
613	03B088	739590	1639398	Musc.SC	P-T	with Qz.lense(boudinage), schistosity show monocline		
614	03B089	739558	1639367	Bio.SC / Grap.SC	P-T	alternation zone of Bio.and Grap.SC, this zone is identified as strong shear facies	B514	
615	03B090	739333	1639364	AL	Q	near SC, Qz.pebble inc.		BS554
616	03B091	739229	1639296	Musc.SC	P-T	weathered to lt.brn.(strong), schistosity show monocline		
617	03B092	739208	1639284	Musc.SC	P-T	weathered to lt.brn.(strong), schistosity show monocline		BS555
618	03B093	739153	1639332	MY (GD)	P-T	schistose(moderate), Epi.alt.(weak), weathered(moderate)		BS556
619	03B094	740865	1637070	AL	Q	near GD(Epi.alt.)		BS557
620	03B095	740800	1637132	Bio.Hbl.GD	P-T	med.grain, sili.Epi.(mod.), Hbl.porph.(8mm)	B515	
621	03B096	740716	1637184	MY (GD)	P-T	mylonite zone in GD(W:5m<), sili.Epi.(mod.)		
622	03B097	740494	1637221	Bio.Hbl.GD	P-T	silicified(strong),Epi.alt.(mod.)		BS558
623	03B098	740431	1637305	Bio.Hbl.GD	P-T	med.grain, weathered to lt.brn.		BS559
624	03B099	740429	1637359	Bio.Hbl.GD	P-T	med.grain, Hbl.porph.(5mm), weathered to lt.brn.		BS560
625	03B100	740499	1637464	MY (GD)	P-T	mylonite zone in GD, inc.elongated Bio.	B516	
626	03B101	740293	1637989	MY (GD)	P-T	mylonite zone in GD, inc.elongated Bio.		BS561
627	03B102	740305	1637982	MY (GD)	P-T	mylonite zone in GD, inc.elongated Bio.		BS562
628	03B103	740284	1638016	MY (GD)	P-T	with schistosity, Musc.was generated		BS563
629	03B104	740225	1638112	Bio.Hbl.GD	P-T	med.grain, weathared to lt.brn. inc.Qz.stockwork vein(w:5cm) with pseudotachylite to have slicken side	B517	
630	03B105	740189	1638166	MY (GD)	P-T	with schistosity, Musc.was generated		
631	03B106	740008	1638036	Bio.Hbl.GD	P-T	med.grain, massive, sili.in part, moderate foliated. Hbl.porph (5mm)		BS564
632	03B107	739971	1638064	Hb.Bio.GD	P-T	schistose(mod.), sili.(mod.) in part, Hem.(weak)		BS565
633	03B108	739840	1638038	Hb.Bio.GD	P-T	schistose(mod.), sili.(mod.) in part, Hem.(weak)		BS566
634	03B109	739832	1638031	Hb.Bio.GD	P-T	schistose(mod.), sili.(mod.) in part, Hem.(weak)		BS567
635	03B110	739687	1637944	Bio.Hbl.GD	P-T	with brittle fault, Smc./Kao.alt. along fault, GD is weathered		
636	03B111	739559	1638158	AL	Q	near MY		BS568
637	03B112	740120	1638150	MY (GD)	P-T	with schistosity, Musc.was generated		BS569
638	03B113	740072	1638430	MY (GD)	P-T	with schistosity, Musc.was generated		
639	03B114	739887	1638538	Bio.Hbl.GD	P-T	med.grain, massive, weathered to lt.brn.		BS570
640	03B115	739701	1638448	Bio.Hbl.GD	P-T	foliated(mod.), med.grain, Kao.alt.?		
641	03B116	739583	1638384	Bio.SC	P-T	near boundary between Bio.SC and MY(GD), boundary of SC/MY would be formed by shear		
642	03B117	739505	1638394	Qz.Musc.SC / grn.SC / MY	P-T	alternative zone of Qz.Musc.SC / grn.SC / MY, original rock of Qz.Musc.is MY(GD)	B518	
643	03B118	739463	1638408	Qz.Musc.SC	P-T	original rock of Qz.Musc.is MY(GD)		BS571
644	03B119	741529	1636413	MY (GD)	P-T	with schistosity, glassy in part		
645	03B120	741479	1636409	Bio.Hbl.GD	P-T	sili.(weak), Epi.(mod.), massive, med. to fine grain		BS572
646	03B121	741335	1636415	Bio.Hbl.GD	P-T	sili.Epi.(mod.), massive, med.grain, glassy in part		BS573
647	03B122	741241	1636387	Bio.Hbl.GD	P-T	sili.Epi.(mod.), massive, med.grain, glassy in part		BS574
648	03B123	741167	1636340	Bio.Hbl.GD	P-T	foliated(Hbl.,weak), Epi.(weak), massive, med grain		
649	03B124	741041	1636278	Bio.Hbl.GD	P-T	sili.Epi.(mod.), massive, med.grain, inc.segregated Bio.		BS575
650	03B125	741006	1636253	Bio.Hbl.GD	P-T	Epi.(mod.), massive, med.grain		BS576
651	03B126	740874	1636293	Bio.Hbl.GD	P-T	sili.(weak), Epi.(mod.), massive, med.grain	B519	BS577
652	03B127	740874	1636282	Bio.Hbl.GD	P-T	sili.(weak), Epi.(mod.), massive, med.grain		BS578
653	03B128	740662	1636267	Bio.Hbl.GD	P-T	sili.(weak), Epi.(mod.), massive, med.grain, weathered to lt.brn.		BS579
654	03B129	740581	1636275	AL	Q	near GD.		BS580
655	03B130	740437	1636339	AL	Q	near GD, with Qz.pebble on stream floor		BS581
656	03B131	740450	1636352	AL	Q	near GD, with Qz.pebble on stream floor		BS582
657	03B132	740279	1636392	AL	Q	near GD, with Qz.pebble on stream floor		BS583
658	03B133	740269	1636383	AL	Q	near GD, with Qz.pebble on stream floor		BS584
659	03B134	740264	1636374	AL	Q	near GD, with Qz.pebble on stream floor		BS585
660	03B135	740199	1636423	Bio.GD	P-T	schistose(mod.), looks like Qz.SC.in part, fine grain, weathered	B520	
661	03B136	740564	1636428	psm.SC (Musc.Qz.SC)	P-T	float(boulder), origin is Bio.Hlb.GD, weathered to pal.gry.	B522	
662	03B137	740626	1636597	psm.SC (Musc.Qz.SC)	P-T	float(boulder), origin is Bio.Hlb.GD, weathered to pal.gry.	B521	
663	03B138	742076	1633812	psm.SC (Qz.SC)	P-T	origin is Bio.Hlb.GD, weathered to lt.brn.		BS586

Annex 4 Outcrop List (Team B 14/21)

Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
664	03B139	741933	1633715	psm.SC (Oz.SC)	P-T	origin is Bio.Hbl.GD, inc.Qz.lense(boudinage), weathered to lt.brn.	B523	
665	03B140	741920	1633680	SL	P-T	gradually change from Bio.SC., hard, bl.gry.		
666	03B141	741951	1633529	SL	P-T	gradually change from Bio.SC., schistose in part, hard, bl.gry.		BS587
667	03B142	741934	1633482	Bio.SC / SL	P-T	alternative zone of Bio.SC / SL near boundary between SC / GD(psm.SC)		
668	03B143	742023	1633288	psm.SC (Oz.SC)	P-T	in alternative zone of Bio.SC / SL psm.SC origin is GD		BS588
669	03B144	742019	1633245	psm.SC (Oz.SC)	P-T	in alternative zone of Bio.SC / SL psm.SC origin is GD		BS589
670	03B145	742221	1634152	Bio.Hbl.GD	P-T	float(boulder), fine grain, foliated(weak), Epi.(weak), pal.grn.		
671	03B146	742394	1634238	AL	Q	near GD, muddy		BS590
672	03B147	742740	1634578	Bio.Hbl.GD	P-T	massive, fine, pal.grn.		BS591
673	03B148	742797	1634618	Bio.Hbl.GD	P-T	fine, schistose(mod.), dev.shear band of Bio. shear suggest cataclastic-pseudotachylite facies		BS592
674	03B149	742816	1634785	MY (GD)	P-T	origin is Bio.Hbl.GD(fine)		
675	03B150	742807	1634869	MY (GD)	P-T	origin is Bio.Hbl.GD(fine), parallel to foliation of Hbl.		BS593
676	03B151	742867	1634893	MY (GD)	P-T	origin is Bio.Hbl.GD(fine), parallel to foliation of Hbl.		BS594
677	03B152	742855	1634985	Hbl.Di.GD	P-T	dioritic GD., fine, foliated(mod), glassy, heterogeneous, pal.grn.	B524	
678	03B153	742952	1635212	Hbl.Di.GD	P-T	dioritic GD., fine, foliated(mod), schistose in part, glassy, Epi. with Oz.network(w:1cm), heterogeneous&melanoclastic, pal.grn.	B525	
679	03B154	743023	1635258	(Bio.)Hbl.Di.GD	P-T	dioritic GD., fine, foliated(mod), schistose in part, glassy, Epi. with Oz.network(w:1cm), heterogeneous&melanoclastic, pal.grn.		BS595
680	03B155	742930	1635295	(Bio.)Hbl.Di.GD	P-T	dioritic GD., fine, foliated(mod), schistose in part, glassy, Epi. with Oz.lense along fractures, heterogeneous&melanoclastic, pal.grn.	B526	BS596
681	03B156	743059	1635387	Bio.Hbl.GD	P-T	massive, fine to med.grain, weathered to lt.brn.		BS597
682	03B157	743093	1635454	Bio.Hbl.GD	P-T	massive, fine to med.grain, weathered to lt.brn.		BS598
683	03B158	743050	1635587	(Bio.)Hbl.Di.GD	P-T	dioritic GD., fine, foliated(mod), schistose in part, glassy, Epi. with Oz.lense along fractures, heterogeneous&melanoclastic, pal.grn.		BS599
684	03B159	742868	1635689	Bio.Hbl.GD	P-T	massive, fine grain, Epi.alt(mod.)	B527	BS600
685	03B160	742788	1635874	Bio.Hbl.GD	P-T	massive, fine grain, foliated(mod.) Epi.alt(mod.)		BS601
686	03B161	742847	1636069	Bio.Hbl.GD	P-T	massive, fine to med., sili.Epi.alt(mod.), glassy		BS602
687	03B162	742744	1636220	Bio.Hbl.GD	P-T	massive, med.grain, sili.Epi.alt(mod.), glassy		BS603
688	03B163	742738	1636303	Bio.Hbl.GD	P-T	massive, med.grain, sili.Epi.alt(mod.), glassy		BS604
689	03B164	742777	1636358	Bio.Hbl.GD	P-T	massive, med.grain, glassy		BS605
690	03B165	742745	1636543	Bio.Hbl.GD	P-T	massive, med.grain, sili.Epi.alt(mod.), schistose in part		BS606
691	03B166	742869	1636689	Bio.Hbl.GD	P-T	schistose in part(inc.shear band), med.grain, sili.Epi.alt(mod.)		BS607
692	03B167	742931	1636763	Bio.Hbl.GD	P-T	in shear zone(pseudotachylite), schistose(strong) with foliation shear band cut Oz.vein(right lateral sense)	B528	
693	03B168	742978	1636997	Bio.Hbl.GD	P-T	massive, fine grain, sili.alt.(weaak)		BS608
694	03B169	743107	1637067	Bio.Hbl.GD	P-T	massive, coarse to med., weathered to lt.brn.		
695	03B170	743171	1637288	Bio.Hbl.GD	P-T	massive, foliated(weak), med.to coarse, inc.porph.Hbl.(0.5cm)	B529	BS609
696	03B171	743148	1637287	Bio.Hbl.GD	P-T	massive, foliated(weak), med.to coarse, inc.porph.Hbl.(0.5cm)		BS610
697	03B172	741779	1636894	Hbl.Di.GD	P-T	dioritic GD., fine, foliated(mod), glassy, pal.grn. there are many Oz boulder with malachite&pyrite on terrace as float	B530	
698	03B173	738645	1636864	Musc.SC	P-T	with Qz.lense(boudinage), oxidized(mod.)		
699	03B174	738616	1636835	Musc.SC	P-T	with Qz.lense(boudinage), oxidized(mod.)		BS611
700	03B175	738510	1636691	Bio.SC	P-T	in Musc.SC, with Qz.lense(boudinage)		
701	03B176	738529	1636626	Musc.SC / Bio.SC	P-T	alternative zone between Musc.SC / SL, with Qz.lense		BS612
702	03B177	738474	1636506	Bio.SC / Musc.SC	P-T	alternative zone between Musc.SC / SL, with Qz.lense		BS613
703	03B178	738468	1636456	Bio.SC / Musc.SC	P-T	alternative zone between Musc.SC / SL, with Qz.lense		BS614
704	03B179	738502	1636267	SL	P-T	gradually change from SC		BS615
705	03B180	743014	1635834	Bio.Hbl.GD	P-T	massive, med.grain, Hbl.is not remarkable(1-2mm)		
706	03B181	743404	1635786	Bio.Hbl.GD	P-T	massive, fine-med.grain, Hbl.is not remarkable(1-2mm)		BS616
707	03B182	743527	1635753	Bio.Hbl.GD	P-T	foliate(mod.), med.grain, Hbl.&Bio.was segregated		BS617
708	03B183	743877	1635626	Bio.Hbl.GD	P-T	foliate(mod.), med.grain, Hbl.&Bio.was segregated		BS618
709	03B184	743986	1635388	Bio.Hbl.GD	P-T	foliate(mod.), med.grain, Hbl.&Bio.was segregated		BS619
710	03B185	744253	1635585	MY (GD)	P-T	float(boulder), weathered		
711	03B186	744394	1635648	Bio.Hbl.GD	P-T	massive, med.grain, Hbl.is not remarkable(1-2mm)		BS620
712	03B187	744421	1635637	Bio.Hbl.GD	P-T	massive, med.grain, Hbl.is not remarkable(1-2mm)		BS621
713	03B188	744990	1636439	MY (GD)	P-T	float(boulder), weathered		
714	03B189	745391	1636607	Bio.Hbl.GD	P-T	massive, med.-fine grain, Hbl.is not remarkable(1-2mm)		BS622

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Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
715	03B190	744844	1636220	Bio.Hbl.GD	P-T	massive, med.-fine grain, Hbl.is not remarkable(1-2mm)		
716	03B191	744700	1635961	Bio.Hbl.GD	P-T	massive, med.-fine grain, Hbl.is not remarkable(1-2mm)		
717	03B192	743773	1635147	Bio.Hbl.GD	P-T	massive, med.-fine grain, Hbl.is not remarkable(1-2mm)		
718	03B193	743399	1634515	MY (GD)	P-T	schistose(strong), shear band(Bio.) gene., med grain		
719	03B194	745261	1636757	MY (GD)	P-T	schistose(strong), shear band(Bio.) gene., med grain		
720	03B195	745112	1636796	Bio.Hbl.GD	P-T	massive, med.-fine grain, heterogeneous in parts, foli(weak)		
721	03B196	745065	1636793	Bio.Hbl.GD	P-T	massive, med.-fine grain, heterogeneous in parts, foliated(strong) with schistose	B531	BS623
722	03B197	744958	1636938	Bio.Hbl.GD	P-T	massive, med.-fine grain, heterogeneous in parts, schistose in parts		BS624
723	03B198	744753	1637051	Bio.Hbl.GD	P-T	massive, med.-fine grain, heterogeneous in parts, foliated(strong) with schistose, sili.Epi.alt.		BS625
724	03B199	744770	1637069	Bio.Hbl.GD	P-T	massive, med.-fine grain, heterogeneous in parts, foliated(strong) with schistose, sili.Epi.alt.		BS626
725	03B200	744672	1637088	MY (GD)	P-T	with Malc. along shear, mylonite show S-C	B532	
726	03B201	744651	1637111	MY (GD)	P-T	massive, med.-fine grain, heterogeneous in parts, foliated(strong) with schistose		BS627
727	03B202	744648	1637160	MY (GD)	P-T	massive, med.-fine grain, heterogeneous in parts, foliated(strong) with schistose, Epi.Ser.sili.alt.		BS628
728	03B203	744640	1637159	MY (GD)	P-T	massive, med.-fine grain, heterogeneous in parts, foliated(strong) with schistose, Epi.Ser.sili.alt.		BS629
729	03B204	744533	1637192	MY (GD)	P-T	massive, med.-fine grain, heterogeneous in parts, foliated(strong) with schistose, Epi.Ser.sili.alt.		BS630
730	03B205	744432	1637270	Bio.Hbl.GD	P-T	melanoclastic & heterogeneous, Hbl.porh.remarkable(5mm)		
731	03B206	744179	1637350	Hbl.Di.GD	P-T	schistose(strong), med.-fine grain		
732	03B207	744105	1637376	MY (Di.GD)	P-T	fine grain, with schistose, pal.grn.		BS631
733	03B208	744102	1637389	MY (Di.GD)	P-T	fine grain, with schistose(strong)		BS632
734	03B209	743985	1637387	Hbl.Di.	P-T	micro diorite facies in mylonite zone, massive, fine grain		BS633
735	03B210	743986	1637505	MY (Di.GD)	P-T	fine grain, with schistose(strong), looks like Qz.SC in parts		BS634
736	03B211	743812	1637627	Bio.Hbl.GD	P-T	mylonitic, with schistose, med. to coarse, Qz.porph.remarkable		BS635
737	03B212	743802	1637658	Bio.Hbl.GD	P-T	mylonitic, with schistose, med. to coarse, Qz.porph.remarkable		BS636
738	03B213	743761	1637727	MY (Di.GD)	P-T	fine grain, with schistose(strong), looks like Qz.SC in parts		BS637
739	03B214	743633	1637728	Bio.Hbl.GD	P-T	massive, coarse, Qz.(2-3mm) remarkable		BS638
740	03B215	743642	1637750	Bio.Hbl.GD	P-T	massive, coarse, Qz.(2-3mm) remarkable		BS639
741	03B216	743648	1637756	Bio.Hbl.GD	P-T	massive, coarse, Qz.(2-3mm) remarkable, foliated(mod.)	B533	BS640
742	03B217	744177	1640432	Bio.Hbl.Qz.DI	P-T	heterogeneous & melanoclastic, med.grain, aggregated Bio.remarkable, magnetic	B534	BS641
743	03B218	744181	1640323	Bio.Hbl.Qz.DI	P-T	heterogeneous & melanoclastic, med.grain, aggregated Bio.remarkable, magnetic		BS642
744	03B219	744152	1640144	Bio.Hbl.Qz.DI	P-T	massive, melanoclastic, med.grain, aggregated Bio.remarkable magnetic	B535	
745	03B220	744222	1640014	Bio.Hbl.Qz.DI	P-T	massive, melanoclastic, med.grain, aggregated Bio.remarkable magnetic		BS643
746	03B221	744400	1639993	Bio.Hbl.Qz.DI	P-T	heterogeneous & melanoclastic, coarse grain, aggregated Bio.remarkable, magnetic		BS644
747	03B222	744505	1639779	Bio.Hbl.Qz.DI	P-T	heterogeneous & melanoclastic, coarse grain, aggregated Bio.remarkable, magnetic, shear band of Bio.dev in parts		
748	03B223	744544	1639742	Bio.Hbl.Qz.DI	P-T	heterogeneous & melanoclastic, coarse grain, aggregated Bio.remarkable, magnetic, shear band of Bio.dev in parts		BS645
749	03B224	744560	1639585	Bio.Hbl.Qz.DI	P-T	heterogeneous & melanoclastic, coarse grain, aggregated Bio.remarkable, magnetic, shear band of Bio.dev in parts		BS646
750	03B225	744689	1639492	Bio.Hbl.Qz.DI	P-T	gneissose(strong), heterogeneous & melanoclastic, coarse grain magnetic, recrystallized and segregated Bio.remarkable	B536	
751	03B226	744797	1639480	Bio.Hbl.Qz.DI	P-T	heterogeneous & melanoclastic, coarse grain, magnetic inc.micro diolitic zeolith(10-20cm) along gneissose in parts		BS647
752	03B227	744834	1639523	Bio.Hbl.Qz.DI	P-T	heterogeneous & melanoclastic, coarse grain, magnetic inc.micro diolitic zeolith(10-20cm) along gneissose in parts		BS648
753	03B228	735892	1643318	MY (GD)	P-T	Musc.generated, foliated(strong) with schistose		BS649
754	03B229	735914	1643627	Bio.Hbl.GD	P-T	float(boulder), massive, med.grain		BS650
755	03B230	735817	1643819	Bio.Hbl.GD	P-T	float(boulder), massive, med.grain		BS651
756	03B231	735760	1643811	Bio.Hbl.GD	P-T	with Malc.Py.diss.along fractures, massive, med.grain		BS652
757	03B232	735771	1643811	Bio.Hbl.GD	P-T	with Malc.Py.diss.along fractures, massive, med.grain	B537	BS653
758	03B233	735734	1643894	Bio.Hbl.GD	P-T	massive, med.grain, inc.porph.Hbl.(0.5cm)remarkable		BS654
759	03B234	735535	1643720	AL	Q	near GD		BS655
760	03B235	735589	1643977	MY (GD)	P-T	Musc.generated, foliated(strong) with schistose		
761	03B236	735536	1643972	MY (GD)	P-T	Musc.generated, foliated(strong) with schistose		BS656
762	03B237	735360	1644171	MY (GD)	P-T	Musc.generated, foliated(strong) with schistose		BS657
763	03B238	735304	1644274	Bio.Hbl.GD	P-T	float(boulder), mylonitic&schistose(weak), Epi.alt.		
764	03B239	735235	1644422	Bio.Hbl.GD	P-T	with Py.mylonitic&schistose(weak), sili.Epi.alt.		BS658
765	03B240	735918	1644321	MY (GD)	P-T	foliated(strong) with schistose, weathered(Kao.alt.?)	B538	

Annex 4 Outcrop List (Team B 16/21)

Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
766	03B241	738862	1641468	Bio.Hbl.GD	P-T	massive, med.grain, Epi.alt., weathered(strong)		
767	03B242	738900	1641501	Bio.Hbl.GD	P-T	in trench, massive, med.grain, Epi.alt., weathered(strong)		
768	03B243	738892	1641559	Bio.Hbl.GD	P-T	in trench, massive, med.grain, Epi.alt., weathered(strong)	B539(a,b,c,d,e,f,g,h)	
769	03B244	738869	1641573	Bio.Hbl.GD	P-T	in trench, Azur.Malc.Cpy.Py.generate in Qz vein(lense), massive med grain Epi alt. weathered(strong)		
770	03B245	738575	1642379	MY (GD)	P-T	with Qz.vein, Musc.generated, foliated(strong) with schistose, weathered(strong) to wt.-pal.grv	B540	
771	03B246	738533	1642571	Bio.Hbl.GD	P-T	with Qz.network, Epi.alt.(strong), weathered(mod.)		
772	03B247	737896	1643332	Bio.Hbl.GD	P-T	with Malc.diss. along fractures, massive, med grain schistose in part. sili.(weak)	B541	
773	03B248	737522	1643433	Bio.Hbl.GD	P-T	massive, med.to coarse, Epi.alt.(mod.), weathered(strong)		
774	03B249	737361	1643436	Bio.Hbl.GD	P-T	massive, med.to coarse, Epi.alt.(mod.), weathered(strong)		
775	03B250	737228	1643477	Bio.Hbl.GD	P-T	massive, med.to coarse, Epi.alt.(mod.), weathered(strong)		
776	03B251	736967	1643663	Bio.Hbl.GD	P-T	massive, med.to coarse, Epi.alt.(mod.), weathered(strong)		
777	03B252	736802	1643854	Bio.Hbl.GD	P-T	massive, med.to coarse, Epi.alt.(mod.), weathered(strong)		
778	03B253	736359	1643994	Bio.Hbl.GD	P-T	massive, med.to coarse, Epi.alt.(mod.), weathered(strong) inc.Hbl.(5mm) remarkable		
779	03B254	736160	1644084	MY (GD)	P-T	foliated(strong) with schistose, Epi.alt.(mod.), oxidized in part weathered(strong) to pal.grv-pal.grn.		
780	03B255	735577	1644679	Bio.Hbl.GD	P-T	massive, med.to coarse, Epi.alt.(weak)		
781	03B256	744027	1632860	AL	Q	near GD		BS659
782	03B257	744478	1633174	AL	Q	near GD		BS660
783	03B258	744567	1633459	AL	Q	near GD		BS661
784	03B259	744159	1633566	AL	Q	near GD		BS662
785	03B260	744323	1633352	Bio.Hbl.GD	P-T	massive, med grain, not observe alt.		
786	03B261	745207	1633062	AL	Q	near GD		BS663
787	03B262	745271	1633049	AL	Q	near GD		BS664
788	03B263	760980	1639186	SL	P-T	with Qz.lense(10cm), with micro-foldings, Bio.SC.alt. in part		BS665
789	03B264	761175	1638912	SL / Bio.SC	P-T	alternative of SL/SC, with Qz.veins(w:80cm)		BS666
790	03B265	761241	1638844	Bio.SC / SL	P-T	alternative of SC/SL		BS667
791	03B266	761289	1638577	SL / SS	P-T	with Py.Qz.along shear, alternative of SL/SS, with micro-foldings and faults		BS668
792	03B267	761350	1638513	SL / SS	P-T	alternative of SL/SS, with micro-foldings and faults		BS669
793	03B268	761450	1638369	SL	P-T	massive, jointed, with micro-foldings and faults		BS670
794	03B269	761694	1637792	SL	P-T	massive, with micro-foldings and faults		BS671
795	03B270	761548	1638075	SL	P-T	massive, with micro-foldings and faults		BS672
796	03B271	761641	1637491	SL	P-T	massive, with micro-foldings and faults		BS673
797	03B272	761805	1637314	SL	P-T	with Py.Qz.along shear, alternative of SL/SS, with micro-foldings and faults		BS674
798	03B273	761784	1636803	SL	P-T	well bedded, slaty=bedding, sili.(weak), dk.gry		BS675
799	03B274	761730	1636693	SL	P-T	well bedded, slaty=bedding, sili.(weak), dk.gry		BS676
800	03B275	761672	1636789	met.SS	P-T	med.grain, schistose(weak), looks like granite, bl.gry., with Oz.vein(w:4cm)		BS677
801	03B276	761697	1636943	QT	P-T	w:10m<, massive, small cracks dev, wt.gry to wt		
802	03B277	761675	1637031	met.SS	P-T	med.grain, with Py., schistose(mod.), bl.gry.		BS678
803	03B278	761682	1637135	SL	P-T	with Py., bedding=slaty, schistose(weak), dk.gry.		
804	03B279	761699	1637285	SL / SS	P-T	alternative, bedding=slaty, dk.gry		
805	03B280	761571	1637328	QT	P-T	w:10m<, massive, small cracks dev, wt.gry to wt		BS679
806	03B281	761523	1637333	SL / SS	P-T	in shear zone(w:10cm, ductile to brittle), fault bre.inc, with Oz.lense(2-5cm). facies is ditto to 03B279		
807	03B282	761484	1637414	M.SS	P-T	massive, med.grain, schistose(weak), lt.gry		
808	03B283	761567	1637488	SL	P-T	well bedded, schistose(weak), Bio.gene., dk.gry		
809	03B284	761487	1637643	SL	P-T	well bedded, schistose(weak), Bio.gene., dk.gry		BS680
810	03B285	761486	1637720	SL	P-T	well bedded, schistose(weak), Bio.gene., dk.gry		BS681
811	03B286	761460	1637813	SL	P-T	in shear zone(w:10cm, ductile to brittle), with Py.diss.Qz.lense, Bio.SC in part. SL facies is ditto to 03B285	B542	
812	03B287	761391	1637986	SL	P-T	well bedded, schistose(weak), Bio.gene., with Qz lense, dk.gry		BS682
813	03B288	761245	1638204	SL	P-T	in shear zone(w:10cm, ductile to brittle), Bio.SC in part, SL facies is ditto to 03B285		BS683
814	03B289	760944	1638169	QT	P-T	w:20m<, massive, very hard, wt.gry to wt		
815	03B290	760995	1638185	Musc.SC	P-T	psammitic in part, lt.gry, weathered to lt.brn		
816	03B291	761021	1638471	AL	Q	near SL / Musc.SC		BS684

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Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
817	03B292	761007	1638443	AL	Q	near SL / Muse.SC		BS685
818	03B293	760905	1638153	Bio.Hbl.GD	P-T	boundary of GD-->QT, fine grain, heterogeneous, OT blocks(3-5cm) trapped as xenolith in GD, bearing dark inclusion		
819	03B294	760908	1638132	Two mica GR	P-T	fine grain, massive, sili.(strong to mod.), dk.-lt.gry	B543	BS686
820	03B295	760696	1638259	Bio.Hbl.GD	P-T	in shear zone(brittle), chlorite gen.in shear-band, heterogeneous. OT blocks(3-5cm) trapped as xenolith in GD		BS687
821	03B296	760509	1638414	Two mica GR	P-T	in shear zone(30cm), pseudotachylyte gen., fine grain. OT blocks(3-5cm) trapped in GR		
822	03B297	760504	1638485	Two mica GR	P-T	heterogeneous, sili.(strong), bearing dark inclusion, OT blocks(10m) trapped as xenolith in GR wt.gry		
823	03B298	760290	1638390	Bio.GN	P-T	mixed facies SS.and Gr., with Py.diss.Qz veins(5-10cm)	B544	
824	03B299	760219	1638370	Two mica GR	P-T	melanoclastic to leucoclastic, heterogeneous, sili(weak), med to fine grain near gneiss		BS688
825	03B300	760199	1638384	Two mica GR	P-T	gneissic, melanoclastic heterogeneous, weathered to lt.brn	B545	BS689
826	03B301	760486	1638806	Bio.Hbl.GD	P-T	massive, fine to med.grain, plagioclase injection inc., marginal facies of two-mica GR?		BS690
827	03B302	760488	1638836	Bio.Hbl.GD	P-T	massive, fine to med.grain, plagioclase injection inc., marginal facies of two-mica GR? looks like gabbro in part	B546	BS691
828	03B303	760717	1638790	Bio.Hbl.GD	P-T	melanoclastic facies of 03B301, coarse to fine grain, heterogeneous, looks like gabbro		
829	03B304	760784	1638758	SL	P-T	well bedded, folded, weak hornfelsic, sili(mod.)		
830	03B305	760829	1638679	AL	Q	near SL		BS692
831	03B306	760982	1638575	SL	P-T	massive, dk.gry.		
832	03B307	762113	1636508	met.SS / SL	P-T	alternation of SS/SL, SS: finegrain, dk.gry, SL: dk.gry, sili(mod.), bedding=slaty		
833	03B308	761612	1636520	Cgl / met.SS	P-T	alternation of Cgl/SS, Qz.lense inc., Cgl matrix: E.SS. Bre of Cgl: Oz only(pebble. 1-3cm)		
834	03B309	761580	1636480	Vf.SS	P-T	massive, slaty(weak), Qz.vein(w:5cm), lt.gry.-bl.gry.		
835	03B310	761459	1636353	M.SS	P-T	massive, Py.diss., inc.Qz.lense in part, sili.(mod.to strong)		BS693
836	03B311	761432	1636353	M.SS / F.SS	P-T	alternation of M.SS/F.SS, sili(weak-mod.), well bedded, grains in SS are Oz and Pl only		
837	03B312	761273	1636444	M.SS / F.SS	P-T	alternation of M.SS/F.SS, sili(weak-mod.), well bedded, grains in SS are Oz and Pl only		
838	03B313	761109	1636460	M.SS / F.SS	P-T	alternation of M.SS/F.SS, sili(mod.) in part, well bedded, grains in SS are Oz and Pl only. looks like GR in part		BS694
839	03B314	761109	1636490	M.SS / F.SS	P-T	alternation of M.SS/F.SS, sili(mod.) in part, well bedded, grains in SS are Oz and Pl only. looks like GR in part		BS695
840	03B315	761476	1637189	F.SS	P-T	massive, bedded(slight), weathered to lt.gry.		
841	03B316	761358	1637132	F.SS	P-T	massive, slili(weak), well slaty&bedded, inc.Qz lense(2cm)		
842	03B317	761268	1637115	F.SS / M.SS	P-T	in shear zone(w:1m), cataclastic, Py.diss. alternation of F.SS/M.SS, nal grn to dk.gry.	B547	BS696
843	03B318	761234	1637130	Cgl / F.SS	P-T	same facies of 03B308, alternation of Cgl/F.SS, Cgl inc. Oz pebble(1-3cm, sub angular)		
844	03B319	761056	1637204	QT	P-T	massive, intercurrent in met.SS(10m<)		
845	03B320	761033	1637184	met.SS	P-T	near met.SS, looks like GR, sili.(mod.to strong), bedded, lt.gry.		
846	03B321	760928	1637180	met.SS / MS / QT	P-T	alternation of SS/MS/QT, sili.(strong), with Qz.lense		
847	03B322	760625	1637122	M.SS	P-T	gneissic, paleosome of mixed GR/SS?, Bio.gene.many	B548	
848	03B323	760563	1637044	met.SS / Muse.Qz.SC / QT	P-T	alternation, origin is SS, Qz.lense(max.5m) inc.		BS697
849	03B324	762321	1636214	SL	P-T	massive, slaty=bedding, alternative of dk.gry/lt.gry.		BS698
850	03B325	762384	1636117	SL / Vf.SS	P-T	alternation of SL/SS, Py.diss.Qz.vein(10cm) inc., Bio.gene.?	B549	
851	03B326	762386	1636040	QT	P-T	massive, w:20m<, inc.slickenside showing to upside moving		
852	03B327	762275	1635900	SL	P-T	with Bio.SC in locally, with Py.diss., dk.gry.		
853	03B328	762302	1635914	QT	P-T	massive, intercurrent in SL(w:10m<)		
854	03B329	762069	1635871	SL	P-T	with Bio.SC in locally, bedding=slaty, dk.gry.		BS699
855	03B330	762084	1635863	SL	P-T	with Bio.SC in locally, bedding=slaty, Qz.vein inc., dk.gry. small brittle fault show left lateral		BS700
856	03B331	761978	1635751	SL	P-T	massive, bedding=slaty, with Qz.lense(5cm), dk.gry.		
857	03B332	761916	1635695	Cgl	P-T	same facies of 03B308, Cgl inc. Qz pebble(1-2cm, sub angular)		
858	03B333	761698	1635633	met.SS	P-T	massive, med.grain, inc.thin Qz.pebble layer in part, lt.gry.		BS701
859	03B334	761698	1635613	met.SS	P-T	massive, med.grain, inc.thin Qz.pebble layer in part, lt.gry.		BS702
860	03B335	742734	1640098	Bio.Hbl.GD	P-T	float, weathered, inc.many Qz.fragments(10mm)		
861	03B336	742757	1639932	Bio.Hbl.GD	P-T	float, weathered, med.grain, strong schistose		
862	03B337	742831	1639730	MY (GD)	P-T	float, weathered to lt.gry, strong schistose		BS703
863	03B338	743121	1639281	Bio.Hbl.GD	P-T	float, heterogeneous, inc.Hbl.(6mm) remarkably		BS704
864	03B339	743404	1638982	Bio.Hbl.GD	P-T	float, heterogeneous, inc.Hbl.(6mm) remarkably		BS705
865	03B340	743920	1638705	AL	Q	near GD		
866	03B341	744488	1638668	Bio.Hbl.GD	P-T	massive, med.to coarse, schistose, Epi.-Chl.alt(mod.), inc. Bio(5mm) remarkably. Pv dis in parts	B552	
867	03B342	744529	1638574	Bio.Hbl.GD	P-T	heterogeneous, med.to coarse, magnetic, Epi.-Chl.alt(mod.), inc. Bio(5mm) remarkably	B553	BS706

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Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
868	03B343	741742	1636814	Bio.Hbl.GD	P-T	in Po.Cu.system with Qz.network-Ser.alt., Azu.Malc.Cpy.,bonite and tenolite dis.	B554	
869	03B344	741759	1636829	Bio.Hbl.GD	P-T	with Malc.Qz.vn.(14cm), massive, med.-fine, Epi.-Chl.alt.(mod.)	B555	
870	03B345	741776	1636904	Bio.Hbl.GD	P-T	sili.(mod.), massive, med.-fine, Epi.-Chl.alt.(mod.)		
871	03B346	741779	1636962	Bio.Hbl.GD	P-T	sili.(weak), massive, med.-fine, Epi.-Chl.alt.(mod.), with shear		
872	03B347	741797	1637113	Bio.Hbl.GD	P-T	with Malc.Qz.vn.(15cm), mylonitic, med.-fine, Epi.alt(weak)	B556	
873	03B348	741840	1637245	Bio.Hbl.GD	P-T	massive, med.grain, schistose in parts, Epi.alt.(weak)		
874	03B349	741839	1637586	Bio.Hbl.GD	P-T	cataclastic, shear-band gene., Chl.alt.(mod.)		
875	03B350	741848	1637605	Bio.Hbl.GD	P-T	with Qz.vn.(70cm), massive, med.grain		
876	03B351	741845	1637747	Bio.Hbl.GD	P-T	weak foliated, Chl.alt.(mod.), massive, med.grain		
877	03B352	741593	1637886	Bio.Hbl.GD	P-T	massive, fine-med.grain, weathered to lt.brn.		BS707
878	03B353	741482	1637883	Bio.Hbl.GD	P-T	with Malc.Qz.vn., shear-band gene., fine grain, Chl.alt.(mod.)	B557	
879	03B354	741350	1638087	Bio.Hbl.GD	P-T	shear-band gene., fine grain, Chl.alt.(mod.), weathered to lt.brn.		BS708
880	03B355	741370	1638345	Bio.Hbl.GD	P-T	massive, med.fine grain, Chl.alt.(weak), weathered in parts		
881	03B356	741252	1638432	Bio.Hbl.GD	P-T	weak sheared, fine-med.grain, weathered to lt.brn.		
882	03B357	741272	1638605	MY (GD)	P-T	Musc.generated, foliated(strong) with schistose		
883	03B358	741253	1638673	MY (GD)	P-T	s-c mylonite, Musc.generated, foliated(strong) with schistose		
884	03B359	740198	1639981	AL	Q	near MY		
885	03B360	740325	1640047	MY (GD)	P-T	Musc.generated, foliated(strong) with schistose, pal.grn.gry.		BS709
886	03B361	740324	1640050	MY (GD)	P-T	Musc.generated, foliated(strong) with schistose, pal.grn.gry.		BS710
887	03B362	740460	1640011	Bio.Hbl.GD	P-T	massive, med.grain, feldspar not alt., weathered to lt.brn.		
888	03B363	740568	1639926	Bio.Hbl.GD	P-T	massive, med.grain, feldspar not alt., weathered to lt.brn.		BS711
889	03B364	740700	1639994	CA (GD)	P-T	with Qz.vn.(8cm), shear-band dev.along Qz.vn., no.alt.		
890	03B365	740844	1640064	Bio.Hbl.GD	P-T	massive, med.grain, weathered to lt.brn.		BS712
891	03B366	740841	1639917	Bio.Hbl.GD	P-T	foliated and schistose in parts, massive, Epi.Chl.alt.(weak)		
892	03B367	740911	1639830	Bio.Hbl.GD	P-T	foliated and schistose in parts, massive, Epi.Chl.alt.(weak)		BS713
893	03B368	688889	1691902	M.SS / ST	J1	SS with Azu.Malc.and mollusca fossil, SS:pal.grn.(bleaching spot), ST:rd.brn.(oxidized zone). SS dominant, well bedded		
894	03B369	688926	1691783	M.SS	J1	with Azu.Malc.and mollusca fossil, pal.grn.to lt.gry., well bedded		
895	03B370	688921	1691732	M.SS / F.SS / ST	J1	SS with Azu.Malc.and mollusca fossil, SS:pal.grn.(bleaching spot), ST:rd.brn.(oxidized zone). SS dominant, well bedded		
896	03B371	689018	1691502	ST	J1	massive, rd.brn., many cracks dev.		
897	03B372	688978	1691372	M.SS	J1	well bedded, lt.gry., transition zone between bleaching spot and oxidized zone		
898	03B373	688988	1691336	M.SS	J1	with Azu.Malc.and mollusca fossil, pal.grn.to lt.gry., well bedded		
899	03B374	689062	1690985	M.SS / C.SS	J1	with lamination, lt.gry, int.calc.SS.bed(50cm).		
900	03B375	689051	1690807	M.SS / C.SS	J1	with lamination, lt.gry, int.calc.SS.bed(50cm).		
901	03B376	689096	1690618	ST / Vf.SS	J1	lt.gry to dk.gry., ST dominant		
902	03B377	688923	1690330	Terrace deposit	Q	There are many Qz.pebble on surface		
903	03B378	689146	1690268	Vf.SS	J1	lt.gry.to cream, very loose(weathered to lt.brn.)		
904	03B379	689438	1690245	Vf.SS	J1	with Azu.Malc., mollusca fossil not inc.remarkably, pal.grn.to gry. upper and lower layer is rd.brn.Vf.SS	B558	
905	03B380	689553	1690248	M.SS / Vf.SS	J1	lt.gry to rd.brn., calcareous in parts, inc.small cal.venlets(w:1-2mm), lower laver of SS with Azu.Malc.		
906	03B381	689659	1690242	ST	J1	massive, rd.brn., many cracks dev.		
907	03B382	689848	1690236	ST	J1	massive, rd.brn., many cracks dev.		
908	03B383	689450	1690349	F.SS	J1	with Azu.Malc., mollusca fossil not inc.remarkably, pal.grn.to gry., lower laver of 03B380 Cu occurrence		
909	03B384	690072	1690312	F.SS	J1	massive, rd.brn., well bedded, laminated, hard		BS714
910	03B385	690031	1690304	Vf.SS	J1	massive, rd.brn., small cracks dev., hard		BS715
911	03B386	690020	1690755	Vf.SS	J1	massive, rd.brn., small cracks dev., hard		
912	03B387	690641	1691240	F.SS	J1	yellowish brn., well bedded, loose, weathered		
913	03B388	690397	1691749	F.SS	J1	well bedded, yellowish brn., pal.grn. in parts		BS716
914	03B389	689483	1692101	Vf.SS / ST	J1	with Malc., mollusca fossil not inc.remarkably, SS:pal.grn.to gry., ST:dk.gry.to gry. lower laver of mineralization show rd.brn.	B559	
915	03B390	689431	1691454	Terrace deposit	Q	near rd.brn.Vf.SS, there are many Oz. and silicified wood on surface		BS717
916	03B391	689425	1691445	Terrace deposit	Q	near rd.brn.Vf.SS, there are many Oz. and silicified wood on surface		BS718
917	03B392	689140	1691637	Vf.SS	J1	massive, rd.brn		
918	03B393	688459	1691635	Vf.SS	J1	massive, pal.grn.to gry.		

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Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
919	03B394	687577	1691910	Terrace deposit	Q	near Vf.SS		B5719
920	04B001	741702	1637492	Bio.Hbl.GD	P-T	weak folkiated, med.grain, Chl.alt.(weak), weathered to lt.brn.		
921	04B002	741654	1637587	Bio.Hbl.GD	P-T	massive, med.grain, weathered to lt.brn.		
922	04B003	741477	1637586	Bio.Hbl.GD	P-T	saprolite, there are many manganese float on ground		
923	04B004	741163	1637469	MY (GD)	P-T	S-C mylonite, med.to fine grain, weathered to lt.brn.		
924	04B005	741220	1637482	MY (GD)	P-T	Malc.diss.(w:10m<), inc.Qz.vein(2cm) with Malc., direction of vein closs to mylonite foliation, med-fine, Chl.alt(mod.)	B560	
925	04B006	741289	1637442	MY (GD)	P-T	Malc.diss.(w:10m<), inc.Qz.vein(10cm) with Malc., direction of vein closs to mylonite foliation, med-fine, Chl.alt(mod.)	B561	
926	04B007	741307	1537444	MY (GD)	P-T	inc.Qz.stockwork with Malc.diss.(w:5m<), Ser. and sili.alt.(strong), direction of stockwork veins closs to mylonite foliation	B562	
927	04B008	741346	1637344	CA (GD)	P-T	strong schistose, inc.Qz.vein(2cm) with Malc., shear-band dev., looks like Ser.Oz.SC., folded in parts(NE plunging)	B571	
928	04B009	741341	1637320	CA (GD)	P-T	moderate to strong schistose, shear-band dev., med-fine, weathered, no alt., south of mineralization		
929	04B010	741358	1637199	CA (GD)	P-T	moderate to strong schistose, shear-band dev., weathered to lt.brn. med-fine, weathered, no alt., south of mineralization		
930	04B011	741279	1637468	CA (GD)	P-T	inc.Qz.vein(4cm) with Malc.chalcosite(?),bonite(?), strong schistose, shear-band dev., med-fine.	B563	
931	04B012	741285	1637495	Bio.Hbl.GD	P-T	strong silicified&bleached(w:1m), like a vein, med.grain	B564	
932	04B013	741139	1637805	Bio.Hbl.GD	P-T	saprolite, original rock is GD.		
933	04B014	741313	1637419	CA (GD)	P-T	float, with Qz.vein(lense)	B565	
934	04B015	741653	1637051	Bio.Hbl.GD	P-T	fine to med.grain, weak schistose, chl.alt.(mod.)		
935	04B016	741730	1636911	Bio.Hbl.GD	P-T	with Malc.Azu.diss.along shear, mod.schistose, chl.alt.(mod)	B566	
936	04B017	741741	1636825	Bio.Hbl.GD	P-T	strong Ser.alt., strong schistose, north of TrenchA-01		
937	04B018	741740	1636780	Bio.Hbl.GD	P-T	Trench A-01, strong Ser.sili.Chl.alt.GD. and saprolite	B567a,b,c,d B568, B569	
938	04B019	741094	1637525	MY (GD)	P-T	with Qz.veinlets(w:2cm), Chl.alt., vn.and foliated direction is parallel		
939	04B020	741068	1637531	MY (GD)	P-T	strong schistose, Musc.generate, Chl.alt.(mod.)		
940	04B021	740994	1637604	MY (GD)	P-T	strong schistose, Musc.generate, Chl.alt.(mod.)		
941	04B022	740957	1637677	MY (GD)	P-T	strong schistose, Musc.generate, looks like Muse.SC., Chl.alt.(mod.), folded		
942	04B023	740950	1637710	MY (GD)	P-T	inc. Qz.vein(90cm), no sulfied and Cu.		
943	04B024	741272	1637102	Bio.Hbl.GD	P-T	massive, med.grain, Epi.alt.(weak)		
944	04B025	741256	1637476	MY (GD)	P-T	inc.Qz.vn(w:5cm*2).with Malc.chalcosite(?).bonite,	B570	
945	04B026	741326	1637397	Bio.Hbl.GD	P-T	strong silicified&bleached boulder with Malc.	B572	
946	04B027	741295	1637460	Bio.Hbl.GD	P-T	Trench A-02, strong Ser.sili.alt.GD. and saprolite	B573a,b,c,d	
947	04B028	735748	1651032	Vc.SS.	P-T	Qz.SS.(40%), gry.to wt.gry., very hard, inc.QT in place		
948	04B029	735664	1651338	C.SS. / F.SS	P-T	dk.gry.to lt.gry, very hard, slaty in place		
949	04B030	736032	1654313	Vc.SS.	P-T	Qz.SS.(30%), gry.to pinkish gry., oxidized in place, very hard		
950	04B031	736011	1654411	GR / QT	P-T	granite:monzonite(coarse grain, weathered), OT show hornfels facies of intruded by granite	B574	
951	04B032	739953	1656244	Hbl.Bio.GD	P-T	Kf porphyritic(max.5cm), coarse, weak schistose in place		
952	04B033	740959	1654956	Hbl.Bio.GD	P-T	Kf porphyritic, heterogeneous, Chl.alt.(mod.) in place		
953	04B034	741180	1656116	MY(GD)	P-T	gneissic&mylonitic in place, Hbl.Bio., heterogeneous, med.		
954	04B035	741016	1657831	MY(GD)	P-T	gneissic in place, Hbl.Bio., heterogeneous, Chl.alt.		
955	04B036	741582	1659695	Bio.Hbl.GD	P-T	float, float on stream(Met.SS.:GD:SY=8:2:1)		
956	04B037	740336	1663178	Bio.Hbl.GD	P-T	float, float on stream(Met.SS.:GD:GN GD=8:2:1)		
957	04B038	757893	1657406	met.BA	P-T	slaty in part, looks like sandstone, lt.gry to dk.gry		
958	04B039	757895	1657294	met.BA	P-T	slaty in part, looks like sandstone, magnetic(strong), dk.gry	B575	
959	04B040	757963	1657110	met.BA	P-T	strong sheared, weathered to rd.brn. there are many OT float(boulder) on stream		
960	04B041	758220	1656993	QT	P-T	float(boulder)		
961	04B042	758575	1657064	Chl.SC / Musc.SC	P-T	strong weathered to rd.brn-pal.grm origin is basalt. would be corresponded to sheared zone in met.BA		
962	04B043	758662	1657154	Musc.SC	P-T	strongly weathered to rd.-lt.brn		
963	04B044	758723	1657187	SC (BA)	P-T	strongly wethered to rd.-lt.brn., inc.Qz.lense(5cm) & vein-lets(w:0.5cm), origin would be basalt		
964	04B045	758864	1657240	SC (BA)	P-T	strongly wethered to rd.-lt.brn., with Qz.vn.(w:10cm) origin would be basalt		
965	04B046	758890	1657226	SC (BA)	P-T	strongly wethered to rd.-lt.brn., with smorky Qz.vn.(10cm) & lense (10cm), appendant shear sense shows normal, origin would be basalt	B576	
966	04B047	758829	1657167	QT	P-T	Zone of strong sili.Ser.alt.with Qz.stock works(w:2-5mm), zone width is 5m. origin of OT is two mica GR?	B577	
967	04B048	758889	1657257	SC (BA)	P-T	strong Ser.alt.zone(w:20m), bearing talc?, with Qz.lense(5cm), origin would be basalt	B578	
968	04B049	758765	1657445	SC (BA)	P-T	strongly wethered to rd.-lt.brn., with Qz.lense(5cm) origin would be basalt		
969	04B050	758798	1657458	met.BA	P-T	schistose(mod.to weak), strong weathered to rd.brn.	B579	

Annex 4 Outcrop List (Team B 20/21)

Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
970	04B051	757777	1655421	met.BA / Chl.SC	P-T	inc.Qz.vn.(w:0.6m*3m) with Malc.Cpy., vn.dev.along schistsity	B580 B581	
971	04B052	757550	1655250	met.BA / Chl.SC	P-T	metamorphic grade is lower than upstream(tremolite facies), small Oz.lense inc.in place		
972	04B053	757495	1655170	Olivine-pyroxene peridotitic gabbro	P-T	foldings and schistosity dev.moderate, bearing visible olivine many, inc.talc noticeably. med.grain	B582	
973	04B054	757410	1655080	met.BA	P-T	hornfelsic, fine grain, schistosity dev.		
974	04B055	757123	1654980	Pyroxene-hornblende gabbro	P-T	med.-fine grain, with Py.(mod.), Chl.alt.(mod.) would be gabbro facies of met basalt	B583	
975	04B056	757051	1654785	Pyroxene-hornblende gabbro	P-T	med.-fine grain, with Calcite vn.(w:5mm), Chl.alt.(mod.) would be gabbro facies of met basalt		
976	04B057	756957	1654753	QT	P-T	sheared, near boundary between QT / GB, Py.diss(mod).		
977	04B058	756818	1654800	Garnet two mica GR	P-T	intrude to QT, Py.diss.intense, bearing garnet?	B584	
978	04B059	756815	1654847	QT	P-T	strong Py.diss.zone with brittle shearing (w:5m*50m), near boundary between QT / Two mica GR.	B585	
979	04B060	756659	1654726	Bio.GN	P-T	with pygmatic folds characteristically, with Qz.lense(5cm) Py.diss.(mod.) along fractures		
980	04B061	756475	1654910	Bio.SC / Musc.SC	P-T	strong sheared(metamorphosed) zone in GN secondary Bio.& Musc.generate intense. inc. silimanite?	B586	
981	04B062	756245	1654946	Gar.Bio.GN	P-T	heterogeneous, inc.Gar?, med.to fine grain	B587	
982	04B063	756093	1655132	Gar.Bio.GN	P-T	heterogeneous, inc.Gar?, schistose(mod.to weak), med.to fine grain There are many boulder of svenite in the stream		
983	04B064	764859	1683401	SL	P-T	float, strong weathered to lt.brn.		
984	04B065	764840	1683638	LS	P-T	pelitic limestone, dk gry, not react by HCl		
985	04B066	764625	1684013	LS	P-T	clastic limestone, lt.gry to cream, not react by HCl		
986	04B067	765066	1684288	LS	P-T	clastic limestone, pelitic in part, lt.gry to dk.gry, not react by HCl		
987	04B068	765134	1684426	F.SS	P-T	limy, hornfelsic, dk.gry., very hard		BS1001
988	04B069	765165	1684450	F.SS	P-T	well bedded, loose, weathered to lt.brn.		BS1002
989	04B070	765010	1684955	QT	P-T	conglomeritic(inc.Qz.fragments, sub-angular), weathered to lt.brn.		
990	04B071	765372	1685256	QT	P-T	float, well banded, looks like chert		
991	04B072	765577	1685684	SL	P-T	looks like Bio.SC.in parts, weathered to lt.brn.		BS1003
992	04B073	765772	1685900	laterite	P-T	strong weathered of SL, generate Fe-Mn oxides many		
993	04B074	765951	1686037	SL	P-T	looks like Bio.SC.in parts, weathered to lt.brn.		
994	04B075	765467	1686048	SL	P-T	looks like Bio.SC.in parts, dk.gry.		
995	04B076	765166	1686503	QT	P-T	consist of Qz.grain only(1-2mm), not banded, weak schistose		
996	04B077	765224	1687234	QT	P-T	consist of Qz.grain only(1-2mm), generate Fe-Mn oxides		
997	04B078	764743	1688413	Musc.SC	P-T	strong wseathered to lt.gry.to rd.brn.		
998	04B079	765011	1689148	HO	P-T	original rock is SS., looks like pelitic limestone in place, this facies would be change to QT		
999	04B080	764984	1689644	Bio.GR	P-T	strong kaolinitized(potassic feldspar was replaced to kaolinite), may be pegmatic facies of GR. would be heat source of QT		
1000	04B081	764890	1689866	QT	P-T	float, inc. potassic feldspar many, kaolinitized(mod.)	B588	
1001	04B082	764742	1690302	Musc.Qz.SC	P-T	strong limonitized, Py.diss.(mod.), generate Fe-Mn oxides		
1002	04B083	764685	1690475	Musc.Qz.SC	P-T	with Qz.vein-lets(w:1cm-5cm), Py.diss.(mod.), generate Fe-Mn oxides, strong limonitized in parts	B589	
1003	04B084	764587	1690924	SL	P-T	strong limonitized, generate Fe-Mn oxides		
1004	04B085	764827	1690088	Bio.GR	P-T	strong kaolinitized(potassic feldspar was replaced to kaolinite), may be pegmatic facies of GR. would be heat source of QT	B590	
1005	04B086	765933	1687840	SL	P-T	dk.gry., weathered to dk.brn.in parts		
1006	04B087	766214	1687743	QT	P-T	massive, lt.gry, weathered to wt.in parts		
1007	04B088	767000	1687667	SL	P-T	dk.gry., weathered to dk.brn.in parts		
1008	04B089	767187	1687830	QT	P-T	schistose slightly, looks like Qz.SC., lt.gry., hard, form cliff		
1009	04B090	767474	1688500	QT	P-T	boulder, schistose slightly, lt.gry.		BS1004
1010	04B091	767486	1688370	Bio.GN	P-T	boulder, typical GN, there are many GN boulder on the stream		BS1005
1011	04B092	767516	1688574	Grp.SC.	P-T	a facies of GN, mixed layer of mesozome&paleozome	B591a B591b	
1012	04B093	765383	1687594	SL	P-T	hornfelsic, looks like QT in part, alternative SS/ST this facies would be change to banded QT by heat		
1013	04B094	765173	1685975	QT	P-T	strong limonitized, generate Fe-Mn oxides many, rd.brn.		
1014	04B095	765082	1685645	SL	P-T	strong weathered to lt.gry.-purpleish gry.		
1015	04B096	764659	1685736	Musc.Qz.SC	P-T	original rock would be QT or SS facies in SL, lt.gry.-pal.grn.gry.		
1016	04B097	764580	1685648	LS	P-T	pelitic limestone, dk.gry, not react by HCl, very hard, show boxwork weathering characteristically		
1017	04B098	764210	1684847	LS	P-T	pelitic limestone, dk.gry, react by HCl, very hard, show boxwork weathering characteristically		
1018	04B099	763126	1683475	QT	P-T	massive, bedded(looks like chert in parts), wt., original rock would be alternative SL		
1019	04B100	763092	1682789	QT	P-T	massive, bedded(looks like chert in parts), wt., original rock would be alternative SL. inc.Oz.lense&boxwork		
1020	04B101	762970	1682666	QT	P-T	weak schistose, wt., original rock would be SL, inc.Oz.lense&boxwork		

Annex 4 Outcrop List (Team C 1/4)

Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
1	02C001	765523	1639542	GR	γ ₄₋₅	st.weath.granite, lt.gry.-rd.brn., partly weak kaolinitisation		
2	02C002	765424	1639610	GR(GN)/C.SS	γ ₄₋₅	lt.gry.-lt.brn.granite(partly gneiss) dominant, lt.gry.-lt.brn.coarse sandstone, inc.muscovite	C001	
3	02C003	765161	1640588	GR	γ ₄₋₅	granite, lt.gry.-rd.brn.		CS001
4	02C004	764220	1640900	GR	γ ₄₋₅	st.weath.granite, lt.gry.-rd.brn., inc.coarse grain di. Dike (W:apx.1m)		
5	02C005	764027	1641242	F.SS / GR	O-S?	sandstone dominant, bedded, lt.gry.-lt.brn., laminated.		
6	02C006	763572	1641352	F.SS / GR	O-S?	same as 02C005		
7	02C007	763010	1641736	F.SS / GR	O-S?	same as 02C006, partly weak sil.?	C002	
8	02C008	761976	1643893	SC	O-S?	weath.garnet schist, inc.muscovite, pal.grn.-lt.brn.	C003	
9	02C009	760989	1645552	Musc.SC	O-S?	muscovite schist, lt.gry.-rd.brn.		
10	02C010	761675	1646358	Musc.SC	O-S?	muscovite schist, inc.hematite, lt.gry.-rd.brn.	C004	
11	02C011	761596	1647268	GR	?	weath.granite, massive, lt.gry.-rd.brn.	C005	
12	02C012	760393	1647601	F.SS	O-S?	well bedded, lt.pur.-lt.brn.	C006	
13	02C013	759895	1648775	SL	O-S?	vf.ss-ms grain, with fold (NW plunge), lt.pur.-rd.brn.		
14	02C014	759379	1648850	SL	O-S?	same as 02C013		
15	02C015	759116	1648913	SL	O-S?	same as 02C013		
16	02C016	759074	1649038	SL?	O-S?	float(Bldr), SL dominant, rd.brn.		CS002
17	02C017	759019	1649019	SL?	O-S?	same as 02C016		CS003
18	02C018	759113	1648874	SL?	O-S?	float(Cbl), SL dominant, rd.brn.		CS004
19	02C019	759042	1648847	SL?	O-S?	same as 02C018		CS005
20	02C020	758786	1650014	SL?	O-S?	same as 02C018		CS006
21	02C021	758786	1649971	Vf.SS/FSS(SL?)	O-S?	weath.well bedded Vf.SS / F.SS(SL?), rd.pur.-lt.brn.		
22	02C022	758774	1650097	SL?	O-S?	weath.SL?, rd.pur.-lt.brn., inc.boudin qtz.vein (L:apx1.5m, W:apx5cm) along schistosity. gry.-lt.brn.	C007	
23	02C023	758804	1651335	SL?/SC?	O-S?	float(Cbl), mainly SL and SC dominant, rd.brn.		CS007
24	02C024	758599	1653157	SC?/QT?	O-S?	float(Cbl), mainly SC and QT dominant, rd.brn.		CS008
25	02C025	758059	1653311	BA?	?	st.weath.basalt, lt.gry.-pk.brn.	C008	
26	02C026	757696	1654981	BA	?	massive, basalt, lt.grn.-lt.gry	C009	
27	02C027	758208	1655872	BA	?	massive, basalt with py., dk.grn.-dk.gry	C010	CS009
28	02C028	758225	1656134	SC	O-S?	schist with talc, inc.serpentine?, pal.gry.-lt.grn.	C011	
29	02C029	758188	1657375	BA?	?	float(Cbl), mainly BA and Qtz.vein dominant, lt.grn.		CS010
30	02C030	757764	1658191	QT?	?	float(Bldr), QT dominant, rd.brn.		CS011
31	02C031	757728	1658521	Sil.Rock	?	float(Bldr), silicified rock dominant, lt.gry.		CS012
32	02C032	757751	1658521	QT?	?	float(Bldr), QT dominant, rd.brn.		CS013
33	02C033	757960	1659283	SC	O-S?	weath.schist, lt.brn.-grn.		
34	02C034	758580	1653320	Sil.Rock	?	float(Bldr), silicified rock dominant, lt.gry.		CS014
35	02C035	757637	1659946	BA	?	st.weath.basalt, massive, lt.brn.-red.brn.		
36	02C036	757664	1659996	BA?	?	float(Cbl), BA dominant, lt.grn.		CS015
37	02C037	757646	1660656	F.SS	O-S?	weath.F.SS, massive, partly visible bedding, lt.brn.-lt.gry		
38	02C038	757570	1661156	Sil.Rock	?	float(Bldr), silicified rock dominant, lt.gry.		CS016
39	02C039	757782	1662133	Graphite SC	O-S?	graphite schist, inc.qtz veinlets along folding, partly lenticular, plunge(NW) blk.	C012	CS017
40	02C040	757636	1663132	Graphite SC/LS?	O-S?	graphite schist, inc.qtz veinlets along folding, blk., limestone, lt.gry.	C013	CS018
41	02C041	757976	1664758	SC?/F.SS?	O-S?	F.sandstone, massive, lt.gry.	C014	
42	02C042	758131	1665429	Sil.Rock	?	float(Bldr), silicified rock dominant, lt.gry.		CS019
43	02C043	758037	1665405	Sil.Rock	?	float(Bldr), silicified rock dominant, lt.gry.		CS020
44	02C044	758306	1669177	Musc.SC	O-S?	weath.muscovite schist, partly clay, lt.gry.-lt.brn.		CS021
45	02C045	758306	1669194	Musc.SC?	O-S?	float(Cbl), silicified rock dominant, lt.gry.		CS022
46	02C046	758260	1666850	Chl.SC?	?	float(Cbl), chlorite schist dominant, lt.grn.		CS023
47	02C047	715389	1630862	F.SS/M.SS	J ₁₋₂	weath.F.-M.sandstone, massive, lt.brn.		
48	02C048	715516	1630346	F.SS/M.SS	J ₁₋₂ ?	float(pbl), F.-M.sandstone, lt.gry.-lt.brn.		CS024
49	02C049	717199	1630794	F.SS	J ₁₋₂	weath.F.sandstone, bedded, lt.brn.		
50	02C050	720599	1631479	F.SS/M.SS	J ₁₋₂ ?	float(cbl), weath.F.-M.sandstone, lt.brn.-lt.grn.		
51	02C051	721439	1631454	F.SS/M.SS	J ₁₋₂ ?	float(cbl), weath.F.-M.sandstone, lt.brn.		

Annex 4 Outcrop List (Team C 2/4)

Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
52	02C052	719348	1631262	Vf.SS	J ₁₋₂	meta Vf.sandstone, bedded, lt.grn.-lt.gry.		
53	02C053	719268	1631007	F.SS/M.SS	J ₁₋₂ ?	float(cbl), F.-M.sandstone, glassy, lt.brn.	C015	
54	02C054	719590	1630665	F.SS/M.SS	J ₁₋₂	weath.F.-M.sandstone, bedded, lt.brn.		
55	02C055	757487	1678369	QT?	T ₁₋₂ ?	float(bldr), QT, lt.brn., partly arkose F-M.SS., lt.gry.		CS025
56	02C056	757470	1678384	QT?	T ₁₋₂ ?	same as 02C055		CS026
57	02C057	757289	1678210	SL	T ₁₋₂	weath.slate(orig.silt-vf.ss), bedded, lt.gry., inc.brecciated zone (W:5cm) with py. grn.	C016	
58	02C058	757179	1678193	CG	T ₁₋₂	weath.conglomerate, consist of sub.angular-sub.rounded QT, quartz, inc.qtz veinlets (W<10mm) stockwork		
59	02C059	756584	1677880	F.SS	T ₁₋₂	weath.F.sandstone, bedded, lt.brn.		
60	02C060	756350	1677644	SL?(SS/MS)	T ₁₋₂	slate?(SS/MS alt.), well bedded, lt.gry.-dk.gry., inc.2 faults	C017	
61	02C061	756250	1677593	SL?(SS/MS)	T ₁₋₂	same as 02C060		CS027
62	02C062	756184	1677572	SL/CG	T ₁₋₂	SL:same as 02C060, inc.CG Zone(W:2m)		
63	02C063	755061	1677453	SL?	T ₁₋₂ ?	float(cbl), SL dominant		CS028
64	02C064	753897	1677609	SL?(SS/MS)	T ₁₋₂	same as 02C060		
65	02C065	753370	1678037	SL?	T ₁₋₂ ?	float(cbl), SL dominant, lt.grn.		CS029
66	02C066	752196	1678753	SL?	T ₁₋₂ ?	float(cbl), SL dominant, lt.grn.		CS030
67	02C067	752086	1678754	CG?	T ₁₋₂ ?	float(bldr), CG dominant, gry.		CS031
68	02C068	751191	1679190	BA	?	basalt, massive, dk.grn.	C018	CS032
69	02C069	751150	1679430	SL	T ₁₋₂	slate, well bedded, lt.grn.		CS033
70	02C070	752507	1679762	CG	T ₁₋₂	conglomerate, massive, lt.grn., inc.QT dominant	C019	CS034
71	02C071	752494	1679766	CG	T ₁₋₂	same as 02C070		CS035
72	02C072	751884	1679368	SL?(SS/MS)	T ₁₋₂	weath.slate(orig.silt-vf.ss), well bedded, lt.brn.		CS036
73	02C073	750836	1679458	(Ol.?)BA	?	(olivine?)basalt, columnar joint, glassy, dk.gry.-blk.	C020	
74	02C074	750123	1679588	BA	?	basalt, massive, glassy, dk.grn.		CS037
75	02C075	749717	1679606	BA	?	same as 02C073		
76	02C076	749250	1679456	BA	?	basalt, columnar joint, glassy, dk.gry.-blk.		CS038
77	02C077	749166	1679498	QT	T ₁₋₂	quartzite, massive, glassy, dk.gry.	C021	CS039
78	02C078	749116	1679365	BA	?	basalt, glassy, dk.gry.-blk., partly lt.grn. QT		CS040
79	02C079	748899	1679247	CG	T ₁₋₂	weath.conglomerate, massive, lt.brn., QT dominant, partly inc. qz veinlet stockwork	C022	
80	02C080	748756	1679229	Vf.-F.SS	T ₁₋₂	weath.Vf.-F.SS, well bedded, lt.grn.-pal.grn., inc. fractured zone(W:5cm) with py.	C023	
81	02C081	748147	1680097	Vf.-F.SS	T ₁₋₂	st.sil.meta SS, well bedded, lt.grn.-lt.brn.	C024	
82	02C082	747712	1680558	BA	?	basalt, columnar joint, blk.		
83	02C083	747671	1680881	BA?	?	float(cbl), BA dominant, grn.		CS041
84	02C084	757671	1678133	F.SS	T ₁₋₂	weath.F.sandstone, bedded, lt.gry.		CS042
85	02C085	758016	1677568	QT	T ₁₋₂	QT, massive, lt.brn., original rock:M.-C.SS?		CS043
86	02C086	758907	1676739	QT	T ₁₋₂	QT, massive, inc.qtz.vein(W:<2cm) stockwork, wht.-lt.gry.	C025	
87	02C087	756567	1663128	QT	T ₁₋₂ ?	QT, massive, glassy, inc.py.dis., lt.gry., partly brecciated	C026	CS044
88	02C088	756458	1663425	QT	T ₁₋₂ ?	QT, massive, glassy, dk.gry.-lt.gry.		CS045
89	02C089	755893	1663466	Bio.SC	T ₁₋₂ ?	Biotite schist, lt.brn.-lt.gry.	C027	CS046
90	02C090	755512	1663367	Bio.SC	T ₁₋₂ ?	Biotite schist, gry.		
91	02C091	755059	1663831	Bio.SC	T ₁₋₂ ?	Biotite schist, lt.brn.		
92	02C092	758075	1655748	BA	?	st.sheared basalt with kao., st.weath.	C028	
93	02C093	604792	1659824	Ol.(Px.)BA	βN ₂ -Q ₁	float, olivine-(pyroxene)-basalt, dk.gry.	C029	
94	02C094	608706	1661143	Px.BA	βN ₂ -Q ₁	float, pyroxene-basalt, glassy, dk.gry.	C030	
95	02C095	610833	1661545	BA	βN ₂ -Q ₁	float, basalt(laterized), weath., brn.-dk.gry.		
96	02C096	613400	1662418	BA	βN ₂ -Q ₁	weath. basalt(laterite), lt.grn.-lt.brn.		
97	02C097	614738	1662872	(Ol.)BA	βN ₂ -Q ₁	float, (olivine)-basalt, glassy, gry.-dk.gry.		
98	02C098	616437	1634577	BA	βN ₂ -Q ₁	float(cbl), basalt(laterized), lt.gry.		
99	02C099	608135	1634711	BA	βN ₂ -Q ₁	float(cbl), basalt(laterized), gry.-brn.		
100	02C100	609680	1635268	BA	βN ₂ -Q ₁	basalt(laterized), gry.-brn.	C031	
101	02C101	614877	1633888	(Px.)BA	βN ₂ -Q ₁	weak laterized (pyroxene)-basalt, lava, inc.amygdaloid vesicles, dk.gry	C032	CS047
102	02C102	618202	1628796	(Px.)BA	βN ₂ -Q ₁	float, weak laterized (pyroxene)-basalt, lava, inc.amygdaloid vesicles, dk.gry		

Annex 4 Outcrop List (Team C 3/4)

Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
103	02C103	622078	1625507	(Px.)BA	βN_2-Q_1	same as 02C101		CS048
104	02C104	621914	1625315	AL	Q?	near βN_2-Q_1 , sand dominant		CS049
105	02C105	621354	1625749	WT	T_{1-2}	welded tuff, massive, lt.gry	C033	
106	02C106	620338	1627407	BA	βN_2-Q_1	iron rich(magnetite) lateritized basalt, massive, pisolitic texture, dk.gry-bk.	C034	
107	02C107	615628	1626432	WT	T_{1-2}	same as 02C105		
108	02C108	620400	1634974	(Px.)BA	βN_2-Q_1	(pyroxene-)basalt,lava, inc.amygdaloid vesicles, massive, dk.gry		CS050
109	02C109	620627	1631518	(Px.)BA	βN_2-Q_1	same as 02C108		CS051
110	02C110	626305	1631518	(Ol.Px.)BA	βN_2-Q_1	weak weath.(olivine-pyroxene-)basalt, lava, massive, lt.-dk.gry		CS052
111	02C111	626769	1629985	AL	Q?	near βN_2-Q_1 , clay-sand dominant		CS053
112	02C112	628765	1627936	(Ol.)Px.BA	βN_2-Q_1	(olivine-)pyroxene-basalt, lava, massive, dk.gry		CS054
113	02C113	638431	1621907	(Ol.)Px.BA	βN_2-Q_1	float(bldr), (olivine-)pyroxene-basalt, dk.gry		CS055
114	02C114	634899	1625342	IB	$J_{1-2}?$	weath.ignimbrite, massive, lt.brn	C035	CS056
115	02C115	629815	1626926	(Ol.)Px.BA	βN_2-Q_1	float(bldr.-cbl.), (olivine-)pyroxene-basalt, tublar texture, dk.gry		CS057
116	02C116	629630	1626827	(Ol.)Px.BA	βN_2-Q_1	(olivine-)pyroxene-basalt, lava, massive, dk.gry	C036	CS058
117	02C117	637286	1625027	(Ol.)Px.BA	βN_2-Q_1	(olivine-)pyroxene-basalt, lava, partly inc.amygdaloid vesicles, dk.gry		CS059
118	02C118	640978	1624418	(Ol.)Px.BA	βN_2-Q_1	float(cbl.), (olivine-)pyroxene-basalt, dk.gry		CS060
119	02C119	643506	1625212	BA	βN_2-Q_1	float, lateritized basalt, partly weath., tublar texture, dk.gry		
120	02C120	644809	1625878	(Ol.)Px.BA	βN_2-Q_1	float(bldr.), (olivine-)pyroxene-basalt, dk.gry		
121	02C121	659251	1625185	(Ol.Px.)BA	βN_2-Q_1	float(bldr.-cbl.), (olivine-pyroxene-)basalt, lava, inc.amygdaloid vesicles, dk.gry		CS061
122	04C001	741760	1636490	Bio.Hbl.GD	P-T	intersection of river and stream, massive, weak wethered, lt.brn.-greenish lt.brn.		
123	04C002	741580	1636437	Bio.Hbl.GD	P-T	massive, weak sili., partly weathered, lt.brn.		
124	04C003	741542	1636784	Bio.Hbl.GD	P-T	intersection of stream and road, partly chl. and sili., dk.green-greenish lt.brn., include stockwork Oz.veins(barren)		
125	04C004	741637	1636740	Bio.Hbl.GD	P-T	weak sheared, width:2m+, GD include malc. and cpy., chl. and sili.alt, lt.green-lt.gray	C501	
126	04C005	741785	1636795	Bio.Hbl.GD	P-T	sheared(cataclastic) GD, chl.alt., include diss.malc., pale gray-lt.brn.	C502	
127	04C006	741730	1636909	Bio.Hbl.GD	P-T	sheared(cataclastic) GD, chl.+sili.+ser.alt., include diss.malc. and azu., pale lt.green-lt.brn.	C503	
128	04C007	741701	1636943	Bio.Hbl.GD	P-T	sheared(cataclastic) GD, weak weathered, lt.brn.gray-lt.gray		
129	04C008	740174	1638176	Bio.Hbl.GD	P-T	sheared(cataclastic) GD, weak weathered, lt.brn.-greenish lt.brn., chl.alt.(moderate)		
130	04C009	740650	1637236	Bio.Hbl.GD	P-T	weak chl.alt., massive GD		
131	04C010	740968	1637789	Bio.Hbl.GD	P-T	wht.-lt.brn., barren Qz.vein(width:0.5m+), partly include weak chl.alt.GD(?)		
132	04C011	740854	1637950	Bio.Hbl.GD	P-T	weak sheared(cataclastic) GD, weak weathered, lt.brn.-greenish lt.brn., weak chl.alt. and partly kao.alt.		
133	04C012	740792	1638054	Bio.Hbl.GD	P-T	weak sheared(cataclastic) GD, weathered(moderate), lt.gray-lt.brn., kao.alt.(moderate)		
134	04C013	740663	1638051	AL	Q	There are many Qz. and GD(pbl.-cbl.)		
135	04C014	738453	1641560	Bio.Hbl.GD	P-T	sheared(cataclastic) GD, lt.brn.-lt.gray, chl.&kao.alt.(moderate), include Oz.vein(barren/width:0.2m, L:0.3m+), ser.alt.along with	C504	
136	04C015	738332	1641927	Bio.Hbl.GD	P-T	weak sheared(cataclastic) GD, lt.brn.-lt.gray, weak chl., moderate sili.&kao.alt., partly Oz.veinlet stockwork		
137	04C016	738210	1642173	Bio.Hbl.GD	P-T	float, moderate sheared(cataclastic) GD, lt.brn.-lt.pale gray, weak weath., weak chl.&sili.alt., partly include Oz.veinlets		
138	04C017	738167	1642322	Bio.Hbl.GD	P-T	massive GD, lt.gray, weak weath., weak chl.alt.		
139	04C018	738222	1642414	Bio.Hbl.GD	P-T	massive GD, lt.gray-lt.greenish gray, weak weath., weak chl.&sili.alt.		
140	04C019	738247	1642457	Bio.Hbl.GD	P-T	massive GD, lt.gray-lt.pale gray, weak chl.&sili.alt., moderate epi.alt., include few malc.	C505	
141	04C020	737738	1643880	Bio.Hbl.GD	P-T	massive GD, lt.brn.-lt.greenish gray, weak chl.&sili.alt., weak weath.		
142	04C021	738030	1643916	MY (GD)	P-T	Mylonitic(sheared)GD, inc.muscovite, lt.gray-lt.brn., weak chl.&sili.alt.	C506	
143	04C022	738060	1644027	Bio.Hbl.GD	P-T	weak sheared(cataclastic)GD with diss.malc., lt.greenish gray-lt.brn., chl.&sili.alt., weak weath.	C507	
144	04C023	738115	1644081	Bio.Hbl.GD	P-T	sheared(cataclastic)GD with diss.malc., lt.gray-greenish lt.gray, weak chl.&sili.&epi.alt., weak weath., partly include kao?	C508	
145	04C024	738130	1644083	Bio.Hbl.GD	P-T	sheared(cataclastic)GD with diss.py.&cpy.?, lt.gray-lt.pale gray, weak chl.&sili.&epi.alt., weak weath., partly include kao?	C509	
146	04C025	738174	1644109	MY (GD)	P-T	Mylonitic(sheared)GD with diss.malc.&py., include muscovite&kao.?, lt.gray-lt.pale gray weak chl.&sili.alt., weak weath., include	C510	
147	04C026	738180	1644132	Bio.Hbl.GD	P-T	float, sheared(cataclastic)GD with diss.malc., lt.gray-lt.greenish gray, chl.&sili.alt.	C511	
148	04C027	738253	1644146	Bio.Hbl.GD	P-T	cataclastic-mylonitic GD with diss.malc., lt.gray-lt.pale gray, chl.&sili.alt., partly include kao?	C512	
149	04C028	738638	1644240	Bio.Hbl.GD	P-T	massive GD, weak chl.&epi.alt., lt.gray-lt.greenish gray	C513	
150	04C029	738670	1644152	Bio.Hbl.GD	P-T	weak sheared(cataclastic)GD with diss.malc., lt.greenish gray-lt.gray, weak chl.&sili.&moderate epi.alt.	C514	
151	04C030	739006	1643863	Bio.Hbl.GD	P-T	weak sheared(cataclastic)GD with diss.malc., lt.gray-greenish lt.gray, weak chl.&sili.&epi.alt.	C515	
152	04C031	738237	1643563	Bio.Hbl.GD	P-T	moderate-st.weath.sheared(cataclastic)GD, lt.brn.-lt.gray		
153	04C032	736045	1645786	Bio.Hbl.GD	P-T	weak sheared GD, lt.gray-greenish lt.gray, moderate chl.&sili.&epi.alt., weak weath.		

Annex 4 Outcrop List (Team C 4/4)

Ser. No.	Outcrop No.	Coordinates		Rock Name	Geologic Unit	Description	Sample No.	
		N	E				Rock and Ore	Stream
154	04C033	736281	1645710	Bio.Hbl.GD	P-T	weak sheared(cataclastic)GD with diss.malc., lt.greenish gray-pale lt.gray, chl.&sili.&epi.alt.	C516	
155	04C034	736693	1645595	Bio.Hbl.GD	P-T	weak sheared(?)mass.GD with diss.malc., lt.greenish gray-lt.gray, chl.&sili.alt. weath.		
156	04C035	736926	1645446	Bio.Hbl.GD	P-T	mass.GD with diss.&veinlet py., lt.gray-partly lt.greenish gray, weak chl.&sili.alt.	C517	
157	04C036	736954	1645467	Bio.Hbl.GD	P-T	weak sheared GD with diss.malc., lt.gray-greenish lt.gray, chl.&sili.alt.	C518	
158	04C037	737522	1645317	Bio.Hbl.GD	P-T	weak sheared(cataclastic?)GD, lt.gray-lt.greenish gray, chl.&sili.alt.		
159	04C038	737574	1645288	Bio.Hbl.GD	P-T	weak sheared(cataclastic?)GD with diss.malc., lt.gray-lt.greenish gray, chl.&sili.&epi.alt. weak weath.	C519	
160	04C039	738421	1645237	Bio.Hbl.GD	P-T	mass.GD, lt.brn.-lt.greenish gray, partly moderate chl.&sili.alt., generally moderate-strong weath.		
161	04C040	758472	1656231	BA	P-T	float, mass., glassy, dk gree-blk., olivine Ba.?		
162	04C041	758430	1656200	BA/two mica GR	P-T	BA.mass., dk green-blk. same as 04C040, two mica Gr.:mass., Gr.with diss.py., lt.gray	C520	
163	04C042	758440	1656160	Meta.SS	P-T	float, mass., lt.pale gray-lt.gray	C521	
164	04C043	758440	1656100	Chl.SH	P-T	original rock is (olivine)basalt, epi.&kao.?alt., dk.gray-greenish gray	C522	
165	04C044	758344	1656016	GB?	P-T?	lt.gray-lt.greenish gray, including talc &stockworked Qz.vn., kao.?alt./schistosed GB?. dk.gray-dk.greenish gray	C523a C523b	
166	04C045	758040	1655769	BA(Chl.SH)	P-T	mass., including diss.py., epi.&chl.&sili.alt., lt.greenish gray	C524	
167	04C046	757929	1655788	BA(Chl.SH)/Meta.SS	P-T	mass., including diss.py.&stockworked Qz.vnlet., chl.&sili.alt., dk.green/mass.(silicified?), including diss.py.&burren Qz.vn.(width:10cm), sili.alt.	C525a C525b	
168	04C047	757800	1655800	Chl.SH	P-T	dk.green, including diss.py.&burren Qz.vn., chl.&sili.alt.	C526	
169	04C048	757666	1655725	Chl.SH	P-T	dk.green, including diss.malc.&py.&cpy?, chl.&sili.&epi.(partly veinlet)alt.	C527	
170	04C049	757751	1655449	Chl.SH	P-T	dk.green-lt.greenish gray, including diss.py., chl.&sili.&epi.alt.	C528	
171	04C050	758862	1657274	BA(Chl.SH)	P-T	schistosed ba.with Qz.vn., chl.alt.		
172	04C051	758775	1657331	BA(Chl.SH)	P-T	schistosed ba.with Qz.vn.(width:3cm&5cm), chl.alt.	C529a C529b	
173	04C052	758841	1657420	BA(Chl.SH)	P-T	schistosed ba.with Qz.vn.&iron oxides, chl.alt., reddish brn.-lt.greenish gray	C530	
174	04C053	758823	1657560	BA(Chl.SH)	P-T	schistosed ba.with Cu?&Qz.vn.(width:70cm, partly include py.&iron oxides), chl.&ser.&kao.?alt., lt.brn.-lt.greenish gray	C531	
175	04C054	758824	1657587	BA(Chl.SH)?	P-T	float, pale gray mass. Qz.with diss.cpy.&py.	C532	
176	04C055	758809	1657752	Meta.SS	P-T	float, st.weath.metasst.with Qz.vnlet.&iron oxides, lt.brn.-lt.reddish brn.		
177	04C056	759143	1656208	SL	P-T	dk.gray-blk., sili.alt.	C533	
178	04C057	759109	1656296	SL/Graphite SH	P-T	graphite schist(width:1m, N10W90)with diss.py.&Qz.vnlet., blk.-dk.gray/slate with diss.py., dk.gray-lt.gray, sili.alt.	C534a C534b	
179	04C058	759319	1656218	SL	P-T	slate with diss.py.&Qz.vnlet., lt.gray-dk.gray, st.sili.alt.		
180	04C059	759411	1656162	SL	P-T	slate with diss.py., partly graphite schist is same direction and include diss.py.along schistosed fracture. lt.gray-pale gray, sili.alt.	C535a C535b	
181	04C060	759548	1656037	SL/Bio.Alkali GR?	P-T	slate with diss.py., lt.gray-gray, weak sili.alt/ float, mass. Bio.alkali gr?, lt.reddish gray-greenish lt.gray	C536a C536b	
182	04C061	759653	1656202	SL	P-T	slate with Qz.vnlet., lt.gray-lt.pale gray, sili.alt.	C537	
183	04C062	765302	1681353	SL	P-T	slate include Qz.vn.with diss.py., dk.gray-greenish dk.gray, sili.&ser.?&chl.alt.	C538a C538b	
184	04C063	765513	1680901	SL	P-T	slate with Qz.vnlet.along schistosity, dk.gray, sili.alt.	CS1001	
185	04C064	765178	1680862	LS	P-T	mass.(weak schistosed)limestone with Qz.vnlet., gray-lt.brn.gray	C539	
186	04C065	764966	1680644	QT?	P-T	float, mass.QT., lt.gray-lt.brn.gray		CS1002
187	04C066	764974	1680297	QT?	P-T	float, mass.QT., lt.gray-lt.brn.gray		CS1003
188	04C067	765411	1679534	QT?	P-T	float, mass.QT., lt.brn.gray-lt.gray		CS1004
189	04C068	765732	1679024	Meta.SS	P-T	weath.schistosed meta.sst., lt.gray-lt.reddish gray, fine grain, sili.alt.		CS1005
190	04C069	765877	1678987	Meta.SS(QT)?	P-T	float, mass. meta.sst.(QT.) with Qz.vnlet., lt.gray-lt.reddish brn., medium-fine grain		CS1006
191	04C070	687516	1691856	MS	J1	dk.gray-lt.brn.gray mudstone, sili.alt.		
192	04C071	687245	1691805	MS/M.-F. SS	J1	dk.gray-lt.gray mudstone dominant, partly m-f grain calcareous sandstone, sili.alt.		
193	04C072	687188	1691805	Terrace deposit	Q	float, m.-c.grain sandstone(pbl.), lt.brn.-gray, weath.		
194	04C073	687003	1690896	Terrace deposit	Q	float, mainly sandstone(pbl.), dk.gray-lt.brn.gray, weath.		
195	04C074	686816	1690521	Terrace deposit	Q	float, mainly sandstone(pbl.-cbl.), dk.gray-lt.gray, inc.silicified wood	C540	
196	04C075	686754	1690418	VF.-F. SS	J1	lt.reddish brn.-lt.brn.vf.-f. grain sandstone, weath.		
197	04C076	686662	1690342	VF.-F. SS	J1	lt.purple-lt.gray vf.-f. grain sandstone, partly lt.gray-gray calcareous sandstone, sili.&chl.alt.		
198	04C077	686968	1690162	M.-F. SS?	J1?	float, m.-f. grain sandstone, lt.gray-lt.brn.gray		
199	04C078	687019	1690256	VF. SS	J1	lt.purple-lt.brn.gray vf. grain sandstone, weak weath., sili.alt.		

付属資料 5

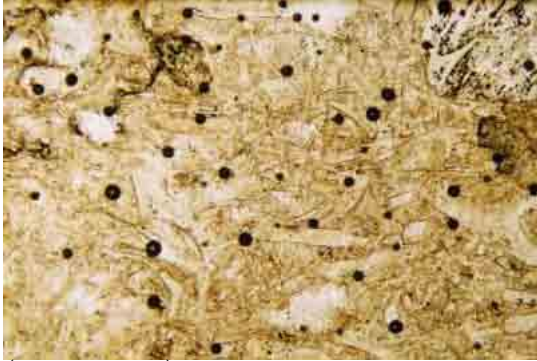
岩石薄片の顕微鏡観察結果

Rock Sample No: A021

Location or Coordination: (48- 731737E, 1632166N)

Rock Name: Rhyolitic welded tuff (Ignimbrite)

Geologic Unit: vT_{1-3}



(Open nicols)



(Close nicols)

Description in outcrop: Rhyolitic welded tuff: white green, pumice tuff with green pumice and glass elongated.

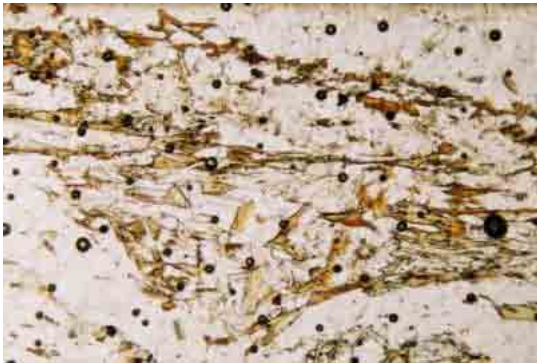
Rock Texture: The rock shows pyroclastic and glassy textures. Porphyritic crystal fragments consist of quartz (Qz), K-feldspar (Kf) and biotite (Bi). Lithic fragments are tuff and quartzite. Matrix is composed of glass, tuff, etc. The glass materials show light brown color. Biotite and glass weakly changed to sericite of altered minerals.

Rock Sample No: A044

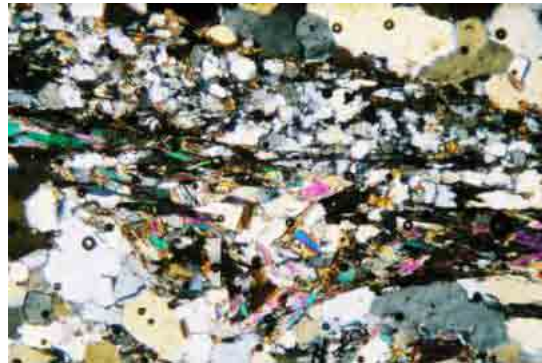
Location or Coordination: (48- 766755 E, 1631598 N)

Rock Name: Biotite schist

Geologic Unit:



(Open nicols)



(Close nicols)

Description in outcrop: light grey, pelitic slate

Rock Texture: The rock shows porphyroblastic texture and consists of quartz (Qz), K-feldspar (Kf), muscovite (Mu) and biotite (Bi).

Rock Sample No: A118a-1

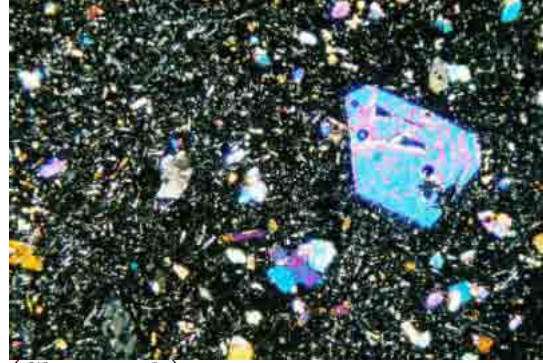
Location or Coordination: Bolaven plateau (48- 632754E, 1690978N)

Rock Name: Olivine basalt

Geologic Unit: Bolaven volcanic rocks



(Open nicols)



(Close nicols)

Description in outcrop: black, olivine basalt with lherzolite, pyroxenite, serpentinite (primitive magma)

Rock Texture: The rock shows porphyritic and vitric texture with xenolith and xenocrysts. Groundmass is composed of basaltic glass, olivine (Ol), augite (Au) and plagioclase (Pl). Porphyritic minerals are olivine and augite. Xenoliths are lherzolite, pyroxenite and primitive magma glass. Xenocrysts are olivine and pyroxene.

Rock Sample No: A118a-1

Location or Coordination: Bolaven plateau (48- 632754E, 1690978N)

Rock Name: Olivine basalt

Geologic Unit:



(Open nicols)



(Close nicols)

Description in outcrop: black, olivine basalt with lherzolite, pyroxenite, serpentinite (primitive magma)

Rock Texture: The rock shows porphyritic and vitric texture with xenolith and xenocrysts. Groundmass is composed of basaltic glass, olivine (Ol), augite (Au) and plagioclase (Pl). Porphyritic minerals are olivine and augite. Xenoliths are lherzolite, pyroxenite and primitive magma glass. Xenocrysts are olivine and pyroxene.

Rock Sample No: A108a-1

Location or Coordination: Bolaven plateau (48- 632754E, 1690978N)

Rock Name: Olivine nodule (Lherzolite) in olivine basalt

Geologic Unit: Bolaven volcanic rocks



(Open nicols)



(Close nicols)

Description in outcrop: black, olivine basalt with lherzolite, pyroxenite, serpentinite (primitive magma)

Rock Texture: The xenolith is perhaps lherzolite showing granular texture. The xenolith consists mostly of olivine and rarely of clinopyroxene (Cp), orthopyroxene (Op) and chrome spinel (Cr).

Rock Sample No: A122

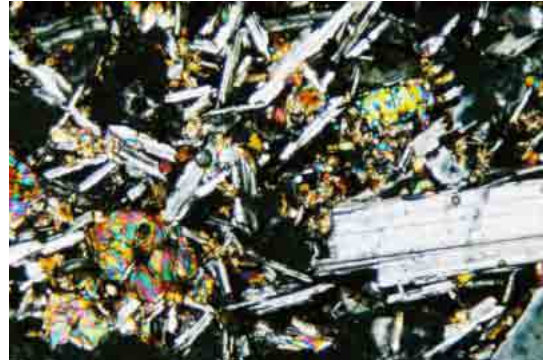
Location or Coordination: Bolaven plateau (48- 632986E, 1688398N)

Rock Name: Plagioclase andesitic basalt

Geologic Unit: Bolaven volcanic rocks



(Open nicols)



(Close nicols)

Description in outcrop: dark grey, plagioclase andesite, basaltic, plagioclase phenocrysts

Rock Texture: The rock shows intersertal, porphyritic and vesicular textures. Porphyritic minerals consist of plagioclase (Pl), olivine (Ol) and augite (Au). Groundmass is composed of plagioclase, augite, basaltic glass etc. The basaltic glass and cryptocrystalline materials fill among crystals of plagioclase, pyroxene, olivine etc.

Rock Sample No: B009

Location or Coordination: (48- 736195E, 1641309N)

Rock Name: Muscovite schist

Geologic Unit:



(Open nicols)



(Close nicols)

Description in outcrop: quartz lenses included along fractures, white to light grey.

Rock Texture: The rock shows granoblastic texture and consists of quartz (Qz) and muscovite (Mu). A part of quartz shows porphyroblastic texture.

Rock Sample No: B027

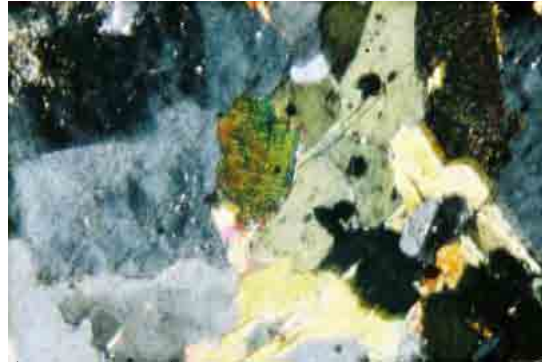
Location or Coordination: (48- 753663E, 1640861N)

Rock Name: Hornblende biotite granodiorite

Geologic Unit:



(Open nicols)



(Close nicols)

Description in outcrop: coarse, k-feldspar porphyritic, weak foliated, magnetic susceptibility: 9.03(SI)

Rock Texture: The rock shows porphyritic texture and hypidiomorphic granular texture.

Rock forming minerals are consisting mainly of quartz (Qz), K-feldspar (Kf), plagioclase (Pl) biotite (Bi) and hornblende (Ho). Accessory minerals are allanite, apatite and zircon. Porphyritic mineral is plagioclase of 4mm in size.

Rock Sample No: B041

Location or Coordination: (48- 723034E, 1658881N)

Rock Name: Slate

Geologic Unit:



(Open nicols)



(Close nicols)

Description in outcrop: gradually change to slate, light to pale grey.

Rock Texture: the rock shows schistose texture consisting of quartz, feldspar and sericite. The rock has been intensely deformed producing a pervasive slaty cleavage and at the same time, original fine scale bedding has been disrupted by folding.

Rock Sample No: B081

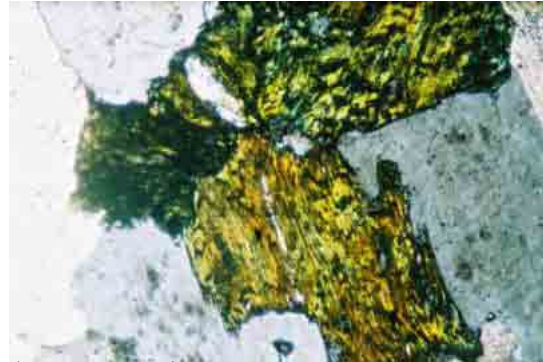
Location or Coordination: (48- 737580E, 1655897N)

Rock Name: Hornblende biotite granodiorite

Geologic Unit:



(Open nicols)



(Close nicols)

Description in outcrop: massive, coarse grain, same as 01B292, weak epidote chlorite alteration.

Rock Texture: The rock shows porphyritic texture and hypidiomorphic granular texture. Rock forming minerals are consisting mainly of quartz (Qz), K-feldspar (Kf), plagioclase (Pl), biotite (Bi) and hornblende (Ho). Porphyritic mineral consists of plagioclase. Accessory minerals are allanite, apatite and zircon. Alteration minerals are sericite in feldspar and chlorite in biotite and hornblende.

Rock Sample No: B087

Location or Coordination: (48- 734050E, 1666728N)

Rock Name: Biotite hornblende granodiorite

Geologic Unit:



(Open nicols)



(Close nicols)

Description in outcrop: K-feldspar porphyritic (pinkish), coarse, massive

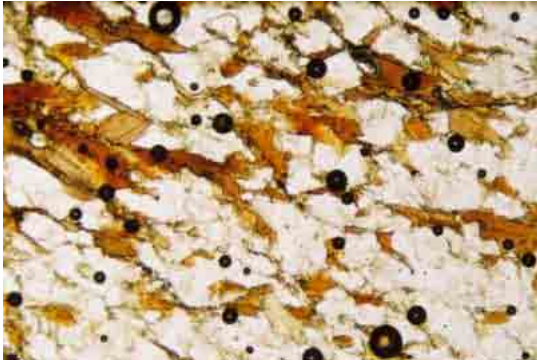
Rock Texture: The rock shows porphyritic texture and hypidiomorphic granular texture. Rock forming minerals consist mainly of quartz (Qz), K-feldspar (Kf), plagioclase (Pl), biotite (Bi), hornblende (Ho) and opaque mineral. Accessory minerals are allanite, apatite and zircon. Alteration minerals are sericite in feldspar and chlorite in biotite and hornblende.

Rock Sample No: B091

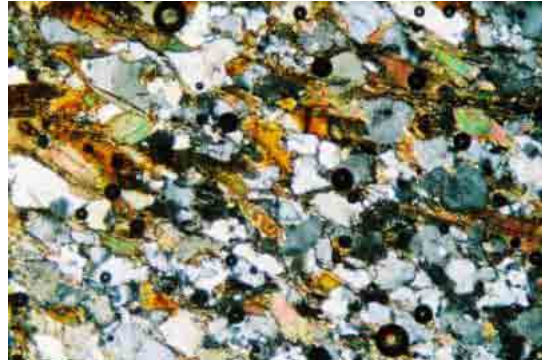
Location or Coordination: (48- 741802E, 1669469N)

Rock Name: Biotite gneiss

Geologic Unit:



(Open nicols)



(Close nicols)

Description in outcrop: migmatitic zone, developed many gneissose structure.

Rock Texture: The rock shows granoblastic texture. Rock forming minerals consist of quartz (Qz), plagioclase (Pl), K-feldspar (Kf), biotite (Bi) and muscovite (Mu).

付属資料 6

鉍石研磨片の顕微鏡観察結果表

Annex 6 Microscopic Observation for Ore Polishes in Attapeu Area (1/2)

Ser. No.	Sample No.	Coordination		Rock Name	Secondary Minerals									Remarks		
		E	N		quartz	pyrite	hematite	chalcopyrite	bornite	azurite	malachite	chalcocite	cuprite			
1	A049	762440	1636338	pyrite dissemination and quartz veins in sheared zone of slate	⊙	Δ	.									diss.
2	A080	743521	1630963	pyrite dissemination in pale green, granodiorite with quartz vein		Δ	.									diss.
3	B031	761128	1638824	quartz vein (w:5m) with green Cu in muscovite schist	⊙	.										diss.
4	B033a	761748	1637343	quartz vein and pyrite dissemination (strong) in shear zone (w:15m, brittle) in slate	⊙	Δ										diss.
5	B034a	762011	1636821	quartz vein and pyrite dissemination (strong) in shear zone (w:80m, brittle) in slate	⊙	.										diss.
6	B062	734023	1696997	quartz vein (w:5cm), pale grey in shear zone (w:80m, brittle)	⊙	.	Δ									diss.
7	B074	712959	1696327	quartzite and argillization with quartz vein, medium grain, massive,	⊙	Δ										diss.
8	B078	736022	1654653	quartz vein in biotite. granodiorite, massive, coarse grain, cover by conglomerate, quartzite and sandstone, weathered	⊙	.										diss.
9	A259	765865	1632578	dark grey, biotite schist, mineralized by pyrite veins and dissemination and quartz veins	○	Δ	.									diss.
10	B137	764001	1650696	banded, there are strong sulphides ore as floats in stream	○	.	Δ									diss.
11	B138	764035	1651007	banded, there are strong sulphides meta-sandstone as floats in stream	⊙	Δ	Δ	.								diss.
12	B139	764079	1651645	with pyrite dissemination quartz lenses, banded structure and quartz lenses is concordant	○	.										diss.
13	B141a	759036	1656418	Au Mine, with quartz vein (w:80cm), can't observe sulphides, with shear,	⊙	.										diss.
14	B141b	759036	1656418	Au Mine, with quartz vein (w:80cm), can't observe sulphides, with shear	⊙	.	.									diss.
15	B143	759036	1656418	Au Mine, with quartz vein (w:81cm), can't observe sulphides, with shear	⊙	.	.									diss.
16	B144	759014	1656444	Au Mine, with quartz vein (w:140cm), can't observe sulphides	⊙	.										diss.
17	B145	759150	16561100	quartz vein with barite (w:15cm)	⊙	.										diss.
18	A3023	740690	1638899	malachite along fractures in biotite-hornblende granodiorite, epidote-chlorite, sheared, N45W25E, with quartz veins (W:1-2cm),			.	.			Δ					diss.
19	A3045	739695	1635955	Trench: quartz veins and many pyrite vein and films, N45W90, in sheared slate	○	Δ	.									diss./vein
20	A3048	738716	1636956	pyrite dissemination in mylonite of granite (N60W65N)	⊙	.	.	.	.		Δ					diss.
21	A3061a	743762	1636167	quartz vein with malachite, covellite, width: 1.5m to 2m, length: more than 30m, direction: N40E65S	⊙	.		○	Δ			Δ	.			vein
22	A3061b	743762	1636167	quartz vein with malachite, covellite, width: 1.5m to 2m, length: more than 30m, direction: N40E65S	⊙	.		○	Δ			Δ	.			diss./vein
23	A3061c	743762	1636167	quartz vein with malachite, covellite, width: 1.5m to 2m, length: more than 30m, direction: N40E65S	⊙	.	.	.	.	.		.	.			diss./vein
24	A3073	762458	1636246	quartz lenses and pyrite dissemination in turbidites of very fine sandstone, siltstone and mudstone	⊙	Δ	.									diss.
25	A3074	762390	1636275	quartz lenses and pyrite dissemination in sheared zone of turbidites of very fine sandstone, siltstone and mudstone	○	Δ										diss.
26	A3075	762400	1636316	quartz lenses and pyrite dissemination in sheared zone of turbidites of very fine sandstone, siltstone and mudstone	○	Δ										diss.
27	A3076	762400	1636316	quartz lenses and pyrite dissemination in sheared zone of turbidites of very fine sandstone, siltstone and mudstone												
28	A3077	762400	1636316	quartz lenses and pyrite dissemination in sheared zone of turbidites of very fine sandstone, siltstone and mudstone	⊙	.	.									diss.
29	A3079	762852	1637392	quartz veins (W:1m, N30E 8-W) in biotite-muscovite schist	○	Δ										diss./vein
30	A3091a	762627	1639152	pyrite dissemination and quartz veins with pyrite in heterogeneous granodiorite, many biotite segregated, medium to coarse grained	⊙	○										diss./vein

⊙: abundant, ○: common, Δ: a little, .: rare

Annex 6 Microscopic Observation for Ore Polishes in Attapeu Area (2/2)

Ser. No.	Sample No.	Coordination		Rock Name	Secondary Minerals									Remarks		
		E	N		quartz	pyrite	hematite	chalcopyrite	bornite	azurite	malachite	chalcocite	cuprite			
31	A3091b	762627	1639152	pyrite dissemination and quartz veins with pyrite in heterogeneous granodiorite, many biotite segregated, medium to coarse grained	⊙	⊙										diss./vein
32	A3099	762460	1638370	porphyritic, heterogeneous, hornblende- biotite granodiorite, many biotite segregated, medium to coarse grained		Δ	Δ									diss.
33	A3108b-1	689570	1692352	float stone of quartz vein with pyrite dissemination	⊙			Δ	.		Δ	.				diss./vein
34	A3108b-2	689570	1692352	float stone of quartz vein with pyrite dissemination	⊙			Δ	.		Δ	.				diss./vein
35	B501	735303	1640924	boudinage quartz lense(2cm), weathered, light brown	⊙	.										diss.
36	B512	737976	1643311	malachite dissemination (strong) in shear granodiorite: silicified (moderate-strong), with kaolinite alteration over mineralization	○	.	.	.			Δ					diss.
37	B530	741779	1636894	quartz boulder with malachite pyrite on terrace as float, in dioritic granodiorite, fine, foliated (moderate), glassy, pale green.	⊙	.		Δ	.		Δ					diss./vein
38	B532	744672	1637088	malachite along shear in mylonite show S-C		Δ	.	.			Δ					diss.
39	B539a	738892	1641559	In trench, massive, medium grain, epidote alteration, weathered (strong)												
40	B542	761460	1637813	pyrite dissemination quartz lenses in shear zone (w:10cm, ductile to brittle), biotite schist in part, slate facies is ditto to 03B285	⊙	.										diss.
41	B544	760290	1638390	pyrite dissemination quartz veins (5-10cm) in mixed facies sandstone and granite		Δ										diss.
42	B549	762384	1636117	pyrite dissemination quartz vein(10cm) including biotite in alternation of slate and sandstone	⊙	.										diss.
43	B554	741742	1636814	quartz network-sericite alteration, azurite, malachite, pyrite, bornite and tenolite dissemination in granodiorite, epidote-chlorite alteration	Δ	.	.									diss.
44	A4003	742180	1636281	Malachite and black copper (A4003, 50cm x 3m) along fracture in granodiorite (cataclasite) with network quartz	Δ			.	.		○					diss./vein
45	A4012	688712	1692023	malachite, chalcopyrite dissemination in fracture of calcareous, medium sandstone (Thickness: 4m), chlorite, silicification				○	.							diss.
46	A4019	687935	1693525	malachite, pyrite dissemination in fracture of calcareous, medium sandstone (Thickness: 50cm) with fossils, chlorite, silicification				○	.			.				diss./vein
47	A4022	689095	1692626	malachite and azurite, quartz veins in fracture of calcareous, medium sandstone (Thickness: 50cm) with fossils, chlorite, silicification				.	Δ	○	Δ	⊙				diss./vein
48	A4028	690294	1690642	chalcopyrite malachite and azurite in fracture of bluish grey, medium sandstone (Thickness: 20cm) with fossils, and chlorite, silicification				.	Δ	○	⊙	.				diss.
49	A4040	768144	1673251	pyrite dissemination in grey to dark grey, limestone (chemical deposit type)	⊙	○	Δ									diss.
50	A4047	768918	1673539	sheared zone of grey muddy slate with quartz veins (2cm, N75W70S), and network quartz veins and pyrite veins (5 to 10 cm, NS75E)	Δ	⊙	Δ									diss.
51	B560a	741220	1637482	malachite dissemination (w:10m<), with quartz vein (2cm) with malachite, vein cross to mylonite foliation, chlorite alteration	⊙	.	.	.	.	Δ	.					diss.
52	B561	741289	1637442	malachite dissemination (w:10m<), with quartz vein (2cm) with malachite, vein cross to mylonite foliation, chlorite alteration	⊙		.	Δ		Δ						diss.
53	B562a	741307	1537444	quartz stockwork with malachite dissemination (w:5m<), sericite and silicification alteration (strong), direction of stockwork veins	⊙	.	.			○						diss.
54	B562c	741307	1537444	quartz stockwork with malachite dissemination (w:5m<), sericite and silicification alteration (strong), direction of stockwork veins		.	.									diss.
55	B563	741279	1637468	quartz vein (4cm) with malachite chalcocite (?), bornite (?), strong schistose, shear-band developed, med.-fine,	○			Δ	Δ	Δ	○					diss./vein
56	B570	741256	1637476	quartz vein (w: 5cm x 2cm) with malachite chalcocite (?), bornite	○			○	Δ		○					diss./vein
57	C538b	765302	1681353	slate include quartz vein with pyrite dissemination, dark gray-greenish dark gray, silicification with sericite-chlorite alteration	⊙	.	.									diss.

⊙: abundant, ○: common, Δ: a little, . : rare diss.: dissemination