

ASX Announcement (ASX:AXE)

28 August 2017

More cobalt discovered at North Broken Hill

Highlights

- Purnamoota cobalt prospect discovered at North Broken Hill
 - Peak cobalt value of 0.14% (1,410ppm) and 3.45% copper recorded in rock chips at Purnamoota
 - Archer now has 4 large cobalt target areas within its North Broken Hill tenements
 - Regional sampling program is continuing to be effective in ranking the large number of cobalt anomalies encountered
 - 60% of the North Broken Hill Project area has now been explored by Archer
 - Exploration is continuing and additional assay results will be reported as they are received and interpreted.
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Archer Exploration Limited (ASX:AXE, Archer or the Company) is pleased to continue to update the market with results from the Company's ongoing reconnaissance rock chip sampling program undertaken across regional prospects on the Company's 100% owned North Broken Project, located approximately 20km north of Broken Hill, NSW.

The latest exploration work has identified a new cobalt prospect at Purnamoota, where rock chip sampling has returned grades of up to 0.14% cobalt and up to 3.45% copper. Purnamoota is located approximately 15km northwest of the Himalaya prospect and approximately 20km west of the Yancowinna prospect. Cobalt mineralisation at Purnamoota is associated with the Himalaya suite rocks, the same that hosts Cobalt Blue's Thackaringa Cobalt Mineral Resource (54.9Mt @ 910ppm Co).

Archer's work to date has identified two different styles of cobalt mineralisation:

- Himalaya Style where cobalt is hosted within the Himalaya geological sequence (the same as Cobalt Blue) with the cobalt associated with pyrite mineralisation.
- Sisters Style where cobalt is hosted within the Sisters geological sequence, with the cobalt associated with copper mineralisation.

The North Broken Hill regional reconnaissance exploration program was commenced 17th July and to date has discovered 4 separate large cobalt prospects - Purnamoota, Himalaya, Yancowinna and Golden King West. The Himalaya prospect is a Himalaya style cobalt

prospects whereas Purnamoota, Yancowinna and Golden King West are Great Eastern style cobalt prospects.

A summary of the four prospects discovered to date is set out below:

Name	Style of mineralisation	Strike length	Peak grade
Purnamoota	Great Eastern	1km	0.14%Co and 3.45% Cu
Himalaya	Himalaya	3km	0.16%Co
Yancowinna	Great Eastern	1.5km	0.13% Co and 1.1% Cu
Golden King West	Great Eastern	300m	0.15% Co and 0.6% Cu

To date only 60% of the total North Broken Hill Project area has been explored by Archer. The Company will continue to actively explore the tenement area over the coming weeks.

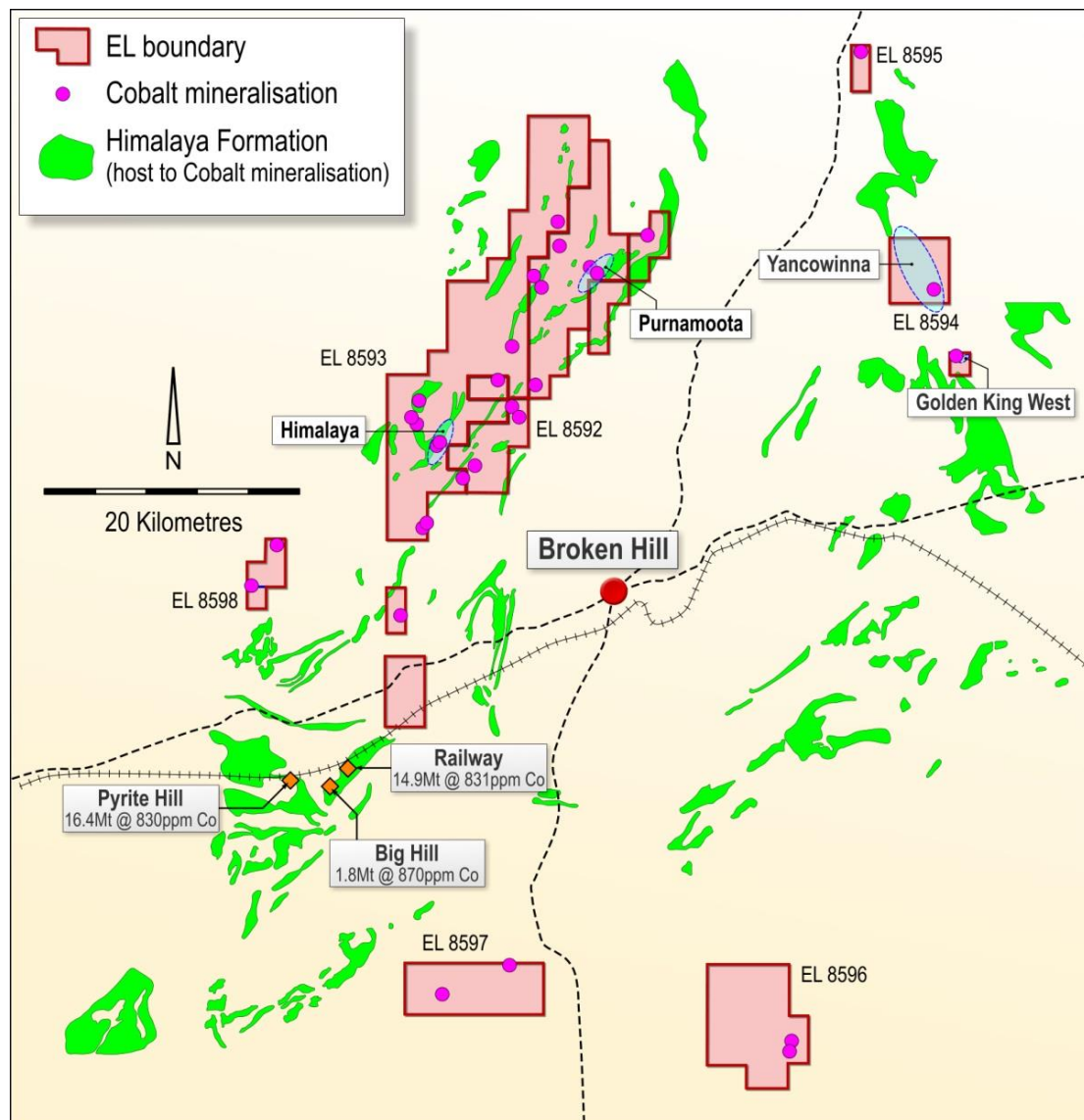


Figure 1: Location of reconnaissance targets within the Broken Hill tenements

Purnamoota Cobalt Anomaly

At Purnamoota, Archer has identified a cobalt anomaly over a 1km strike length. Purnamoota is located 1-2km east of a historic Pb-Zn-Ag target that was drilled in the 1980's and is another example where historic exploration was focussed solely on finding repetitions of Broken Hill and ignoring other base metals, such as cobalt.

Rock chips at Yancowinna reported up to **0.14%** cobalt with **3.45%** copper and **0.13%** cobalt with **0.61%** copper. The rock chip assay results are reported in more detail in Annexure A.



Plate 1: Purnamoota prospect



Plate 2: Yancowinna prospect



Plate 3: Golden King prospect



Plate 4: Himalaya prospect

Next Steps

The ongoing North Broken Hill regional rock chip sampling program is showing to be effective in discovering new cobalt anomalies within the larger Project area. These anomalies have been discovered in areas where there has been no previous drilling for cobalt and associated mineralisation.

The Company will continue to actively explore the North Broken Hill project area over the coming weeks and report assay results as they become available.

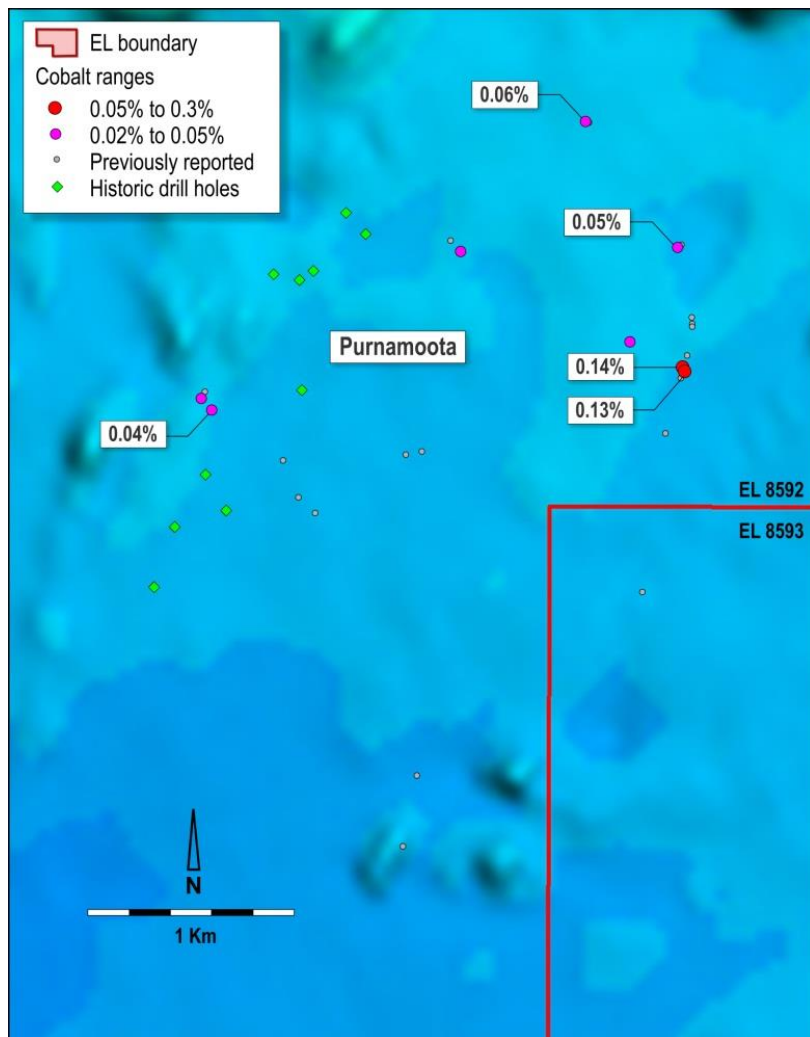


Figure 2: Cobalt results from rock chip sampling at EL 8592 over magnetic image

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Competent Person Statement

The information in this report that relates to Exploration Results is based on information compiled by Mr Wade Bollenhagen, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy and is a full-time employee of Archer Exploration Limited. Mr Bollenhagen has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Bollenhagen consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code Explanation	Commentary
Sampling Techniques	<ul style="list-style-type: none"> Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where ‘industry standard’ work has been done this would be relatively simple (e.g. ‘reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay’). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> Random rock chip samples, some with obvious copper/base metal mineralisation. Sampling was guided by Archer’s protocols as the program was exploratory in nature. No standards were submitted by the company during analyses. All samples were sent to ALS laboratory in Adelaide for preparation and forwarded to Peth for multi-element analyses. All samples are crushed using LM2 mill to –4 mm and pulverised to nominal 80% passing –75 µm.
Drilling Techniques	<ul style="list-style-type: none"> Drill type (e.g. core, reverse circulation, open hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.). 	<ul style="list-style-type: none"> Drilling is not being reported in this release

Criteria	JORC Code Explanation	Commentary
Drill Sample Recovery	<ul style="list-style-type: none"> • Method of recording and assessing core and chip sample recoveries and results assessed. • Measures taken to maximise sample recovery and ensure representative nature of the samples. • Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	<ul style="list-style-type: none"> • Drilling is not being reported in this release.
Logging	<ul style="list-style-type: none"> • Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. • The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> • Samples were described for geological purposes. • Drilling is not being reported in this release.
Sub-Sampling Techniques and Sample Preparation	<ul style="list-style-type: none"> • If core, whether cut or sawn and whether quarter, half or all core taken. • If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. • For all sample types, the nature, quality and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. • Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling. • Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> • Drilling is not being reported in this release.

Criteria	JORC Code Explanation	Commentary
Quality of Assay Data and Laboratory Tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. 	<ul style="list-style-type: none"> Certified standards were not used in the assessment of the analyses. Analyses was by ALS Perth using their ME-MS61 technique for multi-elements. The laboratory uses their own certified standards during analyses.
Verification of Sampling and Assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> No verification of sampling, no use of twinned holes. Data is exploratory in nature and exists as excel spread sheets. No data adjustment.
Location of Data Points	<ul style="list-style-type: none"> Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> MGA94 Zone 54 grid coordinate system is used. A hand-held GPS was used to identify the sample location Quality and adequacy is appropriate for this level of exploration
Data Spacing and Distribution	<ul style="list-style-type: none"> Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied. 	<ul style="list-style-type: none"> Drilling is not being reported in this release.

Criteria	JORC Code Explanation	Commentary
Orientation of Data in Relation to Geological Structure	<ul style="list-style-type: none"> Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	<ul style="list-style-type: none"> Drilling is not being reported in this release.
Sample Security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> It is assumed that best practices were undertaken at the time All residual sample material (pulp) are stored securely.
Audits or Reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> None undertaken.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code Explanation	Commentary
Mineral Tenement and Land Tenure Status	<ul style="list-style-type: none"> Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	<ul style="list-style-type: none"> Tenement status confirmed on MINVIEW2. All work being reported is from EL 8592 (owned by SA Exploration Pty Ltd, a subsidiary of AXE). The tenements are in good standing with no known impediments.
Exploration Done by Other Parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Exploration has been conducted within the areas for a very long time, the research is ongoing to identify all the historic explorers. Some 29 companies have been identified so far with formal reports dating back to 1971. Exploration is dominated by the search for Pb-Zn-Ag deposits of the Broken Hill style of mineralisation, There is limited reporting of other commodities other than Pb-Zn-Ag-Cu and Au in soils, rock chip sampling and drill hole sampling. Geophysical surveys have been reported, these are still being collated to determine their locations and suitability for exploration.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The Great Eastern mineralisation where Co is associated with Copper. The Sisters mineralisation where Co is also associated with Copper in iron rich chert layers

Criteria	JORC Code Explanation	Commentary
Drillhole Information	<ul style="list-style-type: none"> A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> Easting and northing of the drill hole collar Elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar Dip and azimuth of the hole Downhole length and interception depth Hole length If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	<ul style="list-style-type: none"> Drilling is not being reported in this release.
Data Aggregation Methods	<ul style="list-style-type: none"> In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> Drilling is not being reported in this release.
Relationship Between Mineralisation Widths and Intercept Lengths	<ul style="list-style-type: none"> These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'downhole length, true width not known'). 	<ul style="list-style-type: none"> Drilling is not being reported in this release.
Diagrams	<ul style="list-style-type: none"> Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	<ul style="list-style-type: none"> Drilling is not being reported in this release.

Criteria	JORC Code Explanation	Commentary
Balanced Reporting	<ul style="list-style-type: none"> Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. 	<ul style="list-style-type: none"> The reporting is considered to be balanced.
Other Substantive Exploration Data	<ul style="list-style-type: none"> Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	<ul style="list-style-type: none"> Nothing to report at this stage
Further Work	<ul style="list-style-type: none"> The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	<ul style="list-style-type: none"> Further sampling is required throughout the tenement as well as testing for mineralisation under cover. Electro-magnetics will be required to vector areas of greater conductivity and higher mineralisation potential. Figures in the body of this report highlight the gaps in the data.

Annexure A - Summary of rock chip results

The following table provides the location and a summary of chemistry for rock chip samples, all data is in Zone 54. A total of 44 rock chip samples were collected and submitted for assay from EL 8592.

Assays presented here are considered relevant to the release but do not include the entire suite of elements assayed for, elements that are not reported are not considered economic (e.g. Ni, Pb, Fe etc.)

Sample_Id	GDA_E	GDA_N	Ag g/t	Cu %	Co %
IC170725-17	540348	6489295	13.9	<0.01	0.002
IC170725-16	540423	6489305	14.4	0.02	0.006
IC170725-14	540567	6490335	11.75	0.01	0.007
IC170725-15	540616	6490292	6.02	0.12	0.024
IC170725-12	541211	6490919	1.52	0.02	0.007
IC170725-11	541231	6490919	10.2	0.02	0.060
IC170725-13	541240	6490910	1.32	0.01	0.009
IC170725-10	541618	6489395	12.15	0.01	0.002
IC170725-09	541682	6489666	0.04	0.03	0.004
IC170725-01	541686	6490313	1.95	0.02	0.060
IC170725-08	541704	6489727	0.72	1.10	0.088
IC170725-07	541706	6489727	1.02	0.62	0.047
IC170725-06	541711	6489712	1.36	0.25	0.013
IC170725-05	541715	6489775	0.06	0.01	<0.000
IC170725-04	541738	6489926	0.14	0.02	0.001
IC170725-02	541741	6489962	0.11	0.02	0.001
IC170725-03	541741	6489963	0.03	<0.01	0.002
WD02811	539358	6489579	1.82	0.03	0.025
WD02812	539358	6489579	0.35	0.02	0.014
WD02813	539358	6489579	0.75	0.04	0.022
WD02814	539367	6489595	0.35	0.01	0.004
WD02809	539402	6489518	0.37	0.13	0.047
WD02808	539749	6489266	2.71	0.02	0.003
WD02810	539749	6489265	2.69	0.04	0.009
WD02807	539821	6489088	0.75	0.03	0.020
WD02806	539903	6489006	1.22	0.01	0.004
WD02815	540335	6487385	0.32	<0.01	0.001
WD02816	540403	6487733	0.25	0.01	0.001

Sample_Id	GDA_E	GDA_N	Ag g/t	Cu %	Co %
WD02817	540403	6487733	0.52	0.03	0.003
WD02820	541439	6489846	1.06	0.07	0.024
WD02818	541497	6488628	0.12	<0.01	0.002
WD02819	541497	6488628	0.13	<0.01	0.002
WD02832	541689	6490316	1.33	0.03	0.041
WD02822	541703	6489726	0.72	3.45	0.141
WD02831	541707	6489711	0.31	0.16	0.023
WD02823	541710	6489713	1.09	3.40	0.054
WD02824	541710	6489713	1.80	0.62	0.079
WD02825	541710	6489719	1.54	0.28	0.065
WD02827	541710	6489713	1.23	1.16	0.034
WD02828	541710	6489713	0.89	0.95	0.030
WD02829	541710	6489713	1.56	0.43	0.045
WD02830	541710	6489713	1.40	0.61	0.127
WD02826	541714	6489716	0.89	0.24	0.024
WD02821	541739	6489920	0.27	0.04	0.007